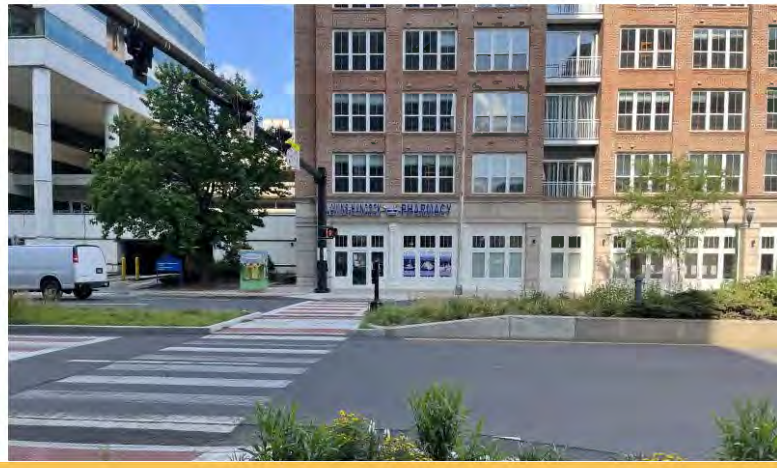
STAMFORD ROAD SAFETY AUDIT

ROUTE 137 (WASHINGTON BOULEVARD)



COMMUNITY connectivity program

FHI studio

NOVEMBER 2023

TABLE OF CONTENTS

1 COMMUNITY CONNECTIVITY PROGRAM

1.1 Program Background

The Connecticut Department of Transportation (CTDOT) has created a Community Connectivity Program that focuses on improving the state's transportation network for all users. A major component of this program is conducting Road Safety Audits (RSAs) at selected locations. An RSA is a formal safety assessment of the existing roadway. It is a qualitative review by an independent team experienced in traffic, pedestrian, and bicycle operations and design that considers the safety of all road users and proactively assesses mitigation measures to improve the safe operation of the facility by reducing the potential crash risk frequency and/or severity.

The RSA team includes CTDOT staff, municipal officials and staff, municipal police, local stakeholders, the CTDOT consultant firm, and community leaders. The RSA team is established for each municipality based on the requirements of the individual location. They assess and review factors that can promote or obstruct safe walking and bicycling routes. These factors include traffic volumes and speeds, topography, roadway geometrics, crash data, roadway inventory (i.e., signage, curbs, bicycle/pedestrian facilities, amenities, safety components), and sidewalks.

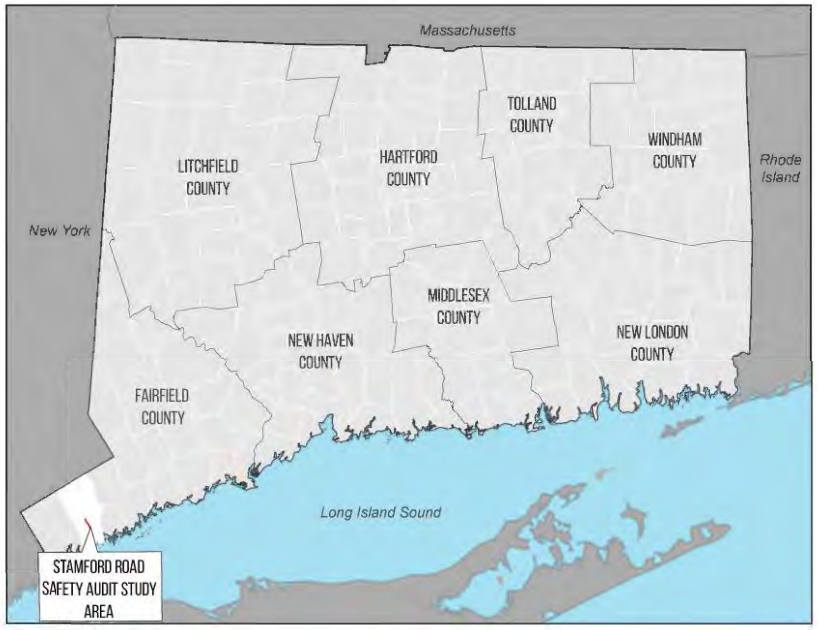
Each RSA is conducted using RSA protocols published by the FHWA. For details on this program, please refer to the CT Connectivity RSA site on the CTDOT webpage.

Prior to the site visit, area topography, land use characteristics, intersection sight distance concerns, sidewalk locations, parking, and bicycle facilities are examined using available mapping and imagery. The site visit includes a "Pre-Audit" meeting, the "Field Audit" itself, and a "Post-Audit" meeting to discuss the field observations and formulate recommendations. This procedure and the summary results are discussed in the following sections.

1.2 Stamford RSA Study Area and Location

CTDOT sponsored an RSA for the City of Stamford for Washington Boulevard between Station Place and Hoyt Street. Washington Boulevard is a state road for the entire extent of the study area, classified as Route 137 north of Tresser Boulevard, and designated as Route 493 between Tresser Boulevard and Station Place. Route 493 is unsigned in this area. For simplicity of this report, the Study Area is referred to as "Washington Boulevard" throughout and can refer to either sections of the Study Area regardless of its designation as Route 137 or Route 493. Exhibit 1 shows the study area in context to the State of Connecticut, while Exhibit 2 shows the study area in further detail.

Exhibit 1: Map of the Stamford RSA location in context to the region



The purpose of the RSA is to observe any safety concerns while discussing possible safety improvements for pedestrians, bicyclists, and motorists travelling along the study area corridor. The study area functions primarily as arterial roads for the city collecting traffic from collector streets, both Washington Boulevard and Route 1 (also known as Tresser Boulevard) are classified as principal arterial roadways. Washington Boulevard connects to I-95 and continues north through Stamford as Route 137 past Route 15 (Merritt Parkway) and points further north. Route 1 connects Stamford to points east and west. While the study area has sidewalks and crosswalks throughout, there is no designated signage or facilities for cyclists to utilize along study area roadways.

Washington Boulevard is heavily trafficked by both vehicles and pedestrians, many of whom connect to public transportation at the Stamford Transportation Center. The Stamford Transportation Center is the second busiest rail station on the Metro-North network after Grand Central Terminal. In 2018, Metro-North reported a daily weekday total of 15,216 boardings. Exhibit 2 displays several points of interest located along the corridor.

Average Daily Traffic (ADT) in the study area ranges between 26,900 vehicles per day and 28,600 per day along Washington Boulevard between Hoyt and Route 1 and between 19,100 vehicles per day and 23,700 vehicles per day between Route 1 and Station Place.

Exhibit 3 displays daily traffic in the study area. There are 11 signalized intersections along Washington Boulevard at: Station Place, South State Street, North State Street, Richmond Hill Avenue, Division Street, Route 1, Main Street, Broad Street, UConn Stamford parking lot, North Street, and Hoyt Street. There are additionally two (2) Pedestrian Hybrid Beacons (PHB) south of the intersection of Bell Street and north of Winthrop Place. There is a continuous center median north of Tresser Boulevard all the way through Hoyt Street.

Exhibit 2: Stamford RSA study area

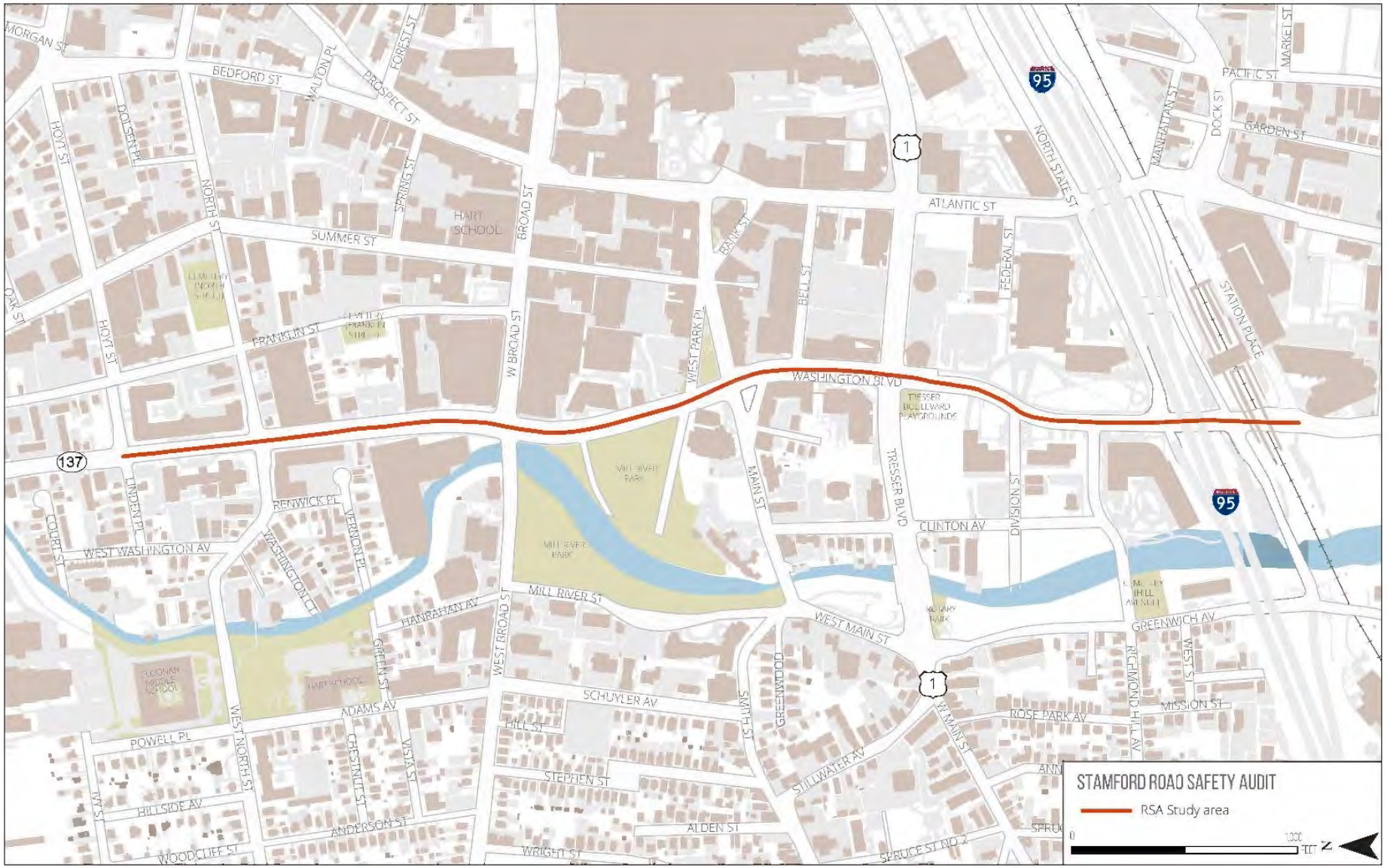


Exhibit 3: Study area points of interest

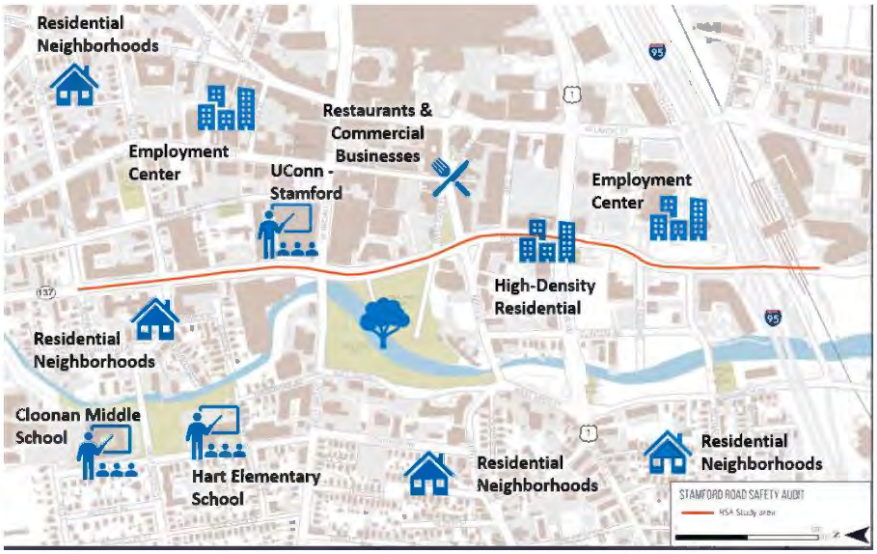


Exhibit 4: Average daily traffic volumes

2 PRIOR EFFORTS IN STUDY AREA

2.1 2020 Western Connecticut Council of Governments (WestCOG) Stamford Bicycle and Pedestrian Plan

The study area has been studied in 2020 by WestCOG as part of the Stamford Bicycle and Pedestrian Plan. This plan called for the completion of the Mill River corridor, connecting it to Washington Boulevard with bike lanes (but no bike facility on Washington Bouelvard). This report suggests interventions both short and long term along Washington Boulevard at Bell Street. Exhibit 5 and Exhibit 6 display renderings from the report.

Exhibit 5: Proposed bus loading zone on Bell Street and crosswalk enhancements at the intersection of Washington Boulevard and Bell Street

Exhibit 6: Popup bumpout at Washington Boulevard and Bell Street

2.2 Stamford Neighborhood Traffic Calming Report

The Stamford Neighborhood Traffic Calming Report, completed in 2008, provides guidance on accommodating most of the vehicular traffic and minimize traffic on neighborhood streets on Washington Boulevard. Roundabouts, discussed in this report, were ultimately not recommended for use along Washington Boulevard. This is because of the potential to divert heavily used pedestrian paths which could result in decreased safety for pedestrians.

2.3 2015 Stamford Master Plan

The 2015 Stamford Master Plan echoes the need for safety improvements along the Washington Boulevard corridor. The report notes that the most pedestrian / vehicular crashes have occurred at Washington Boulevard and Route 1.

2.4 Walkable Stamford 2008

Project for Public Spaces created a Walkable Stamford report with recommendations along Washington Boulevard. The report has several short-, mid- and long-term recommendations, including:

- Add low-level, pedestrian scaled lighting
- Increase pedestrian crossing time at intersections
- Prohibit vehicles from turning right on red to improve pedestrian safety
- Redesign Washington Boulevard with landscaped medians
- The use of curb extensions at identified intersections
- Narrowing lanes
- Raise targeted intersections

Exhibit 7 displays a Walkable Stamford report rendering on the pedestrian analyses at Tresser Boulevard.

Exhibit 7: Pedestrian Analysis from Walkable Stamford (2008)

2.5 Mill River Park

Mill River Park is a linear park that celebrates the Mill River, Arts, Culture and Stamford. A Mill River Entry Master Plan is under development and offers designs for the four entry points on Washington Boulevard, attracting and inviting pedestrians to engage with the landscape. The four access points along Washington Boulevard are a loading zone entry and exit, pedestrian plaza, and a garden entrance with accessible parking. The loading area originates at Main Street to allow event trailers to move on a way road and exit at Washington Boulevard. Exhibit 8 displays a Mill River Entry Master Plan rendering.

Exhibit 8: Mill River Entry Master Plan

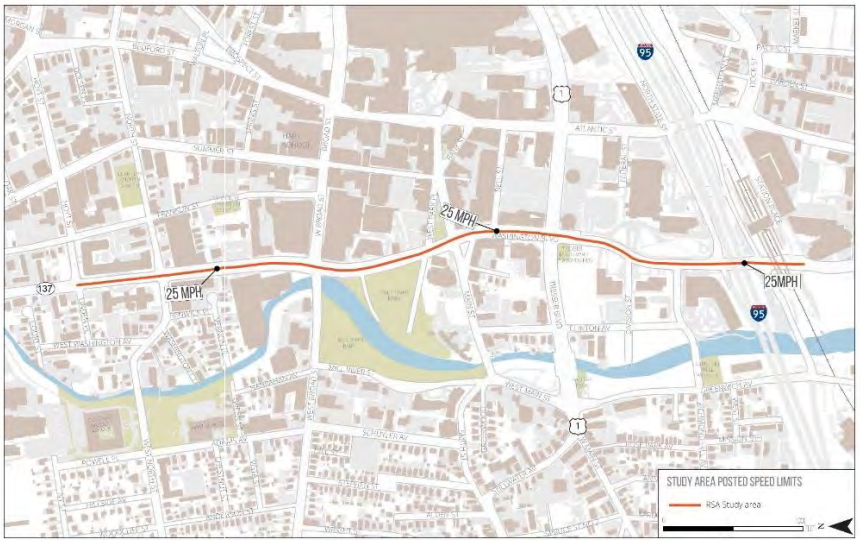
3 PRE-AUDIT MEETING

3.1 Pre-Audit Information

The RSA team conducted a pre-audit meeting on the afternoon of Wednesday, June 28, 2023. The RSA team presented a brief presentation that included an overview of the Stamford RSA goals and purpose, the study area, and key existing conditions findings. Key themes discussed during the pre-audit meeting are presented below.

Speeds: The speed limit in the study area is 25 miles per hour (MPH) along Route 137. Exhibit 9 displays the speed limits along the corridor. 85th percentile speeds were 33.7 at MPH between Hoyt and North Street on Washington Boulevard based on a CTDOT traffic count in 2020, however the location of this counter near an intersection may have led to lower recorded speeds.

Exhibit 9: Corridor speed limit



Crashes: Based on data retrieved from the Connecticut Crash Data Repository (CTCDR) for the five-year period between January 2017 through December 2021, there were a total of 547 crashes in the Stamford RSA study area. Crashes were concentrated at the intersections along Route 137. The intersections have a concentrated number of crashes. Exhibit 10 shows the study area crash summary, and Exhibit 11 displays a hotspot of crashes at the intersection of Washington Boulevard and Broad Street.

The crash analysis used for this RSA incorporated the most recent year of complete data on the CTCDR at the time of the RSA. This did not include a report of 2022 crashes as this was not complete at this time. However, there were two (2) crashes resulting in a total of three (3) fatalities in the study area during 2022. These occurred on April 13, 2022 at the intersection of Washington Boulevard and Route 1 and December 3, 2022 at the intersection Washington Boulevard and Main Street (which resulted in two fatalities). These crashes are *not* reflected in the following crash statistics, but were discussed as part of this RSA.

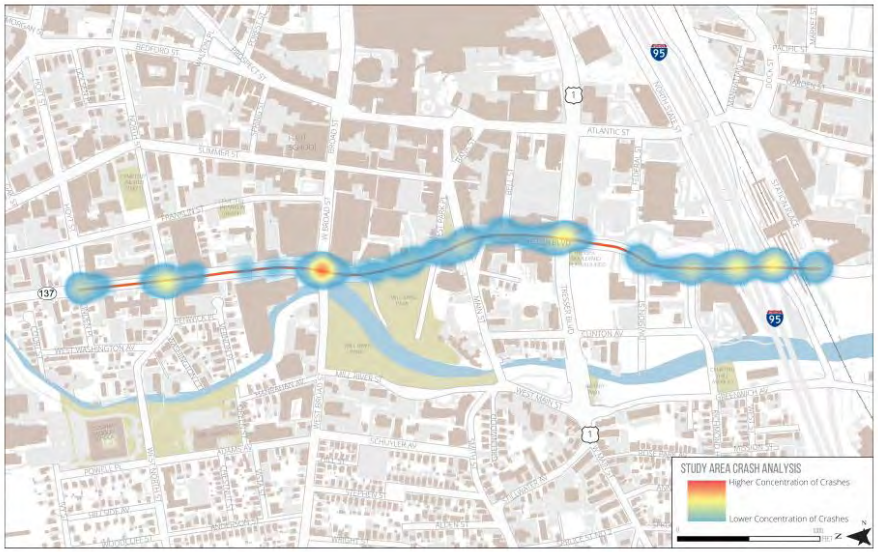
5-year crash totals at intersection hot spots are include:

- Washington Boulevard and West Broad Street – 100 crashes
- Washington Boulevard and Route 1 – 70 crashes
- Washington Boulevard and South State Street – 58 crashes
- Washington Boulevard and North Street– 53 crashes
- Washington Boulevard and North State Street – 51 crashes
- Washington Boulevard and Hoyt Street – 23 crashes

Exhibit 10: Study area crash summary

	Crash Severity					
	Fatality	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	TOTAL
Angle		3	17	13	84	117
Front to front					5	5
Front to rear		3	16	26	160	205
Sideswipe, opposite direction				1	8	9
Sideswipe, same direction			1	5	148	154
Rear to Side					2	2
Rear to Rear					2	2
Not Applicable	1	2	16	5	22	46
Other		1	1	1	4	7
TOTAL	1	9	51	51	435	547
Crashes Involving Pedestrians	1	2	12	4	1	20
Crashes Involving Bicyclists	0	1	1	0	0	2

Exhibit 11: Study area crash heatmap



Crashes by Type: Almost half of the crashes (359 out of 547) are classified as having a "Front to Rear" or "Sideswipe, Same direction" manner of impact. Front to rear crashes are typical of crashes near approaches to intersections are areas of stopping. Sideswipe, same direction crashes occur throughout the study area, but are less likely to result in a crash of higher severity. The next highest crash type was "Angle" which are most found at intersections and/or driveways in the study area. Exhibit 12 and Exhibit 13 display the breakdown and location of crashes by type in the corridor.

Exhibit 12: Crashes by type

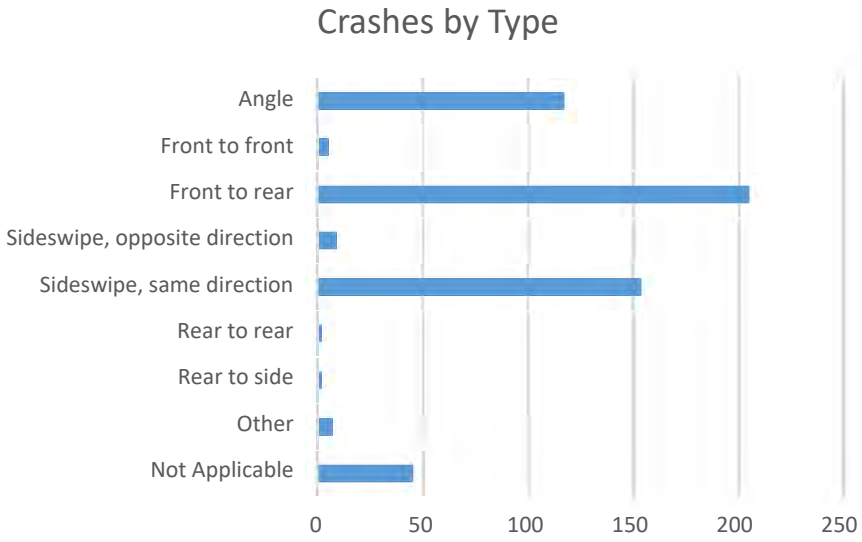
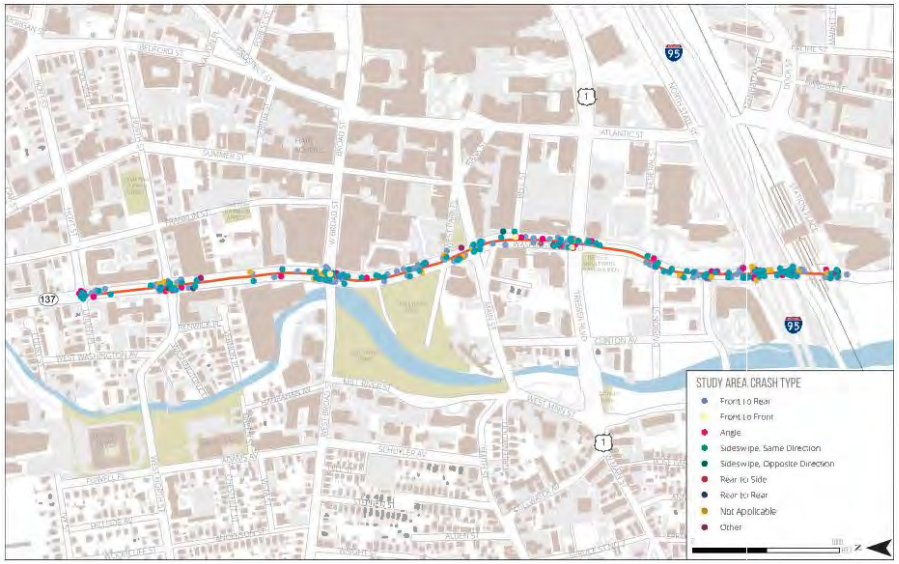


Exhibit 13: Crashes by type by location



Crash Severity: Most crashes (435) resulted in no apparent injury in the study area, while the remaining 111 crashes (approximately 20%) resulted in some form of injury or fatality. Nine (9) of these 111 crashes resulted in serious injury while there was one (1) fatal crash. The crash resulting in fatality occurred at the intersection of Washington Boulevard and Route 1. Exhibit 14 and Exhibit 15 display the crash severity summary and locations.

