

# REGIONAL TRANSPORTATION SAFETY PLAN

Western Connecticut  
Council of Governments



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

The opinions, findings and conclusions expressed in this publication are those of the author and do not necessarily reflect the official views or policies of the Western Connecticut Council of Governments (WestCOG), Connecticut Department of Transportation, or the municipalities within WestCOG. The conclusions of this report are advisory and intended for general planning purposes only.



Source: VN Engineers

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# Report Terminology

TERM	DEFINITION
AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway Transportation Officials
ADT	Average Daily Traffic
Cat Tracks	Dotted lines that extend lane line markings into the intersection for enhanced delineation. They are typically applied at offset, skewed, multileg, complex intersections, or curved roadways, or where multiple turn lanes are used.
Collector Road	The Federal Highway Administration defines Collector Roads as the network that gathers traffic from local roads and directs them to the Arterial network.
FHWA	Federal Highway Administration
HSIP	Highway Safety Improvement Program
Injury A	Suspected Serious Injury
Injury B	Suspected Minor Injury
Injury C	Possible Injury
Injury K	Fatal Injury
Injury O	Property Damage Only
LPI	Leading pedestrian interval. A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left.
Local Roads	The FHWA describes Local Roads as having the largest percentage of all roadways in terms of mileage. They are intended for short distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. They are often designed to discourage through traffic.
L RTP	Long-Range Transportation Plan
MUTCD	Manual on Uniform Traffic Control Devices
MVMT	Million Vehicle Miles Traveled
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
Per VMT	Describes a crash rate per million vehicle miles
Per Capita	Describes a crash rate per population
Performance Measure	Indicators that enable decision-makers and other stakeholders to monitor changes in system conditions and performance against established visions, goals, and objectives.
RTSP	Regional Transportation Safety Plan
Reverse Curve	Reverse curves are two successive turns or curves that bend in opposite directions.
SHIP	State Highway Improvement Plan
SHSP	Strategic Highway Safety Plan
TIP	Transportation Improvement Program
VMT	Vehicle Miles Traveled

# 1. Introduction

In 2017, the Connecticut Department of Transportation (CTDOT) published the Connecticut Strategic Highway Safety Plan (SHSP) to guide the State in reducing injuries and fatalities along Connecticut roadways. This Regional Transportation Safety Plan (RTSP) is in congruence with the Connecticut SHSP. It will serve as a road map and strategy to help the Western Connecticut Region and its 18 municipalities collaborate with the State in reducing injury and fatal crashes. It will also serve to increase safety awareness and allow the member towns, cities, and the region to focus on their transportation safety issues.

The approach used in this study applies similar methodology to the State plan, but it includes more local input, reflecting both the needs of each of its 18 individual communities and the region as a whole. In addition to the regional plan, each municipality has its own mini-report, which includes specific crash data and priority locations, while incorporating stakeholder feedback.

The plan is data-driven, multimodal, and multidisciplinary. The plan was developed involving local stakeholders from the four E's of transportation safety: engineering, enforcement, education, and emergency response. It identifies the region's high-frequency crash locations and outlines effective countermeasures and strategies to reduce crashes. The purpose of listing countermeasures is to help the region prioritize its projects and better position the region for any available safety funds.

WestCOG endorses the CTDOT Annual Safety Targets and they will continue to review and potentially endorse the annual safety targets proposed by CTDOT.

This RTSP is a living document. Federal regulations require an update for the SHSP every five years and this regional safety plan could follow the same update process, with the expectation that all updates will reflect the most current federal surface transportation legislation.<sup>1</sup>

<sup>1</sup> A Strategic Highway Safety Plan (SHSP) is a major component and requirement of the Highway Safety Improvement Program (HSIP) (23 U.S.C. § 148). It is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads.

## THE FOUR E'S OF TRANSPORTATION SAFETY

**ENGINEERING:** Highway design, traffic, maintenance, operations, and planning professionals.

**ENFORCEMENT:** State and local law enforcement agencies.

**EDUCATION:** Prevention specialists, communication professionals, educators, and citizen advocacy groups.

**EMERGENCY RESPONSE:** First responders, paramedics, fire, and rescue.



Source: VN Engineers

## 2. Stakeholders

Stakeholders engaged in the process and development of the Western Connecticut Region's RTSP include representatives from the four E's. In order to ensure stakeholder input, the Western Connecticut Region Council of Governments (WestCOG) member municipalities were involved with the plan development from the onset of the study. The following is a list of some of the involved safety partners. Under each municipal report, there are additional stakeholders that participated in the plan.

### **WestCOG Member Towns and Representatives**

- Bethel - Matthew Knickerbocker (First Selectman)**
- Bridgewater - Curtis Read (First Selectman)**
- Brookfield - Stephen Dunn (First Selectman)**
- Danbury - Joseph Cavo (Mayor)**
- Darien - Jayme Stevenson (First Selectman)**
- Greenwich - Fred Camillo (First Selectman)**
- New Canaan - Kevin Moynihan (First Selectman)**
- New Fairfield - Patricia Del Monaco (First Selectman)**
- New Milford - Peter Bass (Mayor)**
- Newtown - Daniel Rosenthal (First Selectman)**
- Norwalk - Harry Rilling (Mayor)**
- Redding - Julia Pemberton (First Selectman)**
- Ridgefield - Rudolph Marconi (First Selectman)**
- Sherman - Donald Lowe (First Selectman)**
- Stamford - David Martin (Mayor)**
- Weston - Christopher Spaulding (First Selectman)**
- Westport - James Marpe (First Selectman)**
- Wilton - Lynne Vanderslice (First Selectman)**

**CTDOT**

**WestCOG**

**State and Local Traffic Enforcement Officials**

**Municipal Fire Department officials  
and/or First Responders**

**Municipal Officials**

**Municipal Public Works Directors**

**CTransit**

**HARTransit**

**Norwalk Transit District**



## 3. Regional Overview

The Western Connecticut Region is composed of 18 diverse municipalities situated in southwestern Connecticut and includes the municipalities of Bethel, Bridgewater, Brookfield, Danbury, Darien, Greenwich, New Canaan, New Fairfield, New Milford, Newtown, Norwalk, Redding, Ridgefield, Sherman, Stamford, Weston, Westport, and Wilton.

The 18 municipalities are members of the Western CT council of governments (WestCOG) which serves as a forum to promote cooperation among its member municipalities. WestCOG currently has two Metropolitan Planning Organizations (MPOs), the South Western Region MPO (SWRMPO) and the Housatonic Valley MPO (HVMPO). MPOs are the federally mandated organizations designated by the Governor as the forum for cooperative transportation decision-making.

The region encompasses roughly 620 square miles. The population in 2017, was estimated at 612,870 persons. The member municipalities range from rural to exurban to suburban and urban communities. Each town and city has varying local traffic concerns and challenges which are addressed in the municipal reports.

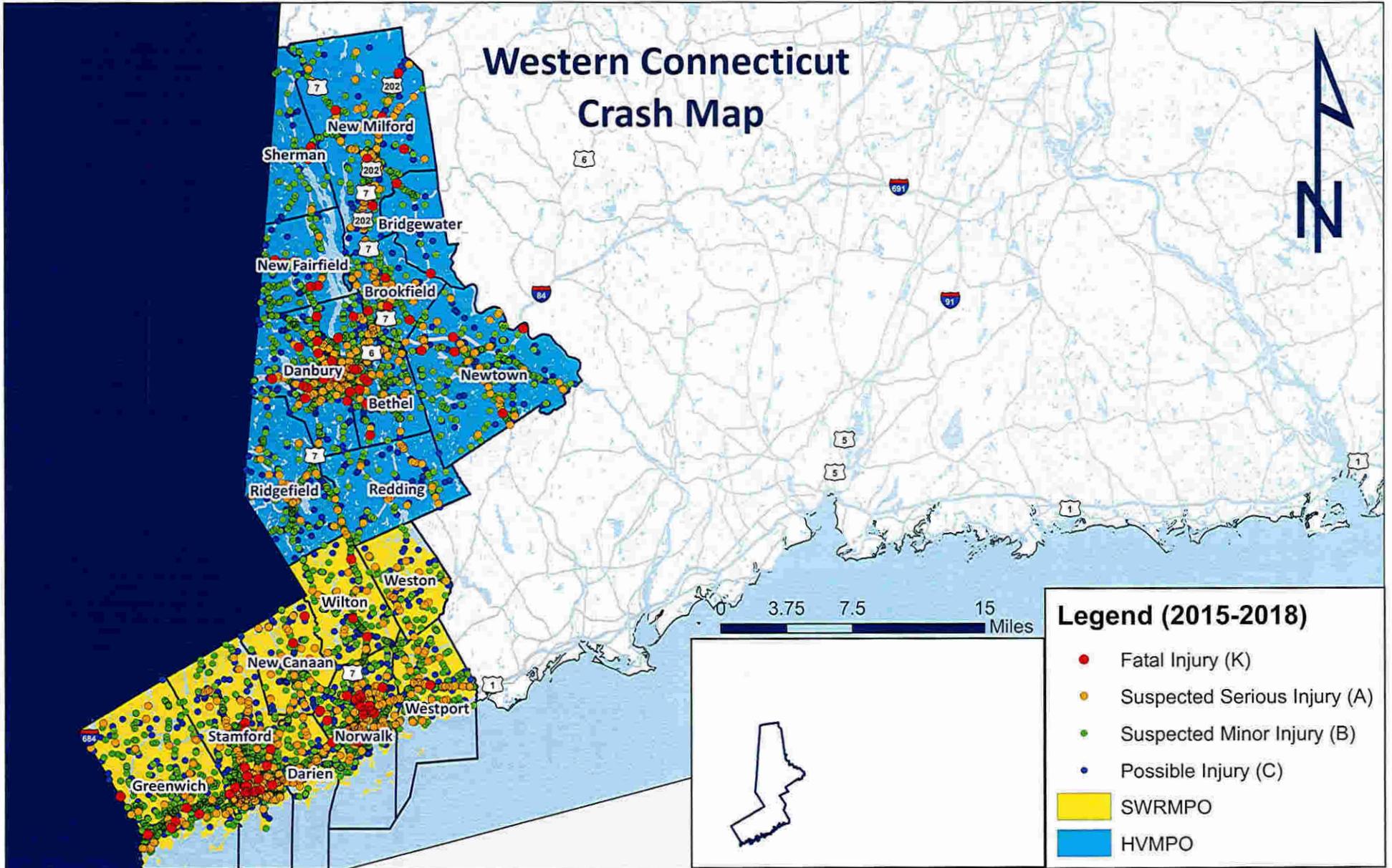
Because of the disparate composition and traffic conditions in the region, each municipality was invited to participate in the development of this plan to improve transportation within their individual town or city. The objective was to gather data from each municipality on a micro level and then analyze these on a more macro, regional level. The insights and cooperation of each municipality and WestCOG staff were imperative to the success of this initiative.

The data gathered and used for this study represents crashes that occurred on both local and State roads. In many cases, numerous crashes occurred on State roads, most likely due to higher traffic volumes. All roads, except limited-access highways, were included in the study. According to the State, each municipality is responsible for improvements on local roads, but local officials cannot make any physical changes or improvements to any State road without an encroachment permit from the State.



Source: VN Engineers

# Western Connecticut Crash Map



## 4. Western Connecticut RTSP Planning Process

The Western Connecticut Regional Transportation Safety Plan process had a regional study and 18 municipal studies. The regional overview was a data-driven analysis of the top crash locations, which included a listing of possible countermeasures, the selection of emphasis areas, and strategies to reduce injury and fatal crashes. The municipal studies included data-driven crash locations and stakeholder input to reduce injury and fatal crashes in each municipality. Combining the data-driven analysis with stakeholder input provided for a more comprehensive regional transportation safety plan.

The municipal reports are in the appendices, but since they were completed prior to the regional analysis, their methodology is included first in this plan. More information on the regional analysis and methodology is found in Section 5.

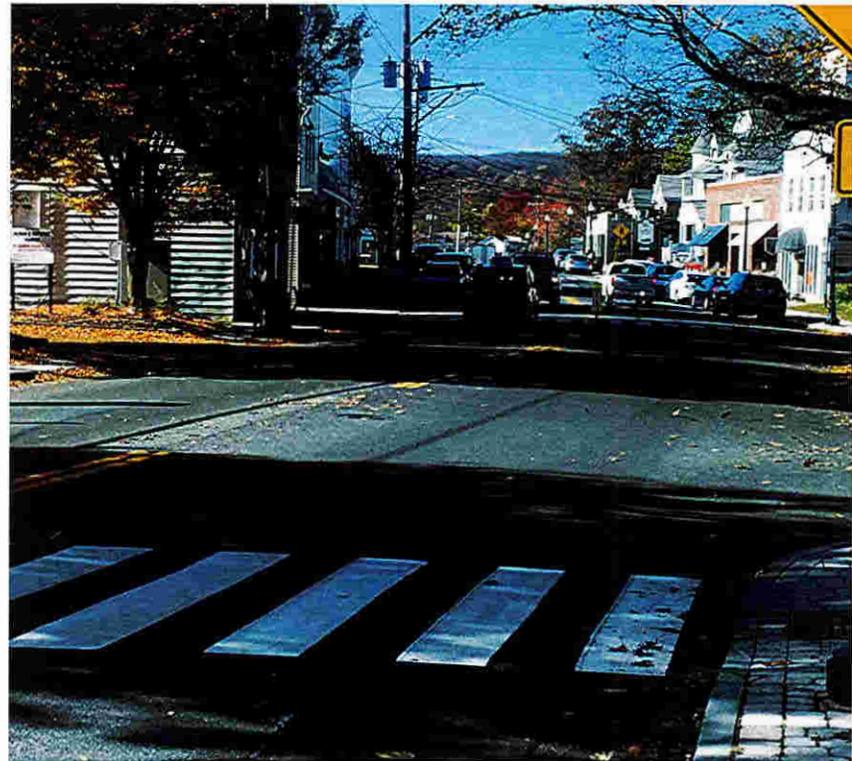
The methodology for the municipal reports began with the collection of injury and fatal crash data from the period of January 1, 2015 to December 31, 2018. The data was collected from the Connecticut Roadway Safety Management System website, specifically excluding limited-access highways. The crash data studied in this report consisted of injury and fatal crashes after the removal of property damage only (PDO) crashes. PDO crashes were not included in this study because they were not included in the Connecticut SHSP.

The extracted crash data was put into the mapping program, ArcGIS, to create 18 individual injury and fatal crash maps, one for each Western Connecticut Region municipality. High-frequency crash locations were identified and if an intersection or segment of roadway had a cluster of crashes, it was highlighted on the maps. Additional crash locations were identified by municipal representatives due to potential safety concerns or due to historic site-specific safety issues not reflected in the four years of data analyzed. These were not added to the maps, but the locations were included in the municipal reports in the Municipal Input sections.

Crash locations and corresponding severities were presented at each of the municipal meetings with chief elected officials, EMS, law enforcement agents, public works directors, and other municipal stakeholders. These meetings were an opportunity to receive municipal input into the crash locations and to get feedback on contributing factors. The input from municipal representatives influenced the development of countermeasure recommendations for the municipal reports.

The municipal reports include the meeting summary in the Municipal Input section. In addition, field reviews were completed based either on ranking and one site was selected by municipal representatives. A summary of the field reviews and images taken are included in the Field Site Inventory section of the municipal reports. Countermeasure tables are also included at the end of each municipal report to suggest safety improvements that could be considered in each Western Connecticut Region member town or city.

The top crash locations in the region were identified and the top 50 were further analyzed to identify contributing factors and possible countermeasures. For a more detailed description of this process, please see the Western Connecticut Region's Top Crash Locations section of this report found on page 13.



Source: VN Engineers

Beginning in 2017, federal regulation mandates that states and MPOS set five performance targets each year:

1. Number of Fatalities
2. Rate of Fatalities per 100 Million Vehicle Miles Traveled (VMT)
3. Number of Serious Injuries
4. Rate of Serious Injuries per 100 Million VMT
5. Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries (combined total)

The crash statistics are evaluated on a five-year average. The Western Connecticut Region's RTSP will also look at these same performance metrics and establish the target objectives in congruence with the State's plan. In order to obtain this goal, the RTSP includes estimated completion time (short, medium, and long) and possible costs, as well as funding sources for all proposed countermeasures. The cost estimates for each countermeasure were based on the FHWA's Pedestrian Safety Guide and Countermeasure Selection System, Proven Safety Countermeasures - Safety | Federal Highway Administration (dot.gov), and Intersection Safety Strategies - Second Edition (dot.gov).

### 2015-2018 Injury and Fatal Crashes by Municipality

Municipality	Total Injury and Fatal Crashes
Bethel	376
Bridgewater	33
Brookfield	437
Danbury	2,646
Darien	372
Greenwich	736
New Canaan	243
New Fairfield	149
New Milford	689
Newtown	451
Norwalk	1,668
Redding	125
Ridgefield	330
Sherman	51
Stamford	2,673
Weston	111
Westport	404
Wilton	409
<b>Total</b>	<b>11,903</b>

# 5. Top Regional Crash Locations

## 5.1 Methodology for Identifying Top Crash Locations in the Region

### Overview

This report identifies the top 51 crash corridors and intersections in the region by using both the Equivalent Property Damage Only (EPDO) methodology built into the Connecticut Roadway Safety Management System and by individual municipal selection. The list includes 33 sites based on the EPDO methodology via the Connecticut Roadway Safety Management System and 18 municipal-selected sites which were included in the list and assigned an EPDO score, per WestCOG's request. The EPDO method calculates a combined frequency and severity score for each site by assigning weighting factors and cost to crashes by crash severity. The weighting factors are based on the costs of equivalent property damage only crashes, and the calculated score accounts for the severity of crashes and the expected crash costs for each site. The weighting factors used in this study are estimated by the Federal Highway Administration (FHWA) and documented in the "Safety Analyst User Manual" based on the mean comprehensive monetary costs for each severity level.

The comprehensive monetary costs are as follows:

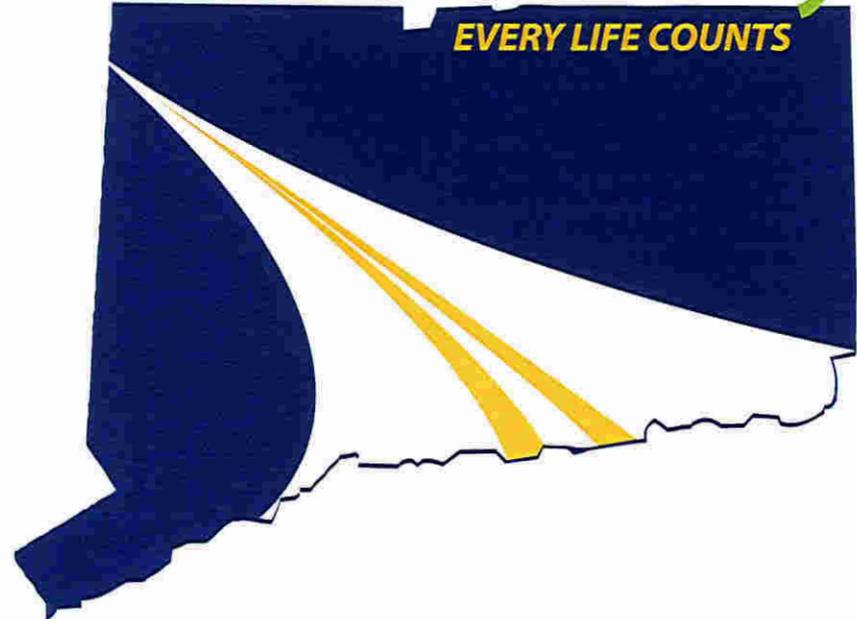
- **K** (fatal): \$5,800,000
- **A** (suspected serious injury): \$402,000
- **B** (suspected minor injury): \$80,000
- **C** (possible injury): \$42,000
- **O** (no apparent injury): \$4,000

The ratio of these combined direct and indirect crash-related costs provided the weights for maximum severity associated with each crash:

- **K**: 1450
- **A**: 100
- **B**: 20
- **C**: 10
- **PDO**: 1

## ConneCTto Safety

EVERY LIFE COUNTS



Source: CTDOT

KABCO Severity Ranking

Severity	Crash Cost	EPDO Score
K-Fatal	\$5,800,000	1450
A-Suspected Serious Injury	\$402,000	100
B-Suspected Minor Injury	\$80,000	20
C-Possible Injury	\$42,000	10
O-Property Damage Only	\$4,000	1

Final cuts were made to the ranked list of sites based on these criteria; ramps and interstates were removed and top ranked corridors and intersections were inspected visually to determine if there were overlapping sites. If intersections overlapped with a corridor(s), then the analyst determined if the high crash location was the result of the single intersection issue or the corridor as a whole. The top crash locations are divided into intersections (Table 5.2) and corridors (Table 5.3) and ranked based on EPDO.

Note: The final EPDO score should not be used as an objective standard. This observed crash-based analysis is subject to regression-to-the-mean<sup>1</sup> and should only be used as a relative metric for sites during the specific analysis period.

Similar to the methodology to select the top crash sites, EPDO ranking was used to rank those crashes solely involving vehicles and/or pedestrians and bicyclists. These were called non-motorized crash locations. The ranking of these crashes is based solely on the fatalities and injuries suffered by the non-motorists from these crashes, with more weight placed on injuries of greater severity. The non-motorized crashes exclude all single motorized vehicle or multi vehicle collisions. They are found on page 21. The non-motorized crash countermeasures were selected based on the Connecticut Uniform Police Crash Reports and a desktop review of the applicable locations.



Source: VN Engineers

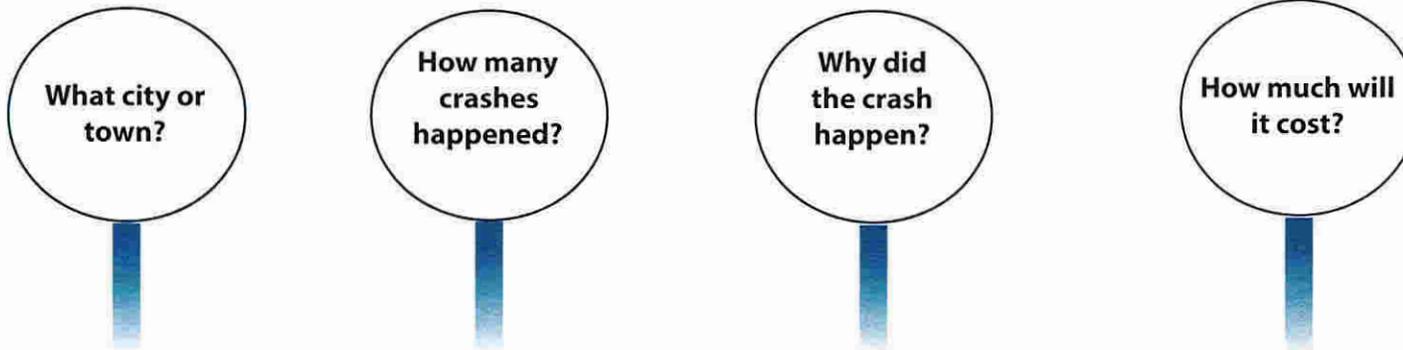
#### <sup>1</sup> Regression to the Mean

When identifying potential safety issues, the analyst must be aware of the statistical phenomenon of regression to the mean (RTM). RTM describes a situation in which crash rates are artificially high during the before period and would have been reduced even without an improvement to the site. Programs focused on high-hazard locations, such as the HSIP, are vulnerable to the RTM bias which is perhaps the most important cause of erroneous conclusions in highway-related evaluations. This threat is greatest when sites are chosen because of their extreme value (e.g., high number of crashes or crash rate) in a given time period.

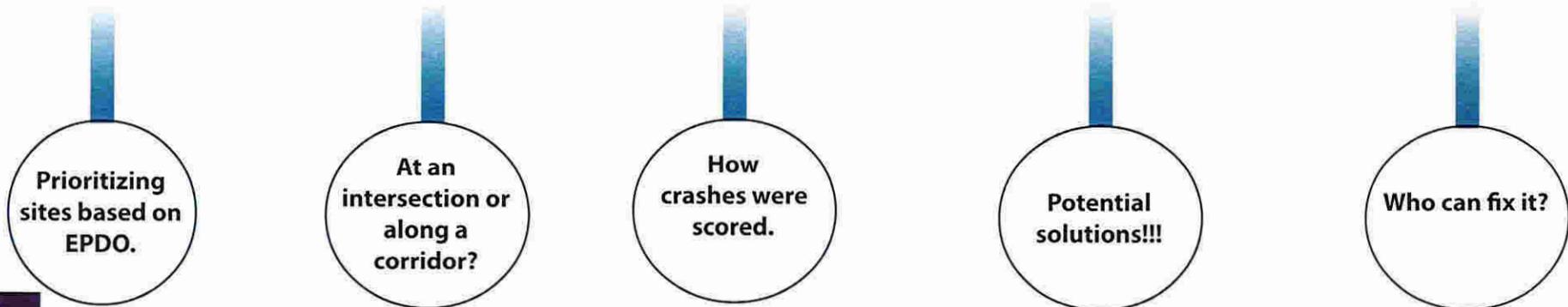
## 5.2 Top Motorized Crash Locations with Countermeasures

The following tables in 5.2 and 5.3 list the top crash corridors and intersections in the Western Connecticut Region. These corridors and intersections have the highest EPDO crash ratings or were selected by the municipalities. The locations include a description of the affiliated issues and potential countermeasures for each location.

Below is an explanation of each column.



Rank	Municipality	Location	Crashes	EPDO	Issue	Countermeasure	Cost	Responsibility
Ranking is based on highest to lowest EDPO	City or Town	Street segment with start and end points	Number of injury and fatal crashes from 2015-2018 at specific segment/location	Score is based on crash severities and frequencies	Contributing crash factors based on police report and desktop review of location	Infrastructure to improve location and reduce crash potential	Estimated financial cost of countermeasure	Municipality, State, or Private



**Top Motorized Crash Locations with Countermeasures, 2015-2018 - CORRIDORS**

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
1	Stamford	US-1 (Tresser Blvd) from Clinton Ave to 0.04 mi E of Clinton Ave	4	9,081	Westbound lane changing	Install advance signage and additional pavement markings to indicate lane drop at Clinton Ave.	Low	State
2	Danbury	Franklin St from Raymond Pl to Farview Ave	6	6,063	Pedestrian Safety	Install curb extensions and/or high-visibility crosswalk with PHB or RRFB at Farview Ave.	Medium-High	City
3	Danbury	Coalpit Hill Rd from Rocky Glen Rd to Overlook Rd	4	5,189	Speeding	Install dynamic speed feedback signs.	Low	City
					Left Turns onto Overlook Rd	Install left-turn lane.	Low-Medium	
4	Stamford	W Broad St from Adams Ave to Hanrahan St	14	4,631	Front-to-rear crashes	Install traffic signal retroreflective backplates at all signals.	Low-Medium	City
					Speeding	Install dynamic speed feedback signs.	Low	
5	Stamford	Hope St from Pine Hill Ave/Church St to Glendale Dr	21	3,990	Front-to-rear crashes	Install traffic signal retroreflective backplates at all signals and install signs to keep driveways clear.	Low-Medium	City
					Angle crashes	Install islands to effectively shorten southbound left-turn lane onto Church St to 100 ft, eliminating conflicts between outside lane and driveway traffic from bank and post office.	Low-Medium	
6	New Milford	US-7 (Kent Rd) from 0.1 N of Bridge St to US-202 (Bridge St)/Peagler Hill Rd	43	3,963	Front-to-rear crashes	Install traffic signal retroreflective backplates at signal and install advance flashing stopped traffic ahead sign with beacons.	Low-Medium	State
					Right-turn crashes	Install shark teeth yield line for right turns from Bridge St to US-7 (Kent Rd) to delineate place to yield; Or completely remove the channelized right turn; Or consider adjusting pavement markings through the intersection to adjust lane merge prior to intersection so right turning vehicles enter into their own lane.	Low-High	
7	Norwalk	East Ave from Morgan Ave to Moodys Ln	17	3,735	Speeding	Install dynamic speed feedback signs to manage speeds on East Ave.	Low	City

### Top Motorized Crash Locations with Countermeasures, 2015-2018 - CORRIDORS

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
8	Norwalk	CT-719 (Main St) from Van Tassell Ct to CT-123 (New Canaan Ave)	27	3,290	Front-to-rear crashes	Install traffic signal retroreflective backplates at all signals.	Low-Medium	State
					Speeding	Install dynamic speed feedback signs to manage speeds on CT-719 and install Do Not Block Driveway signs to provide opportunity for turning traffic in/out of driveways.	Low	
9	Norwalk	E Wall St from Brook St to Park St/East Ave	5	2,796	Speeding	Implement road diet with curb extensions.	Medium-High	City
10	Bethel	CT-302 (Greenwood Ave) from Farnam Hill to Grand St	14	2,789	Speeding	Implement road diet with curb extensions.	Medium-High	State
					Conflict between through traffic and curbside vehicles	Install curb extensions/high-visibility crosswalks to improve delineation of intersections and driveways and to slow traffic.	Low-Medium	
11	Brookfield	CT-25 (Whisconier Rd) from W Whisconier Rd to Fawn Ridge Dr	5	2,423	Speeding	Install dynamic speed feedback signs.	Low	State
12	Stamford	Strawberry Hill Ave from Hoyt St/Prospect St/Grove St/Hillandale Ave to Stamford HS North Entrance	35	2,265	Speeding	Implement road diet and reduce road width to one lane with medians and curb extensions.	Medium-High	City
13	Stamford	US-1 (W Main St) from Havemeyer Ln/Laddins Rock Rd to Alvord Ln/Commerce Rd	18	2,197	Driveway access	Limit driveway access on US-1 between Whitmore Ln and Alvord Ln to right-in, right-out.	Low-Medium	State
14	Stamford	CT-137 (High Ridge Rd) from Dunn Ave to Olga Dr*	54	2,145	Speeding	Install dynamic speed feedback signs.	Low	State
					Front-to-rear crashes	Install traffic signal retroreflective backplates at all signals.	Low-Medium	

\* 2021 Vendor in Place (VIP)

**Top Motorized Crash Locations with Countermeasures, 2015-2018 - CORRIDORS**

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
15	Greenwich	Milbank Ave from Mason St to E Elm St	5	2,019	Unconventional intersection	Revise the rotary to be more in line with driver expectation or convert to three-way stop if feasible	Medium-High	Town
					Pedestrian Safety	Raise crosswalks/update pedestrian signage	Low-Medium	
					Lane delineation	Paint edgelines where there is no on-street parking	Low	
16	Norwalk	CT-53 (Newtown Ave) from Murray St to Stony Brook Rd	4	2,018	Speeding	Install dynamic speed feedback signs.	Low	State
17	Danbury	CT-37 (Pembroke Rd) from Hamilton Dr to Bear Mountain Rd*	3	1,911	Lighting	Enhance lighting to improve visibility.	Low-Medium	State
					Speeding	Install dynamic speed feedback signs.	Low	
18	Danbury	Shelter Rock Rd from Skyline Dr to Fleetwood Dr/Crows Nest Ln	5	1,841	Speeding	Install dynamic speed feedback signs.	Low	City
					Lane departure crashes	Install high friction surface treatment.	Medium	
19	Norwalk	Wall St from Main St to High St	6	1,700	Curb parking	Reconfigure roadway geometry to reduce width of Wall St and better manage speeds and sight lines of parallel parkers.	Medium-High	City
20	Brookfield	Candlewood Lake Rd from Apple Hill Rd to Rocky Rd	3	1,650	Speeding	Implement road diet-narrow lane markings. High-visibility crosswalk with curb extensions.	Low-Medium	Town
21	Stamford	CT-137 (Washington Blvd) from Bridge St to 2nd St**	13	1,598	Lane departure crashes	Install high friction surface treatment.	Medium	State
22	Danbury	Mountainville Rd from Mountain Rd (North) to Mountain Rd (South)	3	1,578	Speeding	Install dynamic speed feedback signs.	Low	City
					Lane departure crashes	Roadside Design Improvement at Curves. Add curve warning signs.	Low-Medium	

\* Ongoing Corridor Study

\*\*2021 Vendor in Place (VIP)

### Top Motorized Crash Locations with Countermeasures, 2015-2018 - CORRIDORS

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
23	Norwalk	Camp St from Eclipse Ave to US-1 (North Ave)	10	1,549	Speeding	Implement road diet with curb extensions.	Medium-High	City
24	Danbury	CT-806 (Newtown Ave) from Beaver Brook Rd to Old Shelter Rock Rd	26	1,526	Speeding	Install dynamic speed feedback signs.	Low	State
					Front-to-rear crashes	Install turn lanes for Riverbend complex and Klaff's.	High	
25	Danbury	Stadley Rough Rd from Ervie Dr to Forty Acre Mountain Rd	2	1,511	Speeding	Add edgelines and speed tables.	Low	City
26	Norwalk	US-1 (Connecticut Ave) from W Norwalk Rd to Richards Ave	70	1,489	Front-to-rear crashes	Install traffic signal retroreflective backplates at all signals.	Low-Medium	State
					Speeding	Install dynamic speed feedback signs.	Low	City / State
					Driveway access	Limit driveway access on US-1 (Connecticut Ave) to right-in, right-out.	Low	Private
27	New Milford	US-202 (Litchfield Rd) from Sand Pit Rd to Wheaton Rd	4	1,414	Speeding	Install narrow lane markings.	Low-Medium	State
28	Danbury	US-6 (Lake Ave Ext) from Crestdale Rd to 0.08 W of Mill Ridge Rd	98	1,404	Front to rear crashes	Install traffic signal retroreflective backplates at all signals.	Low-Medium	State
					Speeding	Roadside design improvement at curves. Replace curve warning signs.	Low	
29	Danbury	E Liberty St from Pahquioque Ave to Sheridan St	4	1,263	Lane departure crashes	Install high friction surface treatment.	Medium	City
					Speeding	Install speed humps.	Low-Medium	
					Near railroad crossing	Replace RR xing signs and add paving markings.	Low	City / State
30	Newtown	US-6 (Mt Pleasant Rd) from Old Bethel Rd to CT-25 (Hawleyville Rd)	14	1,258	Speeding	Install narrow lane markings.	Low-Medium	Town
					Lane departure crashes	Update curve warning signs.	Low	
31	New Fairfield	CT-39 from Saw Mill Rd to Fleetwood Dr	6	1,220	Speeding	Install dynamic speed feedback signs. Add curve warning signs.	Low-Medium	State
					Lane departure crashes			

### Top Motorized Crash Locations with Countermeasures, 2015-2018 - CORRIDORS

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
32	Norwalk	Wall St/E Wall St from Belden Ave/West Ave/Mott Ave to East Ave/Park St/Hubbell Ln	16	1,125	Speeding	Install dynamic speed feedback signs and speed humps.	Low	City
					Pedestrian access	Install curb extensions to reduce the width of E Wall St.	Low-Medium	
33	Bethel	CT-302 (Greenwood Ave) from Seeley Street to P.T. Barnum Square	13	255	Speeding	Implement road diet with curb extensions. High-visibility crosswalks.	Medium-High	State
					Pedestrian Safety			
34	Greenwich	Glenville Rd from Brookside Dr to Eagle Hill School	2	167	Complex geometry	Signalize different approaches to coordinate turning movements.	Medium	Town
35	Wilton	US-7 (Danbury Rd) from CT-33 (Ridgefield Rd) to Olmstead Hill Rd	50	139	Speeding	Install dynamic speed feedback signs	Low-Medium	Town / State
					Front-to-rear-crashes	Install traffic signal retroreflective backplates.	Low-Medium	State
36	Westport	CT-57 (Weston Rd) from CT-15 (Merritt Pkwy) ramps to CT-136 (Easton Rd/Main St)	4	125	Intersection control	Install the intersection improvements currently under discussion between DOT's Highway Management Unit, WestCOG and the Town of Westport	Medium-High	State
37	New Fairfield	Entire 6.7-mile length of CT-37 (Pembroke Rd) in New Fairfield*	29	124	Speeding/Intersection geometry	Install roundabouts and/or other improvements as recommended in the Route 37 Corridor Study	High	State
38	Newtown	CT-34 (Berkshire Rd) from Sherman St to Monroe Town Line**	40	49	Speeding	Roadside design improvement at curves. Replace curve warning signs.	High	State
					Intersection control	Install roundabouts at intersections with sufficient right-of-way.	High	

\*Currently in corridor study. The signal at Route 37 and Route 39 currently in project 0174-0418 in construction for replacement.

\*\*Intersection at Grays Plain Road and Bennetts Bridge Road currently in project 0174-0418 in construction for signal to be installed.

### Top Motorized Crash Locations with Countermeasures, 2015-2018 - INTERSECTIONS

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
1	Danbury	West St and Montgomery St and William St	6	1,425	Pedestrian safety	Install curb extensions and/or high-visibility crosswalk at each of Montgomery St and William St.	Low-Medium	City
2	Stamford	Atlantic St and N State St	3	1,250	Front-to-rear crashes	Improve the visibility of northbound signal for Atlantic St at N State St from underneath the I-95 overpass.	Medium	City
						Install far side signal head placement with retroreflective backplates.	Low-Medium	
3	Brookfield	US-202 and Candlewood Lake Road	22	95	Front-to-rear crashes from cross traffic	Install traffic signal retroreflective backplates.	Low-Medium	State
						Add No Turn on Red for all approaches.	Low	
4	New Milford	US-7 (Kent Rd) and US-202 (Bridge St)/Peagler Hill Rd	20	65	Front-to-rear crashes	Install stopped traffic ahead warning sign with beacon.	Low-Medium	State
						Install traffic signal retroreflective backplates.	Low-Medium	
5	Weston	CT-53 (Newtown Tpke)/Weston Rd and CT-57 (Georgetown Rd)	7	48	Intersection geometry	Signalize the intersection and provide turn lanes.	Medium-High	State
						Investigate a mini roundabout	High	State
6	Stamford	Bedford St/Atlantic St and Broad St	10	38	Lane delineation	Install cat tracks to delineate turning paths.	Low	City
					Signal phasing	Only use protected phasing.	Low	
7	New Canaan	CT-124 (South Ave) and Farm Rd	4	33	Intersection geometry	Install modern roundabout.	High	State

**Top Motorized Crash Locations with Countermeasures, 2015-2018 - INTERSECTIONS**

RANK	MUNICIPALITY	LOCATION	CRASHES	EPDO	ISSUE	COUNTERMEASURE	COST	RESPONSIBILITY
8	Bridgewater	CT-67 (New Milford Rd W) and CT-133 (Main St N)	6	20	Intersection geom- etry	Install roundabout.	High	State
9	Ridgefield	US-7 (Ethan Allen Hwy) and Portland Ave	4	15	Access to Portland Ave	Signalize intersection and build turn lanes; will require land acquisition.	High	State
10	Darien	US-1 (Post Rd) and Ledge Rd	3	13	Front-to-rear crashes	Install traffic signal retroreflective backplates.	Low-Medium	State
						Add No Turn on Red for all approaches.	Low	
11	Redding	CT-58 (Black Rock Tpke) and Giles Hill Rd	2	5	Intersection Geom- etry	Restrict turns to right-in-right-out; build roundabouts at Barlow Dr and Meeker Hill Rd.	High	State
12	Sherman	CT-37 and CT-39	1	5	Angle crashes	Convert to all-way stop.	Low	State
13	New Milford	US-202 (Lithfield Rd) and Wheaton Rd	1	3	Angle Crashes	Install roundabout; limit or reconfigure private driveways.	High	State
14	Sherman	CT-37 and CT-39 (Gaylordsville Rd)	0	0	Proximity to school	Convert to all-way stop.	Low	State

### 5.3 Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018

#### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
1	Danbury	Franklin St from Raymond Pl to Farview Ave	6,046	1 Pedestrian 1 Bicyclist (1 Fatal)	Pedestrian hit crossing roadway (not visible), dark-not lighted. Bicyclist hit when driver passing, daylight.	Investigate roadway illumination. Stripe edge lines to 11' lanes. MUTCD-W16-1P (Share The Road) sign.	Watch for Me CT Campaign	Low
2	Norwalk	CT-719 (Main St) from Van Tassell Ct to CT-123 (New Canaan Ave)	2,981	2 Pedestrians (1 Fatal)	Pedestrian (physically impaired) hit crossing roadway, daylight. Pedestrian hit crossing roadway (not visible), dark-lighted.	Traffic signal retroreflective backplates. High-visibility crosswalk. Restripe pavement markings. Investigate roadway illumination.	Watch for Me CT Campaign	Low
3	Bethel	CT-302 (Greenwood Ave) from Farnam Hl to Grand St	2,768	2 Pedestrians	Pedestrian hit crossing roadway behind parked vehicle, clear-dusk. Pedestrian hit crossing roadway, daylight.	Stripe edge lines to 11' lanes. High-visibility crosswalks. Yield to Pedestrian sign.	Watch for Me CT Campaign	Low
4	Stamford	Strawberry Hill Ave from Hoyt St/Prospect St/Grove St/Hillandale Ave to Stamford HS North Entrance	2,162	2 Bicyclists	Bicyclists hit crossing roadway at marked crosswalk and cycling along roadway. Dark-lighted and daylight condition. School located in this area.	Increase enforcement. Investigate road diet to narrow travel lanes. High-visibility crosswalks at high school. Yield to Pedestrian sign.	Watch for Me CT Campaign	Low-Medium
5	Stamford	CT-137 (High Ridge Rd) from Olga Dr to Dunn Ave	2,039	4 Pedestrians (1 Fatal)	Pedestrians hit crossing roadway at marked crosswalk. Pedestrian hit at travel lane. Daylight and dark-lighted condition.	High-visibility crosswalks at intersections. Traffic signal retroreflective backplates. Yield to Pedestrians sign. 2021 VIP.	Watch for Me CT Campaign	Low
6	Norwalk	Scribner Ave from 150 ft S of US-1 (Connecticut Ave) to US-1 (Connecticut Ave)	842	2 Pedestrians	Substance-impaired pedestrian hit crossing roadway at midblock. Pedestrian hit crossing roadway. Dark-lighted and daylight condition.	Investigate pedestrian phase signal timing and improve if necessary. Restripe crosswalks.	Watch for Me CT Campaign	Low
7	Greenwich	Greenwich Ave from Grigg St to Fawcett Pl	750	2 Pedestrians	Pedestrians hit crossing roadway at midblock, daylight. Commercial corridor.	Raise crosswalks. Restripe pavement markings.	Watch for Me CT Campaign	Low-Medium

## Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
8	Danbury	US-6 (Lake Ave Ext) from Crestdale Rd to Orbit Fuel	579	2 Pedestrians 1 Bicyclist (1 Fatal)	Pedestrians hit crossing roadway, daylight and dark-lighted condition. Bicyclist hit cycling along roadway (not visible), dark-not lighted.	Add high-visibility crosswalks with leading pedestrian interval at Crestdale Rd intersection. Investigate roadway illumination.	Watch for Me CT Campaign	Medium
9	Norwalk	Strawberry Hill Ave from Scofield PI to Roxbury Rd	333	2 Pedestrians	Pedestrian hit crossing roadway at marked crosswalk. Pedestrian hit walking along roadway. Dark-lighted and daylight condition.	High-visibility crosswalks at Scofield PI intersection. MUTCD-W1-2L (left curve ahead warning sign).	Watch for Me CT Campaign	Low
10	Danbury	CT-37 (North St) from 57 North St to 2nd Ave	313	1 Pedestrian 1 Bicyclist (2 FataIs)	Pedestrian under the influence (not visible) hit crossing roadway, dark-lighted. Bicyclist hit crossing roadway at unmarked crosswalk, daylight.	Investigate roadway illumination. Speed enforcement.	Watch for Me CT Campaign	Medium
11	Stamford	US-1 (E Main St) from Lincoln Ave/Lockwood Ave to Lawn Ave	300	3 Pedestrians 2 Bicyclists	Pedestrians hit crossing roadway at marked crosswalk and at midblock. Bicyclists hit crossing roadway at marked crosswalk and on shoulder. Daylight and dark-lighted condition.	High-visibility crosswalks at intersections. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals.	Watch for Me CT Campaign	Medium
12	Danbury	Kennedy Ave WB from CT-53 (Main St) to New St	275	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalks. Dawn and daylight condition. Adjacent to HARTransit Pulse Point.	Traffic calming. Raise midblock-crosswalk.	Watch for Me CT Campaign Increase public safety messaging around bus stop safety	Medium
13	New Milford	Railroad St from Boardman Ter to Bank St	269	4 Pedestrians	Pedestrians hit crossing roadway at marked crosswalks. Daylight and dark-lighted condition.	High-visibility crosswalks.	Watch for Me CT Campaign	Low
14	Danbury	CT-53 (Main St) from 200 ft N of Crosby St to Library PI	176	3 Pedestrians 1 Bicyclist	Pedestrians hit crossing roadway. Bicyclist hit crossing roadway.	High-visibility crosswalks and traffic signal retroreflective backplates at intersections.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
15	Stamford	Shippan Ave from Wardwell St to Hanover St	167	2 Pedestrians	Pedestrian hit crossing roadway at midblock. Physically impaired pedestrian hit on roadway. Daylight conditions.	Restripe pavement markings and add edge lines. Restripe crosswalks at intersections. Traffic calming.	Watch for Me CT Campaign	Low-Medium
16	Danbury	White St from Bates Pl/5th Ave to 8th Ave	160	4 Pedestrians	Pedestrians (one physically impaired) hit crossing roadway at marked crosswalk, daylight and dark-lighted condition. Near university campus.	High-visibility crosswalks near university campus. Traffic calming.	Watch for Me CT Campaign	Low-Medium
17	Danbury	Hayestown Ave from Rowan St Ext to Tamarack Ave	158	2 Pedestrians	Pedestrians hit crossing roadway at midblock crosswalk, daylight conditions.	Restripe crosswalks at midblocks and intersections. Traffic signal retroreflective backplates at Tamarack Ave. Traffic calming.	Watch for Me CT Campaign	Low-Medium
18	Danbury	Germantown Rd from Sand Pit Rd to 300 ft N of Tilden Rd	158	2 Pedestrians	Pedestrian hit crossing roadway. Pedestrian hit crossing roadway at midblock-crosswalk. Daylight conditions. Commercial area.	Stripe edge lines. Raised midblock-crosswalk at Germantown Plaza. Traffic calming.	Watch for Me CT Campaign	Low-Medium
19	Stamford	US-1 (W Main St) from West Ave to Virgil St	150	3 Pedestrians	Substance-impaired pedestrians hit crossing roadway. Pedestrian (not visible) hit at shoulder. Dark-lighted and dark-not lighted condition.	City-initiated project at West Avenue updating markings to Virgil Street. High-visibility crosswalks. Traffic signal retroreflective backplates. Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium
20	Danbury	Liberty St from Comstock St to Nichols St/Town Hill Ave	150	2 Pedestrians	Pedestrian hit crossing roadway, pedestrian hit crossing roadway at midblock, dark-lighted.	High-visibility crosswalks at Nichols St/Town Hill Ave intersection. Restripe pavement markings.	Watch for Me CT Campaign	Low
21	Stamford	Virgil St from Stillwater Ave to Minor Pl	131	2 Pedestrians	Pedestrian hit crossing roadway, clear and dusk. Pedestrian hit walking at sidewalk, daylight.	Add pavement markings. Traffic calming. High-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
22	Stamford	Lafayette St from Daskam Pl/Crystal St to US-1 (E Main St)	97	2 Pedestrians	Pedestrian hit crossing roadway at midblock. Pedestrian hit crossing roadway at marked crosswalk. Daylight conditions.	Traffic signal retroreflective backplates and high-visibility crosswalks at intersections. Add pavement markings.	Watch for Me CT Campaign	Low-Medium
23	Danbury	Lake Ave from Haddad Dr to Merrimac St	94	2 Pedestrians	Pedestrian hit crossing roadway, dark. Substance-impaired pedestrian hit crossing roadway (not visible), dark-not lighted.	High-visibility crosswalks. Restripe edge lines. Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium
24	Stamford	Elm St from Jefferson St/Myrtle Ave to Wardwell St	91	3 Pedestrians	Pedestrians hit at driveway entrance and crossing roadway at midblock. Pedestrian hit crossing roadway at marked crosswalks. Under various conditions.	Traffic calming. Traffic signal retroreflective backplates and restripe high-visibility crosswalks at Jefferson St/Myrtle Ave intersection.	Watch for Me CT Campaign	Low-Medium
25	Stamford	Cove Rd from Duffy St to George St	91	1 Pedestrian 1 Bicyclist	Pedestrian hit walking on shoulder, dark-lighted. Bicyclist hit on sidewalk (driveway), daylight.	Add edge lines. Traffic calming.	Watch for Me CT Campaign	Low-Medium
26	Stamford	Grove St from Highland Rd to Hillcrest Ave	83	2 Pedestrians	Pedestrian hit on driveway, daylight. Pedestrian hit on roadway, dark-lighted.	Restripe pavement markings. Traffic calming.	Watch for Me CT Campaign	Low-Medium
27	Stamford	Summer St from 7th St to Bridge St	83	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight. Wide cross section.	Traffic signal retroreflective backplates. High-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium
28	Stamford	US-1 (Tresser Blvd) from 0.04 mi east of Clinton Ave to Atlantic St	76	5 Pedestrians 1 Bicyclist	Pedestrians hit on roadway and crossing roadway at marked crosswalk. Bicyclist hit on sidewalk (driveway).	City upgrading signal-permit currently under review by CTDOT. Restripe crosswalks at Atlantic St intersection.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
29	Stamford	US-1 (E Main St) from Maher Rd to Standish Rd	71	4 Pedestrians	Pedestrians hit crossing roadway and driveway. Pedestrians hit crossing roadway at marked crosswalk. Daylight and dark-lighted condition.	Add stop pavement marking at gas station driveway. High-visibility crosswalks. Restripe pavement markings.	Watch for Me CT Campaign	Low
30	Danbury	Hayestown Ave from Rowan St Ext to CT-37 (Pandanaram Rd/North St)	68	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight and dark-lighted condition.	Restripe crosswalks at midblocks and intersections. Traffic signal retroreflective backplates on CT-37 (Pandanaram Rd/North St). Traffic calming.	Watch for Me CT Campaign	Low-Medium
31	Greenwich	Arch St from Steamboat Rd to 1-95 NB Ramps	68	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk and midblock-crosswalk, daylight condition.	Traffic signal retroreflective backplates. Restripe crosswalks. Stripe edge lines.	Watch for Me CT Campaign	Low-Medium
32	Stamford	Strawberry Hill Ave from Holcomb Ave to Stamford HS north driveway	63	3 Pedestrians 1 Bicyclist (1 Fatal)	Pedestrian hit at sidewalk. Pedestrians (one distracted) hit crossing roadway. Bicyclists hit crossing driveway. Under various conditions. School located in this area.	Increase law enforcement. Investigate road diet to narrow travel lanes. High-visibility crosswalks at high school.	Watch for Me CT Campaign	Low-Medium
33	Norwalk	Burnell Blvd from Belden Ave to River St	63	2 Pedestrians	Pedestrians hit on driveway and roadway at marked crosswalk. Daylight condition. Near Transit Wheels Hub building.	Raised crosswalks at Transit Wheels Hub building. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals. Investigate No Turn on Red prohibition.	Watch for Me CT Campaign	Low-Medium
34	Stamford	Shippan Ave from Wardwell St to Elm St/Cove Rd	63	2 Bicyclists	Bicyclist hit crossing roadway at marked crosswalk, bicyclist hit cycling along roadway, dark-lighted.	High-visibility crosswalks. Restripe pavement markings and add edge lines. Traffic calming	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
35	New Canaan	Elm St from Seminary St to Grove St	58	2 Bicyclists	Bicyclists hit cycling along roadway, daylight.	Traffic calming. Restripe pavement markings.	Watch for Me CT Campaign	Low-Medium
36	Danbury	CT-53 (South St) from 150 ft east of Memorial Dr to Town Hill Ave	58	4 Pedestrians	Pedestrians hit crossing roadway under various conditions. School located in this area.	Raise crosswalks at school. High-visibility crosswalks. Traffic signal retroreflective backplates. Traffic calming.	Watch for Me CT Campaign	Low-Medium
37	Danbury	CT-53 (Main St) from Elmwood Pl to Driveway 0.04 mi north of South St	50	4 Pedestrians	Pedestrians hit crossing roadway at midblock-marked crosswalk. Pedestrian hit walking along roadway. Daylight condition.	High-visibility crosswalks at midblock. Traffic calming.	Watch for Me CT Campaign	Low-Medium
38	Norwalk	CT-719 (Main St) from Broad St to Van Tassell Ct	50	1 Pedestrian 2 Bicyclists (1 Fatal)	Pedestrian from school hit crossing roadway. Bicyclist (not visible) hit cycling along roadway. Bicyclist hit crossing at driveway. Daylight and dark-not lighted condition.	Traffic signal retroreflective backplates. High-visibility crosswalks. Traffic calming.	Watch for Me CT Campaign	Low-Medium
39	Stamford	US-1 (E Main St) from Sheraton Hotel to Clarks Hill Ave	47	4 Pedestrians	Pedestrians (one emotional) hit crossing roadway at marked crosswalk. Pedestrian hit crossing roadway. Daylight and dark-lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval at US-1 (E Main St) intersections.	Watch for Me CT Campaign	Low-Medium
40	Danbury	Starr Rd from Beaver Brook Rd to Beaver Brook Rd/Sand Pit Rd	47	2 Pedestrians	Pedestrian hit crossing roadway, pedestrian hit at driveway access, daylight condition.	Traffic signal retroreflective backplates. Add crosswalks at intersection. Stripe edge lines.	Watch for Me CT Campaign	Low-Medium
41	Stamford	CT-137 (Washington Blvd) from North St to Whitaker Pl	46	8 Pedestrians	Pedestrians hit crossing roadway at marked crosswalks. Pedestrians hit on roadway. Under various conditions. Near university campus.	High-visibility crosswalks at Broad St intersection. Traffic signal retroreflective backplates. Restripe crosswalks at North St intersection. 2021 VIP.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
42	New Canaan	Cherry St from Park St to CT-106/CT-124 (South Ave)	45	2 Pedestrians 1 Bicyclist	Pedestrian hit in roadway. Pedestrian hit standing at roadway. Bicyclist hit cycling along roadway. Daylight condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Restripe pavement markings. Add a bike lane.	Watch for Me CT Campaign	Low-Medium
43	Stamford	Newfield Ave from Newfield Dr to Weed Hill Ave	45	1 Pedestrian 1 Bicyclist	Pedestrian (not visible) hit walking at roadway, dark-lighted. Bicyclist hit on roadway, dark-not lighted condition.	Add edge lines. Investigate roadway illumination.	Watch for Me CT Campaign	Low
44	Stamford	Stephen St from W Broad St to Smith St	43	2 Pedestrians	Pedestrian hit crossing roadway at marked crosswalks. Pedestrian hit at roadway. Daylight condition.	Add pavement markings. Restripe crosswalk.	Watch for Me CT Campaign	Low
45	Greenwich	US-1 (E Putnam Ave) from Church St/ Mason St to Maher Ave	42	4 Pedestrians	Pedestrians hit crossing roadway, daylight and dark-not lighted condition. Pedestrians hit on shoulder, daylight.	High-visibility crosswalks. Traffic signal retroreflective backplates. Restripe pavement markings.	Watch for Me CT Campaign	Low-Medium
46	Ridgefield	CT-35 (Danbury Rd) from Island Hill Ave to Copps Hill Rd/ Farmingville Rd	42	1 Pedestrian 2 Bicyclists	Pedestrian hit crossing roadway at marked crosswalk, dark-lighted. Bicyclists hit cycling along roadway, daylight condition.	Traffic signal retroreflective backplates. High-visibility crosswalk. Add bike lane.	Watch for Me CT Campaign	Low-Medium
47	New Milford	US-202 (East St) from Church St to Elm St/Elm St Ext	39	3 Pedestrians	Pedestrians hit crossing roadway. Pedestrian hit walking at driveway entrance. Daylight and dark-not lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Investigate No Turn on Red prohibition at Elm St/Elm St Ext intersection.	Watch for Me CT Campaign	Low-Medium
48	Norwalk	CT-709 (Main Ave) from Nottingham Pl to Perry Ave	39	2 Pedestrians 1 Bicyclist	Pedestrian hit in travel lane, pedestrian hit at driveway access. Bicyclist hit at driveway. Daylight condition.	Traffic signal retroreflective backplates. High-visibility crosswalk. Traffic calming.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
49	Bethel	CT-302 (Greenwood Ave) from Front St to PT Barnum Sq	39	1 Pedestrian 1 Bicyclist	Pedestrian hit standing at roadway. Bicyclist hit crossing roadway at marked crosswalks. Clear-dusk condition.	Traffic signal retroreflective backplates. Install high-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium
50	Stamford	West Broad St from Mill River St to CT-137 (Washington Blvd)	38	6 Pedestrians	Pedestrians hit crossing roadway at marked crosswalks and at driveway. Pedestrians (one physically impaired) hit on roadway. Daylight and dark-lighted.	Traffic signal retroreflective backplates. Traffic calming. Install high-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium
51	Norwalk	US-1 (Cross St) 150 ft N of Belden Ave to Hoyt St	38	2 Pedestrians	Pedestrian hit crossing roadway at midblock, pedestrian hit crossing roadway at marked crosswalk, dark-not lighted and lighted condition.	Traffic signal retroreflective backplates. High-visibility crosswalk. Investigate roadway illumination along non lighted section.	Watch for Me CT Campaign	Low-Medium
52	Bethel	CT-58 (Putnam Park Rd) from CT-302 (Milwaukee Ave) to Hoyts HI	35	2 Pedestrians	Pedestrian hit walking along roadway (not visible), dark-not lighted. Pedestrian hit crossing roadway at marked crosswalk, daylight.	Vegetation management. Investigate roadway illumination.	Watch for Me CT Campaign	Low
53	Danbury	CT-806 (Newtown Rd) from Plumtrees Rd to Eagle Rd	24	4 Pedestrians	Pedestrians hit crossing roadway at unmarked crosswalk. Dark-lighted and daylight condition. Wide cross section.	Add high-visibility crosswalks with leading pedestrian interval. Traffic signal retroreflective backplates.	Watch for Me CT Campaign	Low-Medium
54	Wilton	US-7 (Danbury Rd) from Wilton HS N Entrance to Cannon Rd	20	1 Pedestrian 1 Bicyclist	Pedestrian hit crossing roadway, daylight. Bicyclist hit at driveway access, daylight.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add high-visibility crosswalk at Wilton Meadow Health Care Center entrance.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - CORRIDORS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
55	Greenwich	US-1 (W Putnam Ave) from Byram Terrace Dr to Holly Hill Ln/ Weaver St	19	2 Pedestrians (1 Fatal)	Pedestrian hit crossing roadway, daylight. Pedestrian hit crossing roadway at marked crosswalk, dark-lighted.	Traffic signal retroreflective backplates. High-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium
56	Danbury	CT-37 (Padanaram Rd) from Golden Hill Rd to Hayestown Ave	18	4 Pedestrians	Pedestrians hit crossing roadway at marked crosswalks. Pedestrian (policeman) hit working in roadway. Daylight condition.	Traffic signal retroreflective backplates. High-visibility crosswalks.	Watch for Me CT Campaign	Low-Medium
57	Bethel	CT-302 (Greenwood Ave) from Griswold St to Farnam Hill	17	2 Pedestrians 1 Bicyclist	Pedestrian hit crossing roadway at unmarked crosswalk, pedestrian hit at driveway, bicyclist hit cycling on roadway along traffic, daylight condition.	Update Stop sign at Beach St. Restripe pavement markings. Add bike lanes.	Watch for Me CT Campaign	Low
58	Norwalk	Highland Ave from Lenox Ave to Highland Ct	17	1 Bicyclist	Bicyclist hit cycling along roadway, daylight.	High-visibility crosswalks. Update Stop signs at Brien McMahon HS entrances.	Watch for Me CT Campaign	Low
59	Norwalk	Washington St from N Main St/S Main St to N Water St/Water St	4	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk. Daylight and dark-lighted condition.	Traffic signal retroreflective backplates. Install high-visibility crosswalks at N Water St/ Water St intersection.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - INTERSECTIONS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
1	Danbury	CT-53 (Main St) and West St/ Liberty St	393	3 Pedestrians 1 Bicyclist (1 Fatal)	Pedestrians hit crossing roadway at marked crosswalk, dark-lighted. Bicyclist hit crossing roadway, daylight condition.	Install high-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval.	Watch for Me CT Campaign	Low-Medium
2	Stamford	US-1 (W Main St/Tresser Blvd) and Greenwich Ave	388	2 Pedestrians 1 Bicyclist (1 Fatal)	Pedestrians and bicyclist hit crossing roadway at marked crosswalk. Daylight and dark-lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates.	Watch for Me CT Campaign	Low-Medium
3	Norwalk	US-1 (Van Buren Ave) and Bedford Ave/ Union Park St	365	1 Pedestrian 1 Bicyclist (1 Fatal)	Pedestrian and bicyclist hit crossing roadway at travel lane (not visible), dark-not lighted and daylight conditions.	High-visibility crosswalks. Traffic signal retroreflective backplates. Traffic calming on US-1 (Van Buren Ave). Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium
4	Danbury	CT-37 (North St) and Madison Ave	363	1 Pedestrian 1 Bicyclist (1 Fatal)	Pedestrian hit crossing roadway at travel lane, daylight. Bicyclist hit in roadway at unmarked crosswalk.	Traffic signal retroreflective backplates. Add high-visibility crosswalks. Add leading pedestrian interval. Add bike lanes.	Watch for Me CT Campaign	Low-Medium
5	Stamford	CT-137 (Washington Blvd) and Main St	55	3 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk and on shoulder. Pedestrians hit walking on sidewalk. Dark-lighted and daylight condition. Wide cross section.	Traffic signal retroreflective backplates. High-visibility crosswalk. Add leading pedestrian interval to pedestrian signals.	Watch for Me CT Campaign	Low-Medium
6	Stamford	CT-137 (High Ridge Rd) and Square Acre Dr	55	3 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight and snowy condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Traffic calming on CT-137 (High Ridge Rd).	Watch for Me CT Campaign	Low-Medium
7	Stamford	US-1 (W Main St) and High St	53	4 Pedestrians	Pedestrians hit crossing roadway at unmarked and marked crosswalks. Dark-lighted and dark-not lighted.	Traffic calming. Traffic signal retroreflective backplates. Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium
8	Norwalk	US-1 (Connecticut Ave) and W Cedar St/Cedar St/Ferris Ave	50	2 Pedestrians	Pedestrian hit crossing roadway in travel lane, dark-lighted. Substance-impaired pedestrian hit on roadway, dark-lighted.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval to pedestrian signals.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - INTERSECTIONS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
9	Ridgefield	CT-35 (Danbury Rd) and Grove St	50	2 Pedestrians	Two pedestrians (one physically impaired) hit crossing roadway at marked crosswalk. Dark-lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Investigate No Turn on Red prohibition on CT-35 (Danbury Rd).	Watch for Me CT Campaign	Low-Medium
10	Danbury	CT-53 (Main St) and Franklin St/ Garamella Blvd	43	4 Pedestrians 1 Bicyclist	Pedestrians hit crossing roadway at marked crosswalk, daylight. Bicyclist hit crossing roadway at marked crosswalk. Skew and wide cross section.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals. Investigate No Turn on Red prohibition. Add a bike lane.	Watch for Me CT Campaign	Low-Medium
11	Stamford	CT-137 (Washington Blvd) and Broad St	35	10 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, under various conditions. Pedestrian hit walking on sidewalk, dark-lighted. Wide cross section. Near university campus.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals.	Watch for Me CT Campaign	Low-Medium
12	Stamford	CT-493 (Washington Blvd) and Station Pl	35	2 Pedestrians 1 Bicyclist	Substance-impaired pedestrian hit crossing roadway at marked crosswalk. Pedestrian hit crossing roadway, dark-lighted. Bicyclist hit crossing roadway at marked crosswalk, daylight. Wide cross section.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals. Add a bike lane.	Watch for Me CT Campaign	Low-Medium
13	Westport	CT-33 (Riverside Ave) and Sylvan Ln	33	3 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight.	High-visibility crosswalks. Restripe pavement lines at intersection. Update Yield to Pedestrian sign on Sylvan Ln.	Watch for Me CT Campaign	Low
14	Norwalk	US-1 (Connecticut Ave) and Scribner Ave	30	2 Pedestrians	Substance-impaired pedestrian (not visible) hit crossing roadway, dark-lighted. Pedestrian hit on travel lane, daylight.	High-visibility crosswalks. Traffic signal retroreflective backplates.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - INTERSECTIONS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
15	Stamford	US-1 (W Main St) and Diaz St	30	2 Pedestrians	Pedestrian under the influence hit crossing roadway at midblock. Pedestrian hit crossing roadway on shoulder. Dark-not lighted. Near church.	High-visibility crosswalk at Diaz St. Traffic calming and restripe pavement lines on US-1 (W Main St). Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium
16	Norwalk	US-1 (Connecticut Ave) and N Taylor St/Taylor St	28	3 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, pedestrian hit crossing roadway at travel lane, daylight and dark-lighted condition.	Traffic signal retroreflective backplates. High-visibility crosswalks. Add leading pedestrian interval at US-1 (Connecticut Ave).	Watch for Me CT Campaign	Low-Medium
17	Stamford	US-1 (E Main St) and Lafayette St	20	6 Pedestrians	Pedestrians (one under the influence) hit crossing roadway at marked crosswalk. Pedestrian hit crossing roadway at travel lane. Daylight and dark-lighted condition.	Traffic signal retroreflective backplates. High-visibility crosswalk. Add leading pedestrian interval to pedestrian signals on US-1 (E Main St). Restripe pavement lines at intersection.	Watch for Me CT Campaign	Low-Medium
18	Stamford	US-1 (Tresser Blvd) and Atlantic St	15	4 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight. Wide cross section.	Traffic signal retroreflective backplates. Restripe crosswalks. Add leading pedestrian interval to pedestrian signals.	Watch for Me CT Campaign	Low-Medium
19	Stamford	S State St and CT-493 (Washington Blvd)	15	4 Pedestrians	Two pedestrians (one distracted) hit crossing roadway at travel lane. Pedestrians hit crossing roadway at marked crosswalk. Dark-lighted and daylight condition. Wide cross section.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval on pedestrian signals. Pedestrian and traffic signal optimization.	Watch for Me CT Campaign	Low-Medium
20	Stamford	US-1 (E Main St) and Broad St	15	4 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk. Pedestrian hit walking in shoulder, daylight condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Restripe pavement lines at intersection.	Watch for Me CT Campaign	Low-Medium
21	Stamford	US-1 (Tresser Blvd) and Canal St/ Greyrock Pl	13	2 Pedestrians 2 Bicyclists (1 Fatal)	Pedestrians and bicyclists (one distracted) hit crossing roadway at marked crosswalk. Daylight and dark-not lighted. Wide cross section.	Traffic signal retroreflective backplates. Restripe crosswalk. Add leading pedestrian interval to pedestrian signals. Add a bike lane. Investigate roadway illumination.	Watch for Me CT Campaign	Low-Medium

### Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - INTERSECTIONS

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
22	Norwalk	US-1 (Van Buren Ave) and Maple St	13	4 Pedestrians 1 Bicyclist	Two pedestrians hit on roadway (not visible). Two pedestrians hit crossing roadway at marked crosswalk. Bicyclist hit cycling along roadway. Dark-lighted and daylight condition. Near hospital.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval at pedestrian signals. Restripe pavement lines on Maple St. Add a bike lane.	Watch for Me CT Campaign	Low-Medium
23	Ridgefield	CT-35 (Main St) and CT-822 (Catoonah St)	10	2 Pedestrians 1 Bicyclist	Pedestrians hit crossing roadway on travel lane. Bicyclist hit cycling along roadway, dusk and daylight condition.	Traffic signal retroreflective backplates. CT-35 was recently repaved in 2020 VIP. A crosswalk was added at Route 35 and Catoonah St.	Watch for Me CT Campaign	Low-Medium
24	Greenwich	US-1 (E Putnam Ave) and Washington Ave	10	2 Pedestrians	Pedestrians hit crossing roadway at midblock, daylight condition.	High-visibility crosswalks on Washington Ave. Traffic calming on US-1 (E Putnam Ave).	Watch for Me CT Campaign	Low-Medium
25	Norwalk	US-1 (Connecticut Ave) and Keeler Ave	10	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, dark-lighted and daylight conditions. Wide cross section.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval to pedestrian signals. Investigate No Turn on Red prohibition.	Watch for Me CT Campaign	Low-Medium
26	Norwalk	US-1 (North Ave) and CT-123 (Main St)	10	2 Bicyclists	Bicyclists hit cycling along roadway, daylight.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add a bike lane.	Watch for Me CT Campaign	Low-Medium
27	Stamford	US-1 (W Main St) and Liberty St/ Roosevelt Ave	10	2 Pedestrians	Pedestrians (one distracted) hit crossing roadway, daylight condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian intervals to pedestrian signals.	Watch for Me CT Campaign	Low-Medium
28	Stamford	US-1 (W Main St) and Alvord Ln/ Commerce Rd	10	3 Pedestrians	Two pedestrians hit crossing roadway on travel lane, dark-not lighted. Pedestrian hit crossing roadway at marked crosswalk, daylight. Wide cross section.	Traffic signal retroreflective backplates. High-visibility crosswalks. Add leading pedestrian intervals. Restripe pavement lines at intersection. Investigate roadway illumination.	Watch for Me CT Campaign	

**Top Non-Motorized Crash Locations in the Western Connecticut Region, 2015-2018 - INTERSECTIONS**

Rank	Municipality	Location	EPDO	Person Type	Crash Details	Infrastructure Countermeasures	Non-Infrastructure Countermeasures	Cost
29	Stamford	US-1 (E Main St) and Glenbrook Rd/Clarks Hill Ave	10	3 Pedestrians	Pedestrian hit crossing roadway at marked crosswalk. Pedestrians (one physically impaired) hit crossing roadway at travel lane. Daylight and dark-lighted condition. Wide cross section.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval to pedestrian signals.	Watch for Me CT Campaign	Low-Medium
30	Stamford	US-1 (E Main St) and Lincoln Ave/Lockwood Ave	10	2 Pedestrians 1 Bicyclist	Pedestrian hit crossing roadway at travel lane. Pedestrian hit crossing roadway at marked crosswalk. Bicyclist hit crossing roadway at marked crosswalk. Dark-lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Add leading pedestrian interval to US-1 (E Main St). Add a bike lane.	Watch for Me CT Campaign	Low-Medium
31	Stamford	CT-137 (Washington Blvd) and US-1 (Tresser Blvd)	8	4 Pedestrians	Pedestrians hit crossing roadway crossing roadway at marked and unmarked crosswalk. Dark-lighted, daylight, and clear/dusk condition. Wide cross section.	Traffic signal retroreflective backplates. High-visibility crosswalks. Add leading pedestrian interval to pedestrian signals.	Watch for Me CT Campaign	Low-Medium
32	Stamford	US-1 (E Main St) and Blachley Rd	8	3 Pedestrians	Pedestrian hit crossing roadway at travel lane. Pedestrians hit crossing roadway at marked crosswalk. Dark-lighted condition.	High-visibility crosswalks. Traffic signal retroreflective backplates. Restripe pavement lines at intersection.	Watch for Me CT Campaign	Low-Medium
33	Stamford	CT-106 (Courtland Ave) and Taylor Reed Pl/Maple Tree Ave	8	2 Pedestrians	Pedestrians hit crossing roadway at marked crosswalk, daylight.	New signal with full pedestrian facilities was installed in 2018.	Watch for Me CT Campaign	N/A
34	Westport	US-1 (Post Rd E) and Bulkley Ave S	8	2 Bicyclists	Bicyclist hit cycling along roadway (crossing intersection) at unmarked crosswalk, bicyclist hit at crosswalk, daylight. Skewed and wide cross section.	State Project 158-215 realignment and signal upgrade. Crosswalks will be added across the Bulkley Ave leg.	Watch for Me CT Campaign	N/A
35	Greenwich	US-1 (E Putnam Ave) and Sheep Hill Rd/Lockwood Ln	5	2 Pedestrians	Pedestrian hit crossing roadway at marked crosswalk, failure to obey traffic signs. Pedestrian hit crossing roadway.	Install traffic signal retroreflective backplates at intersection. Traffic calming. High-visibility crosswalks at all four approaches.	Watch for Me CT Campaign	Low-Medium

# 6. Public Education Resources to Support Behavior Change

Drowsy Driving	Develop evidence-based awareness and educational message strategies that address why drowsy driving is 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 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 November to help reduce the number of drowsy driving-related crashes in the United States. Campaign materials are provided for this event through the National Highway Traffic Safety Administration (NHTSA). The United States Department of Transportation (USDOT) Traffic Safety Marketing (TSM) provides a fact sheet, sample news release, and an educational sheet that addresses drowsy driving prevention.						
Resources for Drowsy Driving	National Safety Council	NHTSA	Federal Motor Carrier Safety Administration	National Institute of Health National Heart Lung, and Blood Institute	Center for Disease Control and Prevention		
Speeding	"When Speeding Kills" marketing campaign materials are provided by the CTDOT 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 Traffic Safety Marketing (TSM) website. Banner ads, media, logos, radio ads, television ads, and web videos for speed campaigns are provided by the USDOT Traffic Safety Marketing and NHTSA.						
Resources for Speeding	Traffic Safety Marketing	NHTSA	CTDOT	Governor's Highway Safety Association	Vision Zero		National Transportation Safety Board
Drunk Driving	The USDOT and the NHTSA provide marketing campaign materials for year-round education, such as "Buzzed Driving is Drunk Driving" or "Drive Sober or Get Pulled Over." The USDOT encourages the use of their "No Refusal Toolkit", which is an enforcement strategy that allows jurisdictions to obtain search warrants for blood samples from drivers suspected of drinking who refuse breath tests. The USDOT website explains that this program should be publicized to let the public know that the chance of being caught and facing the consequences of drunk driving is high. Banner ads, logos, radio ads, television ads, and web videos for drunk driving campaigns are provided by the USDOT's TSM 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.						
Resources for Drunk Driving	Traffic Safety Marketing	NHTSA	Mothers Against Drunk Driving	Center for Disease Control and Prevention	Foundation for Advancing Alcohol Responsibility		CTDOT
Drugged Driving	NHTSA and the USDOT are working on studies to understand how illegal drugs and prescription medications affect drivers. Provide marketing campaign materials are to be used as tools to raise awareness. The USDOT's TSM provides a fact sheet, sample news release, and an educational sheet that address drug-impaired driving prevention. Banner ads, logos, radio ads, television ads, and web videos for drug-impaired driving campaigns are provided by the USDOT's TSM 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.						
Resources for Drugged Driving	NHTSA	Traffic Safety Marketing	National Institute on Drug Abuse	Stop Drugged Driving (Institute for Behavior and Health, Inc.)	Governor's Highway Safety Association	CTDOT	Mothers Against Drunk Driving

Distracted Driving	<p>NHTSA describes distracted driving as any activity that diverts the attention of the driver from driving, including using electronic 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 Americans on the dangers of distracted driving. NHTSA provides suggestions for how teens, parents, employers, and educators can get involved with preventing distracted driving and how to make your voice heard to educate your community. The USDOT provides TSM focused on combating distracted driving through television ads that are available to every community. Banner ads, logos, radio ads, television ads, and web videos for distracted driving campaigns are provided by the USDOT's TSM 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.</p>						
Resources for Distracted Driving	Traffic Safety Marketing	NHTSA	National Safety Council	Governor's Highway Safety Association	Center for Disease Control and Prevention	Insurance Institute for Highway Safety	CTDOT
Pedestrian and Bike Safety	<p>The Watch for Me CT campaign is run by CTDOT in partnership with the Connecticut Children's Medical Center Injury Prevention Center. They share a 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 drivers and campaign materials. NHTSA's pedestrian safety web page provides pedestrian safety related research, tips, curriculum, and programs that can be shared in any community to discuss pedestrian safety. The USDOT's TSM website provides campaign materials such as banner ads, logos, radio ads, television ads, and web videos for pedestrian campaigns used throughout the country. 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.</p>						
Resources for Pedestrian and Bike Safety	Watch for Me CT	Federal Highway Administration	National Complete Streets Coalition	NHTSA	America Walks	Vision Zero	
Older Driver Safety	<p>Older driver campaigns focus on providing resources for older drivers, their families, caregivers, medical providers, and law enforcement to educate how medical conditions can affect driving, how to assess older driver safety issues, and other transportation options provided in case an older driver's mobility is threatened when they are no longer recommended to drive a motor 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 USDOT's TSM web page provides marketing resources for the DriveWell campaign that focuses on older driver safety and mobility.</p>						
Resources for Older Drivers	NHTSA	Department of Motor Vehicles	AAA CT	National Institute on Aging	American Association of Retired Persons	Insurance Institute for Highway Safety	
Younger Driver Safety	<p>According to NHTSA, crashes are the leading cause of teen deaths. Public education campaigns that focus on younger driver 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 licensing requirements and key risk factors for younger drivers including illegal use of alcohol, seat belt use, and distracted driving. NHTSA also highlights the importance of influence that parents, educators, coaches, and other trusted adults have on younger drivers and their behaviors. The USDOT's TSM webpage provides posters that communities can share on social media that are specifically marketed towards younger driver safety</p>						
Resources for Younger Drivers	NHTSA	Traffic Safety Marketing	Department of Motor Vehicles	National Safety Council	National Institutes of Health	Center for Disease Control and Prevention	
Motorcycle Safety	<p>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 information on the safest road behaviors. Banner ads, logos, radio ads, television ads, and web videos for motorcycle safety campaigns are provided by the USDOT's TSM 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.</p>						
Resources for Motorcycle Safety	NHTSA	Traffic Safety Marketing	CT.gov Connecticut Rider Education Program (CONREP) for Motorcycle Safety		RideCT	Ride4Ever	
<p>This resource list is limited and there are various other resources not cited here.</p>							

# 7. Funding

**Department of Energy and Environmental Protection (DEEP) Recreational Trails**

Funds: Bicycles, Pedestrians, Horseback, Recreational Vehicle

This program is administered through Connecticut DEEP. Funds can be used for projects, such as new trail construction, maintenance and restoration of existing trails, acquisition of land, or easements for a trail. Note: There is currently no funding available for this program.

**Small Towns Economic Assistance Program (STEAP)**

Funds: Bicycles, Pedestrians, Passenger Vehicles

STEAP funds are issued by the State Bond Commission and can be used for capital projects, which are new construction, expansion, renovation or replacement of existing facilities. The funding is directed towards small towns.

**Local Capital Improvement Program (LoCIP)**

Funds: Bicycles, Pedestrians, Passenger Vehicles

This program provides financial assistance to municipalities for eligible projects in the form of annual entitlement grants funded with State general obligation bonds. LoCIP grants can fund road construction, renovation and repair, sidewalk and pavement improvements, bridges, and bikeway and greenway establishment.

**BUILD Discretionary Grants**

Funds: Bicycles, Pedestrians, Passenger Vehicles

The highly competitive federal grant program is for investments in surface transportation infrastructure and are to be awarded on a competitive basis for projects that will have a significant local or regional impact. BUILD funding can support roads, bridges, transit, rail, ports, or intermodal transportation. This program replaces the previous TIGER grant program.

**Highway Safety Programs**

Funds: Driver and Passenger Behavior

The Connecticut Highway Safety program supports Federal Section 402 highway safety grant funds that are made available to the State to carry out its annual Highway Safety Plan. Grants are issued to address programs pertaining to impaired driving, public information and education, work zone safety and highway safety related legislation, police traffic services, occupant protection, and child passenger safety.

**Federal-Aid Essentials for Local Public Agencies**

This website provides local public agency staffers a centralized hub for guidance, policies, procedures, and best practices for administering federal-aid projects. The website includes a library of videos covering key aspects of the project development and delivery process.

## Funding

### **Local Transportation Capital Improvement Program (LOTICIP)**

Funds: Bicycles, Pedestrians, Passenger Vehicles, Transit, Bridges

Provides State monies to municipalities for transportation capital improvement projects. Regional Planning Organizations are responsible for soliciting and selecting projects and administering the program. Eligible projects include reconstruction, pavement rehabilitation, sidewalks, and multi-use trails. Except for off-road bike projects, all projects must be located on/along federally eligible roadways.

### **Transportation Alternatives (TA) Set-Aside Program**

Funds: Bicycles, Pedestrian

Provides federal funding, half administered through the State and half administered through Regional Planning Organizations for surface transportation projects in categories that are not typically eligible for funding under other federal sources. Bicycle and pedestrian projects have typically been targeted for these funds.

### **Congestion Mitigation and Air Quality (CMAQ)**

Funds: Bicycles, Pedestrians, Passenger Vehicles, Transit

The Congestion Mitigation and Air Quality program is managed by the CTDOT, as a competitive grant program. A portion of funding is programmed for projects of regional significance. It provides funds for projects that will improve air quality such as congestion reduction, traffic flow improvements, transit improvements, and pedestrian and bicycle facilities.

### **Community Connectivity Program (CCP)**

Funds: Bicycles, Pedestrians

This Program offers Connecticut's towns and cities assistance in conducting Road Safety Audits (RSA) at important bike and pedestrian corridors and intersections. An RSA is a process that identifies safety issues and countermeasures to help improve safety and reduce vehicle crashes. Note: Several notable adjustments have been made to the program guidelines and selection criteria for the upcoming solicitation. The funding limits for grant awards have increased to range between \$125,000 and \$600,000. In addition, general program objectives have been refined to reinforce the concept of transportation equity by connecting underserved communities. The latest round of grant applications were submitted in October 2020.

### **Local Road Accident Reduction Program (LRARP)**

Funds: Bicycles, Pedestrians, Passenger Vehicles

This program aims to fund projects that improve motor vehicle safety on local public roadways. The funding for the LRARP comes from the Federal Highway Safety Improvement Program (HSIP) which also funds projects on State highways and railroad/highway grade crossings.

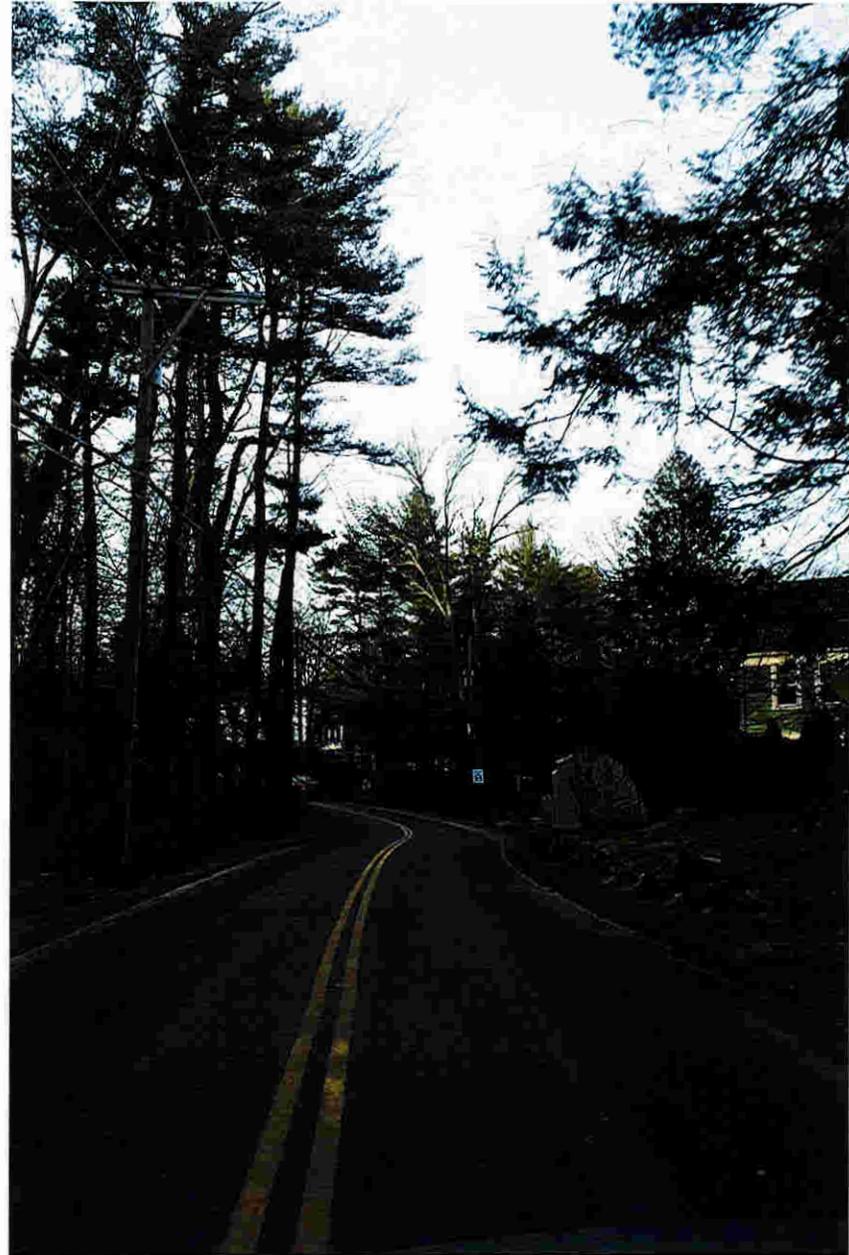
## 8. Emphasis Areas

The top emphasis areas in the Western Connecticut Region were selected based on the conclusion that these contributed to the majority of the injury and fatal crashes verified from the 2015-2018 data. The top five emphasis areas are:

1. **Critical Roadway Locations:** Includes both intersection and roadway departure crashes.
2. **Driver Behavior:** Includes aggressive driving, unrestrained occupants, substance-impaired driving, and distracted driving.
3. **Non-Motorized Users:** Includes pedestrians and bicyclists.
4. **Older Drivers:** Includes drivers aged 65 years and older.
5. **Traffic Incident Management.**

These emphasis areas were selected based on crash types that have the highest potential of achieving the State's 15% injury and fatal crash rate reduction goal and fatal crash rates by 2025. From these identified emphasis areas, strategies and countermeasures were developed in conjunction with stakeholders' input. Each emphasis area's countermeasures were developed according to the four E's of transportation safety. For a total of all injury and fatal crashes by emphasis area, see Appendix B.

**Performance Measures:** The Western Connecticut RTSP follows the 2017 CT SHSP strategy of implementing countermeasures identified for each emphasis area. In all cases, implementation includes site-specific and systemic safety improvements. Connecticut has set annual safety performance measure targets which the regions are encouraged to follow. The region can also establish their own performance measures, independent of the State's goals.



Source: VN Engineers

## 8.1 Regional Action Plan

This is a summary of recommendations for the Region to reduce the number and severity of crashes by implementing strategies based on the top four emphasis areas.

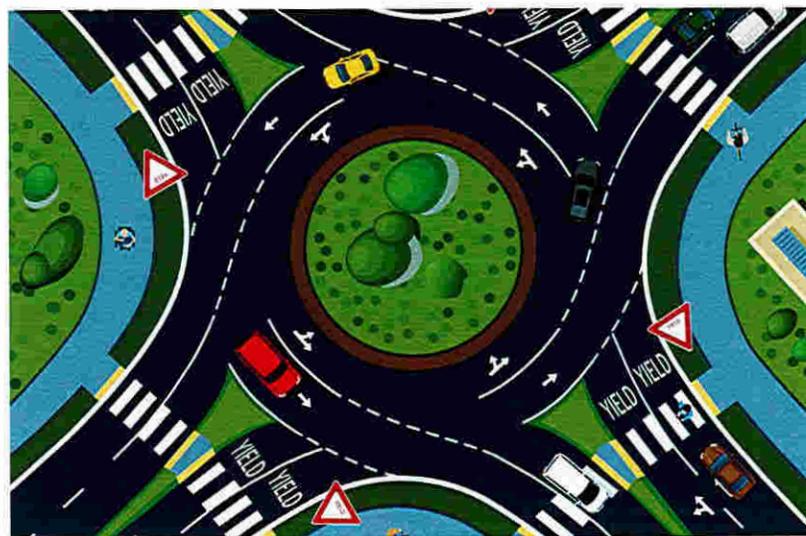
### Intersections/Roadway Departures Strategies:

1. Using the top crash intersection countermeasure table on pages 19 and 20, select the top crash intersections and apply the recommendations for each location. For the municipalities not included in the list, review the municipal report sections for intersection concerns.
2. Complete the intersection improvement projects outlined in the HVMPO and the SWRMPO Transportation Improvement Program (TIP).
3. Continue to implement the Intelligent Transportation Systems improvements along identified corridors in the HVMPO SWRMPO L RTP and in the 2009 SWRPA ITS Strategic Plan.
4. For controlled conventional signalized intersections, implement traffic control and operational improvements, geometric improvements, improve sight distances and awareness of intersections and signal controls, driver compliance, access management near signalized intersections, and other infrastructure treatments. See [https://safety.fhwa.dot.gov/intersection/conventional/signalized/FHWA-SA-15-085\\_Strategies\\_2.pdf](https://safety.fhwa.dot.gov/intersection/conventional/signalized/FHWA-SA-15-085_Strategies_2.pdf). For more resources: <https://safety.fhwa.dot.gov/intersection/>
5. For unsignalized intersections, use <http://toolkits.ite.org/uiig/>
6. For problematic intersections, contact UConn's Safety Circuit Rider and Traffic Signal Circuit Rider for a site visit. See details on page 55.
7. Using the crash locations on pages 14-18, implement the recommendations for lane departure crashes.
8. There are other innovative practices to keep vehicles in the lane, reduce the potential for crashes if vehicles do leave their lane, and minimize severity if a crash does happen. These practices are 8-inch edge lines, speed reduction pavement markings, such as optical speed bars, edge line rumble stripes with bicycle gaps, maintained clear zones, safety edges, and traversable roadside slopes.

### Driver Behavior Strategies

The following are strategies based on the driver behaviors of speeding, substance-impaired driving, unrestrained occupancy and distracted driving.

1. The region's municipal leaders can coordinate with traffic safety stakeholders to address driver behaviors. Strategically planned and orchestrated enforcement, combined with education using NHTSA's communication calendar can be effective in reducing driver behavior crashes.
2. The municipalities can launch outreach campaigns through municipal websites, social media, and traditional news sources to spread the message that driver behavior can cause crashes. Municipalities can reiterate strategies in NHTSA's campaign to reduce these trends, including the Connect-to-Disconnect Initiative, Drive Sober or Get Pulled Over, Click it or Ticket, and Stop Speeding Before it Stops You. For more information, see <https://www.nhtsa.gov/risky-driving>.
3. Encourage the use of transit as an alternative to single occupancy ridership. Transit ridership can assist in reducing driver behavior related crashes, especially with substance-impaired, distracted, and aggressive driving.
4. Engineering projects can include traffic calming designs that include roundabouts, speed tables, road diets, etc. A comprehensive list can be found at [https://safety.fhwa.dot.gov/speedmgt/traffic\\_calm.cfm](https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm).



Source: FHWA

### Non-Motorized Users Strategies

1. Analyze and utilize the non-motorized countermeasure tables on pages 21-34.
2. Continue the region's current regional bicycle network plan and implement its recommendations.
3. Extend the network of bikeways and walkways using a systematic analysis of the costs and benefits that these transportation modes provide.
4. Encourage the use of transit as an option for pedestrians and bicyclists as a way to fill in the gaps of non-motorized travel. Target non-motorized users for transit messaging, emphasizing its convenience, its various amenities such as bike racks, and overall convenience when biking and walking are not feasible.
5. Referencing FHWA's Traffic Calming ePrimer, implement speed reduction strategies. See [https://safety.fhwa.dot.gov/speedmgmt/ePrimer\\_modules/module3.cfm#mod3](https://safety.fhwa.dot.gov/speedmgmt/ePrimer_modules/module3.cfm#mod3).



Source: VN Engineers

### Older Driver Strategies

1. Municipalities could host Older Driver Safety Outreach Programs. The Clearinghouse for Older Road User Safety (ChORUS) Community Event Planning Guide could assist with planning, promoting, and conducting Older Driver Safety Outreach in your community.
2. Encourage law enforcement to use the Driver Orientation Screen for Cognitive Impairment (DOSCI) when pulling over an older driver. See [https://www.researchgate.net/figure/DOSCI-roadside-screening-tool\\_fig1\\_301937739](https://www.researchgate.net/figure/DOSCI-roadside-screening-tool_fig1_301937739).
3. Coordinate with the South Western Connecticut Agency on Aging (SWCAA) and the Western Connecticut Area Agency on Aging (WCAAA) to share transportation resources through the municipalities.
4. Encourage older drivers to use transit as an alternative method of travel, emphasizing its safety and convenience factors. Increase outreach and marketing efforts by coordinating with agencies that work with older populations, to spread message that transit is a desirable travel mode.
5. For SWCAA, see [https://www.swcaa.org/wp-content/uploads/2019/07/Programs\\_Transportation072419.pdf](https://www.swcaa.org/wp-content/uploads/2019/07/Programs_Transportation072419.pdf).
6. For WCAAA, see [http://wcaaa.org/uploads/files/Provider%20Resources/Transportation\\_Guide\\_Kennedy\\_Center](http://wcaaa.org/uploads/files/Provider%20Resources/Transportation_Guide_Kennedy_Center).



Safety Edge. Source: FHWA

## 8.2 Critical Roadway Locations

The critical roadway locations emphasis areas include both roadway departure and intersection crashes. Intersection crashes are conflicts that occur due to complex travel patterns. Congestion, limited sight distance, driver behavior, and other variables exacerbate the inherent crash potential at each intersection. Intersections vary widely from geometry, classification (urban or rural), traffic control (signalized or unsignalized), traffic volumes, and design (conventional design or alternative designs such as roundabouts). Additionally, at-grade rail crossings are considered intersections, as trains and roadway users cross paths. Reducing the number of intersection injuries and fatalities is possible by applying a multidisciplinary approach, using strategies that focus on engineering, education, and enforcement.

Roadway departure crashes are described as conflicts that result when vehicles cross an edge line, a center line, or otherwise leave a travel lane. There are several factors that can contribute to a lane departure crash, including roadway characteristics like horizontal curvature and pavement condition. Other weather-related conditions like rain, snow, or ice can impede a driver's sight of the roadway and make controlling vehicles difficult. Time of day can also play a role in lane departure crashes due to decreased visibility, which can affect the driver's abilities to maintain their vehicles' alignment.

Behavioral issues like speeding, impaired driving, and distracted driving can affect the drivers' safe vehicle operation and may cause them to depart from the roadway. To improve lane departure safety, countermeasures that address keeping vehicles in the travel lane, provide for a safe recovery, and reduce crash severity are imperative. The region can use both systemic and site-specific engineering strategies combined with education and enforcement.



Source: VN Engineers

### 8.2.1 Intersections

**Performance Measure:** From 2015-2018, there were 4,873 intersection crashes resulting in injuries or fatalities within the Western Connecticut Region or an average of 1,218 crashes per year. Of those 4,873 intersection injury and fatal crashes reported, 25 were fatal. The region's 2015-2018 intersection injury and fatal crashes make up 8% of the 58,061 intersection injury and fatal crashes in Connecticut.

#### *Strategies for Intersections:*

- Engineering:** Implement proven and low-cost spot improvements and systemic safety improvements to reduce intersection crashes. Examples include enhancing signs and pavement markings, modifying signals and signal timing, adding turn lanes, and controlling access through medians.
- Enforcement and Education:** Conduct high-visibility enforcement, media campaigns, and public outreach at selected locations with a significant number of intersection crashes.
- Education:** Advertise and promote the Safety Circuit Rider and other similar programs that provide training and outreach about intersection safety.
- Engineering:** Incorporate safety elements and countermeasures into all regional roadway and intersection project designs and maintenance improvements.
- Engineering:** Consider No Turn on Red restrictions at identified crash locations. Review sightlines and trim vegetation where applicable.



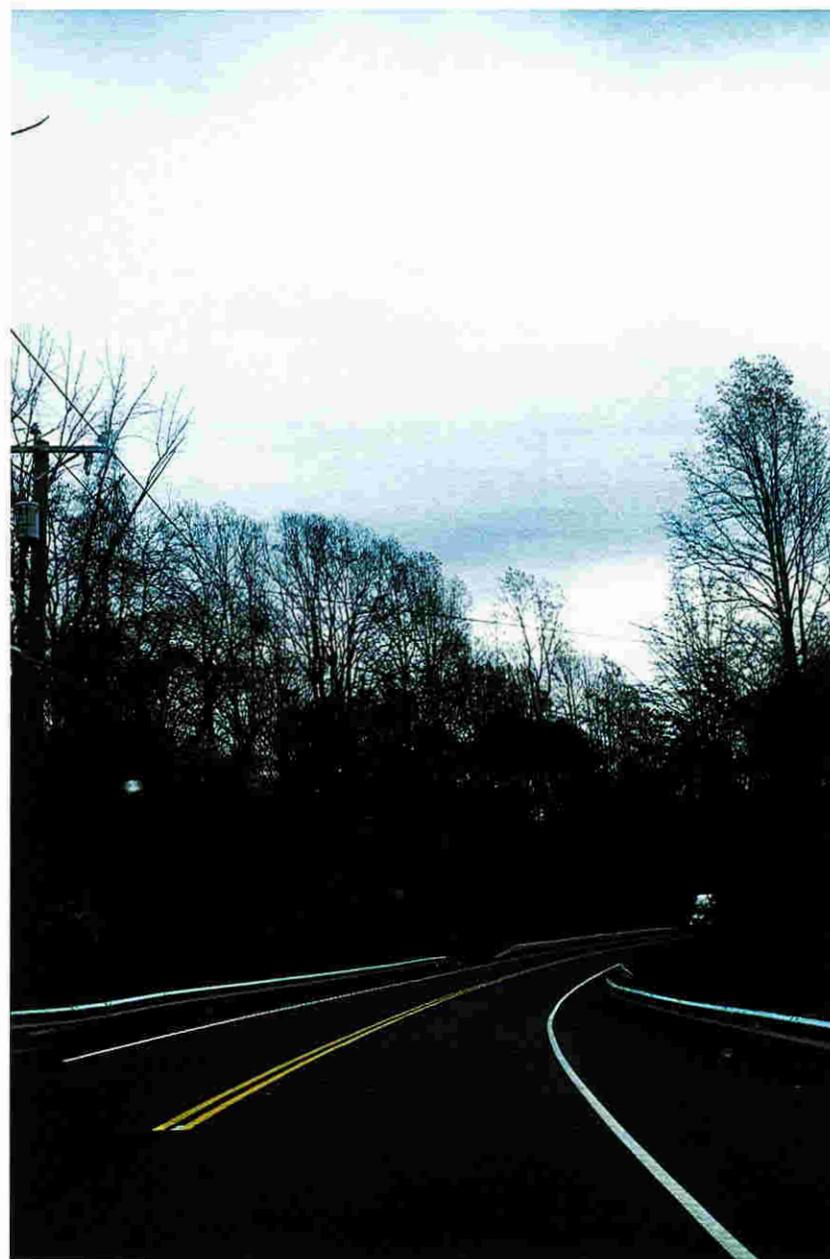
Source: VN Engineers

## 8.2.1 Roadway Departures

**Performance Measure:** From 2015-2018, there were 2,174 roadway departure crashes resulting in injuries or fatalities within the Western Connecticut Region. This is an average of 544 crashes annually per year. Of those 2,174 reported roadway departure injury and fatal crashes, 32 were fatal. The region's 2015-2018 roadway departure injury and fatal crashes accounts for 12% of the 18,355 total roadway departure injury and fatal crashes in Connecticut.

