



TOWN OF BOLTON

**ROUTE 117 PRIORITIZATION COMMITTEE
FINAL REPORT**

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On September 17, 2015, Bolton selectmen established the Route 117 Prioritization Committee with the following charge:

- To review three reports on the future of Route 117 in Bolton forwarded by the selectmen;
- To prioritize the actions recommended in those reports, with rationale for the prioritizations;
- To reach out to relevant stakeholders in the community for input;
- To report back to the selectmen by December 15, 2015; and
- To assist the selectmen in presenting the prioritized projects at town meeting.

The three reports received from the Selectmen are:

- *Non-Motorized Transportation Recommendations* submitted by the Town of Bolton Mobility Committee, dated September 9, 2014;
- *The Main Street Safety Task Group Report*, dated October 1, 2002; and
- *Route 117 Review of Ownership Transfer* done by MassDOT, dated October 2014.

The committee met seven times from October 5, 2015, through January 11, 2016, in public session. The minutes of all meetings, all documents considered by the committee, and copies of the three reports mentioned above are available at Bolton Town Hall in the committee's public record and on the town's website.

From the outset, our touchstones for deciding among the recommendations of the various reports were safety and revitalization of the town. The desire to calm traffic and improve safety led directly to the selection and ranking of the first two priorities. The desire to nurture the renaissance of the town center led to the selection of the third priority. Concern for safety underlies priorities four, five, and six.

In discussing how to organize our recommendations, we alternated between wanting to focus on single "areas" comprehensively and wanting to cherry-pick projects we thought could be completed quickly. Ultimately, we decided to organize our recommendations geographically with the thought that this would improve the coherence of our final report. Having decided this, we nonetheless recognize the role of cost and expediency in assigning priorities, and believe that low-cost, practicable projects with large potential benefits deserve consideration even if they appear further down the priority list.

While we understand that our recommendations may have wildly different financial impacts and timeframes, we chose our priorities according to their importance for the safety of those accessing the roads and sidewalks along the Route 117 corridor.

For clarity, the priorities appear first as a simple list without discussion or reference to their sources in the three prior Route 117 reports considered by the committee. The priorities are then discussed at length with rationale for their selection and notation of their sources.

List of Priorities Recommended by the Committee

Priority 1 – Traffic Calming and Speed Enforcement on Route 117 Generally

- Item 1. Repaint the traffic lines from the Stow line to the Lancaster line to narrow travel lanes to ten feet, the minimum required by law, especially in the 30-mile-per-hour zone and approaching the high school from both directions.
- Item 2. Widen all 4-inch pavement markings along the Route 117 corridor to six inches.
- Item 3. Obtain a mobile speed-awareness monitoring device.

Priority 2 – Nashoba Regional High School Area

- Item 1. Implement traffic control and speed reduction in the high school area. Establish a school zone on Route 117 in front of the high school.
- Item 2. Modify entry to and egress from the Classic Pizza parking lot to prevent traffic from entering Forbush Mill Road from Main Street by cutting through the parking lot.
- Item 3. Improve the Nashoba Regional High School area by reengineering the Forbush Mill Road/Green Road/Route 117 intersection to resolve all safety issues, especially for pedestrians and bicycles crossing Main Street. Create walkways and crosswalks to the school from surrounding neighborhoods.

Priority 3 – Town Center Area

- Item 1. Create separate left-turn and through lanes for westbound traffic at the Wattaquodock Hill Road intersection by repainting Main Street, tapering the parking lane markings to the curb, and creating a through lane.
- Item 2. Install pedestrian-activated lights at Main Street crosswalks. Enable emergency control of the Wattaquodock Hill Road traffic lights by the fire and police departments.
- Item 3. Pursue an application for a truck exclusion on Wattaquodock Hill Road with the Massachusetts Department of Transportation.
- Item 4. Repair, extend, and maintain sidewalks throughout the town center. All new and repaired sidewalks should comply with the Americans with Disabilities Act (ADA) with regard to wheelchair ramps, crosswalks, and sidewalks. In priority order,
 - A. Add a sidewalk on Wattaquodock Hill Road from Main Street to Memorial Field in order to complete walking loop trails on town land;
 - B. Extend the sidewalk on the north side of Main Street westerly to connect to the sidewalk at the Pondsides residential development;
 - C. Extend the sidewalk on Main street from the Bolton Office Park/Country Manor senior housing easterly to Hudson Road to connect to the shops at the Country Cupboard and the potential mixed-use village overlay development; and

