LITCHFIELD

ROAD SAFETY AUDIT

CONNECTICUT DEPARTMENT OF TRANSPORTATION 125 1895 - 2020

LITCHFIELD CONNECTICUT 1719

COMMUNITY connectivity program

FHI studio

SEPTEMBER 2021

LITCHFIELD ROAD SAFETY AUDIT

Findings and Recommendations Report

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1 COMMUNITY CONNECTIVITY PROGRAM

1.1 Program Background

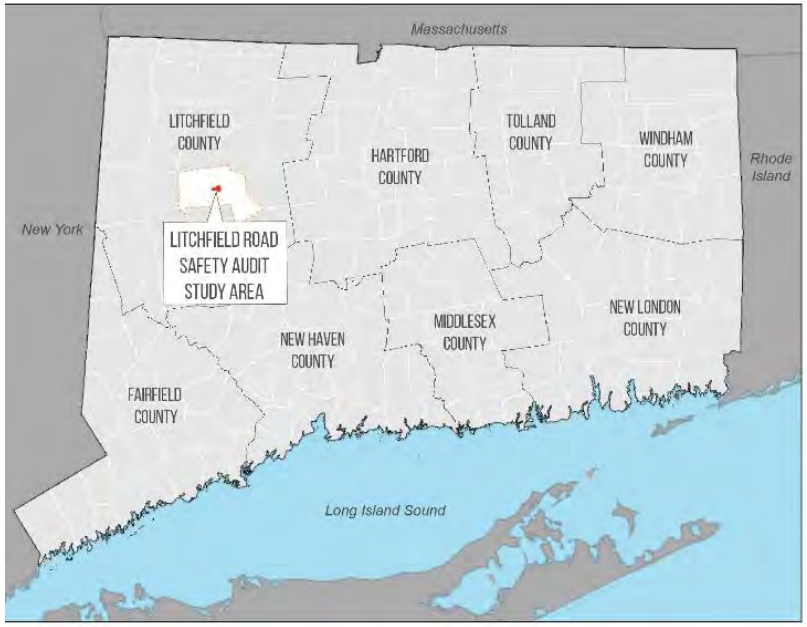
The Connecticut Department of Transportation (CTDOT) has created a Community Connectivity Program that focuses on improving the state's transportation network for all users. A major component of this program is conducting Road Safety Audits (RSAs) at selected locations. An RSA is a formal safety assessment 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, FHI Studio staff, 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, bike/ped 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.

Figure 1: Litchfield RSA Regional Location



1.2 Litchfield RSA Study Area and Location

CTDOT sponsored an RSA for the Town of Litchfield in the vicinity of the Litchfield Town Green and commercial center. The Study Area encompasses Route 202 between Commons Drive and Karl Street, Route 63 between Westwood Lane and Wolcott Street, Route 118 east to Karl Street, and the roadways surrounding the town green. Within the study area West Street and East Street maintain two alignments. There is a state-maintained northern alignment, which serves as Route 202 and Route 118, and a town-maintained southern alignment, which is adjacent to most of the businesses located at Litchfield Green. In reference to these particular alignments, the northern alignment is named West Street (Route 202), East Street (Route 202), or East Street (Route 118). The southern alignment is named either West Street (Main Street) or East Street (Main Street). See Figure 2.

The purpose of the RSA is to observe any safety concerns while discussing possible safety improvements for pedestrians and bicyclists travelling along the study area corridor. The study area serves many purposes including local and regional truck traffic, residential and business access, employment commuting, access to points throughout Litchfield County, and pedestrian routes to serve the residential neighborhoods. See Figure 3.

Route 202 is a state route that provides an east to west connection between Litchfield County communities. Route 63 provided north to south access between Watertown to the south and Goshen to the North. Route 118 provides connections to Route 8 (via Route 254) and other points to the east. Route 202 in the study area (West Street and Torrington Road) is classified as a principal arterial, Route 63 (South Street segment) is a minor arterial roadway. Route 63 (North Street segment) and Route 118 are collector roadways. This corridor experiences low to moderate traffic volumes and possible high speeds. The study area does have sidewalks and crosswalks but lacks bicycle facilities. Litchfield is a medium sized community in Litchfield County and it functions as a commercial, restaurant, and recreational center to the area.

Average Daily Traffic (ADT) in the study area ranges between 14,800 vehicles per day in the middle of the study area (West Street (Route 202) between South Street (Route 63) and Torrington Road (Route 202)) to 4,000 vehicles per day on East Street (Main Street) east of South Street (Route 63). See Figure 4. The study area has single lanes in each direction except for segments of West Street (Route 202) between Commons Drive and North Lake Street, and West Street (Route 202) eastbound between North Lake Street and Woodruff Lane where two lanes are present.

There are four signalized intersections in the study area. These include the intersection of West Street (Route 202) at South Street (Route 63), West Street (Route 202) at North Street (Route 63), West Street (Route 202) at North Lake Street, and West Street (Route 202) at Commons Drive.

Figure 2: Litchfield RSA Study Area

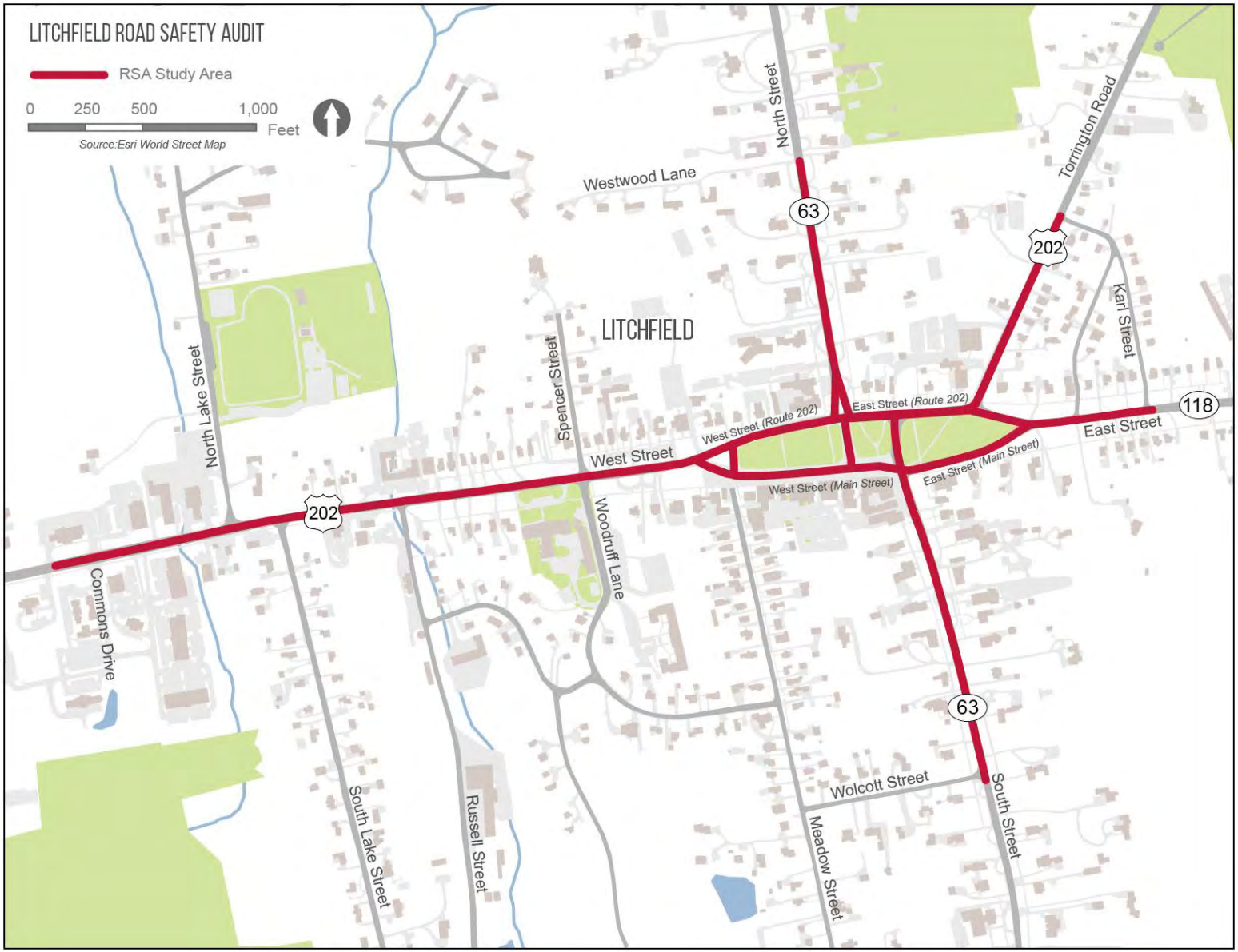


Figure 3: Study Area Points of Interest

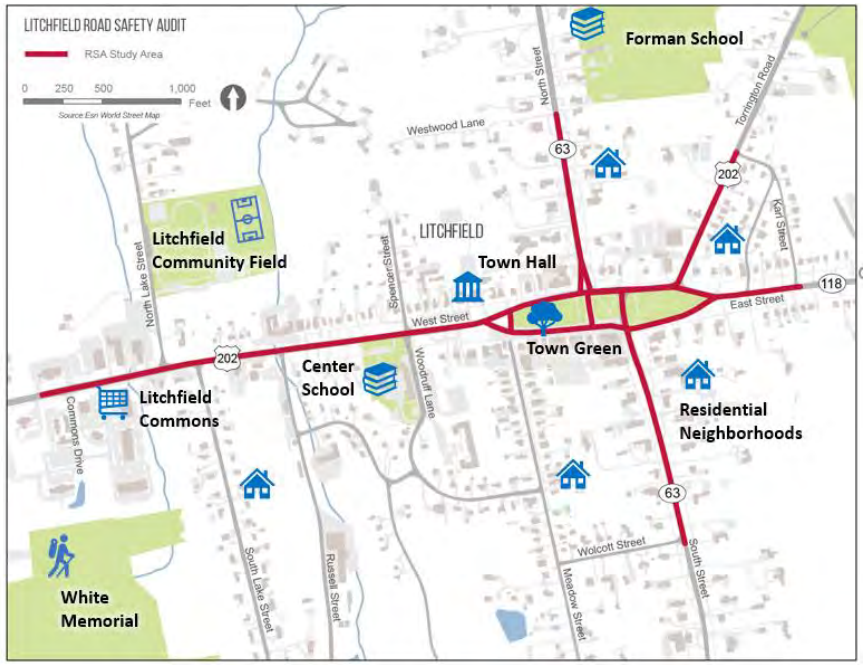
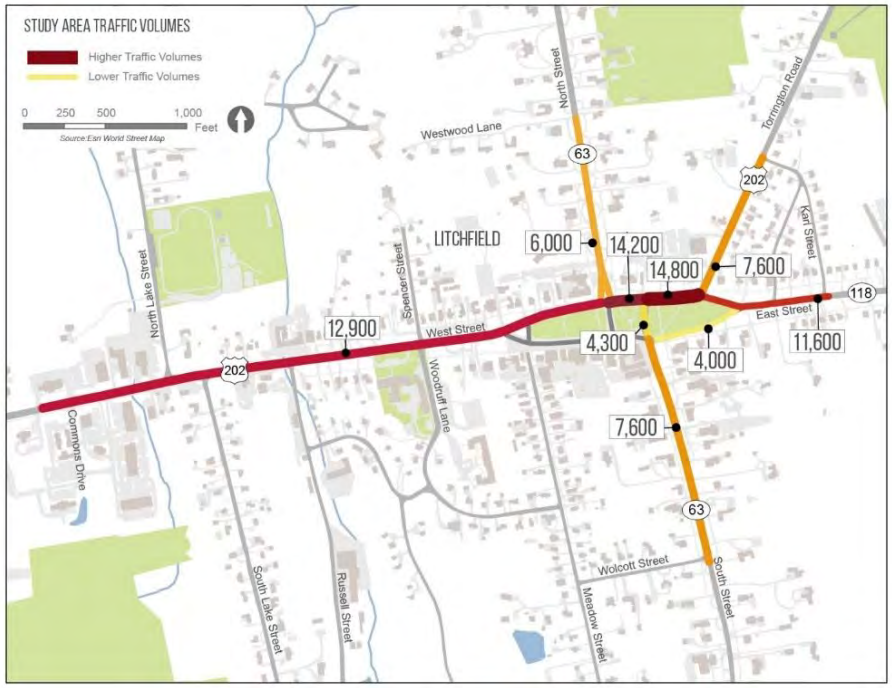


Figure 4: Average Daily Traffic Volumes



2 PRIOR EFFORTS IN STUDY AREA

2.1 Walk Audit

In April and May of 2021, the Town of Litchfield's Traffic Safety Community Action Group completed a series of audits that focused on roadways in and around the Town Green.

Conclusions from the walk audit are presented below:

- Crosswalks are not pedestrian friendly;
- Drivers are frequently speeding and often do not yield to pedestrians;
- Improved pedestrian safety signage is needed;
- Public education about laws regarding pedestrians is needed;
- Enforcement of existing speed and traffic laws is warranted.

Additionally, crosswalks which were identified by the group as challenging to cross due to vehicles failing to yield or those that posed potential safety concerns were identified in the Action Group's report as problematic. These include most of the crosswalks located throughout the Town Green area and the downtown commercial center. See Figure 5.

Figure 5: Crosswalks Identified by the Litchfield Traffic Safety Community Action Group as Problematic

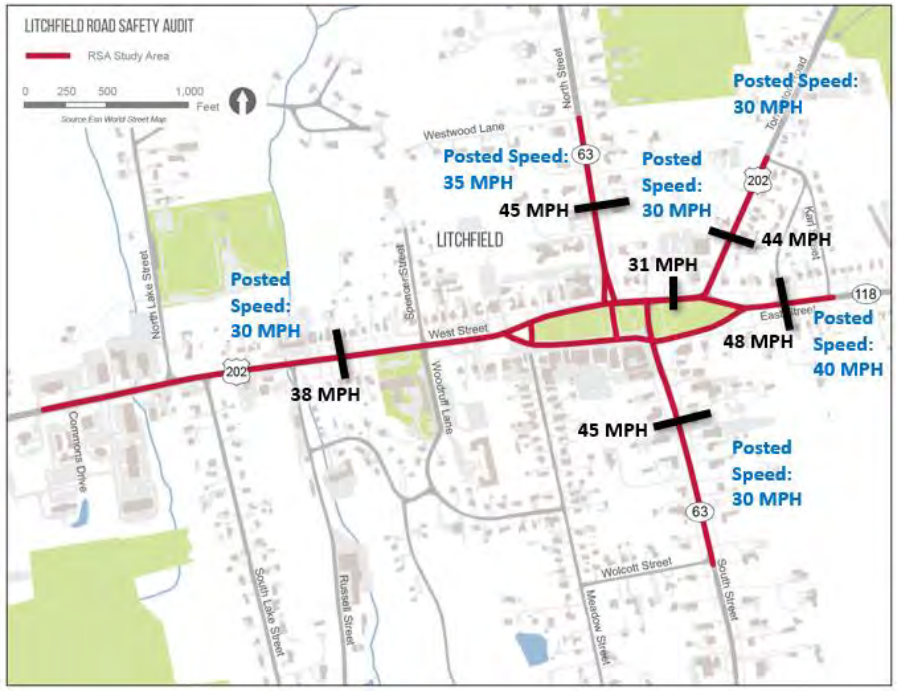
3 PRE-AUDIT MEETING

3.1 Pre-Audit Information

The RSA team conducted a pre-audit meeting in the morning of Friday, June 11, 2021. The RSA team presented a brief presentation that included an overview of the Litchfield RSA goals and purpose, the study area, and key existing conditions findings. Key themes discussed during the pre-audit meeting are presented below.

Speeds: Speed limits in the study area range from 30 miles per hour (mph) to 40 mph, except for West Street (Route 202) in the vicinity the Litchfield Center School where the speed limit is 25 mph during school hours, and West Street (Main Street, near green area businesses) where the speed limit is 25 mph, as approved by OSTA. The school speed limit is indicated by an advanced flashing beacon in both the eastbound and westbound directions. CTDOT 85th percentile speed data from December of 2020 shows recorded speeds between 40-50 mph on East Street (Route 118) and between 30 and 40 mph on West Street (Route 202). Speeds as high as 45 mph were recorded on both North Street and South Street (Route 63) although speed limits are 35 and 30 mph respectively. Litchfield police and attendees of the RSA observed that speeds often exceed the posted speed throughout the study area. See Figure 6.

Figure 6: Study Area 85th Percentile Speeds

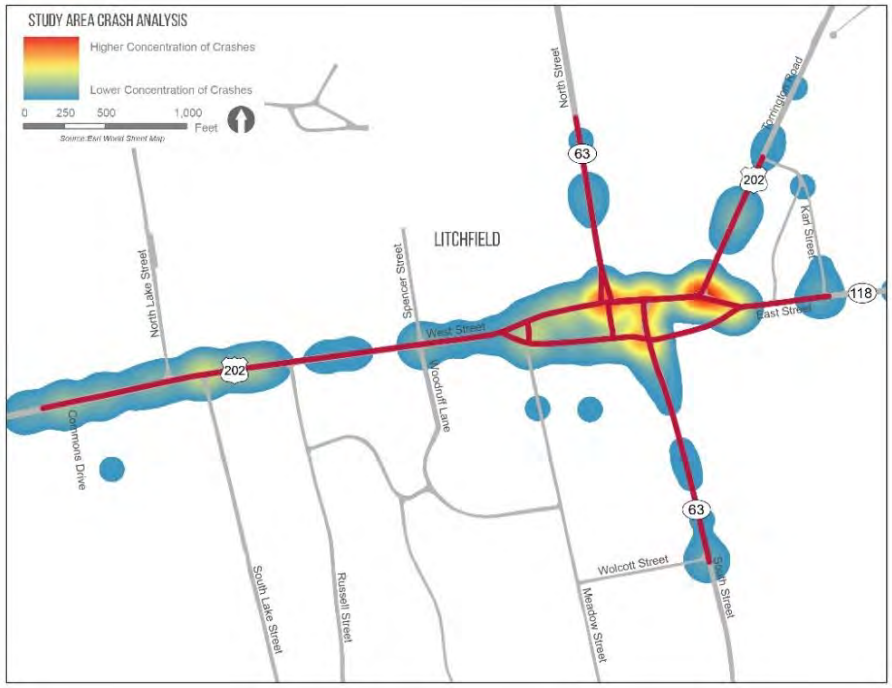


Crashes: Based on data retrieved from the Connecticut Crash Data Repository (CTCDR) for the five-year period between January 2016 through December 2020, there were a total of 214 crashes in the Litchfield RSA study area. Crashes were concentrated on West Street and East Street (Route 202), at the intersections of North Street, South Street (Route 63) and Torrington Road (Route 202), and West Street (Route 202) between Commons Drive and Russell Street (where there were a total of 30 crashes).

Table 1: Study Area Crash Summary

		Crash Severity					
		Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	**TOTAL**
Year	2016			2	4	38	44
	2017			2	7	43	52
	2018			3	2	36	41
	2019			4	3	38	45
	2020		1	4	3	24	32
	TOTAL	0	1	15	19	179	214

Figure 7: Study Area Crash Heatmap



Crashes by Type: The most frequent crash type is a front-to-rear crash. These are "rear-end" crashes which are common in areas of stopped traffic such as an approach to an intersection, or in areas with many driveways. Other types of crashes, including angle crashes, were more common at the intersections West Street (Route 202) and North Street (Route 63), East Street (Route 202) and South Street (Route 63), and East Street (Route 202) and Torrington Road (Route 202). See Table 2.

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Table 2: Crashes by Type

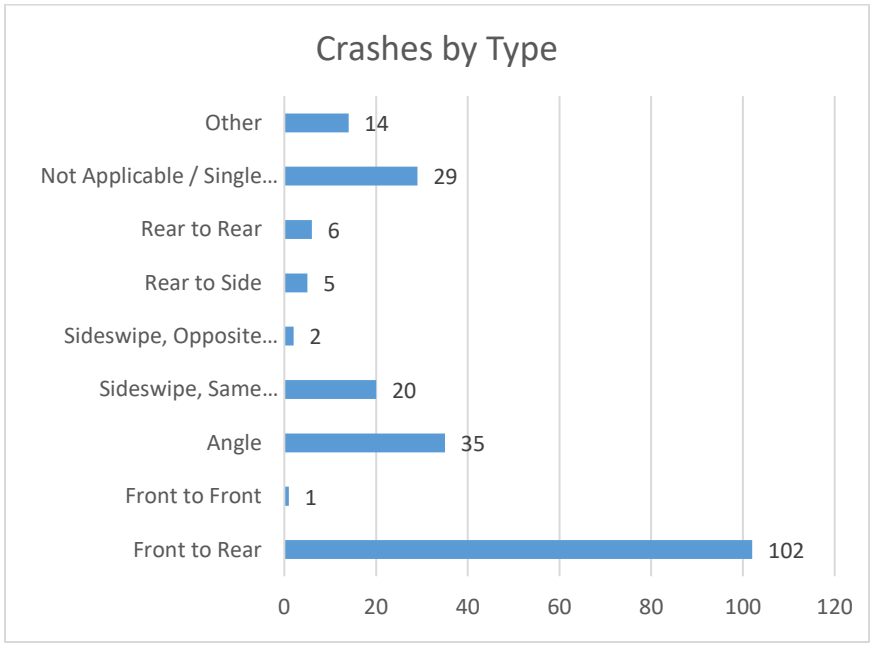
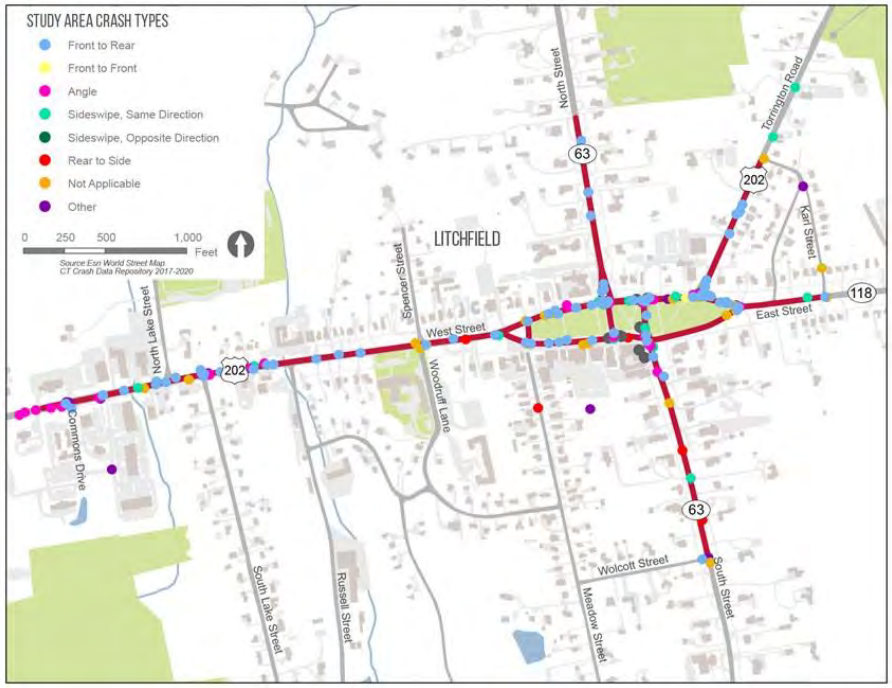


Figure 8: Crashes by Type



Crash Severity: There was one serious injury crash in the study area. Most crashes (179) are classified as property damage only. This is typical for rear end, "fender-bender" type crashes that are prevalent in the study area.

