



COMMUNITY
connectivity program

Bozrah

Fitchville Road (Route 608) – Road Safety Audit

August 30, 2016

August 30, 2016



AECOM

Built to deliver a better world

Acknowledgements:

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

With assistance from AECOM Transportation Planning Group

Contents

1	Introduction to Fitchville Road, Bozrah RSA	6
1.1	Location	6
2	Pre-audit Assessment.....	8
2.1	Pre-audit Information	8
2.2	Prior Successful Effort.....	13
2.3	Pre-Audit Meeting	13
3	RSA Assessment.....	14
3.1	Field Audit Observations	14
3.2	Post Audit Workshop - Key Issues	18
4	Recommendations	19
4.1	Short Term	19
4.2	Medium Term	22
4.3	Long Term.....	24
4.4	Summary.....	26

Figures

Figure 1.	Fitchville Road (State Route 608), Bozrah.....	7
Figure 2.	Study Area – Regional Context.....	8
Figure 3.	Crashes that Occurred in 2015 (Connecticut Crash Data Repository)	9
Figure 4.	Fitchville Road Geometrics.....	11
Figure 5.	Conflicting Speed Limit Signage	14
Figure 6.	Mailboxes in Conflict with Future Sidewalk.....	16
Figure 7.	Flat Area across from Fire Department.....	16
Figure 8.	Older Signs Lacking Retro-Reflectivity	16
Figure 9.	Houghton Road/Fitchville Road Intersection.....	17
Figure 10.	Debris in Catch Basin Grate	17
Figure 11.	Mid-Block Crosswalk east of Bozrah Street Extension	18
Figure 12.	Stone Wall Pinch Point.....	18
Figure 13.	Skewed Intersection	18
Figure 14.	Radar Speed Sign.....	20
Figure 15.	Short Term Recommendations	21
Figure 16.	Tactile Warning Strip.....	22
Figure 17.	Medium Term Recommendations	23

Figure 18. Sample Flush Median Island 24
Figure 19. Long Term Recommendations 25

Tables

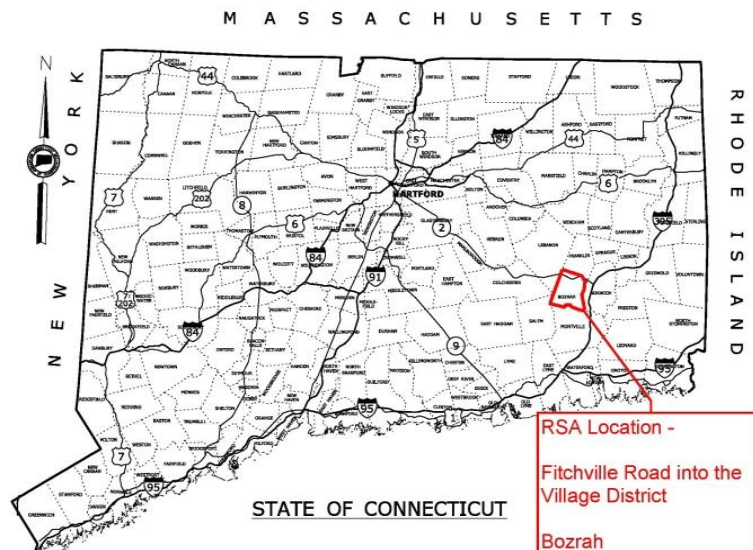
Table 1. Crash Severity 2012-2014..... 8
Table 2. Crash Type 2012-2014 9
Table 3. Street Inventory 12



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 Fitchville Road, Bozrah RSA

The Town of Bozrah submitted an application to complete an RSA on Fitchville Road (State Route 608) to improve safety for pedestrians and bicyclists travelling along the corridor between Haughton Road and the United States Post Office. This corridor experiences low to moderate traffic volumes, high speeds and a high percentage of large trucks, and lacks continuous sidewalks along much of its length. This has resulted in concerns for pedestrians and cyclists through this area. The Fields Memorial School is located adjacent to Fitchville Road on Bozrah Street Extension. This section of Fitchville Road is within the area designated as “village district” that the Town would like to enhance both visually and functionally.

The Town of Bozrah’s application contained historical information and a description of the corridor. The application is included in Appendix A.

1.1 Location

The RSA site is the section of Fitchville Road (State Route 608) between Haughton Road (State Route 163) and the post office at 181 Fitchville Road (Figure 1). The Average Daily Traffic (ADT) on Fitchville Road near the Haughton Road intersection is 2,700 vehicles per day (vpd). Fitchville Road consists of a single 11-foot wide lane in each direction, separated by a double yellow center line. There are striped shoulders on each side of the road, with widths that vary from one foot to over four feet.

All intersections throughout the study area are controlled by side-street stop signs.

This section of roadway contains multiple driveways, adding complexity to walking and bicycling maneuvers through the area. The regional context of the study area is shown in Figure 2.



Figure 1. Fitchville Road (State Route 608), Bozrah



Figure 2. Study Area – Regional Context

2 Pre-audit Assessment

2.1 Pre-audit Information

Fitchville Road runs through the historic village of Bozrah. Its proximity to State Route 2 as well as the nearby presence of several large businesses results in a high volume of truck traffic on the road. There are also several residential rental properties on the road that generate pedestrian traffic through this area as they travel to the post office on the east and Main Store at the intersection of Haughton Road and Fitchville Road to the west.

The crash history in this area is relatively low and there were no accidents involving pedestrians or bicyclists between 2012 and 2014 (Table 1 and Table 2). Figure 3 displays crashes that occurred in this area during 2015.

Severity Type	Number of Crashes	
Property Damage Only	6	75%
Injury (No fatality)	2	25%
Fatality	0	0%
Total	8	

Table 1. Crash Severity 2012-2014

Source: UConn Connecticut Crash Data Repository

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	0	0%
Sideswipe-Same Direction	0	0%
Rear-end	0	0%
Turning-Intersecting Paths	2	25%
Turning-Opposite Direction	2	25%
Fixed Object	1	13%
Backing	0	0%
Angle	1	13%
Turning-Same Direction	0	0%
Moving Object	0	0%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	2	25%
Miscellaneous- Non Collision	0	0%
Total	8	

