



COMMUNITY
connectivity program

Glastonbury

House Street to Welles Street – Road Safety Audit



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Acknowledgements:

OFFICE OF INTERMODAL PLANNING
BUREAU OF POLICY AND PLANNING
CONNECTICUT DEPARTMENT OF TRANSPORTATION

With assistance from AECOM Transportation Planning Group

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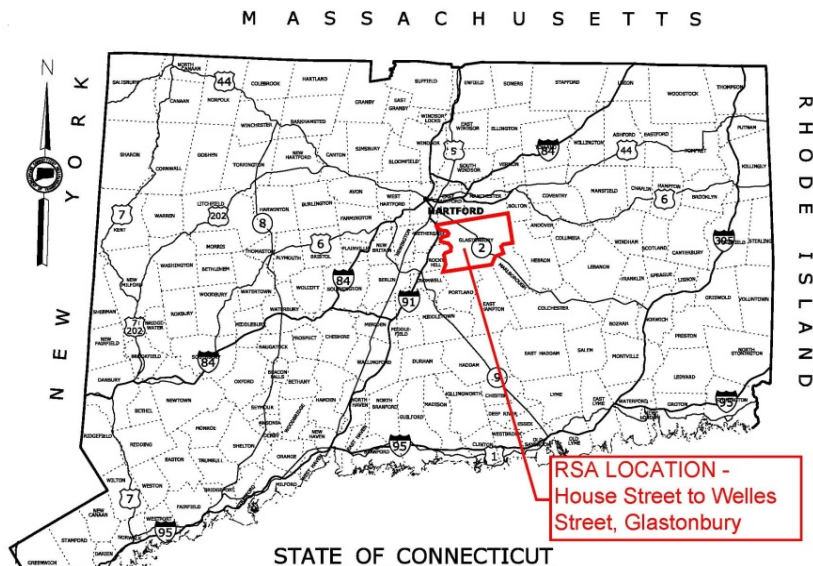
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The Connecticut Department of Transportation (CTDOT) is undertaking a Community Connectivity Program that focuses on improving the state's transportation network for all users, with an emphasis on bicyclists and pedestrians. A major component of this program is conducting Road Safety Audits (RSA's) at selected locations. An RSA is a formal safety assessment of the existing conditions of walking and biking routes and is intended to identify the issues that may discourage or prevent walking and bicycling. 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 or severity.

The RSA team is made up of CTDOT staff, municipal officials and staff, enforcement agents, AECOM staff, and community leaders. An 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, presence or absence of bicycle lanes or sidewalks, and social influences.

Each RSA was conducted using RSA protocols published by the FHWA. For details on this program, please refer to www.ctconnectivity.com. Prior to the site visit, area topography and land use characteristics are examined using available mapping and imagery. Potential sight distance issues, sidewalk locations, on-street and off-street parking, and bicycle facilities are also investigated using available resources. 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 is discussed in the following sections.



1 Introduction to House Street to Welles Street, Glastonbury RSA

The Town of Glastonbury submitted an application to complete an RSA along Welles Street to improve safety for pedestrians and bicyclists travelling along the corridor between the future multi-use trail at House Street and Welles Street. This corridor experiences high traffic volumes and speeds as it includes variety of retail businesses including grocery stores, banks and restaurants. This has resulted in concerns for pedestrians and cyclists through this area.

The Town of Glastonbury's application contained information on traffic volumes and mapping of the corridor. The application and supporting documentation are included in Appendix A.

1.1 Location

The RSA site is the section of Welles Street between the Community Center and the future multi-use trail at House Street (Figure 1). The Average Daily Traffic (ADT) on Welles Street in the study area is between 2,735 and 6,407 vehicles per day (vpd). Welles Street consists of a single lane in each direction, separated by a double yellow center line and no striped shoulders. There is sidewalk on at least one side of the road throughout the corridor.

All intersections throughout the study area are controlled by side-street stop signs, with the exception of the Main Street intersection, which is controlled by a traffic signal.

This section of roadway contains a significant number of driveways, adding complexity to walking and bicycling maneuvers through the area (Figure 2).

