



CAPE COD
COMMISSION

Yarmouth Port Road Safety Audit

Route 6A

Willow Street to Union Street

Final Report, August 9, 2013





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Prepared by the Cape Cod Commission

In cooperation with

The Town of Yarmouth

And

MassDOT Highway Division



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Background

All levels of government— local, regional, state, and federal—have been considering locations where crashes are most severe for many years. Several years ago the national consensus was that there should be goals to reduce crashes, and in the 2005 federal legislation: Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), there was more emphasis on improving highway safety along with a dedicated funding program—the Highway Safety Improvement Program (HSIP).

In an effort to reduce the number of crash-related fatalities and incapacitating injuries, Massachusetts developed a Strategic Highway Safety Plan in 2006. The mission of the Safety Plan is to “Develop, promote, implement, and evaluate data-driven, multidisciplinary strategies to maximize safety for users of the roadway system.” One of the many strategies noted in the Safety Plan is to “conduct Road Safety Audits (RSA) at high-crash locations throughout the Commonwealth.” MassDOT incorporated the RSA as a requirement for securing Federal funding (Highway Safety Improvement Program [HSIP] funds) for safety projects.

The Federal Highway Administration (FHWA) defines a Road Safety Audit (RSA) as the formal safety examination of an existing or future road or intersection by an independent, multidisciplinary team. The purpose of an RSA is to identify potential safety issues and possible opportunities for safety improvements while considering all roadway users.

The Cape Cod Commission, serving as the regional planning agency for the fifteen towns on Cape Cod, has reviewed many transportation locations over the years during various processes, including the Regional Transportation Plan, the Transportation Improvement Program, and Developments of Regional Impact, considering the existing safety issues and potential improvements. In addition, the CCC began looking at specific safety locations annually through safety studies and Road Safety Audits (RSAs). A portion of the federal HSIP funds are allocated for improvements to the region’s highest crash locations.



Introduction

The Town of Yarmouth has approximately 24,000 year-round residents and many seasonal visitors. Yarmouth has historic village areas, local shops and shopping centers, and all three east-west roadways— Route 6A, Route 6, and Route 28—for connections to other Cape Cod towns. Yarmouth, considered to be in the “Mid-Cape” has visitor attractions along with north side beaches on Cape Cod Bay, and warm water south side beaches on Nantucket Sound. In addition the easterly border of town includes Bass River.

Historic Route 6A provides one of the most scenic drives on Cape Cod, but also presents a number of safety and mobility challenges for residents, pedestrians, cyclists, and all other road users. With narrow rights-of-way and historically significant buildings and tree canopies lining the road, it is a challenge to provide both safety and mobility for motorists and all other road users both without compromising the character of the roadway.

The stretch of Route 6A between Willow Street and Union Street in Yarmouth Port has been of particular concern to residents as voiced through the *Safety Over Speed Yarmouthport Village Task Force*. In light of concerns raised by the *Safety Over Speed* group as voiced at the December 7, 2012 Citizens Forum among other meetings, the Cape Cod Commission (CCC) offered to conduct a Road Safety Audit (RSA) in close coordination with the Massachusetts Department of Transportation (MassDOT), the Yarmouth Police Department, and the Town of Yarmouth. The RSA was conducted on March 21, 2013 with the results of this effort being summarized in the following report.

A draft version of this report was presented at the June 20, 2013 *Safety Over Speed Yarmouthport Village Task Force* meeting. A public comment period for the document was open from June 21, 2013 to July 21, 2013. Recommendations from the comments were included in the document and are presented in their entirety in Appendix G.



Road Safety Audit Team

The Road Safety Audit meeting was held on Thursday March 21, 2013, beginning at 9:30 a.m., at the Innovation Room in the Barnstable County Complex on Route 6A in Barnstable. The multidisciplinary team conducted a virtual site visit of the corridor during the RSA meeting utilizing a video recorded earlier in the week with some members of the RSA teams also visiting the site in person.

Table 1. Participating Audit Team Members

Audit Team Member	Agency/Affiliation
George Allaire	Superintendent, Yarmouth Department of Public Works
Steven Xiarhos, Deputy Chief	Yarmouth Police Department
Sgt. Bogden	Yarmouth Police Department
Frank Murray	Safety Over Speed
Susan Bonnell	Safety Over Speed
Karen Dowcett	Safety Over Speed
Lisa Schletzbaum	MassDOT Highway Division – Safety
Corey O'Connor	MassDOT Highway Division – Safety
Edward Feeney	MassDOT Highway Division – District 5 Traffic
Barbara Lachance	MassDOT Highway Division – District 5 Traffic
Priscilla N. Leclerc	Senior Transportation Planner, Cape Cod Commission
Clay Schofield	Transportation Engineer, Cape Cod Commission
Glenn Cannon	Technical Services Director, Cape Cod Commission



Project Location and Description

Route 6A, also referred to as the Old King's Highway, is a scenic byway on Cape Cod running from Bourne to Provincetown with stretches in Eastham, Wellfleet, and Truro running concurrently with Route 6.

The corridor under consideration in this RSA begins at the intersection with Willow Street and continues easterly to the intersection of Union Street. In addition to the intersections at the termini, other major intersections within the RSA corridor include intersections with Summer Street, Strawberry Lane, Center Street, West Yarmouth Road, Playground Road, and Old Church Street as well as numerous other local streets, business site drives, and residential driveways.

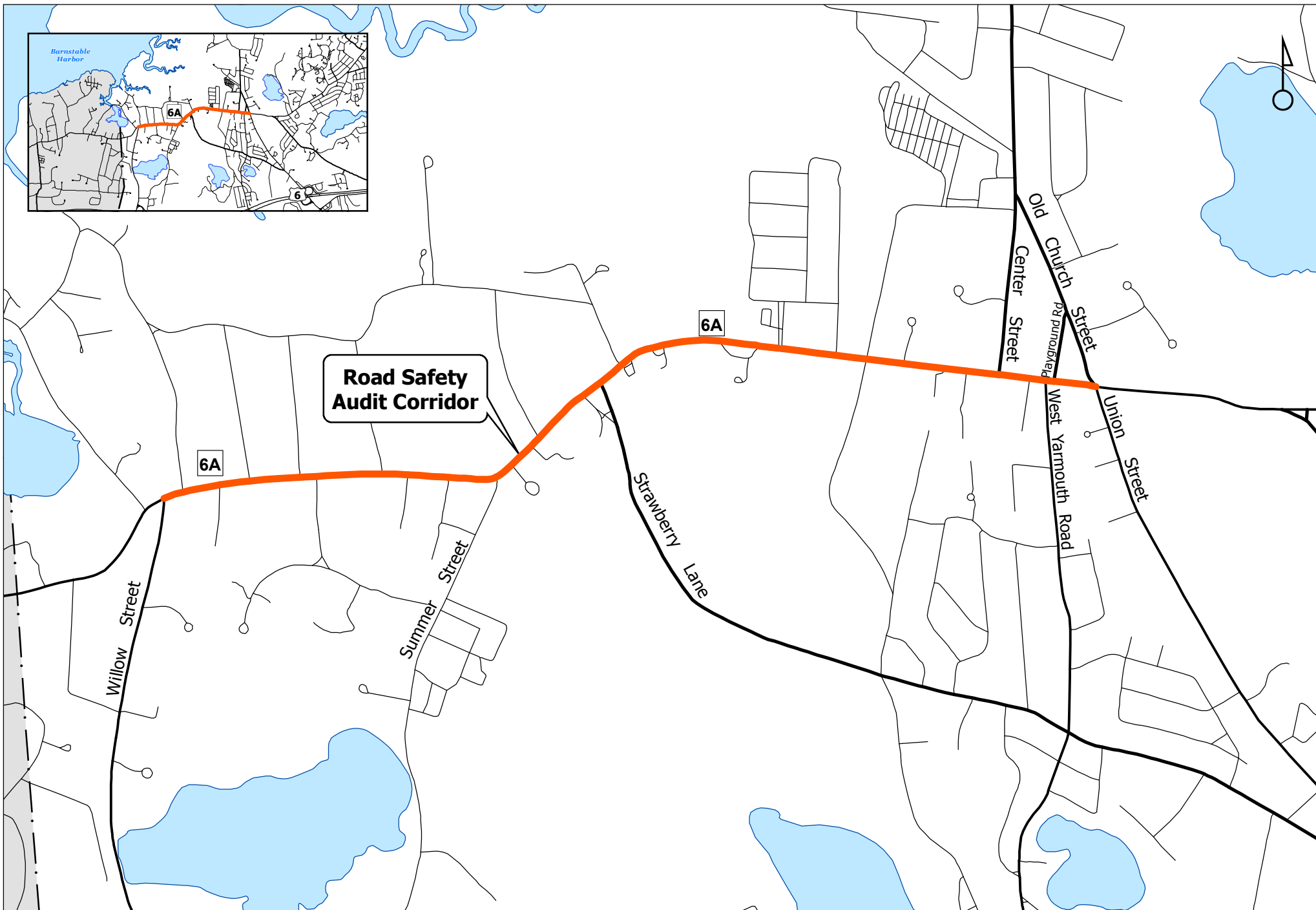
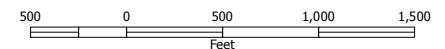


Figure 1: Locus Map

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

Date: 6/18/2013

User: stupper



Sources: MassGIS





Project Data

In early 2013 CCC staff requested crash reports and information from both the Town of Yarmouth and the State Police for this Road Safety Audit. Detailed crash reports were provided by the Yarmouth Police Department covering the approximately three-year period from January 1st, 2010 to January 23rd, 2013. In total there were 73 reported crashes on Route 6A between Willow Street and Union Street during this time period. The highest crash locations were in the vicinity of the Summer Street curve and at the intersection of Route 6A at Union Street. Crash diagrams and summaries for intersection and roadways segments throughout the corridor were developed by CCC staff and reviewed by the RSA team.

In response to community concerns voiced about vehicle speed throughout the corridor, a spot speed study was conducted to quantify this observed safety issue. The location selected, as recommended by the Yarmouth Police Department was on Route 6A east of Minden Lane and west of Summer Street. The location was sufficiently far from the Summer Street curve to attempt to capture vehicles before braking for the curve. Speed data was collected over a 7-day period beginning on December 7, 2013. The 85th percentile speed (often used in speed limit setting) was 36 mph for eastbound traffic and 38 mph for westbound traffic. Overall, 76% of drivers stayed at or under the 35 mph speed limit with only 3% and 0.3% of drivers exceeding 40 mph and 45 mph, respectively. The data also revealed that the greatest incidences of speed occurred between midnight and 9:00 AM. While these speed profiles suggest that drivers are generally obeying the speed limit and that speed limits are in line with drivers 85th percentile speed, the question remains whether speeds are appropriate for the area. Additionally, it should be noted that speed profiles may be different at other times of year and in other segments of the corridor.

The crash diagram, summary data, and the speed limit inventory, vehicle volume and speed data were presented to the RSA team, reviewed at the RSA meeting, and are included in the appendices.

Audit Observations

The RSA Team reviewed the crash diagrams and summaries that were based on the Yarmouth Police Department crash records, along with the traffic volumes, and traffic speed data. Previous observations by the team members were mentioned, and included:

- The volume and speed of vehicular traffic on Route 6A has made it difficult/dangerous to walk, drive along, or cross this section of road



- Posted speed limits vary significantly along the RSA corridor with speed limits seeming too high in many locations
- Crosswalks are not visible enough and should have better signage, consider piano key crosswalks for improved conspicuity
- Many signs are old and non-compliant with current standards
- The curve of Summer Street does not seem to be appropriately signed
- The existing passing zone seems unsafe in this area
- There are too many access points in the village area leading to driver confusion
- Lighting is insufficient in area particularly for pedestrians, consider LEDs for the environment
- Sight distance issues at Willow Street are a significant danger
- Utility poles in the sidewalks are getting in the way of pedestrians – should be behind sidewalks
- Speed humps, bump outs, and raised crosswalks discussed as means to slow traffic and allow for a safer pedestrian experience
- Consideration of digital sign limit signs like those in Barnstable Village discussed
- Possible on-street parking in select areas?
- Traffic circulation around the playground should be looked at, possibly one-way for Old Church Street and Playground Lane
- Look at traffic control options at the intersections with Willow Street, Summer Street, and Union Street including stop sign control, signals, and roundabouts

Considering the comments from all RSA team members, the following safety issues were identified within the RSA corridor:

- **Speed** – While not observed at the particular location studied in the December spot speed study, local knowledge indicates that a speeding problem does exist in part of the RSA corridor. Both within and approaching the RSA corridor there are numerous changes in the posted speed limit that do not always reflect the character and unique hazards of each segment.
- **Signage** – Throughout that RSA corridor a number of signs are in poor condition and do not meet current design standards. Additionally, there is insufficient advanced warning and crosswalk signage.
- **Passing Zones** – A passing zone located in a portion of the RSA study area with a distinct village feel is inconsistent with the character of the surrounding, and, more importantly, dangerous given the number of access points on to the road.

- **Bicycle and Pedestrian Accommodation** – Many crosswalks are not visible enough to a number of factors including faded roadway markings, insufficient/outdated signage, and poor lighting. Obstructions within the sidewalks, mostly utility poles, inhibit safe pedestrian use. Suitable bicycle accommodation are lacking throughout the RSA corridor.
- **Sight Distance / Conflicting Volumes** – At the intersections with Willow Street, Summer Street, and Union Street turning out of or onto the minor street is difficult and, at times, dangerous. Poor geometry, sight distance obstructions, and general congestion on Route 6A contribute to varying degrees at these three locations.

Potential Safety Enhancements

A number of potential safety enhancements were identified to address the identified safety issues. Potential safety enhancements include:

- Replace old non-compliant signs.
- Review locations of existing signs, especially advance warning signs.
- Investigate adding additional signage to alert motorists to crosswalks throughout the RSA corridor.
- Repaint existing crosswalks and consider upgrading crosswalk to "piano key" design.
- Trim trees to increase visibility of crosswalks.
- Review appropriateness of sidewalk locations and relocate as needed (would require full ADA compliance for new crosswalks).
- Install a double yellow centerline through the village to eliminate the existing passing zone.
- Additional edge line marking to delineate the Summer Street curve (dashed or full) to provide additional visual guidance to drivers. Install stop line on Summer Street.
- Install chevron and advisory speed limit signage on both approaches to the Summer Street curve.
- Relocate flashing sign approaching the Summer Street curve paying careful attention to ensure it is properly placed not to be too far in advance of the curve but to give sufficient warning of the curve. Replace damaged bulbs.
- Work with business owner at the Village Store to redesign site access using good access management principles.
- Investigate the feasibility of replacing existing lighting with LED.
- Evaluate the existing street lighting and the potential for additional street lighting, particularly for improved pedestrian safety.
- Conduct a further study of sight distance at Willow Street.



- Conduct formal study of intersections with Willow Street, Summer Street, and Union Street to determine if increased control (all way stop, signal, or roundabout) is warranted.
- Investigate installing textured pavement crosswalks or raised crosswalks in select locations understanding that they would require special approval and careful considerations of all safety impacts.
- Relocate utility poles behind sidewalks and add curbs where needed.
- Investigate modifying Old Church Street by closing it or making it one-way north with Playground Lane serving as the new connector.
- Consider developing on-street parking at select locations.
- Investigate town acquisition of rights to Route 6A from the state to allow for design flexibility.
- Consider geometric changes to the roadway such as bump outs to slow drivers down.
- Install digital speed limit signs to address speeding. Consider adding “State Law” and “\$100 Fine” to the signs.
- Implement targeted police enforcement to address speeding and crosswalk compliance issues.
- Installation of small reflectors along the roadway (like the ones on the telephone poles) for additional roadway delineation.
- Install gateway treatments to visually identify the heart of the village for drivers and consider additional streetscape improvements to create a village feel to cue in drivers that they are entering a more populated and pedestrian oriented area.

