

# SOUTHEASTERN CONNECTICUT METROPOLITAN TRANSPORTATION PLAN

FY 2023-2050

Adopted: 3/15/2023



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Prepared by the **Southeastern Connecticut Council of Governments** in cooperation with the Connecticut Department of Transportation, U.S. Department of Transportation's Federal Highway Administration and the Federal Transit Administration<sup>ii</sup>.

5 Connecticut Avenue  
Norwich, CT 06360

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Town of COLCHESTER **Andreas Bisbikos**, First Selectman  
Town of EAST LYME **Kevin Seery**, First Selectman  
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# Air Quality Conformity Resolution

## SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS

5 Connecticut Avenue, Norwich, Connecticut 06360

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### RESOLUTION NO. 23-7 ON CONFORMITY WITH THE CLEAN AIR ACT OZONE

**WHEREAS,**

the Southeastern Connecticut Council of Governments is required to submit an Air Quality Conformity Statement to the US Federal Highway Administration (FHWA) and to the US Environmental Protection Agency (EPA) in accordance with the final conformity rule promulgated by EPA (40 CFR 51 and 93) when adopting an annual Transportation Improvement Program (TIP) or when effecting a significant revision of the Metropolitan Transportation Plan (MTP); and

**WHEREAS,**

Title 42, Section 7506 (3) (A) states that conformity of transportation plans and programs will be demonstrated if:

1. the plans and programs are consistent with recent estimates of mobile source emissions;
2. the plans and programs provide for the expeditious implementation of certain transportation control measures;
3. the plans and programs contribute to annual emissions reductions consistent with the Clean Air Act of 1977, as amended; and

**WHEREAS,**

it is the opinion of the Southeastern Connecticut Council of Governments that the plans and programs approved today, March 15<sup>th</sup>, 2023 and submitted to FHWA and EPA conform to the requirements of Title 42, Section 7506 (3) (A) as interpreted by EPA (40 CFR 51 and 93); and

**WHEREAS,**

The State of Connecticut has elected to assess conformity in the Greater Connecticut Ozone Nonattainment area (Litchfield, Hartford, Tolland, New London and Windham Counties) and the Connecticut Department of Transportation has jointly assessed the impact of all transportation plans and programs in this Ozone Nonattainment area (Ozone and PM2.5 Air Quality Conformity Determination February 2023); and

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**Member Municipalities:**

Bozrah \* Colchester \* East Lyme \* Franklin \* Griswold \* Borough of Jewett City \* City of Groton \* Town of Groton \* Lebanon \* Ledyard \* Lisbon \* Montville \* New London \* North Stonington \* Norwich \* Preston \* Salem \* Sprague \* Stonington \* Stonington Borough \* Waterford \* Windham

*If language assistance is needed, please contact SCCOG at 860-889-2324, [office@seccog.org](mailto:office@seccog.org)*

*Si necesita asistencia lingüística, por favor comuníquese a 860-889-2324, [office@seccog.org](mailto:office@seccog.org)*

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WHEREAS,

The Connecticut Department of Transportation's assessment (above) has found that plans and programs jointly meet mobile source emission's guidelines advanced by EPA pursuant to Section 7506 (3) (A).


Now, THEREFORE BE IT RESOLVED by the Southeastern Connecticut Council of Governments:

That the Southeastern Connecticut Council of Governments finds that the 2023-2050 MTP and the FFY 2021-2024 TIP and all Amendments conform to air quality requirements of the U.S. Environmental Protection Administration (40 CFR 51 and 93), related U.S. Department of Transportation guidelines (23 CFR 450) and with Title 42, Section 7506 (3) (A) and hereby approves the existing Ozone and PM2.5 Air Quality Conformity Determination dated February 2023, contingent upon no major adverse comments are received during said period.

CERTIFICATE

The undersigned duly qualified and acting Secretary of the Southeastern Connecticut Council of Governments certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the Southeastern Connecticut Council of Governments on March 15<sup>th</sup>, 2023.

DATE: 3/15/2027

BY:   
Charles Grant, Secretary

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# 1. Purpose and Need

The Southeastern Connecticut Metropolitan Transportation Plan 2023-2050 (MTP) was prepared by the Southeastern Connecticut Council of Governments (SCCOG) in cooperation with the Connecticut Department of Transportation (CTDOT), U.S. Department of Transportation's Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA)<sup>iii</sup>. This MTP supersedes the [Metropolitan Transportation Plan \(2019-2045 - Revised 2021\)](#)<sup>iv</sup> (MTP 2021), which can be found at [www.seccog.org](http://www.seccog.org). The SCCOG undertook this update of the MTP in compliance with federal regulation 23 CFR 450.324(a)<sup>v</sup>, which states "MPOs shall review and update the transportation plan at least every four years in air quality nonattainment and maintenance areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon." In addition, the MPO may revise the transportation plan at any time using the procedures in this section without a requirement to extend the horizon year. The MPO shall approve the transportation plan (and any revisions) and submit it for information purposes to the Governor. Copies of any updated or revised transportation plans must be provided to the FHWA and the FTA [23 CFR 450.324], with additional State filing requirements to CT DOT and CT OPM<sup>vi</sup>. The metropolitan planning process is governed by the Clean Air Act Amendments (CAAA) of 1990; conformity is ensured through the CTDOT and documented by the resolution provided at the beginning of this document. The MTP 2023 is effective from the date of adoption by the SCCOG and has been air quality modeled through 2050<sup>vii</sup>. As a Transportation Management Area (TMA), the SCCOG is subject to a quadrennial planning process certification through the FTA and FHWA. The regulatory compliance of this document is identified in Appendix D, endnote references appear throughout the document identifying required inclusions.

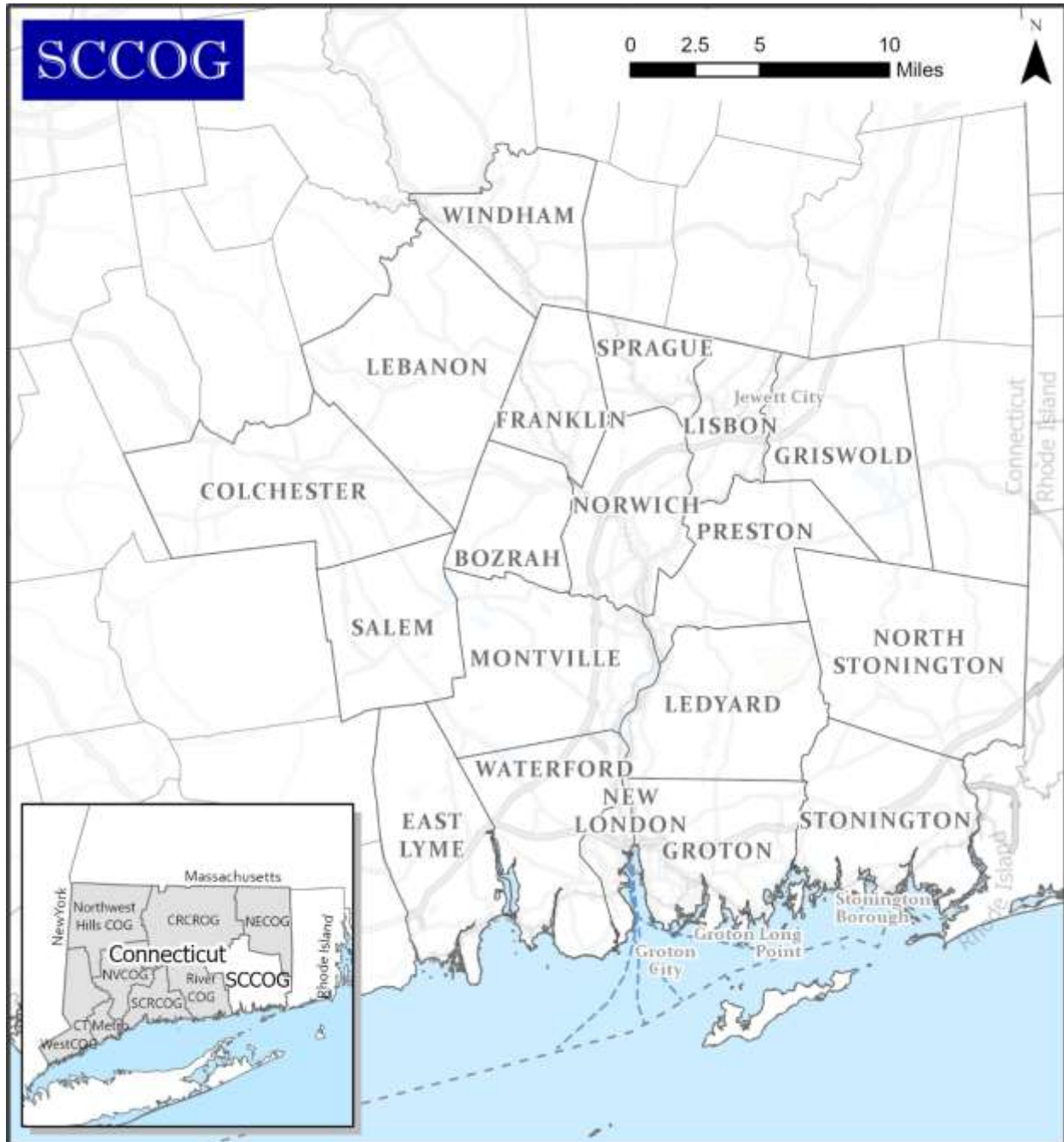
## Introduction

The Metropolitan Transportation Plan is developed, adopted, and updated through the metropolitan transportation planning process with the purpose of identifying the long-range transportation needs of the southeastern Connecticut region and to create a general policy guide for the future allocation of available public resources to address those needs. The SCCOG 2023-2045 MTP is valid upon its adoption by the SCCOG Board<sup>viii</sup>. The intent and purpose of the MTP is to encourage and promote the safe and efficient management, operation, and development of a cost-feasible intermodal transportation system that will serve the mobility needs of people and freight within and through urbanized areas of this state, while minimizing transportation-related fuel consumption and air pollution. The plan includes short-range and long-range program strategies and actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods



[23 CFR 450.324<sup>ix</sup>]. Projects recommended in this plan include road and transit improvements, bridge construction and rehabilitation, bicycle and pedestrian facilities, and maintenance.

**FIGURE 1. LOCATION MAP SOUTHEASTERN CONNECTICUT COUNCIL OF GOVERNMENTS<sup>x</sup>.**



The Southeastern Connecticut Council of Governments<sup>xi</sup> is the Metropolitan Planning Organization (MPO) responsible for the transportation planning in 22 municipalities within southeastern Connecticut. The region is bounded by RiverCOG to the west, the CRCOG and the NECCOG regions to the north; the State of Rhode Island to the east; and the Long Island Sound

to the south (see Figure 1). SCCOG was identified as a Transportation Management Area after the 2010 census determined that SCCOG's urbanized area population had exceeded 200,000. Changes are anticipated to the geographic boundaries of the Norwich-New London Urbanized Area due to a recent change in the U.S. Census methodologies for determining urban areas. This may reduce the region's "urban" population below the 200,000-population threshold, affecting SCCOG's planning obligations as an MPO.

Transportation infrastructure spending is largely driven by the systematic measurement of assets and goals at the state level. SCCOG coordinates and adopts CTDOT performance measurement methodologies and target setting for the federally mandated performance measures. New in the 2023 MTP, SCCOG has coordinated with CTDOT and Rhode Island regarding congestion performance targets, in addition to previously implemented measures. These targets allow the SCCOG to better identify strategic priorities for funding. The MTP is a fiscally constrained plan. Projects identified for federal funding may not exceed the anticipated allocation of funds within the plan term.

The MTP addresses key state and local goals and objectives. Federal regulation requires MPOs to consider specific factors while employing performance-based decision making [23 CFR450.306]. Those factors include economic vitality, safety, security, access and mobility of freight and people, protection and enhancement of the environment, improvement of the quality of life, consistency between planning products, efficiency, an emphasis on preservation of the existing transportation system, resiliency and reliability of the transportation system, storm water, and enhancing travel and tourism. As an air quality maintenance area, SCCOG's compliance with the Clean Air Act Amendments (CAAA) of 1990 remains a critical centerpiece of transportation planning in the region.

The Bipartisan Infrastructure Law (BIL), also referred to as the Infrastructure Investment and Jobs Act (IIJA), was enacted in 2021. BIL is the current transportation funding bill, and defined areas of focus and introduced additional requirements to support environmental justice, air quality, environmental sustainability, technology adoption and a State of Good Repair for transportation assets. This MTP projects funding levels from BIL to estimate future funding through the plan term. The MTP addresses Environmental Justice in two main ways; this process encourages public participation and ensures outreach to underrepresented groups, and the impact of recommended projects is analyzed to understand their effect on historically disadvantaged areas.

Implementation of the MTP depends upon parallel, but entirely separate, administrative process that are largely dependent on available federal, state, and, in some cases, local funding, as well as local political support. The Transportation Improvement Program (TIP) and the State Transportation Improvement Program (STIP) include projects drawn from the Metropolitan Transportation Plan to be implemented over a four-year period, updated every two years. A State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan. The TIP is updated regularly as amendments are needed

and the public is encouraged to comment on those amendments at monthly meetings of the SCCOG Board of Directors. The public also has opportunities to provide input on specific projects.

## 2. Population and Development

The most effective transportation policy is a good land use policy. Transportation improvements and patterns of settlement and development have a reciprocal relationship; the improvements made in a transportation network are informed primarily by land use and human movement, which in turn are influenced by the transportation network. Regional planning seeks to find efficient and practical uses for land within a regional context. Because of the relationship between land use and transportation networks, transportation planning is a component of regional planning that requires specialized attention, funding, and staff.

### Transportation and Land Use over Time

Southeastern Connecticut was settled in the mid-seventeenth century. Early colonial settlements were of two types: coastal villages and cities with access to Long Island Sound or the Thames River, and agricultural communities centered on a church or meetinghouse. During this period, ships and horse-drawn carts were the only modes of long-distance transportation. Turnpikes linked the region with other parts of Connecticut and New England.

The New York and Stonington Railroad and Boston, Norwich and New London Railroad were the first rail lines in Connecticut, both chartered in 1832. The advent of rail and the industrial revolution solidified the role of Norwich and New London as trading ports, as well as igniting new industrial settlements along the Thames River and its tributaries.

In the late nineteenth century and early twentieth century, a trolley network spread out along the shoreline, and outward from Norwich and Willimantic as well. Not long after, the automobile was invented, which placed increased importance on the road network. In response, Connecticut's and New England's numbered route systems were developed.

At the time of World War II, the region remained densely populated along the Thames River and its tributaries. Norwich, Groton New London, and the Willimantic section of Windham were centers of trade and industry. Large and small mill villages, such as Baltic and Jewett City, were interspersed along major rivers. The balance of the region was rural.

Following World War II, the personal freedom afforded by automobile ownership and the mobility afforded by a system of state routes and the new Interstate Highway System, along with post-war home financing policy, resulted in new development being located away from city centers. Suburban growth sprawled outward from the region's employment centers and along the interstate corridors, state highways, and numbered route system.

### Transportation and Land Use Today

- Employment, retail, and services, are more geographically distributed than ever.
- Currently within southeastern Connecticut's labor market area, government, manufacturing, health care and service industries provide the most jobs. Industry

clusters in the region include offshore-wind energy, shipbuilding, pharmaceuticals, tourism, and casino gaming.

- Freight rail, which historically supported industries by transporting materials and goods, has been primarily replaced by trucking.
- Rail travel within the region is provided by the interstate Amtrak North East Corridor service and Shoreline East, which operates from New London to New Haven.
- Consistent with state and national trends, the region’s construction of new housing has not kept pace with demand. Slow housing development is compounded by a trend of “aging in place” creating a housing affordability challenge. Within rural and sub-urban communities, single family housing has replaced agriculture as the dominant land use.
- Geographically distributed residential, employment, retail, and services make fixed-route public transit inefficient to operate.

### Recent Developments Anticipated

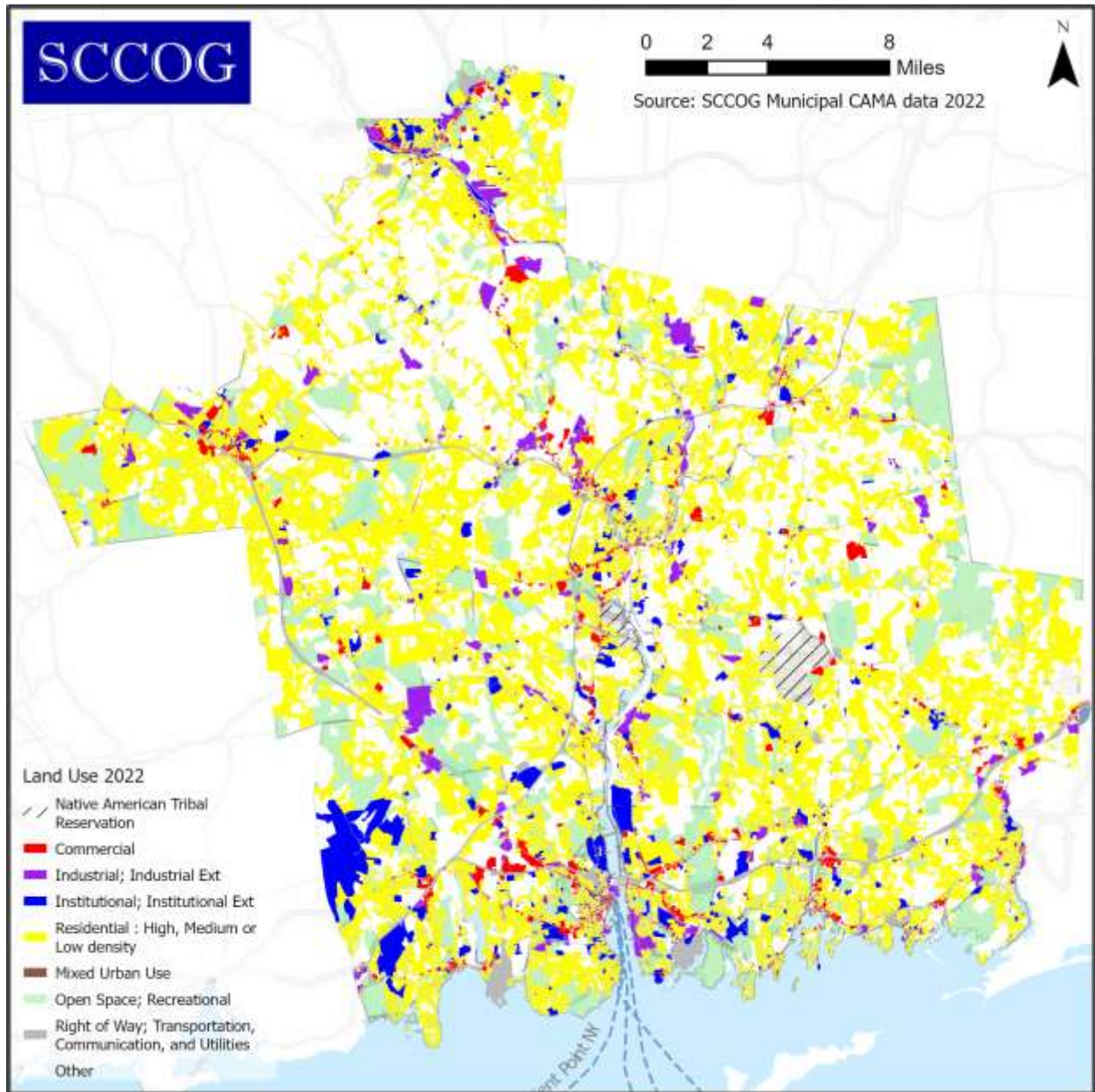
- Expansion at General Dynamics Electric Boat is expected to bring thousands of additional workers to the region.
- The State Pier is undergoing a \$250 million upgrade to support off shore wind energy developments. The project will be completed in early 2023. The improvements will benefit the port’s long-term growth by increasing its capacity to accommodate heavy-lift cargo and is expected to bring thousands of well-paying jobs to the area. The completed facility will maintain its freight rail link.
- There is renewed appreciation for non-motorized transportation and interest in developing and improving sidewalks, bike facilities, and trail networks; this should be expected to continue.
- A shift toward work-at-home arrangements in many industries will allow greater worker flexibility. This will mean a reduced rush hour demand, but it will also erode the ability to provide transit and traditional ridesharing services. The region’s significant service sector will not see the benefits of these anticipated shifts in job hours and location, and may in fact suffer from the loss of office-based clientele.

### Local Land Use Control

Local municipalities control the use of land and new development through zoning regulations and control the division of land and layout of new streets through subdivision regulations. The overall intent of these regulations is to regulate growth so that it occurs sustainably and in accordance with the municipal Plan of Conservation and Development—an overall vision for land use, among other things. However, scattered development has separated and distributed population and businesses across wide distances, making the provision of transit and transportation access more challenging.

### Land Use and Zoning

FIGURE 2. CURRENT LAND USE, GENERALIZED.



Municipal Plans of Conservation and Development are required to note inconsistencies with the Regional Plan of Conservation and Development, prepared and adopted by SCCOG, and the State Conservation and Development Policies Plan, adopted by the legislature and prepared by the Connecticut Office of Policy and Management. The Regional Plan is generally reflective of the region's numerous local plans.

The existing use of land and layout of buildings on individual properties does not always conform to current zoning regulations. Because the goal is conformance with an overall plan,

zoning is used to proactively promote more intensive land use in certain areas while encouraging less-intensive uses in other areas.

Where land is zoned for uses more intensive than the existing use of property, the intention is often to grow the tax base by encouraging commercial and industrial development. In rural or suburban towns, land with access to arterial roads and utilities will often be prioritized for development; however, in many cases industrial uses and high-intensity commercial activity is prioritized on the periphery of town. This can place uneven stress on the transportation network. Current land use can be seen in Figure 2.

Lower-intensity commercial activity and mixed-use development is typically focused on existing village centers, which are often accessed by more than one collector or arterial road. This pattern of growth is supportive of the existing transportation network as well as municipalities' goals for improving community character and quality of life. Conversely, dispersed growth leads to higher maintenance liabilities and transportation inequities for people without access to cars, as development occurs further from the existing transit routes. Because development patterns are self-reinforcing, municipalities should consider whether regulations are supportive of or detrimental to existing and/or desired development patterns.

Towns less frequently encourage greater residential density, which is heavily dependent on access to public sewer and water.

### Growth Potential

The total growth potential of the region can be thought of as the maximum growth possible under zoning regulations, accounting for subdivision of land and creation of new roads in the process. When compared with other regions of Connecticut, such as the greater Hartford region or Fairfield County, southeastern Connecticut has very low density of development. The reason for this is rooted in the region's relative lack of proximity to large cities and relative lack of public sewer and water. The region's urban centers of New London, Groton, and Norwich remain below their past peak populations, indicating latent potential for infill growth with existing infrastructure. Since 1990, New London County has grown at annualized rate of less than 0.5%. Projections for population and employment from the present to the 2050 see population growth slowing to just over half that rate (0.28%/year).<sup>1</sup> Employment growth is projected to outpace population growth at 0.59% annually.<sup>2</sup> At the state level, population is projected to grow at 0.31% and employment is projected to grow at 0.6%.

### Natural Resources and Conservation

Development and daily life in southeastern Connecticut are shaped by its natural features. The region is split by the Thames River, a wide tidal estuary fed by a large watershed that contains

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<sup>1</sup> Connecticut Department of Transportation 2023 projection of Connecticut Department of Public Health, Annual Town and County Population for Connecticut, 2019

<sup>2</sup> Connecticut Department of Labor, Annual Averages – Employment & Wages by Industry, 2019  
Connecticut Department of Labor, State of Connecticut Industry Projections 2014-2024; 2016-2026; 2018-2028

most of Eastern Connecticut. The Thames empties into the Long Island Sound, the coastline of which makes up the southern border of the region. The region's economy and transportation network have historically aligned with its relationship to water, as the major corridors follow the coast (I-95/Rt 1/North East Corridor), the Quinebaug River (I-395/Rt 12/Providence & Worcester Rail), and the Shetucket and Willimantic Rivers (Rt 32/New England Central Rail). The access provided to the eastern seaboard via the Thames has made the region a hub for defense industry investment as well as a launching pad for the burgeoning offshore-wind industry. The coast, watercourses, and numerous lakes and ponds in the region have also helped to support a vibrant tourism industry, particularly in the summer months. This seasonal increase in demand for access to the region poses significant transportation challenges.

Natural resources are managed locally by municipal land use commissions. Zoning and subdivision processes take careful consideration of impacts to watercourses, wetlands, forests, and other landscapes when making decisions on land use applications. Each municipality also has an Inland Wetlands commission that administers the Inland Wetlands and Watercourses Act (IWWA), specifically regulating activities that will have an impact on wetland soils or watercourses. Transportation improvements undertaken by municipalities are subject to Inland Wetlands review if work will be done that affects a wetlands or water resource, or may affect such resource by way of being within a specified distance. When the Connecticut Department of Transportation (CT DOT) undertakes a transportation project, the Connecticut Department of Energy and Environmental Protection (CT DEEP) acts as the agency responsible for administering the IWWA. The IWWA seeks to balance the project's needs with protection and enhancement of the wetland or watercourse. Typically, a chosen project alternative avoids wetlands and watercourses altogether; but if the resources cannot be avoided, steps are taken to minimize and mitigate the impact. The Army Corps of Engineers and the U.S. Coast Guard also play a role in permitting activities impacting wetlands and waterways.

In addition to advocating for the protection of wetlands and watercourses, the Regional Plan of Conservation and Development notes that the conservation and procurement of open space is also a priority for the region. Several municipalities have developed Open Space Plans to identify areas which are targets for preservation. There are numerous private land trusts which operate in southeastern Connecticut, with the goal of preserving existing open space and acquiring new lands for preservation. The SCCOG is currently developing a Regional Open Space Plan which will produce a comprehensive inventory of the region's open space assets and coordinate efforts between municipal and non-profit actors. These localized efforts complement the goals of the Connecticut State Green Plan and Statewide Comprehensive Outdoor Recreation Plan, which seek to protect and conserve natural resources as they support outdoor recreation.

Access to natural resources is a priority for the residents and a challenge for the region based on the predominant development pattern. The region's parks, trails, watercourses, and other natural assets typically require a car and the dedication of portions of these lands to parking.



SCCOG's 2019 Regional Bike/Ped Plan identified priority projects that, if implemented, would greatly increase the accessibility of the region's natural resources by active modes of transportation.

### Historic and Cultural Resources

Southeastern Connecticut has a rich historic tradition, thanks in part to the early timeframe in which the region was first settled. The region is home to 12 National Historic Landmarks (four of which are Early American ships, found at Mystic Seaport), as well as ten distinct Local Historic Districts. The State of Connecticut Plan of Conservation and Development includes "Conserving and Restoring...Historical Resources" as one of its six Growth Management Principles, which are intended to be followed in Regional and Municipal Plans of Conservation and Development (any inconsistencies must be so noted). Accordingly, the 2017 Southeastern Connecticut Regional Plan of Conservation and Development encourages the protection and preservation of local historic resources. Municipalities in the region bolster the protection of their historic resources with specific provisions in their zoning and subdivision regulations, and eight of the municipalities are classified as Certified Local Governments (CLG) by the State of Connecticut Historic Preservation Office. These mechanisms allow for and encourage the protection and continued presence of historic assets by conducting reviews of projects which would have an impact on the historic character of the protected resources. If an adverse impact on the resource is anticipated, alternatives may be suggested or required.