Table 2. Crash Type 2012-2014

Source: UConn Connecticut Crash Data Repository

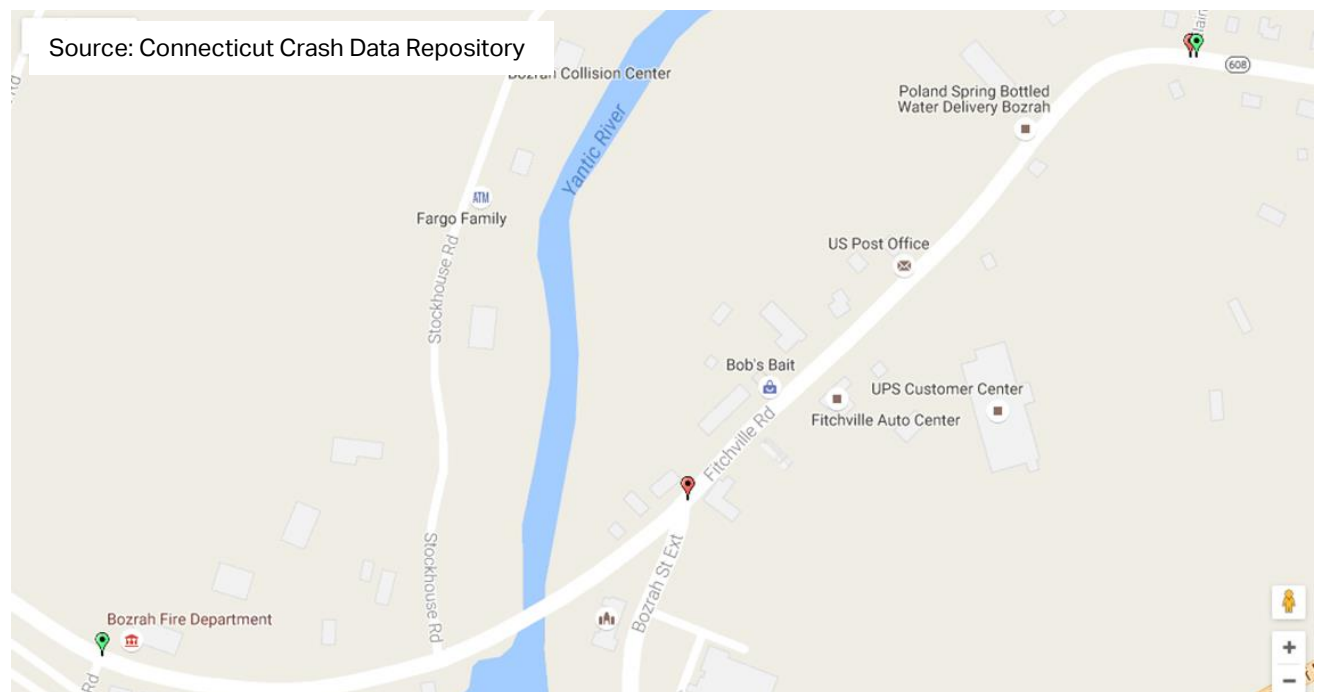


Figure 3. Crashes that Occurred in 2015 (Connecticut Crash Data Repository)

The Town of Bozrah Plan of Conservation and Development established a “village district” in 2015 to attempt to revitalize the historic town center. The Town believes that adding street tree plantings, restoring old fences, cleaning up the Fitchville Dam area and other general upgrades will help make the area more aesthetically pleasing and appealing to individuals and businesses. Many years ago, a dirt path ran alongside the road to serve pedestrian traffic. Over time this path was reclaimed by property owners and became lawn areas. The addition of mailboxes within the same area where the path used to be has also served to discourage pedestrians from using this area and today most pedestrians and bicyclists use the narrow shoulders of Fitchville Road.

Currently there is a small section of concrete sidewalk that runs along the north side of Fitchville Road from east of Stockhouse Road to the Fitchville Rest Home at 187 Fitchville Road. There are no sidewalks west of Stockhouse Road or east of the Fitchville Rest Home and there are no sidewalks on Bozrah Street Extension at the school. The Town believes that extending the existing sidewalk in both directions will make this area more inviting and enhance pedestrian safety.

Roadway geometrics are shown in Figure 4 and a street inventory is provided below in Table 3. The entire length of the study area has a single 11-foot travel lane in each direction and shoulder widths vary from one to four feet as shown in the street inventory table. There are two horizontal curves on Fitchville Road, and the low point is at the Yantic River bridge, with the road grade rising on both sides of the bridge. The speed limit throughout the study area on Fitchville Road is 35 mph.

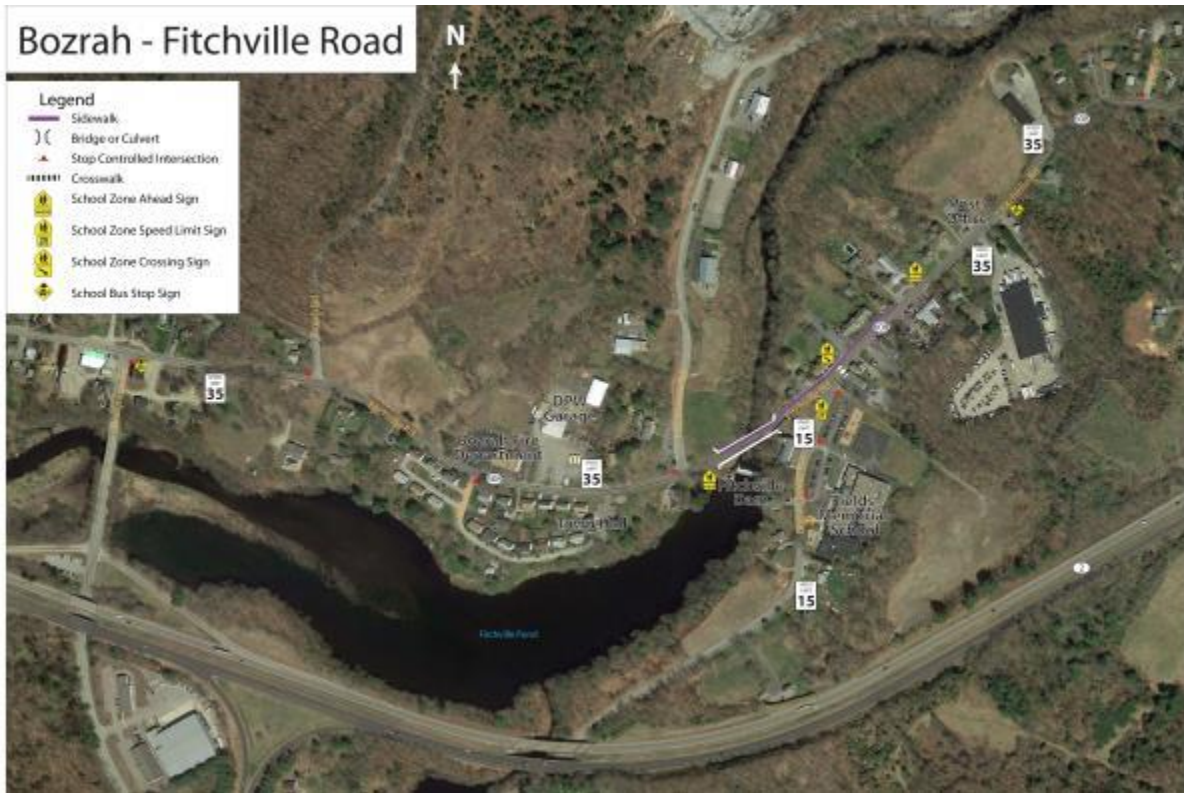


Figure 4. Fitchville Road Geometrics

Bozrah - Fitchville Road Street Inventory

From	To	Distance	Width	Sidewalk				Curb	Parking	Shoulder	Ramps	
				Side	Type	Width	Condition				Exist	Compliant
Haughton Road	Stockhouse Rd.	0.5 miles	11'	EB	No	N/A	N/A	Asphalt	No	1-4'	N/A	N/A
			11'	WB	No	N/A	N/A	Asphalt	No	1-4'	N/A	N/A
Stockhouse Rd.	187 Fitchville Rd.	0.2 miles	11'	EB	No	N/A	N/A	Asphalt	No	4'	N/A	N/A
			11'	WB	Concrete	4'	Fair	Asphalt	No	4'	Yes	No
187 Fitchville Rd.	181 Fitchville Rd.	300 feet	11'	EB	No	N/A	N/A	Asphalt	No	4'	N/A	N/A
			11'	WB	No	N/A	N/A	Asphalt	No	4'	N/A	N/A

***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

By calling for “village district enhancement” in the 2015 Plan of Conservation and Development, the Town has taken the first step towards improving this area. The Town hopes to add street tree plantings, restore degrading fences, clean up around the Fitchville Dam and make other general improvements as part of this program. Additionally, the Town has plans to add a soccer field near the school on a donated plot of land. This plan is already in motion and the new field is anticipated to improve the appeal of the area.

The State recently installed asphalt curbing along most of Fitchville Road. This has helped improve drainage, prevent washouts, and discourage vehicles from parking on the side of the road. It appears that many of the catch basins were replaced and upgraded at the same time.

2.3 Pre-Audit Meeting

The RSA was conducted on August 30, 2016. The Pre-Audit meeting was held at 8:30 AM in the Town Hall located at 1 River Road in Bozrah.