Summary of Road Safety Audit

In the following table, the summary list of the Road Safety Audit observations and enhancements is provided to assist in the design and/or implementation of potential improvements elicited during the process. It is also recommended that for any more involved geometric changes, the design process include further analysis and public input.

Safety payoff estimates are subjective and may be based on the relative percent of crashes that may be reduced by the enhancement based on known and documented crash reduction factors, if available, or estimated crash reduction based on a stated source [for example, low (<30%), medium (31% to 70%), and high (>71%)]. The time frame is categorized as short-term (<1 year), medium-term (1 to 3 years), or long-term (>3 years). The costs are categorized as low (<\$10,000), medium (\$10,001 to \$50,000), or high (>\$50,001).



TABLE 2. POTENTIAL SAFETY ENHANCEMENT SUMMARY

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Speed - Posted speed limits are occasionally inconsistent with the character of the road, observed speeds over speed limit in select locations	Install digital speed limits signs while formally investigating appropriate speed limits for the corridor	Low to Medium	Medium-term	Medium	MassDOT
	Use speed data to target enforcement of speed limits and encourage compliance with posted speed limits	Medium	Medium-term	Medium	State/Local Police
	Consider geometric changes and other visual cues to assist drivers in selecting appropriate speeds	High	Long-Term	High	MassDOT
Signage - Insufficient/outdated advanced warning and crosswalk signage	Replace non-compliant signs	Low	Short-term	Low	MassDOT
	Review locations of advanced warning signs	Low	Short-term	Low	MassDOT
	Additional edge line marking to delineate the Summer St. curve	Low	Short-term	Low	MassDOT
	Install chevron and advisory speed limit signage at Summer St. curve approaches	Low to Medium	Short-term	Low	MassDOT
	Relocate flashing sign in advance of Summer Street	Low	Short-term	Low	MassDOT
	Review and add additional crosswalk signage	Low	Medium-term	Low	MassDOT
	Provide additional reflectors for delineation along the roadway	Low	Short-term	Low	MassDOT
Passing Zones - Not appropriate for road conditions	Eliminate passing zone - install double yellow centerline through village	Low	Short-term	Low	MassDOT



Table 2 cont.

Safety Issue	Potential Safety Enhancement	Safety Payoff	Time Frame	Cost	Responsible Agency
Bicycle and Pedestrian Accommodations - crosswalks not visible enough, not well signed, sidewalk obstructions, insufficient lighting	Implement targeted enforcement for driver and pedestrian violations at crosswalks	Low	Short-term	Low	State/Local Police
	Repaint existing crosswalks, consider upgrading crosswalk to "piano key" design	Low to Medium	Short-term to Medium-term	Low to Medium	MassDOT
	Trim trees to increase visibility of crosswalks	Low	Short-term	Low	MassDOT
	Relocate utility poles behind sidewalks and add curbs where needed	Medium	Long-term	High	MassDOT/Utilities
	Consider upgrading existing lighting to LED, installing additional street lighting	Medium to High	Medium-term to Long-term	Medium to High	MassDOT
	Consider raised crosswalks or textured pavement (would require special approval)	High	Long-Term	High	MassDOT
	Review appropriateness of sidewalk locations and relocate as needed	High	Long-Term	High	MassDOT
	Consider Sharrows on Route 6A where appropriate and marking alternate bicycle routes ("Route 6B") were appropriate bicycle accommodation cannot be provided	Medium	Medium-term	Low	MassDOT and/or CCC
Sight distance / conflicting volumes - Willow, Summer, and Union difficult to turn out of/onto	Maintain/improve sight distances through trimming of vegetation	Low to Medium	Short-term	Low	MassDOT
	Review access management option in village area, reduce curb curbs	Low to Medium	Medium-term	Medium	Town
	Conduct formal study of intersections with Willow, Summer, and Union to determine if increased control (all way stop, signal, or roundabout) is warranted	High	Long-Term	High	MassDOT
	Consider changes to superelevation of intersection with Summer Street	High	Long-Term	High	MassDOT



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Progress Update

During the course of the preparing the RSA report, progress was made on some of the preliminary recommendations from the RSA.

MassDOT replace a number of crosswalk signs throughout the corridor. They also eliminated the passing zone discussing in the RSA meeting marking the roadway with a double yellow center line. Examples of both of these improvements are shown in the figure below.

Continued minor improvements such as repainting of crosswalks are also planned.



FIGURE 2. STRIPING AND PEDESTRIAN SIGNAGE IMPROVEMENTS

In addition to the improvements made by MassDOT, the Yarmouth Police Department continues to be actively engaged in improving safety in corridor. According to a media release furnished by the Yarmouth Police Department “In the two-hour deployment Yarmouth Police Officers stopped 13 motor vehicles for failing to yield for a pedestrian. Each motorist was reminded of the crosswalk laws in Massachusetts and released with a verbal warning.”

Appendix A. RSA Meeting Agenda

3225 MAIN STREET • P.O. BOX 226
BARNSTABLE, MASSACHUSETTS 02630



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Road Safety Audit Meeting

Route 6A – Union Street to Willow Street, Yarmouth Port

Thursday, March 21, 2013

9:30 a.m. – 12:30 p.m.

Location: Innovation Room, Barnstable County Complex (see map)

9:30 a.m. Welcome and Introductions

9:45 a.m. Review of Site Specific Material

- Review of RSA procedures
- Crash, & Speed Summaries

10:15 a.m. Virtual Site Visit

- Crash area packets
- Roadway Video

10:00 p.m. Site Discussion

- Discuss observations and develop findings
- Discuss potential improvements and finalize recommendations

11:00 a.m. Optional Site Visit

12:00 p.m. Wrap Up

Next Steps: After the RSA meeting, CCC staff will prepare a draft document and circulate it to participants. Participants are asked to comment and respond to the draft document to assure it is reflective of the RSA completed by the multidisciplinary team.

With comments submitted, a final document is then produced; the final document is expected to be available in May 2013.

Appendix B. RSA Audit Team Contact List

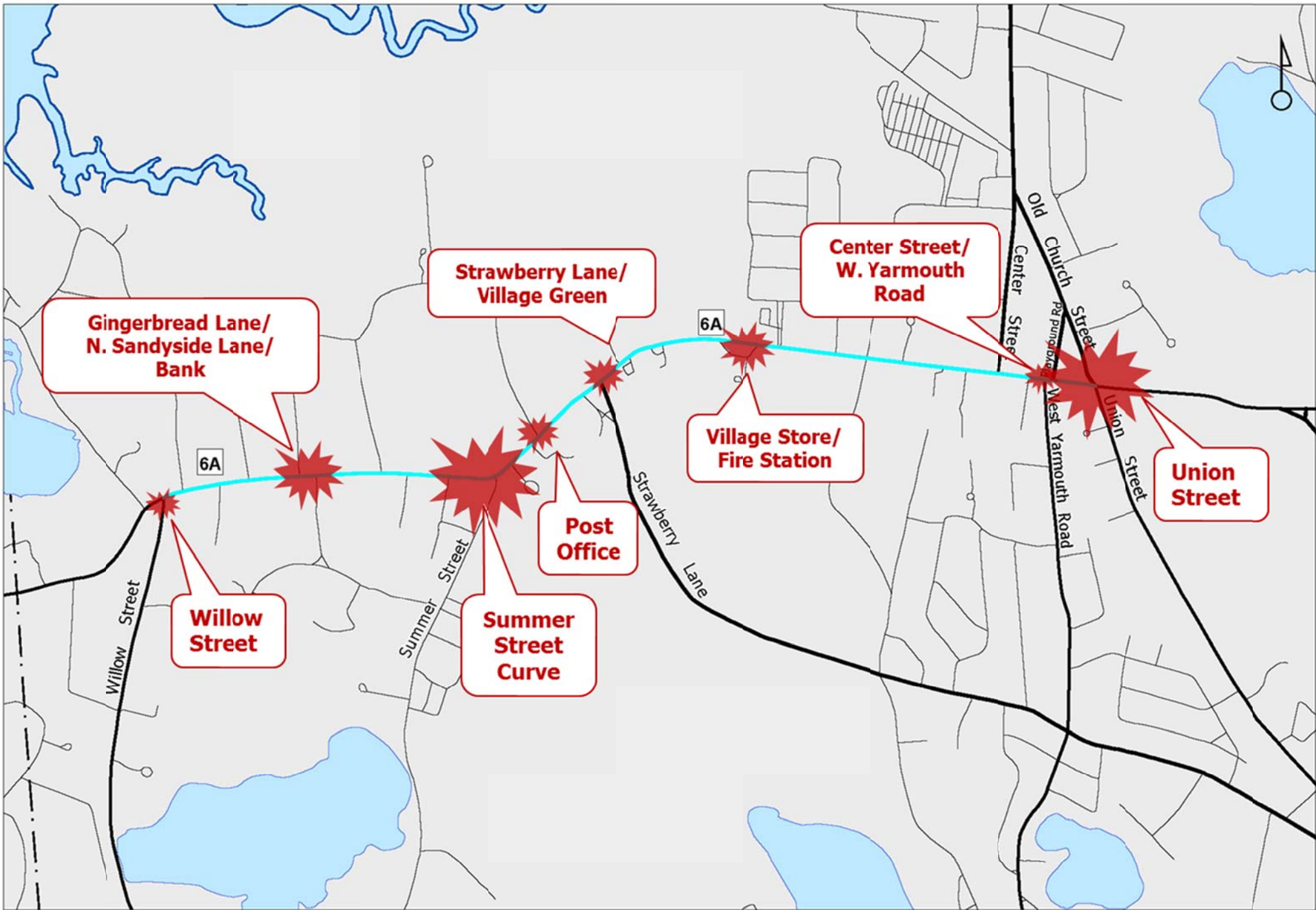
Participating Audit Team Members

Date: 3/21/13

Location: Barnstable County Complex, Route 6A Barnstable

Audit Team Member	Agency/Affiliation	Email	Phone Number
George Allaire	Superintendent, Yarmouth Department of Public Works	gallaire@yarmouth.ma.us	508-398-2231
Steven Xiarhos, Deputy Chief	Yarmouth Police Department	SXiarhos@yarmouth.ma.us	508-775-0445
Sgt. Bogden	Yarmouth Police Department		508-775-0445
Frank Murray	Safety Over Speed	fmurray2@comcast.net	
Susan Bonnell	Safety Over Speed		
Karen Dowcett	Safety Over Speed	kahrendowcett@gmail.com	
Lisa Schletzbaum	MassDOT Highway Division – Safety	lisa.schletzbaum@state.ma.us	857-368-9634
Corey O’Conner	MassDOT Highway Division – Safety	Corey.oconor@state.ma.us	978-852-0617
Edward Feeney	MassDOT Highway Division – District 5 Traffic	edward.feeney@state.ma.us	508-884-4242
Barbara Lachance	MassDOT Highway Division – District 5 Traffic	barbara.lachance@state.ma.us	508-884-4260
Priscilla N. Leclerc	Senior Transportation Planner, Cape Cod Commission	pleclerc@capecodcommission.org	805-362-3828
Clay Schofield	Transportation Engineer, Cape Cod Commission	cschofield@capecodcommission.org	805-362-3828
Glenn Cannon	Technical Services Director, Cape Cod Commission	gcannon@capecodcommission.org	805-362-3828

Appendix C. Detailed Crash Data



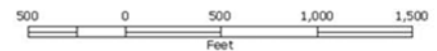
Crash Clusters

The information depicted on these maps is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel level analysis. It should not substitute for actual on-site survey, or supersede deed research.

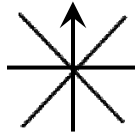
Sources: MassGIS

Date: 6/18/2013

User: stupper



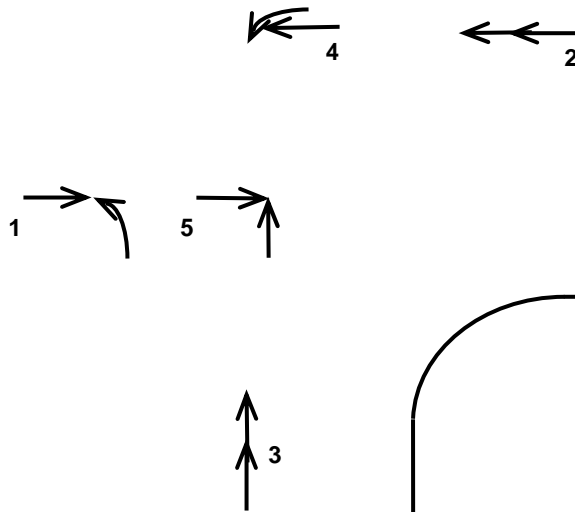
Collision Diagram



North



















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Route 6A

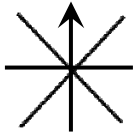
Willow Street

SYMBOLS	TYPES OF COLLISIONS	CRASH INFORMATION
<ul style="list-style-type: none">  Moving Vehicle  Backing Vehicle  Non-involved Vehicle  Pedestrian  Bicyclist  Parked Vehicle  Fixed Object  Fatal Accident  Injury Accident 	<ul style="list-style-type: none">  Rear-End  Head On  Side Swipe  Out of Control  Turning Movement  Angle  Vehicle path 	<p>Each crash is numbered and additional information is included on the crash summary.</p> <p>Notes:</p>

INTERSECTION Route 6A AND Willow St Town of Yarmouth

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



North

Route 6A, Yarmouth Port

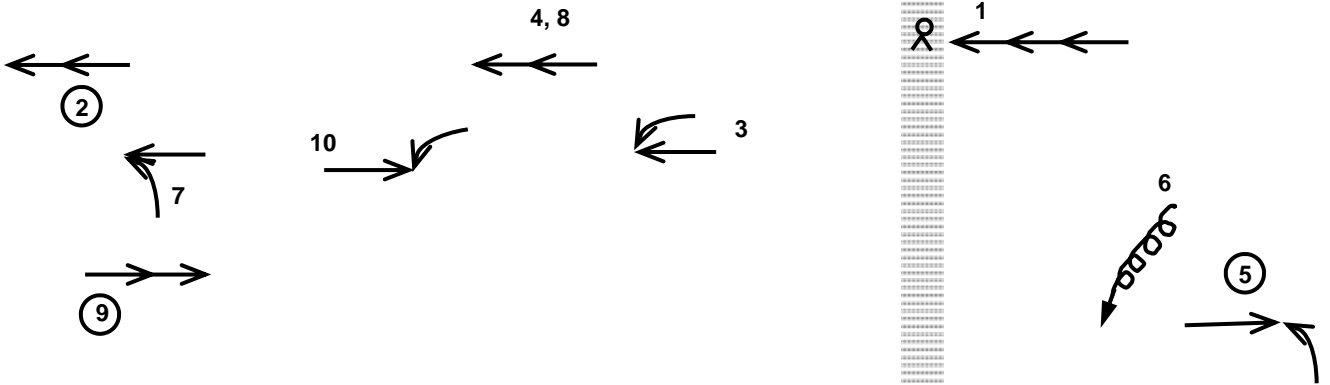
Gingerbread Lane



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Not to scale

Restaurant



Bank

Bank

Consignment shop

Route 6A

No. Sandyside Lane

Store

SYMBOLS

- Moving Vehicle
- Backing Vehicle
- Non-involved Vehicle
- Pedestrian
- Bicyclist
- Parked Vehicle
- Fixed Object
- Fatal Accident
- Injury Accident

TYPES OF COLLISIONS

- Rear-End
- Head On
- Side Swipe
- Out of Control
- Turning Movement
- Right Angle
- Vehicle path

CRASH INFORMATION

Each crash is numbered and additional information is included on the crash summary.

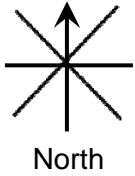
Notes:

Gray areas depict approximate business driveways for informational purposes only; the two banks share access and a front parking area.

