

## South Central Regional Council of Governments

# **Safety Action Plan**

**July 2023** 



Prepared For:

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## **Action Plan Stakeholders and Task Force Members**

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The South Central Regional Council of Governments (SCRCOG) manages federal transportation funds for various regional transportation modes including transit, highways, non-motorized travel, and other means serving both freight and people in the south central region of Connecticut. Figure 1 illustrates SCRCOG's member municipalities.

To achieve safer transportation for all its users, SCRCOG has developed this Safety Action Plan. This plan provides updates to the 2017 Regional Transportation Safety Plan by analyzing 2017-2021 crash data and applying this information to identify countermeasures that can improve safety at cited high frequency crash corridors and intersections.

For the years 2017 to 2021, a total of 266 fatal crashes were reported on roadways within SCRCOG's jurisdiction. Figure 2 summarizes the frequency of reported fatal and injury crashes. SCRCOG has committed to advancing roadway safety through its zero-goal resolution as guided through this Action Plan. Transportation network improvements that address walking, biking, transit, and driving, are strategically prioritized. This action plan includes input from each of SCRCOG's fifteen individual communities and from SCRCOG staff to ensure the region's overall interests are also incorporated into the report.

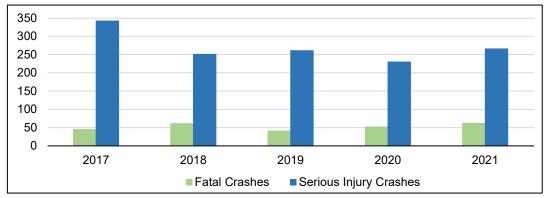


Figure 2: SCRCOG Crash Trends (2017 - 2021)

#### Wallingford Bethany North Haven Wood-North bridge Branford Haven Guilford New Haven Orange West Branford Haven Milford

Figure 1: SCRCOG Administrative Boundary

The plan is data-driven, multimodal, and multidisciplinary. It outlines effective measures and goals to reduce potential future crashes by using a systemic approach which better positions the region to compete for safety funds. The action plan was developed in coordination with SCRCOG staff and local stakeholders to provide equitable distribution of funding for the region's communities.

## 1. Introduction

## 2. Regional Overview

The South Central Region of CT encompasses a diverse area covering 370 square miles. Its population is over 570,000<sup>1</sup>. It extends west to east from the City of Milford to the Town of Madison, and north to south from the City of Meriden to the City of New Haven with the latter centrally located along Long Island Sound. The fifteen municipalities in the region include four cities and eleven towns.

SCRCOG is a designated Metropolitan Planning Organization (MPO) for federally mandated transportation planning purposes. Within the south-central region, the areas surrounding the I-91 and I-95 corridors and the Route 1, 5, 10 and 80 corridors are primarily commercial and industrial. Branford, East Haven, Hamden, Meriden, Milford, New Haven, Wallingford, and West Haven all have areas of highdensity residential use. High-density residential use is defined as four to eight dwelling units per acre. Figure 3 provides general statistics of the region.

In recent years, Connecticut has made significant investment in regional infrastructure with major projects from the Pearl Harbor Memorial Bridge to the New Haven-Hartford-Springfield (NHHS) Rail line, bike and pedestrian improvements, and coastal infrastructure improvements. In addition, SCRCOG has increased housing density with the implementation of several multi-family housing units and transit-oriented development (TOD) projects. Such developments are opening new housing opportunities for current and future residents.

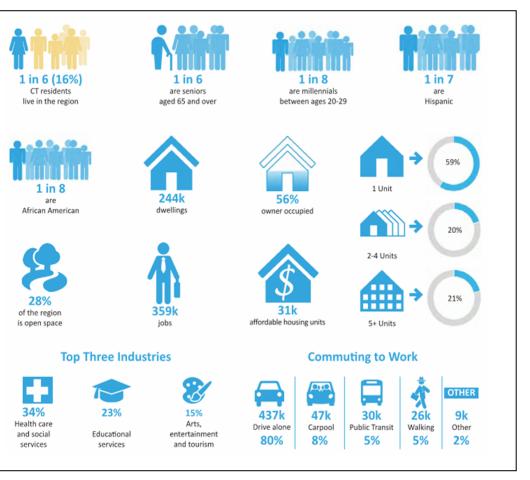


Figure 3: SCROG Overview Based on U.S. Census 2010 (Source: Plan of Conservation & Development 2018-2028)

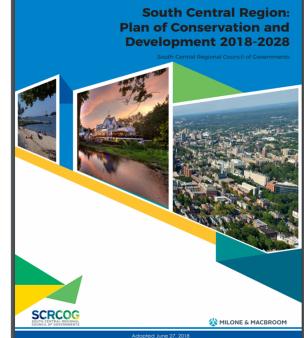
<sup>&</sup>lt;sup>1</sup> South Central Region: Plan of Conservation & Development 2018-2028. <u>https://scrcog.org/wp-content/uploads/2018/07/2018-07-SCRCOG-POCD-report-online.pdf</u>

### **2.1 Transportation Network**

The region of south central Connecticut is home to a dynamic network of transportation alternatives. Interstates 91 and 95 and State Routes 1, 5, and 15 provide a substantial major arterial network for auto users. In addition, Metro-North, Shore Line East, and Amtrak lines operating parallel to Interstate 95 and Route 1 provide commuting alternatives. Tweed New Haven Airport located in the member municipalities of New Haven and East Haven provides commercial air service to both Connecticut and adjacent states. The Port of New Haven, the busiest port between New York and Boston and the largest deep-water port in the State of Connecticut<sup>2</sup>, provides freight services for the region.

CTtransit, the bus service owned by the Connecticut Department of Transportation, provides bus service to the Region with 15 fixed routes, one intercity express, and two shuttle services. Phase 2 of this study, funded through CRCOG, provides a toolbox of enhancements to support and modernize bus systems along core routes in the greater New Haven area. The Move New Haven Transit Mobility Study provides "potential transit supportive options to strengthen and modernize the CTtransit New Haven bus system" <sup>3</sup>.

In compliance with the Americans with Disabilities Act (ADA) of 1990, CTtransit provides paratransit services in all areas with local fixed route bus services for people with disabilities. There are 11 service providers that offer ADA and paratransit services throughout the state<sup>4</sup>. Within SCRCOG region, paratransit options are served by Greater New Haven Transit District, Milford Transit District and North-East Transportation Company.



Source: South Central Region POCD, 2018-2028.

Greenways and recreational trails provide multimodal transportation options for both residents and visitors in the region. The Farmington Canal Heritage Trail, the Quinnipiac River Greenway, Woodbridge Greenway Trails, Milford Greenway System, West River Watershed, and the Shoreline Greenway Trail are all popular greenways located in the region. In addition, the East Coast Greenway, which links 15 states and 450 cities and towns for 3,000 miles from Maine to Florida, also passes through south central CT. According to the most recent SCRCOG Plan of Conservation and Development<sup>5</sup>, there has been significant investment to construct formal bike and pedestrian facilities in this planning district.

SCRCOG transportation network is depicted in Figure 4.

<sup>&</sup>lt;sup>2</sup> City of New Haven, <u>https://www.newhavenct.gov/government/departments-divisions/port-authority</u>, April 10, 2023

<sup>&</sup>lt;sup>3</sup> Move New Haven Transit Mobility Study, 2019. <u>https://portal.ct.gov/-/media/DOT/documents/dpolicy/MoveNewHavenStudyFinalReportFINAL09272019.pdf</u>

<sup>&</sup>lt;sup>4</sup> ADA and Paratransit Services. <u>https://portal.ct.gov/DOT/Publictrans/Bureau-of-Public-Transportation/Paratransit-service</u>

<sup>&</sup>lt;sup>5</sup> South Central Region: Plan of Conservation & Development 2018-2028. <u>https://scrcog.org/wp-content/uploads/2018/07/2018-07-SCRCOG-POCD-report-online.pdf</u>

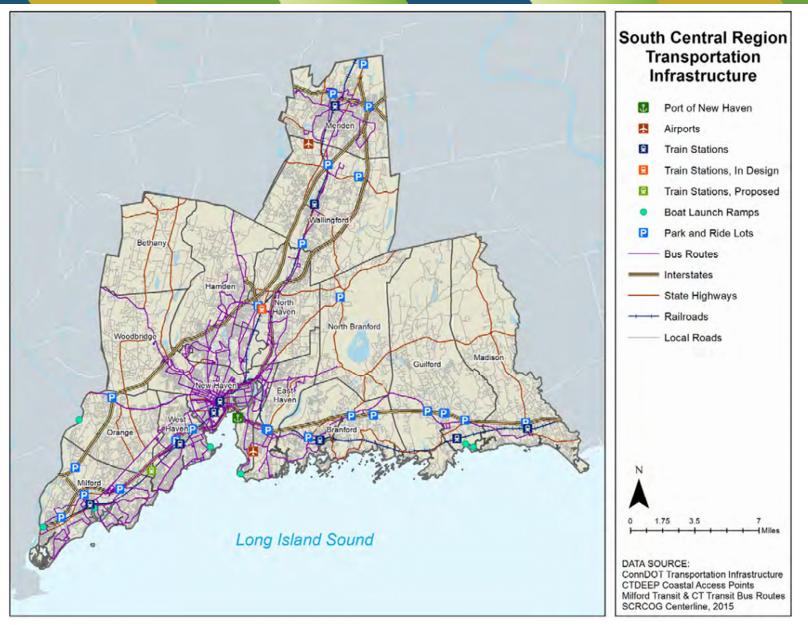


Figure 4: SCRCOG Transportation Network (Source: Plan of Conservation & Development 2018-2028)

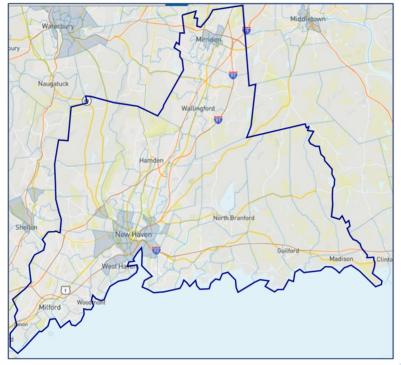
## 2.2 Equity

#### Climate and Economic Justice Screening Tool (CEJST)

This update of the RTSP incorporates equity into its analysis to ensure historically marginalized communities are prioritized. The CEJST<sup>6</sup> was utilized to identify these communities that have traditionally been marginalized, underserved, and overburdened by climate change, pollution, and environmental hazards. The Justice40 Initiative aims to mitigate the underinvestment in disadvantaged areas and to provide at least 40% of the resources from federal grants, programs, and initiatives to these communities. The CEJST uses geospatial mapping based on the following eight categories of burden to systematically identify disadvantaged communities:

- 1. Climate Change
- 2. Energy
- 3. Health
- 4. Housing
- 5. Legacy Pollution
- 6. Transportation
- 7. Water and Wastewater
- 8. Workforce Development

An area is identified as "disadvantaged" on the CEJST map if it is (1) at or above the threshold for one or more environmental, climate, or other burdens, and (2) at or above the threshold for an associated socioeconomic burden<sup>7</sup>. A census tract that is encircled by disadvantaged areas and is at or above the 50th percentile for low income is also designated a disadvantaged community. Based on this tool, the disadvantaged communities within SCRCOG's jurisdiction are in Meriden, West Haven and New Haven as shown in Figure 5. According to the 2020 Census Demographic Data<sup>8</sup>, 20% of SCRCOG's population lives within disadvantaged census tracts which furthers the region's resolve to remedy this inequity as outlined in this Action Plan.



#### Disadvantaged Communities in SCRCOG

- Total of 28 disadvantaged census tracts
- 21% of the population lives within disadvantaged census tracts
- 9 out of 28 tracts includes Transportation burden.

Figure 5: SCRCOG Disadvantage Census Tracts (Source: Climate & Economic Justice Screening Tool)

<sup>&</sup>lt;sup>6</sup> Climate and Economic Justice Screening Tool Map. <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>

<sup>&</sup>lt;sup>7</sup> Climate and Economic Justice Screening Tool Methodology: <u>https://screeningtool.geoplatform.gov/en/methodology#7.43/50.328/-99.897</u>

<sup>&</sup>lt;sup>8</sup> 2020 Census Demographic Data Map Viewer <u>https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=2566121a73de463995ed2b2fd7ff6eb7</u>

#### Environmental Justice Communities in Connecticut

Historically, some Connecticut communities have been subjected to higher negative impacts from one or more environmental hazards, socio-economic burdens, or both. The CT Environmental Justice Program is seeking to remedy this by prioritizing funding within environmental justice communities. Borrowing the definition from the United States Environmental Protection Agency (EPA) which defines environmental justice as "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"<sup>9</sup>.

An environmental Justice community is defined by the Connecticut General Statutes as:

- 1. a distressed municipality, as designated by the Connecticut Department of Economic and Community Development (DECD), OR
- 2. defined census block groups where 30% of the population is living below 200% of the federal poverty level.<sup>10</sup>

Each year, the DECD compiles and publishes a list of Distressed Municipalities that includes the state's most economically distressed municipalities. Figure 6 illustrates SCRCOG distressed municipalities and environmental justice blocks based on 2022 data.

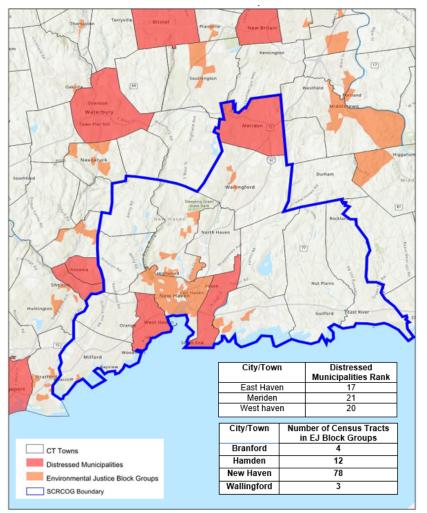


Figure 6: SCRCOG 2022 Environmental Justice Communities (*Source:* 

<u>https://ctdeep.maps.arcgis.com/apps/webappviewer/index.html?id=d</u> 04ec429d0a4477b9526689dc7809ffe)

<sup>&</sup>lt;sup>9</sup> US Environmental Protection Agency. <u>https://www.epa.gov/environmentaljustice</u>

<sup>&</sup>lt;sup>10</sup> CT DECD Environmental Justice Communities. https://portal.ct.gov/DEEP/Environmental-Justice/Environmental-Justice-Communities

### 2.3 Climate Change, Resiliency and Sustainability

In 2018, the Connecticut Institute for Resilience and Climate Adaptation (CIRCA)<sup>11</sup> launched the "Resilient CT" project. Even though this project initially focused on areas impacted by Superstorm Sandy in New Haven and Fairfield Counties, it later expanded to cover the whole state. In collaboration with state agencies, regional councils of governments, and municipalities, CIRCA's goal is to mitigate the impacts of climate change by augmenting the resilience of vulnerable communities.

As a part of that initiative, SCRCOG participated in two workshops to help identify Resilience Opportunity Areas (ROAR) and to develop potential regional adaptations. Resilient CT defines ROAR as "a Resilience Opportunity Area representing the intersection of climate-induced flooding and heat risks with vulnerable populations and planning priorities." Heat, flooding, and precipitation solutions can include projects in housing, transportation, critical infrastructure, and ecological systems.

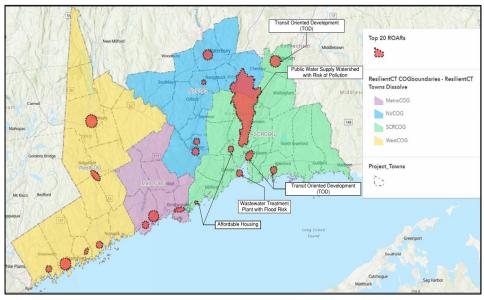


Figure 7: ROARs within CT, SCRCOG Region is in Green.



Photo 1: Dune restoration Project, Milford, CT (Source: CIRCA)

Figure 7 shows the top 20 ROARs in Connecticut and describes the type of projects within SCRCOG. Currently, phase III of Resilient Connecticut is active that will build on Phase II ROARS with detailed analysis and will take the infrastructure components to 30% conceptual design. Seven projects are selected for this phase and two of these selected projects are within SCRCOG. One of the projects is in Branford that will address flooding from the Branford River by providing underground detention to reduce drainage-related flooding. The other one is in Fair Haven that will focus on developing strategies to mitigate flooding, extreme heat and other impacts to community assets and transportation corridors. Other Resiliency Efforts within SCRCOG Region includes-

- Meriden Green a 14-acre flood control/park and economic development project.
- SCRCOG Regional Framework for Coastal Resilience.

<sup>&</sup>lt;sup>11</sup> Resilient CT. <u>https://resilientconnecticut.uconn.edu</u>, May 04, 2023.

This report's findings are based on the SCRCOG Region's 2019-2021 injury and fatal crash data collected from the University of Connecticut's Crash Data Repository (CTCDR) website<sup>12</sup>. This data was used to identify the overall trends which are further discussed in this chapter. The high injury network identified in Chapter 6 is based on the safety analysis performed using the Connecticut Roadway Safety Management system (CRSMS)<sup>13</sup>.

This report is a collaborative effort between the SCRCOG staff and representatives from SCRCOG's member municipalities that formed an advisory task force for this plan. SCRCOG staff and the municipal representatives provided local and historical insights into the crash data analysis and into the selection of countermeasures. The data gathered and included in this study represents fatal and injury crashes that occurred on both local and state roads. Property damage only crashes and incidents on limited access highways, were excluded. The collective historical insight into local safety issues and the collected crash data provided a comprehensive overview of the Region's transportation system. Table 1 documents the crash numbers by municipality.

Town name	Total Fatal & Injury Crashes (2019 - 2021)	2021 Population (Based on US Census Population Totals 2020-2021)	Crash Rate (Crashes/10k population)
Bethany	97	5,288	61.14
Branford	353	2,8176	41.76
East Haven	423	2,7804	50.71
Guilford	187	2,2031	28.29
Hamden	1214	6,0923	66.42
Madison	165	1,7619	31.22
Meriden	1171	6,0517	64.50
Milford	908	5,2390	57.77
New Haven	4852	13,5081	119.73
North Branford	182	13,498	44.94
North Haven	749	24,169	103.30
Orange	706	14,246	165.19
Wallingford	762	44,194	57.47
West Haven	1,132	55,294	68.24
Woodbridge	251	9,045	92.50

Table 1: Municipal Crash Rates

## 3. Safety Overview

#### The Connecticut Crash Data Repository (CTCDR)

- Enables users to query, analyze and export the data for research and informational purposes.
- Data is based on the information from the crash report recorded by the law enforcement officer.
- Does not categorize crashes by the emphasis areas identified in Connecticut SHSP.