The RSA Team was comprised of staff from AECOM, staff from CTDOT, and representatives from several Bozrah departments including the First Selectmen, Planning and the Fire Department. 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:

- The Town requested that the audit study area be extended west to Houghton Road, The audit team agreed to this request.
- Bozrah has established a village district overlay to reestablish the village. A map of the village overlay district was provided (See Appendix D).
- There was formerly a dirt path alongside Fitchville Road that was heavily used (~3 feet wide) but it was retaken by residents as lawn over time.
- There are now several residential rental properties on Fitchville Road that are generating pedestrian traffic between Main Store (at the corner of Fitchville Road and Houghton Road) and the US Post Office (181 Fitchville Road).
- The Town would like to provide a sidewalk to improve safety for these pedestrians.
- The post office now requires that residents and businesses provide mail boxes in rural areas such as Bozrah. In the past, all residents had a post office box. Mailboxes were added recently alongside the road. This may be in conflict with a potential sidewalk.
- The Town would also like to maintain or enhance the village center feel of this area which may include adding plantings to mimic the historic maple trees that formerly lined the street (Fitchville Road was formerly named Maple Avenue). This may require working with property owners to strategically plant trees that will not impact the utility wires.

- At some point in the future the Town may want to connect the existing Yantic Riverwalk to a Fitchville Road sidewalk, possibly in conjunction with construction of a sewer line, to increase bicycle and pedestrian connectivity. The Town has attempted to have sewer lines installed for several years.
- A potential sidewalk could be built on the north side of Fitchville Road from Town Hall to the post office and on the south side from Town Hall to Haughton Road with a crosswalk in front of Town Hall.
- The Fitchville Rest Home at 187 Fitchville Road houses approximately 40 active residents and is a major generator of pedestrian traffic.
- Children do not currently walk to school due to town school policy. In the past, children were allowed to walk to school and there may be some possibility to reestablish this policy if safer facilities were provided for children to walk on. One potential challenge with this policy would be the need to hire one or more crossing guards. The Town has hired a crossing guard in the past.
- Snow removal from sidewalks has typically fallen to the Town in the past and the Town would not be likely to pursue a policy asking property owners to be responsible for snow removal from a new sidewalk.
- Some bicycle traffic in the area was noted and Fitchville Road is a regional bike route. It is thought that casual bicycle riders may prefer to ride on the sidewalk.
- There is a need to investigate how much state right-of-way exists alongside the road.
- Some residents are currently using the area where a sidewalk could be built for parking.

3 RSA Assessment

3.1 Field Audit Observations

Intersection of Bozrah Street Extension and Fitchville Road:

- There is conflicting speed limit signage on Bozrah Street Extension (**Error! Not a valid bookmark self-reference.**).
- The existing alignment of the intersection is awkward with Bozrah Street Extension meeting Fitchville Road at a severe skewed angle.
 - The stop sign and stop bar are not aligned currently, likely due to the skew alignment.



Figure 5. Conflicting Speed Limit Signage

- There is no advance crosswalk sign in the eastbound direction on Fitchville Road.
- Sight distance coming out of Bozrah Street Extension is limited due to the wall on the south side of Fitchville Road.
- The Town has requested CTDOT to update the school zone signs.
- The Town is planning a future soccer field development that may have access from this area.

Fitchville Road:

Haughton Road to Stockhouse Road:

- The utility lines are located on the north side of Fitchville Road between the Town Hall and Haughton Road. West of Haughton Road and east of Town Hall they are located on the south side.
- It appears that the available right-of-way on the south side of Fitchville Road between the Town Hall and Haughton Road may be between five and six feet wide.
- Vehicles are parked illegally at 240 and 242 Fitchville Road on the south side of the roadway.
- There is a new guiderail on the south side of Fitchville Road between Brush Road and Haughton Road. This section of road may need to be reconstructed (due to steep slope) to provide a new sidewalk.
- At the Town Hall, the sight lines may meet the standards needed for a crosswalk, but could require an enhanced visibility crossing due to

the roadway speed (35 MPH) and horizontal and vertical curves.

- There are mailboxes within the area where a sidewalk is proposed that will need to be addressed through coordination with the postal service (Figure 6).
- All catch basin grates appeared to be bicycle friendly.
- The pavement on Fitchville Road appears to be in good condition.
- The flat section at the bottom of the slope across from the Fire Department is approximately five to six feet wide. This could indicate where the state right-of-way ends (Figure 7).
- There is a high percentage of heavy trucks on Fitchville Road; many are headed to/from Stockhouse Road.
 - Some trucks cross the double yellow centerline when turning onto Fitchville Road from Stockhouse Road and Brush Road due to the existing curb radii.
- At 305 Fitchville Road there is an existing culvert crossing that may need to be addressed if a sidewalk conflicts with the culvert end.
- Several of the signs on Fitchville Road appear to be old and are lacking retro-reflectivity (Figure 8).
- Many of the signs on Fitchville Road would need to be relocated in conjunction with a new sidewalk.
- Overgrown trees and brush are encroaching on the right-of-way in some areas.



Figure 6. Mailboxes in Conflict with Future Sidewalk



Figure 7. Flat Area across from Fire Department



Figure 8. Older Signs Lacking Retro-Reflectivity

- State right-of-way appears to be sufficient for a sidewalk based on the locations of utility poles and driveway aprons but should be investigated.
- A new pedestrian crossing at the Houghton Road/Fitchville Road intersection would be long due to the large curb radii (Figure 9).
- There are no pavement markings on Stockhouse Road.
- The distance between the wall at 213 Fitchville Road and the curb is approximately 15 feet, which would provide adequate space for a sidewalk.
- Several catch basins in the vicinity of the Fire Department are restricted by debris that has collected in their grates (Figure 10).
- In some areas, utility wires are in close proximity to tree branches.
- Three pedestrians were observed walking along the shoulder and in the grass on Fitchville Road.
- A group of three cyclists were observed on Fitchville Road traveling eastbound.



Figure 9. Houghton Road/Fitchville Road Intersection



Figure 10. Debris in Catch Basin Grate

Stockhouse Road to 187 Fitchville Road:

- There is a large, possibly historic, maple tree on the east side of Stockhouse Road where the old mill fence begins. To preserve the tree the fence would need to be relocated or removed and the sidewalk constructed in back of the tree.
- The fence in front of the old mill property is rusted and deteriorating.
- There is a sinkhole on the north side of Fitchville Road west of the bridge.

- The concrete sidewalk begins on the north side of Fitchville Road approximately 50 west of the Yantic River bridge.
- A large stone retaining wall on the south side of Fitchville Road east of the bridge is beginning to deteriorate.
- The mid-block crosswalk on Fitchville Road east of Bozrah Street Extension is not connected to the sidewalk and does not have any ramps (Figure 11).
- The sidewalk extends through all driveways except one entrance to the apartment parking lot just east of the mid-block crosswalk.
- The sidewalk in front of the Fitchville Rest Home (187 Fitchville Road) is flush with the roadway, covered with debris and overgrown with vegetation.

There is a dead tree adjacent to the existing concrete sidewalk, just past the bridge on the north side of Fitchville Road.

187 Fitchville Road to 181 Fitchville Road:

- There is a pinch point at 185 Fitchville Road where a proposed sidewalk could be in conflict with a stone wall, utility pole and electric vault (Figure 12).

3.2 Post Audit Workshop - Key Issues

- A sidewalk on the south side of Fitchville Road from Town Hall to Haughton Road and on the north side from Town Hall to the post office seems feasible although there are some obstacles to overcome (mailbox coordination, safe crosswalks, right-of-way, etc.)
- A crosswalk in front of Town Hall seems feasible when a sidewalk is installed, but additional crossing treatments need to be considered due to high vehicle speeds in the area.