D. Extend the sidewalk on the south side of Main Street from the library to the Catholic church.

Item 5. Install a traffic light at the Manor Road/Harvard Road intersection, possibly with a left-turn lane for westbound traffic. Evaluate traffic flow from Wattaquodock Hill Road onto Route 117 westbound.

Priority 4 – Routes 117/110 Intersection

Repaint the lanes on Route 117 to create left-turn lanes without waiting for replacement of the traffic lights. Control entry and egress to and from Bolton Orchards.

Priority 5 – Route 117 West of Manor Road

Widen the shoulders from Route 110 to Manor Road.

Priority 6 – Guardrails

Upgrade the guardrails and guardrail end treatments along Route 117 to make them safer in the event of a collision. Replace and upgrade the damaged metal railing along the concrete wall at Pond Park next to Mechanic Street.

Discussion of the Priorities Recommended by the Committee

Priority 1 – Traffic Calming and Speed Enforcement on Route 117 Generally

Item 1: Repaint the traffic lines from the Stow line to the Lancaster line to narrow travel lanes to ten feet, the minimum required by law, especially in the 30-mile-per-hour zone and approaching the high school from both directions.

This is a measure that offers a high level of benefit to the town, can be accomplished quickly at comparatively low cost, and provides significant secondary benefits with regard to biking in Bolton and parking in the town center.

Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Long-Term Recommendation, Page 21.

Item 2: Widen all 4-inch pavement markings along the Route 117 corridor to six inches.

Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Short-Term recommendation, Page 14.

Item 3: Obtain a mobile speed-awareness monitoring device.

Priority 2 – Nashoba Regional High School Area

Item 1: Implement traffic control and speed reduction in the high school area. Establish a school zone on Route 117 in front of the high school.

Designation of the area around the high school as a school zone is the most direct way to calm traffic in the area. We should consult town counsel regarding how to achieve this.

Source: *Main Street Safety Task Group Report* (October 2002), Recommendation E.

Item 2: Modify entry to and egress from the Classic Pizza parking lot to prevent traffic from entering Forbush Mill Road from Main Street by cutting through the parking lot.

This could probably be done rather easily in consultation with the owners of Classic Pizza and would help to control traffic at the intersection.

Source: *Main Street Safety Task Group Report* (October 2002), recommendation F.

Item 3: Improve the Nashoba Regional High School area by reengineering the Forbush Mill Road/Green Road/Route 117 intersection to resolve all safety issues, especially for pedestrians and bicycles crossing Main Street. Create walkways and crosswalks to the school from surrounding neighborhoods.

Generally, the committee decided that, beyond the recommendations for the entire length of Route 117 in Bolton, the area around Nashoba Regional High School should have the highest priority, owing to the large number of students, staff, and residents who frequent the area on a daily basis, and the safety issues surrounding the area.

The intersection at Main Street, Green Road, and Forbush Mill Road is dangerous and needs to be improved. Factors contributing to the danger include the prevailing speed on that section of Main Street, the confusing traffic pattern and poor sight lines at the intersection, lack of clear definition of the intersection (*i.e.*, absence of curbing on the Classic Pizza corner that encourages short-cutting of the corner), and the high volume of student foot and vehicular traffic.

Source: *Non-Motorized Transportation Recommendations* (Mobility Committee Report, September 2014), Priority 1.