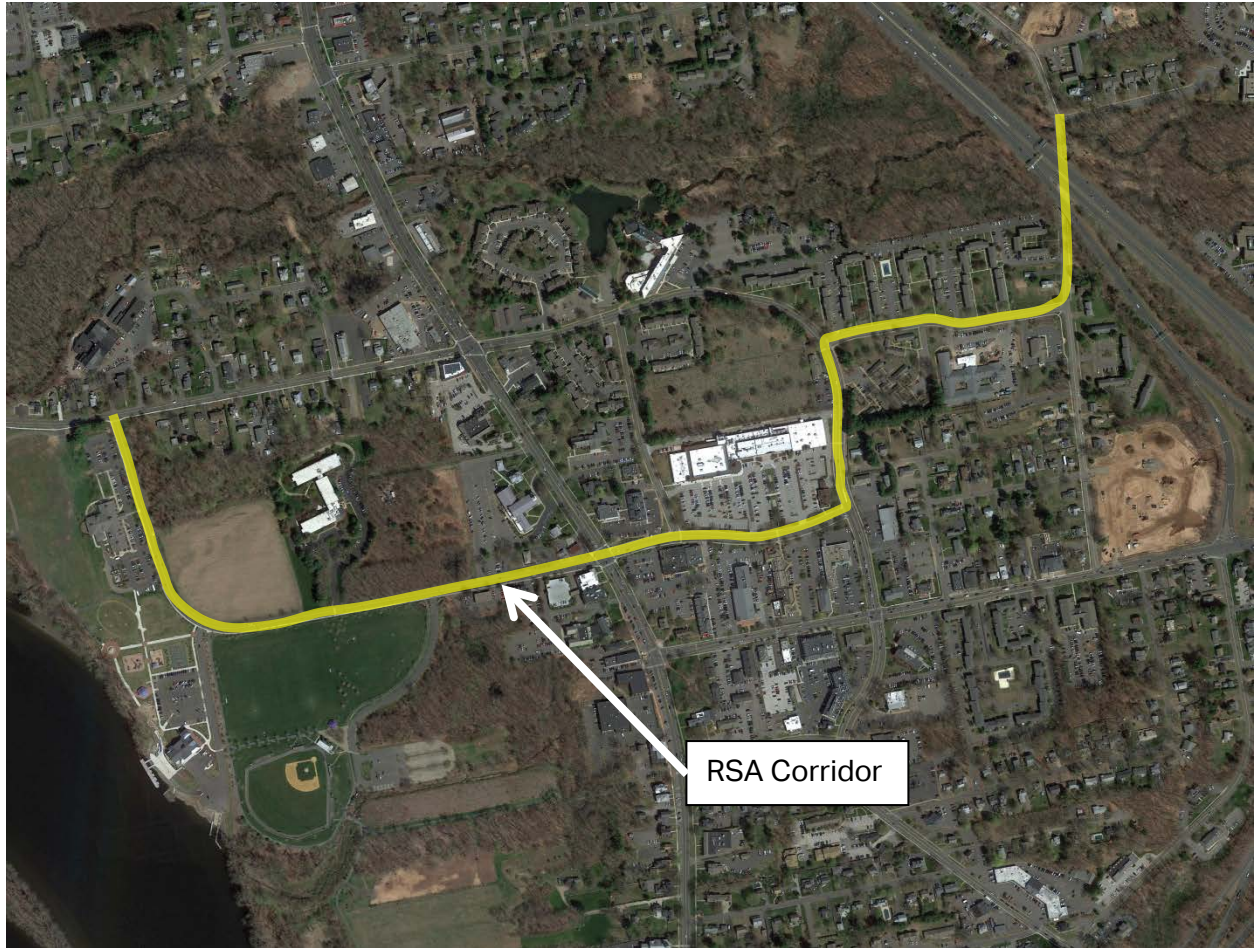


Figure 1. House Street to Welles Street, Glastonbury

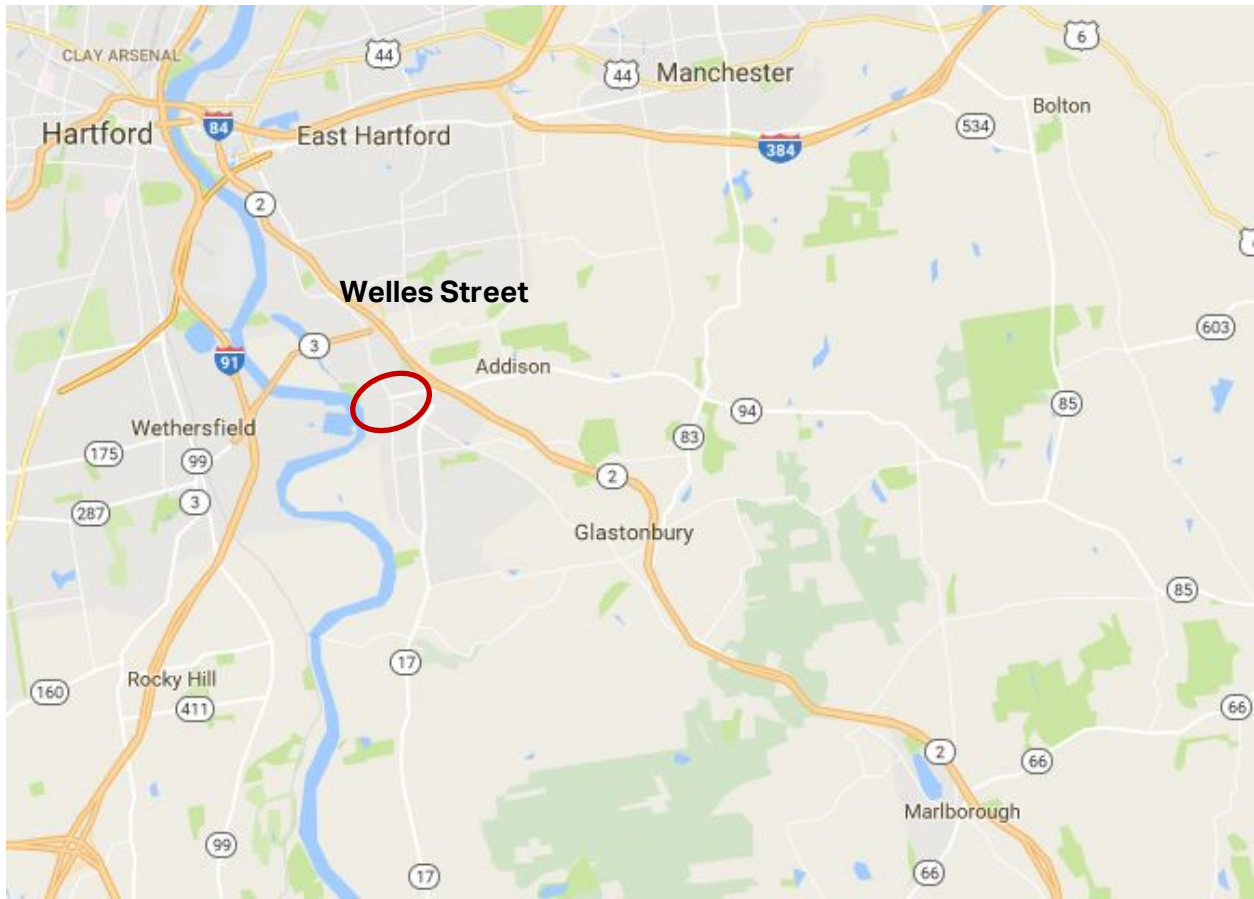


Figure 2. Study Area – Regional Context

2 Pre-audit Assessment

2.1 Pre-audit Information

As noted above, traffic volumes are moderate along this corridor. With projects such as the new multi-use trail and its future extension to House Street, it is anticipated that the pedestrian activity in this corridor will increase.

The crash history in this area is relatively low, and there were no crashes involving pedestrians or bicyclists between 2012 and 2014 (Table 1 and Table 2). Most crashes were rear end crashes or turning intersection paths and caused only property damage. The tables below summarize data between 2012 and 2014. Figure 3 displays crashes that occurred in this area during 2015.

Severity Type	Number of Accidents	
Property Damage Only	48	87%
Injury (No fatality)	7	13%
Fatality	0	0%
Total	55	

Table 1. Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

Manner of Crash / Collision Impact	Number of Accidents	
Unknown	0	0%
Sideswipe-Same Direction	1	2%
Rear-end	24	44%
Turning-Intersecting Paths	21	38%
Turning-Opposite Direction	4	7%
Fixed Object	1	2%
Backing	1	2%
Angle	2	4%
Turning-Same Direction	1	2%
Moving Object	0	0%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	0	0%
Miscellaneous- Non Collision	0	0%
Total	55	

Table 2. Crash Type 2012-2014

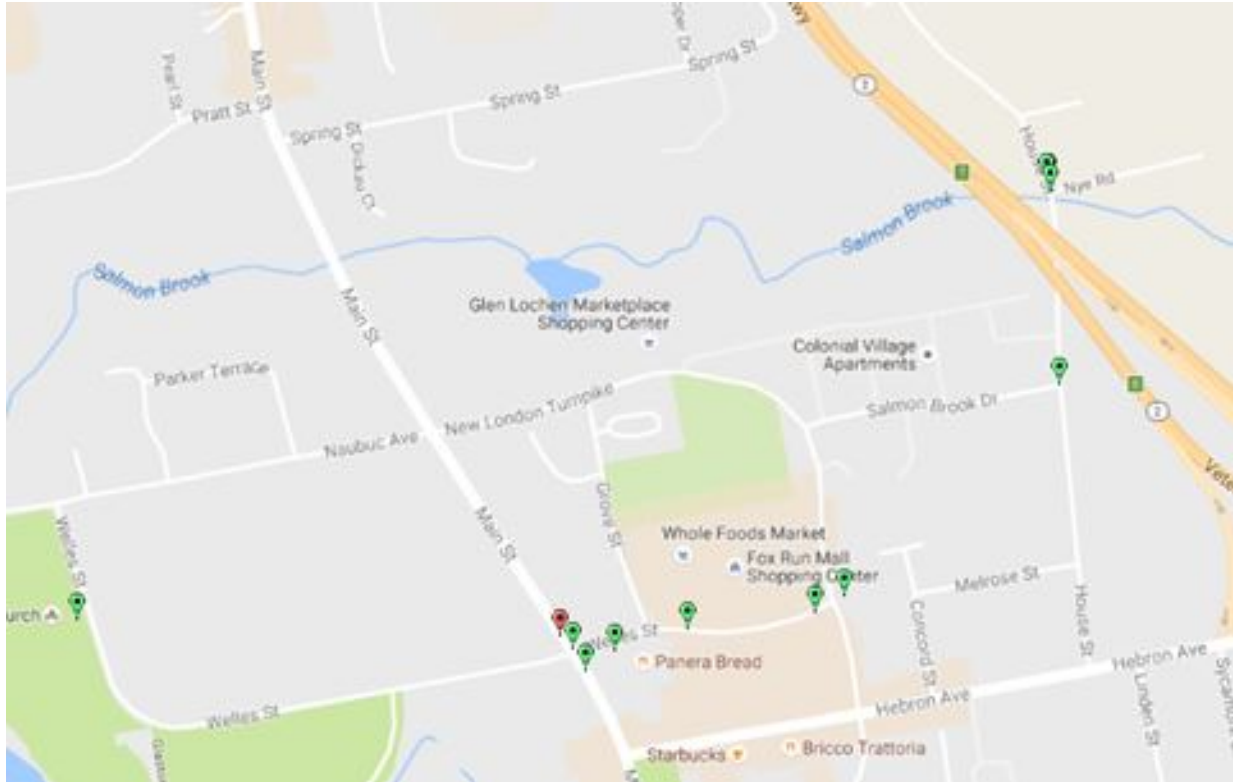


Figure 3. Crashes that Occurred in 2015 (Connecticut Crash Data Repository)

To improve connectivity, the town of Glastonbury completed construction of an off road paved multi-use trail between Smith Middle School and Bell Street. Subsequently, the Town has secured funding to continue this off road trail to House Street and the design work on this second phase is now in progress. This multi-use trail will allow cyclists and pedestrians to safely navigate the Town's primary east west corridor.

Welles Street is a busy street with access to two recreational park facilities, the Town's Riverfront Community Center and a variety of businesses. Currently the multi-use trail does not connect with Welles Street. Any enhancements on Welles Street to House Street will improve safety for bicycle and pedestrian access (Figure 4 and Table 3).



Figure 4. Main Street Road Geometrics

Glastonbury - House Street to Welles Street Street Inventory

Roadway Intersection		Roadway width	Sidewalk					Curb	Parking	Shoulder	Ramps	
			Side	Type	Grass Shelf	Sidewalk Width	Condition				Exist	Compliant
New London Turnpike	Main Street	16'	South	Concrete	4'	5'	Good	Asphalt	No	Unstriped	None	None
		16'	North	None	None	None	None	Asphalt	No	Unstriped	None	None
Main Street	Grove Street	16'	South	Concrete	5'	5'	Good	Asphalt	No	Unstriped	Yes	Yes
		16'	North	Concrete	5'	5'	Good	Asphalt	No	Unstriped	Yes	Yes
Grove Street	Whole Foods	12'	East	Concrete	5'	5'	Good	Asphalt	No	Unstriped	Yes	Yes
		12'	West	Concrete	5'	5'	Good	Asphalt	No	Unstriped	None	None
Whole Foods	New London	14'	North	Asphalt	5'	5'	Good	Asphalt	No	8'	Yes	No
	Turnpike	15'	South	None	10'	5'	Good	Asphalt	No	8'	None	None
New London Turnpike	Salmon Brook	12'	East	Concrete	7'	5'	Good	Asphalt	No	6'	Yes	No
	Drive	12'	West	Concrete	7'	5'	Good	Asphalt	No	6'	Yes	No
Salmon Brook Drive	House Street	14.5'	North	Concrete	5'	5'	Good	Asphalt	No	Unstriped	Yes	No
		14.5'	South	Concrete	5'	5'	Good	Asphalt	No	Unstriped	Yes	Yes

***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.**

Table 3. Street Inventory

2.2 Prior Successful Effort

The "Center" of Glastonbury, which includes Welles Street, generally has sidewalks located on one side or both sides of the streets. Sidewalks are mostly ADA compliant and sidewalk condition is good. Parking areas are well defined, crosswalks are well marked and signage is appropriate.

2.3 Pre-Audit Meeting

The RSA was conducted on August 11, 2016. The Pre-Audit meeting was held at 8:30 AM in the Town Hall located at 2155 Main Street in Glastonbury.

The RSA Team was comprised of staff from AECOM, staff from CTDOT, representatives from several Glastonbury departments including Bike Walk Glastonbury, Town of Glastonbury, Glastonbury Health, Glastonbury Public Works, and Glastonbury Police. The complete list of attendees can be found in Appendix B.

Several items were presented for general information prior to conducting the Audit in the field:

- CTDOT has placed new emphasis on all users of the highway facilities, not just automobiles.
- The corridor has daily traffic volumes between 5000 and 6000 vpd.
- There is high pedestrian activity in this corridor and it will likely increase with the new multi-use trail and its future extension to House Street.
- Bicycle traffic has significantly increased in the last few years.
- The Community center, two Riverfront Parks and several retail shops in the corridor add to the pedestrian and bike traffic.
- Sidewalk funding is available to possibly add sidewalk on Welles Street on the north side.
- Possibility of a bike path parallel to Hebron Avenue is under discussion.
- The future multi-use trail is in design. Right of way has been secured and it is scheduled to be completed in 2017.
- Grove street intersection at Welles Street can be a possible connection to the multi-use trail.
- Roundabouts at the intersections of Hebron Avenue/New London Turnpike and Hebron Avenue/House Street are under design.
- An apartment complex is under construction in the proximity of House Street and Hebron Avenue intersection. The developers plan to provide rental bikes to the residents. This will increase bike riders in the area.
- Cyclists must go with the flow of traffic, unless it is a separate multi-use path.
- Sharrows and additional signage may be possible solutions.