Figure 11. Mid-Block Crosswalk east of Bozrah Street Extension



Figure 12. Stone Wall Pinch Point



Figure 13. Skewed Intersection

- The Fitchville Road intersection with Bozrah Street Extension is awkward and difficult to navigate for all users (Figure 13). There are short-term (pavement markings) and longer term measures that can be considered to improve operations and safety.
- Consider a new sidewalk on the south side of Bozrah Street Extension at the school.
- The stone wall on the south side Fitchville Road at the church is deteriorating. The Town will need to contact CTDOT to request a structural evaluation.
- A crosswalk across Haughton Road would be long due to the large curb radii needed to accommodate truck traffic through the intersection. A flashing beacon for traffic can be considered.

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. Add striping to the Bozrah Street Extension intersection with Fitchville Road to channel vehicles to the correct locations. Relocate stop bar.

2. Clear and grub around the sidewalk at the Rest Home to allow for use of the full sidewalk width.
3. Town request CTDOT district office to clean debris out of the catch basin grates in the area of the Fire Department to improve their functionality.
4. Town to request property owner to remove the dead tree noted adjacent to the sidewalk to prevent future damage.
5. Town to request CTDOT/power company to trim branches around power lines in some locations to minimize the risk of future damage.
6. Town to coordinate with CTDOT to research the right-of-way boundaries along Fitchville Road.
7. Town to coordinate with CTDOT to investigate the cause of the sinkhole that is on the north side of Fitchville Road just west of the bridge.
8. Town to request CTDOT to replace faded signs with new retro-reflective signs and to provide pedestrian advance warning signs for the crosswalk west of Bozrah Street Extension.
9. Town to request periodic speed enforcement in village area and speed radar signs (Figure 14).
10. Town to follow up with request to CTDOT to upgrade pedestrian and school signs.

Town to request CTDOT to evaluate the structural condition of the stone wall on the south side of Fitchville Road at the church just east of the Yantic River Bridge.

Error! Reference source not found. depicts these recommendations.



Figure 14. Radar Speed Sign



Clear and Grub (#2)

Add Striping (#1)

Replace worn-out signs and add advance pedestrian warning signs (#8)

Evaluate the structural condition of existing stone retaining wall (#11)

Figure 15. Short Term Recommendations

4.2 Medium Term

1. Replace/remove/relocate the deteriorating fence in front of the old mill property. The Town indicated they would like to replace rather than remove the fence to maintain the character of the village center.
2. Consider adding detectable warning strip (Figure 16) and crosswalk to the sidewalk where it meets the driveway to 187 Fitchville Road.
3. Consider adding village center gateway signing to encourage slower driving speeds.



Figure 16. Tactile Warning Strip

Figure 17 depicts some of the recommendations.



Replace existing fence (#1)

Consider adding sidewalk ramps and tactile warning strips (#2)

Consider adding village center gateway signs (#3)

Figure 17. Medium Term Recommendations

4.3 Long Term

1. Extend the current sidewalk on the north side of Fitchville Road to Town Hall. Construct a crossing at Town Hall and continue the sidewalk along the south side of Fitchville Road to Haughton Road with a crosswalk through the Haughton Road/Fitchville Road intersection.
 - Evaluate the needs for different crossing treatments for pedestrian safety based on sight distance and other constraints.
 - Coordinate the locations of mailboxes with the post office.
 - Relocate signs that may be in conflict with the new sidewalk.
 - Provide a connection and ramp to the current mid-block crossing near the Bozrah Street Extension/Fitchville Road intersection.
 - Reconstruct the sidewalk in front of the Fitchville Rest Home (187 Fitchville Road) with a curb.
 - Relocate the existing electrical vault at the end of the stone wall at 185 Fitchville Road to alleviate the pinch point.
 - Consider new street lighting in coordination with new sidewalk.
 - Coordinate with CTDOT to consider a flashing traffic beacon at Fitchville Road/Houghton Road to increase driver awareness.
2. Evaluate long term improvements to the Bozrah Street Extension/Fitchville Road intersection such as installation of a mountable/flush median island (Figure 18) or revised geometry such as a standard T-intersection alignment.
 - In conjunction with the future soccer field work on Bozrah Street Extension evaluate relocating crosswalk currently east of the intersection closer to school in conjunction with a new sidewalk on the south side of Bozrah Street Extension.
3. Plan to extend Yantic River Walkway along riverway to Dam.



Figure 18. Sample Flush Median Island

Error! Reference source not found. depicts some of these recommendations.



Construct new concrete sidewalk and crosswalks (#1)

Evaluate long term intersection improvements (#2)

Plan to extend Yantic River walkway (#3)

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 Bozrah RSA. It provides Bozrah with an outlined strategy to improve the transportation network for all road users between Haughton Road and the post office on Fitchville Road within the town center, particularly focusing on pedestrians and cyclists. Moving forward, Bozrah 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 in the Bozrah village district area.



COMMUNITY
connectivity program

Appendix A



AECOM
Built to deliver a better world

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

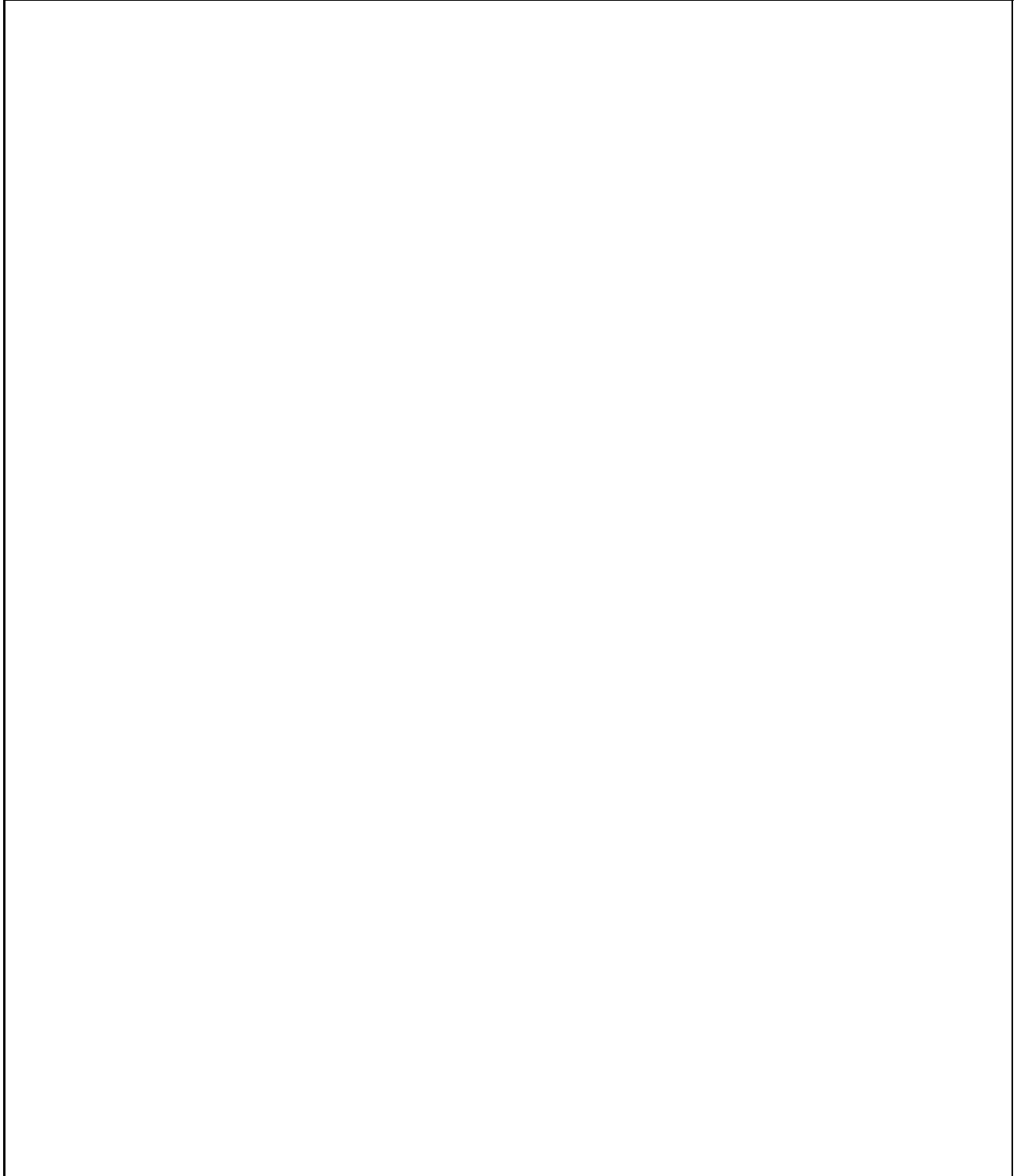
Maintenance issues (cutting grass, leaves, snow removal)