Crashes by Involved Person: There were a total of two crashes involving cyclists in the study area. There were eight crashes involving pedestrians. One of these crashes resulted in a serious injury in 2020. Three of the crashes involving a cyclist or a pedestrian occurred at the intersection of West Street (Route 202) and Woodruff Lane.

Table 3: Crash Severity

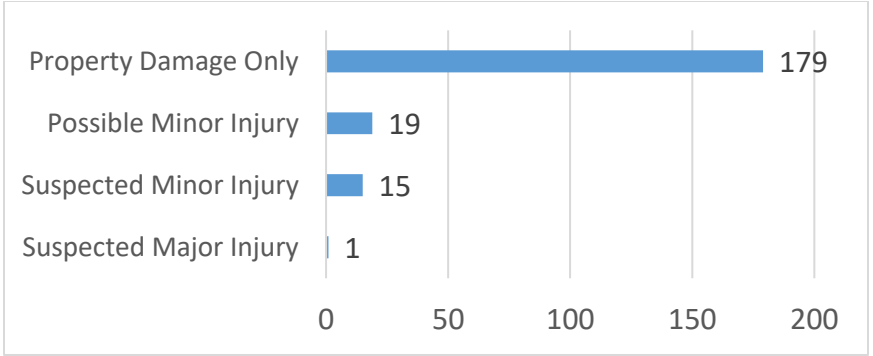


Figure 9: Crash Severity

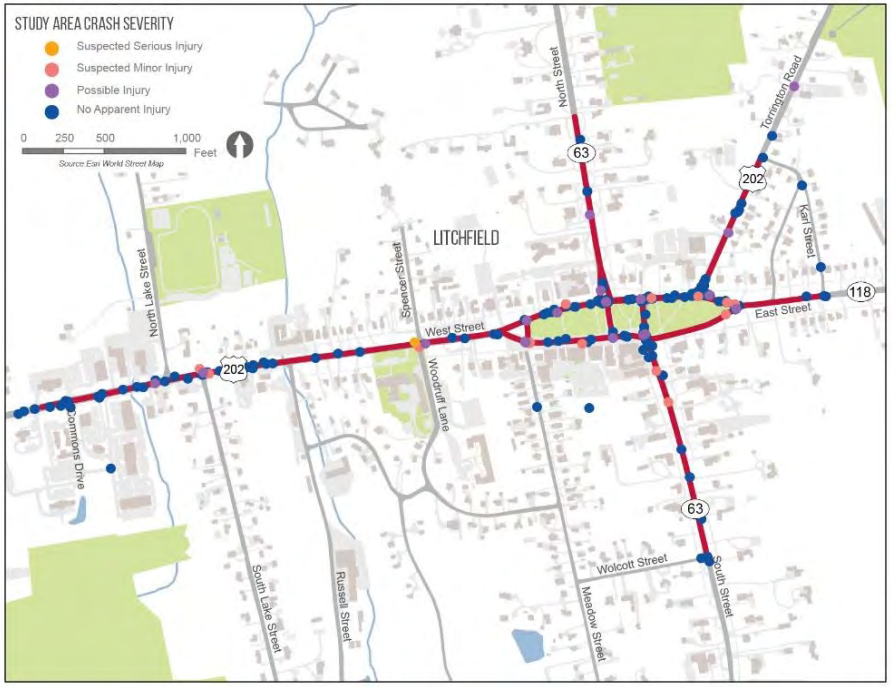
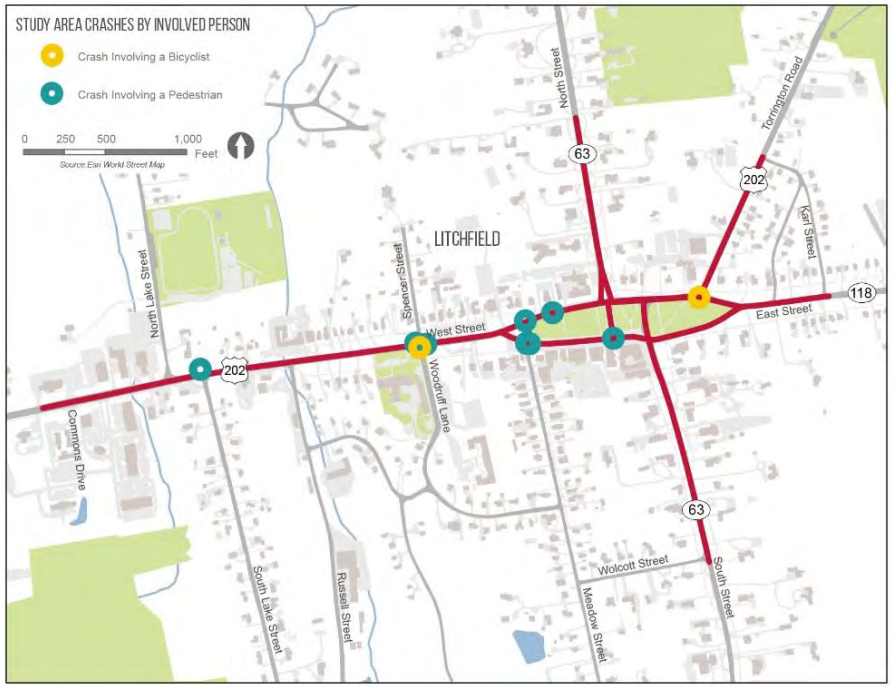


Figure 10: Crashes by Involved Person

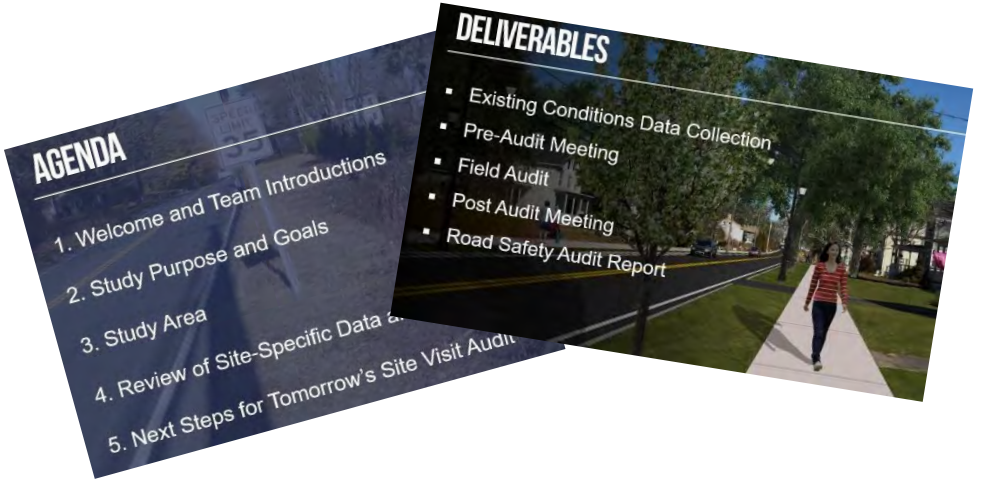


3.2 Pre-Audit Discussion

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

- Speed limits in the study area vary and seem high for a town center environment. The Town would like to pursue requesting that the CTDOT lower speed limits on Route 118.
- There are high pedestrian volumes on North Street due to the Forman School. Students often walk from the boarding school to the town center.
- Left turns onto Route 202 from side streets can be difficult for unsignalized intersections due to traffic volumes and traffic speeds. In particular, the intersection of Torrington Road (Route 202) and East Street (Route 118) was identified.
- Marketplace businesses on North Street attract many visitors. It is difficult to see pedestrians crossing the street when there are cars parked on Route 202. Pedestrians often do not cross at the crosswalk.
- Prospect Street is often used as a cut through route between Route 63 (North Street) and Route 202 (West Street)
- Karl Street is often used as a cut through to and from Route 202 (Torrington Road) and Route 118 (East Street)

Figure 11: Sample slides from Pre-Audit Presentation



4 RSA ASSESSMENT

The following summary describes observations and discussion regarding issues and concerns throughout the Litchfield RSA study area. Discussions were held at each of the noted locations below.

4.1 West Street (Main Street)

- Difficult to see pedestrians crossing due to on-street parking
- Vehicles often speed and use the street as a cut through to avoid Route 202 signals.
- Recent work installed granite curbing and improved crossings in area
- Utilities and fiber optic located in roadway adjacent to sidewalks

Figure 12: West Street (Main Street)

Figure 13: On Street parking on West Street (Main Street) south of the Green

Figure 14: Eastbound slip-lane from West Street (Route 202) to West Street (Main Street)

4.2 Intersection of West Street (Main Street) and North Street Extension

- Long crossing distances for pedestrians with an approximate 60-foot crossing
- Mid-block crossing on North Street Extension separated from other crosswalks
- Wide unmarked roadway with lack of shoulder and pavement markings
- Westbound traffic does not have stop-control
- Sightline concerns between southbound approach and westbound traffic
- Often used as cut through route for South Street (Route 63) roadway traffic, especially truck traffic which is unable to complete the turn at the intersection of East Street (Route 202) and South Street (Route 63) due to a traffic island.

Figure 15: Crosswalk across West Street (Main Street) west of North Street Extension

Figure 16: Intersection of West Street (Main Street) and North Street Extension

4.3 Intersection of West Street (Main Street) and South Street (Route 63)

- Crosswalk on western side of the intersection is a concern for pedestrians. Drivers frequently roll through the stop-signs in this intersection and pedestrians report it sometimes is difficult for motorists to yield at crosswalks.
- Difficult crossings for pedestrians.
- Long crossings for pedestrians.

Figure 17: West Street (Main Street) at South Street (Route 63)

4.4 Intersection of West Street (Route 202) and North Street (Route 63)

- Intersection leads to much of the delays and queues in the study area.
- Left-turns from Route 202 do not perform efficiently because they are shared lane with through traffic.
- Through traffic observed stuck behind left-turning traffic for many cycles due to on-coming traffic
- Vehicles frequently by-pass queued traffic in the southbound approach by using the shoulder. This leads to conflict between right-turning traffic waiting in the travel lane.
- Pedestrians frequently do not wait for pedestrian signal at the intersection.
- The left-turns for the North Street southbound approach and North Street Extension northbound approach interlock due to the wide median on the southbound approach.

Figure 18: Intersection of West Street (Route 202) and North Street (Route 63)

Figure 19: RSA Project Team Discussing the Intersection of Route 202 and North Street

Figure 20: Crosswalk on West Street (Route 202) west of South Street (Route 63)

4.5 Intersection of East Street (Route 202) and South Street (Route 63)

- Raised center median creates difficult turning radius for longer vehicles and trucks, often causing them to divert onto North Street extension to the west.
- No crosswalk for pedestrians wishing to cross South Street (Route 63).

4.6 Intersection of Torrington Road (Route 202) and East Street (Route 118)

- Stop-control movement from East Street (Route 118) to East Street (Route 202) is difficult for motorists to make due to sightline concerns and traffic volumes. Frequently vehicle queues on East Street (Route 202) also cause sightline concerns for all motorists approaching this intersection.
- Many westbound vehicles from East Street (Route 118) were observed by-passing the intersection via East Street (Main Street).
- Westbound queues on East Street (Route 202) frequently extend from the intersection of South Street (Route 63) past this intersection.
- Historic properties and Church adjacent to roadway.
- Crosswalk locations have poor sight-lines.
- Drainage issues for the Litchfield Green near intersection was noted
- Drivers in the southbound direction occasionally fail to navigate the curve at this intersection, especially at night.

Figure 21: Crosswalk across Torrington Road (Route 202) at East Street (Route 118)

4.7 Intersection of West Street (Route 202) and Woodruff Lane

- School traffic pattern converts Woodruff Lane to northbound only (except buses) and reduces a lane in the eastbound direction on West Street (Route 202.)
- The location has experienced three cyclist and pedestrian crashes in the five-year history.
- Drivers are very unwilling to stop for pedestrians at this location. Crossing guard noted difficulty in stopping vehicles for children crossing street to and from Litchfield Center School.
- Wide eastbound travel lane and wide westbound shoulder causes vehicles behind vehicles waiting for pedestrians to attempt to pass using shoulder.
- During school hours, the eastbound merging movement works well west of Woodruff Lane. However, vehicles were observed forming two lanes to the east of Woodruff Lane after the merge.

4.8 West Street (Route 202) West of Woodruff Lane

- Some speeds in the eastbound direction were observed by Litchfield Police during the RSA to be up to 45 MPH (in a 25 MPH school zone)
- There are locations with limited bike facilities, especially in the eastbound direction where there is no shoulder.

Figure 22: Police block right-lane on West Street (Route 202) west of Woodruff lane during school release hours to reduce traffic speeds

Figure 23: Crossing guard at the crosswalk across West Street (Route 202) at Woodruff Lane

Figure 24: School children from the Litchfield Center School crossing Woodruff Lane during release hours

4.9 Torrington Road (Route 202) North of East Street (Route 118)

- The sidewalk to the east side of Torrington Road is in very poor condition and of narrow width.

Figure 25: Sidewalk conditions on Torrington Road (Route 202) north of East Street (Route 118)

4.10 North Street (Route 63) North of the Green

- North Street is noted to have considerable pedestrian traffic due to the Forman School located to the north.

4.11 South Street (Route 63) South of the Green

- The highest pedestrian volume crosswalk is located at 16 South Street (United States Post Office).
- The southbound parking lane was noted as being very narrow while the travel lanes are wider than 11-feet.
- U-turns from northbound Route 63 traffic to parking in southbound direction is noted at 16 South Street (United States Post Office).

4.12 East Street (Route 118) East of Green

- Observed what appears to be high speeds on Route 118 heading into the town center.
- Long queues observed in the westbound direction approaching the stop-controlled intersection of Torrington Road (Route 202).

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. Participants of the RSA identified the Litchfield Green as a primary focus area of the study. Thus, this area is shown in greater detail in the recommendations section.

Other recommendations outside these areas are displayed on an illustrative map of recommendations for the remainder of the corridor. The remaining areas of the study area include the following areas:

- Route 202 / Torrington Road – between Route 118 and Karl Street
- Route 202 / West Street – between Meadow Street and Commons Drive
- Route 63 / North Street – between Route 202 and Westwood Lane
- Route 63 / South Street – between West Street (Main Street) and Wolcott Street
- Route 118 / West Street – between West Street (Main Street) and Karl Street

Within the study area West Street and East Street maintain two alignments. There is a state-maintained northern alignment, which serves as Route 202 and Route 118, and a town-maintained southern alignment, which is adjacent to most of the businesses located at Litchfield Green. In reference to these particular alignments, the northern alignment is named West Street (Route 202), East Street (Route 202), or East Street (Route 118). The southern alignment is named either West Street (Main Street) or East Street (Main Street).

All recommendations for all locations are divided into short-term, medium-term, and long-term recommendations.

- Short-term recommendations: These are improvements that are simpler and could be completed on a quick timeline. These recommendations are low-cost alternatives 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. These projects are defined as those that may be complete within two years.
- Medium-term recommendations: These are improvements that may require more substantial engineering than those generally included as short-term recommendations. These may require establishment of funding in capital improvement plans, or a dedicated funding item. However, these recommendations are generally simpler than long-term recommendations and generally do not include right-of-way acquisition etc. These projects are defined as those that may be completed in two-to-five years.
- Long-term 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. These projects are defined as those recommendations that may take five years or longer to complete.

It should be noted that any work within the State Right-of-Way (ROW) to be done by non-State forces will require an encroachment permit from the District 4 Permit Office and/or an official request from the Litchfield Local Traffic Authority.

5.1 Study Area Recommendations

Recommendations for improvements outside the Litchfield Green focus area are focused on two themes: 1) reducing speeds of traffic, particularly for traffic entering Litchfield, and 2) improving safety at all pedestrian crossings.

Short-term

1) Improve all curb ramp within study area to ADA standards. Install advance crosswalk yield lines and install advanced crosswalk warning signage at mid-block crossings.
2) If warranted, implement road diet between 331 West Street (Walgreens) and Woodruff Lane. Include 5-foot (minimum) shoulder for bike traffic. Convert 2nd eastbound climbing lane to alternating left-turn lanes or two-way left-turn lane (TWLTL).
3) During school hours, extend right-lane closure east of Woodruff Lane to prevent vehicles from by-passing traffic waiting for pedestrians to cross West Street (Route 202).
4) If warranted, install rectangular rapid-flashing beacon (RRFB) at West Street (Route 202) and Woodruff Lane.
5) Restripe South Street to 11-foot lanes. Increase southbound parking lane width to 8-feet minimum.
6) Apply to OSTA to reduce speed limit to 25 MPH on all state roads within ½ mile of center of town.
7) Install white delineator on edgeline at the crosswalk on West Street (Route 202) at Woodruff Lane to discourage by-pass of vehicles yielding to pedestrians. Install advanced crosswalk yield lines. Improve crosswalk lighting by relocating streetlight and bracket from existing pole on west side of Spencer Street to the existing pole on east side of Spencer Street. Consider Type 3 light fixture.

Medium-term

1) Rehabilitate and install 5-foot sidewalk west of Torrington Road (Route 202) between East Street (Route 118) and 137 Torrington Road and north of West Street (Route 202) between Meadow Street and Russell Street.
2) Move existing crosswalk at 134 North Street (Route 63) to Prospect Street intersection.
3) Evaluate feasibility of installing a median island to reduce vehicle speeds and create gateway on South Street and North Street. Coordinate median island locations with crosswalk furthest from town center and beginning of proposed 25 MPH speed limit ½ mile from center of town.
4) Evaluate feasibility of installing a pedestrian refuge island at 16 South Street (United States Post Office).

Figure 26: Example of road diet on Silver Lane in East Hartford

Figure 27: Example of median island gateway installed on Route 195 in Tolland, CT (Source: Google Maps)

Figure 28: Example of RRFB (Source: CTDOT)

Figure 29: Example of ADA-accessible curb ramp in study area

Figure 30: Example of signage to be installed

LEGEND

- Short-term Recommendation
- Medium-term Recommendation
- Long-term Recommendation

Apply to OSTA to reduce speed limit to 25 MPH 1/2-mile prior to town center

Move crosswalk at 134 North Street (Route 63) to Prospect Street

Install crosswalk advanced yield lines. Install crosswalk advanced warning signage

Evaluate feasibility to install median island to reduce vehicle speeds and create gateway

Apply to OSTA to reduce speed limit to 25 MPH 1/2-mile prior to town center

Rehabilitate and install 5-ft sidewalk

Improve curb ramp to ADA standards

Install white delineator on edgeline to discourage by-pass of vehicles yielding to pedestrians. Install crosswalk advanced yield lines.

Rehabilitate and install 5-ft sidewalk

If warranted, road diet between 331 West St (Walgreens) and Woodruff Lane. Include 5-ft (min.) shoulder for bike traffic.

Improve lighting at crosswalk

GREEN AREA
SEE DETAIL SHEETS

Apply to OSTA to reduce speed limit to 25 MPH 1/2-mile prior to town center

Evaluate feasibility to install pedestrian refuge island

Install crosswalk advanced yield lines. Install crosswalk advanced warning signage

Install RRFB

Restripe South Street with 11-ft lanes. Increase southbound parking lane width to 8-ft.

Improve curb ramp to ADA standards

Apply to OSTA to reduce speed limit to 25 MPH 1/2-mile prior to town center

During school hours, extend right-lane closure east of Woodruff Lane

Deploy town-owned dynamic speed feedback signage on Route 63 on rotating basis

Evaluate feasibility to install median island to reduce vehicle speeds and create gateway

Improve curb ramp to ADA standards

Install crosswalk advanced yield lines. Install crosswalk advanced warning signage

Apply to OSTA to reduce speed limit to 25 MPH 1/2-mile prior to town center

SCALE IN FEET
0 420' 840'
GRAPHIC SCALE

LITCHFIELD ROAD SAFETY AUDIT
LITCHFIELD, CONNECTICUT

LITCHFIELD RSA
CONCEPT PLAN

DATE: 9/15/2021	
SCALE: 1" = 420'	
CONCEPT	

FHI studio
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5.2 Litchfield Green Focus Area

Recommendations for the Litchfield Green focus area prioritize reducing vehicle speeds and discouraging through traffic on West Street (Main Street) by improving traffic flow on the Route 202 mainline and some other geometric and access considerations to West Street (Main Street). Review of existing conditions revealed a high-proportion of cut-through traffic on West Street (Main Street) via the eastbound slip lane at the western end of West Street (Main Street) and westbound East Street (Route 118) vehicles by-passing the stop-controlled intersection of Torrington Road (Route 202) via West Street (Main Street) and the two signalized intersections at Route 202 and Route 63 due to congestion at these intersections. The walk audit found that this led to higher traffic volumes and additional truck traffic near the Litchfield Green businesses and the locations with the highest observed pedestrian activity within the study area. The recommendations provided here seek to reduce vehicular delay at the intersection of West Street (Route 202) and North Street (Route 63) with the striping of left-turn lanes on Route 202. This modification is intended to reduce the need to cut-through West Street (Main Street).

Other improvements in the Litchfield Green focus area seek to clarify pedestrian crossings and increase the conspicuity of these crossings in the area. During the walk audit, the project team heard concerns for signage in the historic Green Area. However, additional fluorescent yellow signage is recommended on the higher-volume Route 202 corridor where historical crash data shows prior issues.

Finally, the concept plans developed shows how the overall concept can be quickly implemented without curbing or expensive construction materials. It is anticipated that many elements of the recommendations provided in this area can be implemented as a *demonstration project*, a short-term project that lasts several weeks to evaluate the concepts presented. A second concept plans shows how the conceptual recommendations provided in this report can be implemented on a permanent basis.

Long-term changes to the intersections of Route 202, Route 63, and Route 118 are recommended to be following a further corridor study with detailed traffic analysis. Due to the complex nature of traffic conditions in the Litchfield Green area and many considerations such as historic properties in the area, no long-term recommendations are provided for these intersections. However, this RSA recognizes the need to further study these intersections and its importance on the Green Area. Following the implementation of any long-term improvements at these intersections, it is recommended that two important changes are considered: 1) the closure of the eastbound slip lane at the western end of West Street (Main Street), and 2) converting East Street (Main Street) to one-way eastbound to discourage by-pass traffic.

Short-term

1) Install sidewalk on Meadow Street between West Street (Main Street) and West Street (Route 202) on west side.
2) Install bump-outs at the intersection of West Street (Main Street) and Meadow Street.
3) Convert intersection of West Street (Main Street) and North Street Extension to all-way stop control. Install painted bump-outs protected with planters with reflector strips. Relocate crosswalk on eastbound approach from 19 West Street (Main Street, Ollie's Pizza) to 15 West Street (Main Street, Former Courthouse)
4) Convert intersection of West Street (Main Street) and Meadow Street to all-way stop control by striping stop-bar on westbound approach.