#### Connecticut Roadway Safety Management System (CRSMS)

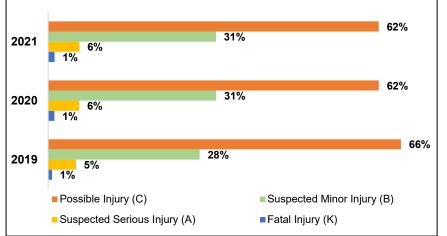
- Enables users to conduct the six-step highway safety management process as described in the HSM.
- As of May 2023, only includes • crashes until December 2021 for performing Network Screening.
- Labels crashes based on the emphasis areas identified in Connecticut SHSP.

<sup>12</sup> https://www.ctcrash.uconn.edu/

<sup>13</sup> Connecticut Roadway Safety Management System https://crsms.uconn.edu/dashboard

### 3.1 Crash Trends

Level of Injury



In 2019, there were a total of 4,916 injury and fatal crashes within the south central region followed by 3,834 injury and fatal crashes in 2020. The decrease in crashes is attributed to pandemic related travel patterns. In 2021, the total injury and fatal crashes increased to 4,402. Figure 8 provides the annual breakdown of crashes by level of injury. The distribution of the level of injuries stayed consistent even during the pandemic.

#### Driver Age

Figure 9 shows distribution of crashes by driver age. Documented crash reports include the age of each driver involved in the incident. The most prevalent age groups for injury crashes within the SCRCOG region are 25 to 34 years old (25.5%) and 35 to 44 years old (18.2%). Drivers younger than 25 years old total 18.8% of the involved drivers and 9.7% of involved drivers are classified as older drivers (age 65+).

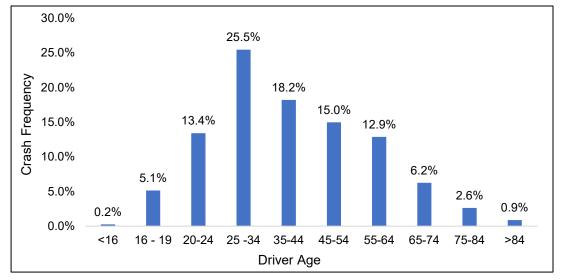


Figure 8: Level of Injury by Year

Figure 9: Crash Distribution by Driver's Age

#### Crash Type

Figure 10 shows the summary of the crashes by crash type. The predominant crash type for injury crashes is front to rear or rear-end crashes (35.4%), followed by angle crashes (30.8%). The third highest-crash type is fixed object (12%) collisions. Crashes involving pedestrians, bicyclists, and motorcyclists account for 5.3%, 1.1% and 1.1% of crashes respectively.

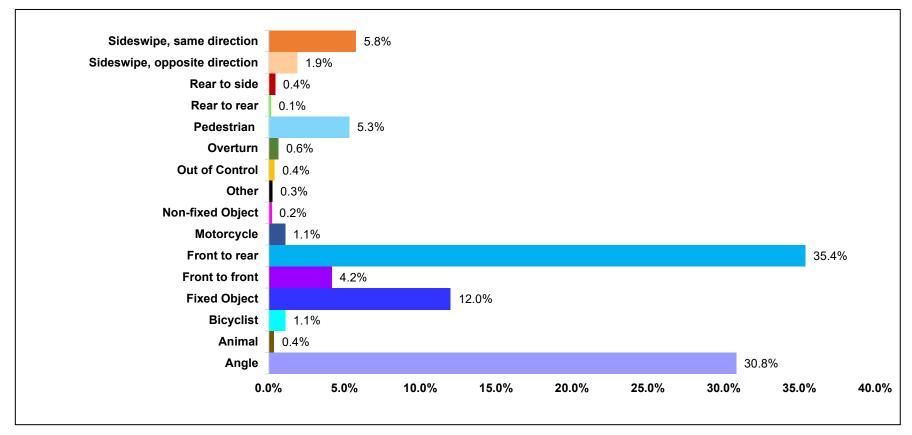


Figure 10: Distribution of Crashes by Crash Types

Figure 11 shows all motor vehicle crashes resulting in injury or fatality within the study period.

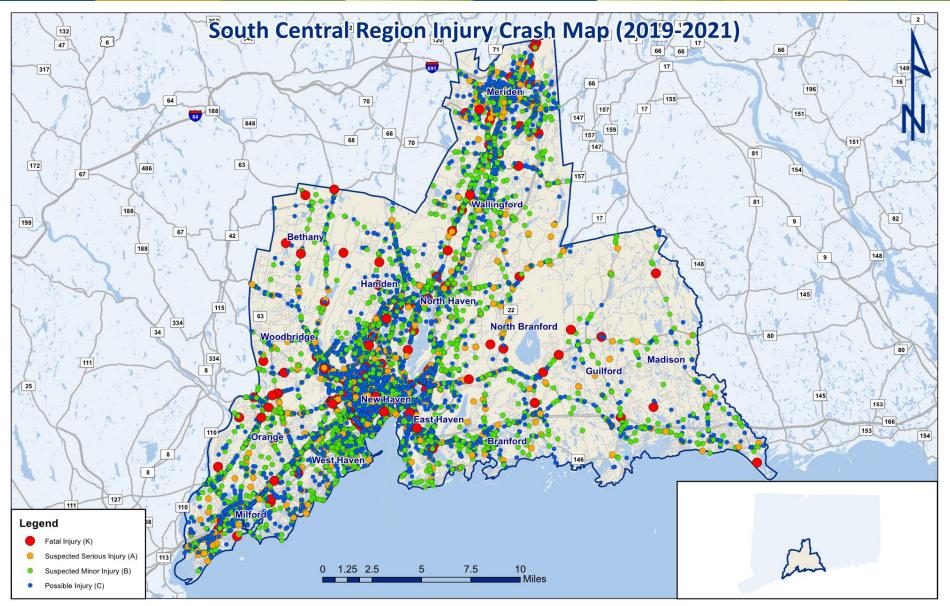


Figure 11: All Fatal and Injury Crashes within SCRCOG (2019 -2021)

### 3.2 Non-Motorized Road Users

Between 2019 and 2021, there were 845 injury crashes involving nonmotorized road users. Non-motorized crashes were identified through the "first harmful event" column and the crash diagrams included in the dataset from the Connecticut Crash Data Repository. Figure 12 summarizes bicycle and pedestrian crashes by year and by severity.

Among these crashes, 17% were related to bicyclists and 83% were related to pedestrians. Furthermore, despite lower volumes of vehicle traffic during the pandemic in 2020, non-motorized road user crashes increased consistently from 2019 to 2021. Even though pedestrian and bicycle crashes only make up for 6.4% of total injury crashes in the south central region, the consequences involving pedestrians and bicyclists were more severe than motor vehicle crashes. This is shown in Figure 13. Pedestrian crashes proportionately result in more fatal injuries than any other crash type emphasizing the urgency for non-motorized user safety improvements.

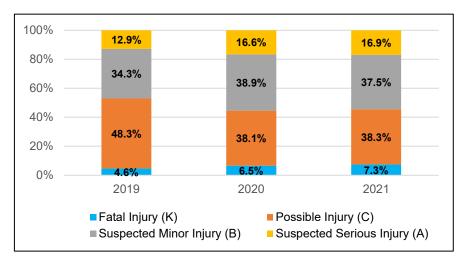


Figure 12: Non-Motorized Crashes by Year

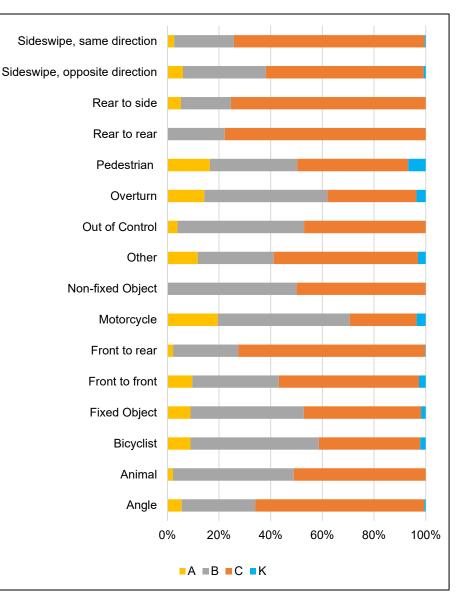


Figure 13: Level of Injury for All Crash Types

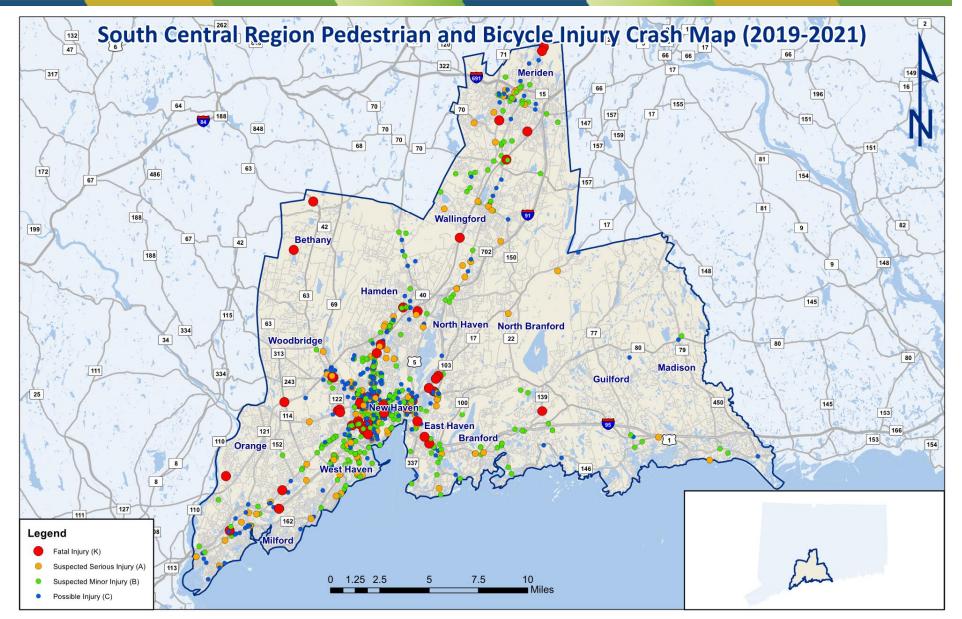


Figure 14: Pedestrian and Bicycle Fatal and Injury Crashes within SCRCOG (2019 - 2021)

## 4. Existing Efforts

The SCRCOG Action Plan is a coordinated effort between SCRCOG and a taskforce comprised of stakeholders from member municipalities. The strategies and recommendations documented in this plan are aligned with the following planning efforts and guidelines completed and publicly adopted by the state, SCRCOG and/or local entities.

### 4.1 Statewide Planning Efforts

#### Connecticut Strategic Highway Safety Plan (SHSP)<sup>14</sup>

The Strategic Highway Safety Plan (SHSP) is a statewide, data-driven, comprehensive, multidisciplinary transportation safety plan integrating the 4Es of safety — education, enforcement, engineering, and emergency response. In coordination with federal, state, local and private sector safety stakeholders, the SHSP establishes goals, objectives, and emphasis (or challenge) areas to reduce traffic fatalities and serious injuries on all public roads.

The SHSP is focused on three Emphasis Areas—Behavior, Infrastructure, and Pedestrian—and identifies proven strategies, approaches, and policies that will be implemented to move toward zero deaths. Connecticut's commitment is to achieve a 15% reduction or more based on the five-year rolling average of fatalities and serious injuries from 2022 to 2026. The performance-based strategies are based on five measures: fatalities, fatality rate, serious injuries, serious injury rate and non-motorized fatalities and serious injuries.

#### Emphasis Areas

#### Infrastructure EA

- Roadway Departure
- Intersections

#### **Behavior EA**

- Impaired
- Unrestrained
- Aggressive
- Motorcycle
- Distracted

#### Pedestrian EA

#### 2019 CT Active Transportation Plan

**Goal #1** Improve Pedestrian and Bicyclist Safety

**Goal #2** Enhance Mobility for Pedestrians and Bicyclists

**Goal #3** Utilize Resources to Achieve Meaningful Improvements

#### Connecticut Active Transportation Plan<sup>15</sup>

The Connecticut Active Transportation Plan was completed in 2019 with a purpose of highlighting past efforts and guiding the State to design and construct a transportation system that would be safer and more accessible for all. Their vision is to foster and improve walking, bicycling, and other active transportation modes, so that all persons, regardless of ability, age or income can safely do so throughout the entire state.

<sup>&</sup>lt;sup>14</sup> Connecticut Strategic Highway Safety Plan, 2021. <u>https://portal.ct.gov/DOT/Bureau-of-Policy/Strategic-Highway-Safety-Plan</u>

<sup>&</sup>lt;sup>15</sup> Connecticut Active Transportation Plan 2019. <u>http://www.ctbikepedplan.org/</u>

### 4.2 SCRCOG Planning Efforts

#### Metropolitan Transportation Plan 2023 - 2050<sup>16</sup>

The South Central Regional Metropolitan Transportation Plan (MTP) outlines how the region plans to invest in the transportation system from 2023-2050. The report contains short-term and long-term strategies/actions to foster development of an integrated intermodal transportation system. This is a performance-based effort that incorporates performance measures to evaluate outcomes. According to the MTP, the region's transportation lacks efficiency and reliability and requires supplemental funding through enhancements and initiatives. The plan states there is a need for more interagency discussion and coordination and echoes the region's vision to expand transit-oriented



development (TOD) through selective investments.

#### Bicycle and Pedestrian Plan Update

#### MTP Overarching Goals

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

In 2017, SCRCOG published an updated pedestrian and bicycle plan<sup>17</sup> that highlighted the need to accommodate and bolster active transportation in the south central region. The plan focused on improving safe walking and bicycling, establishing an equitable network of transportation, enhancing the links between various modes of transportation, and creating a network that makes community facilities, businesses, and neighborhoods more available and accessible for people of all ages, abilities, and income levels. Its vision is the following:

- Collect and assess the existing conditions in the region as well as update the bicycle and pedestrian related goals for the future,
- Ensure that the region stays on track to create a safer and more balanced transportation network, accessible for all users regardless of age, physical capacity, or income.
- Review the progress made in the last ten years, as well as the shifting needs, concerns, and desires
  of each of the fifteen municipalities, and
- Provide the region with a prioritized list of areas that are in need of bicycle and pedestrian improvements, so that spending on such improvements can be appropriately distributed.

<sup>&</sup>lt;sup>16</sup> SCRCOG Metropolitan Transportation Plan 2019 – 2045. <u>https://scrcog.org/wp-content/uploads/2021/01/SCRCOG\_MTP\_Final\_4\_24\_19.pdf</u> Downloaded April 2023.

<sup>&</sup>lt;sup>17</sup> SCRCOG Bicycle and Pedestrian Plan Update. https://scrcog.org/wp-content/uploads/2019/08/SCRCOG BikePedPlanUpdate 2017.pdf Downloaded April 2023.

#### Regional Transportation Safety Plan<sup>18</sup>

The South Central Regional Transportation Safety Plan (RTSP) is in alignment with the CT SHSP and serves as a road map and strategy to help the region and all fifteen municipalities collaborate with the State in reducing fatalities and injuries and increasing safety awareness. The RTSP uses a similar methodology to the State plan, but is less expansive in size, reflecting the needs of the individual communities and the region as a whole. SCRCOG's member municipalities provided local and historical insights into the crash data analysis. This included a synopsis of current and upcoming state and local projects, historically challenging traffic sites that are not always reflected in the data, and input on the selection of safety countermeasures. In order to ensure stakeholder input, representatives from the four E's of transportation safety; engineering, enforcement, education, and emergency response were engaged.

## 4.3 Local Planning Efforts

#### West Haven Bicycle and Pedestrian Plan

The City of West Haven is currently updating the Bicycle and Pedestrian Plan and evaluating the current walking and biking conditions in the city. The plan identifies known deficiencies and provides bike and pedestrian infrastructure recommendations along prioritized corridors. The end goal of the plan is to create the infrastructure and culture which permits people of all ages and abilities to walk and bike safely and comfortably throughout West Haven. The highlighted goals are:

- 1. To improve safety conditions for pedestrians and bicyclists.
- 2. To increase transportation choice by promoting additional modes of travel.
- 3. To enhance connections between different areas of the city.
- 4. To provide access for residents of all ages, abilities, and income levels. <sup>19</sup>

#### Madison Complete Streets

In 2018, Madison adopted a Complete Streets Policy that provides a written annual report documenting the progress with Complete Streets investments, pedestrian and bicycle facilities, transit improvements, ADA accommodations, traffic calming, maintenance and crashes involving non-motorized users. This annual reporting and evaluation ensure that the town remains dedicated to their goal of "gradually transforming Madison from a community that disproportionally encourages automobile travel to one that invests in transportation infrastructure equitably across all modes to the benefit of all members of the community and its visitors, while maintaining the charm and appeal of a small town".<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> SCRCOG Regional Transportation Safety Plan, 2018. <u>https://public.3.basecamp.com/p/dxDK1CRZauJHbg9A9mF31yz6</u> Downloaded April 2023.

<sup>&</sup>lt;sup>19</sup> West Haven Bicycle and Pedestrian Plan. <u>https://www.cityofwesthaven.com/307/Current-Recent-Planning-Initiatives</u> Downloaded April 2023.

<sup>&</sup>lt;sup>20</sup> Town of Madison Complete Street Policy. <u>https://www.madisonct.org/DocumentCenter/View/1920/Complete-Streets-Policy---Adopted-May-29-2018-?bidId=</u> Downloaded April 2023.

#### Madison Bike and Walk Master Plan<sup>21</sup>

In 2018, Madison's Bicycle and Pedestrian Advisory Committee was formed by the town to assist in creating a long-range master plan for biking and walking. To date, the organization has completed several road safety assessments and Safe Routes to School assessments and has hosted multiple bike and walk events.



#### Connectivity Master Plan for the Woodbridge Business District

#### Guilford Safe Streets

In March 2020, the Safe Streets Task Force adopted a Complete Streets resolution "to improve safety, mobility options, and connectivity, while preserving and enhancing Guilford's scenic, historic, and environmental resources".<sup>22</sup> Building



upon this resolution, in March 2023, the task force published the Guilford Safe Streets Report. The report includes details on their public engagement efforts, a sidewalk and ADA ramp inventory, and recommendations for infrastructure and typologies, neighborhood-specific recommendations, and implementation guidelines. The report is not an action plan but an overarching document to guide the town in how best to proceed to make mobility improvements.