N/A (not applicable)

Other (please specify)

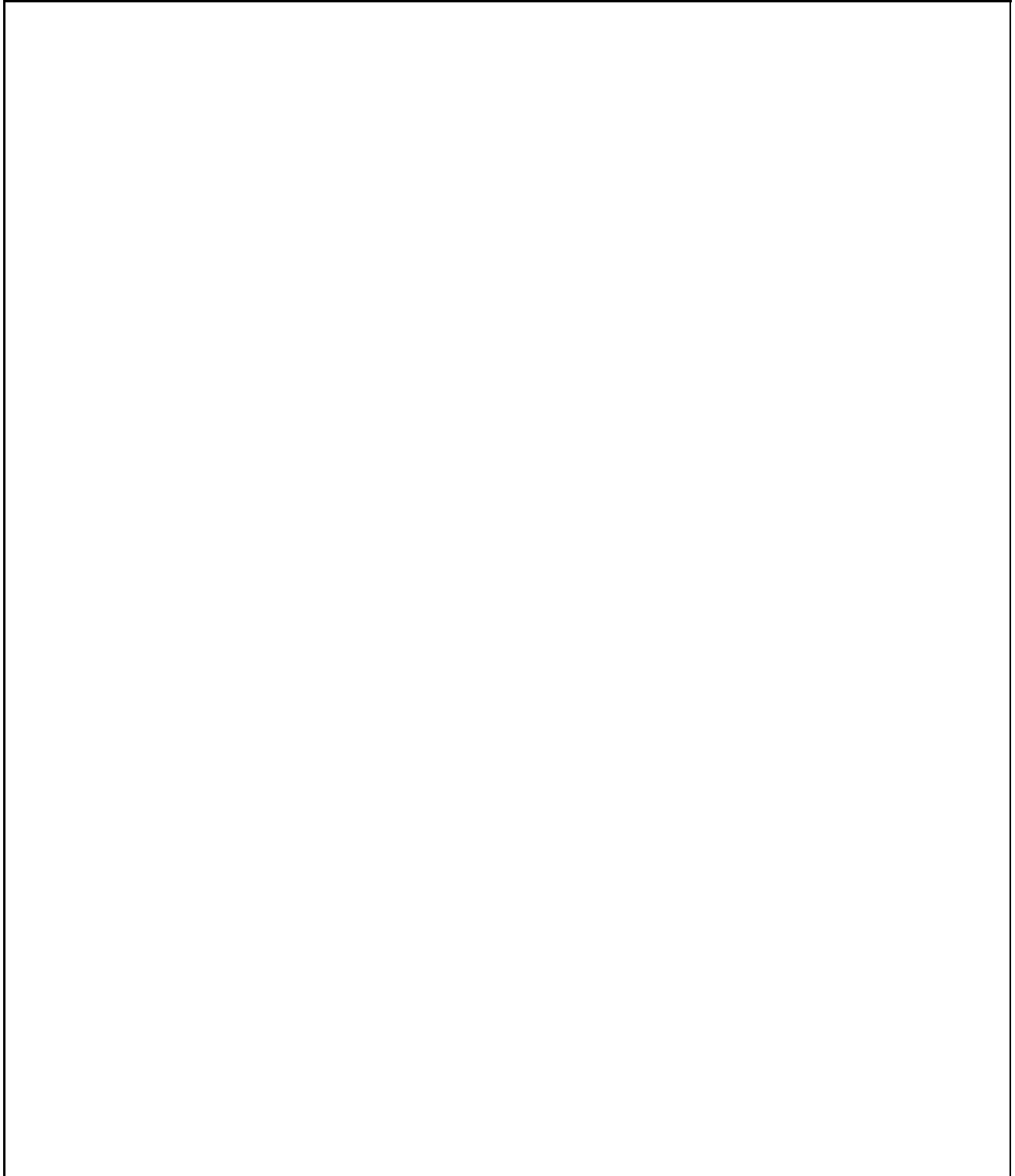
11. Are there any past, current or future transportation/economic development projects near this location (i.e. Federal, State or local projects)?

If Yes please describe and list all projects.

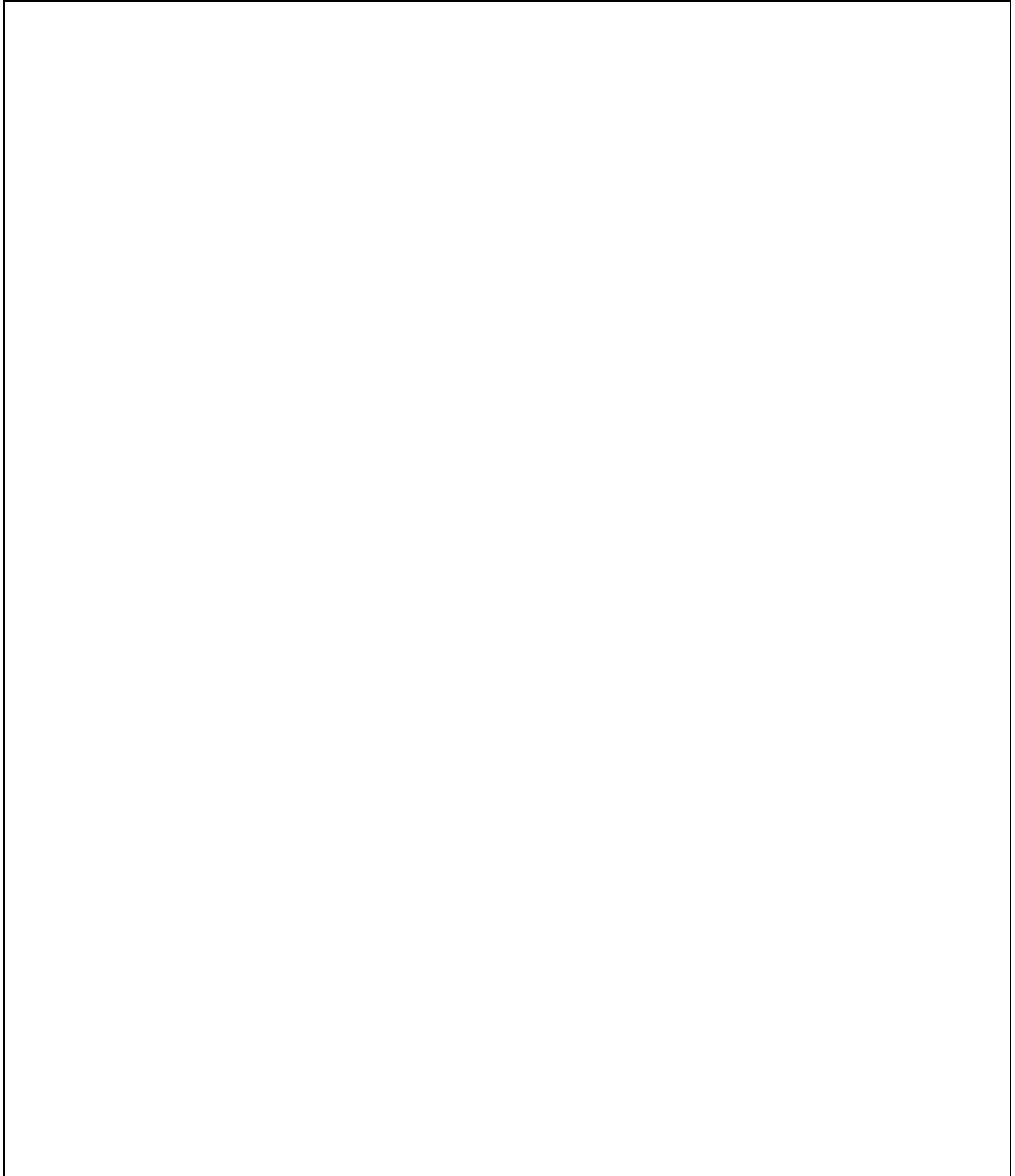
A large, empty rectangular box with a thin black border, intended for the user to describe and list any past, current, or future transportation or economic development projects near the location. The box is currently blank.