Exhibit 14: Crash severity summary

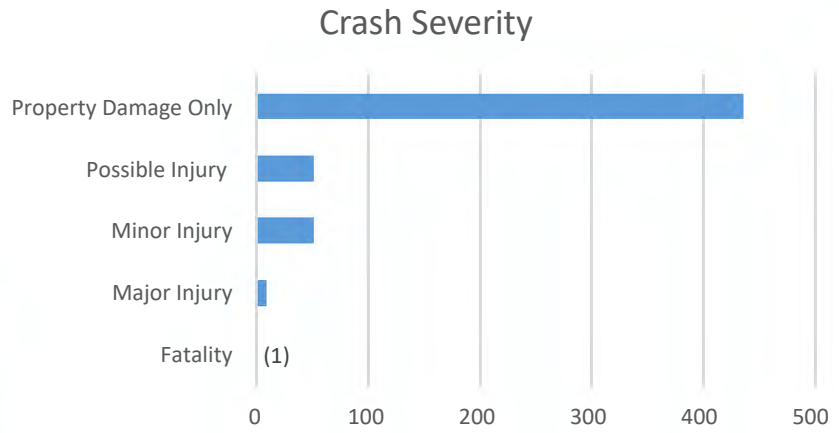
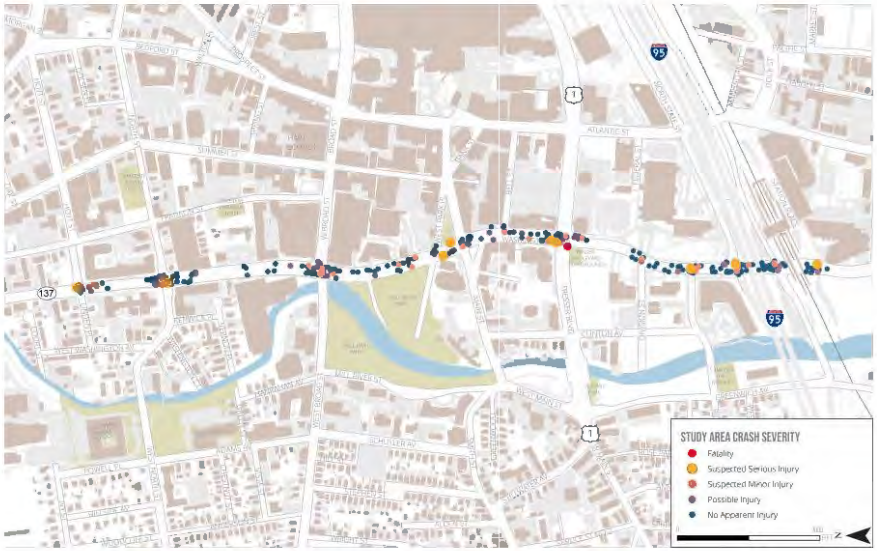


Exhibit 15: Crash severity by location

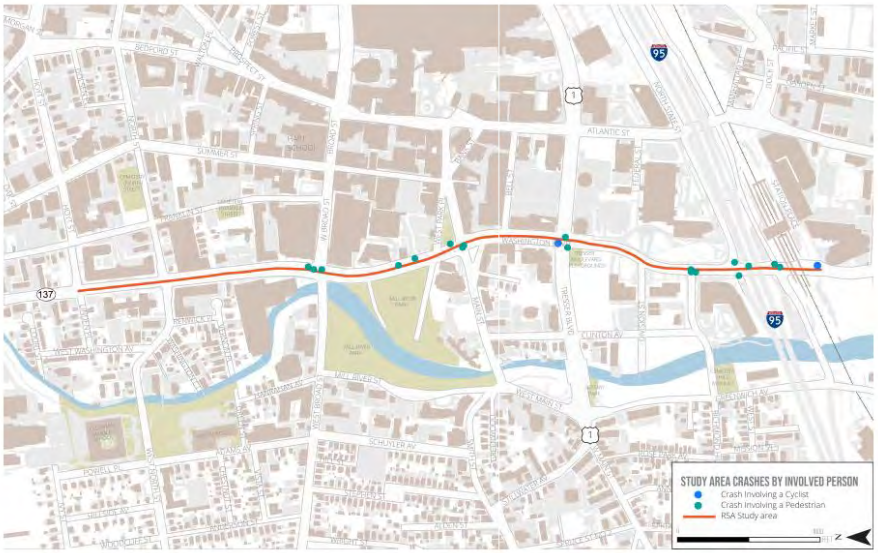


Crashes by Involved Person: The study area includes 22 crashes involving pedestrians or bicyclists between the 5-year period January 2017 through December 2021. This included 20 crashes involving pedestrians and two (2) crashes involving cyclists. The pedestrian crashes occurred at the following locations:

- Between Station Place and Richmond Hill Avenue – nine (9) crashes
- Intersection of Broad Street – four (4) crashes
- Intersection of Main Street – three (3) crashes
- Between West Park Place and Broad Street – two (2) crashes
- Intersection of Route 1 – two (2) crashes (including one resulting in fatality)

The crashes involving bicyclists occurred at the intersection of Station Place (one (1) crash) and Route 1 (one (1) crash). Exhibit 16 displays locations of crashes involving pedestrians or bicyclists.

Exhibit 16: Crashes by involved person



3.2 RSA Public Meeting

The City of Stamford and CTDOT hosted a public meeting on May 16th, 2023. The public meeting was attended by over 40 Stamford residents employees, and visitors. The meeting consisted of a 20-minute presentation followed by a large group question and answer session, and a series of small group discussions centered around maps plots of different sections of the corridor. The meeting provided an opportunity for residents to provide comments on what their current experience is like traveling and living along Washington Boulevard.

City of Stamford staff, including Mayor Simmons, discussed the importance of improving safety along the corridor and throughout the City, noting Stamford's Vision Zero initiative. The project team presented a brief presentation about the goals of the RSA and general timeline of this study. Attendees provided many comments during the question-and-answer portion of the meeting and then were asked to provide location-based feedback on aerial maps. Residents provided written comments about their experiences at specific locations within the RSA study area. In addition, the public requested that the RSA be conducted during the morning peak rush hour so the project team can experience the daily conditions along the corridor.

Exhibit 17 -19 display pictures from the public meeting.

Exhibit 17: Public meeting attendees listen to the presentation

Exhibit 18: Public meeting attendees provide feedback on the map plots

A summary of the comments received at the meeting include:

Issues / Concerns

- Development density coupled with pedestrian interface of the City creates conflicts between pedestrians and drivers.
- Vehicular speeds and noise make Washington Boulevard and surrounding roads unpleasant for pedestrians, bicyclists, and residents.
- Sidewalks on Washington Boulevard are narrow and passing vehicles are very close to pedestrians.
- Rush hour traffic is horrendous. Drivers run red lights often.
- Mid-block crossings are helpful, but pedestrians must ensure that all cars have come to a complete stop, which often does not happen.
- Rail overpass and highway overpass (overhead) make for dark sidewalk areas underneath them. It is challenging to see pedestrians crossing in these areas, especially in the evening.
- Right-turn slip lanes are unsafe for pedestrians and cyclists as drivers often do not stop.
- Traffic signaling varies between intersections.
- Concurrent phase pedestrian signals are confusing for both drivers and pedestrians.
- No turn on red lights disappear when pedestrians get the walk signal, this sends the wrong signal and is dangerous.
- People, especially seniors, do not have enough time to cross at crosswalks.
- Sharrows and bike lanes are not enough protection for cyclists.
- East-west bus travel in Stamford is a challenge. Headways are long and facilities are inadequate.
- The bus station is uncomfortable, doesn't provide enough information, is dark, cold, etc.
- There are not enough bus shelters, benches, etc. on the bus routes in the City.

Opportunities for Improvement

- Consider speed cameras at intersections.
- Conduct more traffic enforcement. (Stamford Police Department currently makes between 850-950 traffic stops per month.)
- Eliminate concurrent phase pedestrian signals.

- Education is needed for all users (i.e., drivers, bicyclists, and pedestrians).
- Utilize educational ads should be utilized at bus stops, on CT*transit* buses, etc.
- Construct pedestrian overpasses / underpasses at Broad Street intersection.
- Consider shortening crosswalks, as well as adding bump-outs and raised intersections.
- Coordinate with the Senior Advisory Committee to discuss their needs, especially related to pedestrian signal timing at crossings.
- Install protected bike lanes.
- Consider a road diet on Washington Boulevard.
- Improve transit facilities to encourage more ridership.

Exhibit 19: Participants' sticky note comments offered at the public meeting

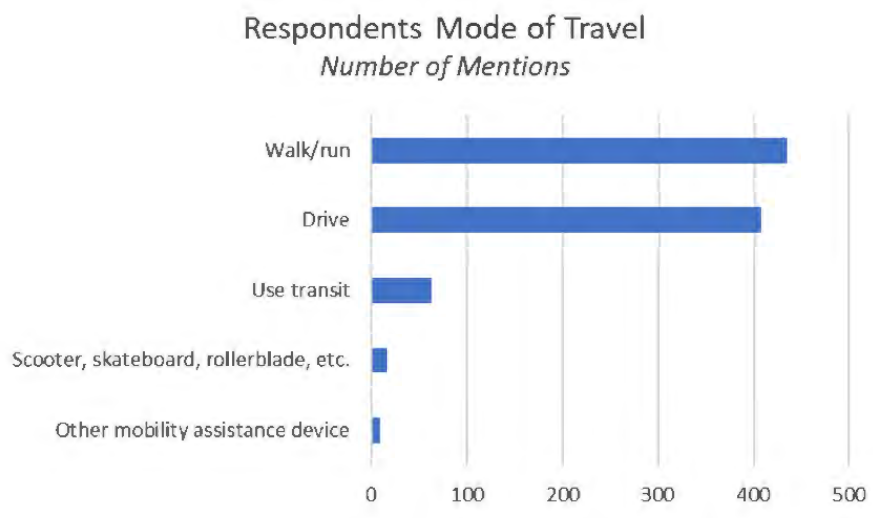
3.3 Online Questionnaire

An online questionnaire was administered by the City of Stamford in April - May 2023 to allow residents and visitors to share their concerns on and priorities for Washington Boulevard. Five hundred and forty-two (542) people responded to the English version of the questionnaire and one (1) person responded to the Spanish version of the questionnaire.

The questionnaire began by asking the participants what type of group they identify with (e.g., resident, worker, college student, etc.) and how they use the corridor. Forty-two percent of the respondents only listed themselves as a *resident* of the study area and 22 percent only listed themselves as a *worker* in the area. Six percent of the respondents listed themselves as only a *college student* in the area. All others selected more than one type of group in which they belong.

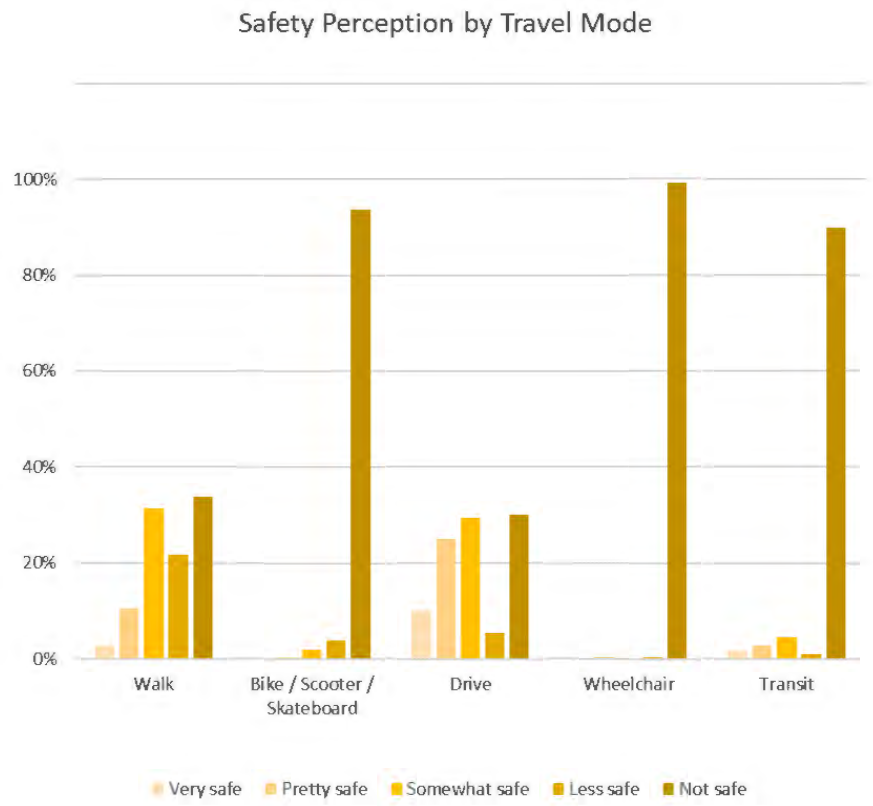
The questionnaire asked how the respondents travel in the corridor. Participants were allowed to check as many modes of travel as they wished. Over 75% of all respondents answered that they either walk and/or drive in the corridor. Exhibits 20 – 23 display several charts which summarize the feedback gathered from the questionnaire.

Exhibit 20: Respondents Mode of Travel



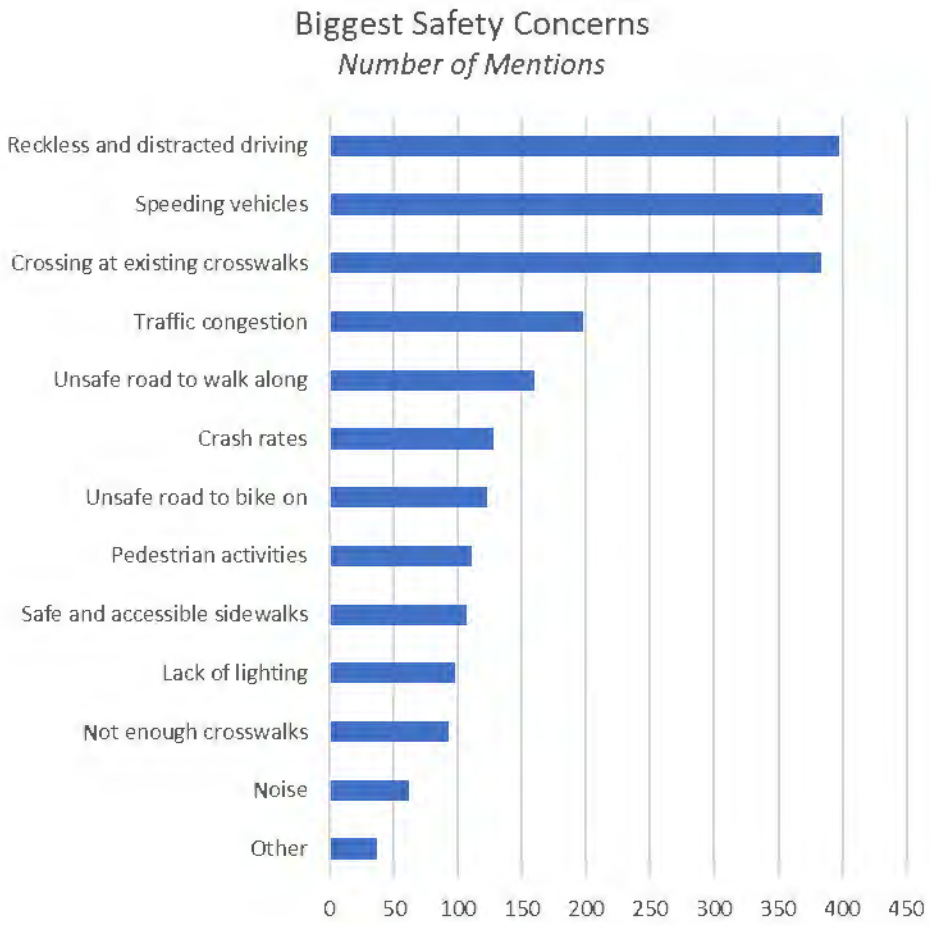
The questionnaire asked about safety perceptions on Washington Boulevard. Participants were asked how safety they felt when they walk, bicycle, drive, use a mobility assistant device, and use transit. Most people who use bikes, wheelchairs, and transit on Washington Blvd do not feel safe at all. Walking and driving saw more various comfort levels amongst the respondents.

Exhibit 21: Safety Perception by Travel Mode



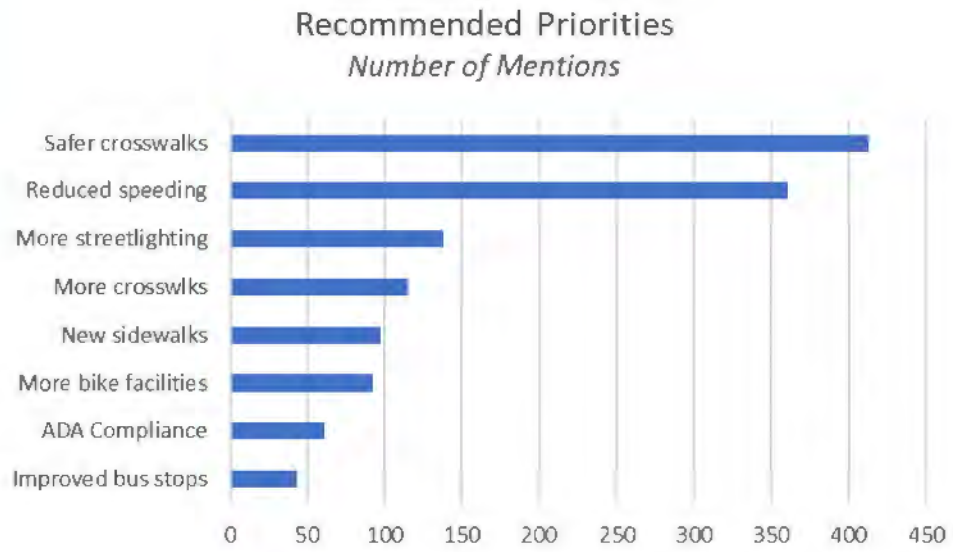
The questionnaire asked the respondents about their biggest safety concerns on Washington Boulevard. Participants were allowed to check as many priorities as they wished. Reckless and distracted driving, speeding vehicles, and crossing at existing crosswalks were the most frequented responses, with theses issues being identified between 76 percent and 66 percent of all respondents.

Exhibit 22: Biggest Safety Concerns



The questionnaire asked which priorities the RSA team should focus on. Participants were allowed to check as many priorities as they wished. Safer crosswalks and reduced speeding were the most frequented responses, with 73 percent, 71 percent, and 71 percent, respectively, of all respondents listing these items.

Exhibit 23: Recommended Priorities



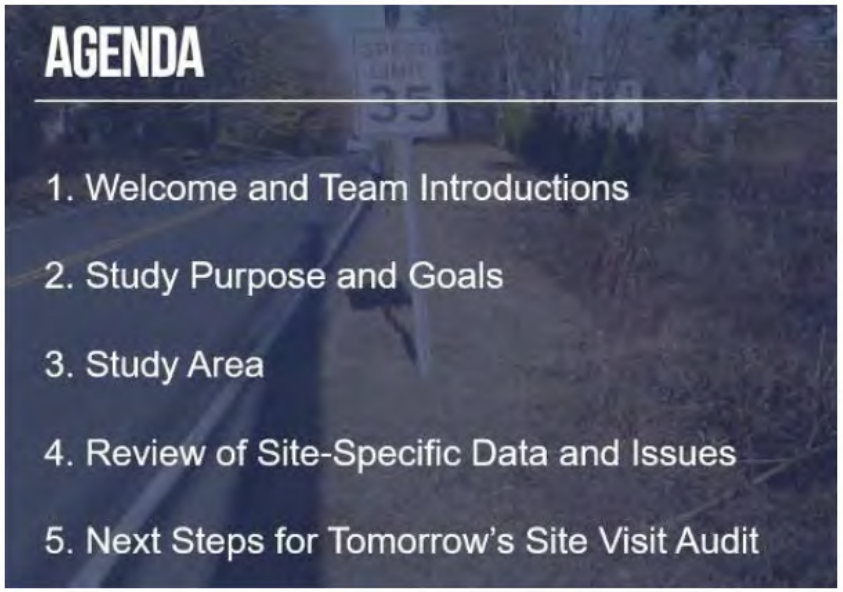
3.4 Pre-Audit Discussion

Immediately following the pre-audit presentation, a discussion followed that highlighted concerns and notes regarding the Stamford RSA study area. Highlights from this discussion are presented below:

- Special attention has been given to Washington Boulevard and Main Street with the recent pedestrian fatalities.
- The Stamford Senior Center at 888 Washington Boulevard needs to be considered a priority
- A safe connection to Mill River Park is a priority

Sample slides from the pre-audit presentation are shown in Exhibit 24

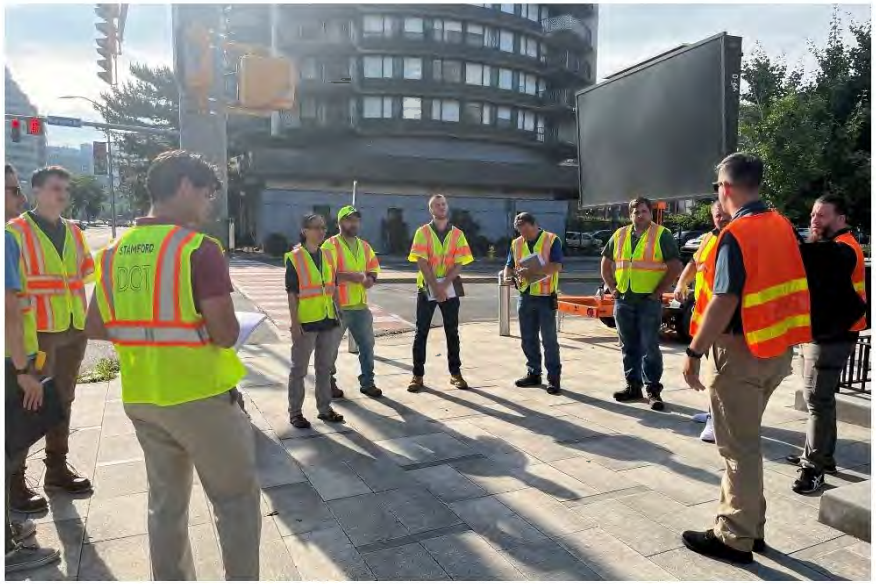
Exhibit 24: Sample slides from pre-audit presentation



4 RSA ASSESSMENT

The following summary describes observations and discussion regarding issues and concerns throughout the Stamford RSA study area. Exhibit 25 shows RSA participants engaging in conversation during the RSA. The group stopped for discussions at each of the following locations.

Exhibit 25: RSA participants during the RSA



4.1 Washington Boulevard between Station Place and South State Street

- This segment is highly trafficked by both pedestrians and vehicles due to the Metro North Stamford station on Station Place.
- Station Place is also a state road serving the Stamford Transportation Center. RSA participants noted that the right-turn from Station Place to Washington Boulevard northbound previously had no-turn on red sign. While the signal has red arrows, right-turn on red prohibition is unclear to drivers. Exhibit 26 shows traffic exiting Station Place from this area.
- The existing train station parking garage on Station Place is closing soon following the completion of the new garage. RSA Participants discussed if the second right-turn lane at this intersection could then be closed.
- Bike lanes continue south beyond this intersection.
- The intersection features a stamped decorative crosswalk on the southern leg across Washington Boulevard with continental white markings overlaid on the decorative red pavement.
- Lighting conditions on the Metro-North tracks were poor. Sidewalks are relatively narrow. Exhibit 27 shows this area under the tracks.
- RSA participants noted that the bridge walls and columns could be an opportunity for art and/or visual wraps (e.g., around bridge columns).
- The intersection of South State Street is currently under construction with the construction of the new Transportation Center parking garage. The pedestrian phase call button on the northwest corner of the intersection was located behind the construction fence and inaccessible during the RSA.
- This intersection features an exclusive pedestrian phase, but this is anticipated to convert to a leading pedestrian interval (LPI) + concurrent phase following construction of the new parking garage.
- RSA Participants notes that for all intersections in the study area the City maintains the traffic signals while CTDOT maintains the road. This will require future coordination between CTDOT and the City for any intersection projects.

Exhibit 26: Station Place, view east, from Washington Boulevard. Stamford Transportation Center Parking garage in the background

Exhibit 27: Station Place and Washington Boulevard intersection, bridge underpass in distance

4.2 Intersection of Washington Boulevard and North State Street

- This intersection includes the I-95 southbound on-ramp and includes heavy turning volumes from both the southbound and northbound directions to I-95. The southbound right-turn to I-95 is a dedicated right-turn lane and it is a difficult leg to cross as a pedestrian. Exhibit 28 displays this location.
- Due to many conflicting movements and closely spaced intersections, traffic congestion in this area is frequent especially under the I-95 overpass. Exhibit 29 displays a photo of the southbound traffic under the I-95 underpass.
- There are stamped pavement flush medians on the northern leg of the intersection. Some RSA participants noted they would like these to be raised medians.
- Lighting conditions under the I-95 bridge deck were poor and sidewalks are relatively narrow, creating a poor pedestrian environment.
- RSA participants noted that the bridge walls and columns could be an opportunity for art and/or visual wraps (e.g., around bridge columns).
- This intersection is near to the mid-block crosswalk of North State Street between the Transportation Center and a private pathway to points further north along the property of 677 Washington Boulevard. This is a very busy and most common walking route for people going to or from the Transportation Center and Downtown Stamford. This crossing features a raised crosswalk and an automated pedestrian detection system. RSA participants from the city noted that these features have greatly improved pedestrian safety at this location. Exhibit 30 displays a photo of this location.

- It can be difficult for shuttle buses to leave the Transportation Center. This intersection should be considered for transit signal priority to assist this issue.
- The City would like to consider a bike facility from this point to the north. Towards the south this could extend on Washington Boulevard but could connect via North State Street to an on-going project to install bike facilities on Atlantic Street.

Exhibit 28: Looking northbound across the crosswalk across the I-95 on-ramp. Note the right-turn lane in the southbound direction

Exhibit 29: Southbound traffic under I-95 underpass

Exhibit 30: Crosswalk with an automated pedestrian detection system at Stamford Transportation Center entrance on North State Street

4.3 Intersection of Washington Boulevard and Richmond Hill Avenue

- This intersection was recently reconstructed due to a recent private development (677 Washington Boulevard). Originally, this intersection included a plan for a raised intersection, however this was not implemented. Some RSA participants noted their desire for such a treatment to still be considered.
- Crossing the intersection on the western leg can be difficult as the northbound left turn which conflicts with this crosswalk is permissive-protected phasing (drivers first get green arrow, but then get green ball which they can still turn if they yield to oncoming vehicles and pedestrians).
- Traffic from the I-95 on ramp currently backs up into the Richmond Hill Avenue intersection. Exhibit 31 shows this traffic congestion.
- The driveway to 677 Washington Boulevard is very lightly trafficked.
- There are stamped pavement flush medians on the northern and western leg of the intersection. Some RSA participants noted they would like these to be raised medians.

Exhibit 31: Pedestrian detection crosswalk at Stamford Station entrance on North State Street

4.4 Washington Boulevard between Richmond Hill Avenue and Route 1

- RSA participants suggested removing the option to turn left from Washington Boulevard to Division Street. Exhibit 32 displays the view south at the Division Street intersection.
- Traffic often backs up past Richmond Hill Avenue past this intersection.
- Traffic signal equipment at this intersection is older than other intersections. The intersection does not feature any dynamic "No Turn on Red" signs as found in other intersections.

