



**RECEIVED
TOWN CLERK
BELMONT, MA**

DATE: June 21, 2023
TIME: 2:30 PM

Belmont Transportation Advisory Committee (TAC) Meeting

Minutes for Thursday, 4 May, 2023

Present: David Coleman (Chair), Larry Link (Vice Chair), Heather Barr, Daniel Eldridge, Chip Gaysunas, Ken Lind, Jeffrey Roth (Secretary)

Absent: Richard Hartley, Jane Lappin

Also present:

Town Staff: Glenn Clancy (Belmont Office of Community Development (CD) Director), Sergeant Paul Garabedian (Belmont Police Department (BPD)), Jay Marcotte (Belmont Department of Public Works (DPW)), Roy Epstein (Belmont Office of Select Board)

Town Public Residents: Amy Tananbaum, Anne-Marie Mahoney, Erika Wolf, Deborah Talanian, Corinne McCue Olmstead, Bill <no last name provided>, Brendan O'Leary, Chris Donahue, Christopher Galli, Daniel <no last name provided>, James Nager, Jeff Held, Mary Wybieralla, Sue Croy, Theo Roth

Final minutes, drafted on 29 May 2023; finalized on 1 June 2023.

Announcements

1. Tonight's public meeting occurred online using a zoom video conference forum.

This meeting was held remotely using Zoom video conferencing technology, as permitted by the Massachusetts Act Relative to Extending Certain State of Emergency Accommodations, that became effective July 16, 2022.

The meeting was called to order at 7:05p by Chairperson David Coleman.

Review and Approval of Minutes (6 April 2023)

05/06/2023

The Committee reviewed the draft meeting minutes from the TAC meeting on the 6th of April, 2023. These TAC meeting minutes were reviewed, and minor corrections were requested by Heather Barr and Larry Link.

Ken Lind made a motion to approve the minutes as amended, and Larry Link seconded the motion. The Committee voted unanimously by roll call in favor of approving the minutes as amended.

Goden St. Neighborhood Turn Restrictions

Committee and Open Discussions

David Coleman (TAC Chairperson) — David Coleman presented background on this topic, and presented the traffic-calming slides in Appendix 1, and asked for feedback on these ideas. The Committee discussed these ideas briefly, and then Chairperson David Coleman opened the discussion up to the public for feedback.

Amy Tananbaum (21 Goden St.) — Amy Tananbaum said that she did not support these type of features, since it would be more difficult for her to exit and enter her driveway. She also said that she wants a solution that is good for broad range of streets.

Anne-Marie Mahoney (24 Goden St. Resident) — Anne-Marie Mahoney also said she does not support the concept. She said she is just looking for a yes or no on the previously-discussed turn restrictions. She said that she really wants to see the turn restrictions implemented now before the school is out for the summer break. She said she supports morning turn restrictions from Concord Ave. or one-ways options, and that she and others have offered a lot of potential solutions.

David Coleman (TAC Chair) — David Coleman clarified that the expectation for this effort would be to do traffic speed and volume measurements this spring, which would inform a decision that would be brought before the Select Board for possible implementation in the summer time-frame.

Erika Wolf (18 Goden St. Resident) — Erika Wolf said she would like to see this implemented soon, and that there is a need to reduce the volume of cars. She also suggested curb bump-outs to slow car traffic down. She said she believes there is a need to proceed with turn restrictions to reduce the volume. She also said that a one-way restriction would be helpful to meeting these objectives.

Deborah Talanian (30 Goden St. Resident) — Deborah Talanian said that implementing the planter features to slow traffic might make it more difficult to get out of driveways. She added that she still wanted to see the turn restrictions implemented.

Corinne McCue Olmstead (Stone Rd.) — Corinne McCue Olmstead said that the restrictions were based on counts before the school construction. She said she voluntarily counts cars going into Goden St. southbound from Concord between 7a – 9a and that this volume seems very similar to volumes she also counted back in November. This time she said that she also studied who was turning from where, and reported that under half of the cars were turning right onto Goden St. She said that from 7a – 8a there were only 48 cars. She said she understands that there is high volume on this roadway, but believes that instituting right-turn restrictions will burden the street she lives on. She would like to see something put in place that will help on Goden St., while not burdening others streets like Stone St. She said she believes that the volume problems on Goden St. are not coming exclusively from right-turning traffic from Concord Ave.