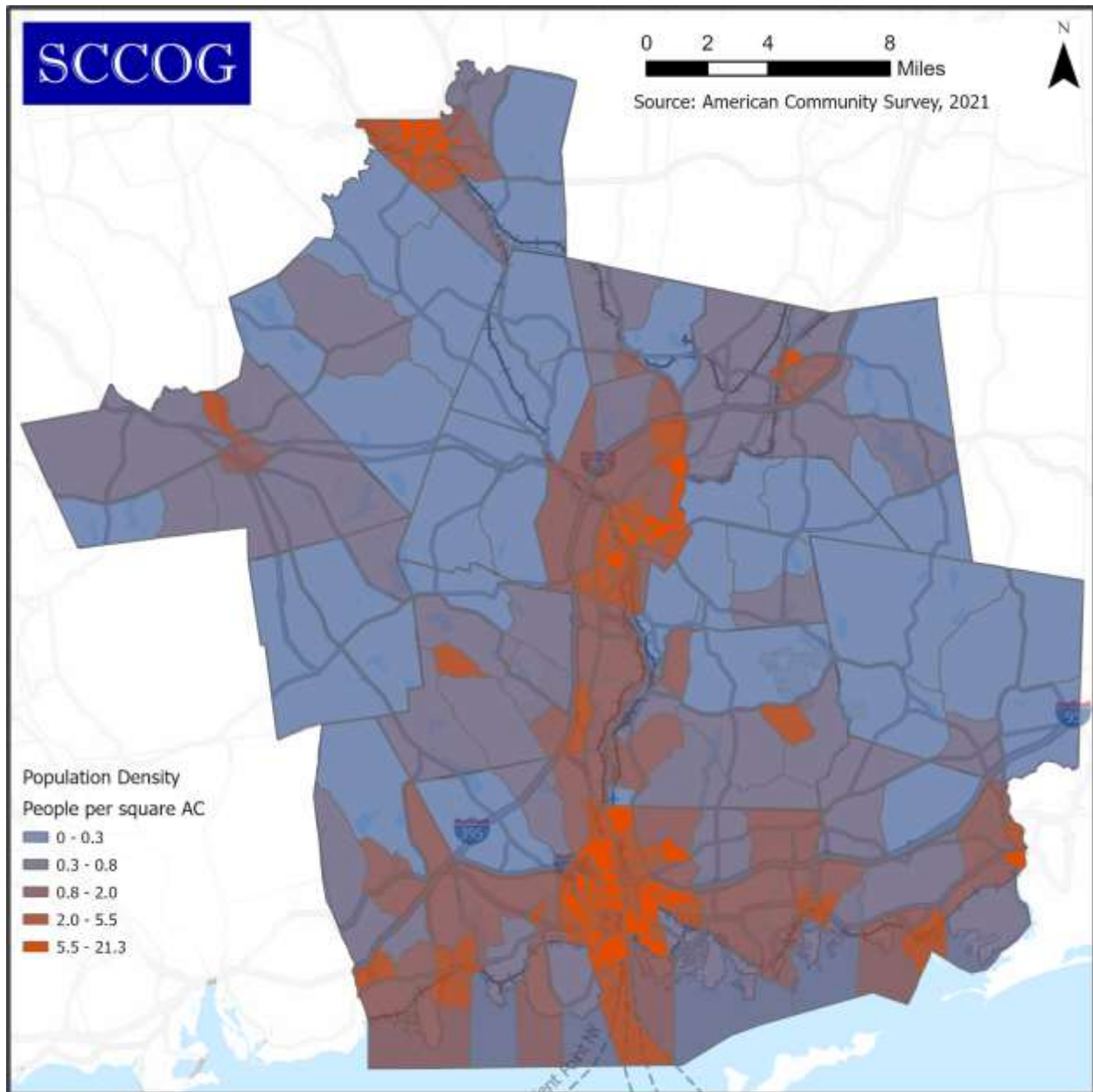
### Population and Housing

The population of the Southeastern Connecticut region at the time of the 2020 census was 280,433, which is down from 286,711 in 2010 (see Figure 3). Despite this, the population of the region is expected to increase modestly over the course of the next two decades, with a projected 2050 population of 301,812.<sup>3</sup> Current projections estimate that the population of the region is expected to generally shift slightly away from rural and suburban areas, and increase in urban areas such as Groton, Montville, Norwich, and New London. This trend, in part, illustrates a shifting desire of the population to be within closer and easier reach of jobs and amenities.

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<sup>3</sup> Connecticut Department of Transportation 2023 projection of Connecticut Department of Public Health, Annual Town and County Population for Connecticut, 2019

FIGURE 3. POPULATION DENSITY PER SQUARE ACRE BY CENSUS CLOCK GROUP.



More than half of the residents in the region live in homes of only one or two people, while fewer than 10% of the population lives in a home with five or more people. This is partially a consequence of the large number of aging baby-boomers who are likely to live in one- or two-person households. While southeastern Connecticut has a larger population aged 20-24 years than the statewide average due to the presence of colleges and military installations, the average age of the population in the region is still increasing. In 1990, the average age of a resident of New London County was 32.5, a figure which increased to 40.4 in 2010 and then further to 41.4 in 2020. Senior citizens make up for 10-20% of the population of each municipality in the region. According to a survey conducted for Connecticut's Legislative

Commission on Aging, 20% of Connecticut residents aged 50 and older anticipate using public transportation more frequently as they age.

There is an increasing necessity for easy access to public transportation and paratransit options for the elderly. In addition to an aging population, the population of the region is also diversifying. The minority population of southeastern Connecticut is currently at 28.6%. The largest concentrations of minority populations are located within urban areas, with New London having the highest rate at 55% non-white. The Hispanic/Latino community accounts for approximately 14.3% of the population in the region, the Non-Hispanic Black population accounts for 5.3%, and the Asian and other/more than one race population account for 4 and 4.7% respectively (U.S. Census ACS, 2021).

The income range for residents of the region is diverse, with approximately a third of households earning less than \$50,000 per year, a third earning \$50,000-\$100,000, and a third earning \$100,000 or more. Over 29,000 households in the region are considered housing-cost-burdened, spending more than 30% of income on housing, according to the recently published 2018 Housing Needs Assessment, prepared by the Southeastern Connecticut Council of Governments in coordination with the Southeastern Connecticut Housing Alliance. As such, there is a demand for affordable housing in the region, as well as transit options for lower-income individuals. Currently, approximately 60% of the current housing stock of approximately 124,000 units is single-family housing. Large-lot, single-family residential development is more costly to homeowners compared with more dense development, it also increases costs borne by municipalities as well. Expansive subdivisions require road and utility construction and maintenance and reduce the cost effectiveness of public transportation.

### Commuting and Employment

By far the most common method of commuting to work in southeastern Connecticut remains driving alone in a personal vehicle, as indicated in Table 1. This is especially true in more rural areas, where transit options are limited, and employment is not accessible by walking or biking. Public transportation is utilized for commuting to work more frequently in more densely populated and urban areas. Walking and biking to work is the least prevalent mode of transportation in the region for commuting purposes and is also focused in largely urban areas where distances from residences to jobs are smaller and infrastructure for those modes is more abundant. Data shows that a sizeable portion of the population is also working from home, without having a measurable journey to work. Those who report they work from home are scattered throughout the region, without necessarily following any urban or rural trends. Work from home surged during the COVID-19 Pandemic, but continues to recede. A “new normal” baseline of work from home has yet to settle, but will impact transportation demand, particularly at peak hours, moving forward.

The 2017 Connecticut Statewide Household Transportation Study<sup>4</sup> found that the weighted average time for commuting (trips from home to work and back to home) was 30 minutes in duration and 12.5 miles in distance. Work-related trips (trips taken during the workday for work purposes) were similar in duration but averaged 18.5 miles. Shorter commutes are associated with better outcomes in physical and mental well-being, with the effects maximizing around 16-minute commutes. Policies that facilitate decreasing commute times in the region may then have a series of positive externalities for the region.

**TABLE 1. U.S. CENSUS ACS 2021 JOURNEY TO WORK.**

	<b>United States</b>	<b>Norwich-New London, CT Metro Area</b>
<b>Label</b>	<b>Estimate</b>	<b>Estimate</b>
Workers 16 years and over	150,571,044	137,429
<b>MEANS OF TRANSPORTATION TO WORK</b>		
Car, truck, or van	85.5%	88.9%
Drove alone	76.4%	79.8%
Carpooled	9.1%	9.1%
In 2-person carpool	6.9%	7.6%
In 3-person carpool	1.3%	0.7%
In 4-or-more person carpool	0.9%	0.9%
Workers per car, truck, or van	1.06	1.06
Public transportation (excluding taxicab)	5.0%	1.5%
Walked	2.7%	3.4%
Bicycle	0.6%	0.3%
Taxicab, motorcycle, or other means	1.2%	1.0%
Worked at home	4.9%	5.0%

The largest employers in the region are primarily located in urban areas, including Groton, New London, and Norwich, with two major exceptions being Foxwoods Casino and Mohegan Sun Casino, located in Ledyard and Montville respectively. Three employers (Foxwoods, Mohegan Sun, and General Dynamics Electric Boat in Groton) each employ more than 5,000 people. Over the timeline of this plan, the burgeoning offshore wind industry is expected to add thousands of jobs to the region concentrated around the Port of New London and manufacturing clusters

<sup>4</sup> Connecticut Statewide Transportation Study, Connecticut Transportation Institute, University of Connecticut, 2017

along freight rail corridors. These jobs will likely be filled by workers currently residing outside the region, leading to increased demand on the transportation network.

### 3. Goals and Strategies

Creating “livable communities” through the notion of “responsible growth<sup>xii</sup>” continues to be a guiding vision in southeastern Connecticut. The concept of “responsible growth” reflects a growing recognition that development, mostly residential and commercial, is eating up increasingly large amounts of undeveloped farm and forestland that many people take for granted as “open space.” For this reason, responsible growth has emerged as an ideal development policy that is intended to: (1) give priority to development locating where the infrastructure to support it already exists, (2) develop a new transportation strategy that more effectively moves people and goods, (3) give high priority to cleaning up brownfields and attacking blight, and (4) preserve undeveloped forest and agricultural land. A livable community is one that is safe and secure, has affordable and appropriate housing and transportation options, and offers supportive community features and services. SCCOG supports smart growth and livability within the region by: coordinating transportation, health and human services; planning and programming transit options; water and sewer infrastructure planning; providing technical assistance and leadership on development issues; preparation of special studies and plans like the Regional Hazard Mitigation Plan and Regional Wastewater Management Plan; and through the preparation and adoption of the RPOCD.

The pressure for responsible growth has only increased as local municipalities have struggled with rising programmatic and infrastructure costs. Land use patterns which encourage dispersed residential development increase costs for road maintenance, storm sewer and other utilities, school busing, and amenity maintenance. Dispersed development patterns also limit the ability to reach density thresholds upon which a functional transit system can exist.

During the process of preparing the 2017 Regional Plan of Conservation and Development, local planning and zoning commission members, planners, and the general public expressed continued concern about sprawl in the region. Large lot, residential, zoning patterns are generally characterized and supported by self-contained on-site water and septic systems. Coupled with this residential pattern are large separations between residential, commercial, industrial and institutional land uses. The need to functionally link these separate land uses and provide access is now accomplished almost exclusively through use of the automobile and supported by a well-developed system of highways, which requires ongoing maintenance. The Regional Plan of Conservation and Development presents the SCCOG’s vision for the region’s future transportation system, and its transportation goals and objectives are repeated below and made part of this plan. In addition, the SCCOG includes and endorses the federal and state goals listed below.

## Goals

### *Regional Goals*

1. Provide transit that meets the needs of the region, especially businesses, low-income workers, and aging residents.
2. Complete Streets that encourage transit use, biking, and walking.
3. Coordinated transportation that makes use of new technologies to improve mobility.
4. Safety and reliability that meet the future needs of the region, and can withstand potential natural hazards.

### *State Goals (2018 Long Range Transportation Plan)*

State Long Range Transportation Plan goals were broken into four categories: Economic, Deliverability, Quality of Life and Livability/Resilience. The Economic goal includes: an efficient and effective transportation system, connectivity to national and global markets, maintaining a state of good repair, reducing business costs for goods movement, and revitalizing urban centers with multi-modal options. Deliverability was broken down into: cost effective and quick project delivery; improved communications and responsiveness and strong intergovernmental partnerships. Quality of Life would be addressed through: safe and secure travel for all modes, mobility and accessibility for all users, convenient and reliable travel choices, integration of transportation and land use. Livability and resilience are broken into: commitment to livable, healthy and environmentally sustainable communities; enhancement of biking and walking accommodations; making environmentally friendly transportation an affordable option; and making the transportation system more resilient.

## Strategies

While the regional, federal, and state transportation goals vary, the themes are consistent at each level of government. The SCCOG is a technical resource for innovation and policy for its member towns. Its staff work collaboratively with FTA and FHWA, the State of Connecticut, towns, the transit districts, and others to innovate and maintain the region's transportation system in a state of good repair. The SCCOG takes a multifaceted approach to realizing our goals and the following will summarize our strategies for integration of federal focus areas and state goals.

1. Provide transit that meets the needs of the region, especially businesses, low-income workers, and ageing residents.
  - a. Provide planning and programming support to the transit districts and Eastern Connecticut Transportation Consortium (ECTC – providing senior, ADA paratransit, and low-income transportation).
  - b. Support ride sharing and the integration of emerging technologies to supplement transit service.

- c. Provide programmatic assistance to municipalities and DOT to secure funding for vehicles servicing aging and disabled residence through the 5310 program and the Municipal Grants program.
  - d. Work with municipalities, employers, and seCTer to encourage transit-ready growth.
  - e. Advocate for greater intensity of developments along transit corridors, and transit accessible development and road infrastructure.
  - f. Integrate transit maps, schedules, and fare collection to provide a rider-friendly customer experience.
  - g. Improve transit service, particularly within underserved communities.
  - h. Utilize demand-response service in communities with concentrations of older adults and those with poor access to essential services.
2. Complete Streets that encourage transit use, biking, and walking.
    - a. Prioritize the expansion and improvement of sidewalks and bike facilities to enhance access and livability through the bike and pedestrian planning process.
    - b. Encourage and educate local staff, advocates, and residents.
    - c. Incorporate context-appropriate complete streets elements into all projects and seek stand-alone safety improvements for pedestrians and cyclists.
    - d. Development and programming of non-motorized priorities.
    - e. Encourage development of micro-mobility including ridesharing and bike/scooter sharing.
    - f. Support sustainable practices such as complete streets, smart growth and transit-oriented development through holistic planning including housing and infrastructure policy work.
  3. Coordinate transportation that makes use of new technologies to improve mobility
    - a. Inclusion of Transportation System Management (TSM) and Transportation Demand Management (TDM) strategies to ease congestion.
      - i. Signal coordination and adaptive technology
      - ii. Transit priority
      - iii. Support of ride sharing and telecommuting
      - iv. Demand-response service
    - b. Municipal technical assistance and municipal assistance planning and GIS contracts.
    - c. Enhance and better coordinate rail, port, and road freight and passenger service.
    - d. Support private investment and improvement of ferry, pier, port and waterways through grant assistance and coordination.
  4. Safety and reliability that meet the future needs of the region, and can withstand potential natural hazards.
    - a. Identification and programming for congestion mitigation within the region.
    - b. Identification and programming for prioritized safety projects within the region.



- c. Reduction of Single Occupancy Vehicle travel and associated air pollution near high-volume corridors.
- d. State of Good Repair projects carried out through the STIP/TIP and Capital Plan processes and local road projects.
- e. Identification of critical infrastructure in areas at risk of flooding.
- f. Carry out a regional Community Rating System assistance program to enable member municipalities to leverage the National Flood Insurance program to decrease flooding liability.
- g. Adoption of CTDOT performance measures which enable identification and prioritization of projects which will result in a sustainable, equitable and resilient transportation system.
- h. Commitment to the MS4 permitting process and the reduction of connected impervious surface on both local and state roadways through sound engineering, technical assistance, and coordination.
- i. Leadership in regional emergency preparedness.
- j. Providing assistance to towns in accessing funding for infrastructure and programs.
- k. Diversion planning.

### Performance Measures

MAP21 legislation ushered in an era of performance-based planning, which continues to be refined. The SCCOG Unified Planning Work Program (UPWP), in conformance with the Metropolitan Transportation Planning Final Rule (23CFR 450.306(d)<sup>xiii</sup>), formalizes SCCOG's role in performance-based planning and programming. Through that framework, the SCCOG ensures that programming of projects, both long- and short-term, is based on their ability to meet established goals for improving the overall transportation system.

The SCCOG has elected to endorse the measures and targets developed by the CT DOT, in cooperation with the State's Councils of Governments and transit districts. The decision to endorse these targets was based upon data availability and staff capacity, and reflects a commitment to plan and program projects that contribute to the accomplishment of the performance targets. Targets will be reviewed periodically to ensure that the SCCOG continues to concur with them. The following measures and targets have been adopted by CT DOT and SCCOG.

Transit performance measures are reported for Tier I and Tier II providers. Within SCCOG, transit providers include Shoreline East (SLE), Arrowline, which operates the CTTransit express bus service in Colchester and Windham, Southeast Area Transit (SEAT), Estuary Transit District and Windham Area Regional Transit District (WRTD).

**TABLE 2. STATEWIDE PERFORMANCE MEASURES: SAFETY.**

<b>Traffic Safety Performance Measures and Targets</b>									
<b>Number of Fatalities</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Annual	248	270	304	281	293	249	295		
5-Year Average					279.2	279.4	284.4		
Target (5-Year Average)							277	270	270
<b>Fatality Rate (per 100 million VMT)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Annual	0.8	0.85	0.96	0.89	0.93	0.79	0.99		
5-Year Average					0.886	0.884	0.912		
Target (5-Year Average)							0.883	0.85	0.85
<b>Number of Serious Injuries</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Annual	1356	1526	1689	1641	1361	1344	1304		
5-Year Average					1514.6	1512.2	1467.8		
Target (5-Year Average)							1547	1360	1300
<b>Rate of Serious Injuries (per 100 million VMT)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Annual	4.35	4.83	5.34	5.21	4.31	4.25	4.37		
5-Year Average					4.808	4.788	4.696		
Target (5-Year Average)							4.931	4.3	4.3
<b>Number of Non-Motorized Fatalities and serious injuries</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Annual	261	300	376	354	316	305	260		
5-Year Average					321.4	330.2	322.2		
Target (5-Year Average)							307.2	300	280

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**TABLE 3. STATEWIDE PERFORMANCE MEASURES: STATE OF GOOD REPAIR.**

<b>State of Good Repair</b>					
<b>Interstate Pavement in Good Condition</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	--	75.4	74.2	76.6	--
Target	--	--	--	--	70
<b>Interstate Pavement in Poor Condition</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	--	0.5	0.1	0.2	--
Target	--	--	--	--	2.5
<b>Non-Interstate National Highway System (NHS) Pavement in Good Condition (Full-distress + IRI)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	--	--	37.2	39.6	--
Target	--	--	36	--	30
<b>Non-Interstate National Highway System (NHS) Pavement in Good Condition (IRI Only)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	42.9	43.6	44.3	45.7	--
<b>Non-Interstate National Highway System (NHS) Pavement in Poor Condition (Full-distress + IRI)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	--	--	3.6	2.1	--
Target	--	--	6.8	--	5
<b>Non-Interstate National Highway System (NHS) Pavement in Poor Condition (IRI Only)</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	17	17.4	16.9	14.7	--
<b>National Highway System (NHS) Bridges in Good Condition</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	15.2	14.7	14.4	14.2	--
Target	--	--	22.1	--	14
<b>National Highway System (NHS) Bridges in Poor Condition</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	14	11.6	8.2	8.1	--
Target	--	--	7.9	--	8

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**TABLE 4. STATEWIDE PERFORMANCE MEASURES: RELIABILITY AND EMISSIONS REDUCTION.**

<b>Highway Reliability Performance Measures and Targets</b>					
<b>Interstate Highway Reliable Person-Miles Traveled</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/ Performance	79.6	78.6	79.6	94.4	--
Target	--	--	75.2	--	79.6
<b>Non-Interstate NHS reliable Person-Miles Traveled</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	--	--	85.8	93.2	--
Target	--	--	--	--	83.6
<b>Truck Travel Time Reliability Index</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	1.79	1.78	1.81	1.5	--
Target	--	--	1.79	--	1.84

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<b>Emissions Reductions Performance Measures and Targets</b>					
<b>Emissions Reductions for PM<sub>2.5</sub> through CMAQ Projects</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	12.95	--	0	--	--
Targets	--	--	1.632	--	2.674
<b>Emission Reductions for NO<sub>x</sub> through CMAQ Projects</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	462.49	--	0	--	--
Targets	--	--	67.69	--	102.37
<b>Emissions Reductions for CO through CMAQ Projects</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	ND	--	SA	--	--
Targets	--	--	ND	--	ND
<b>Emissions Reductions for VOC through CMAQ Projects</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Condition/Performance	263.89	--	0	--	--
Targets	--	--	19.32	--	30.14

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**TABLE 5. STATEWIDE PERFORMANCE MEASURE: TIER I TRANSIT.**

<b>Tier I Transit Performance Measures</b>			
<b>FTA Performance Measures and Targets for Rolling Stock</b>			
<b>Performance Measure</b>	<b>Asset Class</b>	<b>Previous Performance (SFY2017)</b>	<b>Current Performance (SFY2021)</b>
% of vehicles that have met or exceeded their ULB	Transit Bus	19%	49%
	Articulated Bus	0%	49%
	Cutaway Bus	0%	100%
	Over-the-Road Bus	3%	49%
	Commuter Rail Locomotive (MNR)	100%	37%
	Commuter Rail Locomotive (SLE/HR)	100%	100%
	Commuter Rail Passenger Coach (MNR)	0%	38%
	Commuter Rail Passenger Coach (SLE/HR)	100%	100%
	Commuter Rail Self-Propelled Passenger Car	12%	0%
	Ferry Boat	100%	100%
<b>FTA Performance Measures and Targets for Equipment</b>			
<b>Performance Measure</b>	<b>Asset Class</b>	<b>Previous Performance (SFY2017)</b>	<b>Current Performance (SFY2021)</b>
% of vehicles that have met or exceeded their ULB	Truck	26%	37%
	Automobile	46%	100%
	SUV	30%	72%
	Van	55%	100%
	Steel Wheel Vehicle	98%	100%
<b>FTA Performance Measures and Targets for Facilities</b>			
<b>Performance Measure</b>	<b>Asset Class</b>	<b>Previous Performance (SFY2017)</b>	<b>Current Performance (SFY2021)</b>
% of Facilities within an asset class, rated below condition 3 on the TERM scale	Administrative/Maintenance	0%	0%
	Passenger	58%	58%

\*Tier I includes CT Transit Express Bus (Arrowline) and SLE

ULB – Useful Life Benchmark

CTDOT 2022 Transit Asset Management Plan

**TABLE 6. STATEWIDE PERFORMANCE MEASURE: TIER II TRANSIT.**

<b>Tier II Group Transit Performance Measures and Targets</b>				
<b>FTA Performance Measures and Targets for Rolling Stock</b>				
<b>Performance Measures</b>	<b>Asset Class</b>	<b>Previous Performance (SFY17)</b>	<b>Current Performance (SFY21)</b>	<b>Performance Target (SFY22)</b>
% of vehicles that have met or exceed ULB	Transit Bus	24%	5%	14%
	Cutaway Bus	46%	57%	17%
	Minivan	0%	100%	17%
<b>FTA Performance Measures and Targets for Equipment</b>				
<b>Performance Measures</b>	<b>Asset Class</b>	<b>Previous Performance (SFY17)</b>	<b>Current Performance (SFY21)</b>	<b>Performance Target (SFY22)</b>
% of equipment that have met or exceed ULB	Rubber Tire Vehicle (Truck)	32%	22%	7%
	Automobile	100%	1%	17%
	SUV	29%	81%	17%
	Van	40%	71%	17%
<b>FTA Performance Measures and Targets for Facilities</b>				
<b>Performance Measures</b>	<b>Asset Class</b>	<b>Previous Performance (SFY17)</b>	<b>Current Performance (SFY21)</b>	<b>Performance Target (SFY22)</b>
% of facilities within asset class, rated below condition 3 on the TERM scale	Administrative/Maintenance	0	0	0
	Passenger	0	0	0

\*Tier II Group Transit Districts within SCCOG include SEAT, WRTD and Estuary (9Town)

ULB – Useful Life Benchmark

CTDOT 2022 Transit Asset Management Group Plan

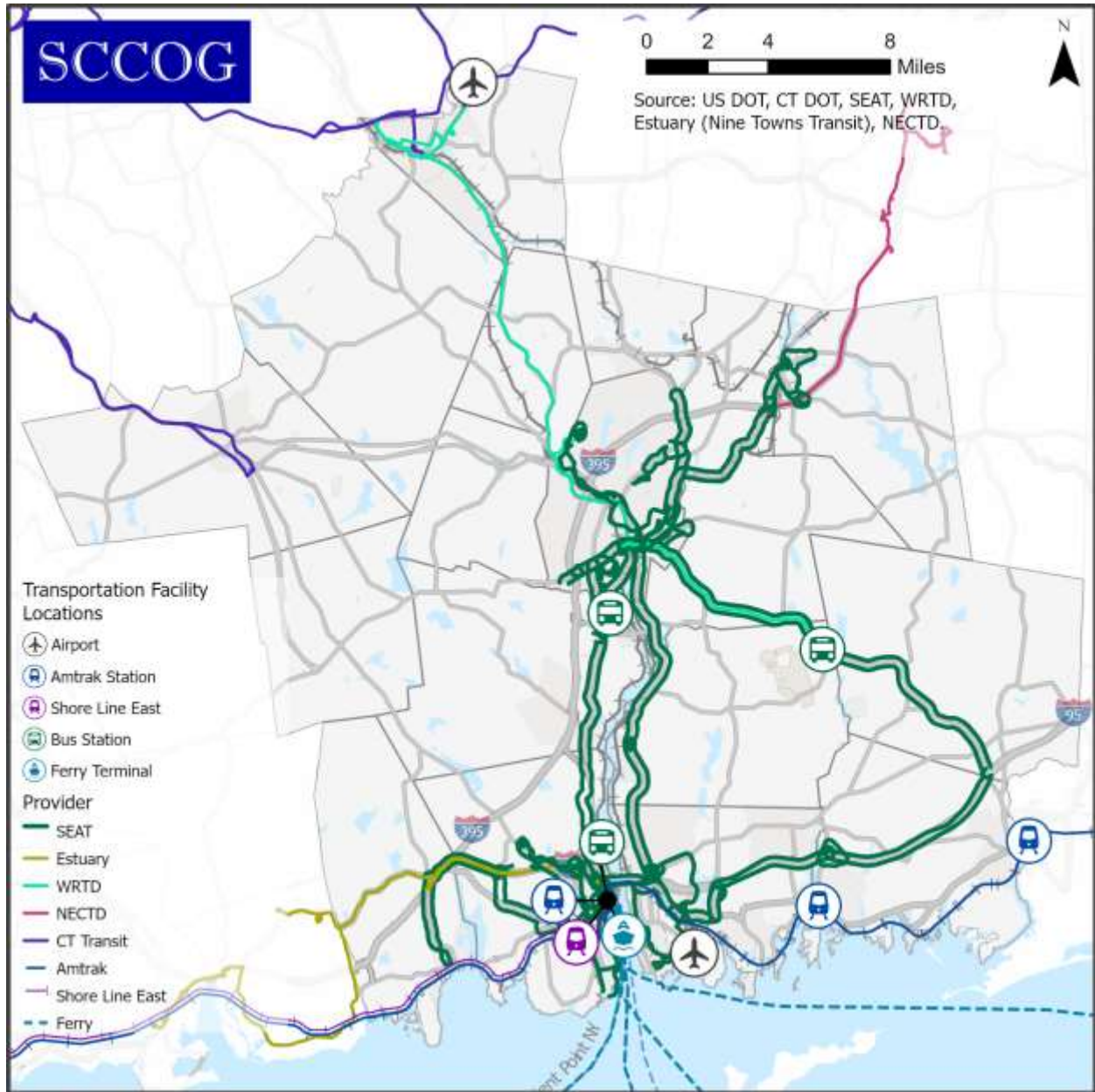
**TABLE 7. TRANSIT SAFETY PERFORMANCE MEASURES.**

Transit Safety Performance Measures and Targets								
Mode of Transit Service		Facilities		Injuries		Safety Events		System Reliability
		Total	Per 100,000 VRM	Total	Per 100,000 VRM	Total	Per 100,000 VRM	VRM/Mechanical Failures
<b>SEAT</b>								
Motor Bus (MB)	2022 Target	0	0	7	0.63	9	0.82	6,000
Demand Response (DR)	2022 Target	0	0	0	0	0	0.00	80,000
Fixed Route	2021 Performance	0	0	9	0.81	9	0.82	13,538
<b>Arrowline Industries</b>								
Motor Bus/Fixed	2022 Target	0	0	3	0.3	4	0.4	6,000
Demand Response/ADA	2022 Target	0	0	0	0	1	0.1	80,000
Fixed Route	2021 Performance	0	0	0	0	0	0	217,801
<b>Estuary Transit District</b>								
Motor Bus/Fixed	2022 target	0	0	6	1.5	32	3.2	25,000
Demand Response/ADA	2022 target	0	0	2	1.75	7	0.5	30,000
Fixed Route	2021 Performance	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*WRTD is not required to submit a PTASP document  
 2021 Public Transportation Agency Safety Plan  
 (PTASP)  
 N/A - not available

## 4. Transportation Facilities

FIGURE 4. TRANSPORTATION FACILITIES. <sup>xiv</sup>



### 4.1. Highways

The following text reviews the major highways in southeastern Connecticut, shown in Figure 4. The information was based on studies conducted by CT DOT and SCCOG and on discussions with officials and citizens in the towns and cities of southeastern Connecticut



## East/West Corridor:

I-95 is the most heavily traveled corridor in the region. It is the main highway for travelers along the Atlantic coast from Florida to Maine as well as the main means of accessing our region's coastal towns. Due to the many rivers entering the Long Island Sound, local traffic often uses I-95 to make local trips as well. Regionally, the highest I-95 volumes are seen over the Thames River (86,300), in East Lyme (69,400), in Groton (59,800) and New London (59,300). Permanent count locations show a significant seasonal spike for the months of July, August and September. This is a critical planning factor for the region because tourism is a significant sector of the economy and the performance measures for reliability fail to adequately address seasonality. The SCCOG and other shoreline COGs continue to work with CT DOT to address this performance challenge. High frequency crash locations within SCCOG along I-95 include East Lyme from Society Road to the I-395 interchange, the interchange with Route 85 in Waterford, the complex interchanges in New London with Route 32 and Williams Street, and the Allyn Street exit in Groton. As I-95 is the region's most heavily utilized corridor, SCCOG has proposed significant improvements and maintenance work. The CT DOT is undertaking a Planning and Environmental Linkages process to address the significant challenges within the corridor from Branford to Rhode Island. That process is ongoing. Information can be found at [I-95 Eastern CT PEL \(i95easternct.com\)](http://i95easternct.com). While SCCOG continues to strive for a state of good repair and reliability within the corridor, there is a need for significant capacity and safety improvements.