### **Strategies for Roadway Departures:**

- Engineering:** Design the roadside to include protection systems (such as cable median, crash cushions and guiderail end treatments) or manage roadside vegetation, trees, and other fixed objects to minimize the severity of crashes.
- Engineering:** Implement proven systemic safety countermeasures to lessen roadway departure crashes. Examples include high friction surface treatments, improved signage and pavement markings on curves, wider clear zones, traversable roadside slopes, safety edges, and center line and edge line rumble stripes.
- Enforcement:** Conduct high-visibility regional and local enforcement, media campaigns, and public outreach on identified corridors with a high number of severe roadway departure crashes.
- Education:** Utilize established regional and State programs, such as the Safety Circuit Rider, to provide education, training, and outreach.



Source: VN Engineers

### 8.3 Driver Behavior

The second emphasis area is driver behavior, which includes the subset areas of speeding or aggressive driving, unrestrained occupants, substance-impaired driving, and distracted driving. These subsections are related to driver behavior and not due to traffic or roadway characteristics, although they can be interdependent.

Aggressive driving includes any driver behavior that involves speeding, recklessness, driving too close, running red lights, and making unsafe lane changes. Any behavior that “exceeds the norms of safe driving” and places other motorists in danger is considered as aggressive driving. This does not include road rage, which is considered assault.

The unrestrained occupants emphasis area involves either passengers or drivers who do not wear seat belts while traveling, including children not properly positioned in restraint systems. Connecticut enacted a law in October 2017, requiring that children be in booster seats until they reach a minimum of 60 pounds and turn 8 years old, that toddlers ride in forward-facing seats with a 5-point harness until they are 5 years old and weigh at least 40 pounds, and that infants be in rear-facing seats until they are 2 years old and at least 30 pounds.

Substance-impaired driving involves motorists who are under the influence of alcohol and/or drugs, both prescribed, unprescribed, and/or illegal. A driver with blood alcohol concentration (BAC) of 0.08 or higher is considered alcohol-impaired. Drug impairment is more challenging to detect and confirm. CT has police officers trained as drug recognition experts to assist in recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol. The International Association of Chiefs of Police (IACP) coordinates the International Drug Evaluation and Classification (DEC) Program with support from the National Highway Traffic Safety Administration (NHTSA) of the U.S. Department of Transportation.

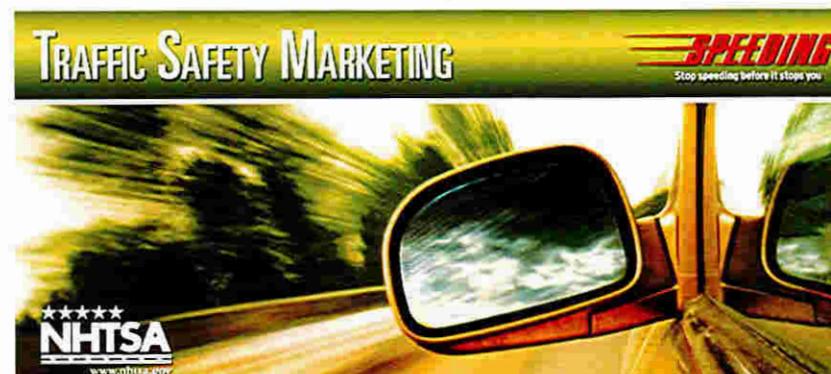
Distracted driving is another subset of the driver behavior emphasis area. It involves any motorist whose attention is diverted by a variety of activities besides navigation. Common sources of driver distraction are cell phone use, eating, drinking, or adjusting the radio. Due to the increase of text

messaging, GPS navigation systems, and other technologies, distracted driving is on the increase.



Source: NHTSA

**Performance Measure:** From 2015-2018, there were 3,136 reported driver behavior crashes that resulted in injury or death, which is an average of 784 crashes per year. Of these 3,136 crashes, 63 were fatal. Driver behavior in Western CT crashes represent 18% of the 17,330 of the total driver behavior injury and fatal crashes in Connecticut.



Source: NHTSA

## **Strategies for Driver Behavior**

**Engineering/Enforcement:** Explore the possibility of creating safety corridors at segments of roadways that have higher-than-expected number of fatal and serious injury crashes due to driver behaviors. Further strategies include additional signage, increased traffic enforcement, and zero tolerance for violations.

**Enforcement:** Support high-visibility enforcement campaigns that specifically target speeding, unrestrained occupants, distracted driving, and substance-impaired driving. This could include enhanced patrols using roads signs, electronic message boards, and command posts. In addition to high-visibility enforcement, use unmarked patrol vehicles or spotter techniques in high traffic areas for distracted driving. Continue to enforce the interlock devices for all Connecticut DUI/DWI/OUI first-time offenders. Continue to enforce the interlock devices for all Connecticut DUI/DWI/OUI first-time offenders. Conduct regional high-visibility impaired driving enforcement program.

**Enforcement and Education:** Encourage the municipalities in Western CT that do not have drug recognition experts (DREs) to fund and support officers to get certified. Encourage officers to attend the Advanced Roadside Impaired Driving Enforcement (ARIDE) program offered by the The Department of Emergency Services and Public Protection, Police Officer Standards and Training Council's Field Services Training Division, in partnership with the Department of Transportation Highway Safety Office.

**Education:** Coordinate with local agencies, local police and fire departments, hospitals, the auto insurance industry, and driving schools to disseminate and educate the public on the hazards of dangerous driving. Communicate the new child safety seat laws, coordinating with multiple agencies like Safe Kids CT, local police and fire departments, hospitals in the region, the YMCA, and driving schools to disseminate information and educate the public. Continue to support Mothers Against Drunk Driving (MADD) CT chapter's outreach and education efforts, including the Victim Impact Panels that take place at WCSU Student Center in Danbury and Norwalk City Hall. Coordinate with private sector stakeholders to host car seat clinics and publicize the safe fitting stations in the region using earned media outlets. Communicate the new child safety seat laws, coordinating with multiple agencies like Safe Kids CT, local police and fire departments, hospitals in the region, the YMCA, and driving schools to disseminate information and educate the public. Follow NHTSA's communication calendar to promote safe driving practices. Campaign Material Available at [www.TrafficSafetyMarketing.gov](http://www.TrafficSafetyMarketing.gov).

**Engineering:** Support policies and programs that increase the availability, convenience, affordability, and safety of transportation alternatives for drinkers who may drive, especially during nighttime and weekend hours. Municipalities should boost or incentive transportation alternatives in rural areas, which are disproportionately impacted by alcohol-impaired driving crashes and fatalities.

**Education:** Encourage the use of public transportation as a safe and reliable form of travel. Promote HARTransit, Norwalk Transit District, and CTtransit (Stamford Division) services to all users. In addition, promote the use of public transportation as a solution for substance-impaired driving.



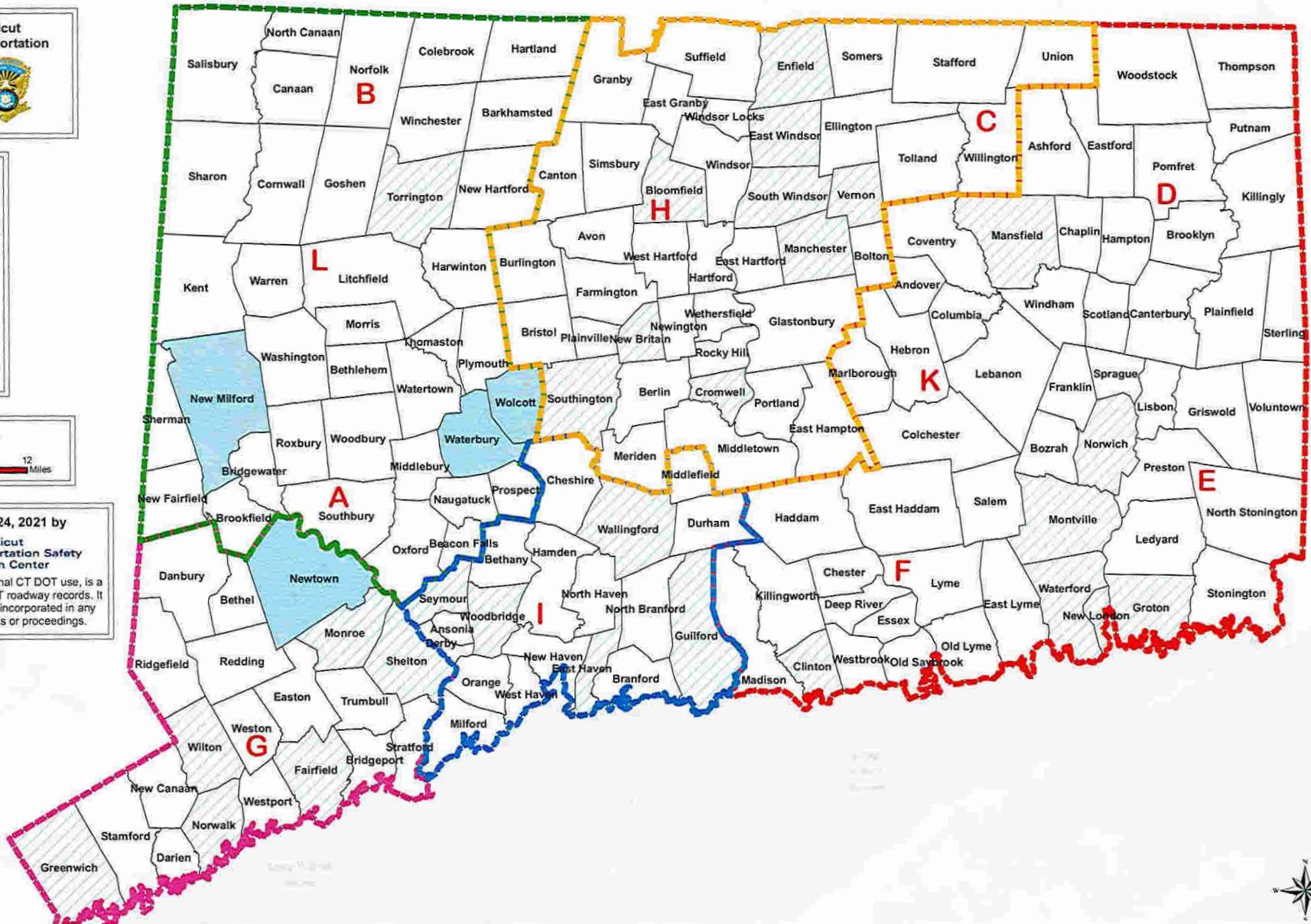
**Legend**

DRE Regions

- Eastern Region
- Fairfield Region
- South Central Region
- Western Region
- Capital Region
- CSP & Town DRE
- CSP Troop DRE
- Town DRE
- Town
- A** CSP Troop HQ



Updated on Feb 24, 2021 by  
 Connecticut Transportation Safety Research Center  
 This map, developed for internal CT DOT use, is a cartographic rendering of DOT roadway records. It should not be referenced or incorporated in any manner in legal documents or proceedings.



## 8.4 Non-Motorized Users

The non-motorized users emphasis area includes crashes involving bicyclists and pedestrians. Bicyclists and pedestrians are more susceptible to serious injuries and fatalities when involved in a crash with a motor vehicle.

From 2015-2018, there were 1,070 crashes that resulted in bicyclist or pedestrian injuries or fatalities within Western CT and 33 of these crashes were fatal.

### 8.4.1 Pedestrians

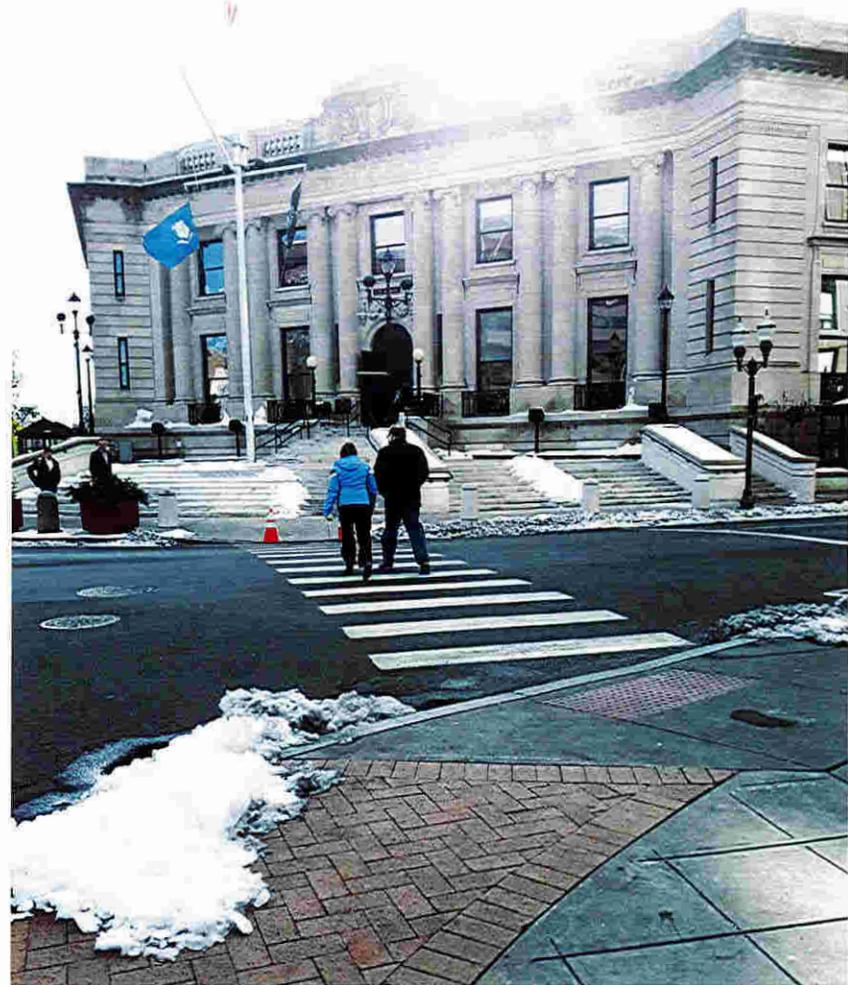
**Performance Measure:** From 2015-2018, there were 873 injury and fatal pedestrian crashes in Western CT, 30 of which were fatal. That is an average of 218 crashes per year. Western CT 2015-2018 pedestrian injury and fatal crashes make up 17% of the total 5,114 pedestrian injury and fatal crashes in Connecticut.

### 8.4.2 Bicyclists



Source: VN Engineers

**Performance Measure:** From 2015-2018, there were 197 bicycle crashes in Western CT and 3 were fatal. That is an average of 49 injury and fatal crashes per year. Western Connecticut Region's bicyclist injury and fatal crashes make up 12% of the 1,597 injury and fatal bicycle crashes in Connecticut.



Source: VN Engineers

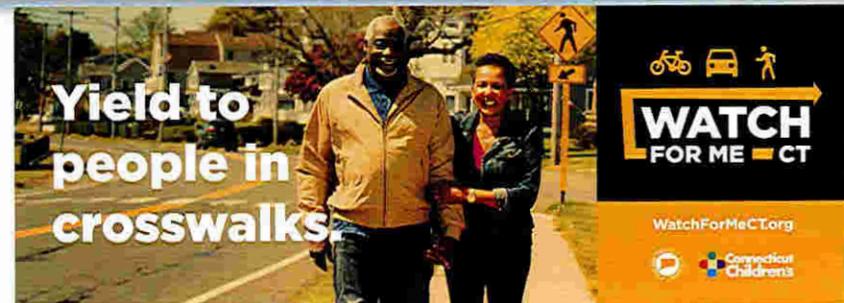
### **Strategies for Non-Motorized Users:**

- Education:** Coordinate with State, regional, and local advocacy groups and bike store owners, including Bike Walk CT, the CTDOT Bike and Pedestrian Advisory Board, and other stakeholders to strategize best practices for the region.
- Engineering:** Coordinate with CTDOT on the *Pedestrian Signing and Pavement Marking Project*, which improves crosswalk visibility on local roads.
- Education and Enforcement:** Promote the Watch for Me CT Program.
- Education:** Regionally promote the CT Bike Ped Plan interactive map.
- Engineering:** Encourage municipal and regional adoption of the CTDOT's Complete Streets Policy, which ensures that the needs of all users of all abilities and ages (specifically including pedestrians, bicyclists, transit users, and vehicle operators) are addressed in the planning, programming, design, construction, retrofit, and maintenance activities related to all roads and streets, as a means of providing a "safe, efficient transportation network which enhances quality of life and economic vitality."
- Engineering:** Consider a Regional pedestrian and bike plan like the CRCOG Complete Streets Plan. Promote Stamford's Bike and Pedestrian Plan, Westport's Main to Train Study, and Transportation Plan for Main Avenue –Route 719 as templates for other municipalities.
- Education and Enforcement:** Educate regional law enforcement personnel on the 2014 Vulnerable User Law and the 2015 Bike Bill.
- Education:** Promote the Connecticut Technology Transfer Center's educational outreach initiatives that promote bike and pedestrian safety.
- Education and Engineering:** Promote transit as an option to non-motorized users, especially during inclement weather, when traveling to farther destinations, night time or during the colder months of the year. Educate bicyclists that there are convenient bike racks on transit buses for storage.

### **References**

The Vulnerable User law requires a fine of up to \$1,000 for infliction of serious physical injury or death to a vulnerable user when a person fails to operate due care when using a motor vehicle. Vulnerable users include pedestrians, highway workers, wheelchair users, people riding or driving an animal, blind people and their service animals, and people who operate farm tractors, bicycles, scooters, roller or inline skates, and skateboards.

Bike Bill: When riding on roadways, bicyclists are to ride as near to the right side of the roadway as is safe, as judged by the bicyclist.



Source: CTDOT

## 8.5 Older Drivers

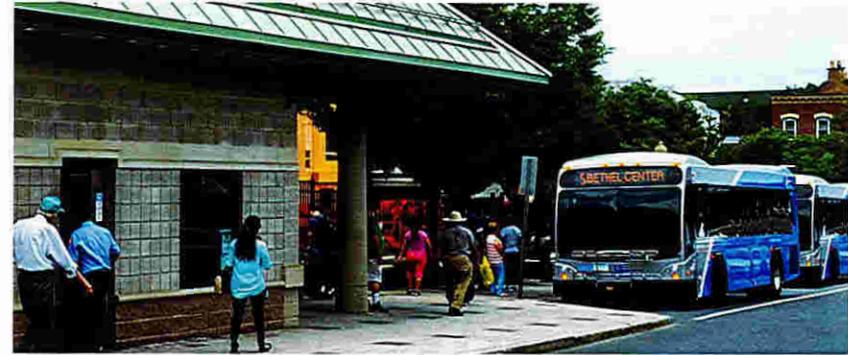
The fourth emphasis area is older drivers, which are categorized as drivers 65 years and older. Although age itself is not the principal determinant in driving performance, people's mental and physical abilities change as they age, which can affect their driving. The most common of these conditions is poor vision, but other cognitive skills may be affected, including memory and coordination. Older drivers crash survivability is a major safety concern.

**Performance Measure:** From 2015-2018, there were 1,312 crashes in Western CT involving older drivers that ended in injuries or fatalities, an average of 328 crashes annually. Of the 1,312 older driver crashes from 2015-2018, 20 were fatal.

This region's 2015-2018 older driver injury and fatal crashes make up 14% of the 9,057 total older driver injury and fatal crashes in Connecticut.



Source: AARP



Source: HARTransit

### **Strategies for Older Drivers:**

**-Education:** Consider supporting stricter CT DMV policy of license renewal for senior drivers and consider mandatory in-person tests with vision exam for drivers 65 years and older.

**-Education:** Coordinate with multiple agencies, including the United Way of Connecticut, in Greenwich and Western Connecticut locations, the various local chapters of the YMCA, and the Connecticut Association of Senior Center Personnel to address older driver challenges and general safety.

**-Education:** Promote NHTSA's DriveWell Toolkit to aid older drivers.

**-Education:** Encourage older drivers to use AARP Smart Driver Course, available online or in a classroom in the region.

**-Education:** Continue to promote transit and other travel options for enhanced mobility. The Southwestern CT Agency on Aging and the Kennedy Center provide training and transportation resources for older citizens, ([https://www.swcaa.org/wp-content/uploads/2019/07/Programs\\_Transportation072419.pdf](https://www.swcaa.org/wp-content/uploads/2019/07/Programs_Transportation072419.pdf) and <https://www.thekennedy-centerinc.org/what-we-do/programs-services/mobility-services/senior-mobility.html>) In addition, the Housatonic Area Regional Transit (HART), CT Transit (Stamford), and the Norwalk Transit District provide a variety of transportation services. HART's SweetHART offers transportation services for seniors and persons with a disability and the Norwalk Transit District also offers Paratransit options.

## 8.6 Traffic Incident Management

A traffic incident is an event (such as a vehicle crash, work zone activity, or vehicle breakdown) that disrupts the normal operation of the transportation system. Traffic incidents are an important concern in Connecticut because they can potentially cause safety issues, increasing the risk to uninvolved motorists, congestion delays, and secondary incidents. The CT DOT recommends a statewide Traffic Incident Management (TIM) plan be implemented to coordinate the use of human, institutional, mechanical, and technological resources to reduce the duration and impact of incidents.

Traffic Incident Management (TIM) consists of a “planned and coordi-

nated multidisciplinary process to detect, respond to, and clear traffic incidents so that traffic flow may be restored as safely and quickly as possible”. Effective TIM reduces the duration and impacts of traffic incidents and impacts of traffic incidents, improves the safety of motorists, crash victims, and emergency responders.

**Performance Objectives:** The region could collaborate with other regional TIM efforts like the Greater Hartford TIM Coalition, which has prioritized this emphasis area and has developed a plan to reduce TIM-related injury and fatal crashes. The region could collaborate with other regional TIM efforts like the Greater Hartford TIM Coalition, which has prioritized this emphasis area and has developed a plan to reduce TIM-related injury and fatal crashes.

### **Strategies for Traffic Incident Management:**

- Education, and Enforcement:** Continue to implement the goals from the ITS Strategic Plan for the Western CT Region and the goals in the LRTP.
- Education:** Continue to support the CT Travel Smart website and to promote this resource regionally through media and public outreach campaigns.
- Education:** Continue to conduct public awareness programs for effective on-scene TIM by road users.
- Enforcement:** Support the State operated State Farm Safety Patrol Program.
- Engineering:** Continue collaborating with CTDOT to implement ITS to update the freeway traffic management system and improve incident management efforts.
- Education:** Support the CT SHSP objective to establish a statewide TIM program, with a lead agency to administer clearly defined responsibilities that meet the requirements of the National Incident Management System (NIMS).
- Education:** Continue the planning, implementation, and coordination of activities, such as the adoption of a Unified Response Manual, updating of diversion plans, TIM training, and participation in the FHWA annual TIM Self-Assessment. Also, work on the development and implementation of a public awareness campaign for motor vehicle laws relating to highway incidents, such as the “Move It” and the “Move Over.”
- Education:** Continue to research the benefits and impacts of providing a regional approach to operating and maintaining local traffic signal systems.
- Enforcement:** Conduct after action reviews to improve response and scene management.
- Engineering:** Include Weather Responsive Traffic Management (WRTM) strategies, such as Road Weather Information Systems (RWIS).
- Engineering Education, and Enforcement:** Support the development and tracking of TIM performance metrics following national standards and definitions.

# 9. Technological Advances Affecting Traffic Safety

## 9.1 Connected and Autonomous Vehicles

Connected vehicle (CV) and automated vehicle (AV) technologies (described below) are in various stages of discovery, development and deployment nationwide. These technologies have the potential to play an integral role in improving the future of traffic safety. According to the National Highway Traffic Safety Administration (NHTSA), of all motor vehicle crashes on public roadways today, "94% are due to human error or choices." Each year in Connecticut these human errors or choices results in more than 100,000 crashes, more than 30,000 injuries and more than 250 deaths.

### Automated Driver Assistance Systems

Today, most of the newer motor vehicles sold in the United States have at least some form of automated driver assistance system (ADAS) technologies included that increase safety. ADAS is the hardware and software within vehicles in that is collectively capable of supporting or providing alerts to the driver (e.g. blind spot detection, lane departure warning, front collision warning, etc.) or assisting the driver to automatically perform some of the real-time operational and tactical functions in on-road traffic (steering, accelerating, braking, etc.). The term ADAS includes the Society of Automotive Engineering International (SAE) driving automation levels 0, 1 and 2. Note, for vehicles equipped with ADAS, the driver is still responsible for performing most or all of the driving tasks, thus active driver performance, supervision and/or intervention is required.

### Automated Driving Systems

The future of automated vehicles is focused on automated driving systems (ADS). These technologies are being studied, developed and pilot tested around the world today and have the potential to exponentially improve safety and save lives. ADS is the combination of hardware and software within vehicles that are collectively capable of performing all of the real-time operational and tactical functions required to operate a vehicle in on-road traffic on a sustained basis, regardless of whether the ADS is limited to a specific operational design domain under which it is able to

function. The term ADS, includes SAE driving automation levels 3, 4 and 5. The primary difference between these levels has to do with the conditions under which the ADS is able to perform and whether or not there are any expectations for a human driver to intervene. The performance of level 3 and level 4 driving automation is the primary focus for research, development and pilot testing around the world today.



Source: NHTSA

## Connected Vehicles

In addition to the automated vehicle technologies described above, the development and implementation of connected vehicle (CV) technologies also have significant promise to improve safety on public roadways. According to NHTSA, 80% of unimpaired crashes could be prevented by the deployment of CV technologies.<sup>1</sup> CVs are described as vehicles that use specific wireless communication protocols (e.g. DSRC, C-V2X, 5G) to communicate with their surroundings for the purpose of improving traffic flows and preventing collisions. These technologies are able to send and receive real time transportation safety, mobility and other travel data to and from other vehicles, roadside infrastructure (e.g. traffic signals), users of the transportation system (e.g. drivers, pedestrians) and even the cloud.



Source: Shutterstock

Several CV technologies have undergone many years of national research, testing and standards development and could soon begin to be deployed nationwide on a systematic scale. However, standing in the way of large nationwide deployments are key federal policy decisions by the Federal Communications Commission (FCC) to preserve the 5.9 GHz spectrum and the resulting competition between which communication protocols (e.g. DSRC, C-V2X, 5G) will dominate the market. Additionally, both state and local infrastructure owner operators (IOO) will ultimately play a significant role in the implementation of connected vehicle to infrastructure (V2I) technologies. In order to be future proof, IOOs will need more certainty from national direction, market adoption and standards before upgrading their infrastructure in support of V2I.

## Connecticut Update

The CTDOT is currently undertaking two projects along a 10-mile segment of the Berlin Turnpike to replace and upgrade 28 signalized intersections near the CTDOT headquarters building. These projects will serve as early adopters for testing and deploying emerging technologies, including connected vehicle to infrastructure (V2I) applications that have the potential for improving safety and mobility, enhancing CTDOT traffic signal operations and reducing congestion. Both projects will require installation of modern traffic signal controllers, new backhaul communications (fiber) and include the implementation of adaptive signal control technology and automated traffic signal performance measures software.

As part of the replacement and upgrade, the CTDOT will install roadside units (RSU) at each intersection and equip various state-owned fleet vehicles with corresponding on-board units (OBU) to test and deploy different V2I applications (e.g. signal phasing and timing, signal priority, etc.). Both projects will investigate the application of dual mode RSUs capable of sending and receiving V2I data using dedicated short-range communications (DSRC) and current generation cellular networks for connected vehicles, typically referred to as C-V2X. Both projects will also involve the submission of licensing applications to the Federal Communications Commission (FCC) to utilize multiple channels within the 5.9 GHz spectrum for connected vehicle technology. Once operational, the CTDOT looks to apply lessons learned from these projects as a template for other traffic signal replacement projects moving forward (where applicable).

In addition to the Berlin Turnpike, the CTDOT also owns and operates an ideal facility for piloting and deploying AV transit technologies – the CTfastrak bus rapid transit (BRT) corridor. This facility is a nine-mile, bus-only, fixed guideway in central Connecticut that connects four municipalities including the state's capital city of Hartford, West Hartford, Newington and New Britain. Success with AV transit technologies here has the potential to advance the marketability of near-term AV transit technologies as well as improve service and efficiencies that could free up resources to be deployed in other locations that have transit needs. The Department will continue to target the CTfastrak as a priority area for testing and deploying AV transit technologies.

<sup>1</sup> NHTSA, [https://www.its.dot.gov/factsheets/pdf/safetypilot\\_nhtsa\\_factsheet.pdf](https://www.its.dot.gov/factsheets/pdf/safetypilot_nhtsa_factsheet.pdf)

Over the next few years, the Department and its assembled team, including the Federal Transit Administration (FTA), Center for Transportation and the Environment (CTE), New Flyer Industries, Robotic Research, Inc., University of Connecticut (UConn), and the Capitol Region Council of Governments (CRCOG), will be working collaboratively to advance a state-of-the-art pilot project to test the performance and operation of full size, automated, and battery electric buses in revenue service on the CTfastrak BRT. This demonstration project is anticipated to deploy three 40' New Flyer Excelsior Charge battery electric buses equipped with increasing levels of driving automation, capable of up to high automation (SAE level 4). Automated driving capabilities demonstrated will include steering, precision docking at CTfastrak station platforms, and platooning.



Source: Hartfordbusiness.com

The automated buses deployed as part of this project will always have a safety attendant behind the wheel to drive and/or take control of operations as necessary. The buses will be operated and maintained by the Hartford division of CTtransit, which is the brand name for transit services operated by private transit providers under contract with the Department. Extensive testing will take place without passengers at an off-road

test facility and on CTfastrak prior to the buses operating in service for passengers. Traffic signals along the CTfastrak fixed guideway will also be updated in order to broadcast connected vehicle to infrastructure signal phasing and timing (SPaT) data and MAP data. This broadcasted SPaT and MAP data will be integrated with the automated driving system on the buses to further enhance safety through intersections.

## 9.2 Concerns with Data Collection

Connecticut uses the Model Minimum Uniform Crash Criteria Guideline (MMUCC) developed by the National Highway Traffic Safety Administration (NHTSA) and the Governors Highway Safety Association (GHSA).

The purpose of this is to standardize data nationally, so that collected data can be compared and used for strategies to prevent crashes. There are some factors that affect traffic safety that are difficult to observe and measure:

- *Alcohol and drugs, low alcohol concentration, other drugs including prescription, illicit, and over-the-counter drugs*
- *Fatigue and distraction*
- *Communications technologies and advanced driver assistance systems*
- *Factors involving teen or novice driving*

MMUCC no longer defines how data elements should be collected (at scene/linked or derived). States are encouraged to link or derive data wherever feasible to minimize the impact on law enforcement. In January 2015, Connecticut initiated the transition to the updated electronic crash reporting system. The purpose is to help local police departments obtain public safety equipment. Improved tools, resources and technology would allow local police departments to better implement new E-Crash investigation and enforcement initiatives.<sup>1</sup>

1. CT Traffic Records Strategic Plan (CT-TRCC) July 1, 2020

# 10. Western CT Implementation, Evaluation & Updating

## 10.1 Implementation

The Western Connecticut RTSP is a supplemental document to the region's transportation plans. Collectively, the various plans will assist the region in prioritizing projects that will improve roadway safety locally. The member municipalities should be dedicated to the implementation of safety improvements and the reduction of injury and fatal crashes based on appropriate countermeasures, some of which are included in this report.

WestCOG staff, member municipalities, and CTDOT have provided their local and regional knowledge, input, and strategies to this safety plan. Development of this plan was an iterative process, with municipal and regional input included from the onset. Throughout the implementation of this plan, WestCOG staff and the Technical Advisory Group can provide guidance and be dedicated to bringing appropriate strategies to fruition.

WestCOG could consider providing oversight of this safety effort and report progress to CTDOT and the member towns periodically. Each emphasis area could be reported on as needed, to ensure progress is being made and to provide member municipalities the opportunity to evaluate the implemented strategies. It is recommended that the implementation of each strategy be documented, and the performance measures monitored to provide transparency and ensure progress. Reporting could detail current strategy activities, accomplishments, safety performance measures, and any issues that may need additional support or guidance.

## 10.2 Evaluation

The Western Connecticut RTSP evaluation process will follow the CT SHSP required adherence to the 2016 FHWA Guidance on Strategic Highway Safety Plans and the Fixing America's Surface Transportation (FAST) Act. The COG should be responsible for communicating with the member municipalities and CTDOT, and in addition, routinely evaluate safety data to determine the selected emphasis areas are still relevant. If any strategies prove ineffective or irrelevant, the region can make appropriate adjustments to their approach.

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

### ***Areas for Evaluation and Implementation:***

- Are strategies current and relevant to ongoing data trends?
- Are strategies being incorporated into local, regional, and State projects?
- Is the data showing that fatalities and serious injuries in the Western CT Region are trending downwards?

### ***Recommended Steps to be taken***

- Periodic reporting of RTSP strategies and performance measure progress.
- Coordination with CTDOT's SHSP committee and emphasis area subcommittees to collaborate on State and regional goals.
- Periodic review of goals and development of new strategies when warranted.

### 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 ensuring federal compliance<sup>1</sup>.

### 10.4 Implementation Periods Defined

For the purposes of the RTSP, short-term is understood to mean modifications that can be expected to be completed very quickly, perhaps within six months, and certainly in less than a year, if funding is available. These include relatively low-cost alternatives, such as striping and signing, and items that do not require additional study, design, or investigation (such as right of way acquisition). Mid-term recommendations may be costlier and require establishment of a funding source, or they may need some additional study or design before implementation. Nonetheless, they should not require significant lengths of time before they can be implemented. Typically, they should be completed within a window of eighteen months to two years. Long-term improvements are those that

<sup>1</sup> A Strategic Highway Safety Plan (SHSP) is a major component and requirement of the Highway Safety Improvement Program (HSIP) (23 U.S.C. § 148). It is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads.

#### **The following assistance is available through the Safety Circuit Rider Program:**

- Coordination of Road Safety Assessments (RSAs).
- Collection and analysis of traffic volume data.
- Identification of low-cost safety improvements.
- Assistance in the development of local road safety plans.
- Development of a Connecticut Toolbox of Safety Resources.
- Development of a series of roadway safety briefs.
- Delivery of local road safety training.

require substantial study and engineering and may require significant funding mechanisms and/or right-of-way acquisition. These projects generally fall into a horizon of two years or more after funding is secured.

### 10.5 Other Resources

#### **Connecticut Technology Transfer Center's Safety Circuit Rider and Traffic Signal Circuit Rider Programs**

The Connecticut Technology Transfer Center's Safety Circuit Rider Program and the Traffic Signal Circuit Rider Program are statewide programs aimed at reducing the frequency and severity of injury and fatal crashes by assisting and supporting local road safety authorities. Both programs offer safety-related information, educational programs, technical assistance, and various training opportunities at no cost to all Connecticut municipalities.

#### **The following assistance is available through the Traffic Signal Circuit Rider Program:**

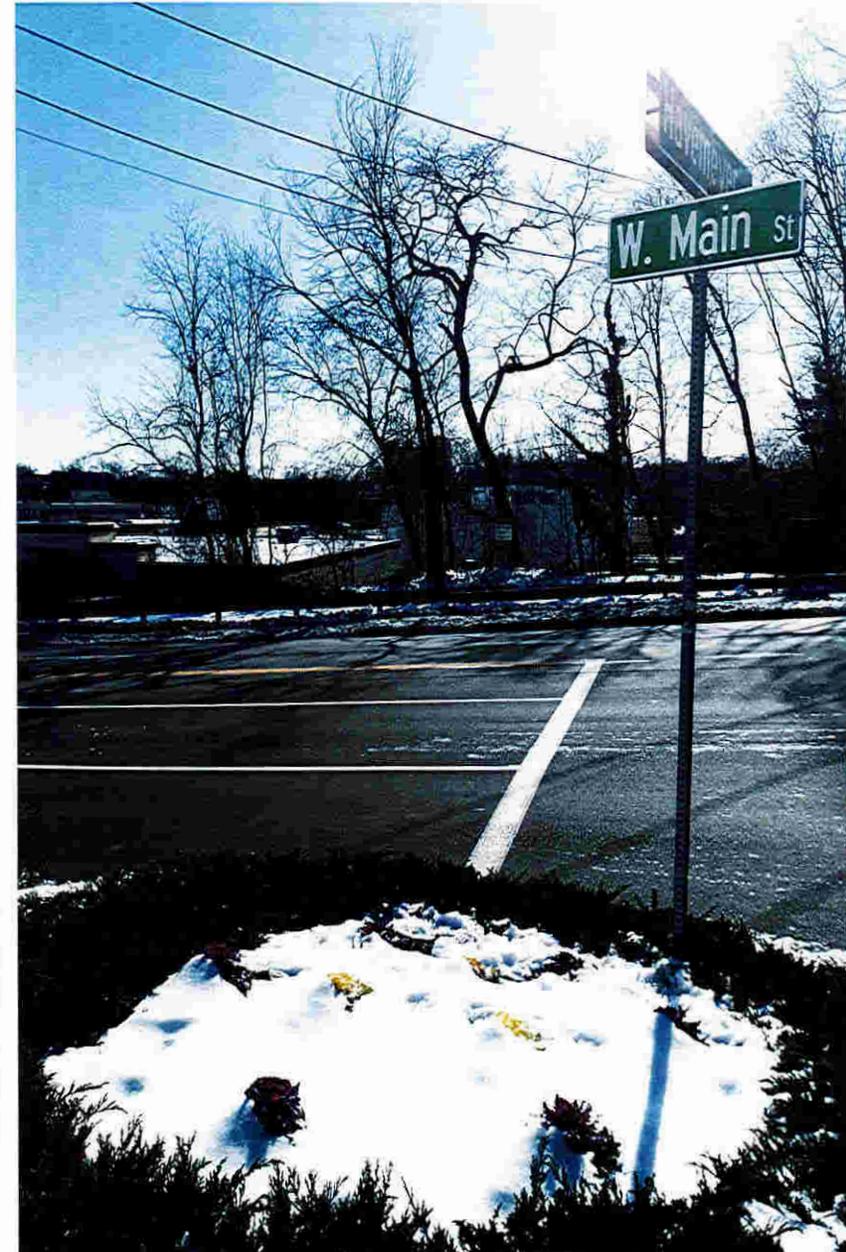
- Support for the development of management plans with clear goals and objectives for the operation, maintenance, and design of traffic signal infrastructure.
- Training on traffic signal topics relevant to local agencies through seminars, technical briefs, and site visits.
- Assistance for the development of traffic signal timing at isolated intersections and coordinated systems, including evaluating relevant performance measures.
- Promotion of opportunities for federal-aid funding for traffic signal operations and encourage the integration of traffic signal operations into metropolitan transportation plans and programs.
- Equipment Loan Program.

## Appendix A: Municipal Reports

### Introduction to the Individual Municipal Reports

The following municipal reports provide a more in-depth analysis and overview of traffic safety in each of the 18 Western Connecticut Council of Governments member municipalities.

Each municipal report includes basic demographic information, data-identified corridors and intersections, as well as bike and pedestrian crash totals. In addition to the data-identified sites, locations that exhibit safety concerns for municipal representatives were documented. From the data-identified and prioritized locations, systemic improvements and site-specific strategies were developed to minimize or prevent injury and fatal crashes in the future. These are listed in tabular format with estimated costs.



Source: VN Engineers

## TOWN OF BETHEL

**2016 US Census Population Estimate:** 19,627

**Area:** 16.9 square miles

**Population Density:** 1,161 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 126,211,160

**2016 VMT per Capita:** 6,430

**Setting<sup>1</sup>:** Urban Cluster

**Town Representatives:** Matt Knickerbocker (First Selectman), Michael Libertini (PD), Bob Dibble (DPW), Nicole Sullivan (WestCOG), Kristin Hadjstylianos (WestCOG)

**Data Identified High Crash Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 17

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 376

1. The U.S. Census Bureau defines an urban area as: "Core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile." There are two categories of urban areas. An urbanized area (UA) denotes an urban area of 50,000 or more people. An urban cluster (UC) is an urban area with fewer than 50,000 people, but more than 2,500. A rural area has less than 2,500 persons



Source: VN Engineers

### Overview

Bethel is a rural town in Fairfield County, bordered by Brookfield to the north, Newtown to the east, Redding to the south, and Danbury to the west. The core area of the Town of Bethel center has also been designated as a historic district. The Town's main thoroughfares are I-84, US-6, CT-53, CT-58, and CT-302.

### Bethel Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	1	0	1
Suspected Serious Injury (A)	4	5	6	7
Suspected Minor Injury (B)	43	40	40	39
Possible Injury (C)	40	49	56	45
<b>Total Injury Crashes</b>	<b>87</b>	<b>95</b>	<b>102</b>	<b>92</b>

## Town's Input

### Fatal Crashes from 2015-2018

- CT-302 (Greenwood Ave) near Grand Street - Distracted pedestrian fatal crash.
- CT-53 (Turkey Plain Road) south of Nashville Road - Roadway departure fatal crash.

### US-6 (Stony Hill Road)

This corridor has a high concentration of crashes. When I-84 (Yankee Expressway) experiences delays, traffic diverts to US-6 (Stony Hill Road), which results in congestion.

### US-6 (Stony Hill Road)/Sand Hill Road/Garella Road/7-Eleven Driveway

US-6 (Stony Hill Road)/Sand Hill Road/Garella Road/7-Eleven driveway is a signalized intersection with a high frequency of crashes. There is no signal detection for the 7-Eleven driveway approach, which frustrates motorists waiting for clearance. Sand Hill Road intersects US-6 (Stony Hill Road) to the west of the 7-Eleven driveway. It is under stop control and this causes driver confusion.

### US-6 (Newtown Road/Stony Hill Road)/Payne Road

This is a signalized, skewed T-intersection, with a high number of front-to-rear crashes.

### Plumtrees Road

This local roadway has a high volume of traffic and has had a series of minor injury crashes.

### CT-53 (Grassy Plain Street)/Bainbridge Boulevard

Residents have voiced concern over this unsignalized intersection because they say it is difficult to exit without signalization.

### CT-302 (Greenwood Avenue/Milwaukee Avenue/Dodgingtown Road)

This corridor has a high concentration of crashes. Many motorists on CT-302 (Greenwood Avenue/Milwaukee Avenue/Dodgingtown Road) travel

to and from Danbury and Newtown. This corridor acts as the main street in town with local businesses, shopping areas, and dining places. Speeding is a concern for the town, especially with the pedestrian traffic.

### Countermeasures Installed by Town and CTDOT

High friction surface treatment was installed on a segment of Walnut Hill Road and it has been effective to date in reducing crashes. Town representatives indicated that this specific treatment is cost prohibitive for larger applications. Other countermeasures in town are centerline rumble strips, chevron curve signs, and pedestrian crossing signs. The Town of Bethel has concerns with the overuse of signs.

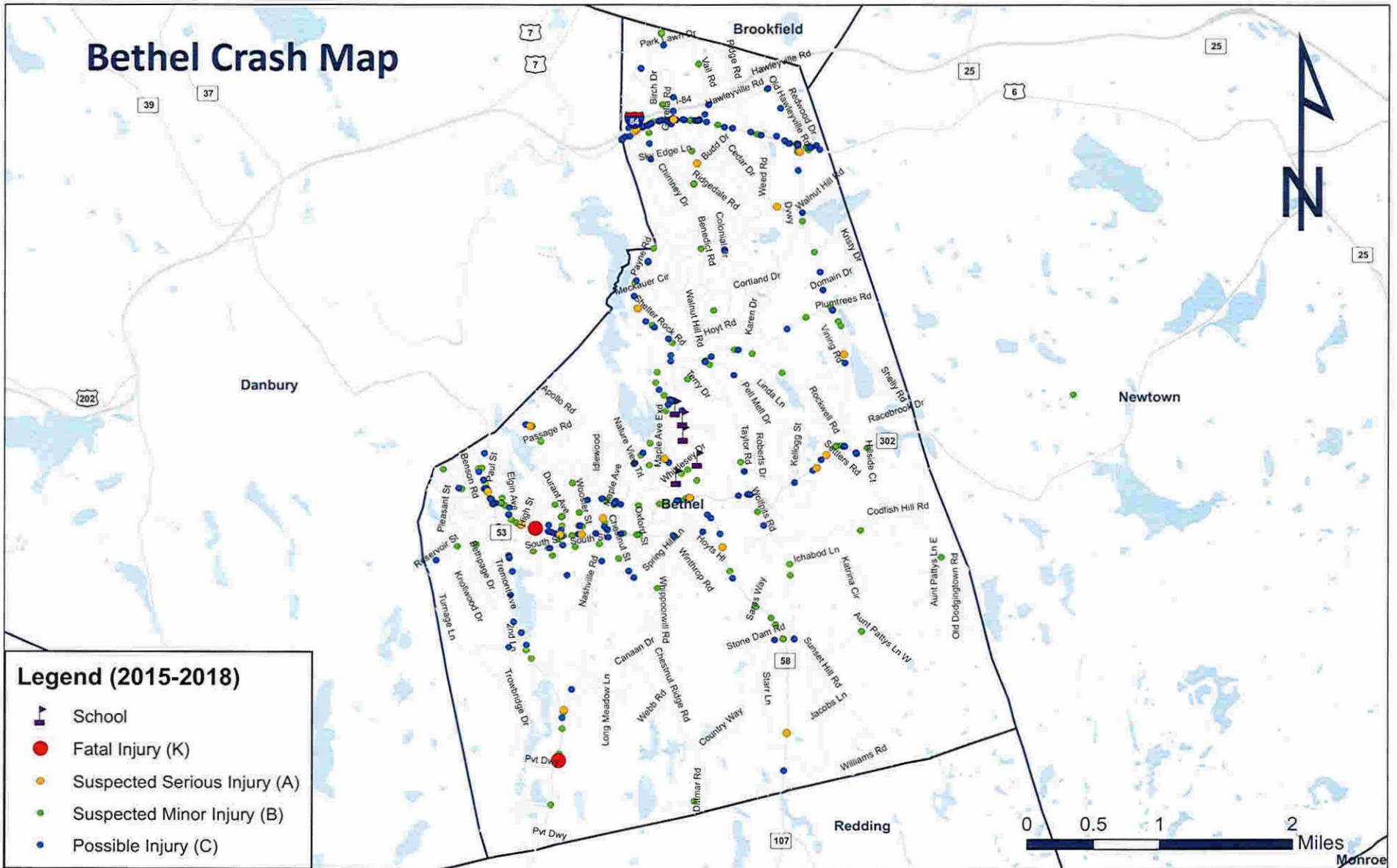
### Enforcement

The Town of Bethel uses dynamic speed feedback signs for monitoring speeding.

### Pedestrians and Bicyclists

The downtown area is an active walkable center with sidewalks and crosswalks. The Town is concerned with speed transitions for motorists traveling on CT-302 (Greenwood Avenue/Milwaukee Avenue/Dodgingtown Road), especially eastbound traffic from Danbury into the center. There is no defined gateway treatments to alert motorists that they are entering into the downtown area. Some of the pedestrian crossings are wide or not ideally placed. In front of Dolan Plaza on CT-302 (Greenwood Avenue), a bus stop is situated at the crosswalk and people waiting for the bus get confused with potential pedestrians crossing.

Many roadways are very narrow with no shoulders for cyclists. Speeding, high volumes of traffic, and narrow roads are challenges for non-motorized users in town. Share the Road signs have been installed in town.



## Field Site Inventory

### CT-302 (Greenwood Avenue) from Seeley Street to P.T. Barnum Square

P.T. Barnum Square intersects CT-302 (Greenwood Avenue) on either side of the green. This is a pedestrianized area with various retail shops and eateries. There is an advance pedestrian warning sign along the westbound approach to the square on CT-302 (Greenwood Avenue). There is vertical and horizontal curvatures east of the square, which limits sight distance.

CT-302 (Greenwood Avenue) has no edge lines, and intermittent on-street parking. Sidewalks are present on both sides of the roadway, with crosswalks at several crossings. There are tight physical constraints with the businesses abutting the sidewalk and no buffers between sidewalks and the roadway.