5) Install temporary painted bump-outs at the intersection of West Street (Main Street) and South Street (Route 63). Maintain existing medians at intersection approaches.
6) At the intersection of North Street (Route 63) and West Street (Route 202), shift southbound approach towards the outside curb and stripe shoulder to discourage right-turn by-pass of traffic queue.
7) Replace existing yellow one-direction large arrow (ODLA) with fluorescent yellow ODLA (right) at the intersection of Torrington Road (Route 202) and East Street (Route 118) to increase its night-time conspicuity.
    a) CTDOT Catalog Number 41-4223 (R)
8) Upgrade all crosswalks in study area. Upgrade crosswalks on Route 202 to include fluorescent yellow signage. Install advance crosswalk yield lines to all mid-block crossings. Make all crossings ADA accessible.
9) Install bump-outs and raised pedestrian crossing on West Street (Main Street) at 33 West Street.

Medium-term

1) If warranted, install rectangular rapid-flashing beacon (RRFB) on West Street (Route 202) at Meadow Street. Insure compatibility with long-term recommendations for inclusion of pedestrian refuge island.
2) If feasible, install left-turn lanes on West Street (Route 202) at the intersection of North Street (Route 63). Optimize traffic signal to accommodate this change.
3) Rehabilitate and install 5-foot sidewalk west of Torrington Road (Route 202) between East Street (Route 118) and 137 Torrington Road.

Long-term

1) Evaluate the option of closing Route 202 eastbound slip lane to West Street (Main Street) with curbing and landscaping after Route 202 improvements. Reconfigure parking near 63 West Street to allow u-turn within existing pavement width.
2) Evaluate converting East Street (Main Street) to one-way eastbound between South Street (Route 63) and East Street (Route 118) after improvements to Route 202. Transfer East Street (Main Street) from CTDOT to Town of Litchfield ownership. Permit parallel parking on both sides of East Street (Main Street) between South Street (Route 63) and East Street (Route 118) if considered.
3) Evaluate realigning intersection of East Street (Main Street) and East Street (Route 118). Remove stop-control for Route 118 eastbound traffic at East Street (Main Street).
4) If warranted, install landscaped median islands on West Street (Route 202) with a pedestrian refuge at Meadow Street. Landscape median to align with proposed center turn lane for road diet layout.
5) Install 5-foot marked bike lanes on West Street (Route 202).
6) Install permanent bump-outs at the intersection of West Street (Main Street) and North Street Extension.
7) Install permanent bump-outs and realign intersection of West Street (Main Street) and South Street (Route 63).

8) Conduct further traffic study of intersections of Route 202 at North Street (Route 63), South Street (Route 63) and Route 118 to evaluate long-term options. Include potential impacts on nearby local roadways and cut-through traffic. Options may include but not limited to:
   a) Traffic signal relocation
   b) Roundabout at Route 202 and North Street (Route 63)
   c) Realignment of Route 202 at Route 118
   d) Closure of North Street Extension
   e) Access restrictions on South Street (Route 63) (e.g. right in/out only)
9) Remove mid-block crosswalk on North Street Extension following upgrade and addition of crosswalks at West Street (Route 202) and North Street (Route 63) based on further study of this intersection.

Figure 31: Example of temporary bump-outs in Waterbury, CT

Figure 32: Example of permanent bump-outs and plaza in Concord, NH

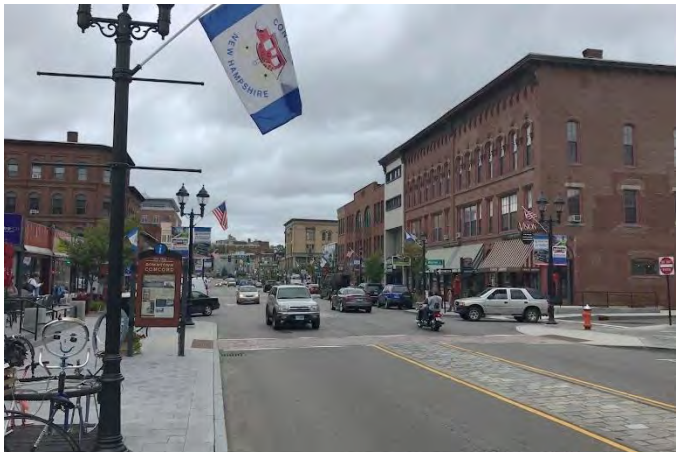


Figure 33: Example of signage to be installed

LEGEND

- Short-term Recommendation
- Medium-term Recommendation
- Long-term Recommendation

Realign striping and stripe shoulder to discourage by-pass of traffic queue

Rehabilitate and install 5-ft sidewalk

If warranted, install RRFB compatible with long-term recommendations

If feasible, install left-turn lanes on Route 202

Optimize traffic signals

Install advance crosswalk yield lines. Upgrade existing signage to fluorescent yellow.

Upgrade existing crosswalk signage to fluorescent yellow

Replace existing yellow one-direction large arrow (ODLA) with fluorescent yellow one-direction large arrow (right)

Install 6-ft sidewalk

Install advance crosswalk yield lines and warning signage. Upgrade existing signage to fluorescent yellow.

Install advance crosswalk yield lines

Install painted bump-outs protected with planters

Convert intersection to all-way stop control

Convert intersection to all-way stop control

Install permanent raised bump-outs

Install permanent raised bump-outs and raised crosswalk

Relocate crosswalk

Install painted bump-outs protected with planters

NORTH STREET
63
WEST STREET (ROUTE 202)
202
EAST STREET (ROUTE 202)
202
TORRINGTON ROAD
202
NORTH STREET EXT.
63
SOUTH STREET
EAST STREET (ROUTE 118)
118
WEST STREET (MAIN STREET)
WEST STREET (MAIN STREET)
EAST STREET (MAIN STREET)
118
MEADOW STREET
SOUTH STREET
63
N

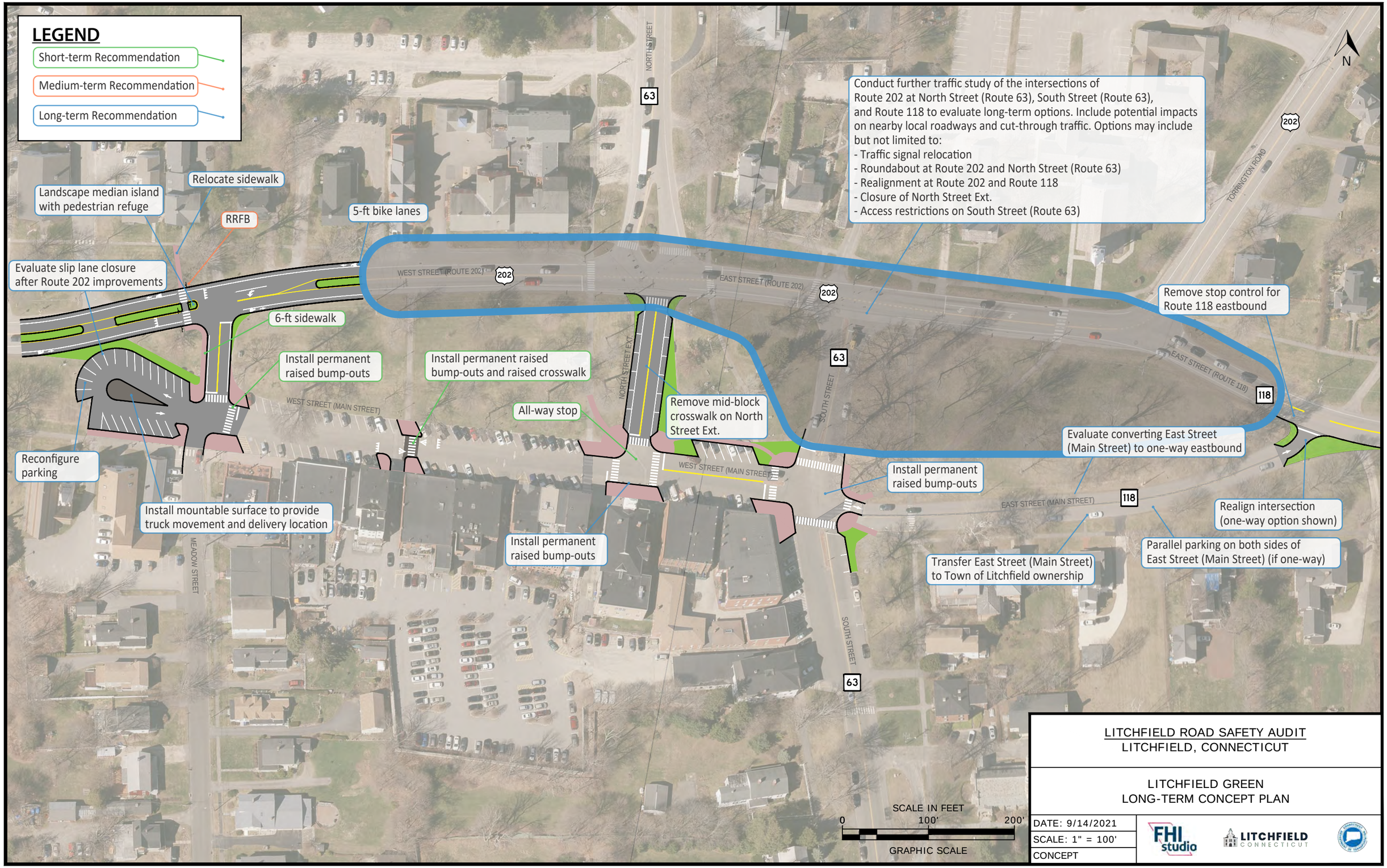
SCALE IN FEET
0 100' 200'
GRAPHIC SCALE

LITCHFIELD ROAD SAFETY AUDIT
LITCHFIELD, CONNECTICUT

LITCHFIELD GREEN
SHORT AND MEDIUM-TERM CONCEPT PLAN

DATE: 9/14/2021	
SCALE: 1" = 100'	
CONCEPT	

FHI studio
LITCHFIELD CONNECTICUT



LITCHFIELD ROAD SAFETY AUDIT
LITCHFIELD, CONNECTICUT

LITCHFIELD GREEN
LONG-TERM CONCEPT PLAN

DATE: 9/14/2021	
SCALE: 1" = 100'	
CONCEPT	

FHI studia
LITCHFIELD CONNECTICUT

6 SUMMARY

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

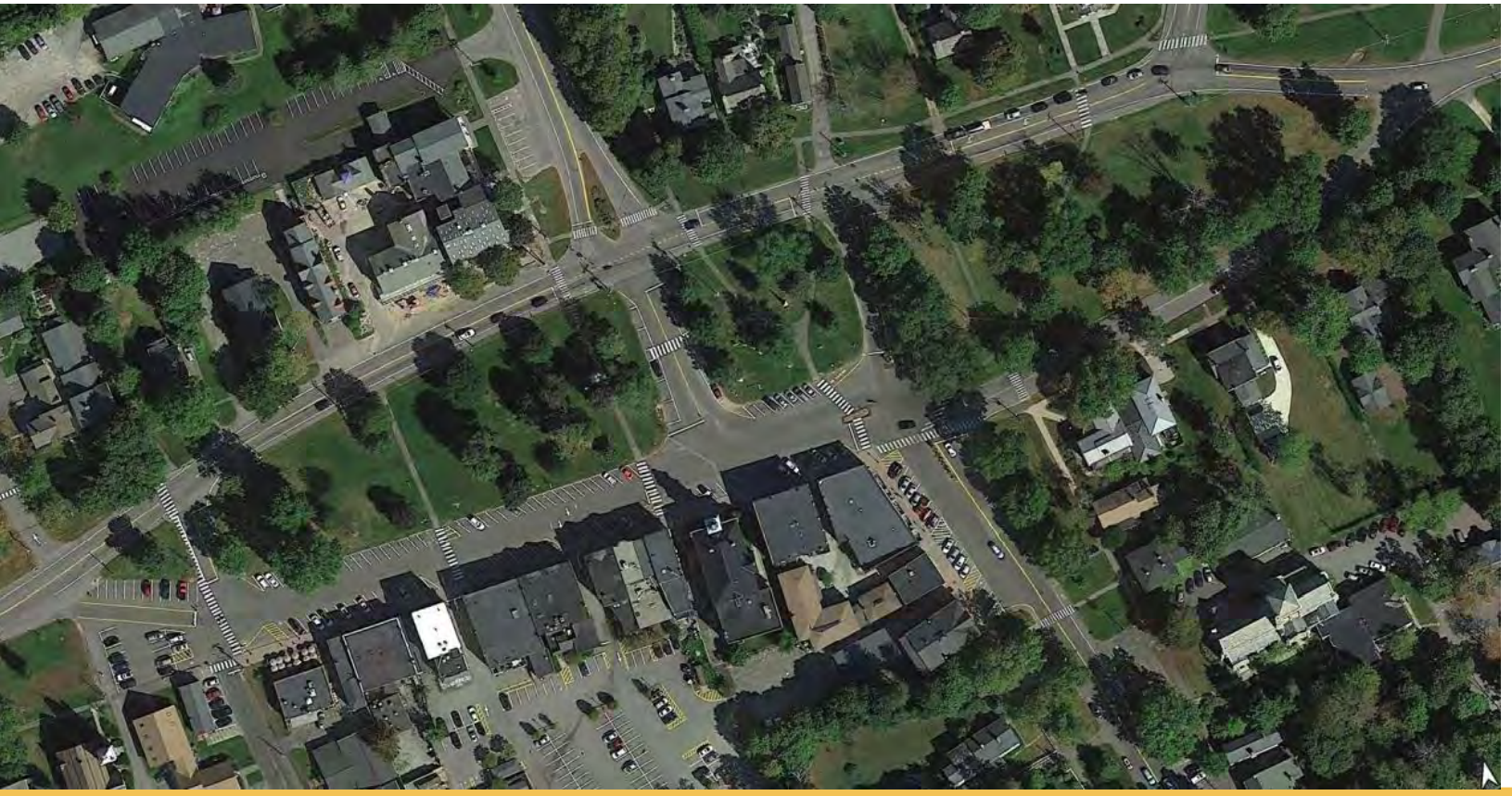
The aforementioned Community Connectivity Program: Road Safety Audit Report is an objective review intended for the municipality use to help assess the existing conditions within a predetermined area of town selected by the municipality. The conclusions of this report are advisory and intended for general 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

LITCHFIELD ROAD SAFETY AUDIT



CONNECTICUT DEPARTMENT OF TRANSPORTATION 125 1895 - 2020

LITCHFIELD UNITAS SUB LEGE 1719 CONNECTICUT

COMMUNITY connectivity program

FHI studio

PRE-AUDIT PRESENTATION

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 Today’s Site Visit Audit

PROJECT TEAM

- Connecticut Department of Transportation (CTDOT) is sponsoring
- Town of Litchfield
- FHI Studio is conducting the Road Safety Audit reporting
- Support from NHCOG

PURPOSE AND GOALS OF THE ROAD SAFETY AUDIT

Safety assessment of existing walking and biking routes

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

Identify the issues that may discourage or prevent walking and bicycling

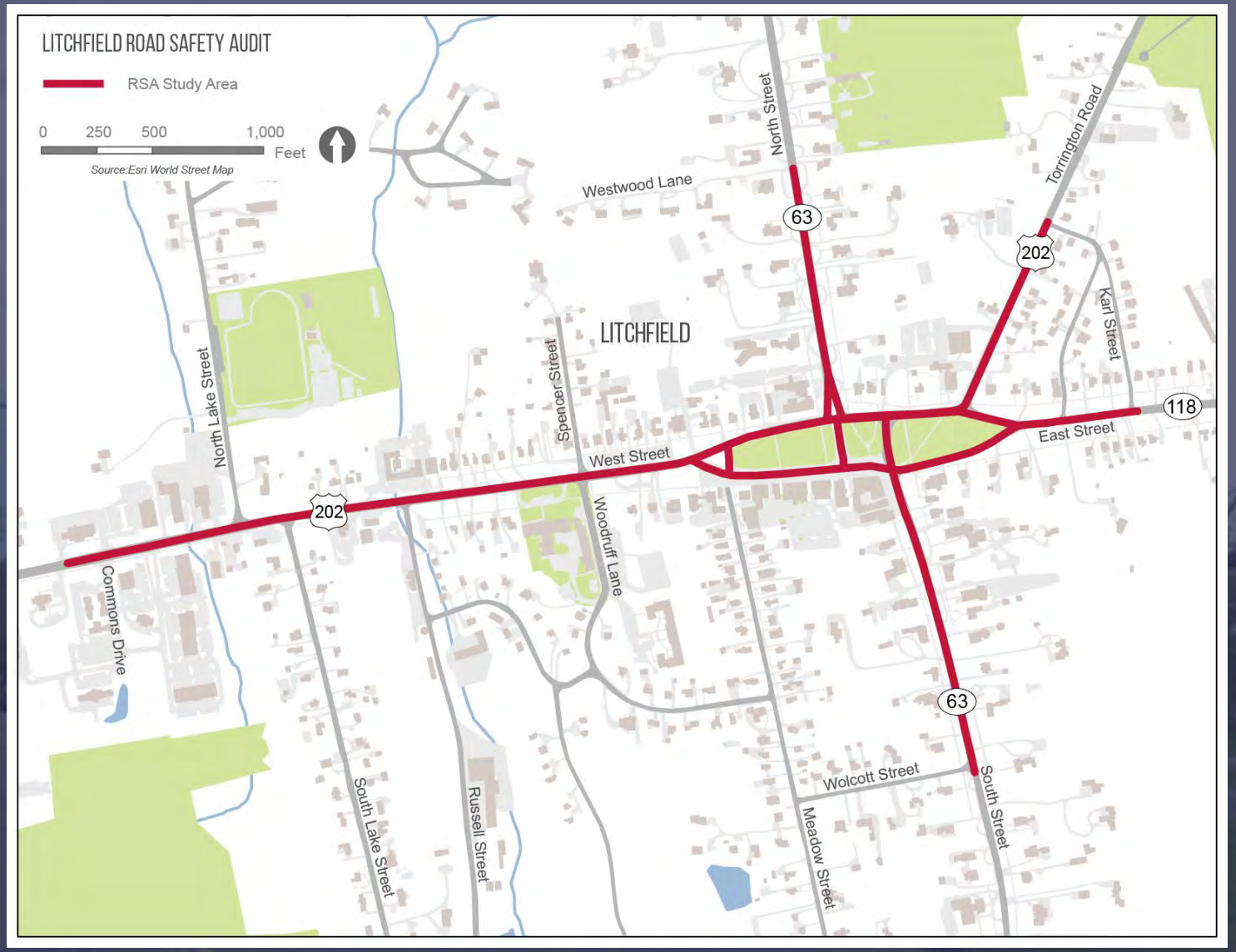
Identify next steps, evaluate feasibility of proposed improvements, and potential funding sources.

DELIVERABLES

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

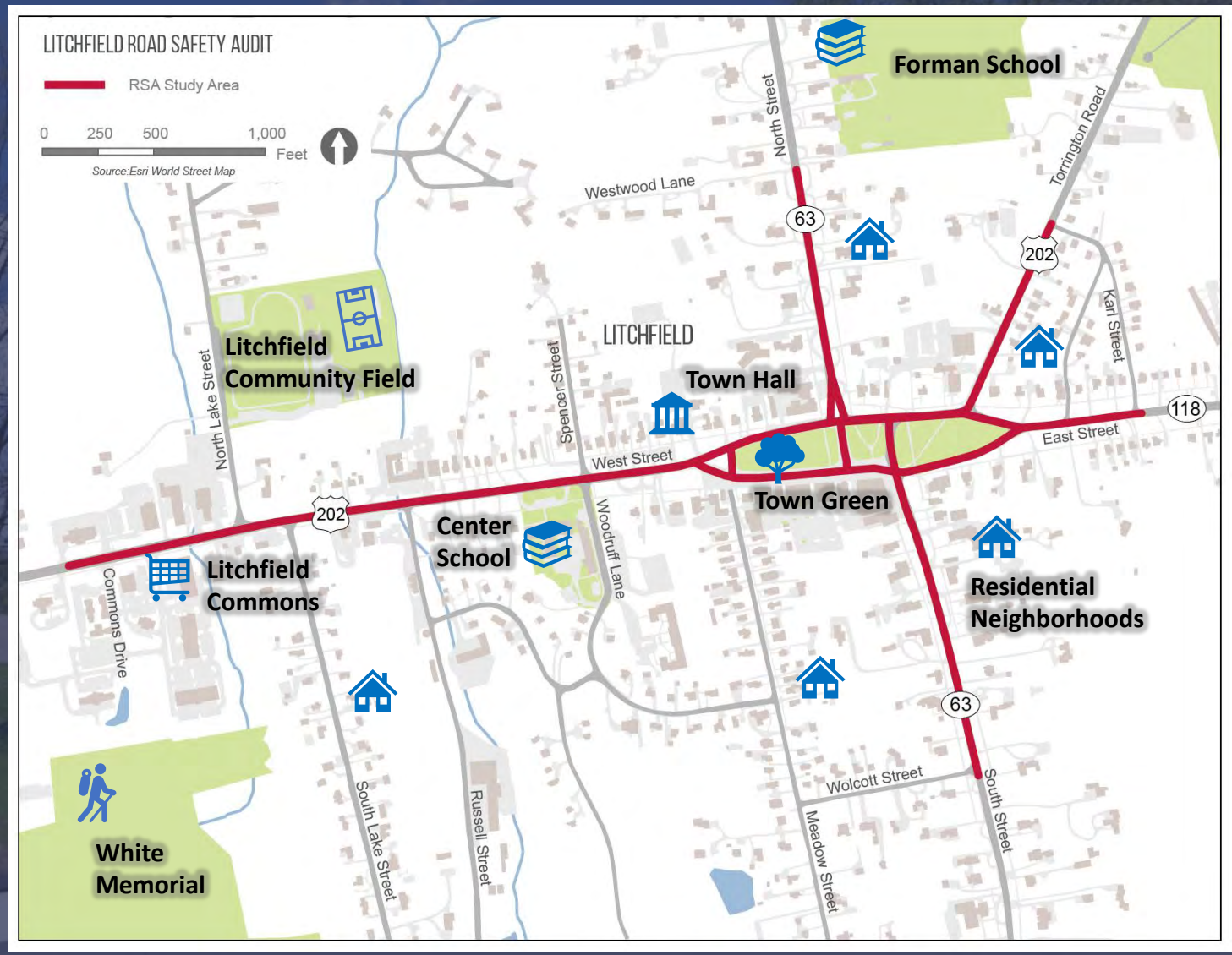
STUDY AREA

- Route 202 between Commons Drive and Karl Street
- Route 63 between Westwood Lane and Wolcott Street
- Roads surrounding Town Green



POINTS OF INTEREST

- Town Hall, Community Field
- Litchfield Commons (Stop & Shop)
- Litchfield Town Green
- Litchfield Center School
- White Memorial and Prospect Mountain Conservation Areas
- Residential Neighborhoods