3 RSA Assessment

3.1 Field Audit Observations

The team started the audit at the Community Center on Welles Street and ended at the Salmon Brook Bridge on House Street. The following items were noted:

- The roadway pavement is deteriorating in some areas, such as Naubuc Avenue and Welles Street (Figure 5).
- The pavement markings are deteriorating in some areas, such as Grove Street and Welles Street (Figure 6).
- Lanes appear to be 12' or more in width, and shoulders are mostly unstriped.
- The crosswalk at Naubuc Green apartments is directed into the driveway, there is no refuge area for pedestrians (Figure 7).
- Detectable Warning Strips are missing at some locations, such as Salmon Brook Drive and New London Turnpike (Figure 8).
- A cyclist was observed on House Street (Figure 9).
- The roadway width on Welles Street at Naubuc Avenue is 32 feet. This could be striped as 12 foot wide lanes and 4' bike lanes. The State's minimum bike lane requirement is 5'.
- Moving the trail off the road may be a safer solution.
- New London Turnpike has been recently repaved.
- The grass buffer strips in the corridor are 4' – 10' wide.



Figure 5: Deteriorating Pavement



Figure 6: Deteriorating Pavement Markings



Figure 7: No Refuge Area



Figure 8: No Detectable Warning Strips

- The traffic signal at Welles Street and Main Street utilizes an exclusive pedestrian phase and countdown pedestrian signals.
- Lane widths are tighter through the Main Street intersection.
- Queues are sometimes long in the east/west direction.
- There is a utility box at Grove Street intersection; underground utilities in this area can affect possible solutions.
- There is a catch basin in the driveway on Salmon Brook Drive (Figure 10).
- There are numerous driveways in the corridor. Some are excessively large.
- Possibility of running the trail through the parking lot at Whole Foods.
- Existing light fixtures are 2'-3' from the curb which could potentially add extra work.
- Any change in lane arrangements will require modification to the traffic signal.



Figure 9: Bicyclist on Unstriped Road



Figure 10: Catch Basin in the Driveway

3.2 Post Audit Workshop - Key Issues

- All crossings and sidewalks must meet DOT requirements and be ADA compliant.
- Right of way will be required to widen the sidewalks to a minimum of 10' to meet the criteria for multi-use trail.
- Multi-use Trail seems to be safest, but needs to be located outside of roadway. In some places, this may be feasible, such as Park, Whole Foods and Senior Center.
- Could Whole Foods parking be pushed back from the road?
- The grass shelf is as much as ten feet wide. Can it be narrowed to provide more useable space for the bike facility?
- Generally, homeowners clear sidewalks in front of their house. Town handles park and other town facilities. It may be difficult to maintain trails during winter months.
- Whole Foods driveway needs to be modified.
- Can sidewalk be placed on one side only?

4 Recommendations

From the discussions during the Post-Audit meeting, the RSA team compiled a set of recommendations that are divided into short-term, mid-term, and long-term categories. For the purposes of the RSA, **Short-term** is understood to mean modifications that can be expected to be completed very quickly, perhaps within six months and certainly in less than a year if funding is available. These include relatively low-cost alternatives, such as striping and signing, and items that do not require additional study, design, or investigation (such as right-of-way acquisition). **Mid-term** recommendations may be more costly and require establishment of a funding source, or they may need some additional study or design in order to be accomplished. Nonetheless, they are relatively quick turn-around items, and should not require significant lengths of time before they can be implemented. Generally, they should be completed within a window of eighteen months to two years if funding is available. **Long-term** improvements are those that require substantial study and engineering, and may require significant funding mechanisms and/or right-of-way acquisition. These projects generally fall into a horizon of two or more years when funding is available.

4.1 Short Term

1. Shoulders can be striped on Welles Street to maximize shoulder width. For the portion of Welles Street west of Main Street, the 32 foot roadway width can either be striped as sharrows, or 5 foot wide bike lanes can be striped next to 11 foot wide travel lanes. Where there is insufficient width to provide a striped bicycle lane, sharrow striping can be incorporated. Appropriate signing can be installed to support the bicycle facilities (Figure 11, Figure 12 and Figure 13).
2. Shoulders on New London Turnpike can be striped as bike lanes, or sharrow markings can be added to the through traffic lane. Appropriate signing can be installed to support the bicycle facilities (Figure 11, Figure 12 and Figure 13).
3. Salmon Brook Drive is not wide enough to provide separate bicycle lanes. Because of the relatively low traffic volume on this street, sharrows, with appropriate signing and pavement markings, should be considered (Figure 11 and Figure 12).



Figure 11: Sharrow Markings

4. The crosswalk at Naubuc Green apartments should be re-oriented to provide a refuge area out of the driveway.

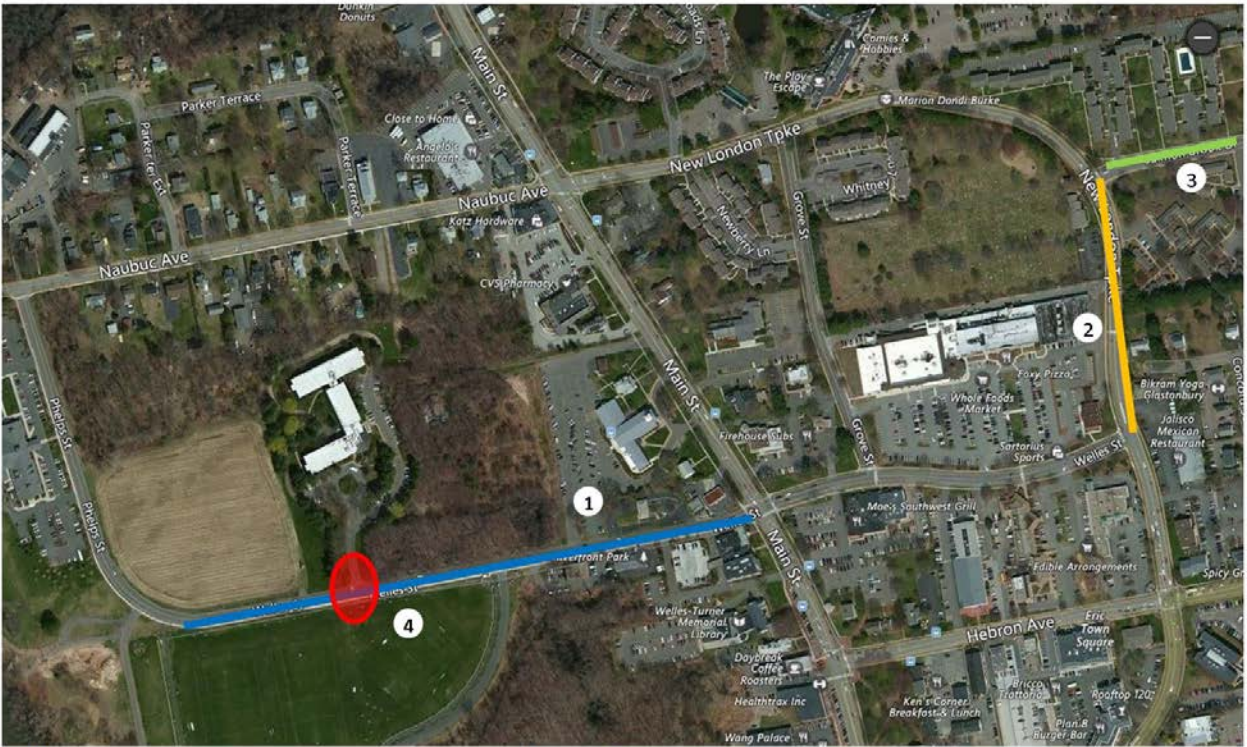


Figure 12: Share the Road Signage



Figure 13: Bike Lane

Figure 14 depicts these recommendations.



- 1. Roadway width can either be striped as sharrows, or five (5') foot wide bike lanes on Welles Street
- 2. Roadway width can either be striped as sharrows, or as bike lanes on New London Turnpike

- 3. Sharrows, with appropriate signing and pavement markings on Salmon Brook Drive
- 4. Crosswalk at Naubuc Green apartments should be re-oriented to provide a refuge area out of the driveway

