



TOWN OF STOW LOWER VILLAGE



LOWER VILLAGE SUB-COMMITTEE
FINAL REPORT
May 11, 2011

EXECUTIVE SUMMARY

The Town of Stow Planning Board established the Lower Village Sub-Committee in 2002 to spearhead efforts to improve the Lower Village appearance as well as pedestrian and auto safety.

The Lower Village Sub-Committee's goals have been to influence change in the Lower Village, through a public-private partnership as well as the special permit process to create an identity and improve pedestrian and traffic circulation, in keeping with the following vision statement;

Our goal is to create an identity for our historic Lower Village, consistent with the rural character of Stow. By addressing visual, functional and safety issues through a public-private partnership, we seek to enhance the Lower Village as the vital business center of our community.

Over the past 9 years this committee identified issues and proposed improvements based on input from residents, professional planners, brainstorming meetings, and site visits to locations which have already implemented projects consistent with our vision for Lower Village. Changes that we propose and /or have implemented are consistent with 1) the important commercial build-out of the Lower Village areas, 2) the valuable historic nature of the area, and 3) thoughtful consideration of all actions within the constraints fostered by the fact that the village is bisected by Great Road/Route 117 and has become a major thoroughfare, which generates 20,000+ vehicles trips per day.

We strongly urge the Planning Board and the Board of Selectmen to implement the recommendations included in this report, which are aimed at creating a safe, pedestrian friendly and business oriented village, including proposals that address:

- Additional streetscape specifications
- Adoption of a gateway sign
- Pedestrian and vehicular traffic circulation improvements
- Signage recommendations
- Zoning bylaw and regulation amendments
- Water supply

It is our hope that the specific recommendations create an attractive business destination that serves residents and others with desirable local retail and professional services.

Lower Village Sub-Committee:

Donald G. McPherson, Chairman (2002 to 2011)

Barbara Sipler (2002 to 2011)

Russ Willis (2003 to 2011)

Karen Kelleher (2004 to 2011)

Philip Moseley (Associate Member 2004 to 2008 and Voting Member 2008 to 2011)

Brian Martinson (2008 to 2011)

Lori Clark (2009 to 2011)

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BACKGROUND

The Planning Board established the Lower Village Sub-Committee (LVC) on August 27, 2002. The nine-member committee's charge was to spearhead efforts to improve the Lower Village appearance and enhance pedestrian and vehicular safety. The LVC strived to influence change in the Lower Village with limited expense to tax payers. To that end, the LVC made efforts to carry out its charge to establish an identity and improve pedestrian and traffic circulation through a public-private partnership. The LVC adopted the following vision statement:

Our goal is to create an identity for our historic lower village, consistent with the rural character of Stow. By addressing visual, functional and safety issues through a public-private partnership, we seek to enhance the Lower Village as the vital business center of our community.

Issues and Proposed Improvements Identified

The LVC's first order of business was to prepare an action plan to improve the Lower Village Business District. Working with The Cecil Group, under a Downtown Technical Assistance Grant from the State Department of Housing and Community Development the Committee identified the following issues: lack of an identity, traffic congestion, pedestrian access and safety, zoning constraints and an important need for water supply and distribution. A vision statement and list of issues and proposed improvements were portrayed on a poster that was displayed in various town locations for additional public review and input. (See appendix).

Based on the Cecil Group action plan, the LVC met with property owners to share our vision and then established a standard streetscape, a Lower Village Common improvement and a gateway sign design (See appendix for all three). These specifications may be used as a guide for improvements and proposed developments in the Lower Village Business District.

Pedestrian and Vehicular Traffic Circulation

In 2005 and 2006, the Town stepped up its planning effort for Lower Village. With funding approved at Town Meeting, the Planning Board contracted with Fay Spofford & Thorndike (FST) to conduct a traffic planning study for the Lower Village. A series of meetings were held with FST to evaluate a number of alternative recommendations to address vehicular, pedestrian and bicycle transportation conflicts. The LVC worked with FST and participated in a series of public forums to hear community input. After a detailed evaluation of the study, a 'Preferred Alternative' concept plan was completed. This plan includes:

- Installation of a modern roundabout on Great Road at the Red Acre Road and Pompositticut Street intersections to improve safety, reduce conflicts and facilitate traffic flow onto Great Road from the north and easier access to businesses on the south side of Great Road. The modern roundabout would allow vehicles to reverse direction more easily, providing for safe and convenient access to and from businesses on Route 117 without the need to take left hand turns.
- Installation of a modern roundabout on Great Road at a West Gateway to improve Elm Ridge Road and Bradley Lane access to Great Road and to allow vehicles to reverse direction more easily, providing for safe and convenient access to and from businesses on Route 117 without the need to take left hand turns.
- Creation of an east gateway by reconfiguring the White Pond Road intersection to provide safer access to Route 117.
- Widen Samuel Prescott Way at the intersection of Great Road so as to create a turning lane to facilitate the exit and turning of large trucks, which service businesses in the shopping center.

- Installation of the Lower Village Streetscape Specifications (sidewalks, landscaping, etc.), creating a continuous sidewalk network on both sides of Route 117 throughout the Lower Village Business District.
- Establish appropriate crosswalk locations, consistent with the Lower Village Streetscape Specifications.
- Installation of traffic islands to facilitate safer vehicular turns and pedestrian crossing on Route 117.
- Encourage inter-lot connections between businesses on the south side of Great Road to reduce the need for vehicles to re-enter the traffic flow on Great Road and encourage patronage to adjacent businesses.
- Reduce and realign curb cuts to enhance safety and allow for easier access to businesses.

Based on this plan, the LVC updated the Lower Village Poster, prepared by The Cecil Group, Inc. to depict the preferred alternative plan for modern roundabouts and curb cut consolidations. ([See appendix](#))

Using consulting funds, the Planning Board has since retained the services of Coler & Colantonio, Inc. to establish an existing conditions base plan and is seeking funds to begin evaluation of the FST proposed alternatives. The evaluation will include a review and documentation of potential right-of-ways, environmental, historic and physical infrastructure impacts, as well as, recommendations regarding opportunities for improving intermodal access, aesthetic value and public open space enhancements not previously identified. The LVC fully supports this effort.

Village Zoning

In 2005, the Town received a Priority Development Fund Grant to work with MAPC to prepare a draft Mixed-Use Overlay District Bylaw. The LVC Committee participated in the project with MAPC and the Planning Board. A draft bylaw was presented to residents at subsequent public meetings, but due to significant resistance, primarily with regard to the boundaries of the Proposed Overlay District, the zoning has not changed. Since that time, based on input from residents, the Planning Board decided to refocus its efforts toward the boundaries within the existing business district and hold off on plans for a transition zone. The LVC supports this decision. The LVC followed these efforts closely and supports the Planning Board's current goal to establish a comprehensive list of uses that are most appropriate for the Lower Village; to allow but not mandate residential uses provided it is secondary and incidental to the main business use; and to establish guidelines so that building design is consistent with a New England village look and compatible with surrounding buildings. The LVC supports these efforts.

Water

The LVC heard early on from business owners that the biggest obstacle in business development or redevelopment is the lack of a public water supply. Properties on the south side of the Lower Village Business District are struggling and experiencing large and unsightly vacancies. One of the largest and most undeveloped properties, located at the south/easterly gateway of the business district is currently not in compliance with DEP's public drinking water requirements. This property currently houses a number of non-conforming uses, is in dire need of redevelopment, and is at risk of losing its major tenant. Another business, located near the south/westerly gateway to the business district, was issued a Special Permit to expand its existing business. This expansion is at a standstill due to DEP requirements for a public water supply.