#### **Recommendations:**

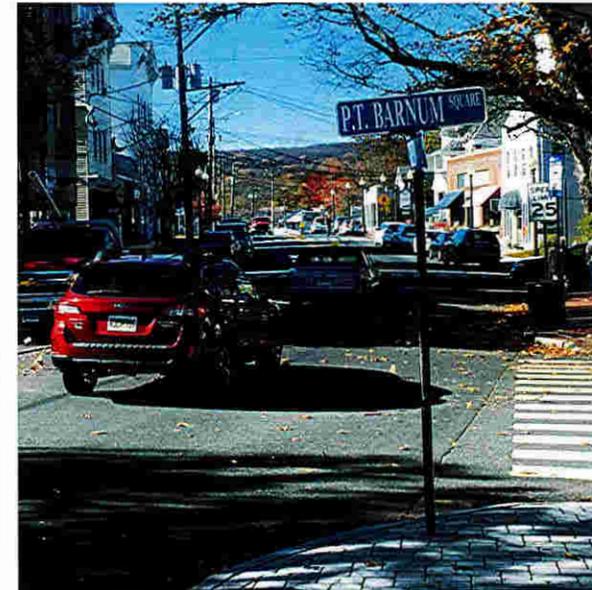
- Consider decorative lighting and flags east of the square to designated gateway site.
- Consider selecting a gateway treatment location.
- Consider installing Welcome to Bethel Downtown sign.
- Consider installing bulb-outs at P.T. Barnum Square to slow traffic and reduce pedestrian crossing time.

### CT-302 (Greenwood Avenue) from Farnam Hill to Grand Street

CT-302 (Greenwood Avenue) between Farnam Hill and Grand Street is an east-west corridor with one travel lane in each direction, on-street parking, and sidewalks on both sides of the road. This segment has a posted speed limit of 25 MPH. The surrounding land uses consist of dense residential and commercial development, which generates significant pedestrian activity and parking demand. A marked pedestrian crosswalk is located across CT-302 (Greenwood Avenue) on the eastern side of the intersection of CT-302 (Greenwood Avenue), High Street, and Blackman Avenue. The corridor experiences heavy peak period traffic volumes and high travel speeds, particularly in the eastbound direction, due to the wide roadway cross section and downhill approach to the dense commercial and active pedestrian area.

#### **Recommendations:**

- Consider bulb-outs at the intersection of CT-302 (Greenwood Avenue), High Street, and Blackman Avenue, to reduce the travel lane widths, reduce the pedestrian crossing distance at the marked crosswalk, and act as a gateway into the commercial area to the east.
- Consider dynamic speed feedback signs for the CT-302 (Greenwood Avenue) eastbound approach to the intersection.



CT-302 (Greenwood Avenue) and P.T. Barnum Square



CT-302 (Greenwood Avenue)

### Bethel Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-302 (Greenwood Ave) from Farnam HI to Grand St	Speeding	Consider dynamic speed feedback signs in CT-302 (Greenwood Ave) eastbound	Low
	Pedestrian safety	Consider bulb-outs at CT-302 (Greenwood Ave)/High St/Blackman Ave intersection	Low-Medium
CT-302 (Greenwood Ave) from Seeley Street to P.T. Barnum Square	Pedestrian Safety	Consider installing bulb-outs at P.T. Barnum Sq to slow traffic and reduce pedestrian crossing time	Low-Medium
	Speeding	Consider expanding decorative lighting and flags east of square to designated gateway site	Low
		Consider installing Welcome to Bethel signs as a gateway treatment	Low
US-6 (Newtown Rd/Stony Hill Rd)/Payne Rd	Front-to-rear crashes	Consider installing No Turn on Red prohibition	Low
		Consider installing traffic signal retroreflective backplates	Low-Medium
US-6 (Stony Hill Rd)/Sand Hill Rd/Garella Rd/7-Eleven Driveway	Intersection crashes	Consider installing signalization for 7-Eleven driveway	Low-Medium

## TOWN OF BRIDGEWATER

**2016 US Census Population Estimate:** 1,648

**Area:** 17.3 square miles

**Population Density:** 95 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 17,591,175

**2016 VMT per Capita:** 10,674

**Setting:** Rural

**Town Representatives:** Curtis Read (First Selectman), Dave Peck (PD),

Matthew Bell (Resident Trooper), Nicole Sullivan (WestCOG)

**Data Identified High Crash Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 1

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 33



Source: VN Engineers

### Overview

Bridgewater is a rural town in Litchfield County, bordered by New Milford to the north and west, the Housatonic River to the west, Roxbury, Southbury, and Shepaug River to the east, and Brookfield, Newtown and the Housatonic River to the south. It is located on the east bank of the Housatonic River. The Town's main thoroughfares are CT-67 and CT-133.

### Bridgewater Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	2	0	0
Suspected Serious Injury (A)	0	0	0	0
Suspected Minor Injury (B)	6	6	4	1
Possible Injury (C)	2	4	5	3
<b>Total Injury Crashes</b>	<b>8</b>	<b>12</b>	<b>9</b>	<b>4</b>

## Town's Input

### Fatal Crashes from 2015-2018

- CT-67 (New Milford Road West) - Substance-impaired front-to-front fatal crash.
- CT-133 (Main Street South) - Roadway departure fatal crash.

### CT-67 (New Milford Road East and West)/CT-133 (Main Street North)/2<sup>nd</sup> Hill Road

This four-way intersection with stop-control along Main Street North and 2<sup>nd</sup> Hill Road is the highest frequency crash location in the Town of Bridgewater. It has a sweeping right from CT-67 (New Milford Road East) eastbound to CT 133 (Main Street North). The Town indicated that solar glare is an issue at this intersection during the morning and afternoon. Motorists from CT-133 (Main Street North) and 2<sup>nd</sup> Hill Road entering or crossing CT-67 (New Milford Road East and West) experience solar glare, speed, and limited sight distances due to the horizontal and vertical curvature on the CT-67 (New Milford Road East and West) approaches. The existing culvert under the intersection and current topography would prevent a roundabout.

### Pedestrians and Bicyclists

The Town of Bridgewater is a destination for recreational bicyclists and it is a bike-friendly community. The Town is publishing a bike map to be placed in the town center for reference.

### Chevron Curve Signs

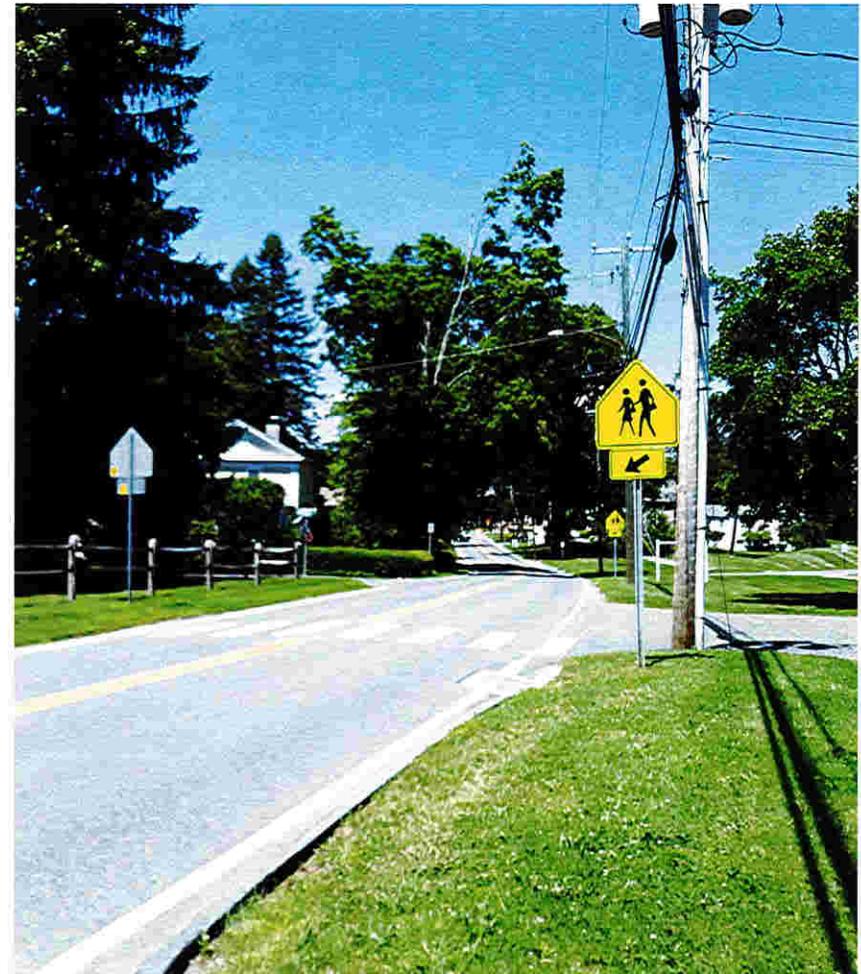
The Town representatives expressed that CT-67 (New Milford Rd East) east of Clapboard Road needs horizontal curve warning signs.

### Centerline Pavement Marking Retroreflectivity

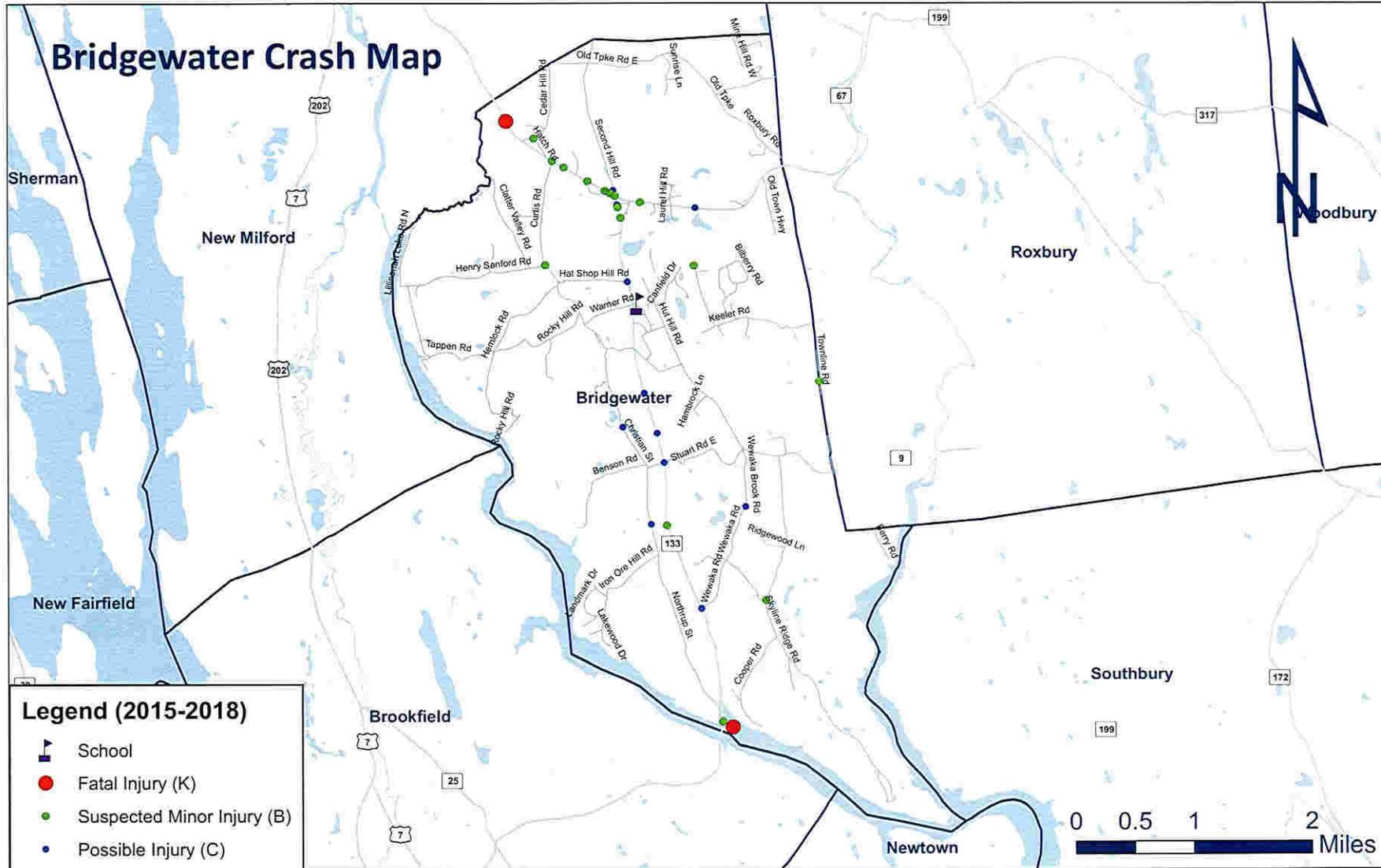
The Town is concerned about the retroreflective qualities of the pavement markings used along State roads. The town is interested in snow-plowable, recessed pavement markers to better delineate centerlines and edge lines during nighttime. The State is currently investigating this technology at various locations.

### No Through Truck Prohibition

The Town of Bridgewater has through truck prohibitions on four roadways, but limited means to enforce this ordinance. According to the Town, trucks cannot be pulled over unless their origin and destination are outside town limits. The Town indicated that it has limited resources to pursue this concern.



Source: VN Engineers



## Field Site Inventory

### CT-67 (New Milford Road East and West)/CT-133 (Main Street North)/2<sup>nd</sup> Hill Road

The intersection of CT-67 (New Milford Road East and West), CT-133 (Main Street North) and 2<sup>nd</sup> Hill Road is an unsignalized skewed intersection with a flashing warning beacon. CT-133 (Main Street North) and 2<sup>nd</sup> Hill Road are under stop control. CT-67 (New Milford Road East and West) has a posted speed limit of 45 MPH with one travel lane and established shoulders in each direction. The CT-67 (New Milford Road East and West) eastbound approach consists of a through lane and a separate channelized right-turn lane under yield control for access to CT-133 (Main Street North) southbound. The CT-133 (Main Street North) approach consists of a shared through/left-turn lane and an exclusive right-turn lane, separated by a raised median. The CT-67 (New Milford Road East and West) westbound approach is uphill, on a horizontal curve, and consists of a single lane. The 2<sup>nd</sup> Hill Road approach is on a significant downgrade and consists of a single lane. Sight distances from both side streets are obstructed by vegetation.

#### Recommendations:

- The Town could consider removing vegetation obstructing sight lines from the side streets.
- Consider reconfiguring the intersection to consolidate the CT-133 (Main Street North) approach and departure lanes, as well as addressing the skewed approach.



CT-67(Milford Road)/CT-133 (Main Street North)/2<sup>nd</sup> Hill Road



CT-67 (New Milford Road)/CT-133 (Main Street North)

### Bridgewater Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-67 (New Milford Rd E/W)/ CT-133 (Main St N)/2 <sup>nd</sup> Hill Rd	Limited sight distance	Consider regulatory vegetation management	Low
	Skewed intersection	Consider reconfiguring the intersection to consolidate the CT-133 (Main St N) approach and departure lanes, as well as addressing the skewed approach	Medium-High
CT-67 (New Milford Rd E) east of Clapboard Road	Horizontal curves	Consider installing advance horizontal curve warning and chevron signs	Low
Townwide	Centerline visibility	Consider installing snowplowable, recessed pavement markers	Low

## TOWN OF BROOKFIELD

**2016 US Census Population Estimate:** 17,098

**Area:** 20.40 square miles

**Population Density:** 838 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 160,943,830

**2016 VMT per Capita:** 9,413

**Setting:** Urban Cluster

**Town Representatives:** Stephen Dunn (First Selectman), Ralph Tedesco (DPW), Jay Purcell (PD/LTA), Nicole Sullivan (WestCOG)

**Data Identified High Crash Corridors:** CT-25 from West Whisconier Road to Fawn Ridge Road

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 17

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 437



Source: VN Engineers

### Overview

Brookfield is a rural town in Fairfield County, bordered by New Milford and Bridgewater to the north, Newtown, Bridgewater, and the Housatonic River to the east, Bethel to the south, and Danbury and New Fairfield to the west. The town's main thoroughfares are US-7, US-202, CT-25, and CT-133.

### Brookfield Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	1	1	2	1
Suspected Serious Injury (A)	7	4	8	8
Suspected Minor Injury (B)	52	62	27	42
Possible Injury (C)	52	45	72	53
<b>Total Injury Crashes</b>	<b>112</b>	<b>112</b>	<b>109</b>	<b>104</b>

## Town's Input

### Fatal Crashes from 2015-2018

- Candlewood Lake Road - Front-to-front motorcycle fatal crash and possible substance-impaired driver.
- Sandy Lane - Pedestrian fatal crash.
- CT-25 (Whisconier Rd) - Motorcycle roadway departure fatal crash.
- CT-25 (Whisconier Rd) - Pedestrian fatal crash.
- Candlewood Lake Road near Main Drive (2019) - Pedestrian fatal crash.

### CT-25 (Whisconier Road)

The segment of CT-25 (Whisconier Road) between West Whisconier Road and Fawn Ridge Drive was identified as one of the highest frequency crash locations in the Western Connecticut Region. There have been a series of roadway departure crashes along the horizontal curve through the West Whisconier Road intersection. Speeding through this section of roadway is a concern for the town. There are no advance curve warning or chevron curve signs in this segment. One utility pole and residential property have been hit several times. The State reviewed this section of roadway and found no geometry modifications were warranted. The State is adding chevron curve signs along various sections of CT-25 (Whisconier Road), but the town is not sure if this section will be included.

### CT-133 (Obtuse Hill Road)/Obtuse Road North and South

CT-133 (Obtuse Hill Road) is a high-frequency crash intersection with speeding issues. CT-133 (Obtuse Hill Road) and Obtuse Road North and South form a four-way intersection with the side streets under stop control. Oversized stop signs with supplementary stop signs are in place. These oversized signs have improved the safety of the intersection, but the limited sight distance and speeds along CT-133 (Obtuse Hill Road) are still concerns for the Town. In addition, there is a redundant utility pole on the southeast corner that blocks motorists sight lines from Obtuse Road South.

### US-202 (Federal Road)

US-202 (Federal Road), between CT-133 (Junction Road) and Grays Bridge Road, is a high-frequency crash corridor in the Town of Brookfield. This corridor has significant commercial and residential development and a high volumes of traffic. The State is redesigning three signalized intersections within this corridor to improve operations.

### US-202 (Federal Road/White Turkey Road Extension) and Candlewood Lake Road

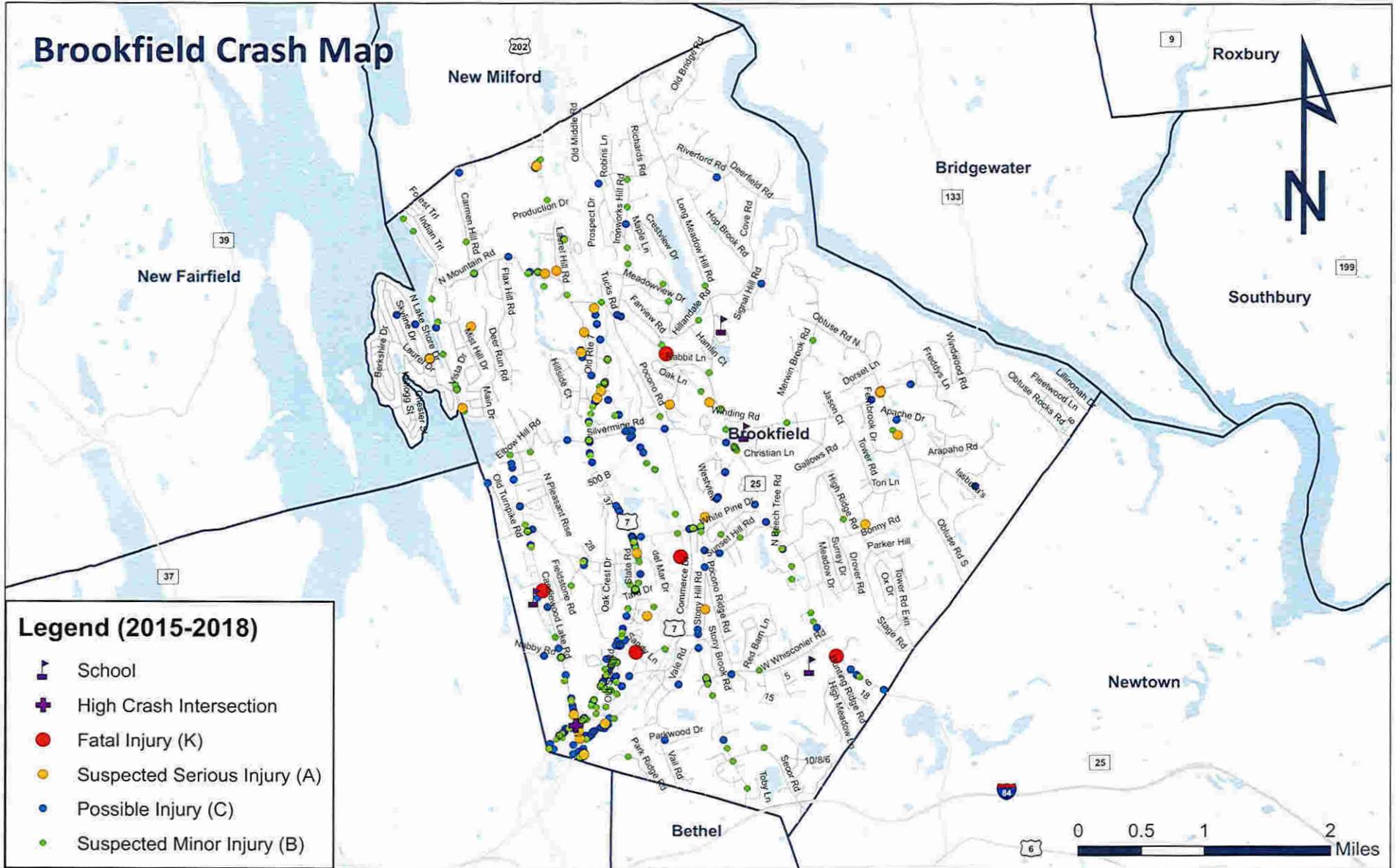
This intersection is a high-frequency crash location. The southbound alignment and lane designation of US-202 (Federal Road) requires motorists to shift to stay in their lanes, sometimes resulting in angle and sideswipe crashes. The Town representatives expressed that this location is not part of the previously mentioned project on US-202 (Federal Road/White Turkey Road Extension).

### Candlewood Lake Road

There were several injury and fatal crashes along this roadway and many of them were attributed to poor lighting. Roadway illumination was installed through several curve locations and Town representatives stated this has mitigated the frequency of crashes. Midblock pedestrian crossing and pavement markings will be installed on Candlewood Lake Road to improve the overall pedestrian environment.

### Centerline Rumble Strips and Chevron Curve Signs

The Town decided to not accept the State's proposal to install centerline rumble strips along Candlewood Lake Road due to the residential land use adjacent to the roadway. However, the Town did request that the State install chevron curve signs on CT-133 (Obtuse Hill Road).



## Field Site Inventory

### CT-25 (Whisconier Road) from West Whisconier Road to Fawn Ridge Road

This corridor, between West Whisconier Road and Fawn Ridge Drive, has a two-lane cross section with edgelines, narrow shoulder, and motorists traveling at high speeds. The pavement in this segment of CT-25 (Whisconier Road) is in good condition. Horizontal and vertical curvature are present and there are advance horizontal curve sign with advisory speed limits of 30 MPH. The residents on the western side have installed a post and chain railing and wooden fencing along the curve just north and south of West Whisconier Road. This serves as a protection system in case of roadway departures. There are no chevron curve signs along this horizontal curve.

#### Recommendations:

- Consider installing high friction surface treatment along the curve.
- Consider widening edge lines.
- Consider installing chevron curve signs through this section.
- Consider adding a flashing beacon to the advanced curve sign with advisory speed.

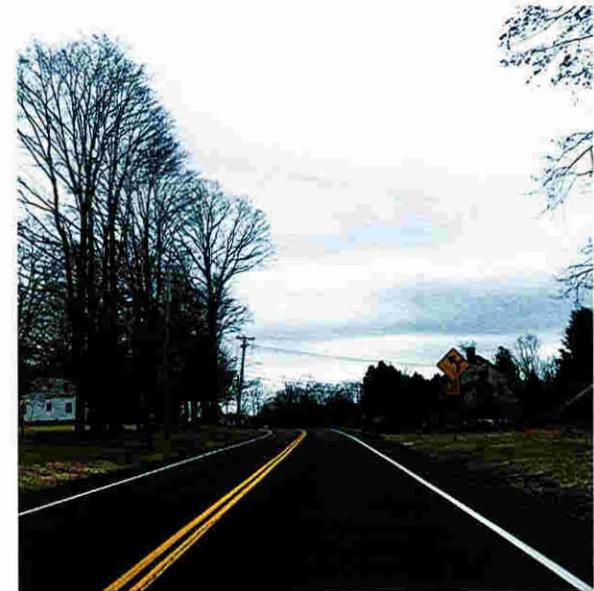
### US-202 (Federal Road/White Turkey Road Extension)/Candlewood Lake Road

The intersection of US-202 (Federal Road/White Turkey Road Extension) and Candle-

wood Lake Road is a signalized intersection with significant surrounding commercial development. The US-202 (White Turkey Road Extension) northbound approach consists of an exclusive left lane, two through lanes and two exclusive right-turn lanes. The Candlewood Lake Road southbound approach consists of an exclusive left-turn lane, a through lane and a shared through/right-turn lane. The US-202 (Federal Road) westbound approach consists of two exclusive left-turn lanes, a through lane and a shared through/right-turn lane. The Federal Road eastbound approach consists of an exclusive left-turn lane, two through lanes and an exclusive right-turn lane. The intersection experiences heavy peak period traffic and can be significantly congested. There are no sidewalks or pedestrian crosswalks at the intersection. The town identified the two westbound exclusive left-turn lanes as being problematic and contributing to sideswipe crashes for this movement.

#### Recommendations:

- Consider assessing the US-202 (Federal Road) westbound approach lane geometry to determine if the departure lane widths and accepting lane widths are adequate.
- Consider repainting the dotted lines through the dual left-turn lanes.



CT-25 (Whisconier Road)



CT-202 (White Turkey Road Extension)

### Brookfield Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-25 (Whisconier Road) from West Whisconier Road to Fawn Ridge Road	Roadway departures	Consider widening edge lines	Low
		Consider adding high friction surface treatment along the curve	Low
	Horizontal curvature	Consider adding chevron curve signs through this section	Low
		Consider adding flashing beacons to the advance curve sign with supplementary advisory speed plaque	Low
US-202 (Federal Rd/White Turkey Rd Ext)/Candlewood Lake Rd	Intersection geometry	Consider assessing the US-202 (Federal Rd) westbound approach lane geometry to determine if the departure lane widths and accepting lane widths are adequate	Low-Medium
	Sideswipe crashes	Consider repainting the dotted lines through the dual left-turn lanes	Low
CT-133 (Obtuse Hill Rd)/Obtuse Rds North and South	Speeding	Consider enhancing regular speed enforcement	Low-Medium
		Consider installing dynamic speed feedback signs	Low
	Utility pole blocks sight lines	Consider removing redundant utility pole	Low

## CITY OF DANBURY

**2016 US Census Population Estimate:** 84,992

**Area:** 44.30 square miles

**Population Density:** 1,919 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 660,252,515

**2016 VMT per Capita:** 7,768

**Setting:** Urban Area

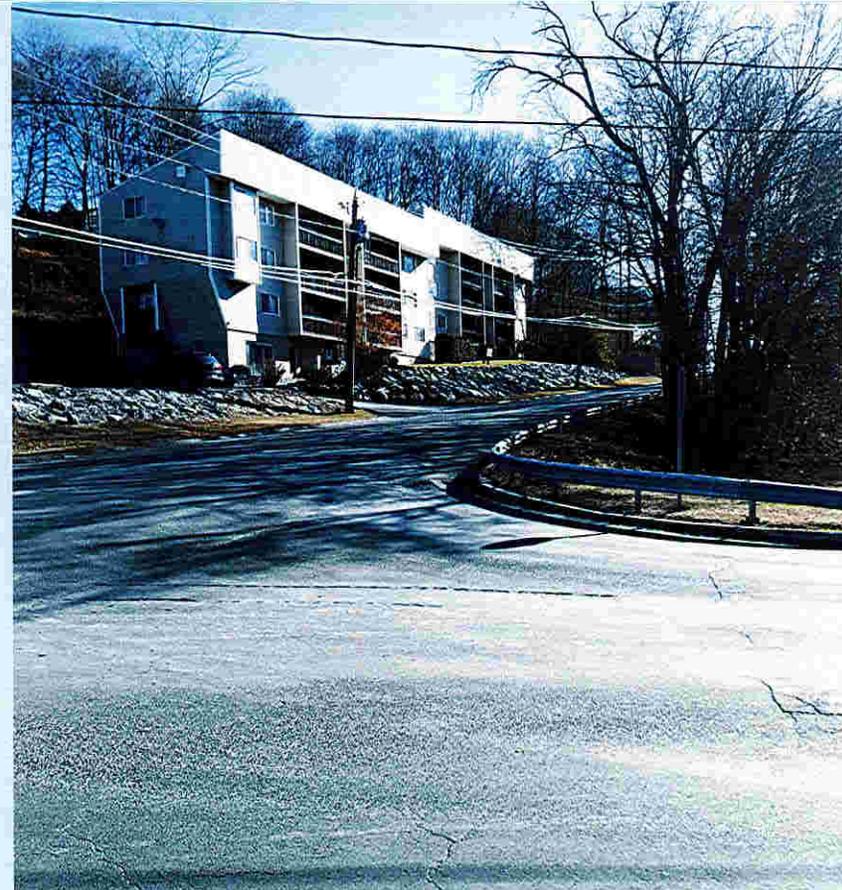
**City Representatives:** Tom Altermatt (City Engineer), Frank Sequenzia (City Engineer), Kristin Hadjstylianos (WestCOG)

**Data Identified High Crash Corridors:** CT-37 (Padanaram Road) (From CT-37 (Pembroke Road) to I-84 ramps); US-6/US-202 (Lake Avenue Extension/Mill Plain Road) (From Segar Street to Driftway Road); White Street (From Beaver Brook Road to CT-53 (Main Street))

**Data Identified High Crash Intersections:** US-6/US-202 (Lake Extension)/Lake avenue and Segar Street/I-84 on-and off-ramps; White Street and CT-53 (Main Street); White Street and Balmforth Avenue/Patriot Drive; Garamella Boulevard/Franklin Street and CT-53 (Main Street); Garamella Boulevard/Osborne Street and Balmforth Avenue; White Street and Wildman Street/Locust Avenue; CT-39/CT-53 (Main Street) and CT-37 (North Street)/Downs Street; CT-39 (Main Street) and Hillside Avenue; CT-39 (Main Street) and Golden Hill Road

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 172

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 2,646



Source: VN Engineers

### Overview

Danbury is a city in Fairfield County, bordered by New Fairfield to the north, Brookfield and Bethel to the east, Ridgefield and Redding to the south, and the New York state line to the west. The City's main thoroughfares are I-84, US-6, US-7, US-202, CT-37, CT-39, and CT-53.

### Danbury Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	6	5	5	6
Suspected Serious Injury (A)	24	29	26	26
Suspected Minor Injury (B)	227	253	219	216
Possible Injury (C)	418	401	397	388
<b>Total Injury Crashes</b>	<b>675</b>	<b>688</b>	<b>647</b>	<b>636</b>

## City's Input

### White Street

White Street bisects the Western Connecticut State University (WCSU) campus and has had various pedestrian safety challenges and several pedestrian crashes. In an effort to improve pedestrian safety, there is a pedestrian bridge to link the two sides of the campus but it is not always used. There are rectangular rapid flashing beacons (RRFBs) at the mid-block crossings.

#### White Street from Beaver Brook Road to CT-53 (Main Street)

The WCSU Police Department in collaboration with the Office of Students' Administration are effectively engaged in educating students on relative campus safety including utilization of the pedestrian amenities that are provided along White Street in front of the University. As a result of the effort, improvements in students' attitude relative to pedestrian safety have been observed. It is expected this shall translate to improvements of pedestrian safety along the corridor.

As part of the State funded LOTCIP program, the City of Danbury is currently engaged in engineering design of the portion of White Street between Eighth Avenue and Meadow Street intersections. Roadway capacity and safety issues shall be fully addressed.

In order to address capacity and safety issues along the easterly portion of White Street between Meadow Street and Beaver Brook intersections and beyond, the City of Danbury has recently submitted a grant application to WestCOG for a corridor study. This shall facilitate an in depth evaluation of corridor needs as well as the development of conceptual improvement plans.

#### White Street/Locust Avenue/Wildman Street

This four-way signalized intersection is located near the hospital. The City is widening and redesigning this intersection to address capacity issues. They are also adding bicycle accommodations using LOTCIP funding.

#### CT-37 (Pembroke/Padanaram Road/North Street) southerly to I-84 ramps

Improvements to the portion of North Street (State Route 37) between

the I-84 Expressway and the entrance to North Street Shopping Center has recently been completed. Roadway and capacity issues have been fully addressed.

#### CT-37 (Padanaram Road)

This corridor has a history of crashes including two recent fatal crashes. It is a major corridor for motorists to and from the north, connecting to I-84 (Yankee Expressway). However, there is no direct access to I-84 (Yankee Expressway) westbound from the CT-37 (Padanaram Road) corridor. WestCOG is conducting a corridor study along CT-37 (Padanaram Road/Pembroke Road) north into the Town of New Fairfield to address safety and congestion. Upon its completion, the City of Danbury, through WestCOG plans to request the State DOT to address roadway capacity as well as safety issues that have been identified in the 2020 Western CT RTSP.

#### Golden Hill Road

Motorists use Golden Hill Road as a cut through to avoid CT-37 (Padanaram Road). This corridor is located near Danbury High School.

#### CT-37 (North Street) and CT-39 (Main Street)/CT-53 (Main Street) and Downs Street

This four-way signalized intersection has a high frequency of crashes and high volumes of traffic generated by I-84 (Yankee Expressway), which will be addressed with the current CTDOT I-84 (Yankee Expressway) study.

#### Danbury State Route 202/ US 6: (Lake Avenue Extension/Mill Plain Road) between Segar Street and Joes' Hill Road intersections

The City of Danbury in conjunction with the Housatonic Valley Council of Elected Officials (HVCEO) had the CTDOT develop engineering plans for the improvement of safety and capacity issues along the corridor. However, due to lack of financial resources, the project was put on hold. Subject to availability of funds, in the near future the City intends to request efforts to address roadway safety and capacity conditions along the US 6/ State Route 2020 corridor be resumed.

### **CT-53 (South Street)/Coalpit Hill Road**

City representatives expressed that CTDOT has a project to realign this intersection and to improve drainage.

### **Coalpit Hill Road**

This corridor between Rocky Glen Road and Overlook Road is one of the top regional high frequency crash locations. It has various issues that contribute to crashes such as inadequate stopping sight distance, the severely skewed side street intersection of Coalpit Hill Road at Rocky Glen Road, horizontal curvature, and behavior factors.

### **Franklin Street**

This corridor between Raymond Place and Fairview Avenue is one of the top regional high frequency crash location. The City removed on-street parking in this corridor due to sight distance issues.

### **Shelter Rock Road**

This corridor from Skyline Drive to Crows Nest Lane is one of the top regional high frequency crash locations. It has horizontal curvature and stopping sight distance issues that contribute to crashes. The City revised the signal timings and added crosswalks at the intersection of Shelter Rock Road and Crows Nest Lane. The intersection is located adjacent to Shelter Rock Elementary School.

### **West Street/Deer Hill Avenue/New Street**

West Street is a major corridor providing access to I-84 (Yankee Expressway). This intersection has been problematic for pedestrians so in response the City will be adding a leading pedestrian interval.

### **CT-53/CT-59(Main Street)**

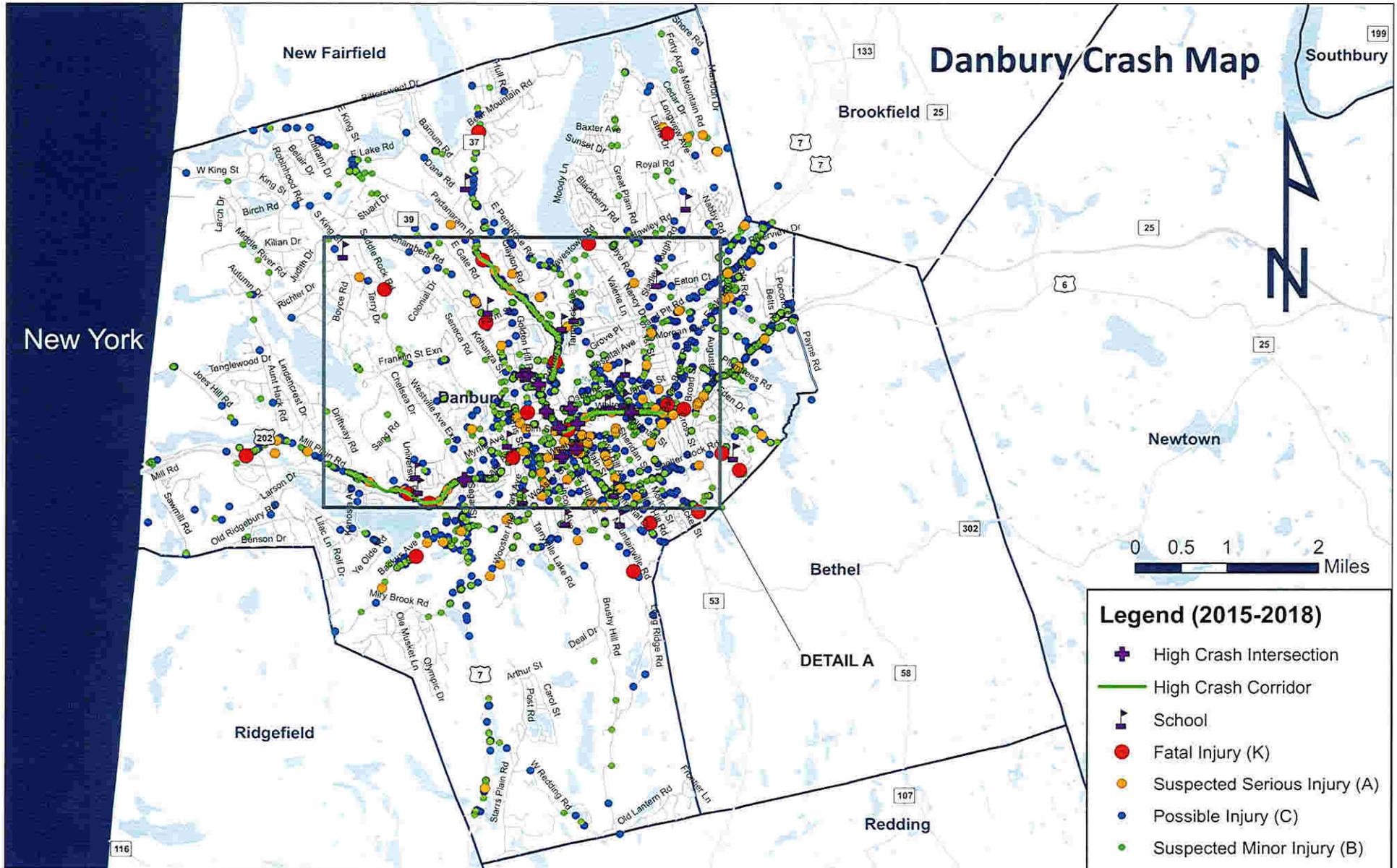
The City expressed that streetscaping with bulb-outs and pedestrian improvements have been installed along CT-53/CT-59 (Main Street). More recently, RRFBs and additional pedestrian improvements have been added.

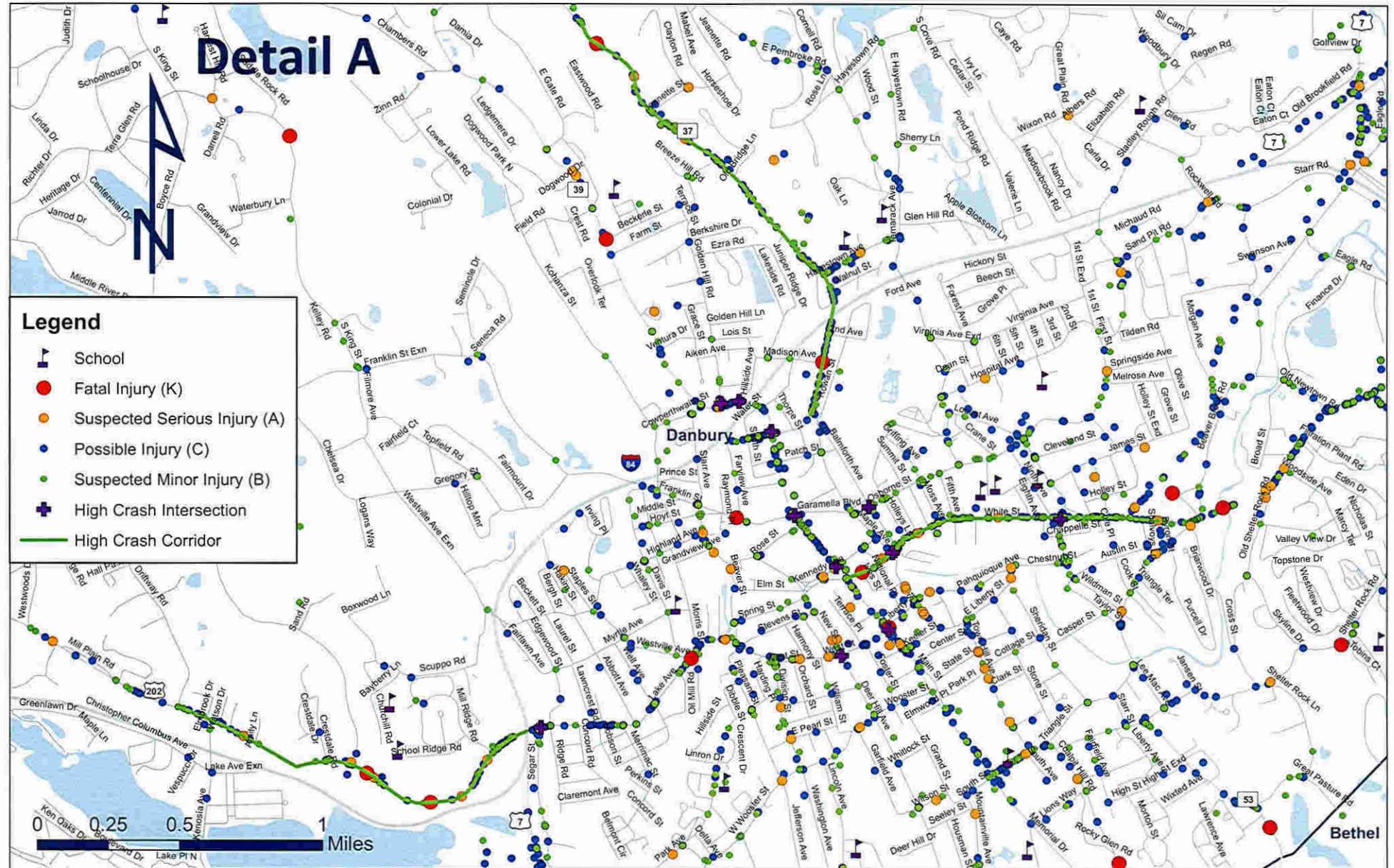
### **Rectangular Rapid Flashing Beacons (RRFBs)**

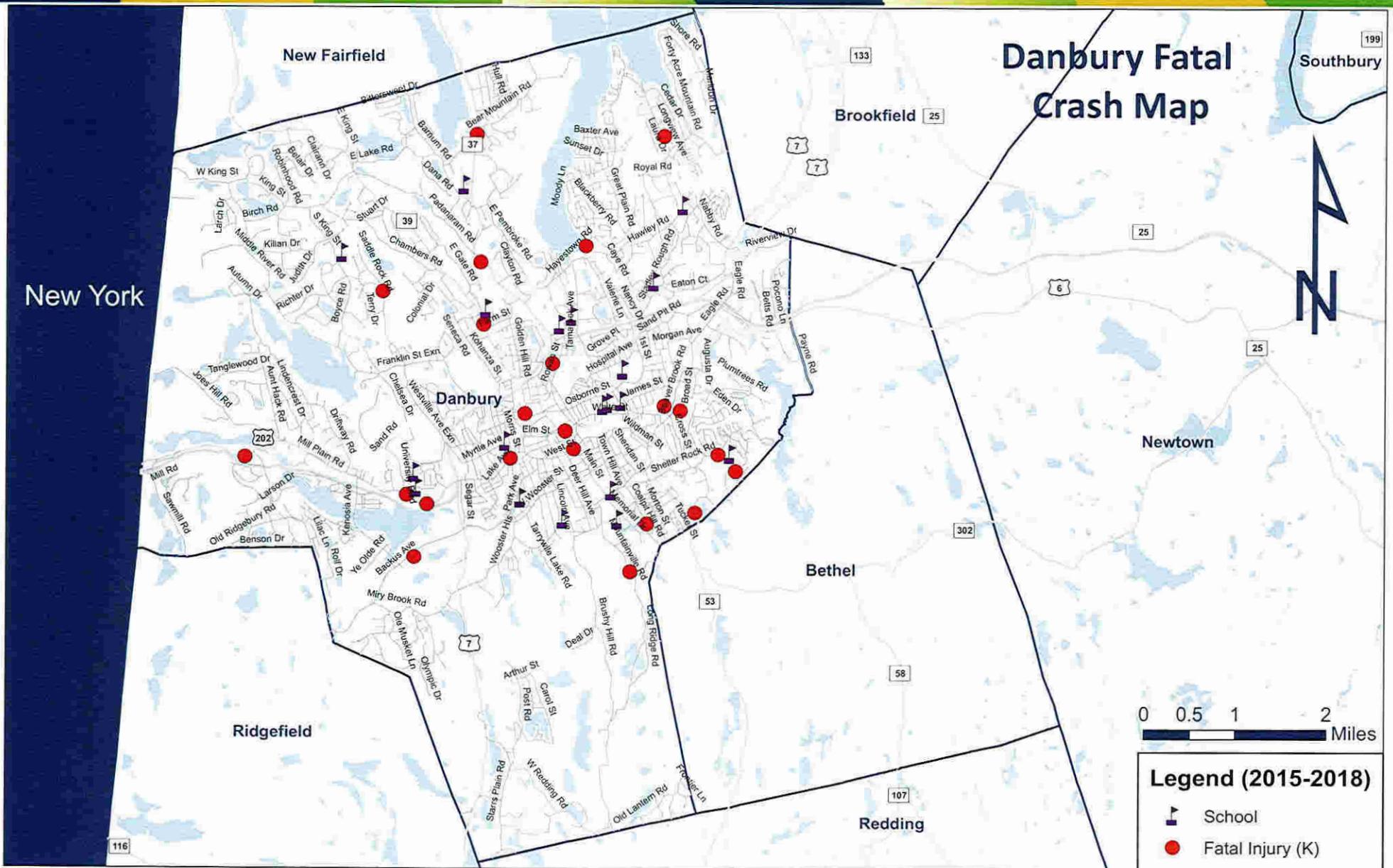
The City has installed a number of RRFBs and has found them to be effective, as pedestrians and motorists continue to learn how they operate.



Source: VN Engineers







## Field Site Inventory

### Franklin Street from Raymond Place to Fairview Avenue

This section of Franklin Street corridor is located in a residential neighborhood and consists of a wide two-lane cross section with no edge lines. There is parallel parking on the south side of the roadway. Sidewalks are on both sides of the road and the speed limit is posted at 25 MPH. The main issues are speeding, possibly due to the wide lane widths.

#### **Recommendations:**

- Consider installing edge lines to narrow travel lanes to reduce speeding.
- Consider providing regular speed enforcement to maintain travel speeds close to the posted speed limit.
- Consider traffic calming measures, such as speed tables.

### Coalpit Hill Road from Overlook Road to Rocky Glen Road

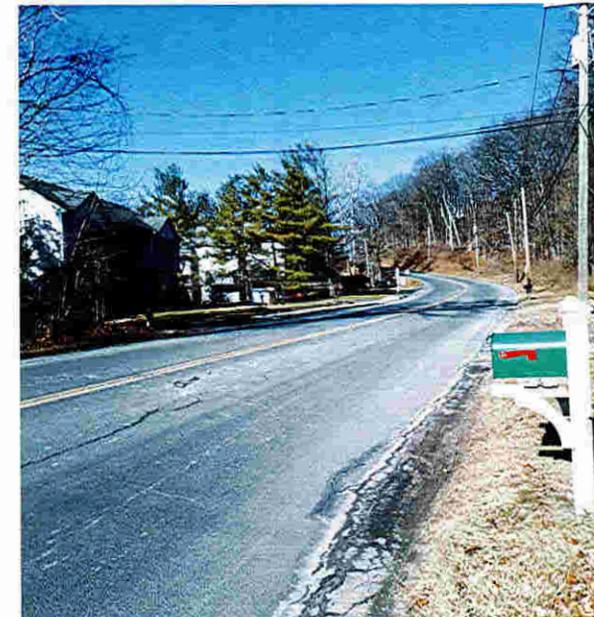
Coalpit Hill Road from Overlook Road to Rocky Glen Road consists of one travel lane in each direction, no shoulders, and adjacent residential land uses. The posted speed limit is 25 MPH, but travel speeds higher than posted was observed during the field visit. There are no edge lines in this segment and double yellow center lines are present. Rocky Glen Road intersects Coalpit Hill Road on a severe skew, a horizontal curve, and at a slope with the higher downgrade along Coalpit Hill Road, that causes limited sight distance at the Rocky Glen Road approach. Rocky Glen Road is under stop control.

#### **Recommendations:**

- Consider installing edge lines to narrow travel lanes and to enhance horizontal curves.
- Consider restriping stop line at Rocky Glen Road approach.
- Consider installing curve warning signs at Coalpit Hill Road.
- Consider providing regular speed enforcement to maintain travel speeds close to the posted speed limit.