Figure 14. Short Term Recommendations

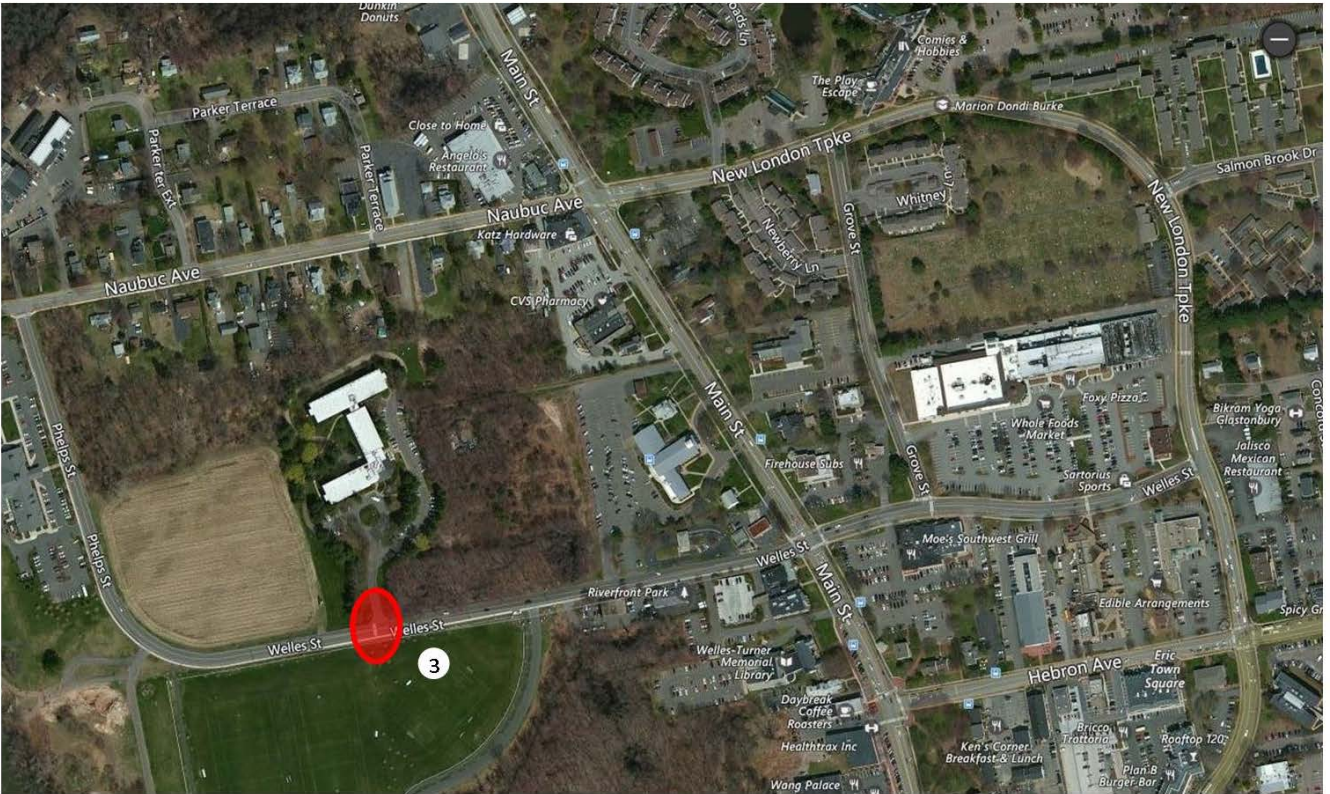
4.2 Medium Term

- 1. Detectable warning strips can be added to sidewalk ramps that are not presently ADA compliant. All ramps should be checked for compliance and upgraded, as necessary (Figure 15).
- 2. The catch basin on Salmon Brook Drive can be moved out of the driveway.
- 3. The crosswalk at Naubuc Green apartments can be extended into the apartment complex via a new sidewalk or painted protected area on the west side of the driveway.



Figure 15: Pedestrian Detectable Warning Strips

Figure 16 depicts these recommendations.



3. Crosswalk at Naubuc Green apartments can be extended into the apartment complex via a new sidewalk or painted protected area on the west side of the

Figure 16. Medium Term Recommendations

4.3 Long Term

The long term goal is to provide a continuous path for pedestrians and bicyclists along the RSA route on or adjacent to Welles Street, New London Turnpike, Salmon Brook Drive and House Street. The following alternatives can be explored as part of a more detailed study for defining methods of achieving this path:

1. The existing path through the Riverfront Community Center can be signed as the bicycle route from Naubuc Avenue, around the rear of the Center to Riverfront Park, turning easterly to the south side of Welles Street. Pedestrians can use the existing sidewalk on the west side of Welles Street from Naubuc Avenue to join the path at Riverfront Park (Figure 17).
2. A multi-use trail can be constructed along the edge of Riverfront Park on the south side of Welles Street.

3. The section of Welles Street between Riverside Park and Main Street is only 30 feet wide, and will not support in-street bicycle lanes without widening. There is an existing pedestrian sidewalk along the south side of the street, but insufficient width to provide a bicycle path. A bicycle path can be installed on the north side of Welles Road.
4. A crossing for the bicycle traffic will be required. It can be installed at the existing crossing for the Naubuc Hills Apartments. Appropriate signing or Rectangular Rapid Flash Beacon (RRFB) should be utilized at this location (Figure 18).
5. One business on the south side of Welles Street has perpendicular parking that backs across the sidewalk into Welles Street. Arrangements with the landowner should be made to eliminate this parking.
6. East of Main Street, the sidewalk can be reconstructed to provide for a narrower grass strip along with a bicycle path. This can be accomplished on the north or south side of the street. The detailed study should examine specific right-of-way boundaries, utilities, drainage, and other factors to determine the optimal location of the roadway pavement, pedestrian sidewalks and bicycle path.
7. Install sidewalk on north side of Welles Street between Naubac Avenue and Main Street.
8. Crossing Main Street, it will be necessary to redesign the lane configuration to add bike lanes; this will require updating the traffic signal and possibly acquiring right of way.
9. As an alternative to placing the bicycle trail on Welles Street, it is possible to locate it in a portion of the Whole Foods parking lot, or behind the building. The detailed study should investigate the potential for placing the trail out of the Welles Street right-of-way.
10. House Street is fairly narrow, and additional study should be considered to determine the appropriate means to accommodate bicycle and pedestrian traffic within the horizontal constraint of the Route 2 overpass. It appears that a sidewalk and multi-use trail can be accommodated between the bridge abutments, although some roadway, drainage, and guiderail reconstruction will be necessary.



Figure 17: Bike Route Signage



Figure 18: RRFB

Figure 19 depicts these recommendations.



Figure 19. Long Term Recommendations

4.4 Summary

This report documents the observations, discussions and recommendations developed during the successful completion of the Town of Glastonbury RSA. It provides Glastonbury with an outlined strategy to improve the transportation network for all road users in the corridor, particularly focusing on pedestrians and cyclists. Moving forward, Glastonbury may use this report to prepare strategies for funding and implementing the improvements, and as a tool to plan for including these recommendations into future development along Welles Street.



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Appendix A



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Welcome to the Community Connectivity Program Application



Please fill in the following information to provide the Audit team leaders with a comprehensive description of the area contained in this application.

1. Applicant contact information

Name	<input type="text"/>
Title	<input type="text"/>
Email Address	<input type="text"/>
Telephone Number	<input type="text"/>

2. Location information

Address	<input type="text"/>
Description	<input type="text"/>
City / Town	<input type="text"/>

3. Roadway type
(Please select all that apply)

State road

Local road

Private Road

Other (please specify)

4. Zoning
(Please select all that apply)

Industrial

Residential

Commercial

Mixed Use

Retail

N/A (not applicable)

Other (please specify)

5. Approximate mile radius around the location

Other (Please Specify)

6. Community Sites
(Please select all that apply)

Community Centers

Business Districts

Restaurant/Bar Districts

Churches

Housing Complexes

Proximity to Schools

Tourist Locations (examples – Casino, Malls, Parks, Aquarium, etc...)

N/A (not applicable)

Other (please specify)

7. Employment Facilities
(Retail, Industrial, etc...)

Yes

No

If Yes please describe (please specify)

8. Educational facilities

(Please select all that apply)

Public, Parochial, Private Schools (more than 1 school within a ½ mile)

University / Community Colleges

N/A (not applicable)

Other (please specify)

9. Transit facilities

(Please select all that apply)

Bus

Rail

Ferry

Airport

Park and Ride Lot

N/A (not applicable)

Other (please specify)

10. Safety Concerns
(Please select all that apply)

Traffic (volumes & speed)

Collisions

Sidewalks

Traffic Signals

Traffic Signs

Parking Restrictions / Additions

Drainage

ADA Accommodations

Agricultural & Live Stock crossing

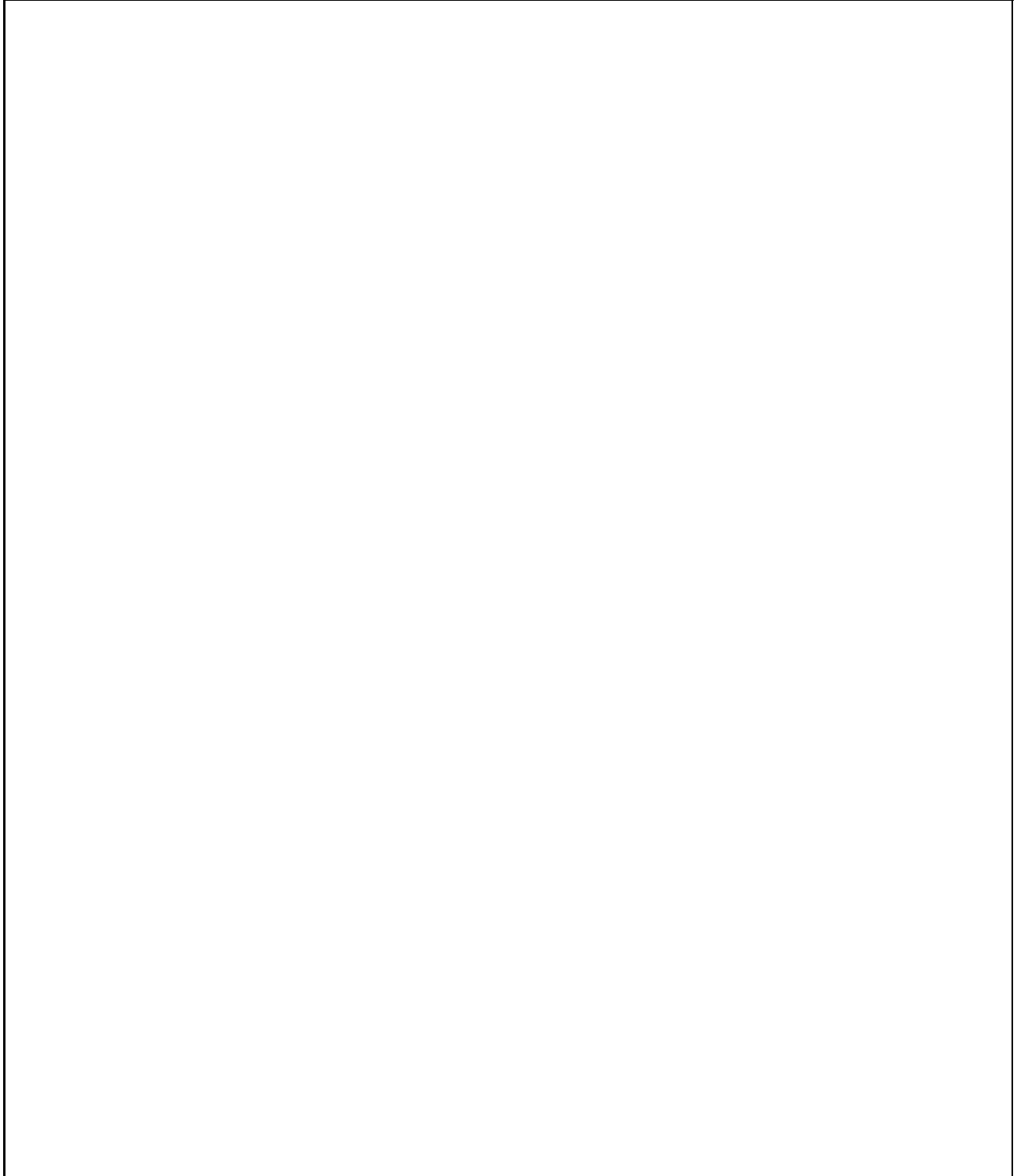
Maintenance issues (cutting grass, leaves, snow removal)