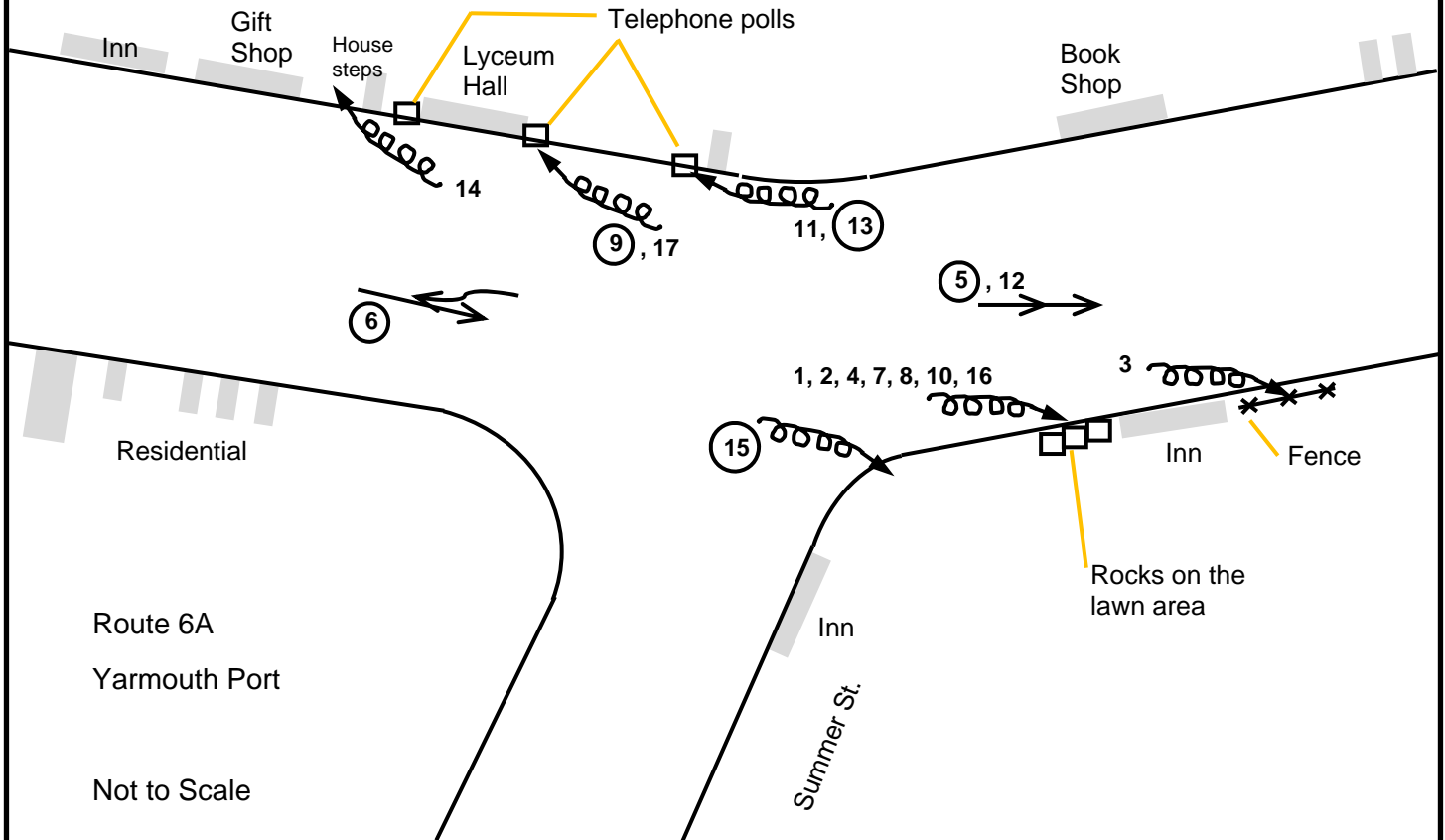
ROADWAY LINK SECTION Route 6A, Yarmouth Port, East of Willow St. to Gingerbread Lane area

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram
















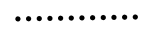


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Route 6A
Yarmouth Port

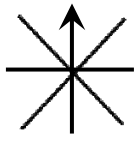
Not to Scale

SYMBOLS	TYPES OF COLLISIONS	CRASH INFORMATION
<ul style="list-style-type: none">  Moving Vehicle  Backing Vehicle  Non-involved Vehicle  Pedestrian  Bicyclist  Parked Vehicle  Fixed Object  Fatal Accident  Injury Accident 	<ul style="list-style-type: none">  Rear-End  Head On  Side Swipe  Out of Control  Turning Movement  Right Angle  Vehicle path 	<p>Each crash is numbered and additional information is included on the crash summary.</p> <p>Notes:</p>

LINK Summer Street area Route 6A Yarmouth Port

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



North

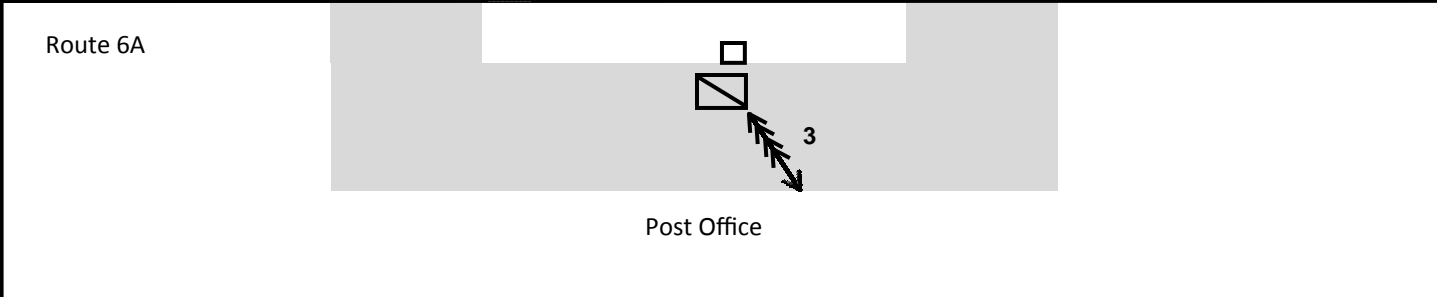
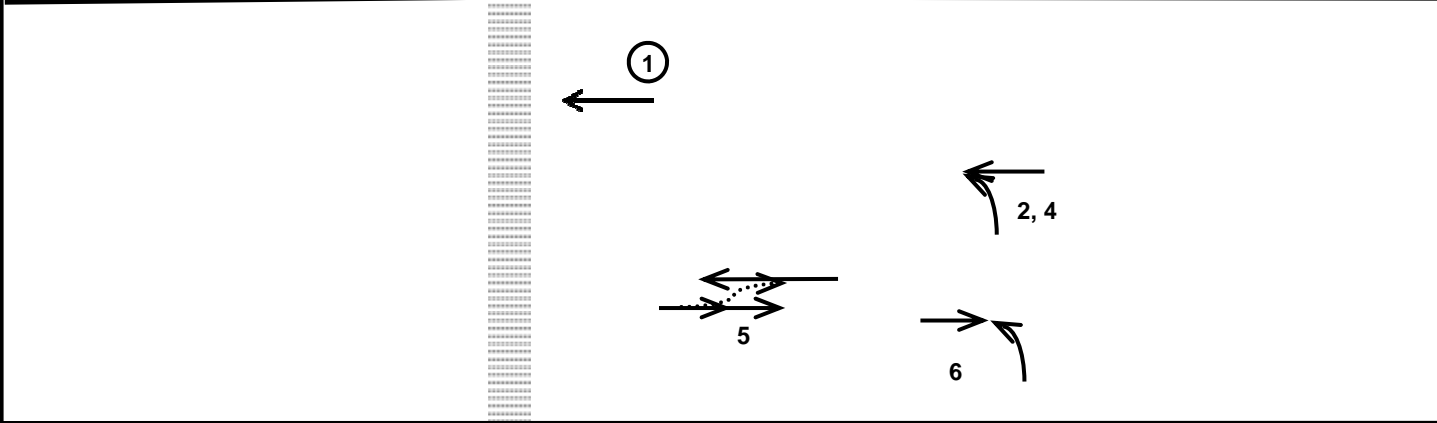
Route 6A, Yarmouth Port



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Not to scale

Thatcher Street



Route 6A

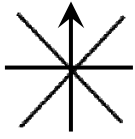
Post Office

SYMBOLS	TYPES OF COLLISIONS	CRASH INFORMATION
<ul style="list-style-type: none"> Moving Vehicle Backing Vehicle Non-involved Vehicle Pedestrian Bicyclist Parked Vehicle Fixed Object Fatal Accident Injury Accident 	<ul style="list-style-type: none"> Rear-End Head On Side Swipe Out of Control Turning Movement Angle Vehicle path 	<p>Each crash is numbered and additional information is included on the crash summary.</p> <p>Notes:</p>

ROADWAY LINK SECTION Route 6A, Yarmouth Port, Thatcher Street and the Post Office area

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



North

Route 6A, Yarmouth Port

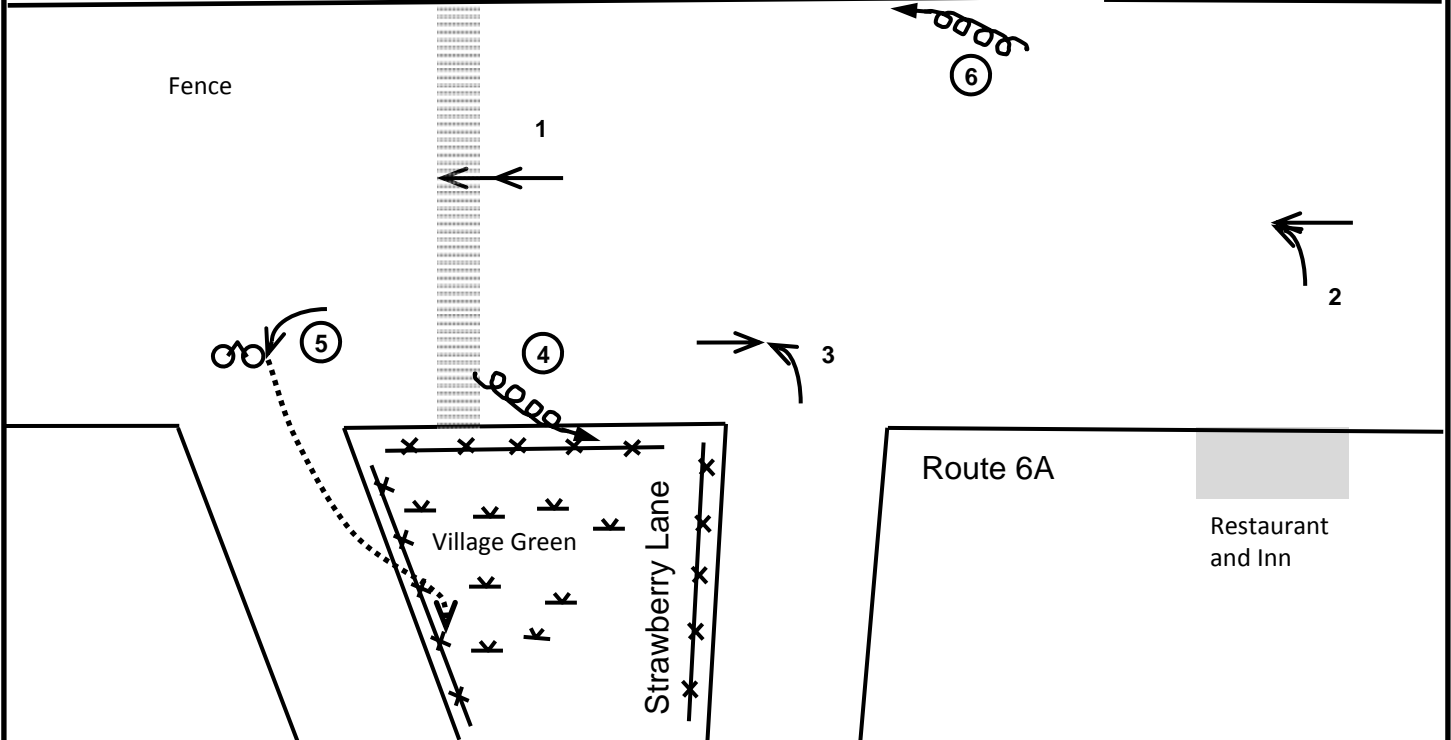
Stone wall with metal railing and telephone pole



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Church Street

Not to scale



SYMBOLS

- Moving Vehicle
- Backing Vehicle
- Non-involved Vehicle
- Pedestrian
- Bicyclist
- Parked Vehicle
- Fixed Object
- Fatal Accident
- Injury Accident

TYPES OF COLLISIONS

- Rear-End
- Head On
- Side Swipe
- Out of Control
- Turning Movement
- Angle
- Vehicle path

CRASH INFORMATION

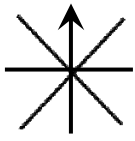
Each crash is numbered and additional information is included on the crash summary.

Notes:

ROADWAY LINK SECTION Route 6A, Yarmouth Port, Strawberry Lane / Village green area

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



North

Route 6A, Yarmouth Port

Village Store

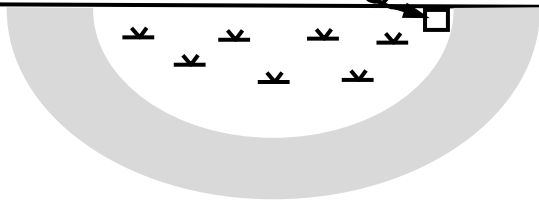
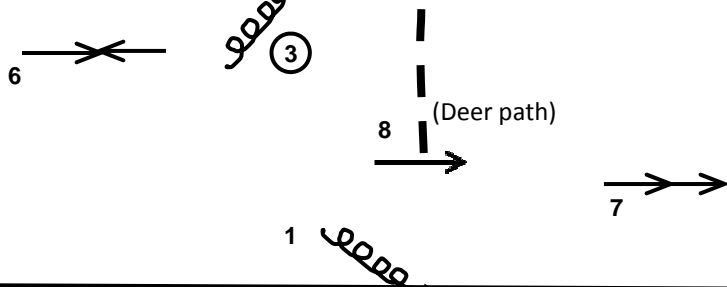
Fire Station



CAPE COD
COMMISSION

Red Jacket Road

Not to scale



Route 6A

Church

SYMBOLS

- Moving Vehicle
- Backing Vehicle
- Non-involved Vehicle
- Pedestrian
- Bicyclist
- Parked Vehicle
- Fixed Object
- Fatal Accident
- Injury Accident

TYPES OF COLLISIONS

- Rear-End
- Head On
- Side Swipe
- Out of Control
- Turning Movement
- Angle
- Vehicle path

CRASH INFORMATION

Each crash is numbered and additional information is included on the crash summary.

Notes:

ROADWAY LINK SECTION Route 6A, Yarmouth Port, Fire Station area

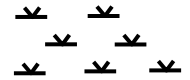
CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



CAPE COD
COMMISSION

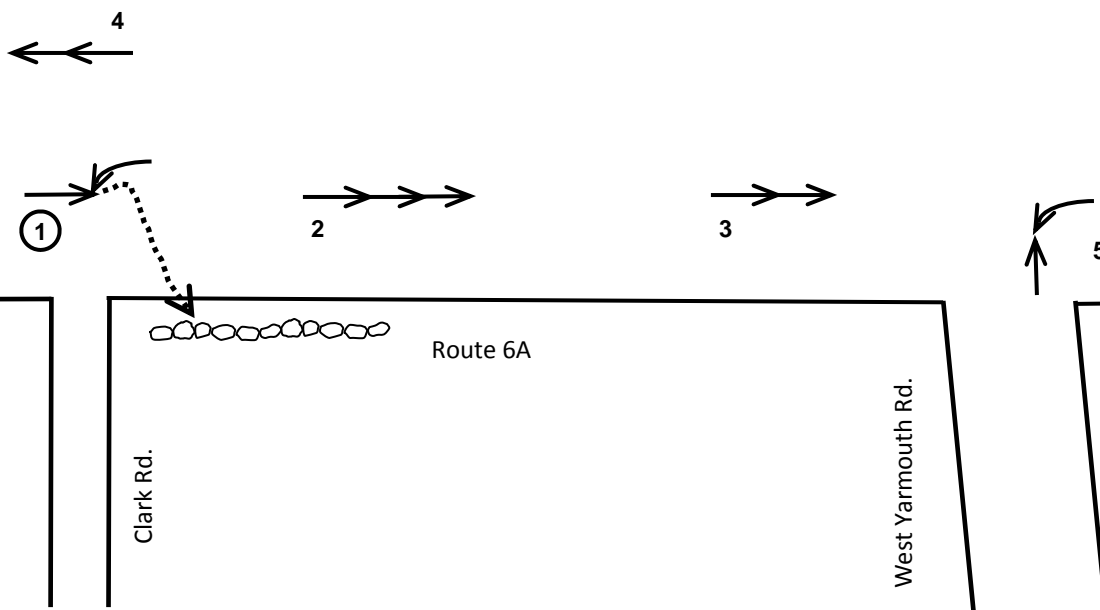
Not to scale



















North
Route 6A
Yarmouth Port

Center St.