- A southbound left-turn lane into a parking lot on the east side can be removed based on planned redevelopment of this property.
- RSA participants noted the various aesthetic conditions of the pedestrian realm throughout the study area. Materials used, presence of landscaping, and separation of the pedestrian space from the roadway vary greatly. Good examples of pedestrian accommodation on this block include 75 Tresser Boulevard and 677 Washington Boulevard which feature good separation and landscaping. Exhibit 33 displays this area.
- The City would like to consider a cycle track along Washington Boulevard along the eastern side of the road.

Exhibit 32: Washington Boulevard looking south through the intersection of Division Street.

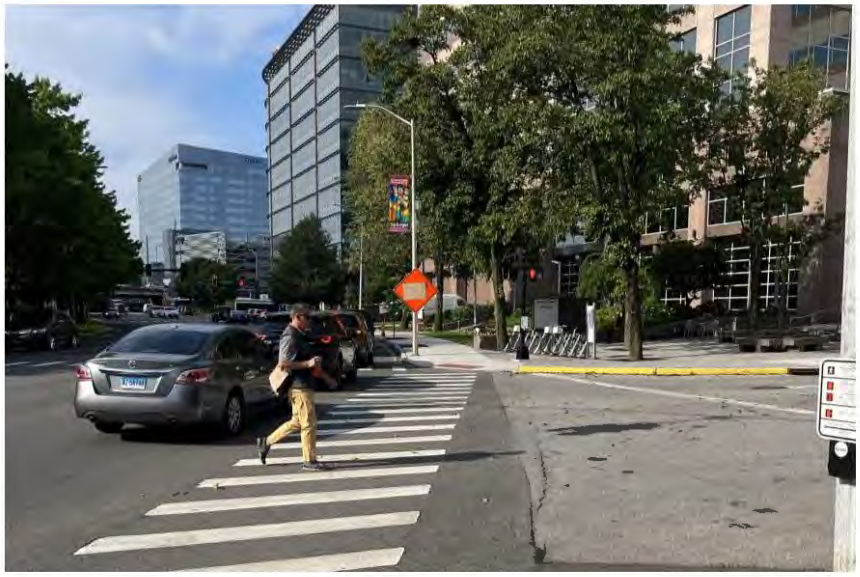


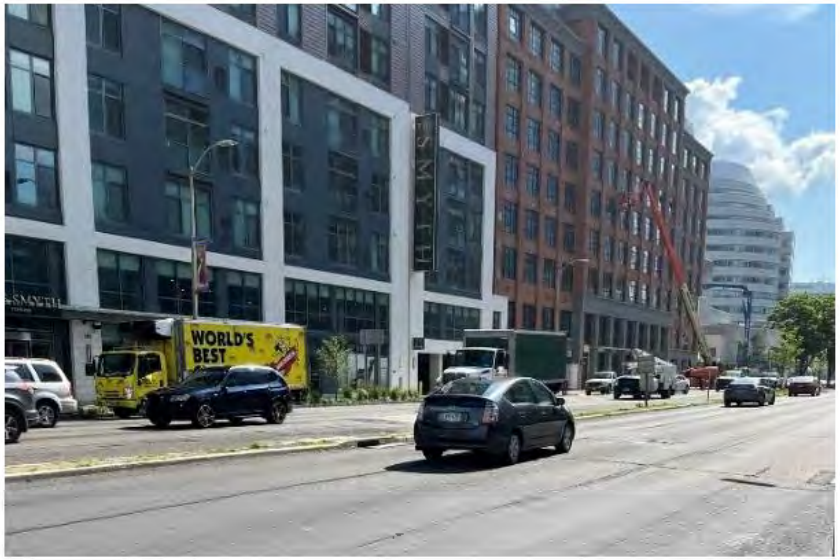
Exhibit 33: Separation and landscaping near 75 Tresser Boulevard

4.5 Intersection of Washington Boulevard and Route 1

- This intersection is a hotspot on the crash heatmap.
- RSA participants noted that lighting could be improved at this intersection. RSA participants noted no visible street lighting to the north and all installed lighting was pedestrian scale only. Participants discussed light pole options that include both luminaires for both the street and sidewalk side of the pole.
- Island vegetation blocks sightlines for both drivers and pedestrians due to the height of the vegetation. It should either be lower or higher (e.g., tree canopy).
- RSA participants also noted the inconsistency of landscaped medians with none existing from Tresser Boulevard to Station Place. Exhibit 34 displays a picture of a median in the corridor.

- There are dynamic no right turn on red sign at all approaches to the intersection. When an approach has green, these signs display "Yield to Peds"
- Route 1 has three (3) through lanes in each direction. The City is considering reducing this to two (2) through lanes. This would begin with a change to on-street parking in front of 100 Tresser Boulevard (The Smyth Apartments).
- All left-turns on this intersection are protected only.
- Both approaches to this intersection on Washington Boulevard have dedicated right-turn lanes. The City would like to consider these for removal.

Exhibit 34: Median on Route 1 to the east of Washington Boulevard



4.6 Washington Boulevard between Route 1 and Main Street

- This section of Washington Boulevard has limited street lighting on the east side. All the lighting installed was pedestrian scale. RSA participants discussed the need to standardize lighting throughout the corridor.
- The Pedestrian Hybrid Beacon (also known as "HAWK") was recently reconfigured to remove the "zig-zag" which was confusing to pedestrians and caused accessibility concerns. Feedback has been positive. Exhibit 35 shows a picture of this location.
- RSA participants have discussed additional vehicular access on Bell Street with the possibility of a traffic signal. This is the primary entrance to the Stamford garage serving this area. The current access restrictions makes navigation to this garage difficult for motorists. The goal would be for easier access to this parking garage.
- The one-way access on Rippowam Place appears to work well and no RSA Participants had significant concerns. This could be a raised crossing.
- Parking is allowed in some sections of this segment. Parking availability on Washington Boulevard is generally inconsistent.

Exhibit 35: Pedestrian Hybrid Beacon (or "HAWK") south of Bell Street

4.7 Intersection of Washington Boulevard and Main Street

- The Main Street intersection is a busy location that is near to many destinations such as restaurants, government centers, Mill River Park, and more. Exhibit 36 shows this location.
- Recent pedestrian fatalities have called attention to the importance of protecting pedestrians along this section of Washington Boulevard.
- The City of Stamford has recently received approval to install temporary bumpouts at Main Street and Washington Boulevard.
- Long-term the City would like to consider a raised intersection, removal of all right-turn lanes, and a hardened centerline where feasible.
- Main Street temporarily is one-way westbound during summer months to support expanded outdoor dining in the street for the restaurants on the south side of Main Street.

Exhibit 36: Intersection of Washington Boulevard and Main Street looking west

4.8 Intersection of Washington Boulevard and West Park Place

- The City noted a desire to better connect Columbus Park with Mill River Park. It is likely that the existing crossing locations would have to be maintained, but a better connection along Washington Boulevard would be ideal.
- A raised crossing of West Park Place could be considered.

4.9 Washington Boulevard between West Park Place and Broad Street

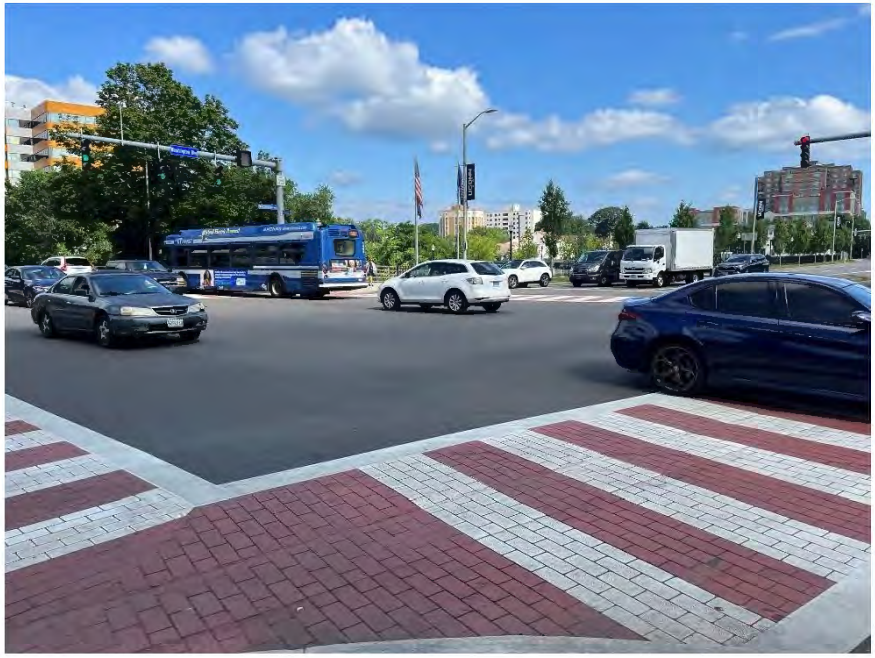
- RSA participants noted that while the staggered crosswalk protects pedestrians, it is not very accessible for all pedestrians. Residents with physical impediments and wheelchairs have trouble maneuvering the crosswalk. Exhibit 37 displays an example of this crosswalk.
- The landscaped median needs to be trimmed in this area to allow for better pedestrian visibility.
- RSA participants also suggested that the connection between Mill River Park and the rest of the parks system should be considered.
- Some driveways are not constructed at sidewalk grade. These should be located at sidewalk grade in the future to preserve the pedestrian space.

Exhibit 37: The Pedestrian Hybrid Beacon (or "HAWK") in front of Mill River Park

4.10 Intersection of Washington Boulevard and Broad Street

- This intersection has the highest crash numbers in the study area.
- RSA participants want to consider a protected left turn for vehicles at this intersection where vehicles will only be able to turn left on a green left-turn arrow. Exhibit 38 provides a view to the north of this intersection.
- Right turns are problematic at this intersection as well. All approaches, to this intersection except the eastbound approach, have a dedicated right-turn lane. Vehicles frequently fail to yield to pedestrians in this configuration.
- A future bicycle connection or cycle track was also discussed. In these cases, it may be advantageous to consider a right-turn lane with a protected right-turn phase to separate right-turning vehicles from pedestrian movements.
- Leading pedestrian intervals (LPIs) were discussed as it relates to left turn phasing. Some jurisdictions nationally have opted for a lagging left-turn phase when implementing an LPI. While this does not cause concern for the "yellow-trap" situation which is prohibited, this phasing is not typical of CTDOT standards.

Exhibit 38: Broad Street and Washington Boulevard intersection, view north



4.11 Washington Boulevard between Broad Street and North Street

- North of Broad Street on Washington Boulevard has a different experience. It becomes more residential with high density housing along Washington Boulevard. The roadway is less visually appealing and visually is characterized by more concrete, as displayed in Exhibit 39.
- Parking near 1351 Washington Boulevard is signed in a right-turn lane this is confusing. This is due to a doctors office in this building. The building has dedicated parking garage to the rear of the building.
- The southbound approach to the UConn Parking Lot traffic signal is confusing. It is unclear if the short curbside lane is a bus pull-out or a through lane or a right-turn lane.

Exhibit 39: Washington Boulevard looking north towards North Street

4.12 Intersection of Washington Boulevard and North Street

- RSA participants noted that there needs to be consideration of left turn signals for North Street.
- Some areas along the sidewalk network need to be updated, including those shown in Exhibit40.

Exhibit 40: Sidewalk near the North Street intersection

Exhibit 41: Washington Boulevard, view south, from the intersection of Hoyt Street

4.13 Washington Boulevard between North Street and Hoyt Street

- RSA participants discussed the median island in this section. While this is visually unappealing, participants noted that this does help with eliminating some left-turn movements from the apartment drop off areas. Exhibit 41 displays this median.
- This area is among the narrowest sections of Washington Boulevard in our study area.
- Sidewalks in this area are narrow and adjacent to traffic.

4.14 Intersection of Washington Boulevard and Hoyt Street

- Hoyt Street is used as an east / west connector.
- Exhibit 42 displays vehicles coming from the east between Summer Street and Washington Boulevard.
- Consider removing the right turn lane at Hoyt Street for parking.
- Currently Linden Place is entry only off Washington Boulevard southbound. There is a median island extension on the north side of the intersection to prevent through movements from Hoyt Street. There are some landscaping businesses down Linden Place that need to maintain access.

Exhibit 42: Hoyt Street Intersection with the no left turn sign onto Linden Place

5 RECOMMENDATIONS

Based on the findings discussed during the RSA, the RSA team compiled a set of recommendations for the study area. These recommendations are organized by study area location. Furthermore, conceptual graphics are shown for the intersections of Division Street and Broad Street. These locations were selected due to the nature of recommendations in this area and their applicability to other areas in the study area. Depiction of these areas with a conceptual plan does not reduce the importance of other areas identified in this report and does not indicate that this area is of higher priority than other recommendations in this report.

All recommendations for all locations are categorized by their complexity of implementation and generally categorized as follows:

- Least Complex recommendations: These recommendations are typically low-cost recommendations such as striping and signage. These recommendations generally do not require extensive engineering or construction costs. More extensive recommendations which have funding previously committed may be included.
- Moderately Complex recommendations: These are improvements that may require more substantial engineering than those generally included as least complex recommendations. These may require establishment of funding in capital improvement plans, or a dedicated funding item. However, these recommendations are generally simpler than the most complex recommendations identified and generally do not include ROW acquisition etc.
- Most Complex Recommendations: These are improvements that require substantial study and engineering. These recommendations generally require significant funding for implementation and may require several years of planning to budget.

It should be noted that any work within the State ROW to be done by non-State forces will require an encroachment permit from the District 3 Permit Office and/or an official request from the Stamford Local Traffic Authority (Transportation, Traffic and Parking Bureau Chief).

Exhibit 43 and Exhibit 44 displays the recommendations of the overall study area on a map. Exhibit 45 and Exhibit 46 show the conceptual plan for the Division Street and Broad Street intersections respectively.

LEGEND

- Least Complex Recommendation
- Moderately Complex Recommendation
- Most Complex Recommendation

Consider extending and widening median island to serve as pedestrian refuge on all approaches

Pursue quick-build project to remove right-turn lanes

Remove northbound right-turn lane and convert to accessible on-street parking

Evaluate feasibility and need to convert left-turn phase for North Street approach to protected permitted

Consider visual gateway feature for vehicles approaching southbound

Reduce speed limit to 25 MPH

Evaluate feasibility of converting to protected left-turn only to reduce conflicts between left-turning vehicles and pedestrians

Reconstruct median to match aesthetic to south

Pursue quick-build project to install bump-outs on west side of intersection to reduce crosswalk distance on south side

Evaluate turning volumes and consider removing southbound right-turn lane.

Pursue raised intersection

Consider extending and widening median island to serve as pedestrian refuge on all approaches

Install hardened centerline with speed hump

Raise crosswalk to sidewalk grade

Pursue two-way separated bike lane on east side of Washington Boulevard south of Broad Street

Reconstruct all driveway crossings to sidewalk grade

Consider raised crosswalk at existing PHB at Mill River Park

Re-landscape raised median plantings to reduce sight line issues

Eliminate parking and provide planter strip to enhance pedestrian connectivity between Columbus Park and Mill River Park

Two-way separated bike lane continues west on West Broad Street to connect to bike connection north of Hanrahan Avenue and contitinues along Rippowam River corridor.

Pursue raised intersection

Pursue quick-build project to remove right-turn lanes

SUMMER ST
FRANKLIN ST
NORTH ST
WASHINGTON BLVD
137
BROAD ST
WEST PARK PL
MAIN ST
LINDEN PL
COURT ST
RENWICK PL
VERNON PL
WEST NORTH ST
GREEN ST
HANRAHAN AV
ADAMS AV
MILL RIVER ST
W BROAD ST
CEMETERY (NORTH STREET)
CEMETERY (FRANKLIN STREET)
CLOONAN MIDDLE SCHOOL
HART SCHOOL
COLUMBUS PARK
MILL RIVER PARK
N

STAMFORD ROAD SAFETY AUDIT
STAMFORD, CONNECTICUT

EXHIBIT 43: WASHINGTON BOULEVARD
(ROUTE 137 / ROUTE 493)
STUDY AREA RECOMMENDATIONS

DATE: 8/25/2023	
SCALE: NTS	
RECOMMENDATIONS	

FHI Studio

LEGEND

- Least Complex Recommendation
- Moderately Complex Recommendation
- Most Complex Recommendation

Consider widening median island to serve as pedestrian refuge on all approaches

Pursue two-way separated bike lane on east side of Washington Boulevard

Pursue raised crosswalk at existing PHB south of Bell Street

Consider maintaining northbound right-turn lane to eliminate need for vehicles to yield across separated bike lane. Provide separate right-turn phase if right-turn lane is maintained.

Consider closing southbound left-turns into parking lot

Pursue two-way separated bike lane on east side of Washington Boulevard

Consider separated bike lane on shuttle bus side of I-95 support columns

Pursue raised crosswalk across channelized right-turn lane

Install missing "No Turn on Red" sign on mast arm

Evaluate closing second right-turn lane following closure of parking garage

Evaluate eliminating third northbound lane following closure of parking garage. Consider expanded sidewalk and/or separated bike lane.

Raise crosswalk to sidewalk grade

Pursue intersection modification to allow for full traffic signal or full access towards Bell Street and right-out only

Re-landscape raised median plantings to reduce sight line issues

Evaluate street lighting on block and add traffic-side street lighting if necessary

Pursue quick-build project to remove right-turn lanes and reduce Route 1 cross section to two through lanes

Consider raised median between Richmond Hill Ave and Route 1

Pursue raised intersection

Evaluate feasibility of converting to protected left-turn only to reduce conflicts between left-turning vehicles and pedestrians

Install additional lighting under Metro-North and I-95 underpass

Initiate further corridor study for Washington Boulevard in this area and study options such as protected only left-turn

Convert flush median to raised median

Reduce speed limit to 25 MPH

BANK ST
SUMMER PL
WEST PARK PL
MAIN ST
BELL ST
FEDERAL ST
WASHINGTON BLVD
137
493
1
MILL RIVER PARK
TRESSER BLVD
DIVISION ST
CLINTON AV
ROTARY PARK
WEST MAIN ST
GREENWICH AV
RICHMOND HILL AV
CEMETERY
SOUTH STATE ST
STATION PLACE
95
WEST ST

STAMFORD ROAD SAFETY AUDIT
STAMFORD, CONNECTICUT

EXHIBIT 44: WASHINGTON BOULEVARD
(ROUTE 137 / ROUTE 493)
STUDY AREA RECOMMENDATIONS

DATE: 8/25/2023
SCALE: NTS
RECOMMENDATIONS

FHI studio

LEGEND

Least Complex Recommendation

Moderately Complex Recommendation

Most Complex Reccomndation

Pursue two-way separated bike lane on east side of Washington Boulevard

WASHINGTON BLVD

Consider raised median between Richmond Hill Ave and Route 1

Remove SB left-turn lane. Extend raised median to serve as pedestrian refuge island.

DIVISION STREET

SCALE IN FEET

0 40 80

GRAPHIC SCALE

STAMFORD ROAD SAFETY AUDIT
STAMFORD, CONNECTICUT

EXHIBIT 45: WASHINGTON BOULEVARD AND DIVISION STREET CONCEPT PLAN

DATE: 11/2/2023	
SCALE: 1" = 40'	
CONCEPT	

LEGEND

- Least Complex Recommendation
- Moderately Complex Recommendation
- Most Complex Recommendation

Pursue quick-build project to remove right-turn lanes

Consider extending and widening median island to serve as pedestrian refuge on all approaches

Pursue two-way separated bike lane on east side of Washington Boulevard south of Broad Street

Evaluate turning volumes and consider removing southbound right-turn lane (shown in different color).

Pursue raised intersection

Two-way separated bike lane continues on south side of West Broad Street to Hanrahan Avenue and continues north in the Rippowam River corridor.

BROAD ST

WASHINGTON BLVD

W BROAD ST

MILL RIVER PARK

SCALE IN FEET
0 50' 100'
GRAPHIC SCALE

STAMFORD ROAD SAFETY AUDIT
STAMFORD, CONNECTICUT

EXHIBIT 46: WASHINGTON BOULEVARD AND BROAD STREET CONCEPT PLAN

DATE: 11/2/2023
SCALE: 1" = 50'
CONCEPT

FHI studio

5.1 Overview

The recommendations for the Washington Boulevard Study Area focus on improving safety for all users and approaching this area as a multi-modal mobility corridor for users of all modes – pedestrians, bicyclists, transit users, and motorists. The following summarizes the approach to the recommendations listed within each area within the study area by mode.

Pedestrians: Overall, the RSA found that adequate crossing locations were found within the RSA study area. However, those crossing locations which exist could be improved. Vehicle speeds should be reduced in areas of pedestrian crossings and are achieved by raised intersections or raised crosswalks at various locations in the Study Area. Conflicts from turning vehicles are recommended to be minimized with countermeasures that reduce vehicle turning speed (curb radii reduction, hardened centerlines etc.), reduced pedestrian crossing distances (pedestrian refuge at medians, bump-outs), reduced vehicle-pedestrian conflicts (leading pedestrian interval (LPI) with protected left-turn phase for vehicles, modification of the Division Street intersection), and removal of right-turn lanes which were found by RSA participants to create safety concerns for pedestrians from vehicles turning right on red and failing to yield to pedestrians in conflicting crosswalks (despite dynamic electronic signage).

Bicyclists: The RSA proposed a separated two-way bicycle lane between the Stamford Train Station and Broad Street. North of Broad Street the bike connection is proposed to connect to the Rippowam River trail under planning and construction by the City. North of West Broad Street, this corridor utilizes Hanrahan Street. To the south, this facility can connect along North State Street to an on-going City of Stamford project to extend bicycle lanes on Atlantic Street to the south. Alternatively, this RSA recommends further studying Washington Boulevard between North State Street and Station Place to evaluate if a bicycle facility can extend underneath I-95 and Metro-North in this area.

Finally, this RSA recommends the creation of corridor standards to ensure consistency within the study area. These standards should consider material selection, median design, lighting standards, and amenity zone design. These standards should emphasize a singular design aesthetic for the study area.

5.2 Corridor-Wide Recommendations

Recommendations for the entire corridor include:

- Upgrades and maintenance as necessary to bring infrastructure into ADA compliance including sidewalks, pedestrian ramps, and pedestrian push buttons.
- Reduction of speed limit to 25 MPH.
- Consideration for automated enforcement and locations, as now permitted under state law.
- Consideration for the development of corridor standards to ensure consistency on the Washington Boulevard corridor. RSA participants noted varying design details across the corridor, even for recently constructed sections. This should extend to material selection, median design, lighting standards, and amenity zone design.
- It is recommended that signal phasing adjustments for all signals are considered. These adjustments may require additional investigation to assess feasibility and compliance with CTDOT standards and practices. Adjustments to consider include:
    - All left-turns from Washington Boulevard should be considered to be modified to a protected-left only. This reduces conflicts

between pedestrians and left-turning vehicles by removing the "permitted left-turn" from these intersections where left-turning vehicles must yield to on-coming traffic and pedestrians on the far side of the intersection.

- No turn on red (NTOR) should be incorporated at all locations.
- All signals should incorporate a Leading Pedestrian Interval (LPI) with recall for the LPI pedestrian interval along Washington Boulevard across all intersections. This guarantees that the LPI and pedestrian signal will be called in each cycle as pedestrians walk along Washington Boulevard. Recall of pedestrian phase *across* Washington Boulevard is not recommended.
- Consideration for the use of adaptive signal control technology on the corridor. Adaptive signal control should be used to minimize cycle length to reduce pedestrian crossing times of Washington Boulevard when possible.

5.3 Washington Boulevard between Station Place and South State Street

Least Complex Recommendations

- Install missing "No Turn on Red" sign on the mast arm for the right-turn to Washington Boulevard from Station Place.
- Install additional lighting under Metro-North and I-95 underpasses. Exhibit 47 shows an example of additional lighting under underpasses.
- Initiate further corridor study for Washington Boulevard in this area.

Moderately Complex Recommendations

- Evaluate closing second right-turn lane from Station Place following closure of the Stamford Transportation Center parking garage on Station Place.
- Evaluate eliminating third northbound lane under Metro-North following closure of parking garage. Consider this area for an expanded sidewalk or separated bike lane. Note the curbside travel lane was closed during construction during the RSA Walk Audit.

Most Complex Recommendations

- Consider separated bike lane under I-95 underpass on the shuttle bus side of the I-95 support columns.

Exhibit 47: Underpass lighting in Lynn, Massachusetts shows how lighting can enhance visibility, but also be a tool for creative placemaking (Source: Payette)

5.4 Intersection of Washington Boulevard and North State Street

Least Complex Recommendations

- Initiate further corridor study for Washington Boulevard in this area.

Moderately Complex Recommendations

- Pursue raised crosswalk across channelized right-turn lane from North State Street to Washington Boulevard. This countermeasure is discussed in research which indicates higher yield rates for approach (NCHRP 208, *Design Guidance for Channelized Right-Turn Lanes* (2014)). Exhibit 48 shows an example of a raised crosswalk at a channelized right-turn lane.
- Convert decorative flush median to raised median on north side of intersection.

Exhibit 48: Channelized right-turn lane with raised crosswalk in Boulder, Colorado (Reference: NCHRP 208, Design Guidance for Channelized Right-Turn Lanes (2014))

5.5 Intersection of Washington Boulevard and Richmond Hill Avenue

Least Complex Recommendations

- Evaluate feasibility of converting northbound left-turn to protected left-turn only to reduce conflicts between left-turning vehicles and pedestrians. If protected left-turn, implement a Leading Pedestrian Interval (LPI).

Most Complex Recommendations

- Pursue raised intersection. Raised intersections put the entire intersection at the same level as the sidewalk and introduce vertical speed control for vehicles entering the intersection similar to a speed hump or raised crosswalk. Vehicles must slow to the appropriate speed on their approach to the intersection. The vertical profile can be modified to meet the desired speed of the roadway. Exhibit 49 shows an example of a raised intersection.
- Pursue two-way separated bike lane on east side of Washington Boulevard between Main Street and North State Street. The bike lane should connect to North State Street and on-going bike lane development on Atlantic Street to points south. Exhibit 50 shows an example of a two-way separated bike lane.