N/A (not applicable)

Other (please specify)

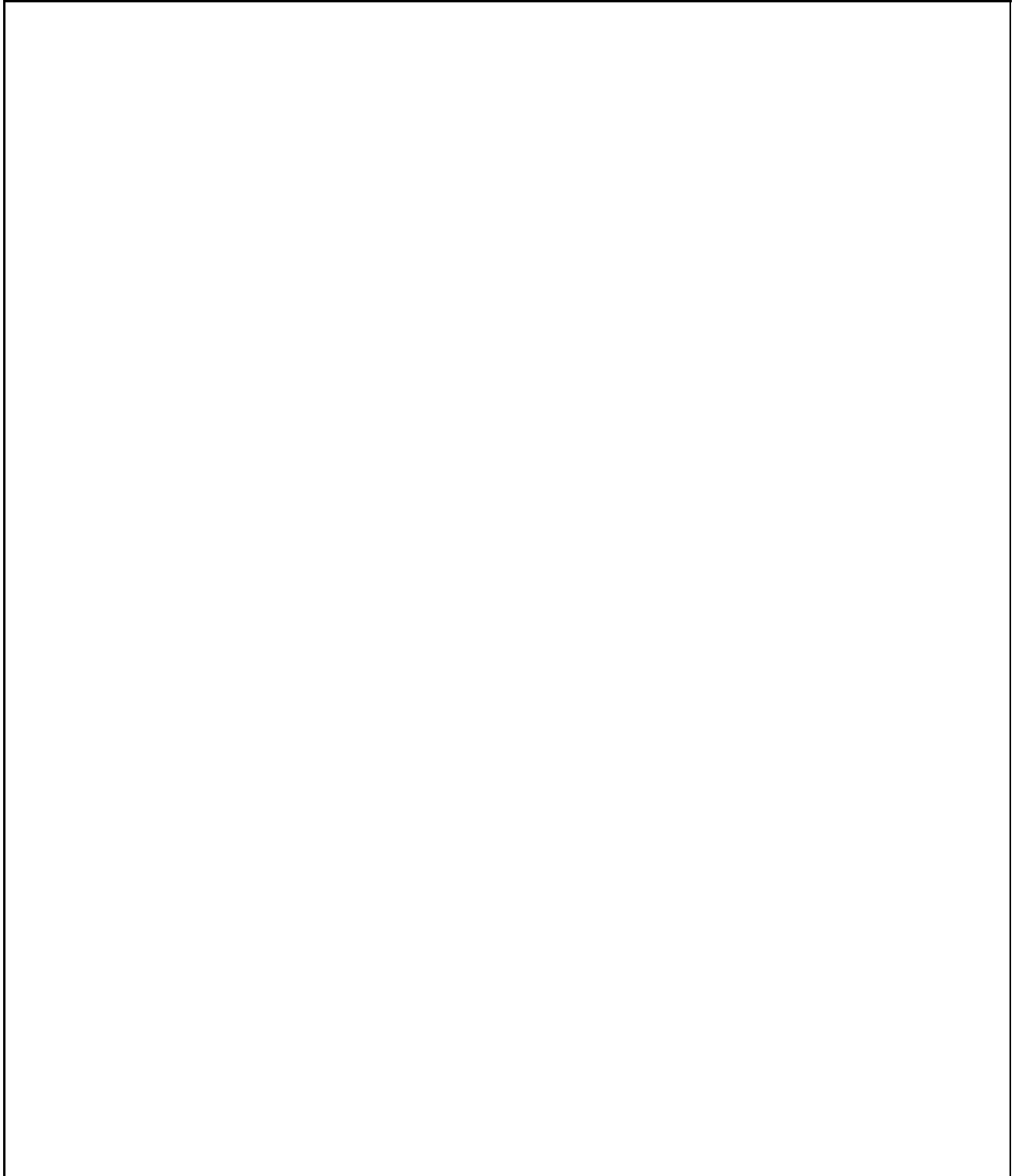
11. Are there any past, current or future transportation/economic development projects near this location (i.e. Federal, State or local projects)?

If Yes please describe and list all projects.

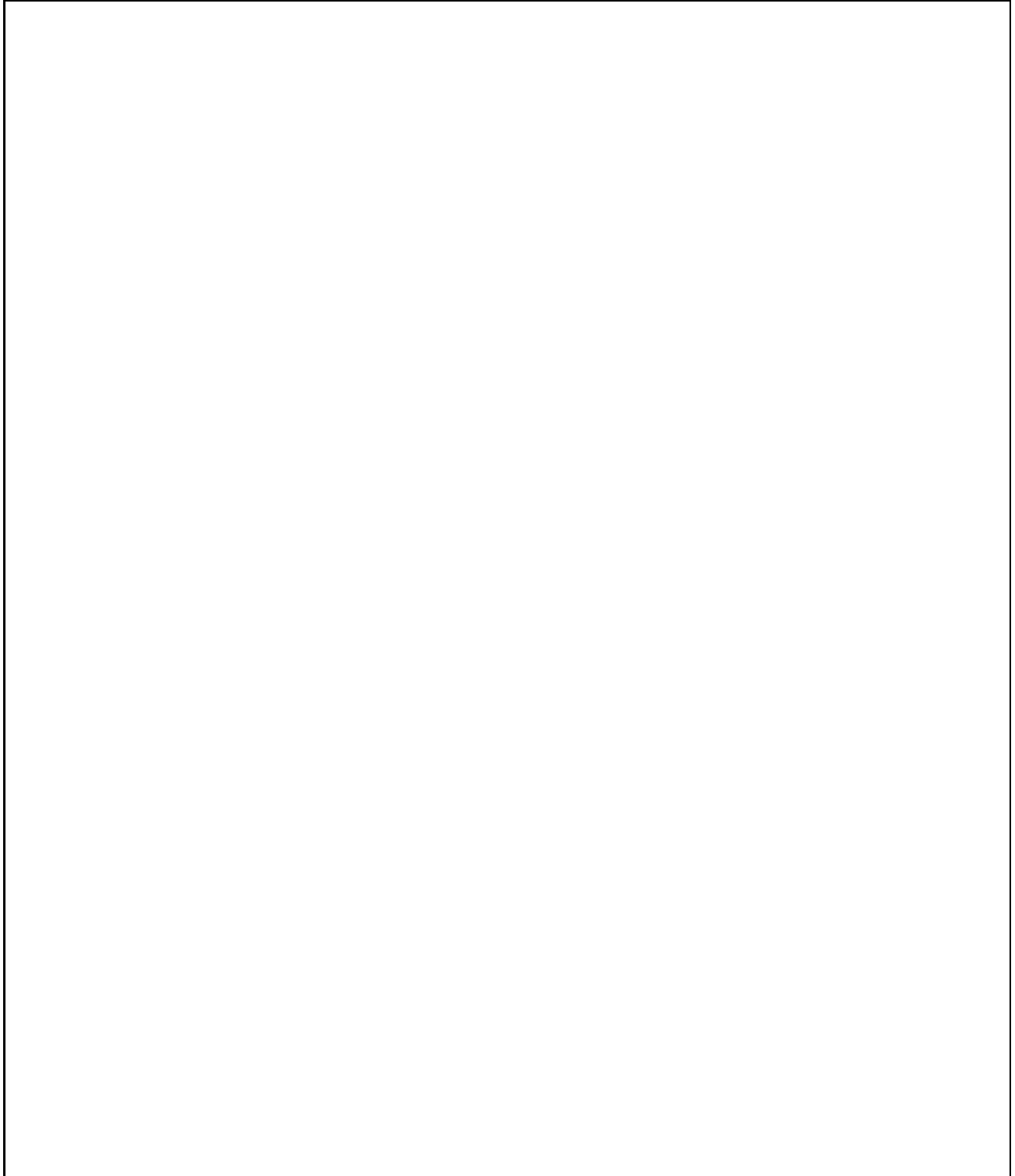
A large, empty rectangular box with a thin black border, intended for the user to describe and list any past, current, or future transportation or economic development projects near the location. The box is currently blank.

12. Environmental Concerns:

If Yes please describe and list.

