3.0 TRANSPORTATION ISSUES & GOALS

Each day, there are more than 2 million trips into, out of, and within the Naugatuck Valley region. Most of those trips are made in private vehicles. Rail, bus, and walking are also important ways for people to move about in the region, but there are challenges to making those options viable for most travelers. As the region's population grows during the next 25 years, congestion and delays on roadways will worsen if patterns don't change. At the same time, the region's aging infrastructure will need to be repaired or replaced. Though additional federal funding provided by the Infrastructure Investment and Jobs Act (IIJA), also known as Bipartisan Infrastructure Law (BIL), provide an increase in funding to projects throughout the region and country, the law does not cover all aspects of the transportation system and falls short of the full cost of maintaining our aging infrastructure.

Data indicate that the region's population is growing and getting older. Between 2010 and 2020, the percentage of people 18 and older in the NVCOG region increased from 76.9% to 79.4%. This trend is expected to continue over the next 25 years. As the region's population ages, travel patterns and needs will change, requiring the region's infrastructure to adapt.

Trends further suggest that many people are moving back to cities, where transit options are more plentiful. The populations of Bristol and Waterbury, which are the major urban centers in the region, increased during the decade from 2010 to 2020. The same happened in Shelton, Seymour, and Oxford. All other municipalities in the region saw a decrease in their population. More and more, young adults want to live where there are more transportation options and daily activities like work, retail shopping, entertainment, and services are within walking/rolling distance. A possible consequence of this trend is that disadvantaged groups, who often rely on public transit, could be displaced from urban cores to areas with fewer transit options. However, with well-coordinated policy between land-use and transportation, it is possible this trend will revitalize once vibrant city centers, provide additional transit options to many residents, and create communities where walking/rolling or biking are attractive mobility options.

How individuals buy goods and services is also changing fast. Because of the COVID-19 pandemic, consumers rely more than ever on online shopping. This trend is increasing home deliveries, which are made primarily by smaller trucks, and reducing deliveries to retail centers. The resulting change in traffic pattern is bringing more large vehicles to roads less designed to handle them, increasing congestion and risk to vulnerable users.

Technology may help to ease or exacerbate the issues identified above. Although autonomous vehicles are likely years away from widespread adoption, they could change travel patterns, traffic volumes, and parking requirements. These changes are hard to predict, but our infrastructure decisions today may impact the way these vehicles interact with our road network in the future. Connected vehicles, with their advanced communications systems, could improve safety by reducing crashes, improving driver behavior, and reducing congestion. Location-based vehicle regulation is widely available on micro-mobility devices, and its

potential risks and safety benefits may be hard to judge for many years. The region needs to remain abreast of changing technology in transportation and take advantage of it when possible.

3.1 TRANSPORTATION ISSUES

The transportation system of the Naugatuck Valley planning region is diverse and includes a mature network of highways and roads, a passenger rail line, multiple freight rail operators, fixed-route, local bus services, multi-use greenways and trails, a general aviation airport, and pedestrian facilities.

To identify issues within the region's transportation system, NVCOG staff used a combination of data-based research, public engagement, and stakeholder meetings. With these data sources, the following were repeatedly identified as the most pressing and concerning issues for the region:

- ### Aging Infrastructure

  Many elements of the region's transportation infrastructure, along with those that deliver essential utilities and services throughout the region, have reached or passed their intended lifespans. Highways in the region, including Interstate 84, Interstate 691, and Route 8, increasingly do not meet modern standards for safety and operation. The age of these highways means that critical pieces of their infrastructure, particularly bridges, will need rehabilitation or replacement.

  While the CT Department of Transportation, individual municipalities, and the region have all worked to bring the region's infrastructure to a state of good repair, additional funding is necessary to ensure that this work can be continued and maintained.

- ### Lacking Mobility Alternatives

  As is true across the country, the NVCOG region depends heavily on automobiles for mobility. For many, however, preference, differing abilities, or cost prevent them from having consistent access to a car, requiring them to rely on the region's public transit system, sidewalks, and cycling facilities. Though mobility alternatives have expanded in recent years, it is still difficult for many without a car to accomplish their necessary daily tasks. To address this issue, NVCOG needs to use a multi-modal approach, improving rail, bus, bicycle, sidewalk, and micro-mobility options.