The cost of providing a public water supply is typically out of reach for small businesses and renders medium-sized commercial development uncompetitive if a sizable up-front capital investment is necessary for water. Public water would provide property owners the incentive and the Town the ability

to promote redevelopment of Lower Village. In a recent letter to the Planning Board, in response to an invitation to take part in a planning effort for Lower Village, the owner of three other properties stated: “Although the improvements you have been working on are laudable, in my view the most important need by far is town or public water and sewer. Before spending money on other improvements, I would allocate your funds to this goal.”

In 2003 Assabet Water Company, Inc. approached the LVC about the potential of developing a privately funded, owned and operated public water supply system to provide drinking water and fire protection to service the Lower Village Business District as well as some adjacent properties in Stow. With the encouragement of the LVC, Assabet Water Company conducted an interest survey (See appendix). (In 2010, Assabet Water Company filed for bankruptcy and is no longer a viable option.)

In addition the LVC met with three engineering firms and received proposals for consulting services to identify alternatives related to the Lower Village water issue. It was finally determined that it would be best for the Board of Selectmen to take the lead on this important issue, particularly to take advantage of the Town Administrator’s past experience and expertise. The Town Administrator created a working group tasked with a fact-finding investigation for a water source for Lower Village and continues to work toward a solution. The most recent action was to include the possibility of using Town-owned land in Lower Village. At the 2010 Special Town Meeting it was voted to authorize use of town-owned property off of Deer Field Lane to be used in conjunction with development of a public water supply.

IMPROVEMENTS

Throughout the years, the LVC continued to work toward implementation of improvements in keeping with its vision. The following improvements were made:

Pedestrian Traffic Circulation

The Town has made great strides toward fostering pedestrian traffic to and within the Lower Village by adding sidewalks, creating or relocating crosswalks and installing traffic islands.

Meeting House at Stow – Through a public/private partnership with the developers of Meeting House at Stow, a pedestrian pathway from Meeting House at Stow to Samuel Prescott Drive was installed. Residents of Meeting House at Stow and Faxon Farm now have a safe walking route from their homes to the shopping center.

Lanes End – Through a public/private partnership with the developers of the Lanes End residential development, a pedestrian pathway from Lanes End to Great Road was installed. Residents of Lanes End and Bradley Lane now have a safe walking route from their homes to Great Road.

Pompositicut Street – Using funds from the Town’s sidewalk account (donated funds from developers in lieu of constructing sidewalks), the Highway Department constructed a sidewalk along Pompositicut Street. Residents of Pompositicut Street and the Town of Maynard now have a safe walking route from their homes to Lower Village.

Vehicular Traffic Circulation

Post Office - Through a public/private partnership with the developers of the Post Office, a driveway connection from the Post Office to Samuel Prescott Drive was installed. Patrons of the Post Office, gymnastics club and offices at Faxon Farm may now safely walk or drive to the shopping center without the need to exit onto Great Road.

Temporary traffic islands –The first step toward implementation of the “preferred alternative” in the FST traffic study was the installation of temporary traffic islands to allow the Town to determine that they serve their intended purpose to accommodate pedestrian traffic and slow vehicular traffic. These temporary islands have proven to be a success in that they have slowed traffic speed, significantly reduced vehicular incidents and facilitate convenient and safe access to Lower Village businesses. The LVC adopted a standard for permanent traffic islands to also serve as pedestrian refuge islands. ([See appendix](#))

Streetscape

The Lower Village Streetscape Specifications were established and adopted by the Planning Board. Working with the Planning Board through the Special Permit process, elements of the streetscape specifications were installed by the property owner at the Stow Shopping Center. It is expected that the Planning Board will use the streetscape specifications as guide in considering development plans for Lower Village. ([See appendix](#))

Common

The Lower Village Common was improved and expanded. A portion of Gardner Road (from a point near the entrance to the Shopping Center at Papa Gino’s to Great Road) was removed resulting in expansion of the common. A sidewalk was also incorporated into this area. The LVC’s objective was to help enhance the Lower Village appearance and historic heritage by returning the Lower Village Common to its original size as much as possible by converting that portion of Gardner Road into the common.

The Town land between Pompositticut Street and Red Acre Road was cleaned up and accented with granite post and wood rail fencing. Plans are also in place for a footpath across this parcel, creating a walkway connection from Pompositticut Street to Red Acre Road. Also, the stonewall along the Lower Village Cemetery was recently restored with Community Preservation funds. This work, along with the Pompositticut Street sidewalk helps create a visual connection from the Lower Village Common to the Cemetery, consistent with our vision for the Lower Village.

Through a public/private partnership with developers of Faxon Farm, granite post and wood rail fencing was purchased and members of the LVC and the Highway Department installed fencing to accent the Lower Village Common. This fencing serves as an example of the plan for a standard streetscape in the Lower Village.

The LVC also created a concept plan for improvements at the common, which features a small attractive area with plantings, a historic tableau, benches for sitting and a new flagpole. Recognizing the nearby Assabet River Rail Trail, and to identify the Lower Village Common and shops as a destination place, the Plan also includes a bike rack. ([See appendix](#))

Gateway Sign

In keeping with our goal to create an identity for Lower Village, the LVC established a design for a gateway sign to be installed on the north side of Great Road, just before the east end of the cemetery stone retaining wall. ([See appendix for the design](#)) The Stow Garden Club offered funds toward construction of the sign.

Signage and Lighting

Working with the Light Pollution Study Committee, the LVC encouraged compliance with current signage and lighting bylaws.

The historic Pompositticut Plantation sign, given to the Town in 1930 by the Massachusetts Bay Colony Tercentenary Commission, was refurbished and relocated by a member of the LVC.

RECOMMENDATIONS

It is important that any changes in Lower Village, including town infrastructure (traffic circulation, drainage and utilities) and site development, be in harmony with the Town's goal to enhance the Lower Village as the vital business center of our community, focusing on creating an identity for our historic Lower Village, consistent with the rural character of Stow.

The 2010 Master Plan Update recommends establishing a vision for the Lower Village Business District, which would encourage revitalization of the commercial center; increase the Town's housing stock; promote village-style redevelopment; enhance the Lower Village's unique identity and development potential as a focal point for pedestrian-related uses; reduce roadway congestion; and promote a greater sense of community. The Master Plan update recommended further evaluation of a mixed use overlay district to include careful consideration of the district's boundaries and controls to limit over development. The Master Plan also noted that a major impediment to the redevelopment of Lower Village involves Stow's current lack of water and sewer infrastructure. The LVC supports these recommendations.

Specific Recommendations

Streetscape Specifications (Sidewalks, Crosswalks, Trees and Fencing)

- The Planning Board should provide a copy of the Streetscape specifications, as adopted by the Planning Board, to all Lower Village business-zoned property owners.
- The Planning Board should incorporate the streetscape specifications into the Planning Board Handbook.
- The Planning Board and Building Commissioner offices should provide a copy of the streetscape specifications with Application forms for Lower Village business-zoned proposals.
- The Planning Board, Board of Selectmen and Highway Department should establish the goal to create a consistent streetscape along Great Road throughout the Lower Village Business district.
- The Planning Board should incorporate the installation of pedestrian crosswalks into the traffic calming island design as an important safety feature of the design.
- The Town should establish a sidewalk snow removal policy in the Lower Village.