Franklin Street



Coalpit Hill Road

## Field Site Inventory

### Shelter Rock Road from Skyline Drive to Fleetwood Drive/Crows Nest Lane

The segment of Shelter Rock Road between Skyline Drive and Fleetwood Drive/Crows Nest Lane is a two-lane roadway with significant vertical and horizontal curvature. Some wooden post and cable guide rails along the south side of the curve. There are chevron curve signs along the north side, just west of Skyline Drive. The posted speed limit is 25 MPH. There are no edge lines.

Shelter Rock Road and Fleetwood Drive/Crows Nest Lane form a four-way signalized intersection adjacent to Shelter Rock Elementary School. There are marked crosswalks and pedestrian push buttons. A School Zone sign is posted along the Shelter Rock Road approach.

Shelter Rock Road and Skyline Drive is a skewed intersection within a vertical and reverse horizontal curve, with stop control on Skyline Drive. Due to the curvature, sight distance is very limited along both approaches.

#### Recommendations:

- Consider adding chevron curve signs.
- Consider adding edge lines to better demarcate lanes.
- Consider adding high friction surface treatment along Skyline Drive and Shelter Rock Road, along the vertical curvature.

- Consider adding MUTCD-compliant advance School Zone signs.

### CT-37 (Pembroke Road) from Hamilton Drive to Bear Mountain Road

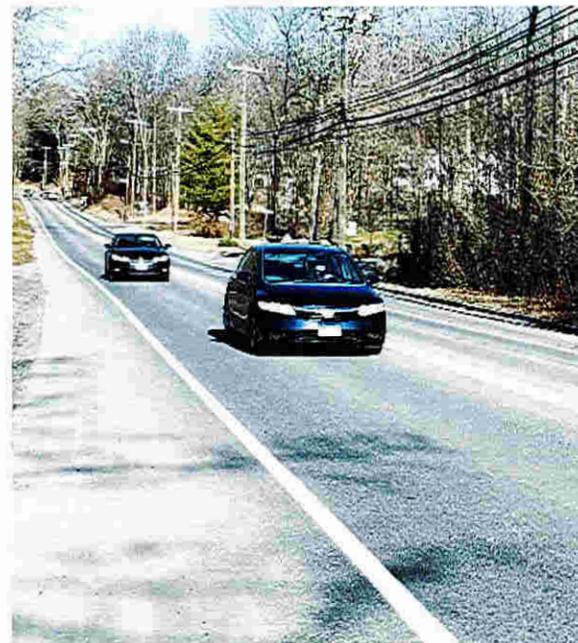
CT-37 (Pembroke Road), in the vicinity of Hamilton Drive and Bear Mountain Road, is a north-south rural, residential roadway, with one travel lane in each direction and a posted speed limit of 35 MPH. Sight distances appear to be adequate along this section of roadway. CT-37 (Pembroke Road) has a horizontal curve through its intersection with Bear Mountain Road and Intersection Ahead warning signs are present on both approaches to the curve. In addition, centerline rumble strips have recently been added along this section of roadway.

#### Recommendation:

- Consider assessing the horizontal curve for the potential installation of chevron curve signs.



Shelter Rock Road/Skyline Drive



CT-37 (Pembroke Road)

## Field Site Inventory

### Stadley Rough Road from Ervie Drive to Forty Acre Mountain Road

Stadley Rough Road between Ervie Drive and Forty Acre Mountain Road is a rural north-south residential road with a 10-foot travel lane in each direction, no shoulders, a posted speed limit of 25 MPH, and some vegetative overgrowth. There is a slight downgrade in the southbound direction from Ervie Drive. Stadley Rough Road has a horizontal curve through its intersection with Forty Acre Mountain Road, with two chevron curve signs present.

#### **Recommendations:**

- Consider assessing the placement and number of chevron signs throughout the horizontal curve.
- Continue periodic maintenance to address vegetative overgrowth that may constrain sight distances at the roadway cross section.



Stadley Rough Road



Stadley Rough Road

### Danbury Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
Franklin St from Raymond Pl to Fairview Ave	Speeding	Consider adding edge lines to narrow travel lanes to reduce speeding	Low
		Consider providing regular speed enforcement	Low
		Consider traffic calming measures, such as speed tables.	Low-Medium
Stadley Rough Road from Ervie Drive to Forty Acre Mountain Road	Horizontal curves	Consider enhancing delineation through curves	Low
Coalpit Hill Rd from Rocky Glen Rd and Overlook Rd	Limited sight distance	Consider restriping stop line at Rocky Glen Rd approach	Low
		Consider adding curve warning signs at Coalpit Hill Rd	Low
	Speeding	Consider adding edge lines to narrow travel lanes	Low
		Consider providing regular speed enforcement	Low
Shelter Rock Rd from Skyline Dr to Fleetwood Dr/Crows Nest Ln	Limited sight distance/horizontal curve	Consider adding chevron curve signs	Low
	Lack of edge lines	Consider adding edge lines	Low
	Horizontal and vertical curvature	Consider adding high friction surface treatment	Medium
	School Zone	Consider updating to MUTCD-compliant School Zone signage	Low
CT-37 (Pembroke Rd) from Hamilton Dr to Bear Mountain Rd	Horizontal curve	Consider assessing the horizontal curve for the potential installation of chevron curve signs	Low

## TOWN OF DARIEN

**2016 US Census Population Estimate:** 21,744

**Area:** 23.40 square miles

**Population Density:** 929 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 293,193,185

**2016 VMT per Capita:** 13,484

**Setting:** Urban Cluster

**Town Representatives:** Jayme Stevenson (First Selectman), Bob Shreders (PD), Jeremy Ginsberg (Town Planning and Zoning), Edward L. Gentile (DPW), Nicole Sullivan (WestCOG), Kristin Hadjstylianos (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 43

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 372



Source: WestCOG

### Overview

Darien is a Town in Fairfield County, bordered by New Canaan to the north, Norwalk to the east, Stamford to the west, and Long Island Sound to the south. The Town's main thoroughfares are I-95, US-1, CT-106, CT-124, and CT-136.

### Darien Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	0	0	0
Suspected Serious Injury (A)	6	6	7	1
Suspected Minor Injury (B)	34	42	40	35
Possible Injury (C)	56	40	49	56
<b>Total Injury Crashes</b>	<b>96</b>	<b>88</b>	<b>96</b>	<b>92</b>

## Town's Input

### Fatal Crashes from 2015-2018

There were no fatal crashes in the Town of Darien during the study period, except on limited-access highways. One contributing factor to the low number of fatal crashes has been the decrease in substance-impaired driving, due to the popularity of Uber. In addition, the town has a Safe Rides Program for residents, which has decreased substance-impaired driving.

### Non-motorized Users and TOD (Transit-Oriented Development)

Town stakeholders discussed the perception that Darien is not a safe place for pedestrians and bicyclists, due its narrow roadways with no shoulders. The Town of Darien is an active community with a high percentage of young people and the residents would like a more walkable and bikeable community. The Town had a Pedestrian Infrastructure Advisory Committee, that wants more sidewalks and connectivity to the Town's pedestrian traffic generators. WestCOG is conducting a regional bike plan, which will help outline the best bicycle routes in the Town of Darien.

The Town is growing and there are three TOD projects in development, where two of them are near the Noroton Heights Metro-North Train Station and one is near the Darien Metro-North Train Station. These three projects are expected to further increase the population of the town. In addition to the growing population, another concern is that at the Darien Metro-North Station on West Avenue where there is a daily influx of commuters and pedestrians, the current pedestrian crossing amenities need to be improved. WestCOG representatives expressed that they were conducting an access study around the Noroton Heights Station as well.

### US-1 (Post Road)/Ledge Road

This is a signalized four-way skewed intersection. There is a Whole Foods Market located on Ledge Road near the intersection. The westbound approach to the intersection is the I-95 (Connecticut Turnpike) Exit 11 off-ramp. The pedestrian crossing across Ledge Road is wide and there are no pedestrian signals. The Town representatives indicated that they would like some pedestrian enhancements at this location.

### West Avenue/Hollow Tree Ridge Road

There are two TOD projects adjacent to this intersection. Hollow Tree Ridge Road has a downgrade from north to south and a high concentration of crashes. Middlesex Middle School is located on Hollow Tree Ridge Road just north of this intersection.

### LOTICIP-funded Improvements

The Town of Darien has LOTICIP funding for two upgraded signals, related to road widening and pedestrian improvements at Noroton Avenue and West Avenue.

### CT-136 (Tokeneke Road)

This corridor is a common bike route and the State is repaving and installing center line rumble strips.

### CT-106 (Middlesex Road/Hoyt Street)/Christie Hill Road

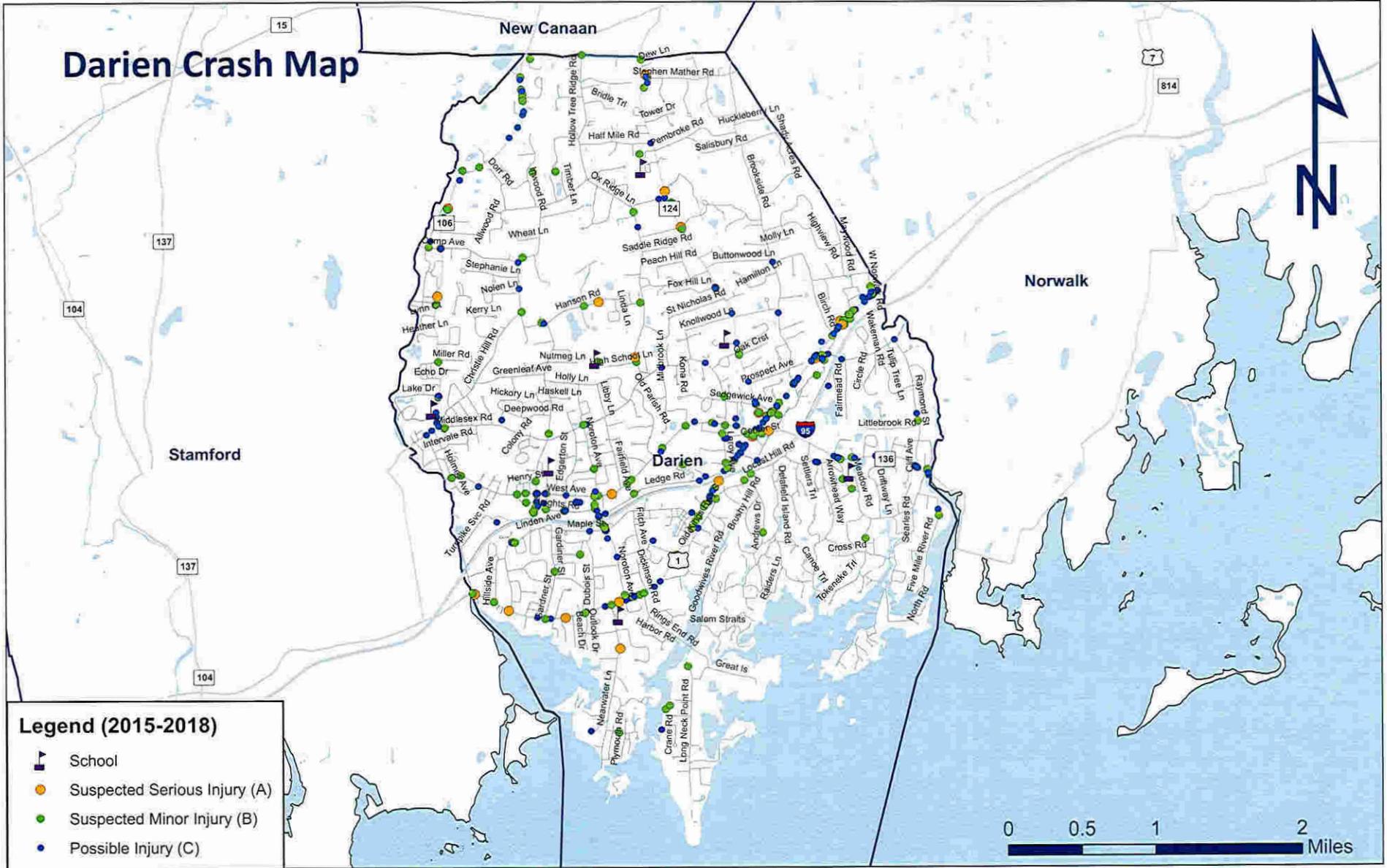
This wide, offset four-way intersection is located in the vicinity of several schools. It has stop control at all approaches and high commuter traffic volumes. Town representatives expressed that this intersection could be a possible roundabout location.

### US-1 (Post Road)

A section of US-1 (Post Road) near the I-95 (Connecticut Turnpike) overpass needs additional pavement markings.

### Lack of School Zones

The Town of Darien has five local schools all situated on State roadways. These schools are not located in designated school zones, with appropriate pavement markings, signage, and reduction in speed limits.



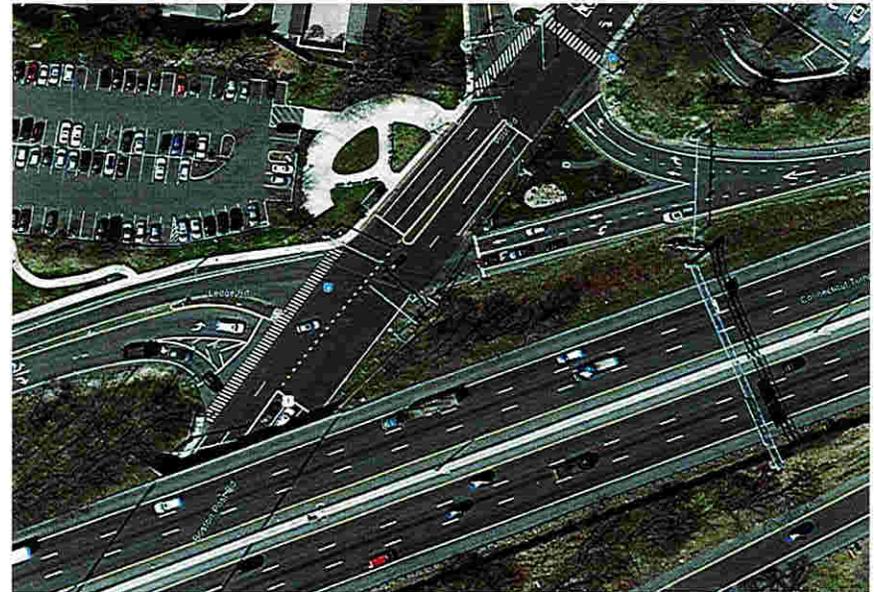
## Field Site Inventory

### US-1 (Post Road), Ledge Road, and I-95 (Connecticut Turnpike) Exit 11 Southbound Off-Ramp

The intersection of US-1 (Post Road), Ledge Road, and the I-95 (Connecticut Turnpike) Exit 11 southbound off-ramp is a significantly skewed, signalized intersection, that is heavily congested during peak periods. The US-1 (Post Road) southbound approach consists of a through lane and a shared through/right-turn lane, with the northbound approach consisting of an exclusive left-turn lane and two through lanes. The Ledge Road eastbound approach consists of exclusive left- and right-turn lanes, separated by a painted median. The I-95 (Connecticut Turnpike) off-ramp is split into two separate approaches by a large, raised median. One approach consists of an exclusive left-turn lane and through lane, providing access to US-1 (Post Road) southbound and Ledge Road. The other approach consists of a through lane, providing access to Leroy Avenue, and exclusive right-turn lane, providing access to US-1 (Post Road) northbound. The surrounding land uses are generally commercial, with sidewalks along the western side of US-1 (Post Road) and northern side of Ledge Road. An extremely long pedestrian crosswalk (approximately 140 ft), with a pedestrian refuge island, is located across the Ledge Road approach. There are no pedestrian push buttons at the intersection.

#### Recommendations:

- Consider adding pedestrian activation for the existing crosswalk, if there is an existing pedestrian recall phase that is impacting the overall intersection operations.
- Consider reviewing the intersection geometry to reduce the length of the pedestrian crosswalk.
- Consider assessing the feasibility of relocating the sidewalk along the western side of US-1 (Post Road) between Ledge Road and the I-95 (Connecticut Turnpike) Exit 11 northbound off-ramp to the eastern side of US-1 (Post Road), coupled with extending the relocated sidewalk across the Exit 11 southbound off-ramp to remove the extremely long crosswalk.



US-1 (Post Road)/Ledge Road/I-95 (Connecticut Turnpike) Exit 11 Southbound



US-1 (Post Road)/Ledge Road/I-95 (Connecticut Turnpike) Exit 11 Southbound

**Darien Countermeasure Considerations**

Locations	Issues	Countermeasures	Estimated Cost
US-1 (Post Rd), Ledge Rd, and I-95 (Connecticut Tpke) Exit 11 SB Off-Ramp	Pedestrian safety	Consider investigating the intersection geometry to reduce the length of the pedestrian crosswalk	Low-Medium
		Consider investigating the feasibility of relocating the sidewalk along the western side of US-1(Post Rd) to the eastern side, coupled with extending the relocated sidewalk across the Exit 11 southbound off-ramp to remove the extremely long crosswalk	Medium
		Consider adding pedestrian activation for the existing crosswalk	Low
Townwide	Lack of school zones	Consider adding appropriate pavement markings, signage, and reduction in speed limits at existing school zones	Low
	Lack of sidewalks	Conduct conducting a townwide bike and pedestrian inventory and plan	Low-Medium
		Consider adding complete streets policy into all future design	Low-High
CT-106 (Middlesex Rd/Hoyt St)/Christie Hill Rd	Congestion and safety	Consider installing a roundabout	Medium

## TOWN OF GREENWICH

**2016 US Census Population Estimate:** 62,359

**Area:** 67.20 square miles

**Population Density:** 928 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 758,130,835

**2016 VMT per Capita:** 11,676

**Setting:** Urban Area

**Town Representatives:** Jim Michel (DPW Deputy Commissioner), Amy Siebert (DPW Commissioner), Jason Kaufman (Town Engineer), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 103

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 736



Source: VN Engineers

### Overview

Greenwich is a town in southwestern Fairfield County, bordered by New York to the west and north, by Stamford to the east, and Long Island Sound to the south. It is the largest town on Connecticut's Gold Coast. The Town of Greenwich's main thoroughfares are I-95, US-1, and CT-15.

### Greenwich Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	2	2	1	1
Suspected Serious Injury (A)	10	15	8	8
Suspected Minor Injury (B)	70	102	91	87
Possible Injury (C)	90	88	91	70
<b>Total Injury Crashes</b>	<b>172</b>	<b>207</b>	<b>191</b>	<b>166</b>

## Town's Input

### Fatal Crashes from 2015-2018

- US-1 (West Putnam Avenue) near Pemberwick Road - Older pedestrian fatal crash under dark conditions.
- NY-120A (King Street) and Anderson Hill Road - Pedestrian fatal crash.
- US-1 (East Putnam Avenue) and Hillside Road - Pedestrian fatal crash, involving a substance-impaired motorist.
- Milbank Avenue - Older pedestrian fatal crash.
- US-1 (West Putnam Avenue) and Western Jr Highway - Pedestrian fatal crash.
- Arch Street and I-95 (Connecticut Turnpike) off-ramp - Angle, heavy truck fatal crash.

### Milbank Avenue

This corridor has a high concentration of crashes, including a fatal pedestrian crash. It is often used as a cut through to avoid Greenwich Avenue.

### US-1 (West Putnam Avenue/East Putnam Avenue)

US-1 (West Putnam Avenue/East Putnam Avenue) has a high concentration of crashes along the entire corridor. The majority of these crashes were front-to-rear crashes. CTDOT was looking into a segment of this corridor for a possible road diet. South Western Regional Planning Agency (SWRPA) had conducted a corridor study of US-1 (West Putnam Avenue/East Putnam Avenue) that included identified areas of concern.

### Glenville Road/Riversville Road

Town representatives expressed that this intersection has received Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding for signal improvements.

### Byram Road and Frontage Road/Delavan Avenue and I-95 Southbound (Connecticut Turnpike) Exit 2 Ramps

This is a high frequency crash location. The Town has a LOTCIP-funded project under permit review. The improvements will include more sidewalks, widening of the center splitter island, narrowing the lane widths, and crosswalks treatments. This project is under permit review.

### I-95 (Connecticut Turnpike) Exit 3/Arch Street

This signalized intersection was the site of a fatal crash. The town has a CMAQ-funded project to improve this signal and six nearby signals using adaptive signal control.

### Glenville Road/Brookside Road

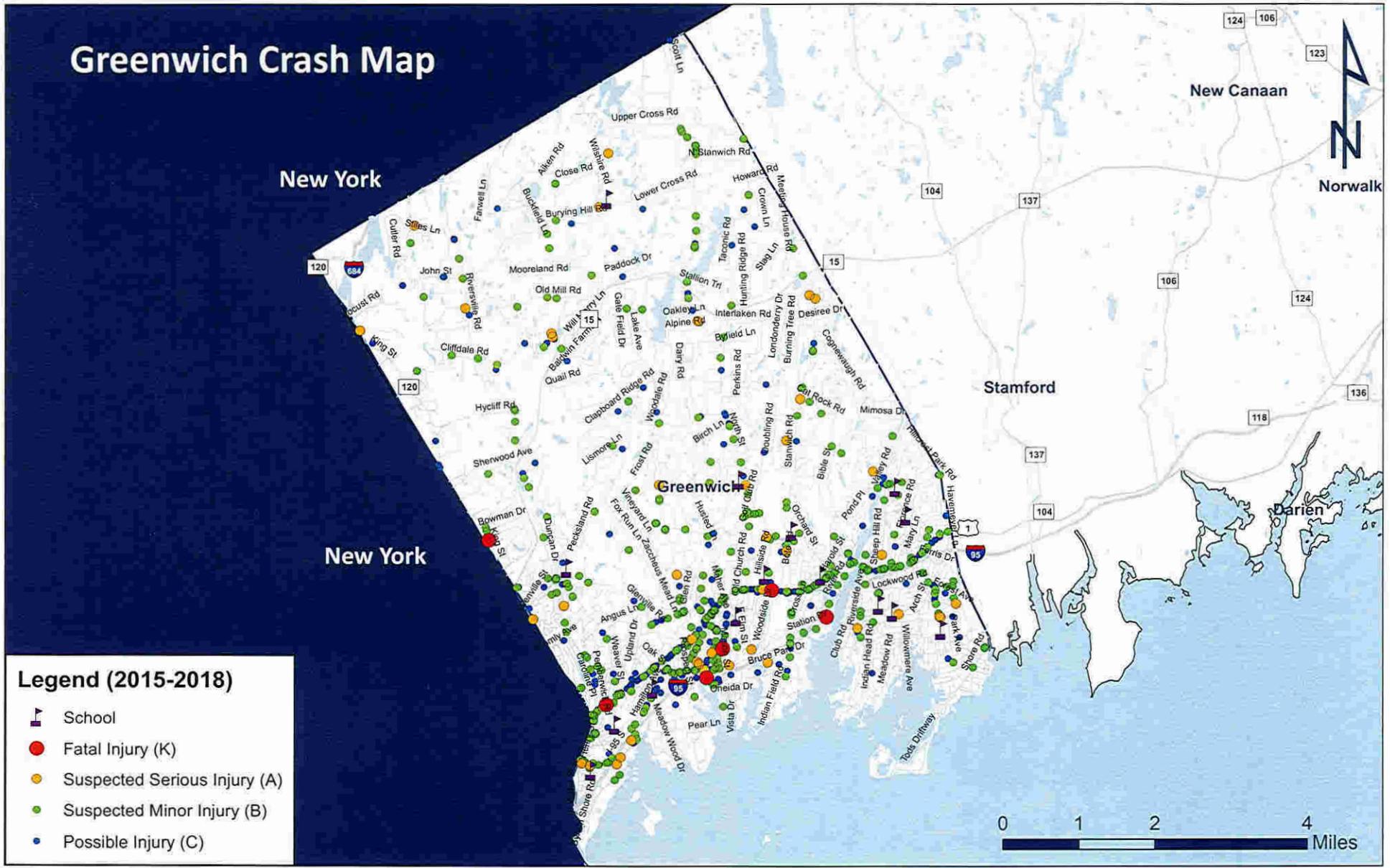
A project is being designed to improve this unsignalized and skewed stop-controlled intersection. This project is included on the LOTCIP list.

### US-1 (West Putnam Avenue)/Holly Hill Lane/East Weaver Street

This is a signalized four-way intersection in a congested segment of US-1 (West Putnam Avenue). The Town expressed that they want the State to retune the signal to improve flow and clearance times. In addition, there are no turn lanes on US-1 (West Putnam Avenue), so traffic backs up and causes motorists to make risky turning movements.

### Brookside Drive/Glenville Road/Eagle Hill School Entrance

This location is a confusing one-way stop-controlled intersection. Brookside Drive forms a y-intersection with Glenville Road. In addition, the Eagle Hill School entrance and exit driveways are offset just to the west. The intersection of Brookside Drive with Glenville Road is along a horizontal curve, which limits sight distance from cars exiting Brookside Drive. Just west is the y-intersection of Valley Drive and Glenville Road, which also has limited sight distance due to horizontal curvature. This nearby intersection further exacerbates the challenges at the adjacent intersection of Glenville Road and Brookside Drive. Furthermore, speeding is common.



## Field Site Inventory

### Milbank Avenue from Mason to E Elm Street

Milbank Avenue is a north-south two-way road with a narrow cross section located in a residential area. The speed limit is posted at 25 MPH. On the southern leg, Milbank Avenue intersects Mason Street with a center lane splitter and a rotary. The rotary does not fully operate as a regulatory roundabout where merging traffic yields to those within the roundabout travel lanes; rather, the traffic within the rotary travelling towards Milbank Avenue must yield to Milbank Avenue through traffic. Furthermore, there is on-street parking within the intersection. All of these conflicting movements can cause driver confusion.

Pedestrian crosswalks are marked along Mason Street and Fawcett Place, but there are no pedestrian crossings at Milbank Avenue within the rotary. In addition, there is on-street parking within the intersection.

Continuing north on Milbank Avenue, intermittent on-street parking continues and there are a high number of curb cuts due to residential driveway access. The next intersection with Havemeyer Place is signalized and north of here, on-street parking is prohibited on the east side. There are sidewalks on both sides of the roadway and a midblock pedestrian crossing situated in front of the Agnes Morley Heights senior living facility, with pedestrian crossing signs and an advance non-MUTCD-compliant crossing sign.

#### Recommendations:

- Consider revising the rotary to be more in line with driver expectation.

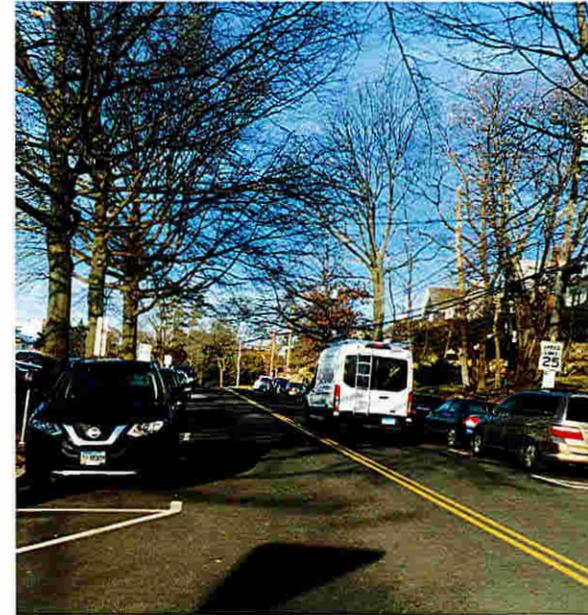
- Determine if a three-way stop is feasible to replace the rotary.
- Consider raising the crosswalks to make them more visible.
- Consider updating pedestrian signage.
- Consider painting edgelines where there is no on-street parking.

### Brookside Drive/Glenville Road/Eagle Hill School Entrance

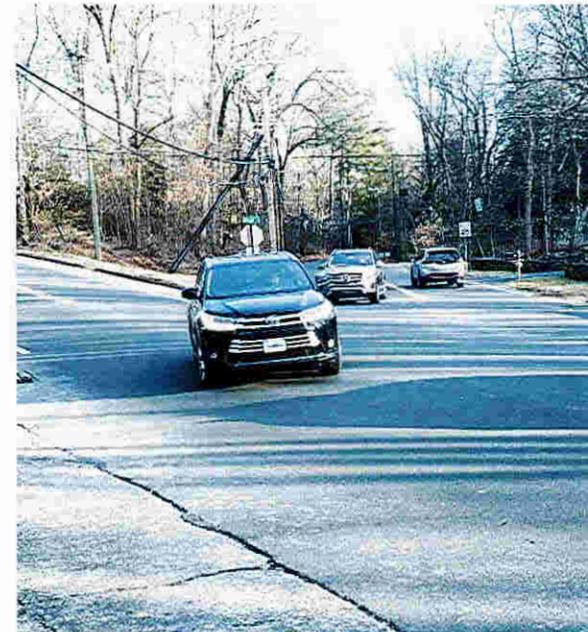
The intersection of Glenville Road and Brookside Drive is a skewed three-way intersection with Brookside Drive under stop control. Right turns from Brookside Drive are prohibited. The intersection is in a residential area, with all approaches consisting of a single lane. The severe skew of the intersection, coupled with a grade differential between the two roads, restricts sight distance for motorists entering Glenville Road from Brookside Drive. Adjacent to the intersection is a residential driveway and a driveway to the Eagle Hill School. These two driveways share a very long curb cut that is approximately 200-feet. Due to the presence of Eagle Hill School, the posted speed limit is 25 mph, though much higher speeds with a reduction to 20 mph during peak school hours. Much higher speeds have been reported by local officials. The intersection operates at a poor level of service during peak periods.

#### Recommendations:

- Consider separating the two private driveways to eliminate the shared curb cut and better define the roadway edge through the intersection.
- Consider a rotary to improve peak period of level of service and reduce travel speeds along Glenville Road.



Milbank Avenue



Glenville Road and Brookside Drive

### Greenwich Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
Milbank Ave from Mason St to E Elm St	Intersection conflicts	Consider realigning the Milbank Ave and Mason St intersection to determine if a three-way stop is feasible to replace the rotary	Medium
	Pedestrian safety	Consider raising the crosswalks	Low
		Consider updating the pedestrian signage	Low
	Speeding	Consider painting edgelines where there is no on-street parking to demarcate lanes	Low
Brookside Dr/Glenville Rd/ Eagle Hill School Entrance	Turning movement conflicts	Consider separating the two private driveways to eliminate the shared curb cut and better define the roadway edge through the intersection	Low
	Speeding and mobility	Consider a rotary to improve peak period of level of service and reduce travel speeds along Glenville Rd	Medium-High
Milbank Ave	High concentration of crashes	Consider adding traffic signal retroreflective backplates at all existing signals	Low-Medium
US-1 (West Putnam Ave)/ Holly Hill Ln/E Weaver St	Intersection crashes	Consider requesting the State to investigate signal and clearance timings	Low-Medium

## TOWN OF NEW CANAAN

**2016 US Census Population Estimate:** 20,280

**Area:** 22.50 square miles

**Population Density:** 901 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 190,428,165

**2016 VMT per Capita:** 9,390

**Setting:** Urban Cluster

**Town Representatives:** Kevin Moynihan (First Selectman), Tiger Mann (DPW), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 19

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 243



Source: VN Engineers

### Overview

New Canaan is a rural town in Fairfield County, bordered by New York to the north, Wilton and Norwalk to the east, Darien to the south, and Stamford to the west. It is considered part of the Connecticut's Gold Coast and known for its wide range of architecture, as well as vast public parks. The Town's main thoroughfares are CT-15, CT-106, CT-123, and CT-124.

### New Canaan Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	0	0	2
Suspected Serious Injury (A)	6	5	8	4
Suspected Minor Injury (B)	20	25	20	21
Possible Injury (C)	32	30	35	35
<b>Total Injury Crashes</b>	<b>58</b>	<b>60</b>	<b>63</b>	<b>62</b>

## Town's Input

### Fatal Crashes from 2015-2018

- South Bald Hill Road - Older driver fatal crash.
- CT-123 (Smith Ridge Road) - Older driver roadway departure fatal crash.

### Traffic Signal Timing and Intersections

The DPW stated that the traffic signals in the center of town are not coordinated and are antiquated. Cherry Street and Main Street do not have left-turn phasing, yet they have opposing left-turn lanes and high volumes of traffic, which make turning left difficult.

### CT-123 (Smith Ridge Road/New Norwalk Road)

CT-123 (Smith Ridge Road/New Norwalk Road) is a high frequency crash corridor with frequent speeding. The DPW thinks this road is a good candidate for centerline rumble strips, but it needs approval from the local Police Commission.

### CT-106 (Old Stamford Road)/Farm Road

This signalized, three-way intersection is a potential roundabout candidate location. The Farm Road approach has a single lane and Town representatives think that it needs a designated left-turn lane. In addition, the CT-106 (Old Stamford Road) southbound approach is a single lane and it needs a designated left-turn lane too. Traffic queues on CT-106 (Old Stamford Road) southbound due to the narrow cross section that prevents motorists from bypassing left-turning queues.

### CT-124 (South Avenue)/Farm Road

This signalized, four-way intersection is a high crash location. Saxe Middle School, New Canaan High School, and South School are located on Farm Road. The signal at this intersection is manually operated by the Police Department during arrival and dismissal times. Traffic volumes are high, as a result of to the proximity to schools and the Merritt Parkway access ramps to the south. The Town would like to investigate the possibility of a roundabout here.

### CT-124 (Park Street/Elm Street)

The intersection of CT-124 (Park Street/Elm Street) is a five-legged, signalized intersection. The exit from the train station is located on the southwest corner and the Town is seeking an alternative design. One option for the alternative design may be closing the exit at this intersection and utilizing the other full access driveways.

### CT-106 (Silvermine Road)/Carter Street/Canoe Hill Road

This skewed intersection is located along a horizontal curve on CT-106 (Silvermine Road). Sight distance from the local side street is limited and speeding on CT-106 (Silvermine Road) is an issue.

### Main Street/Farm Road/Old Norwalk Road/White Oak Shade Road

Town representatives indicated that the Town of New Canaan wants to investigate roundabout options for this confusing, skewed intersection.

### Rumble Strips

The Town of New Canaan installed transverse rumble strips in selected high speed areas, but they were removed due to residents' concerns. In addition, the Police Commission voted to remove them.

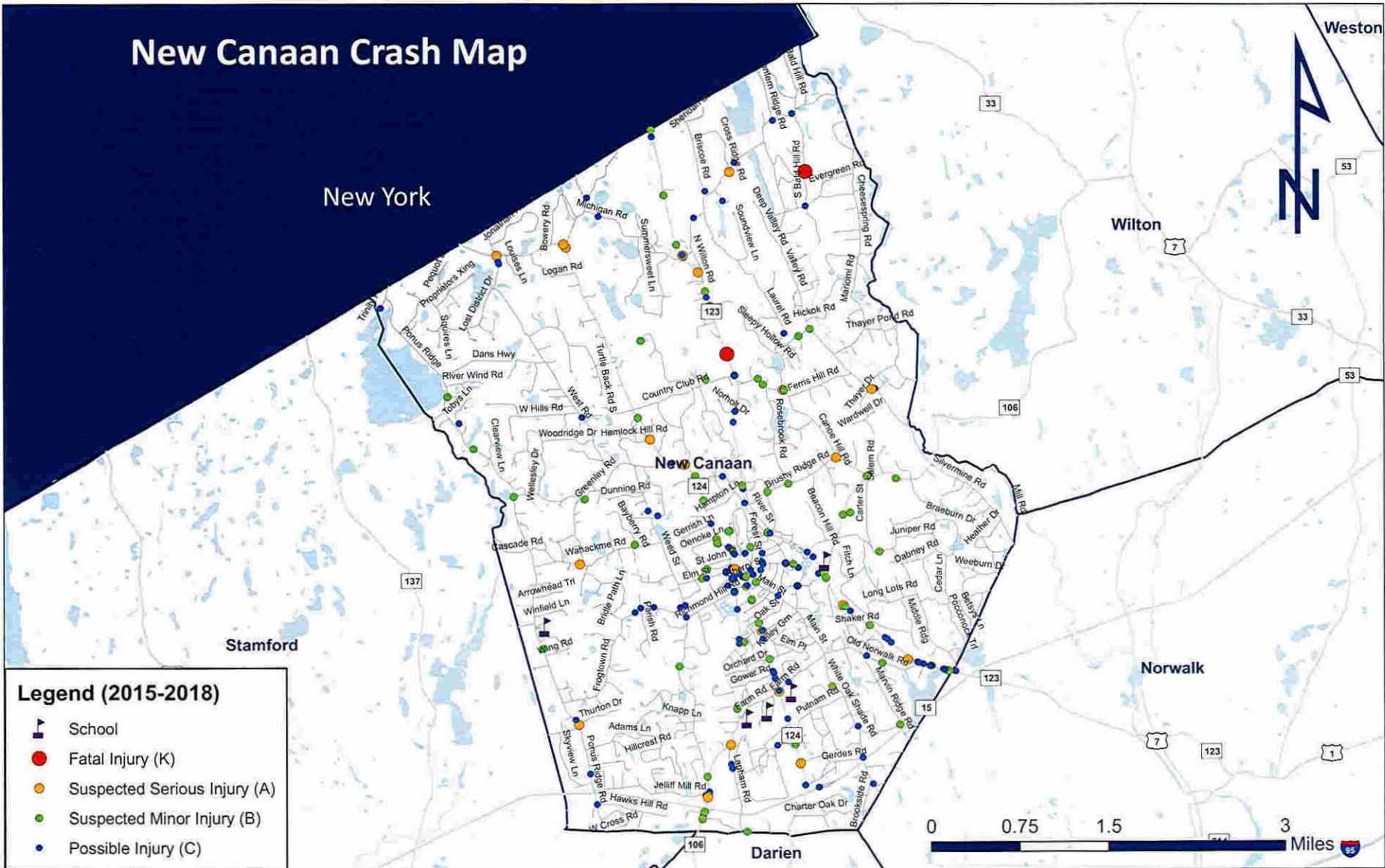
### Chevron Curve Signs

The State is planning on installing chevron curve signs and the Town hopes that they are installed with context sensitivity balanced with MUTCD compliance. Based on this, the Town is looking for collaborative programs between CTDOT and the Town to mitigate various concerns before they arise.

### Pedestrian Signs

Town representatives indicated that the State installed pedestrian signs at twelve locations. It was reported that these signs were not positioned with consideration for the impact that they have on adjacent property owners. The DPW indicated that they would have preferred them in less obtrusive locations to balance concerns of adjacent property owners.

# New Canaan Crash Map



## Field Site Inventory

### Farm Road and CT-124 (South Avenue)

This is a signalized, four-legged intersection with heavy commuter and school-related traffic within a residential neighborhood. There are No Turn on Red signs on all approaches, except the CT-124 (South Avenue) northbound approach. All four approaches have exclusive left-turn lanes and one through/right turn lane. There are crosswalks and pedestrian activated walk signals on all four corners as well.

At the various school arrival and dismissal times, there is a police officer stationed at the signal to manually manipulate the phasing to optimize traffic flow. This is due to the intersection carrying vehicles from Saxe Middle School, New Canaan High School, and South School, all within less than a quarter-mile of this intersection on Farm Road.

In addition to the traffic generated from the three schools, CT-124 (South Avenue) southbound connects to the CT-15 (Merritt Parkway) on- and off-ramps.

#### **Recommendation:**

- Consider roundabout installation to reduce crashes, improve mobility, and relieve the police officer of manually controlling signal phasing.



Farm Road and CT-124 (South Avenue)



CT-124 (South Avenue) looking southbound

### New Canaan Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
Farm Rd and CT-124 (South Ave)	High number of intersection crashes	Consider a roundabout	Medium-High
	Mobility issues		
Main St/Farm Rd/Old Norwalk Rd/White Oak Shade Rd	Skewed intersection	Consider a roundabout	Medium-High
Town Center	Signal timing	Consider coordinating Coordinate and optimizing traffic signals	Medium
CT-123 (Smith Ridge Rd/New Norwalk Rd)	High-frequency crash corridor	Consider installing centerline rumble strips	Low
CT-124 (Park St/Elm St)	Access from train station creates conflicts	Consider redesigning driveway access and egress	Low

## TOWN OF NEW FAIRFIELD

**2016 US Census Population Estimate:** 14,005

**Area:** 25.10 square miles

**Population Density:** 558 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 57,671,095

**2016 VMT per Capita:** 4,118

**Setting:** Urban Cluster

**Town Representatives:** N/A

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 1

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 149



Source: VN Engineers

### Overview

New Fairfield is a town in Fairfield County, bordered by Sherman to the north, New Milford and Brookfield to the east, Danbury to the south, and New York to the west. The Town of New Fairfield is one of five towns that surround Candlewood Lake, the largest lake in Connecticut. The Town's main thoroughfares are CT-37 and CT-39.

### Town's Input

The Town of New Fairfield opted to not participate in a municipal meeting to gather information. They are free to amend this section during the review process.

### New Fairfield Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	1	2	1	0
Suspected Serious Injury (A)	1	2	1	1
Suspected Minor Injury (B)	14	13	29	19
Possible Injury (C)	19	15	14	17
<b>Total Injury Crashes</b>	<b>35</b>	<b>32</b>	<b>45</b>	<b>37</b>

# New Fairfield Crash Map

New York

Sherman

Bridgewater

New Milford

New Fairfield

Brookfield

Danbury

## Legend (2015-2018)

-  School
-  Fatal Injury (K)
-  Suspected Serious Injury (A)
-  Suspected Minor Injury (B)
-  Possible Injury (C)



## Field Site Inventory

### CT-39 from Fleetwood Drive to Saw Mill Road

This corridor consists of one travel lane in each direction and narrow shoulders. Along this corridor, there is horizontal curvature with some warning signs and One-Direction Large Arrows (ODLAs), and a steady elevation change of approximately 100 feet. There are various businesses and restaurants, and the posted speed limit is 30 MPH.

The existing vegetation impedes over the shoulder and into the roadway, interfering with driver's vision of upcoming curves, curve warning signs, driveways to businesses, and with intersection sight lines. When pulling out of Saw Mill Road onto CT-39 heading northbound, the driver's view of oncoming traffic traveling north is restricted.

#### **Recommendations:**

- Consider trimming and removing vegetation for better sight distance to curve signs and general sight lines.
- Consider installing new curve warning signs and ODLAs with retroreflective strips.
- Consider signaling at Saw Mill Road intersection to avoid sight line issue.
- Consider installing reverse turn right sign approximately 600' in advance of northbound travel to Saw Mill Road.
- Consider replacing the reverse curve sign in CT-39 southbound south of Fleetwood Drive with a reverse turn left side road left down sign.



CT-39 Southbound south of Fleetwood Drive



CT-39 Northbound and Saw Mill Road

### New Fairfield Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-39 from Fleetwood Dr to Saw Mill Rd	Limited sight distance	Consider trimming and removing vegetation for better sight distance to curve signs and general sight lines	Low
		Consider installing new curve warning signs and ODLAs with retroreflective strips	Low
		Consider signaling at Saw Mill Road intersection to avoid sight line issue	Low
		Consider installing reverse turn right sign approximately 600' in advance of northbound travel to Saw Mill Road	Low
		Consider replacing the reverse curve sign in CT-39 southbound south of Fleetwood Drive with a reverse turn left side road left down sign	Low

## TOWN OF NEW MILFORD

**2016 US Census Population Estimate:** 27,151

**Area:** 63.70 square miles

**Population Density:** 426 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 205,610,705

**2016 VMT per Capita:** 7,573

**Setting:** Urban Cluster

**Town Representatives:** Jack Healy (Town Engineer/DPW), Chief Spencer Cerruto (PD), Al Wilcoxson (PD), Michael Boucher (DPW), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** Grove Street/Lower Grove Street and Hine Hill Road

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 28

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 689



Source: WestCOG

### Overview

New Milford is a town in Litchfield County, bordered by Kent to the north, Washington and Roxbury to the east, Sherman and New Fairfield to the west, and Bridgewater and Brookfield to the south. It is the largest town in the State in terms of land area. The Town of New Milford is located on the northeastern shore of Candlewood Lake. The Town's main thoroughfares are US-7, US-202, CT-37, CT-55, CT-67, and CT-109.

### New Milford Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	3	2	1	1
Suspected Serious Injury (A)	17	20	10	12
Suspected Minor Injury (B)	73	75	73	74
Possible Injury (C)	74	65	92	97
<b>Total Injury Crashes</b>	<b>167</b>	<b>162</b>	<b>176</b>	<b>184</b>

### Town's Input

#### Fatal Crashes from 2015-2018

Crash data from 2015-2018 indicates that 7 fatal crashes occurred in the Town of New Milford. The majority of these fatal crashes were associated with high speed and/or inclement weather and they occurred on State roadways.

#### High-Frequency Crash Locations

The majority of the crashes reported occurred along the highest ADT roads: US-202 (Danbury Road/Bridge Street/East Street/Poplar Street/Park Lane Road/Litchfield Road), US-7 (Kent Road), CT-67 (Prospect Hill Road), and CT-109 (Chestnut Land Road). The high number of crashes in the downtown area are primarily related to congestion associated with Veterans Bridge traffic. This bridge carries US-202 (Bridge Street) traffic and it is the main crossing point of the Housatonic River.

**Bennett Street/Housatonic Avenue/Railroad Street/Wellsville Avenue**

This is an elongated, skewed, unsignalized intersection. There are significant grade challenges and sight restrictions due to adjacent buildings, retaining walls, and vegetation. This intersection has a narrow cross section.

**US-202 (Bridge Street)/Railroad Crossing/West Street**

West Street is under stop control, however the intersection is consistently blocked, due to queuing associated with the signalized intersection of US-202 (Bridge Street), Railroad Street, Middle Street, and the railroad crossing to the east. Traffic queuing along US-202 (Bridge Street) also restricts access and egress associated with the New Milford Chamber of Commerce parking driveway, creating additional conflict points.

US-202 (Bridge Street) from West Street to CT-67 (Prospect Hill Road)/East Street/Grove Street has three signalized intersections that are in close proximity to each other, requiring close signal coordination of timings and phasings. CTDOT has modified and continues to monitor traffic signal timings and phasings, to optimize progression through the corridor.

**US-7 (Kent Road/Danbury Road) and US-202 (Bridge Street)/Peagler Hill Road**

This is a major signalized intersection, with significant peak period traffic congestion, primarily associated with Veterans Bridge. US-202 (Bridge Street) westbound approach experiences front-to-rear crashes, due to left-turning motorists running the light to make it through the intersection. US-202 (Bridge Street) westbound approach right turns are under high speed yield control. Sight distance to merge onto US-7 (Kent Road) northbound traffic is difficult (over the shoulder). US-7 (Kent Road) southbound left turns to Bridge Street often "block the box" creating further congestion. US-7 (Danbury Road) northbound right turns onto US-202 (Bridge Street) experience long queues, due to congestion on the eastern side of Veterans Bridge. In addition, the Peagler Hill Road approach has a short signal phase.

**Candlewood Lake Road**

This is a rural local road, with a narrow cross section and high travel speeds. CTDOT recently installed chevron warning signage to address a series of horizontal curves along this corridor.

**US-202 (Litchfield Road) and Wheaton Road**

This is an unsignalized intersection, with Wheaton Road under stop control. There are high travel speeds along US-202 (Litchfield Road) through the intersection. In addition, vertical and horizontal curves through the intersection contribute to poor sight distances.

**Paper Mill Road near Pratt Nature Center**

Paper Mill Road is a rural, local road with a narrow cross section and speeding issue. A series of vertical and horizontal curves, coupled with adjacent vegetation impact sight lines on this local road. The midblock crosswalk associated with the Pratt Nature Center can be difficult for motorists to see. The Town has improved signage and has recently installed variable speed signs.

**Chapin Road/Littlefield Road and Ridge Road**

This is an unsignalized intersection with Chapin Road/Littlefield Road under stop control. It has high travel speeds along Ridge Road through the intersection and poor sight lines from Chapin Road/Littlefield Road due to intersection geometry and adjacent vegetation.