Martin November (Goden St. Resident) — Martin November said there there is a safety issue resulting from the high volume of car traffic. He said that he supports the idea of a trial in any manner. He said that these safety problems are significant and should be addressed. He added his concerns with the enforce-ability of the turn restrictions, and if it is not enforced then it will not help. He thinks that a one-way restriction would be the

best solution for Goden St., but said he would support any kind of trial that would both decrease the volume of and slow down car traffic.

Heather Barr (TAC) — Heather Barr said that she sensed that the volume does not necessarily need to be that high to be concerning, and that the narrowness of the road is more of a concern with two-way traffic.

David Coleman (TAC Chair) — David Coleman said that the one-way could open up faster speeds of traffic, so that is a concern, too. Compared to the time-constrained restrictions, it would be much easier to have a road specified as one-way permanently because that depends less heavily on enforcement activities. He said that would likely require going back to another public forum meeting if this were proposed.

Larry Link (TAC) — Larry Link said a one-way change may not address problems all the time, and that it may only alleviate the traffic problems in the morning or afternoon but not both.

David Coleman (TAC Chair) — David Coleman explained that the recommendation about changing Goden St. to one-way in the northbound direction would require changes to the traffic light at Goden St. and Concord Ave. Light reprogramming would be a more involved process than just adding no-right-turn restrictions.

Ken Lind (TAC) — Ken Lind said that the traffic problem seems to be mostly a volume issue in the northbound (downhill) sections. Therefore a one-way southbound format might alleviate this problem and might mitigate problems of the cut-through traffic.

Erika Wolf (18 Goden St. Resident) — Erika Wolf agreed that a one-way format is superior to the no-right-turn restriction. She said that she would rather such one-way restrictions be implemented if they reduce the volume.

Anne-Marie Mahoney (24 Goden St. Resident) — Anne-Marie Mahoney said that the downhill (northbound) is more of a problem anyway. She reiterated that she thinks a solution needs to be implemented soon.

Corinne McCue Olmstead (Stone Rd.) — Corinne McCue Olmstead said time-limited do-not-enter restrictions would likely be less expensive, but also believed that a no-right-turn (from Concord Ave.) would require reprogramming of this traffic light.

David Coleman (TAC Chair) — David Coleman clarified that in either case of these southbound restrictions, the light would need to be changed. He believed that the no-right turn does not make sense for a limited time, and that the do-not-enter (southbound from Concord Ave.) is what Sam Offei-Addo (BSC Group) had recommended in the earlier studies.

Corinne McCue Olmstead (Stone Rd.) — Corinne McCue Olmstead requested not to include any such restrictions on Orchard St. or Stone Rd.

Martin November (Goden St. Resident) — Martin November said that alternating one-way restrictions would be more difficult to enforce. He said that he would love to get a one-way restriction implemented. He said we have too many kids being driven to school, and believes these restrictions that make it less convenient to drive a car to school would in turn encourage mode shift away from driving and towards safer approaches such as walking and biking to school. He believes that restrictions would address the current safety problems by decreasing both volumes and speeds of cars.

David Coleman (TAC Chair) — David Coleman said that he would close out discussion on this topic since a consensus on the various options was not yet clear. He said that there would be traffic measurements in the coming weeks to record data on the current street volumes and speeds, and this would inform future decisions.

He said that the options that have been discussed include a one-way south-bound format on Goden St. This could include a 2p – 6p restriction against northbound traffic. He gathered from the discussion that a do-not-enter or one way from School St. (restricting northbound traffic) would probably be better. In addition, he said that no-right-turn restrictions onto Myrtle St., Cottage St., and Oak St. could lead to more U-turns along Concord Ave.

David said we would aim to get more data for the next meeting, and the Committee agreed to table this discussion until the next meeting, and await the reports from Sergeant Paul Garabedian.