- ### Recurring Congestion and Travel Delay

  Because of the region's automobile dependence, one of the most commonly reported issues from all forms of engagement is roadway congestion and resulting delays. No road in the region is immune, although congestion is most clear on Route 8 and Interstate 84. As the region pursues Transportation Management Area (TMA) status, additional details

on major road congestion, Peak Hour Excessive Delay, Travel Time Reliability, and Truck Travel Time Reliability will be gathered in the region's Congestion Management Process (CMP). In this report, projects were selected for congestion mitigation based on feedback from residents, municipal staff, and publicly available sources such as Google Maps' average congestion feature.

- Roadway Safety

Using a data-based approach, the NVCOG regularly monitors traffic safety and develops strategies and projects aimed to address noted concerns. Roadway safety is a pressing issue across the country, and the NVCOG region is no exception. Traffic fatalities and serious injuries happen far too often on the region's roads, which has prompted strong response from the NVCOG's Policy Board. In September of 2022, the region adopted a Vision Zero Goal, establishing a list of priorities for the region aimed at reducing and eventually eliminating fatalities. More information on this goal and resulting implementation plan can be found in Section 3 of this chapter.

- Pedestrian and Cyclist Safety

Walking/rolling is the most basic form of transportation, and nearly everyone is a pedestrian of some form during most trips. Although most New England towns and cities initially developed around walking, and many retain basic pedestrian-supportive infrastructure elements, pedestrian safety remains a challenge. Data indicate that more people walk/roll to work in urban areas like Waterbury and Bristol. But these areas also tend to have disproportionately high numbers of pedestrian-related crashes, mostly because the pedestrian infrastructure is inadequate. NVCOG has committed to prioritizing investment in amenities that will make sure people can safely walk/roll and ride a bicycle in the region. This includes clearly marked crosswalks, pedestrian signals, functional sidewalks, and separated bike lanes.

- Waterbury Rail Line

The Waterbury Line is a tremendous asset in the Naugatuck Valley planning region. It connects Waterbury to the New Haven main rail line in Bridgeport, where passengers can transfer to New York City and New Haven. Despite the inter-regional connections it provides, the Waterbury Line is underused because of infrequent service and lack of basic amenities. In June 2022, service increased to twelve inbound (toward Manhattan/away from Waterbury) trains and ten outbound trains on weekdays, as well as two substitute express buses. Despite additional weekday service, headways can be as long as 2 ½ hours, with average headways of more than 1 ½ hours. Weekend service is even less frequent. The current level and quality of service is not convenient or attractive for most riders.

Additional information about the current state of the Waterbury Line and its operations is in chapter 5 of this document.

- Fragmented Bus Service

CTtransit's Waterbury and New Britain & Bristol divisions provide fixed route bus service in the Central Naugatuck Valley MPO region, with Greater Bridgeport Transit extending into the larger Naugatuck Valley region. Express bus routes connect the region to CT*fastrak.* Bus service in the region is often fragmented with unreliable arrival times and connection opportunities, which is a challenge to presenting bus transit as a viable option. Bus routing improvements occur infrequently, and many areas remain underserved or have no bus service at all. Respondents to the MTP mobility survey have said that the region's bus service is slow, too infrequent to be reliable, and the lack of real time arrival information makes it difficult to plan trips. In addition, many stops lack amenities such as shelters or benches. Currently, there are no direct local bus connections between Waterbury, Bristol, the lower Valley, and other central Connecticut municipalities. As of the preparation of this report, bus fares have been suspended statewide by legislative action, and options for retaining fare-free service or re-instating fares are under review in Hartford.