Priority 3 – Town Center Area

Item 1: Create separate left-turn and through lanes for westbound traffic at the Wattaquodock Hill Road intersection by repainting Main Street, tapering the parking lane markings to the curb, and creating a through lane.

The committee felt that the major intersection of Main Street and Wattaquodock Hill Road is the primary issue within the town center. Prior studies have concluded that installation of traffic lights at the Main Street/Wattaquodock Hill Road intersection would provide only limited relief from traffic congestion. However, there is currently adequate space for adjacent, westbound left-turn and through lanes; implementing them could improve the traffic flow through the center of town.

Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Long-Term Recommendation, Page 22.

Item 2: Install pedestrian-activated lights at Main Street crosswalks and enable emergency control of the Wattaquodock Hill Road traffic lights by the fire and police departments.

Pedestrians must be able to cross Main Street safely. If pedestrian-activated crossing lights are not feasible, alternative safety measures such as more brightly painted crosswalks and pedestrian crossing flags should be considered. At present, neither the fire department nor the police department can force the blinking light at the Wattaquodock Hill Road intersection to red to control Main Street traffic in an

emergency. This is a hazard for both public safety personnel and ordinary drivers and should be rectified. This capability existed many years ago, but was lost when the current traffic signal was installed.

Source: *Main Street Safety Task Group Report* (October 2002), Recommendation L, and *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Page 11.

Item 3: Pursue an application for a truck exclusion on Wattaquaddock Hill Road with the Massachusetts Department of Transportation.

If implemented, this would reduce traffic congestion in the center of town. There is no room for large tractor-trailers to turn without a major disruption of the flow of traffic. Route 110 is a viable alternative route for tractor-trailers headed south of Bolton.

Source: *Main Street Safety Task Group Report* (October 2002), Recommendation M.

Item 4: Repair, extend, and maintain sidewalks throughout the town center. All new and repaired sidewalks should comply with the Americans with Disabilities Act (ADA) with regard to wheelchair ramps, crosswalks, and sidewalks. In priority order,

- *Add a sidewalk on Wattaquaddock Hill Road from Main Street to Memorial Field in order to complete walking loop trails on town land;*
- *Extend the sidewalk on the north side of Main Street westerly to connect to the sidewalk at the Pondsides residential development;*
- *Extend the sidewalk on Main Street from the Bolton Office Park/Country Manor senior housing easterly to Hudson Road to connect to the shops at the Country Cupboard and the potential mixed-use village overlay development; and*
- *Extend the sidewalk on the south side of Main Street from the library to the Catholic church.*

Foot traffic is critical to the successful development of Bolton's town center and preservation of its historical character. A top priority, therefore, should be to put in place the infrastructure – sidewalks and crosswalks – that will encourage and make it safe for people to walk around town. New sidewalks should be added and old sidewalks replaced in a comprehensive way, not merely patched or graded. Additionally, a regular maintenance plan for all town sidewalks should be developed and supported with adequate financing. The possibility of burying power and utility lines and removing the poles should be revisited.

Extending the sidewalk from Main Street to Memorial Field via Wattaquaddock Hill Road would create a pedestrian loop system from the Senior Center past the schools to Main Street. This would provide students a safer way to get to Main Street and the library on foot.

Sources: *Non-Motorized Transportation Recommendations* (Mobility Committee Report, September 2014), Recommendations 3, 4, 6 and 9; *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Page 15.

Item 5: Install a traffic light at the Manor Road/Harvard Road intersection, possibly with a left-turn lane for westbound traffic. Evaluate traffic flow from Wattaquaddock Hill Road onto Route 117 westbound.

The Main Street/Harvard Road/Manor Road intersection is the site of numerous, severe accidents and is within the 45-mph zone. Some form of traffic control should be considered (e.g., flashing "Your

Speed is ___" signs on both Main Street approaches to the intersection, four-way stop signs, timed or on-demand traffic lights).

Source: *Main Street Safety Task Group Report* (October 2002), Recommendation K.