Playground Lane

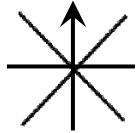


SYMBOLS	TYPES OF COLLISIONS	CRASH INFORMATION
<ul style="list-style-type: none">  Moving Vehicle  Backing Vehicle  Non-involved Vehicle  Pedestrian  Bicyclist  Parked Vehicle  Fixed Object  Fatal Accident  Injury Accident 	<ul style="list-style-type: none">  Rear-End  Head On  Side Swipe  Out of Control  Turning Movement  Angle  Vehicle path 	<p>Each crash is numbered and additional information is included on the crash summary.</p> <p>Notes:</p>

ROADWAY LINK SECTION Route 6A, Yarmouth Port, Center St. — West Yarmouth Road area

CRASHES FROM 1/1/2010 TO 1/23/2013

Collision Diagram



North

(playground)

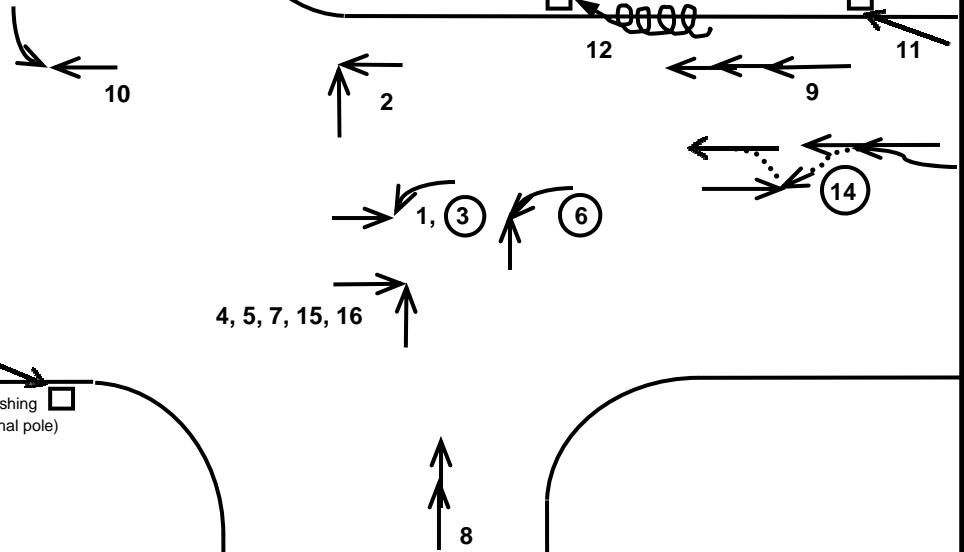


CAPE COD
COMMISSION

Old Church Street

(curbed island)

(pole)



Route 6A

(flashing
signal pole)

Union Street

SYMBOLS

- Moving Vehicle
- Backing Vehicle
- Non-involved Vehicle
- Pedestrian
- Bicyclist
- Parked Vehicle
- Fixed Object
- Fatal Accident
- Injury Accident

TYPES OF COLLISIONS

- Rear-End
- Head On
- Side Swipe
- Out of Control
- Turning Movement
- Angle
- Vehicle path

CRASH INFORMATION

Each crash is numbered and additional information is included on the crash summary.

Notes:

INTERSECTION Route 6A AND Union St Town of Yarmouth

CRASHES FROM 1/1/2010 TO 1/23/2013

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	7/29/2010	Thursday	11:38 AM	2	0	Angle	V1 Turning left V2 Trav straight ahead	V1: E V2: N	V1 NB Willow Street began turning left to go WB 6A and struck V2 EB 6A	44	44	dry	cloudy	V1 - 3 Disregarded traffic signs, signals, road markings
2	8/14/2010	Saturday	9:09 AM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or stopped	V1: W V2: W	V2 WB 6A slows to a stop at the Willow St. intersection, and V2 rear-ends V1.	55	62	dry	clear	V1 - 19 Inattention
3	6/16/2011	Thursday	12:30 PM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or stopped	V1: N V2: N	V2 NB Willow St. waiting to turn right, and started to move forward but then stopped again. V1 saw V2 moving forward, looked left & rolled forward into V2.	82	53	dry	clear	V1 - 19 Inattention
4	7/1/2011	Friday	11:15 PM	2	0	Sideswipe, same direction	V1 Turning left V2 Trav straight ahead	V1: S V2: W	V2 WB 6A slowing to turn at the Willow St. intersection, and V2 attempts to pass V1 hitting the driver's side then proceeded to park at the corner of Willow St. V1 pulled in to talk to V2 and V2 left the scene.	19	54	dry	clear	V1 - 10 Operating veh in erratic, reckless, careless, negligent or aggressive manner and - 9 failure to keep in lane or running off road
5	9/13/2012	Thursday	3:42 PM	2	0	Angle	V1 Trav straight ahead V2 Slowing or stopped	V1: E V2: N	V1 EB 6A and V2 NB on Willow St. proceeded to enter lane and hit V1. V2 operator requested tow stating that he believed his brakes were defective.	36	82	dry	clear	V2 - 4 Failed to yield ROW

# injury crashes	0	0
# property damage only crashes	5	5
Total crashes this segment	5	5 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	8/16/2010	Monday	3:40 PM	3	0	Rear-end	V1 Trav straight ahead V2 Slowing or Stopped V3 Slowing or Stopped	V1: W V2: W V3: W	all 3 veh travelling WB on Rte. 6A, & V3 slows stops for ped in crosswalk, V2 slows stops behind V3, but V1 rear-ends V2 pushing into V3.	21	25	dry	clear	V1 - 19 inattention
2	8/26/2010	Thursday	2:19 PM	2	1	Rear-end	V1 Slowing or Stopped V2 Trav straight ahead	V1: W V2: W	V1 stopped in traffic WB near 115 Rte. 6A, and V2 rear-ends V1 (V2 op reported brakes not working, but skid marks were noted by responding Officer)	48	21	dry	clear	V2 - 5 Followed too closely & 22 operating defective equipment
3	10/18/2010	Monday	11:34 AM	2	0	Angle	V1 Passing V2 Slowing or Stopped	V1: W V2: W	V2 slowing on 6A to turn left into bank, V1 attempted to pass V2, & vehicles collided.	54	83	dry	clear	none
4	10/21/2010	Thursday	11:20 AM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or Stopped	V1: W V2: W	V2 stopped on 6A waiting for traffic to turn left into bank, V1 did not stop in time and rear-ends V2 (truck w attached landscape trailer)	24	88	dry	clear	V1 - 22 operating defective equipment
5	3/22/2011	Tuesday	5:35 PM	2	2	Angle	V1 Trav straight ahead V2 Entering traffic lane	V1: E V2: N	V1 EB on 6A near 161 Rte 6A. V2 was in the 161 Rte. 6A driveway & attempting to turn left to go Rte. 6A WB; V2 pulled out in front of V1, and V1 hit V2.	60	35	dry	cloudy	V2 - 4 Failed to yield ROW
6	8/3/2011	Wednesday	3:51 AM	1	0	Single Vehicle Crash	V1 Trav straight ahead	V1: W	V1 driver admitted falling asleep at the wheel, V1 crossed the centerline and hit the store front destroying the whole front end of the store.	18		dry	clear	V1 - 21 fatigued/ asleep
7	10/28/2011	Friday	1:00 PM	2	0	Angle	V1 Entering traffic lane V2 Trav straight ahead	V1: W V2: E	V1 attempting to enter traffic from bank driveway to go WB, waved on by an EB veh, moved out and collided with V2 WB	29	65	dry	clear	V1 - 19 inattention
8	11/3/2011	Thursday	9:02 AM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or Stopped	V1: W V2: W	V2 traveling WB slows in traffic and is rear-ended by V2 who was following too closely. Moderate damage to both vehicles with V2 towed from the scene.	31	65	dry	clear	V1 - 5 Followed too closely
9	5/28/2012	Monday	5/28/2012	2	1	Rear-end	V1 Slowing or Stopped V2 Trav straight ahead	V1: E V2: E	V1 EB on Rte. 6A stopped to allow a vehicle to exit the bank driveway. While stopped V1 was rear-ended by V2 (motorcycle).	52	52	dry	clear	V2 - 5 Followed too closely
10	7/5/2012	Thursday	10:05 AM	2	0	Angle	V1 Turning left V2 Trav straight ahead	V1: W V2: E	V1 6A WB and turned left in front of V2 traveling EB.	72	24	dry	clear	V1 - 6 Made an improper turn

# injury crashes	3	15
# property damage only crashes	7	7
Total crashes this segment	10	22 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	1/8/2010	Friday	1:28 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A failed to negotiate curve and went off road & hit rock (OYInn)	23		dry	clear	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner
2	3/14/2010	Sunday	12:20 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	Diagram shows vehicle failed to negotiate curve and hit rock (OYInn) (narrative mentioned was not attached)	48		wet	rain	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner
3	6/13/2010	Sunday	10:16 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A driver began to experience stroke like symptoms and went off road & hit fence (OYInn)	78		wet	rain	V1 -17 History Heart / Epilepsy / Fainting
4	7/2/2010	Friday	5:59 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A sunglare and failed to negotiate the curve and struck rock (OYInn)	32		dry	clear	V1 - 13 glare
5	9/9/2010	Thursday	5:39 PM	2	1	Rear-end	V1 Followed too closely V2 Trav straight ahead	V1: E V2: E	V1 was turning into the parking lot of the Old Yarmouth Inn and was rear-ended by V2	36	19	dry	clear	V2 -19 inattention
6	9/11/2010	Saturday	7:18 AM	2	1	Sideswipe, opposite direction	V1 Trav straight ahead V2 Trav straight ahead	V1: W V2: E	V1 WB 6A lost control & swerved into oncoming EB V2	21	66	dry	clear	V1 -10 Operating veh in erratic, reckless... and - 2 speeding
7	1/31/2011	Monday	12:46 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A operator ran off road into a snow embankment; [operator confused about where he lives] (OYInn)	89		ice	clear	V1 - 20 Distracted
8	3/1/2011	Tuesday	11:33 PM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A drifted off roadway and struck 2 St. signs, corrected path and continued then failed to negotiate corner & hit boulders (OYInn) OUI	67		dry	clear	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner
9	6/13/2011	Monday	3:40 PM	1	1	Single Vehicle Crash	V1 Traveling straight ahead	V1: W	V1 WB 6A speeding, lost control (137' skid marks), went sideways on roadway and ultimately into telephone pole #1/40	26		dry	cloudy	V1 -10 Operating veh in erratic, reckless... and - 2 speeding
10	7/8/2011	Friday	1:34 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A speeding, left roadway into rocks and turned 180 facing WB on OYInn property. Operator OUI	28		dry	clear	V1 -10 Operating veh in erratic, reckless... and -19 inattention
11	8/6/2011	Saturday	10:59 PM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: W	Officer observed a vehicle traveling along WB 6A at about 37 mph missing its front passenger tire; V1 had struck pole # 1/39 & came to rest at Mill La. Operator OUI	23		dry	clear	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner
12	1/24/2012	Tuesday	11:22 AM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or Stopped	V1: E V2: E	V2 EB 6A slowing/ stopping in traffic, and V1 EB rear-ended V2 (OYInn area)	52	42	dry	cloudy	V1 -19 inattention

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
13	5/16/2012	Wednesday	4:45 PM	1	1	Single Vehicle Crash	V1 Traveling straight ahead	V1: W	V1 WB 6A around curve then accelerated and hit pole #1/39. Operator suffered a medical event causing the crash.	56		dry	cloudy	V1 - 16 illness and - 17 History Heart / Epilepsy / Fainting
14	9/21/2012	Friday	2:27 PM	1	0	Angle	V1 Traveling straight ahead	V1: W	V1 EB 6A off roadway into tel. pole, then continued hitting fence & coming to a stop at the house steps 198 Rte 6A OUI	54		dry	cloudy	V1 - 22 Operating defective equipment and - 14 physical impairment
15	11/3/2012	Saturday	11:07 AM	1	1	Single Vehicle Crash	V1 Traveling straight ahead	V1: E	V1 EB 6A operator lost consciousness & traveled over traffic warning sign thru shrubs sm. trees and garden stopping OYInn	31		dry	oudy	V1 - 16 illness
16	12/27/2012	Thursday	11:45 PM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: W	V1 EB 6A operator lost control hitting rocks off roadway at OYInn; verbal warning for marked lane violation & speeding	30		wet	rain, blowing snow	V1 - 19 inattention
17	1/12/2013	Saturday	11:59 AM	1	0	Single Vehicle Crash	V1 Traveling straight ahead	V1: W	V1 WB 6A when operator was distracted by the dog in the vehicle-vehicle left roadway and hit pole #1/40.	51		wet	rain	V1 - 99 unknown

5

injury crashes 5 25
 # property damage only crashes 12 12
 Total crashes this segment 17

37 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	7/22/2010	Thursday	9:28 AM	1	1	Unknown	V1 Slowing or stopped	V1: W	Motorcycle downed as trying to stop behind turning /stopped traffic	49		dry	cloudy	V1 -19 inattention
2	4/5/2011	Tuesday	1:12 PM	2	0	Angle	V1 Entering traffic lane V2 Trav straight ahead	V1: N V2: W	V1 attempted to exit the PO driveway and go WB 6A and collided with V2 WB 6A	73	45	dry	cloudy	V1 - Failed to yield ROW
3	4/20/2011	Wednesday	3:15 PM	2	0	Angle	V1 Parked V2 Backing	V1: E V2: S	V1 was parked at the outside mailboxes and V2 was backing out of a parking space and backed into V1	46	59	dry	cloudy	V2 -19 inattention
4	10/4/2011	Tuesday	10:54 AM	2	0	Angle	V1 Entering traffic lane V2 Trav straight ahead	V1: N V2: W	V1 attempted to exit the PO driveway and go WB 6A and collided with V2 WB 6A	89	27	dry	clear	V1 - Failed to yield ROW
5	6/15/2012	Friday	3:04 PM	3	0	Rear-end then sideswipe	V1 Trav straight ahead V2 Slowing or stopped V3 Trav straight ahead	V1: E V2: E V3: W	V2 EB 6A stopped to let a mail truck exit PO, V1 rear-ends V2 (hitting the drivers side back panel), and then moves left into the rear of V3 heading WB 6A	41	72	dry	clear	V1 -20 Distracted
6	10/2/2012	Tuesday	3:36 PM	2	0	Angle	V1 Trav straight ahead V2 Entering traffic lane	V1: E V2: N	V1 EB 6A while V2 attempts exit from PO and hits V1; V2 operator reported that he did not see V1 coming	25	81	dry	clear	V1 - No Improper driving V2 - No Improper driving