Exhibit 49: Intersection of NY State Routes 787 and 478 in Cohoes, NY is a raised intersection. (Source: Google Maps Streetview)

Exhibit 50: A two-way separated bike lane (also known as "cycletrack") in New York City (Source: NYCDOT)

5.6 Washington Boulevard between Richmond Hill Avenue and Route 1

Moderately Complex Recommendations

- Consider closing left-turn access from Washington Boulevard southbound to the parking lot on the north side of the parcel with 677 Washington Boulevard.

Most Complex Recommendations

- Pursue two-way separated bike lane on east side of Washington Boulevard between Broad Street and North State Street. The bike lane

should connect to North State Street and on-going bike lane development on Atlantic Street to points south.

- Consider a continuous raised median from Richmond Hill Avenue and Route 1. Construct this consistent with design for median to north. Consider designing as pedestrian refuge at intersections if feasible.

5.7 Intersection of Washington Boulevard and Route 1

Least Complex Recommendations

- Pursue a quick-build project to remove right-turn lanes on all approaches and to reduce the Route 1 cross section to two (2) through lanes.
- Evaluate feasibility of implementing a Leading Pedestrian Interval (LPI).

Most Complex Recommendations

- Consider maintaining northbound right-turn lane to eliminate need for vehicles to yield across separated bike lane (See recommendation concept at Broad Street for similar recommendation)
    - This recommendation is best-practice for a two-way cycle track with a right-turn with heavy volume. This recommendation will give right-turning vehicles a "red-arrow" while allowing for a dedicated bicyclist signal. This eliminates the conflict between bicyclists and pedestrians during their respective signal phases. Exhibit 51 shows an example of how this phasing could work.
- Consider widening median island to minimum 6-ft wide to serve as pedestrian refuge for all approaches. Exhibit 52 shows an example of a wider median island.

Exhibit 51: Diagram showing phasing of a Protected Bike Signal. Note, this requires the maintenance of a dedicated right-turn lane. (Source: NACTO)

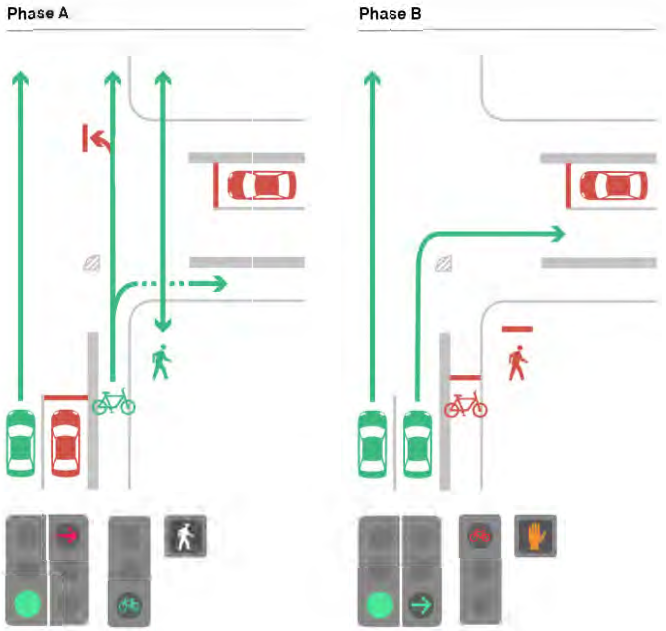
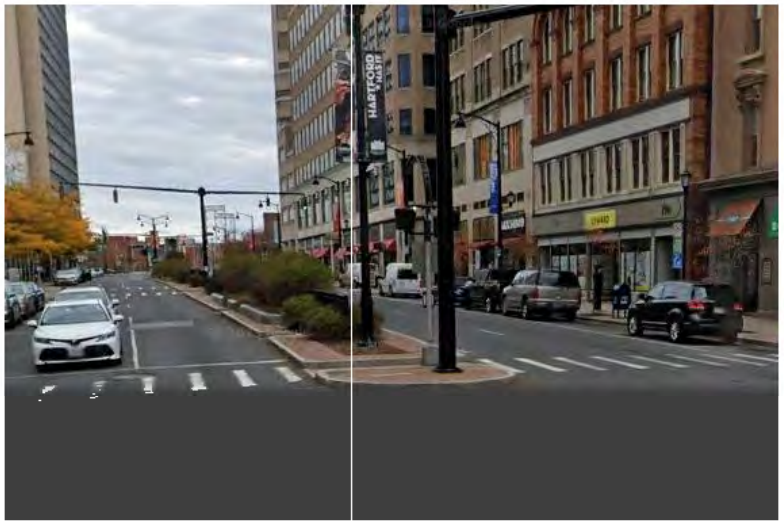


Exhibit 52: An example of a median island at an intersection serving as a pedestrian refuge in Hartford, CT. (Source: Google Earth Streetview)



5.8 Washington Boulevard between Route 1 and Main Street

Least Complex Recommendations

- Re-landscape raised median plantings to reduce sight line issues. Maintain existing vertical elements (such as fencing) to prevent crossing mid-block outside crosswalk locations. See Exhibit 53 as an example of landscaping on a raised median island.
- Evaluate street lighting on block and add traffic-side street lighting if necessary. RSA review noted all pedestrian lighting and no street lighting on east side of block. Consider light fixtures with luminaires on both sides. See Exhibit 54 for an example.

Moderately Complex Recommendations

- Pursue raised crosswalk at existing Pedestrian Hybrid Beacon south of Bell Street.
- Raise crosswalk at intersection of Rippowam Place to sidewalk level. See Exhibit 55 for an example of a raised crosswalk across a side street.

Most Complex Recommendations

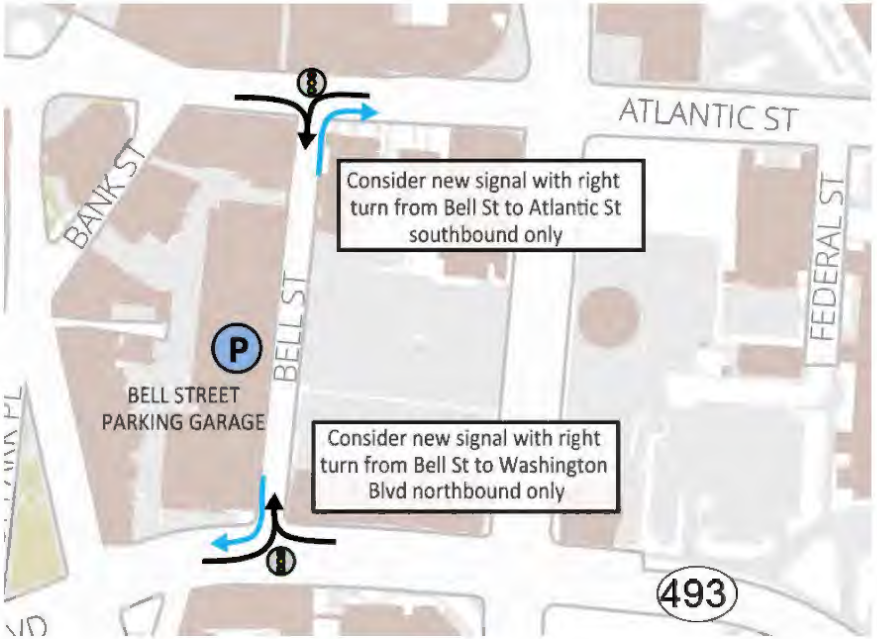
- Pursue two-way separated bike lane on east side of Washington Boulevard between Broad Street and North State Street. The bike lane should connect to North State Street and on-going bike lane development on Atlantic Street to points south. Remove on-street parking if necessary to maintain Washington Boulevard as a multi-modal mobility corridor.
- Pursue intersection modifications to allow for full traffic signal or full access towards Bell Street and right-out exit only. This should be coupled with a similar treatment on Atlantic Street to improve access to and from the Bell Street Parking Garage while reducing potential conflicts and traffic impacts. This recommendation on Washington Street would include a crosswalk (south side) and would replace the existing Pedestrian Hybrid Beacon at this location. See Exhibit 56 for a diagram illustrating the traffic patterns of this recommendation.

Exhibit 53: An example of landscaping in a narrow, raised median on Park Avenue South in New York, NY (Source: NYCDOT)

Exhibit 54: Street light with both traffic-side and sidewalk-side luminaire in Hartford, CT. (Source: Google Earth Streetview)

Exhibit 55: A raised crosswalk across a side street intersection (Source: NYCDOT)

Exhibit 56: Traffic patterns to the Bell Street Parking Garage as suggested in this RSA. Note that black arrows represent traffic patterns for vehicles approaching the parking garage while blue arrows represent traffic patterns for vehicles exiting the garage.



5.9 Intersection of Washington Boulevard and Main Street

Least Complex Recommendations

- Evaluate feasibility of implementing a Leading Pedestrian Interval (LPI).
- Pursue quick-build project to remove right-turn lanes.
- Install hardened centerline with speed hump. See Exhibit 57 for an example.

Most Complex Recommendations

- Pursue raised intersection. Raised intersections put the entire intersection at the same level as the sidewalk and introduce vertical speed control for vehicles entering the intersection similar to a speed hump or raised crosswalk. Vehicles must slow to the appropriate speed on their approach to the intersection. The vertical profile can be modified to meet the desired speed of the roadway.
- Consider extending and widening median island to serve as pedestrian refuge on all approaches.

Exhibit 57: Example of a hardened centerline with a speed bump (Source: City of Toronto)

5.10 Intersection of Washington Boulevard and West Park Place

Moderately Complex Recommendations

- Raise crosswalk at intersection of West Park Place to sidewalk level.

5.11 Washington Boulevard between West Park Place and Broad Street

Least Complex Recommendations

- Re-landscape raised median plantings to reduce sight line issues. Maintain existing vertical elements (such as fencing) to prevent crossing mid-block outside crosswalk locations.

Moderately Complex Recommendations

- Reconstruct all driveway crossings to sidewalk grade.
- Pursue raised crosswalk at existing Pedestrian Hybrid Beacon north of West Park Place.
- Enhance pedestrian connectivity between Mill River Park and Columbus Park by installing pedestrian promenade on west side of Washington Boulevard between Main Street and the mid-block crosswalk. This concept eliminates 7 on-street parking spaces. Consider extending the promenade concept north to Broad Street with additional on-street parking impacts. Refer to Exhibit 58 for a map of this connection and Exhibit 59 for an example cross-section within the existing 100-ft right-of-way.
- Remove the southbound right-turn lane towards Main Street to allow for the installation of the enhanced pedestrian connection.

Most Complex Recommendations

- Pursue two-way separated bike lane on east side of Washington Boulevard between Broad Street and North State Street. The bike lane should connect to North State Street and on-going bike lane development on Atlantic Street to points south. Remove on-street parking if necessary to maintain Washington Boulevard as a multi-modal mobility corridor.

Exhibit 58: Example of connections between Columbus Park and Main Street and Mill River Park. Enhanced pedestrian connection is depicted in green while primary bicyclist connection in blue.

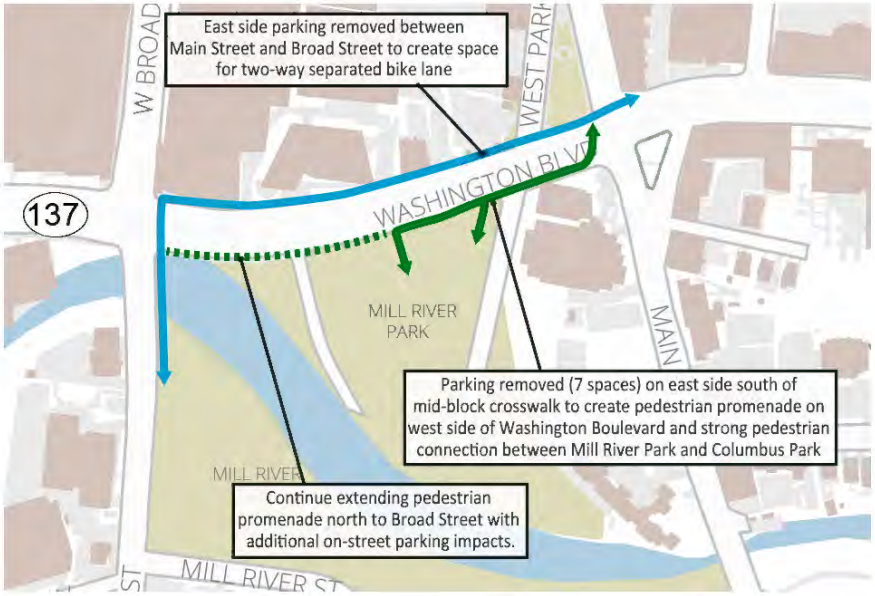
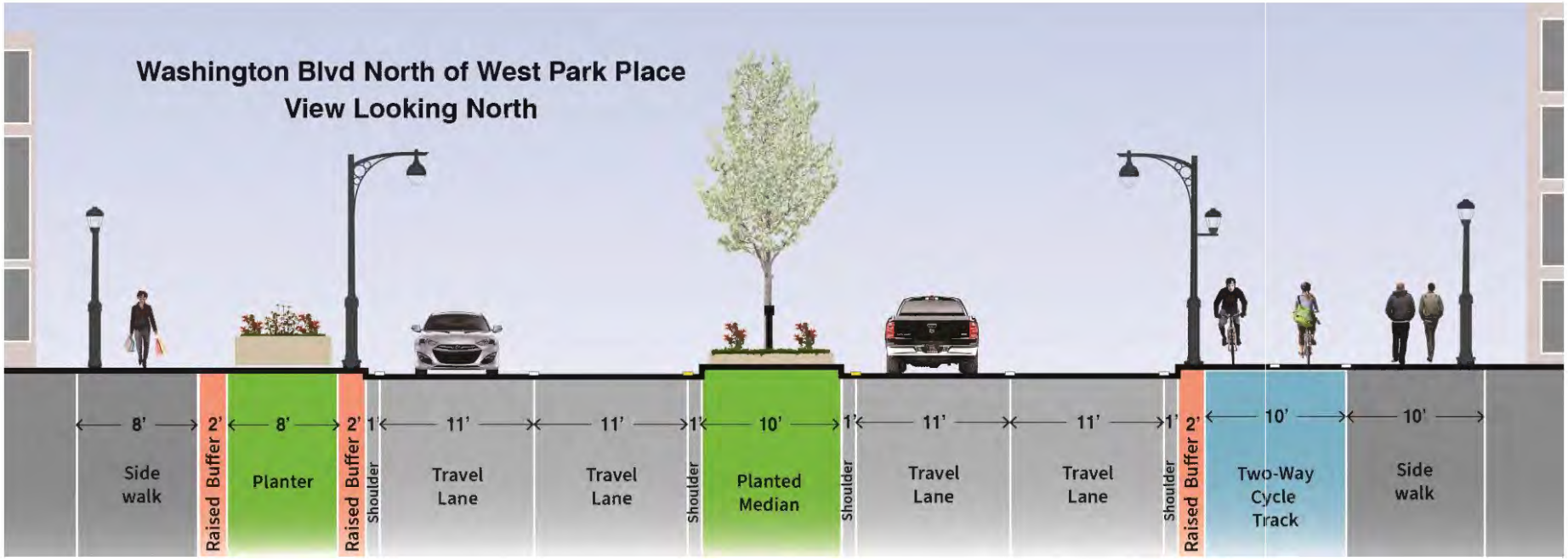


Exhibit 59: Example cross section showing an expanded two-way separated bike lane and a wide buffer between a sidewalk on the east side to enhance the pedestrian connection between Columbus Park and Mill River Park.



5.12 Intersection of Washington Boulevard and Broad Street

Least Complex Recommendations

- Evaluate feasibility of implementing a Leading Pedestrian Interval (LPI).
- Pursue quick-build project to remove right-turn lanes.

Moderately Complex Recommendations

- Evaluate turning volumes and consider removing southbound right-turn lane.

Most Complex Recommendations

- Pursue raised intersection. Raised intersections put the entire intersection at the same level as the sidewalk and introduce vertical speed control for vehicles entering the intersection similar to a speed hump or raised crosswalk. Vehicles must slow to the appropriate speed on their approach to the intersection. The vertical profile can be modified to meet the desired speed of the roadway. Consider approaching speeds from southbound traffic and consider additional measures between North Street and Broad Street to indicate contextual changes to slow vehicle speeds prior to intersection.
- Pursue two-way separated bike lane on east side of Washington Boulevard between Main Street and Hoyt Street. The bike lane can continue to connect north via the Rippowam River Corridor. This will connect to the planned pathway on Hanrahan Avenue via West Broad Street. Consider a new trail bridge across Rippowam River to make this connection. Remove on-street parking if necessary to maintain Washington Boulevard as a multi-modal mobility corridor.

5.13 Washington Boulevard between Broad Street and North Street

Least Complex Recommendations

- Evaluate feasibility of implementing a Leading Pedestrian Interval (LPI) at the signalized intersection with the UConn parking lot.
- Pursue quick-build project to install bump-out on west side of intersection to reduce crossing distance across Washington Boulevard on south side.

Most Complex Recommendations

- Reconstruct median to match aesthetic of Washington Boulevard to south.

5.14 Intersection of Washington Boulevard and North Street

Least Complex Recommendations

- Evaluate feasibility of implementing a Leading Pedestrian Interval (LPI).
- Remove northbound right-turn lane to North Street and stripe as accessible on-street parking (ADA parking). This matches existing usage and signage in this area.
- Evaluate feasibility and need to convert left-turn phase for North Street approach to protected-permitted. This will give left-turning vehicles a leading green left interval prior to opposing through traffic.

5.15 Washington Boulevard between North Street and Hoyt Street

Most Complex Recommendations

- Reconstruct median to match aesthetic of Washington Boulevard to south.
- Consider visual gateway feature for vehicles approaching southbound towards downtown in this area.

6 SUMMARY

This report documents the observations, discussions, and recommendations developed during the completion of the City of Stamford's RSA. It provides the City with an outlined strategy to improve the transportation network for all users in the study area, particularly focusing on pedestrians and cyclists. Moving forward, the City of Stamford and CTDOT may use this report to prepare strategies for funding and implementing the improvements. This report provides Stamford with a toolkit to plan for including these multi-modal recommendations into future development within the study area.

The aforementioned Community Connectivity Program: Road Safety Audit Report is an objective review intended for the municipality use to help assess the existing conditions within a predetermined area of town selected by the municipality. The conclusions of this report are advisory and intended for general planning purposes to help identify bicycle, pedestrian and non-motorized transportation needs that encourage walking and bicycling, as well as assists in developing recommendations to improve the existing conditions. The contents of this report are not intended to be legally binding, but rather offer recommendations to improve safety in the vicinity of the audit location and create a more appealing transportation alternative.

APPENDICES

A: Pre-Audit Presentation

B: Walk Audit Materials

STAMFORD ROAD SAFETY AUDIT

WASHINGTON BOULEVARD (ROUTE 137)

CONNECTICUT DEPARTMENT OF TRANSPORTATION 125 1895 - 2020

STAMFORD

COMMUNITY connectivity program

FHI studio

JUNE 2023

INTRODUCTIONS

AGENDA

1. Welcome and Team Introductions
2. Study Purpose and Goals
3. Study Area
4. Review of Site-Specific Data and Issues
5. Next Steps for Tomorrow’s Site Visit Audit

PROJECT TEAM

- Connecticut Department of Transportation (CTDOT) is sponsoring
- City of Stamford
- FHI Studio is conducting the Road Safety Audit reporting
- Support from WestCOG

RSA OBJECTIVES

Assess safety of existing walking, bicycling, and vehicular routes

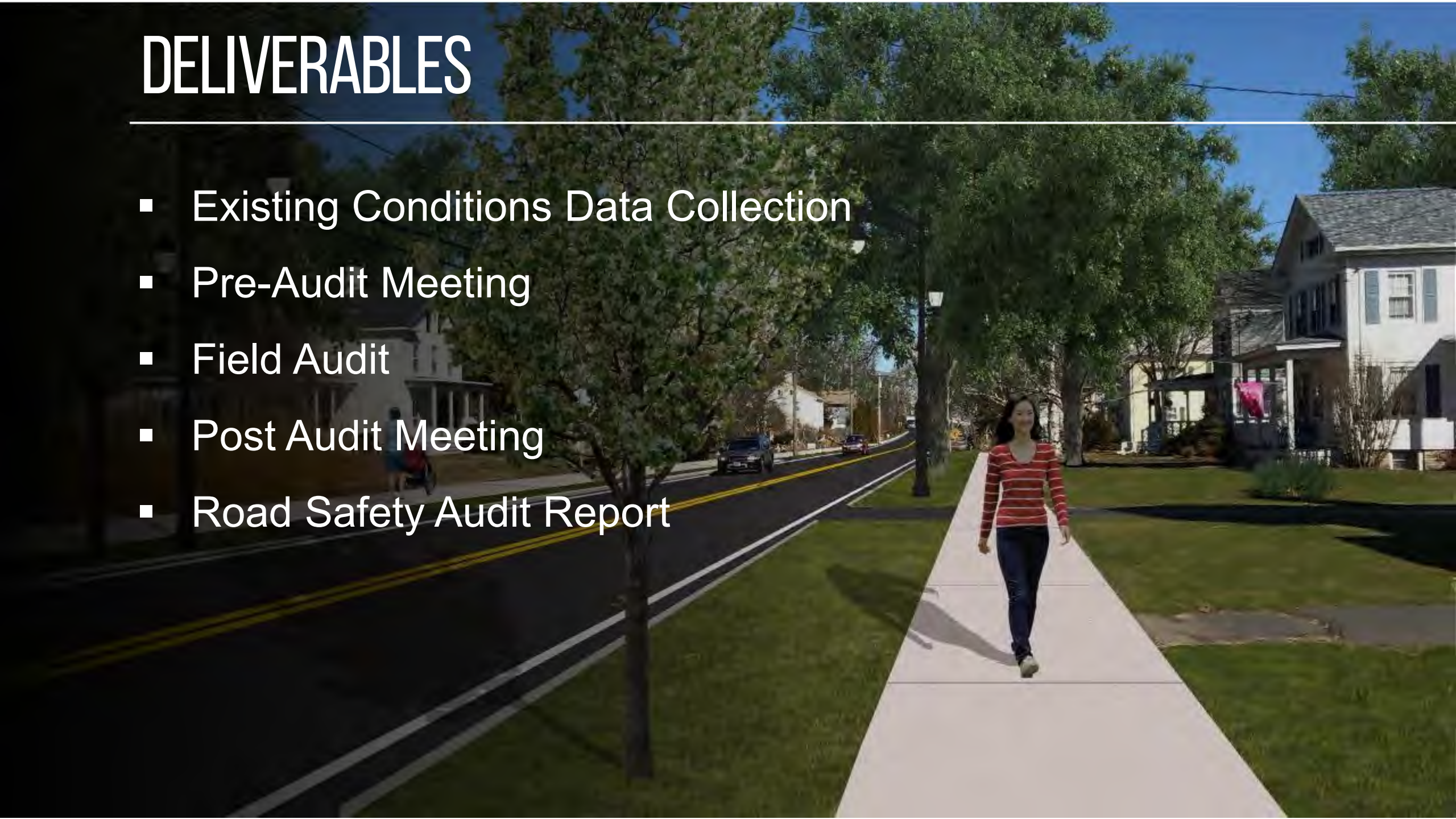
Identify issues that may discourage / prevent walking and bicycling

Consider community ideas to improve/address safety, speed management, sustainability, gateway treatments, etc.