Priority 4 – Routes 117/110 Intersection

Repaint the lanes on Route 117 to create left-turn lanes without waiting for replacement of the traffic lights. Control entry and egress to and from Bolton Orchards.

The consensus of the committee was that the MassDOT recommendations for the 117/110 intersection are sound and that there is little to add to them. While we endorse moving forward with these recommendations, we appreciate that doing so is a long-term solution of significant cost. We believe that immediate consideration should be given to one simple action that would have a direct, positive effect on traffic control at the intersection: reconfiguration of entry to and egress from Bolton Orchards. This would cost little and might be as simple as careful placement of a few barrels or other easily installed barriers.

We also urge that prompt consideration be given to repainting the traffic lanes at the intersection as a way to rationalize traffic patterns, but understand that this task is inevitably tied in with replacement of the traffic lights.

Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Long-Term Recommendation, Page 20.

Priority 5 – Route 117 West of Manor Road

Widen the shoulders from Route 110 to Manor Road.

"The lack of adequate shoulder clearance makes bicycle travel unsafe and discourages its use. One of the higher bicycle focused areas along the [Route 117] corridor is from the Rte. 117/110 junction at Still River Road moving eastwards toward the Bolton Town Hall...MassDOT would likely encourage 5' shoulders in both the eastbound and westbound directions in future project developments." Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Long-Term Recommendation, Page 19.

In response to the Mobility Committee's public survey, "83% of [Bolton] residents favored the addition of a paved shoulder along Route 117 west of Hudson Rd. where it does not currently exist. There was much concern about bicycle safety on Route 117, our busiest road." Source: *Non-Motorized Transportation Recommendations* (Mobility Committee Report, September 2014), p. 9. At a public forum to review the findings of the mobility survey, "[t]here was a universal request for paved shoulders on Route 117W at least as far as Bolton Orchards and preferably to the Lancaster line." Source: *Id.*, p. 10. "Improvements for pedestrians (sidewalks and walkways) and for cyclists (shared shoulders) are the highest priority recommendations in this report." Source: *Id.*, p. 14.

Priority 6 – Guardrails

Upgrade the guardrails and guardrail end treatments along Route 117 to make them safer in the event of a collision. Replace and upgrade the damaged metal railing along the concrete wall at Pond Park next to Mechanic Street.

Source: *Route 117 Review of Ownership Transfer* (MassDOT, October 2014), Short-Term Recommendation, Page 15.

Concluding Statement

More than anything else, we wish to convey our strong consensus that we need to act now. The importance of Route 117 to Bolton's future has long been recognized; studies of what to do with 117 go back decades. However, little has been done to develop a consensus among town residents regarding what actions should be taken based on the recommendations in those studies. This history of inaction causes the committee to view the issuance of this report with some trepidation. We do not want this report to become just one more in a long series of reports. Nor do we want those earlier reports to be ignored since they contain much that is useful and relevant to the future of Route 117.

This is an important moment in Bolton's history. Traffic is heavier than ever and the Town Common Initiative promises to revitalize the town center. Bolton has taken ownership of Route 117's future with the decision not to turn over the roadway to the state. Now is the time for coherent planning and action regarding Main Street.

The reports we have reviewed display a reasonably consistent outlook on the issues facing Bolton regarding Route 117. Bolton has neither considered these reports thoughtfully nor developed appropriate financial and implementation plans based on their recommendations. They have not been aired in a manner that allows, first, for the collection of public comments from various stakeholders and constituencies in the town and, second, for the elaboration of a comprehensive plan of action with appropriate financial planning. Therefore, in addition to issuing this report in accordance with its charter from the selectmen, the committee recommends that the town, led by the selectmen, the Advisory Committee, the Capital Committee, the Department of Public Works, representative town stakeholders, and an outside consultant with documented experience in transportation planning, Massachusetts highway requirements, and highway maintenance, undertake these two efforts forthwith. This transportation corridor has and will critically affect the unique complexion of the Town. Only with solid community and professional input can we develop a plan that will allow Bolton to move forward intelligently with managing its destiny.