In February of 2023, the Town of Woodbridge adopted a pedestrian based Connectivity Master Plan for the Woodbridge Business District<sup>23</sup>. The purpose of the plan is to strengthen pedestrian and bicycle linkages throughout the Woodbridge Business District including strategies for traffic calming. The goal of the plan is to encourage alternate modes of transportation, reduce traffic related injuries and fatalities, attract new and unique businesses, enhance neighborhoods, and make the Woodbridge Business District a vibrant destination.

<sup>&</sup>lt;sup>21</sup> Town of Madison.<u>https://www.madisonct.org/885/Bicycle-and-Pedestrian-Advisory-Committe</u>. Downloaded April 2023.

<sup>&</sup>lt;sup>22</sup> Guilford Safe Streets <u>https://www.guilfordsafestreets.org/</u> Downloaded April 2023.

<sup>&</sup>lt;sup>23</sup> Town of Woodbridge <u>https://www.woodbridgect.org/DocumentCenter/View/5919/FINAL-Woodbridge-Connectivity-Study-Report-1</u>. Downloaded June 2023.

#### New Haven Active Transportation Plan<sup>24</sup>

New Haven published the Active Transportation Plan in 2022, to guide the city in constructing critical infrastructure for walking, biking, and transit use. This plan lists recommendations based on public input, crash data and previous studies, and emphasizes the city's Priority Neighborhoods to ensure more equity in future transportation investments. There are three primary sections of the report divided into walking, biking and transit riding. The section titled "Walk New Haven" was based on a city-wide intersection inventory and prioritization of locations based on both crash data and public input. Four concept plans for intersection improvements were included in the plan. For bus travel, the plan referenced the 2019 Move New Haven Transit Mobility Study to identify priority corridors and make site-specific recommendations. In addition, the report suggests various bus stop features to be considered. There is also a section that evaluates the current bicycle system and recommends certain upgrades, including the expansion of the transit network.

#### New Haven Complete Streets<sup>25</sup>

In 2010, the City of New Haven adopted a Complete Streets Design Manual to develop

and promote a safe transportation network accessible for all users. Its purpose was to guide the incorporation of complete streets into design and planning efforts to foster a sustainable and economically thriving community with a better quality of life. The guiding principles for this plan are identified as:

- Safety & slow vehicle speeds
- Connectivity
- Human health
- Livability
- Context
- Equity
- Aesthetics
- Economic Development
- Environment



<sup>&</sup>lt;sup>24</sup> Citywide Active Transportation Plan, 2022. <u>http://saferoutesforall.com/gallery/</u>Downloaded April 2023.

<sup>&</sup>lt;sup>25</sup> City of New Haven Complete Streets Design Manual, 2010. <u>https://www.newhavenct.gov/home/showpublisheddocument/2368/637744814502330000.</u> Downloaded April 2023.

## 5. Safety Commitment and Vision Zero

Vision Zero is the strategy to eliminate traffic fatalities and severe injuries on all roadways. To achieve the goal of zero deaths on roadways, USDOT recommends a Safe Systems approach<sup>26</sup>, which is considered more human centric. The Safe Systems approach is predicated on the fact that people make errors in judgement and action. Therefore, to mitigate the severity of crashes, there must be system-wide practices, policies, and designs with multiple safeguards, not just one. This strategy necessitates a supporting safety culture that prioritizes safety in road system investment and more equitably distributes the burden of responsibility beyond just the roadway user.

In June 2023, the Connecticut General Assembly passed "HB 5917- An Act Implementing the Recommendations of The Vision Zero Council"<sup>27</sup>. This legislation is aimed at reducing the number of traffic fatalities in Connecticut to zero.



Figure 15: Safe Systems Approach (Source: USDOT)





<sup>27</sup> https://www.cga.ct.gov/asp/cgabillstatus/cgabillstatus.asp?selBillType=Bill&bill\_num=HB5917&which\_year=2023

<sup>&</sup>lt;sup>26</sup> Zero Death and Safe Systems. <u>https://highways.dot.gov/safety/zero-deaths</u>

### **5.1 SCRCOG Vision Zero Resolution**

In May 2023, the SCRCOG's 15-member Policy Board approved a Vision Zero resolution found in Appendix A. This vision zero resolution represents the region's commitment to the reduction of serious and fatal injury crashes using systemic, proven measures and the safe systems approach. SCRCOG's dedication puts the onus on each municipality and the region to make measurable strides in creating and maintaining a culture of safety that "places safety first and foremost" in transportation design, investment, and decision making.

## 5.2 Safety Commitment of Member Municipalities

#### Madison

The Town of Madison's Bicycle and Pedestrian Advisory Committee (BPAC)<sup>28</sup> has conducted a series of planning and programming efforts to promote participation and enthusiasm for walking and biking. These events include:

- Kids Open Parking Lot Bike Event April 22, 2023
- Bike/Walk Safety Ice Cream Initiative Summer, 2022
- Bike Safety Rodeo May 21, 2022
- Walk to School Day at Ryerson Elementary October 1, 2021
- Community Crosswalks an effort to bring a creative and fun aspect to established crosswalk sites throughout the Town.



#### New Haven

The City of New Haven has coordinated with various organizations to promote biking throughout the city and to demonstrate that biking is a sustainable and viable transportation and recreation option.

• New Haven Bike Month<sup>1</sup> is an organization of community members who promote the month long celebration of all things bicycle, including rides, events, and bicycle repair workshops.



Photo 5: Source: https://www.madisonct.org/946/BPAC-Happenings

<sup>&</sup>lt;sup>28</sup> Town of Madison.<u>https://www.madisonct.org/885/Bicycle-and-Pedestrian-Advisory-Committe</u>. Downloaded April 2023.

- goNewHavengo is a coalition of volunteers that promote sustainable transportation options in New Haven and arrange events like the CarFreeChallenge, parklet design competitions, and other bicycle loving events.
- The Safe Streets Coalition of New Haven<sup>29</sup> is composed of local bike and pedestrian advocates who are helping to create a transportation system that prioritizes safety, equity, and the environment. In October 2020, they presented the City of New Haven with draft language for a commitment to Vison Zero within their city limits. To date, this resolution has not been approved by the city.

#### Meriden

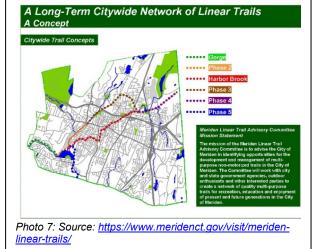
The City of Meriden, guided by the Meriden Linear Trail Advisory Committee<sup>30</sup>, has prioritized the development of miles of non-motorized trails within the city limits. Since 2006, the city has created the Quinnipiac River Gorge Trail, the Hanover Pond Trail, Harbor Brook Trail, and the Downtown Linear Trail, and has begun working on future trail connections that link to neighboring communities. This network of non-motorized connectivity is situated in a



disadvantaged community where there was historical underdevelopment and under investment. The City of Meriden has demonstrated its commitment to equitable expansion of its nonmotorized network.

#### Wallingford

The Town of Wallingford has also been expanding its non-motorized connectivity by providing its



residents with a safe alternative to walking and biking on or near the roadway. The city completed Phase 3 of the Quinnipiac River Linear Trail<sup>31</sup> in 2016. This trail is a popular walking and biking destination for residents and visitors alike extending for more than 1.25 miles. The next goal for the Town is to expand the trail north and south to connect with trails in North Haven and Meriden. The Town has already received grant funds to create a path connecting the trail to the Wallingford Senior Center, further enhancing linkage to the downtown area, and providing direct access for those residents.

s/media/RecTrails WA3 Alt 6-2-16 0.pdf

<sup>&</sup>lt;sup>29</sup> https://www.safestreetsnewhaven.org/

<sup>&</sup>lt;sup>30</sup> https://www.meridenct.gov/visit/meriden-linear-trails/

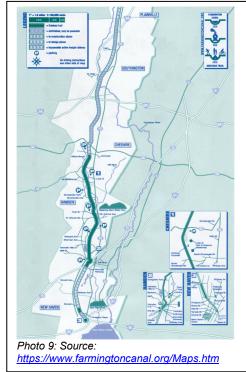
<sup>&</sup>lt;sup>31</sup> https://www.wallingfordct.gov/government/boards-commissions-committees/guinnipiac-river-linear-trail-advisory-committee/

#### Hamden

In March 2023, SCRCOG performed a comprehensive inventory and evaluation at the 11 at-grade crossing of the Farmington Canal Heritage Trail<sup>32</sup> within the town of Hamden. As part of this project, existing deficiencies were identified through a field inventory of existing traffic control devices and pavement markings, and collection of various traffic data including speeds, volume counts, crashes, and the review of sight lines. Based on the findings, a range of countermeasures were proposed to increase safety for trail users that includes advanced warning signs, raised crosswalks, rectangular rapid flashing beacons (RRFBs), pedestrian refuge islands, and curb extensions.

#### Woodbridge

The Town of Woodbridge revised its Greenway plan<sup>33</sup> in late 2022 to help meet the town goals, as described in the Plan of Conservation & Development of building a connected community, by identifying walking paths to major town locations, reducing traffic and promoting healthy lifestyles. The major town locations include playgrounds, ball fields, public library, town hall, community center, and most significantly the business district, itself the focus of increased walkability and traffic moderation. The town maintains pathway connections to 5 surrounding towns, with the recent preservation of land along the West River enabling a future connection from the town's most trafficked area into New Haven and the pedestrian pathways being completed there.



<sup>&</sup>lt;sup>32</sup> <u>https://scrcog.org/wp-content/uploads/2023/05/Farmington-Canal-Trail-Crossings-Evaluation-Study-Report.pdf</u>

<sup>&</sup>lt;sup>33</sup> https://www.woodbridgect.org/DocumentCenter/View/5945/v-2022-11-Woodbridge-Greenway-Description--Plan

## 6. Safety Analysis

#### Safety Analysis Methodology

**Study Period:** 2019-2021

**Type of Crashes:** Fatal and Injury Crashes Only **Performance Measure:** Equivalent Property Damage Only **Screening Method:** Simple Ranking (for intersections) Sliding Window (for corridors) This action plan uses robust data driven methodology to identify locations within the SCRCOG Region that experience high crash frequency. The crash data included in this report consisted of only injury and fatal crashes that occurred between January 1, 2019, and December 31, 2021. Limited access highways were excluded from the analysis. This report identifies 100 corridors and intersections with the highest fatal and injury crashes in the region and 40 locations with the highest number and severity of non-motorized vehicle crashes.

The safety analysis was conducted using the Connecticut Roadway Safety Management System (CRSMS)<sup>34</sup> developed by the University of Connecticut Transportation Safety Research Center. This web-based toolbox allows the

user to identify high crash locations based on methodologies documented in the Highway Safety Manual (HSM)<sup>35</sup>. This toolbox currently includes all state and town-owned roadways and state-owned intersections.

### 6.1 Analysis Methodology

#### Performance Measure

The CRSMS toolbox provides multiple FHWA recognized performance measures to utilize in the safety analysis. For this action plan, "Equivalent Property Damage Only" (EPDO) and "Average Crash Frequency" methods were used. This method calculates a score for each site based on crash frequency and severity by assigning weighting factors to crashes. EPDO attaches greater numerical value to crashes resulting in a fatality (K) or a Table 2: EPDO Score Calculation

Severity	Description	Weight Factor	Crash Cost
K	Fatal	574	\$6,415,389
Α	Suspected Serious Injury	30	\$338,576
В	Suspected minor Injury	11	\$123,646
С	Possible Injury	6	\$69,541
0	Property Damage Only	1	\$11,186

serious injury (A), a lesser number to crashes resulting in a moderate (B) or possible injury (C), and the least value to property damage only crashes (O). The EPDO score is weighted to the per mile per year unit for segments and per year for intersections and is then adapted for ranking sites. The monetary consequences of crashes are determined using the Consumer Price Index (CPI) and Employment Cost Index (ECI) released by the U.S. Bureau of Labor Statistics (BLS) and updated annually. These values are integrated in the CRSMS system and used automatically if EPDO is selected as the performance measure. Table 2 shows the crash cost weight assigned to each level of severity.

<sup>&</sup>lt;sup>34</sup> Connecticut Roadway Safety Management System https://crsms.uconn.edu/dashboard

<sup>&</sup>lt;sup>35</sup> AASHTO Highway Safety Manual. <u>https://www.highwaysafetymanual.org/Pages/default.aspx</u>

#### Screening Method

#### Simple Ranking

The simple ranking method is the simplest approach to rank sites based on crash frequency. This method was used to rank the high crash intersections for this report. Once an EPDO score is calculated for all intersections, this method ranks the intersections based on the value of the performance measure.

#### **Sliding Window**

For identifying high crash corridors, a sliding window method was used for this report. In this method, a window of a specified length is moved along the roadway segment with a specified incremental length. This process continues until it reaches the end of a continuous set of roadway segments. For each segment, ranking is based on the window that has the highest EPDO score. For this analysis, 0.2 miles window length was selected with a 0.1-mile increment.

## 6.2 High Injury Network

#### Roadway Segments

Appendix B includes the top 100 segments within the SCRCOG region, in order of highest to lowest EPDO score. Table 3 lists the top 100 high crash segments by municipality. As expected, high crash segments are more frequent with higher population density. 65% of the top 100 high crash segments are on state-owned roadways and the remaining 35% are on municipal-owned roadways.

Figure 17 shows the distribution of segments by facility type. Evidently, the segments are primarily in urban areas with urban undivided 4 or more lanes, urban undivided 2 lanes, and urban arterial 2 lanes as the most common ones.

Once the high crash segments were identified, they were added

#### Table 3: High Crash Segments by Town

Municipality	High	ber of Crash nents	Total	Municipality	High	ber of Crash nents	Total
	State Road	Town Road			State Road	Town Road	
Bethany	3	2	5	New Haven	19	21	40
Branford	0	0	0	North Branford	4	1	5
East Haven	2	2	4	North Haven	3	0	3
Guilford	0	0	0	Orange	2	1	3
Hamden	11	2	13	Wallingford	2	1	3
Madison	1	0	1	West Haven	11	0	11
Meriden	2	3	5	Woodbridge	2	0	2
Milford	3	2	5	_	-	-	-

to the diagnosis module of the CRSMS toolbox. The diagnosis module includes detailed information on crashes, vehicles, and persons so that the program users can identify the crash trends and contributing factors. An analysis of the crashes occurring within the top 100 segments revealed that the majority of crashes occur during clear weather conditions and during daylight hours.

Among the 805 crashes occurring on these 100 segments, 9.3% were fatal crashes (K), 7.2% crashes were suspected serious injury (A), 25.2% were suspected minor injury (B), and 58.3% were possible injury crashes.

Figure 16 shows the crash trends observed at the high crash segments. The CRSMS toolbox provides additional information regarding the emphasis areas identified by CTDOT in the Strategic Highway Safety Plan (SHSP).<sup>36</sup>

The top two contributors for the segment crashes were aggressive driving and young drivers. The top two crash types were identified as front to rear crashes and angle crashes. For both crash types, the

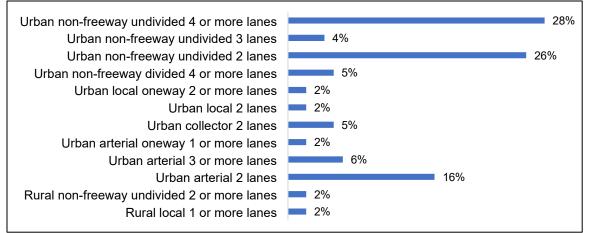
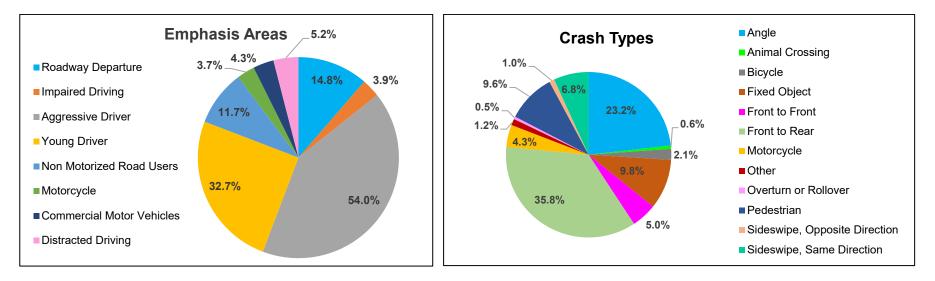


Figure 17: High Injury Crash Segments by Facility Type

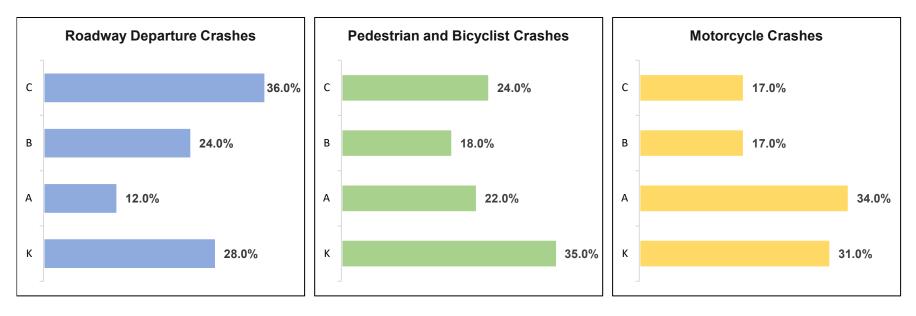
most common level of injury was possible injury (C). 61% of the crashes within the high injury crash segments happened on state routes, 14% happened on US routes, and 25% on local roads.





<sup>&</sup>lt;sup>36</sup> Connecticut Strategic Highway Safety Plan, 2021. <u>https://portal.ct.gov/DOT/Bureau-of-Policy/Strategic-Highway-Safety-Plan</u>

Further investigation revealed that certain crashes tend to contribute to a higher level of injury compared to others. For example, motorcycle crashes are only 4.3% of all injury crashes but 34% of the motorcycle\* crashes resulted in fatalities and 31% resulted in serious injuries. Similarly, 42% of the pedestrian crashes resulted in fatalities. Figure 18 shows some additional crash trends that emerged after further investigation of individual crash types and contributing factors.



#### Figure 18: Additional Crash Trends Related to Injury

Figure 19 shows the locations of the high crash segments. 37 out of the 100 segments fall within disadvantaged communities as defined by the Climate and Economic Justice Screening Tool (CEJST).<sup>37</sup>

<sup>&</sup>lt;sup>37</sup> Climate and Economic Justice Screening Tool. <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>

<sup>\*</sup> Motorcycle crashes involve motorcycles, mopeds, and scooters.