**US-202 (Bridge Street) and Young's Field Road**

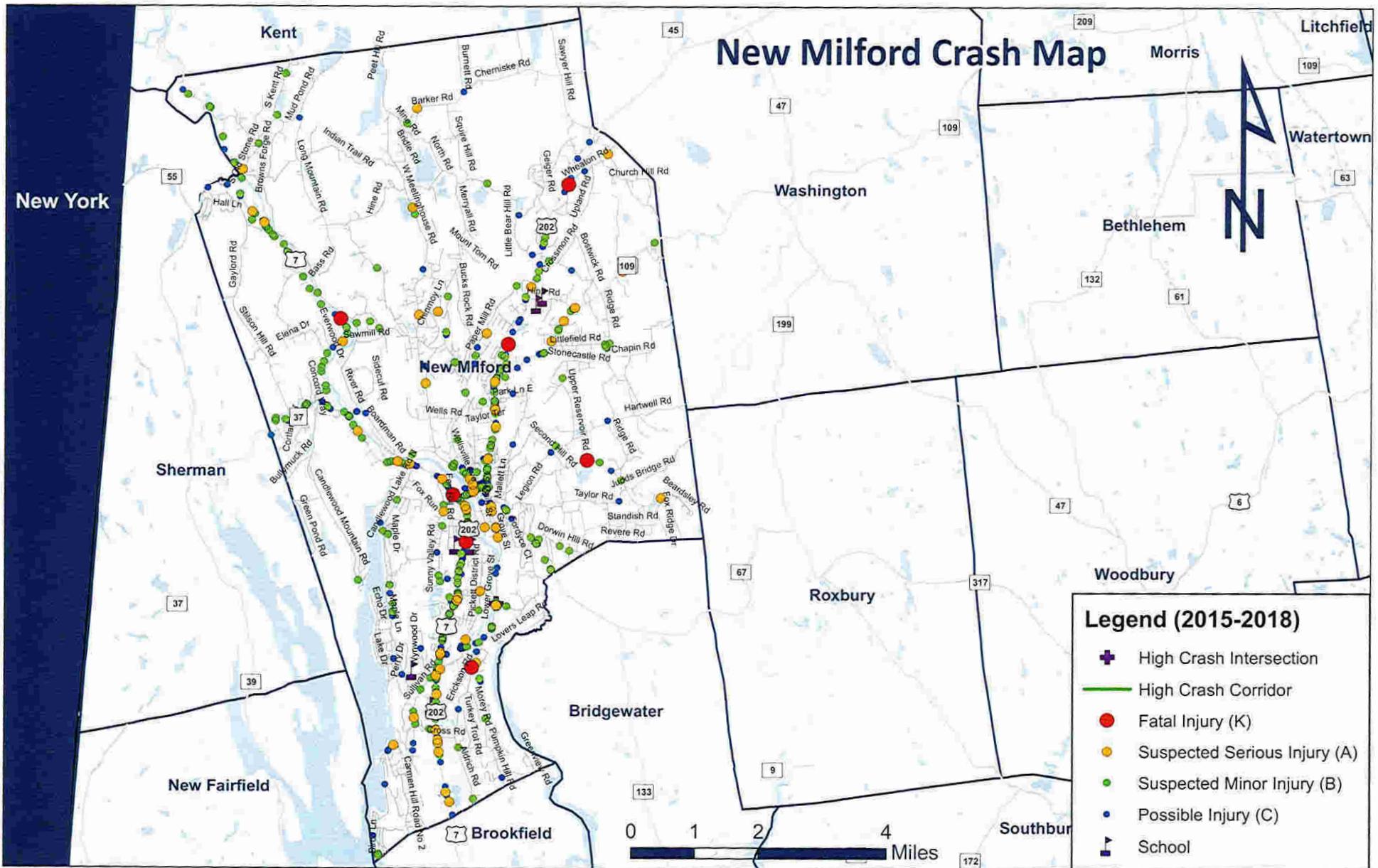
This is a highly congested intersection, particularly during peak period, due to its proximity to Veterans Bridge. Southbound left turn out of Young's Field Road is prohibited, due to congestion. The Town is interested in a traffic signal at this intersection, if it can be coordinated with the other traffic signals along this section of US-202 (Bridge Street).

**Centerline Rumble Strips**

The Town would like centerline rumble strips to be installed, but would like to be able to apply them on local, rural roadways with a single centerline.

**Pedestrians and Bicyclists**

The Town of New Milford has active pedestrian and bicycle activity. Rural roads are commonly used by local and regional bike clubs. The Town has installed "3 ft for Bikes" signs along key roadway corridors.



## Field Site Inventory

### US-7 (Kent Road/Danbury Road) and US-202 (Bridge Street)/Peagler Hill Road

The intersection of US-7 (Kent Road/Danbury Road) and US-202 (Bridge Street)/Peagler Hill Road is a major signalized intersection that is heavily congested during peak periods. The US-7 (Danbury Road) northbound approach consists of an exclusive left-turn lane, two through lanes and a channelized right-turn lane, separated by a large median island, with the right-turn movement under yield control. The US-7 (Kent Road) southbound approach consists of an exclusive left-turn lane and a shared through/right-turn lane. The US-202 (Bridge Street) approach consists of two exclusive left-turn lanes, a through lane and a channelized right-turn lane, separated by a large median island, with the right-turn movement under yield control. The Peagler Hill Road approach consists of a shared left-turn/through lane and an exclusive right-turn lane. A pedestrian crosswalk is located across the US-7 (Kent Road) north approach. This major intersection provides access to downtown New Milford via the Veterans Bridge/US-202 (Bridge Street) over the Housatonic River. This intersection is also impacted by peak period traffic congestion challenges on the eastern side of the Veterans Bridge due to roadway geometric constraints on the Veterans Bridge.

#### Recommendations:

- Consider optimizing signal timings and

assessing lane geometry to address peak hour traffic volumes at this intersection.

- Consider assessing the roadway geometric constraints associated with Veterans Bridge and downtown traffic congestion on the eastern side of the Housatonic River.

### US-202 (Litchfield Road) from Sand Pit Road to Wheaton Road

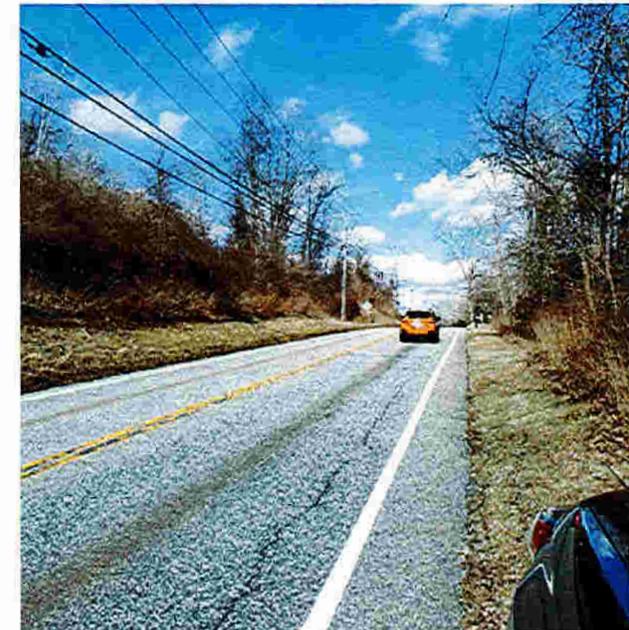
US-202 (Litchfield Road) in the vicinity of Sand Pit Road and Wheaton Road is a north-south rural, residential roadway with one travel lane in each direction, minimal shoulders, and a posted speed limit of 45 MPH. Local officials have reported high travel speeds along this section of US-202 (Litchfield Road). Traveling northbound towards Sand Pit Road, US-202 (Litchfield Road) is uphill and transitions into a horizontal curve through the crest of the hill. The combination of the vertical and horizontal curves, coupled with high travel speeds, can compromise sight distances.

#### Recommendations:

- Consider reducing the US-202 (Litchfield Road) travel lane widths, to reduce high travel speeds and provide improved accommodations for bicycles.
- Consider assessing the placement of chevron curve signs through the horizontal curve.



US-7 (Kent Road/Danbury Road) and US-202 (Bridge Street)/Peagler Hill Road looking east



US-202 (Litchfield Road) looking north

## Field Site Inventory

### US-202 (Bridge Street) and CT-67 (Bridge Street) between South Main Street and Nicholas Square

US-202/CT-67 (Bridge Street) between South Main Street and Nicholas Square generally consists of one through lane in each direction, with exclusive left-turn lanes at the signalized intersection with Railroad Street and Middle Street, as well as the signalized intersection with US-202/CT-67 (Bridge Street), South Main Street, and Main Street. Complicating the intersection's operation, the Housatonic Railroad Rail Line crosses through the center of the intersection, at-grade, in a north-south direction. This section of roadway is heavily congested during peak periods due to commuter traffic volumes. In addition, the access and egress associated with the commuter lot driveway (Patriots Way) located just west of the Railroad Street and Middle Street signalized intersection. Traffic queues associated with congestion, and the resulting minimal gaps in traffic flow make it difficult to access and egress US-202/CT-67 (Bridge Street) from Railroad Street, Middle Street, West Street, Nicholas Square, Patriots Way, and other commercial driveways in this corridor.

#### Recommendations:

- Consider re-assessing the traffic circulation patterns of Railroad Street, Middle Street, West Street, Nicholas Square, and Patriots Way, to optimize traffic progression along US-202/CT-67 (Bridge Street).
- Continue working with CTDOT District 4 in optimizing signal timings within the corridor.
- Consider implementing and enforcing "Don't Block the Box" at key intersections.



US-202/CT-67 (Bridge Street) between South Main Street and Nicholas Square



US-202/CT-67 (Bridge Street) between South Main Street and Nicholas Square

### New Milford Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
US-7 (Kent Rd/Danbury Rd), and US-202 (Bridge St) and Peagler Hill Rd	Front-to-rear crashes	Consider optimizing the signal timings and assessing lane geometry to address peak hour traffic volumes at this intersection and roadway geometric constraints	Low
US-202 (Litchfield Rd) from Sand Pit Rd to Wheaton Rd	Speeding	Consider narrowing the US-202 (Litchfield Road) travel lane widths, to reduce high travel speeds and provide improved accommodations for bicycles	Low-Medium
	Limited sight distance-horizontal and vertical curves	Consider investigating the placement of chevron curve signs through the horizontal curve	Low
US-202 (Bridge St) and CT-67 (Bridge St) between South Main St and Nicholas Sq	Uncoordinated signal timing	Consider re-assessing the traffic circulation patterns of Railroad St, Middle St, West St, Nicholas Sq, and Patriots Way, to optimize traffic progression along US-202/CT-67 (Bridge St)	Medium
		Continue working with CTDOT District 4 in optimizing signal timings within the corridor	Medium
		Consider implementing and enforcing "Don't Block the Box" at key intersections	Low-Medium

## TOWN OF NEWTOWN

**2016 US Census Population Estimate:** 29,818

**Area:** 59.10 square miles

**Population Density:** 505 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 425,045,785

**2016 VMT per Capita:** 14,255

**Setting:** Urban Cluster

**Town Representatives:** Daniel Rosenthal (First Selectman), Fred Hurley (DPW), Jim Viadero (Chief of Police), Nicole Sullivan (WestCOG), Kristin Hadjstylianos (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 6

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 451



Source: VN Engineers

### Overview

Newtown is a rural town in northern Fairfield County, bordered by Bridge-water and Southbury to the north, Oxford and Monroe to the east, Easton and Redding to the south, and Bethel and Brookfield to the west. It is the State's fifth largest town in area. The Town's main thoroughfares are I-84, US-6, CT-25, CT-34, and CT-302.

### Newtown Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	1	4	0
Suspected Serious Injury (A)	9	5	6	11
Suspected Minor Injury (B)	55	42	48	57
Possible Injury (C)	40	48	63	62
<b>Total Injury Crashes</b>	<b>104</b>	<b>96</b>	<b>121</b>	<b>130</b>

## Town's Input

### Fatal Crashes from 2015-2018

- US-6 (Mount Pleasant Road) near Taunton Lane - front-to-front fatal crash.
- US-6 (Mount Pleasant Road) near the Reservoir Road - Motorcycle substance-impaired fatal crash (helmeted).
- CT-25 (South Main Street) - front-to-front fatal crash.
- Currituck Road - Motorcycle roadway departure fatal crash.
- Riverside Road - Motorcycle speed-related fatal crash.

### US-6/CT-25 (Mount Pleasant Road)

This corridor from Mount Pleasant Terrace to Reservoir Road is a high frequency crash location. Municipal stakeholders think that the crashes extend beyond these two side roads. The police commission has requested the State lower the posted speed limit on US-6/CT-25 (Mount Pleasant Road) to discourage motorists from using this route to avoid I-84 (Yankee Expressway). However, crash data, road geometry, and 85th percentile speed do not appear to support lowering the speed limit.

### CT-34 (Berkshire Road/Washington Avenue/Church Hill Road)

The CT-34 (Berkshire Road/Washington Avenue/Church Hill Road) corridor has horizontal and vertical curvature and a high concentration of crashes. There was a young driver roadway departure double fatal crash at CT-34 (Berkshire Road) and Bradley Lane in 2019. The Town has requested additional chevron curve signage on CT-34 (Berkshire Road/Washington Avenue/Church Hill Road). This corridor had centerline rumble strips, but when the State repaved the roadway they were not reinstalled. The Town would like the State to reapply treatment.

### CT-302 (Sugar Street)/CT-25 (Main Street/South Main Street)/Glover Avenue

The bridge along CT-302 (Sugar Street) was recently rebuilt. Town stakeholders discussed the need for a crosswalk in the vicinity of the new bridge to link CT-302 (Sugar Street) to the adjacent neighborhood because many pedestrians cross here.

### US-6 (Main Street/Church Hill Road)/CT-25 (Main Street/West Street)

A United States flagpole is located in the center of this four-way stop-controlled intersection, which is situated in the center of the Town. The Town is applying for LOTCIP funding to enhance pedestrian safety, improve parking, and better define travel lanes at this location.

### Engineering Treatments

Centerline rumble strips have been applied to Currituck Road, US-6 (Mount Pleasant Road), and Toddy Hill Road. Toddy Hill Road also has dynamic speed feedback signs and the Town is going to add additional pavement markings.

### Pedestrians and Bicyclists

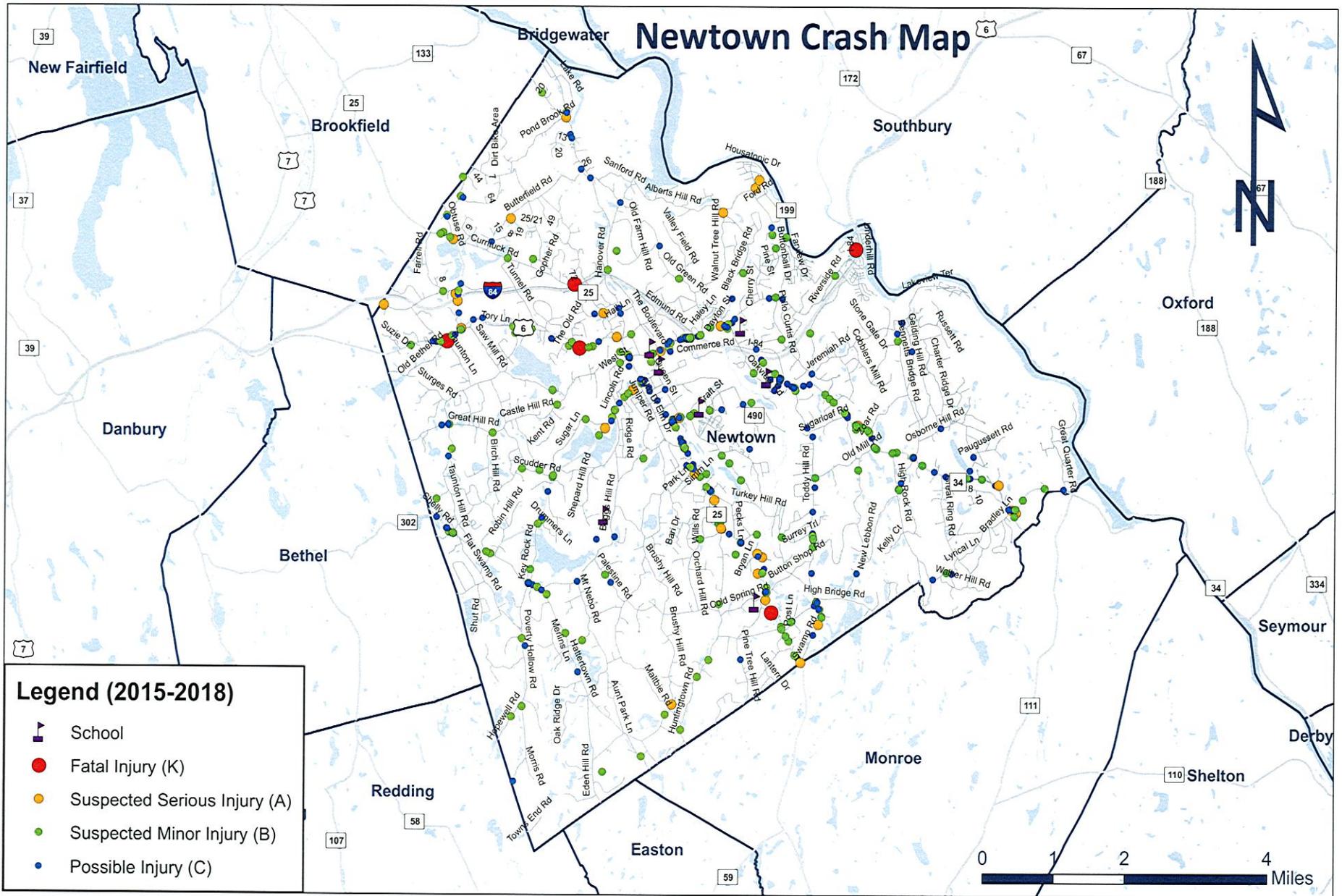
The Town has established a pedestrian improvement plan. Newer sidewalks were installed to connect the center of town to Fairfield Hills. The roads are narrow, preventing bike lanes from being striped, but the Town has installed "Give Them 3 Feet" signs for bicyclists at twenty locations.

### GPS (Waze App)

The use of the Waze App to navigate and avoid congestion on I-84 (Yankee Expressway) has contributed to congestion on local roads in the Town of Newtown.



Source: VN Engineers



## Field Site Inventory

### US-6/CT-25 (Mount Pleasant Road) from Mount Pleasant Terrace to Reservoir Road

US-6/CT-25 (Mount Pleasant Road) in the vicinity of Mount Pleasant Terrace and Reservoir Road is an east-west rural residential roadway, with a combination of significant horizontal and vertical curves. Traveling westbound towards Reservoir Road, US-6/CT-25 (Mount Pleasant Road) provides a passing lane along a steep uphill grade, while transitioning through a horizontal curve. The passing lane is dropped at the crest of the steep uphill. The posted speed limit varies from 40 MPH and 45 MPH, due to the significant vertical and horizontal curves along this section of US-6/CT-25 (Mount Pleasant Road). Various curve warning signs are also in place throughout this section of US-6/CT-25 (Mount Pleasant Road).

#### Recommendations:

- Consider centerline rumble strips through horizontal curves.
- Consider assessing the need for additional and/or replacement of horizontal and vertical curve warning signs.
- Consider assessing the potential of providing a more uniform posted speed limit and travel lane/shoulder widths.

### CT-34 (Berkshire Road) from Sugarloaf Road to Monroe Town Line

The CT-34 (Berkshire Road) corridor between Sugarloaf Road to Monroe Town Line consists of one travel lane in each direction with marked edge lines and double yellow center line. It is adjacent to residential and rural land use and has horizontal and vertical curvature. There are advanced warning signs, but no chevron curve signs. The posted speed limit is 40 MPH.

#### Recommendations:

- Consider centerline rumble strips through horizontal curves.
- Consider assessing the need for additional and/or replacement of horizontal and vertical curve warning signs.
- Consider installing dynamic speed feedback signs.



US-6 (Mount Pleasant Road) looking east



CT-34 (Berkshire Road)

### Newtown Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
US-6 (Mount Pleasant Rd) from Mount Pleasant Ter to Reservoir Rd	Horizontal curvature	Consider installing centerline rumble strips through horizontal curves	Low
		Consider investigating the need for additional and/or replacement of horizontal and vertical curve warning signs	Low
	Speeding	Consider investigating the potential of providing a more uniform posted speed limit and travel lane/shoulder widths	Low-Medium
CT-34 (Berkshire Rd) from Sugarloaf Rd to Monroe Town Line	High concentration of crashes	Consider installing centerline rumble strips through the curves	Low
	Horizontal and vertical curvature	Consider investigating the need for additional and/or replacement of horizontal and vertical curve warning signs	
	Speeding	Consider installing dynamic speed feedback signs	

## CITY OF NORWALK

**2016 US Census Population Estimate:** 88,348

**Area:** 36.30 square miles

**Population Density:** 2,436 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 656,299,565

**2016 VMT per Capita:** 7,421

**Setting:** Urban Area

**Town Representatives:** Harry Rilling (Mayor), Mike Yeosock (Asst. Director of Transportation), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** US-7 (Main Avenue/Grist Mill Road); Main Avenue; East Avenue

**Data Identified High Crash Intersections:** US-1 (Connecticut Avenue) and Scribner Avenue; US-1 (Van Buren Avenue) and Maple Street

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 193

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 1,668



Source: VN Engineers

### Overview

Norwalk is a city in southern Fairfield County, on the northern shore of Long Island Sound. It is bordered by Wilton to the north, Westport to the east, Long Island Sound to the south, and New Canaan and Darien to the west. The City of Norwalk is the sixth most populous city in Connecticut. The City's main thoroughfares are I-95, US-1, US-7, CT-15, CT-53, CT-123, and CT-136.

### Norwalk Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	6	3	5	2
Suspected Serious Injury (A)	18	18	26	23
Suspected Minor Injury (B)	111	85	143	163
Possible Injury (C)	199	223	317	326
<b>Total Injury Crashes</b>	<b>334</b>	<b>329</b>	<b>491</b>	<b>514</b>

## City's Input

### Fatal Crashes from 2015-2018

There were 16 fatal crashes within the City of Norwalk from 2015-2018, excluding crashes on limited-access highways.

### Scribner Avenue/US-1 (Connecticut Avenue)

This signalized, wide intersection has a high concentration of crashes of which angle crashes are most common. This corridor had 36 total injury and fatal crashes. CTDOT just redesigned the signal, which should mitigate some of the issues.

### West Avenue/Belden Avenue

Mitigation improvements along West Avenue have increased mobility, even with the increased traffic generated from the SONO Collection Mall. The City has a current project to introduce adaptive control in this corridor between Maple Street/Orchard Street and US-1 (Cross Street/Byington Place).

### Main Street

This road between Van Tassell Court and CT-123 (New Canaan Avenue) is a high frequency crash corridor. Numerous existing curb cuts are issues along the corridor. WestCOG is conducting a study and making recommendations for this corridor.

### US-1 (Connecticut Avenue)

This road between West Norwalk Road and Richards Avenue is a high crash corridor. It is located in a commercial area with significant traffic volumes and has angle crashes from turning movements. There are no crosswalks at the intersection of US-1 (Connecticut Avenue) and West Norwalk Road. The City applied for LOTCIP funding to install crosswalks, but are still waiting on the status.

### Lowe Street

This corridor between Martin Luther King Jr. Drive and Ely Avenue has been identified as a high frequency crash site. Day workers wait at this intersection for labor requests creating additional congestion during peak periods.

## Non-Motorized Users

The City of Norwalk has been developing many strategies to provide adequate facilities for non-motorized users. It is transitioning to concurrent pedestrian phases with leading pedestrian intervals for appropriate traffic signals. The City is seeking to become Vision Zero certified as per their Plan of Conservation and Development (POCD). To reduce the number of bike and pedestrian crashes from 60 per year, several strategies have been implemented, including a Safe Routes to School Program at Rowayton School, road diets on various road corridors to address high vehicle travel speeds, the installation of rectangular rapid flash beacons (RRFBs) on Strawberry Hill, and bike programs (Pedestrian and Bike Transportation Plan 2012 and City Pedestrian Plan).

### East Wall Street

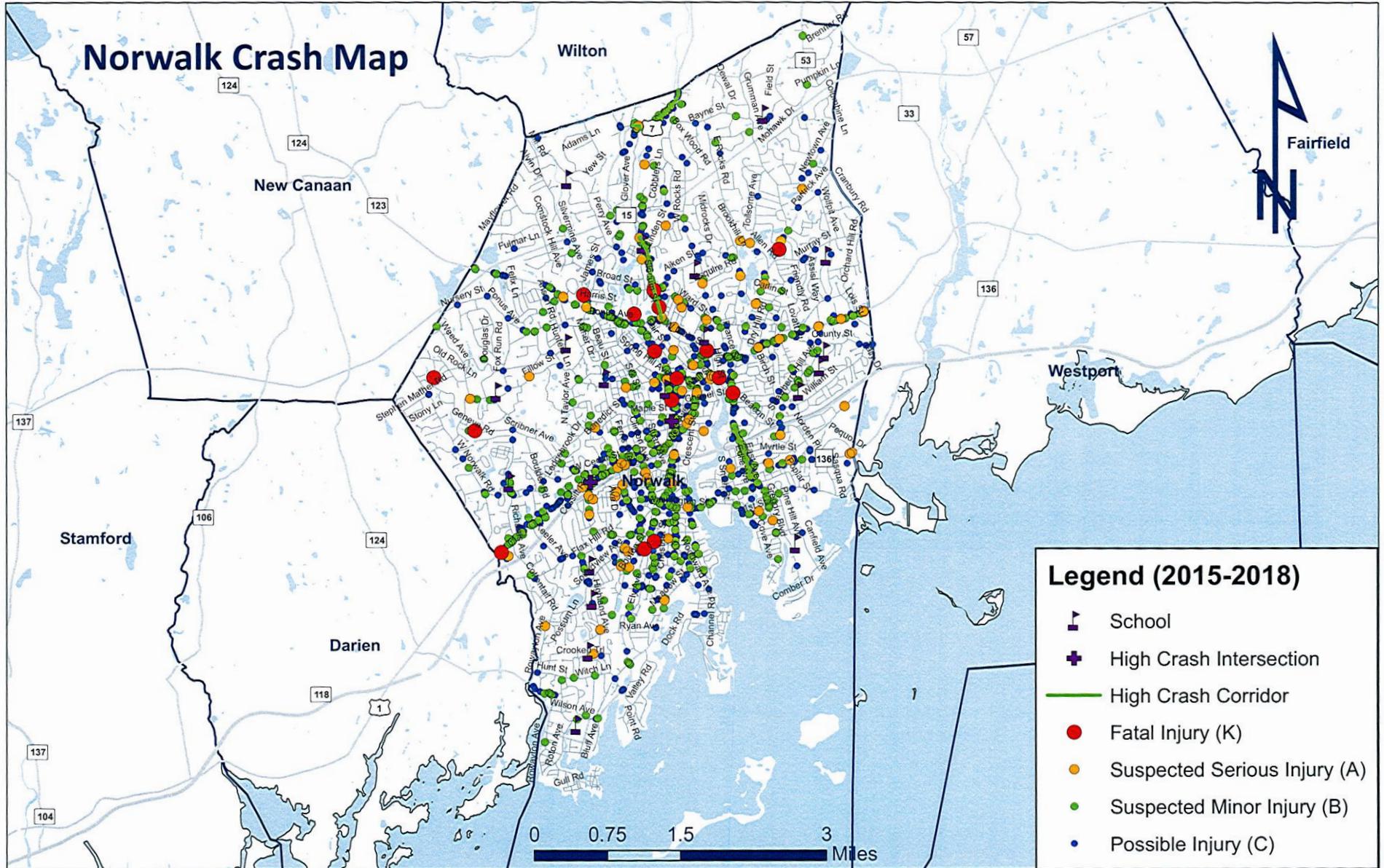
This road between Brook Street and Park Street is a high frequency crash corridor. There are roadway departure crashes along the horizontal curvature. The City has added dynamic speed feedback signs and on-street parking to tighten up the cross section to mitigate speeding. LOTCIP funded streetscape projects are addressing these issues by modifying the corridor to include enhanced pedestrian crossings, better defined on-street parking, to installation of bulb-outs, and additional streetscape features.

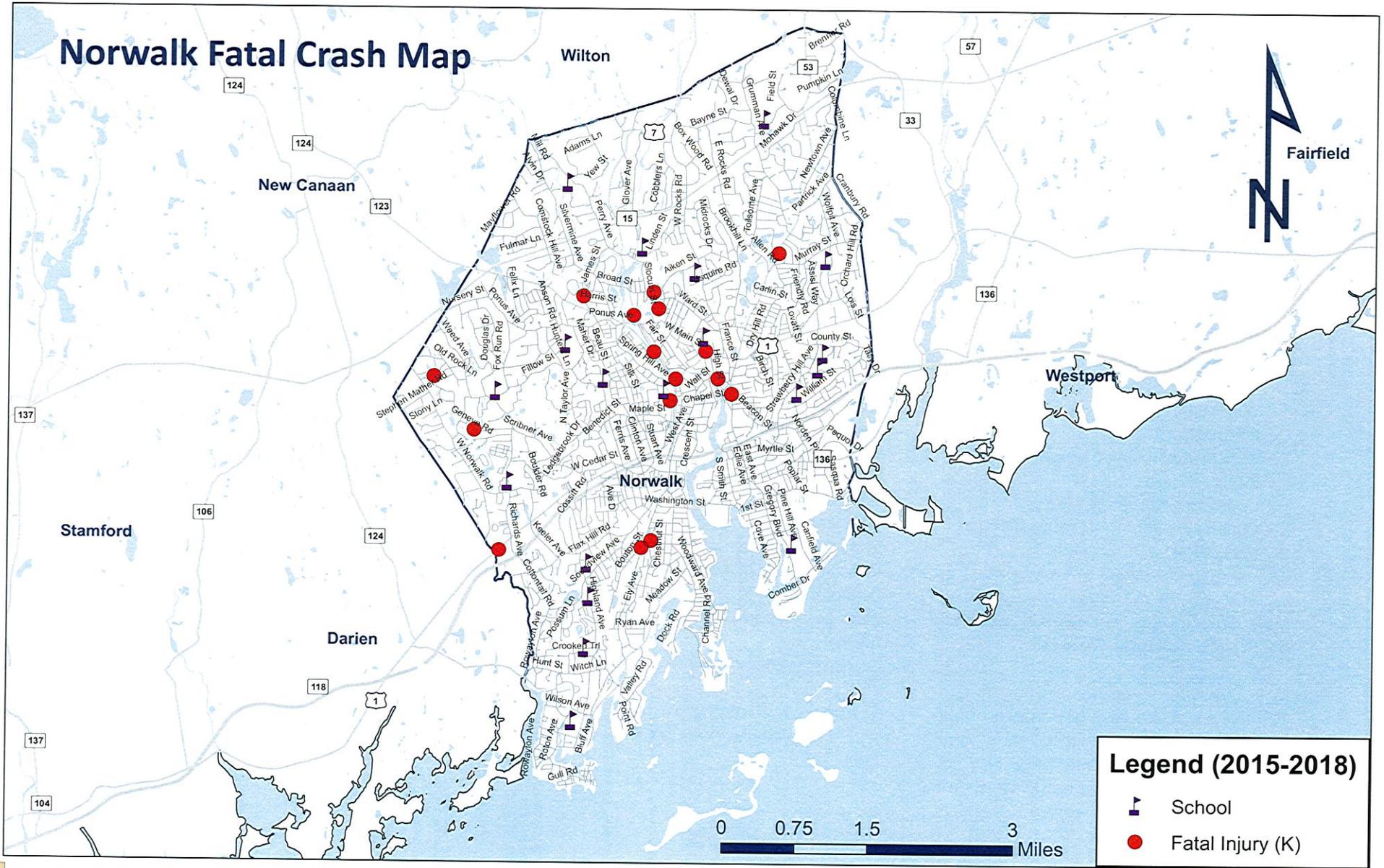
### Transit-Oriented Development (TOD)

The City is working on various TOD projects to address pedestrian connectivity at East Avenue and a development at East Norwalk Railroad Station and South Norwalk Station.

### Camp Street

This corridor is located near Tracey School with 400 students and it is considered a high frequency crash location. A high percentage of students get driven in single-occupancy vehicles which the City believes contributes to the crash rate.





## Field Site Inventory

### East Avenue from Morgan Avenue to Moodys Lane

East Avenue from Morgan Avenue to Moodys Lane generally consists of a four-lane cross section with sidewalks on both sides of the roadway. This segment has narrow travel lanes and no edge lines. There is slight horizontal and vertical curvature and speeding is an issue. This corridor has adjacent commercial land use.

#### Recommendations:

- Consider providing regular speed enforcement.
- Consider installing dynamic speed feedback signs.
- Consider adding edge lines.
- Consider traffic signal retroreflective backplates.

### Main Street from Van Tassell Court to CT-123 (New Canaan Avenue)

Main Street from Van Tassell Court to CT-123 (New Canaan Avenue) consists of a four-lane cross section with no shoulders, numerous curb cuts and high turning movements, and high volumes of traffic. This corridor is located adjacent to US-7 on/off-ramps.

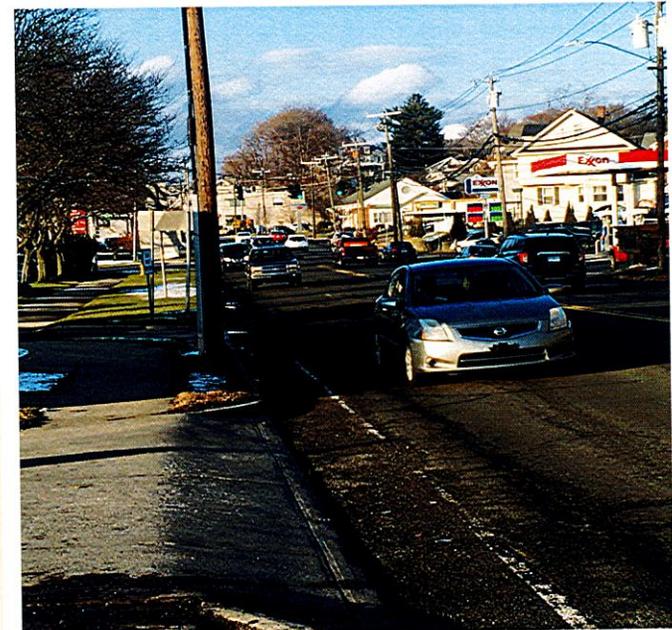
Main Street at CT-123 (New Canaan Avenue) is a signalized, three-way intersection with exclusive right- and left-turn lanes along the Main Street approaches. This is a pedestrianized area, but it has faded crosswalks and no pedestrian signals. There is a Dunkin Donuts on the northwest corner of CT-123 (New Canaan Avenue) and Main Street, with an entrance and exit on Main Street, as well as a right-turn and left-turn lane exit onto CT-123 (New Canaan Avenue), just west of the traffic signal.

#### Recommendations:

- Consider enhancing pedestrian crossings to provide high-visibility crosswalks at the Main Street and CT-123 (New Canaan Avenue) intersection.
- Consider adding pedestrian signals with leading pedestrian intervals.
- Consider signal optimization.
- Consider traffic signal retroreflective backplates.
- Consider corridor access management.
- Consider reducing lane widths, sign clutter, and close driveways.
- Consider a road diet on Main Street, with a possible two-way left-turn lane.



East Avenue



Main Street

## Field Site Inventory

### CT-53 (Newtown Avenue) from Murray Street to Stonybrook Road

CT-53 (Newtown Avenue), in the vicinity of Murray Street and Stonybrook Road, is a north-south roadway, consisting of one travel lane in each direction, varying shoulder widths, and a posted speed limit of 30 MPH. Within this section of CT-53 (Newtown Avenue), there is a slight horizontal curve, with an informal bituminous concrete sidewalk on the western side of the roadway. The surrounding land use is residential, with the exception of St. Peter's Lutheran Church. St. Peter's Lutheran Church driveway is offset from the intersection of CT-53 (Newtown Avenue) and Stonybrook Road, which can contribute to traffic congestion at their driveway during peak traffic generating periods.

#### **Recommendation:**

- Consider installing stop sign for traffic exiting St. Peter's Lutheran Church in coordination with church's representatives.

### Low Street from Martin Luther King Jr. Drive to Railroad Overpass

Low Street from Martin Luther King Jr. Drive to the railroad overpass is a very short segment of roadway, between Martin Luther King Jr. Drive and Ely Avenue. The segment of roadway has no shoulders, one travel lane in the eastbound direction and one travel lane that transitions to an exclusive left-turn lane and through lane over a very short distance to establish the westbound approach of the intersection of Low Street and Martin Luther King Jr. Drive. Sidewalks are located on both sides of this section of Low Street. According to local officials, this short segment of roadway is a gathering place for temporary workers to be picked up by contractors. Due to the narrow roadway cross section, there is minimal room to "pick-up" and/or "drop-off" the temporary workers, therefore creating traffic congestion, as well as vehicle and pedestrian conflicts.

#### **Recommendations:**

- Consider establishing a "pick-up" and "drop-off" area nearby to facilitate the day worker transportation.
- Consider traffic calming countermeasures.



CT-53 (Newtown Avenue) looking north



Martin Luther King Jr. Drive looking west

## Field Site Inventory

### Camp Street from Eclipse Avenue to US-1 (North Avenue)

Camp Street is a north-south street between Eclipse Avenue and US-1 (North Avenue). The roadway consists of one travel lane in each direction, with on-street parking on the western side of the street. Adjacent land use is residential, except for Tracey Elementary School, which serves approximately 400 students. Camp Street has a posted speed limit of 25 MPH and two mid block pedestrian crosswalks in the vicinity of the school's circular driveway. According to local officials, the majority of the elementary school students are picked up and dropped off, creating significant congestion when coupled with school bus traffic and students that walk to and from school. Crossing guards are present during pick-up and drop-off periods.

#### Recommendations:

- Consider assessing parent pick-up/drop-off, school bus, faculty/staff, and pedestrian patterns, to develop a circulation plan to maximize pedestrian safety.
- Consider eliminating on-street parking in the vicinity of the school or restricting parking during drop-off and pick-up times. It looks like all the houses have off-street parking.

### US-1 (Connecticut Avenue) from West Norwalk Road to Richards Avenue

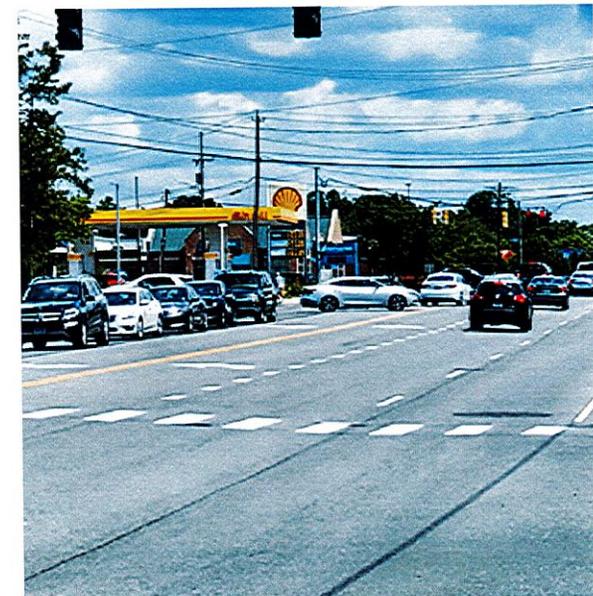
US-1 (Connecticut Avenue) in the vicinity of West Norwalk Road and Richards Avenue is a commercialized area that experiences significant peak period traffic congestion. Many of the adjacent land uses have significant off-street surface parking lots and parking garages, contributing to the traffic congestion in this area. This section of US-1 (Connecticut Avenue) generally consists of two travel lanes in each direction, accompanied by exclusive left-turn lanes at signalized intersections and stretches of commercial driveways. Sidewalks are present on both sides of the corridor, however pedestrian crosswalks are not present across many of the approaches at signalized intersections.

#### Recommendations:

- Consider assessing lane geometry and optimizing signal timings, to address peak period intersection congestion and pedestrian mobility.
- Consider access management strategies to reduce the number of commercial curb cuts.
- Consider adding crosswalks and pedestrian amenities at intersections.



Camp Street looking south



US-1 (Connecticut Avenue) looking northwest

### Norwalk Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
Camp St from Eclipse Ave to US-1 (North Ave)	Pedestrian safety	Consider assessing parent pick-up/drop-off, school bus, faculty/staff, and pedestrian patterns, to develop a circulation plan to maximize pedestrian safety	Low
		Investigate eliminating on-street parking in the vicinity of the school or restricting parking during drop-off and pick-up times	Low
East Ave from Morgan Ave to Moodys Ln	Speeding	Consider regular speed enforcement	Low-Medium
		Consider installing dynamic speed feedback signs	Low
	Consider striping edge lines		
High concentration of crashes	Consider traffic signal retroreflective backplates	Low	
US-1 (Connecticut Ave) from West Norwalk Rd to Richards Ln	Vehicle and pedestrian safety and mobility	Consider assessing lane geometry and optimizing signal timings, to address peak period intersection congestion and pedestrian mobility	Low-Medium
		Consider adding crosswalks and pedestrian amenities at intersections	Low
	High turning movement numbers	Consider access management strategies to reduce the number of commercial curb cuts	Low

**Norwalk Countermeasure Considerations**

Locations	Issues	Countermeasures	Estimated Cost
Main St from Van Tassell Court to CT-123 (New Canaan Ave)	High concentration of crashes	Consider signal optimization	Low-Medium
		Consider a road diet with two-way left-turn lanes	Low
		Consider installing traffic signal retroreflective backplates	Low-Medium
		Corridor access management including sign clutter reduction and merging of driveways	Low-Medium
	Pedestrian safety	Consider enhancing pedestrian crossing to provide high-visibility crosswalks at CT-143 (New Canaan Ave) intersection	Low
		Consider installing pedestrian signal with leading pedestrian intervals	Low
CT-53 (Newtown Ave) from Murray St to Stonybrook Rd	Lack of stop control at skewed intersection	Consider installing stop sign for traffic exiting St. Peter's Lutheran Church in coordination with church's representatives	Low
Lowe St from Martin Luther King Jr. Drive to Railroad Overpass	Pedestrian and vehicular conflicts	Consider establishing a "pick-up" and "drop-off" area nearby to facilitate this use	Low
		Consider traffic calming countermeasures	Low

## TOWN OF REDDING

**2016 US Census Population Estimate:** 9,216

**Area:** 32.10 square miles

**Population Density:** 287 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 58,385,765

**2016 VMT per Capita:** 6,335

**Setting:** Urban Cluster

**Town Representatives:** Julia Pemberton (First Selectman), Mark O'Donnell (PD), Mark DeLuca (PD), Jeff Hanson (DPW), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 4

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 125



Source: VN Engineers

### Overview

Redding is a town in Fairfield County, bordered by Danbury and Bethel to the north, Newtown and Easton to the east, Weston and Easton to the south, and Ridgefield and Wilton to the west. The Town's main thoroughfares are US-7, CT-53, CT-57, CT-58, and CT-107.

### Redding Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	0	0	0
Suspected Serious Injury (A)	3	5	6	2
Suspected Minor Injury (B)	14	9	16	9
Possible Injury (C)	15	20	11	15
<b>Total Injury Crashes</b>	<b>32</b>	<b>34</b>	<b>33</b>	<b>26</b>

## Town's Input

### Fatal Crashes from 2015-2018

There were no fatal crashes in the Town of Redding from 2015-2018.

### High-Frequency Crash Locations

The majority of crashes were reported along the following roadways with higher ADTs: CT-107 (Redding Road/Hill Road/Lonetown Road/Putnam Park Road), CT-53 (Newtown Turnpike/Glen Road/Redding Road), and CT-57 (Georgetown Road). In addition, some local roadways are also heavily traveled, including Church Hill Road, Gallows Hill Road, Cross Highway, and Limestone Road.

### Enforcement

An active patrol unit uses enforcement and education as a strategy to mitigate traffic violations and improve safety. Dynamic speed feedback signs are used in town for traffic calming and to collect data.

### Roadway Concerns

Many transportation issues are due to non-residents traveling through the Town or from residents commuting on various roadways. Other issues are the narrow and unstriped roads, vertical and horizontal curvature, and distracted motorists.

### Centerline Rumble Strips

The State has installed centerline rumble strips on CT-107 (Redding Road/Hill Road/Lonetown Road/Putnam Park Road). In addition, the State offered to install centerline rumble strips on local roadways, but the Town opted out. The residents want to preserve the rural nature of the town and leave the roads intact with minimal pavement markings and changes.

### CT-53 (Redding Road) and Umpawaug Road

The State rehabilitated the bridge at this intersection and increased the elevation. The improvement has limited sight distance from the bridge for motorists traveling from Umpawaug Road to CT-53 (Redding Road).

### Georgetown

Georgetown is a "village" in Redding. This area has been partially streetscaped and the Town would like to complete the project, especially to accommodate possible future development at the former mill location and to promote any transit-oriented development (TOD) around the Georgetown Station. Two major roadways intersect in the Village of Georgetown, CT-107 (Redding Road) and CT-57 (Georgetown Road), where the Town would like to improve pedestrian safety.

### CT-107 (Redding Road/Hill Road/Lonetown Road/Putnam Park Road)

This major corridor has a series of reverse curves and a high frequency of crashes. Police representative indicated that many of these crashes were weather-related. The State installed high friction surface treatment on this corridor, which has improved safety along the curves and reduced crashes.

### CT-57 (Georgetown Road)

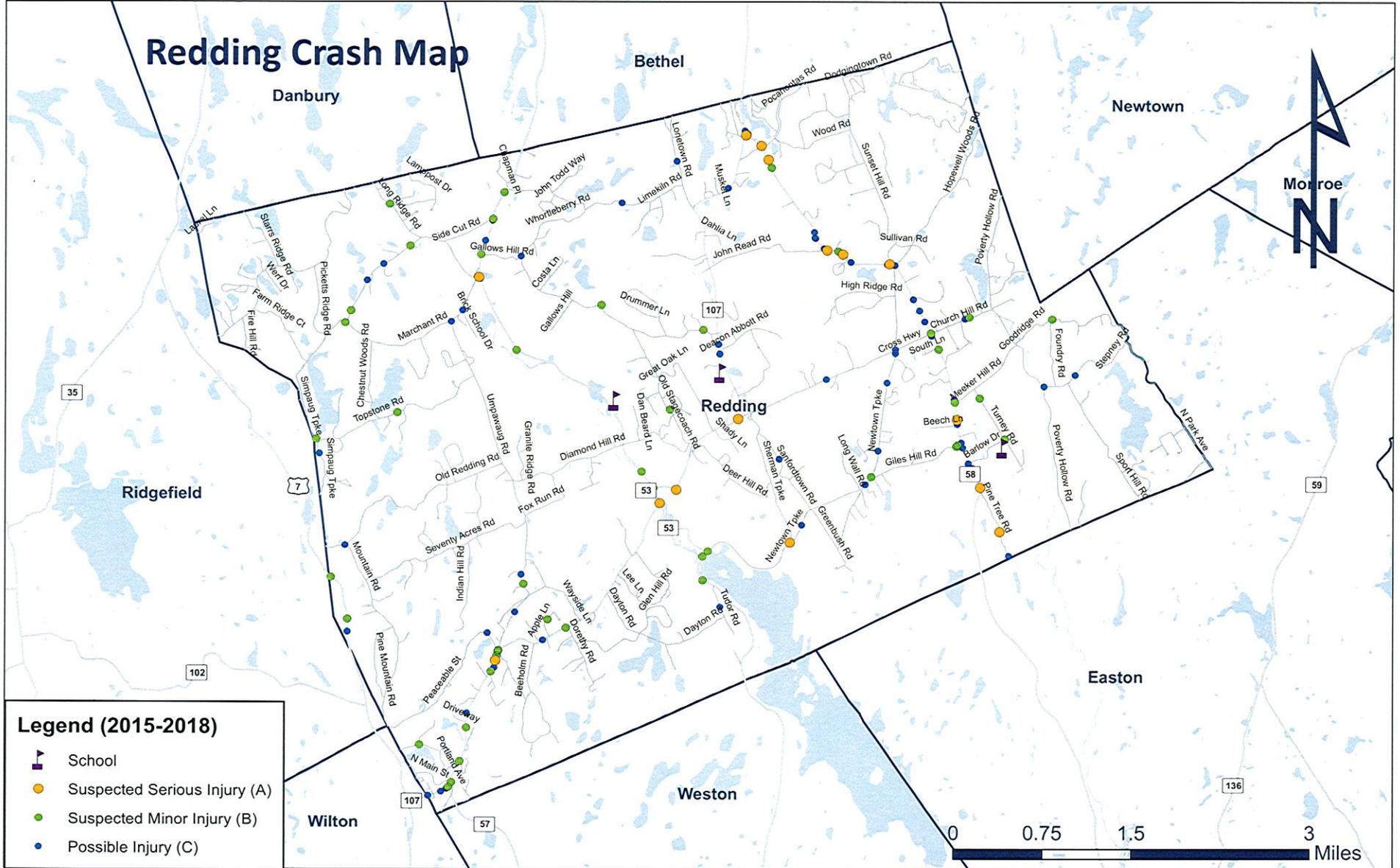
This corridor is a common bike route despite its narrow cross section and lack of shoulders.

### Signing in Town

The Town has not installed chevron curve signs on local roads because of the rural nature of the Town. The State installed some pedestrian crossing signs, but some were removed by the Town.

### CT-58 (Black Road Turnpike) and Giles Hill Rd

This is a Y-intersection on a slope, with a high concentration of crashes. CTDOT came to the Town to discuss possible improvements projects at this intersection, but they have no solution to date.



## Field Site Inventory

### CT-58 (Black Rock Turnpike) and Giles Hill Road

CT-58 (Black Rock Turnpike) and Giles Hill Road is an unsignalized Y-intersection with two approaches and departures for Giles Hill Road, both under stop control. The two approach and departure lanes are separated by a grassy island that also acts as a significant berm or retaining wall, due to the grade differential of the two roadways. The grade differential, coupled with the two skewed approaches introduced by the island or retaining wall, significantly impair sight lines for motorists departing from Giles Hill Road. In the vicinity of the intersection, CT-58 (Black Rock Turnpike) is a north-south roadway with one travel lane in each direction, minimal shoulders, and a posted speed limit of 35 MPH.

#### **Recommendation:**

- Consider designating Giles Hill Road one-way westbound to address the significant sight line issue or consider the complete reconstruction of the intersection to address the grade differential of the two roadways at the intersection.