Concord Ave. Bicycle Lane Post Office Area Enhancements

David Coleman (TAC Chair) — David Coleman provided an overview and update on this topic. He discussed the updated briefing in Appendix 2, and showed the new sign on slide #8 of Appendix 2, which is scheduled to be installed soon.

Dan Eldridge (TAC) — Dan Eldridge gave an explanation of a proposed green bicycle lane shown in slide #10 of Appendix 2, with the exception that the buffer zone between the parking lane and bicycle lane is preserved. (That graphic had not been updated yet.)

David Coleman (TAC Chair) — David Coleman discussed bolt-down speed tables and bollards. He said that bollards for Concord Ave. have been purchased, and are planned for installation soon. The speed tables are intended to help lower the speeds of cars as they pass parked cars from which people frequently are exiting.

Glenn Clancy (CD Director) — Glenn Clancy said the speed table could be a temporary measure that could be evaluated. The basic concept would help provide a traffic-calming function.

Chip Gaysunas (TAC) — Chip Gaysunas said that he had concerns with the concept of the west-bound green bicycle lane merging left towards Common St. in slide #10 of Appendix 2. He expressed concern about cyclists being exposed to west-bound motor vehicle traffic that is going both left and right at that intersection.

Larry Link (TAC) — Larry Link asked to clarify the speed bump location only being on the west-bound direction. He also said that the speed tables used elsewhere in Town could also be applied here. As another point of reference, Larry brought up a prior scenario in Lexington where a postal box was moved because it's location caused too much traffic stopped in a crosswalk, and perhaps something like that could be looked at here, too.

David Coleman (TAC Chair) — David Coleman said the green bicycle lane might make sense to separate out from the other topics being pursued with the Select Board regarding this section of the protected bicycle lanes along Concord Ave.

Dan Eldridge (TAC) — Dan Eldridge informed us that the conceptual bicycle lane under discussion is intended to remind motorists of cyclists heading in that direction towards Common St. and to facilitate cyclists more safely navigating this intersection. He also said

that the more symbols on the roads for cyclists the better, as it raises mental awareness of drivers about cyclists.

Glenn Clancy (CD Director) — Glenn Clancy discussed the long-term approaches and costs of the speed table. He reiterated that the south (east-bound) side would remain as-is, and that the north side is the focus of these proposed changes.

David Coleman (TAC Chair) — David Coleman said that there could also be an east-bound speed table included, depending on the costs.

Jay Marcotte (Director of DPW) — Jay Marcotte said that the price for the speed table product under discussion is \$4,571 for all the hardware. This is not an asphalt speed table, but one constructed out of alternative rigid materials. This speed table is pre-manufactured and then bolted into the roadway surface.

Voting Motion — **David Coleman (TAC Chair)** suggested we make a motion for following changes to be implemented in the Post Office area of Concord Ave.:

1. **Add yield symbols painted into the protected bicycle lanes as they approach the cross-walks on both sides of Concord Ave.**
2. **Install fixed bollards at the corner points and around where people enter and exit the Post Office, to help enforce the safety setbacks.**
3. **Inclusion of a speed table installed in the west-bound lane on the area approaching the Post Office area.**
4. **Include two “sharrow” symbols (shared-lane markings) in the asphalt surface where the west-bound bicycle lane currently ends and where cyclists are merging into the traffic, to improve visibility, awareness, and safety.**

Daniel Eldridge moved this motion forward, and Jeffrey Roth seconded the motion.

Vote by Roll-Call — A roll-call vote was held. All members (7) voted in favor of this motion, and it therefore passed unanimously.

Crosswalk Policy: Process and Application

David Coleman (TAC Chair) — David Coleman opened up the discussion on the topic of the Crosswalk Policy. The draft policy discussed is provided in Appendix 3.

Glenn Clancy (CD Director) — Glenn Clancy had a number of suggestions and comments on the current draft. He suggested the change on page #4 to clarify the wording as follows: “As part of a pavement management roadway construction project, or an intersection or roadway redesign within the Town...” Glenn also had a few other edits on page #4, such as to include the standard crosswalk width in the requirements listed in the third bullet of Step 2. Also, he suggested reported incidents-collisions be changed on the table in page #5, to split that up from the complaints in the table. In addition, Glenn suggested whether walkability assessment would be included since it seemed objective. Glenn’s final comments were about the pedestal crossing signs in roadways, and he suggested that we come up with a bare-minimum type of street that we could consider using these on since they would need to go onto a segment of roadway marked with a double-yellow-line. So we could make a designation on the type of road where this could be used.