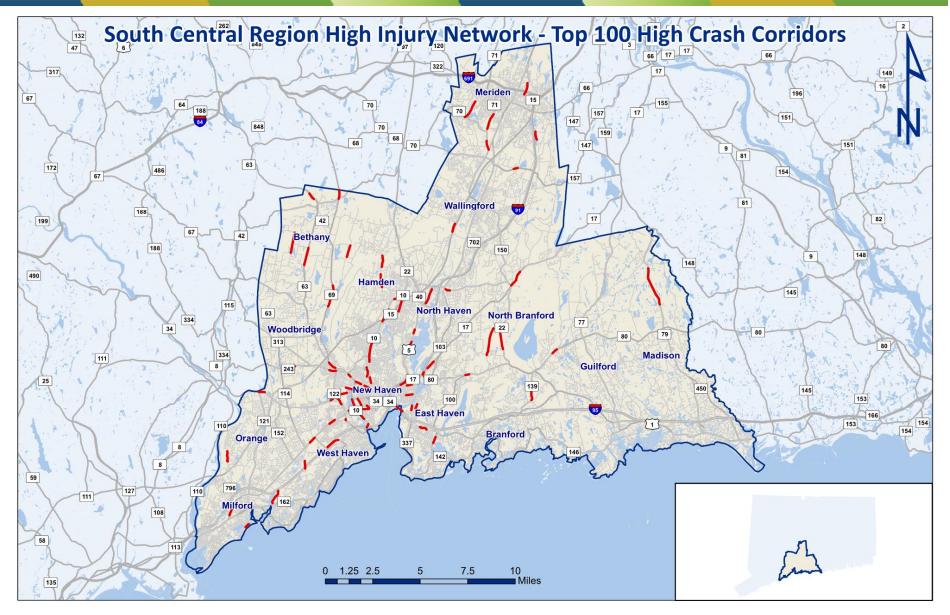


Figure 19: SCRCOG High Injury Network (Roadway Segments)

#### Intersections

Appendix C includes the top 100 high crash intersections within the SCRCOG region from 2019-2021. Table 4 lists the top 100 high crash intersections by town. Since the CRSMS toolbox only includes state-owned intersections, municipal-owned intersections were automatically excluded from this analysis. 82% of the top 100 high crash intersections at state-owned locations are signalized and the remaining 18% are unsignalized.

Among the 1,074 crashes occurring at these 100 state-owned intersections, 1.4% were fatal (K), 7.5% were suspected serious injury (A), 24.1\% were suspected minor injury (B), and 66.9\% were possible injury. The top two contributors for the intersection

#### Table 4: High Crash Intersections by Town

Municipal Name	Number of High Crash Intersections	Municipal Name	Number of High Crash Intersections
Bethany	0	New Haven	33
Branford	5	North Branford	1
East Haven	2	North Haven	7
Guilford	1	Orange	8
Hamden	8	Wallingford	6
Madison	1	West Haven	13
Meriden	6	Woodbridge	3
Milford	6	_	-

crashes are the same as segment crashes: aggressive driving and young driver related crashes as shown in Figure 20. The top two crash types were identified as front to rear crashes and angle crashes.

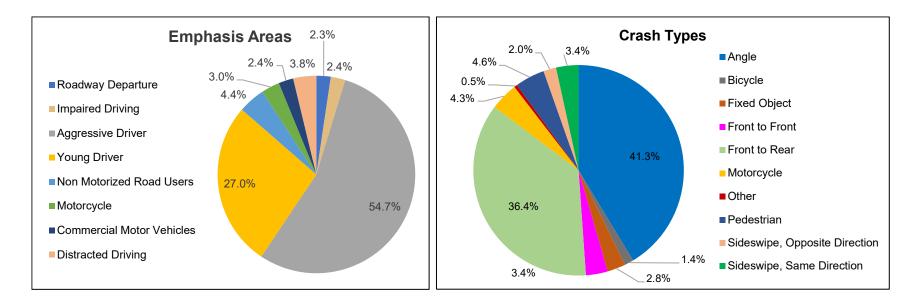


Figure 20: Crash Trends at Top 100 High Crash Intersections

Additional examination showed that 39% of motorcycle\* crashes result in serious injury even though motorcycle crashes are only 4.3% of all injury crashes occurring at intersections. Figure 21 shows some additional crash trends that emerged after further investigation of individual crash types and contributing factors.

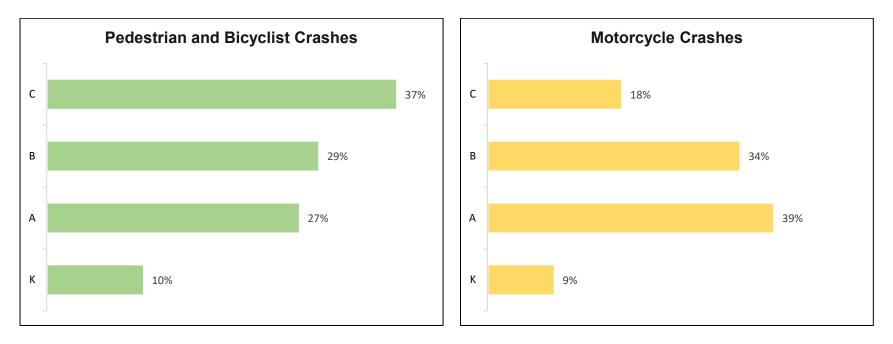


Figure 21: Additional Crash Trends at Intersections

Figure 22 shows the locations of the high crash intersections. 39 out of the 100 intersections fall within disadvantaged communities as defined by the Climate and Economic Justice Screening Tool (CEJST)<sup>38</sup>.

<sup>&</sup>lt;sup>38</sup> Climate and Economic Justice Screening Tool. <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>

<sup>\*</sup> Motorcycle crashes involve motorcycles, mopeds, and scooters.

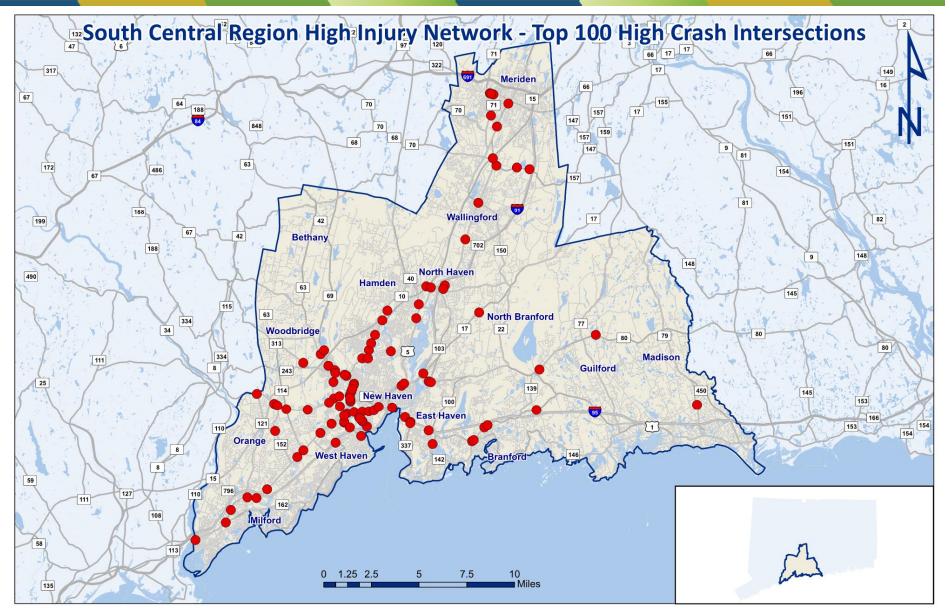


Figure 22: SCRCOG High Injury Network (Intersections)

### Pedestrian and Bicyclist Related Crash Locations

The methodology for identifying locations with high pedestrian and bicycle crash frequency and severity was same as determining the high crash roadway segments and intersections. Using the CRSMS toolbox, high crash segments and intersections were identified that experiences higher pedestrian and bicycle crashes. Then the list was combined, and the top 40 locations were ranked based on the EPDO score. Appendix D identifies these 40 locations in order of highest to lowest EPDO score. Table 5 lists the top 40 high crash location for non-motorized crashes by municipality.

Within the SCRCOG region, pedestrian and bicycle crashes are more likely to occur on roadway segments than at intersections. Among the top 40 crash locations, there were only 5 intersections considered at high risk for non-motorized road users and the remaining locations were along various roadway segments.

Pedestrians and bicyclists are vulnerable road users and susceptible to higher level of injuries compared to motor vehicle users as seen in Figure 23. 45% of the pedestrian injury crashes occurring at the top 40 high risk locations from 2019-2021 were fatal. 24% of the crashes were serious injury crashes. These statistics demonstrate how pedestrians and bicycle crashes result in more injuries compared to motorized vehicle crashes. Another factor in these crashes is illumination. According to the crash data from 2019-2021 36% of the pedestrian crashes happened on dark but lighted roadway segments.

Figure 24 displays the sites of the data-identified high crash locations. Half of the 40 locations occurred within disadvantaged communities as defined by the Climate and Economic Justice Screening Tool (CEJST).<sup>39</sup>

Town Name	Number of High Crash Locations	Town Name	Number of High Crash Locations
Bethany	2	New Haven	19
Branford	0	North Branford	1
East Haven	1	North Haven	0
Guilford	0	Orange	1
Hamden	5	Wallingford	1
Madison	0	West Haven	5
Meriden	3	Woodbridge	0
Milford	2	-	_

#### Table 5: High Pedestrian and Bicyclist Crash Locations by Town

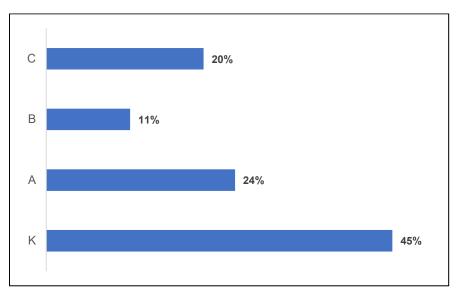


Figure 23: Non-Motorized Crashes by Level of Injury

<sup>&</sup>lt;sup>39</sup> Climate and Economic Justice Screening Tool. <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>

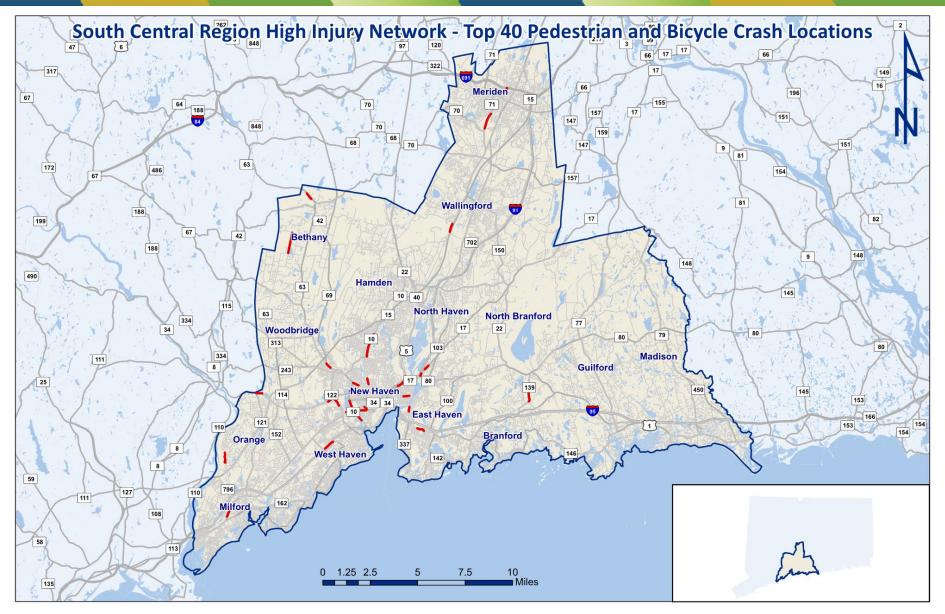


Figure 24: SCRCOG High Injury Network (Pedestrian & Bicyclists)

## 6.3 Crashes within Disadvantaged Communities

The high injury network identified in the previous section comprises of 100 roadway segments, 100 intersections and 40 pedestrian and bicycle crash locations. Within this network, 37 roadway segments, 39 intersections and 20 pedestrian and bicycle crash locations fall within disadvantaged communities, as defined by the Climate and Economic Justice Screening Tool (CEJST)<sup>40</sup>. According to the 2020 census data, 4% of SCRCOG's total area is designated as disadvantaged and 20% of SCRCOG's population live in these communities.

47% of the total injury crashes within the high injury network happened in disadvantaged communities. Even though the disadvantaged communities comprise of a small portion of SCRCOG, 32% of all fatal crashes and 45% of all serious injury crashes happened within these communities.

Figure 25 shows a comparison between disadvantaged and non-disadvantaged communities. It is evident that the pedestrians and bicyclists in disadvantaged communities are more vulnerable as 57% of pedestrian injury crashes and 63% of bicyclist injury crashes occurred in these communities. These statistics reinforce the notion that equity is an important part of road safety, and it should be considered while allocating available funding.

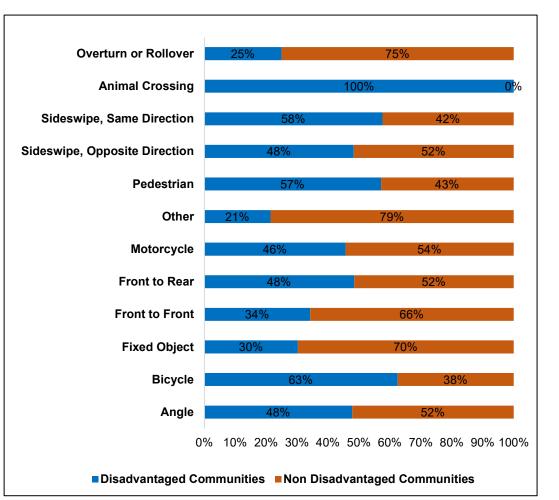


Figure 25: Comparison between disadvantaged and non-disadvantaged communities

<sup>&</sup>lt;sup>40</sup> Climate and Economic Justice Screening Tool. <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>

## 7. Potential Countermeasures

This chapter identifies potential countermeasures to mitigate crashes at locations identified in the previous chapter. Various resources (CMF Clearing House, Proven Safety Countermeasures by (USDOT) were referenced to provide applicable and low-cost solutions to mitigate crashes and improve safety. Based on the safety analysis, the contributing factors behind the crashes could be attributed to both physical infrastructure and road-user behavior.

### Crash Contributing Factors

- Failure to yield right of way.
  - Unaware of intersection
  - Poor visibility of sign/signal
  - Misjudgment of the gap in traffic
- Aggressive Driving.
  - > Speeding
  - Red light running
  - Following too closely
  - Improper lane change
- Vehicles not yielding to pedestrians/bicyclists.
- Roadway departure.
- Crossing without crosswalk.
- Conflict with vehicles coming out/turning into the driveways.
- Driving under influence.
- Distracted driving.
- Drowsy Driving.

Table 6 provides possible engineering countermeasures for reducing crashes at intersections and roadway segments. The effectiveness of these countermeasures depends on crash type, level of severity, roadway type, AADT, etc. Before implementing any of these strategies, detailed investigation of the selected locations will be required to ensure that they are feasible and context sensitive. While selecting countermeasures, low to medium cost options were prioritized instead of high-cost remedies to offer roadway owners viable and affordable solutions to improve roadway safety.

Table 7 provides potential strategies to mitigate the behavioral components that contribute to crashes. Factors such as speeding, aggressive driving, impaired/drowsy driving etc. require behavior modifications to reduce crash frequency and severity. Infrastructure alone is not sufficient to improve safety. Initiatives to raise public awareness, bolster and expand driver education to address behavior related safety issues, and increased law enforcement can increase users' awareness regarding risky driving and its negative consequences.

Non-infrastructure countermeasures can modify behaviors that contribute to crashes by demonstrating safe behavior, reinforcing safety messaging, including potentially fatal results from the risky driving practices and can increase the percentages of responsible roadway users. Table 6: Potential Engineering Countermeasures

Co	untermeasure	Target Crashes	Severity	Roadway Type	Effectiveness	Reference
	Install centerline rumble	Head On, Sideswipe	All	Not Specified	26% to 49%	
	strips	Head On, Sideswipe	K,A,B,C	Not Specified	35% to 64%	
		All	K,A,B,C	Principal Arterial Other, Freeways and Expressways	6% to 20%	
		All	K,A,B,C	Not Specified	5% to 44%	
Rumble Strip	Install shoulder rumble strip	Run Off Road	All	Principal Arterial Other, Freeways and Expressways	6% to 33%	https://www.cmfclearinghouse. org/study_detail.php?stid=207
		Run Off Road	All	Not Specified	16% to 44%	<u>org/orday_dotanpriprotid_201</u>
		Run Off Road	K,A,B,C	Principal Arterial Other Freeways and Expressways	7% to 23%	
		Run Off Road	K,A,B,C	Not Specified	15% to 57%	
	Install edgeline rumble strip	Run Off Road	K,A,B,C	Principal Arterial Other, Freeways and Expressways	25% to 29%	
		Run Off Road	K,A,B,C	Not Specified	25% to 43%	
	Flatten side slope from 1V:3H to 1V:4H	Single-Vehicle	All	Minor Arterial	8%	https://www.cmfclearinghouse.
	Flatten side slope from 1V:4H to 1V:6H	Single-Vehicle	All	Minor Arterial	12%	org/study_detail.php?stid=23
Clear Zone	Increase distance to roadside features from 3.3 ft to 16.7 ft	All	All	All	22%	https://www.cmfclearinghouse.
	Increase distance to roadside features from 16.7 ft to 30 ft	All	All	All	44%	org/study_detail.php?stid=14
	Remove or relocate Roadside fixed objects outside of Clear Zone	Fixed Object	All	Not Specified	98%	https://www.cmfclearinghouse. org/study_detail.php?stid=180