Identify next steps, feasibility of proposed improvements, and potential funding sources

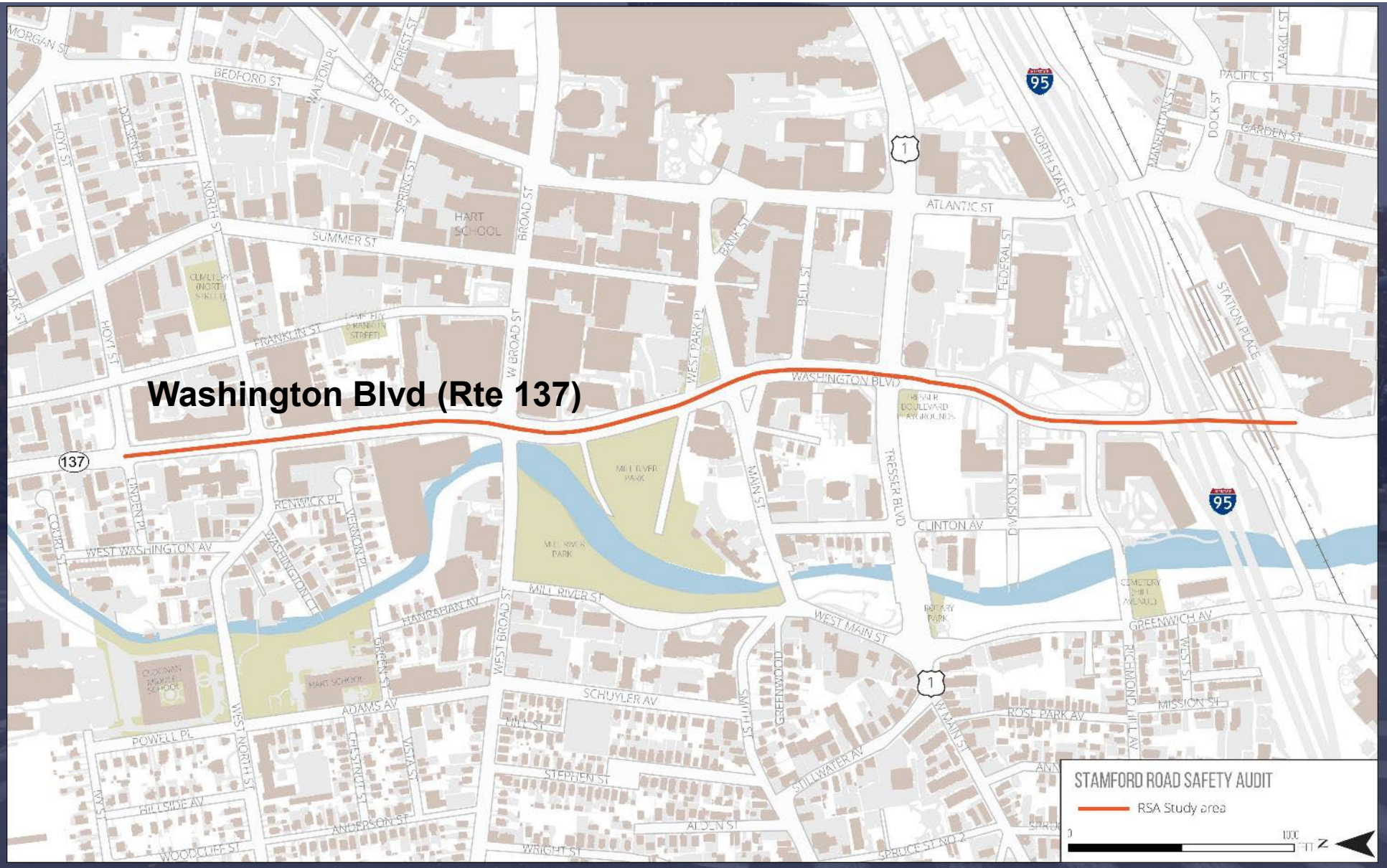
Improve transportation network for all users by making conditions safer and more comfortable for pedestrians and cyclists

DELIVERABLES



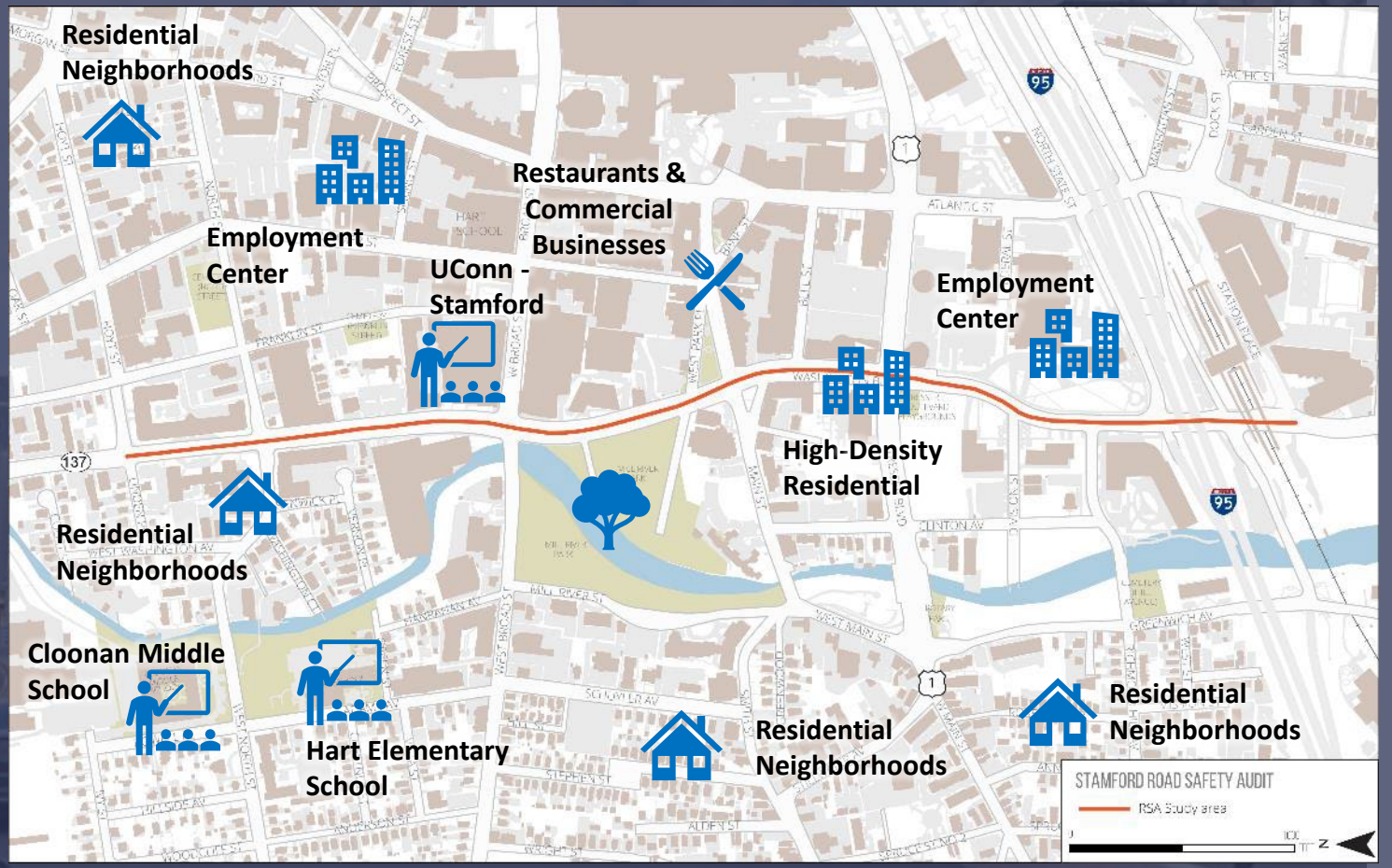
- Existing Conditions Data Collection
- Pre-Audit Meeting
- Field Audit
- Post Audit Meeting
- Road Safety Audit Report

STUDY AREA


Washington Blvd (Rte 137)
STAMFORD ROAD SAFETY AUDIT
RSA Study area
WASHINGTON BLVD
ATLANTIC ST
SUMMER ST
WEST WASHINGTON AV
MILL RIVER ST
WEST MAIN ST
CLINTON AV
GREENWICH AV
ROSE PARK AV
SCHUYLER AV
ADAMS AV
HART SCHOOL
BROAD ST
W BROAD ST
MAIN ST
TRESSER BLVD
DIVISION ST
FEDERAL ST
BANK ST
BELL ST
NORTH STATE ST
STATION PLACE
PACIFIC ST
GARDEN ST
DOCK ST
MARGLI ST
MANHATTAN ST
FRANKLIN ST
HOYT ST
DOLSEN PL
BEDFORD ST
WALTON PL
PROSPECT ST
FOREST ST
SPRING ST
NORTH ST
PARK ST
COURT ST
LINDEN PL
RENWICK PL
VERMONT PL
WASHINGTON CT
HANRAHAN AV
GREEN ST
WEST NORTH ST
POWELL PL
HILLSIDE AV
CHESTNUT ST
VISTA ST
ANDERSON ST
WOODCLIFF ST
MILL ST
STEPHEN ST
SMITH ST
GREENWOOD
STILLWATER AV
ALDEN ST
WRIGHT ST
SPRUCE ST
MISSION ST
RICHMOND HILL AV
WEST MAIN ST
ROTARY PARK
MILL RIVER PARK
WEST PARK PL
95
1
137

POINTS OF INTEREST

- Civic uses such as elementary and middle school, UConn Stamford, fire department
- Restaurant and commercial strip
- Grocery store, bank, pharmacy, services
- Residential neighborhoods
- Employment centers



PRIOR / ON-GOING RELATED STUDIES

CT Active Transportation Plan (2017)

Table 3: State Road Segments with High Crashes Involving Pedestrians (2012 – 2016)

Rank	Municipality	Route	Segment Begin	Segment End	Length (Mile)	Fatal / Severe Injury Crashes	Non-fatal/non severe injury crashes	Weighted Total
1	Stamford	1	Alvord Ln.	Seaside Av.	3	12	59	95
2	Hartford	44	Columbus Blvd.	Westbourne Pkwy.	2.3	7	49	70
3	Bridgeport	127	Stratford Av.	Alpine St.	2	7	33	54
4	Danbury	53	South St.	Downs St.	1.5	6	30	48
5	Bridgeport	1	North Av.	Otis St. (Stratford)	2.3	6	21	39
6	New Haven	1	Admiral St. (West Haven)	Brown St.	2.5	4	27	39
7	Stamford	137	Tressor Blvd.	7th St.	1.2	4	25	37
8	Norwalk	1	0.1 Mi. South of Rampart Rd.	France St.	2.8	5	21	36
9	Bridgeport	130	Water St.	Florence St.	1.8	7	15	36
10	Bridgeport	700	Commerce Dr.	Water St.	1.7	5	21	36
11	Waterbury	847	Mill St.	0.5 Mi. North of Main St.	1.8	1	32	35
12	East Haven	80	Middletown Av.	Highland Av.	1.1	7	13	34
13	Bridgeport	1	Pacific St.	River St.	1.6	2	18	24
14	Bridgeport	130	Railroad Av.	Water St.	1.7	3	15	24
15	New Haven	10	Derby Av.	Fitch St.	1.2	4	10	22

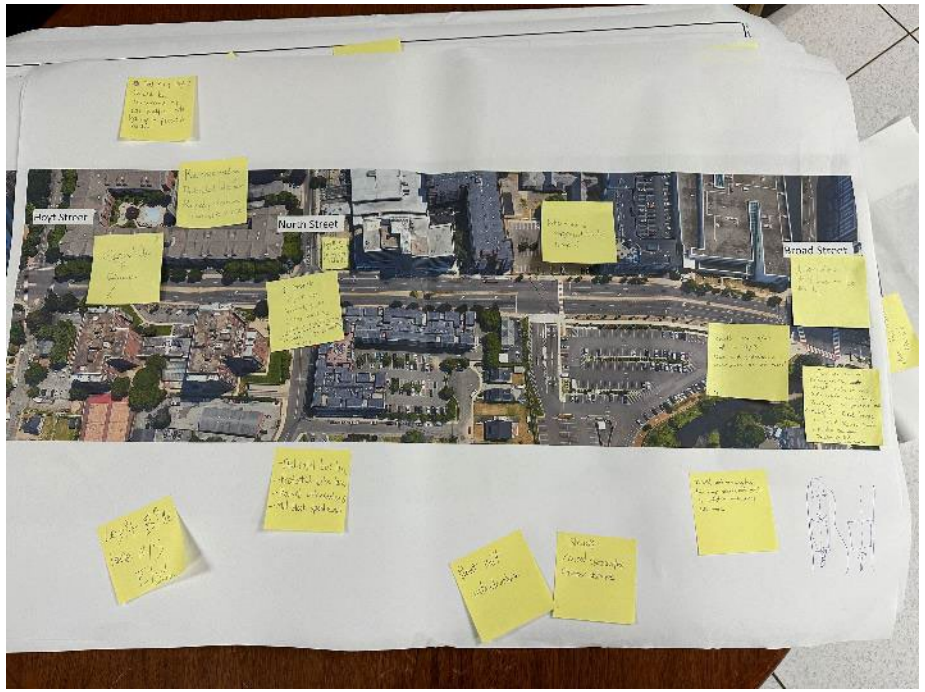
REVIEW OF PAST/CURRENT WORK

- 2007 Stamford Neighborhood Traffic Calming Report
- Walkable Stamford 2008
  - Recommends interventions at:
    - *Washington Boulevard: Tresser to Richmond Hill*
    - *Washington and Tresser Boulevards*
- 2015 Stamford Master Plan
- 2020 – WestCOG Stamford Bicycle and Pedestrian Plan
- Wayfinding Master Plan
- Stamford Transportation Center Master Plan (current)
- I-95 Stamford Planning and Environment Linkages Study (current)
- VisionZero (upcoming)

PUBLIC MEETING

PUBLIC MEETING

- May 16th, 2023
- 30+ attendees
- Format: short presentation, all group discussion, smaller breakout tables by roadway section



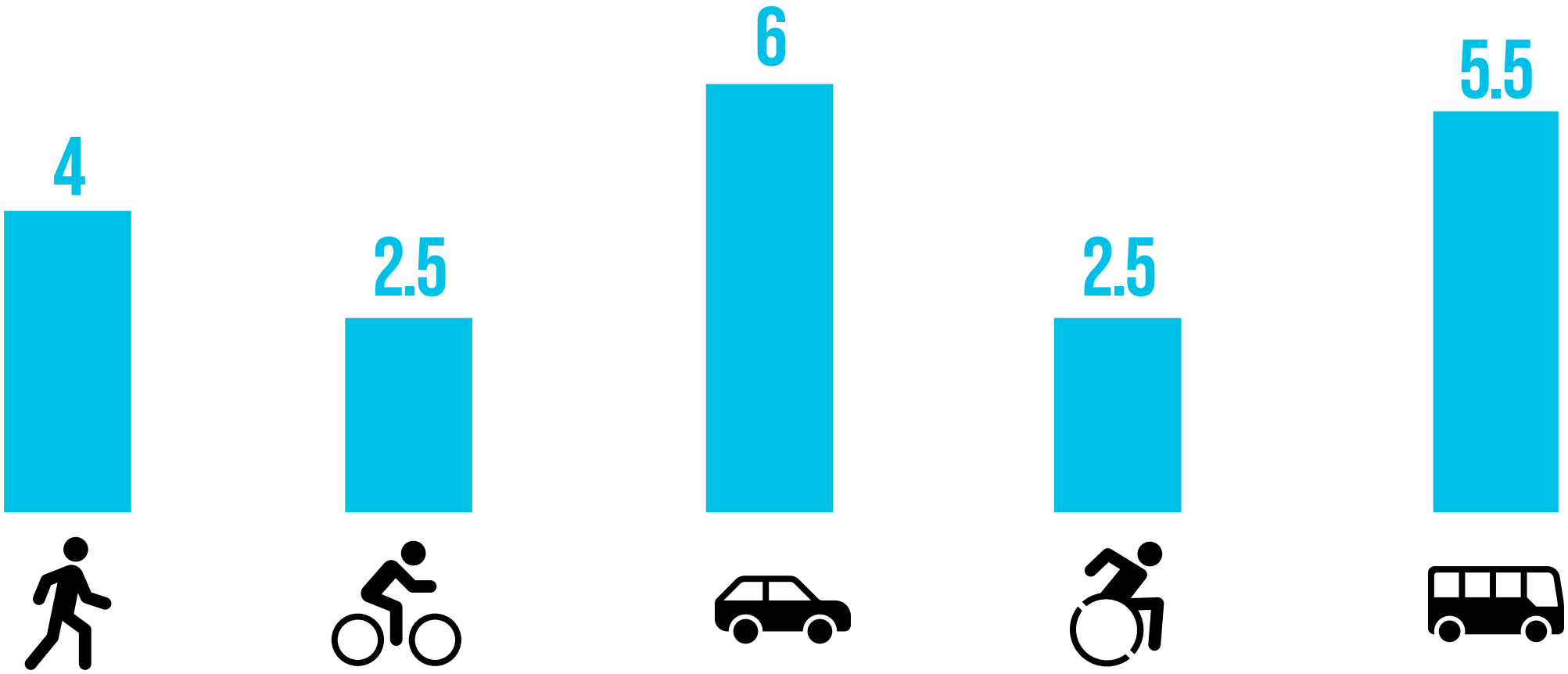
WHAT WE HEARD

- Make space between vehicular traffic and sidewalks
- Eliminate slip lanes because drivers do not stop for peds or cyclists
- Educate drivers, bicyclists, and pedestrians
- Create educational ads on transit/stops
- Consider speed cameras at intersections
- Consider traffic enforcement
- Eliminate concurrent phase pedestrian signals
- Time traffic signals
- Consider shortening crosswalks, adding bump-outs, raised intersections
- Add protected bike lanes
- Consider road diet on Washington Blvd
- Improve east-west bus travel
- Consider better lighting at rail / highway overpass
- Add ped overpasses / underpasses at Broad St intersection

SURVEY FINDINGS

SURVEY FINDINGS

HOW SAFE DO YOU FEEL ON WASHINGTON BOULEVARD?



Scale = 1 (unsafe) – 10 (safe)

Total Responses: 542

SURVEY FINDINGS

WHAT ARE YOUR BIGGEST SAFETY CONCERNS ON WASHINGTON BLVD?

NOT ENOUGH CROSSWALKS

CROSSING AT EXISTING CROSSWALKS

SPEEDING VEHICLES

RECKLESS AND DISTRACTED DRIVING

DRIVER BEHAVIOR

SURVEY FINDINGS

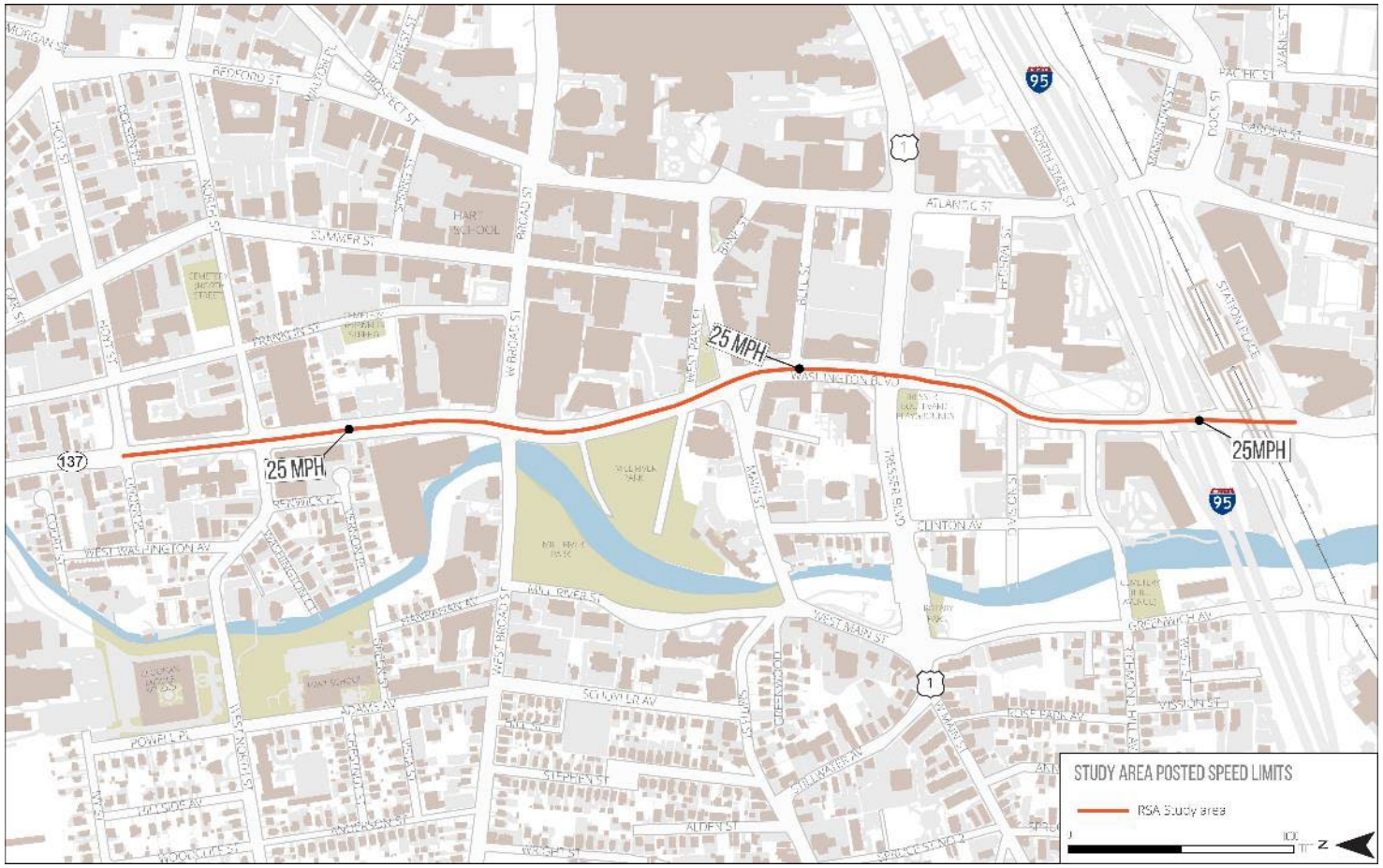
DESCRIPTION OF SAFETY CONCERNS ON WASHINGTON BLVD

"Crossing at crosswalks while following signals is still very dangerous. You must pay attention, giving right of way to drivers because they don't know the rules. Drivers honking and pressure other drivers not to give pedestrians row."

"Drivers do not follow traffic laws. They turn right on red when it is clearly marked that it is not allowed. They do not provide right of way to crossing pedestrians"

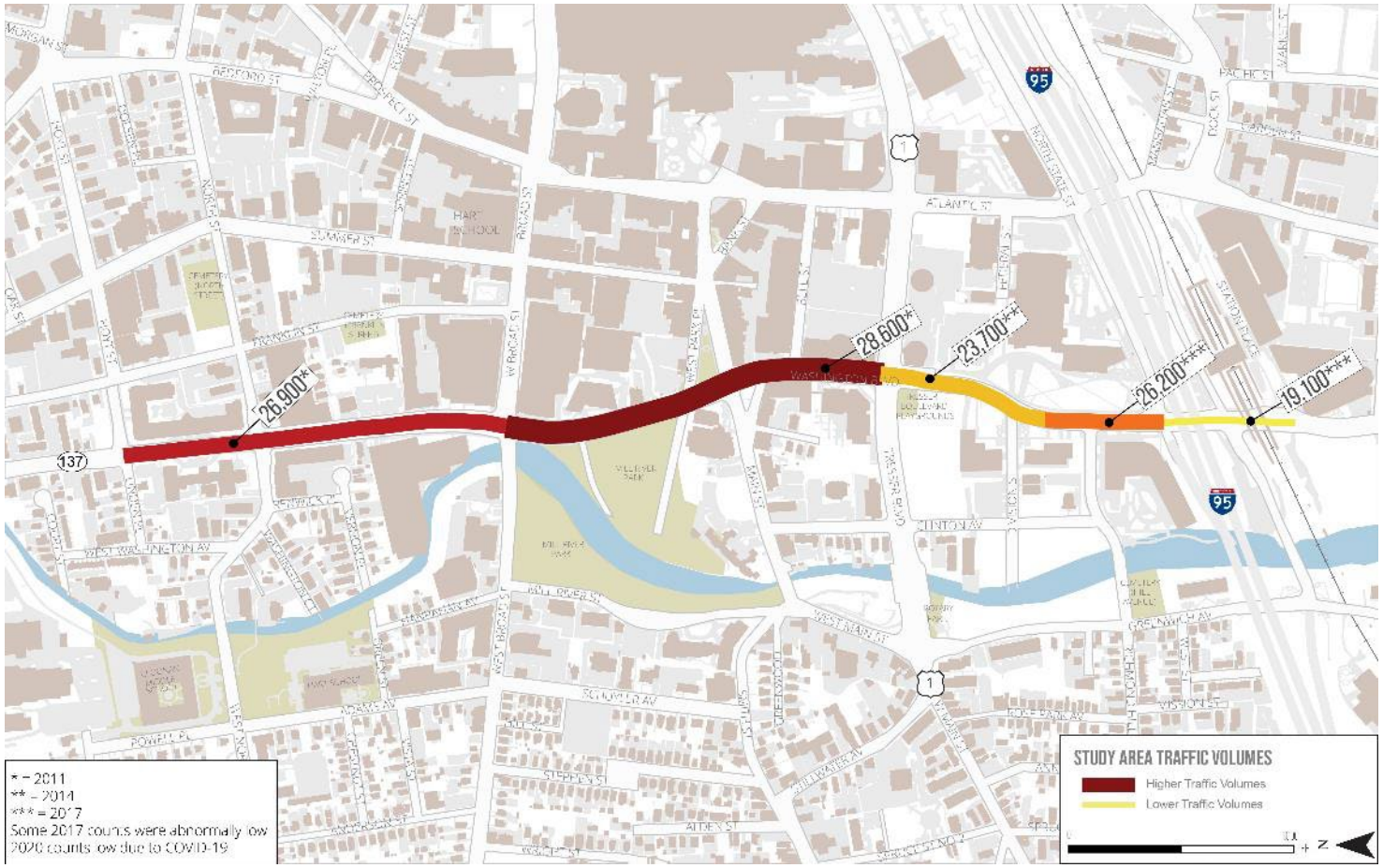
TRAFFIC SPEED LIMITS

- Speed limit in Study Area is 25 MPH along Route 137 between Hoyt St and Station Place
- Speed limits on Tresser Blvd and Summer St are 30 MPH
- The surrounding neighborhoods have a posted speed limit between 25 and 30 MPH