12. Environmental Concerns:

If Yes please describe and list.

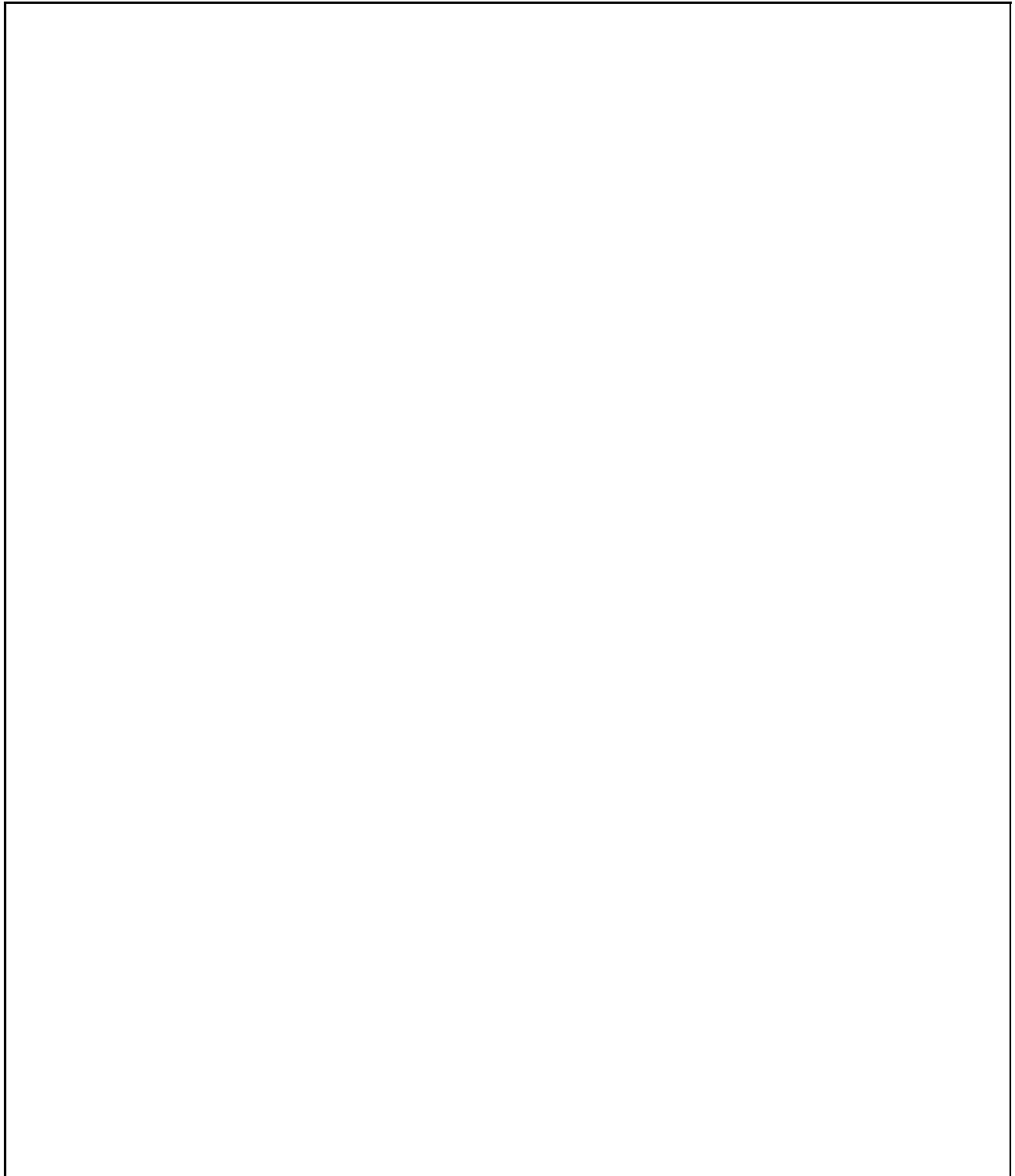
A large, empty rectangular box with a thin black border, intended for the user to describe and list any environmental concerns. The box occupies most of the page's vertical space below the instruction.

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)



COMMUNITY
connectivity program

Appendix B



AECOM
Built to deliver a better world



COMMUNITY
connectivity program

Road Safety Audit

Town: Bozrah
RSA Location: Fitchville Road
Meeting Location: Bozrah Town Hall
Address: 1 River Road, Bozrah
Date: 8/30/2016
Time: 8:30 AM

Participating Audit Team Members

Audit Team Member	Agency/Affiliation
Krystal Oldread	Aecom
Brad Sabean	Aecom
Chad rensaw	Town of Bozrah
Patrick Zapatka	CTDOT
Glenn Pianka	Town of Bozrah
Richard Serra	Town of Bozrah
Seymoor Alman	Town of Bozrah
Raymond C. Barber	Town of Bozrah



COMMUNITY
connectivity program

Appendix C



AECOM
Built to deliver a better world



Road Safety Audit – Bozrah

Meeting Location: Bozrah Town Hall
Address: 1 River Road, Bozrah
Date: 8/30/2016
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	