Routes 1 and 156 served as the main through-routes in the region prior to the completion of I-95, and continue to serve a vital role for both access and mobility. These routes also act as diversion routes both during emergencies and during seasonal peak hour congestion. Route 1 is a two to four lane route paralleling I-95 through the region that connects village centers, as it does in towns east and west of southeastern Connecticut. With a crash frequency second only to I-95, Route 1 poses many planning challenges and solutions will have to include both engineering and land use policy. Crashes along Route 1 are worst in East Lyme (at Route 161), New London (where Route 1 functions as a frontage road to I-95), and in Groton (between I-95 and Route 349 and west of Route 215); there were several fatalities within a three-year crash analysis. Route 156 within this region is a two-lane road paralleling I-95 along the shore through East Lyme and Waterford. Within the past four years the Niantic River Bridge, the region's only movable highway bridge, was rehabilitated. Waterford and East Lyme have sought complete streets improvements to the Route 156 corridor. In Waterford, "Logger Hill" has been the subject of a road diet which provides additional shoulder space for cyclists. In Niantic, accommodation for cyclist and pedestrians is being sought, while congestion is the focus closer to the Rocky Neck Connector.

**North/South Corridor, West of Thames River:** This corridor is served by two routes between Norwich and New London, with both I-395 and Route 32 providing north-south access. Further north these two routes diverge, with Route 32 heading west to Windham and I-395 turning eastward before heading north to the Massachusetts border. The I-395 is the main

north-south link in the system of four-lane facilities that connect the urban centers of Norwich and New London by way of Route 82 (West Main Street in Norwich), I-395 (through Montville), the Montville Connector (Routes 693) and Route 32 (through Waterford and into New London).

I-395 within the region is typically a 2-lane non-access highway traveling through Waterford, Montville, Norwich, Lisbon, and Griswold. Heaviest traffic volumes occur in Montville and Norwich with over 54,000 vehicles per day south of Route 82. Over five percent of SCCOG crashes occurred on I-395 within the past three years, which is heavily influenced by the high number of miles it traverses within the region. There are consistent crashes along its length, with clusters of greater frequency just north of Route 2A, the ramps at West Town Street in Norwich, and the split interchange in Griswold. CTDOT is currently reviewing I-95 from Branford to the Rhode Island border. The I-95 Planning and Environmental Linkages study (I-95 PEL), will consider the necessity of a modification of the interchange of I-395 and I-95. Currently, traffic may travel southbound I-395 to southbound I-95 and northbound I-95 to northbound I-395. If the interchange is completed (permitting all directions of movement) traffic volumes on the southerly portion of Route 32 would likely decline, supporting traffic calming and complete streets goals in New London. Revision of the interchange would also include safety and geometric improvements. In the future, greater demand is anticipated for this interchange as traffic calming is implemented on Route 32 and demand shifts to this interchange.

Route 32 is an arterial throughout this region that provides local and through access to many of the region's towns and provides primary access to Windham, connecting that town to the rest of the region. Traffic volumes on Route 32 through Montville declined when the tolls were removed on I-395 during the mid-1980's. Prior to the pandemic, 2017 traffic volumes between the Route 2A ramps and the Mohegan Sun Casino were 18,600 daily. The pandemic severely reduced vehicles miles traveled in the state, and 2020 volumes were 9,300, just half of the non-pandemic period. The crash incidence on this roadway is strongly correlated to Average Daily Traffic counts; intersections such as College Hill in New London, the I-395 connector merge (Waterford), Route 163 (Montville), Route 2A (Montville), Washington Street at West Main Street (Norwich), Route 2 (Norwich) and Jackson Street (Windham) all exhibit higher frequency crashes. Use of the road will continue to support commercial developments and the casino. Future improvement opportunities on Route 32 may include significant redesign of southerly portions of Route 32 and the interchange with I-95 to improve safety as well as pedestrian and cyclist facilities. Additionally, congestion may be addressed through widening in isolated sections, access consolidations, and signal improvements. SCCOG is currently undertaking the [Route 32 Corridor Study](#) to assess the stretch of roadway from Benham Avenue in Waterford, south to Williams Street in New London.

**Northwest/Southeast Corridors:** Two major routes serve the region in this direction, Route 2 and Routes 11/85. Route 2, originating in Hartford, enters the region near its western extremity in Colchester and passes through eight towns before reaching its eastern terminus in

the Pawcatuck section of Stonington. Routes 11/85 are the main routes of travel between Route 2 in Colchester and New London, passing through Salem, Montville, and Waterford.

Through-traffic on Route 2 from the Hartford/Glastonbury area remains a difficult regional traffic problem to solve. This is due, in large part, to the huge demand created by the region's two casinos. One potential option is to by-pass the bottleneck in Norwich by re-routing traffic south on I-395 to Route 2A. While this ostensibly solves the congestion problem in Norwich, a second highway bottleneck exists in the village of Poquetanuck, in Preston. The solution to this problem, identified by CTDOT as part of the Route 2/2A/32 Environmental Impact Study, is to add an additional span to the Mohegan-Pequot Bridge and build a limited access by-pass of Route 2A. A bypass would have significant local impacts, has historically been opposed by the Town of Preston and is not currently supported by current traffic levels. Additional capacity on the Mohegan-Pequot Bridge and capacity improvements on Route 12 continue to be supported by the affected communities.

Since 1992, Foxwoods Casino has had a significant impact on traffic in the region from both an employee and patron perspective. Each day, 18,900 vehicles travel north of Foxwoods and 12,000 travel south of Foxwoods on Route 2. On peak days, these numbers can double. Routes 2 and 2A have clearly borne the brunt of the increased traffic but there is also a noticeable increase in volumes on other roads as well. Traffic going to the casino from the western part of the state uses I-395 and Route 2A through the Poquetanuck section of Preston to get to Route 2, while traffic from the east, on I-95, uses Exit 92 at Route 2 in North Stonington to get to the casino. Traffic approaching from the northeast, on I-395, exits at Route 164 in Griswold to get to Route 2. As patrons become more familiar with the area, the secondary road system has been exploited as offering less congested routes of travel to and from the gaming center. This is resulting in heavier volumes on these narrow roads. Likewise, local residents are increasingly using the secondary road system in order to avoid congestion on the main arterials. Citizen concern about the changing pattern of both the primary and secondary roadway use in this section of the region is widespread. Traffic calming and multimodal safety projects are proposed within this MTP in Preston and North Stonington, the two communities most impacted by casino traffic.

Route 2 is constructed to arterial standards between Norwich and Route 164 in Preston with 11-foot lanes and eight-foot shoulders in each direction. East of Route 201, it lacks the needed lane or shoulder width and alignment to accommodate traffic in a safe and efficient manner. Recommendations for reconstruction between Route 201 in North Stonington and its intersection with I-95 in Stonington were part of an Environmental Impact Study conducted by CT DOT in 1998. While there has been no local consensus to make major improvements to Route 2, in 2008/2009, the Mashantucket Pequot Tribe constructed a 1.8 mile elevated bypass of Route 2 from Lot 10 to east of the intersection with Milltown Road. Between I-95 and Route 78, Route 2 has been improved to four lanes. Again, access to and from Route 2 to abutting properties is of continuing concern as the volume of this roadway approaches its capacity.

While population projections anticipate slowed growth for the region, local traffic will be influenced by the strong tourism industry. Seasonal and periodic peaks will be challenging to address in a context sensitive manner. Potential development on property abutting I-95 in North Stonington (once proposed for a large theme park) may heighten the need to consider improving other roads, especially those that link Mystic to Foxwoods. One of these is Route 201 in North Stonington between Route 2 and the Stonington town line. Similarly, Lantern Hill Road, connecting Foxwoods and Old Mystic, has emerged as an important collector road and has recently been designated as such.

The crash history of Route 2 reveals that the largest cluster of accidents occur in Norwich between the end of the expressway and Route 165. A second cluster exists in Stonington south of the I-95 Interchange and terminating at Route 1. Both of these locations are densely developed and need to provide safe access for all modes.

The seasonal traffic congestion occurring on Route 85 in Salem, Montville, and Waterford is not likely to diminish significantly. To address safety issues, CT DOT has in cooperation with the towns of Salem, Montville, and Waterford begun design and construction of various shoulder widening, safety and drainage improvements. Year-round traffic in the Route 85 corridor is presently moderate, with average daily traffic of 12,800 between Route 82 and the Montville town line; it reaches intolerable conditions on some summer weekends when recreation traffic in this corridor reaches its peak. School bussing is another source of congestion; Route 85 offers few bypass areas and passing stopped school buses is illegal.

Improvements are currently planned and are being undertaken all along the Route 85 corridor in Salem, Montville and Waterford. Of special concern is the intersection with Route 161. This location is particularly challenging due to the closely spaced intersections at Chesterfield Road, Route 161/Flanders Road and Turner Road. Compounding the problem are the existence of flood zones, historic structures, significant grade changes, emergency management services, and a public water supply. Bicyclists and pedestrians are poorly accommodated throughout much of the Route 85 corridor. Additional effort will be needed to address this intersection.

Route 85 is congested between the I-395 interchange and the I-95 interchange. The corridor lacks pedestrian and cycling amenities. Local development approvals have recently been granted for medium density apartments to be constructed at the northern edge of the corridor. The MTP recommends congestion mitigation, safety improvements, and pedestrian facilities for this section of Route 85.

The I-95 PEL will investigate the completion of the I-395 interchange with I-95. Completion of the interchange would shift local trips from Route 85 to the interstates to reduce local congestion.

Within the Route 85 corridor, crash clusters exist in Colchester, at the roundabout at Route 82 in Salem, and at the intersection of Route 161. The greatest cluster of accidents occur on Route 32 between I-395 and Jefferson Avenue in New London. Most of the accidents occur at

signalized intersections in this portion of the corridor. Close spacing of intersections surrounding the Interchange will continue to cause conflict and congestion, particularly as commercial and industrial land adjacent to the interchange in Waterford is developed.

#### North/South Corridor, East of Thames River:

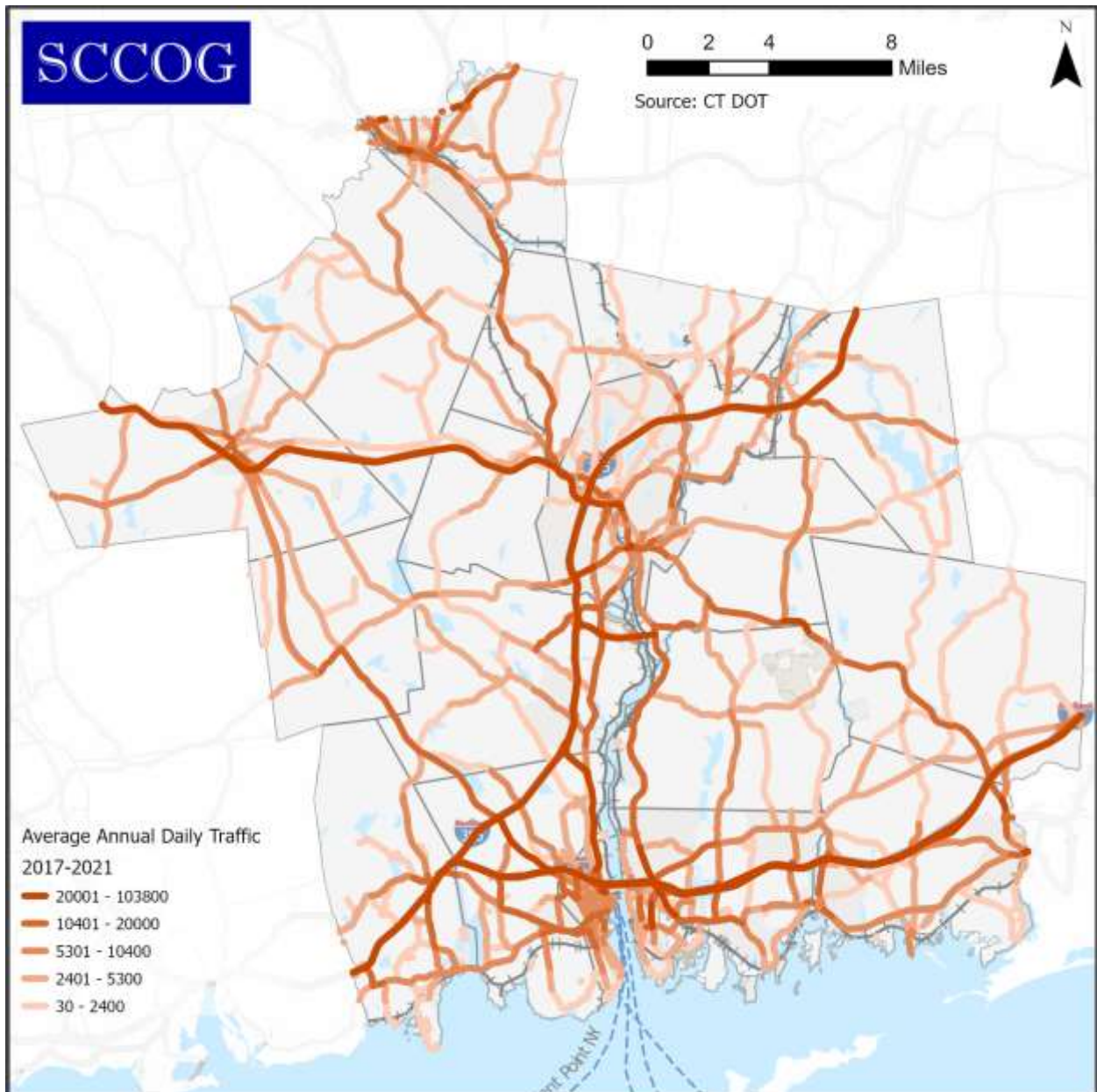
Routes 12 and 117 carry local and through traffic north/south through the region east of the Thames River. Route 12 is considerably more substantial; it is part of the Strategic Highway Network providing direct access to the U.S. submarine base (SUBASE). Groton sections of Route 12 typically have four or more lanes typically. Route 2A, I-95, and Route 12 form a key diversion route for I-95 heavy freight requiring a permit. Route 12 serves north/south local and through- traffic east of the Thames River between Griswold and Groton. Route 12 designated as an arterial highway and the facility is adequate with the exceptions of Groton North of I-95, Norwich north of the Route 2A bridge, and the congested corridor identified north of the Greenville section of Norwich. Crashes follow the traffic and congestion trends; traffic fatalities occurred along Route 12 in Ledyard, Norwich, and Lisbon in the past three years. Development of the Preston Riverwalk property, anticipated to be transferred to the Mohegan Tribe in 2023, will increase demand on both the Route 2A Mohegan-Pequot Bridge and adjacent intersections and roadways as it is developed. In 2005, the Federal Highway Administration documented and selected an alternative in a Record of Decision for “The Route 2/2A/32 Transportation Improvement Project” which had been through a substantial planning process and Environmental Impact Study. The Record of Decision supported the study’s preferred alternative between the Route 2A crossing of the Thames River and I-95 interchange (Exit 92) with Route 2 at the North Stonington/Stonington town line. The preferred alternative included: 1) the addition of a second two-lane span of the Route 2A bridge over the Thames River; 2) a four-lane bypass connecting the bridge’s Preston approach to Route 2 west of Schoolhouse Road; 3) Route 2 widening to a median-separated four-lane facility in Preston; and 4) upgrades to Route 2 in North Stonington to the I-95 interchange to improve safety. These improvements would build upon upgrades to Route 2 in the vicinity of Foxwoods Casino. Average daily traffic volumes on Route 12 plummeted during the pandemic to 9,500 in the vicinity of Route 2A; in 2017 the same location had 37,000 vehicles per day. Significant roadway projects, such as those illustrated above, will be contingent upon traffic volumes returning or exceeding those upon which planning documents were based. In Groton, volumes did not decline to the same degree as in Preston; 2020 volumes were 15,500 vehicles per day north of the I-95 interchange and 22,000 in 2017. This can be attributed to the more stable trip generation of military land uses during the pandemic, compared to the tourism industry (Foxwoods Casino route).

Another north/south route paralleling Route 12 east of the Thames River is Route 117. Land use along most of this road is primarily residential. It extends from Route 1 in Groton to Route 2 in Preston, and is primarily two-lanes. Notable crash locations include the intersections with Route 1 and Route 184 in Groton; there was also a fatality in Ledyard. Between Ledyard Center and Route 184 in Groton, Route 117 provides an alternative to the busy Route 12 for

commuting workers and others traveling between Groton and towns to the north. At Exit 88, the Mystic Marriot and the Pequot Medical Facility serve to anchor future commercial development. Portions of Route 117 between Groton and Preston may be part of the future Tri-Town Trail.

### Demand

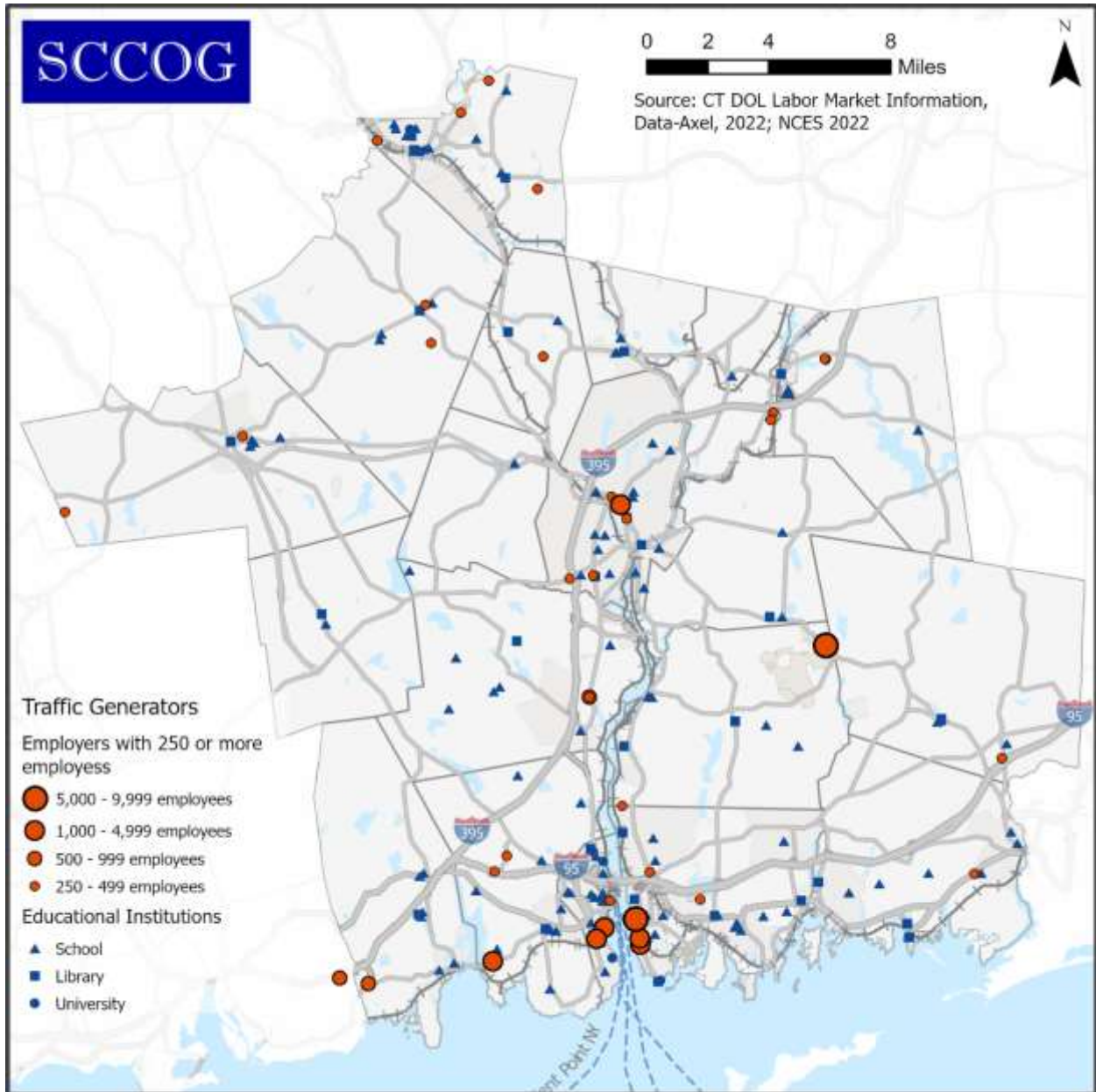
**FIGURE 5. AVERAGE DAILY TRAFFIC 2017-2021.**



Traffic data for this plan was provided by CT DOT. It consists of several sources including periodic Average Daily Traffic (ADT) data which are typically done on a three-year basis (2019-2021), and permanent count location data. The pandemic significantly depressed ADT when

compared ADT reported in the 2019 MTP. The plan also reports data available in our 2017 CMP which prioritized congested corridors and peak hour excessive delay (PHED) data used in performance management. Figure 5 describes the ADT between 2017 and 2021.

**FIGURE 6. TRAFFIC GENERATORS.**



The pandemic depressed traffic volumes, particularly when most workplaces were shut down or working remotely, and the available data reflect this. This continued the trend seen in the 2019 MTP, attributed to economic downturn in the past decade. Substantial growth in manufacturing had been the strongest growth factor for traffic and housing within the region and will continue to increase over the projected period. The plan also anticipates growth in the

tourism sector within the plan period, bolstered by the development of Preston Riverwalk and Great Wolf Lodge at Foxwoods.

The higher education institutions within the region are another source of traffic demand and include, but are not limited to, U.S. Coast Guard Academy, Connecticut College, Eastern Connecticut State University, and Three Rivers Community College. The many public and private K-12 education facilities are significant traffic generators as. Because these institutions are not only large employers but also busing and personal vehicle drop offs, they remain significant generators of peak hour congestion.

Non-public employers with greater than 250 employees, schools, libraries and universities are mapped in Figure 6. The location of non-public employers is predominantly along the Interstate and limited access highway system. Foxwoods, Davis-Standard in Stonington, Prides Corner in Lebanon, and UConn Avery Point in Groton are some employment locations with less proximal access to the limited highway network, as are schools.

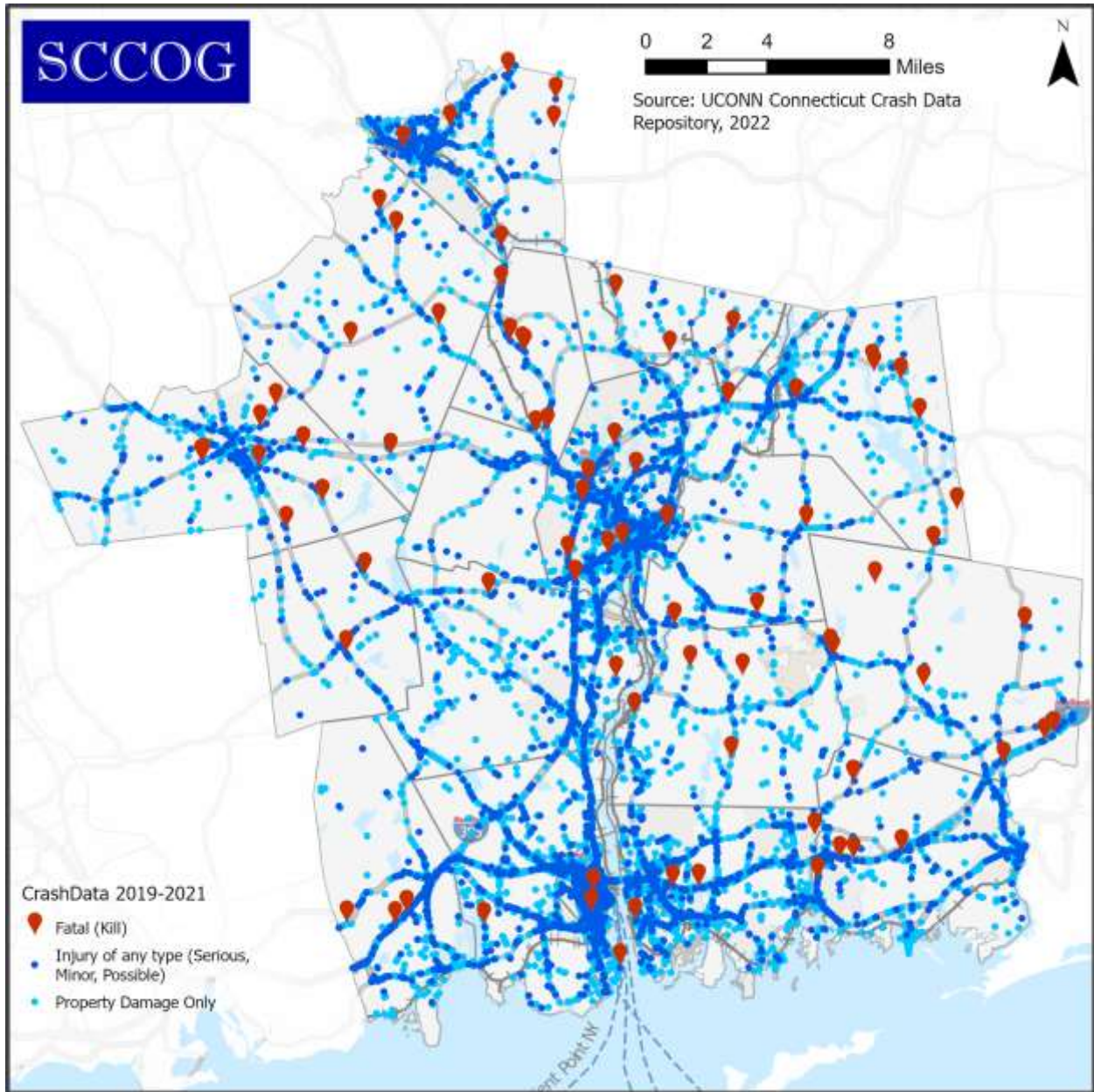
Tourism is a significant sector in the region with clusters of activity generally along the shoreline and including the casinos. Many vehicular trips originate outside of the region and are not associated with a residence or work commute within the region. Tourism based trips exhibit a seasonal peak in the summer that is distinct from typical commute patterns, and leads to localized congestion and parking issues. Passive recreation areas such as Rocky Neck State Park and Bluff Point, also create significant vehicle demand. Mystic Aquarium and Mystic Seaport are both open in the winter, but significantly more visitors patronize these establishments during the summer. Dense village centers, such as Niantic, Mystic and Stonington Borough drive significant tourism traffic based on a cluster of smaller employers, as contrasted with a casino which is easily defined as traffic generator through existing data sources.

## Safety

Crashes occur throughout the region, with the highest density of crashes along the shore and in the urban centers of New London, Groton, Norwich and Windham. Within the last three years (2019-2021), there have been 18,676 reported crashes; of those 81 were fatal and 4,135 resulted in injury. While overall crashes were down compared to the last MTP period, the rate of crashes has increased when the crashes are compared with vehicle miles traveled in the state. Figure 7 illustrates the crash locations and severity. While crash occurrence mirrors urban development and ADT; fatalities are more geographically distributed.

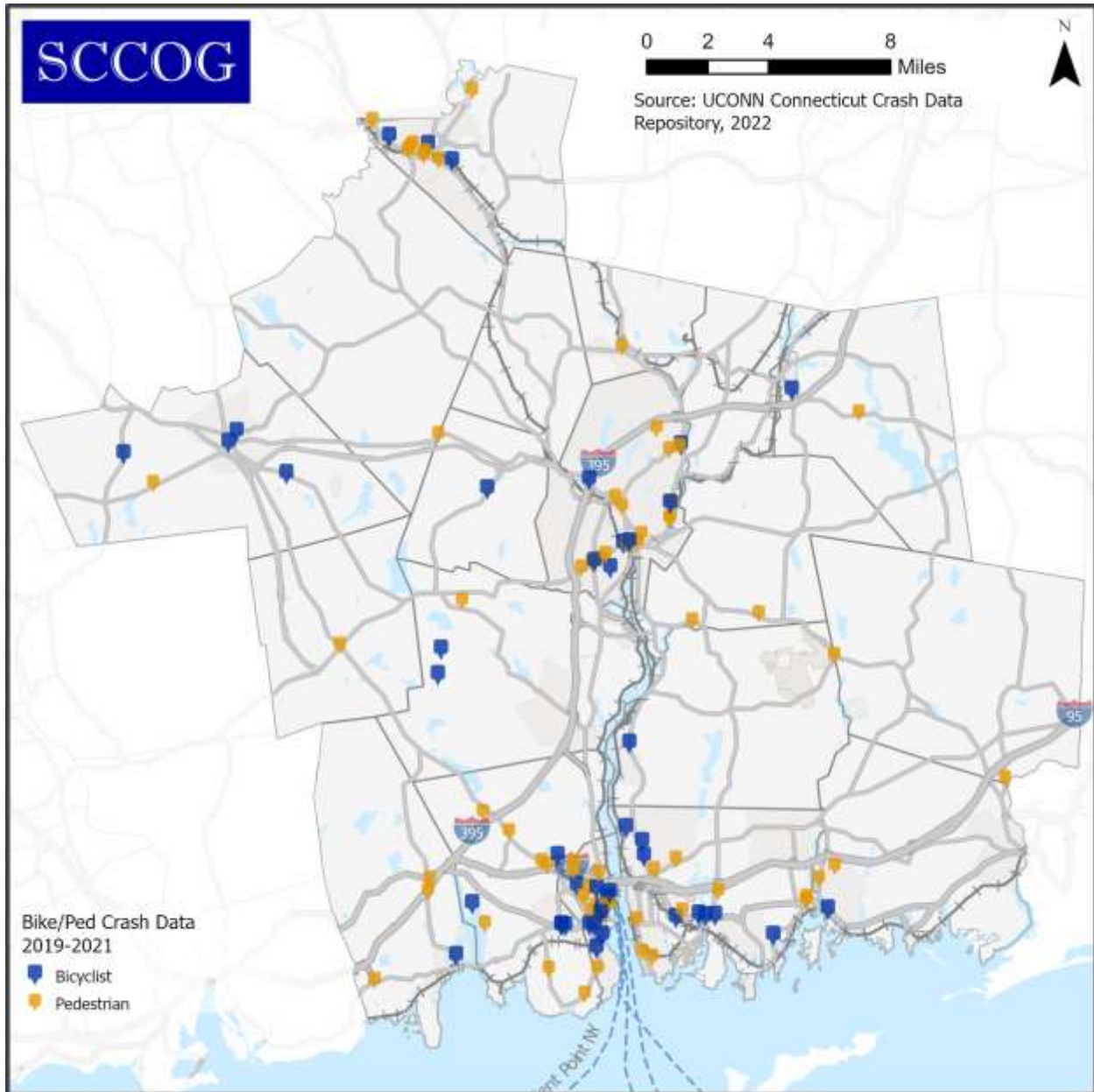


FIGURE 7. CRASHES, 2019-2021.