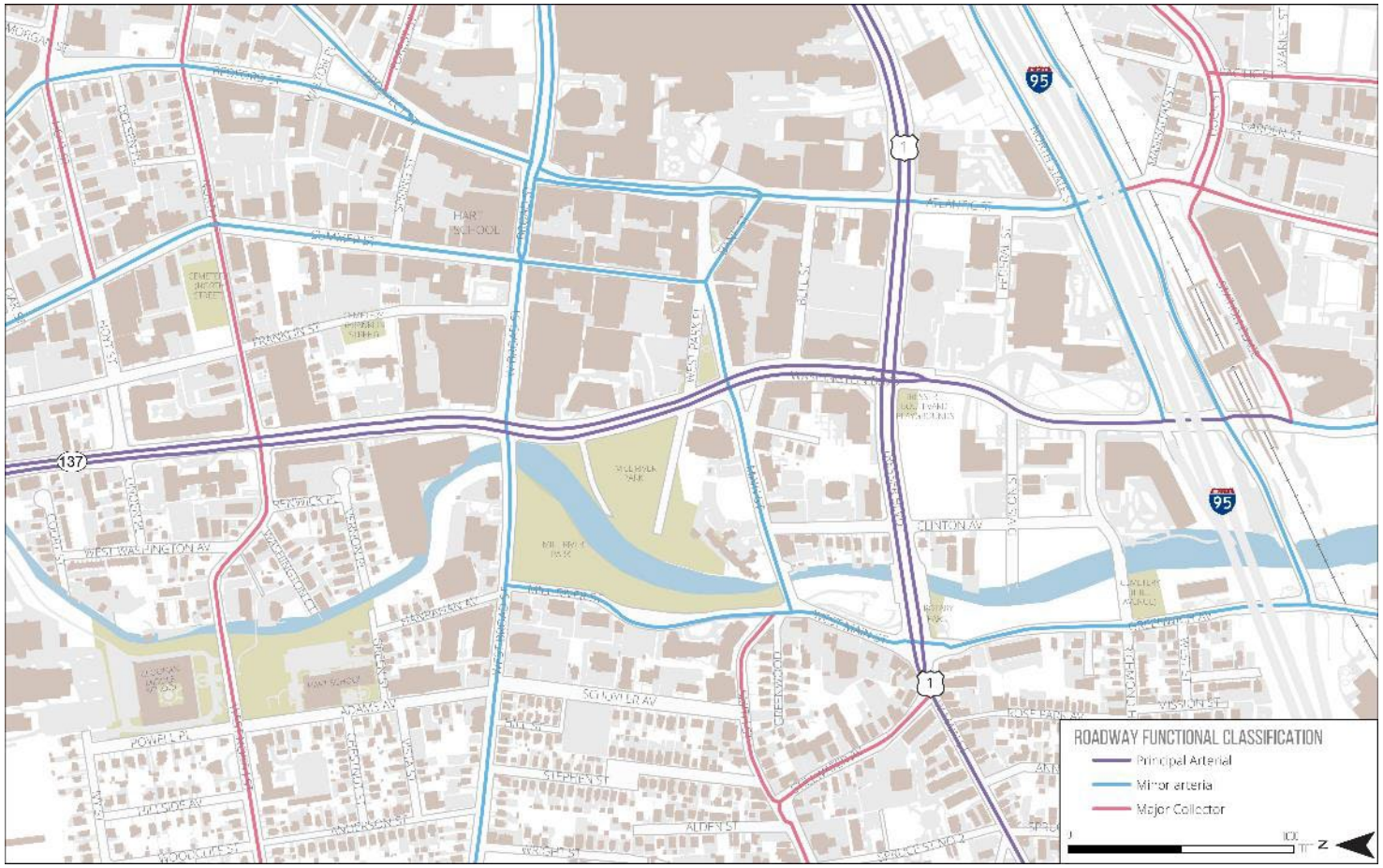
TRAFFIC VOLUMES

- Higher traffic volumes between Tresser Blvd and Broad St
  - Lowest volumes found on Rte 137 (Washington Blvd) between N State St and Station Pl



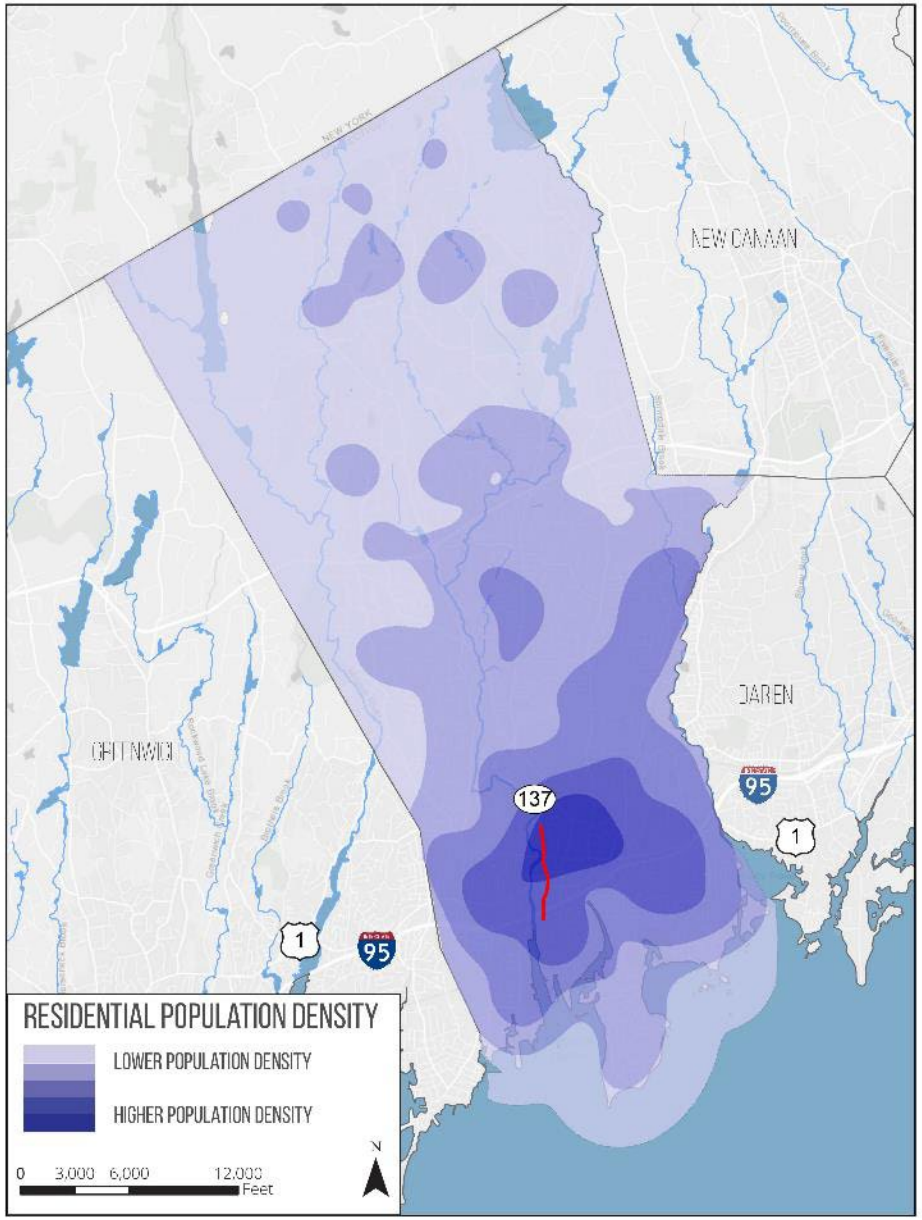
FUNCTIONAL CLASSIFICATION

- Rte 137 (Washington Blvd) is a principal arterial
- Rte 1 (Tresser Blvd) is a principal arterial
- W Broad St is a minor arterial
- North St is a major collector
- Other streets that intersect study area are local roads



POPULATION DENSITY

- Residential population density is highest in vicinity of study area



ROADWAY GEOMETRY

Stamford - RSA - Route 137

Street Inventory

Road	From	To	Distance	Functional Classification	Speed Limit	Direction	Lanes	Lane Width	Sidewalk Type	Sidewalk Width	Sidewalk Condtion	ADA Ramps Present	ADA Ramps Compliant	Curb	Parking	Shoulder	On DOT Bike Network	Notes
Route 137 (Washington Boulevard)	Station Place	S. State St	300'	Principal Arterial	30 mph	NB	3	11'	Concrete	6'	Good	Yes	Yes	Granite	No	2'	No	Shoulder narrows under overpass
						SB	3	11'	Concrete	6'	Good	Yes	Yes	Granite	No	2'	No	Older streetscape than other sections of corridor
Route 137 (Washington Boulevard)	S. State St	N State St	250'	Principal Arterial	30 mph	NB	3	11'	Concrete	6'	Good	Yes	Yes	Granite	No	1'	No	
						SB	3	11'	Concrete	6'	Fair	Yes	Yes	Granite	No	1'	No	
Route 137 (Washington Boulevard)	N State St	Richmond Hill Ave	325'	Principal Arterial	30 mph	NB	3	10.5'	Concrete	6'	Good	Yes	Yes	Granite	No	2'	No	
						SB	3	11'	Concrete	6'	Good	Yes	Yes	Granite	No	2'	No	
Route 137 (Washington Boulevard)	Richmond Hill Ave	Division St	350'	Principal Arterial	30 mph	NB	3	10.5'	Concrete	10'	Fair	Yes	Yes	Granite	No	1'	No	Sidewalk width varies from 10-15'
						SB	2	10.5'	Concrete	10'	Good	Yes	Yes	Granite	No	1'	No	
Route 137 (Washington Boulevard)	Division St	Tresser Blvd	600'	Principal Arterial	30 mph	NB	4	11.5'	Concrete	10'	Fair	Yes	Yes	Granite	No	1'	No	
						SB	2	11.5'	Concrete	10'	Good	Yes	Yes	Granite	No	1'	No	
Route 137 (Washington Boulevard)	Tresser Blvd	Main St	700'	Principal Arterial	30 mph	NB	2	11'	Concrete	8'	Good	Yes	Yes	Granite	Yes	1'	Yes	One lane taken up by construction
						SB	2	11'	Concrete	8'	Good	Yes	Yes	Granite	Yes	1'	Yes	Parking along the northern portion of the segment
Route 137 (Washington Boulevard)	Main St	Broad St	1,000'	Principal Arterial	30 mph	NB	2	11.5'	Concrete	7'	Fair	Yes	Yes	Granite	Yes	1'	Yes	Parking lane is 10'
						SB	2	11.5'	Concrete	12'	Fair	Yes	Yes	Granite	Yes	1'	Yes	
Route 137 (Washington Boulevard)	Broad St	North St	1,100'	Principal Arterial	30 mph	NB	2	11.5'	Concrete	10'	Good	Yes	Yes	Granite	No	2'	Yes	
						SB	2	11.5'	Concrete	10'	Good	Yes	Yes	Granite	No	2'	Yes	
Route 137 (Washington	North St	Hoyt	600'	Principal Arterial	30 mph	NB	2	11'	Concrete	10'	Fair	N/A	N/A	Granite	No	1'	Yes	Parking along pull-outs adjacent to roadway
						SB	2	11'	Concrete	6'	Fair	N/A	N/A	Granite	No	3'	Yes	Sidewalk width varies from 6-10' in places

*CONDITION - "Good" is Serviceable Condition that meets current design standards. "Fair" is generally serviceable, but may need minor repairs, or may not completely align with current design standards. "Poor" is not serviceable, and generally inadequate for continued long-term use.

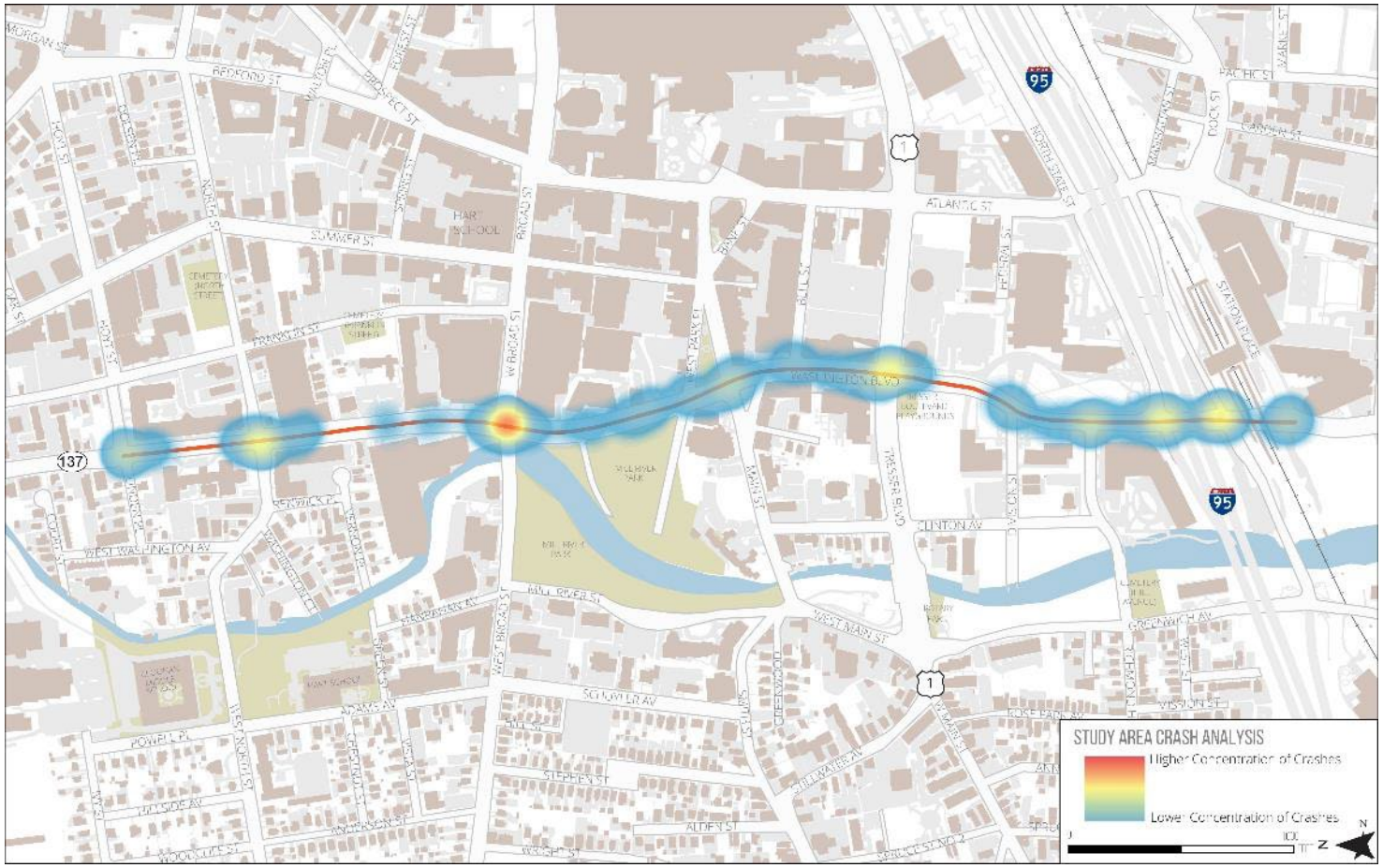
Highlighted cells indicate values which may warrant further investigation

CRASH ANALYSIS

CRASH STATISTICS UPDATED – SEE RSA REPORT

Crash hotspots (5 year crash total approx.)
546 total crashes

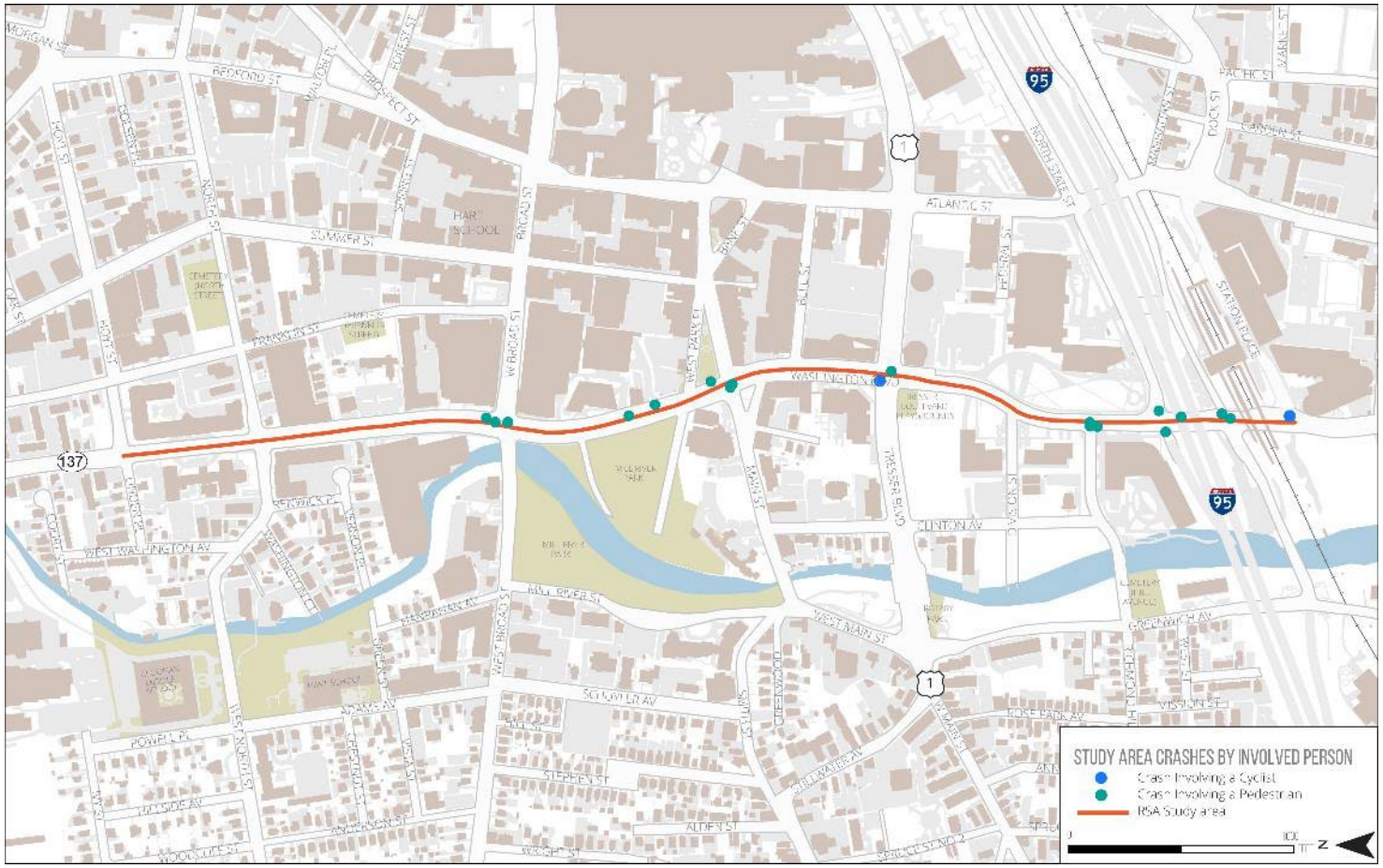
- Route 137 and **W Broad St** – 100 crashes
- Route 137 and **Route 1 (Tresser Blvd)** – 69 crashes
- Route 137 and **S State St** – 58 crashes
- Route 137 and **North St –** 53 crashes
- Route 137 and **N State St** – 51 crashes
- Route 137 and **Hoyt St** – 23 crashes



CRASH ANALYSIS – INVOLVED PERSON

CRASH STATISTICS UPDATED – SEE RSA REPORT

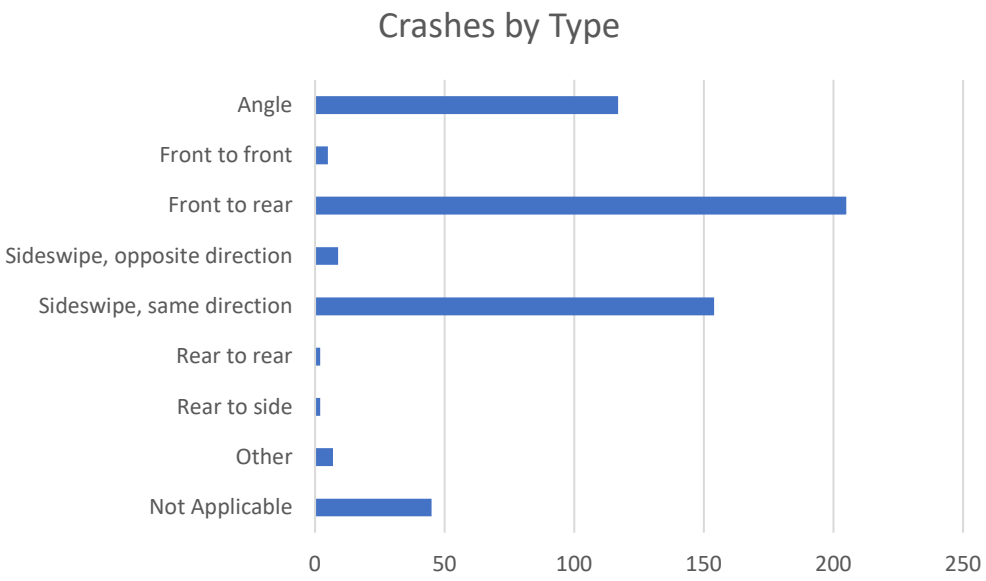
- 19 crashes involving a pedestrian in study area
- Two crashes involving a bicyclist in study area
- All but one pedestrian crash resulted in an injury of some type
- Pedestrian crashes appear centered around intersection locations

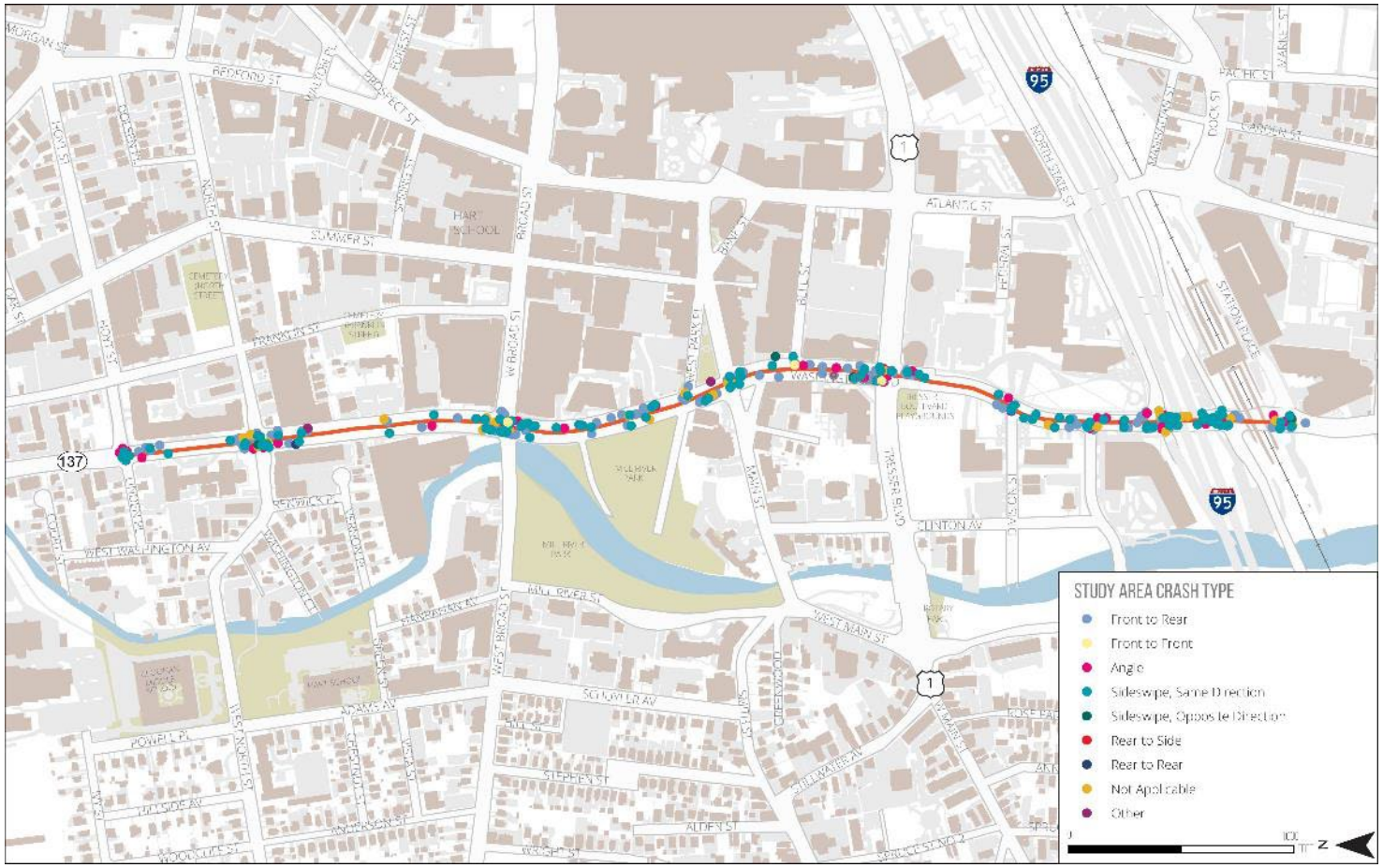


CRASH TYPE

CRASH STATISTICS UPDATED – SEE RSA REPORT

- Majority of crashes are **front to rear**
- **Sideswipe, same direction,** and a**ngle** crashes were the second most common