Coi	untermeasure	Target Crashes	Severity	Roadway Type	Effectiveness	Reference
Access Management	Reduce driveway density	All	Injury	Minor Arterial	25-31%	https://www.cmfclearinghouse. org/study_detail.php?stid=14
	Drovido highwov lighting	All	К	All	69%	
	Provide highway lighting	Nighttime	A,B,C	All	28%	
		All	К	Not Specified	77%	
		All	A,B,C	Not Specified	50%	https://www.cmfclearinghouse.
Lighting	Provide intersection	Nighttime	A,B,C	Not Specified	38%	org/study_detail.php?stid=14
	illumination	Vehicle- Pedestrian	К	Not Specified	78% to 82%	
		Vehicle- Pedestrian	A,B,C	Not Specified	59%	
	Install high friction surface	Run Off Road	All	Not Specified	43% to 77%	https://www.cmfclearinghouse.
	treatment	Wet Road	All	Not Specified	71% to 90%	org/study_detail.php?stid=599
Friction	Increased pavement friction	All	All	All	57%	https://www.cmfclearinghouse. org/study_detail.php?stid=23
		Wet Road	All	All	57%	
		Single-Vehicle	All	All	30%	
	Install cable barrier and	All	All	Not Specified	57%	https://www.cmfclearinghouse.
	guardrail	All	K,A,B,C	Not Specified	70%	org/study_detail.php?stid=651
Barriers	Install median barrier	All	К	Principal Arterial Other	43%	https://www.cmfclearinghouse.
		All	A,B,C	Principal Arterial Other	30%	org/study_detail.php?stid=14
	Install roadside barrier	Run Off Road	K,A,B,C	Not Specified	51%	https://www.cmfclearinghouse. org/study_detail.php?stid=400
Parking	Prohibit on-street parking	All	K,A,B,C	Principal Arterial Other	22%	https://www.cmfclearinghouse. org/study_detail.php?stid=297
	Area-wide or corridor- specific traffic calming	All	A,B,C	All	11%	
Traffic Calming	Install transverse rumble	All	All	Local	34%	https://www.cmfclearinghouse.
	Install transverse rumble strips as traffic calming device	All	A,B,C	Local	36%	org/study_detail.php?stid=14

Co	untermeasure	Target Crashes	Severity	Roadway Type	Effectiveness	Reference
	Install chevron signs on horizontal curves	Head on, Run off road, Sideswipe	All	All	22%	https://www.cmfclearinghouse. org/study_detail.php?stid=160
	Install oversized chevron signs	All Nighttime	K,A,B,C All	Not Specified Not Specified	15% 11% to 44%	
	Advance static curve warning signs	All	A,B,C	Not Specified	30%	https://www.cmfclearinghouse. org/study_detail.php?stid=482
	Install combination horizontal alignment/ advisory speed signs	All	A,B,C	Not Specified	13%	
	Install dynamic speed	All	All	Not Specified	5% to 7%	https://www.cmfclearinghouse.
	feedback sign	Single-Vehicle	All	Not Specified	5%	org/study_detail.php?stid=418
	Install in long our o warning	All	All	Not Specified	29% to 35%	https://www.omfologringhouse
	Install in-lane curve warning pavement markings	All	K,A,B,C	Not Specified	23% to 31%	https://www.cmfclearinghouse. org/study_detail.php?stid=564
		Run Off Road	All	Not Specified	23% to 26%	
Signs and	Install edge lines	All	All		15.20%	https://www.cmfclearinghouse.
Markings	(Tangents & Curves)	All	K,A,B,C		19.30%	org/study_detail.php?stid=583
	Provide "Stop Ahead"	All	K,A,B,C	Not Specified	69% to 86%	https://www.omfolooringhouse
	pavement markings	Angle	K,A,B,C	Not Specified	71% to 88%	https://www.cmfclearinghouse. org/study_detail.php?stid=494
		Rear End	K,A,B,C	Not Specified	86% to 96%	
	Install advanced yield or stop markings and signs	Rear End, Sideswipe	All	Minor Arterial	20%	https://www.cmfclearinghouse. org/study_detail.php?stid=487
		Vehicle/Pedestrian	All	Minor Arterial	25%	org/study_detail.prip?stid=467
	Introduce painted left-turn	All	All	Not Specified	33%	https://www.cmfclearinghouse.
	channelization Implement systemic signing	Rear End, Sideswipe	All	Not Specified	39%	org/study_detail.php?stid=33
		All	K,A,B,C	All	10%	
at s	and marking improvements	Nighttime	K,A,B,C	All	15%	
	at stop-controlled intersections	Angle	All	All	6% to 17%	https://www.cmfclearinghouse.
	Implement systemic signing	All	K,A,B,C	All	9% to 25%	org/study_detail.php?stid=492
	and visibility improvements	Nighttime	All	All	4% to 12%	
	at signalized intersections	Angle	All	All	12% to 35%	

Со	untermeasure	Target Crashes	Severity	Roadway Type	Effectiveness	Reference
	Introduce raised/curb left-	All	All	Not Specified	13%	
	turn channelization	Rear End, Sideswipe	All	Not Specified	25%	
		All	All	Not Specified	34%	
	Improve left-turn lane offset	All	K,A,B,C	Not Specified	36%	https://www.cmfclearinghouse.
	to create positive offset	Left Turn	All	Not Specified	38%	org/study_detail.php?stid=389
		Rear end	All	Not Specified	32%	
Turn Lanes	Installation of left-turn lanes on both major road approaches	All	All	Minor Arterial	33%	
	Provide a right-turn lane on both major-road approaches	All	K,A,B,C	Minor Arterial	17% to 41%	https://www.cmfclearinghouse. org/study_detail.php?stid=24
	Provide a left-turn lane on one major-road approach	All	All	Minor Arterial	7% to 18%	<u>,,,</u>
	Provide a right-turn lane on one major-road approach	All	All	Not Specified	4% to 14%	-
		All	K,A,B,C	Not Specified	9% to 23%	
	Improve angle of channelized right turn lane	All	All	Not Specified	44%	https://www.cmfclearinghouse.
		Right Turn, Other	All	Not Specified	60%	org/study_detail.php?stid=466
	Change left-turn phase from permissive to protected/permissive or permissive/protected phasing on one or more approaches	Left Turn	K,A,B,C	Not Specified	16%	https://www.cmfclearinghouse. org/study_detail.php?stid=297
Signal Phasing	Change from permissive only to flashing yellow arrow protected/permissive left turn	Left Turn	K,A,B,C	Not Specified	41%	
	Increase all red clearance	All	K,A,B,C	Not Specified	14%	]
	interval	Rear End	All	Not Specified	20%	https://www.cmfclearinghouse.
	Increase total change	All	K,A,B,C	Not Specified	34%	org/study_detail.php?stid=422
	interval (remains less than	Rear End	All	Not Specified	15%	1
	ITE recommended practice)	Angle	All	Not Specified	16%	
	Increase yellow change interval	Rear End	All	Not Specified	7%	

Cou	untermeasure	Target Crashes	Severity	Roadway Type	Effectiveness	Reference
	Improve signal visibility	All	K,A,B,C	Not Specified	29%	https://www.cmfclearinghouse. org/study_detail.php?stid=247
	Increase retro reflectivity of STOP signs	All	K,A,B,C	All	6% to 9%	
	Install new fluorescent curve signs or upgrade existing curve signs to fluorescent sheeting	Head on, Nighttime, Non- intersection, Run off road, Sideswipe	All	All	34%	https://www.cmfclearinghouse. org/study_detail.php?stid=388
		All	All	Not Specified	19%	
	Install dynamic signal warning flashers	Angle	All	Not Specified	26%	https://www.cmfclearinghouse. org/study_detail.php?stid=290
		Rear End	All	Not Specified	21%	
Visibility		All	All	Principal Arterial Other Freeways and Expressways	25% to 58%	https://www.cmfclearinghouse. org/study_detail.php?stid=102
	Install a combination of chevron signs, curve	Angle, Fixed object, Sideswipe, Head on, Rear End, Single vehicle	All	Principal Arterial Other Freeways and Expressways	13% to 38%	
	warning signs, and/or sequential flashing beacons	Run Off Road	All	Principal Arterial Other Freeways and Expressways	24% to 56%	
				Principal Arterial Other Freeways and Expressways		
	Add retroreflective sheeting to signal backplates	All	All	Not Specified	15%	https://www.cmfclearinghouse. org/study_detail.php?stid=85
	Add exclusive pedestrian phasing	Vehicle/Pedestrian	All	Not Specified	35%	https://www.cmfclearinghouse. org/study_detail.php?stid=330
Pedestrians & Bicycles	Increase length of signal phases to allow pedestrians more crossing time	Vehicle/Pedestrian	All	Not Specified	51%	https://www.cmfclearinghouse. org/study_detail.php?stid=579
	Install pedestrian	Rear End	All	Not Specified	13%	org/study_detail.php?stid=579
	countdown timer	Vehicle/Pedestrian	All	Not Specified	9%	

Countermeasure		Target Crashes	Severity	Roadway Type	Effectiveness	Reference
		Vehicle/Pedestrian	All	All	37% to 46%	
		Venicle/FedeSthan	K,A,B,C	All	25% to 45%	
	Install a pedestrian hybrid	Rear End	All	All	12% to 22%	
	beacon (PHB or HAWK)	Real Ellu	K,A,B,C	All	29% to 36%	
		Anglo	All	All	13% to 29%	
		Angle	K,A,B,C	All	22% to 45%	https://www.cmfclearinghouse.
	Install raised median with or	All	All	Minor Arterial	26%	org/study_detail.php?stid=611
	without marked crosswalk (uncontrolled)	Rear End, Sideswipe	All	Minor Arterial	26%	
	(uncontrolled)	Vehicle/Pedestrian	All	Minor Arterial	32%	
	Install rectangular rapid flashing beacon (RRFB)	Vehicle/Pedestrian	All	Minor Arterial	47%	
Pedestrians &	Install sidewalk	Vehicle/Pedestrian	All	All	40%	https://www.cmfclearinghouse. org/study_detail.php?stid=665
Bicycles Contd.)	Presence of a pedestrian crosswalk at midblock locations	Vehicle/Pedestrian	All	Not Specified	18%	https://www.cmfclearinghouse. org/study_detail.php?stid=656
	Median treatment for ped/bike safety	Vehicle/Bicycle, Vehicle/Pedestrian	К	Not Specified	86%	https://www.cmfclearinghouse. org/study_detail.php?stid=502
	Presence of median	Vehicle/Bicycle	All	Not Specified	3%	https://www.cmfclearinghouse. org/study_detail.php?stid=223
	Install bicycle boulevard	Vehicle/Bicycle	All	Not Specified	63%	https://www.cmfclearinghouse. org/study_detail.php?stid=221
	Install cycle tracks, bike lanes, or on-street cycling	Vehicle/Bicycle	A,B,C	Not Specified	8% to 94%	https://www.cmfclearinghouse. org/study_detail.php?stid=274
	Provide protected left-turn phase	Vehicle/Bicycle	All	Not Specified	31%	https://www.cmfclearinghouse. org/study_detail.php?stid=585
	Leading pedestrian intervals	Vehicle/Pedestrian	All	All	9% to 46%	https://www.cmfclearinghouse. org/study_detail.php?stid=559

## Table 7: Potential Strategies to Improve Road-User Behavior

Concern	Behavioral Countermeasure	References
	Support the DPS to provide evidence-based awareness and educational message strategies that address why drowsy driving is	https://www.nhtsa.gov/risky-driving/drowsy-driving
	risky, how motorists can prevent drowsy driving, signs and symptoms of drowsy driving, and strategies for dealing with drowsiness as a driver. Investigate drowsy driving legislation and	https://www.cdc.gov/sleep/features/drowsy-driving.html
Drowsy Driving	potential for changing awareness and attitudes towards drowsy driving. Identify high risk drivers for drowsy driving. The National Sleep Foundation has a Drowsy Driving Prevention Week in	https://www.thensf.org/drowsy-driving-prevention/
5	November to help reduce the number of drowsy-driving related crashes in the United States. Campaign materials are provided for	https://www.fmcsa.dot.gov/driver-safety/sleep-apnea/drowsy-driving-quiz
	this campaign event through the National Highway Traffic Safety Administration (NHTSA). The US DOT Traffic Safety Marketing provides a Fact Sheet, Sample News Release, and an educational	https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-061.pdf
	sheet that address drowsy driving prevention.	https://www.thensf.org/drowsy-driving-prevention/
	"When Speeding Kills" marketing campaign materials are provided by the Connecticut Department of Transportation to encourage safe travel speeds in Connecticut. Alternative campaign materials that share the message "Stop Speeding before it Stops You" are provided by the USDOT's Traffic Safety Marketing (TSM) website. Banner Ads, media, logos, radio ads, television ads, and web videos for speed campaigns are provided by the US DOT Traffic Safety Marketing and NHTSA.	https://www.nhtsa.gov/risky-driving/speeding#issue-%20consequences
		https://icsw.nhtsa.gov/newtsm/tk-speeding/
Speeding		https://www.trafficsafetymarketing.gov/get-materials/speed- prevention/speeding-wrecks-lives
		https://www.trafficsafetymarketing.gov/get-materials/speed- prevention/speeding-wrecks-lives/speeding-slows-you-down- enforcement
	Older driver campaigns focus on providing resources for older drivers, their families, caregivers, medical providers, and law enforcement to educate how age and medical conditions can affect	https://www.trafficsafetymarketing.gov/get-materials/older-drivers
Older Driver	driving, how to assess older driver safety issues, and other transportation options in case an older driver's mobility is threatened when they are no longer recommended to drive a motor	https://www.nhtsa.gov/older-drivers/keeping-our-older-drivers-safe-road
Safety	vehicle. NHTSA provides information for what to do if an individual has concerns about an older driver's ability to drive and what the proper licensing procedures are for older drivers. The US DOT Traffic Safety Marketing webpage provides marketing resources for the DriveWell campaign that focuses on older driver safety and mobility.	https://www.cdc.gov/injury/features/older-driver-safety/index.html

Concern	Behavioral Countermeasure	References
	Crashes are the leading cause of teen deaths, according to NHTSA. Public education campaigns that focus on younger driver	https://www.nhtsa.gov/book/countermeasures/countermeasures- work/young-drivers
	safety highlight how to properly prepare younger drivers and their families for the responsibility of driving. NHTSA uses crash trends, safety messages, and various resources to discuss teen driver	https://www.nhtsa.gov/road-safety/teen-driving
Younger Driver	licensing requirements and key risk factors for younger drivers including illegal use of alcohol, seat belt use, and distracted driving.	https://www.cdc.gov/niosh/motorvehicle/topics/youngdrivers/default.html
Safety	Safety NHTSA also highlights the importance of influence that parents, educators, coaches, and other trusted adults have on younger drivers and their behaviors. The US DOT's Traffic Safety Marketing webpage provides posters that communities can share on social media that are specifically marketed towards younger driver safety	https://www.trafficsafetymarketing.gov/get-materials/teen-safety/national- teen-driver-safety-week
	The USDOT and the National Highway Traffic Safety Administration (NHTSA) provide marketing campaign materials for year- round education such as "Buzzed Driving is Drunk Driving" or "Drive	https://www.cdc.gov/transportationsafety/impaired_driving/strategies.htm
	Drunk DrivingDrunk obtain search warrants for block break	https://www.nhtsa.gov/campaign/drive-sober-or-get-pulled-over
		https://www.nhtsa.gov/campaign/buzzed-driving
Driving		https://www.nhtsa.gov/risky-driving/drunk-driving
	the US DOT Traffic Safety Marketing and NHTSA. NHTSA also provides a yearly Communications Calendar that the organization uses to encourage communities to share campaign material by	https://www.trafficsafetymarketing.gov/get-materials/drunk-driving
	topic at specific times of the year as an increased awareness strategy.	https://www.cdc.gov/transportationsafety/impaired_driving/strategies.htm
	NHTSA's motorcycle safety message focuses on all road users sharing the road, motorcyclists making themselves visible, the use of DOT-compliant helmets, and riding sober. NHTSA provides	https://www.trafficsafetymarketing.gov/get-materials/motorcycle-safety
Motorcycle Safety	information on the safest road behaviors. Banner ads, media, logos, radio ads, television ads, and web videos for motorcycle safety campaigns are provided by the US DOT Traffic Safety Marketing	https://www.nhtsa.gov/road-safety/motorcycles
	and NHTSA. NHTSA also provides a yearly Communications Calendar that the organization uses to encourage communities to share campaign material by topic at specific times of the year as an increased awareness strategy.	https://msf-usa.org/

Concern	Behavioral Countermeasure	References
	NHTSA describes distracted driving as any activity that diverts the attention of the driver from driving, including using electronic	https://www.nhtsa.gov/risky-driving/distracted-driving
	devices, eating and drinking, talking to people in your vehicle, changing the station on the radio, entertainment/navigation systems, etc. NHTSA provides resources on its website to educate	https://www.cdc.gov/transportationsafety/distracted_driving/index.html
	Americans on the dangers of distracted driving. NHTSA provides suggestions for how teens, parents, employers, and educators can	https://www.iihs.org/topics/distracted-driving
Distracted Driving	get involved with preventing distracted driving and how to make your voice heard to educate your community. USDOT provides Traffic Safety Marketing focused on combating distracted driving	https://www.nsc.org/road/safety-topics/distracted-driving/distracted- driving-home
	through television ads that are available to every community. Banner Ads, media, logos, radio ads, television ads, and web videos for distracted driving campaigns are provided by the US	https://www.nhtsa.gov/campaign/distracted-driving
	DOT Traffic Safety Marketing and NHTSA. NHTSA also provides a yearly Communications Calendar that the organization uses to	https://www.trafficsafetymarketing.gov/get-materials/distracted-driving
	encourage communities to share campaign material by topic at pecific times of the year as an increased awareness strategy.	https://www.transportation.gov/mission/performance/distracted-driving- campaign
	The Watch for Me CT campaign is run by the Connecticut Department of Transportation in partnership with the Connecticut Children's Medical Center Injury Prevention Center. This shares a	https://watchformect.org/
	message of responsibility for everyone on Connecticut roads, including pedestrians and bicyclists. The Watch for Me CT website provides facts about pedestrian crashes, pedestrian laws, and safety tips. The Watch for Me CT website also includes tips for	https://portal.ct.gov/DOT/Commissions/Share-the-Road-CT/Share-the- Road-CT
Safety	drivers and campaign materials. NHTSA's pedestrian safety webpage provides pedestrian safety related research, tips, curriculum and programs that can be shared in any community to discuss pedestrian safety. The US DOT's Traffic Safety Marketing website provides campaign materials such as banner ads, media, logos, radio ads, television ads, and web videos for pedestrian campaigns used throughout the Country. NHTSA also provides a	https://safety.fhwa.dot.gov/local_rural/pedcampaign/
		https://www.trafficsafetymarketing.gov/get-materials/pedestrian-safety
	yearly Communications Calendar that the organization uses to encourage communities to share campaign material by topic at specific times of the year as an increased awareness strategy.	https://www.nhtsa.gov/pedestrian-safety/how-pedestrians-can-walk- safely