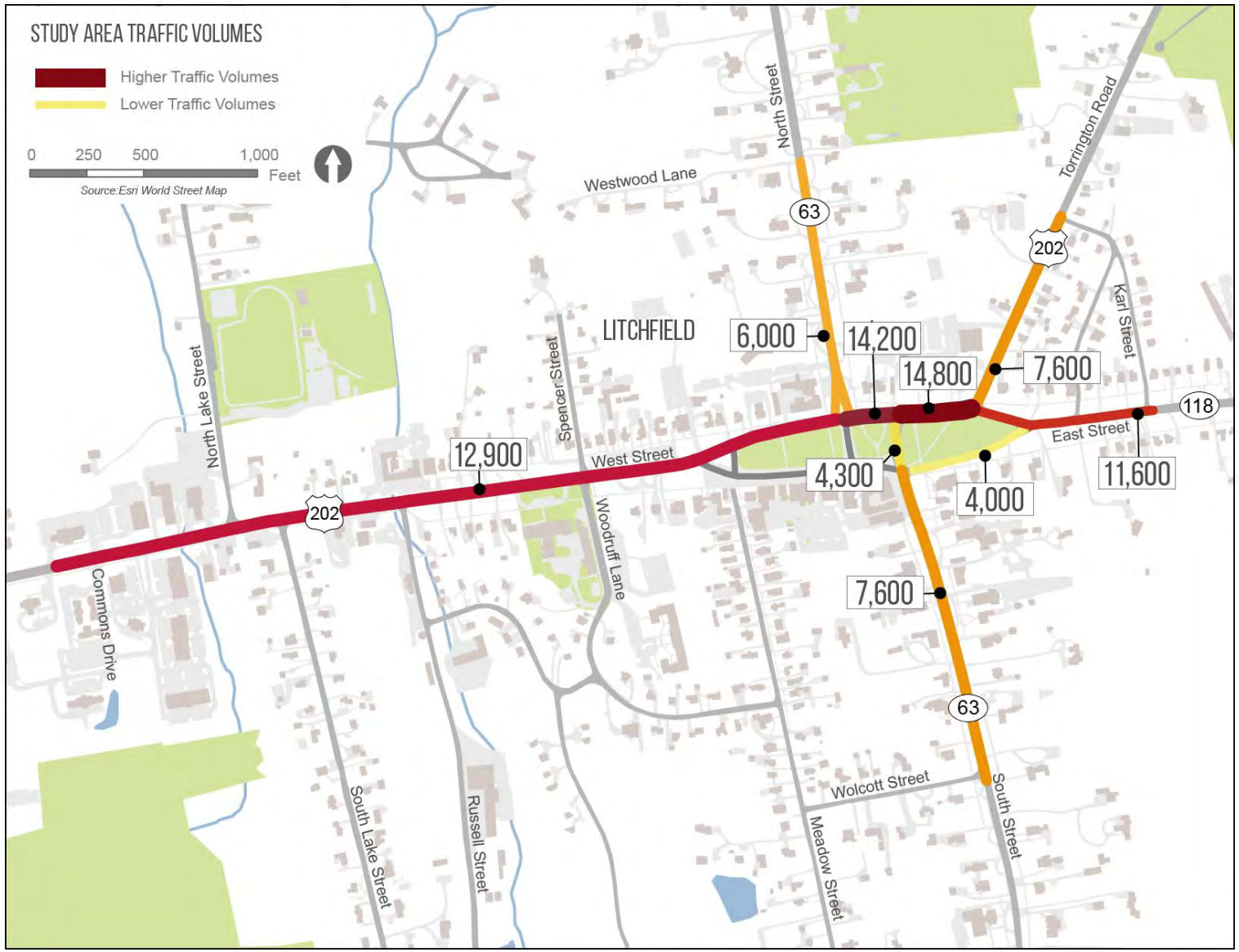
EXISTING CONDITIONS FINDINGS

Routes 202, 63, and 118 serve many purposes including:

- Local and regional truck traffic
- Local residential access
- Employment commuting
- Local business access
- Restaurants/ Town Center uses
- Access to points throughout Litchfield County
- Pedestrian movement to serve local neighborhoods

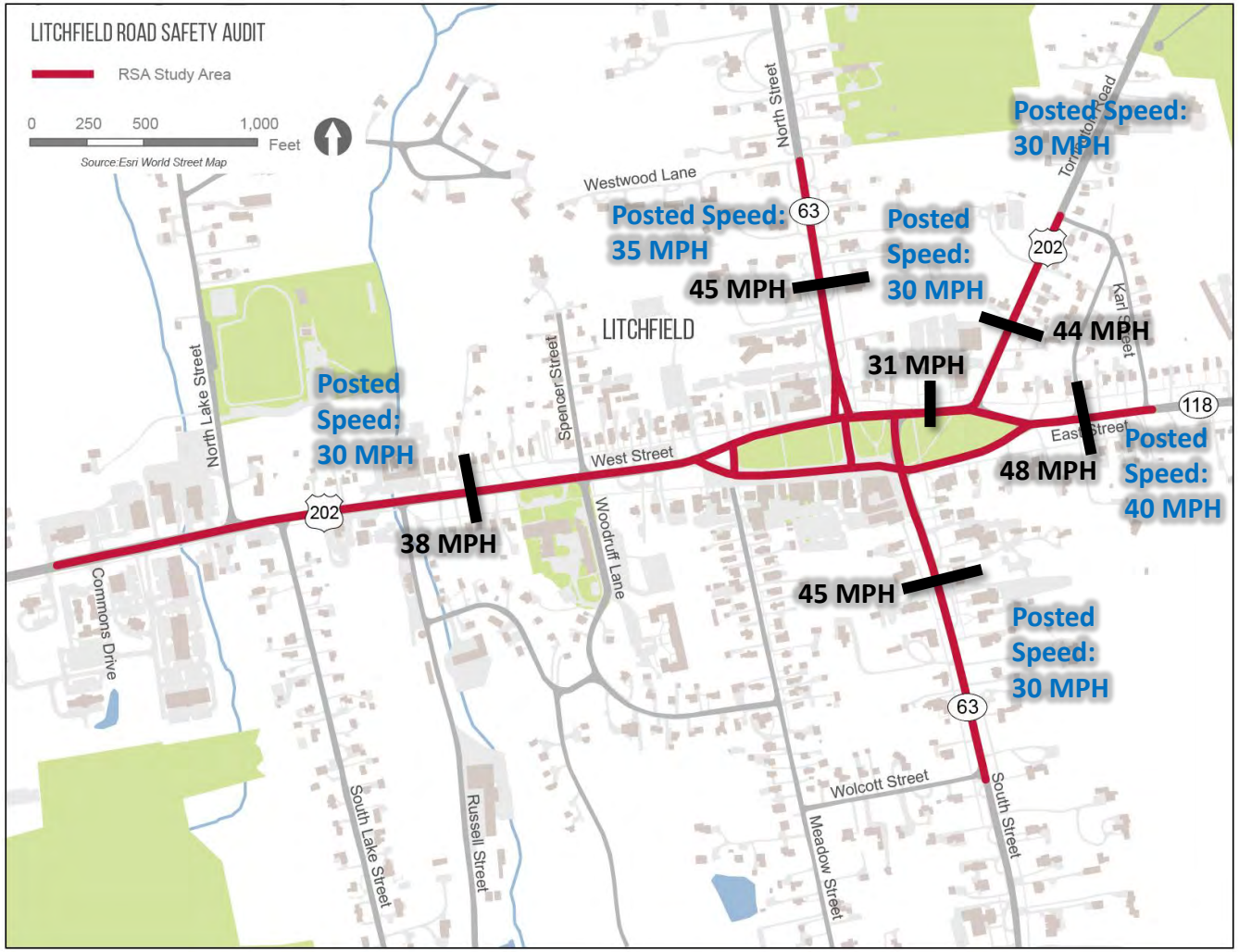
TRAFFIC VOLUMES

- Higher traffic volumes adjacent to the Town Green at convergence of RT 202, RT 118, and RT 63
  - Highest volumes on RT 202 between Torrington Road and North Street
  - South Street and North Street see about half of the traffic volumes of Route 202 near the Town Green



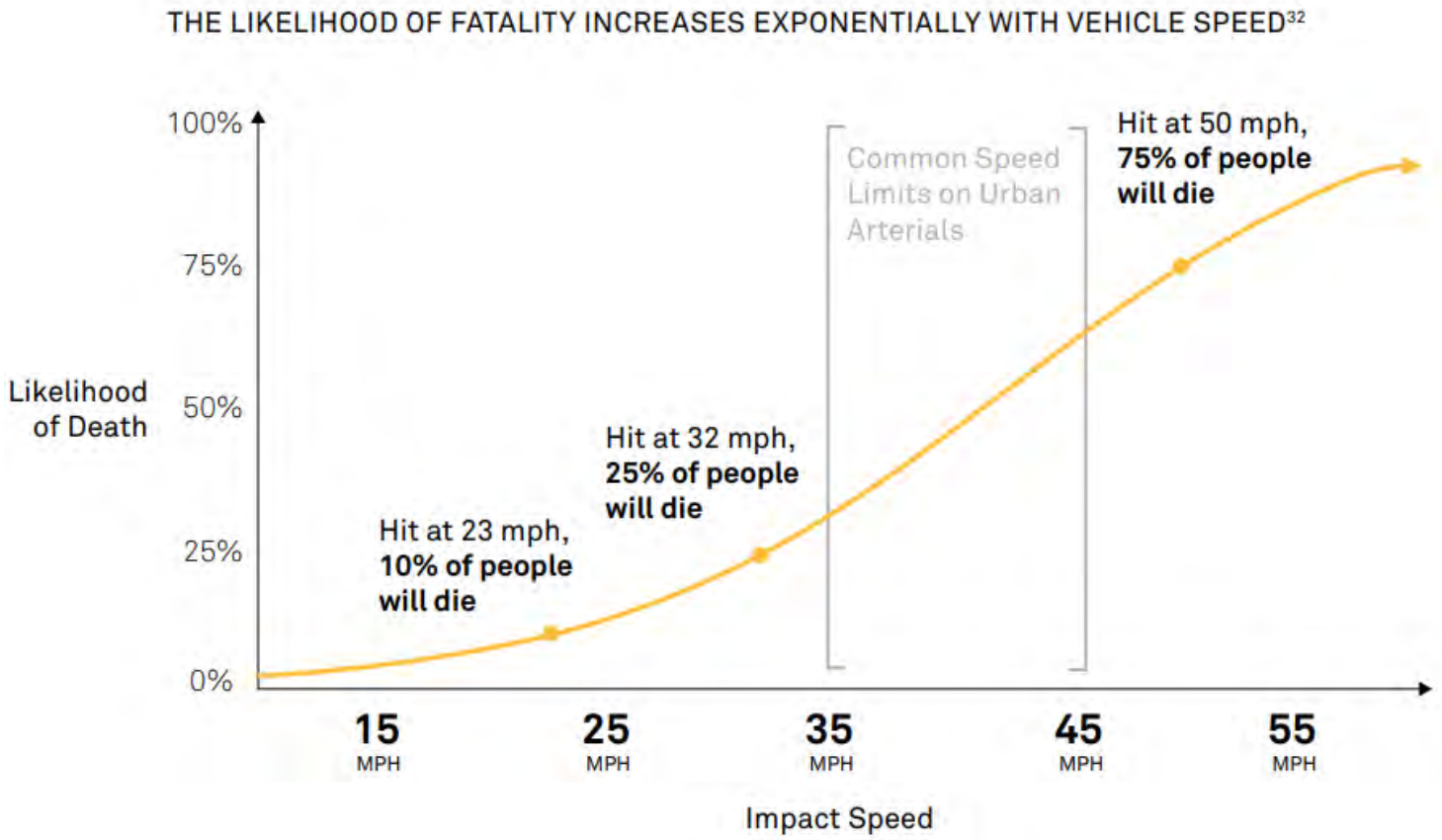
85TH PERCENTILE SPEEDS

- Based on CTDOT data collected December 2020 – Note: speeds tend to be higher as traffic volumes were lower due to COVID-19
- Recorders located near intersection result in slower speeds (202 between North St and Torrington Rd
- Speed limit in Study Area is between 30 and 40 MPH (except for West Street south side of Green)



SPEEDS IN CONTEXT

- Higher speeds are more dangerous for pedestrians



NACTO *City Limits*

ROADWAY GEOMETRY

Litchfield - RSA - Route 63, 118, 202
Street Inventory

Road	From	To	Distance	Direction	Lanes	Lane Width	Sidewalk Type	Sidewalk Width	Sidewalk Condtion	ADA Ramps Present	ADA Ramps Compliant	Curb	Parking	Shoulder
South Street (Route 63)	Wolcott Street	250' S/O East Street	1,150'	NB	1	13'	Paved	5'	Good	Yes	No	Paved	8'	N/A
				SB	1	13'	Paved	7'	Good	Yes	No	Paved	6'	N/A
South Street (Route 63)	250' S/O East Street	East Street	250'	NB	1	16'	Concrete	6'	Good	Yes	Yes	Paved	9'	N/A
				SB	1	16'	Brick	14'	Good	Yes	Yes	Granite	38'	N/A
South Street (Route 63)	East Street	East Street (Route 202)	250'	NB	1	13'	N/A	N/A	N/A	N/A	N/A	Granite	N/A	8'
				SB	1	21'	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Street (Route 63)	East Street (Route 202)	Westwood Lane	1,150'	NB	1	12'	Paved	6'	Good	Yes	No	Paved	N/A	8'
				SB	1	12'	Paved	6'	Good	Yes	No	Paved	N/A	8'
East Street (Route 118)	South Street	East Street	650'	EB	1	12'	Paved	5'	Good	N/A	N/A	Paved	N/A	N/A
				WB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	N/A
East Street (Route 118)	East Street	Karl Street	500'	EB	1	12'	Paved	5'	Good	Yes	Yes	Paved	N/A	6'
				WB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	6'

ROADWAY GEOMETRY

Litchfield - RSA - Route 63, 118, 202

Street Inventory

Road	From	To	Distance	Direction	Lanes	Lane Width	Sidewalk Type	Sidewalk Width	Sidewalk Condtion	ADA Ramps Present	ADA Ramps Compliant	Curb	Parking	Shoulder
East Street (Route 118)	South Street	East Street	650'	EB	1	12'	Paved	5'	Good	N/A	N/A	Paved	N/A	N/A
				WB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	N/A
East Street (Route 118)	East Street	Karl Street	500'	EB	1	12'	Paved	5'	Good	Yes	Yes	Paved	N/A	6'
				WB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	6'
West Street (Route 202)	Commons Drive	North Lake Street	600'	EB	2	11'	Concrete	5'	Good	Yes	Yes	Paved	N/A	7'
				WB	2	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	1'
West Street (Route 202)	North Lake Street	Woodruff Lane	1,500'	EB	2	11'	Concrete	5'	Good	Yes	Yes	Paved	N/A	0'
				WB	1	11'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	8'
West Street (Route 202)	Woodruff Lane	Meadow Street	700'	EB	1	15'	Brick	5'	Good	Yes	No	Paved	N/A	4'
				WB	1	13'	Paved	4'	Fair	Yes	No	Paved	N/A	8'
West Street (Route 202)	Meadow Street	North Street	500'	EB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	7'	N/A
				WB	1	12'	Paved	4'	Fair	Yes	Yes	Paved	14'	N/A
East Street (Route 202)	North Street	Torrington Road	600'	EB	1	10'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	8'
				WB	2	10'	Paved	5'	Fair	Yes	Yes	Paved	N/A	0'
Torrington Road (Route 202)	East Street	Karl Street	900'	NB	1	12'	N/A	N/A	N/A	N/A	N/A	Paved	N/A	8'
				SB	1	12'	Paved	3'	Poor	Yes	No	Paved	N/A	7'
West Street (South of Green)	Meadow Street	South Street (Route 63)	700'	EB	1	13'	Brick	13'	Good	Yes	Yes	Granite	17'	2'
				WB	1	13'	N/A	N/A	N/A	N/A	N/A	Granite	17'	2'
Meadow Street	West Street	West Street	150'	NB	1	14'	N/A	N/A	N/A	N/A	N/A	Granite	N/A	N/A
				SB	1	13'	On Road	3'	N/A	No	No	Paved	N/A	N/A
North Street	West Street	West Street	200'	NB	1	14'	N/A	N/A	N/A	Yes	Yes	Granite	8'	N/A
				SB	1	14'	N/A	N/A	N/A	Yes	Yes	Granite	8'	N/A

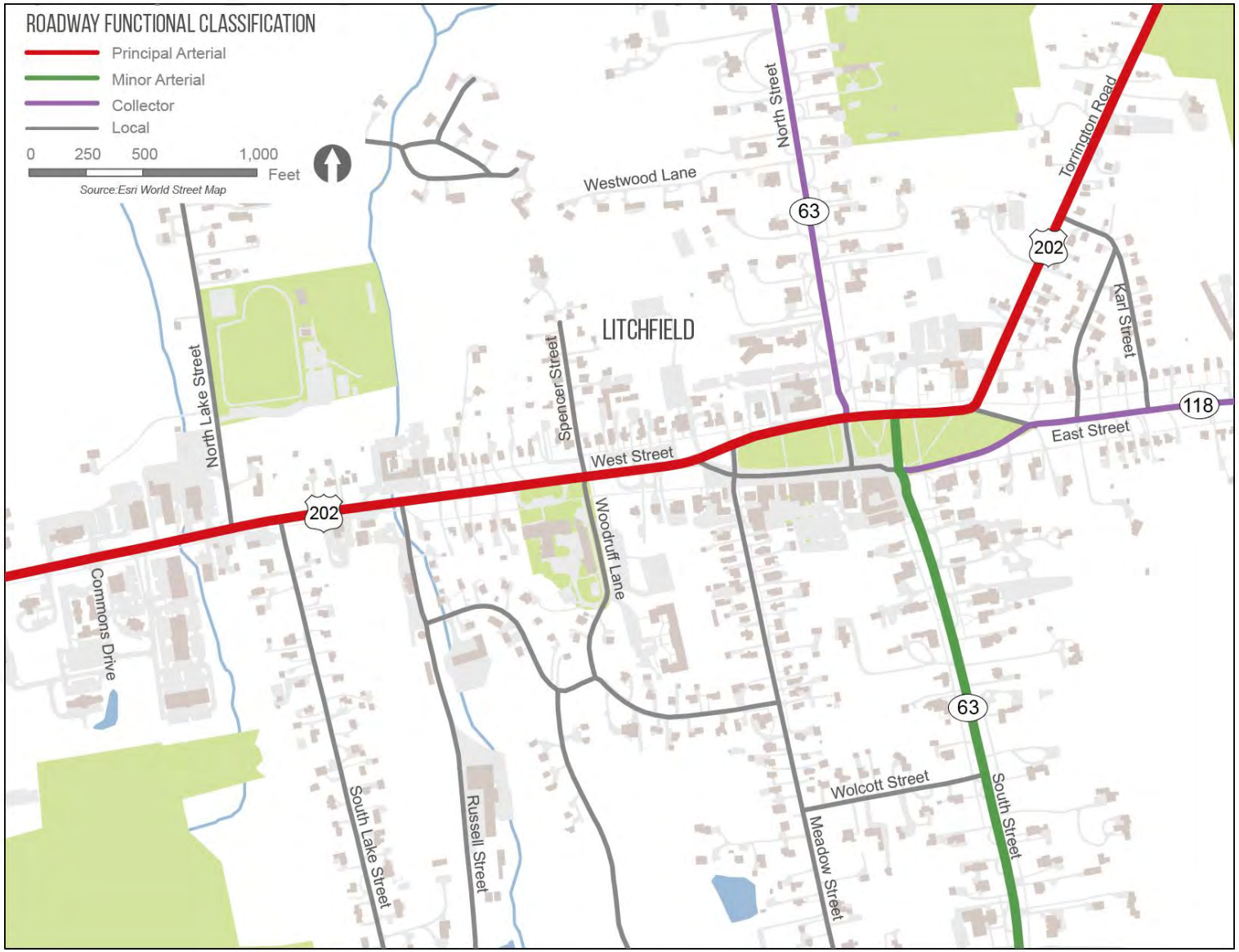
FUNCTIONAL CLASSIFICATION

- Route 202
  (West Street and
  Torrington Road)
  - Principal Arterial

- Route 63 (South Street)
  - Minor Arterial

- Route 63 (North Street)
  - Collector

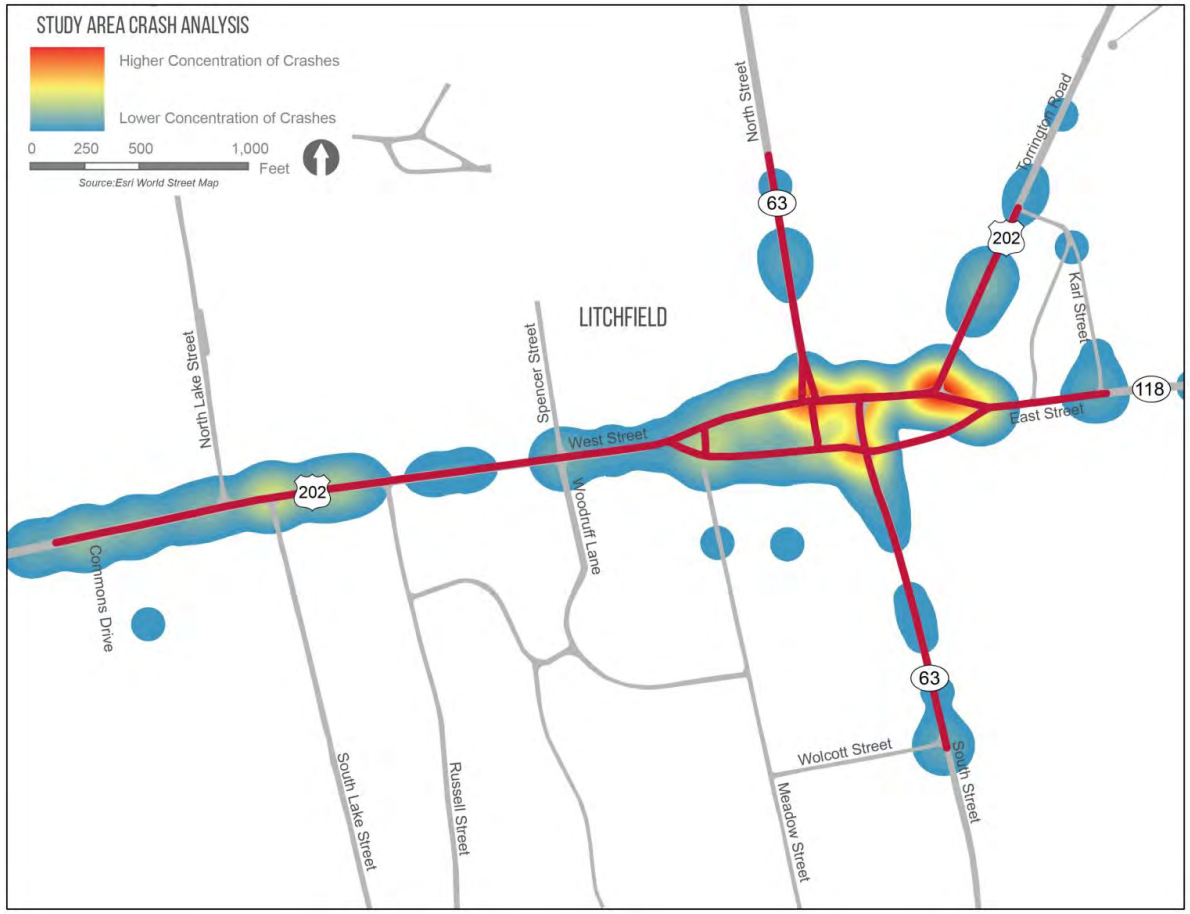
- Route 118 (East Street)
  - Collector



CRASH ANALYSIS

2016 - 2020

Year	Crash Severity: Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL
2016			2	4	38	44
2017			2	7	43	52
2018			3	2	36	41
2019			4	3	38	45
2020		1	4	3	24	32
TOTAL	0	1	15	19	179	214