- ADA Paratransit Service Gaps

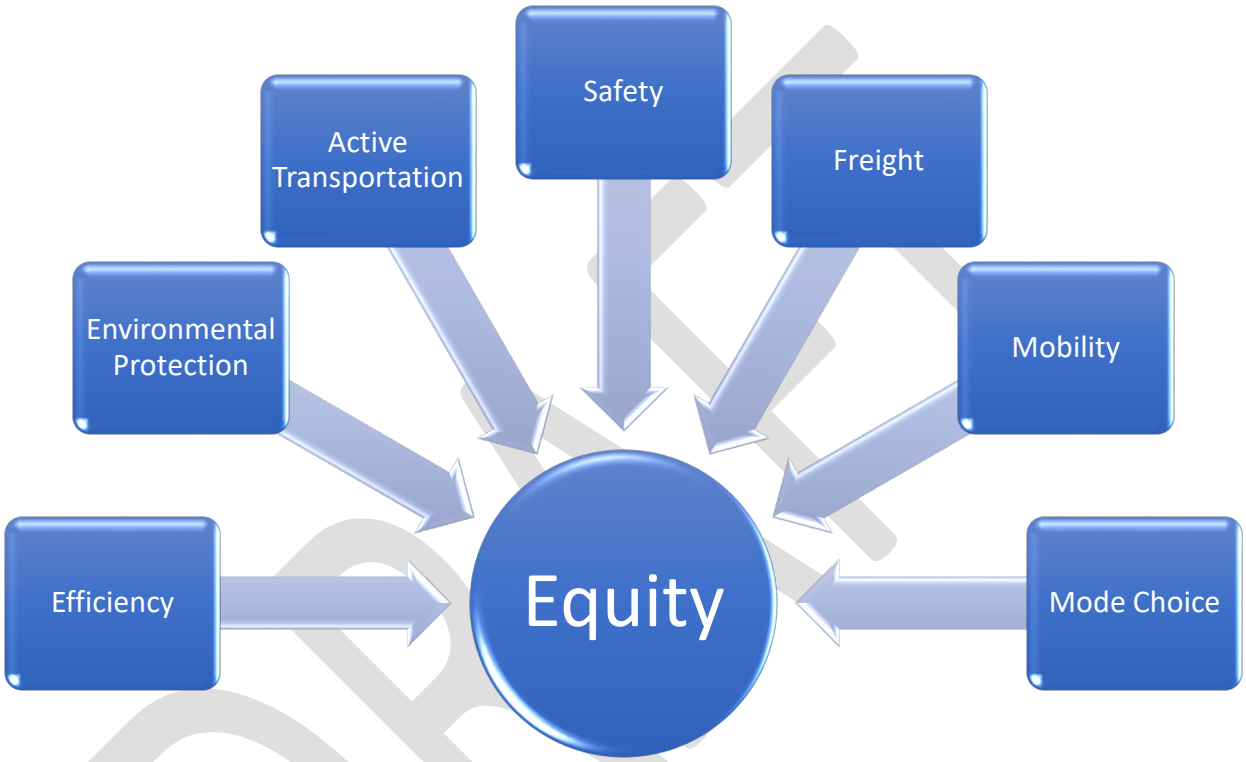
Federal regulations require fixed-route bus operators to provide complementary services to the elderly and individuals with mobility impairments that prevent them from using a regular fixed-route bus. MPOs and transit operators have conducted planning efforts to develop a *Locally Coordinated Human Services Transportation Plan (LOCHSTP)*. Throughout the region, limited fixed-route service and funding constraints prevent ADA and DAR services from reaching all who may need these services, and the NVCOG will be continuing studies to expand service throughout the region.

In addition to physical service gaps, the presence of multiple operators makes it difficult to coordinate services and ensure meaningful coverage. Similar to fixed-route operations, consolidation, or at least rationalization, of service governance will provide benefits to system operating costs and to users.

- Expand and Maintain Multi-use Greenway and Trail Facilities

Paths for walking/rolling and cycling, or active transportation corridors, are a valuable alternative to driving and help create livable communities by connecting them via non-motorized means. Building multi-use greenways and trails has substantial economic, health, and environmental benefits. Trails provide outdoor recreation and tourism opportunities, promote physical fitness and healthy living, preserve open spaces, and improve air and water quality. While residents of the region benefit greatly from the development of active transportation facilities, completing the planned system of trails

faces many challenges. Those include financial constraints, available rights-of-way, tight geographies, and lack of available data for use by planning and zoning commissions, economic development coordinators, and voters.



NVision50 puts equity at the center of all planning activities, utilizing seven major categories to define progress toward addressing inequities of the past.

3.2 TRANSPORTATION GOALS

Utilizing a data-first methodology, including a heavily publicized survey designed to gain insights and priorities from the public, NVCOG has identified transportation concerns and issues facing the region. The next step is to lay out the goals and long-term vision for transportation in the region, identifying priorities for investments and projects, and ensuring that the existing system is utilized effectively.