Concern	Behavioral Countermeasure	References			
	The Watch for Me CT campaign is run by the Connecticut Department of Transportation in partnership with the Connecticut Children's Medical Center Injury Prevention Center. They share a	https://watchformect.org/			
	Bicyclist Safety Bicyclist Safety Bicyclist Safety Bicyclist Safety Bicyclist Safety Related research, tips, curriculum and programs that can be shared in any community to discuss bicyclist safety. The US DOT's Traffic Safety Marketing website provides campaign	https://www.nhtsa.gov/road-safety/bicycle-safety			
Bicyclist Safety		https://www.nhtsa.gov/bicycle-safety/learn-bike-safely			
		<u>https://portal.ct.gov/-</u> /media/DOT/documents/dprogserv/SRTS/CTSRTSCTKEduc7505Promot eBikeSafetypdf.pdf			
	that the organization uses to encourage communities to share campaign material by topic at specific times of the year as an increased awareness strategy.	https://helmets.org/campaign.htm			
NHTSA Comm	NHTSA Communications Calendar: https://www.trafficsafetymarketing.gov/calendars				

# 8. Funding

Funding Program	Eligible Applicants	Guidelines
Local Transportation Capital Improvement Program (LoTCIP)	Municipalities within a COG are eligible for funding by submitting project proposals to the COG who ranks, selects, and submits to CTDOT.	Provides money to municipalities for transportation capital improvement projects. Eligible projects include reconstruction, pavement rehabilitation, sidewalks, and multi-use trails. All projects must be located on federally eligible roadways (except for multi-use trails). The municipality pays 100% of project design costs (considered local share) and 100% LOTCIP State-funded construction phase. <u>https://portal.ct.gov/DOT/Office-of-Engineering/Highway-Design-Local-Roads-LOTCIP</u>
Transportation Rural Improvement Program (TRIP)	Only municipalities with fifty percent or more of their population living in rural areas are eligible to apply for the current solicitation.	Funds municipal transportation improvements in rural municipalities. Eligible projects include roadway, signal, and structural and bridge safety improvements on a eligible roadways (minor rural collector road or greater). Additionally, on- and off-road bicycle facilities, sidewalks, and multi-use trails for pedestrian and cyclist accessibility are eligible anywhere within a rural boundary. <a href="https://portal.ct.gov/dot/pp_bureau/trip">https://portal.ct.gov/dot/pp_bureau/trip</a>
Section 5310 Grant Program	Eligible subrecipients include private nonprofit organizations, states or local government authorities, and operators of public transportation.	Intended to improve mobility for seniors and individuals with disabilities. Eligible applicants are state and local governments, non-profit organizations, and transit districts. <u>https://portal.ct.gov/DOT/Publictrans/Bureau-of-Public-Transportation/Section-5310-Program-Enhanced-Mobility-for-Seniors-and-Individuals-with-Disabilities</u>
Congestion Mitigation Air Quality Improvement Program (CMAQ)	State's Metropolitan Transportation Organizations (MPOs) and the Rural Councils of Governments (COGs).	Funds a wide range of projects that address traffic congestion and air quality, including transit facility improvements, bicycle paths, and alternative-fuel vehicle purchases. <u>https://portal.ct.gov/-</u> /media/DOT/documents/dplansprojectsstudies/other/CTDOT_CMAQ_GUIDE_11302020.pdf
Community Connectivity Program (CCGP)	Municipalities that have entered into a Master Municipal Agreement for Construction Activities with the Department are eligible to apply for grants under this program. Other entities must request sponsorship from the Connecticut Municipality where the project is proposed.	Provides assistance for conducting Road Safety Audits of priority pedestrian and bicycle corridors and intersections, as well as funding for capital improvements that improve bicycle and pedestrian safety. <u>https://portal.ct.gov/DOT/PP_Intermodal/CTConnectivity/CT-Connectivity-CCGP</u>
Safe Streets for All (SS4A) Grant	Counties, cities, towns, transit agencies, and other special districts that are political subdivisions of a State, Metropolitan planning organizations (MPOs) and federally recognized Tribal governments are eligible to apply for this grant.	Provides fundings for regional, local, and tribal initiatives through the Bipartisan Infrastructure Law (BIL) to prevent roadway deaths and serious injuries. Funding is provided through two types of grants; Planning and Demonstration Grants that helps to develop, complete, or supplement a comprehensive safety action plan and Implementation Grants that provide assistance to implement projects and strategies identified in an Action Plan to address a roadway safety problem.

Funding Program	Eligible Applicants	Guidelines					
Transportation Alternatives (TA) Set- Aside Program	Local Governments, Regional Transportation Authority, Transit Agency, Natural Resource of Public Land Agency, School District, Tribal Government, Nonprofit Entity Responsible for Administration of Local Transportation Safety Programs, Local or Regional Government Agency Responsible for Transportation or Recreational Trails.	Projects eligible for TA funding are similar to those eligible under the former TAP, and include those defined as transportation alternatives; including small-scale transportation projects such as bicycle and pedestrian facilities, recreation trails, safe route to schools projects, historic preservation, vegetation management, and environmental mitigation. <u>https://portal.ct.gov/DOT/Office-of-Engineering/Highway-DesignLocal-</u> <u>RoadsTransportation-Alternatives-MultiUse-Trail-Program-Trail-Maintenance</u>					
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Program	State and local levels, including municipalities, Tribal governments, and counties.	RAISE Grants are for investments in surface transportation that will have a significant local or regional impact. Funding is for projects that improve safety, economic strength and global competitiveness, equity, and climate and sustainability consistent with DOT's strategic goal. <u>https://www.transportation.gov/sites/dot.gov/files/2023-02/RAISE%202023%20NOFO%20Amendment2.pdf</u>					
Thriving Communities Program	Local, state, or Tribal governments including pueblos or villages, Metropolitan planning organizations, Transit agencies, Other political subdivisions of state or local governments.	Thriving Communities provide two years of no-cost intensive technical assistance to under-resourced and disadvantaged communities to help identify, develop, and deliver transportation projects that strengthen communities.         https://www.transportation.gov/grants/thriving-communities         This program funds economic development, community conservation and quality of life projects for localities that are ineligible to receive Urban Action bonds (CGS Section 4-66c).         Section 4-66c).					
Small Town Economic Assistance Program (STEAP)	STEAP funds are issued by the State Bond Commission and can only be used for capital projects.						
Local Capital Improvement Program (LoCIP)	Any town, city, borough, consolidated town and city or consolidated town and borough.	This program distributes formula-based entitlement funds to municipalities to reimburse the cost of eligible local capital improvement projects such as road, bridge or public building construction activities. <u>https://portal.ct.gov/OPM/IGPP/Grants/LoCIP/Local-Capital-Improvement-Program-LoCIP-HOME-PAGE</u>					
Connecticut Recreational Trails Grant Program	Eligible sponsors include private organizations; municipalities; federal, state and regional agencies and other government entities such as tribal.	Grants to be used for planning/design, trail corridor acquisition, construction, construction administration, maintenance equipment, amenities and publications/outreach related to bikeways, multi-use trails (including motorized) and water trails (blue ways). <u>https://portal.ct.gov/DEEP/Business-and-Financial-Assistance/Grants-Financial-Assistance/RecreationGrants-and-Financial-Assistance</u>					

# 9. Strategies & Project Selection

Completion of the South Central Regional Council of Governments Regional Transportation Safety Plan is just one step towards improving roadway safety both locally and statewide. To ensure that these countermeasures are implemented CTDOT and SCRCOG's member municipalities will work cooperatively to implement appropriate measures. The SCRCOG and member municipalities have provided their local and regional knowledge, input, and strategies to this safety plan. Throughout the implementation of this plan, SCRCOG will be dedicated to assisting in bringing these strategies to fruition.

Table 8 identifies potential strategies that would address the identified safety concerns within SCRCOG jurisdiction. These strategies could be evaluated for each location in the high injury network identified in Chapter 6 and implemented as necessary. Priorities among the strategies and project locations would be decided in collaboration with the member municipalities, CTDOT, and based on availability of funding. Each member municipality can put together a list of projects using the information provided in this report and based on their priority.

Туре	Project/Strategies	Cost	Timeframe		
	Install rumble strips	Low	6-12 months		
	Flatten side slope	Medium to High	12 – 18 months		
	Remove or relocate roadside objects	Low to Medium	6-12 months		
	Corridor Access Management	Low to Medium	> 18 months		
	Install or improve roadway lighting	Medium	6-12 months		
	Improve pavement friction	Low to Medium	12 – 18 months		
	Install barriers and guardrails	Medium to High	12 – 18 months		
	Traffic calming	Low to medium	12 – 18 months		
Engineering	Install and/or update signs and pavement markings to improve driver awareness	Low	6 -12 months		
	Signalized intersection improvement				
	Lane geometry	Low to High	12 – 18 months		
	Signal timing	Medium to High	12 – 18 months		
	Signal phasing	Medium to High	12 – 18 months		
	Retroreflective backplates	Low	6 -12 months		
	Unsignalized intersection improvement	÷			
	Lane geometry	Low to High	6-12 months		
	Sight distance improvement	Low	6-12 months		

Table 8: Potential Projects

Туре	Project/Strategies	Cost	Timeframe
	Evaluate conversion to signalized or all way stop control intersection	Medium to High	12-18 months
	Evaluate and improve retro reflectivity of all signs and delineators	Low to medium	> 18 months
	Install crosswalk and/or update existing crosswalk	Medium to High	12-18 months
<b>F</b> or all a section of	Install signs and pavement markings for safe movement of pedestrians	Low to high	6-12 months
Engineering (Contd.)	Implement Leading Pedestrian Interval (LPI) at signalized intersections	Medium to High	> 18 months
(001111)	Install pedestrian signal head and countdown timer	Low to Medium	6-12 months
	Install bicycle lane or shared use lane	Low to High	12-18 months
	Determine gaps in the sidewalk network and build a connected network	High	> 18 months
	Road Safety Audits	Low	> 18 months
	Develop education and awareness program to address drowsy driving	Low to Medium	6-12 months
Education	Develop education and awareness program to address driving under influence	Low to Medium	6-12 months
Education	Develop education and awareness program to address distracted driving	Low to Medium	6-12 months
	Develop education and awareness program for vulnerable road users	Low to Medium	6-12 months
Enforcement	High feasibility enforcement	Low to Medium	6-12 months
	Develop a complete street guideline	Low	6-12 months
Policy/Guideline	Update the existing Pedestrian & Bicycle Safety Plan	Low	6-12 months
	Develop a freight plan and include a safety component	Low	6-12 months
Evaluation	Conduct before and after studies to assess effectiveness of selected strategies	Low to Medium	> 18 months

# **10. Measuring Progress**

## **10.1 Evaluation**

The SCRCOG RTSP evaluation process will follow the CT SHSP required adherence to the 2016 FHWA Guidance on Strategic Highway Safety Plans and the FAST Act. SCRCOG will update their safety goals based on the following questions:

- Are strategies current and relevant to ongoing data trends?
- Are strategies being incorporated into local, regional, and state projects?
- Has equity been ensured?
- Is the fatal and injury crash data aligning with the state's goal of a 15% reduction in serious and fatal injury crashes?
- Does the annual state safety reporting reflect the RTSP performance objectives?

Reporting should include information on which strategies are being implemented, what has been accomplished, the progress of performance measures, best practices, and any lessons learned.

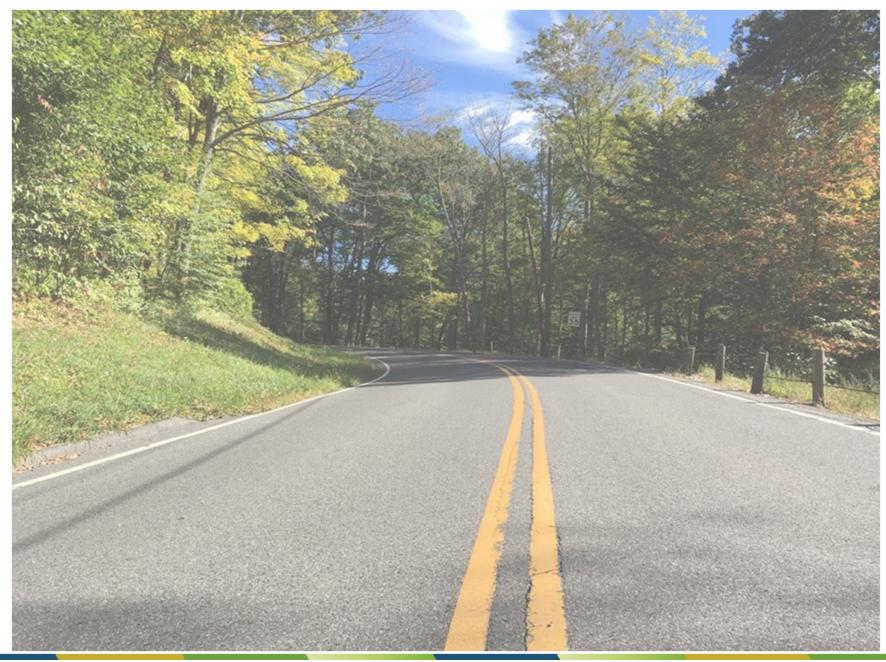
## **10.2 Performance Measures**

The SCRCOG will evaluate the safety trends based on the following performance measures:

- Number of fatal and serious injury crashes
  - Total crashes
  - Pedestrian and bicyclist crashes
  - Aggressive driving related crashes
- Number of fatal and serious injury crashes in disadvantaged communities

## 10.3 Updating the RTSP

The Regional Transportation Safety Plan is a living document congruent with the CT SHSP. Federal regulations require an update for the SHSP every five years, and this Regional Transportation Safety Plan could follow this same update process, ensuring federal compliance. The regional plan will adhere to the same mandates, with updates reflecting the most current federal surface transportation legislation.



**APPENDIX A** 

**SCRCOG Vision Zero Resolution** 

SCRCOG SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

Planning for Our Region's Future

Bethany Branford East Haven Guilford Hamden Madison Meriden Milford New Haven North Branford North Haven Orange Wallingford West Haven Woodbridge

### Carl J. Amento, Executive Director

### Resolution To a Commitment to the Goal of Zero Traffic Deaths Following the Principles of Vision Zero

- WHEREAS, crashes resulting in roadway deaths and serious injuries are preventable and not an inevitable result of the transportation system; and
- WHEREAS, the South Central Regional Council Of Governments (SCRCOG) and its member municipalities strive to create a region that provides safe mobility for all; and
- WHEREAS, a commitment to Vision Zero is a commitment to the value and life of the residents of and visitors to the South Central Planning Region; and
- WHEREAS, the State of Connecticut has created a cross-agency Vision Zero Council to examine ways to improve roadway safety throughout the State, tasked with developing a statewide Vision Zero implementation plan and presenting data and targets to the Legislature for their consideration; and
- WHEREAS, the number of fatalities and serious injuries in the region is a public health issue that must and can be addressed to ensure the wellbeing and benefit of our communities; and
- WHEREAS, Vision Zero is a data-driven strategy to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, equitable mobility for all; and
- WHEREAS, improvements to roadway safety, especially for non-motorized users, aligns with the various Metropolitan Transportation Plans, Regional Safety Action Plan, and governing policies of the CT DOT;
- WHEREAS, Vision Zero uses a safe systems approach to traffic engineering that recognizes that humans make mistakes, and that transportation infrastructure should account for those mistakes; and
- WHEREAS, Vision Zero road safety goals are accomplished through a combination of engineering, education, emergency response, and enforcement measures; and
- WHEREAS, preventing crashes within the region requires a comprehensive response from all municipalities, the SCRCOG, and the CTDOT, that looks at transportation planning, design, policy, enforcement, education, and communication in order to most greatly impact the flaws within our transportation system.

Now, Therefore, Be It Resolved By the Council of Governments:



Planning for Our Region's Future

Bethany Branford East Haven Guilford Hamden Madison Meriden Milford New Haven North Branford North Haven Orange Wallingford West Haven Woodbridge

Carl J. Amento, Executive Director

Vision Zero efforts will take into account equity and ensure that the most vulnerable roadway users receive the necessary attention to ensure their safety and mobility; and that ongoing public engagement will be a critical component of development and implementation of this plan, gathering input from residents, users of the roadway system, safety advocates, and municipal staff. SCRCOG and its member municipalities commit to zero traffic deaths and serious injuries by or before the year 2060. SCRCOG will monitor the progress of traffic safety measures and implementation and continually suggest improvements in moving to accomplish the Vision Zero commitment.

The undersigned duly qualified and acting Secretary of the South Central Regional Council of Governments certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the South Central Regional Council of Governments on **May 24**, **2023**.