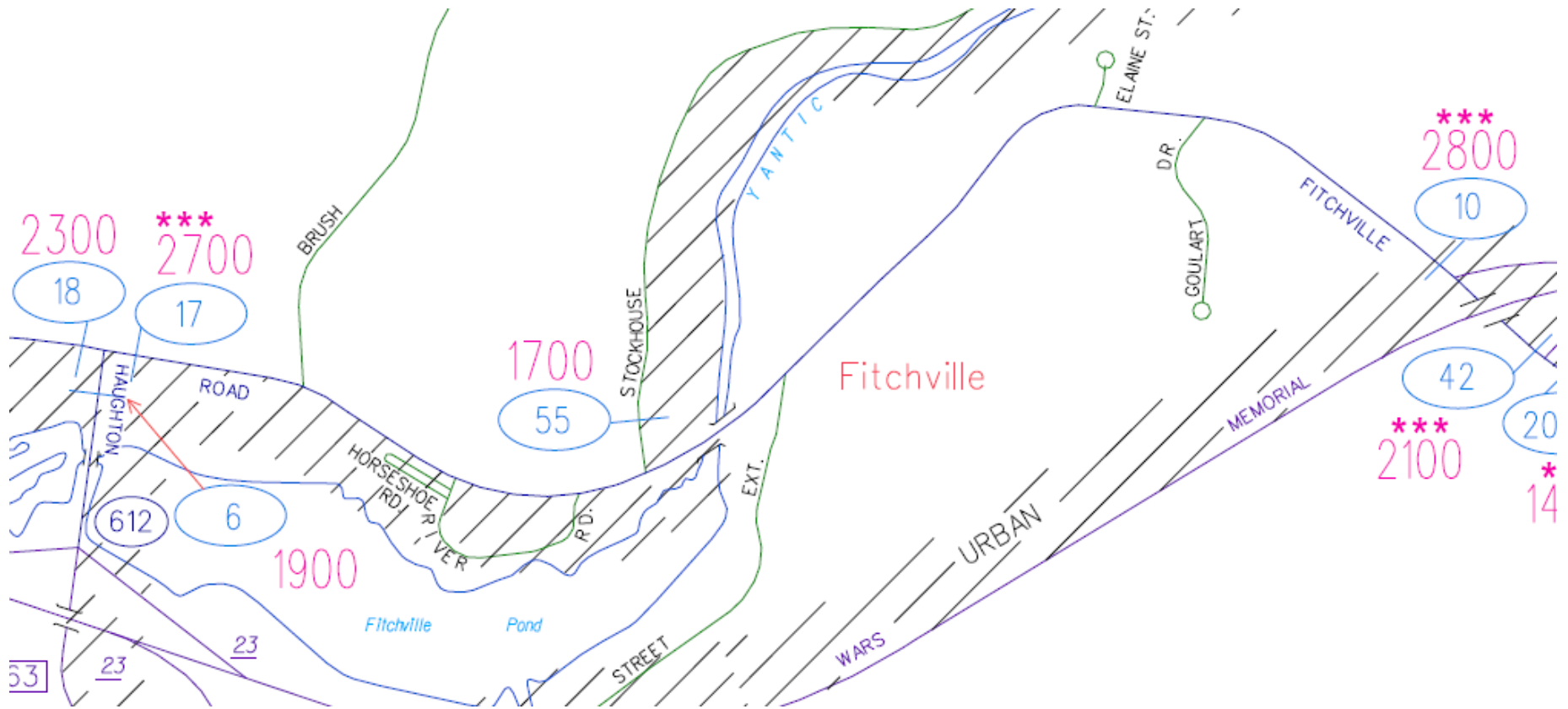
<ul style="list-style-type: none">• Intersections<ul style="list-style-type: none">○ Geometrics○ Sight Distance○ Traffic control devices○ Safe storage for turning vehicles○ Capacity Issues	
--	--



<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	



ADT MAP



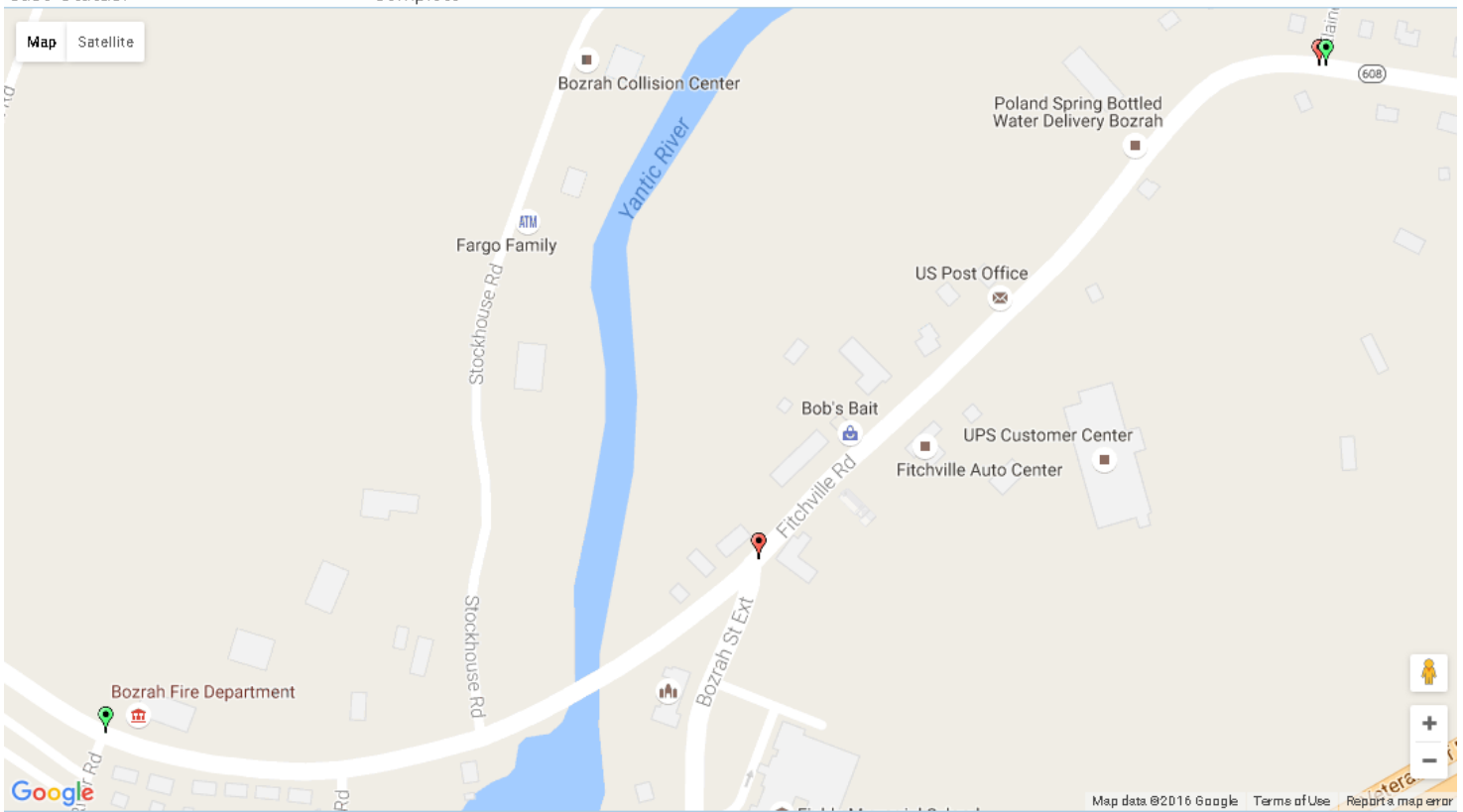
2015 Crashes

UConn

Connecticut Crash Data Repository

Search Criteria:

Dataset: mnucc
Towns: Bozrah
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



Road Safety Audit – Bozrah

Crash Summary

Data: 3 years (2012-2014)

There were no crashes that involved pedestrians.

There were no crashes involving bicyclists.

Severity Type	Number of Crashes	
Property Damage Only	6	75%
Injury (No fatality)	2	25%
Fatality	0	0%
Total	8	

Manner of Crash / Collision Impact	Number of Crashes	
Unknown	0	0%
Sideswipe-Same Direction	0	0%
Rear-end	0	0%
Turning-Intersecting Paths	2	25%
Turning-Opposite Direction	2	25%
Fixed Object	1	13%
Backing	0	0%
Angle	1	13%
Turning-Same Direction	0	0%
Moving Object	0	0%
Parking	0	0%
Pedestrian	0	0%
Overturn	0	0%
Head-on	0	0%
Sideswipe-Opposite Direction	2	25%
Miscellaneous- Non Collision	0	0%
Total	8	



Weather Condition	Number of Crashes	
Snow	0	0%
Rain	0	0%
No Adverse Condition	8	100%
Unknown	0	0%
Blowing Sand, Soil, Dirt or Snow	0	0%
Severe Crosswinds	0	0%
Sleet, Hail	0	0%
Total	8	

Light Condition	Number of Crashes	
Dark-Not Lighted	0	0%
Dark-Lighted	1	13%
Daylight	7	88%
Dusk	0	0%
Unknown	0	0%
Dawn	0	0%
Total	8	