East Gateway

- The Planning Board should seek design and construction funds to reconfigure the White Pond Road intersection to provide safer access to Route 117.
- The Planning Board should seek approval from the Board of Selectmen on the installation of the gateway sign.
- The Board of Selectmen should accept the Stow Garden Club's donation of funds toward the sign and seek additional funds to augment the donation, if necessary.

Pedestrian and Vehicular Traffic Circulation

- The Planning Board should seek design and construction funds to implement the preferred alternatives as outlined in the FST traffic study, as may be amended based on the evaluation by Coler & Colantonio. (See appendix).
- The Highway Department should install permanent traffic islands in a location to be determined by the Planning Board in consultation with its traffic engineer.
- As part of the special permit process, Planning Board should continue to work with property owners to re-align curb cuts as depicted on the Lower Village Poster, prepared by the Cecil Group Inc., revised by the Lower Village Sub-Committee. (See appendix)
- As part of the special permit process, the Planning Board should continue to work with property owners to create inter-lot connections as depicted on the Lower Village Poster, prepared by The Cecil Group poster, revised by the Lower Village Sub-Committee.
- The Highway Department should widen Samuel Prescott Way at the intersection of Great Road so as to create a turning lane to facilitate the exit and turning of large trucks, which service businesses in the shopping center.
- The Highway Department should install a footpath across the Town owned parcel between Pompositticut Street and Red Acre Road.

Common

- The Planning Board should seek approval from the Board of Selectmen to implement Lower Village Common improvements, as shown on the Lower Village Common Concept Plan.
- The Planning Board should seek public and private funding for installation of improvements to the common as shown on the Lower Village Common Improvement Concept Plan.
- The Board of Selectmen should adopt a policy to maintain the green space between Red Acre Road and Pompositticut Street as an expansion of the common.

Signage

- The Planning board should consider amendments to the Zoning Bylaw to incorporate guidelines for placement of signs noted in the Lower Village Streetscape Specifications.
- The Planning Board should sponsor amendments to the Zoning Bylaw to incorporate standards for pylon signs.

Water

- The Planning Board should support and reinforce the Board of Selectmen's top priority to provide a public water supply to the Lower Village.

Credits and Acknowledgments

None of the Lower Village Planning efforts identified in this report would be possible without the enormous contributions of former members of the Lower Village Sub-Committee, Town Departments, Boards and Committees, and residents who participated in this planning process by attending regular Lower Village Sub-Committee meetings and public forums.

Special thanks to former Lower Village Sub-Committee members for their many years of service:

Former Lower Village Sub-Committee members:

Bruce Fletcher (2002 through 2010)

Wayne Erkinnen (2002 through 2003)

John Hoenshell (2002 through 2005)

Lucille King (2002 to 2008)

Keith Myles (2002 to 2003)

Laura Rome (2002 to 2003)

Stephen Steinberg (2002 to 2003)

Laura Spear (2003 to 2009)

Karen Gray (2004 to 2005)

Associate Members

Tom Farnsworth

T. L. Neff, Associate

Special thanks also to:

Michael Clayton, Superintendent of Streets, for his technical input and the entire Highway Department for their assistance in installing walkways, fencing and temporary traffic calming islands.

LVC Member Philip Moseley, for refurbishing the historic Pompositticut Plantation sign, given to the Town in 1930 by the Massachusetts Bay Colony Tercentenary Commission.

The Town of Stow's Lower Village

A Vision for the Future

Our goal is to create an identity for our historic lower village, consistent with the rural character of Stow. By addressing rural, financial and safety issues through a public-private partnership, we seek to enhance the Lower Village as a vital business center of our community.

Issues and Proposed Improvements

Lower Village lacks identity

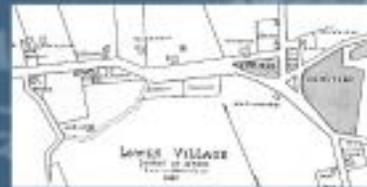
- Establish gateways
- Create more attractive streetscape
 - Sidewalks
 - Uniform plantings
 - Split-rail fence
 - Signage
 - Lighting
 - Buried utilities
- Restore beauty of Lower Village Common
- Identify historical sites
- Link common and cemetery

Traffic congestion

- Reduce/realign curb cuts
- Add new turning lanes
- Add traffic islands
- Increase inter-lot connections
- Re-configure Gardner Road and Red Acre Road in intersections with Route 117

Pedestrian access and safety

- Crosswalks
- Pedestrian refuge islands
- Pathways
- Sidewalks
- Lighting



Thanks to the Stow Historical Society for the use of their collection of historic photographs.

Prepared for: The Town of Stow, Massachusetts

Funded by: Massachusetts Department of Housing and Community Development

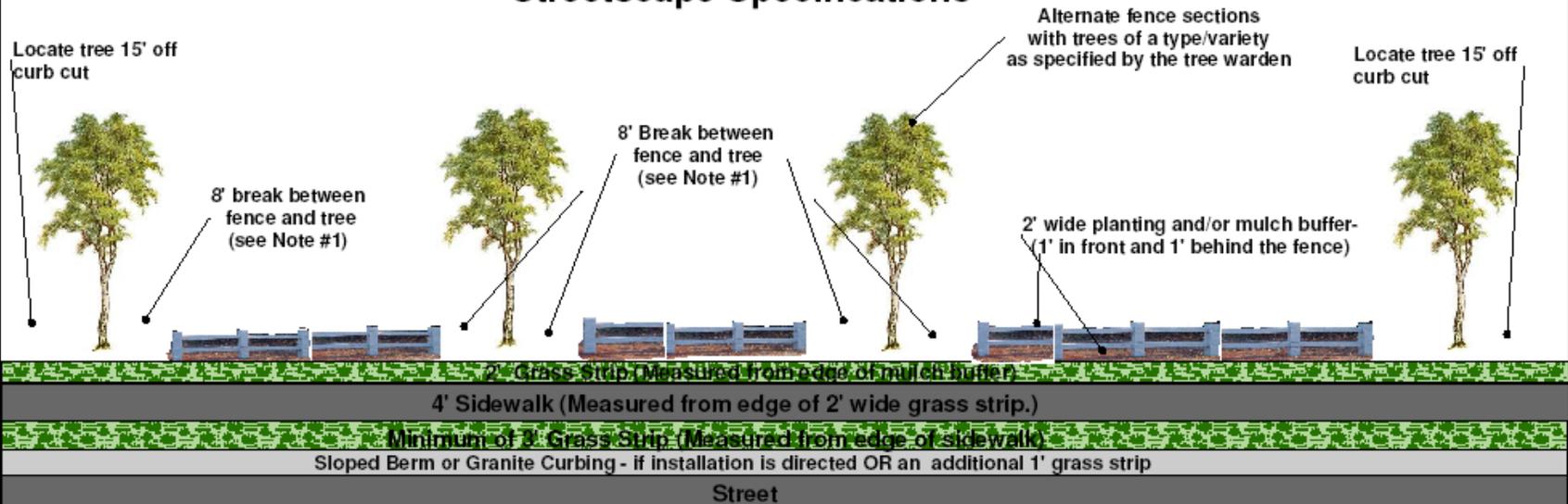
Prepared by: The Creel Group, Inc.