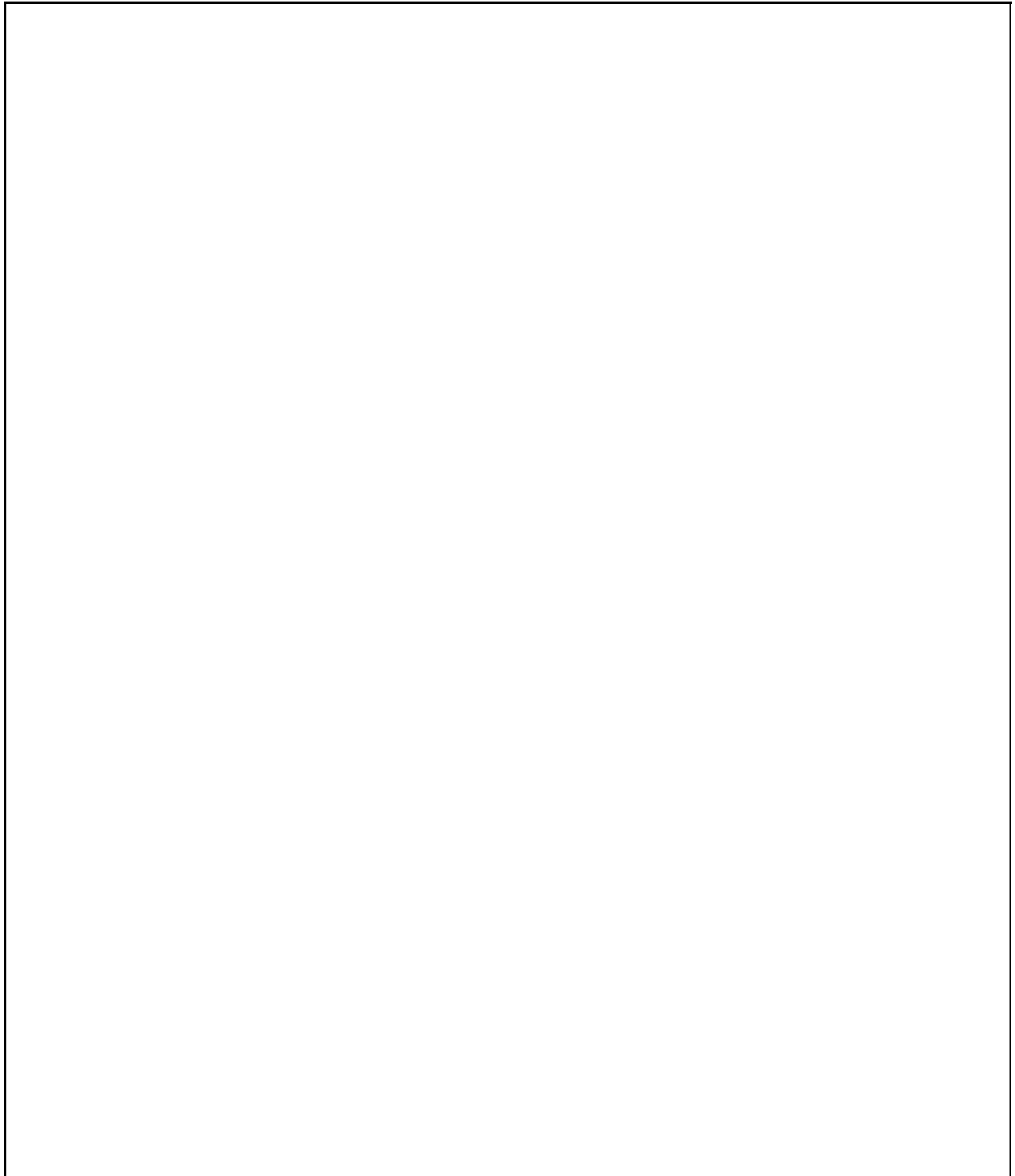
A large, empty rectangular box with a thin black border, intended for the user to describe and list any environmental concerns. The box occupies most of the page's vertical space below the instruction.

13. Please explain why this location should be considered for an RSA

A large, empty rectangular box with a thin black border, intended for the user to provide an explanation for why a location should be considered for an RSA. The box occupies most of the page's vertical space below the question.

14. Are there plans to expand the area?

(Transportation Oriented Development, Economic Development, housing, etc...)



15. Any other pertinent information that is unique to this location?

A large, empty rectangular box with a thin black border, intended for the user to provide any other pertinent information unique to the location.

Thank you for completing the Community Connectivity application.

Please click on the "submit button" below and include the following attachments

- 1 Location map (google, GIS) **(Required)**
- 2 Collision data (If available)
- 3 Traffic data (ADT or VMT) (If available)
- 4 Pedestrian/bicycle data (If available)



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Appendix B



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Road Safety Audit

Town: Glastonbury
RSA Location: House Street to Welles Street
Meeting Location: Glastonbury Town Hall (Meeting Room A)
Address: 2155 Main Street, Glastonbury, CT 06033
Date: 8/11/2016
Time: 8:30AM

Participating Audit Team Members

Audit Team Member	Agency/Organization
Kevin Tedesco	CT DOT
Steve Mitchell	AECOM
Bryan Verillo	Glastonbury Police
Dan Pennington	Town of Glastonbury
Dan Sharp	Bike Walk Glastonbury
Charles Mahan	Glastonbury Public Works
Wendy Mis	Glastonbury Health
Rim DeGray	Bike Walk Glastonbury
Shivani Mahajan	AECOM



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Appendix C



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Road Safety Audit – Glastonbury

Meeting Location: Glastonbury Town Hall (Meeting Room A)
Address: 2155 Main Street
Date: 8/11/2016
Time: 8:30 AM

Agenda

- Type of Meeting:** Road Safety Audit – Pedestrian Safety
- Attendees:** Invited Participants to Comprise a Multidisciplinary Team
- Please Bring:** Thoughts and Enthusiasm!!
- 8:30 AM** **Welcome and Introductions**
- Purpose and Goals
 - Agenda
- 8:45 AM** **Pre-Audit**
- Definition of Study Area
 - Review Site Specific Data:
 - Average Daily Traffic
 - Crash Data
 - Geometrics
 - Issues
 - Safety Procedures
- 10:00 AM** **Audit**
- Visit Site
 - As a group, identify areas for improvements
- 12:00 PM** **Post-Audit Discussion / Completion of RSA**
- Discussion observations and finalize findings
 - Discuss potential improvements and final recommendations
 - Next Steps
- 2:30 PM** **Adjourn for the Day – but the RSA has not ended**

Instruction for Participants:

- Before attending the RSA, participants are encouraged to observe the intersection and complete/consider elements on the RSA Prompt List with a focus on safety.
- All participants will be actively involved in the process throughout. Participants are encouraged to come with thoughts and ideas, but are reminded that the synergy that develops and respect for others' 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.



Audit Checklist

Pedestrians and Bicycles	Comment
<p>Pedestrian Crossings</p> <ul style="list-style-type: none">• Sufficient time to cross (signal)• Signage• Pavement Markings• Detectable warning devices (signal)• Adequate sight distance• Wheelchair accessible ramps<ul style="list-style-type: none">○ Grades○ Orientation○ Tactile Warning Strips• Pedestrian refuge at islands• Other	
<p>Pedestrian Facilities</p> <ul style="list-style-type: none">• Sidewalk<ul style="list-style-type: none">○ Width○ Grade○ Materials/Condition○ Drainage○ Buffer• Pedestrian lighting• Pedestrian amenities (benches, trash receptacles)• Other	



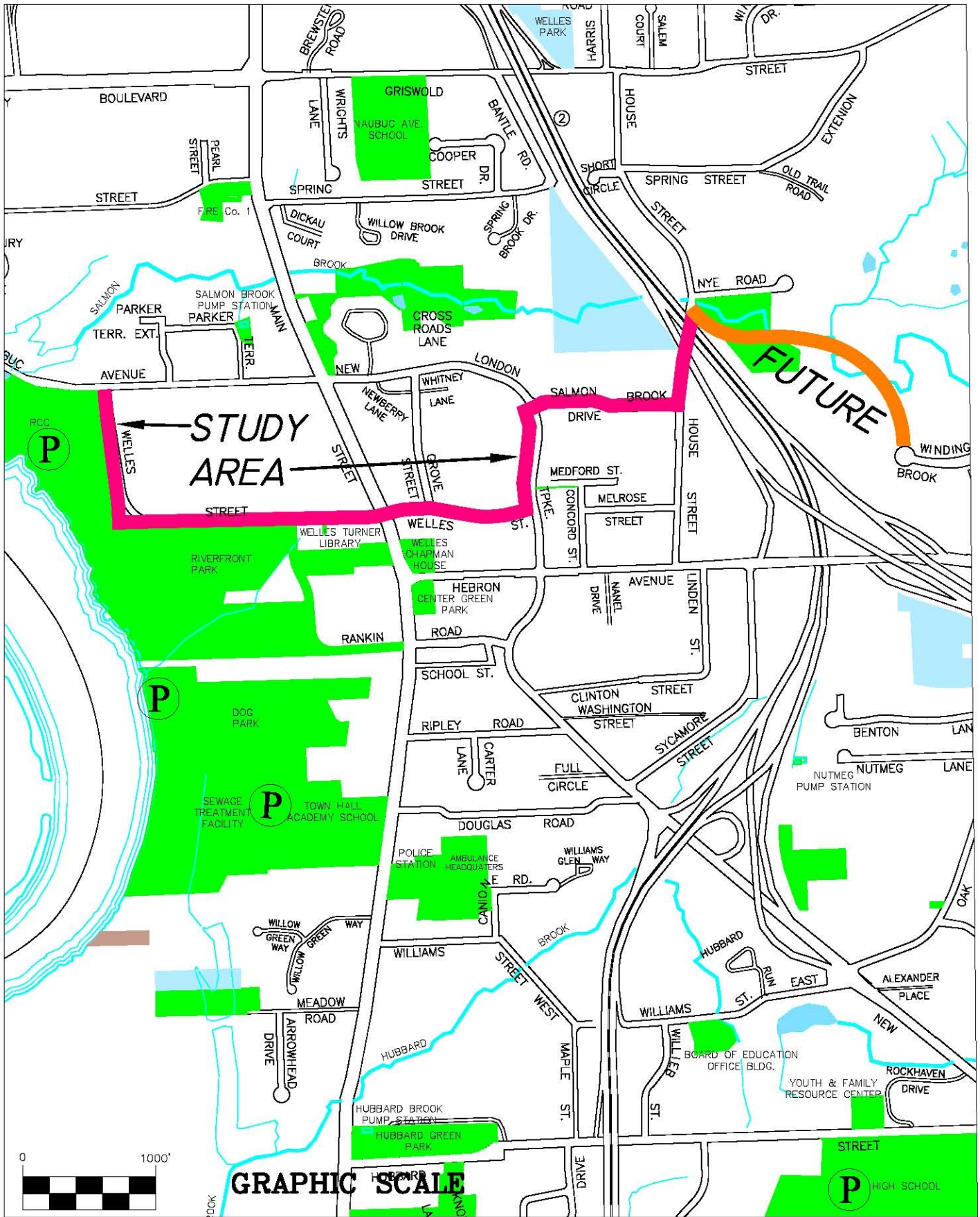
Bicycles <ul style="list-style-type: none">• Bicycle facilities/design• Separation from traffic• Conflicts with on-street parking• Pedestrian Conflicts• Bicycle signal detection• Visibility• Roadway speed limit• Bicycle signage/markings• Shared Lane Width• Shoulder condition/width• Traffic volume• Heavy vehicles• Pavement condition• Other	
--	--