Non-motorist crashes are visualized in Figure 8; for the same 3-year crash period, 183 crashes involved pedestrians, and 86 crashes involved cyclists. Crashes with non-vehicles follow similar geographic patterns compared with all crashes, but they tend to result in injury more often than in crashes that involve only vehicles.

**FIGURE 8. BICYCLE AND PEDESTRIAN CRASHES, 2019-2021.**



The Highway Safety Plan indicates several emphasis areas for reducing crashes including non-motorists, DUI, distracted driving and motorcycles, for example. The Highway Safety Improvement Program is a federal-aid program that funds CT DOT's effort to provide engineering solutions to crashes. Funds predominantly go toward solving systemic crash causes, as opposed to projects tailored for a specific location. The region has benefited from the

installation of rumble strips, improved signage, guide rail upgrades, horizontal curve signage, pavement markings, crosswalks, and mid-block crossings primarily. Safety funds available to Connecticut are used to systemically address unrealized safety performance targets identified in Section 3.

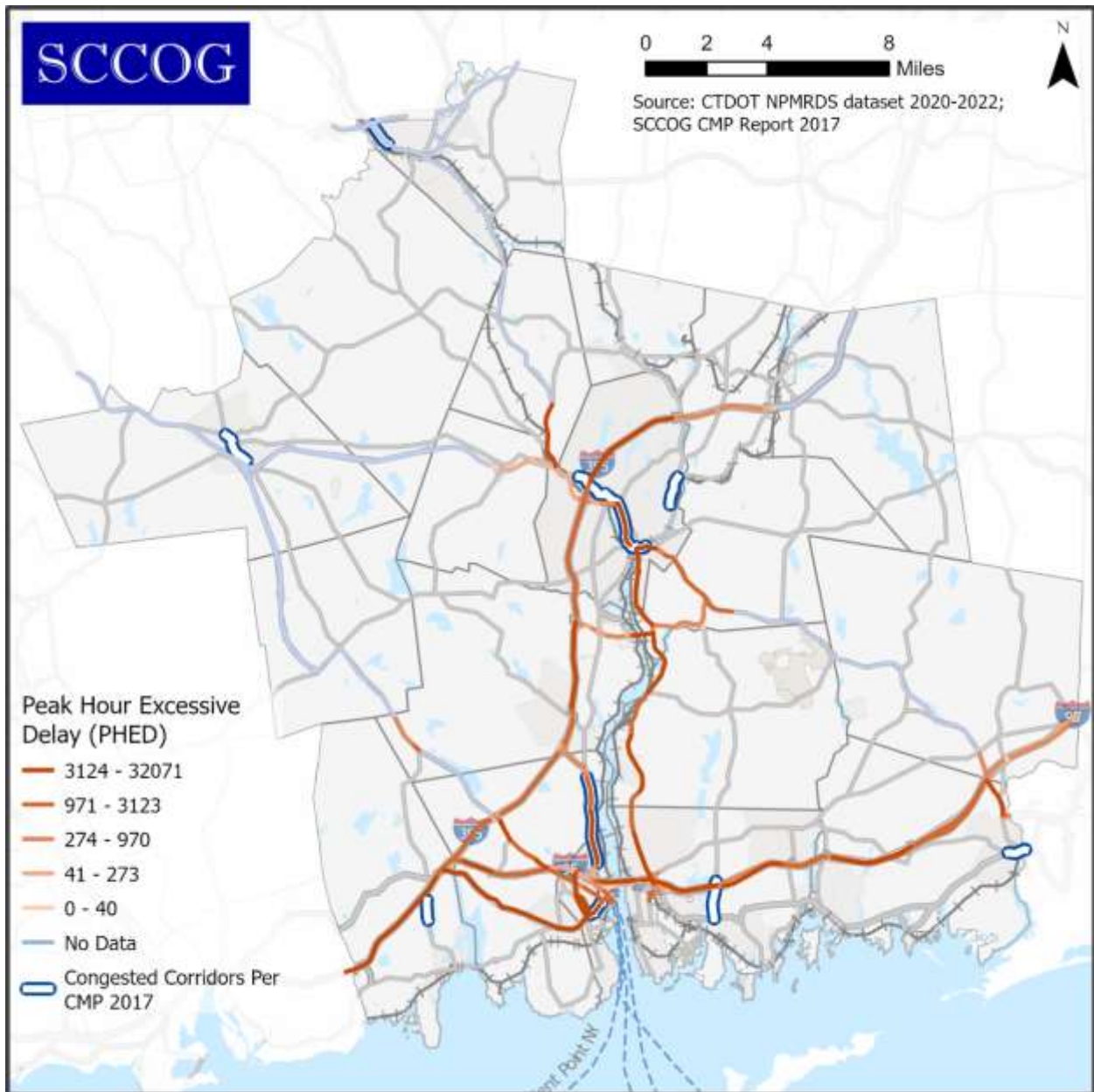
In 2021 the SCCOG adopted a Regional Transportation Safety Plan, which was funded and directed under a statewide CTDOT contract. The SCCOG revised the plan in 2022 to address federal requirements for a Safety Action Plan; this Safety Action Plan will permit the SCCOG to seek federal funding. The plan provided a regional view of safety, identified high crash locations and provided specific recommendations for each municipality. SCCOG's Regional Transportation Safety Plan, the Regional Bike and Pedestrian Plan, and the MTP are used in concert to identify project priorities.

### Congestion

In 2017 the SCCOG prepared an update to its Congestion Mitigation Process Report. The report identified non-interstate roadways with high volume to capacity ratios. In 2021 CTDOT, Rhode Island DOT, SCCOG, and RiverCOG collaborated on congestion performance measure targets collaboratively for the Norwich-New London urbanized area. Utilizing performance measure data, SCCOG identified where travelers experience Peak Hour Excessive Delay (PHED), displayed in hours of delay per year. Performance measurement data vastly expanded the data coverage within the SCCOG region; however, it does not include all roadways. Volume to capacity ratios used in the CMP show areas prone to congestion, while PHED is a better measure of delay.

As infrastructure dollars are limited, SCCOG supports the use of access management and land use planning to mitigate congestion regionwide. The corridors depicted in Figure 9, however, are significant enough to warrant system efficiency strategies such as signal upgrades, synchronization, dynamic signals, and transit prioritization, as well as restricting turning movements and improving incident management through Intelligent Transportation System (ITS) solutions. Demand management tools include flexible work hours and telecommuting, carpooling programs, parking fees and restrictions, zoning for multi-use development, support of transit-oriented development, parking management, and congestion pricing.

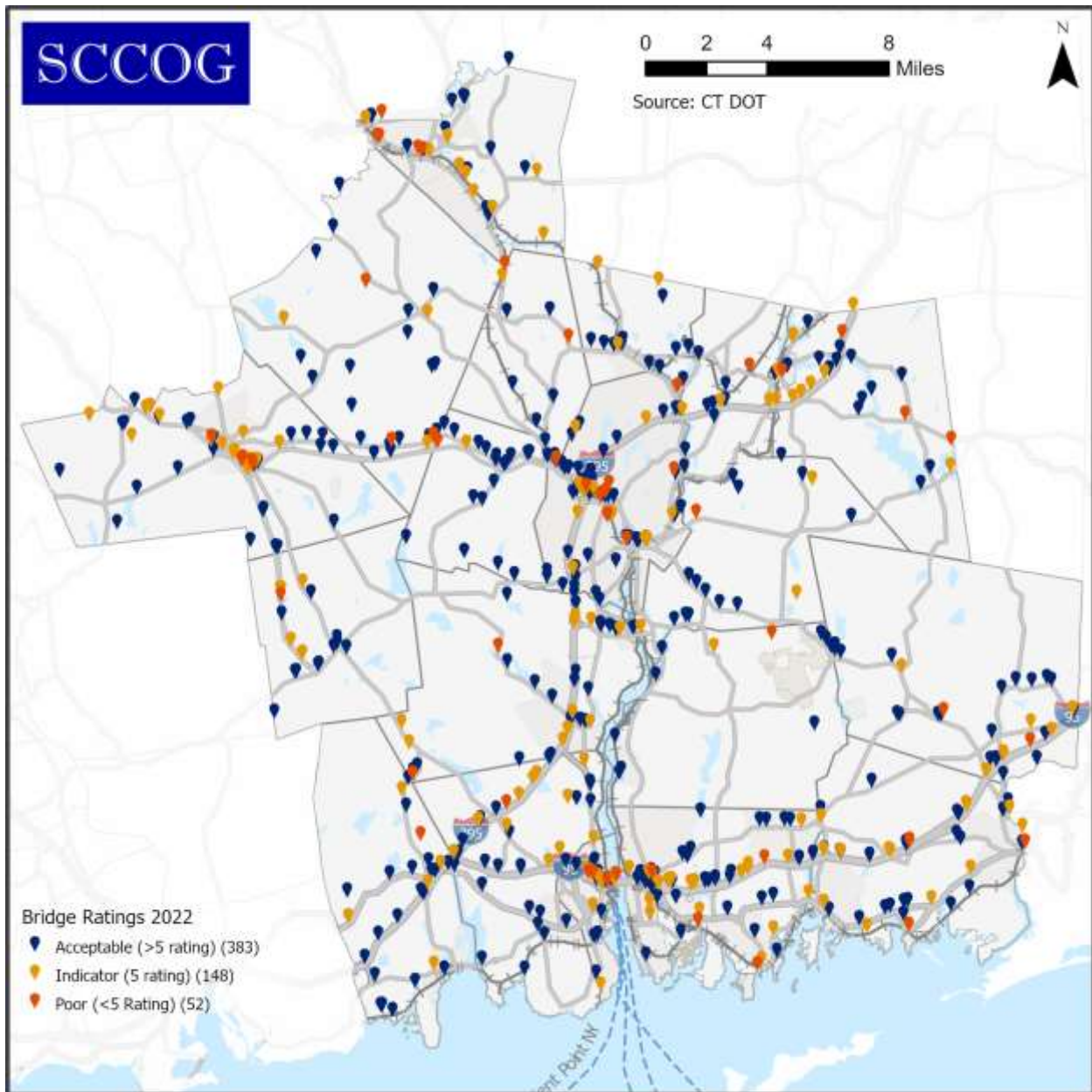
FIGURE 9. CONGESTED CORRIDORS.



## 4.2. Bridges

CT DOT puts considerable emphasis on maintaining a “state of good repair” for its bridges, including conducting a robust inspection and maintenance program. Because so many bridges were built in the middle of last century, a significant amount of repair and replacement is needed. This trend of increased rehabilitation work is highlighted by the performance measures which identify bridges in poor condition, and the Transportation Asset Management Plan, which identifies how they will be returned to a state of good repair.

FIGURE 10. BRIDGES BY RATING CONDITION.



Bridges may be funded with federal, state, or local funding, determined by the location of the bridge and its size. In addition to the federal funding opportunities, the State maintains and funds a program to improve the state's bridges. Local bridge funding was enabled in 1984 and is codified in the Connecticut General Statutes Sec. 13a-175q. The State provides financial assistance to municipalities for the removal, replacement, reconstruction, rehabilitation and improvement of local bridges. The program provides grants ranging from 10% to 33%, and loans of up to 50% of eligible project costs.

CTDOT now provides ratings for bridges on a scale of 1-10, 10 being best and 4 defining both a poor state and the point at which design for major rehabilitation or replacement will occur. Figure 10 shows the ratings of federally fundable bridges within the SCCOG region. While bridges with a rating of 4 are considered to be in poor condition, this map also identifies bridges with a rating of 5, as they are likely to decline over the term of the MTP. The figure below makes it evident that there is significant investment needed for SCCOG bridges. Only 8.9% of SCCOG's NHS bridges are in "poor" condition, however another 25% are rated 5. The most significant bridge major rehabilitation in this region will be to the Gold Star Bridge over the Thames River in New London and Groton. This I-95 structure is both aging and does not serve all modes or meet current standards. Major rehabilitation will attempt to address all of these issues.

It is clear from Figure 10 that this region has a significant number of bridges in need of repair and replacement. Further, this metric (5 or greater being acceptable) fails to represent bridges which are "functionally obsolete" – those which do not meet the current needs may carry too few lanes, have insufficient shoulder or fail to provide safe access for active transportation modes. Resources are finite and often have restrictions, bridge projects on the interstate system (such as the Gold Star Bridge in New London), and roadways with higher functional classifications such as the many State Route bridges are prioritized. Replacement and rehabilitation of bridges off the national highway system is encouraged through technical assistance to the towns and the utilization of both the local bridge programs and other state and local funding sources.

### 4.3. Active Transportation

SCCOG completed a Regional Bicycle and Pedestrian Plan in 2019, creating an inventory of existing conditions as well as a plan for the future of the region's active transportation network. The SCCOG's plan seeks to provide an integrated, safe, and convenient transportation system for all users. Critical elements of the plan include engagement and energization of constituents; comprehensive planning of a system that will improve livability, mobility, access, health opportunities and economic vitality; supporting the varied needs of SCCOG member towns; providing residents and visitors with end user mapping; and growing SCCOG's capacity to support its towns with data.

Public input on local and regional levels of use, concerns, and priorities for walking and biking facilities were gauged by SCCOG through online surveys, interactive events, and an online mapping tool. According to survey findings, residents value completing missing pieces of the bicycle and pedestrian network, increasing biking facilities, and addressing safety issues.

Data from the 2021 American Community Survey Journey to Work survey indicate that about 3.4% of Southeastern CT commuters walk to work, 0.3% of commuters bike to work, 1.5% take transit and 5% work from home (see Table 1.). This varies considerably based on urban density, land uses, and demographics, as the urban centers of Groton, New London, and Windham have much higher mode shares of walkers (roughly 4.8%, 12.4%, and 11.6%, respectively). A dense urban fabric makes it much easier for bikers and walkers to go to work and make other trips without the use of a car. Suburban land use patterns and hilly topography historically made biking and walking for commuting or errands much more challenging outside of urban centers. E-bikes have an increasing market share and are expanding the range of users and trip types possible by bike.

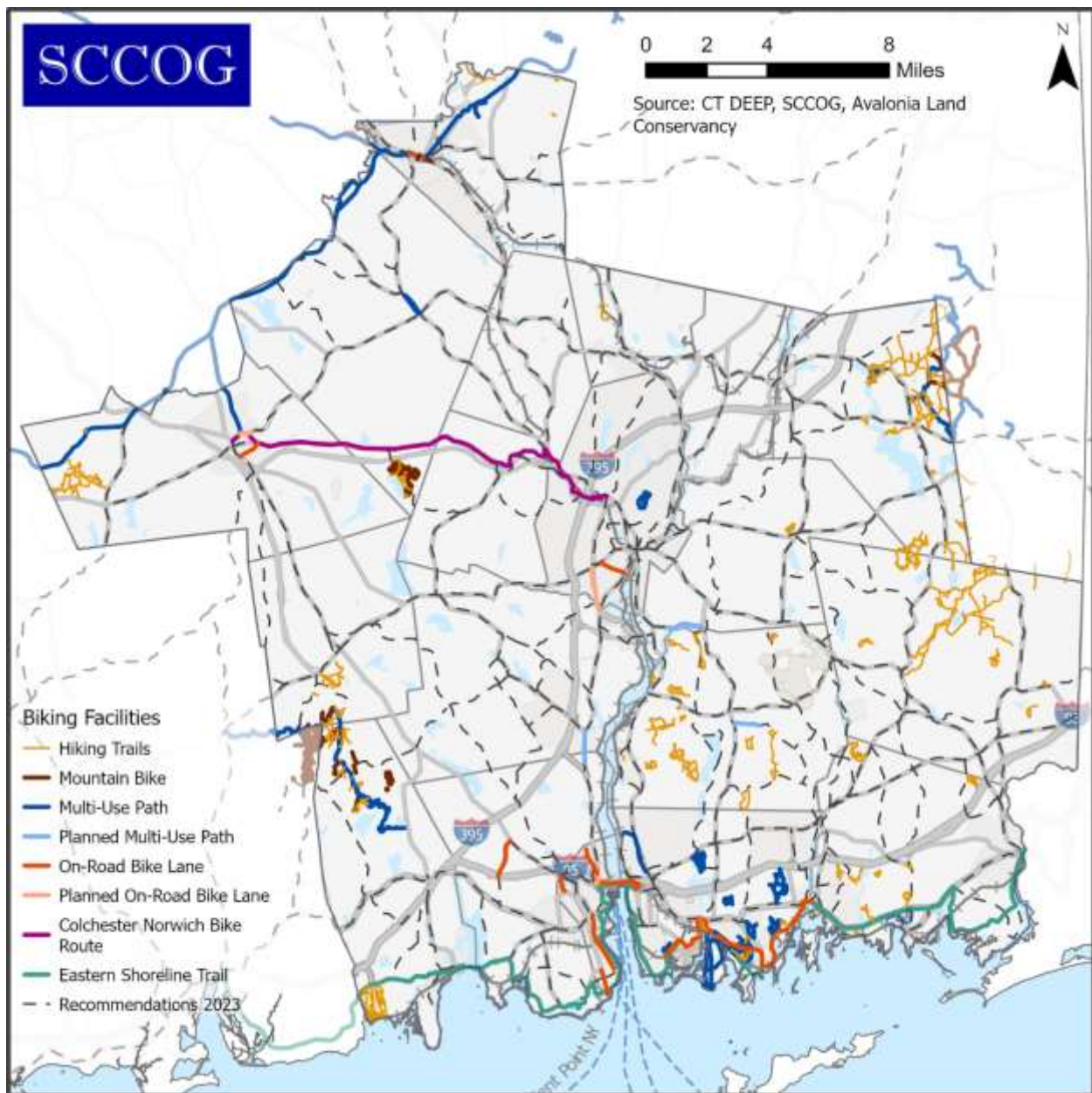
The majority of walking and biking trips in the region are for health, recreation, errands, and social trips, according to surveys completed in the SCCOG Regional Bike and Pedestrian Plan. The region's trail facilities are currently geared more toward these kinds of longer health and recreation trips, with many off-road biking and hiking trails in state and local parks. Recommendations will focus on safety, accessibility, filling in gaps in connectivity within the region, and context-sensitive design of any recommended new facilities.

### Existing Facilities

Sidewalks within the region exist primarily in town centers. The urban centers of New London, Groton, Norwich, and the Willimantic section of Windham have complete sidewalk networks in most areas. Suburban and rural towns may have smaller sidewalk networks in village centers or sidewalks within larger residential subdivisions. Accessibility issues are resolved typically through municipal sidewalk projects and integration into larger roadway projects. While abutters typically are liable for non-compliant sidewalks, improvements typically occur at the town level or during other permitted land use activities (i.e., redevelopment of the site). Accessibility planning is required by the Americans with Disabilities Act of 1990; however, few municipalities have a comprehensive asset management system that includes sidewalk infrastructure. The SCCOG Regional Bicycle and Pedestrian Plan created a framework for ADA assessment of neighborhoods that were either critical or were likely to be improved soon (as defined by municipalities). Accessibility scans prioritized sidewalks, crosswalks, and pedestrian ramps.

Considerable improvements to on-road bike facilities have been made since the 2019 MTP. Projects funded by municipalities and State LOTCIP funds have been key mechanisms to increase on-road bicycle infrastructure.

FIGURE 11. SOUTHEASTERN CONNECTICUT BICYCLE FACILITIES, EXISTING AND PLANNED.



The region’s multi-use pathways include paved or stone dust paths with some degree of ADA accessibility. To receive state or federal funding trails must, at a minimum, meet outdoor recreation trail specifications which ensures that publicly funded infrastructure is accessible to those with physical disabilities. Locations in southeastern Connecticut include:

- Airline State Park Trail is a 43 mile State park spanning eastern Connecticut, within SCCOG the trail exists in Colchester, Lebanon, and Windham with associated spur trails providing additional access. Connecticut Resource Conservation and Development (CRCD) is currently undertaking a master plan for the trail to include maintenance,



marketing access, and economic growth analysis in the town centers of the adjacent twelve towns.

- G&S Trolley Trail in Groton from Knoxville Court to Neptune Drive.
- Crystal Lake Road to Pleasant Valley Road, Groton
- I-95 Southbound Gold Star Bridge Pathway in New London and Groton City is a critical link and will be improved under the Gold Star Bridge Rehabilitation projects.
- Groton's Crystal Lake Road Multi-Use path extends from the main gate of the U.S. Submarine Base east to Route 12, south on Route 12 to Pleasant Valley Road, and then along Pleasant Valley Road to Walker Hill Road where local roads can be utilized to access the Gold Star Bridge Pathway.
- Heritage Riverfront Park Walkway in Norwich begins on Monroe Street then crosses the Yantic River to link with various other streets as it follows the Yantic River into downtown and ends at Howard T. Brown Memorial Park along Chelsea Harbor Drive.
- East Lyme Boardwalk provides a 1-mile pedestrian-only path south of the railroad line from Cini Beach to Hole in The Wall Beach, and connects to the internal paths in McCook Point Park.

The region also boasts miles of hiking trails which primarily improve quality of life and supply outdoor recreation opportunities. The major land holders of these trails include the State of Connecticut (Nehantic State Forest, Pachaug State Forest, Bluff Point, Rocky Neck), Avalonia Land Conservatory, individual town open space, and Connecticut College. The Connecticut Forest and Park Association maintains state recognized blue blazed trails within the region including: Pequot, Narraganset, Pachaug, Nehantic, and the Quinebaug. More links between and through open space parcels would benefit the region's goals for connectivity.

#### 4.4. Transit

The SCCOG region includes bus transit service from four providers: SEAT, Windham Regional Transit District (WRTD), Estuary Transit District and CTTransit. The existing State statutes that govern transit districts were developed almost five decades ago when regionalism was in its infancy, development patterns and transit needs were different, and public-private partnerships were virtually non-existent. Under the statutes, a transit district is governed by representatives of the municipalities in which state subsidized (fixed route, fixed schedule) bus transit service is provided. No provisions exist in the statutes for regional transit districts to manage other modes. Towns through which transit passes can choose not to join a transit district. Of those towns that do join, board representation is statutorily weighted toward urban centers with towns over 25,000 population having twice the number of board representatives as smaller towns. At present, the State requires that bus transit systems, other than those served by Connecticut Transit, generate at least 30% of the annual operating costs in revenue.

The inequity of this arrangement has been a long-standing issue for the state for almost 40 years. If non-Connecticut Transit regional transit system, which is comprised of many smaller municipal units of service, fails to reach this revenue threshold, then the individual (non-Connecticut Transit) transit district member towns each become financially liable for their total share of the revenue shortfall up to the 33% level. This municipal financial exposure is derived from the service levels that each town selects from a “menu” of available services. This selection of service by a municipality is based both on a desire to provide transit to their constituents and the ability of the municipality to pay the operating subsidy.

In 2017, CTDOT faced a fiscal shutdown because of transportation funding insolvency. The CT DOT proposed transit operational funding cuts to only the non-CTTransit districts. While this cut was averted due to widespread public outrage and legislation to provide additional dedicated transportation funds, it speaks to the challenging situation that the three non-CTTransit districts within the SCCOG region face. While the deep cuts were avoided, there has been little growth in operational funding from the State for many years, preventing service expansion that would make transit a more viable transportation option for residents.

SEAT buses originate at intermodal centers in New London and Norwich. WRTD fixed routes converge at the Windham Transportation Center in Willimantic. Estuary Transit District primarily provides service in RiverCOG, with one route serving East Lyme and New London. WRTD has merged with UCONN Transit. Estuary Transit District merged with Middletown Area Transit in 2022.

In New London, the intermodal center includes access to commuter and national rail service; inter-city and regional bus; ferry terminals for Long Island; Block Island and Fishers Island; taxi; and paid parking. This facility serves SEAT and Estuary transit districts. In Norwich, the intermodal center provides paid parking and access to SEAT and WRTD bus service.

SEAT provides the majority of transit service miles and hours in the region, operating in eight towns with 16 routes and two demand response service areas (New London and Stonington). SEAT consists of nine member-towns: East Lyme, Griswold, Groton, Lisbon, Montville, New London, Norwich, Stonington, and Waterford. SEAT had over 363,886 boardings and ran 1,372,075 road miles in fiscal year 2022, fiscal year 2023 is anticipated to double 2022 demand. Headways (bus frequencies) are typically one to two hours in the peak periods. SCCOG prepared a Comprehensive Operational Analysis (COA) for SEAT in 2015 concluding that full implementation of an expansion-of-service plan would require a 26% increase in operational funding and would provide reduced headways, expansion of the routes currently underserved and would result in a 28% increase in ridership. The COA also identified a cost neutral plan with route and schedule changes that would make the district as efficient as possible given severe funding constraints. Cost neutral recommendations, including route changes, have gone into effect. Since that time, demand response service has started in Stonington and New London (pilot). Demand Response utilizes smaller vehicles without a set route, which can be diverted to passengers “on-the-fly.” In Stonington, this service improved access and mobility, replacing a

low-demand, low-frequency route. In New London, SEAT is piloting demand response alongside the existing fixed route service. While demand response service is popular because it is a door-to-door service, headways can vary widely based on levels of demand, and clear performance standards need to be determined to evaluate the success of the program.

WRTD operates 6 fixed routes. Service is located primarily within the towns of Windham and Mansfield. Within the southeastern Connecticut region, WRTD operates four fixed routes: 671 Willimantic City Bus, 672 Storrs-Willimantic, 673 Willimantic-Norwich (Route 32), and 674 Willimantic-Danielson. It operates demand-response transportation services for a nine-town region, including Windham and Lebanon within the SCCOG region.

Estuary Transit District is based in the RiverCOG region and operates 5 routes. Within southeastern Connecticut Route 643 serves Old Saybrook, Lyme, East Lyme, travels through Waterford, and terminates at the Union Station in New London. Estuary Dial-A-Ride provides transportation to both the general public and ADA certified riders from door to door anywhere within the towns of Chester, Clinton, Deep River, Durham, Essex, East Haddam, Haddam, Killingworth, Lyme, Old Lyme, Old Saybrook and Westbrook, with limited portions of Middletown and Colchester served by Dial-A-Ride, provided they start or end in one of the twelve towns listed. Service improvement recommendation of the 2020 service study include expanding the span of service hours, new Sunday service, increasing frequencies, improving transfers between routes and consolidating Estuary and Middletown Transit districts. Estuary Transit also provides XtraMile demand response service in Middletown and Old Saybrook 12-8 pm Monday-Wednesday and 12-10 pm Thursday – Saturday.

CTTransit provides very little service within the region. It makes stops in Colchester (route 914, 9 per day) and Windham (route 918, 8 per day) with express bus service to Hartford.

#### 4.5. Paratransit

Meeting the transportation needs of the poor and elderly, paratransit continues to pose one of the region's most perplexing transportation challenges. This is due largely to the costs of maintaining a system characterized by so much fragmentation and duplication of service as well as the number and types of agencies owning and operating vehicles and the narrow purposes and clientele served.

Historically, efforts to address this problem have met with limited success. This is especially true in the area of transportation for senior citizens, which, beginning in 1970, evolved exclusively at the municipal level. It is also true for the distribution of Federal Transit Administration capital funds for elderly and handicapped vehicles, although agencies which coordinate or combine with other agencies are generally the first to be awarded vehicles.

In order to address the problem of regional coordination of paratransit, a public and private partnership was formed in 1992. At its formation, the Eastern Connecticut Transportation

Consortium, Inc. (ECTC) consisted of the major private and public funding agencies that agreed to revise their practice of underwriting the cost of vehicle replacement for individual health, social service and senior citizen agencies and, when possible, to redirect those funds to a single operating agency, ECTC. Under this single operator model, paratransit, like regular transit in southeastern Connecticut, was expected to be reasonably well coordinated. SCCOG is a major supporter of ECTC and the concept of a single operating agency for paratransit. SCCOG continues to view the development of a unified, regional, paratransit system to be of vital importance to the region. At present, SEAT subcontracts with ECTC to operate paratransit service under the Americans with Disabilities Act (ADA) as well as to coordinate the Jobs Access Reverse Commute Program for all of eastern Connecticut.