# injury crashes	1	5
# property damage only crashes	5	5
Total crashes this segment	6	10 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	7/27/2010	Tuesday	5:24 PM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or stopped	V1: W V2: W	V2 WB 6A was stopped, waiting to turn left onto Strawberry Lane, and was struck from behind by V1	18	41	dry	clear	V1 -19 inattention
2	10/30/2010	Saturday	9:11 PM	2	0	Angle	V1 Entering traffic lane V2 Trav straight ahead	V1: W V2: W	V1 exiting Colonial House Inn parking lot to 6A WB into path of V2 WB 6A and V2 hit V1.	71	83	dry	clear	V1 - 4 Failed to yield ROW
3	1/13/2012	Friday	9:02 AM	2	0	Angle	V1 Trav straight ahead V2 Trav straight ahead	V1: N V2: E	V1 NB Strawberry Lane turning left on 6A WB and collided with V2- a Verizon utility truck.	24	41	wet	cloudy	V1 - 3 Disregarded traffic signs, signals, road markings and -19 inattention
4	3/20/2012	Tuesday	12:41 AM	1	1	Single Vehicle Crash	V1 Trav straight ahead	V1: E	V1 lane departure into village green fence (no narrative just a sketch in crash report)	21		dry	clear	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner and -9 failure to keep in lane or running off road
5	6/16/2012	Saturday	12:44 PM	1 and a bicycle	1	Single Vehicle Crash / & Bicycle	V1 Turning left	V1: S	V1 WB 6A turning S (left) onto Strawberry Lane in the path of a cyclist. Cyclist hits V1 & falls injured; V1 then accelerates & veers left off of rdway thru fence on village green	88	55	dry	clear	"no improper driving" on crash report
6	9/9/2012	Sunday	2:08 AM	1	2	Single Vehicle Crash	V1 Trav straight ahead	V1: W	V1 out of control hits telephone pole then spins around and into stone wall with metal railing (no narrative just sketch)	30		wet	cloudy	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner

# injury crashes	3	15
# property damage only crashes	3	3
Total crashes this segment	6	18 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	6/6/2010	Sunday	12:07 PM	1	0	Single Vehicle Crash	V1 Trav straight ahead	V1: E	V1 EB 6A when a vehicle began backing out of a driveway toward him, he had to swerve right to avoid collision and struck a tree & retaining wall at #329 (Church) & became wedged	21		dry	clear	V1 - 9 Failure to keep in proper lane or running off road
2	1/18/2011	Tuesday	10:10 AM	2	1	Angle	V1 Backing V2 Entering traffic lane	V1: S V2: E	V2 was waiting to exit the village store parking lot when V1 backed up into V2. V2 operators back was injured and he was transported to CCH.	77	57	wet	cloudy, rain	V1 - 19 Inattention
3	3/12/2011	Saturday	1:38 AM	1	1	Single Vehicle Crash	V1 Trav straight ahead	V1: E	V1 EB 6A and crossed over the double yellow line & struck a utility pole #1/62 head on (330 Rte. 6A), fracturing it, then bounced off and landed 15' away in the WB travel lane - airbag deployed. OUI	37		wet	cloudy, rain	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner and -9 lane departure
4	5/13/2011	Friday	3:50 PM	2	0	Angle	V1 Trav straight ahead V2 Backing	V1: E V2: S	V2 backing up in the village store parking lot, and hit V1. no injuries	64	67	dry	clear	V2 - 19 Inattention
5	12/19/2011	Monday	2:28 PM	2	0	Rear-end	V1 Backing V2 Parked	V1: W V2: W	V1 backed up into V2 in the village store parking lot, and fled WB on Rte. 6A. A passenger in V2 reported incident and a partial plate #	unknown	57	dry	cloudy	V1 - 19 Inattention
6	3/23/2012	Friday	3:57 PM	2	0	Head on	V1 Turning left V2 Trav straight ahead	V1: E V2: W	V1 EB 6A moved into WB lane to turn left into the village store parking area, and collided head on with V2 WB 6A (from sketch no narrative)	35	50	dry	clear	V1 - 19 Inattention
7	10/12/2012	Friday	3:32 PM	2	0	Rear-end	V1 Trav straight ahead V2 Slowing or stopped	V1: E V2: E	V2 EB 6A and slowed in traffic; V1 rear-ended V2	76	31	dry	cloudy	V1 - 19 Inattention and - 5 Followed too closely
8	1/8/2013	Tuesday	5:56 PM	1	0	Single Vehicle Crash	V1 Trav straight ahead	V1: E	V1 EB 6A near the Church when a deer ran from the North side of the road and struck the drivers side of the vehicle, damaging the drivers side. The deer ran off the roadway after the collision.	55		dry	clear	DEER at fault

# injury crashes	2	10
# property damage only crashes	6	6
Total crashes this segment	8	16 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	1/25/2010	Monday	1:45 PM	2	2	Angle	V1 Turning left V2 Trav straight ahead	V1: W V2: E	V1 on 6A WB waiting to turn left, V2 EB 6A hit drivers side of V1 then lost control & hit a stone wall in front of #425 Rte. 6A	80	65	wet	rain	both - 99 unknown
2	6/26/2011	Sunday	4:21 PM	3	0	Rear-end	V1 Trav straight ahead V2 Trav straight ahead V3 Trav straight ahead	V1: E V2: E V3: E	V1 EB 6A rear-ended V2 causing V2 to rear-end V3.	21	69	dry	clear	V1 - 99 unknown
3	10/3/2011	Monday	4:57 PM	2	0	Rear-end	V1 Trav straight ahead V2 Trav straight ahead	V1: E V2: E	V1 EB 6A approaching slow traffic & realized that his foot was stuck under the gas pedal, and rear-ended V2 at low speed.	87	57	wet	rain	V1 - 19 Inattention
4	10/19/2012	Friday	12:11 PM	2	1	Rear-end	V1 Slowing or stopped V2 Slowing or stopped	V1: W V2: W	V2 WB 6A slowing in traffic and V1 WB 6A rear-ended V2.	35	71	dry	cloudy	V1 - 19 Inattention and - 5 Followed too closely
5	1/5/2013	Saturday	12:51 PM	2	0	Angle	V1 Turning left V2 Slowing or stopped	V1: S V2: N	V2 NB West Yarmouth Rd., and V1 turning onto WYRd. from WB 6A struck V2.	76	80	dry	clear	V1 - 4 Failed to yield ROW and -18 Visibility obstructed

# injury crashes	2	10
# property damage only crashes	3	3
Total crashes this segment	5	13 EPDO

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
1	2/22/2010	Monday	11:18 PM	3	0	Angle	V1 Turning left V2 Trav straight ahead V3 Slowing or stopped	V1: W V2: E V3: N	V1 WB 6A turns left in front of V2 EB 6A, and V2 hits V1 causing V1 to spin and hit V3 NB Union stopped.	47	32	dry	clear	V1 - 4 Failed to yield ROW V2 - 2 Speeding V3 - 1 No improper driving
2	5/4/2010	Tuesday	6:44 PM	2	0	Sideswipe, same direction	V1 Slowing or stopped V2 Trav straight ahead	V1: N V2: W	V1 NB Union St. attempting to cross to the gas station. V2 WB 6A saw V1 in its path and moved right to try to avoid collision, but vehicles collided in gas station lot.	47	46	dry	cloudy	V1 - 4 Failed to yield ROW V2 - 1 No improper driving
3	8/1/2010	Sunday	6:36 PM	2	3	Angle	V1 Turning left V2 Trav straight ahead	V1: W V2: E	V1 WB 6A turns left toward Union St and hits V2 EB 6A. V2 (truck) then slid sideways off the road into a grassy area on the SE intersection corner.	21	43	dry	clear	V1 - 6 Made an improper turn and - 4 Failed to yield ROW
4	8/20/2010	Friday	3:41 PM	2	0	Angle	V1 Turning right V2 Trav straight ahead	V1: E V2: E	V1 NB Union St. attempting to turn right onto Rte. 6A, pulled into lane striking V2 EB 6A.	80	20	dry	clear	V1 - 6 Made an improper turn
5	11/4/2010	Thursday	7:46 AM	2	0	Angle	V1 Turning left V2 Trav straight ahead	V1: N V2: E	V1 NB Union St. attempting to turn onto Rte. 6A, pulled into path of V2 EB 6A. V2 collided with V1.	28	47	wet	rain, cloudy	V1 -10 Operating veh in erratic, reckless, careless, negligent or aggressive manner and - 4 Failed to yield ROW
6	12/7/2010	Tuesday	11:11 AM	2	1	Angle	V1 Turning left V2 Slowing or stopped	V1: W V2: N	V2 stopped on Union St., waiting to turn left onto Route 6A. V1 WB 6A cut the corner turning onto Union St. striking V2.	92	55	dry	clear	V1 - 6 Made an improper turn
7	3/20/2011	Sunday	10:00 AM	2	0	Angle	V1 Turning left V2 Trav straight ahead	V1: N V2: E	V1 NB Union St. attempting to cross to the gas station. V2 EB 6A moves left to try to avoid V1, V1 hits V2 in passenger side.	83	61	dry	clear	V1 - 19 Inattention
8	3/28/2011	Monday	12:44 PM	2	0	Rear-end	V1 Slowing or stopped V2 Slowing or stopped	V1: N V2: E	V2 stopped on Union St., then began to turn right onto 6A EB, but had to stop immed due to traffic on 6A. V1 NB Union St. also turning right rear-ended V2 while looking left and proceeding.	46	67	dry	clear	V1 - 19 Inattention
9	4/26/2011	Tuesday	4:17 PM	3	0	Rear-end	V1 Trav straight ahead V2 Slowing or stopped V3 Slowing or stopped	V1: W V2: W V3: W	V1 WB 6A and rear-ends V2 causing V2 to rear-end V3. (all WB 6A) V1 operator was putting on chapstick.	18	51	dry	fog, smog, smoke	V1 - 19 Inattention

Road Safety Audit Crash Summary

Crash Diagram Reference Number	Crash Date	Day	Crash Time	# of Vehicles	# of injuries	Manner of Collision	Vehicle Action Prior to Crash	Vehicle Travel Directions	Vehicle Sequence of Events	Age of Driver - Vehicle 1	Age of Driver - Vehicle 2	Road Surface	Weather	Driver Contributing Code
10	5/30/2011	Monday	5:21 PM	2	0	Angle	V1 Turning left V2 Trav straight ahead	V1: S V2: W	V1 SB Old Church St. and V2 WB 6A. V1 thought he had time to pull out taking left to EB 6A, pulled into path of V2 and was hit by V2.	45	79	dry	clear	V1 - 4 Failed to yield ROW
11	6/12/2011	Sunday	2:24 PM	1	0	Single Vehicle Crash	V1 Trav straight ahead	V1: W	V1 WB 6A when an EB vehicle came into lane to go around a bicyclist. V1 swerved to the right to avoid EB veh. & hit utility pole (#1/95) on shoulder.	28		dry	cloudy	V1 - 11 Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway...
12	6/29/2012	Friday	8:52 AM	2	0	Single Vehicle Crash	V1 Trav straight ahead V2 Turning right	V1: W V2: N	V1 WB 6A swerved off the road to the right into the curb at the gas station. V2 operator witnessed from NB turning right onto 6A.	71	41	dry	cloudy	V1 - 11 Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway...
13	7/7/2012	Saturday	4:05 PM	1	0	Single Vehicle Crash	V1 Trav straight ahead	V1: E	V1 EB 6A (left from SB on Old Church St?) ran into the traffic signal. Minor damage on vehicle.	98		dry	clear	V1 - 19 Inattention
14	8/16/2012	Thursday	10:18 AM	4	2	Sideswipe, same direction	V1 Trav straight ahead V2 Parked V3 Trav straight ahead V4 Slowing or stopped	V1: W V2: W V3: E V4: W	V1 WB 6A approaching Union St., and saw traffic stopped, applied brakes but they did not work, hit V2 (FedEx) in the left rear, then V1 swerved left and hit V3 EB 6A, then V4 WB 6A.	30	27	dry	clear	V1 - 22 Operating defective equipment
15	10/9/2012	Tuesday	12:09 PM	2	0	Angle	V1 Trav straight ahead V2 Trav straight ahead	V1: N V2: E	V1 NB Union St. entered 6A EB lane (without stopping) and was hit by V2 EB 6A. Both vehicles towed from the scene. (Witnesses agreed V1 did not stop)	59	57	wet	cloudy	V1 - 4 Failed to yield ROW
16	12/5/2012	Wednesday	2:28 PM	2	0	Angle	V1 Trav straight ahead V2 Turning right	V1: E V2: N	V2 NB Union St. pulls out onto Route 6A (did not see V1) and struck V1 EB 6A.	67	66	dry	clear	V2 - 19 Inattention

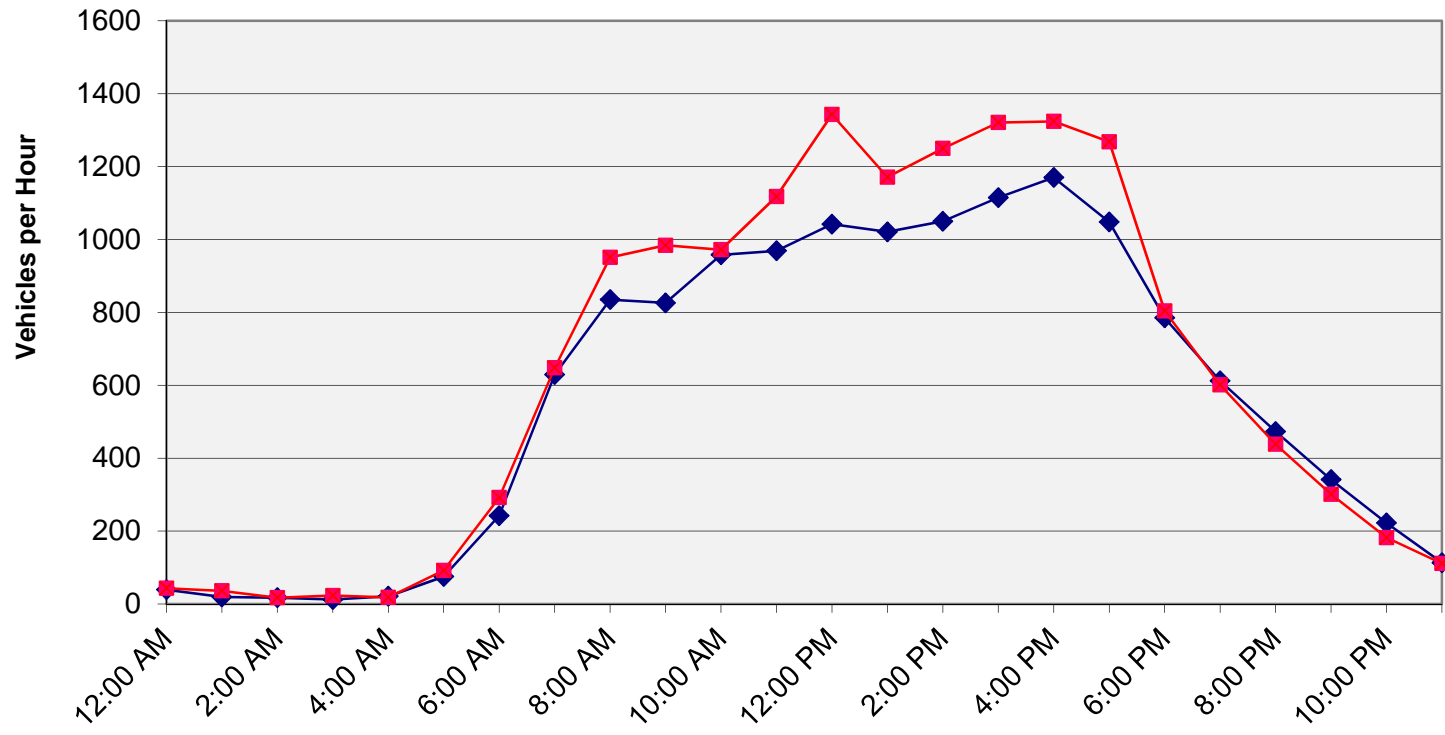
# injury crashes	3	15
# property damage only crashes	13	13
Total crashes this segment	16	28 EPDO