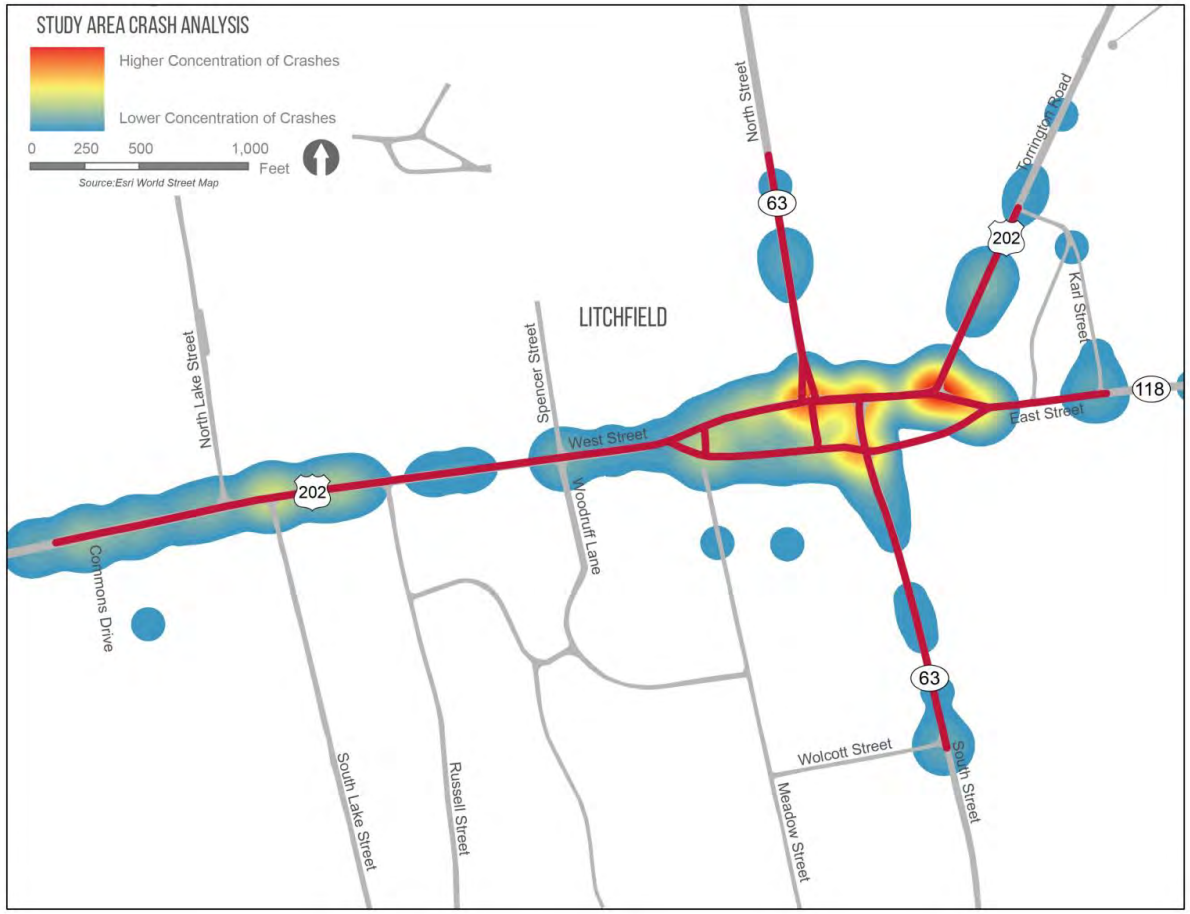


CRASH ANALYSIS

2016 - 2020

Crash Severity

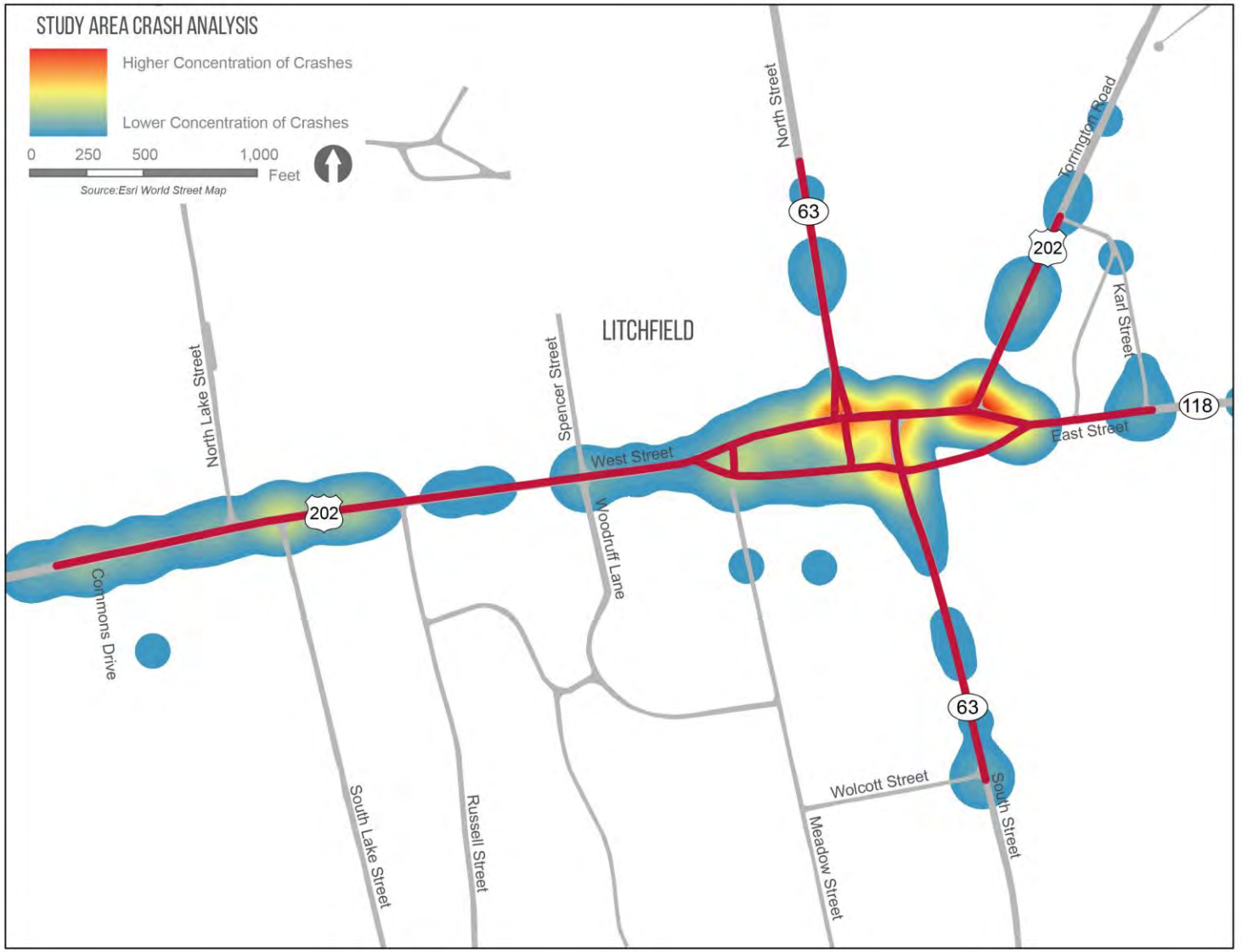
	Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL
Front to Rear			2	11	89	102
Front to Front					1	1
Angle			5	3	27	35
Sideswipe, Same Direction				1	19	20
Sideswipe, Opposite Direction			1	1		2
Rear to Side					5	5
Rear to Rear					6	6
Not Applicable / Single Vehicle		1	6	3	19	29
Other			1		13	14
TOTAL	0	1	15	19	179	214
Crashes Involving Pedestrians	0	1	2	3	2	8
Crashes Involving Bicyclists	0	0	2	0	0	2



CRASH ANALYSIS

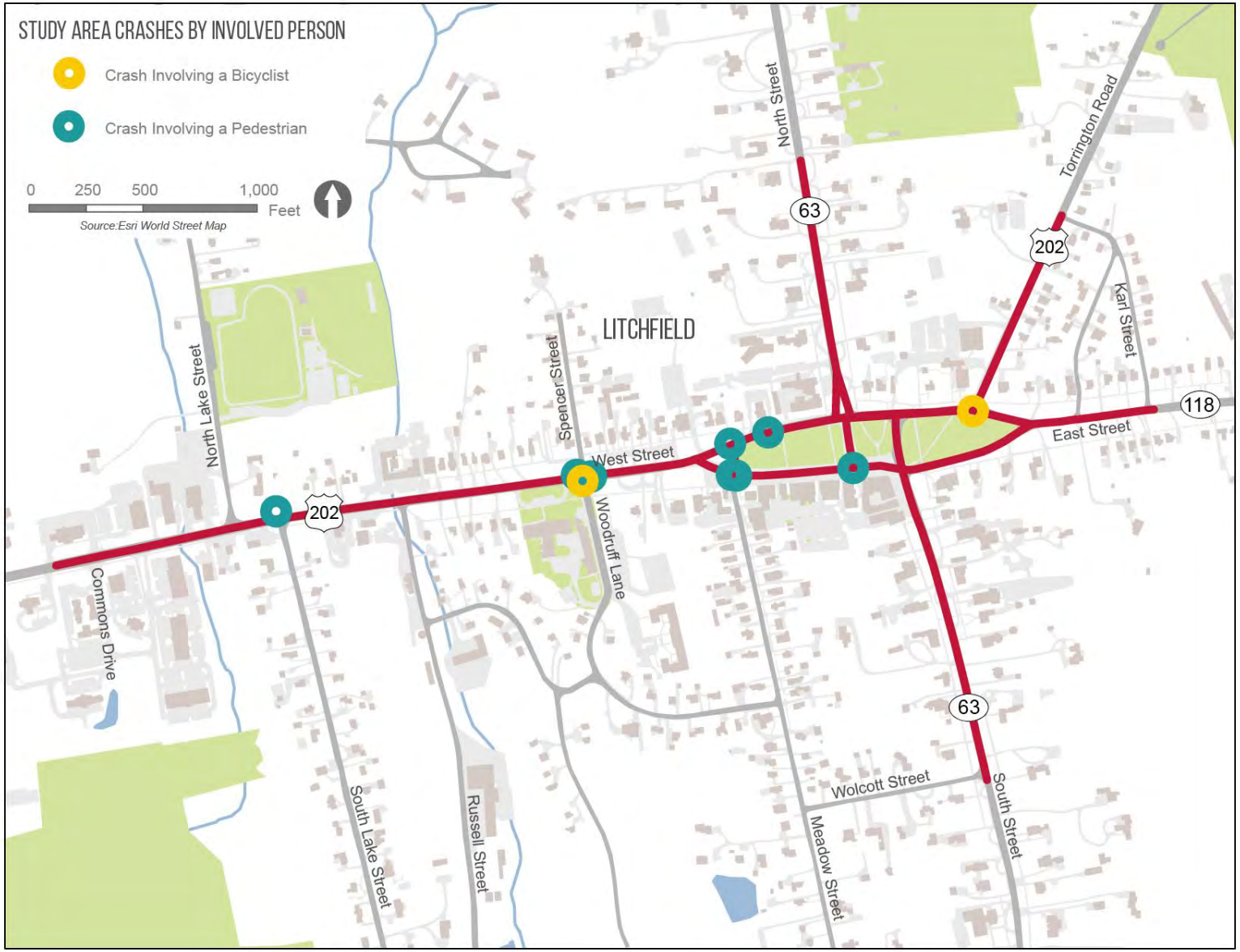
Crash Hotspots (5 Yr Crash Total approx.)

- Rte 202 between Commons Drive and Russell St – 30 Crashes
  - Rear to Rear common
- Rte 202 / Rte 63 (North St) – 25 Crashes
- Rte 202 / Rte 118 – 24 Crashes
- Rte 202 / Rte 63 (South St) – 18 Crashes
- West St (south) / South St – 14 Crashes



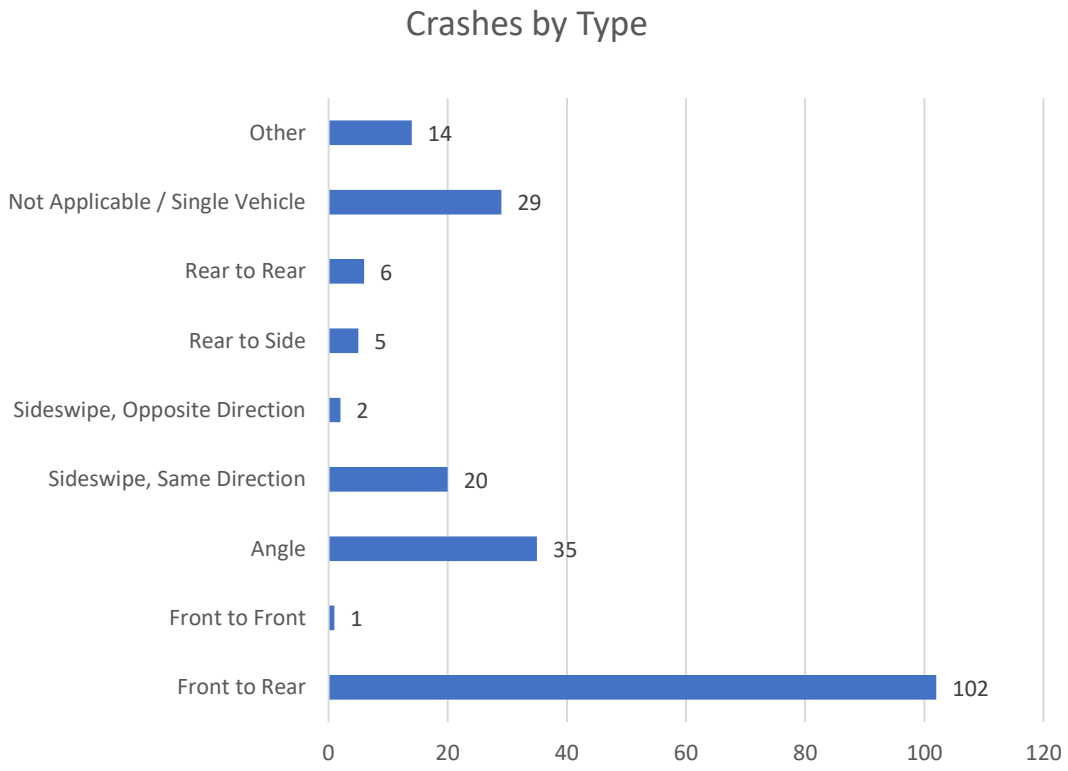
CRASH ANALYSIS – INVOLVED PERSON

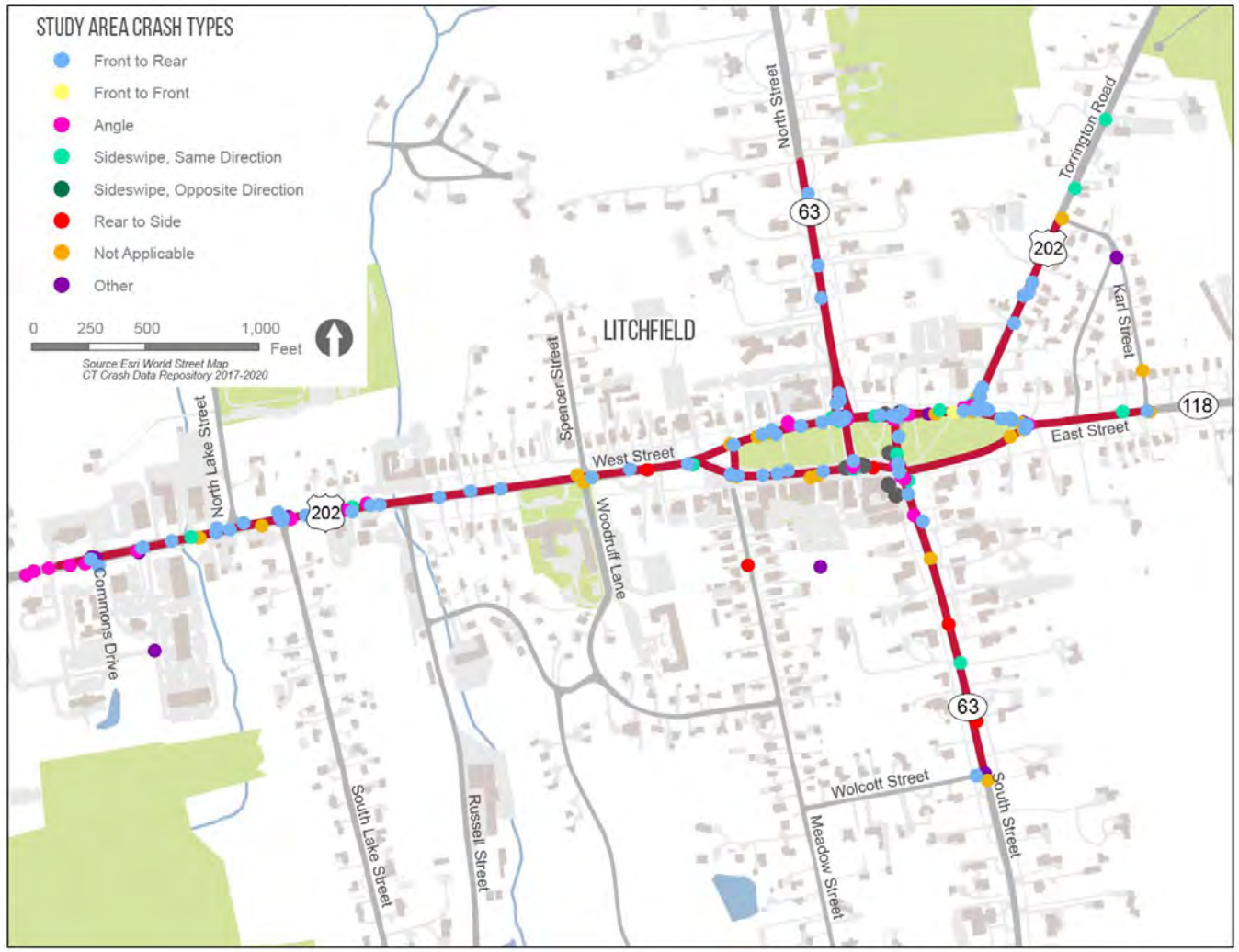
- There were 2 crashes involving bicyclists in the Study Area
- There were 8 crashes involving pedestrians in the Study Area



CRASH TYPE

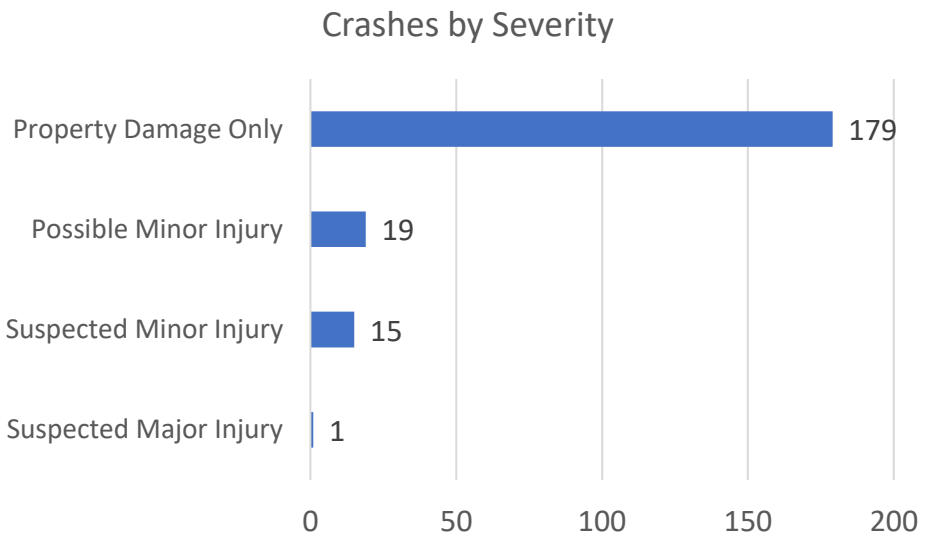
- Majority of Crashes are Front to Rear (Rear End) Crashes that are typical of an area with many intersections and curb cuts, driveways, etc.

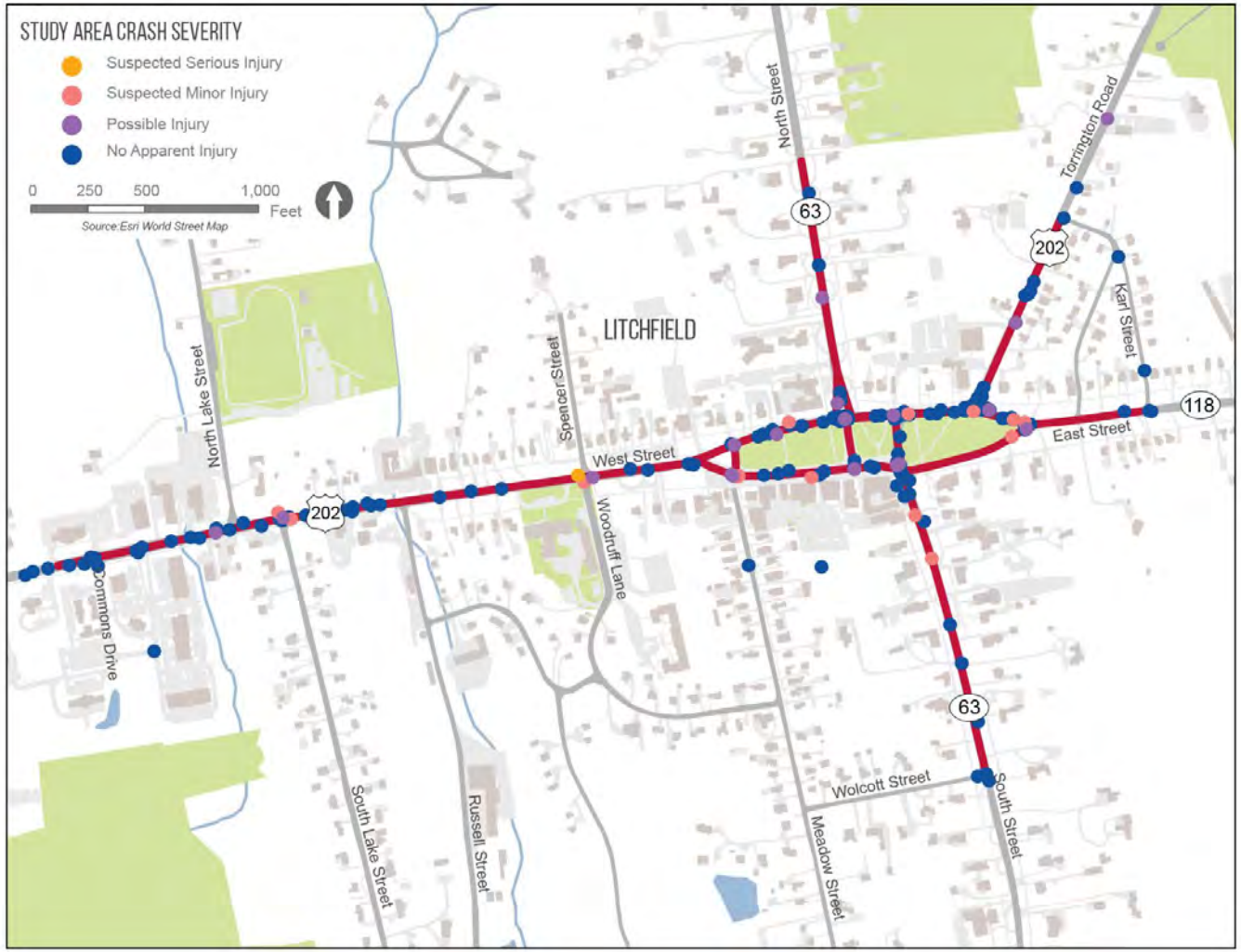




CRASH SEVERITY

- Majority of crashes are classified as No Apparent Injury- Property Damage Only
- There was 35 crashes resulting in at least one injury with one crash resulting in a major injury





REVIEW OF PAST/CURRENT WORK

- A Walk Audit was completed by town (Traffic Safety Community Action Group) in April-May 2021

- Conclusions:
  - Crosswalks are not pedestrian-friendly
  - Drivers are speeding and not yielding to pedestrians in crosswalks
  - Need for improved signage
  - Public education about the law is warranted
  - Enforcement of existing speed and traffic laws is warranted

REVIEW OF PAST/CURRENT WORK

- Problematic Crosswalks

REVIEW OF PAST/CURRENT WORK

- Litchfield Green Comprehensive Revitalization Plan- 2019
  - Prepared by Heritage Landscapes

SAMPLE IMPROVEMENTS TO IMPROVE SAFETY IN THE STUDY AREA

SPEED HUMPS

- Typically 3 inches in height and 12 feet in length along the vehicle travel path axis.