Adapted by the Stow Lower Village Sub-Committee



Lower Village Poster, prepared by The Cecil Group, Inc., revised by Lower Village Sub-Committee

Stow Lower Village Streetscape Specifications



Fence Specifications

Granite Posts:

Granite Posts shall have the following attributes:

- Shall be of gray granite
- Shall be 7" x 7" x 8' long
- Hand-split stone is the preference; however, if unavailable, granite post faces shall be of the "thermal split" style.
- Shall be fitted with brackets for two wooden rails on each post with the holes for the top bracket being drilled such that the top of the upper rail shall be eight inches (8") from the top of the post and the lower bracket holes being drilled such that the top of the lower rail shall be twenty six inches (26") from the top of the post.

Wooden Rails:

Wooden Rails shall have the following attributes:

- Shall be 4" x 4" x 8' in size and cut from rough sawn lumber
- Shall be stained (NOT painted) on all four faces using an acrylic or oil based solid color stain, such as or equal to, the Cabot stain in the color "granite."
- The posts shall be dry set by compacting small stones or soil around the posts.

Fence Location:

- Fence shall be ten feet (10') from the edge of the berm OR eleven feet (11') from the edge of pavement, OR on the abutting property line, whichever is greater.
- Depending upon the length of the line of fence being installed, sections of fence shall be installed in grouping of from 3 to 5 sections of fence so as to create a symmetrical division of the length along the line of trees and fence sections.

Important Notes:

Fence Installation:

- The top of the posts shall be four feet (4') above ground level
- The posts shall be set to accommodate an eight foot (8') rail between each post.
- The posts shall be vertical (leveled) in all directions

Signs:

- All signs shall be in compliance with the Town of Stow Sign Bylaw (6.3.1)
- All sign posts shall be located a minimum of one foot (1') behind the fence.
- In the event that a sign will overhang the fence, the front edge of the sign shall be no closer than one foot (1') from the sidewalk and the bottom of the sign shall have a clearance of no less than seven feet (7') to the surface of the sidewalk.

Note # 1:

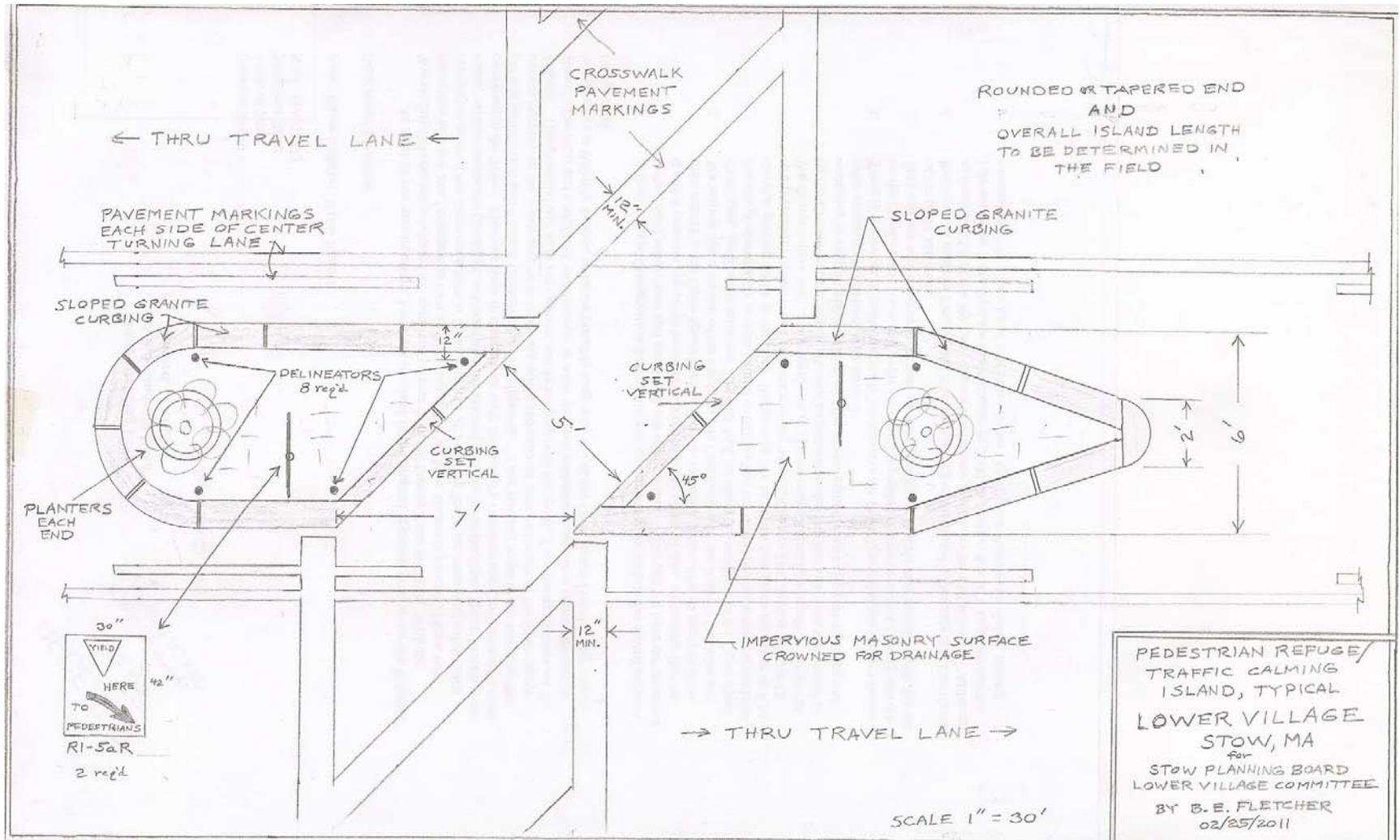
The breaks may be somewhat shorter if needed in order to create a symmetrical division along the fence line.

Town of Stow Planning Department
Lower Village Sub-Committee
12/08/10

*Fencing style and Specifications for use
in the Stow Lower Village*
Adopted by the Stow Planning Board 03/01/14
Revised by the Planning Board 01/22/08
Revised by the Planning Board 06/23/08
Revised by the Planning Board 02/03/11

Lower Village Common Improvement Plan







***INTEREST SURVEY
LOWER VILLAGE PUBLIC WATER SUPPLY***



Results through January 5, 2004

**INTEREST SURVEY
LOWER VILLAGE PUBLIC WATER SUPPLY**

Results for review with Lower
Village Subcommittee 1/7/04

**Results through 1/5/04 – 21 properties of 74 returned questionnaires (one of which was a non response – the cemetery)
Not all questions were answered on each returned form**

	Yes	No
The property at the above address (see upper right-hand corner) is Commercial:	4	16
Is fire protection from hydrants or a sprinkler system important to you?	13	6
Do you have private fire protection for your property now?	4	12
Are you satisfied with the quality of the drinking water at your property now?	11	8
Are you satisfied with the quantity of the available water supply at your property?	14	6
Are you using a water treatment systems now?	17	3
Are you using bottled water now?	7	13
Does the system serving your property now also serve other properties?	1	18
Is the water supply serving you located on property of others?	0	18
How frequently is a sanitary survey of your property conducted?	Once a year – 5 Never - 2	Every 5-2,10-1 years.
How often is your water supply tested for bacteria and chemical contaminants? 2/3yrs.- 1, 5yrs.- 2	Monthly-1	Annually-1 Never - 8
Are sodium levels included in the quality testing?	6	4
Does your present water system have the space and capacity to handle more dense or mixed-use development on your property?	2	16
Are you interested in the possibility of a centralized water supply system for drinking water and fire protection to service the Lower Village business district in Stow?	10	8
Would you be willing to support the development of a public water supply system and pay a monthly water bill if a reasonable cost structure can be developed?	10	7