Appendix D. Traffic Data

- Hourly Traffic Volumes Graph
- Vehicular Speed Data Summary

Route 6A, Yarmouth, Hourly Traffic Volumes

Route 6A West of Union Street, Tuesday, July 8, 2008
Route 6A East of Wharf Lane, Tuesday, July 11, 2006



Cape Cod Commission
Traffic Counts

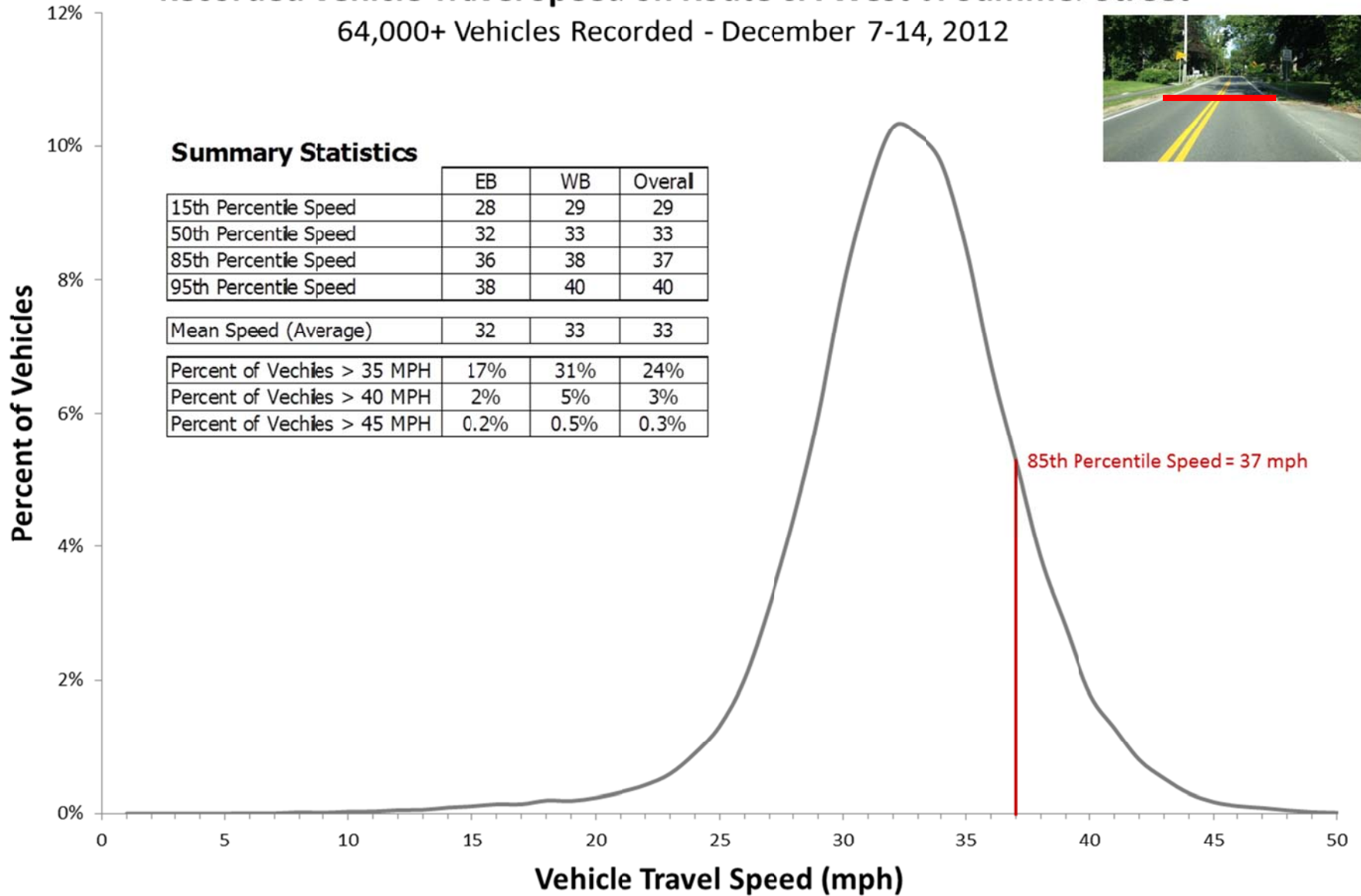
Recorded Vehicle Travel Speed on Route 6A West of Summer Street

64,000+ Vehicles Recorded - December 7-14, 2012



Summary Statistics

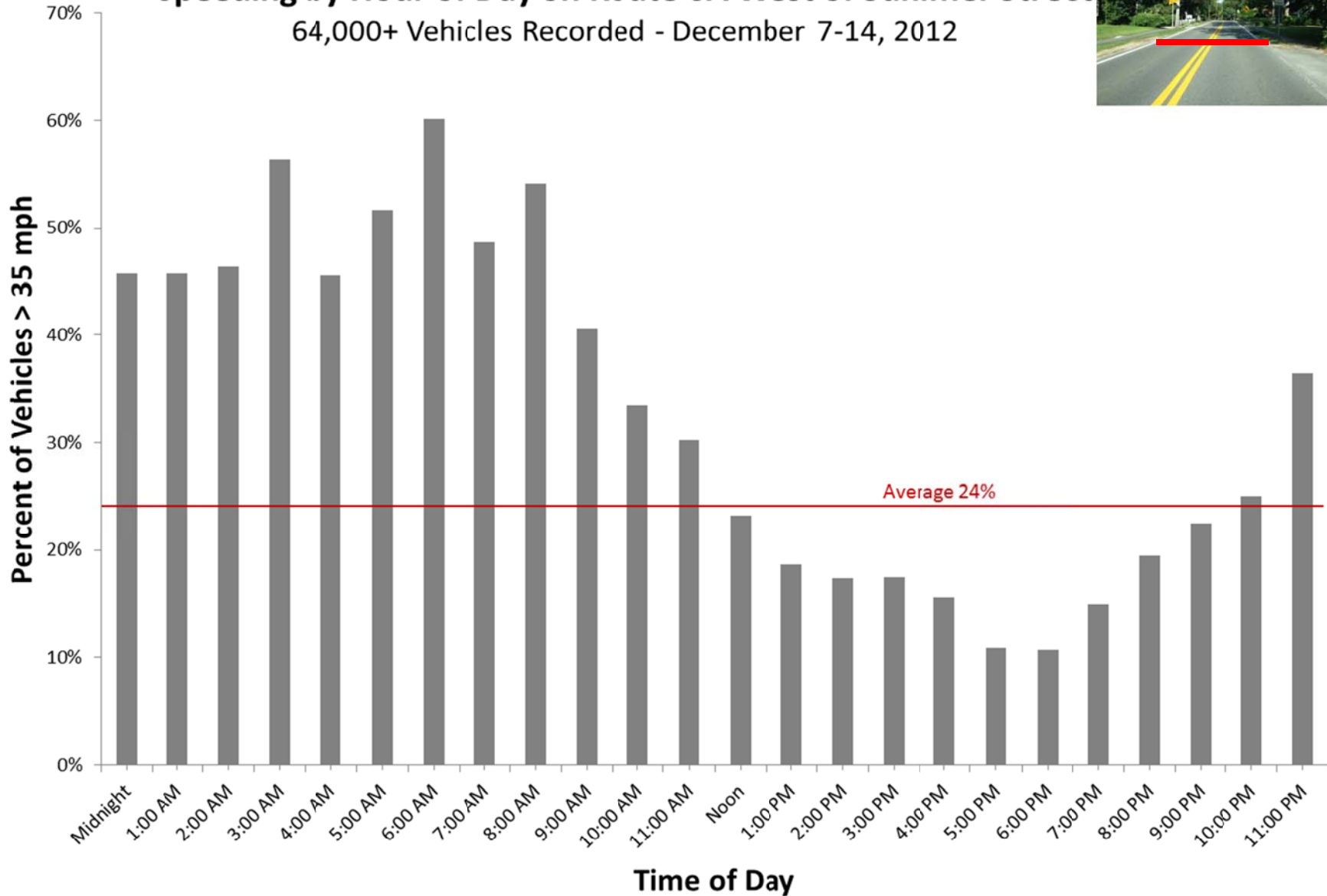
	EB	WB	Overall
15th Percentile Speed	28	29	29
50th Percentile Speed	32	33	33
85th Percentile Speed	36	38	37
95th Percentile Speed	38	40	40
Mean Speed (Average)	32	33	33
Percent of Vehicles > 35 MPH	17%	31%	24%
Percent of Vehicles > 40 MPH	2%	5%	3%
Percent of Vehicles > 45 MPH	0.2%	0.5%	0.3%



Note: Unclassified vehicles excluded from data sets, summary statistics vary slightly from computer printouts.

Speeding by Hour of Day on Route 6A West of Summer Street

64,000+ Vehicles Recorded - December 7-14, 2012



Note: Unclassified vehicles excluded from data sets, summary statistics vary slightly from computer printouts.

Cape Cod Commission

Site: 21289
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 Town: Yarmouth
 Counters: AP6

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 Station ID:

Latitude: 0' 0.000 Undefined

EB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/07/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	17	2	11	115	309	54	8	0	0	0	0	0	0	0	0	516
14:00	26	6	12	150	258	67	3	0	0	0	0	0	0	0	0	522
15:00	27	7	22	218	258	61	3	0	0	0	0	0	0	0	0	596
16:00	31	7	22	169	264	43	2	0	1	0	0	0	0	0	0	539
17:00	11	0	43	203	178	32	2	0	0	0	0	0	0	0	0	469
18:00	6	3	11	81	147	28	1	0	0	0	0	0	0	0	0	277
19:00	2	6	8	43	111	43	3	0	0	0	0	0	0	0	0	216
20:00	3	1	4	44	89	40	0	0	0	0	0	0	0	0	0	181
21:00	3	0	2	41	80	19	0	0	0	0	0	0	0	0	0	145
22:00	0	0	1	20	51	14	2	0	0	0	0	0	0	0	0	88
23:00	0	0	0	2	22	13	4	0	0	0	0	0	0	0	0	41
Total	126	32	136	1086	1767	414	28	0	1	0	0	0	0	0	0	3590

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EB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/08/12	0	0	0	1	13	4	0	0	0	0	0	0	0	0	0	18
01:00	0	0	0	3	7	2	2	1	0	0	0	0	0	0	0	15
02:00	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	5
03:00	0	1	0	3	2	1	0	0	0	0	0	0	0	0	0	7
04:00	0	0	0	1	1	4	0	0	0	0	0	0	0	0	0	6
05:00	0	0	0	2	6	1	1	1	0	0	0	0	0	0	0	11
06:00	0	0	0	9	13	6	5	0	0	0	0	0	0	0	0	33
07:00	0	0	0	9	25	25	3	1	0	0	0	0	0	0	0	63
08:00	4	1	4	21	67	38	11	1	0	0	0	0	0	0	0	147
09:00	11	1	16	55	106	62	7	0	1	0	0	0	0	0	0	259
10:00	20	3	9	70	167	77	7	3	0	0	0	0	0	0	0	356
11:00	32	6	13	85	214	108	10	1	0	0	0	0	0	0	0	469
12 PM	24	3	14	96	233	69	3	1	0	0	0	0	0	0	0	443
13:00	22	1	17	130	211	58	2	0	0	0	0	0	0	0	0	441
14:00	15	1	6	79	232	75	9	0	0	0	0	0	0	0	0	417
15:00	22	2	9	125	211	63	4	0	0	0	0	0	0	0	0	436
16:00	17	1	26	117	165	26	2	0	0	0	0	0	0	0	0	354
17:00	8	0	7	102	149	21	1	0	0	0	0	0	0	0	0	288
18:00	5	6	12	114	109	12	4	0	0	0	0	0	0	0	0	262
19:00	4	0	6	56	109	31	0	0	0	0	0	0	0	0	0	206
20:00	1	1	6	47	66	17	0	0	0	0	0	0	0	0	0	138
21:00	4	0	2	26	79	27	4	1	0	0	0	0	0	0	0	143
22:00	1	0	2	20	55	26	2	0	0	0	0	0	0	0	0	106
23:00	0	0	0	9	24	18	7	1	0	0	0	0	0	0	0	59
Total	190	27	149	1180	2264	774	86	11	1	0	0	0	0	0	0	4682

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Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/13/12	0	0	0	1	2	6	5	0	0	0	0	0	0	0	14
01:00	0	0	0	0	5	4	2	0	0	0	0	0	0	0	11
02:00	0	0	0	1	1	1	1	0	0	0	0	0	0	0	4
03:00	0	1	0	0	3	1	0	0	0	0	0	0	0	0	5
04:00	0	0	0	1	3	4	0	1	0	0	0	0	0	0	9
05:00	0	0	0	4	9	4	1	0	0	0	0	0	0	0	18
06:00	1	0	3	10	29	15	6	0	0	0	0	0	0	0	64
07:00	5	1	4	31	69	49	4	1	0	0	0	0	0	0	164
08:00	12	0	4	46	118	65	8	1	1	0	0	0	0	0	255
09:00	10	4	3	40	154	64	12	1	0	0	0	0	0	0	288
10:00	15	3	9	73	183	59	4	1	0	0	0	0	0	0	347
11:00	20	9	11	63	199	68	2	0	0	0	0	0	0	0	372
12 PM	33	5	19	120	205	59	7	0	0	0	0	0	0	0	448
13:00	19	3	19	78	260	69	4	2	0	0	0	0	0	0	454
14:00	23	1	15	127	246	52	6	0	0	0	0	0	0	0	470
15:00	38	9	29	176	237	41	1	1	0	0	0	0	0	0	532
16:00	20	3	28	182	307	40	1	0	0	0	0	0	0	0	581
17:00	14	1	23	208	234	37	1	0	0	0	0	0	0	0	518
18:00	6	1	11	101	154	39	2	0	0	0	0	0	0	0	314
19:00	1	0	5	55	121	36	3	0	0	0	0	0	0	0	221
20:00	3	0	4	38	78	29	8	1	1	0	0	0	0	0	162
21:00	1	0	1	46	74	8	5	0	0	0	0	0	0	0	135
22:00	0	0	1	10	29	15	4	0	0	0	0	0	0	0	59
23:00	1	0	0	1	13	14	1	2	0	0	0	0	0	0	32
Total	222	41	189	1412	2733	779	88	11	2	0	0	0	0	0	5477

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Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12/14/12	0	0	0	0	4	8	3	0	0	0	0	0	0	0	15
01:00	0	0	0	0	4	4	2	1	0	0	0	0	0	0	11
02:00	0	0	0	0	3	4	1	1	0	0	0	0	0	0	9
03:00	0	1	1	2	1	4	1	0	0	0	0	0	0	0	10
04:00	0	0	0	1	4	0	2	0	0	0	0	0	0	0	7
05:00	0	0	0	2	6	4	1	0	0	0	0	0	0	0	13
06:00	2	0	0	2	30	17	4	1	0	0	0	0	0	0	56
07:00	6	1	0	19	55	60	15	1	0	0	0	0	0	0	157
08:00	21	1	5	25	112	65	18	0	0	0	0	0	0	0	247
09:00	15	1	6	42	164	58	10	1	0	0	0	0	0	0	297
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	44	4	12	93	383	224	57	5	0	0	0	0	0	0	822
Grand Total	1289	263	1281	9026	16180	4886	559	50	6	2	1	0	0	1	33544

15th Percentile : 25 MPH
 50th Percentile : 31 MPH
 85th Percentile : 35 MPH
 95th Percentile : 39 MPH

Statistics
 Mean Speed(Average) : 30 MPH
 10 MPH Pace Speed : 27-36 MPH
 Number in Pace : 22825
 Percent in Pace : 68.0%
 Number of Vehicles > 35 MPH : 6629
 Percent of Vehicles > 35 MPH : 19.8%