- Encourages the motorist to travel at a slow speed.

RAISED CROSSWALKS

- Improves pedestrian safety by causing motorist speeds to decrease at the crossing.

- Typically between 3 and 6 inches above street level. It is common for a raised crosswalk to be level with the street curb.
  - Height increases the visibility of a pedestrian in a crosswalk to a motorist.

Route 9, Hillsboro, Virginia – Rethink9.com

CORNER EXTENSION/BULBOUT

- A curb extension is a horizontal extension of the sidewalk into the street resulting in a narrower roadway and a shorter crosswalks.

- Slows automobile turning speeds, shortens pedestrian crossing distance, and increases pedestrian visibility

Concord, NH – Main Street

MEDIAN ISLAND

- Raised island located along a street centerline.

- Narrows the travel lanes at that location
  - Visual appearance of narrowed lanes encourages a motorist to slow.

MEDIAN ISLAND WITH PROTECTED CROSSING

- Raise island wide enough to provide allow pedestrian to cross in two-stages

Route 9, Hillsboro, Virginia – Rethink9.com

ROAD DIET - TWO WAY LEFT TURN LANE

- A road diet reduces the number of lanes on a roadway
- Commonly, a road diet provides dedicated space for left turns where only shared left/through lanes previously existed
- A road diet can be implemented using a two-way left-turn lane or alternating left-turn lanes
- Increases a road's efficiency by channeling turning vehicles out of the through lanes.
- A road diet can *improve* traffic flow and reduce conflicts with turning vehicles

ROUNDABOUT

- Slows traffic by requiring horizontal deflection for entering vehicles
- Modern roundabout requires entering vehicles to yield to circulating traffic
- Roundabout provides opportunity for greenspace or gateway signage
- Roundabouts reduce vehicles speeding to make green lights etc.

Meredith, NH – NHDOT
Route 9, Hillsboro, VA

ONE-WAY RESTRICTIONS

- One-way restrictions could result in result in less curb width required when parking is provided
- Note West Street near businesses

ON-STREET PARKING

- On-street parking can narrow roadway travel lanes by adding friction to traffic flow
- Parking can provide buffer for pedestrian zones

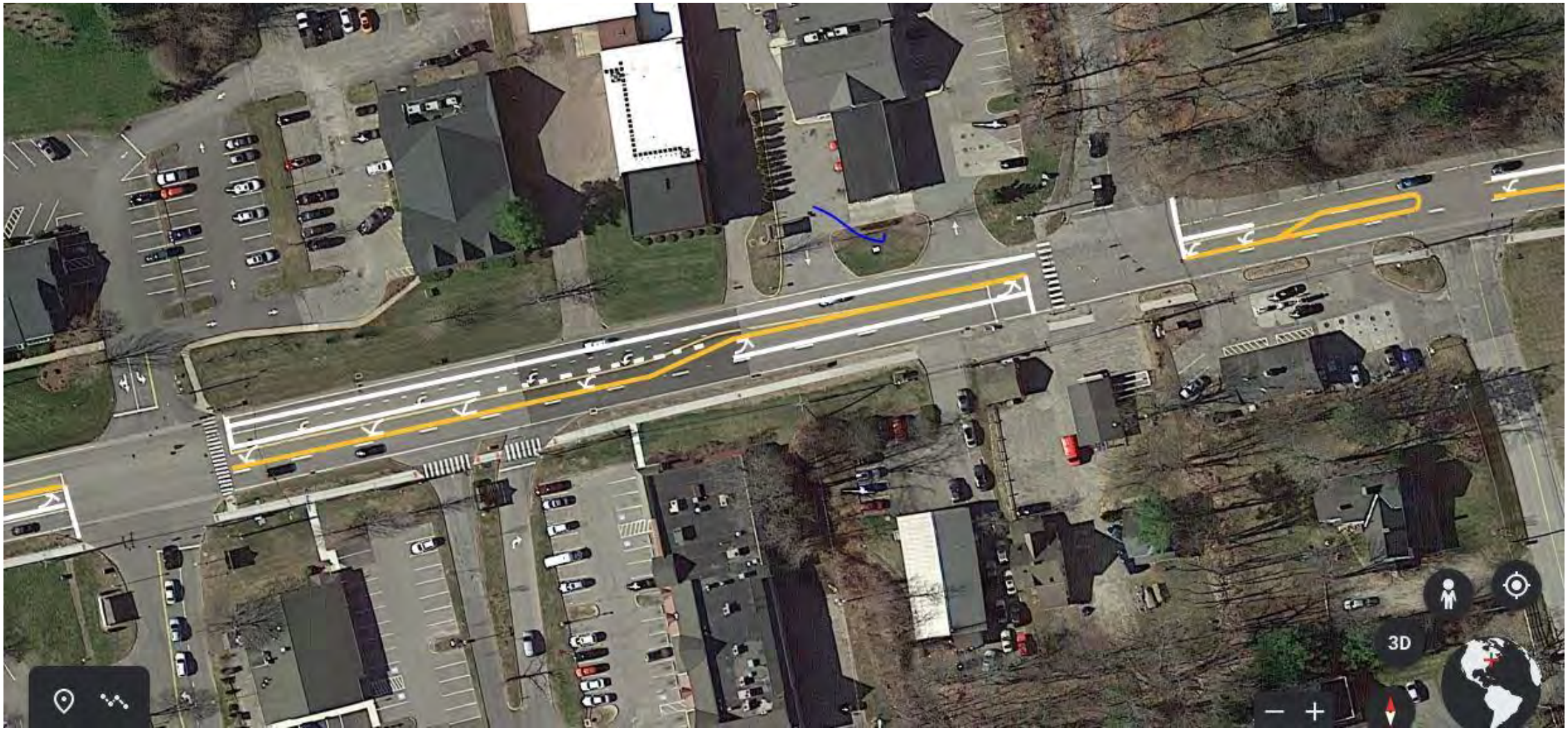
DISCUSSION ON ISSUES IN THE STUDY AREA AND OPPORTUNITIES

TODAY'S WALK AUDIT

- Review safety protocols, reflective vests, etc.
- Meet at Litchfield Green at 12:00 PM. Municipal Parking lot located behind store frontages off of West Street, take a right just before the Village Restaurant
- Walk the Study Area corridor and assess existing conditions and identify areas for improvement
- Post Audit discussion immediately following

POTENTIAL IMPROVEMENTS

- Road Diet on Route 202 from the West Green to Milton Road



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- Walk the Study Area corridor and assess existing conditions and identify areas for improvement
- Post Audit discussion immediately following

THANK YOU!

Litchfield Road Safety Audit

Meeting Location: Virtual Meeting

Date and Time: Friday, June 11th at 9:00 – 10:00 AM

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.

Litchfield Road Safety Audit

Meeting Location: Litchfield Town Green

Address: Park at Municipal Lot behind businesses, access from West Street, turn right just before the Village Restaurant

Date and Time: Friday, June 11th at 12:00 PM

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.

Litchfield 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 retroreflectivity
  • Proper support	

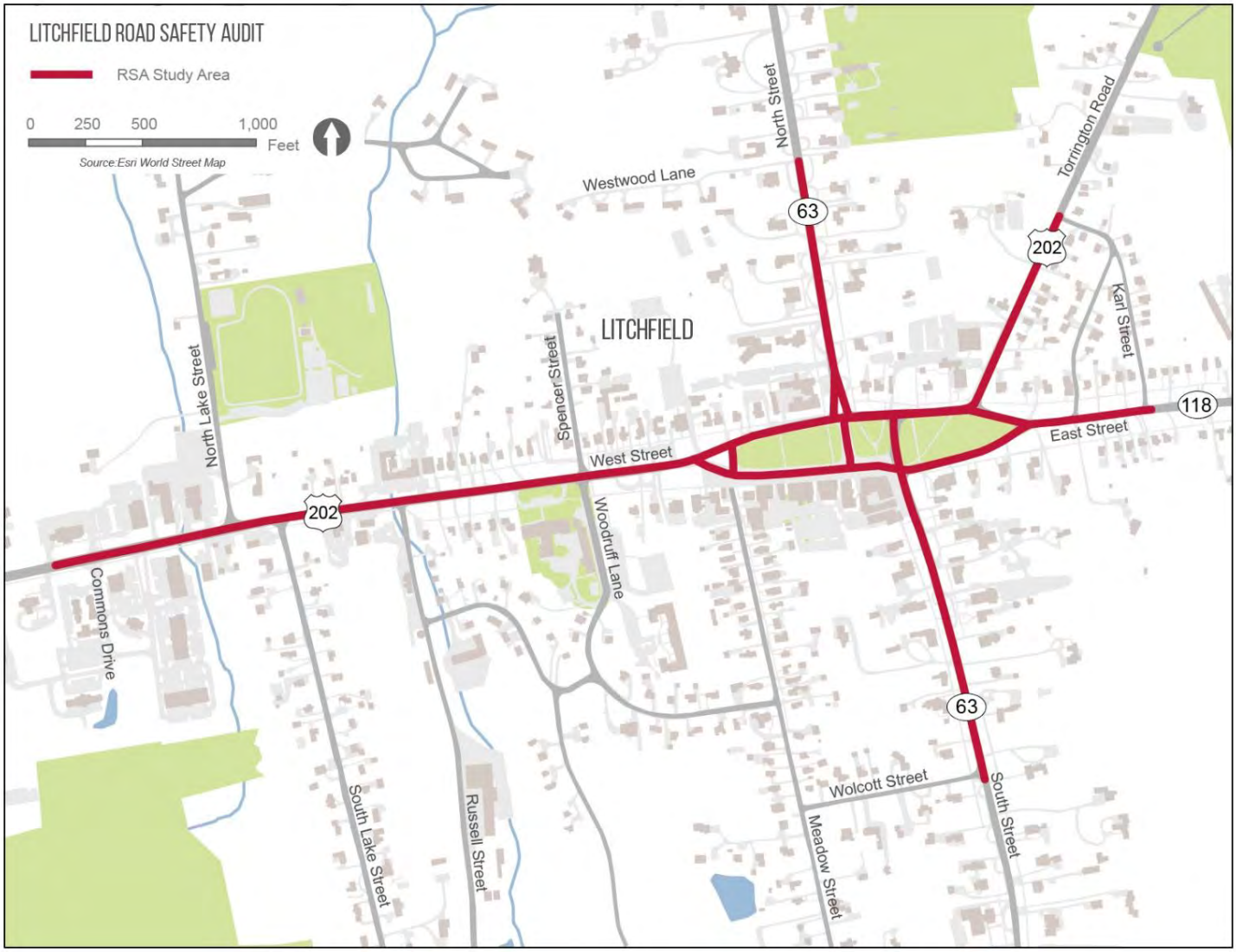
• Signals
  o Proper visibility
  o Proper operation
  o Efficient operation
  o Safe placement of equipment
  o Proper sight distance
  o Adequate capacity	

• 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	

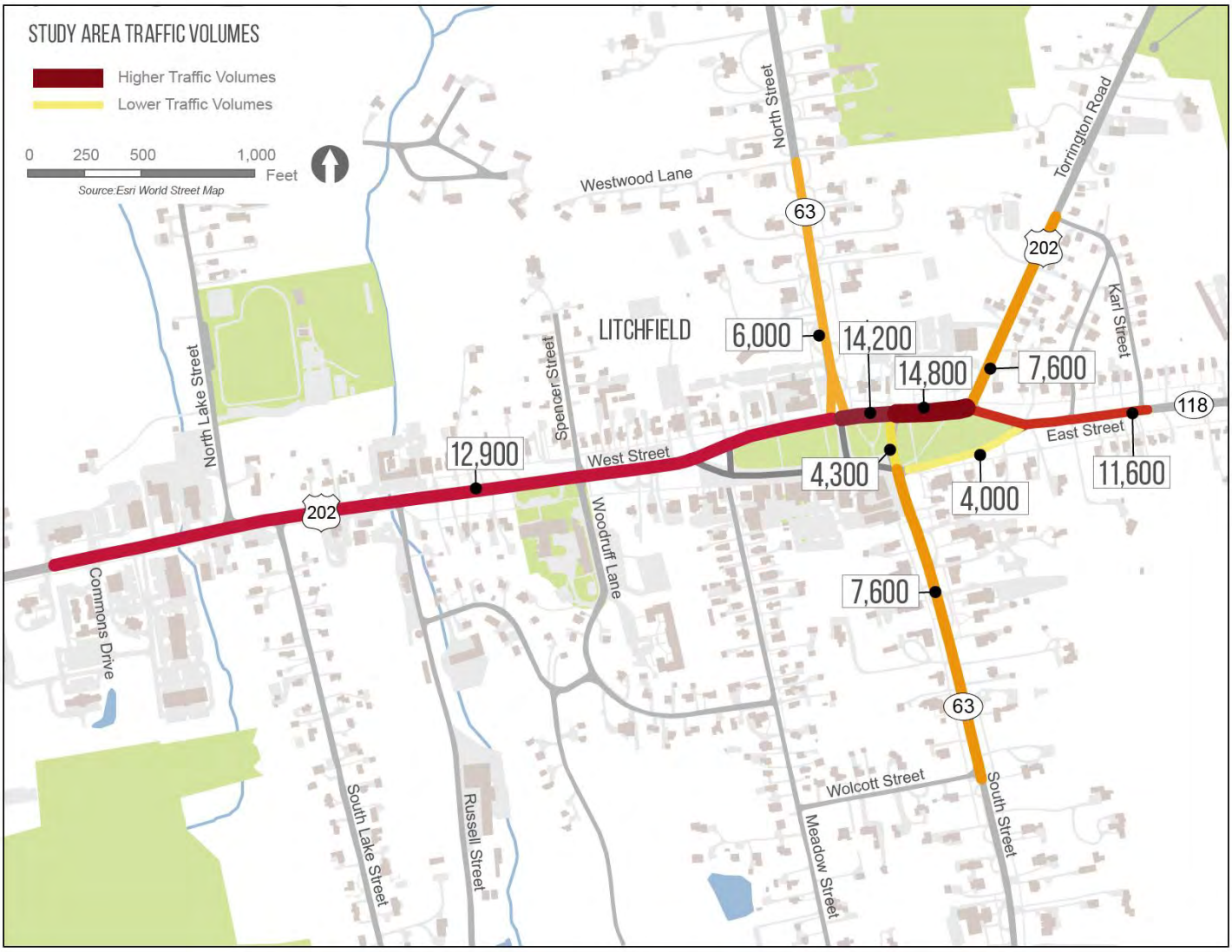
Litchfield Road Safety Audit - Study Area

- Route 202 between Commons Drive and Karl Street
- Route 63 between Westwood Lane and Wolcott Street
- Roads surrounding the Litchfield Town Green



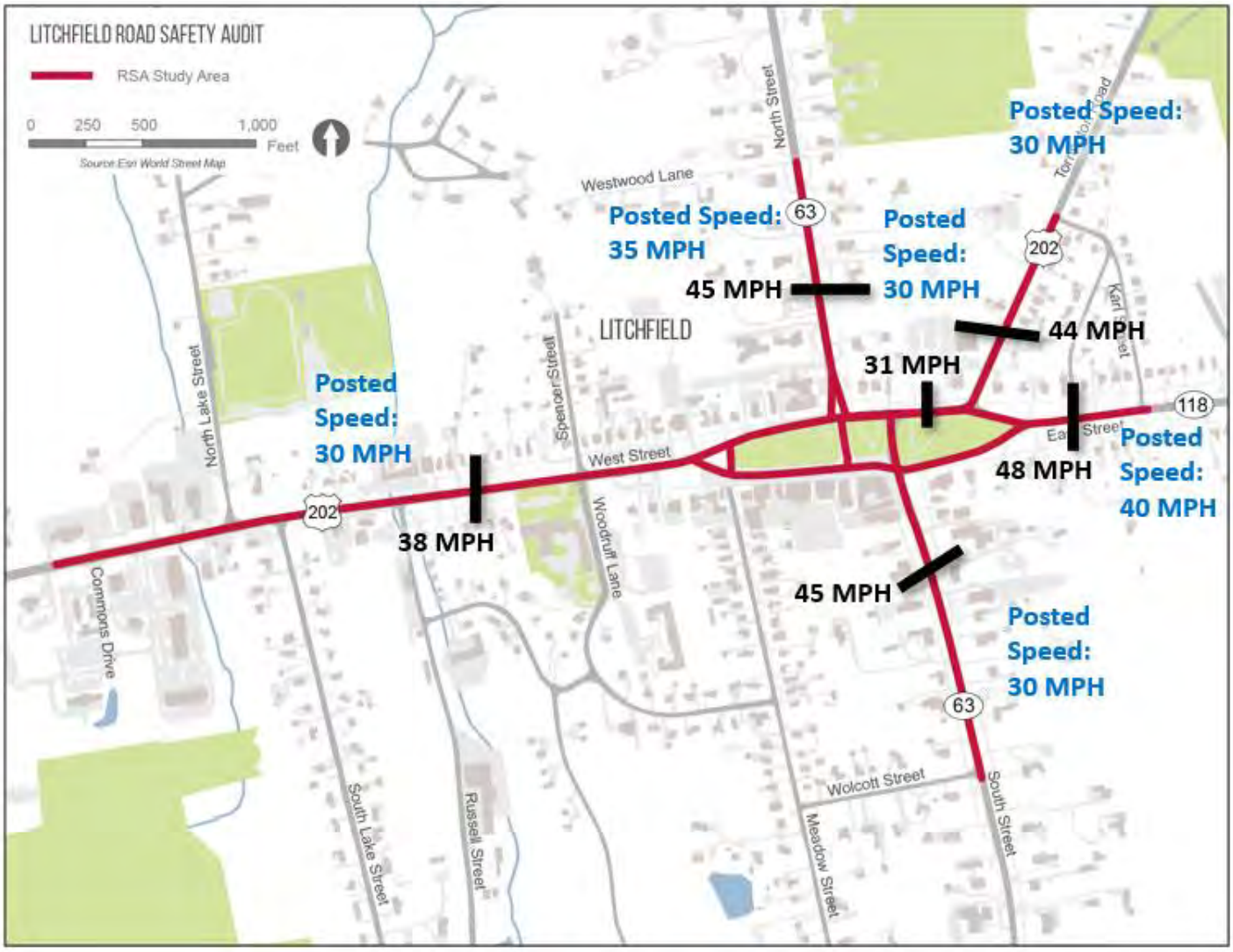
Litchfield Road Safety Audit - Average Daily Traffic Volumes in 2017

*(Note, during 2020 COVID-19, volumes were reported at less than half of these numbers)

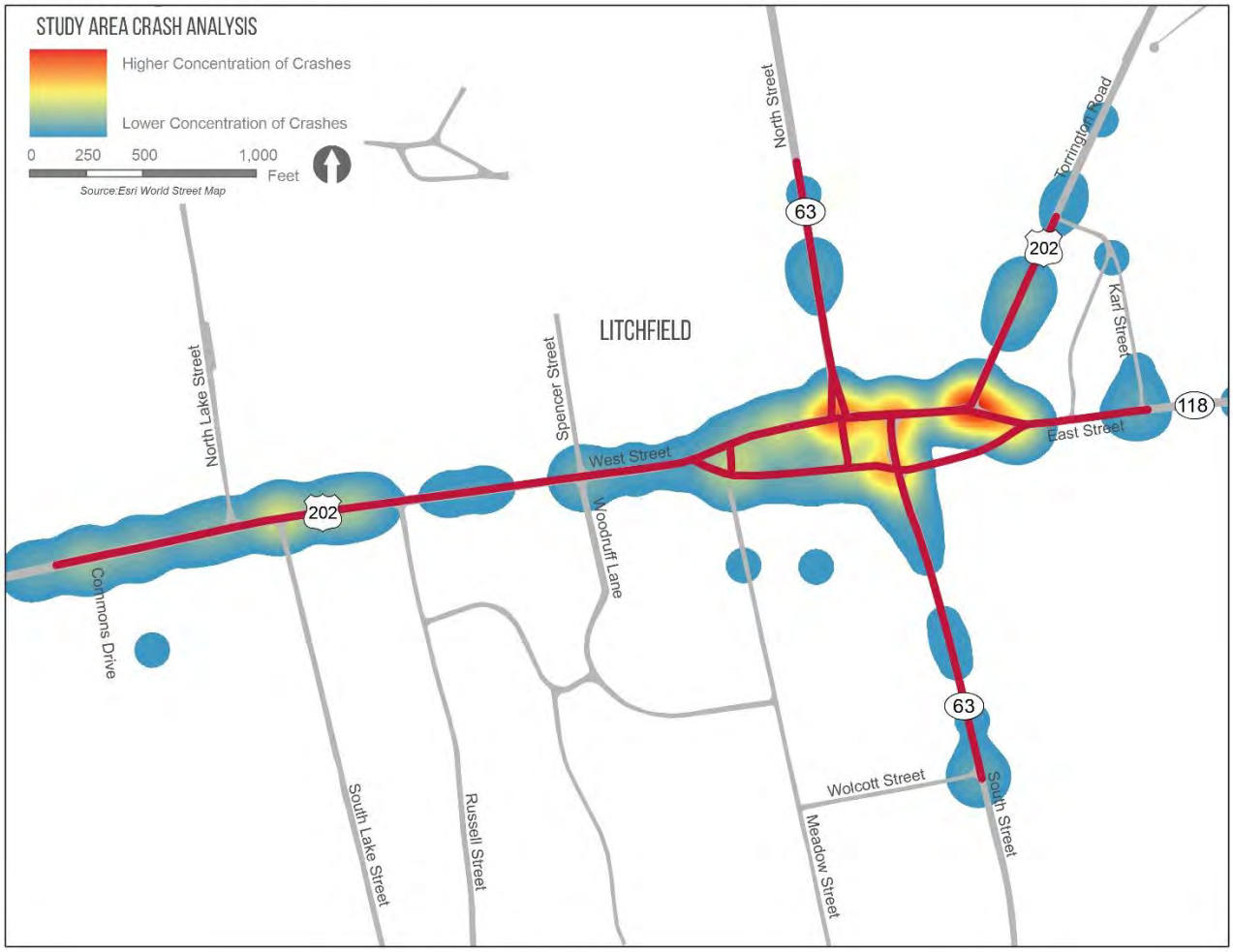


Litchfield Road Safety Audit - 85th Percentile Speeds - 2020

- Based on CTDOT data collected December 2020, posted speeds limits vary between 30-40 mph. *Note, 85th percentile speeds have been higher for most communities due to the decline in traffic volumes due to COVID-19