David Coleman (TAC Chair) — David Coleman asked committee members to send other comments to Larry, David, Chip, and Ken. The discussion was tabled for a subsequent TAC meeting.

Updates on Ongoing Projects

Pleasant St. SRTS Crossing Grant: Acceptance of Site Plan and Schedule

This project at Monroe and Pleasant Sts. is moving forward, but there has been a delay in delivery and procurement of the equipment.

Glenn Clancy (CD Director) — Glenn Clancy said he will close the loop on the outstanding procurements with Jay Marcotte (DPW) and order the items needed. Glenn is also looking at where to get poles from DPW for this project. He said in addition that there were some other things MassDOT may also recommend purchasing for Winn Brook using this \$6K grant.

Cross St. Speed Study and Next Steps; Crash History

Glenn Clancy (CD Director) — Glenn Clancy summarized the crash history data for Cross St. This is included in Appendix 4 (*To Be Added.*) The crash data report did not show major problems. At this point, Glenn suggested that the neighborhood be brought in again for further discussion on this topic, to get their expectations and possibly explore car-parking chicanes or other options like that. Glenn also mentioned the visibility from shrubs being addressed, and the Town now has a enforcement agent to address these things.

David Coleman (TAC Chair) — David Coleman agreed that this is enough information to go back to the residents and discuss the matter again, and that we would plan to resume discussion about this at a subsequent future TAC meeting, tentatively planned next for 1 June 2023.

ADJOURNMENT

Larry Link motioned to adjourn tonight's meeting, and Ken Lind seconded the motion. All voted unanimously with this measure, and the meeting adjourned at 9:54p.

These minutes were respectfully submitted by Jeffrey Roth.