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WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/07/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	34	6	15	89	218	70	7	1	1	0	0	0	0	0	0	441
14:00	31	1	11	101	236	77	3	0	0	0	0	0	0	0	0	460
15:00	34	7	20	90	197	47	6	0	0	0	0	0	0	0	0	401
16:00	33	9	16	72	144	78	9	1	0	0	0	0	0	0	0	362
17:00	24	7	31	95	79	24	1	0	0	0	0	0	0	0	0	261
18:00	9	1	17	63	102	35	4	1	0	0	0	0	0	0	0	232
19:00	5	0	4	28	59	35	5	0	0	0	0	0	0	0	0	136
20:00	3	1	7	24	45	25	7	1	0	1	0	0	0	0	0	114
21:00	4	0	1	11	37	26	2	0	0	0	0	0	0	0	0	81
22:00	0	0	0	6	23	22	6	1	0	0	0	0	0	0	0	58
23:00	0	0	0	1	12	15	4	2	0	0	0	0	0	0	0	34
Total	177	32	122	580	1152	454	54	7	1	1	0	0	0	0	0	2580

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Latitude: 0' 0.000 Undefined

WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/08/12	0	0	0	1	4	2	1	1	0	0	0	0	0	0	0	9
01:00	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	6
03:00	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0	4
04:00	0	0	0	0	3	4	2	0	0	0	0	0	0	0	0	9
05:00	0	0	0	1	13	9	8	1	0	0	0	0	0	0	0	32
06:00	0	0	0	4	17	27	8	0	0	0	0	0	0	0	0	56
07:00	0	0	0	3	29	74	24	3	0	0	0	0	0	0	0	133
08:00	3	0	0	3	56	128	49	7	0	0	0	0	0	0	0	246
09:00	16	9	7	35	105	142	41	6	0	0	0	0	0	0	0	361
10:00	16	5	3	21	143	193	36	2	0	0	0	0	0	0	0	419
11:00	26	3	11	63	207	160	31	2	1	0	0	0	0	0	0	504
12 PM	25	4	10	104	220	86	7	1	0	0	0	0	0	0	0	457
13:00	26	7	24	100	171	64	4	1	0	0	0	0	0	0	0	397
14:00	23	1	6	88	196	75	5	0	0	0	0	0	0	0	0	394
15:00	27	2	5	67	149	69	5	0	0	0	0	0	0	0	0	324
16:00	15	12	35	100	119	22	1	0	0	0	0	0	0	0	0	304
17:00	9	2	20	84	106	16	4	0	0	0	0	0	0	0	0	241
18:00	4	1	21	79	113	30	2	0	0	0	0	0	0	0	0	250
19:00	7	2	8	51	50	15	2	0	0	0	0	0	0	0	0	135
20:00	0	0	3	27	40	12	2	0	0	0	0	0	0	0	0	84
21:00	1	1	10	38	40	14	6	1	1	0	0	0	0	0	0	112
22:00	1	0	5	23	31	13	3	0	0	0	0	0	0	0	0	76
23:00	0	0	0	2	24	7	4	0	0	0	0	0	0	0	0	37
Total	199	49	168	894	1841	1169	246	26	2	0	0	0	0	0	0	4594

Cape Cod Commission

3225 Main Street
Barnstable, Ma 02630
www.capecodcommission.org

Site: 21289
Location: Rt 6A E of Minden Ln
Town: Yarmouth
Counters: AP6

Site Code: 21289
Station ID:

Latitude: 0' 0.000 Undefined

WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/11/12	0	0	0	0	2	4	2	0	0	0	0	0	0	0	0	8
01:00	0	0	0	1	2	1	0	1	0	0	0	0	0	0	0	5
02:00	0	0	0	0	1	5	1	0	0	0	0	0	0	0	0	7
03:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	0	2	5	4	0	1	0	0	0	0	0	0	0	12
05:00	0	0	0	0	18	25	8	2	0	0	0	0	0	0	0	53
06:00	1	0	0	7	67	79	13	3	0	0	0	0	0	0	0	170
07:00	13	0	3	18	136	167	56	1	0	0	0	0	0	0	0	394
08:00	16	2	15	57	206	189	38	2	0	0	0	0	0	0	0	525
09:00	21	6	12	75	219	125	17	0	0	0	0	0	0	0	0	475
10:00	12	3	2	76	254	108	11	0	0	0	0	0	0	0	0	466
11:00	38	6	2	60	250	105	7	0	0	0	0	0	0	0	0	468
12 PM	33	1	11	104	202	78	6	0	0	1	0	0	0	0	0	436
13:00	33	4	10	81	246	99	6	1	0	0	0	0	0	0	0	480
14:00	28	5	9	67	199	108	19	1	0	0	0	0	0	0	0	436
15:00	30	3	12	98	186	71	12	0	0	0	0	0	0	0	0	412
16:00	33	3	19	80	163	56	2	0	0	0	0	0	0	0	0	356
17:00	11	3	9	56	111	45	9	0	0	0	0	0	0	0	0	244
18:00	5	0	7	37	117	30	7	2	0	0	0	0	0	0	0	205
19:00	1	1	5	24	66	24	1	0	0	0	0	0	0	0	0	122
20:00	1	0	0	22	35	18	4	0	0	0	0	0	0	0	0	80
21:00	0	0	3	10	31	20	3	1	0	0	0	0	0	0	0	68
22:00	1	0	0	6	9	9	4	1	0	0	0	0	0	0	0	30
23:00	0	0	0	1	6	1	1	0	0	0	0	0	0	0	0	9
Total	277	37	119	882	2534	1371	227	15	1	1	0	0	0	0	0	5464

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WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/12/12	0	0	0	0	6	1	0	0	0	0	0	0	0	0	0	7
01:00	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	4
02:00	0	0	1	0	1	2	2	0	0	0	0	0	0	0	0	6
03:00	0	0	1	0	0	2	1	0	0	0	0	0	0	0	0	4
04:00	0	0	0	1	6	6	0	0	1	0	0	0	0	0	0	14
05:00	0	0	0	1	16	18	18	3	0	0	0	0	0	0	0	56
06:00	0	0	1	11	50	61	24	2	0	0	0	0	0	0	0	149
07:00	8	0	1	33	140	202	58	3	0	0	0	0	0	0	0	445
08:00	18	2	9	43	258	211	36	1	0	0	0	0	0	0	0	578
09:00	22	6	15	58	202	132	24	0	0	0	0	0	0	0	0	459
10:00	27	3	8	48	217	114	17	1	0	1	0	0	0	0	0	436
11:00	21	2	11	56	236	119	14	1	0	0	0	0	0	0	0	460
12 PM	22	6	15	79	169	98	15	2	0	0	0	0	0	0	0	406
13:00	25	6	16	72	228	96	11	1	0	0	0	0	0	0	0	455
14:00	26	8	18	77	213	110	16	1	0	0	0	0	0	0	0	469
15:00	16	0	6	46	164	104	18	3	0	0	0	0	0	0	0	357
16:00	31	2	7	68	163	69	8	0	0	0	0	0	0	0	0	348
17:00	17	6	5	60	122	51	5	0	0	0	0	0	0	0	0	266
18:00	6	3	10	52	76	34	5	0	0	0	0	0	0	0	0	186
19:00	4	2	6	36	44	14	0	1	0	0	0	0	0	0	0	107
20:00	0	0	5	24	55	18	4	0	0	0	0	0	0	0	0	106
21:00	0	1	0	12	28	27	5	0	0	0	0	0	0	0	0	73
22:00	0	0	0	6	6	11	2	0	0	0	0	0	0	0	0	25
23:00	0	0	0	1	2	7	1	0	0	0	0	0	0	0	0	11
Total	243	47	135	784	2404	1508	284	20	1	1	0	0	0	0	0	5427

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WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/13/12	0	0	0	1	3	4	2	0	0	0	0	0	0	0	0	10
01:00	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
02:00	0	0	0	0	3	2	1	0	0	0	0	0	0	0	0	6
03:00	0	0	0	0	4	3	0	1	0	0	0	0	0	0	0	8
04:00	0	0	0	0	5	6	3	0	1	0	0	0	0	0	0	15
05:00	0	0	0	1	8	19	17	6	2	0	0	0	0	0	0	53
06:00	4	0	0	5	58	66	20	4	0	0	0	0	0	0	0	157
07:00	2	2	2	31	156	203	43	5	0	0	0	0	0	0	0	444
08:00	21	6	14	50	236	216	32	4	2	0	0	0	0	0	0	581
09:00	17	2	7	41	194	178	31	4	0	0	0	0	0	0	0	474
10:00	18	0	5	59	223	150	19	0	0	0	0	0	0	0	0	474
11:00	20	4	11	62	244	107	6	0	0	0	0	0	0	0	0	454
12 PM	24	7	12	60	186	113	11	1	0	0	0	0	0	0	0	414
13:00	36	7	19	60	204	78	5	0	0	0	0	0	0	0	0	409
14:00	30	5	8	85	222	105	6	1	0	0	0	0	0	0	0	462
15:00	35	12	15	94	169	75	19	1	0	0	0	0	0	0	0	420
16:00	27	6	19	90	152	43	7	1	0	0	0	0	0	0	0	345
17:00	20	2	11	92	160	36	6	1	0	0	0	0	0	0	0	328
18:00	11	6	5	49	84	44	3	0	0	0	0	0	0	0	0	202
19:00	4	0	4	27	66	19	9	0	0	0	0	0	0	0	0	129
20:00	3	0	2	14	40	19	5	2	2	0	0	0	0	0	0	87
21:00	1	0	5	23	39	16	3	0	0	0	0	0	0	0	0	87
22:00	0	0	0	12	15	15	9	0	1	0	0	0	0	0	0	52
23:00	1	0	0	1	9	5	4	0	0	0	0	0	0	0	0	20
Total	274	59	139	857	2481	1522	261	32	8	0	0	0	0	0	0	5633

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WB	Start	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		
12/14/12	0	0	0	0	4	1	1	0	0	0	0	0	0	0	0	6
01:00	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	4
02:00	0	0	0	1	4	2	1	0	0	0	0	0	0	0	0	8
03:00	0	0	1	1	1	2	0	1	0	0	0	0	0	0	0	6
04:00	0	0	0	2	9	3	4	0	1	0	0	0	0	0	0	19
05:00	0	0	0	1	17	29	11	3	0	0	0	0	0	0	0	61
06:00	0	0	0	5	62	59	28	1	2	0	0	0	0	0	0	157
07:00	9	0	1	9	96	203	45	9	3	0	0	0	0	0	0	375
08:00	23	3	11	28	211	203	36	1	0	0	0	0	0	0	0	516
09:00	14	2	6	41	194	155	34	0	0	0	0	0	0	0	0	446
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	46	5	19	90	599	657	161	15	6	0	0	0	0	0	0	1598
Grand Total	1573	315	1001	6028	14827	8298	1421	128	22	3	0	0	0	0	0	33616

15th Percentile : 25 MPH
 50th Percentile : 32 MPH
 85th Percentile : 37 MPH
 95th Percentile : 40 MPH

Statistics
 Mean Speed(Average) : 31 MPH
 10 MPH Pace Speed : 29-38 MPH
 Number in Pace : 21319
 Percent in Pace : 63.4%
 Number of Vehicles > 35 MPH : 10225
 Percent of Vehicles > 35 MPH : 30.4%

Appendix E. Additional Information

- Letter dated 10/22/12 from *Safety Over Speed* to Yarmouth Police Chief Frederickson
- Resident's Notes distributed at 11/8/12 *Safety Over Speed* meeting
- Letter dated 11/12/12 from Yarmouth Police Chief Frederickson to District Highway Director Mary-Joe Perry
- Meeting notes from 12/7/12 *Safety Over Speed* Citizens Forum

SAFETY OVER SPEED

The Yarmouthport Neighbors Task Force
Yarmouthport, MA 02675



October 22, 2012

Dear Chief Frederickson,

We are writing to you as a group of concerned citizens who live in the center of Yarmouthport. We feel our safety is at risk due to the excessive speed of motorists traveling Route 6A through the village between Union Street and Willow. Our conclusion is grounded in the excessive number of accidents (141) that have occurred over the last 8 years (2002-10) that have resulted in personal injury (85), property damage (45), and death (2). The data collected to date translates to 17.25 accidents yearly, over 1 a month. Our concern has escalated due to the series of accidents over the last six months and particularly within the last 30 days. We feel there is a clear and present danger that exists to us as residents and pedestrians, visitors to our beautiful village, and to personal and business property.

We understand that the Police Departments Mission is as follows:

"We are dedicated to community risk reduction through the application of prevention, education and emergency services in the Town of Yarmouth"

We would like to point out, however, that over the years various individuals, ad hoc groups and most recently residents of the Sandy Side Association have reached out to the police department, the Department of Transportation, and the State Police to reduce the risk of endangerment. To date, the situation remains the same with no evidence of speed reduction through ticketing, modification of signage, or others means and measures to safeguard motorists and pedestrians. We, who live directly on Route 6A and/or walk its sidewalks, feel at risk due to the following issues:

1. Excessive speed of motorists
2. Failure of motorists to stop for pedestrians attempting to cross at designated sidewalk crossings
3. Poorly marked cross walks
4. Inappropriate passing zone markings, and ineffective speed and caution signage

We understand that Route 6A is a state highway but we also understand that the town of Yarmouth has jurisdiction to uphold the laws within the town. So it is for these reasons that we request your personal presence at a meeting to begin working as a community on an action plan to mitigate the situation so that we can feel safe in our homes, and on our streets and sidewalks.

Clearly, there is much more to loose if there continues to be no action. If your department and our group is operating with the same intention of community betterment and prevention and risk reduction, we are convinced that together we will

be able to design and execute an action plan to keep our village streets, sidewalks, and property safe.

We look forward to a robust dialogue, a positive working partnership, and documenting the process.

With kind regards,
Safety Over Speed (SOS) steering committee

Kahren Dowcett, Chair
Donna Murray, Secretary
Frank Murray
Karen Johnson, Yarmouthport Safety Representative
Janet and Nick Alberti
The Inn at Cape Cod
The Center Street Inn

Old Yarmouth Inn
The Crook Jaw Inn
Jack's Outback 2
The Blushing Oyster
Liberty Hill Inn
North Side Nursery
Sandy Side Association (28 residents)
Patricia Dolan
Gary Shelto
Michael Buchanan
Betsy Goldberg
And others

Cc The Yarmouth Board of Selectmen
Michael Walker, Yarmouth Fire Chief
Michael O'Bryant, Patrol Division Commander
Old Kings Highway Commission
Cleon Turner, State Representative
Sue Lyons, County Commission
Cape Cod Commission, Traffic

11/8/12

Yarmouth Port business/ residential/ community life (library, Post Office, churches) lies along route 6A, which is increasingly a major passageway for cars, trucks, and motor cycles. It is also a major passageway for the tourist industry. For local residents, using 6A to walk or drive along or cross--to visit a shop, park at the Post Office or library--has become more and more difficult, and, in fact, dangerous. We need to look at some of the problems with our road; two of them are speed limits and cross walks.

There are 7 speed limit signs on Route 6A as you proceed West from Dennis through Yarmouth Port to Barnstable. The problems with the signs are multiple and very serious; certainly they are correctable.

1. Coming into Yarmouth Port from Dennis, there are no speed limit signs for about 1 and ½ to 2 miles, so one assumes the speed limit is what the last Dennis sign, at Cranberry Knoll, reads - 45. This means 45mph past Oliver's, Peterson's Market, the Sunflower Market place, past King's Way, both Peterson's and King's Way being heavily used by older, more hesitant drivers.
2. Yarmouth finally receives a sign - 45 - approaching Village Pizza and Fiddler's Green.
3. The speed limit drops to 40 at Kencomsett and the Bass River Gun Club, perhaps appropriate, but past Evan's Pizza at Weir Road, the speed limit remains 40, through the intersection with Union Street, the B.P. Gas Station, the playground, and West Yarmouth Road, and clearly a thickly settled area all the way to the 6A fire station..
4. There is a 35 sign at the top of the rise to the fire station, the Congregational Church, and the Village store.
5. The speed limit drops to 30 at the Post Office—presumably in anticipation of the dangerous curve at Summer Street . Also it is the area of the book store, the Old Yarmouth Inn (restaurant), and the Inn At Cape Cod.
6. For some reason once the road starts through the congestion of the village itself —shops , restaurants (4), doctors' offices, a pre-school—the speed limit returns to 35.
7. The speed limit is again reduced to 30 as you approach Willow Street—a confusing intersection and a very dangerous curve around Fresh Picked.
8. Finally at Anthony's Cummaquid, the speed is returned to 40.