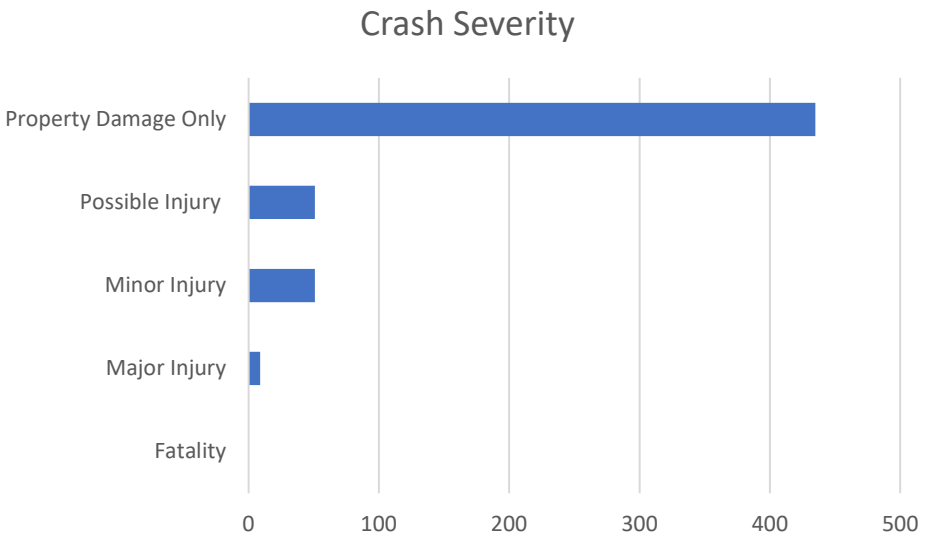


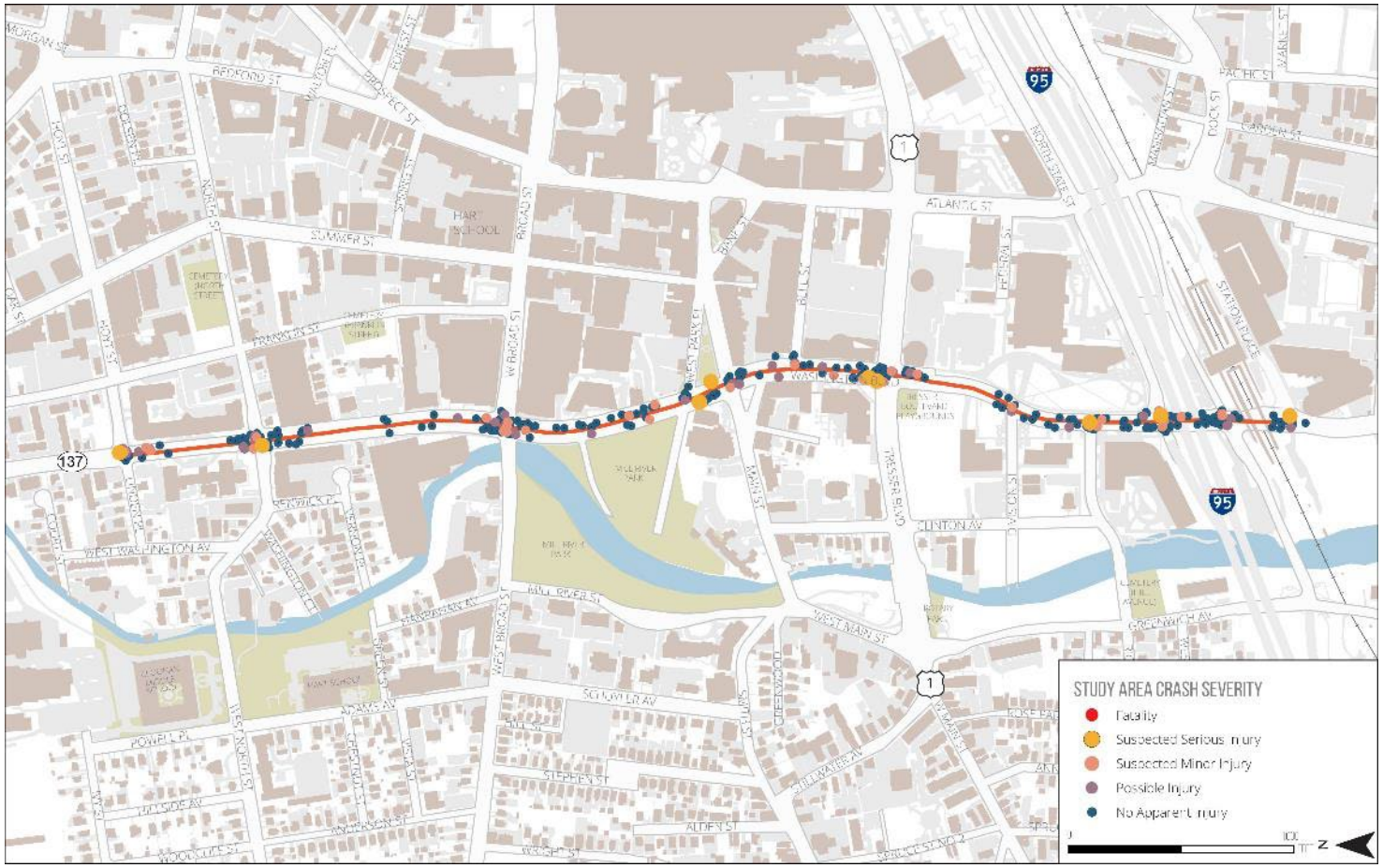


CRASH SEVERITY

CRASH STATISTICS UPDATED – SEE RSA REPORT

- Majority of crashes (435) are classified as No Apparent Injury- Property Damage Only
- 51 crashes resulting in possible injury and 51 minor injury crashes
- 9 crashes resulted in serious injury crash



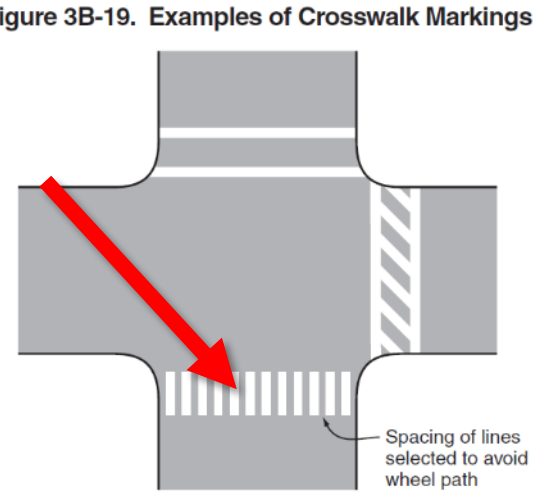


SAMPLE IMPROVEMENTS TO IMPROVE SAFETY IN THE STUDY AREA

PEDESTRIAN COUNTER MEASURES

Leading Pedestrian Interval and Other Signal Changes

Pedestrian Refuge Islands



Crosswalks

Raised Crosswalks and Intersections

RRFB

HAWK

PEDESTRIAN COUNTER MEASURES

Crosswalk Lighting

Curb Extensions

BICYCLIST COUNTER MEASURES

Sharrows

Bike Lanes

Buffered Bike Lanes

Cambridge, MA

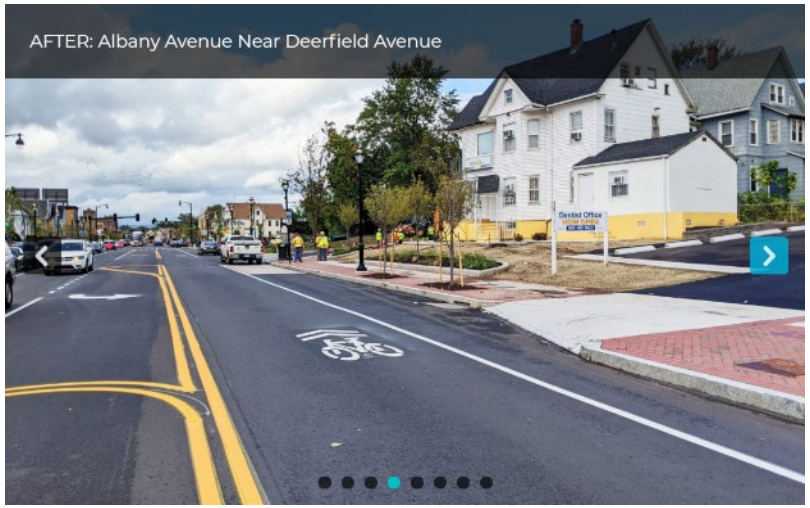
Indianapolis, IN

Protected Bicycle Infrastructure

SPEED REDUCTION – CROSS SECTION AND OTHER

Traffic Lane Reconfiguration

On Street Parking



Streetscape

Median Island

Street Trees

Dynamic Speed Signs

DISCUSSION ON ISSUES IN THE STUDY AREA AND OPPORTUNITIES

TOMORROW'S WALK AUDIT

- Review safety protocols, reflective vests, etc.
- Meeting location
- Walk the study area corridor and assess existing conditions and identify areas for improvement
- Post Audit discussion immediately following


THANK YOU!

Stamford Road Safety Audit

Meeting Location: Virtual Meeting

Date and Time: June 28h, 2:00 PM – 3:00 PM

Agenda

1. **Welcome and Introductions**
2. **Pre-Audit Presentation and Discussion**
    - Definition of Study Area
    - Review Site Specific Data
        - Average Daily Traffic
        - Crash Data
        - Geometrics
3. **Walk Audit Procedures and Safety**

Notes for Participants

- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, as stakeholders' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

Stamford Road Safety Audit

Meeting Location: Outside 888 Washington Blvd, Stamford

Address: 888 Washington Blvd, Stamford CT

Date and Time: June 29st 8:00 AM

Agenda

4. **Welcome and Introductions**
5. **Review of Road Safety Audit Route**
6. **Audit**
    - Visit Study Area
    - Complete Audit Checklist
    - Identify issues and opportunities for improvements
7. **Post-Audit Discussion**
    - Discussion observations and finalize findings
    - Discuss potential improvements and final recommendations
    - Next Steps

Notes for Participants

- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, as stakeholders' opinions are key elements to the success of the overall RSA process.
- After the RSA meeting, participants will be asked to comment and respond to the document materials to assure it is reflective of the RSA completed by the multidisciplinary team.

Stamford Audit Checklist

Pedestrians and Bicycles	Comment

Pedestrian Crossings
• Sufficient time to cross (signal)
• Signage
• Pavement Markings
• Detectable warning devices (signal)
• Adequate sight distance
• Wheelchair accessible ramps
  o Grades
  o Orientation
  o Tactile Warning Strips
• Pedestrian refuge at islands
• Other	

Pedestrian Facilities
• Sidewalk
  o Width
  o Grade
  o Materials/Condition
  o Drainage
  o Buffer
• Pedestrian lighting
• Pedestrian amenities (benches, trash receptacles)
• Other	

Bicycles • Bicycle facilities/design • Separation from traffic • Conflicts with on-street parking • Pedestrian Conflicts • Bicycle signal detection • Visibility • Roadway speed limit • Bicycle signage/markings • Shared Lane Width • Shoulder condition/width • Traffic volume • Heavy vehicles • Pavement condition • Other	

Roadway & Vehicles	
• Speed-related issues o Alignment; o Driver compliance with speed limits o Sight distance adequacy o Safe passing opportunities	
• Geometry o Road width (lanes, shoulders, medians); o Access points; o Drainage o Tapers and lane shifts o Roadside clear zone /slopes o Guide rails / protection systems	

• Intersections o Geometrics o Sight Distance o Traffic control devices o Safe storage for turning vehicles o Capacity Issues	

• Pavement
  o Pavement Condition (excessive roughness or rutting, potholes, loose material)
  o Edge drop-offs
  o Drainage issues
• Lighting Adequacy	

• Signing
  • Correct use of signing
  • Clear Message
  • Good placement for visibility
  • Adequate retro-reflectivity
  • Proper support	

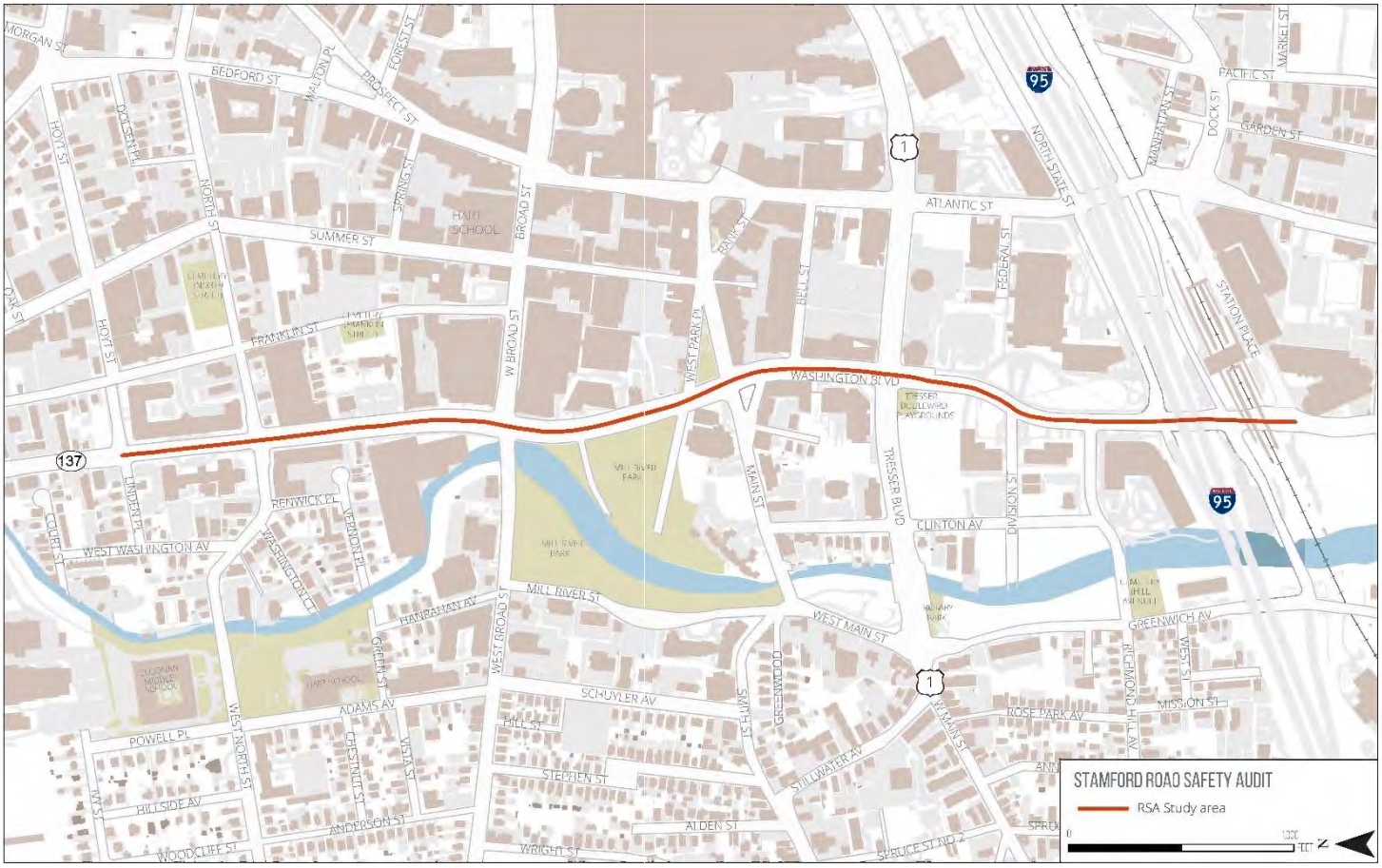
• Signals
  o Proper visibility
  o Proper operation
  o Efficient operation
  o Safe placement of equipment
  o Proper sight distance
  o Adequate capacity	

• Pavement Markings
  o Correct and consistent with MUTCD
  o Adequate visibility
  o Condition
  o Edgelines provided	

• Miscellaneous
  o Weather conditions impact on design features.
  o Snow storage	

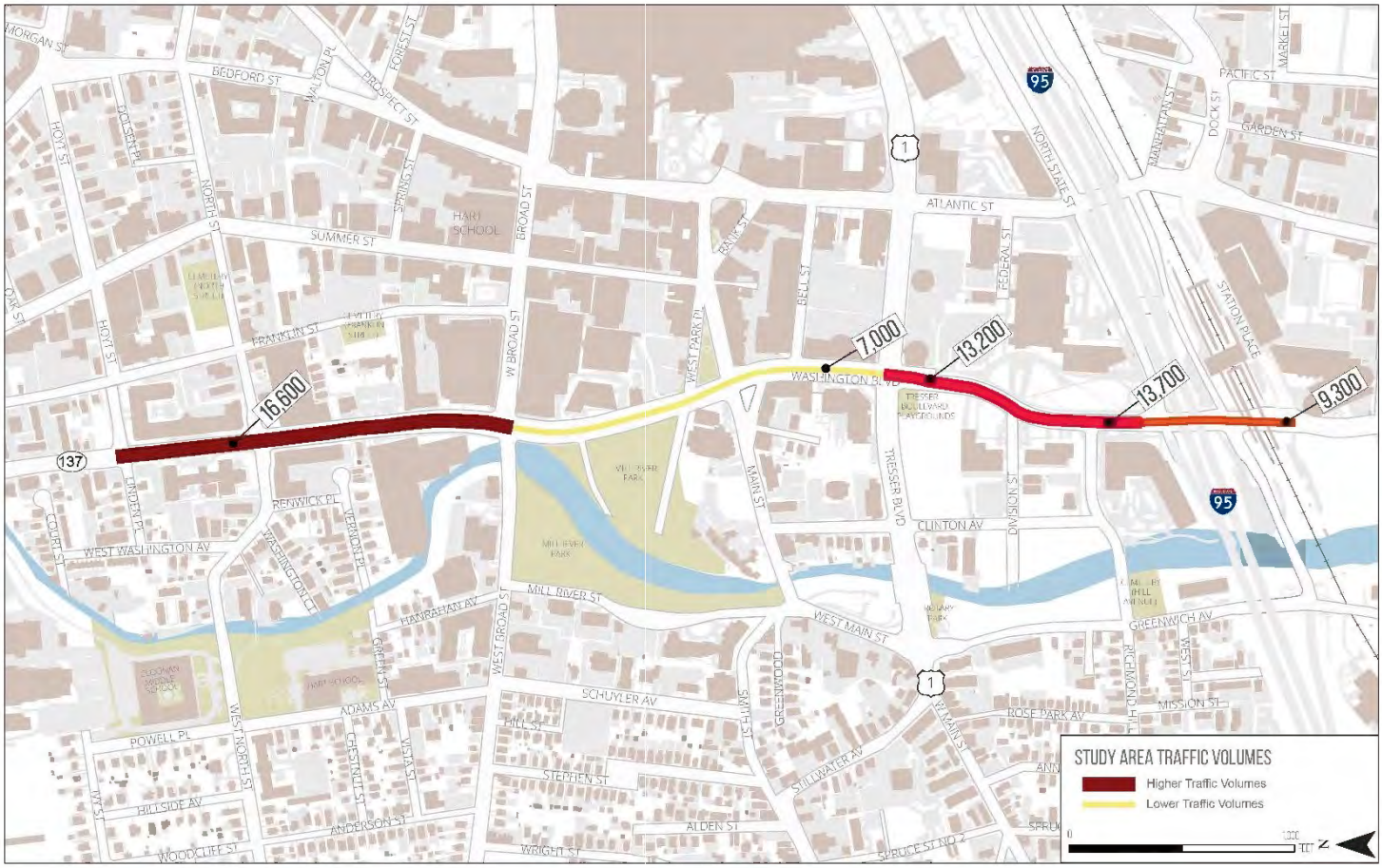
Stamford Road Safety Audit - Study Area

- Route 137 (Washington Blvd) Station Place and Hoyt Street



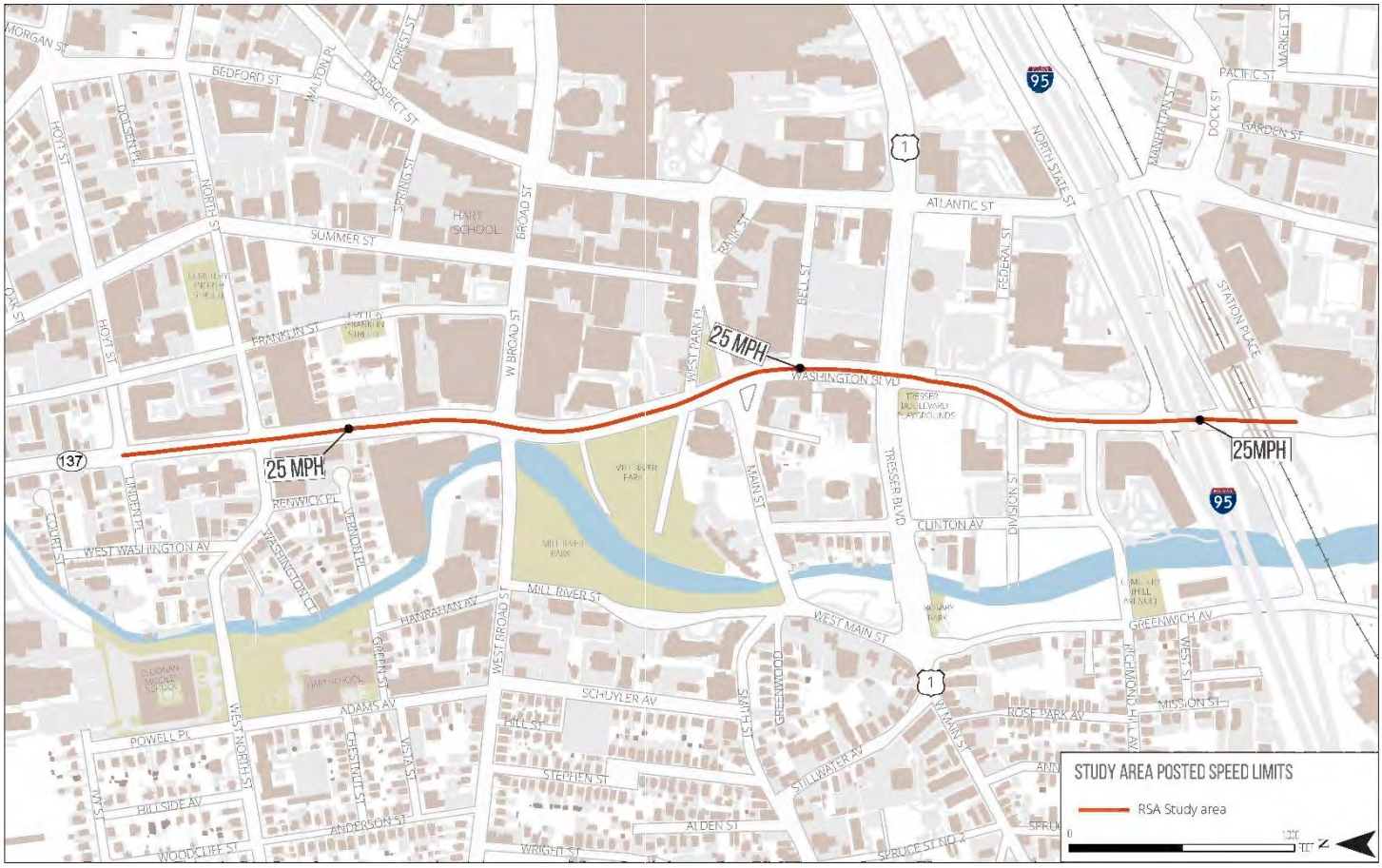
Stamford Road Safety Audit - Average Daily Traffic Volumes in 2019

- Highest traffic volumes on Route 137 between W Broad Street and Hoyt Street intersections
- Volumes increase near the I-95 ramps and Route 1
- Lowest volumes found between Route 1 and W Broad St

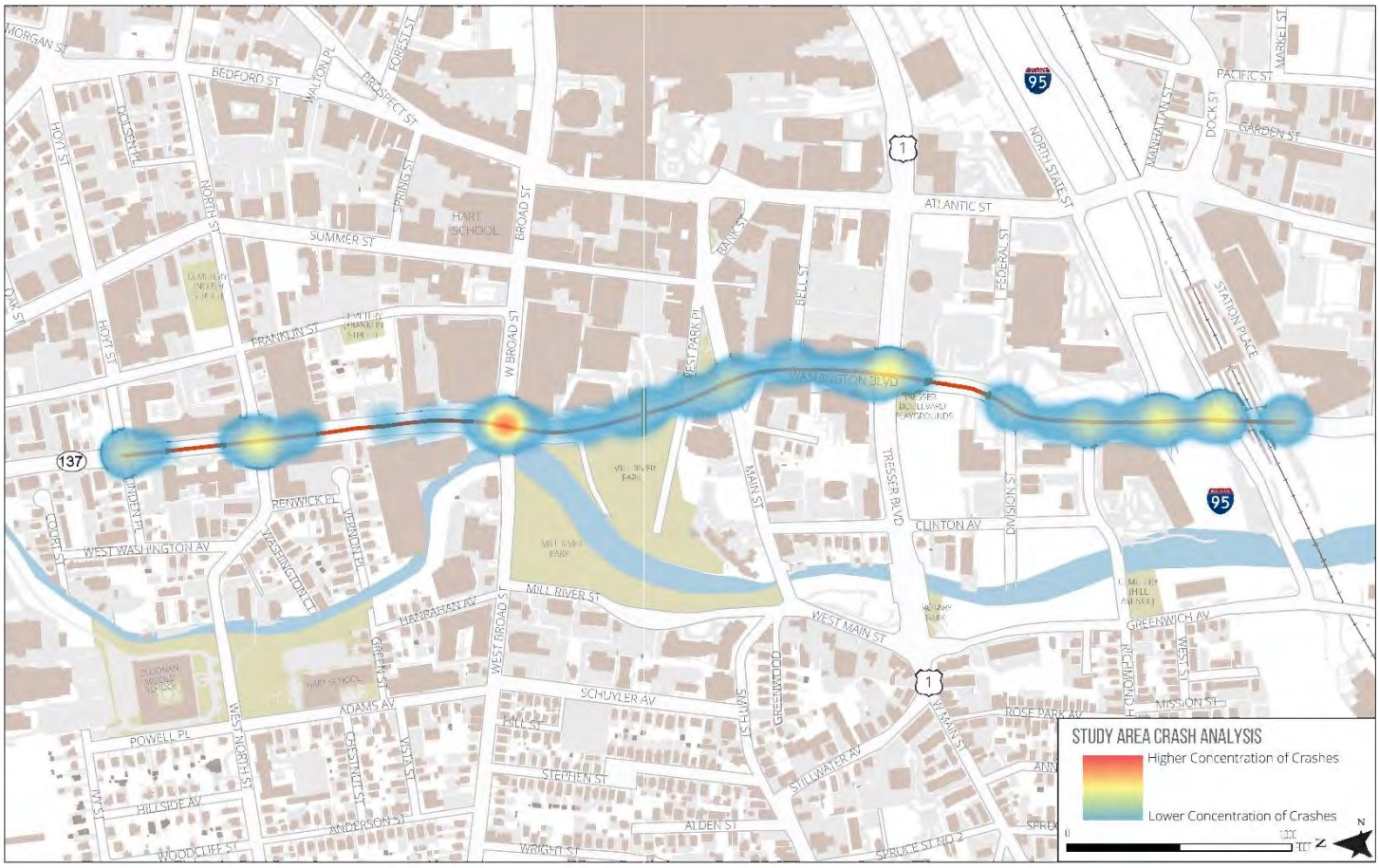


Stamford Road Safety Audit – Posted Speed Limits

- The speed limit from Station Place to Hoyt Street is 25 MPH



Stamford Road Safety Audit - Crash Summary Heat Map



CRASH STATISTICS UPDATED – SEE RSA REPORT

Stamford Road Safety Audit - Crash Summary

Years: 2017 – 2021

	Crash Severity					
	Fatality	Serious Injury	Minor Injury	Possible Injury	erty Damage	**TOTAL**
Angle		3	17	13	84	117
Front to front					5	5
Front to rear		3	16	26	160	205
Sideswipe, opposite direction				1	8	9
Sideswipe, same direction			1	5	148	154
Rear to Side					2	2
Rear to Rear					2	2
Not Applicable		2	16	5	22	45
Other		1	1	1	4	7
TOTAL	0	9	51	51	435	546
Crashes Involving Pedestrians	0	2	12	4	1	19
Crashes Involving Bicyclists	0	1	1	0	0	2

Summary Analysis:

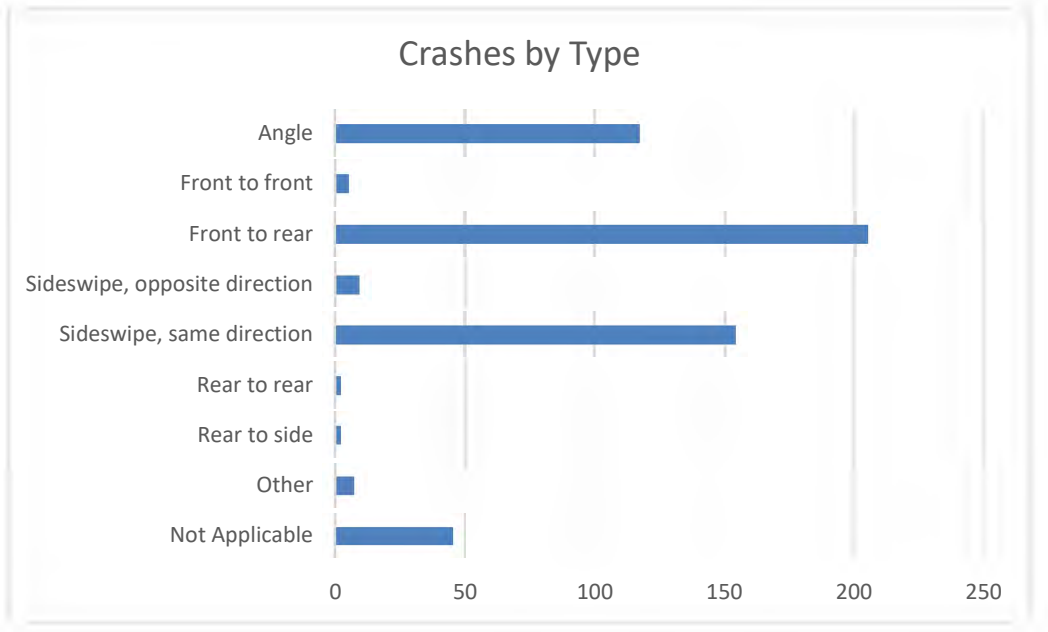
Crash Hotspots (5 Year Crash Total approx.) 546 Crashes Total

- Route 137 (Washington Blvd) and Hoyt St – 23 Crashes
- Route 137 (Washington Blvd) and North St Intersection – 53 Crashes
- Route 137 (Washington Blvd) and W Broad St – 100 Crashes
- Route 137 (Washington Blvd) and Route 1 (Tresser Blvd) – 69 Crashes
- Route 137 (Washington Blvd) and N State St – 51 Crashes
- Route 137 (Washington Blvd) and S State St – 58 Crashes

CRASH STATISTICS UPDATED – SEE RSA REPORT

Stamford Road Safety Audit Crash Summary - Crashes by Type

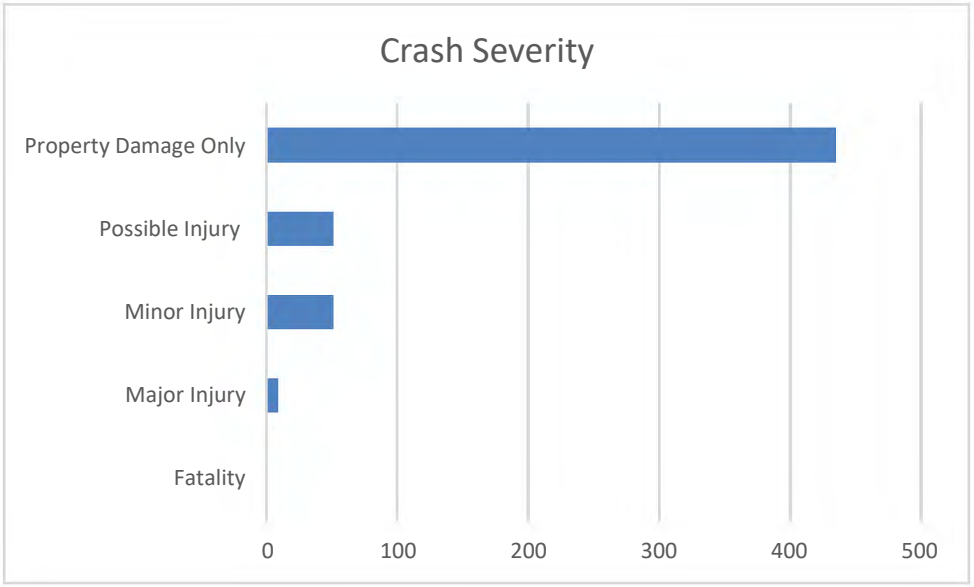
- Majority of crashes are front to rear and sideswipe, same direction



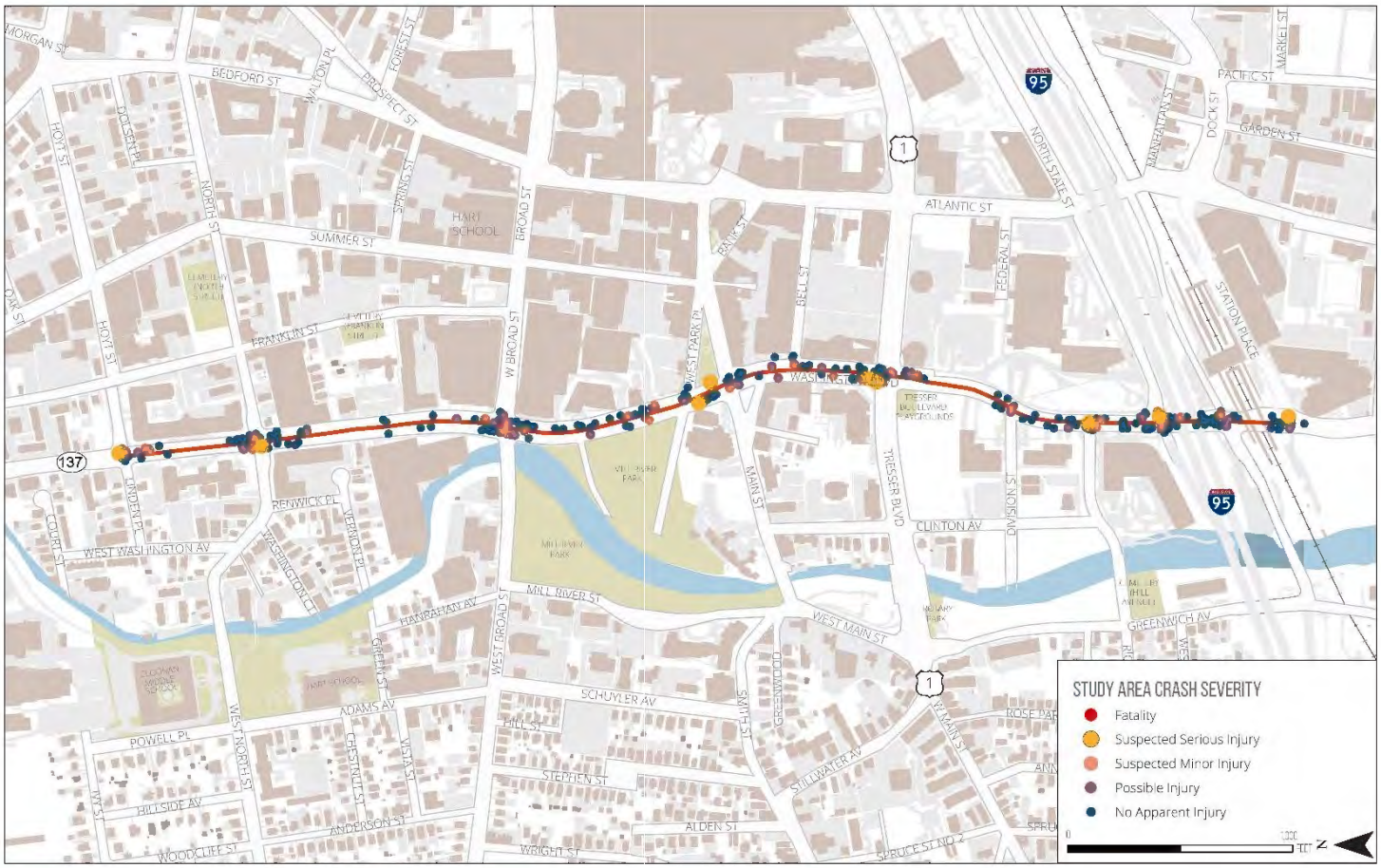
Stamford Road Safety Audit Crash Summary - Crash Severity

- Majority of crashes (435) are classified as No Apparent Injury- Property Damage Only
- There were 51 crashes resulting in a possible injury and 51 minor injury crashes

CRASH STATISTICS UPDATED – SEE RSA REPORT



- There were 9 serious injury crashes reported in the past 5 years.



Stamford Road Safety Audit – Review of Past and Current Work

- 2020 – WCCOG Stamford Bicycle and Pedestrian Plan
- 2015 Master Plan
- Stamford Neighborhood Traffic Calming Report
- Walkable Stamford 2008
    - Cited in both Bike/Ped Plan and 2015 Master Plan
    - Recommends short/long term interventions at:
        - *Washington Boulevard: Tresser to Richmond Hill*
        - *Washington and Tresser Boulevards*

Stamford Road Safety Audit - Post Audit Discussion Guide

Safety Issues:

- Confirmation of safety issues identified during the pre-audit meeting and the walk audit

Potential Recommendations to Address Issues:

- **Short Term Recommendations**

- **Medium Term Recommendations**

- **Long Term Recommendations**

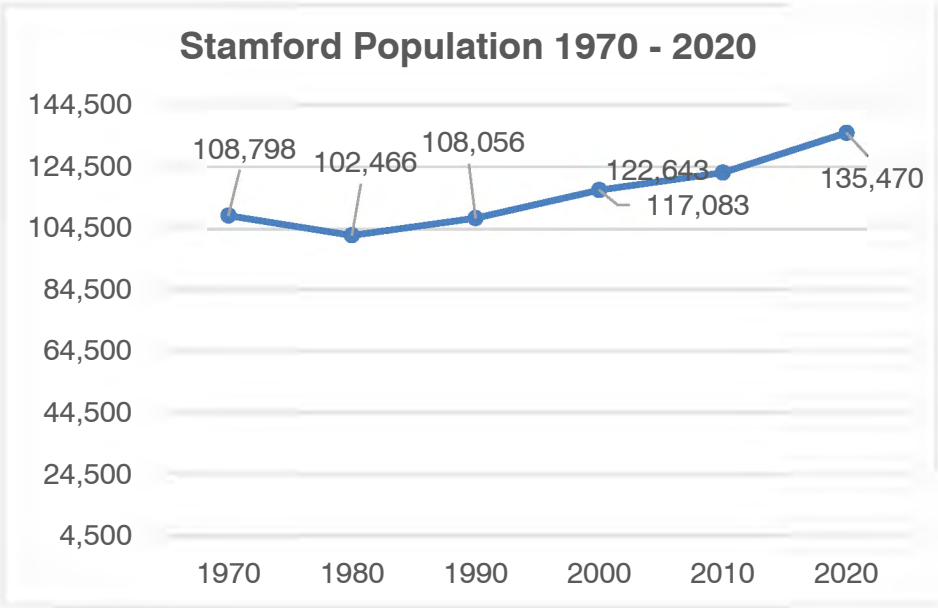
Next Steps

- Discussion involving implementation strategies and responsibilities and funding sources

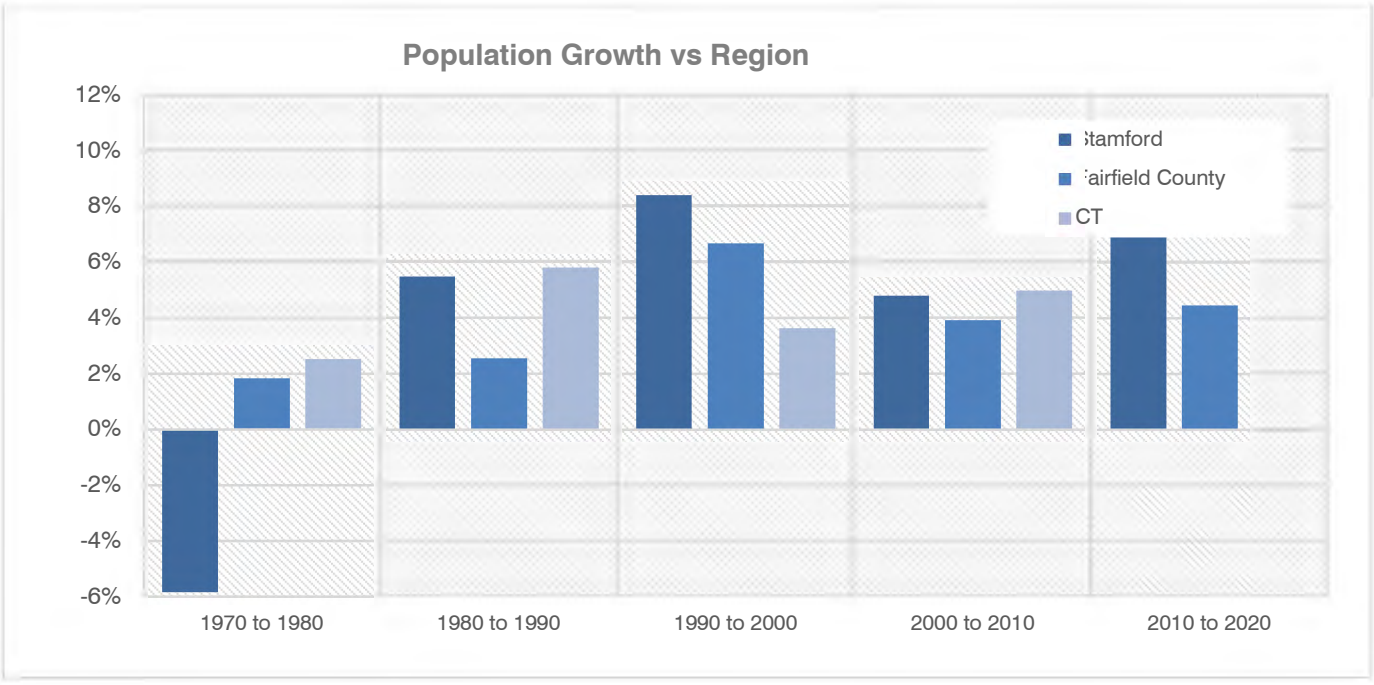
Stamford Road Safety Audit – Stamford Fact Sheet

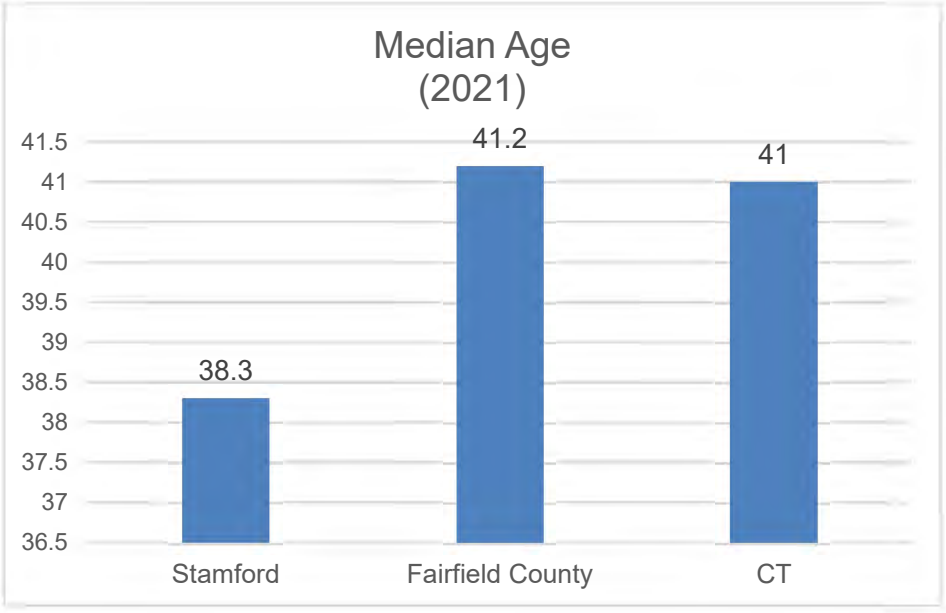
Demographic Highlights[1]:

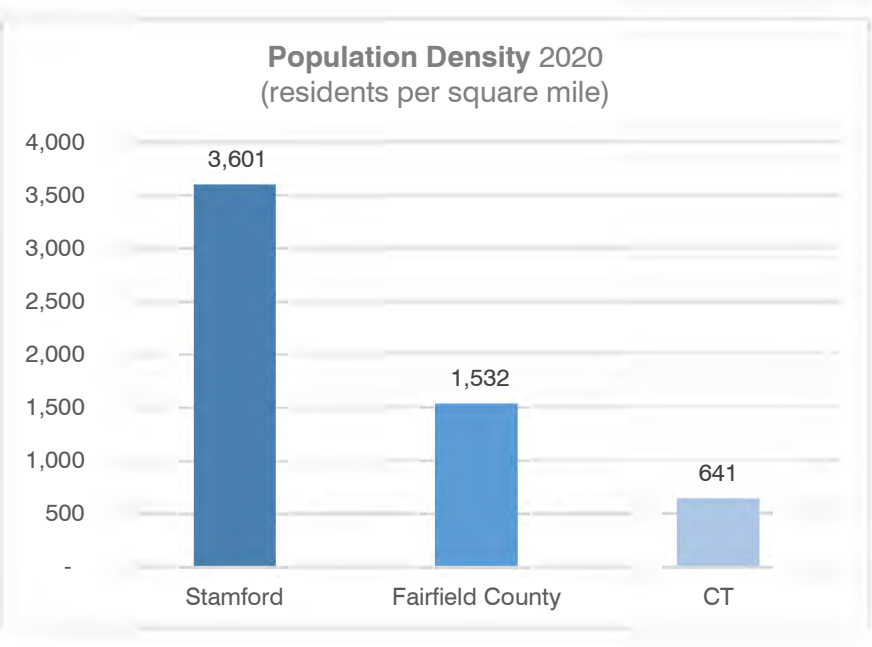
- Total population in Stamford is 135,470.
- Stamford saw growth between 1980 and 2030. Stamford and Fairfield County saw an increase in population between 2010 and 2020, whereas the State overall saw a slight decrease.
- There are approximately 3,601 residents per square mile in Stamford, making it more densely developed than Fairfield County and much denser than the State as a whole.
- The median age in Chester is 38. Fairfield County's median age is 41 and the State's is 41 years old.



[1] 2020 Decennial Census and 2016- 2020 American Community Survey, 5- year estimate table DP05, Accessed on 06/16/2023 at https://data.census.gov/cedsci/


Population Growth vs Region
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
1970 to 1980
1980 to 1990
1990 to 2000
2000 to 2010
2010 to 2020
Stamford
Fairfield County
CT


Median Age
(2021)
41.5
41
40.5
40
39.5
39
38.5
38
37.5
37
36.5
38.3
41.2
41
Stamford
Fairfield County
CT

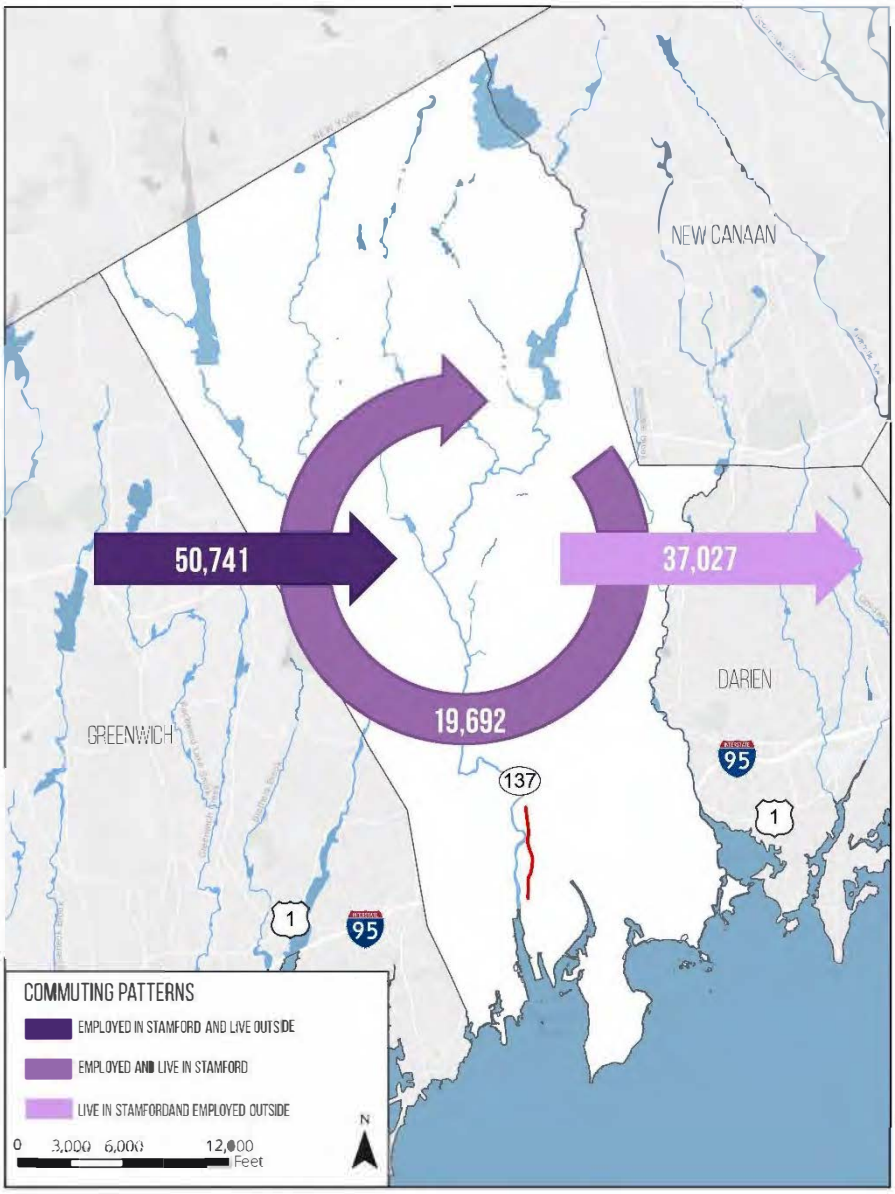


Stamford Road Safety Audit – Stamford Fact Sheet

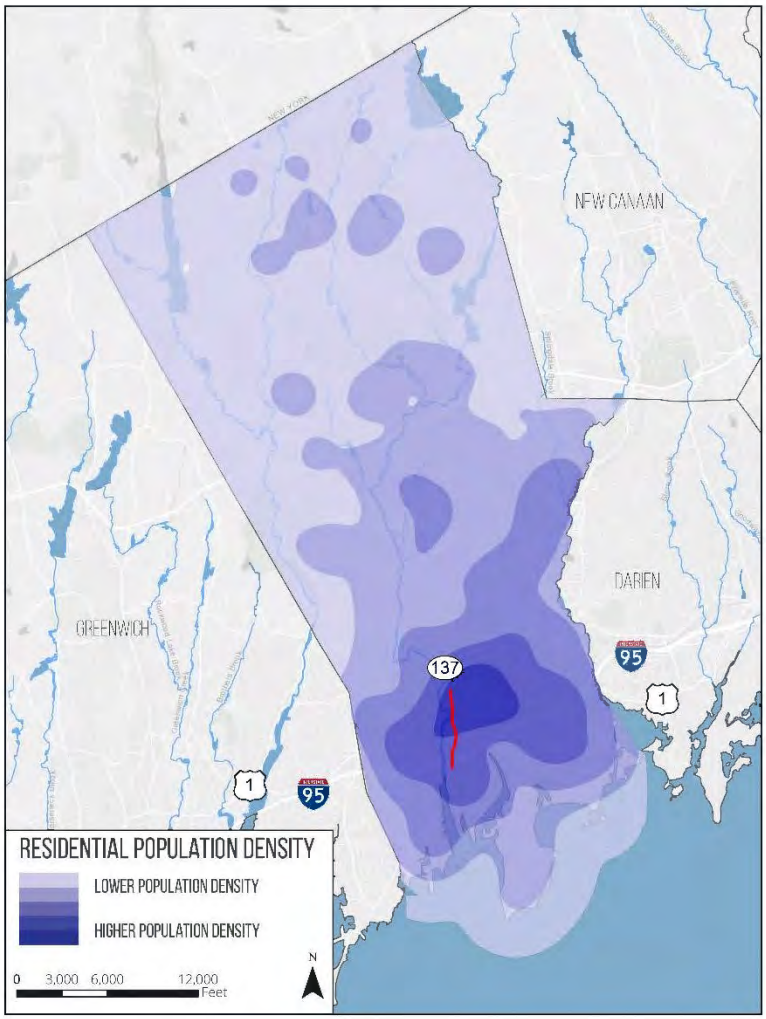
Employment Highlights[2]:

- There were approximately 50,741 workers commuting into Stamford for employment in 2020. Approximately 19,692 residents of Stamford are also employed in Stamford and 37,027 Stamford residents commuted out of town for employment (2019).
- The Study Area and surrounding neighborhoods have a medium to high population density. The Study Area is home to a large commercial and retail corridor, population centers, and institutional locations.

[2] U.S. Census Bureau. (2021). LEHD Origin-Destination Employment Statistics (2002-2019) All Jobs. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on June 16, 2023 at https://onthemap.ces.census.gov. LODES 7.5


NEW CANAAN
50,741
37,027
19,692
DARIEN
GREENWICH
137
95
1
95
1
COMMUTING PATTERNS
EMPLOYED IN STAMFORD AND LIVE OUTSIDE
EMPLOYED AND LIVE IN STAMFORD
LIVE IN STAMFORDAND EMPLOYED OUTSIDE
0 3,000 6,000 12,000
Feet
N

Residential Population Density



Stamford Safety Audit – Roadway Functional Classification

- Route 1 and Route 137 are Principal Arterials
- Many other roadways that intersect the Study Area are local roads