**INTEREST SURVEY Results thru 1/5/04
LOWER VILLAGE PUBLIC WATER SUPPLY**

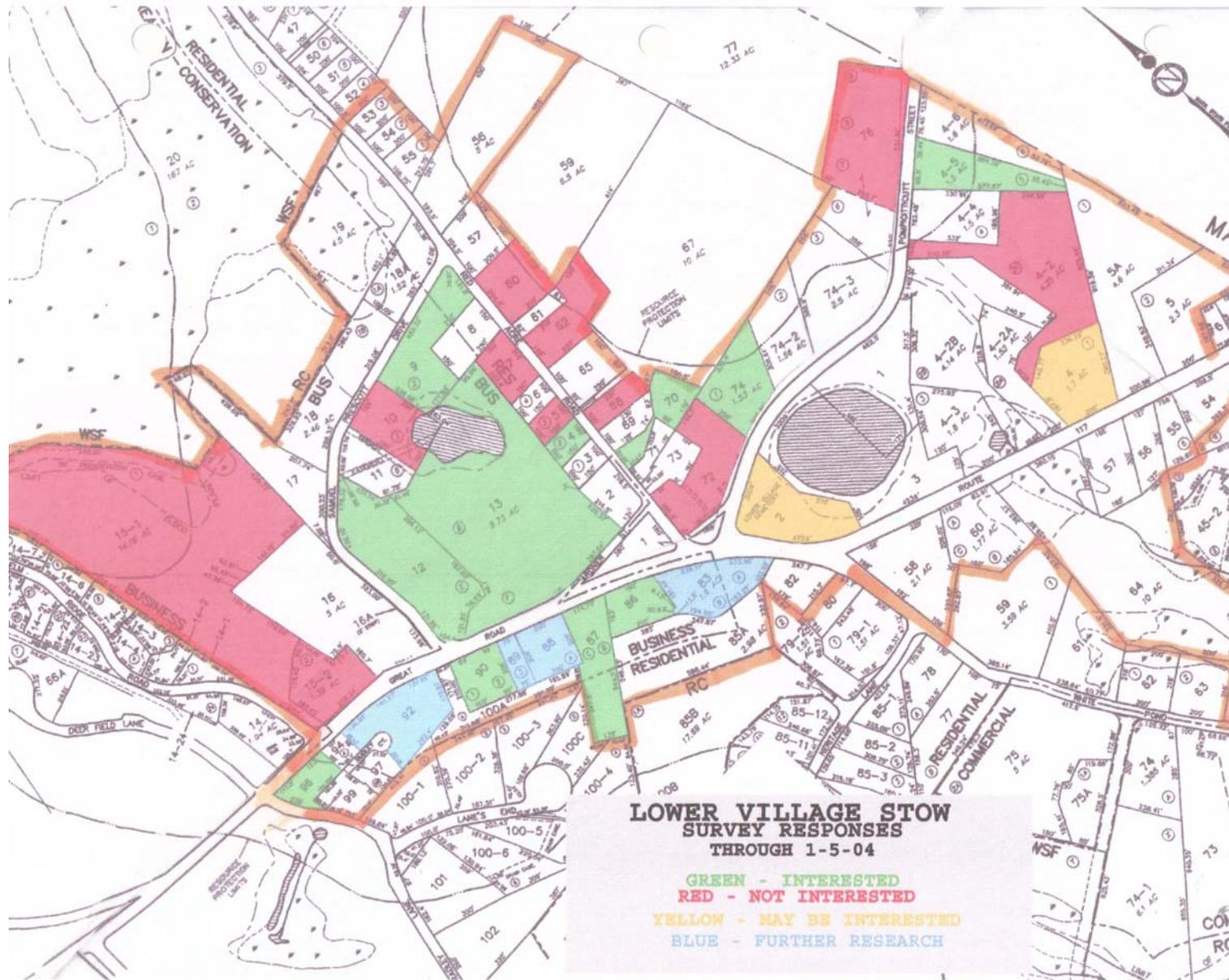
The following questions were for commercial or multi-unit residential property owners: Several residential owners responded; all responses are included.

	Yes	No
Do you own the water system that serves your property?	13	0
Does that system require a licensed operator and routine sampling?	2	11
Currently, are there any outstanding regulatory issues related to the water supply at your site?	0	13
Has your system ever been issued a Notice of Noncompliance or other orders from the MA Department of Environmental Protection or any other regulatory agency?	0	12
Is any specialized treatment now in use at your location such as chemical addition	2	7
Is filtration now in use at your location?	5	4
Do you know the current cost of operation of the system at your site including power, chemicals, taxes, licensed personnel, etc.?	3	6
Are you willing to share some of that financial information with us to help in deciding whether development of a centralized water supply system for the Lower Village is economically feasible?	6	2

Completed by (print Name): _____ Ken Kells 1/06/04 _____

Telephone: _____

e-mail: _____





TECHNICAL MEMORANDUM 4
Preferred Alternative

To: ***Town of Stow Lower Village Committee and Planning Board***

From: Fay, Spofford & Thorndike

Subject: Preferred Alternative Recommendation and Implementation Strategy

Date: May 25, 2006

This memorandum identifies the rationale for attached Figure 4-1, the Preferred Alternative for the treatment of Great Road (State Numbered Routes 62/117) through Stow Lower Village. The identification of the Preferred Alternative was made within the context of information provided to the Committee in Technical Memoranda 1-3 and draft comments on the evaluation of alternatives received by the Stow Lower Village Committee. An implementation strategy is also recommended.

Future Stow Lower Village land use changes and the transportation system serving Stow Lower Village are inextricably linked together. The timing of improvements to the Stow Lower Village transportation system must be closely coordinated with future changes in Lower Village land uses. Nonetheless, it is beneficial for adjacent businesses and potential developers to have an understanding of the basic transportation system changes that must be in place for a successful business operation and to accommodate full transportation system demands. While specific development proposals have not been included in this analysis, it is important that the Town have a solid vision of the transportation system to provide guidance on its expectations regarding future driveway access and the walking environment that will be created in Stow Lower Village.

Following a brief strategic overview, recommended features of the Preferred Alternative are described generally following an east to west pattern along Great Road.



Strategic Overview

- The basic issue with Great Road is the continuous flow of traffic uninterrupted by *all* intersections in Stow Lower Village-- heavily eastbound in the morning and heavily westbound in the afternoon. It is difficult for traffic to access Great Road from side streets and commercial curb cuts, particularly during peak hours. In particular, traffic approaching Great Road via Pompositicut Road and the Stow Plaza East driveway regularly experiences congestion during the morning and evening periods. Pedestrian circulation is also problematic due to a discontinuous sidewalk system and the continuous stream of traffic. Resolving this congestion, enhancing the access of local businesses and adjacent development to Great Road, and improving the pedestrian environment were key objectives of the study.
- Pedestrian enhancements will be provided via a continuous sidewalk system on both sides of Great Road between the intersection of White Pond Road and Bradley Lane that will provide visual cues that help define Stow Lower Village and the Stow Lower Village Committee's recommended typical pedestrian environment cross-section (refer to attachment to this memo) to be provided to the maximum extent possible on both sides of Great Road. On the basis of the schematic concept sketch/ developed by the Lower Village Committee (see attachment to this memo), it is estimated that each 8-foot segment installed will entail an estimated cost of approximately \$650-\$750 plus an additional \$300-\$400 when completing a section with a single granite post.
- Great Road will retain a maximum of one through lane for traffic in each direction for the foreseeable future. Auxiliary lanes will be provided as needed.