From the assessment of the existing transportation systems and trends, a vision for future travel and mobility in the Naugatuck Valley planning region emerged:

> *The NVCOG Planning Region Vision…*
>
> *To advance the goal of Vision Zero, acknowledging that even one fatality or serious injury on our transportation system is too many. The commitment to Vision Zero is a commitment to the value of those traveling within the region, and by utilizing a multi-disciplinary approach crashes resulting in fatalities and serious injuries can be avoided.*
>
> *To invest in and maximize the utilization of existing infrastructure, ensuring that facilities of all kinds, including roads, highways, sidewalks, and rail, are maintained in a state of good repair, and used in the most effective way.*
>
> *To ensure accessible and safe mobility for all, regardless of mode choice. The NVCOG defines mobility equity as "mobility for all ages, mobility for all abilities, mobility for all incomes, and mobility from anywhere to everywhere."*
>
> *To facilitate economic growth and revitalization through the efficient movement of freight into and throughout the region.*

The goals of the MTP remain consistent with work the NVCOG has undertaken in recent years and with the current investment of state and federal dollars. These goals are expanded upon below:

- Progress the goal of Vision Zero

  To work toward the goal of zero fatalities and serious injuries within the transportation system.

  Objectives:

  a) Utilize a data-based approach to identify locations with the highest number of fatal or serious injury crashes, then focus investments and improvements to these areas.
  b) In coordination with CTDOT, USDOT, and private partners, expand education to drivers and non-motorized users.

c) Work with all appropriate departments to ensure effective enforcement of traffic laws throughout the region.
d) Maintain a focus on equity and accessibility, ensuring that mobility is safe and guaranteed for all.
e) Continue collaboration with the Connecticut Vision Zero Committee, along with municipalities and CTDOT, to ensure that appropriate actions can be taken at every level of government to achieve this goal.

- Preserve and Maximize Value of the Existing Highway System

To maintain an efficient highway system that will provide the public with a high level of mobility, maintain the principal expressway and highway system in a state-of-good repair, address common locations of collisions, and focus on projects designed to the latest standards of safety and efficiency.

Objectives:

a) Focus federal investments into achieving and maintaining a state of good repair on existing infrastructure.
b) Integrate Intelligent Transportation Systems (ITS) and ensure ITS projects conform to the National and State ITS Architecture, standards, and protocols.
Ensure that projects and programs all receive a thorough review for their impact on accessibility and equity.
c) Where necessary, utilize improved traffic incident management (TIM) strategies

- Congestion Management

To develop and maintain a congestion management plan as the CNVMPO pursues TMA status and ensure programming of projects for areas of highest concern along the roadway network.

Objectives:

a) Use existing transportation facilities to maximize efficiency, safety, and positive local community impact.
b) Construct intersection improvements with a focus on vulnerable user safety and efficient operations. Where appropriate, consider alternatives such as roundabouts that reduce wait times and improve safety.
c) Implement traffic signal modernization and coordination.
d) Consider Transportation Systems Management and Operations (TSMO) strategies and Travel Demand Management (TDM) actions, such as ridesharing and promoting telecommuting and alternate work schedules.

- Ensure Transportation System Security

  To ensure that users of the transformation feel secure, using a combination of new technologies and traditional approaches.

  Objectives:

  a) Install monitoring equipment on-board transit vehicles to monitor operations and activities.
  b) Install equipment at transit stations such as monitored cameras and blue-light call stations to monitor waiting areas and provide easy access to all forms of emergency response.
  c) Assess the vulnerability of critical transportation infrastructure.
  d) Where appropriate, implement additional roadway security features, such as truck inspection stations and hazardous material response equipment.

- Evaluate and Utilize Advanced Technology

  To better manage transportation operations, enhance safety and mobility, ensure greater travel time reliability, and provide more detailed and up-to-the-minute information to travelers and system operators through the application of various Intelligent Transportation Systems (ITS) actions.

  Objectives:

  a) Integrate ITS features into future projects, ensuring ITS projects conform to the National and State ITS Architecture, standards, and protocol.
  b) Expand roadside infrastructure that monitors road conditions and provides real-time traveler information to motorists. Particularly, expand the CTDOT's monitoring and variable message system to Route 8.
  c) Continue upgrades to the rail system to ensure that all aspects comply with modern standards for the type of traffic they carry.
  d) Continue to monitor advances to vehicles, ensuring that pilot studies and rollout of advanced features occurs in a manner that prioritizes the safety of operators and vulnerable users.