CT-58 (Black Rock Turnpike)/Giles Hill Road looking north



CT-58 (Black Rock Turnpike)/Giles Hill Road looking west

### Redding Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-58 (Black Rock Tpke) and Giles Hill Rd	Limited sight distance	Investigate designating Giles Hill Rd one-way westbound to address the significant sight line issue or consider the complete reconstruction of the intersection to address the grade differential of the two roadways at the intersection	Low-Medium
Georgetown	Pedestrian safety	Consider installing streetscaping	Low-Medium
		Consider improving the crossings at CT-107 (Redding Road) and CT-57 (Georgetown Road)	Low
Townwide	Horizontal and vertical curvature	Consider installing high friction surface treatment	Medium

## TOWN OF RIDGEFIELD

**2016 US Census Population Estimate:** 25,063

**Area:** 35.00 square miles

**Population Density:** 716 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 156,001,730

**2016 VMT per Capita:** 6,224

**Setting:** Urban Area

**Town Representatives:** Captain Bryan Terzian (Town PD), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** CT-35 (Danbury Road)

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 20

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 330



Source: VN Engineers

### Overview

Ridgefield is a town in Fairfield County, located in the foothills of the Berkshire Mountains, bordered by Danbury to the north, Redding to the east, Wilton to the south, and New York to the west. The Town of Ridgefield boasts a unique historic Main Street. The Town's main thoroughfares are US-7, CT-33, CT-35, CT-102, and CT-116.

### Ridgefield Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	0	0	0
Suspected Serious Injury (A)	3	4	10	10
Suspected Minor Injury (B)	35	33	37	26
Possible Injury (C)	42	37	37	56
<b>Total Injury Crashes</b>	<b>80</b>	<b>74</b>	<b>84</b>	<b>92</b>

## Town's Input

### Fatal Crashes from 2015-2018

There were no fatal crashes reported during the study period for the non-limited-access roadways in the Town of Ridgefield.

The majority of crashes in the town occurred on CT-33 (Wilton Road West/Main Street) and US-7 (Ethan Allen Highway). Most crashes were directly related to driver behavior.

### CT-116 (New Street)/Maple Shade Road

This location is a difficult intersection due to vertical and horizontal curves, which limit sight lines. The Maple Shade Road approach is skewed because of private property on the southeast corner of the intersection.

### CT-116 (North Salem Road)/New Street

This site is a three-way skewed intersection. New Street is under stop control and its skewed approach creates sight distance issues.

### CT-35 (Main Street)

This corridor has high volumes of traffic and associated congestion, particularly for the southbound approach to the downtown area. The Town has installed four crosswalks from Governor Street to Prospect Street, with one being a mid block crosswalk. Drivers tend to not yield to pedestrians in this congested corridor.

### US-7 (Ethan Allen Highway)

This corridor, between New Road and Cains Hill Road, has a series of reverse curves coupled with high speeds, that contribute to a high number of crashes at the signalized intersections.

### CT-102 (Branchville Road)/East Ridge Road

This three-way intersection has marked crosswalks across the East Ridge Road approach and the CT-102 (Branchville Road) west approach to the intersection. East Ridge Road is under stop control. The Town would like to address concerns with students using the crosswalk across the west approach of CT-102 (Branchville Road), due to speeding and sight distance constraints.

## Enforcement Programs

Town representatives expressed that former enforcement grants were very effective in mitigating speeding in town, but now that the funding is no longer available, speeding has increased. The Ridgefield Police Department has worked with the NHTSA to develop the spotter technique for distracted driving enforcement.

### CTDOT Mowing Program

The mowing program has not been very effective in certain locations and the overgrowth is a problem for sight distance. Example of the locations that need better vegetation management include US-7 (Ethan Allen Highway)/Topstone Road/Cains Hill Road and CT-116 (North Salem Road)/Maple Shade Road/Saw Mill Hill Road intersections.

### Ridgebury Road/Regan Road

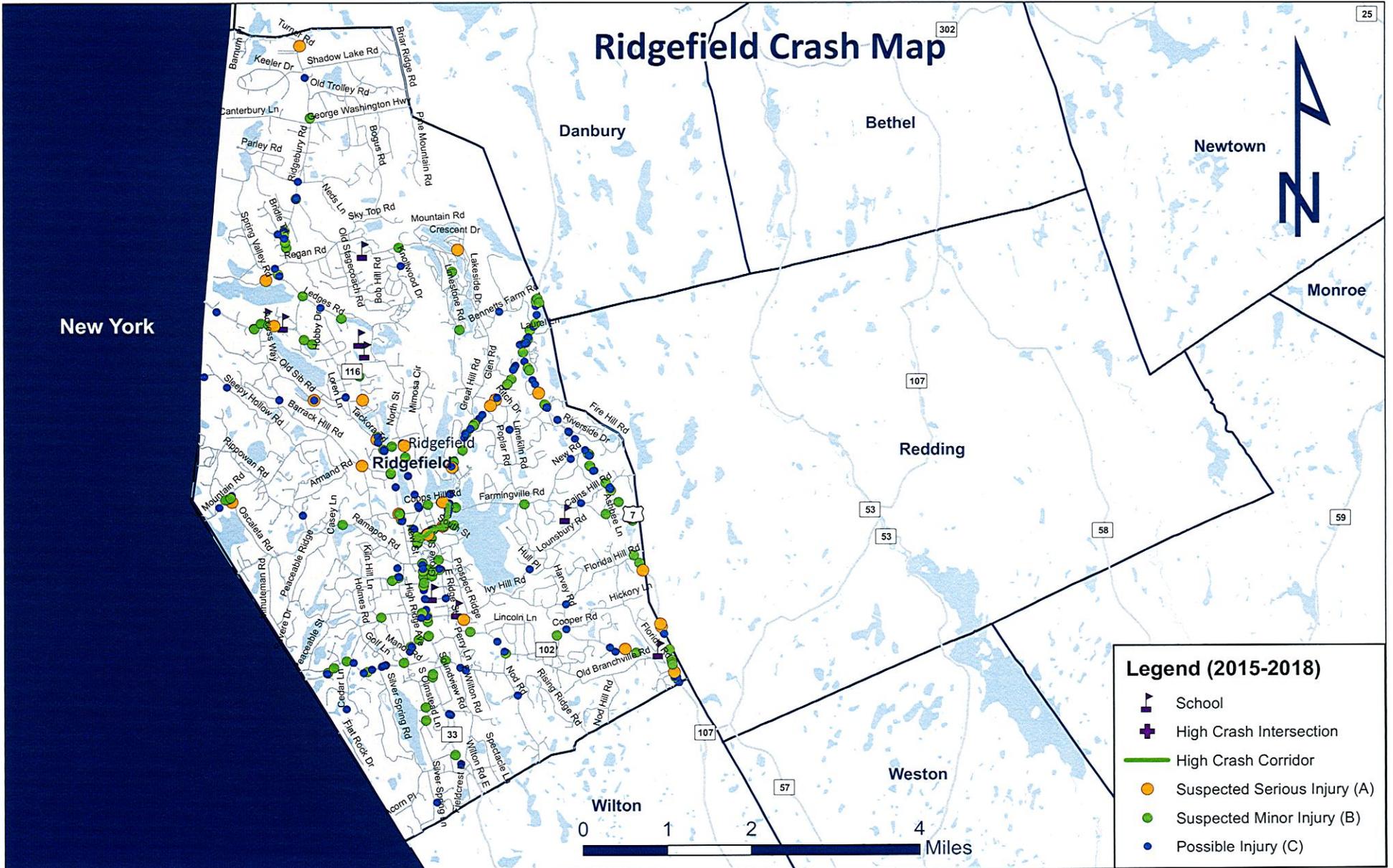
This skewed intersection has a series of crashes. There is horizontal and vertical curvature through the intersection.

### Ridgefield Center Study (2009)

This study's recommendations are being incorporated into the Town's Plan of Conservation and Development (POCD). Some of these recommendations are realigning CT-33/CT-35 (Main Street) and Prospect Street, enhancing pedestrian amenities, and addressing parking issues.

### Branchville Train Station Entrance

The northern entrance to the Branchville Train Station is located at the US-7 (Ethan Allen Highway) and CT-102 (Branchville Road) intersection, which is under signal control. However, this main entrance has a bridge over the Norwalk River, which was deemed unsafe by the State and subsequently closed to all traffic. The closure of the main access drive to the Branchville Station at US-7 (Ethan Allen Highway) and CT-102 (Branchville Road) has significantly increased left-turn traffic volumes at the unsignalized intersection of US-7 (Ethan Allen Highway) and Portland Avenue, which has resulted in near misses. The Town wants this bridge to be a priority for the State to repair and reopen the main signalized access point to the train station from US-7 (Ethan Allen Highway) and CT-102 (Branchville Road).



25

New York

0 1 2 4 Miles

**Legend (2015-2018)**

- School
- High Crash Intersection
- High Crash Corridor
- Suspected Serious Injury (A)
- Suspected Minor Injury (B)
- Possible Injury (C)

## Field Site Inventory

### US-7 (Ethan Allen Highway)/Portland Avenue/Branchville Train Station Entrance

Branchville Station is the Ridgefield commuter rail stop of the Metro-North New Haven Line. US-7 (Ethan Allen Highway) consists of a two-lane narrow roadway, with constraints from the river on the east side and from buildings on the west side. There is a high volume of traffic even during off-peak hours. There is a high volume of traffic even during off-peak hours, though there is no exclusive turn lane into Branchville Station at Portland Avenue. The bridge over the Norwalk River has been closed, so there is no access from CT-102 (Branchville Road).

#### **Recommendations:**

- Consider repairing the bridge as soon as possible.
- Consider providing temporary southbound left-turn lane onto Portland Avenue.
- Consider providing virtual message sign to indicate changed travel pattern.



US-7 (Ethan Allen Highway)/Portland Avenue/Branchville Train Station Entrance



US-7 (Ethan Allen Highway)

### Ridgefield Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
US-7 (Ethan Allen Hwy)/ Portland Ave/Branchville Train Station Entrance	High turning movements	Consider repairing bridge as soon as possible	Medium-High
		Consider providing temporary south-bound left-turn lane onto Portland Ave	Low
		Consider providing virtual message sign to indicate changed travel pattern	Low
Townwide	Pedestrian safety	Consider rectangular rapid flashing beacons (RRFBs) at crosswalks along CT-35 (Main St) and CT-102 (Branchville Rd). CTDOT installing an RRFB on CT-33 (Ridgefield Road) south of Rockwell Road	Low
	Vegetation management at specific locations identified by Town	Coordinate with CTDOT-create a mowing schedule and a task force to assist in issues	Low
CT-116 (North Salem Rd)/New St	Skewed intersection	Consider investigating realigning the intersection	Low-Medium
CT-116 (New St)/Maple Shade Rd	Skewed intersection	Consider investigating realigning the intersection	Low-Medium
CT-102 (Branchville Rd)/East Ridge Rd	Pedestrian safety	Consider enhancing pedestrian crossing amenities	Low
CT-35 (Main St)	Pedestrian safety	Consider providing RRFBs at midblock crossing	Low
		Consider installing traffic calming	Low-Medium

## TOWN OF SHERMAN

**2016 US Census Population Estimate:** 3,641

**Area:** 23.40 square miles

**Population Density:** 156 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 21,639,390

**2016 VMT per Capita:** 5,943

**Setting:** Urban Cluster

**Town Representatives:** Don Lowe (First Selectman), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 1

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 51



Source: VN Engineers

### Overview

Sherman is the northern most and least populous town of Fairfield County, located in the Housatonic Valley, at the northern end of Candlewood Lake. Sherman is bordered by Kent to the north, New Milford to the east, New Fairfield to the south, and New York to the west. The Town's main thoroughfares are CT-37, CT-39, and CT-55.

### Sherman Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	1	1	0	0
Suspected Serious Injury (A)	1	0	0	0
Suspected Minor Injury (B)	10	8	8	10
Possible Injury (C)	3	4	1	4
<b>Total Injury Crashes</b>	<b>15</b>	<b>13</b>	<b>9</b>	<b>14</b>

## Town's Input

### Fatal Crashes from 2015-2018

- Atchison Cove - Pedestrian fatal crash in driveway.
- CT-37 west of Osborn Road - Roadway departure fatal crash.

### CT-37/Holiday Point Road/Jericho Road South/Brinsmade Lane

This site is an offset, five-legged, signalized intersection with frequent crashes, due to the horizontal curvature on CT-37 through the intersection. This intersection is more challenging under dark conditions and for motorists traveling westbound. The State has installed chevron curve signs at the intersection, which have lessened the number of roadway departure crashes.

### CT-37/Wakeman Hill Road/Cozier Hill Road

This is a four-way, offset intersection, with side streets under stop condition. Sight distance from Wakeman Hill Road looking southbound is limited, due to the adjacent vegetation and the uphill approach of CT-37 northbound.

### Centerline Rumble Strips

The first selectman would like centerline rumble strips along all state-owned roadways in Sherman, including CT-37, CT-39 (Gaylordsville Road), and CT-55. The southern portion of CT-39 (Gaylordsville Road) is slated for repaving in the summer of 2020 and so the Town requested to have rumble strips installed. In addition, the State advised that parts of CT-39 (Gaylordsville Road) were too narrow for centerline rumble strips. Segments of CT-37, CT-39 (Gaylordsville Road), and CT-55 that are being repaved are proposed to have centerline rumble strips installed.

### CT-37/CT-39 at Tollgate Brook (South of Old Greenwood Road)

This severely skewed, three-legged intersection is a high crash location, with stop control on the CT-39 northbound approach.

### CT-37/CT-39 (South of the Sherman School)

This is a T-intersection with CT-39 southbound under stop control. It is considered the town center, adjacent to the Sherman School, library, recreation fields, and town services. This intersection is a good candidate for a roundabout, to reduce travel speeds, improve pedestrian mobility, and create placemaking.

### CT-37 near the New Milford Town Line

CT-37, west of Osborn Road, has had crashes due to speeding and horizontal curvature. The State is planning on installing chevron curve signs along this curve. The Town would also like centerline rumble strips installed.

### CT-37/Leach Hollow Road

Roadway departure crashes are common at this intersection. CT-37/Leach Hollow Road is an unconventional T-intersection with Leach Hollow Road under stop control and horizontal curvature on CT-37 through the intersection.

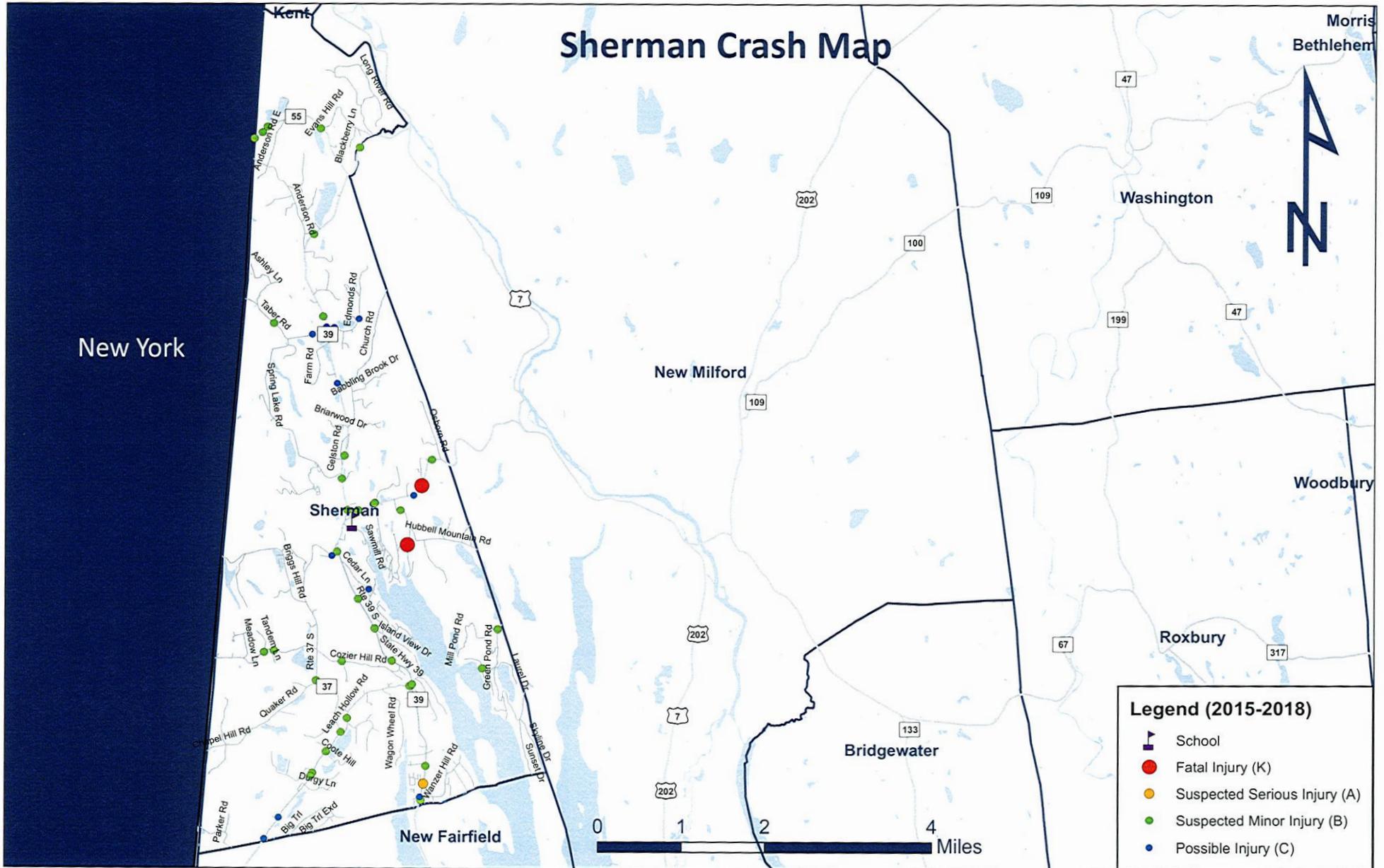
### CT-37/Hardscrabble Road

First Selectman Don Lowe discussed the sight distance issues for motorists on Hardscrabble Road at the intersection with CT-37. Even though this intersection is in New Fairfield, these two roads runs into the Town of Sherman.

### Non-Motorized Users and Signage

The Town of Sherman roads are narrow, but they are used by many avid cyclists. Pedestrians walk on the shoulders. The first selectman advocated for some context sensitive gateway and wayfinding signs.

# Sherman Crash Map



## Field Site Inventory

### CT-39 and CT-37

The intersection of CT-39 and CT-37, next to the American Pie Company, is a severely skewed three-legged unsignalized intersection, with the CT-39 northbound approach under stop control. There is a 25 MPH curve warning advisory speed on CT-37 through the intersection, due to a severe horizontal curve along CT-37 immediately south of the intersection. When traveling southbound on CT-37, the intersection geometry and severe skew can be confusing for motorists to differentiate between continuing along CT-37 southbound or shifting left to CT-39.

#### **Recommendations:**

- Consider assessing the use of intersection warning signs to depict intersection conditions for approaching motorists.
- Consider installing a roundabout.



CT-39/CT-37

### Sherman Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-39 and CT-37	Intersection alignment	Consider the use of intersection warning signs to depict intersection conditions for approaching motorists	Low
		Consider installing a roundabout	Medium-High
Townwide	Front-to-front crashes	Consider installing centerline rumble strips	Low
	Pedestrian and bike safety	Consider installing gateway treatments	Low-Medium
		Consider wayfinding signs	Low
CT-37 near the New Milford Town Line	Crashes through horizontal curvature	Consider installing high friction surface treatment through identified high crash curves	Medium
		Consider installing enhanced delineation	Low
		Consider installing centerline rumble strips	Low
CT-37/Leach Hollow Rd	Roadway departure crashes and horizontal curvature	Consider installing high friction surface treatment through identified high crash curves	Medium
		Consider additional curve warning signs	Low



## CITY OF STAMFORD

**2016 US Census Population Estimate:** 129,113

**Area:** 52.10 square miles

**Population Density:** 2,478 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 641,801,765

**2016 VMT per Capita:** 4,971

**Setting:** Urban Area

**Town Representatives:** Jim Travers (Bureau Chief, Transportation, Traffic and Parking (TTP)); Frank W. Petise (TTP); Luke Buttenwieser (TTP); Patrick Carleton (TTP); Nicole Sullivan (WestCOG); Kristin Hadjstylianos (WestCOG)

**Data Identified Data-Driven Corridors:** US-1 (Tresser Boulevard) (From Clinton Avenue to .04 miles east of Clinton Avenue); West Broad Street (From Schuyler Avenue to Hanrahan Street); Hope Street (From Pine Hill Avenue/Church Street to Glendale Drive); US-1 (East Putnam Avenue/West Main Street) (From Havemeyer Lane to Alvord Lane); CT-137 (High Ridge Road) (From Olga Drive to Dunn Avenue), Strawberry Hill Avenue (From Hoyt Street to Stamford HS North Entrance)

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 391  
**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 2,673



Source: VN Engineers

### Overview

Stamford is a city in Fairfield County, bordered by New York to the north, New Canaan and Darien to the east, Long Island Sound to the south, and Greenwich to the west. The City of Stamford is considered the third-largest city in the State. The City's main thoroughfares are I-95, US-1, CT-15, CT-104, and CT-137.

### Stamford Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	3	5	6	2
Suspected Serious Injury (A)	44	43	38	19
Suspected Minor Injury (B)	335	346	302	154
Possible Injury (C)	423	423	321	209
<b>Total Injury Crashes</b>	<b>805</b>	<b>817</b>	<b>667</b>	<b>384</b>

## City's Input

### Top Crash Sites Identified by 2015-2018 Regional Data

The City has actively managed high crash locations and has already addressed most high crash locations identified between 2015-2018 through cross section consistency, signal optimization, and other measures. Below is a description of the improvements and proposed improvements.

#### **US-1 (Tresser Boulevard) from Clinton Avenue to Greenwich Avenue/West Main Street**

This area was under construction during this study period, which could have increased crash rates. The City received approval to install on-street parking in this segment, in association with a paving project.

#### **West Broad Street from Schuyler Avenue to Hanrahan Street**

The City has addressed the poorly timed traffic signals and inconsistent markings at this intersection by repaving and remarking the roadway. They also added on-street parking, bicycle accommodations, and optimized traffic signals.

#### **Hope Street from Pine Hill Avenue/Church Street to Glendale Drive**

The City recently repaved Hope Street, reduced travel lanes to 10', and added bike lanes to better define the roadway cross section.

#### **US-1 (East Putnam Avenue/West Main Street) from Havemeyer Lane to Alvord Lane**

This corridor has high volumes of traffic. The roadway cross section was recently redefined with consistent travel lanes widths and left-turn pockets were installed to address traffic congestion.

#### **CT-137 (High Ridge Road) from Olga Drive to Dunn Avenue**

This corridor is a commercial district with strip malls and a high number of curb cuts. When CTDOT repaves CT-137 (High Ridge Road), the City will seek to reduce lane widths and add bike lanes. The City is exploring transportation grants to improve the overall corridor through various access management strategies.

#### **Strawberry Hill Avenue north of Hoyt Street**

The City has installed a pedestrian hybrid beacon (PHB) system at the mid block crosswalk in front of Stamford High School and plans to better define the cross section through uniform travel lane widths, bike accommodations, etc.

### Locations for Improvement

#### **Bedford Street north of Broad Street**

This segment of Bedford Street is a restaurant and retail area with a "Main Street" feel. The City would like to make this a more pedestrianized area, remove front-in angle parking, widen sidewalks, add bike lanes, and add dramatic lighting. This site was selected for a site visit.

#### **Bedford Street/Forest Street**

This intersection has unconventional geometry and the City wants to improve it by modifying the intersection geometry. It is an active pedestrian area and a site of pedestrian crashes.

#### **Shippan Avenue/Magee Avenue/Harbor Drive**

This signalized intersection is a gateway to a waterfront residential area. It would benefit from a gateway treatment, between the residential and recreational uses to the south and the commercial area to the north. The traffic signal at this intersection is not connected to rest of network. The Transportation, Traffic, and Parking Department (TTPD) expressed that this intersection is a candidate to investigate for a potential roundabout. The City owns land on three of the four corners.

#### **Elm Street/Cove Road/Shippan Avenue**

This intersection has problems, due to the turning movements at the curb cuts near the intersection. Cove Road has poor pavement marking conditions, lack of sidewalks, and inconsistent lane widths.

#### **North State Street/I-95 (Connecticut Turnpike) Exit 8/Elm Street**

There is a transportation study funded by the Charter Communications Headquarters Project along North State Street. TTPD representatives discussed the possibility of closing certain entrance ramps and extending the Washington Street on-ramp farther to the west. In addition, they would like this area to be improved aesthetically as a gateway.

### **Stillwater Road/Palmer Hill Road**

This intersection has no sidewalks, a high number of turning movements, and insufficient lane geometry. TTPD wants to provide double left-turn lanes from Palmer Hill Road to northbound Stillwater Road to address traffic congestion.

### **Taff Avenue**

This is a dead end street with no connectivity to Fairfield Avenue, which has contributed to heightened crime due to the isolated environment. TTPD discussed the possibility of extending Taff Avenue to Fairfield Street, with the hope of increasing connectivity, to improve circulation for all modes and create a safer environment for all users.

### **Glenbrook Road/Church Street**

TTPD representatives discussed building upon existing public art on the back side of the businesses which are currently visible along the Metro-North New Canaan line.

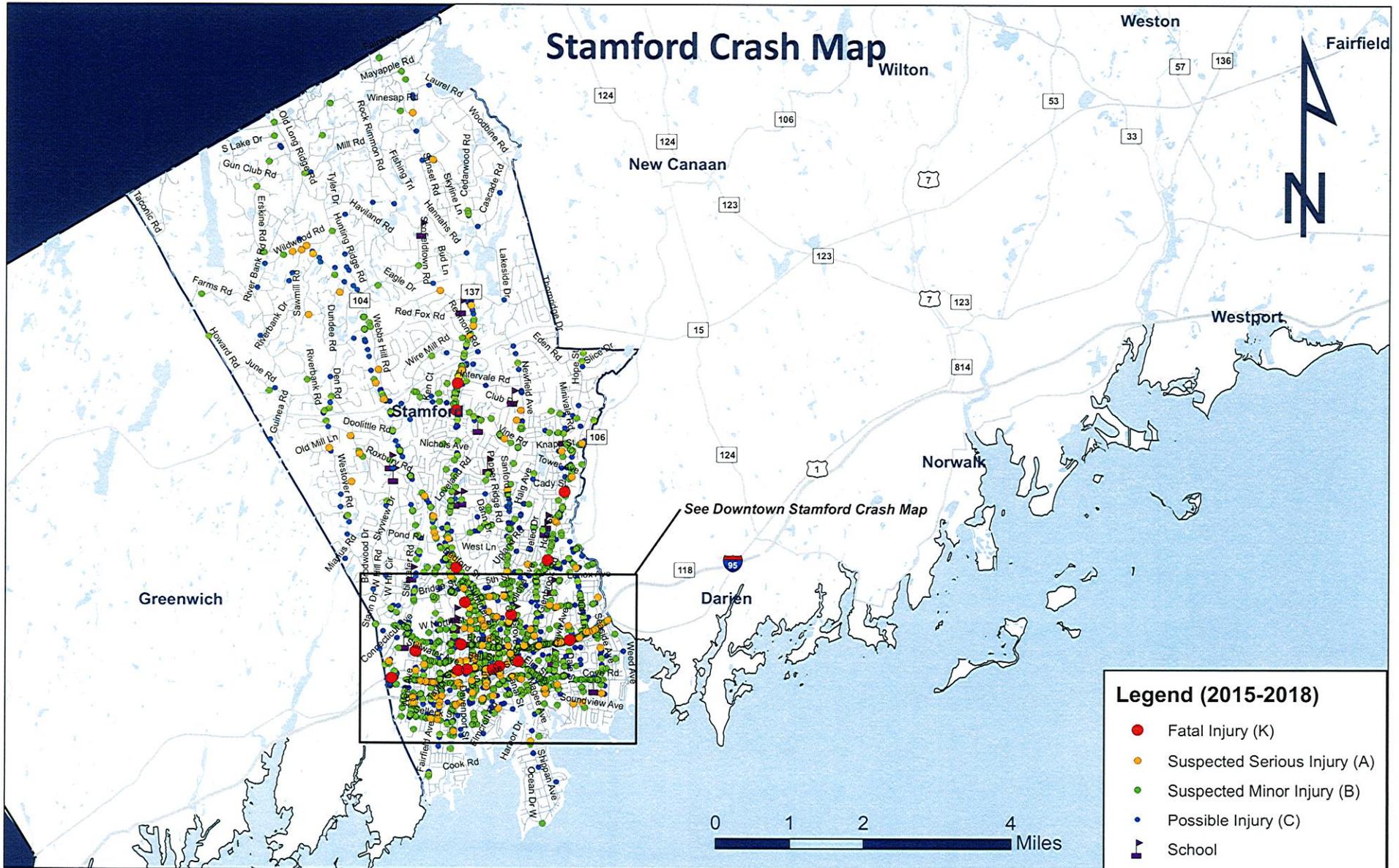
### **Recent Improvements and Priorities in the City of Stamford**

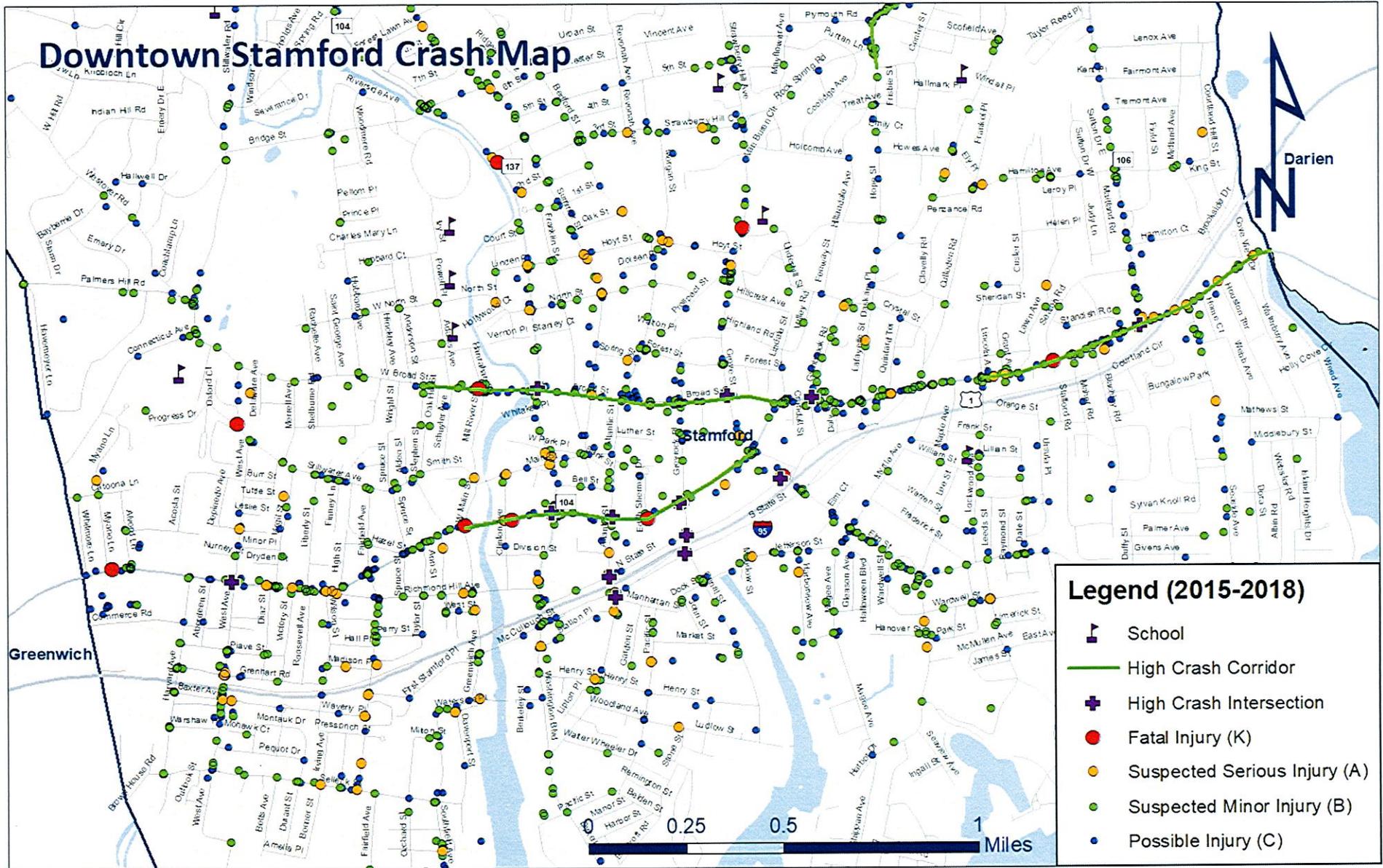
- Reducing pedestrian crashes is a priority for the City of Stamford TTPD.
- PHBs have been installed in five locations, with a sixth to be added soon. Education and multiple installations were prioritized to create consistency and improve safety.
- Entire citywide signal optimization project to reduce congestion, reduce travel times, and lessen motorist frustration has recently been completed. This effort has reduced travel times by 14% and there has also been significant reduction of overall crashes.
- Focus on neighborhood-based improvements.
- Lane width reduction to ten feet and bike lanes added, where feasible.
- Citywide focus to make the roadways more predictable and consistent through pavement markings, travel lane widths, etc.
- Epoxy markings have replaced paint markings to increase reflectivity.
- Citywide concurrent pedestrian phasing with leading pedestrian intervals.

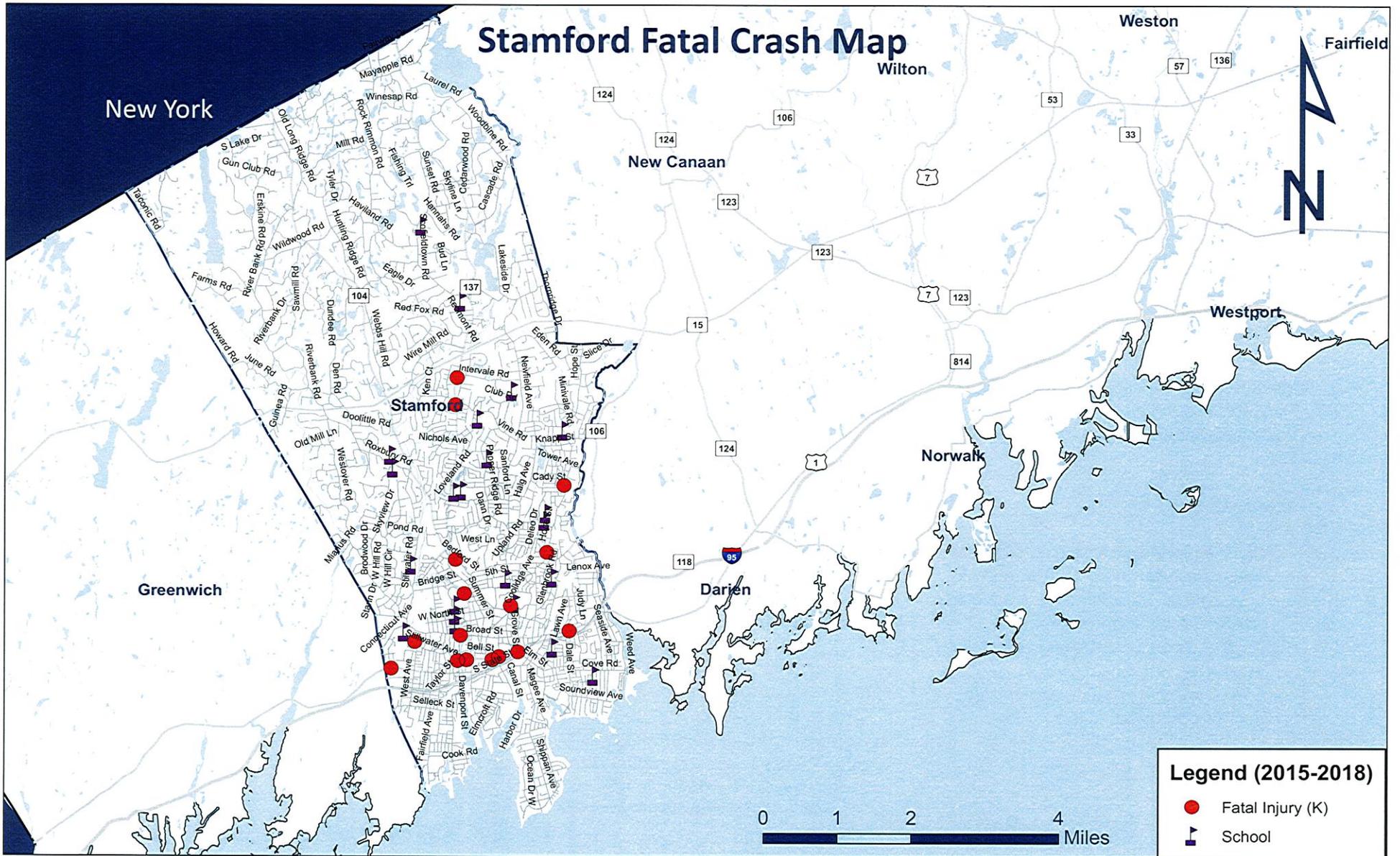
- Much of the infrastructure funding has come from aggressive grant writing through private funding sources, in addition to the State and federal funds.



Source: VN Engineers







## Field Site Inventory

### US-1 (Tresser Boulevard) from Clinton Avenue to 0.04 mi E of Clinton Avenue

This segment of US-1 (Tresser Boulevard) consists of three travel lanes in each direction, with exclusive right- and left-turn lanes at Clinton Avenue and Washington Boulevard intersections. It is located in the center of the city, adjacent to Stamford Government Center and UCONN of Stamford buildings. The US-1 (Tresser Boulevard) corridor has a high volume of traffic and high concentration of pedestrians. There are marked pedestrian crosswalks at Clinton Avenue and Washington Boulevard intersections and sidewalks on both sides of the roadway. US-1 (Tresser Boulevard) has a wide pedestrian crossing.

#### Recommendations:

- Consider island extensions to shorten pedestrian crossing at Clinton Avenue intersection. Determine if this adversely affects turning movements.
- If signal is concurrent consider installing leading pedestrian interval
- Consider adding traffic signal retro-reflective backplates.

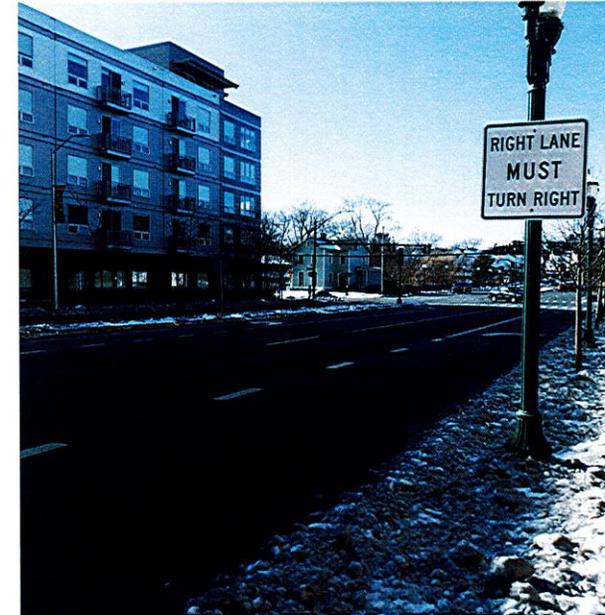
### West Broad Street from Adams Avenue to Hanrahan Street

This segment of West Broad consists of one travel lane in each direction, with exclusive left-turn lanes at the approaches to Adams Avenue and Hanrahan Street. There are marked pedestrian crosswalks at both intersections. The eastbound travel lane on West Broad Street has shared lane markings (SLMs) and along the westbound road, there is a narrow exclusive bike lane with no buffer. This corridor is through a residential and commercial area, with a high number of driveways and corresponding turning movements. Sidewalks are present along both sides of the roadway.

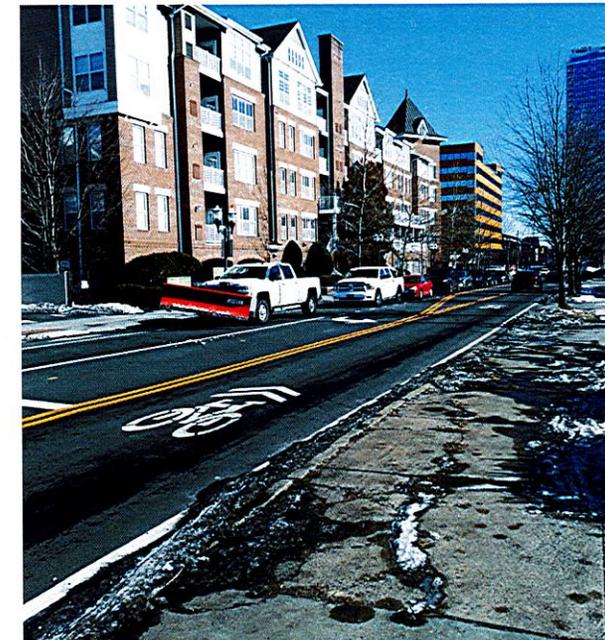
The Shell gas station at the corner of West Broad Street and Hanrahan Street has driveway access approximately a foot away from the crosswalk on West Broad Street.

#### Recommendations:

- Consider adding traffic signal retro-reflective backplates at the Adams Avenue intersection.
- Consider adding bulb-outs, especially along West Broad Street at Hanrahan Street, to shorten crossing length.
- Consider adding delineators along the bike lane.
- Coordinate with the gas station at West Broad Street and Hanrahan Street to consider closing the driveway closest to the intersection on West Broad Street.



US-1 (Tresser Boulevard)/Clinton Avenue



West Broad Street

## Field Site Inventory

### Hope Street from Pine Hill Avenue/Church Street to Glendale Drive

This segment of Hope Street consists of one travel lane in each direction, with an exclusive left-turn lane at the Pine Hill Avenue/Church Street approach. There are exclusive bike lanes and sidewalks along both sides of the roadway. Traffic volume was moderate at off-peak hours. The posted speed limit is 30 MPH and it is located adjacent to a middle school and commercial land uses, with a high volume of curb cuts. Marked pedestrian crosswalks are present at Pine Hill Avenue/Church Street.

#### **Recommendation:**

- Consider various access management techniques, such as curb cut consolidation.

### US-1 (East Putnam Avenue/West Main Street) from Havemeyer Lane to Alvord Lane

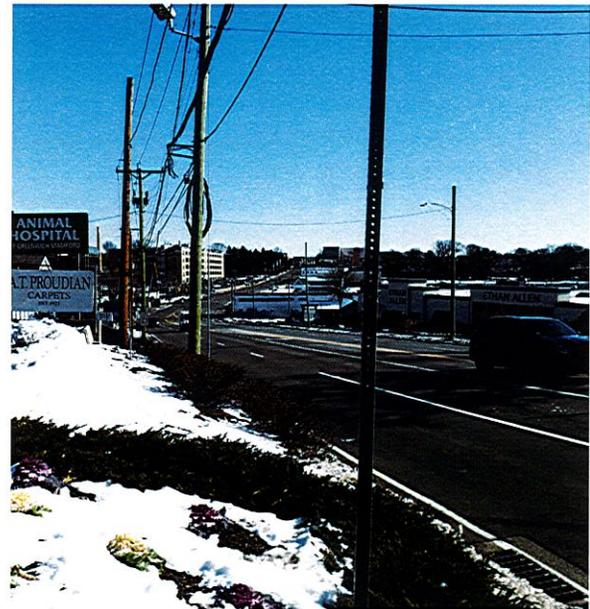
US-1 (East Putnam Avenue/West Main Street) from Havemeyer Lane to Alvord Lane consists of two travel lanes in both directions. It is located adjacent to commercial land use and has exclusive right and left turns at the Alvord Lane intersection, as well as an exclusive left-turn lane at the Havemeyer Lane intersection. This segment also has left-turn lane pockets along this segment. US-1 (East Putnam Avenue/West Main Street) has a downgrade slope east of the Havemeyer Lane intersection, resulting in speeding issues. There are traffic signals at both intersections and marked pedestrian crosswalks are present. Pedestrian jaywalking on US-1 (East Putnam Avenue/West Main Street) was observed during the field visit.

#### **Recommendations:**

- Determine if crosswalks could be added to the missing legs on US-1 at Havemeyer Lane.
- Consider adding traffic signal retroreflective backplates at signals in both intersections.
- Consider providing additional speed enforcement.



Hope Street/Pine Hill Avenue/Church Street



US-1 (East Putnam Avenue/West Main Street)

## Field Site Inventory

### Bedford Street north of Broad Street

The Bedford Street corridor is a highly pedestrianized area with adjacent commercial land use of restaurants and retail. It becomes one-way northbound, north of Atlantic Street. The west side of this corridor has front-in angled parking. Cars reversing out of parking spots causes confusion. In contrast, the east side of Bedford Street has on-street parallel parking. There are SLMs, decorative street lighting, and the roadway width measures approximately 46 feet from curb to curb. Outdoor restaurant seating blocks the sidewalk and forces pedestrians to the curb's edge, where cars are pulling into parking spots.

#### Recommendations:

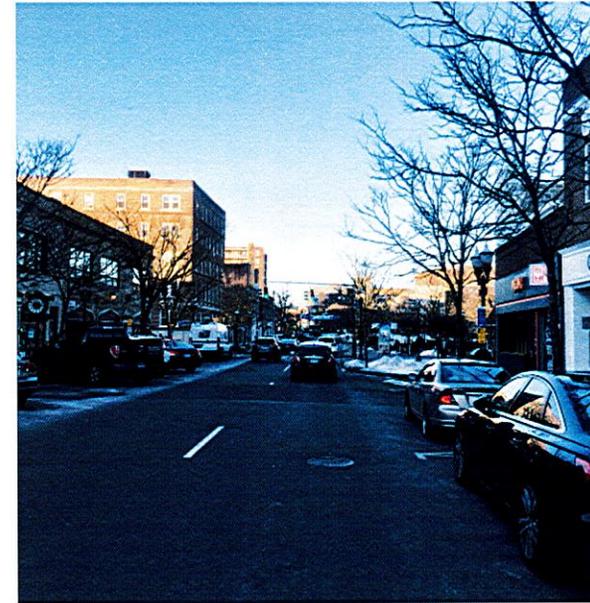
- Consider widening sidewalk.
- Consider removing angled parking, since there are nearby parking lots.
- Create a safer and more pedestrian and bike friendly area.
- Consider reducing or eliminating car use along the corridor.
- Consider making this section an exclusive bicycle and pedestrian zone.

### CT-137 (High Ridge Road) from Olga Drive to Dunn Avenue

CT-137 (High Ridge Road) from Olga Drive to Dunn Avenue is a heavily commercialized corridor with peak period traffic congestion. The roadway cross section generally consists of five lanes, with two lanes in each direction and opposing exclusive left-turn lanes at signalized intersections. The corridor has numerous curb cuts serving commercial land uses and the posted speed limit is 40 MPH. Intermittent sidewalks are located along both sides of the corridor and there are no bicycle accommodations.

#### Recommendation:

- Consider access management strategies to reduce the number of curb cuts, reduce travel lane widths to provide bicycle accommodations, and develop a sidewalk plan to create consistent sidewalks along both sides of the corridor.
- This is on the 2021 VIP list.



Bedford Street



CT-137 (High Ridge Road) looking north

### Stamford Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
Bedford St north of Broad St	Pedestrian safety	Consider widening sidewalk	Low-Medium
		Consider removing angled parking, since there are nearby parking lots	Low
		Create a safer and more pedestrian and bike friendly area	Low
		Consider reducing or eliminating car use along the corridor	Low-Medium
CT-137 (High Ridge Rd) from Olga Dr to Dunn Ave	High number of driveways and turning conflicts	Consider making this section an exclusive bicycle and pedestrian zone	Medium-High
US-1 (East Putnam Ave/West Main St) from Havemeyer Ln to Alvord Ln	Speeding	Determine if crosswalks could be added to the missing legs on US-1 at Havemeyer Lane	Low-Medium
		Consider adding traffic signal retroreflective backplates at signals in both intersections	Low-Medium
	Pedestrians crossing	Consider providing additional speed enforcement	Low

Locations	Issues	Countermeasures	Estimated Cost
Hope St from Pine Hill Ave/ Church St to Glendale Dr	High number of driveways and turning conflicts	Consider various access manage- ment techniques, such as curb cut consolidation	Low-Medium
US-1 (Tresser Blvd) from Clinton Ave to 0.04 mi E of Clinton Ave	Pedestrian safety	Consider island extensions to shorten pedestrian crossing at Clinton Ave intersection. Determine if this adversely affects turning movements	Low
		Consider adding traffic signal r retroreflective backplates	Low-Medium
West Broad St from Adams Ave to Hanrahan St	Intersection safety	Consider adding traffic signal retroreflective backplates at the Adams Ave intersection	Low-Medium
	Non-motorized user safety	Investigate bulb-outs, especially along West Broad St at Hanrahan St, to shorten crossing length	Low-Medium
		Consider adding delineators along the bike lane	Low
		Coordinate with the gas station at West Broad St and Hanrahan St to consider closing the driveway closest to the inter- section	Low

## TOWN OF WESTON

**2016 US Census Population Estimate:** 10,302

**Area:** 20.70 square miles

**Population Density:** 498 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 55,391,305

**2016 VMT per Capita:** 5,377

**Setting:** Urban Cluster

**Town Representatives:** Christopher Spaulding (First Selectman); Jonathan Luiz (Town Administrator); Tracy Kulikowski (Land Use Director); Ed Henion (Chief of Police); Matt Brodacki (PD); Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 3

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 111



Source: VN Engineers

### Overview

Weston is a residential community in Fairfield County, located in southwestern Connecticut, bordered by Redding to the north, Easton and Fairfield to the east, Westport to the south, and Wilton to the west. The Town's main thoroughfares are CT-53 and CT-57.