Road Surface Condition	Number of Crashes	
Snow/Slush	0	0%
Wet	1	13%
Dry	7	88%
Unknown	0	0%
Ice	0	0%
Other	0	0.0%
Total	8	



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	0	0%
5:00	5:59	0	0%
6:00	6:59	0	0%
7:00	7:59	1	13%
8:00	8:59	2	25%
9:00	9:59	0	0%
10:00	10:59	1	13%
11:00	11:59	0	0%
12:00	12:59	0	0%
13:00	13:59	0	0%
14:00	14:59	2	25%
15:00	15:59	1	13%
16:00	16:59	0	0%
17:00	17:59	0	0%
18:00	18:59	0	0%
19:00	19:59	0	0%
20:00	20:59	0	0%
21:00	21:59	1	13%
22:00	22:59	0	0%
23:00	23:59	0	0%
Total		8	

Bozrah - Fitchville Road



DRAFT

Legend

- Sidewalk
- Bridge or Culvert
- Stop Controlled Intersection
- Crosswalk
- School Zone Ahead Sign
- School Zone Speed Limit Sign
- School Zone Crossing Sign
- School Bus Stop Sign





Post-Audit Discussion Guide

Safety Issues

- Confirmation of safety issues identified during walking audit

Potential Countermeasures

- Short Term recommendations

- Medium Term recommendations

- Long Term recommendations

Next Steps

- Discussion regarding responsibilities for implementing the countermeasures (including funding)



Road Safety Audit – Bozrah

Fact Sheet

Functional Classification:

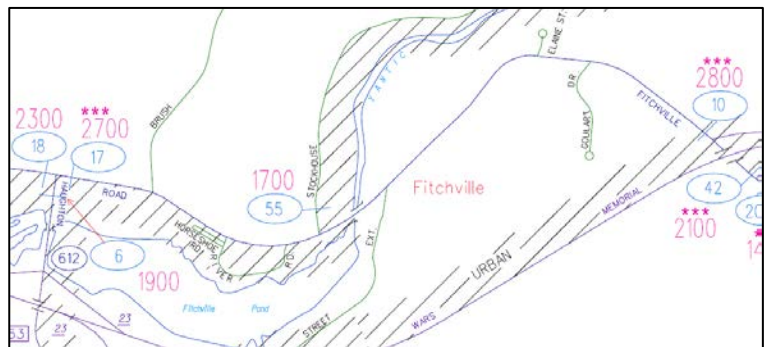
- Fitchville Road is classified as a Major Collector
- Bozrah St Ext is classified as a Local Road

ADT

- ADT on Fitchville Road is 2,300-2,800

Population and Employment Data (2014):

- Population: 2,631
- Employment: 1,172



Urbanized Area

- Bozrah is in the Norwich-New London Urbanized Area

Demographics

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

Air Quality

- Bozrah's CIPP number 601
- Bozrah is within the Greater CT Marginal Ozone Area
- Bozrah is within a CO Attainment Area



COMMUNITY
connectivity program

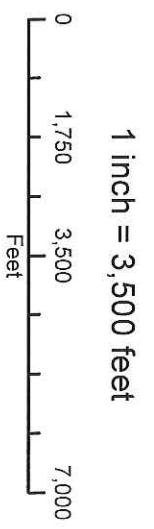
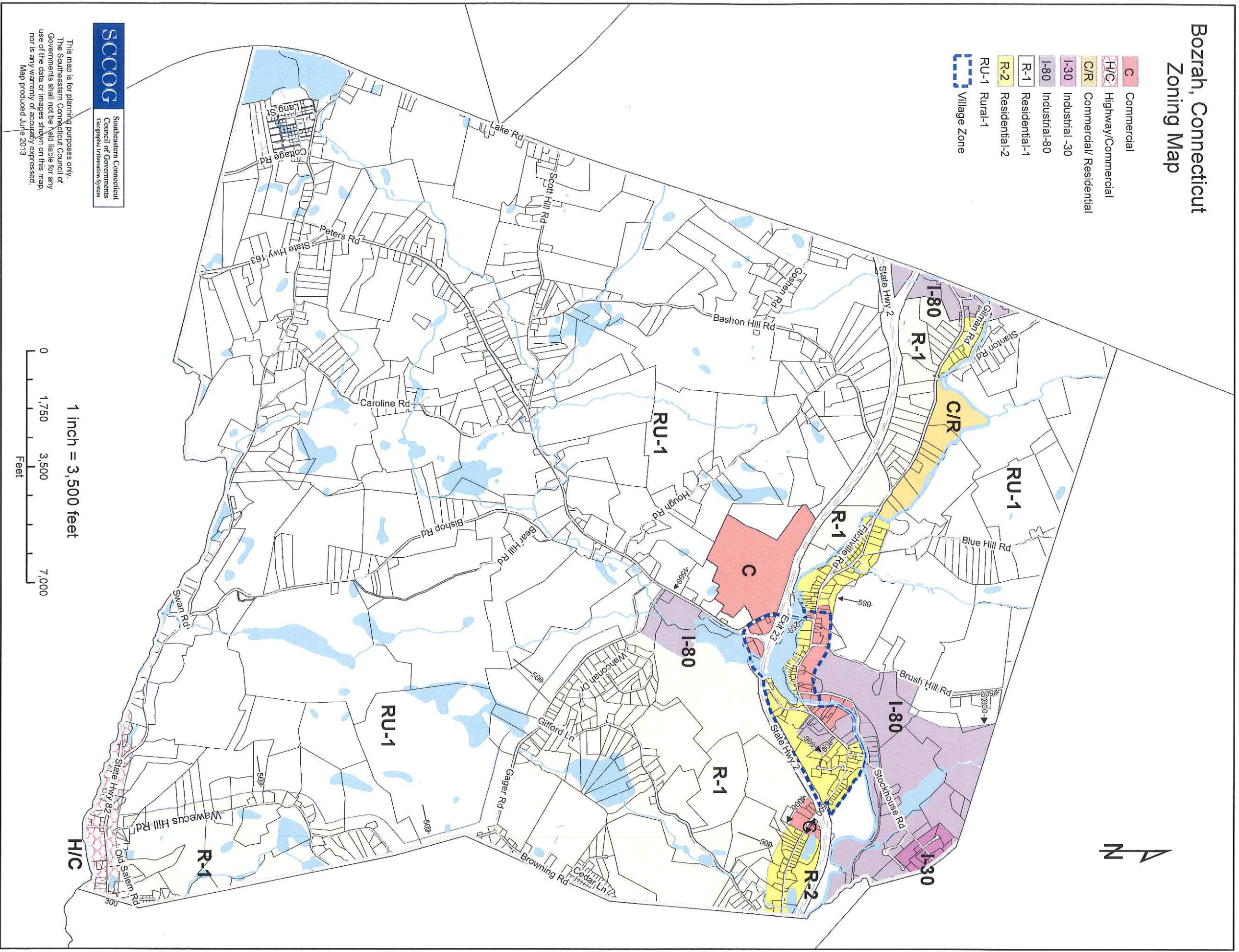
Appendix D



AECOM
Built to deliver a better world

Bozrah, Connecticut Zoning Map

- C Commercial
- H/C Highway/Commercial
- C/R Commercial/ Residential
- I-30 Industrial -30
- I-80 Industrial-80
- R-1 Residential-1
- R-2 Residential-2
- RU-1 Rural-1
- Village Zone



1 inch = 3,500 feet

SCCOG Southeastern Connecticut
Council of Governments
Geographic Information System

This map is for planning purposes only.
The Southeastern Connecticut Council of
Governments shall not be held liable for any
use of the data or images shown on this map,
nor is any warranty of accuracy expressed.
Map produced June 2013