- Preserve and Enhance Public Transportation Services

  To maintain essential local bus, passenger rail, and paratransit services by providing full funding for operations, replacing capital equipment on a life-cycle cost basis, renovating and rehabilitating facilities and infrastructure to a state-of-good-repair, and improving service through rationalized and better coordinated routes and reduced headways.

  Objectives:

a) Improve choice of travel modes by increasing service options and decreasing service headways. This will reduce highway congestion and provide greater mobility for those who cannot or prefer not to drive.
b) Promote rail and bus transit as easy, safe, and convenient modes within the region, encouraging users to switch some trips to transit when possible.
c) Replace passenger rail equipment with modern, clean vehicles and coaches with enhanced passenger amenities.
d) Encourage the CTDOT to continue investigating the electrification of the passenger service portion of the Waterbury Line to improve speeds and reduce noise and air pollution along the route.
e) Expand the public transit system within its service area and beyond, by improving transportation access and mobility, marketing those services, and developing transit services to suburban employment centers and service-heavy areas.
f) Promote ridesharing and increased vehicle occupancy through public campaigns, enablement technology, and incentives like those currently provided by CTrides.
g) Improve awareness and coordination of public transportation options available in the region.

- Expand Multi-Modal Opportunities

  To expand opportunities for travelers to easily switch between modes, providing first/last mile options and high-quality transit services in between.

  Objectives:

  a) Identify, develop, and enhance multi-modal transfer and connection points.
  b) Work with transit providers to better coordinate transfer times, focusing on realistic and well-timed pulses at critical locations between services.

- Enhance the Efficient Movement of Freight and Goods

  To expand and enhance opportunities for expediting movement of freight.

  Objectives:

  a) Improve the safety, environmental performance, and economic efficiency of freight movement and truck deliveries throughout the Naugatuck Valley planning region.
  b) Identify freight movement bottlenecks and constraints to efficient freight movement. Utilize the Congestion Management Process to regularly evaluate performance and program improvements to these areas.
  c) Reduce truck-related congestion by improving infrastructure for alternative modes of freight transport, including rail, air, and sea.
  d) Improve safety for truckers and other drivers by providing adequate facilities for rest breaks.
  e) Promote development of intermodal freight centers.

f) Deploy ITS elements to enhance the efficient movement of goods into, out of and through the region.
g) Monitor efficacy of the state's recently enacted heavy vehicle user fee.

- Enhance Bicycle and Pedestrian Facilities

To encourage and promote the increased use of bicycling and walking/rolling as a mode of transportation.

Objectives:

a) Increase the number of walkable communities through infrastructure improvements, transit-oriented development, and updated village/city center zoning codes.
b) Develop and expand bicycle paths and routes to provide a viable transportation alternative as an extension of the road network.
c) Promote the construction of the Naugatuck River Greenway, extension of the Middlebury Greenway, and completion of the Steele Brook Greenway connection to the Larkin Trail.
d) Provide comfortable, connected, and safe walkways for pedestrians.
e) Provide adequate and safe paths and routes for cyclists.
f) Enhance the aesthetic quality of existing transportation facilities.
g) Serve as the liaison to and administer the Naugatuck River Greenway Steering Committee.

- Environmental Protection

To implement actions to mitigate and alleviate natural and cultural environmental impacts of transportation project.

Objectives:

a) Promote clean modes of transportation including walking/rolling, cycling, and micro-mobility devices such as e-scooters and e-bikes, and connections between these modes and the region's transit network.
b) Monitor and maintain the region's highway network to address congestion and minimize motor vehicle emissions.
c) Continue to program transportation projects designed to achieve the region's air quality targets as identified in the 1990 Clean Air Act amendments.
d) Support the Connecticut *State Implementation Plan for Air Quality* and assist in efforts to achieve and maintain the National Ambient Air Quality Standards (NAAQS).
e) Promote and program the expeditious implementation of Transportation Control Measures.
f) Support the adoption of lower emission vehicles across the transportation network, including personal vehicles, trucks utilized for moving freight, and the transit network

Civil War Monument, Naugatuck Green

g) Ensure no goal, objective, directive, recommendation, or transportation improvement project contradicts the attainment of the NAAQS or increases the frequency or severity of existing violations of the NAAQS.
h) To maintain and improve and expand public transportation service to improve efficiency, reduce energy consumption and motor vehicle emissions.