By:

Date May 24, 2023

First Selectwoman Peggy Lyons Secretary South Central Regional Council of Governments

127 Washington Avenue, 4th Floor West, North Haven, CT 06473

### **APPENDIX B**

SCRCOG High Injury Network - Top 100 High Crash Roadway Segments

Rank	Primary Town	Route Number	Road Name	Start Milepost	From	End Milepost	То	Type Code	Facility Type	Segment Length	Injury Crashes	EPDO Score	Disadvantaged Community
1	New Haven	CT-10	Ella T. Grasso blvd	0.84	Frank St	1.29	Orange Ave	SR	Urban non-freeway undivided 4 or more lanes	0.45	25	2968	Yes
2	New Haven	N/A	Chapel St	1.68	Orange St	1.77	Church St	TR	Urban arterial 2 lanes	0.09	3	2189	No
3	West Haven	CT-34	Derby Ave	20.7	Elizabeth St	21.16	740 Ft North of Forrest Re	SR	Urban non-freeway divided 4 or more lanes	0.46	17	2053	Yes
4	New Haven	CT-10	Ella T. Grasso blvd	0.62	Lamberton St	0.84	Frank St	SR	Urban non-freeway undivided 4 or more lanes	0.22	3	2045	Yes
5	North Branford	CT-139	Branford Rd	0.86	School Ground Rd	1.33	Enterprise Dr.	SR	Urban non-freeway undivided 2 lanes	0.47	4	1950	No
6	New Haven	CT-10	Whalley Ave	3.24	W Park Ave	3.38	Jewel St	SR	Urban non-freeway divided 4 or more lanes	0.14	6	1519	Yes
7	New Haven	CT-17	Middeltown Ave	0.26	Foxon Blvd	0.41	Barnes Ave	SR	Urban non-freeway undivided 3 lanes	0.15	3	1302	No
8	New Haven	CT-80	Foxon Blvd	0.26	Days Inn New Haven	0.57	Eastern St	SR	Urban non-freeway undivided 4 or more lanes	0.31	37	1260	Yes
9	New Haven	CT-63	Whalley Ave	0.9	W Prospect St	1.22	USPS Driveway	SR	Urban non-freeway undivided 4 or more lanes	0.32	16	1255	Yes
10	New Haven	CT-80	Foxon Blvd	0.15	800 ft East of Rt 17	0.26	Days Inn New Haven	SR	Urban non-freeway undivided 4 or more lanes	0.11	11	1193	No
11	West Haven	CT-162	Sawmill Rd	9.03	Meloy Rd	9.46	Allings Crossing Rd	SR	Urban non-freeway undivided 4 or more lanes	0.43	22	1188	No
12	Hamden	CT-10	Dixwell Ave	5.54	Putnum Ave	5.87	Lexington St	SR	Urban non-freeway undivided 4 or more lanes	0.33	27	1167	No
13	New Haven	N/A	Whalley Ave	0	Ella T Gross Blvd (CT-10)	0.26	Winthrop Ave	TR	Urban arterial 3 or more lanes	0.26	11	1115	Yes
14	Hamden	CT-10	Dixwell Ave	5.39	3rd St	5.54	Putnum Ave	SR	Urban non-freeway undivided 4 or more lanes	0.15	7	1112	No
15	West Haven	CT-162	Sawmill Rd	8.92	I-95 Ramps	9.03	Meloy Rd	SR	Urban non-freeway undivided 4 or more lanes	0.11	2	1093	Yes
16	New Haven	N/A	Daggett St	0	Washington Ave	0.18	Congress Ave	TR	Urban local oneway 2 or more lanes	0.18	3	1085	Yes
17	New Haven	N/A	Dixwell Ave	1.26	W Ivy St	1.51	Pond St	TR	Urban arterial 2 lanes	0.25	15	1085	Yes
18	East Haven	N/A	Main St	0.42	Padre Pl	0.76	Columbus Ave	TR	Urban arterial 2 lanes	0.34	11	1083	No
19 (1)	East Haven	CT-142	Hemingway Ave	0.26	Main St	0.57	Pennsylvania Ave	SR	Urban non-freeway undivided 4 or more lanes	0.31	9	1082	No
19 (2)	Orange	N/A	Marsh Hill Rd	0.42	West Campus Drive	0.82	Edison Rd	TR	Urban arterial 3 or more lanes	0.4	8	1082	No
21	New Haven	N/A	Grand Ave	0.34	Atwater St	0.64	Filmore St	TR	Urban arterial 2 lanes	0.3	14	1077	Yes
22	New Haven	N/A	Rev Dr. MLK. Jr Blvd	0.07	S Orange St	0.37	College St	TR	Urban arterial oneway 1 or more lanes	0.3	13	1075	No
23	Hamden	CT-10	Dixwell Ave	8.37	Thompson St	8.49	Evergreen Ave	SR	Urban non-freeway undivided 4 or more lanes	0.12	8	1073	No
24	New Haven	N/A	Winthrop Ave	0	Davenport Ave	0.42	Legion Ave (Rt-34)	TR	Urban arterial 2 lanes	0.42	6	1067	Yes
25 (1)	New Haven	N/A	Rev Dr. MLK. Jr Blvd	0.37	College St	0.54	York St	TR	Urban arterial oneway 1 or more lanes	0.17	4	1065	No
25 (2)	New Haven	N/A	Dixwell Ave	1.51	Pond St	1.59	Cherry Ann St	TR	Urban arterial 2 lanes	0.08	3	1065	Yes
27 (1)	New Haven	N/A	Farren Ave	0.18	Fulton St	0.42	E Ferry St	TR	Urban arterial 2 lanes	0.24	11	1057	Yes
27 (2)	New Haven	N/A	Sherman Ave/Parkway	0.25	Munson St	0.76	W Hazel St	TR	Urban arterial 3 or more lanes	0.51	8	1057	Yes
29	New Haven	CT-63 US-1	Whalley Ave	0.77	350 Ft West of Dayton St I-95 Overpass	0.9	W Prospect St Waterfront St	SR SR	Urban non-freeway undivided 4 or more lanes	0.13 0.66	2	1055 1053	Yes Yes
30 31	New Haven New Haven	N/A	Forbes Ave Grand Ave	48.91 0.3	E Pearl St	49.57 0.34	Atwater St	TR	Urban non-freeway undivided 4 or more lanes Urban arterial 2 lanes	0.00	8 2	1053	Yes
32 (1)	New Haven	N/A N/A	Whalley Ave	0.3	Winthrop Ave	0.34	Carmel St	TR	Urban arterial 3 or more lanes	0.04	2	1047	Yes
32 (1)	Meriden	CT-15	Berlin Turnpike	66.89	N Broad St (CT-5)	68.02	N Colony Rd	SR	Urban non-freeway divided 4 or more lanes	1.13	19	1045	No
32 (2)	West Haven	CT-34	Derby Ave	21.16	740 Ft North of Forrest Rd	21.48	Tryon St	SR	Urban non-freeway undivided 4 or more lanes	0.32	5	1045	Yes
35 (1)	East Haven	N/A	Main St	0.76	Columbus Ave	0.83	Hughes St	TR	Urban arterial 2 lanes	0.32	2	1043	No
35 (1)	West Haven	CT-122	Forrest Rd	1.46	Hugo St	1.94	Winfred St	SR	Urban non-freeway undivided 2 lanes	0.48	7	1043	Yes
37	New Haven	CT-10	Ella T. Grasso blvd	1.29	Orange Ave	1.95	Legion Ave (Rt-34)	SR	Urban non-freeway undivided 4 or more lanes	0.66	33	1043	Yes
38	North Haven	US-5	State St	4.86	250 ft North of Devine St	5.69	Broadway	SR	Urban non-freeway undivided 2 lanes	0.83	6	1027	No
39	Meriden	CT-71	Old Colony Rd	1.5	Gypsy Ln	2.36	Flower St	SR	Urban non-freeway undivided 2 lanes	0.86	12	1022	No
40	Hamden	N/A	Shepard Ave	2.22	Rocky Top Road	2.83	Fans Rock Rd	TR	Urban arterial 2 lanes	0.61	3	1017	No
41	West Haven	CT-122	Forrest Rd	1.94	Winfred St	2.06	Florence St	SR	Urban non-freeway undivided 2 lanes	0.12	4	1013	Yes
42	Wallingford	N/A	S. Turnpike Rd	1.34	Toelles Rd	1.78	Mansion Rd	TR	Urban arterial 2 lanes	0.44	5	1012	No
43 (1)	New Haven	N/A	Dixwell Ave	0.36	Foote St	0.67	Shelton Ave	TR	Urban arterial 2 lanes	0.31	6	1007	Yes
43 (2)	West Haven	CT-34	Derby Ave	21.48	Tryon St	21.65	Yale Ave	SR	Urban non-freeway undivided 4 or more lanes	0.17	3	1007	Yes
43 (3)	Milford	SR-737	E Broadway	0.55	Surf Ave	0.79	Seaside Ave	SR	Urban non-freeway undivided 2 lanes	0.24	2	1007	No
46	New Haven	N/A	Middeltown Ave	0	Edward B. Grant Way	0.55	Fawn St	TR	Urban arterial 2 lanes	0.55	12	1005	No
47	New Haven	US-1	Water St	46.89	Downes St	47.31	Washington Ave	SR	Urban non-freeway undivided 2 lanes	0.42	5	997	Yes
48	Bethany	CT-69	New Haven Road	8.95	Cheshire Road (CT-42)	9.42	Cook Rd	SR	Urban non-freeway undivided 2 lanes	0.47	5	993	No
49 (1)	Milford	SR-708	Old Gate Ln	0	I-95 NB Off-Ramp	0.22	450 ft. South of Woodmoi	SR	Urban non-freeway undivided 4 or more lanes	0.22	4	987	No
49 (2)	Orange	CT-34	Derby Ave	16.58	Grassy Hill Rd	17.11	Baldwin Rd	SR	Urban non-freeway divided 4 or more lanes	0.53	11	987	No
49 (3)	New Haven	CT-17	Middeltown Ave	0.83	Cross St	1.17	Cranston St	SR	Urban non-freeway undivided 2 lanes	0.34	6	987	No
49 (3) 52 (1)	Wallingford	CT-68	Barnes Rd	15.79	Barnes Rd	15.99	N Farms Rd	SR	Urban non-freeway divided 4 or more lanes	0.2	3	985	No

Rank	Primary Town	Route Number	Road Name	Start Milepost	From	End Milepost	То	Type Code	Facility Type	Segment Length	Injury Crashes	EPDO Score	Disadvantaged Community
52 (2)	Bethany	CT-63	Amity Rd	10.45	Toll Gate Rd	10.83	Little Beacon	SR	Urban non-freeway undivided 2 lanes	0.38	3	985	No
52 (3)	•	CT-80	Foxon Blvd	7.65	White Wood Ln	7.96	Stout Rd	SR	Urban non-freeway undivided 2 lanes	0.31	3	985	No
52 (4)	Milford	N/A	Old Gate Ln	0.05	Old Gate Ln	0.8	I-95 NB Off-Ramp	TR	Urban arterial 2 lanes	0.75	8	985	No
56 (1)	New Haven	N/A	Chapel St	3.14	Ellsworth Ave	3.61	Yale Ave	TR	Urban collector 2 lanes	0.47	3	977	No
56 (2)	Meriden	N/A	N Wall St	0	Wall St	0.65	Westfield Rd	TR	Urban collector 2 lanes	0.65	4	977	No
56 (3)	New Haven	CT-17	Middeltown Ave	0.69	Ellis St	0.83	Cross St	SR	Urban non-freeway undivided 2 lanes	0.14	1	977	No
59 (1)	North Haven	SR-707	Whitney Ave	2.88	Hartley St	3.09	Buell St	SR	Urban non-freeway undivided 4 or more lanes	0.21	3	975	No
59 (2)	Woodbridge	CT-243	Ansonia Rd	3.59	Mihaven Rd	3.96	Tumbelbrook Rd	SR	Urban non-freeway undivided 2 lanes	0.37	3	975	No
59 (3)	New Haven	CT-243	Fountain St	5.82	Maplewood Rd	6.17	Vista Ter	SR	Urban non-freeway undivided 2 lanes	0.35	2	975	Yes
59 (4)	North Branford		Totoket Rd	1.82	Mill Rd	3.3	Augur Rd Ext	TR	Urban collector 2 lanes	1.48	2	975	No
59 (5)	Hamden	US-5	State St	3.29	Olds St	3.71	Skiff St	SR	Urban non-freeway undivided 2 lanes	0.42	6	975	No
59 (6)	North Branford	CT-17	Middeltown Ave	7.06	Clintonville Rd	7.95	Maltby Ln	SR	Urban non-freeway undivided 2 lanes	0.89	6	975	No
59 (7)	Hamden	SR-707	Whitney Ave	3.09	Buell St	3.43	Millbrook Rd	SR	Urban non-freeway undivided 4 or more lanes	0.34	7	975	No
66 (1)	Milford	US-1	Boston Post Rd	37.58	West Ave	37.96	Clark St	SR	Urban non-freeway undivided 4 or more lanes	0.38	4	967	No
66 (2)	New Haven	N/A	Peck St	0	Ferry St	0.26	Clinton Ave	TR	Urban local oneway 2 or more lanes	0.26	2	967	Yes
66 (3)	Hamden	US-5	State St	3.08	Daniel Rd	3.29	Olds St	SR	Urban non-freeway undivided 2 lanes	0.21	2	967	No
66 (4)	Hamden	US-5	State St	2.23	Fernwood Rd	2.62	Foote St	SR	Urban non-freeway undivided 2 lanes	0.39	2	967	No
66 (5)	New Haven	N/A	Chapel St	2.95	Winthrop Ave	3.14	Ellsworth Ave	TR	Urban collector 2 lanes	0.19	2	967	Yes
66 (6)	Meriden	N/A	Oregon Rd	0	River Rd	1.01	Brownstone Rd	TR	Urban collector 2 lanes	1.01	5	967	No
66 (7)	Woodbridge	CT-69	Litchfield Tpk	3.05	Dillon Rd	4.21	Morris Rd	SR	Urban non-freeway undivided 2 lanes	1.16	4	967	No
66 (8)	Wallingford	CT-71	Old Colony Rd	0.32	S Broad St	0.86	Atwater St	SR	Urban non-freeway undivided 2 lanes	0.54	4	967	No
74 (1)	Hamden	N/A	Shepard Ave	1.13	Sherman Ave	1.82	W Shepard Ave	TR	Urban arterial 2 lanes	0.69	4	957	No
74 (2)	North Branford	CT-22	Forrest Rd	9.09	Neubigs Way	9.96	Old Forest Rd	SR	Urban non-freeway undivided 2 lanes	0.87	5	957	No
74 (3)	Bethany	CT-63	Amity Rd	6.75	Look Hill Road	7.7	Peck Rd	SR	Rural non-freeway undivided 2 or more lanes	0.95	3	957	No
74 (4)	North Haven	CT-22	Clintonville Rd	2.77	Woodside Dr	3.02	Centerbrook Rd	SR	Urban non-freeway undivided 2 lanes	0.25	1	957	No
74 (5)	Madison	CT-79	Durham Rd	7.46	Hathaway Rd	9.53	Cross Rd	SR	Rural non-freeway undivided 2 or more lanes	2.07	2	957	No
74 (6)	Bethany	N/A	Pole Hill Rd	0.16	Schaffer Rd	1.26	Falls Rd	TR	Rural local 1 or more lanes	1.1	1	957	No
74 (7)	Bethany	N/A	Downs Rd	1.55	Carmel Rd	2.18	Hoadley Rd	TR	Rural local 1 or more lanes	0.63	1	957	No
74 (8)	East Haven	CT-80	Foxon Rd	2.37	N High St	2.59	Mountain View Ter	SR	Urban non-freeway undivided 2 lanes	0.22	1	957	No
74 (9)	Meriden	N/A	Reserch Parkway	1.11	Pond View Dr	1.55	Corporate Ct	TR	Urban arterial 2 lanes	0.44	2	957	No
74 (10)	Milford	N/A	Herbert St	0	Wheelers Farm Rd	0.46	Newton St	TR	Urban local 2 lanes	0.46	1	957	No
74 (11)	New Haven	N/A	Lexington Ave	0	Russell St	0.34	Revere St	TR	Urban local 2 lanes	0.34	2	957	No
85	Hamden	CT-10	Dixwell Ave	5.06	Dunkin Driveway	5.39	3rd St	SR	Urban non-freeway undivided 4 or more lanes	0.33	25	337	No
86	West Haven	US-1	Boston Post Rd	45	Peabody St	45.35	SmyrnaSt	SR	Urban non-freeway undivided 4 or more lanes	0.35	16	283	No
87	New Haven	US-5	State St	0.17	Willow St	0.74	Lyman St	SR	Urban non-freeway undivided 2 lanes	0.57	28	268	Yes
88 (1)	Hamden	CT-10	Dixwell Ave	4.99	Arch St	5.06	Dunkin Driveway	SR	Urban non-freeway undivided 3 lanes	0.07	6	267	No
88 (2)	New Haven	N/A	Whalley Ave	0.5	Country St	0.76	Sperry St	TR	Urban arterial 3 or more lanes	0.26	16	267	Yes
90	West Haven	CT-162	Sawmill Rd	8.78	Exxon Driveway	8.81	Storage Driveway	SR	Urban non-freeway undivided 3 lanes	0.03	3	256	Yes
91	New Haven	CT-80	Foxon Blvd	0.11	1000 ft East of Rt 17	0.15	800 ft East of Rt 17	SR	Urban non-freeway undivided 4 or more lanes	0.04	5	247	No
92	West Haven	CT-122	1st Ave	0.32	Alling St Ext.	0.58	Ruden St	SR	Urban non-freeway undivided 3 lanes	0.26	15	244	No
93	New Haven	CT-80	Foxon Blvd	0.57	Eastern St	0.73	Old Foxon Rd	SR	Urban non-freeway undivided 4 or more lanes	0.16	1	237	Yes
94	West Haven	US-1	Boston Post Rd	46.26	Front Ave	46.64	Ella T Grasso Blvd	SR	Urban non-freeway undivided 4 or more lanes	0.38	23	233	Yes
95	Hamden	CT-10	Dixwell Ave	7.01	Rt-15 Ramps	7.71	Skiff St	SR	Urban non-freeway undivided 4 or more lanes	0.7	41	232	No
96	Orange	US-1	Boston Post Rd	43.58	Lindy St	43.93	Bull Hill Ln	SR	Urban non-freeway undivided 4 or more lanes	0.35	13	225	No
97	New Haven	N/A	Whalley Ave	0.76	Sperry St	0.86	Dwight St	TR	Urban arterial 3 or more lanes	0.1	4	220	Yes
98	New Haven	US-5	State St	0.04	James St	0.17	Willow St/Blatchley Ave	SR	Urban non-freeway undivided 2 lanes	0.13	3	218	Yes
99	Hamden	CT-10	Dixwell Ave	5.87	Lexington St	6.22	Pershing St	SR	Urban non-freeway undivided 4 or more lanes	0.35	21	215	No
100	New Haven	SR-745	Kimberly Ave	1.03	I-95	1.21	Ella T Grasso Blvd	SR	Urban non-freeway undivided 2 lanes	0.18	12	214	Yes