Roadway & Vehicles	
<ul style="list-style-type: none">• Speed-related issues<ul style="list-style-type: none">○ Alignment;○ Driver compliance with speed limits○ Sight distance adequacy○ Safe passing opportunities	
<ul style="list-style-type: none">• Geometry<ul style="list-style-type: none">○ Road width (lanes, shoulders, medians);○ Access points;○ Drainage○ Tapers and lane shifts○ Roadside clear zone /slopes○ Guide rails / protection systems	

<ul style="list-style-type: none">• Intersections<ul style="list-style-type: none">○ Geometrics○ Sight Distance○ Traffic control devices○ Safe storage for turning vehicles○ Capacity Issues	
--	--



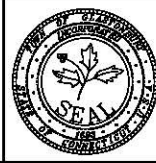
<ul style="list-style-type: none">• Pavement<ul style="list-style-type: none">○ Pavement Condition (excessive roughness or rutting, potholes, loose material)○ Edge drop-offs○ Drainage issues• Lighting Adequacy	
<ul style="list-style-type: none">• Signing<ul style="list-style-type: none">• Correct use of signing• Clear Message• Good placement for visibility• Adequate retroreflectivity• Proper support	
<ul style="list-style-type: none">• Signals<ul style="list-style-type: none">○ Proper visibility○ Proper operation○ Efficient operation○ Safe placement of equipment○ Proper sight distance○ Adequate capacity	
<ul style="list-style-type: none">• Pavement Markings<ul style="list-style-type: none">○ Correct and consistent with MUTCD○ Adequate visibility○ Condition○ Edgelines provided	
<ul style="list-style-type: none">• Miscellaneous<ul style="list-style-type: none">○ Weather conditions impact on design features.○ Snow storage	



SCALE: 1"=1000'
(WHEN PLOTTED 8.5"x11")

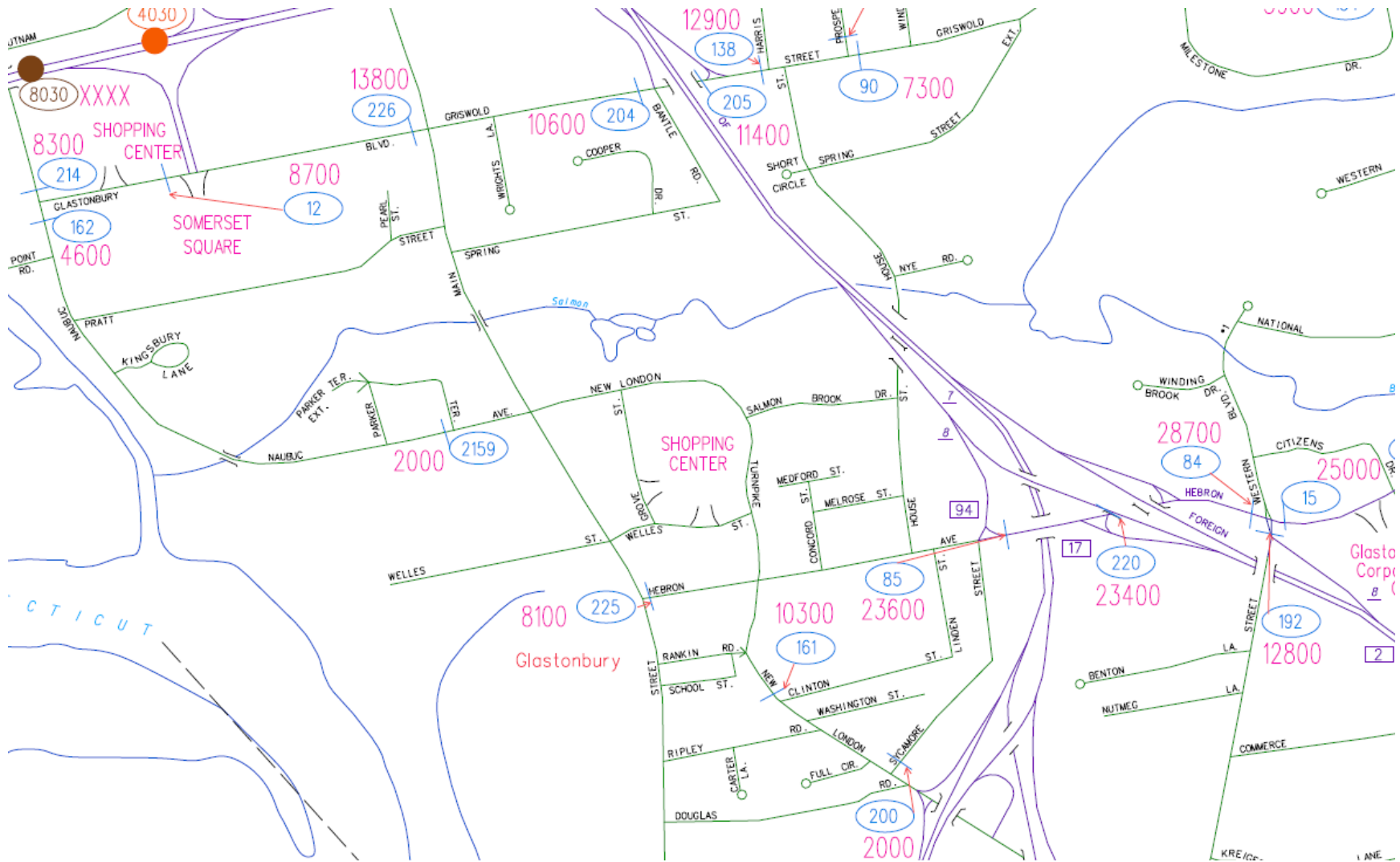


SCALE: AS SHOWN	DATE:
DRAWN BY: S.R.	2/26/2016
CHECKED BY: S.M.B.	----
APPROVED BY: D.A.P.	----
ST. FILE:	
DO NOT SCALE THIS DRAWING. USE THE DIMENSIONS GIVEN. IF THERE ARE ANY DISCREPANCIES OR QUESTIONS, CONTACT THE TOWN OF GLASTONBURY, ENGINEERING OFFICE.	

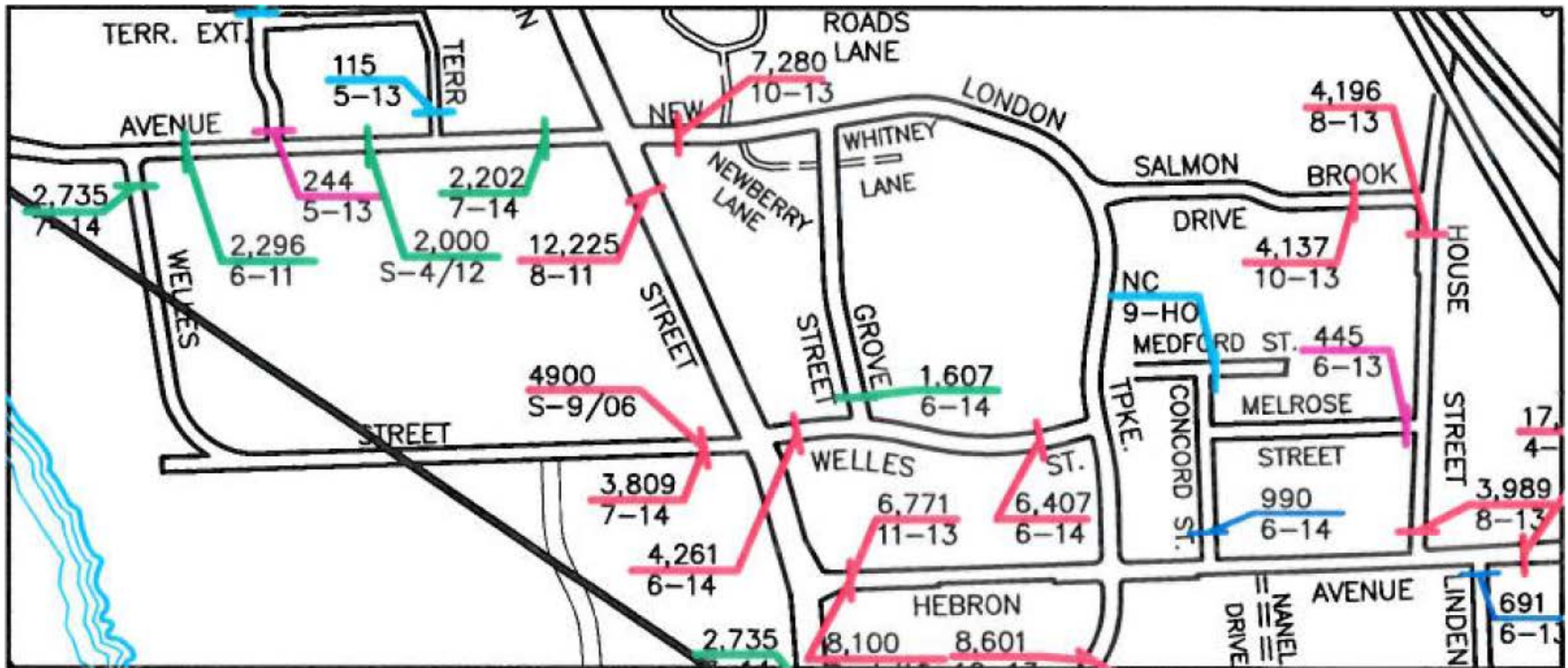


MAP DEPICTING
STUDY AREA
FOR
RSA COMMUNITY CONNECTIVITY PROGRAM
GLASTONBURY, CT.