White Pond Road Gateway Area

- **Recommendation**
- Create East Gateway

Gateways provide visual cues that the roadway environment is changing to a lower speed environment and help reinforce a 'sense



of place' for Stow Lower Village. The proposed east gateway to Stow Lower Village has two potential components -- a median possibly located just east of White Pond Road and a potential modern roundabout (see Recommendation on the next page).

The median on the westbound approach to White Pond Road would not have a crosswalk. It is recognized that a crosswalk at this location would have little or no pedestrian use. The purpose of the proposed median will be to slow traffic as it enters Stow Lower Village just prior to its intersection with Pompositticut Road. The proposed median should be landscaped, perhaps with seasonal flowers or other appropriate low-height vegetation to provide an aesthetic entrance/exit from Stow Lower Village. Sidewalks designed to the Town's standard would be created on both sides of Great Road beginning at White Pond Road westerly.

Due to the need to transition to a 16-foot wide roadway in each direction of Great Road directly adjacent to the median, the cost of this measure is estimated at approximately \$35,000-\$48,000.

□ **Recommendation - Create a modern roundabout at Great Road, Pompositticut Road, Red Acre Road**

A proposed one-lane modern roundabout at the intersection of Pompositticut Road, Red Acre Road would slow through traffic and accommodate the approach traffic on Pompositticut Road, Great Road, and a parcel owned by Mr. Richard Presty (referred to as the Presty parcel; see right) as it is redeveloped.



Presty Parcel Area

The proposed modern roundabout *requires* a truck apron to accommodate the high truck volumes on Great Road. All approach

legs to the modern roundabout should be designed to approach the roundabout preferably left of center to ensure proper deflection. The proposed modern roundabout *requires* a reduction in the width of the long open curb cut on the Presty parcel. It assumes the existing and future buildings on Presty parcel site will be reconfigured to modify parking arrangements and potentially create a throat approach to the future roundabout at least 2-4 car lengths. Based on community input, it is



recommended that Red Acre Road enter the modern roundabout as a two-way roadway. The geometry of this entry requires that only cars will access the roundabout from Red Acre Road. Red Acre Road currently has a truck restriction which we assume will be retained. Assuming Red Acre Road remains two-way, it is assumed that parking along it will not be possible without widening, and is not recommended.

All traffic entering the roundabout (including traffic approaching from the eastbound and westbound Great Road approaches) will need to yield to traffic circulating in the roundabout. The center of the modern roundabout would provide an opportunity to create an attractive gateway with seasonal landscaping. The roundabout should have cross-walks on all sides and have splitter islands on all approaches to slow traffic as it enters the roundabout at design speeds of 15-less than 20 miles per hour and to provide pedestrian refuge. Pedestrians would therefore be crossing one direction of traffic flow at a time at crosswalks located at least one car length outside of the circulating roadway.

Red Acre Road at the roundabout will also be signed as a car only entrance to the Stow Plaza. It is assumed that trucks will be restricted from using Red Acre Road, as they are at present.

The implementation time frame for the modern roundabout would be directly related the redevelopment of the Presty parcel. It is assumed that the roundabout can be developed entirely within the public right-of-way. The construction cost of the proposed modern roundabout is estimated to range from \$250,000 to \$350,000.



Closely spaced Red Acre and Pompositticut Road intersections with Great Road



□ **Recommendation - Modify Red Acre and Gardner Road Alignments**

The re-alignment of Red Acre and Gardner Roads would solve several traffic issues. The proximity of the existing Red Acre Road and Pompositticut



Stow Plaza East Driveway at Great Road and Gardner Street

Road intersections with Great Road creates congestion and potential safety hazards. Additionally, Gardner Road intersects the Stow Plaza East Driveway and Great Road in a five-legged intersection with a long pedestrian crosswalk. The existing alignment does not allow traffic to circulate efficiently to and from Stow Plaza.

As envisioned, Red Acre Road would remain two-way as it is today between Gardner Road and Great Road.

Gardner Road would remain two-way as it is today, but its alignment would be relocated northerly toward Stow Plaza. This would allow a two-lane approach capable of storing up to 5 vehicles on the relocated segment of Stow Plaza East driveway approach to Great Road (refer back to Figure 4-1). It would also allow the enlargement of the Lower Village Town Common and the construction of a new Stow Plaza parking lot to replace parking lost by relocating Gardner Road and enlarging the Lower Village Town Common. Further, it would preserve a large tree that would otherwise require removal if the Stow Plaza East driveway were to be relocated further to the east.

The cost of the relocation of Red Acre and Gardner Roads is estimated at approximately \$150,000 - \$200,000.

□ **Recommendation - Channelize Stow Plaza West Driveway and install two short medians**

Right-turn-only channelization of the Stow Plaza West Driveway is recommended if a modern roundabout is installed at the Elm Ridge Road intersection with Great Road. Creating a right-turn-only island with a



consistent driveway modification would provide an opportunity to shorten the exposure of pedestrians to Stow Plaza West driveway traffic and encourages motorists to make the left turn out of Stow Plaza via relocated Gardner Road to Red Acre Road. This particular recommendation, we note, *is optional*, but the existing Stow Plaza West driveway will be slightly less beneficial to pedestrian or vehicle safety if left as it is today.

The proposed medians immediately to the east of the Stow Plaza West driveway and to the west of Samuel Prescott Road should incorporate crosswalks of Great Road. These allow pedestrians to cross one direction of travel at a time and will reduce their exposure to traffic conflicts.

The estimated cost of installing the driveway modification and the two medians is approximately \$35,000-\$45,000 as, like the proposed median at White Pond Road, the medians require a total curb-to-curb dimension of at least 38-feet, comprised of two 16-foot travel ways adjacent to the median plus a 6-foot median plus transitions from the existing typical 35-foot cross-section on Great Road in front of Stow Plaza.

Recommendation - Create a Modern Roundabout West Gateway to Stow Lower Village

A proposed west gateway to Stow Lower Village would involve the creation of a second one-lane modern roundabout at the Elm Ridge Road intersection with Great Road. This modern roundabout would not only serve as a distinctive west gateway to Stow Lower Village, but would provide easier access to Great Road from Elm Ridge Road and would slow traffic in the vicinity of Bradley Road/Deerfield Lane, thereby improving traffic operations at both intersections.



Elmridge Road at Great Road

The cost of a potential modern roundabout in this area may be higher than the potential roundabout at Red Acre and Pompositticut Roads, as land takings would be required to install it. The cost of landtakings is unknown at this time, but could be substantial. Its construction cost is



estimated at between \$250,000 to \$350,000. Construction may also involve work in or adjacent to an existing water detention basin on the northwest corner of Elm Ridge Road at Great Road.