ECTC continues to act as both as a transportation broker and a provider. Partnerships have been formed with municipalities and taxi/livery providers throughout eastern Connecticut. This was done in an effort to provide greater transportation and reduce transportation gaps for low-income, elderly and disabled individuals. ECTC has also implemented programs to reduce taxi and livery costs through a travel voucher program, mileage reimbursements to low-income individuals to assist with carpooling, and a Caregiver mileage reimbursement to encourage family and friends to help transport others in their community in need. ECTC also implemented a Bike Voucher component to Rides for Jobs (Welfare to Work program).

This Bike Voucher program serves low-income individuals that either reside within three miles of a public bus route, or their employment transportation need is within a three mile radius of their residence. This enables individuals an alternative to costly car ownership or taxi expenses and dramatically reduces their transportation costs. The program provides a new bicycle, safety equipment, and information.

### [Jobs Access and Reverse Commute Program](#)

Since 1999, coordination of transit resources in all of eastern Connecticut has been a top priority of SCCOG and the Eastern Connecticut Workforce Investment Board (EWIB), as regions around the nation address the need to provide transportation to those getting off public assistance and in need of job training as well as day care for their children.

The Jobs Access and Reverse Commute Program (JARC) utilizes a variety of federal, state, and private funding sources to identify individuals in need of employment as well as employers in need of labor. Overall, this cooperative effort is commonly referred as the “to”, in the Welfare-to-Work program. Large employers in the southeastern region with difficult-to-fill second and third shift employment needs have proven an invaluable employment resource willing to hire welfare recipients with minimal job experience. Working cooperatively with transit providers, new transportation services have been initiated that link northeastern Connecticut, Windham County, and southeastern Connecticut.

## 4.6. Ride Sharing

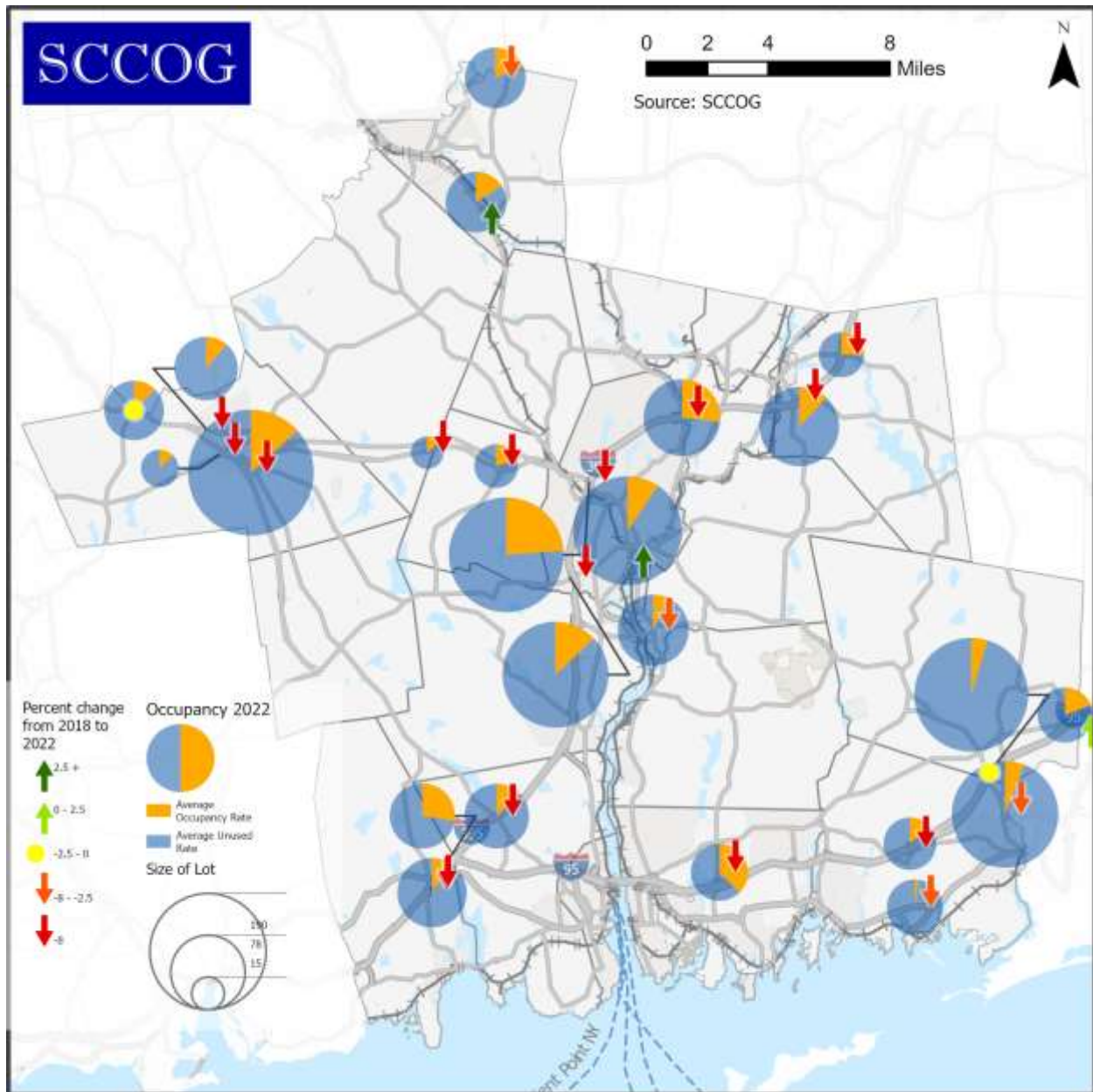
Ridesharing has several benefits -- it reduces congestion and congestion-related emissions, it also reduces transportation costs for workers, parking costs for towns and employers, and can increase transportation alternatives to those without access to a vehicle or in areas without transit.

The traditional model of ridesharing relied upon public, free parking in accessible locations where one might meet a bus or other carpoolers. To this end, there are 24 CTDOT park and ride lots within the region. Quarterly evaluation of the region's commuter parking lots by SCCOG shows considerable variation in utilization as well as in the amenities provided. These amenities can include any combination of paving, lighting, telephones, shelters and bus service. Lots vary greatly in size, from 15 to 223 parking spaces, with occupancy rates between 4% and 27%. Lot utilization at almost all lots declined since 2018. Commonalities among well utilized lots include: proximity to a limited access highway (typically either I-95 or I-395), lighting, bus service, and adjacent land use that takes advantage of the parking facility. Figure 12 depicts usage in the region's 24 commuter lots which provide a total of 1,836 spaces.

A few of these lots are situated where they can be utilized for other, non-conflicting parking needs, for example trail parking for the Airline State Park or at municipal recreation fields. This is a smart siting choice because it limits overall impervious surface and drainage required for parking while increasing security by having a higher and more consistent flow of traffic throughout the day. 2021 ACS data reports that within southeastern CT, only 9.1% of those surveyed reported carpooling for their journey to work mode.

Occupancy at several lots is consistently high, but most are underutilized. This may be due to changing demographics since the lots were originally installed and because some lots are not optimally located. Several trends impact the utilization of commuter lots. Increased car ownership has reduced the number of people who rely upon a shared ride; the vast majority of households in the region have at least one car. People enjoy the convenience of having individual cars. Women make up a greater share of the workforce now compared to the 1980s; today they constitute 47% of the total U.S. labor market (U.S. Department of Labor). When a breadwinner is also responsible for household tasks, vehicle trips become more complicated. For most commuters a trip chain consists of many destinations: coffee shop, daycare, school, dry cleaning, groceries, and medical appointments in addition to work. Complex trips require flexibility and cargo space. Employers have located office sites in suburban locations to follow lower taxation and have increased work hour flexibility. These trends pose a challenge when employees attempt to fill a 6+ person vanpool going to the same employment location at the same start time. Flexible work hours limit the pool of commuters starting and ending at the same time, work flexibility increased during the pandemic and is a highly sought after "perk." All of these factors speak to the inconvenience of ridesharing.

FIGURE 12. COMMUTER LOT USE, 2018-2022.



There are however, some innovations which make ridesharing more attractive. CT DOT provides ridesharing services through their CTRides program. Services include opportunities that enable non-single-occupancy trips: carpool matching, access to formal vanpools, guaranteed ride home, transit universal passes for students, and transit locator app programs. Within the region, relative lack of transit and disbursement of employment are major reasons why ridesharing is not preferred by more commuters, particularly for 2<sup>nd</sup> and 3<sup>rd</sup> shift workers.

Uber, Lyft, Zipcar and other car sharing companies are creating a new marketplace for ride sharing. Commuters use these serviced on a daily basis to avoid parking shortages and cost, or for sporadic trips such as medical rides or multimodal trips. Uber and Lyft have also effectively

encouraged commuters to share their car by offering financial incentives and seamless matching and payment systems. This new model of transportation is competing with traditional taxi operators.

While the convenience and flexibility of car ownership makes single-occupancy vehicles the dominant trend, SCCOG still sees a role for the public sector to play in encouraging ridesharing. Within the region, data collection and planning studies indicates that additional satellite parking in Groton and New London would most likely be utilized based on increased employment within the manufacturing and engineering sectors and parking availability. Maintenance and improvement of lots, including transit pull-outs, signage, lighting and security should be pursued. Providing quick, reliable and frequent transit connections from satellite parking lots to major employers would reduce local network congestion at employment sites; however, the current lot locations are not well served by transit. Further, private parking facilities are not included in this analysis, but these could be an opportunity in the region, furthering the implementation of the SCCOG's Congestion Management Process. The SCCOG continues to coordinate with Electric Boat on shifting demand from single-occupancy vehicles to ridesharing.

#### 4.7. Rail

Regional (Amtrak) and commuter service (SLE) run on the Northeast Corridor. The region has rail stations in New London, and Mystic. SLE commuter service runs between New Haven and New London while Amtrak stops at both New London and Mystic. The Northeast Corridor was the subject of the recent NEC Future study. The study failed to resolve the many conflicts for the proposed bypass from Old Saybrook, CT to Kenyon, RI which would prevent construction; and public opposition to the bypass meant that the final plan did not issue recommendations for any major new rail routes through eastern Connecticut. SCCOG and its member towns support state of good repair and speed and service enhancements on the existing alignment. The federal Record of Decision on the NEC Future study requests an interstate planning effort for the portion of the Northeast Corridor between New Haven and Providence.

New London and Mystic stations receive Amtrak trains daily, with New London seeing roughly twice as many trains as Mystic. The high-speed Acela no longer serves New London. The lack of coordination from FTA and CTDOT with the region on these changes speaks to the need for a rail study.

Parking at the existing rail stations needs improvement and is a State priority for SLE stations. Most commuter rail stations along the line have state funded parking; typically free surface lots or paid structure parking. In New London, the municipally owned and operated Water Street garage holds 250 vehicles adjacent to the rail station. This garage is insufficient to meet the

growing needs of the community. The garage provides permit parking for nearby employers, tourists utilizing the Block Island Ferry, and is expected to be further utilized by visitors to the U.S. Coast Guard National Museum which is under construction adjacent to Union Station. In Mystic, the 40-space surface lot adjacent to the rail station is utilized by adjacent commercial properties as well as rail passengers. Current State priorities also include enhancing Shore Line East stations. New London's Union Station is privately owned; however, ADA enhancements at the station will be undertaken within this MTP term. Mystic's station is a public building and improvement is necessary to bring the facility in line with Americans with Disabilities Act standards.

Currently SLE service consists of ten westbound weekday trains and eleven east bound trains. Eight trains run in both directions on the weekends. SLE's current minimal schedule does not offer the flexibility to be a competitive mode compared to single occupancy vehicles. Almost half of weekday trains are cross listed Amtrak trains; these are available at commuter rates only to monthly rail pass holders. Service to New London was improved after the post-pandemic return to service, however service for points west of Old Saybrook has not fully recovered. SLE could be defined as "New York focused" with trains connecting to make Grand Central Terminal their final destination; however, Providence and Boston employment centers are as significant. That is why one of SCCOG's priority is to better link to the MBTA network that extends to Wickford Junction in Rhode Island; providing access to Providence international airport and greater Boston.

CTDOT is studying the feasibility of extension of SLE service ([Eastern Connecticut Rail Transportation Study](#)) to Westerly Station and new service from New London to Norwich. Recommendations from that study will be included in subsequent updates of the MTP. New London continues to seek funding for expansion of the Water Street Garage and the addition of a pedestrian bridge serving the garage, rail station, ferry terminals and the U.S. Coast Guard National Museum, among other project elements.

Freight rail operates along the New England Central Railroad, Providence and Worcester Railroad, the Northeast Corridor and a small connecting spur owned by CT DOT.

A 2014 TIGER grant funded rail and track infrastructure upgrades to accommodate national standard 286,000-pound (286K) gross weight rail freight cars on the 55 miles of track in eastern Connecticut, enabling growth in freight rail and intermodal commerce between the Port of New London and the freight rail hub in Palmer, Massachusetts. Rail upgrades were completed in late 2018. The SLE study mentioned above will analyze the additional facility needs if the New England Central Railroad or the Providence and Worcester Railroad were utilized for new commuter service to Norwich.



## 4.8. Air

Connecticut's public airports are managed by the Connecticut Airport Authority (CAA). Southeastern Connecticut is home to two airports: Groton-New London Airport (KGON) and Windham Airport (KIJJ).

Windham is the smaller of the airports, and is situated on 280 acres located three miles from Windham's urban core, Willimantic. It is convenient to UCONN Storrs campus as well as the smaller Eastern Connecticut State University in Windham. It is open to small and medium size general aviation aircraft as serves corporate, business and recreational private flights. Two asphalt runways span 4200' and 2700' respectively. The airport facility includes a T-hanger and parking aprons and has maintenance and repair facilities. It was originally purchased in 1923 and was known as Kirby Flats. In 1938, the runways were paved as part of a Works Progress Administration initiative. In 2013, administration of the airports passed from CT DOT to the Connecticut Airport Authority.

Groton is the larger airport, standing on 489 acres in the Town of Groton. The runways are 4,000 and 5,000 feet long and the control tower is operational between the hours of 7:00 AM and 10:00 PM. The distinction of having manned control tower hours has set this airport apart from other general aviation airports in the state. KGON is the busiest general aviation airport in the state according to CAA. The airport serves recreational, corporate, military and student instruction flights travelers primarily. Major corporate users of KGON include Pfizer and Electric Boat, as well as Foxwoods and Mohegan Sun.

The Groton airport was established as the first State-owned airport in 1929. Originally named Trumbull Airport after Governor Jonathan Trumbull, the name was changed to Groton-New London Airport in 1980. Operation of the Airport was transferred to the United States Navy during World War II. The Navy built the runway and taxiway system before the State resumed ownership in 1949. The Airport is now one of six State airports operated by the Bureau of Aviation & Ports in the Connecticut Department of Transportation (CT DOT). Groton-New London Airport has held a Federal Aviation Administration (FAA) certificate to operate commercial passenger service since 1984. It currently holds a FAA Part 139, Class IV Airport Operating Certificate for unscheduled service of large air carrier aircraft. Historically, several commercial airlines operated at the Airport. The most well-known was Pilgrim Airlines based in Groton during the 1970s and 1980s. Later, U.S. Airways flew commuter service shuttles to and from Philadelphia until 2003. After the 2008 global economic downturn, total flight operations declined for general aviation airports like KGON while the number of passengers traveling on corporate-owned and/or operated air shuttle aircraft and planes based at the Airport remained flat. Since the CAA has taken over management, this airport has begun to thrive. Groton has designated an enterprise zone surrounding the airport, enabling employers to leverage tax incentives to locate within the zone.

At KGON, the tenant facilities at the Airport include passenger lounges, jet pods, multi-use hangars, individual T-hangars and a restaurant. Current services include aircraft sales and refueling, airplane maintenance and repair, avionics, rental car, rental aircraft and flight instruction. The Army National Guard's east coast helicopter repair facility and the corporate world headquarters of a water crash survival training firm are also located at the Airport.

## 4.9. Marine

The region's coastline abounds with harbors and inlets used extensively by pleasure and commercial craft of all types and sizes and which support the region's tourism industry. A small commercial fishing fleet exists in Stonington harbor and a day-charter fleet sails from Niantic and Mystic. The Thames River estuary between New London and Groton serves as the region's major port supporting ferry, breakbulk cargo, wind turbine assembly, and marine manufacturing in addition to the many private marinas. It is one of three deep water ports in Connecticut, and the closest to the Atlantic Ocean. The Thames River can support heavy marine traffic from its mouth on Long Island Sound to its head at Norwich.

Regular commercial ferry service sails from New London to Fishers Island, Block Island and Long Island. Cross Sound Ferry operates both the Long Island and Block Island routes with eight regular ferries that carry vehicles as well as passengers and two high-speed catamarans providing service for passengers only. Service from New London to Orient Point consists of 14 round trips daily with some seasonal variation. The Sea Jet has two round trips and Block Island Express high-speed service offers up to six round-trips per day. Fishers Island Ferry provides up to seven round-trips per day. All ferries permit bicycles, typically for a fee. Freight service is also available on all routes, but no car service is currently available from New London to Block Island provided to Block Island from New London currently.

The Admiral Shear State Pier in New London and the adjacent Genesee and Wyoming Railroad Pier are the region's most important commercial marine facilities, boasting a 34.5 foot depth. The facility includes a 20-acre laydown area, 100,000 square feet of warehousing space and cargo management services. The Connecticut Port Authority has signed a lease with off-shore wind developer Ørsted to enhance the pier, increasing the laydown area by filling the space between the two piers and reinforcing the pier for heavy loads. Break bulk cargo use will continue, however, the area accessible for freight will be significantly reduced. Covered cargo space is also expanding under the ongoing project. Ørsted will hold the lease for ten years, with an option to renew.

The Genesee and Wyoming Pier was modified to accommodate improvements at the Admiral Shear State Pier. Rail access is provided to warehousing space, however, the tracks stop short of the pier itself. The pier was previously utilized for break-bulk marine freight, that use will be

limited by the long-term lease of the Admiral Shear State Pier to Ørsted for wind turbine manufacturing and staging. Access is being maintained for intermodal transfer.

New London and Cross Sound Ferry seek to improve the Ferry Pier bulk head and piers, and build a new passenger terminal and pedestrian access over the AMTRAK line in conjunction with the construction of the National Coast Guard Museum. Water taxi service is provided seasonally between New London and Groton. The Thames River, with its direct access to Long Island Sound and the Atlantic Ocean is one of the region's greatest natural assets. Maintaining adequate channel depth, through dredging, is a high regional priority that supports the function of U.S. Submarine Base in Groton and enables the region's marine shipping.

## 5. Technology

### Autonomous Vehicles and Connected Vehicles

Autonomous cars will soon be available to the general public. Various automakers have software and sensors on board which enable the car to navigate with little to no assistance from the human behind the wheel. Regulations regarding these vehicles have yet to fully embrace the opportunity that they pose, or deal with the challenges. Autonomy currently ranges from lane departure sensors that alert the driver that they are not staying in lane to fully autonomous buses and freight vehicles. In 2018, the State of Connecticut solicited applicants for the Fully Autonomous Vehicle Testing Pilot Program (FAVTPP). In early 2023, CTDOT will deploy three automated and electric buses on CTfastrak, a 9.4-mile limited-access busway linking New Britain and Hartford. In 2020 CTDOT received \$2M in Federal Transit Administration (FTA) funds through the Integrated Mobility Innovation program for the project, matched with \$500,000 in State funding. New Flyer, Robotic Research, the University of Connecticut, and the Center for Transportation and the Environment are partners to CTDOT on the project.

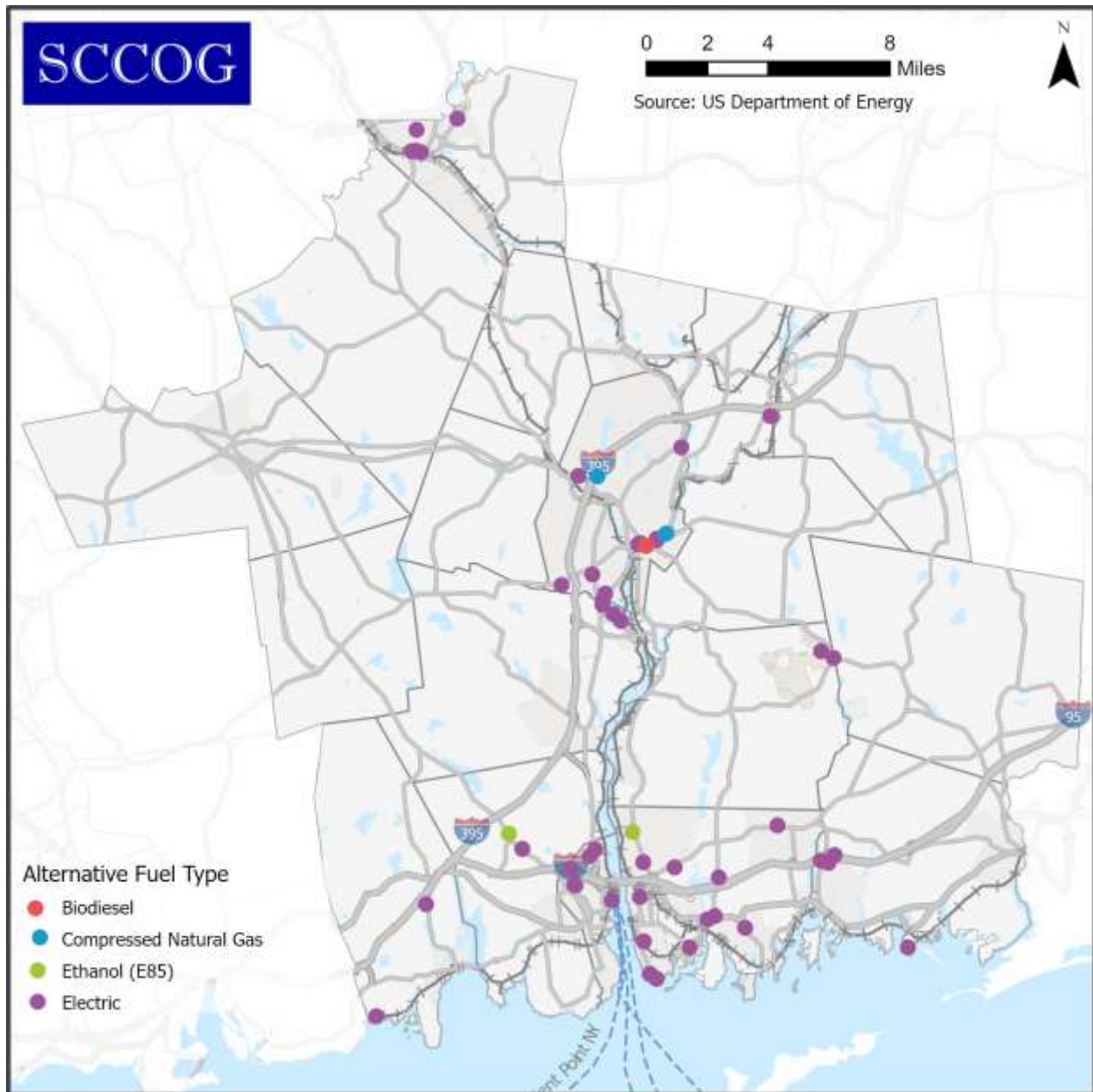
CTDOT anticipates numerous benefits from automated bus service, including improved rider comfort from more reliable headways as well as more consistent acceleration, deceleration, and approaches at transit stops. The agency could also gain operating efficiencies through platooning and reduced maintenance costs.

Connected vehicles refer to vehicles that use communication technologies to communicate with the driver, other cars and roadside infrastructure. This blossoming technology will enable this region to more efficiently utilize the public right of way. Several projects in the MTP project list will employ connected vehicle technology to allow for transit and emergency vehicle priority, and dynamic, adaptive congestion management. Connected vehicle technology relies upon 5G and fiber optic infrastructure improvements and it will take a considerable amount of time before the infrastructure is widespread in this region.

### Alternative Fuels

Alternative fuels reduce dependence on foreign sources of oil products and can reduce emissions. Within southeastern Connecticut, biodiesel, compressed natural gas and ethanol are available in at least one location for each fuel type. The U.S. Department of Energy maintains a location map of the refueling locations for all types of fuel (see Figure 13). Electric charging station availability is outpacing other alternative fuel options.

FIGURE 13. ALTERNATIVE FUEL TYPE (U.S. DEPT. OF ENERGY).



Electric cars are being adopted by consumers more broadly than other alternative fuel vehicles. The prevalence of EV charging stations allows consumers to have confidence that they will not be left stranded when their trip length exceeds their electric vehicle's range. Available models in the United States have ranges from 100-335 miles. Figure 13 shows the availability of EV Charging Stations within Connecticut. EV Charging Stations are provided in both public and commercial settings, primarily along the interstate routes. The map does not show private residential charging stations, but it can be assumed that the majority of EV owners will have charging capacity at their residence. Station availability is a significant barrier to greater utilization of electric vehicles. Within this region, EV owners may have reduced confidence that

a charging station will be available when they need it, particularly in less urban areas and away from I-95. Installation of EV charging in multi-family residential developments is an emerging land use concern involving liability, ownership, and cost burden that will need to be addressed. Electric vehicle demand is strong and is supplemented with federal and state tax rebates. IN 2022 PA 22-25 established a new program subsidizing the purchase of e-bikes which, like alternative fuel vehicles, can reduce emissions.

Compared with gasoline powered cars, electric vehicles convert at least 40% more power from electric batteries than gasoline, according to the U.S. Department of Energy. Using electric vehicles can be far more efficient if consumers are purchasing green, efficient power. Further penetration of residential solar and onsite power storage (“power banks”) offer new opportunities to further reduce emissions and dependence on oil. As manufacturing and military employment sectors grow and EV cost decreases, it is likely that demand in this region would support additional EV charging stations. Federal NEVI and State EV roadmap programs installing EV charging locations currently focus on the areas surrounding limited access highways. Since the 2019 MTP, two new TESLA charging stations, offering the highest tier (III) charging facilities have opened in New London and Stonington.

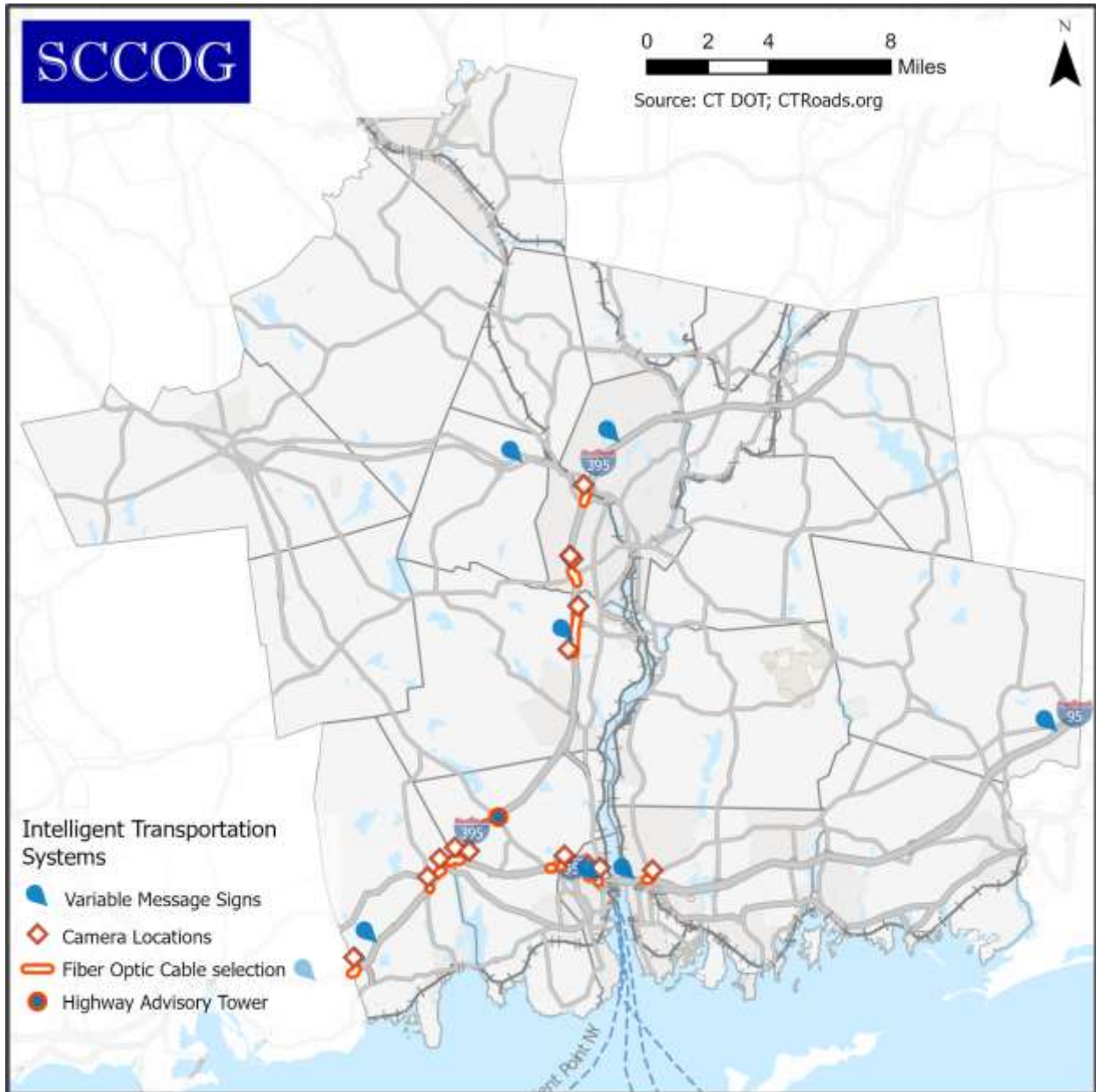
Federal incentives for EV charging stations have expired. At this time, Connecticut offers incentives for installation of EV Charging Stations through utility companies; the neighboring states of Rhode Island, New York and Massachusetts offer incentives primarily through the State government and public utilities. Connecticut is a beneficiary of the Volkswagen Diesel Emissions Mitigation which provided \$55 million dollars toward offsetting excess NOx emissions (related to non-compliant vehicle emissions). Within that mitigation program, the region received over \$900,000 in grants for engine efficiency upgrades to the Block Island Express.