### Weston Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	0	0	0
Suspected Serious Injury (A)	2	10	3	2
Suspected Minor Injury (B)	13	11	14	12
Possible Injury (C)	6	11	10	17
<b>Total Injury Crashes</b>	<b>21</b>	<b>32</b>	<b>27</b>	<b>31</b>

## Town's Input

### Fatal Crashes from 2015-2018

There were no fatal crashes in the Town of Weston from 2015-2018. In 2019, there was a fatal, speed, and substance-impaired crash on CT-53 (Norfield Road/Weston Road/Newtown Turnpike).

### High-Frequency Crash Locations

The majority of the crashes reported were along the roadways with the highest ADTs, including CT-53 (Norfield Road/Weston Road/Newtown Turnpike) and CT-57 (Weston Road/Georgetown Road). The Town of Weston has a program in collaboration with the police department, where they select three intersections each year for improvement. The locations are prioritized using crash data. The Town focuses on low-cost countermeasures, such as moving stop bars, restriping to realign intersections, and replacing stop signs with retroreflective signs. This has been an effective strategy to mitigate crashes.

### CT-57 (Weston Road/Georgetown Road)

This corridor is a main arterial in the Town of Weston and angle crashes are common. Commuter traffic is high on this roadway because it connects to the Merritt Parkway in Westport. The Town wants the State to inventory trees along CT-57 (Weston Road/Georgetown Road), to determine which ones need to be managed. Ash bore has destroyed many trees in town and this is a potential roadway hazard. Signs need to be inventoried and restored to a good state along this corridor.

### CT-57 (Weston Road)/CT-53 (Norfield Road)

The Town would like this intersection to be improved, with the addition of turning lanes. A traffic study was conducted to determine the level of service, which varied based on direction. However, the eastbound direction experienced an unacceptable level of service.

### CT-53/CT-57 (Weston Road)/School Road

This signalized T-intersection has high volumes of traffic during school arrival and dismissal times. A traffic study confirmed a low level of service for westbound left-turning traffic. Currently, a police officer must manually control the signal during arrival and dismissal hours to maintain a balanced flow of traffic. One future consideration is that the Weston High

School may have a delayed start time. The school is coordinating with the Weston Police Commission to determine feasibility. The Town has a LOTCIP and Community Connectivity Grants Program (CCGP) funded project for intersection improvements, that will add sidewalks and turning lanes onto School Road. This will ease the congestion along CT-53/CT-57 (Weston Road) at the high traveled times and improve pedestrian amenities.

### Pedestrians and Bicyclists

Pedestrians are predominantly around the school campuses and in the center of town. Students also jog through the Town, along narrow shoulders. Bicyclists primarily use State roads. Town police are working with the schools to encourage students to wear reflective clothing when training on roadways.

### Town's Plan of Conservation and Development

This document includes a master plan with a proposed development in the center of town and proposed installation of extensive sidewalk connectivity.

### Chevron Curve Signs

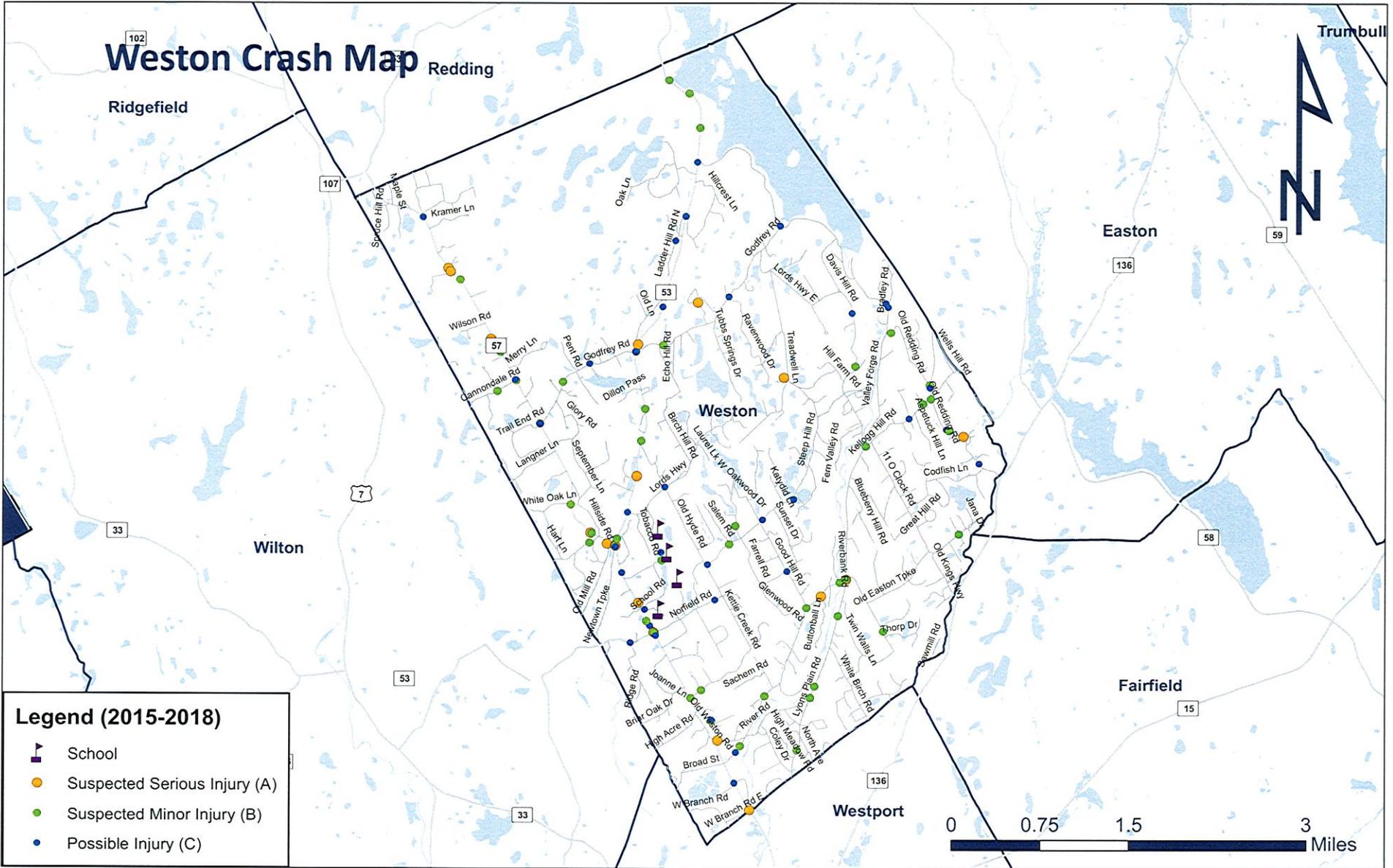
The State has installed chevron signs along horizontal curves on CT-53 (Norfield Road/Weston Road/Newtown Turnpike) and on local roads, Valley Forge Road and Davis Hill Road. The residents are resistant to install these signs on local roads because they do not like how they look.

### Centerline Rumble Strips

There are no rumble strips on State or local roads, but the Town thinks that the CT-53 (Norfield Road/Weston Road/Newtown Turnpike) corridor would be a good candidate for them.

### CT-53 (Norfield Road/Weston Road/Newtown Turnpike)

The Town wants the State to do an inventory of trees on CT-53 (Norfield Road/Weston Road/Newtown Turnpike), to determine which ones need to be managed. In addition, signs need to be inventoried and restored to a good state on this corridor. Drainage issues at CT-53 (Norfield Road/Weston Road/Newtown Turnpike) and Dillon Pass are concerns for the Town and guardrail along the reservoir is degraded and needs to be repaired.



## Field Site Inventory

### CT-53 (Weston Road/Newtown Turnpike)/CT-57 (Georgetown Road)/Newtown Turnpike

This is a four-legged intersection with various challenges. CT-57 (Georgetown Road) tees up to CT-53 (Weston Road/Newtown Turnpike), with stop control on CT-57 (Georgetown Road), on CT-53 (Newtown Turnpike) southbound, and on Newtown Turnpike. CT-53 (Weston Road) northbound is under free flow. There is vertical curvature on all three approaches, with CT-53 (Weston Road/Newtown Turnpike) having downward slope southbound and CT-57 (Georgetown Road) having upward slope eastbound, when approaching the intersection.

In addition, Newtown Turnpike forms a Y-intersection with CT-53 (Weston Road/Newtown Turnpike), just south of this T-intersection. There are physical constraints to the east and west, consisting of a ledge and the Saugatuck River, respectively.

#### **Recommendations:**

- Consider installing all-way stop control.
- Investigate if a traffic signal is warranted.



CT-53 (Weston Road/Newtown Turnpike)/CT-57 (Georgetown Road)/Newtown Turnpike



CT-53 (Weston Road/Newtown Turnpike)/CT-57 (Georgetown Road)/Newtown Turnpike intersection

### Weston Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-53 (Weston Rd/Newtown Tpke)/CT-57 (Georgetown Rd)/Newtown Tpke	Angle crashes	Consider installing all-way stop control	Low
		Investigate if a traffic signal is warranted	Low
CT-53 (Norfield Rd/Weston Rd/Newtown Tpke)	Vegetation overgrowth	Consider regulatory vegetation management	Low-Medium
	High frequency of front-to-front crashes	Consider installing centerline rumble strips	Low
CT-57 (Weston Rd)/CT-53 (Norfield Rd)	Low level of service and crashes	Investigate installing left-turn lanes	Low
		Consider installing traffic signal optimization	Low

## TOWN OF WESTPORT

**2016 US Census Population Estimate:** 27,840

**Area:** 33.45 square miles

**Population Density:** 832 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 461,970,645

**2016 VMT per Capita:** 16,594

**Setting:** Urban Cluster

**Town Representatives:** Peter Ratkiewich (DPW Director); Keith Wilberg (Town Engineer); Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** N/A

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 38

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 404



Source: VN Engineers

### Overview

Westport is a suburban town in Fairfield County, along Long Island Sound and within Connecticut's Gold Coast. Westport is bordered by Weston to the north, Fairfield to the east, Norwalk and Wilton to the west, and Long Island Sound to the south. The Town's main thoroughfares are I-95, US-1, CT-15, CT-33, CT-57, and CT-136.

### Westport Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	0	1	1	0
Suspected Serious Injury (A)	9	9	8	6
Suspected Minor Injury (B)	41	25	38	57
Possible Injury (C)	87	35	33	54
<b>Total Injury Crashes</b>	<b>137</b>	<b>70</b>	<b>80</b>	<b>117</b>

## Town's Input

### Fatal Crashes from 2015-2018

- US-1 (Post Road East) and Crescent Road - Older driver, no restraint, fatal crash.
- Elaine Road - Heavy truck, roadway departure, fatal crash.

### US-1 (Post Road/Post Road East)

The majority of crashes in the Town of Westport occur on this corridor. The Town and the State have an ongoing project (158-215) to improve the eastern segment of Post Road at Bulkley Avenue North and the western side of US-1 (Post Road East) at Roseville Road/Hillspoint Road, to mitigate congestion and improve pedestrian and bike mobility. The improvements will include sidewalk construction, the addition of marked crosswalks, widening shoulders, signal redesign, and the addition of left-turn lanes. There are two midblock crossings, located west of Bulkley Avenue North, where the Town would like PHBs to be installed. There have been many pedestrian crashes on US-1 (Post Road/Post Road East), often due to pedestrians crossing mid block.

### US-1 (Post Road)/CT-33 (Wilton Road/Riverside Avenue)

This signalized intersection is a high crash location and the State provided a redesign project, but it did not get buy-in from the Planning and Zoning Department.

### CT-57 (Weston Road/Main Street)/CT-136 (Easton Road/Main Street)/Weston Road near CT-15 (Merritt Parkway) On- and Off-Ramps

There are three closely spaced signalized intersections, with low travel speeds due to congestion. CTDOT designed a concept for three mini roundabouts to replace the signals at these locations to improve flow. The challenge of this design is controlling the CT-15 (Merritt Parkway) on-ramp volume from being too high and causing issues for motorists merging onto the highway. The Town of Westport is looking into Congestion Mitigation and Air Quality (CMAQ) program funding for this project.

### Main to Train Corridor Study (WestCOG 2019)

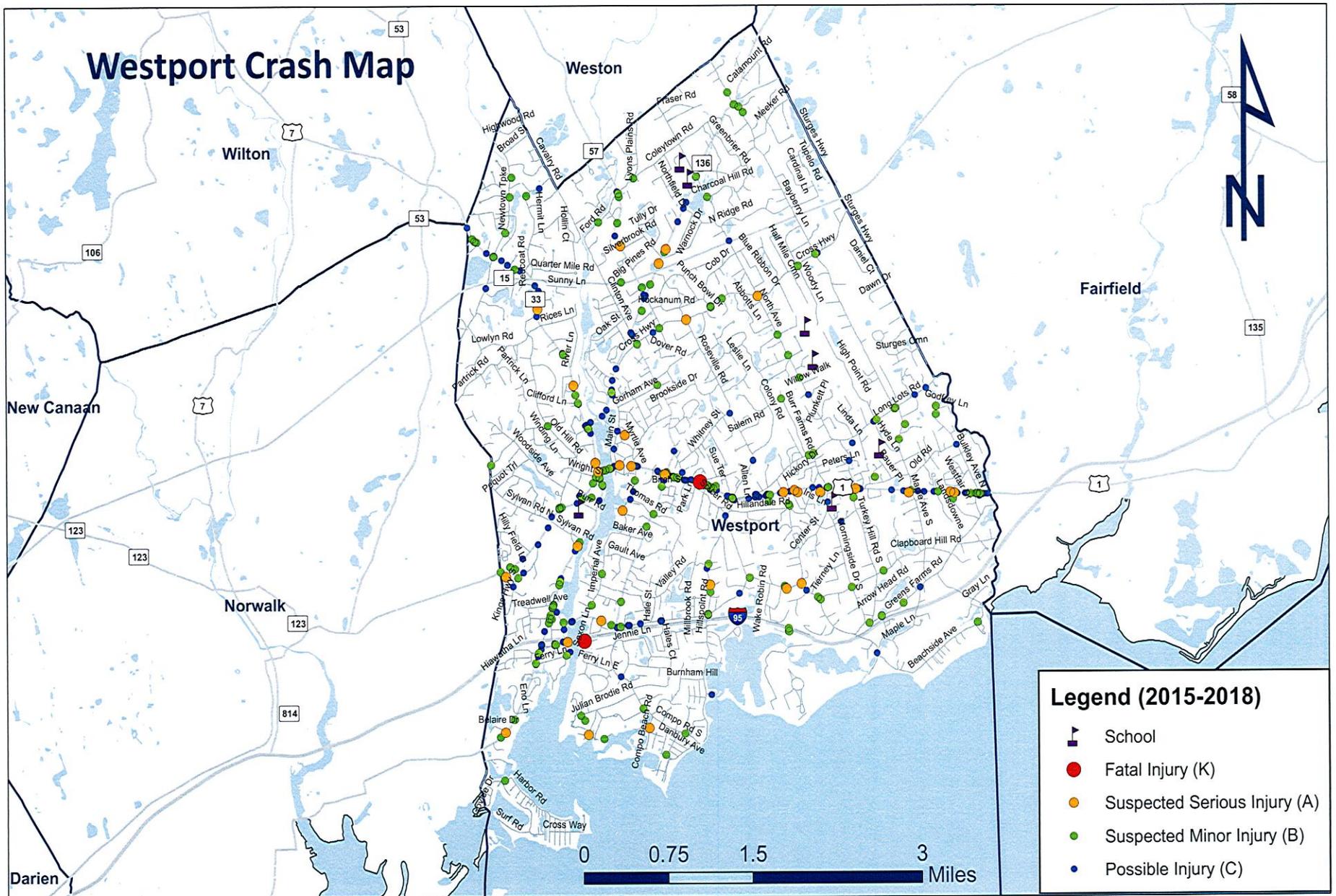
The Town has implemented some of this study's recommendations. These recommendations include improvements for downtown to alleviate congestion, improvements to bike and pedestrian accommodations, and replacing exclusive pedestrian phases with concurrent.

### Pedestrians

A pedestrian improvement project is underway in the downtown using LOTCIP funding.



Source: VN Engineers



## Field Site Inventory

### CT-57 (Weston Road/Main Street) from the CT-15 ramps and CT-136 (Easton Road/Main Street)

The intersection of CT-57 (Weston Road/Main Street), CT-136 (Easton Road/Main Street) and Weston Road is a skewed intersection under stop control, with an overhead flashing beacon in a residential area, just south of the full access ramps to the CT-15 (Merritt Parkway). The CT-57 (Weston Road/Main Street) southbound approach and CT-136 (Main Street) eastbound approach are separated by a large landscaped island with both approaches under stop control; one approach providing access to CT-57 (Weston Road) northbound and CT-15 (Merritt Parkway), with the other providing access to eastbound CT-136 (Easton Road) and southbound Weston Road. The CT-57 (Weston Road) southbound approach consists of an informal right lane under free flow conditions and a through lane under stop control. During peak commuting periods the intersection is extremely congested and operates at a poor level of service. The confusing geometry of the intersection further contributes to traffic congestion and the poor level of service.

#### Recommendations:

- Consider installing a traffic signal with significant geometric lane modifications, coupled with signal coordination with the traffic signals at the CT-15 (Merritt Parkway) ramps.
- Alternatively, consider installing a roundabout at the intersection of CT-57 (Weston Road/Main Street), CT-136 (Easton Road/Main Street), and Weston Road.



Aerial of Ct-15 ramps, CT-57, CT-136 and Weston Road



CT-57 (Weston Road/Main Street), CT-136 (Easton Road/Main Street), Weston Road, and CT-15 (Merritt Parkway) ramps

### Westport Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
CT-57 (Weston Rd/Main St)/ CT-136 (Easton Rd/Main St)/Weston Rd near CT-15 (Merritt Parkway) On- and Off-Ramps	High crash intersection	Consider installing a traffic signal with significant geometric lane modifications, coupled with signal coordination with the traffic signals at the CT-15 (Merritt Pkwy) ramps	Low-Medium
		Alternatively, consider installing a roundabout at the intersection of CT-57 (Weston Rd/Main St), CT-136 (Easton Rd/Main St), and Weston Rd	Medium-High
US-1 (Post Rd/Post Rd East)	Midblock crossing	Consider installing pedestrian hybrid beacon or RRFB. One is being installed at US-1 (Post Rod East) and Landsdowne Condos	Low-Medium

## TOWN OF WILTON

**2016 US Census Population Estimate:** 18,560

**Area:** 27.40 square miles

**Population Density:** 677 persons per square mile

**2016 Vehicle Miles Traveled (VMT):** 154,093,510

**2016 VMT per Capita:** 8,302

**Setting:** Urban Cluster

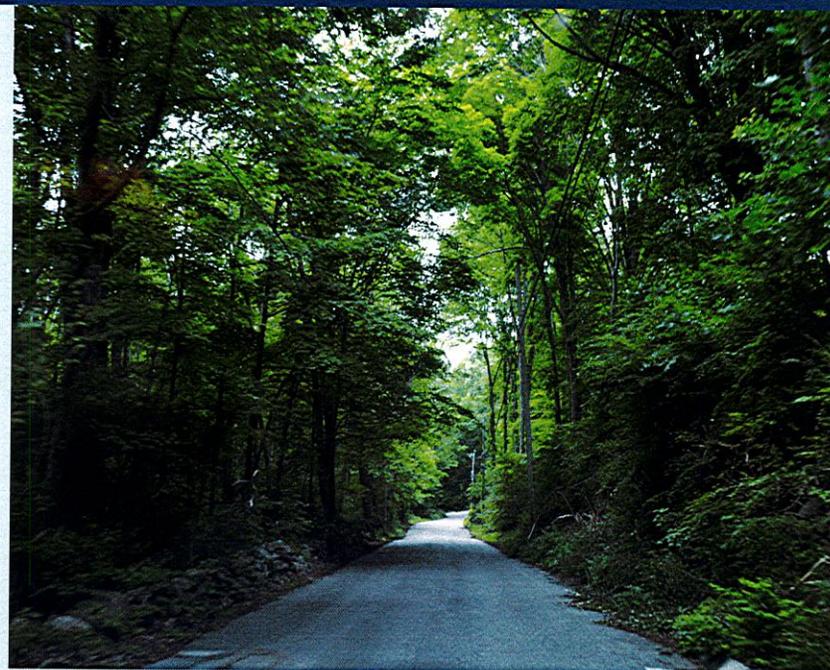
**Town Representatives:** : Frank Smeriglio (Assistant DPW Director/ Town Engineer), Bob Nerney (Director of Planning and Land Use Management), Rob Cipolla (PD), David Hartman (PD), Nicole Sullivan (WestCOG)

**Data Identified Data-Driven Corridors:** N/A

**Data Identified High Crash Intersections:** US-7 (Danbury Road) and CT-106 (Sharp Hill Road)

**Bike and Pedestrian Injury and Fatal Crash Totals, 2015-2018:** 17

**Total Number of Crashes Involving Injuries or Fatalities, 2015-2018:** 409



Source: VN Engineers

### Overview

Wilton is a residential town in Fairfield County in southwestern Connecticut, bordered by Ridgefield and Redding to the north, Weston and Westport to the east, Norwalk to the south, and New Canaan and New York to the west. It is a residential community with open lands, historic architecture, and antique colonial homes. The Town's main thoroughfares are US-7, CT-33, CT-53, and CT-106.

### Wilton Total Crashes by Severity

Crash Severity	2015	2016	2017	2018
Fatal Injury (K)	1	1	1	0
Suspected Serious Injury (A)	0	7	7	2
Suspected Minor Injury (B)	40	39	34	44
Possible Injury (C)	49	62	69	53
<b>Total Injury Crashes</b>	<b>90</b>	<b>109</b>	<b>111</b>	<b>99</b>

## Town's Input

### Fatal Crashes from 2015-2018

- US-7 (Danbury Road) south of Old Mill Road - Front-to-front, medically-related fatal crash.
- US-7 (Danbury Road) south of CT-33 (Ridgefield Road) - Pedestrian fatal crash.
- US-7 (Danbury Road) at Wilton Hills - Motorcycle (helmeted), aggressive driving fatal crash.

### US-7 (Danbury Road)

This north-south corridor has the highest frequency of crashes in town. The section between Olmstead Road and CT-33 (Westport Road) was widened by the State, which has contributed to higher travel speeds and front-to-rear crashes. US-7 (Danbury Road) reduces to a two-lane cross section north of Olmstead Hill Road. US-7 (Danbury Road) at the YMCA has two southbound lanes. However, there is no left-turn lane and front-to-rear crashes are common, as cars wait to turn into the YMCA. The Town has encouraged corridor access management on US-7 (Danbury Road), to reduce turning movements and conflict points for all newer developments. Town representatives stated that roadway illumination at intersections is inadequate.

### US-7 (Danbury Road)/Pimpewaug Road

The Town of Wilton wanted a signal to be installed at this T-intersection, due to a new 165-unit residential complex proposed to be built. However, the intersection did not meet signal warrants.

### CT-106 (New Canaan Road)/Belden Hill Road

This four-way intersection is a high frequency crash location and has side street stop control. Commuter traffic is high. It is a potential roundabout project site, but would need resident support.

### Hurlbutt Street

This is a narrow, north-south corridor, parallel to US-7 (Danbury Road). Motorists used Hurlbutt Street to avoid congestion on US-7 (Danbury

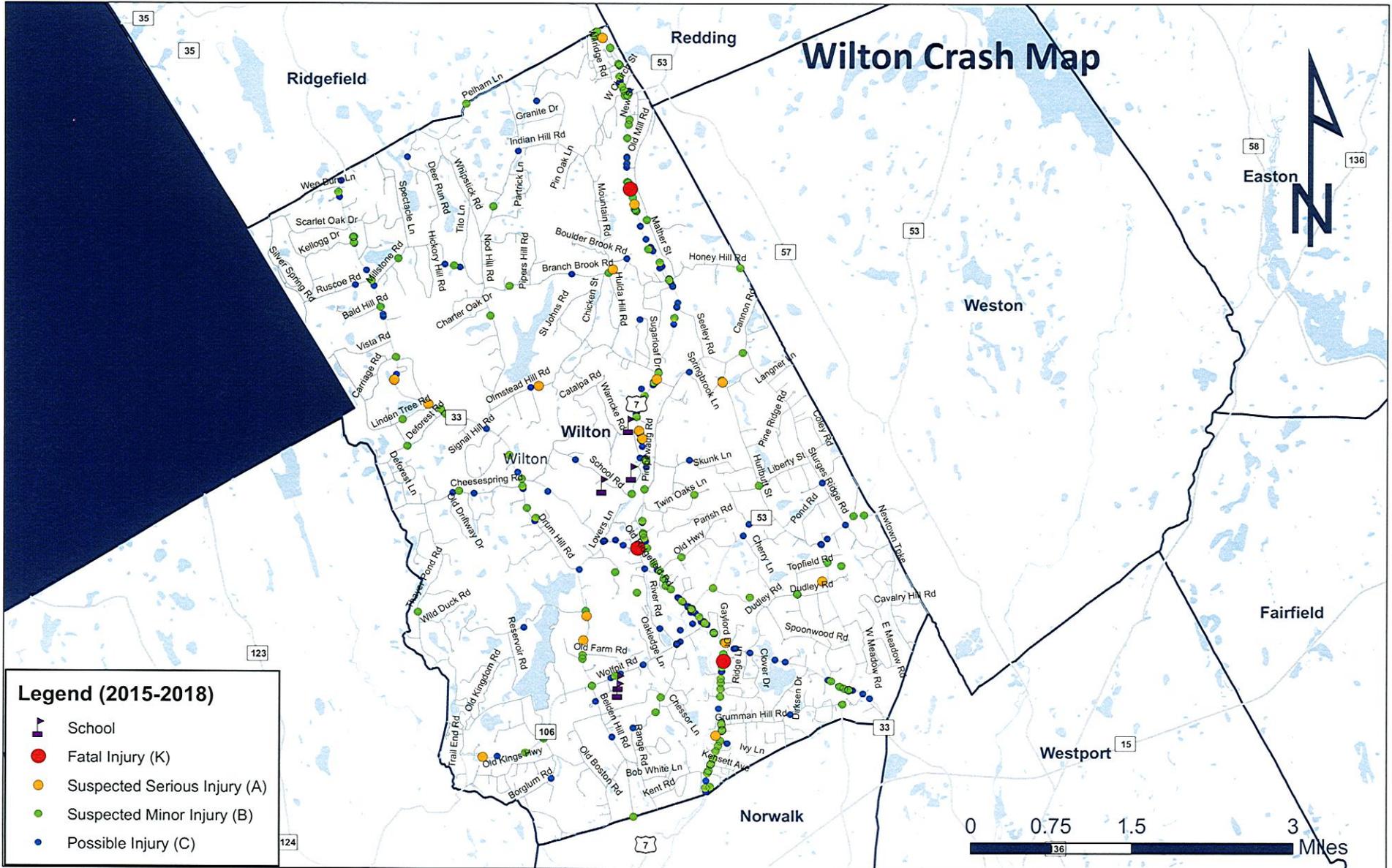
Road). There are no edge lines and speeding is an issue along this roadway.

### CT-33 (Ridgefield Road/Danbury Road/Westport Road)

CT-33 (Ridgefield Road/Danbury Road/Westport Road) has sight distance issues. Town representatives indicated that the existing stop bars at various side street intersections need to be replaced and in some instances, moved forward to increase sight lines. Police focus their speed enforcement on this corridor and there has been a significant reduction of speeding due to the increased enforcement.

### Pedestrians and Bicyclists

Town representatives expressed that bicyclists use roadway corridors and pedestrians use the Norwalk River Valley Trail. They indicated that some of the crossings on the trail are slated to be improved.



## Field Site Inventory

### US-7 (Danbury Road) from CT-33 (Westport Road) to Olmstead Hill Road

US-7 (Danbury Road) between CT-33 (Westport Road) and Olmstead Hill Road generally consists of a four-lane cross section, with two lanes in each direction. This corridor widens out to a five-lane cross section at some of the signalized intersections, with two lanes in each direction and opposing exclusive left-turn lanes. However, at the signalized intersections of US-7 (Danbury Road) and Cannon Road, as well as US-7 (Danbury Road) and Olmstead Hill Road, exclusive left-turn lanes are not present. US-7 (Danbury Road) experiences heavy peak period congestion and high travel speeds during off-peak periods. The corridor has intermittent sections of numerous curb cuts, serving commercial land uses. A sidewalk is located along the west side of US-7 (Danbury Road). The posted speed limit is 40 MPH and drops to 30 MPH in the vicinity of Wilton High School.

#### **Recommendations:**

- Consider access management strategies to reduce the number of commercial curb-cuts.
- Consider adding retroreflective signal backplates at signalized intersections.
- Consider assessing and modifying lane geometry, as well as optimizing signal timings, to address peak period intersection congestion.



US-7 (Danbury Road) from CT-33 (Westport Road) to Olmstead Hill Road looking south

### Wilton Countermeasure Considerations

Locations	Issues	Countermeasures	Estimated Cost
US-7 (Danbury Rd) from CT-33 (Westport Rd) to Olmstead Hill Rd	High concentration of crashes	Consider access management strategies to reduce the number of commercial curb cuts	Medium
		Consider adding retroreflective signal backplates at signalized intersections	Low
		Consider assessing and modifying lane geometry, as well as optimizing signal timings, to address peak period intersection congestion	Medium-High
Hurlbutt St	Speeding	Consider adding edge lines	Low
		Consider installing a dynamic speed feedback signs	
CT-106 (New Canaan Rd)/ Belden Hill Rd	Speed and crashes	Consider installing a a roundabout	Medium

## Appendix B: Emphasis Areas

### INTERSECTION FATAL AND INJURY CRASHES

Municipality	2015	2016	2017	2018
Bethel	42	42	50	34
Bridgewater	1	2	3	2
Brookfield	36	32	39	25
Danbury	231	269	211	270
Darien	49	37	36	39
Greenwich	72	86	71	70
New Canaan	28	28	24	23
New Fairfield	14	10	13	10
New Milford	42	32	31	54
Newtown	30	32	41	40
Norwalk	148	131	198	189
Redding	5	3	8	12
Ridgefield	19	23	16	26
Sherman	3	1	2	2
Stamford	447	467	382	195
Weston	12	17	11	9
Westport	62	34	41	63
Wilton	33	40	32	41
<b>Total</b>	<b>1,274</b>	<b>1,286</b>	<b>1,209</b>	<b>1,104</b>

### ROADWAY DEPARTURES FATAL AND INJURY CRASHES

Municipality	2015	2016	2017	2018
Bethel	20	22	26	20
Bridgewater	5	5	4	0
Brookfield	19	20	21	21
Danbury	103	113	109	100
Darien	15	21	27	20
Greenwich	39	58	43	40
New Canaan	10	21	15	15
New Fairfield	10	14	22	15
New Milford	52	49	40	39
Newtown	43	22	39	35
Norwalk	44	46	59	62
Redding	21	17	13	9
Ridgefield	31	19	35	31
Sherman	10	5	7	12
Stamford	85	80	66	37
Weston	6	13	11	20
Westport	15	4	11	14
Wilton	14	20	27	18
<b>Total</b>	<b>542</b>	<b>549</b>	<b>575</b>	<b>508</b>

**OLDER DRIVER FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	10	5	20	15
Bridgewater	1	2	4	1
Brookfield	8	20	13	14
Danbury	57	66	53	61
Darien	13	17	15	15
Greenwich	18	32	22	17
New Canaan	4	13	10	14
New Fairfield	3	4	3	5
New Milford	18	23	21	26
Newtown	11	14	16	18
Norwalk	26	27	46	54
Redding	1	6	3	3
Ridgefield	9	10	22	11
Sherman	4	4	1	4
Stamford	72	74	68	39
Weston	1	5	2	5
Westport	19	10	17	24
Wilton	8	10	11	14
<b>Total</b>	<b>283</b>	<b>342</b>	<b>347</b>	<b>340</b>

**YOUNG DRIVER FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	23	28	24	15
Bridgewater	3	4	2	1
Brookfield	28	27	21	24
Danbury	150	137	133	136
Darien	20	24	12	15
Greenwich	26	25	25	22
New Canaan	7	13	8	17
New Fairfield	14	13	18	12
New Milford	36	46	44	35
Newtown	28	23	32	31
Norwalk	58	49	84	67
Redding	12	13	9	7
Ridgefield	19	19	21	22
Sherman	2	2	3	5
Stamford	143	122	111	62
Weston	8	10	9	10
Westport	23	14	13	22
Wilton	15	19	24	13
<b>Total</b>	<b>615</b>	<b>588</b>	<b>593</b>	<b>516</b>

**ASLEEP OR FATIGUED FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	3	3	4	2
Bridgewater	0	1	0	0
Brookfield	2	3	2	5
Danbury	11	10	18	11
Darien	2	3	3	2
Greenwich	1	5	3	6
New Canaan	1	4	0	1
New Fairfield	0	2	1	0
New Milford	8	4	6	3
Newtown	2	5	2	1
Norwalk	3	2	5	10
Redding	1	2	2	2
Ridgefield	2	5	3	3
Sherman	1	0	1	2
Stamford	2	9	3	2
Weston	2	1	0	2
Westport	2	1	1	1
Wilton	2	1	4	2
<b>Total</b>	<b>45</b>	<b>61</b>	<b>58</b>	<b>55</b>

**SPEEDING FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	18	8	5	4
Bridgewater	1	0	0	0
Brookfield	13	12	8	6
Danbury	71	64	72	69
Darien	7	11	8	3
Greenwich	8	11	12	10
New Canaan	3	12	3	5
New Fairfield	11	9	15	12
New Milford	24	18	21	25
Newtown	18	13	28	17
Norwalk	32	30	40	30
Redding	8	11	6	7
Ridgefield	25	13	24	10
Sherman	5	2	2	4
Stamford	63	40	37	14
Weston	3	3	6	7
Westport	28	5	8	17
Wilton	12	13	11	10
<b>Total</b>	<b>350</b>	<b>275</b>	<b>306</b>	<b>250</b>

**SUBSTANCE-IMPAIRED FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	3	5	9	5
Bridgewater	1	1	0	0
Brookfield	2	5	5	9
Danbury	27	40	27	23
Darien	5	9	5	6
Greenwich	7	19	11	15
New Canaan	2	5	4	2
New Fairfield	2	1	3	0
New Milford	13	11	10	8
Newtown	8	3	11	10
Norwalk	27	28	33	39
Redding	6	2	1	0
Ridgefield	6	7	5	2
Sherman	0	2	0	0
Stamford	35	26	20	9
Weston	1	4	5	0
Westport	6	2	2	3
Wilton	4	7	3	3
<b>Total</b>	<b>155</b>	<b>177</b>	<b>154</b>	<b>134</b>

**NON-MOTORIZED USER FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	3	6	3	5
Bridgewater	0	1	0	0
Brookfield	3	7	3	4
Danbury	51	45	36	40
Darien	9	12	13	9
Greenwich	33	24	26	23
New Canaan	5	7	2	4
New Fairfield	0	0	1	0
New Milford	9	4	10	5
Newtown	2	2	1	1
Norwalk	37	50	48	57
Redding	1	2	1	0
Ridgefield	4	3	5	8
Sherman	0	1	0	0
Stamford	112	131	99	49
Weston	1	1	1	0
Westport	11	8	5	9
Wilton	1	5	8	3
<b>Total</b>	<b>282</b>	<b>309</b>	<b>262</b>	<b>217</b>

**MOTORCYCLE FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	6	3	4	5
Bridgewater	0	1	1	1
Brookfield	5	3	10	6
Danbury	32	31	31	23
Darien	2	4	6	0
Greenwich	6	8	10	8
New Canaan	1	0	4	2
New Fairfield	0	2	3	3
New Milford	7	17	10	12
Newtown	9	8	8	7
Norwalk	21	11	13	22
Redding	3	1	4	1
Ridgefield	1	3	1	3
Sherman	3	1	0	1
Stamford	33	28	28	7
Weston	0	2	1	0
Westport	2	1	3	3
Wilton	2	4	1	2
<b>Total</b>	<b>133</b>	<b>128</b>	<b>138</b>	<b>138</b>

**DISTRACTED DRIVING FATAL AND INJURY CRASHES**

Municipality	2015	2016	2017	2018
Bethel	8	12	10	10
Bridgewater	2	2	2	0
Brookfield	15	9	13	14
Danbury	41	44	33	38
Darien	11	11	10	14
Greenwich	13	23	13	11
New Canaan	10	5	3	9
New Fairfield	2	4	4	1
New Milford	9	10	25	25
Newtown	12	9	8	10
Norwalk	15	19	26	24
Redding	2	4	3	1
Ridgefield	12	6	4	8
Sherman	1	2	1	1
Stamford	52	31	38	15
Weston	1	2	7	3
Westport	15	3	7	14
Wilton	9	8	9	13
<b>Total</b>	<b>230</b>	<b>204</b>	<b>216</b>	<b>216</b>

## Appendix C: Infrastructure Countermeasure Table

The countermeasures included in this report were determined based on an analysis of historical data for crashes involving injuries or fatalities, discussions with Region and town officials, the Connecticut Strategic Highway Safety Plan, FHWA's List of Proven Countermeasures and NHTSA's Countermeasures that Work, 8th edition.

	Measure	Description	Application
Signage	<b>Speed Feedback Signs</b> <sup>1,2</sup>	A changeable message sign that displays the speed of approaching vehicles.	To be used where motorized vehicle speed is a concern.
	Cost: Low		
Signage	<b>Retroreflective Signal Backplates</b>	Improved visibility of a signal head with a backplate is made even more conspicuous by framing it with a retroreflective border.	Signal heads that have backplates equipped with retroreflective borders are more visible and conspicuous in both daytime and nighttime conditions. Cost may depend on the need to replace span wire with mast arms.
	Cost: Low-Medium		
Signage	<b>Change Left-Turn Phase to Protected Phasing</b>	Modify existing phasing to a protected phase.	"Protected-only" phasing consists of providing a separate phase for left-turning traffic and allowing left turns to be made only on a green left arrow signal indication, with no pedestrian movement or vehicular traffic conflicting with the left turn. As a result, left-turn movements with "protected-only" phasing have a higher capacity than those with "permissive-only" phasing due to fewer conflicts. <sup>3</sup>
	Cost: Low to Medium		
Signage	<b>Flashing Advance Warning Beacons</b>	A beacon that provides a warning to motorists about an intersection ahead.	To be used in advance of an intersection.
	Cost: Low to Medium		
Signage	<b>No Right Turn on Red</b>	A sign that prohibits right turns during the red phase due to exclusive pedestrian phases, high traffic or pedestrian volumes, or inadequate visibility.	Together with a leading pedestrian interval, the restriction can benefit pedestrians with minimal impact on traffic. Part-time prohibitions during the busiest times of the day may be adequate to address the problem.
	Cost: Low		
Signage	<b>Additional Chevron Signs</b>	Additional signs help to increase the noticeability of signage in situations where standard signage is insufficient.	While agencies apply signing devices uniformly, adding additional signs may be necessary depending on an assessment of speed, unexpected geometric features, traffic volume, and crash data.
	Cost: Low		

1 Federal Highway Administration. (2009). Engineering Countermeasures for Reducing Speeds: A Desktop Reference of Potential Effectiveness. Washington, D.C.: Federal Highway Administration.

2 Overuse of signs and pavement markings may reduce their effectiveness. These devices should be used in locations where the needs are greatest.

3 Federal Highway Administration. (2004). Signalized Intersections: Informational Guide. <https://www.fhwa.dot.gov/publications/research/safety/04091/04.cfm>

	Measure	Description	Application
Pavement Markings	<b>Regulatory Pavement Markings<sup>1</sup></b>	Pavement markings, such as “25 MPH”, that emphasize regulatory signage (MUTCD Section 3B.20).	To be used as a supplement to regulatory signs.
	Cost: Low		
Pavement Markings	<b>Crosswalks</b>	Pavement markings delineating a portion of the roadway that is designated for pedestrian or bicycle crossing. There are several types including: continental, zebra, and standard (MUTCD Section 3B.18).	To be used at intersections or midblock crossings. Crosswalks may be used in areas with lower traffic volumes, lower speeds, and a limited number of travel lanes. See Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations for additional guidance regarding when to install a marked crosswalk.
	Cost: Varies, Low -markings only Medium -markings and simple ADA landings; High-significant pedestrian safety features required		
Pavement Markings	<b>Road Reconfigurations</b>	Roadway retrofit techniques designed to produce a wide variety of benefits including reduced traffic speeds, reduced crashes, improved access management, improved accessibility for pedestrians or bicyclists, improved parking utilization, as well as improved economic vitality for businesses along those streets. Can include a variety of measures such as road diets and lane narrowing to include bike lanes.	For use in areas where speed and pedestrian and bicycle accessibility are a concern.
	Cost: Low to High		
Physical Environment	<b>Buffered Shoulders</b>	A paved shoulder that is separated by a pavement marking to create a buffer from the vehicle travel lanes. The buffer space may be marked with diagonal pavement markings and ranges from 1 to 4 feet wide.	To be used in areas where pedestrian, bicycle, and/or horse-drawn vehicle volumes and motor vehicle volumes and speeds combine to create the need for separated and buffered space along the roadway.
	Cost: Low for restriping existing paved shoulder, high for constructing new paved shoulder		
Pavement Markings	<b>Bike Lanes<sup>2</sup></b>	A lane in the roadway designated for bicycle use with striping, signing, and pavement markings (MUTCD Chapter 9B and 9C).	To be used in areas with high volumes and speeds of motor vehicles and bicycles (RV).
	Cost: *Varies		
Physical Environment	<b>Roadway Surface Improvements</b>	Roadway surface improvements include maintenance and paving activities to provide a smooth and slip-resistant traveling surface for pedestrians and cyclists.	Facilities used by pedestrians and cyclists should be smoother than those deemed acceptable for motorized traffic to maintain stability. Therefore, it is important that debris be cleared from facilities used by pedestrians and cyclists. If rumble strips are present, sufficient gaps should be provided for cyclists to move from the shoulder to the travel lane. Additionally, there should be sufficient width for cyclists to ride between the edge of the rumble strip and the edge of the shoulder.
	Cost: Varies greatly based on conditions present		

<sup>1</sup> Federal Highway Administration. (2009). Manual on Uniform Traffic Control Devices. Washington, D.C.: Federal Highway Administration.

<sup>2</sup> American Association of State Highway Safety Officials. (1999). Guide for the Development of Bicycle Facilities. Washington, D.C.: American Association of State Highway Safety Officials.

	Measure	Description	Application
Physical Environment	<b>Median Crossing Islands</b>	A raised island in the center of the roadway with a refuge area that is accessible for pedestrians of all abilities. Can also provide a refuge area for cyclists, especially at locations where a shared use path crosses a roadway. The island allows pedestrians and cyclists to cross one direction of traffic at a time.	To be used when pedestrians and cyclists have to cross high-volume, multilane roadways (MUTCD Chapter 3I), (RV) at unsignalized locations.
	Cost: Medium		
Physical Environment	<b>Rectangular Rapid Flash LED Beacons<sup>1</sup></b>	A beacon that provides a warning to motorists about the presence of a crosswalk. Beacon is yellow, rectangular, and has a rapid “wig-wag” flash like police lights. Beacon should operate only when a pedestrian is present; utilize either push button or passive detection.	For use at midblock crossings and intersections that do not warrant a signal.
	Cost: Medium		
Physical Environment	<b>Roadway Illumination<sup>2</sup></b>	Lighting directed to illuminate the roadway.	To be used on sections of roadway with high volumes of nighttime non-motorized activity.
	Cost: Medium		
Physical Environment	<b>Road Diets</b>	A redistribution of space in the roadway leading to a reduction in the number of travel lanes for motor vehicles on a roadway. The road diet is one of FHWA's Proven Safety Countermeasures and may provide space for bike lanes, sidewalk, or medians, and can help to reduce motor vehicle speed.	For use in areas with pedestrian crossings, multiple lanes of traffic, and high vehicle speeds.
	Cost: Low to Medium		
Physical Environment	<b>Gateways</b>	Visual or physical markers to serve as an indicator to motorists that they are entering an urbanized area and to slow down.	For use at the entrance of a residential or commercial area.
	Cost: Low to High		
Physical Environment	<b>Shared Use Paths</b>	A facility separated from motorized vehicular traffic by a landscaped space or barrier. Shared use paths may be used by cyclists, pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. Such facilities are often referred to as “trails.”	To be used in areas with a high volume of pedestrians and bicyclists and high motor vehicle speeds or volumes.
	Cost: Medium to High		

1 Federal Highway Administration. (2008). Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures. Retrieved August 29, 2011 from Federal Highway Administration: <http://safety.fhwa.dot.gov/policy/memo071008>.

2 Hall, J. W., Brogan, J. D., & Kondreddi, M. (2004). Pedestrian Safety on Rural Highways. FHWA-SA-04-008. Washington, D.C.: Federal Highway Administration.

	Measure	Description	Application
Signage	<b>Pedestrian Hybrid Beacons</b>	The pedestrian hybrid beacons (PHB) is a traffic control device designed to help pedestrians safely cross busy or higher-speed roadways at midblock crossings and uncontrolled intersections.	The PHB is an intermediate option between a flashing beacon and a full pedestrian signal because it assigns right of way and provides positive stop control. It also allows motorists to proceed once the pedestrian has cleared their side of the travel lane, reducing vehicle delay.
	Cost: High		
Pavement Markings	<b>Roadway (or Transverse) Rumble Strips</b>	Raised bars or grooves placed across the travel lane that can be either black or white.	To be used to alert drivers of the need to reduce speed in locations where other measures cannot be applied or have been tested and have not succeeded in addressing speeding issues. Bicyclist (and motorcyclist) concerns should be addressed by a break in the strips and installing a warning sign reading "RUMBLE STRIPS AHEAD." May have limited use because of citizens concerns over noise from vehicles driving over.
	Cost: Low		
Pavement Markings	<b>Shoulder Rumble Strips</b>	Raised bars or grooves placed at the edge of the travel lane.	Longitudinal rumble strips are milled or raised elements on the pavement intended to alert drivers through vibration and sound that their vehicles have left the travel lane. They can be installed on the shoulder, edge line of the travel lane, or at or near center line of an undivided roadway
	Cost: Low		
Pavement Markings	<b>Centerline Rumble Strips</b>	Raised bars or grooves placed at or near the centerline travel lane.	Longitudinal rumble strips are milled or raised elements on the pavement intended to alert drivers through vibration and sound that their vehicles have left the travel lane. They can be installed on the shoulder, edge line of the travel lane, or at or near center line of an undivided roadway.
	Cost: Low		
Pavement Markings	<b>Lane Narrowing</b>	The narrowing of travel lanes—either visually (by using pavement markings) or physically narrowing (with measures such as curb extensions). One example of visually narrowing lanes is a painted island that is an island defined by pavement markings and created with the function of reducing lane widths for traffic calming purposes. <sup>1</sup>	For use in areas with wide travel lanes and where speed is a concern (MUTCD Chapter 3I).
	Cost: Low to High		

<sup>1</sup> Federal Highway Administration. (2009). Manual on Uniform Traffic Control Devices. Washington, D.C.: Federal Highway Administration

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**RESOLUTION #2021-005 Resolution to Endorse the Regional Transportation Safety Plan**

- WHEREAS:** CTDOT and the consultant has developed the Regional Transportation Safety Plan (RTSP) in coordination with WestCOG and the municipalities, the plan's purpose being to reduce fatalities and injuries by outlining effective safety countermeasures to reduce potential future crashes; and
- WHEREAS:** The data-driven, multimodal, multidisciplinary approach has identified collaborative partners while focusing on regional data and local roads; and
- WHEREAS:** The RTSP will serve as a road map and strategy to save lives; and
- WHEREAS:** The Technical Advisory Group and South Western Region Metropolitan Planning Organization (SWRMPO) has reviewed the RTSP and accepts its findings,

**Now therefore, be it resolved, that the SWRMPO hereby:**

Endorses the *Regional Transportation Safety Plan*.

This resolution is effective June 17, 2021.

Date: June 17, 2021

  
Jayme Stevenson, Chairman



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- WHEREAS:** The data-driven, multimodal, multidisciplinary approach has identified collaborative partners while focusing on regional data and local roads; and
- WHEREAS:** The RTSP will serve as a road map and strategy to save lives; and
- WHEREAS:** The Technical Advisory Group and Housatonic Valley Metropolitan Planning Organization (HVMPO) has reviewed the RTSP and accepts its findings,

**Now therefore, be it resolved, that the HVMPO hereby:**

Endorses the *Regional Transportation Safety Plan*.

This resolution is effective June 17, 2021.

Date: June 17, 2021

  
Rudolph Marconi, Chairman



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NHTSA Countermeasures that Work [https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478\\_countermeasures-that-work-a-highway-safety-countermeasures-guide-.pdf](https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_countermeasures-that-work-a-highway-safety-countermeasures-guide-.pdf)

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Source: VN Engineers