□ **Potential Long Term Strategy - Relocate and Signalize Stow Plaza East Driveway at Great Road**

If the Town is unable to implement either or both the proposed two modern roundabouts, a traffic signal might be considered at the Stow Plaza East driveway intersection with Great Road. ***The Lower Village Committee considers the notion of a traffic signal to be inconsistent with its long-term vision for the area, and only a 'last resort' option.***

To accommodate a potential traffic signal at the Stow Plaza east driveway with the re-alignment of Red Acre and Gardner Roads, the centerline of the Stow Plaza East driveway should be re-aligned easterly approximately 80 feet. This relocation assumes a minimum 3-lane cross-section for the Stow Plaza East driveway (a minimum width of 40 feet curb to curb consisting of two 12-foot approach lanes and one 16-foot departure lane). The proposed parking lot would replace sixteen parking spaces lost due to the realignment of Gardner Street.



Half of the Stow Plaza parking spaces requiring replacement

If the westbound right turn connection to Stow Plaza is made at the roundabout, there is no need for an exclusive right turn lane at the traffic signal.

As long as it meets the requirements of the Manual on Uniform Traffic Control Devices, as amended, the signal could use aesthetic mast arms or post mounted signal heads that reflect the rural character of Stow Lower Village.

The estimated cost of the relocating Stow Plaza East Driveway and installation of a replacement parking lot and traffic signal is estimated at approximately \$200,000 to \$300,000.



Range of Total Construction Costs

The above range of programmatic construction costs cited above do not include *all* costs associated with full implementation. They exclude surveying/engineering, the potential need to purchase rights-of-way at Stow Plaza (which might be accomplished through land swaps), the relocation of overhead and underground utilities, and police details.

In aggregate, if one assumes the Lower Village Committee's preferred alternative is implemented along 2,400 linear feet adjacent to Great Road, the range of total construction costs, including right-of-way purchases, could range from **\$1.4-\$1.6 million** for the implementation of all recommended measures in 2006 dollars assuming 25% contingency costs broken down as follows:

	Low	High
Stow Lower Village Recommended Measures		
Sidewalk and Committee Fencing Areas*	\$195,000	\$225,000
Recommendation - East Gateway at White Pond Road	\$30,000	\$40,000
Recommendation - Modern Roundabout (Pompositicut/Red Acre Roads)	\$250,000	\$350,000
Recommendation - Gardner Road/Red Acre Road Plaza Realignment	\$115,000	\$125,000
Recommendation - Two medians and channelization	\$40,000	\$60,000
Recommendation - West Gateway Modern Roundabout at Elmridge Road*	\$250,000	\$300,000
Subtotal Range of Costs	\$880,000	\$1,100,000
25% Contingency	\$220,000	\$275,000
Total Range of Costs*	\$1,100,000	\$1,375,000

*Excludes right of way purchase costs.

Implementation Strategy

It is assumed the potential modifications to Great Road and its streetscape will be implemented in a phased manner as new Stow Lower Village development comes on line. Generally, the Town should implement elements of the plan as approvals for land use changes are required. The long-term goal should be to implement the Preferred Alternative within a 10-year period, and most elements within the next five years.

There is need for intensive public involvement and for public and private financing to implement the features of the Preferred Stow Lower Village Plan. When new development is proposed in Stow Lower Village, the



Town should negotiate with the Applicant to assist in the implementation of improvements that benefit the Applicant and the Town. If modifications primarily benefit the Applicant, it is fitting that the Applicant provide a larger share of the implementation costs or be conditioned on the implementation of a particular feature of the recommended Preferred Alternative.

For the major, most costly of the recommended improvements, the Lower Village Committee indicated its preferred implementation strategy as follows:

- 1) East gateway modern roundabout;
- 2) West gateway modern roundabout; and
- 3) A traffic signal is not preferred and should only be considered as an option of last resort.

Relative to the Committee's recommended strategy for granite post and rail fencing and sidewalks, the granite post fencing is the largest element of its implementation costs. From observations, the granite post and rail fencing is not appropriate everywhere. It is appropriate in the business area and the Town Common, but is not appropriate adjacent to the historic Stow Cemetery or adjacent to existing fences (i.e., it is not appropriate to have two fences adjacent to one another). The only active proposal before the Planning Board at this time is the pizza/bank redevelopment site. It may be possible to incorporate the Lower Village Committee's recommended sidewalk enhancements along the frontage of this or other sites with the sidewalk located in the available right of way, while the fencing is located on the site being redeveloped. We note that the right-of-way requirement for the implementation of the sidewalk strategy is such that where a three-lane cross-section is needed on Great Road, the required sidewalk will necessitate either a right-of-way easement or the purchase of new right-of-way, preferably the former from a cost/maintenance perspective.

Besides private sector (developer) assistance, portions of the Stow Lower Village transportation enhancements could be funded by using Chapter 90 (formula grant funds -- \$160K in 2006). The project or key features of the project should be placed on the State's Transportation Improvement Program (TIP) as soon as possible, once the Town has specifically adopted the project's proposed features. The Town could also apply for grant assistance under MassHighway's Footprints Pilot Program or the state's Transportation Enhancements Program.



Landscaping maintenance might be considered through the 'Adopt-A-Highway' public service program with volunteers from adjacent businesses and residences maintaining landscaping with recognition through small tasteful signs.

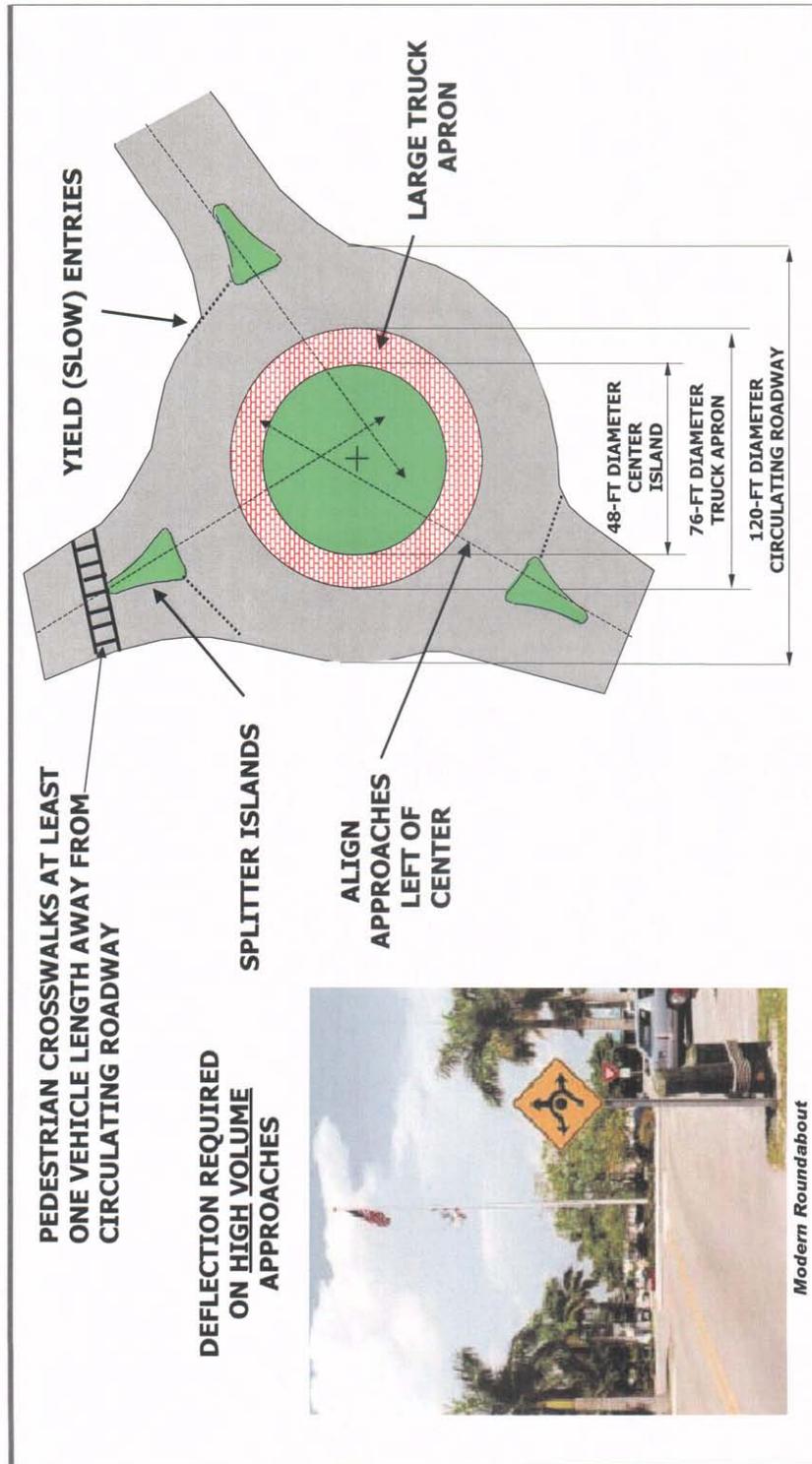
GLH:gh
PS-026
Tech Memo 4 (Rev)