- Sustainability

To develop a long-range transportation plan consistent with the Regional Plan of Conservation and Development and State Plan of Conservation and Development that links local land use management, transportation improvements, sustainability and livability initiatives and principles.

Objectives:

a) Create, promote, and support strong, sustainable, and livable communities, connecting them with active transportation corridors.
b) Target development to areas with existing infrastructure and coordinate the type, intensity, amount, location, and timing of new development to transportation system capacity.
c) Integrate transportation planning and land use planning as part of a major regional growth management policy to reduce the potential effects of urban sprawl.
d) Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods.
e) Promote transit oriented and supportive land use development plans.
f) Develop and implement a Complete Streets policy and program that accommodates all travelers and modes.
g) Undertake a regional guidebook for streetscape elements, improving the comfort and safety of the sidewalk network and assisting in economic development of municipal centers.

- Promote Economic Development and Revitalization

To improve transportation infrastructure critical to the economic vitality of the Naugatuck Valley planning region.

Objectives:

a) Develop local transportation infrastructure that supports economic expansion, such as complete streets, cycle paths, and road safety improvements through downtown areas.
b) Provide transportation services to employment centers and expand employment opportunities.

c) Ensure that employment throughout the region, regardless of surrounding development patterns, can be reached through multiple modes.

- Environmental Justice

To identify and address disproportionately high and adverse human health or environmental effects of the transportation programs, policies, and activities on minority and low-income populations, and identify strategies and techniques for meaningful engagement of populations meeting the needs for environmental justice.

Objectives:

a) Avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
b) Ensure the full and fair participation by all potentially affected communities in the planning decision-making process.
c) Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations and ensure that populations negatively impacted by transportation infrastructure receive commensurate benefit in return from its presence.
d) Provide additional public outreach to minority and low-income populations for projects within the region including providing meetings and/or pamphlets in other languages. The NVCOG Limited English Proficiency (LEP) plan provides additional details on this effort and will be maintained as part of the broader public outreach and Title VI efforts.

- Ensure Transparency and Proactive Public Involvement

To fully engage residents and stakeholders in identifying planning priorities, developing programs and projects, and publishing final products, and ensure meaningful access to participation in planning and policy decision-making processes for disadvantaged populations in our planning region.

Objectives:

a) Carry out a proactive public involvement process that promotes region wide citizen participation, minority involvement and equal employment opportunity.
b) Provide timely public notice and effective public involvement in the development of transportation plans, programs, and projects.
c) Maintain and enhance the NVCOG's website, ensuring it provides clear and detailed information about projects in the region.
d) Publish reports and documents in an electronic format, with paper copies available to those who want them.

- Project specific goals over the next 5 years

The following is an excerpt list of projects that can be constructed within the next 5 years. The projects all can be completed within these 5 years, have sources of funding readily available for them, and are fiscally constrained. The full list of projects can be viewed in Appendix A.

a) Pavement Rehabilitation along I-84 (Waterbury)
This project will reconstruct and rehabilitate pavement along I-84 between South Elm Street and Washington Street to bring that section of roadway into a state of good repair. The estimated cost is $70,000,000 and is identified as a major project of statewide importance by the CTDOT.

b) Corridor Improvements near Memorial Boulevard (Bristol)
This project will bring improvements to traffic flow, safety, and multi-modal users along Memorial Boulevard and Route 72 through downtown Bristol. This project is identified as a major project of statewide importance by the CTDOT and is estimated to cost $10,000,000. This project will build off of the currently under construction improvements to the Route 72 and Route 69 interchange to the west of this project's limits.

c) Roundabout Construction along Route 6 at Route 61 and Quassapaug Road (Woodbury)
This project will construct a new roundabout at the intersection of Route 6, Route 61 and Quassapaug road. The current intersection is a safety concern with several crashes within the past couple of years. The estimated cost is $4,000,000, and is identified as a major project of statewide importance by the CTDOT.

d) Relocation of Naugatuck Train Station (Naugatuck)
This project will construct a new train station in Naugatuck south of Maple Street along Old Firehouse Road. This will allow for a more suitable station for the WBL and the potential to facilitate development downtown. The estimated cost is $25,000,000 and currently identified funding sources included the FTA 5307 and 5337 programs.