### Intelligent Transportation Systems

Intelligent Transportation System (ITS) is the application of sensing, analysis, control and communications technologies to ground transportation in order to improve safety, mobility and efficiency. Within the region, the ITS infrastructure is primarily limited to the Interstate system, as seen in Figure 14. This data is utilized by CT DOT highway operations as well as being available to the general public through their website. Along I-95 and I-395, traffic cameras survey traffic and weather conditions in real time. Cameras are located in the towns of Norwich, Montville, East Lyme, Waterford, New London, and Groton. Expansion of the camera inventory should include Route 2 and 11 expressways, as they perennially see weather related incidents in the winter and experience high levels of beach traffic in the summer. The State inventory of fiber optic cable is limited and is co-located with the camera infrastructure. In the future, fiber optic cable will enable connected vehicle technologies such as platooning plows and connected and autonomous cars. The fiber optic inventory within the State roadways and local roads has not been inventoried.

Within the region, only one Highway Advisory Radio Tower exists, on I-95 in Waterford near exit 82. It airs on frequency AM 1670. Additional towers in East Hartford, Old Saybrook and Rocky Hill may be heard in the region on channels 530 or 1610. These towers provide service advisory information for roadway users.

**FIGURE 14. INTELLIGENT TRANSPORTATION SYSTEMS.**



## 6. Homeland Security and Disaster Preparedness

Following the 9/11 terrorist attacks of 2001, transportation security and disaster preparedness measures were expanded and enhanced throughout the United States. This is especially significant in the southeastern Connecticut region, which is home to several military installations, a nuclear power plant, a manufacturer of nuclear-powered submarines, two of the state's five General Aviation airports, one of the state's three deep water ports, a multi-modal transportation center, and the state's longest highway bridge. While planning for security and disaster preparedness occurs at specific facilities which are critical to the nation's national defense and the region's economy, the region is positioned to make these facilities and the transportation systems that serve them less vulnerable and more secure from both natural and man-made disasters.

As the region's MPO, SCCOG does not have primary responsibility, but coordinates with a number of partners, to ensure that all transportation modes in the region are safe and secure. In the event of disaster, minimization of travel disruption will enable emergency response and evacuation.

The following provides a brief description of those agencies which act together to secure the various modes of travel in southeastern Connecticut.

- Air – Security on airplanes falls under the jurisdiction of the federal government and individual operators serving an airport. Security for Groton-New London Airport is shared by the operators, the CT Airport Authority and the federal government.
- Rail – Passenger rail security is handled by AMTRAK and CT DOT for Shoreline East.
- Water – Security for the Port of New London is overseen by the CT Port Authority, the port and vessel operators, as well as the United States Coast Guard, which has a station in New London. Security at the U.S. Naval Submarine Base is overseen by the U.S. Navy.
- Road and Highway – Security is handled by Connecticut State Police, CT DOT, or local police, depending upon the responsibility for the particular road, and these agencies work together to secure and prepare for disasters. Diversion plan updates are carried out by CTDOT Operations with coordination from MPOs, municipalities and Regional Emergency Planning Teams. Strategic Highway Network planning and updates are coordinated between CTDOT, military stakeholders and the MPOs.
- Bus Transit – Security of the region's bus system is primarily the responsibility of the transit district, and law enforcement serving the municipalities which the transit system serves. During the pandemic, emergency policies such as masking and fare payment were coordinated at the state level with transit districts across the state.



Since 2007, SCCOG member municipalities have been members of and participated in the CT Division of Emergency Management and Homeland Security (DEMHS) Region 4 Regional Emergency Planning Team (REPT) along with the municipalities that make up NECCOG, along with Lyme and Old Lyme from RiverCOG, and the two federally recognized Native American Tribes located in southeastern Connecticut. The REPT is supported by Regional Emergency Support Functions (RESF). These RESFs are discipline oriented working groups that provide collaborative planning and resource support within each discipline. Each REPT is therefore made up of members from each municipality and two tribal governments in DEMHS Region 4, as well as each emergency management discipline. A SCCOG member municipality chief elected official has served as the Region 4 REPT chairman since the REPT's inception, and the SCCOG has administered the homeland security grants that flow to Region 4 in its role as REPT fiduciary. Grants fund training and equipment that assist the region's emergency responders in securing the region's transportation systems and planning for the disruptions caused by disasters.

In addition to its homeland security planning and preparation, SCCOG has conducted a number of natural hazard planning efforts which inform the security of and disaster preparation for the region's transportation system. In 2023, SCCOG will complete the SCCOG [Hazard Mitigation and Climate Adaptation Plan](#), its most recent update to the SCCOG multi-jurisdictional hazard mitigation plan. The stated purpose of a hazard mitigation plan is to identify natural hazards and risks, existing capabilities, and activities that can be undertaken by a community to prevent loss of life and reduce property damages associated with identified hazards. Additionally, this plan will set policy and actions for adapting social, ecological, infrastructural, or economic systems to respond to, and manage, risks from climate change. The Disaster Mitigation Act of 2000 requires local communities to have a FEMA-approved mitigation plan in order to be eligible to receive funds in the Hazard Mitigation Assistance (HMA) family of FEMA grant programs. These include the pre-disaster Building Resilient Infrastructure and Community (BRIC) and Flood Mitigation Assistance (FMA) grant programs, as well as the post-disaster Hazard Mitigation Grant Program (HMGP).

In 2017, the SCCOG prepared a Critical Facilities Assessment, an assessment of 18 community facilities located in or near flood zones critical for ongoing public services, including fire and police stations, town halls, and departments of public works. The assessment identifies the risks to properties and service continuation from flooding, wind damage, and snow loads now and over the next several decades. While the study did not directly make recommendations regarding the region's transportation systems, when implemented, the recommendations included in this report will result in more secure critical facilities, all of which are instrumental to and act to support the municipal governments that comprise the region's MPO, and which will indirectly make the region's transportation system more secure.

Disaster recovery planning occurs at all levels of government: federally, statewide, regionally, and locally. Disaster recovery planning is most beneficial prior to a disaster event and includes

the members from the whole community. SCCOG participates in this type of planning through its participation in the Region 4 REPT.

## 7. Air Quality

In nonattainment and maintenance areas for transportation-related pollutants, the MPO, as well as the FHWA and the FTA, must make a conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and the EPA transportation conformity regulations (40 CFR part 93). During a conformity lapse, MPOs can prepare an interim metropolitan transportation plan as a basis for advancing projects that are eligible to proceed. An interim metropolitan transportation plan consisting of eligible projects from, or consistent with, the most recent conforming transportation plan and TIP may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93. An interim metropolitan transportation plan containing eligible projects that are not from, or consistent with, the most recent conforming transportation plan and TIP must meet all the requirements of this section (23 CFR Part 450§324(m))<sup>xv</sup>.

The Clean Air Act Amendments of 1990 (CAAA) established a requirement that all long-range transportation plans, Transportation Improvement Programs (TIPs), and projects conform to the air quality goals set forth in the State Implementation Plan (SIP). Conformity to a SIP means that such activities will not cause or contribute to any new violations of the National Ambient Air Quality Standards (NAAQS); increase the frequency or severity of NAAQS violations; or delay timely attainment of the NAAQS or any required interim milestone. Connecticut contains nonattainment areas for ozone and maintenance areas for carbon monoxide and particulate matter (PM<sub>2.5</sub>). The MTP, through the conformity process, certifies that projects modeled will comply with the NAAQS standards. Additionally, the CAA requires Transportation Management Areas (TMAs) to demonstrate compliance with the congestion management process.

The Clean Air Act and its regulations created six non-conformity categories that were related to the date to which conformity must be achieved. These are: Extreme (2010); Severe (2007); Severe (2005); Serious (1999); Moderate (1996), and Marginal (1993). Southeastern Connecticut is designated as “serious” non-attainment with respect to the 8-hour ozone ambient air quality standard. Southeastern Connecticut is designated as attainment with respect to PM<sub>2.5</sub>. The Clean Air Act requires that the transportation plans in such non-attainment areas must conform to air quality plans.

The U.S. Environmental Protection Agency’s (EPA) transportation conformity rule applies only to areas designated as being non-attainment or maintenance for transportation-related criteria pollutants such as oxides of nitrogen, volatile organic compounds, carbon monoxide, and particulate matter. The conformity rule established the regional emissions analysis as the tool for determining emissions from the Regional Transportation Plans and TIPs. In regional emissions analysis, the effects of regionally significant projects are analyzed, then their emissions effects summed. The results of the regional emissions analysis are used to perform

the conformity test of plans and TIPs. The most recent conformity analysis has been completed. (January, 2023). Only interim MTPs, consistent with the most recent conforming transportation plan and TIP, may proceed immediately without revisiting the requirements of this section, subject to interagency consultation defined in 40 CFR part 93.

As part of the legal process of adopting the Metropolitan Transportation Plan, the MPO must certify conformity of the plan with air quality standards. The federal rule imparts greater responsibilities to Metropolitan Planning Organizations (MPOs) in the development of transportation plans and TIPs and for the selection of federally funded highway and transit projects. The rule includes a requirement that plans and TIPs be fiscally constrained. It also made provisions for project prioritization, public participation, and interagency consultation. The CAAA included the transportation conformity requirement to ensure that transportation plans, TIPs, and projects conform to national air quality standards. If transportation plans, TIPs, and projects do not conform to the emissions projections of the SIP, then they cannot be approved or funded until they are revised to do so.

Attainment of the NAAQS will require the adoption of strategies such as DEEP's anti-idling initiative, which seeks to reduce idling through enforcement of the DEEP's 3-minute idling limit regulation, and the DEEP's diesel retrofit program, which seeks to reduce diesel emissions through retrofitting emission controls on diesel truck and bus fleets. The MTP identifies various highway and transit projects aimed at the reduction of congestion, which will also reduce emissions.

## 8. Public Participation and Consultation

As the MPO representing southeastern Connecticut, SCCOG’s transportation planning activities are subject to self-prescribed policies for ensuring opportunity for involvement from public individuals and groups. Guided by SCCOG’s [Public Participation and Consultation Process for Transportation Planning](#)<sup>xvi</sup> revised in 2020, and [Title VI and Limited English Proficiency \(LEP\)](#) policies, this Metropolitan Transportation Plan sought public input and input from consulting organizations and agencies at different stages of its formulation. SCCOG’s public participation and consultation process meets or exceeds similar requirements under the Connecticut General Statutes and the Bipartisan Infrastructure Law (BIL).

The goal of a strong public participation and consultation process is to ensure that programs and policies developed by elected and appointed officials are responsive to the objectives and values of the citizens affected by such programs and policies.

### Public Participation and Consultation in the Metropolitan Transportation Plan

The MTP public participation and consultation process is in accordance with SCCOG’s policies.

**TABLE 8. SCCOG MTP PUBLIC PARTICIPATION AND CONSULTATION PROCESS .**

Information Availability and Transparency <sup>xvii</sup>	Documents	Plan documents are available SCCOG’s website.
	Website	The MTP documents are permanently housed under Transportation Documents. Public Hearing notice and documents for review will be placed on the website homepage. <a href="http://www.seccog.org">www.seccog.org</a>
	Social Media	Notification of the Public Hearing and Comment Period will be made on the SCCOG Facebook page <a href="https://www.facebook.com/SeCTCOG/">https://www.facebook.com/SeCTCOG/</a>
	Public Comments	All comments received in the public comment window will be printed in the MTP, with attribution and how the comment was addressed.
	Meetings with Staff	Staff are available to the public to discuss transportation topics including the MTP.
Consultation	Affiliate Members	SCCOG Member Municipalities Mohegan Tribal Nation Mashantucket Pequot Tribal Nation United States Coast Guard Academy United States Naval Submarine Base New London

	Other Consultation	<p>Federal Agencies - Federal Highway Administration and Federal Transit Administration</p> <p>State Agencies– Department of Transportation, Department of Energy and Environmental Protection, Office of Policy and Management, Department of Economic and Community Development</p>
	Direct Mailing	<p>Title VI and LEP stakeholders</p> <p>MTP Stakeholders<sup>xviii</sup> - representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties</p>
Public Hearings and Informational Meetings	Opportunity for comment	<p>A 30-day public comment period will be afforded for the Long-range Transportation Plan (MTP), the State and regional Transportation Improvement Program (STIP/TIP), and the Air Quality Conformity Statement. A public hearing will be held during the public comment period. Comments will be received orally or via email.</p>
	Location/Time of the meeting	<p>Public hearings and informational meetings are held at a location and time considered to be convenient to the public, so as to optimize participation. In all cases, SCCOG staff ensure that accommodations are made for elderly and disabled persons.</p>
	Meeting notification	<p>Notification of all agency meetings will conform to the requirements of the FOIA. Legal notices of public hearings will be made in at least one newspaper with distribution throughout southeastern Connecticut, and posted to the SCCOG webpage and Facebook page, no fewer than five days prior to the hearing. Such notice will contain the time, date, location, and subject of the public hearing, and will make reference to the location of meeting materials. Further, special notification will be directly made to consulting agencies, as well as individuals and groups requesting such notification.</p>
	Content of the meeting	<p>The public hearing will be programmed to give an overview of the MTP, with presentations and visualizations that seek to maximize understanding of the MTP, and provide an opportunity for interested persons to speak.</p>

	Response to comments	SCCOG will incorporate comments on the MTP as appropriate, as well as provide written response to all comments.
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### Timeline for Outreach and Comment

June 2022: Request local staff MTP project list revisions prior to air quality modeling.

November 17, 2022: Presentation of MTP progress to regional planners.

February 3, 2023: Public comment period<sup>xix</sup> opens; public notification at The Day, [www.seccog.org](http://www.seccog.org) and on <https://www.facebook.com/SeCTCOG/>. Direct mailing to SCCOG affiliates, consulting agencies, LEP/EJ and other stakeholders.

February 15, 2023, 8:30 am: presentation at the SCCOG Board of Directors meeting.

February 16, 2023, 1:00 pm (Zoom) and 6:00 pm (Zoom): Public presentation and hearing.

March 7, 2023: Referral of MTP, as amended by comment, to the SCCOG Board by the Executive Committee. Revised MTP presented to Executive Board for referral to SCCOG Board.

March 15, 2023: Revised MTP presented to SCCOG Board for adoption.

### Comments on the 2023 SCCOG MTP

Comments were received during the comment period in oral and written format and are tabulated in Table 9 below. Comments are attributed to their author and are included as noted. The SCCOG approved the MTP as amended by inclusion and revision subject to the comments made. <sup>xx</sup> Any projects added as a result of public comment or stakeholder comment after June of 2022 will not have been modelled. A list of those projects will appear in Appendix A.

**TABLE 9. PUBLIC COMMENT RESPONSE.**

<b>Comments</b>	<b>Response</b>
<p>Allison Palmer for Bike Stonington See appendix C for full comments, comments are paraphrased below.</p> <p>[1] Clarification of e-bike trends.</p> <p>[2] Steady and increasing demand for biking and e-biking.</p> <p>[3] Rural areas experience latent demand due to a lack of facilities.</p> <p>[4] Survey method and outcomes.</p> <p>[5] Stonington is a tourism hub, it necessitates the construction of facilities, the construction of which has lagged based on demand.</p> <p>[6] Public information process clarification.</p> <p>[7] Goal and strategy specificity.</p> <p>[8] Funding priorities should be refocused on bike and pedestrian projects.</p>	<p>[1] Revised section 4.3. E-bikes are improving bike mobility. Also, existing bike facilities were built with lower design speed standards.</p> <p>[2] Acknowledged, Demand is also evident in ECTC's procurement of bikes from Walmart, indicating supply chain issues throughout the market.</p> <p>[3] Revise section 4.3, acknowledge challenges to providing safe infrastructure in rural areas and latent demand potential. Project programming considers Complete Streets, subject to local, state, and federal funding and will.</p> <p>[4] Tourism was not a predefined survey response; tourism would have been lumped into recreation, social, and health trip purposes. Tourism is addressed in section 4.1, Congestion, as revised. Within the right of way, vehicle lanes, parking, bike lanes, and sidewalks compete for finite space. Within individual projects, space is allocated based upon context-sensitive design, balancing users' needs as well as environmental and political factors. Parking management is appropriate when demand exceeds an operational level of supply.</p> <p>[5] Tourism is noted in 4.1.. Specific bike and pedestrian projects within Stonington include: . In the project list: (1) the Mystic Mobility Study Implementation would directly address parking, congestion, and transit in Mystic, (2) RT 1 Improve roadway... addresses speed, bike, and pedestrian accommodations in Pawcatuck, (3) Eastern Shoreline Path is a multi-use path from Pawcatuck to the Old Lyme border. An excel spreadsheet of the project list will be available online to further clarify the project locations and scope.</p> <p>[6] The Bike and Pedestrian Plan survey methods are identified in the Regional Bike and Pedestrian Plan, 830 responses to the survey from around the region. The public process for this MTP is identified in section 8 of this document. The SCCOG public information process is routinely reviewed and revised and subject to public and stakeholder input.</p> <p>[7] Acknowledged. The nature of a Metropolitan</p>



	<p>Transportation Plan encompasses all modes and purposes over a long term which doesn't lend itself to the level of specificity that you are asking for. SCCOG leans on our other planning processes to provide adequate specificity for our strategies, including the Regional Transportation Safety Plan, Regional Bike and Pedestrian Plan, Congestion Mitigation Process, Corridor Studies and other planning documents. Our performance measures, identified in section 3. provide continuity with MPOs across the nation and reflect national funding priorities.</p> <p>[8] Stonington (Mystic and Pawcatuck) is well-represented in our project list. The SCCOG guides available funding to the 22 municipalities and is required to utilize the funds to meet performance targets established in cooperation with the CTDOT as well as policies such as Justice40 which further direct our spending. SCCOG's collaborative project programming process is improved by grass roots input and support for locally and regionally important projects.</p>
<p>Leah Sirmin for FTA Be sure the MPO is addressing the required PTASP safety targets and performance information as part of the system performance report.</p>	<p>Table 7 addresses PTASP Transit Safety targets and performance</p>

## 9. Recommended Projects

Working collaboratively with CT DOT, the SCCOG has prioritized the major projects with regional and statewide significance. These will be briefly described below, prior to the full listing of recommended projects.

Many of these projects are on I-95. Previous planning efforts include the 2004 I-95 Branford to Rhode Island Feasibility Study (2004 Study). Since the production of that document, the CT DOT has begun a Planning and Environmental Linkages study of the corridor. Operational and safety improvements will be pursued as recommended by this PEL process.

### 9.1. Highest Priority Projects

#### I-95 Gold Star Bridge North Bound Rehabilitation

This project, currently underway, will ensure that the interstate bridge is able to provide a critical linkage in the Strategic Highway Network. The bridge is currently not able to accommodate permitted loads (super heavy). Permitted loads must detour to the Route 2A bridge between I-395 and Route 12. The three-phase project will strengthen the bridge, improve the deck, and provide added bicycle and pedestrian access. It is not clear at this time whether the improved bicycle accommodation will be on the north- or southbound span. Accommodation for bicycles and pedestrians remains a concern.

#### I-95 Route 32 Interchange (New London)

One anticipated outcome of the I-95 PEL process is a project to redesign the I-95/Route32 interchange to reestablish the connection of neighborhoods that were bisected during the development of the Interstate. Additional benefits would include traffic calming and improved non-motorist access on Route 32 and surrounding local roads. Reducing the footprint of the interchange may be possible, opening acres of potentially developable land.

#### I-95 Exits 71 and 72 (Old Lyme and East Lyme)

This project is an early product of the I-95 PEL process, therefore it is shown as a discrete project. Insufficient weaving distance between these two interchanges contributes to increased crash frequency and mainline congestion. The project will seek to reconfigure the two interchanges to reduce delay on the mainline and increase safety while maintaining local access and mobility which is critical for emergency response.

#### I-95/I-395 Interchange Reconfiguration (East Lyme and Waterford)

Reconfigure the current interchange to alleviate safety concerns resulting from frequent and left-hand merging conflicts and poor horizontal alignment. The I-95 PEL process will inform

future design of the interchange. The resulting design will also impact Route 1 and potentially Oil Mill interstate access due to their close proximity.

### I-95 Capacity and Safety Improvements (Branford to RI State Line)

Building upon the 2004 I-95 study, the I-95 PEL will recommend capacity and safety improvements for the mainline and ramp sections. Where necessary, additional through and operational lanes will be recommended as well as geometric improvements. The I-95 PEL process includes local and public outreach.

### Route 82 Norwich

Route 82 from the Old Salem Plaza to Fairmont Street is in design to address safety issues. This corridor has long been cited as a top safety concern in the region.

### Route 85 Salem, Montville and Waterford

Route 85 is a critical link between Route 11, I-95, and I-395. A project improving safety and drainage and reducing delay has been sought since the abandonment of a plan to extend Route 11 to I-95. The focus of this project will be Route 85 south of Route 82 and north of the I-395 interchange. Providing adequate accommodation for cyclists and pedestrians along this route should be included in any future projects as speeds and volumes will remain high in this corridor. Additionally, signalized and unsignalized intersections should be reviewed for safety and capacity throughout the corridor.

### Region-wide Bike and Pedestrian Improvements

The region will pursue pedestrian and bicycle recommendations identified in the 2019 SCCOG Regional Bike and Pedestrian Plan. These will be implemented both as stand-alone projects and as components of larger projects with diverse funding sources. SCCOG will leverage the CT DOT's Active Transportation Plan and the Regional Transportation Safety Plan to ensure project competitiveness. The Eastern Shoreline Path, a bicycle facility connecting the shoreline towns of the region, will be a major priority. Local Transportation Capital Improvement Program (LOTICIP) funds will extend access to the Airline State Park through the provision of sidewalks on Lebanon Avenue, in Colchester. In Ledyard, the library and high school will be connected by a multi-use path. Other LOTICIP projects around the region will include bike lanes or sharrows and sidewalks. The Transportation Alternatives (TA) program will fund bicycle and pedestrian facilities on New London Turnpike in Norwich.

### Shore Line East

Programmed improvements within this MTP include the electrification of track 6 in New London, which will allow the electric M8 rail cars to utilize track 6 and Amtrak trains to bypass the Shoreline East trains at the station. Additionally, Passenger Information Display Systems (PIDS) will be enhanced. The station's accessibility will be enhanced to bring it in line with the Americans with Disabilities Act. A study to investigate the feasibility of extending service to

Westerly, RI and providing passenger rail service along a new branch line from New London to Norwich is currently underway, managed by CTDOT. Recommendations from that study will be included in subsequent MTP updates.

### Bus Transit Improvements

SEAT, WRTD, and Estuary Transit District will build out facilities for the charging and maintaining electric buses. Buses bought within the term of this MTP are primarily anticipated to be electric, in line with the State's policy directive on system conversion.

## 9.2. FY 2023-2050 List of Projects

The Proposed 2023-2050 Transportation Project List (Tables 8 and 9) represents the long-range infrastructure investments supported by the SCCOG member municipalities for the term of this plan. This project list was generated in coordination with the CT DOT, transit districts, and municipal planning staff. The 2019 MTP project list was analyzed for continued need. New locally solicited projects were added. Projects of statewide significance and the approved capital plan were included. Funding source and construction completion schedules are estimates of anticipated available funding eligibility and project delivery. New London and Norwich projects were inadvertently been removed from the draft air quality model list; they were previously modeled for air quality in the 2021 MTP amendment. The projects are included within the 2023 SCCOG MTP project list identified in grey on the following table. This revision is consistent with their identification in the 2023 Air Quality Determination.

**TABLE 10. TRANSPORTATION PROJECT LIST, HIGHWAY PROJECTS.**

Transportation Project List: Highway								
Town(s)	Route/Street	Brief Project Description	Funding Source	1 to 4 (2023-2028)	5 to 10 (2029-2033)	11 to 27 (2033-2050)	Total Cost (000)	Nonfederal project cost
BOZRAH	Gager Rd	Bridge 05517 Rehab/Reconstruction	Fed		\$ 4,000,000		\$ 4,000,000	
BOZRAH	RT 163	Intersection modifications at Route 163 and Route 2 ramps	Fed				\$ 500,000	
BOZRAH	RT 612 (Fitchville)	Sidewalk improvement and extension	LOTICIP					\$ 1,893,500
COLCHESTER	RT 16 (Lebanon A)	Sidewalk Improvements and extension	LOTICIP					\$ 760,800
COLCHESTER	RT 2	Interchange improvements at Exit 17, add eastbound on-ramp	STP-U			\$ 10,000,000	\$ 10,000,000	
EAST LYME	Colony Rd	Replace Bridge 5623	Fed		\$ 10,000,000		\$ 10,000,000	
EAST LYME	East Pattagansett	East Pattagansett Road Sidewalk and Road Improvements	LOTICIP					\$ 1,250,000
EAST LYME	East Pattagansett	East Pattagansett Road Sidewalk and Road Improvements	Fed		\$ 1,250,000		\$ 1,250,000	
EAST LYME	RT 1	Intersection improvement	Fed		\$ 4,000,000		\$ 4,000,000	
EAST LYME	RT 156	Complete Streets Improvement	Fed		\$ 4,000,000		\$ 4,000,000	
EAST LYME	RT156	Congestion reduction, intersection coordination	Fed		\$ 2,000,000		\$ 2,000,000	
GRISWOLD	RT 138	Realign Rte. 201/Rte. 138 Intersection	Fed			\$ 1,000,000	\$ 1,000,000	
GROTON	Groton Long Point	Replace Bridge 4675	Fed		\$ 10,000,000		\$ 10,000,000	
GROTON	RT 1	Reconstruct from vicinity of intersection with Poquonnock	Fed			\$ 10,200,000	\$ 10,200,000	
GROTON	RT 1	Geometric improvement at intersection of Fishtown Road	Fed			\$ 1,000,000	\$ 1,000,000	
GROTON	RT 12	Intersection modification at Crystal Lake, Gungywamp and	Fed			\$ 3,000,000	\$ 3,000,000	
GROTON	RT 649	Improve South Road underpass The Bridge is currently 10	Fed			\$ 20,000,000	\$ 20,000,000	
GROTON	RT 649	Eliminate height limitation at Depot Road	Fed			\$ 10,000,000	\$ 10,000,000	
GROTON	TBA	Establish additional Park and Ride Capacity	Fed		\$ 500,000		\$ 500,000	
LEDYARD	Colonel Ledyard Rd	Multi-use path, from RT117 to the High School at Gallup Hill	LOTICIP					\$ 3,058,800
LEDYARD	RT 12	Whalehead Road intersection improvements	Fed			\$ 750,000	\$ 750,000	
LEDYARD/PRESTON	n/a	Tri-town trail	RTP					\$ 10,000,000
LISBON	RT 12 (River Road)	Sidewalks	LOTICIP					\$ 3,792,000
LISBON	RT 138	Realign and widen between Route 660 and Route 12 No r	Fed			\$ 4,500	\$ 4,500	
LISBON	RT 138	Reconstruct intersection with Route 169	Fed			\$ 3,000,000	\$ 3,000,000	
MONTVILLE	Route 32	Norwich-New London Turnpike Bicycle Path and Sidewalk E	LOTICIP					\$ 3,000,000
MONTVILLE	RT 32	Intersection congestion mitigation	Fed		\$ 2,000,000		\$ 2,000,000	
MONTVILLE	RT 32 (Norwich N	Sidewalks on Norwich New-London Tpke from Golden Rd t	Community Connectivity Grant					\$ 295,776
NEW LONDON	I-95	Gold Star Bridge Rehab Northbound (Phase 2)	Fed	\$ 135,000,000			\$ 135,000,000	
NEW LONDON	I-95	Close exit 84E to Williams Street	Fed		\$ 10,000,000		\$ 10,000,000	
NEW LONDON	n/a	Connect Waterfront park /FT Trumbull with a Multifuse path	unfunded					\$ 12,000,000
NEW LONDON	RT 32	I-95/Rt 32 Interchange and Rt 32 Corridor Improvments	Fed	\$ 50,000,000			\$ 50,000,000	
NEW LONDON	RT 641, RT 1	Dynamic signal control, access management, improve turni	STP-U		\$ 6,000,000		\$ 6,000,000	
NEW LONDON	RT 85 (Broad St), S	Roundabout	LOTICIP					\$ 3,217,958
NEW LONDON	SR 635 (Williams S	Hodges Square Streetscape	LOTICIP					\$ 1,784,400
NEW LONDON	Water St	New London Pedestrian Bridge and Public Access Project	Other Ear	\$ 24,860,000			\$ 24,860,000	