APPENDIX

The committee began by extracting the recommendations from the three reports under consideration. These recommendations appear below grouped by report and accompanied by notations of the committee's actions regarding them.

Non-Motorized Transportation Recommendations (Mobility Committee Report, September 2014)

Recommendation	Status
1 - Improve the Nashoba Regional High School area by reengineering the Forbush Mill Road/Green Road/117 intersection to resolve all safety issues especially for pedestrians and bicycles crossing Main Street. Create walkways to the school from surrounding neighborhoods.	Priority 2: NRHS Item 2
2 - Extend paved shoulders on Main Street from Hudson Road west to the Lancaster town line.	Priority 5: Route 117 West of Manor Road
3 - Add a sidewalk on Wattaquodock Hill Road from Main Street to Memorial Field in order to complete walking loops on the town land around the elementary school buildings.	Priority 3: Town Center Item 4
4 - Extend sidewalk on the north side of Main Street from Harvard Road west to connect to the sidewalk at the Pondsides residential development.	Priority 3: Town Center Item 4
5 - Create short segments of walkways at danger spots. Example: At the sharp curve on Sugar Road by Firematic Supply Co. and at the tennis courts on Green Road.	Not considered – did not concern Route 117
6 - Extend the sidewalk on Main Street from the Bolton Office Park/Country Manor Senior housing east to Hudson Road to connect to the shops at the Country Cupboard and the potential mixed use village overlay development.	Priority 3: Town Center Item 4
7 - Turning lanes and refuge islands will improve bicycle and pedestrian safety at some exposed intersections; for example Green Road/Forbush Mill Road with Route 117; turning left on to Wilder Road from Route 117; turning left on to East End Road from Route 117.	Green Road included in Priority 2. Wilder Road and East End Road recommendations eliminated
8 - Current and future traffic lights should have associated crosswalks and pedestrian control.	Included in various recommendations
9 - Extend the sidewalk on the south side of Route 117 from the Library to the Catholic Church.	Priority 3: Town Center Item 4

Main Street Safety Task Group Report (October 2002)

Recommendation	Status
A - Remedy the illegal signs issue at Manor/Harvard Road intersection.	Completed

Recommendation	Status
B - Create and appoint a more permanent advisory committee to monitor safety and traffic issues and communicate with other town committees to help us achieve a higher level of attention.	See concluding statement
C - Increase police enforcement of existing speeds and behavior around schools.	Priority 1: Route 117 Generally Priority 2: NRHS
D - Increase signage warning drivers of existence of high school or pursue official school zone status.	Priority 2: NRHS Item 1
E - Seek better control and speed of traffic in high school area.	Priority 2: NRHS Item 1
F - Other recommendations in high school area: Add a barrier to modify Classic Pizza parking lot so drivers cannot cut corner entering Forbush Mill Road. Limit access to the intersection.	Priority 2: NRHS Item 2
F - Other recommendations in high school area: Clear brush from northeast corner of Main Street and Green Rd to increase visibility for drivers entering Main Street.	Priority 2: NRHS Item 3
F - Other recommendations in high school area: Consider/research the following question: If the official address of the high school were changed from Green Road to Main Street, would this help to add a school zone?	Priority 2: NRHS Item 1
F – Add more lighting. There are evening events at the school (athletic events, meetings, performances) that require people to park on the south side of the road. More light is needed for pedestrians to cross the highway. Police detail for larger events is needed.	Priority 2: NRHS
G - Increase signage on Main Street warning drivers of existence of school zone near Sawyer/Emerson schools.	Completed
H - Implement aggressive speed control devices to slow Mechanic Street traffic.	Completed
J - Employ a crossing guard at Mechanic Street at school arrival and dismissal times.	Police detail
K - Install a traffic light at Manor/Harvard Road, possibly with separate left turn bay.	Priority 3: Town Center Item 5
L - Add a pedestrian-activated light to cross Wattaquodock/Main.	Priority 3: Town Center Item 1
M - Consider redirecting traffic flow in Manor/Harvard/Wattaquodock Hill Road triangle.	Priority 3: Town Center Item 3
N - Increase visibility of crosswalks.	Priority 3: Town Center Item 4
P - Increase number of crosswalks.	Priority 3: Town Center Item 4