Elm Ridge Road at Great Road Roundabout Concept



***Pompositticut and Red Acre Roads at Great Road
Roundabout Concept***



Modern Roundabout

Stow Lower Village Traffic Study
Town of Stow, Massachusetts



Schematic Diagram:
Not to Scale

Typical Roundabout Signs and Markings

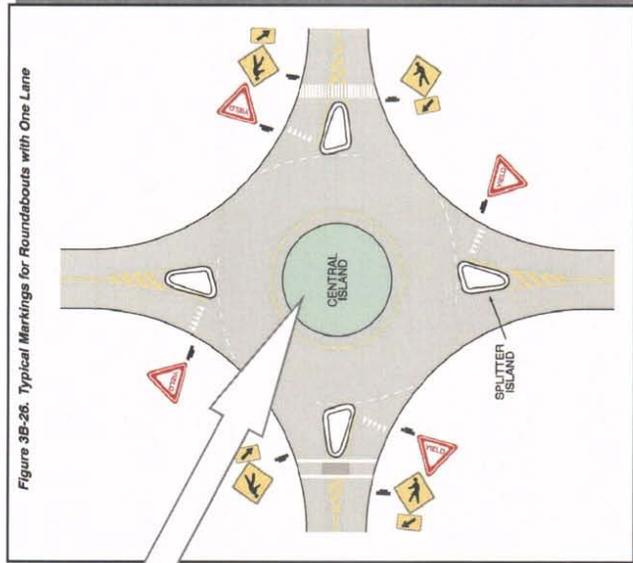
Note: Central island must be well-lighted at night; warning signs must be placed on all approaches (see below)

Typical Approach Markings

Advance

Approach

Figure 3B-26. Typical Markings for Roundabouts with One Lane

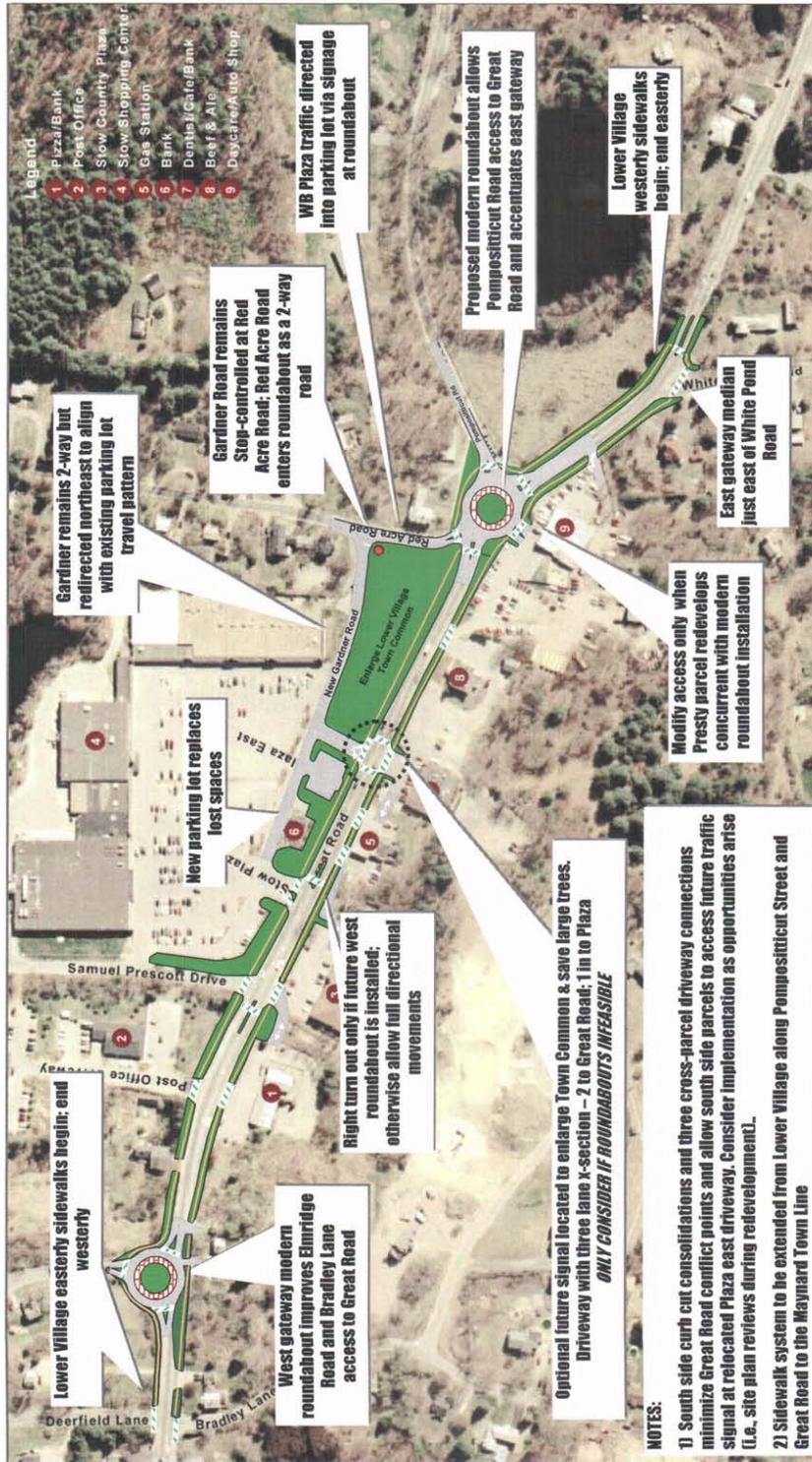


Source: Manual on Uniform Traffic Control Devices (MUTCD) Millennium Edition (June, 2001)

Stow Lower Village Traffic Study
Town of Stow, Massachusetts



Schematic Diagram:
Not to Scale



Preferred Alternative
Figure 4-1



Schematic Diagram:
Not to Scale

Stow Lower Village Traffic Study
Town of Stow, Massachusetts





Preferred Alternative

Stow Lower Village Traffic Study
Town of Stow, Massachusetts