Transportation Project List: Highway								
Town(s)	Route/Street	Brief Project Description	Funding Source	1 to 4 (2023-2028)	5 to 10 (2029-2033)	11 to 27 (2033-2050)	Total Cost (000)	Nonfederal project cost
NORTH STONINGTON	RT 2	At Route 627, add left hand turn lanes from Route 2 onto M	Fed		\$ 225,000		\$ 225,000	
NORTH STONINGTON	RT 2	Bicycle and Pedestrian Improvements	STP NL	\$ 10,000,000			\$ 10,000,000	
NORWICH	Hunters Rd	Hunters Road Pavement Rehabilitation and Culverts Replac	LOT/CIP					\$ 4,000,000
NORWICH	I-395, new collect	Business Park North	Other Earn	\$ 4,500,000	\$ 15,000,000	\$ 9,500,000	\$ 29,000,000	
NORWICH	RT 12	TOD and streetscape improvements	STP		\$ 10,000,000		\$ 10,000,000	
NORWICH	RT 12, RT 2	Convert downtown circulation to two-way, convert chelsea	STP			\$ 40,000,000	\$ 40,000,000	
NORWICH	RT 82	Safety Improvements from Maple St to Fairmount St	STP	\$ 23,400,000			\$ 23,400,000	
NORWICH	RT 82	Safety Improvements from Old Salem Plaza to Mapel St	STP		\$ 19,705,000		\$ 19,705,000	
NORWICH	Scotland Rd	Rehab Br 00278 o/ I-395	FIF-Bridge	\$ 5,400,000			\$ 5,400,000	
NORWICH/MONT	New London Tpke	Pavement rehabilitation, complete streets	LOT/CIP					\$ 2,809,200
OLD LYME/EAST L	I-95	Interchange 71/72 Improvements	STP	\$ 25,000,000			\$ 25,000,000	
PRESTON	Route 2A	New Parallel 2-lane Route 2A Bridge (Add Second Span to N	STP-U		\$ 195,000,000		\$ 195,000,000	
PRESTON	Route 2A	Poquetanuck Village Traffic Calming Project	LOT/CIP					\$ 2,000,000
PRESTON	Route 2A	Preston City Roundabout	Fed		\$ 2,000,000		\$ 2,000,000	
PRESTON	RT 2A, RT 2	Multi-Use Trail and bike lanes	Fed		\$ 10,000,000		\$ 10,000,000	
PRESTON	VARIOUS	Bridge Rehabilitation	Fed	\$ 500,000			\$ 500,000	
PRESTON	VARIOUS	Comprehensive guiderail project	Fed	\$ 300,000			\$ 300,000	
REGIONWIDE	VARIOUS	bike and pedestrian improvements to the regional network	STPU	\$ 1,000,000			\$ 1,000,000	
REGIONWIDE	VARIOUS	Eastern Shoreline Path Phase 1 in Stonington and Groton (E	STP-U		\$ 15,000,000		\$ 15,000,000	
SALEM	Darling Rd	Repair of bridge, including scouring issues as identified by C	Fed	\$ 465,000			\$ 465,000	
SALEM	RT 354	Modify curve one-half mile south of Witter Road Intersectio	Fed			\$ 4,000,000	\$ 4,000,000	
SALEM	RT 82	Improve drainage between Route 85 and Hagen Road	Fed			\$ 4,000,000	\$ 4,000,000	
STONINGTON	RT 1	Improve roadway, including underpass and intersections, fr	STP-U, CMAQ		\$ 6,000,000		\$ 6,000,000	
STONINGTON	RT 1	Intersection reconstruction	Fed		\$ 3,375,000		\$ 3,375,000	
STONINGTON	RT 234	Improve intersection sight lines	STP-U			\$ 500,000	\$ 500,000	
STONINGTON	RT 234	Make drainage and spot safety improvements in various loc	Fed		\$ 1,500,000		\$ 1,500,000	
STONINGTON	VARIOUS	Mystic Mobility Study implementation (Groton, Stonington	Fed		\$ 5,000,000		\$ 5,000,000	
VARIOUS	I-95	I-95 Capacity and safety improvements - Branford to RI Stat	Fed	\$ 1,500,000,000			\$ 1,500,000,000	
VARIOUS	RT 85	Safety and capacity improvements	Fed	\$ 12,300,000			\$ 12,300,000	
WATERFORD	Cross Rd, Parkway	Improve interstate access, local road capacity and geometr	Fed		\$ 2,000,000		\$ 2,000,000	
WATERFORD	Cross Road (urban	Pavement rehabilitation, sidewalk replacement	LOT/CIP					\$ 2,000,000
WATERFORD	North Frontage Rd	Extend north Frontage Roads to connect to Route 85, south	Fed		\$ 20,000,000	\$ 20,000,000	\$ 40,000,000	
WATERFORD	RT 1	Ped safety, access management, intersection alignment, tu	Fed			\$ 3,000,000	\$ 3,000,000	
WATERFORD	RT 85	Congestion mitigation, queing and pedestrian improvemen	Fed		\$ 2,500,000		\$ 2,500,000	
WATERFORD, MO	RT 32	Pedestrian Safety Improvements (Benham ave to 395 overp	Fed			\$ 10,000	\$ 10,000	
WINDHAM	Plains Rd	Replace Bridge 4811	Fed		\$ 10,000,000		\$ 10,000,000	

Transportation Project List: Highway								
Town(s)	Route/Street	Brief Project Description	Funding Source	1 to 4 (2023-2028)	5 to 10 (2029-2033)	11 to 27 (2033-2050)	Total Cost (000)	Nonfederal project cost
				\$ 1,792,725,000	\$ 371,055,000	\$ 139,964,500	\$ 2,332,244,500	\$ 51,862,434
					Not fiscally constrained		\$ 51,864,434	
					DOT Major Project		\$ 1,732,300,000	
					Fiscally Constrained Urban		\$ 599,944,500	
					Submitted for Air Quality 2021			

TABLE 11. TRANSPORTATION PROJECT LIST, TRANSIT PROJECTS.

Transit Projects								
Rail								
Town(s)	MPO	Brief Project Description	Funding Source	1 to 4 (2023-2028)	5 to 10 (2029-2033)	11 to 27 (2033-2050)	Total Cost (000)	Nonfederal project cost
Various	78	Railroad Bridge Inspection Program	State	\$ 56,000,000			\$ 56,000,000	
Various	78	Off-System Railroad Bridge Inspection Program	State	\$ 56,000,000			\$ 56,000,000	
Various	78	5G Program	State	\$ 25,000,000			\$ 25,000,000	
Various	80	PIDS, Connectivity and improvements to SLE and the	State	\$ 5,000,000			\$ 5,000,000	
New London to RI	SECCOG	Eastern CT Rail Plan	State	\$ 1,000,000			\$ 1,000,000	
New London	SECCOG	New London Track 6 Electrification	State	\$ 10,000,000			\$ 10,000,000	
New London	SECCOG	New London PIDS & ADA Improvements	State	\$ 2,000,000			\$ 2,000,000	
<b>Rail Total</b>				<b>\$ 155,000,000</b>		<b>total</b>	<b>\$ 155,000,000</b>	
Transit								
Southeast Area Tr	SECCOG	Facility rehabilitation	State/Fed	\$ 2,090,000			\$ 2,090,000	
Windham Regional Transit District +		Fixed route bus replacement - battery electric buses	State/Fed	\$ 23,500,000			\$ 23,500,000	
Windham Region Transit District		Facility rehabilitation	State/Fed	\$ 25,982,500			\$ 25,982,500	
WRD (UConn)		Facility rehabilitat	State/Fed	\$ 23,100,000			\$ 23,100,000	
WRD		Bus Maintenance Facility build out	State/Fed	\$ 35,000,000			\$ 35,000,000	
Estuary Transit District		Infrastructure improvements to accomodate electric	State/Fed	\$ 475,000			\$ 475,000	
various		Park & Ride Lot Repairs & Improvements	State/Fed	\$ 56,500,000			\$ 56,500,000	
various		Park & Ride Lot Shelter Replacement	State/Fed	\$ 234,000			\$ 234,000	
SEAT	SECCOG	Bus Facility improvement /Expansion	State/Fed	\$ 35,000,000			\$ 35,000,000	
SEAT	SECCOG	Charging Equipment / power upgrades	State/Fed	\$ 4,950,000			\$ 4,950,000	
SEAT	SECCOG	Battery Electric Standard Buses 2022	State/Fed	\$ 1,700,000			\$ 1,700,000	
SEAT	SECCOG	Battery Electric Standard Buses FY2022 -mini bus (5).	State/Fed	\$ 1,025,000			\$ 1,025,000	
SEAT	SECCOG	Battery Electric Standard Buses FY2024 mini bus (2).	State/Fed	\$ 250,000			\$ 250,000	
SEAT	SECCOG	Battery Electric Standard Buses FY 2025 35' (1)	State/Fed	\$ 1,250,000			\$ 1,250,000.00	
SEAT	SECCOG	Battery Electric Standard Buses FY 2026 mini bus	State/Fed	\$ 625,000			\$ 625,000.00	
<b>Bus/TDM Total</b>				<b>\$ 211,681,500</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 211,681,500</b>	

DOT Major Projects	\$ 193,150,000
COG Projects	\$ 173,531,500
All Transit Projects	\$ 366,681,500



## 10. Fiscal Constraint

The SCCOG MTP analysis primarily focuses on matters related to system improvements. These types of projects are defined as those that are intended to improve safety, mobility, and increase system productivity; and, as a by-product, promote economic growth. The emphasis on improvement-type projects, as opposed to maintenance-type projects, is related to the parallel responsibilities of CTDOT. Maintenance projects primarily address such needs as repaving, bridge repair or replacement and any other form of reconstruction. While the bulk of federal funds available will be used for maintenance projects, maintenance tends to be managed at the state level according to need and funding availability and therefore becomes the primary emphasis of the State transportation planning process.

The preparation of an MTP follows a format set forth in federal regulation. Central to this format is the federal requirement for “fiscal constraint” over the multi-year life of the plan. The requirement for fiscal constraint compels a general analysis of anticipated revenues to meet the project expenses of projects depicted in the plan. Table 12, prepared by CTDOT, presents estimated gross revenue thresholds, by region, over a 27-year period (2023-2050) based on present allocations for FHWA (highway) funding. Table 13, prepared by CTDOT, presents estimated gross revenue for transit projects, by region, over a 27-year period (2023-2050) based on present allocations for FTA (transit) funding.<sup>uv</sup> Statutorily, a State or MPO shall not be required to select any project from the illustrative list of additional projects included in the financial plan.

As shown in Table 10, the CTDOT estimates that the State of Connecticut anticipates an estimated \$53,570,365,877 in federal funding from between 2023 and 2050<sup>w</sup>, this includes both FHWA and FTA allocations. The process of allocation compounds FFY2023 funding levels at one-and-one-half percent (1.5%) annual growth for the term of the plan. CTDOT reduces the total allocation by the sum of major projects of statewide significance. The balance of the funding is divided among the MPOs and Rural Councils of Governments based upon formulas that include vehicle miles traveled, average travel time index, and lane miles<sup>x</sup>. Funds identified for maintenance are primarily programmed by CTDOT, while MPOs are responsible for focusing system improvement funding toward their regional priorities. \$5,073,539,091 is available to be expended in southeastern Connecticut over the next 27 years. CTDOT estimates that this funding will be made available in the following amounts for the following categories of expenditure: \$1,271,849,963 for system improvements; \$2,069,344,128 for system maintenance<sup>y</sup>; and \$1,732,300,000 for major projects of statewide significance. The estimated funding in our region, compared to the 2019 MTP, has nearly doubled. This was influenced by

the most recent transportation bill, BIL, which set historically high funding levels used for the funding projection included in this plan. SCCOG has been allocated 9.47% of the statewide allocation during the period covered by the 2023 MTP, which can be compared with 7.34% during the tenure of the 2019 MTP.

**TABLE 12. ALLOCATION OF ANTICIPATED FUNDS TO CT MPOs/RPOs 2023-2050 (CTDOT).**

**ALLOCATION OF ANTICIPATED FUNDS TO CONNECTICUT METROPOLITAN PLANNING ORGANIZATIONS  
AND RURAL COUNCIL OF GOVERNMENTS  
2023-2050**

**2023-2050  
Distribution Less Major Highway Projects**

	SYSTEM IMPROVEMENTS	SYSTEM PRESERVATION	MAJOR PROJECTS OF STATEWIDE SIGNIFICANCE	TOTALS
Distribution	Weights			
Vehicle Miles of Travel	0.25	0.25		
Average Travel Time Index	0.75	0		
Lane Miles	0	0.75		
MPO RCOG				
Southwestern	1,689,433,548	1,747,056,056	3,551,000,000	6,967,489,604
Housatonic Valley	1,326,474,379	1,471,267,100	510,000,000	3,307,741,480
Northwest Hills	1,076,511,890	1,560,076,229	25,853,000	2,662,441,120
Central Naugatuck Valley	1,442,523,998	1,919,343,647	3,154,250,000	6,516,117,645
Greater Bridgeport Valley	1,589,615,928	1,857,721,926	816,360,000	4,263,697,854
South Central	1,711,170,302	2,761,695,013	2,658,825,254	7,131,690,570
Capitol	2,093,589,046	5,366,186,725	3,554,124,746	11,013,900,517
Lower Connecticut River Estuary	1,207,553,894	1,539,576,637	1,630,000,000	4,377,130,532
Southeastern	1,271,894,963	2,069,344,128	1,732,300,000	5,073,539,091
Northeastern	986,293,202	1,270,324,264	-	2,256,617,466
<b>Totals</b>	<b>14,375,061,151</b>	<b>21,562,591,726</b>	<b>17,632,713,000</b>	<b>53,570,365,877</b>

Note: System Improvements are projects which enhance safety, improve mobility, increase system productivity or promote economic growth.

System Preservation are projects such as repaving roadways, bridge repair or replacement and any other form of reconstruction in place.

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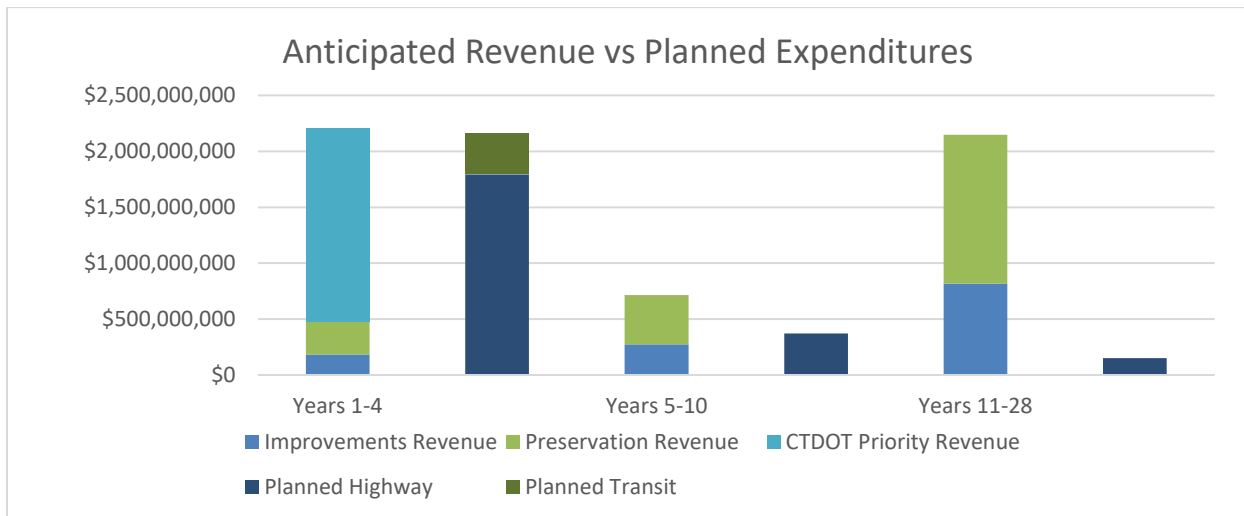
SCCOG, in consultation with its member towns, identified over 600 million dollars in regionally significant highway projects, and over 173 million in regionally significant transit projects. This is well below the \$1,271,849,963 available for system improvements. The MTP list is reflective of the project list update process which eliminates projects from the 2019 MTP list which have entered construction, revisions by the municipalities through the consultation process, and consolidates projects into the I-95 PEL project (the 2019 MTP broke out projects for nearly all exits). SCCOG has several significant corridor studies underway; Route 161 in East Lyme, Route

32 in New London and a Downtown Mobility Plan in Norwich. Each of these projects will generate recommendations for significant and expensive improvements within the next year. SCCOG's unallocated available funding will allow SCCOG to program those recommendations utilizing federal transportation funds and pay for transit capital improvements not yet identified.<sup>2</sup>

The CTDOT-provided table of expected transit revenue (Table 13) shows the allocation of \$75 million in Federally funded projects and \$18 million in State funded projects for transit in the SCCOG region. Rail expenditures total \$3.4 billion with Shoreline East receiving \$18 million. SEAT, WRTD and Estuary Transit Districts will construct electric bus maintenance facilities and purchase electric buses expected to cost \$75 million in plan years 1-4. Years 11 thru 27 of the plan will be revised subject to the outcome of the SLE rail study and transit district capital plans. It is assumed that administration funds and rolling stock replacement for bus transit will continue beyond the four-year horizon. Transit funding is not likely to expand beyond the projects provided on their statewide project list. There is a growing need for transit expansion and improvements to the service despite the lack of funding.

**TABLE 13. EXPECTED TRANSIT REVENUE 2030-2050 (CTDOT)**

CTDOT 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
SWMPO	\$2,103,000,000	\$1,682,400,000	\$420,600,000	\$1,275,000,000
HVMPO				\$8,000,000
GBVMPO	\$448,000,000	\$358,400,000	\$89,600,000	\$18,000,000
NVMPO				\$35,000,000
LCRVCOG				\$25,000,000
SCRCOG	\$1,200,000,000	\$960,000,000	\$240,000,000	\$168,500,000
CRCOG				\$256,500,000
SECCOG				\$13,000,000
CTDOT 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)	\$1,150,000,000	\$920,000,000	\$230,000,000	\$719,000,000
SHORELINE EAST (MPOS 11,13)				\$5,000,000
DANBURY LINE				\$12,000,000
WATERBURY BRANCH				\$80,000,000
HARTFORD LINE - VARIOUS				\$186,000,000
METROCOG,SCRCOG - NHLine	\$2,300,000,000	\$1,840,000,000	\$460,000,000	
CTDOT 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 - Hartford	\$824,015,000	\$659,212,000	\$164,803,000	
CTtransit - New Britain Division	\$1,805,000	\$1,444,000	\$361,000	
CTtransit - New Haven	\$387,380,000	\$309,904,000	\$77,476,000	
CTtransit - Stamford	\$156,910,532	\$125,528,426	\$31,382,106	
CTtransit - Waterbury	\$87,376,250	\$69,901,000	\$17,475,250	
Estuary Transit District	\$475,000	\$380,000	\$95,000	
Greater Bridgeport Transit Authority	\$219,387,500	\$175,510,000	\$43,877,500	
Greater Hartford Transit District	\$20,200,000	\$16,160,000	\$4,040,000	
Greater New Haven Transit District	\$70,968,750	\$56,775,000	\$14,193,750	
Housatonic Area Regional Transit	\$3,610,000	\$2,888,000	\$722,000	
Middletown Area Transit	\$6,710,000	\$5,368,000	\$1,342,000	
Milford Transit District	\$855,000	\$684,000	\$171,000	
Northeastern Connecticut Transit District	\$760,000	\$608,000	\$152,000	
Northwestern Connecticut Transit District	\$2,555,000	\$2,044,000	\$511,000	
Norwalk Transit District	\$117,598,750	\$94,079,000	\$23,519,750	
Southeast Area Transit	\$2,090,000	\$1,672,000	\$418,000	
Valley Transit District	\$7,950,000	\$6,360,000	\$1,590,000	
various	\$56,734,000	\$45,387,200	\$11,346,800	
Windham Region Transit District	\$25,982,500	\$20,786,000	\$5,196,500	
Windham Regional Transit District + UConn	\$23,500,000	\$18,800,000	\$4,700,000	
WRTD (UConn)	\$23,100,000	\$18,480,000	\$4,620,000	



**FIGURE 15. 2023 SCCOG MTP ANTICIPATED REVENUES AND PLANNED EXPENDITURES**

Federal formula funds are disbursed annually; therefore it is necessary to determine the timing of projects to ensure that funds are available for the time period in which they are spent. The Chart above indicates three categories of revenue: federal funds for improvements, federal funds for preservation, and State funds for CTDOT priority projects. Those revenues are compared with federally funded projects identified on the list of recommended projects. Within each time period (2023-2028, years one-to-four; 2029-2033, years five-to-ten; and 2024-2050, years eleven-to-twenty-eight) the SCCOG MTP is fiscally constrained. Fiscal constraint does not apply to the LOTCIP state funded program. Nearly \$18 million in LOTCIP projects will be programmed between 2023-2028 and nearly \$10 million in LOTCIP projects have been identified for the period which is included in the project list.

SCCOG actively seeks other funding resources. In the event of funding shortfalls or rescissions, projects may be delayed, canceled, or funded through other means; subsequent MTPs will reevaluate funding accordingly. The availability of discretionary grants has increased recently for both federal (constrained) and non-federal funding. Public-private partnerships, discretionary grants, and tax-increment financing provide opportunities for alternative sources of funding. State transportation revenue is generated primarily from the gas tax, the general fund, and State bonding. Widespread use of electric vehicles significantly impacts transportation funding due to a loss of gas tax revenue. As of 2023, heavy trucks are tolled to support the maintenance of the state’s transportation system; more general tolling is currently not being considered. Further analysis and policy work surrounding financing will enable this region and the State to program projects to meet performance targets.<sup>aa</sup>

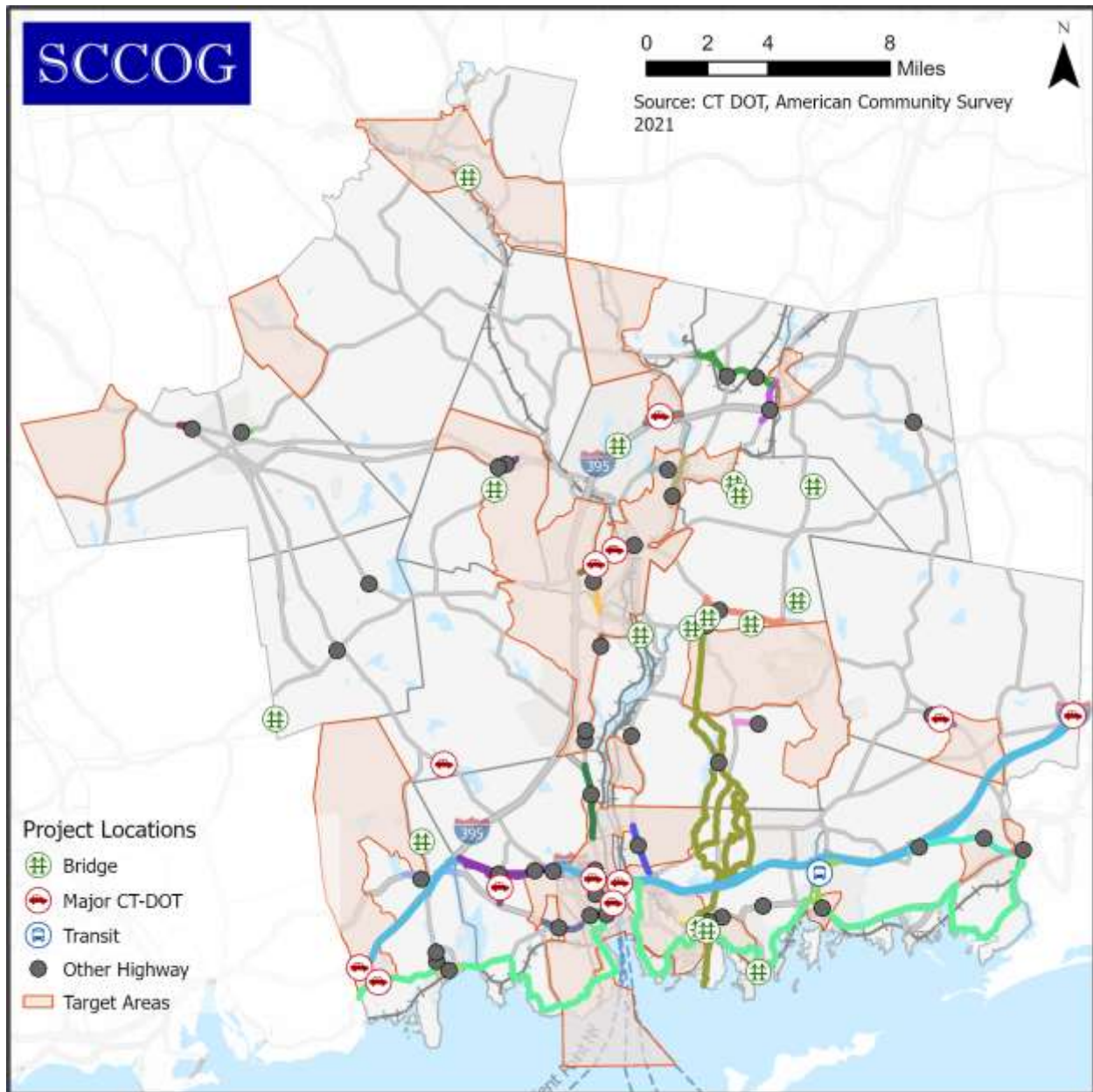
## 11. Environmental Justice Analysis

SCCOG has a responsibility under Federal Executive Order #12898 to ensure that transportation projects avoid “disproportionately high and adverse” impacts on minority and low-income populations. Some examples of adverse impacts include inequitable distribution of benefits; adverse impacts on employment, air, noise and water pollution or soil contamination; destruction of natural resources; destruction of community cohesion or economic vitality; destruction of disruption of public and private facilities or services; displacement of persons, businesses, farms or non-profit organizations; increased traffic congestion; isolation, exclusion or separation of low-income or minority populations; and bodily impairment, infirmity, illness or death. SCCOG’s role in assessing environmental justice is further clarified in [Executive Order 14008<sup>bb</sup>](#) (Justice40) which directs that 40% of federal funding sources be spent in environmental justice communities<sup>cc</sup>. The strategies employed to address systemic inequity are addressed in Section 3 of this MTP.

Figure 16 shows SCCOG census block groups which are classified as environmental justice (EJ) target areas with the site-specific projects included in this MTP. The target areas are defined as block groups with a higher than regional average minority population (U.S. Census, ACS 5 YR B03002) or low-income population (U.S. Census, ACS5 YR C17002). Linear features were added for each federally funded site-specific project, and the estimated cost of the project was split evenly among all census blocks included in the project area. Projects assumed to use no federal funding, such as LOTCIP projects, were not analyzed. For highway projects, 49% of project funds will be spent in target areas (\$1,133,895,032). The percentage of investment in target areas for major projects was 48%, while the percentage of investment in target areas for MPO fiscally constrained projects was 49%.

Transit projects were far more difficult to analyze for environmental justice, and methods require improvement and/or a statewide analysis, as transit district geographies do not match MPO boundaries. Target area impact was attributed to the entire fixed route service watershed (a quarter-mile area around each route). Transit projects for WRTD and Estuary Transit span multiple MPOs; the route miles for the district were used to calculate a percentage of the total project cost, and target analysis was only performed for the MPO’s share of project cost. For rail projects, the cost was divided among block groups within the project. Transit demand management projects were not analyzed. Of bus project funding, 32% will be spent in target areas within SCCOG, while 30% of rail project funding will be spent in target areas. This funding share is not in line with Justice40 recommendations. Transit within our region primarily serves EJ target areas; however, sprawling development, and long non-target area routes impact the outcome of this analysis.

FIGURE 16. ENVIRONMENTAL JUSTICE TARGET AREAS AND TRANSPORTATION PROJECT LOCATIONS.



Equity should not be conflated with Justice. Financial expenditure is an incomplete measure of benefits and burdens accrued to the community in which it is spent. Often short-term impacts may be balanced by long term benefits; construction delay, noise and air quality are a prerequisite for long-term mobility, access, livability and economic benefits. Interstate and arterial projects have inter-regional benefits, but have primarily local impacts. This analysis is the horizon view of justice. Each of the recommended projects will undergo its own project development with additional opportunities for impact analysis and local input.

## APPENDIX A – Acronyms Relating to Transportation

**ADA** Americans With Disabilities Act. A 1991 Federal Act that provided special rights to the disabled population that included a new form of transportation related to the public fixed-route transit available in an area.

**BIL** Bipartisan Infrastructure Law. The 2021 Transportation funding bill. The Infrastructure Investment and Jobs Act (IIJA), was enacted as the Bipartisan Infrastructure Law; providing funding related to federal-aid highway, transit, highway safety, motor carrier, research, hazardous materials and rail programs of the Department of Transportation. Broadband access, clean water and electric grid renewal were added to the final BIL language.

**CAAA** Clean Air Act Amendments of 1990. A law establishing new national ambient air quality standards (NAAQS) and a timetable for their achievement. The CAAA imposes different attainment requirements on different areas of the country depending on the degree of deviation from the standard. Under this complex administrative structure, transportation infrastructure projects are modelled at a statewide level to ensure that added roadway capacity will not exacerbate ozone and particulate matter (PM2.5) non-conformity nor will they prevent Connecticut from achieving improvement benchmarks.

**CMAQ** Congestion Mitigation and Air Quality. A Federal transportation funding program that promotes transportation projects that address such activities as ridesharing and related activities.

**COG or SCCOG** Southeastern Connecticut Council of Governments. A regional public organization created under the Connecticut General Statutes comprised of the chief elected officials of the twenty-one towns and boroughs in southeastern Connecticut.