Average Daily Traffic (ADT)



Average Daily Traffic (ADT)



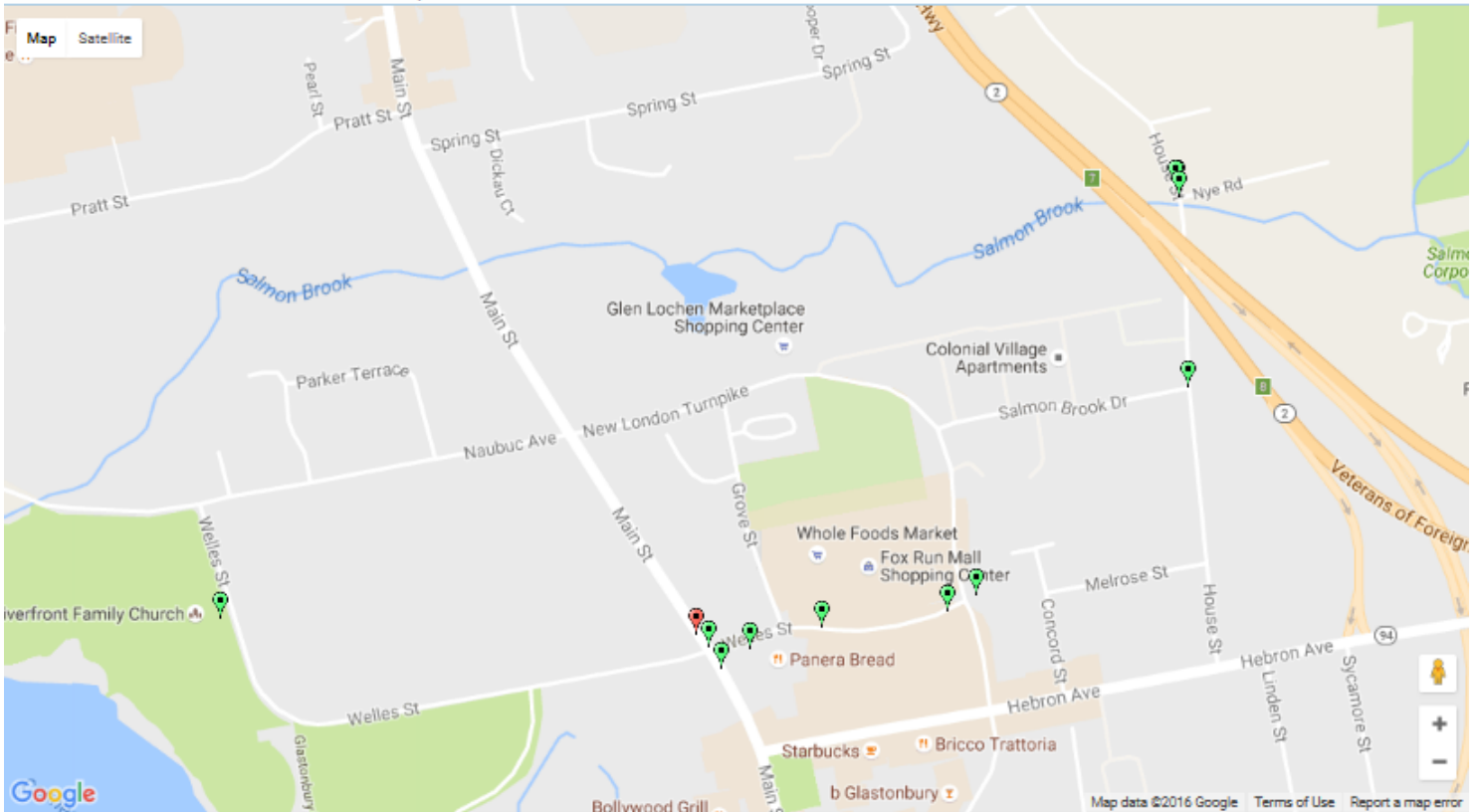
2015 Crashes

UConn

Connecticut Crash Data Repository

Search Criteria:

Dataset: mmucc
Towns: Glastonbury
Crash Severity: Injury of any type (Serious, Minor, Possible), Fatal (Kill), Property Damage Only
Case Status: Complete



Markers Heatmap Select & Query Query Selection

Injury of any type (Serious, Minor, Possible) Fatal (Kill)
 Property Damage Only

Select All Deselect All

This web site is exempt from discovery or admission under 23 U.S.C. 409.

Connecticut Crash Data Repository - [User Guide](#) [Contact Us](#)



Road Safety Audit – Glastonbury

Crash Summary

Data: 3 years (2012-2014)

There were no crashes involving bicycles.

There were no crashes involving pedestrians.

Severity Type	Number of Crashes	
Property Damage Only	48	87%
Injury (No fatality)	7	13%
Fatality	0	0%
Total	55	

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	0	0%
Sideswipe-Same Direction	1	2%
Rear-end	24	44%
Turning-Intersecting Paths	21	38%
Turning-Opposite Direction	4	7%
Fixed Object	1	2%
Backing	1	2%
Angle	2	4%
Turning-Same Direction	1	2%
Moving Object	0	0%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	0	0%
Miscellaneous- Non Collision	0	0%
Total	55	



Weather Condition	Number of Crashes	
Snow	3	5%
Rain	4	7%
No Adverse Condition	48	87%
Unknown	0	0%
Blowing Sand, Soil, Dirt or Snow	0	0%
Other	0	0%
Severe Crosswinds	0	0%
Sleet, Hail	0	0%
Total	55	

Light Condition	Number of Crashes	
Dark-Not Lighted	0	0%
Dark-Lighted	7	13%
Daylight	46	84%
Dusk	1	2%
Unknown	1	2%
Dawn	0	0%
Total	55	

Road Surface Condition	Number of Crashes	
Snow/Slush	2	4%
Wet	6	11%
Dry	47	85%
Unknown	0	0%
Ice	0	0%
Other	0	0.0%
Total	55	



Time		Number of Crashes	
0:00	0:59	0	0%
1:00	1:59	0	0%
2:00	2:59	0	0%
3:00	3:59	0	0%
4:00	4:59	1	2%
5:00	5:59	0	0%
6:00	6:59	1	2%
7:00	7:59	1	2%
8:00	8:59	0	0%
9:00	9:59	3	5%
10:00	10:59	4	7%
11:00	11:59	4	7%
12:00	12:59	9	16%
13:00	13:59	7	13%
14:00	14:59	5	9%
15:00	15:59	2	4%
16:00	16:59	4	7%
17:00	17:59	7	13%
18:00	18:59	3	5%
19:00	19:59	3	5%
20:00	20:59	0	0%
21:00	21:59	0	0%
22:00	22:59	1	2%
23:00	23:59	0	0%
Total		55	

Glastonbury - House Street to Welles Street

Legend

-  Sidewalk
-  Crosswalk
-  Stop Controlled Intersection
-  Pedestrian Crossing Sign
-  Signal Controlled Intersection
-  Park and Ride Lot
-  Study Corridor
-  Median
-  Bridge
-  Future Multi Use Trail

DRAFT



Community Center

Riverfront Park

Dog Park

Library

Center Green Park

Hebron Ave

New London Tpke

Salmon Brook Dr

House St

Nye Rd

Main St

Grove St

New London Tpke

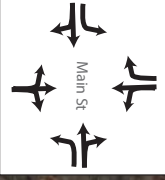
House St

Connecticut River

SPEED LIMIT 30

SPEED LIMIT 30

SPEED LIMIT 25



2

2

2



Road Safety Audit – Glastonbury

Fact Sheet

Functional Classification:

- Welles Street is classified as a Local Road
- Main Street is classified as a Minor Arterial
- Grove Street is classified as a Local Road
- New London Turnpike is classified as a Minor Arterial
- Salmon Brook Drive is classified as a Local Road
- House Street is classified as a Local Road

ADT

- ADT on Welles Street is 2,735 – 6,407
- ADT on Main Street is 12,225
- ADT on Grove Street is 1,607
- ADT on New London Turnpike is 7,280
- ADT on Salmon Brook Drive is 4,137
- ADT on House Street is 3,989 – 4,196

Population and Employment Data (2014):

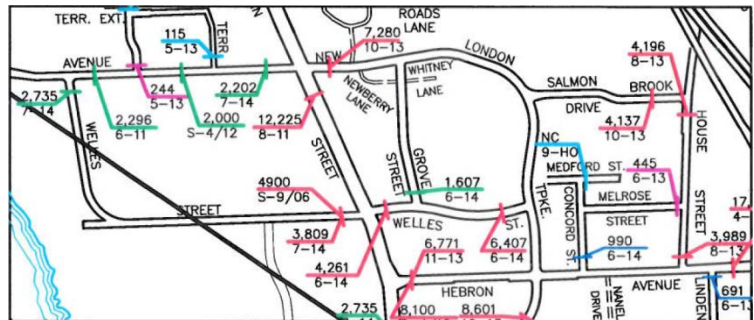
- Population: 34,661
- Employment: 16,477

Urbanized Area

- Glastonbury is in the Hartford Urbanized Area

Demographics

- The statewide average percentage below the poverty line is 10.31%. There are no areas in Glastonbury exceeding the state average
- The statewide average percentage minority population is 30.53%. There are no areas in Glastonbury exceeding the state average.



Air Quality

- Glastonbury's CIPP number 212
- Glastonbury is within the Greater CT Marginal Ozone Area
- Glastonbury is within a CO Attainment Area