e) Waterbury Station Improvements (Waterbury)
This project will renovate an indoor waiting area at the former Waterbury Union Station. This will provide passengers waiting for the next train a place to wait away

from the elements in a safe location. The estimated cost is $12,597,000 and will be paid for through state funding sources.

f) Exchange Place Improvements (Waterbury)
This project is the second phase of a downtown reconstruction project in Waterbury, the first phase being constructed along East Main Street. This project will include a section of North Main Street, South Main Street, and Bank Street, and will include sidewalk improvements, streetscape elements to improve the pedestrian and cyclist experience, and roadway reconstruction as necessary to achieve these goals. The estimated cost is $10,000,000 and is approved through the LOTCIP program.

g) West Main Street/NRG Phase II (Waterbury)
This project will construct the second phase of the Naugatuck River Greenway in Waterbury, connecting Eagle Street north to West Main Street. Additionally, it will support the implementation of the West Main Street Study's recommendations, improving pedestrian safety, adding bicycle facilities, and addressing traffic flow and safety issues. This project will cost $25,000,000 and is being funded 100% under a recently awarded RAISE grant.

- Project specific goals beyond the next 5 years

The following is a list of projects that can be constructed after the next 5 years. These projects are not fiscally constrained and are all meaningful projects to accomplish in the future. Several of these projects can be viewed in Appendix A.

a) New Mix (Waterbury)
The NewMix is an ongoing study which will lead to a complete reconstruction of the I-84 interchange with Route 8. The study will determine how the MixMaster will be replaced at the end of its useful life following the recent improvements. The current estimated cost is $3,000,000,000.

b) Relocation of bridge crossing Housatonic River from Stevenson Dam (Oxford)
This project will relocate Route 34 off the Stevenson Dam and onto a new bridge across the Housatonic River. The estimated cost is $70,250,000.

c) Additional Waterbury Branch Line Equipment (Various)
This project will obtain additional locomotives and rolling stock for the Waterbury Branch Line. This will facilitate additional trains during the day which will decrease

the headways between trips along the WBL. This project is a priority for the region if funding can be found or made available. The estimated cost is $97,983,000.

d) Central Connecticut Line Passenger Service (Various)
This project will upgrade the Central Connecticut Line to passenger service. The Central Connecticut Line runs between Waterbury and Berlin passing though Plymouth, Bristol, Plainville, and New Britain. The estimated cost is $985,000,000.

e) Torrington Passenger Service (Various)
This project will upgrade the section of rail line north of Waterbury up to Torrington for expanded commuter service to Torrington. This section of rail line only sees freight operations and tourism exertion service by the Railroad Museum of New England.

f) Electrification of Passenger Rail Service (Various)
Per the 2022 update of the CTDOT rail plan, it is a priority for the NVCOG region to see the electrification of all passenger rail service throughout the state, including the Waterbury Line and potential future service within the region. This will reduce noise and air pollution, increase speeds, and address reliability issues along the Waterbury Line.

g) Completion of Naugatuck River Greenway (Various)
These series of projects will connect existing pieces of the NRG to create a continues recreational trail along the Naugatuck River. This will create an active transportation corridor for all the municipalities the trail passes though and provides a safe place for various forms of active transportation. The estimated cost is approximately $76,634,000.

h) Track upgrades to WBL (Various)
This project will upgrade the tracks along the WBL between Milford and Waterbury to Class 4 standards, which will permit passenger train speeds of 80 miles per hour. Currently, the WBL has Class 3 standards which only permits passenger train speeds of 60 miles per hour. There is no cost estimate for this project at this time.

3.3 VISION ZERO

Each year, thousands of people are seriously injured or killed in preventable traffic accidents on American roads. Based on data from the University of Connecticut's Crash Data Repository, 102 people died in crashes on NVCOG roadways from the beginning of 2020 to the end of 2022, and 552 people were seriously injured during the same period. Each one of these losses impacted families and communities, and the NVCOG region is committed to ensuring these losses do not occur in the future.