**CTDOT** Connecticut Department of Transportation. CTDOT is the primary planning, administrative and implementation arm of the State of Connecticut for all matters relating to transportation infrastructure, including public transit. The SCCOG regional transportation planning program is conducted in cooperation with CTDOT.

**ECTC** Eastern Connecticut Transportation Consortium. A non-profit corporation established by SCCOG and SEAT to coordinate and provide demand-response transportation for elderly, handicapped and low income populations.

**EIS** Environmental Impact Statement. A requirement of the National Environmental Policy Act triggered by major infrastructure projects of both potentially high cost and high environmental and social impact.



**EJ** Environmental Justice. Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. An EJ community refers to areas with disproportionate populations of minorities and low-income individuals, as described above.

**EMAS** Engineered Materials Arresting System. EMAS installation can stop an aircraft from overrunning the runway and is installed where land is not available to provide a standard overrun area.

**FAA** Federal Aviation Administration. The FAA is a branch of the Federal Department of Transportation responsible for the regulation, administration and, for certain purposes, funding of airport-related planning, construction, and operations.

**FAST** Fixing America's Surface Transportation Act. The 2015 umbrella federal transportation act.

**FHWA** Federal Highway Administration. The FHWA is a division of the Federal Department of Transportation. It is the main source of funding for the regional transportation planning program and for the implementation of highway infrastructure improvements.

**FTA** Federal Transit Administration. Like FHWA, the FTA is a division of the Federal Department of Transportation. It, too, is a source of funding for both planning and project implementation. However, the primary focus of FTA is public transit.

**FAVTPP** Fully Autonomous Vehicle Testing Pilot Program.

**IRI** International Roughness Index. A criteria of pavement performance management.

**ISTEA** Intermodal Surface Transportation Efficiency Act. The 1991 umbrella federal transportation act.

**JARC** Jobs Access and Reverse Commute Program. A transportation program linking low-income people with job training and employment.

**KGON** Groton-New London Airport.

**KIJD** Windham Airport.

**LOCHSTP** Locally Coordinated Public Transit- Human Service Transportation Plan. A major new SAFETEA-LU initiative that combines the Jobs Access and Reverse Commute Program (JARC), the

FTA 5310 Program that provides capital assistance for vehicles serving the elderly and disabled and the New Freedoms Program which is an expansion of the Americans With Disabilities Act Transportation Program (ADA).

**LOS** Level of Service. Is a qualitative measure used to relate the quality of motor vehicle traffic service.

**MAP-21** Moving Ahead for Progress in the 21<sup>st</sup> Century. A federal umbrella transportation act, notably introducing performance measures.

**MPO** Metropolitan Planning Organization. An MPO is a public body, designated by the Governor, which operates under federal regulations. It is empowered to carry out the regional transportation planning responsibilities as set forth in the ISTEA. In 1974, the Southeastern Connecticut Regional Planning Agency (SCRPA), the predecessor to SCCOG, was designated the MPO for southeastern Connecticut. In 1993, this designation was transferred to the Council of Governments.

**MTP** Metropolitan Transportation Plan. The Metropolitan Transportation Plan must identify how the metropolitan area will manage and operate a multi-modal transportation system (including transit, highway, bicycle, pedestrian, and accessible transportation) to meet the region's economic, transportation, development and sustainability goals – among others – for a 20+ year planning horizon, while remaining fiscally constrained. SCCOG's MTP was previously referred to as the Long Range Transportation Plan (LRTP).

**NAAQS** National Ambient Air Quality Standards. The U.S. National Ambient Air Quality Standards are standards for harmful pollutants established by the United States Environmental Protection Agency (EPA) under authority of the Clean Air Act (42W.S.C. 7401 et seq.). NAAQS is applied for outdoor air throughout the country.

**OPM** Connecticut Office of Policy and Management.

**SEAT** Southeast Area Transit. The transit district organization established under State statute to operate public transportation.

**SAFETEA-LU** Safe, Accountable, Flexible, Efficient Transportation Efficiency Act: A Legacy for Users. The federal umbrella transportation act prior to MAP-21.

**SCRPA** Southeastern Connecticut Regional Planning Agency. The Regional Planning Agency organized in 1961 that was the pre-cursor to SCCOG.

**SIP** State Implementation Plan. A state plan, prepared by the Connecticut Department of Environmental Protection, which depicts how the state will achieve the National Ambient Air Quality Standards (NAAQS).

**STIP** State Transportation Improvement Program. The STIP is a five-year implementation schedule of highway and transit improvement projects for the entire state for which funding has been earmarked. Federal regulations mandate that the STIP be annually updated and be consistent with the State Transportation Plan. STIP's must also be both fiscally constrained and be in conformance with the State Implementation Plan (SIP) for air quality.

**STP** Surface Transportation Program. A Federal transportation funding program that underwrites the cost of transportation improvement projects in urban areas.

**TCM** Transportation Control Measures. Strategies that reduce transportation-related air pollution, greenhouse gas emission, and fuel use by reducing vehicle miles traveled and improving roadway operations.

**TEA-21** Transportation Equity Act for the 21<sup>st</sup> Century. TEA-21 is the 1998 umbrella Federal Transportation Act which is the legal mechanism through which Federal transportation funds are received by states.

**TIP** Transportation Improvement Program. The TIP is a five-year implementation schedule of regional highway and transit improvement projects for which funding has been earmarked. Federal regulations mandate that the TIP be annually updated and be consistent with the regional transportation plan. TIP's must also be both fiscally constrained and be in conformance with the State Implementation Plan (SIP) for air quality.

**TMA** Transportation Management Area. An urbanized area with a population over 200,000, designated by the Secretary of Transportation.

## APPENDIX B – Funding Sources

### Federal Funding Programs

Each funding program has specific federal cost share and local match requirements. Typically, 80% of the cost of capital activities are federally funded.

### USDOT Discretionary

**National Culvert Removal, Replacement, and Restoration Grant program (Culvert AOP Program, 80):** A new program to fund projects that would meaningfully improve or restore passage for anadromous fish (anadromous fish species, such as salmon, are born in freshwater such as streams and rivers, spend most of their lives in the marine environment, and migrate back to freshwater to spawn).

**National Infrastructure Project Assistance (MEGA, 60-80):** This new program will support large, complex, multi-modal, multi-jurisdictional projects that are difficult to fund by other means and likely to generate national or regional economic, mobility, or safety benefits.

**Rebuilding American Infrastructure with Sustainability and Equity (RAISE, 80-100):** Previously known as the BUILD and TIGER grant programs, RAISE grants are awarded on a competitive basis for capital investments in surface transportation projects that have a significant national, regional, and local impact. Selection criteria includes safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and additional non-Federal revenue for infrastructure investments. Some planning grants are provided.

**Safe Streets and Roads for All (SS4A, 80):** A new program to support efforts to advance “vision zero” plans and other capital improvements to reduce crashes and fatalities, especially for cyclists and pedestrians. MPOs and local governments are eligible recipients; CTDOT is not eligible for SS4A funds.

**Strengthening Mobility and Revolutionizing Transportation (SMART, 100):** A new program to fund advanced smart city or community technology demonstration projects that improve transportation safety and efficiency.

### FHWA

Each FHWA program has specific federal cost share and local match requirements. Typically, 80%-90% of the total project cost is federally funded.

### FHWA Discretionary

**Bridge Investment Program (BIP):** A new program to assist in rehabilitating or replacing bridges, including culverts. The focus of the program is to encourage bridge repairs that will improve safety, efficiency, and reliability of people and freight movement, as well as to improve flood control and habitat connectivity for aquatic species.

**Charging and Fueling Infrastructure Grants:** A new program to strategically deploy publicly accessible electric vehicle charging infrastructure and other alternative fueling infrastructure along designated alternative fuel corridors. Operating assistance may be funded for up to five years. At least 50% of funds must be used for community grants that prioritize projects in rural areas, low- and moderate-income neighborhoods, and communities with a low ratio of private parking spaces.

**Nationally Significant Multimodal Freight & Highway Projects (INFRA):** An existing program that was substantially revised under BIL. The purpose of the program is to fund multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people.

**Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT):** New discretionary (and formula) funds for planning, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure. The discretionary portion focuses on supporting communities in addressing vulnerabilities to current and future weather events, natural disasters, and changing conditions, and planning transportation improvements and emergency response strategies to address those vulnerabilities.

**Reconnecting Communities Pilot Program (RCP):** A new program to fund the planning, design, demolition, and reconstruction of street grids, parks, or other infrastructure.

**Rural Surface Transportation Grant (RSTG):** A new program to fund improvements and expand surface transportation infrastructure in rural areas, increase connectivity, improve safety and reliability of the movement of people and freight, and generate regional economic growth.

**Wildlife Crossings Pilot Program:** A new program to support projects that reduce the number of wildlife-vehicle collisions and improve habitat connectivity.

#### FHWA Formula

**Bridge Formula Program (BFP):** A new program to replace, rehabilitate, preserve, protect, and construct highway bridges. 15% of funds are set-aside to replace or rehabilitate “off-system” deficient bridges on the National Bridge Inventory (NBI) that are not on the Federal-Aid road system (ie, bridges on local roads or rural minor collectors).

**Carbon Reduction Program (CRP):** A new program to provide funds for projects designed to reduce transportation emissions (defined as CO<sub>2</sub>) from on-road highway sources. Requires the state to develop a carbon reduction strategy, in consultation with the MPOs.

**Congestion Mitigation and Air Quality Improvement Program (CMAQ):** An existing program that provides flexible funding for transportation projects and programs to help meet the

requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas). Under BIL, CMAQ may now fund shared micromobility and the purchase of medium- and heavy-duty zero emission vehicles and charging equipment. All CMAQ funded projects and programs require an assessment and documentation of air quality benefits by the State.

**Construction of Ferry Boats and Ferry Terminal Facilities Formula Program (FBP):** An existing program to fund the construction of ferry boats and ferry terminal facilities.

**Highway Infrastructure Program (HIPA):** This existing program provides for highway, bridge, tunnel and local access road construction.

**Highway Infrastructure Program – Bridge Replacement and Rehabilitation Program:** This existing program funds highway bridge replacement and rehabilitation projects on public roads. Priorities and administration for the program refer to the Bridge Formula Program.

**Highway Safety Improvement Program (HSIP):** This existing program provides funds to achieve a significant reduction in traffic fatalities and serious injuries on public roads. The program requires a data-driven, strategic, performance-based approach to improving highway safety on public roads. BIL added eligibility for non-infrastructure safety projects related to education, research, enforcement, emergency services, and safe routes to school. Under BIL, states are now required to complete vulnerable road user (VRU) safety assessments and consider a Safe System approach.

**National Electric Vehicle Infrastructure Formula Program (NEVI):** A new program that provides funds to strategically deploy electric vehicle charging infrastructure and to establish an interconnected network to facilitate data collection, access, and reliability.

**National Highway Freight Program (NFRP):** An existing program focused on improving the efficient movement of freight on the National Highway Freight Network. Eligible activities include construction, operational improvements, planning, and performance measurement. Although the program is highway-focused, up to 10% of funds may be used for public or private freight rail, water facilities (including ports), and intermodal facilities. States must have a State Freight Plan to receive funds.

**National Highway Performance Program (NHPP):** An existing program to provide support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in the state asset management plan. NHPP projects must be on an eligible facility

and support progress toward achievement of national performance goals for improving infrastructure condition, safety, mobility, or freight movement on the NHS, and be consistent with Metropolitan and Statewide planning requirements. Under BIL, the NHPP may now fund undergrounding public utility infrastructure (in conjunction with an eligible project), resiliency improvements and activities to protect NHS segments from cybersecurity threats.

**Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT):** New formula (and discretionary) funds. Formula funds are focused on planning, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure

**Surface Transportation Program / Surface Transportation Block Grant Program (STP):** This existing program provides flexible funding to address state and local transportation needs. STP funds may be used for roadway improvements on roads functionally classified as a rural major collector or above. Eligibility guidelines are flexible and funds can be used for a wide range of projects, such as roadway widening, roadway reconstruction, transit projects and ridesharing projects. Project types added by BIL include EV charging infrastructure, protective features to enhance resilience and wildlife crossing. Set-aside funding for off-system bridges was increased to 20%.

The **Surface Transportation Program – Urban (STP-U)** is the largest of all the STP programs. Funds are suballocated for use in different areas of the State according to a formula based on the area’s relative share of the State’s population. The Norwich/New London UZA has a population of over 200,000 people and the SCCOG receives funds through **STP Norwich/New London (STPNL)**.

**Transportation Alternatives Program (TA, 80)** is a set-aside from STBG. TA funds 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 improvements such as historic preservation, environmental mitigation related to stormwater and habitat connectivity; recreational trails, and safe routes to school projects. As a program through STP-U, a portion of TAP is suballocated based on population. TAP projects are selected through a competitive process. BIL increased the percentage of funding dedicated the TA program from the STP.

#### **Additional Programs:**

**National Highway Traffic Safety (NHTS) / Section 154 Penalty Funds (Sect 154, 100%):** The State of Connecticut is currently assessed a 2.5% annual penalty from its NHPP and STP Programs because it does not meet Federal Open Container Legislation Requirements under 23 U.S.C. 154. Funds are transferred to the State’s 402 Safety Program, which is made up of

impaired driving and hazard elimination programs. These programs are intended to change behaviors, save lives, prevent injuries and reduce economic costs due to road traffic crashes, through education, research, and roadway safety improvements.

**Repurposed Earmark Program (REP, 80-20):** The Department of Transportation Appropriations Act, 2021, allowed states to repurpose certain funds originally earmarked for specific projects more than 10 years ago. The earmark must be designated on or before September 30, 2009 and less than 10 percent obligated or final vouchered and closed. These earmarked funds could be repurposed to a new or existing STP eligible project in the State within 25 miles of the original earmark designation.

## FTA

Each FTA program has specific federal cost share and local match requirements. Typically, 80% of the cost of capital activities are federally funded. If operating expenses are allowed, half of the federal share is usually covered.

## FTA Formula

**Bus and Bus Facilities Formula Grants (5339):** Existing formula and discretionary program that provides capital funding to replace, rehabilitate, lease and/or purchase buses and related equipment and to construct bus-related facilities.

**Enhanced Mobility of Seniors and Individuals with Disabilities Program (5310):** An existing program that provides capital, operating and planning assistance to nonprofit organizations and public agencies that provide specialized transportation services to elderly persons and persons with disabilities. Eligible projects include both traditional capital nontraditional investments that go beyond ADA services.

**State of Good Repair (5337):** Existing funding program to support capital projects for existing fixed guideway systems (including rail, bus rapid transit, and passenger ferries) and high intensity motorbus systems (buses operating in high-occupancy vehicle lanes) to maintain public transportation systems in a state of good repair and to ensure public transit operates safely, efficiently, reliably, and sustainably so that communities can offer balanced transportation choices that helps to improve mobility, reduce congestion, and encourage economic development.

**Urbanized Area Program (5307):** An existing program, 5307 funds are intended primarily for capital assistance projects, such as the purchase of new buses. A small portion funds are reserved to help defray transit operating expenses. Funds are allocated to individual urbanized areas according to a formula based on the size of the population. In Connecticut, the funds are pooled and then applied to the highest priority bus needs, as reflected in the various TIPs and the STIP. CTDOT provides the non-federal share of FTA capital grants for maintenance facilities



and the replacement of buses in local systems. Under BIL, a small portion of funds must be provided for state safety oversight activities.

### FTA Discretionary

**All Station Accessibility Program (ASAP):** A new program to provide funding to legacy transit and commuter rail authorities to upgrade existing stations to meet or exceed accessibility standards under the Americans with Disabilities Act.

**Buses and Bus Facilities Program (5339):** An existing program that provides funding to replace, rehabilitate, and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Under BIL, applicants must submit a zero-emission fleet transition plan if their project is related to zero-emission buses.

**Capital Investment Grants (CIG/5309):** An existing program to fund major transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. Projects seeking CIG funding must complete a series of steps over several years to be eligible for funding. BIL added additional requirements.

**Low or No Emission Vehicle Program (LONO/5339):** An existing program that provides funds to purchase or lease zero-emission and low-emission transit buses, as well to acquire, construct, and lease required supporting facilities. Under BIL, applicants must submit a zero-emission fleet transition plan.

**State of Good Repair/Rail Vehicle Replacement Program (5337):** A new discretionary funding program to support capital projects for the replacement of rail rolling stock.

### Federal Railroad Administration

In Connecticut, CTDOT is responsible for funding rail operations and equipment. MetroNorth operates the New Haven Line (and branches), while CT Rail is responsible for operating Shoreline East and the Hartford line. Amtrak provides inter-city (and state) rail. The grants below can be used to a variety of activities to improve the existing system. Recipients and project eligibility vary by program, as well as the cost share.

**Consolidated Rail Infrastructure and Safety Improvements (CRISI):** An existing program to fund projects that improve the safety, efficiency, and reliability of intercity passenger and freight rail.

**Federal-State Partnership for Intercity Passenger Rail Grants:** An existing program that provides funding for intercity passenger transportation projects. Through BIL, the program has broadened project eligibility to include projects that would expand or establish new intercity passenger rail services. Eligible locations now include the entire intercity passenger rail network.

**Northeast Corridor grants:** Procure and address deferred maintenance backlog on Amtrak's Northeast Corridor.

**Railroad Crossing Elimination:** New program to fund highway-rail or pathway-rail grade crossing improvement projects that improve the safety and mobility of people and goods.

### Federal Aviation Administration

**Airport Improvement and Passenger Facility:** Formula funds to airports for runways, taxiways, safety and sustainability projects, as well as terminal, airport-transit connections and roadway projects.

**Airport Terminals Program:** Competitive grants to fund airport terminal development projects that address the aging infrastructure of the nation's airports.

### State Funding Programs

**Community Connectivity Grant Program (CCGP):** The CCGP was developed to provide funding for targeted infrastructure improvements commonly identified through a Road Safety Audit (RSA), or other planning initiatives. The purpose of the CCGP is to provide funding directly to municipalities to perform small scale infrastructure improvements. Municipalities are responsible for all design costs; the state is responsible for 100% of construction costs.

**Connecticut Recreational Trails Program Grant:** Provided through the Department of Energy and Environmental Protection, with a 20% match currently required. The grant provides funds to a variety of entities for the following activities:

Planning, design and construction of new trails (motorized and non-motorized).

Maintenance and restoration of existing trails (motorized and non-motorized).

Access to trails by persons with disabilities.

Purchase and lease of trail construction and maintenance equipment.

Acquisition of land or easements for a trail, or for trail corridors.

Operation of educational programs to promote safety and environmental protection as related to recreational trails.

**Local Bridge Program:** Municipally-owned bridges are funded by the state and federal Local Bridge Programs. To qualify for the state Local Bridge Program, a bridge must carry a certified local road and be functionally obsolete according to FHWA criteria. Certain federal funding programs require that a percentage of funds are utilized for "off-system" bridges. The bridge must be located on a road functionally classified as "rural local" "rural minor collector" or

“urban local”. The bridge must have a minimum 20-foot length (listed on the National Bridge Inventory). Cost shares and administration vary by program.

**Local Transportation Capital Improvement Program (LOTICIP):** This program is intended to address regional transportation priorities through capital improvement projects prioritized and endorsed by the COGs. Projects must meet the eligibility requirements of the Federal STP-Urban Program, such as being located on a roadway classified as a collector or higher. Municipalities are responsible for all design costs; the State is responsible for 100% of construction costs.

**State Matching Grant Program:** This program provides funds to municipalities for existing, new or expanded transportation services to seniors and people with disabilities, such as: weekend, evening or out of town services, additional days of service or special trips. Municipalities may choose to assign their grant to a transit district, or (in SCCOG) ECTC, Inc.

**Transit-Oriented Development Grant Program:** Provided through the Office of Policy and Management (OPM), this grant funds shovel-ready capital projects and related activities located within one-half (1/2) mile of existing public transportation facilities. Currently, a minimum 20% match is preferred.

**Transportation Rural Improvement Grant Program (TRIP):** This program provides 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. Funds may only be used for construction activities.

## APPENDIX C- Public Comment,

Unabridged comments, as noted in table 9.

Hello SECCOG Team,

I am writing to provide feedback for the 2023 - 2050 Metropolitan Transportation Plan draft as a Business Owner in the Mystic, CT community. I also hold a seat as Vice President for Bike Stonington, a volunteer-run bicycle advocacy group. Kate and I have previously been in contact regarding our concerns at a local level; I have copied her on this message. My comment is specific to active transportation section of this document with a focus on biking.

The document states: "A dense urban fabric makes it much easier for bikers and walkers to go to work and make other trips without the use of a car. Currently, suburbanization and hilly topography make biking and walking for commuting or errands much more challenging outside of urban centers."

While I understand that historically this sentiment and belief may have been true, this is no longer an accurate sense of what is happening in our communities, especially suburbanized areas. Electric bicycles have changed the landscape entirely, allowing their users to travel farther at a much faster rate. With that said, there is grave misunderstanding surrounding electric bicycles. Most people assume that you do not have to pedal or work at all; this is due to lower-quality electric bike companies producing e-bikes with throttles. Reputable electric bicycles are manufactured with direct consideration for road legality and, therefore, offer assistance that provides speeds ranging from 20 - 28 MPH maximums (limits are state dependent; RI is 20MPH and CT is 28MPH). The entire time, the user is required to pedal the bike, otherwise it will not keep moving. The harder the cyclist works, the faster the bike travels due to e-assistance, but it will never exceed the maximum speed of the motor (20 - 28 MPH depending on the bike and motor size). With all of that considered, electric bikes are allowing their owners to take their bikes on trips that otherwise may have felt daunting due to hilly terrain, distance required, time commitments, etc. Many electric bikes are also setup with mounting points for racks, bags, and baskets, so they are versatile enough to offer storage to run errands, commute, etc. Electric bikes are allowing their users a viable option that removes or decreases their need to get in their cars

For our business alone, we experienced a 486% increase in electric bicycle purchases in 2021 over 2020. We experienced a 500% increase in electric bicycle purchases in 2022 over 2020. What is even more important to point out is that this growth was achieved during a time when it was nearly impossible to obtain the inventory we needed to stock our retail space, nevermind what we needed to meet soaring demand. Every single bicycle and part was backordered. In

2020, we saw products that had ETA dates out to 2024. However, our community was still purchasing at a substantial rate within the electric bike category; many agreeing to wait months to upwards of one year for their bike to arrive. Our industry is expecting even more growth within the electric bike category for 2023, while traditional bikes will remain consistent with our previous year (still a 212% growth in purchases).

I also struggle with the quote above because it fails to identify the socioeconomic influences directly associated with those residing in more urban areas. Generally, there are more people who have to rely on walking or biking, but this does not support that people in less urbanized areas would not bike or do not bike. The report is claiming that biking is more prominent in urban areas because attractions are geographically closer and easier to reach. However, this also draws attention to the need for infrastructure to exist in places that are more rural due to the difficulty to reach desirable destinations at ease and safely, especially when bike/ped framework is non-existent.

It is difficult to agree with the statement that: "The majority of walking and biking trips in the region are for health, recreation, errands, and social trips, according to surveys." What about our tourism sector? Are we going to ignore the enormous amount of people who travel to our area, which serves as a destination, with multiple bikes in tow? Stonington, Pawcatuck, and Mystic are never prioritized within these plans, yet we serve as the tourism capital of the southeastern CT area. Route 27 (exit 90) alone experiences car traffic of upwards of 30K vehicles per day (as of 2016) on average. That is an astounding number of cars on a road not built to handle that traffic. Their destination of downtown Mystic only offers 623 parking spots (on-street & off-street combined). Currently, our parking spaces exceed an 85% use rate. The sweet spot is a use rate sitting between 60% - 85%. The only way to propose that we do not continue to have these traffic volume issues is to design multi-modal roads that support both walking and biking to get people out of their cars; or, even better, leave their cars at home entirely.

Stonington & Mystic were not mentioned in this drafted report for 2023 - 2050 plans, yet I am sure we are the leading tourism destination in New London County, maybe even eastern CT entirely. If you want residents to be happy and tourism to continue in a positive trajectory, immediate attention needs to be dedicated to Pawcatuck, Stonington, and Mystic's roadways under active transportation initiatives. We are mentioned in the 2019 Bike / Ped plan as a tourism leader, but it is also clear within the map graphic referenced that we have the least amount of bicycle infrastructure. All the while, boatloads of funding and projects have been

awarded to our neighboring town of Groton. Furthermore, where did these surveys for feedback live? How were they promoted? Why didn't SCCOG partner with community businesses, town agencies, and other stakeholders to create more exposure surrounding these questionnaires? Do we have an accurate picture of what our community wants / needs when critical stakeholders were entirely left out? For our business, we would have happily utilized our email list and customer base (over 12,000 people) to help gain accurate feedback and greater participation specific to biking. It just feels like there could have been a much bigger effort to publicize this project and gain an unbiased picture of what the public - outside of the privileged who keep a tight pulse on these SCCOG updates - wants.

What was the participation rate? How many people submitted surveys and from what geographic areas?

When referencing any plan to address these challenges and opportunities, the only thing mentioned is SCCOG making recommendations, which is incredibly general. The discussion about Open Space specifically mentioned connecting networks - how are we going to do this? Planning reports are all well and good, but if you do not have clearly measurable, specific, attainable, realistic, and timely goals / plans outlined, what is the point of this exercise? I am a Business Owner. I have a team of 14 - 20 that I am responsible for. Every fall we sit down as a team and focus on our opportunities for improvement. Within this discussion, we outline the focus areas we need to dedicate time, resources, and education to. However, this does not work if action coupled with accountability does not follow the plan that we set. Action items are outlined, assigned, and deadlines are set. Otherwise, the meeting and communications were pointless and a waste of valuable resources. While I understand why these plans are important, the action that follows them are even more critical. Many of these plans overlap the findings of previous existing studies, reiterating the same information over again. At what point do we consider that our current process does not work? It is wasting both money and time. We cannot expect different results by doing the same thing repeatedly with no variation. Why aren't we taking from other communities who are doing better than us in this realm? Take a page out of their book, fire a bullet, and test a creative process that is different. If it works, take on another, and so on. Look to the guiding North Stars and get creative in a way that banishes the sclerosis of our antiquated procedures; why are there so many hoops to jump through? Remove the friction.

Stonington / Pawcatuck / Mystic constantly gets dismissed as a priority of focus, which is not only frustrating, but upsetting. There is a glaring need for bike / ped framework on our streets

at both state and local levels, especially considering the volume of traffic that clogs our arteries of Route 1 & Route 27, corridors that connect us to various businesses and surrounding towns. Not to mention, our business supports a community of over 12,000 cyclists and growing, people who deserve both transportation equity and safety.

The sooner we understand that bicycles are not causing our streets to be unsafe, the better. Cars are the root of the issue here. They overload our roads in a way that they were never built to handle. They disallow both pedestrians and cyclists to safely use our roadways without increased risk and friction (both historic transportation methods that existed before cars). Our roadways are not unsafe because of biking. Our roadways are unsafe due to the volume of car traffic and distracted drivers traveling at high speeds that do not allow other modes of transportation to equally and safely move about. Multi-modal transportation is about linking desirable destinations in a way that is direct and efficient. Mystic is an incredibly desirable destination within our community - one that provides jobs for many who reside here, services and goods for those who work elsewhere, and a globally recognized vacation destination for both regular people and celebrities alike. It is time to recognize that and start prioritizing projects + funds for our town so we can make improvements that are long overdue.

I appreciate your duty to consider this feedback for the final version of this report both critically + seriously.

Allison Palmer

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**Allison Palmer**

**Director of Operations | Co-Owner**

Mystic Cycle Centre



## APPENDIX D - MTP Review Checklist Annotation

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- <sup>i</sup> A8. Document Version and Date
- <sup>ii</sup> A1. Author and Recognition
- <sup>iii</sup> A1. Author and Recognition
- <sup>iv</sup> A6. Prior Document Reference
- <sup>v</sup> A2. Federal Requirements
- <sup>vi</sup> A9. Process Reminder
- <sup>vii</sup> A7. Term of Document
- <sup>viii</sup> A7. Term of Document
- <sup>ix</sup> A2. Federal Requirements
- <sup>x</sup> A4. Location Map
- <sup>xi</sup> A3. MPO
- <sup>xii</sup> B19. Environmental Mitigation
- <sup>xiii</sup> B12. Performance Measures and Performance Targets
- <sup>xiv</sup> A5. Major Transportation System Component Map
- <sup>xv</sup> B25
- <sup>xvi</sup> D8. Public outreach
- <sup>xvii</sup>
- <sup>xviii</sup> D9. Public comments
- <sup>xix</sup> D7
- <sup>xx</sup> D10. Response to public comment
- <sup>u</sup> C3. Estimates of Funding for Implementation. 23 CFR Part 450§324(f)(11)(ii), 23 CFR §450.314(a)
- <sup>v</sup> C2. Operation and Maintenance. Highway 23 U.S.C. 101(a)(5)) and public transportation (as defined by title 49 U.S.C. Chapter 53) (23 CFR Part 450§324(f)(11)(i))
- <sup>w</sup> C6 Future Funding Sources
- <sup>x</sup> C3. Estimates of Funding for Implementation
- <sup>y</sup> C2. Operations and Maintenance
- <sup>z</sup> C1. General
- <sup>aa</sup> C4. Recommendations of Financing Strategies
- <sup>bb</sup> C3. Estimates for Funding and Implementation
- <sup>cc</sup> C3. Estimates of Funding for Implementation. EO 14008