## **APPENDIX C**

SCRCOG High Injury Network - Top 100 High Crash Intersections

Rank	Primary Town	Road Number 1	Road Name 1	Road Number 2	Road Name 2	Facility Type	Signalized	Injury Crashes	EPDO Score	Disadvantaged Community?
1	New Haven	CT-63	Whalley Ave	-	E Ramsdell St	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	17	422.33	Yes
2	New Haven	CT-10	Ella T Graso Blvd	SR-745	Kimberly Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	32	284.67	Yes
3	New Haven	CT-10	Ella T Graso Blvd	-	Lamberton St	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	8	216.67	Yes
4	Milford	US-1	Boston Post Rd	CT-162	Bridgeport Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	4	215.00	No
5	North Haven	US-5	Washington Ave	-	Franklin St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	6	211.00	No
6	West Haven	US-1	Boston Post Rd	-	Front Ave.	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	7	206.67	No
7	Orange	CT-34	Derby Ave	-	Mapledale Rd.	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	3	205.00	No
8	Hamden	CT-10	Dixwell Ave	-	4th St./Woodin St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	7	203.33	No
9 (1)	Hamden	CT-10	Dixwell Ave	-	Collins St.	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	4	202.33	No
9 (2)	East Haven	CT-142	Hemingway Ave	-	Tyler St.	Urban Multi-Lane 4-Leg Sign Controlled Intersections	No	4	202.33	No
11	Hamden	CT-10	Dixwell Ave	-	Saint James St.	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	3	197.00	No
12	Guilford	CT-80	Killingworth Rd.	-	S Hoop Pole Rd.	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	2	193.33	No
13 (1)	Woodbridge	CT-63	Amity Rd	-	Landin St.	Urban 2-Lane 3-Leg Sign Controlled Intersections	No	1	191.33	No
13 (2)	North Branford	CT-80	Foxon Rd	-	Sea Hill Rd.	Urban 2-Lane 3-Leg Sign Controlled Intersections	No	1	191.33	No
15	New Haven	CT-80	Foxon Blvd.	CT-103	Quinnipiac Ave.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	41	104.67	No
16	New Haven	CT-10	Ella T Graso Blvd	US-1	Boston Post Rd/Columbus Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	29	74.67	Yes
17	New Haven	US-1	Forbes Ave.	-	Fulton St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	16	61.00	Yes
18	West Haven	CT-122	1st Ave.	-	Campbell Ave.	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	15	57.67	No
19	New Haven	CT-10	Ella T Graso Blvd	-	Washington Ave.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	19	54.33	Yes
20 (1)	New Haven	CT-10	Ella T Graso Blvd	CT-34	Derby Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	25	51.67	Yes
20 (2)	West Haven	CT-34	Derby Ave	CT-122	Forrest Rd.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	20	51.67	Yes
22	Orange	CT-34	Derby Ave	CT-114	Racebrook Rd.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	19	51.33	No
23	New Haven	CT-80	Foxon Blvd.	-	Eastern St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	20	49.67	Yes
24 (1)	New Haven	US-1	Forbes Ave.	-	Townsend Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	19	49.33	Yes
24 (2)	New Haven	CT-10	Ella T Graso Blvd	-	Whalley Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	14	49.33	Yes
26	New Haven	US-1	Columbus Ave.	-	Thorn St.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	13	48.67	Yes
27	North Haven	US-5	State St.	-	Sackett Point Rd.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	13	47.33	No
28	New Haven	CT-10	Ella T Graso Blvd	-	Adeline St.	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	17	47.00	Yes
29	Milford	US-1	Boston Post Rd	-	Cedarhurst Ln.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	18	44.33	No
30	North Haven	US-5	Washington Ave	CT-22	Clintonville Rd.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	13	44.00	No
31	New Haven	US-1	Columbus Ave.	-	Howard Ave.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	15	43.00	Yes
32	New Haven	US-5	State St.	-	Willow St./Blatchley Ave.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	16	41.67	Yes
33	New Haven	CT-63	Whalley Ave	CT-10	Fitch St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	41.33	Yes
34	New Haven	US-1	Forbes Ave./Water St.	-	East St./Long Wharf Dr.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	14	41.00	Yes
35	Wallingford	US-5	S/N Colony St.	CT-150	Quinnipiac St.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	12	40.33	No
36 (1)	New Haven	CT-10	Ella T Graso Blvd	CT 34	Legion Ave	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	15	39.67	Yes
36 (2)	New Haven	US-1	Columbus Ave.	-	Church Street S.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	11	39.67	Yes
38	Milford	US-1	Boston Post Rd	CT-121	North St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	39.33	No
39 (1)	Wallingford	CT-68	Barnes Rd.	-	N Main St. Ext.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	15	38.33	No
39 (2)	New Haven	CT-10	Ella T Graso Blvd	-	Chapel St.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	18	38.33	Yes
39 (3)	West Haven	SR-745	1st Ave.	-	Elm St.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	11	38.33	Yes
42	West Haven	CT-122	Campbell Ave.	-	Ruden St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	38.00	No
43	New Haven	CT-122	Forrest Rd.	- OT 440	Edgewood Ave.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	14	36.00	No
44	Branford	US-1	W Main St.	CT-142	Short Beach Rd.	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	5	35.67	No
45	Wallingford	US-5	N Colony Rd.	-	Yale Ave.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	34.67	No
46	Meriden	CT-71	Old Colony Rd.	-	Hall Ave.	Urban 2-Lane 3-Leg Signalized Intersections	Yes	5	34.00	No
47	New Haven	CT-10	Ella T Graso Blvd	-	Elm St. Bimmon Bd	Urban 2-Lane 4-Leg Signalized Intersections	Yes	9	33.00	Yes
48	North Haven	CT-17	Middletown Ave.	-	Rimmon Rd.	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	9	32.67	No
49 50	West Haven	CT-162	Sawmill Rd.	-	Greta St./Voss Rd.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	12	32.33	Yes
50 51 (1)	West Haven	US-1	Boston Post Rd	-	Fairfax St. Main St Annex	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	11 15	32.00	Yes
51 (1) 51 (2)	New Haven	SR-741/CT-337	Townsend AVE	- CT-114		Urban Multi-Lane 4-Leg Signalized Intersections	Yes	15 11	31.67 31.67	Yes
51 (2)	Orange Moridon	US-1	Boston Post Rd	01-114	Racebrook Rd.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	11 11	31.67 31.67	No
51 (3) 51 (4)	Meriden Wallingford	CT-71 CT-68	W Main St. Barnes Rd.	-	Lewis Ave/Linsley Ave N Farms Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	11 7	31.67 31.67	Yes
51 (4)	Wallingford	01-00	Dames RU.	-	IN FAILIS RU	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	I	31.67	No

Rank	Primary Town	Road Number 1	Road Name 1	Road Number 2	Road Name 2	Facility Type	Signalized	Injury Crashes	EPDO Score	Disadvantaged Community?
55	Orange	CT-34	Derby Ave	-	Dogwood Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	31.33	No
56	West Haven	US-1	Boston Post Rd	CT-122	Forrest Rd/Campbell Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	12	30.67	Yes
57 (1)	Meriden	CT-71	W Main St.	-	N 3rd St/Windsor Ave	Urban 2-Lane 4-Leg Signalized Intersections	Yes	11	30.00	Yes
57 (2)	Branford	US-1	E Main St	-	School Ground Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	7	30.00	No
59	North Haven	CT-22	Bishop St	SR-725	Hartford Tpke	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	9	29.67	No
60 (1)	West Haven	CT-122	Forrest Rd	-	David St	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	9	29.33	Yes
60 (2)	Orange	CT-34	Derby Ave	CT-152	Orange Center Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	9	29.33	No
60 (3)	Milford	US-1	Broidgeport Ave	-	Rivercliff Rd	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	5	29.33	No
63 (1)	Orange	US-1	Boston Post Rd	-	S Lambert Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	12	29.00	No
63 (2)	North Haven	SR-717	Dixwell Ave	-	Hartford Tpke	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	12	29.00	No
65 (1)	West Haven	CT-122	1st Ave.	-	Spring St	Urban 2-Lane 4-Leg Signalized Intersections	Yes	10	28.33	No
65 (2)	Woodbridge	CT-313	Rimmon Rd	-	Johnson Rd	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	6	28.33	No
67 (1)	New Haven	CT-10	Ella T Graso Blvd	-	Edgewood Ave.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	14	27.67	Yes
67 (2)	Milford	US-1	Boston Post Rd	-	Locust St	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	9	27.67	No
69 (1)	West Haven	CT-34	Derby Ave	-	Elizabeth St	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	8	27.33	Yes
69 (2)	New Haven	US-1	Water St	US-5	State St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	8	27.33	No
71	Orange	CT-34	Boston Post Rd	CT-121	Grassy Hill Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	11	27.00	No
72	Meriden	US-5	S Broad St.	-	Green Rd/Gypsy Ln	Urban 2-Lane 4-Leg Signalized Intersections	Yes	5	26.00	No
73 (1)	Branford	SR-740	Cedar St	US-1	N Main St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	12	25.67	No
73 (2)	East Haven	SR-735	Kimberly Ave	-	Forbes PI.	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	8	25.67	No
73 (3)	Meriden	CT-71	W Main St.	-	N 2nd St.	Urban 2-Lane 4-Leg Sign Controlled Intersections	No	4	25.67	No
76 (1)	New Haven	CT-63	Whalley Ave	CT-122	Dayton St	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	11	25.33	Yes
76 (2)	Branford	US-1	W Main St.	SR-794	Branford Conn	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	7	25.33	No
76 (3)	Wallingford	CT-68	Barnes Rd.	-	Northrop Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	7	25.33	No
79 (1)	Milford	US-1	Boston Post Rd	-	W Main St/Plains Rd	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	25.00	No
79 (2)	Branford	US-1	N Main St.	-	Ivy St.	Urban 2-Lane 4-Leg Signalized Intersections	Yes	6	25.00	No
81 (1)	West Haven	US-1	Boston Post Rd	-	Meloy Rd	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	9	24.67	No
81 (2)	Wallingford	SR-702	Wharton Brook Conn	US-5	S Colony Rd	Urban 2-Lane 4-Leg Signalized Intersections	Yes	9	24.67	No
83	Hamden	CT-10	Dixwell Ave	-	Connolly Pkwy	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	8	24.33	No
84	New Haven	CT-10	Ella T Graso Blvd	SR-706	N Frontage Rd	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	8	24.00	Yes
85 (1)	New Haven	CT-17	Middeltown Ave	-	Barnes Ave	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	11	23.67	No
85 (2)	Hamden	CT-10	Arch St	-	Fairview Ave/Fitch St	Urban 2-Lane 4-Leg Signalized Intersections	Yes	7	23.67	No
85 (3)	Meriden	US-5	Broad St	-	Charles St	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	7	23.67	Yes
88 (1)	North Haven	CT-22	Bishop St	US-5	State St.	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	10	23.33	No
88 (2)	New Haven	CT-122	Forrest Rd/Dayton St	CT-243	Fountain St	Urban 2-Lane 4-Leg Signalized Intersections	Yes	10	23.33	Yes
88 (3)	Hamden	-	Arch St/Morse St	CT-10	Dixwell Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	6	23.33	No
91 (1)	New Haven	CT-10	Ella T Graso Blvd	-	Judson Ave	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	9	23.00	Yes
91 (2)	Orange	CT-152	Orange Center Rd	-	Old Grassy Hill Rd	Urban 2-Lane 3-Leg Sign Controlled Intersections	No	5	23.00	No
93	New Haven	CT-10	Ella T Graso Blvd	-	Frank St.	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	1	22.00	Yes
94 (1)	Hamden	CT-10	Dixwell Ave	-	Skiff St	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	8	22.67	No
94 (2)	West Haven	CT-34	Derby Ave	-	Central Ave	Urban Multi-Lane 3-Leg Signalized Intersections	Yes	8	22.67	Yes
96 (1)	New Haven	US-5	State St.	-	Ferry St	Urban 2-Lane 4-Leg Signalized Intersections	Yes	11	22.00	Yes
96 (2)	New Haven	CT-63	Whalley Ave	-	W Rock Ave	Urban Multi-Lane 4-Leg Signalized Intersections	Yes	(	22.00	No
98 (1)	Hamden	SR-707	Whitney Ave	-	Eli Rd	Urban Multi-Lane 3-Leg Sign Controlled Intersections	No	6	21.67	No
98 (2)	Woodbridge	CT-69	Litchfield Trpk	-	Bradley Rd	Urban 2-Lane 4-Leg Signalized Intersections	Yes	6	21.67	No
100	Madison	CT-79	Durham Rd	-	Green Hill Rd	Urban 2-Lane 4-Leg Signalized Intersections	Yes	5	21.00	No

## **APPENDIX D**

SCRCOG High Injury Network - Top 40 Pedestrian and Bicycle Crash Locations

Rank	Туре	Primary Town	Route Number	Road Name	Start Milepost	From	End Milepost	То	Type Code	Facility Type	Injury Crashes	EPDO Score	Disadvantaged Community
1	Corridor	New Haven	CT-10	Ella T. Grasso blv	0.84	Frank St	1.29	Comunbus Ave	SR	Urban non-freeway undivided 4 or more lanes	7	2938	Yes
2	Corridor	New Haven	N/A	Chapel St	1.68	Orange St	1.77	Church St	TR	Urban arterial 2 lanes	2	2167	No
3 (1)	Corridor	New Haven	CT-10	Ella T. Grasso blv	0.62	Lamberton St	0.84	Frank St	SR	Urban non-freeway undivided 4 or more lanes	1	1913	Yes
3 (2)	Corridor	West Haven	CT-34	Derby Ave	20.7	Elizabeth St	21.16	740 Ft North of Fori	SR	Urban non-freeway divided 4 or more lanes	2	1913	Yes
5	Corridor	New Haven	CT-17	Middeltown Ave	0.26	Foxon Blvd	0.41	Barnes Ave	SR	Urban non-freeway undivided 3 lanes	1	1276	No
6	Corridor	New Haven	N/A	Daggett St	0	Washington Ave	0.18	Congress Ave	TR	Urban local oneway 2 or more lanes	1	1063	Yes
7	Corridor	New Haven	CT-63	Whalley Ave	0.9	W Prospect St	1.22	USPS Driveway	SR	Urban non-freeway undivided 4 or more lanes	3	1057	Yes
8	Corridor	West Haven	CT-162	Sawmill Rd	8.92	I-95 SB On and Off Rar	9.21	I-95 NB On and Off	SR	Urban non-freeway undivided 4 or more lanes	3	1025	Yes
9 (1)	Corridor	New Haven	N/A	Grand Ave	0.34	Atwater St	0.64	Filmore St	TR	Urban arterial 2 lanes	3	1017	Yes
9 (2)	Corridor	West Haven	CT-162	Sawmill Rd	9.21	I-95 NB On and Off Rai	9.46	Allings Crossing Rd	SR	Urban non-freeway undivided 4 or more lanes	1	1017	No
11 (1)	Corridor	New Haven	CT-80	Foxon Blvd	0.15	800 ft East of Rt 17	0.57	Eastern St	SR	Urban non-freeway undivided 4 or more lanes	2	1007	Yes
11 (2)	Corridor	New Haven	N/A	Whalley Ave	0	Ella T Gross Blvd (CT-1	0.32	Carmel St	TR	Urban arterial 3 or more lanes	2	1007	Yes
11 (3)	Corridor	West Haven	CT-122	Forrest Rd	1.46	Hugo St	1.94	Winfred St	SR	Urban non-freeway undivided 2 lanes	2	1007	Yes
14	Corridor	New Haven	N/A	Farren Ave	0.18	Fulton St	0.42	E Ferry St	TR	Urban arterial 2 lanes	3	977	Yes
15	Corridor	Hamden	CT-10	Dixwell Ave	5.54	Putnum Ave	5.87	Lexington St	SR	Urban non-freeway undivided 4 or more lanes	3	975	No
16 (1)	Corridor	Hamden	CT-10	Dixwell Ave	5.39	3rd St	5.54	Putnum Ave	SR	Urban non-freeway undivided 4 or more lanes	2	967	No
16 (2)	Corridor	New Haven	N/A	Chapel St	2.95	Winthrop Ave	3.23	CT-10	TR	Urban collector 2 lanes	2	967	Yes
16 (3)	Corridor	New Haven	N/A	Dixwell Ave	0.36	Foote St	0.67	Shelton Ave	TR	Urban arterial 2 lanes	2	967	Yes
19 (1)	Corridor	New Haven	CT-10	Ella T. Grasso blv	1.29	Orange Ave	1.95	Legion Ave (Rt-34)	SR	Urban non-freeway undivided 4 or more lanes	3	957	Yes
19 (2)	Corridor	East Haven	N/A	Main St	0.42	Padre Pl	0.83	Hughes St	TR	Urban arterial 2 lanes	1	957	No
19 (3)	Corridor	New Haven	CT-17	Middeltown Ave	0.69	Ellis St	1.17	Cranston St	SR	Urban non-freeway undivided 2 lanes	2	957	No
19 (4)	Corridor	Meriden	CT-71	Old Colony Rd	1.5	Gypsy Ln	2.36	Flower St	SR	Urban non-freeway undivided 2 lanes	2	957	No
23 (1)	Corridor	Milford	N/A	Herbert St	0.0	Wheelers farms Rd	0.5	Hollis Dr	TR	Urban local 2 lanes	1	957	No
23 (2)	Corridor	New Haven	US-1	Water St	46.89	Downes St	47.31	Washington Ave	SR	Urban non-freeway undivided 2 lanes	1	957	Yes
23 (3)	Corridor	Bethany	N/A	Pole Hill Rd	0.16	Schaffer Rd	1.26	Falls Rd	TR	Rural local 1 or more lanes	1	957	No
23 (4)	Corridor	Milford	US-1	Boston Post Rd	37.58	West Ave	37.96	Clark St	SR	Urban non-freeway undivided 4 or more lanes	1	957	No
23 (5)	Corridor	Orange	CT-34	Derby Ave	16.58	Grassy Hill Rd	17.11	Baldwin Rd	SR	Urban non-freeway divided 4 or more lanes	1	957	No
23 (6)	Corridor	Meriden	CT-15	Berlin Turnpike	66.89	N Broad St (CT-5)	68.02	N Colony Rd	SR	Urban non-freeway divided 4 or more lanes	2	957	No
23 (7)	Corridor	Wallingford	N/A	S. Turnpike Rd	1.34	Toelles Rd	1.78	Mansion Rd	TR	Urban arterial 2 lanes	1	957	No
23 (8)	Corridor	Bethany	CT-63	Amity Rd	10.45	Toll Gate Rd	10.83	Little Beacon	SR	Urban non-freeway undivided 2 lanes	1	957	No
23 (9)	Corridor	North Branford	CT-139	Branford Rd	0.86	School Ground Rd	1.33	Enterprise Dr.	SR	Urban non-freeway undivided 2 lanes	1	957	No
32 (1)	Intersection	New Haven	CT-63	Whalley Ave	-	Ramsdell St	-	-		<ul> <li>Urban Multi-Lane 4-Leg Signalized Intersections</li> </ul>	2	193	Yes
32 (2)	Intersection	New Haven	CT-10	Ella T. Grasso blv	-	Lamberton St	-	-		<ul> <li>Urban Multi-Lane 4-Leg Signalized Intersections</li> </ul>	2	193	Yes
34 (1)	Intersection	Hamden	CT-10	Dixwell Ave	-	Saint James St.	-	-		- Urban Multi-Lane 3-Leg Sign Controlled Intersections	1	191	No
34 (2)	Intersection	West Haven	US-1	Boston Post Rd	-	Front Ave.	-	-		<ul> <li>Urban Multi-Lane 3-Leg Signalized Intersections</li> </ul>	1	191	Yes
34 (3)	Intersection	Hamden	CT-10	Dixwell Ave	-	Collins St.	-	-		- Urban Multi-Lane 3-Leg Sign Controlled Intersections	1	191	No
37	Corridor	New Haven	US-5	State St	0.04	James St	0.74	Lyman St	SR	Urban non-freeway undivided 2 lanes	4	150	Yes
38	Corridor	New Haven	N/A	Chapel St	1.58	State St	1.68	Orange St	TR	Urban arterial 3 or more lanes	2	137	No
39	Corridor	Hamden	CT-10	Dixwell Ave	5.06	Dunkin Driveway	5.39	3rd St	SR	Urban non-freeway undivided 4 or more lanes	5	128	No
40	Corridor	Meriden	N/A	Center St	0.65	I-691 On-Ramp	0.73	I-691 Off Ramp	TR	Urban local 2 lanes	1	125	Yes