Traditionally, decision-makers considered traffic deaths inevitable, and traffic safety focused on preventing collisions and perfecting human behavior, emphasizing the individual responsibility of roadway users. In recent years, however, a rapidly growing number of states, cities, and regions have embraced Vision Zero, a fundamentally different approach to traffic safety that utilizes a multi-disciplinary approach to eliminate fatalities and serious injuries. It uses a Safe Systems approach, which is a holistic strategy that focuses on safer people, safer roads, safer vehicles, safer speeds, and post-crash care. Vision Zero recognizes that people make mistakes and emphasizes policy and design to ensure these mistakes do not result in crashes in which people die or are seriously injured. Vision Zero encourages cross-disciplinary collaboration among planners, engineers, policymakers, and public health officials. It also seeks to minimize vehicle miles traveled (VMT) to reduce the potential for roadway crashes.

Within the NVCOG region, and the country, fatalities are concentrated in areas with larger minority populations and lower average incomes. This disparity is one of the significant equity issues within the region. The NVCOG must address this disparity to ensure that the burdens of the transportation system do not fall unfairly on specific communities.

The NVCOG Board adopted a resolution committing to a goal of zero traffic deaths, following the principles of Vision Zero, in September 2022. All projects and priorities in this document must consider safety/Vision Zero as a priority during concept development and design. NVCOG staff also regularly participate in the State's Vision Zero Council (VZC), an interagency working group that develops statewide policy to further the goals of Vision Zero. VZC subcommittees focus on engineering, enforcement, education, and equity.

Core elements of Vision Zero include:

- Public, high-level, ongoing commitment – Key elected officials and leaders of public agencies commit to eliminating traffic fatalities and serious injuries within a specific timeframe. Agency leaders prioritize safety through a collaborative working group and other resource sharing efforts.

- Authentic engagement – Employ meaningful, accessible, and equitable community engagement toward implementing Vision Zero strategies.
- Strategic planning – Develop, approve, and use a Vision Zero Action Plan to guide work. The Plan should identify specific goals, measurable strategies, and responsible stakeholders with clear timelines.
- Project delivery – Decision makers, planners, and designers secure funding and advance projects and policies that emphasize safe and equitable multimodal travel. Prioritize roads with the most pressing safety issues.
- Complete Streets for all – Complete Streets is a holistic approach to planning, designing, and building a street environment that enables safe, well-connected access for all users. For additional information, see Chapter 9 Section 3 of this document.
- Context-appropriate speeds – Set and manage traffic speeds to achieve safe roadway conditions and protect all users.
- Equity-focused analysis and programs – Prioritize engagement and investment in traditionally underserved communities and adopt equitable traffic enforcement policies.
- Proactive, systemic planning – Use a systems-level approach to identify and address risk factors, avoid crashes, and mitigate crash severity.
- Responsive, hot spot planning – Create and regularly update a map of the region's fatal and serious injury crash locations to guide priority actions and funding. In the past, NVCOG has identified and mapped crash locations in the RTSP.
- Comprehensive evaluation and adjustments – Regularly evaluate and share project performance to inform priorities, budgets, and updates to the Action Plan.

This plan aims to address some of the engineering steps in the region's Vision Zero goal, with all programmed projects focusing on improving safety, especially for vulnerable users. The programmed projects also aim to provide additional options for mode-choice, which will both expand mobility for residents and help reduce the total number of miles driven, especially by those who would prefer not to drive. A few key pieces of the NVCOG's plan are detailed below:

- NVision Zero – The region's public campaign aims to educate residents about the Vision Zero goal, the strategies planned to improve safety, and to provide essential data about safety within the region.
- TTAC Safety Sub-Committee – The Transportation Technical Advisory Committee will establish a sub-committee focused on safety. This group will review key projects for their impact, help to establish a quick-build improvement guidebook, and serve as the technical advisors to the NVCOG Board.

- Enforcement Sub-Committee – The enforcement sub-committee will comprise members of municipal law enforcement agencies. This group will focus on sharing best practices around speed and driving safety enforcement, as well as provide additional input on quick-build safety improvements.
- Updated Reporting – Because Vision Zero depends on a data-driven approach, the NVCOG will provide bi-annual data with a breakdown of crashes by user type, location, and severity.
- Education – The region will work in conjunction with school districts, Departments of Parks and Recreation, and advocacy groups to encourage an elementary school curriculum for safe habits as pedestrians and a middle school bicycle safety education course.

Wolcott Town Hall