Litchfield Road Safety Audit - Crash Summary Heat Map



Litchfield Road Safety Audit - Crash Summary

Years: 2016 – 2020

Manner of Impact	Crash Severity: Fatal Injury	Serious Injury	Minor Injury	Possible Injury	No Apparent Injury, Property Damage Only	TOTAL
Front to Rear			2	11	89	102
Front to Front					1	1
Angle			5	3	27	35
Sideswipe, Same Direction				1	19	20
Sideswipe, Opposite Direction			1	1		2
Rear to Side					5	5
Rear to Rear					6	6
Not Applicable / Single Vehicle		1	6	3	19	29
Other			1		13	14
TOTAL	0	1	15	19	179	214
Crashes Involving Pedestrians	0	1	2	3	2	8
Crashes Involving Bicyclists	0	0	2	0	0	2

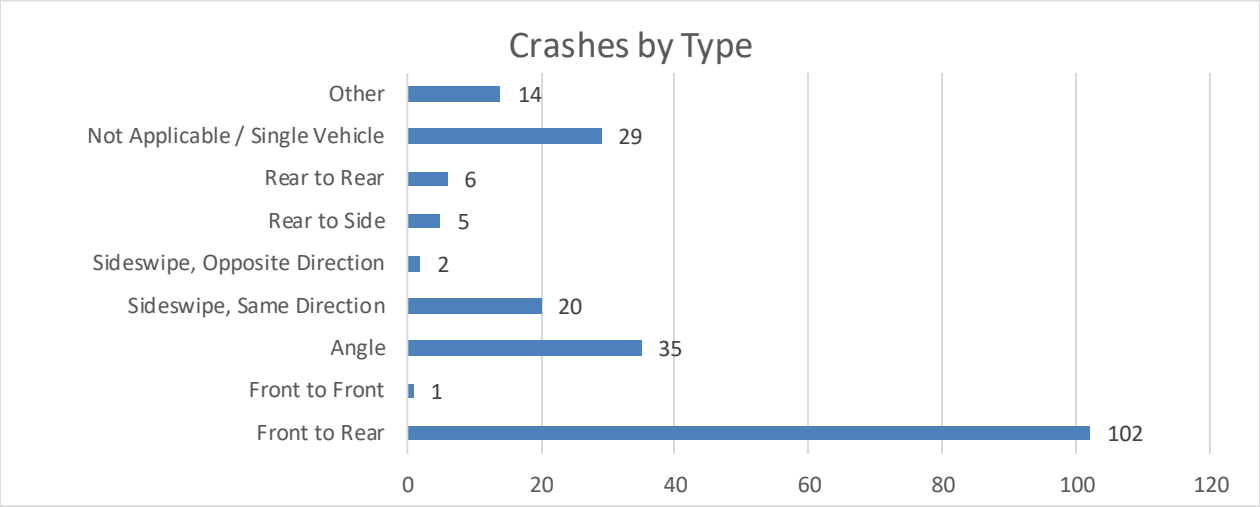
Summary Analysis:

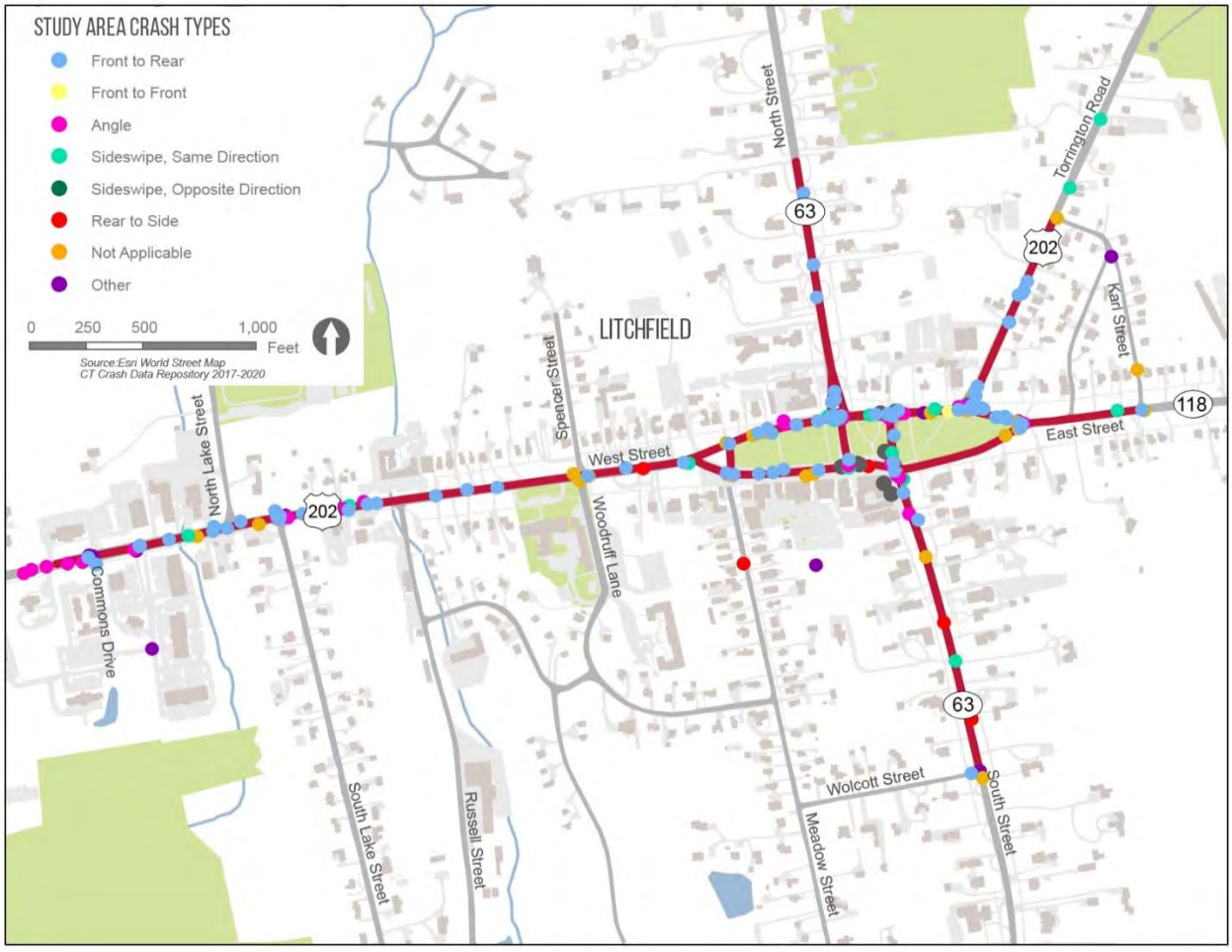
Crash Hotspots (5 Yr Crash Total approx.)

- Rte 202 between Commons Drive and Russell St – 30 Crashes
    - Rear to Rear common
- Rte 202 / Rte 63 (North St) – 25 Crashes
- Rte 202 / Rte 118 – 24 Crashes
- Rte 202 / Rte 63 (South St) – 18 Crashes
- West St (south) / South St – 14 Crashes

Litchfield Road Safety Audit Crash Summary - Crashes by Type

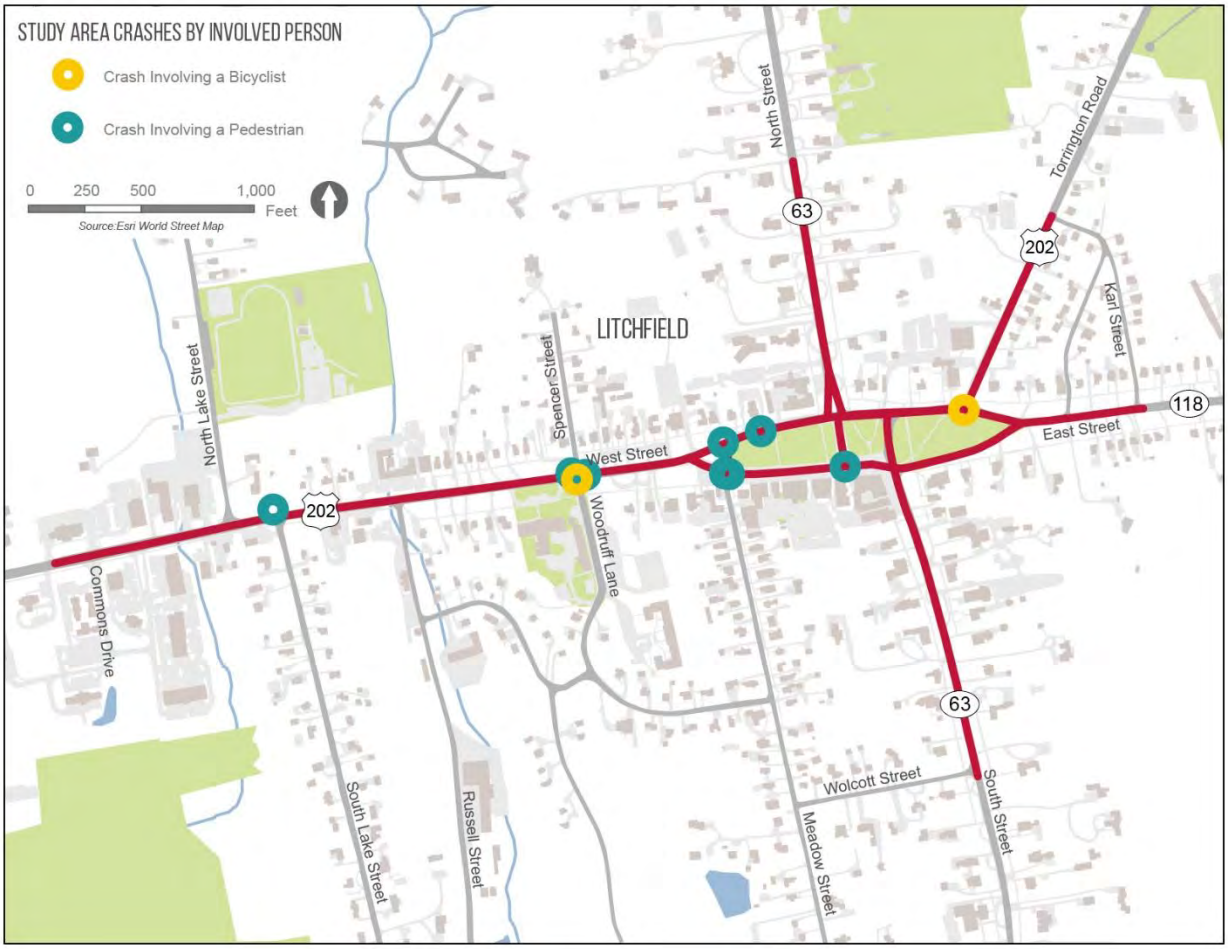
- Majority of crashes are Front to Rear (Rear End) Crashes that are typical of an area with many intersections and curb cuts, driveways, etc.





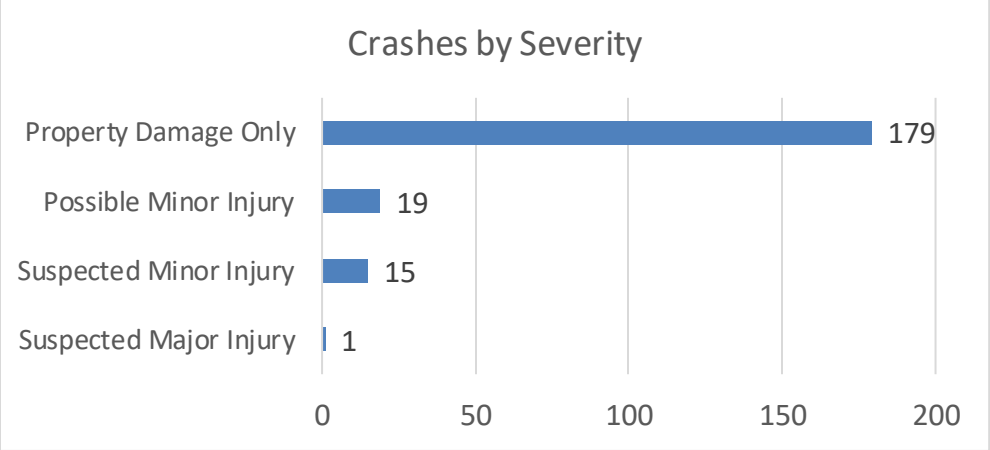
Litchfield Road Safety Audit Crash Summary - Crashes by Involved Person

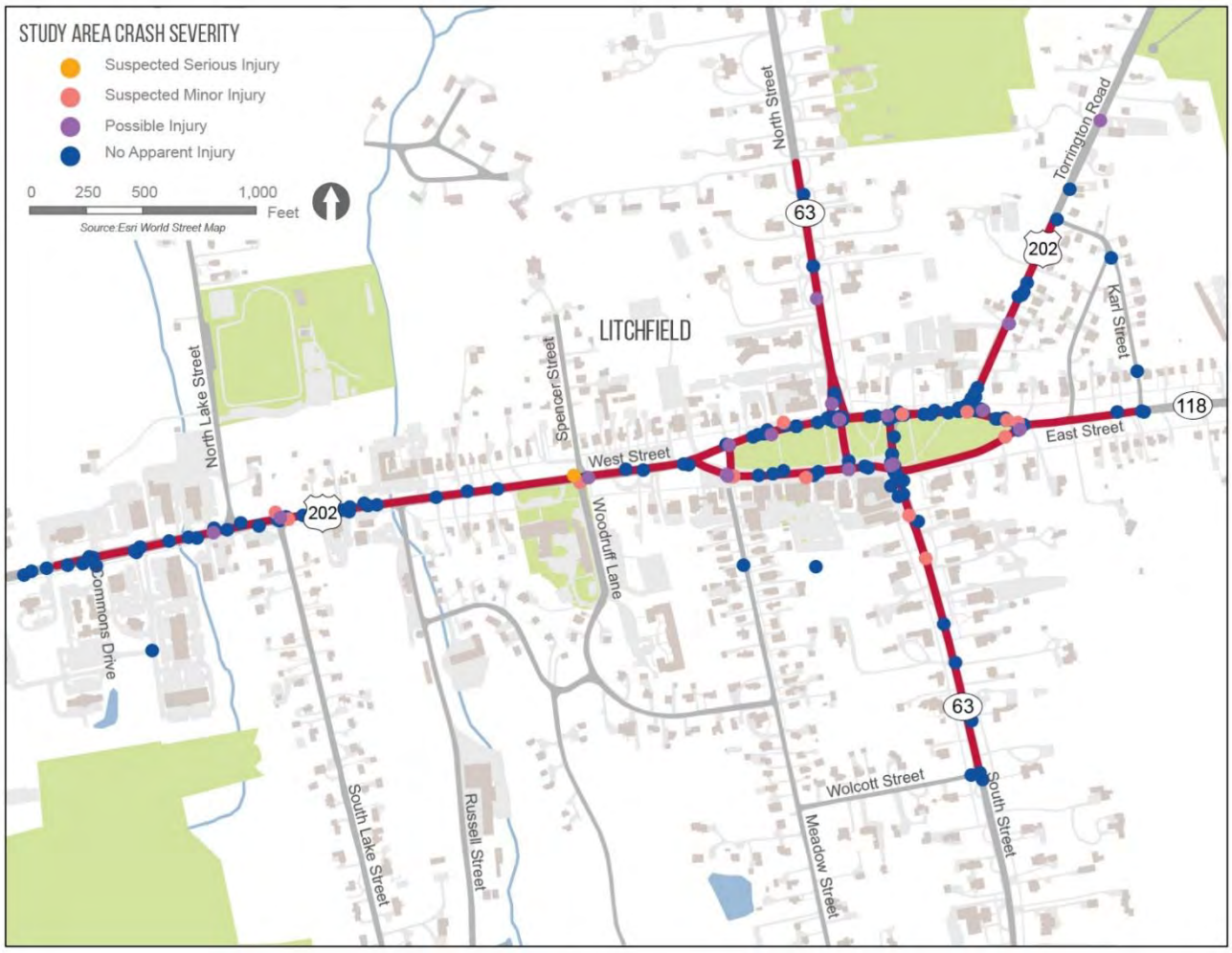
- There were two crashes involving bicyclists in the Study Area
- There were eight crashes involving pedestrians in the Study Area



Litchfield Road Safety Audit Crash Summary - Crash Severity

- Majority of crashes are classified as No Apparent Injury- Property Damage Only
- There was 35 crashes resulting in at least one injury with one crash resulting in a major injury





Litchfield Road Safety Audit – Review of Past and Current Work

A walk audit was completed in April-May 2021 by the Traffic Safety Community Action Group. In total, 53 auditors undertook a comprehensive review of safety-related issues at the important crosswalks in and around the Green. Conclusions from the audit are presented below:

- Crosswalks are not pedestrian-friendly
- Drivers are speeding and not yielding to pedestrians in crosswalks
- Need for improved signage
- Public education about the law is warranted
- Enforcement of existing speed and traffic laws is warranted

Problematic Crosswalks noted during the audit include:

- Woodruff Lane & Route 202 (N-S near Center School)
- Route 202 & Meadow Street (N-S near Town Hall)
- Intersection of Route 202 and Route 63 North (3 crosswalks included)
- Route 202 & Route 118 (E-W; Adj to Congregational Church)
- Route 63 South & Route 118 (E-W Adj. to Historical Society)
- West Street & Route 63 South (N-S in front of @ The Corner)
- Route 63 Near Post Office (E-W; Adj Post Office)
- Route 63 South & Wolcott Street (E-W at foot of Wolcott Street)
- Route 63 North near Union Bank (E-W, 1st crosswalk north of Union Bank)

Litchfield 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**

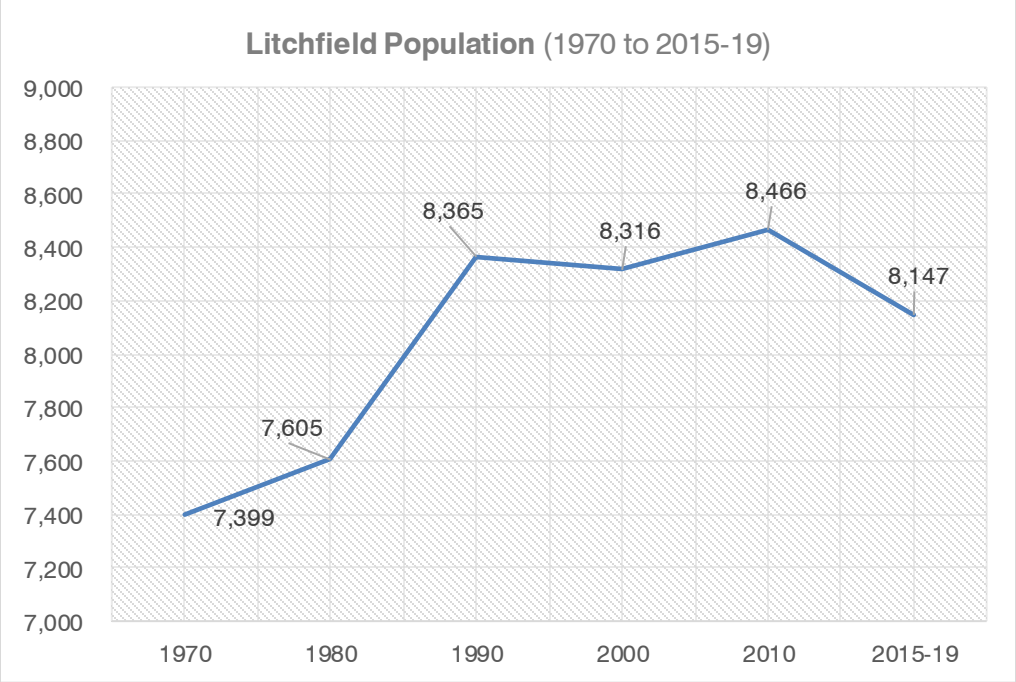
Next Steps

- Discussion involving implementation strategies and responsibilities and funding sources

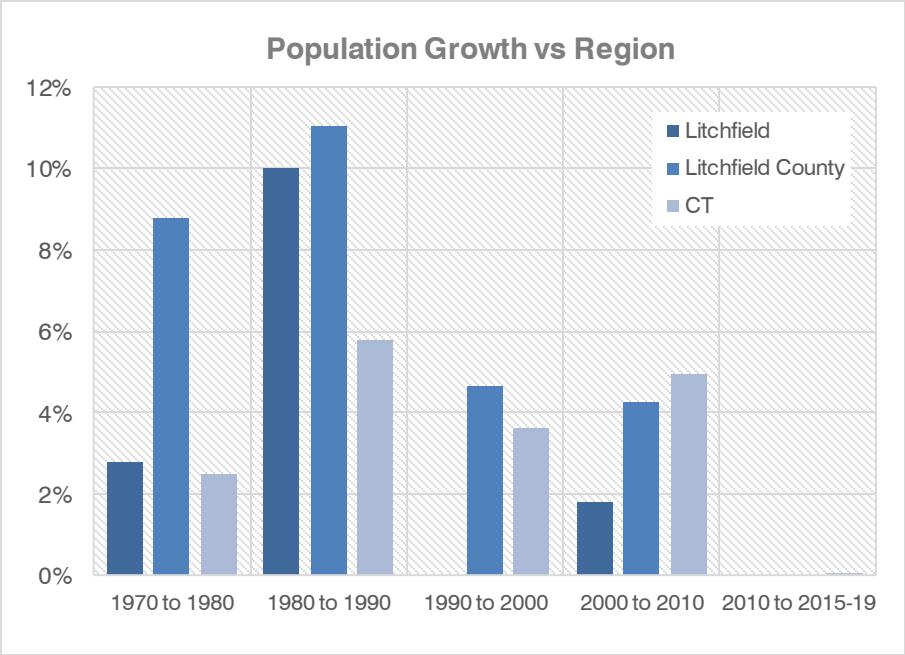
Litchfield Road Safety Audit – Litchfield Fact Sheet