Recommendation	Status
Q - Extend and maintain sidewalks.	Priority 3: Town Center Item 4
R - Add informative/decorative signs to mark town center.	Completed

Route 117 Review of Ownership Transfer (MassDOT, October 2014)

Recommendation	Status
Short term: All areas of the corridor where 4" wide pavement marking exists would be restriped with 6" pavement markings.	Priority 1: Route 117 Generally
Short term: Americans with Disabilities Act (ADA) compliance issues with wheelchair ramps, crosswalks, and sidewalks would be addressed.	Included with sidewalk and crosswalk recommendations
Short term: The damaged metal railing along concrete wall at Pond Park next to Mechanic St. would be replaced and upgraded. Currently several of the railing posts are corroded at their base to a point where they are disconnected from the wall. These posts are effectively providing no support and pose a safety hazard to pedestrians and vehicular collisions.	Priority 6: Guardrails
Short term: Upgrades to guardrail and guardrail end treatments would be performed.	Priority 6: Guardrails
Short term: Sight Distances at intersections would be evaluated and improved.	Not considered
Long term: The intersection of Rte. 117 and Still River Rd (Rte. 110) in Bolton is a signalized intersection which sees heavy bicycle traffic coming from Rte. 110 and is adjacent a busy commercial store, Bolton Orchards. In spring 2014 MassDOT recorded a peak adjusted ADT count of approximately 2,600 vehicles for the north and southbound Rte. 110 approaches. The intersection traffic signal system is old and the travel lanes are narrow with minimal shoulder clearance available for bicycles. MassDOT would likely address several of the intersection issues in efforts to improve traffic flow efficiency and safety for all traffic modes. Safety upgrades that would be needed involve complete reconstruction of the intersection. This would include sidewalk connections, new signs, traffic signal system, and improved travel lanes. Moreover, MassDOT would look to move many of the access points to Bolton Orchards away from the intersection due to the in delays and potential crash hazards associated with turning entering/exiting traffic.	Priority 4: Routes 117/110 Intersection

Recommendation	Status
<p>Long term: The typical cross section of the roadway along the Rte. 117 corridor has pavement widths of 24' and narrow to no shoulders. The lack of adequate shoulder clearance makes bicycle travel unsafe and discourages its use. One of the higher bicycle focused areas along the corridor is from the Rte. 117/110 junction at Still River Road moving eastwards towards the Bolton Town Hall. To accommodate safer multimodal traffic and sustainable transportation methods, MassDOT is inclined to take long term steps like roadway box widening at the most narrow sections of the bicycle focused areas. However, existing shoulders between the Bolton Library and the Town Hall may require less widening, as shoulder widths are increased in these locations. MassDOT would likely encourage 5' shoulders in both the eastbound and westbound directions in future project developments. This section in Bolton is presently used by some local residents to park their vehicles. On-street parking would be prohibited if control of Rte. 117 fell under state ownership. Roadway widening would also likely be used to add additional space in some of the more constricted travel lanes found near the Still River Rd. intersection of the corridor.</p>	<p>Priority 1: Route 117 Generally</p>
<p>Long term: The Rte. 117 intersection with Wattaquaddock Hill Rd. experiences significant delays in the peak hours. Traffic backups can extend as far as I-495 along Rte. 117 and for over 1000 feet on Wattaquaddock Hill Rd. MassDOT is likely to widen both roadways to accommodate additional turning lanes at the intersection. The pavement widenings would also accommodate wider shoulders for bicyclists. Sidewalk would also be added. It is anticipated that structure takings would most likely be required.</p>	<p>Priority 3: Town Center (with omissions, e.g., widening of lanes)</p>