Questions:

1. Why on earth is the speed limit 35 proceeding through the village?
2. Why on earth is the speed limit 45 past Oliver's, Peterson's and King's Way.
3. Why on earth is the speed limit 40 past the Union Street intersection, BP gas station, Playground, and West Yarmouth Road?
4. When the speed is dropped from 40 to 35 to 30, back to 35, these last three signs are not as clearly visible as they should be.
5. Why does THICKLY SETTLED means different speeds in different locations?
6. Why on earth allow cars and trucks to fly through busy intersections?
7. Why allow excessive speed given the presence of children and many pedestrians?

Another issue is the problem of crosswalks. There are five: playground, library, Post Office, New Church, Optimist Café ; but they are not visible enough, should have better signage, should be much safer, not subject to drivers' whims.



YARMOUTH POLICE DEPARTMENT

"Committed To Our Community"

Office of the Chief of Police
Frank G. Frederickson

One Brad Erickson Way West Yarmouth, Massachusetts 02673
Telephone (508) 775-0445 - Fax (508) 862-2721
www.yarmouthpolice.com

November 12, 2012

Mary-Joe Perry

District Highway Director

1000 County Street

Taunton, Massachusetts 02780

The citizens of Yarmouth and the men and women of the Yarmouth Police Department request the assistance of the Massachusetts Department of Transportation regarding our traffic safety concerns on a 1.5 mile stretch of Route 6A in Yarmouthport.

The section in question is directly on Route 6A between Willow Street and Union Street. Some of our joint concerns are as follows:

- Posted Speed Limits
- Crosswalk Conditions
- Site Distances at the Intersections
- Lighting
- Signage
- Dangerous Curve at Route 6A and Summer Street

As the Chief of Police, I officially request that a traffic study be conducted and the assistance and support of you and your agency to address these issues.

Deputy Chief Steven G. Xiarhos will be our Point of Contact at the Department. Kahren Dowcett, representing the Yarmouthport Village is the contact for the town. Please feel free to speak with him directly at 508.775.0445 extension 2150 or by email at xxiarhos@yarmouth.ma.us. Ms. Dowcett can be reached at 508-737-4220 or kahrendowcett@gmail.com. We will be working closely with the Yarmouthport Safety Over Speed task force going forward.

Thank you very much and we look forward to working together with you.

Respectfully,

Frank G. Fredrickson
Chief of Police

3225 MAIN STREET • P.O. BOX 226
BARNSTABLE, MASSACHUSETTS 02630



CAPE COD
COMMISSION

(508) 362-3828 • Fax (508) 362-3136 • www.capecodcommission.org

Safety Over Speed Route 6A Yarmouthport Citizen Forum

Yarmouth Police Department
December 7, 2012; 7:00 PM

Meeting Notes

Present

STATE REPRESENTATIVE

Representative Cleon Turner – Barnstable
First District

SAFETY OVER SPEED COMMITTEE

Kahren Dowcett – Founder

YARMOUTH TOWN STAFF

Kathy Williams – Town Planner

YARMOUTH CHAMBER OF COMMERCE

Bob Dubois – Executive Director

YARMOUTH POLICE DEPARTMENT

Chief Frank Fredrickson,
Deputy Chief Steven Xiarhos

CAPE COD COMMISSION STAFF

Glenn Cannon - Technical Service Director

About twenty (20) citizen of Yarmouth have been meeting to address their concerns relative to public safety along Route 6A in Yarmouthport and defining a section of Route 6A in Yarmouthport (from Willow Street to Union Street) as a Village Center.

Moderator Kahren Dowcett introduced Deputy Chief Xiarhos. Deputy Chief Xiarhos updated the group on the progress the Town has been making since the first meeting on November 8, 2012.

Topics included:

- Increased Police Enforcement
- A meeting with MassDOT District 5 Highway Maintenance personnel. Deputy Xiarhos reported that the MassDOT representatives (Ed Feeny) would update street sign and crosswalk marking along Route 6A. Pavement marking would be updated next spring.
- Trimming bushes at the intersection of Route 6A and Willow Street

Representative Turner discussed introducing legislation lower the speed limit to 30 MPH in a Village Center. This topic led to a discussion about “What defines a village center”.

Representative Turner also discussed creating a Civic/Business/Cultural Association for Yarmouthport.

The group discussed the following possible improvements to Route 6A:

- Signs
- Piano Key Crosswalks
- Closing the passing zone
- Speed Humps
- Traffic Signals
- Raised Crosswalks
- Stop Signs at Route 6A and Union Street (three-way Stop)
- Stop Signs at Route 6A and Willow Street (three-way Stop)
- Bump Outs
- Digital Speed Limit Signs (like Barnstable Village)
- The Town taking control of Route 6A

Action Item

Glenn Cannon, Director of Technical Services, Cape Cod Commission, offer to perform a road safety audit on Route 6A from Willow Street to Union Street.

Action Item

Perform a Road Safety Audit on Route 6A from Willow Street to Union Street, a distance of 1.5 miles.

Mrs. Dowcett set the future meeting as every third (3rd) Thursday of the month at 7PM at the Yarmouth Police Station.

Appendix F. Road Safety Audit References

Road Safety Audit References

Massachusetts Traffic Safety Toolbox, Massachusetts Highway Department,
www.mhd.state.ma.us/safetytoolbox.

Road Safety Audits, A Synthesis of Highway Practice. NCHRP Synthesis 336. Transportation Research Board, National Cooperative Highway Research Program, 2004.

Road Safety Audits. Institute of Transportation Engineers and U.S. Department of Transportation, Federal Highway Administration, www.roadwaysafetyaudits.org.

FHWA Road Safety Audit Guidelines. U.S. Department of Transportation, Federal Highway Administration, 2006.

Road Safety Audit, 2nd edition. Austroads, 2000.

Road Safety Audits. ITE Technical Council Committee 4S-7. Institute of Transportation Engineers, February 1995.

Appendix G. Public Comments

- Solicitation for Public Comments
- Public Comments received during Comment Period

Steven Tupper

From: Steven Tupper
Sent: Friday, June 21, 2013 9:11 AM
To: Undisclosed Recipients
Subject: Yarmouth Port Route 6A Road Safety Audit Draft Report
Attachments: Yarmouth_Route_6A_RSA_DRAFT_Report_(6-20-13).pdf

Yarmouth Port Road Safety Audit Team,

I have attached the Yarmouth Port Road Safety Audit Route 6A - Willow Street to Union Street DRAFT Report. Please review the document and verify that we have accurately reflected the issues and recommended safety enhancements discussed. The DRAFT report was also distributed at last night's well attended *Safety over Speed* meeting at the Yarmouth Police Department along with a presentation. Given their group's involvement in the process, comments from members of their group were also welcomed. Considering this unique opportunity we will open the document for comments for the next 30 days. Please send any questions or comments to me by July 20th.

We thank everyone for their participation in the process and hope to see continued progress (see report for progress to date) on improving safety in this area.

Thank you,
Steve



Steven Tupper
Technical Services Planner
Cape Cod Commission
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Suggestions for 6A Improvements

1. Willow St. and 6A – ask Bilezekians to cut down 2 shrubs to the right of Just Picked to improve visibility around corner
2. Poor drainage in front of entrance to Sandy Side and Hallet's Store
3. White line to separate road and sidewalk
4. No parking on North side of 6A
5. White line for edge of 6A at Summer St. entrance and more reflectors in the middle of the road going around corner
6. White stop line at the end of Summer St.
7. New crosswalk signs.
8. Additional signs for crosswalk attached to pedestrian picture with "State Law" and "\$100 Fine" like Rte 28, Harwichport and Main St., Orleans
9. Replant grass between sidewalk and street to visually separate.
10. Encourage business patrons to use parking lots behind buildings.
11. Raised crosswalks
12. Reduce speed limit
13. "No Passing" along 6A in village
14. Replant grass where pavement too close to pump at the end of Summer St.

Susan Bonnell

Bonnell.sue@gmail.com

March 21, 2013

The above list contains my suggestions at the previous county meeting. In response to the Road Safety Audit of June, 2013, the following are my personal comments especially where the audit suggests changes at the Summer St. intersection. I have lived on the street for over 60 years and have watched it become more and more dangerous.

- I don't believe that the Summer St. intersection demands as drastic changes as Willow St. or Union St. because there is not the volume of traffic turning onto or exiting the street.
- If the flashing arrow were moved, I think that drivers would anticipate the turn coming before it actually does. The arrow is very visible at night especially but does need to have the missing bulbs replaced.

- A curved arrow sign should be placed before the corner coming from both directions
- The entrance to Summer St. is very open. More reflectors on the curve would help drivers to see which way the road flows.
- Rte. 6A in Yarmouth Port needs to have the reflectors on the telephone poles that seem to be in many of the other towns, especially Orleans, Brewster, and Barnstable. In the preceding towns, there are 8" by 2" bright reflectors on both sides on the telephone poles that show drivers exactly how the road curves.

Your report was excellently done and hopefully the state will follow through with your suggestions.

Susan Bonnell
July 20, 2013

Steven Tupper

From: Frank & Donna <fmurray2@comcast.net>
Sent: Tuesday, June 25, 2013 1:56 PM
To: Steven Tupper
Cc: Kahren Dowcett
Subject: Yarmouth Port Road Safety Audit

Follow Up Flag: Follow up
Flag Status: Completed

Steve - Nice job on the presentation. Here are two comments.

1. On page 6, Introduction, second paragraph: It currently reads: Historic Route 6A provides one of the most scenic drives on Cape Cod, but also presents a number of safety and mobility challenges for the road users.

I suggest you slightly alter the last part; but also presents a number of safety and mobility challenges for **residents, walkers** and road users.

Remember, the speed limit is fine.....**for automobiles**, the issue we have concerns the safety of the PEOPLE who live along 6A. Thirty mph is **too fast for the people**.

2. NEW IDEA - I would like to add this to your list of DOT 5 action items: **REPLACE THE FADED REFLECTOR STICKERS ON THE TELEPHONE POLES** between Willow and Union streets.

I am hoping that this is a DOT5 issue and not NSTAR's jurisdiction.

This came about because we were driving late at night through Duxbury and noticed each telephone pole had a small-but-effective reflector on it. It was a nice little safety feature.

The next day as we were driving along 6A we noticed the faded reflectors on every 6A telephone pole. Son-of-a-gun, I never even noticed them before.....obviously because they ARE so faded.

Regards,

Frank Murray
201 Route 6A

Steven Tupper

From: OConnor, Corey (DOT) <corey.oconnor@state.ma.us>
Sent: Monday, July 15, 2013 3:11 PM
To: Steven Tupper
Subject: RE: Yarmouth Port Route 6A Road Safety Audit Draft Report

Hi Steve,

Good job on the report, I just have a couple comments:

- In the Audit Participants and Contacts Tables my last name is spelt incorrectly; it should be O'Connor. Also can you please change my contact number to my office phone number: 857-368-9638.
- During the audit we discussed how the visibility of a few crosswalks was poor and may give a sense of "false safety" for crossing pedestrians. In particular we discussed the crosswalk near the library; the horizontal curve and trees traveling eastbound block the view of the crosswalk and vehicles may not have enough time to react in order to stop for a crossing pedestrian. Possible enhancements may be to improve signing (just as mention in the report), trim the tree branches or to even consider removing the crosswalk. A long term improvement may be to relocate the crosswalk; this would require ADA compliancy however.

Thanks,
Corey

Corey O'Connor

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Planning
Division

MEMORANDUM

To: Steve Tupper, Cape Cod Commission

cc: George Allaire, DPW Director
Karen Green, Director of Community Development

From: Kathy Williams, Town Planner 

Date: June 26, 2013

Subject: Draft Road Safety Audit Report – Route 6A Yarmouth Port

The Cape Cod Commission has done a great job responding quickly to the concerns expressed by the Town and the Safety Over Speed (SOS) group, and have provided many good suggestions to reduce the speed and improve safety along Route 6A from Willow Street to Union Street. I have reviewed the Draft Road Safety Audit Report and would offer the following comments/suggestions for your consideration.

Short Term:

1. Consider installation of a convex mirror opposite Willow Street to improve visibility.
2. Although the Route 6A curve at Summer Street has a tight radius, the location and geometry of Summer Street may play a role in the number of accidents at this location. The Summer Street intersection is wide and there is a long break in the white line which may make drivers on Route 6A think that the road continues in this direction. Consider painting a dashed or full white reflective line along Route 6A through the Summer Street intersection to provide additional visual guidance to drivers.

Medium Term:

1. Conduct a study to determine the safest, most appropriate locations for pedestrian crossings along this segment prior to any significant pedestrian crossing upgrades.
2. Upgrade all crosswalks and consider using textured/colored pavements, pedestrian level decorative lighting and street trees to bring more visual emphasis to the crossings. Old Kings Highway input and/or approval would be required.

3. Install gateway treatments to visually identify the heart of the village for the motoring public. Although the exact locations would need to be determined, somewhere between Vesper Lane and Thatcher Street would encompass the main village center and slow people down prior to the curve at Summer Street. These improvements could include short segments of stone walls or decorative fencing with "Yarmouth Port Village" plaque and decorative lighting/landscaping. Old Kings Highway input and/or approval would be required.
4. Other improvements at the Summer Street intersection may include installation of a vegetated island to reduce pavement and better define this intersection to give drivers a visual cue that the road is curving.

Long Term:

1. Under the long term speed reduction enhancements, emphasize the creation of streetscape improvements to create a village feel to cue in drivers that they are entering a more populated and pedestrian oriented area. As part of this process, the pedestrian network along both sides of Route 6A should be reconstructed and brought into ADA compliance, and pedestrian level lighting installed. These more significant improvements may have impacts to abutting properties to get full ADA compliance, may impact existing street trees or on-street parking, and will require input/approval from Old Kings Highway.

Although it was brought up by SOS members, I would not recommend the use of raised crosswalks on a road like Route 6A and feel this may actually cause safety issues rather than reduce them.

Although not safety related, it would be good to get an idea how some of the medium and long term items could be funded and implemented.

Steven Tupper

From: Williams, Kathleen <kwilliams@yarmouth.ma.us>
Sent: Thursday, June 27, 2013 7:43 AM
To: Allaire, George; Steven Tupper
Cc: Greene, Karen
Subject: RE: Draft RSA Report Comments

Hi George,

Thanks for the heads up.

Kathy

From: Allaire, George
Sent: Thursday, June 27, 2013 7:11 AM
To: 'Steven Tupper'; Williams, Kathleen
Cc: Greene, Karen
Subject: RE: Draft RSA Report Comments

Be advised DOT has not approved textured crosswalks to date.

George R. Allaire
Yarmouth Department of Public Works
1146 Route 28, Town Hall
South Yarmouth, MA 02664
Ph: 508-398-2231 ext 1291
Fax: 508-760-4830

From: Steven Tupper [mailto:stupper@capecodcommission.org]
Sent: Wednesday, June 26, 2013 12:55 PM
To: Williams, Kathleen
Cc: Greene, Karen; Allaire, George
Subject: RE: Draft RSA Report Comments

Kathy,

Thank you for your comments. I will incorporate this feedback into the final report.

Thanks,
Steve

From: Williams, Kathleen [mailto:kwilliams@yarmouth.ma.us]
Sent: Wednesday, June 26, 2013 12:52 PM
To: Steven Tupper
Cc: Greene, Karen; Allaire, George
Subject: Draft RSA Report Comments

Hi Steve,

Please find attached some comments on the Draft RSA Report for your consideration.

Thanks!
Kathy

Kathy Williams, Planner
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