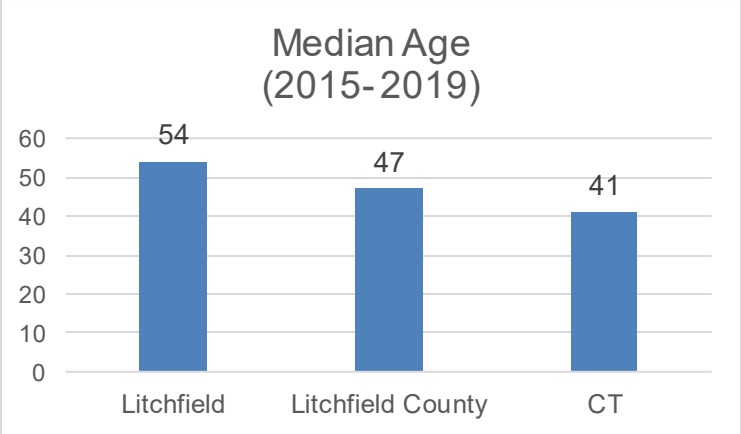
Demographic Highlights[1]:

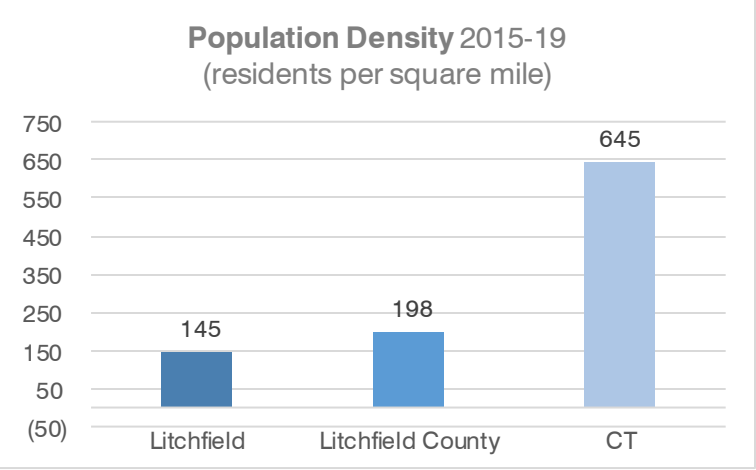
- Total population in Litchfield is 8,417.
- Litchfield has fallen behind Litchfield County and the State in population growth between 1970 and 2000. Both Litchfield and Litchfield County have declined in population since 2010.
- There are approximately 145 residents per square mile in Litchfield, making it less dense than both the County and State.
- The median age in Litchfield is 54, which is seven years older than that of Litchfield County, and about 13 years older than the State's median age.
- Litchfield's non-white population makes up just under 5% of the total population, this is less than Litchfield County's non-white population (8%) and well under the State's non-white population (31.7%).
- The poverty rate in Litchfield is 6.6%, which is below Litchfield County's 6.9% and the State's 9.9%

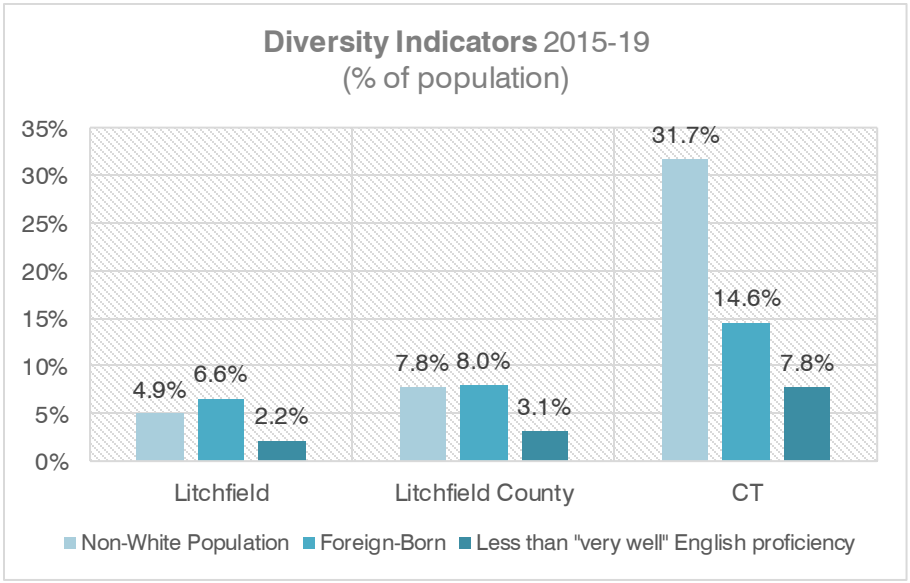


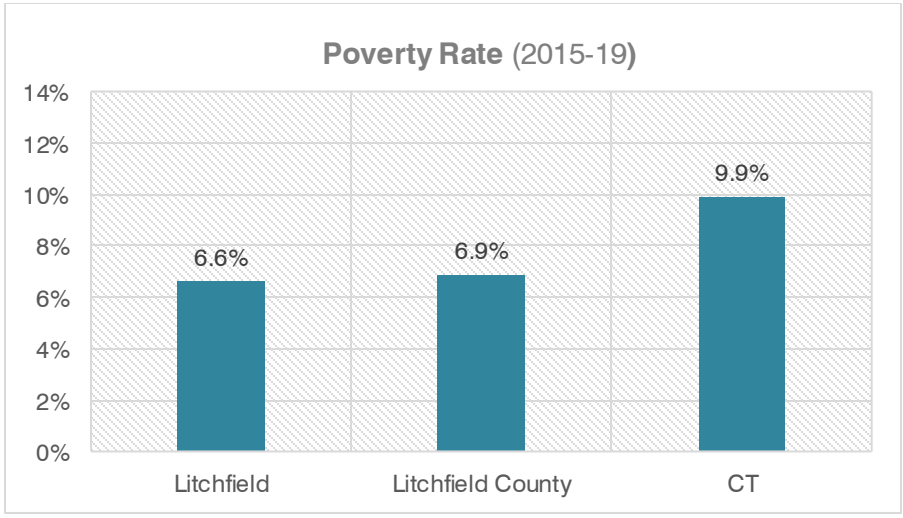
[1] 2015-2019 American Community Survey, 5-year estimate table DP05, Accessed on 3/5/2021 at https://data.census.gov/cedsci/


Population Growth vs Region
12%
10%
8%
6%
4%
2%
0%
Litchfield
Litchfield County
CT
1970 to 1980
1980 to 1990
1990 to 2000
2000 to 2010
2010 to 2015-19


Median Age
(2015-2019)
60
50
40
30
20
10
0
54
47
41
Litchfield
Litchfield County
CT

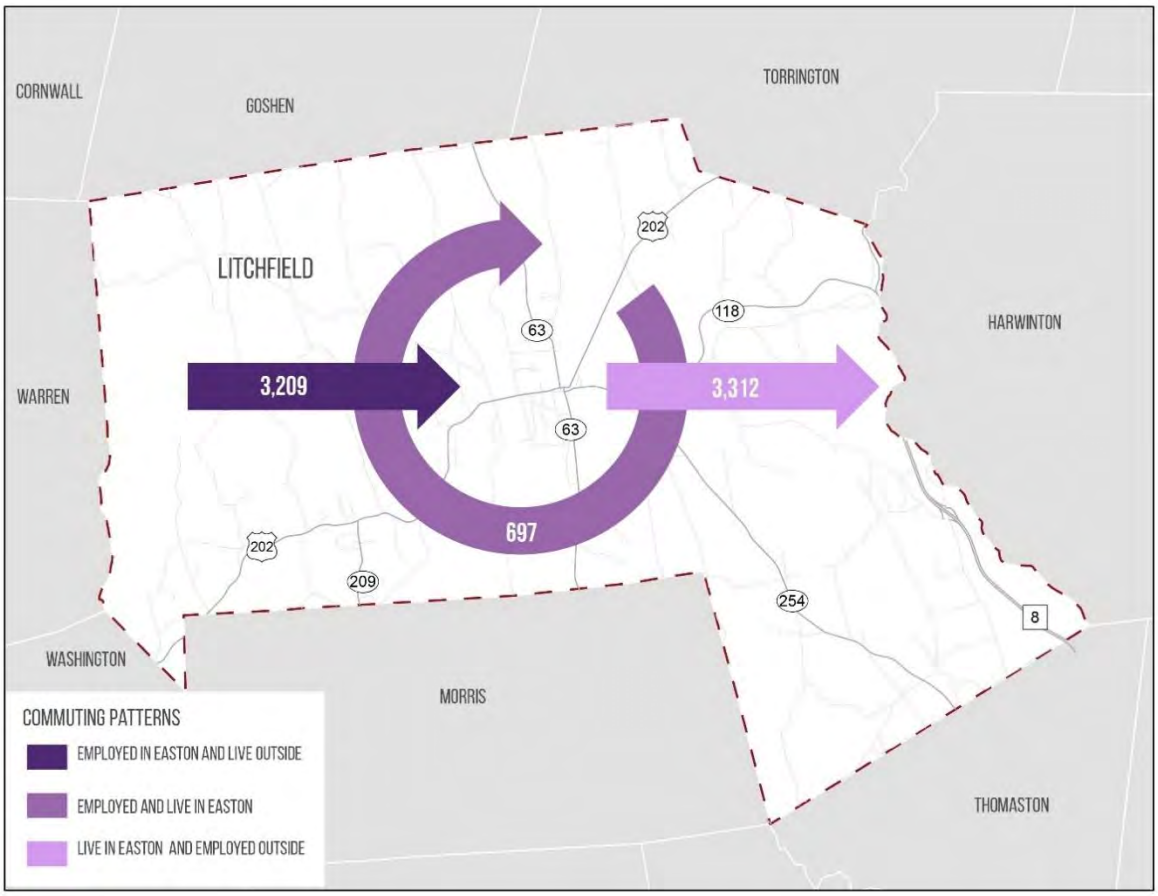

Population Density 2015-19
(residents per square mile)
750
650
550
450
350
250
150
50
(50)
145
198
645
Litchfield
Litchfield County
CT


Diversity Indicators 2015-19
(% of population)
35%
30%
25%
20%
15%
10%
5%
0%
4.9%
6.6%
2.2%
7.8%
8.0%
3.1%
31.7%
14.6%
7.8%
Litchfield
Litchfield County
CT
Non-White Population
Foreign-Born
Less than "very well" English proficiency


Poverty Rate (2015-19)
14%
12%
10%
8%
6%
4%
2%
0%
6.6%
6.9%
9.9%
Litchfield
Litchfield County
CT

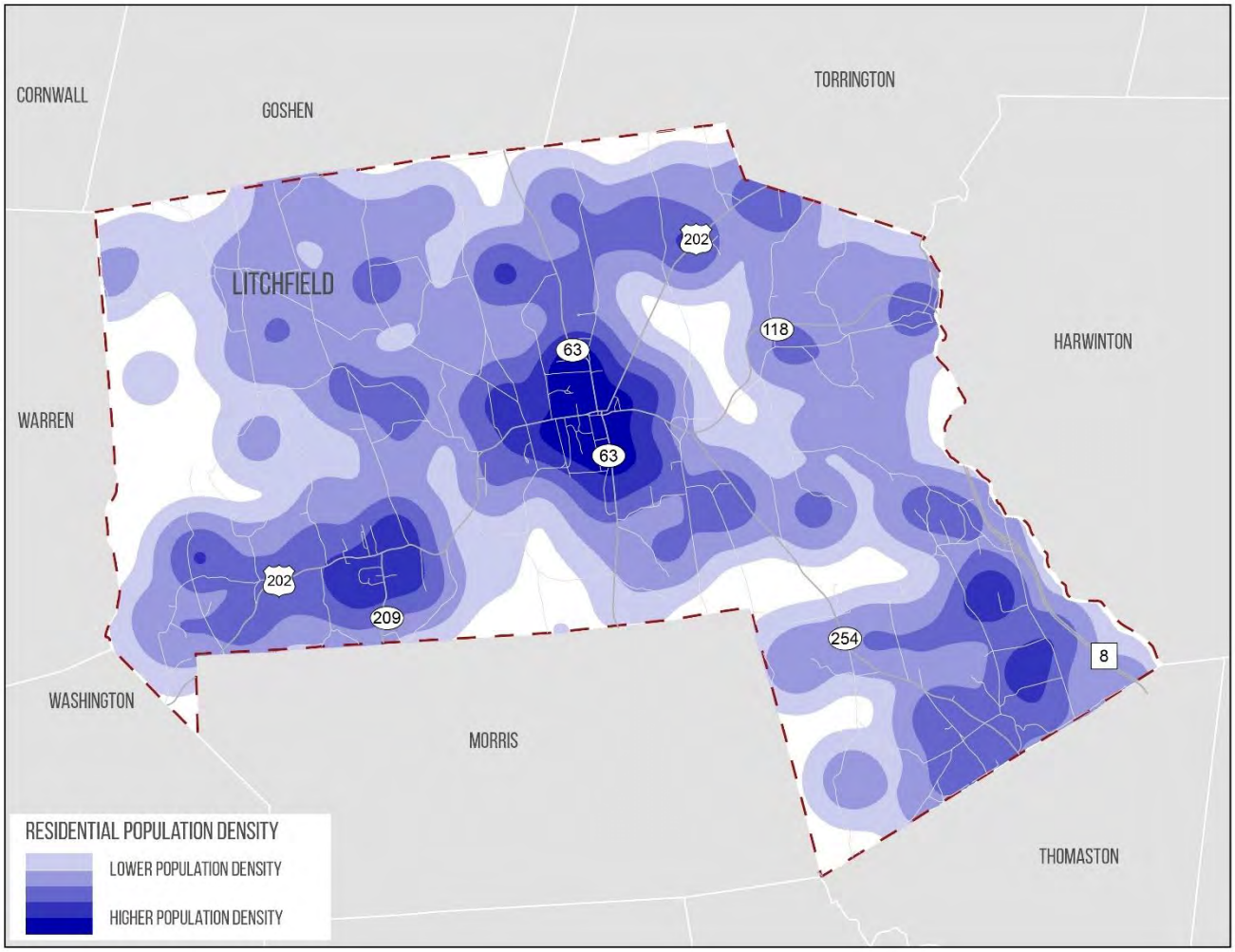
Employment Highlights[2]:

- There were approximately 3,209 workers commuting into Litchfield for employment in 2018. Approximately 697 residents of Litchfield are also employed in Litchfield and 3,312 Litchfield residents commuted out of town for employment. (2018)
- The top five employment destinations for Litchfield's residents include:
  - Torrington
  - Waterbury
  - Hartford
  - Bantam
  - Litchfield
- The Study Area and surrounding neighborhoods has the highest residential population density in Litchfield. This area also has the highest concentration of jobs in Litchfield.



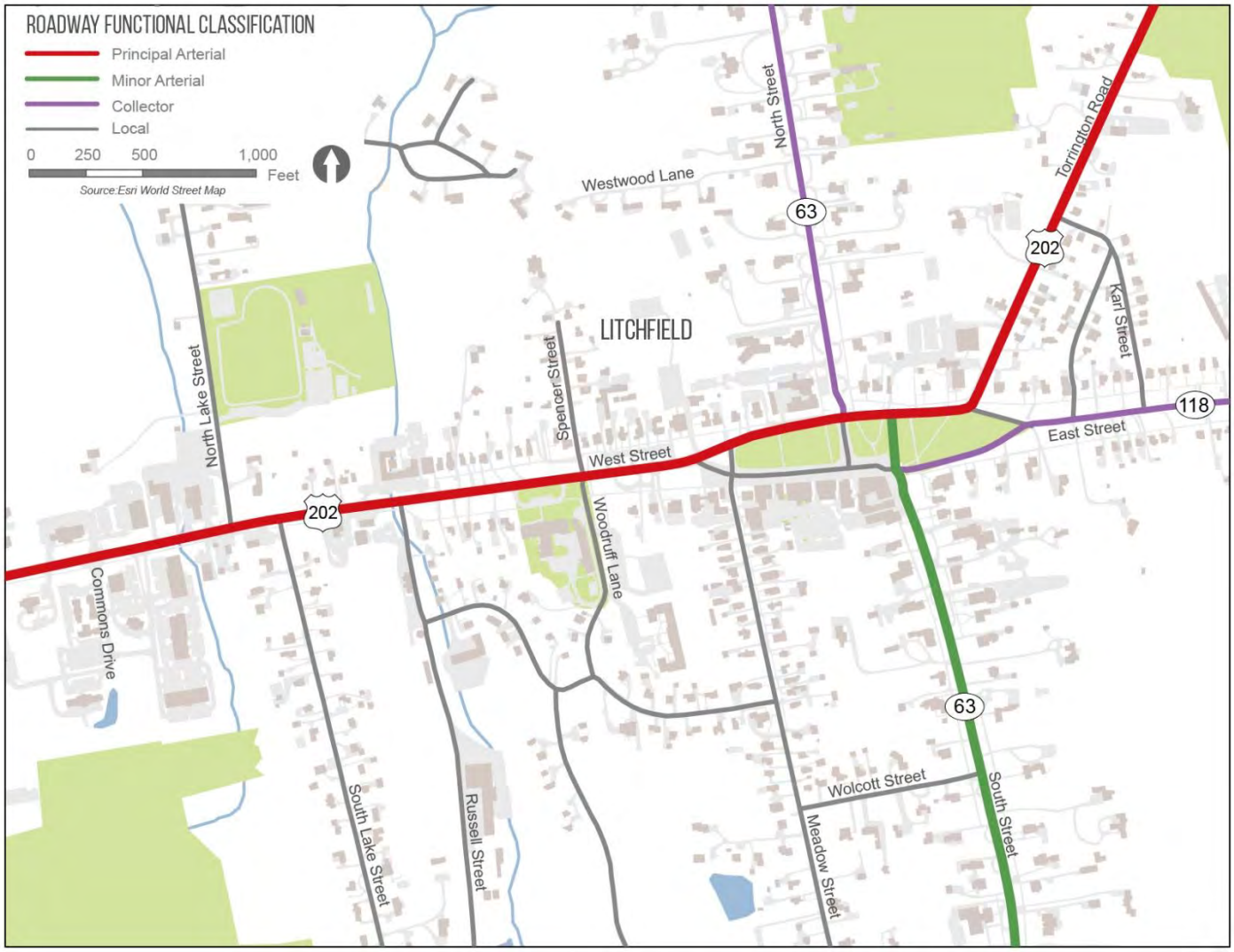
[2] U.S. Census Bureau. (2021). LEHD Origin-Destination Employment Statistics (2002-2018) All Jobs. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on June 9th,2021 at https://onthemap.ces.census.gov. LODES 7.5

Residential Population Density



Litchfield Road Safety Audit – Location Highlights

- Roadway functional classifications in the Study Area are as follows:
  - Route 202 (West Street and Torrington Road) – Principal Arterial
  - Route 63 (South Street) – Minor Arterial
  - Route 63 (North Street) – Collector
  - Route 118 (East Street) - Collector
- Traffic volumes in the Study Area vary between 4,000 vehicles per day on East Street (RT 118 south of the Green) to14,800 vehicles per day on East Street (Route 202, between Torrington Road and South Street).



Town of Litchfield

Traffic Safety Community Action Group

Walk Audit April-May 2021

The Town's Traffic Safety Community Action Group has undertaken a comprehensive review of safety-related issues at the important crosswalks in and around the Green. We have identified the most problematic crosswalks in the center of Litchfield.

CONCLUSIONS

The onus is on the pedestrian in Litchfield to cross the street at a marked crosswalk only when it is safe and there is no oncoming traffic as **cars will be speeding and they generally will not stop at crosswalks**.

-Our crosswalks are not pedestrian-friendly

-Drivers are speeding and not yielding to pedestrians in crosswalks

-Auditors have suggested improved signage

-Public education about the law is warranted

-Enforcement of existing speed and traffic laws is warranted

Problematic Crosswalks

1. **Woodruff Lane & Route 202 (N-S near Center School)**
   -location of major accident Fall 2020
   -almost always high volume of traffic in this location
   -three lanes of traffic, 2 lanes merging at the location of the crosswalk
   -drivers are speeding
   -drivers do not yield to pedestrians

2. **Route 202 & Meadow Street (N-S near Town Hall)**
   -confusing traffic patterns and flow at this location
   -high volume of traffic
   -cars use this junction as a cut-through and do not stop at stop sign
   -drivers are speeding
   -drivers do not yield to pedestrians
   -drivers' sightlines are limited
   -crosswalk is very long and leaves pedestrians vulnerable for too long a stretch

3. **Intersection of Route 202 and Route 63 North (3 crosswalks included)**
   -current improvements underway will help but not solve the problems here
   -heavy traffic volume
   -heavy pedestrian traffic volume
   -drivers do not yield to pedestrians
   -drivers are speeding, particularly heading south on Route 63/North Street to make the light
   -drivers turn right on red across the crosswalk from 63 North onto Route 202 despite No Turn on Red signs
   -audio crossing signals are suggested as are increased or improved signage

4. **Route 202 & Route 118 (E-W; Adj to Congregational Church)**
   -heavy vehicle traffic in this location (low pedestrian traffic)
   -three directions of traffic converge at this crosswalk location
   -impossible for pedestrians to cross safely here
   -drivers are speeding
   -drivers do not yield to pedestrians

5. **Route 63 South & Route 118 (E-W Adj. to Historical Society)**
   -busy intersection with constant car traffic
   -cars do not stop at stop signs (especially turning right from West Street to South Street/63)
   -pedestrians are crossing outside of marked crosswalks to get to Post Office
   -drivers are speeding
   -drivers do not yield to pedestrians

6. **West Street & Route 63 South (N-S in front of @ The Corner)**
   -crosswalk is long and angled
   -drivers are speeding
   -drivers do not yield to pedestrians
   -cars do not stop at stop signs (especially turning right from West Street to South Street/63)
   -pedestrians are crossing outside of marked crosswalks

7. **Route 63 Near Post Office (E-W; Adj Post Office)**
   -high volume of vehicular and pedestrian traffic
   -drivers are speeding (drivers speed up through this crosswalk heading south out of town)
   -drivers do not yield to pedestrians
   -drivers regularly make u-turns here at the crosswalk
   -pedestrians cross outside of the marked crosswalk due to parking spaces and access to the Post Office

8. **Route 63 South & Wolcott Street (E-W at foot of Wolcott Street)**
   -car traffic is heavy
   -drivers are speeding
   -drivers do not yield to pedestrians in crosswalk and seem not to know the law of crosswalks
   -drivers pass turning vehicles in the outside/parking lane across the crosswalk
   -drivers seem unaware of crosswalk and can't stop due to their speed when they notice it
   -crosswalk falls beside intersection
   -drivers do not stop at stop sign
   -suggestions for better signage
   -suggestions for an additional crosswalk across Wolcott Street as most pedestrian traffic crosses that way

9. **Route 63 North near Union Bank (E-W, 1st crosswalk north of Union Bank)**
   -drivers are speeding (especially heading south to make the light at the 63/202 intersection
   -drivers do not yield to pedestrians
   -crosswalk is poorly marked and not visible enough
   -young families cross here and it is dangerous
   -suggestions for better signage