Appendix 1: Utility Traffic Calming on Goden

Utility Traffic Calming on Goden



**Deflection
moderating speed**



**Deflection
working for 2-way
traffic**



Traffic Calming feature in Seattle



Quick Build and Permanent Street Features; Planters and Median Strips







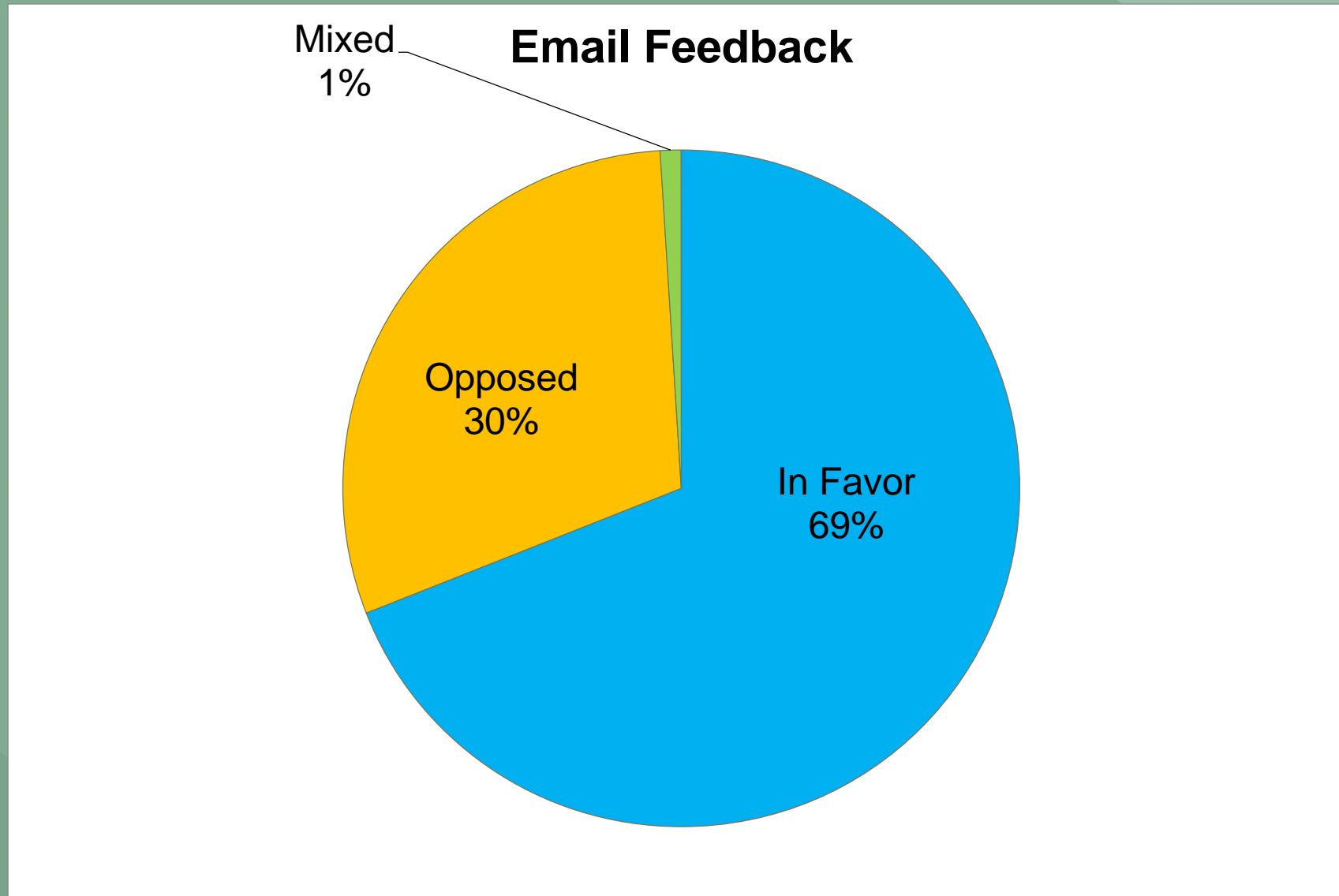
Appendix 2: Concord Ave Striping Progress Report

Concord Ave Striping Progress Report

February 27 2023

- The new striping configuration is performing as designed. A safer bicycle lane has been created with parked cars protecting the lane.
- The narrowed travel lane is helping to reduce traffic speeds closer to the 25 MPH speed limit – Belmont Police.
- There was one reported incident of a driver stopping after being “surprised” by an opening door from a parked car. Car behind first rear-ended. No contact with driver exiting car. – Belmont Police
- There have been no reported incidents involving people entering/exiting at Post Office

Feedback to the Select Board about the restriping project



Key Issues for those opposed:

- Harder to make U-turns
- Traffic backing up while a car is parallel parking
- Cannot take wide turns onto Concord Ave from side streets
- Crosswalk sight lines are more obscured**
- Redundancy when Community Path is completed
- Feeling unsafe when opening driver side door after parking**
- Harder to pull over for emergency vehicles
- Diminished visibility as a biker and as a pedestrian in a crosswalk
- Reduced visibility of oncoming traffic when turning from a side street onto Concord Ave

Key Issues for those in favor:

- Increased safety for cyclists
- The town showing support for cycling and by extension physical activity and the environment
- Reduced stress for cyclists in the new configuration
- Safer for children and family friendly
- Traffic calming / Drivers behaving safer and more predictably
- Easier to see cyclists when approaching Concord Ave from side streets
- Concord Ave itself is noticeably quieter much of the day (especially in the morning)
- No issues with parking availability (particularly for high school events)
- Easier for High School students biking to school
- Easier and quicker to parallel park when you don't have to worry about hitting the curb
- Creating an intra town/city bike network connecting Belmont shops to Cambridge
 - People who live in Somerville and Cambridge said that they specifically bike to
 - Belmont Center to shop and go out to eat now

Concord Ave: What needs improvement and what needs enforcement

- Where the lane is marked by cones compliance is good. Where cones are absent lanes and setbacks are more likely to be violated – line of sight.



Setback Enforcement is an issue for both the new and old configurations.

The line of sight issue is the same with the new or old configuration if the setback is blocked or does not exist. Setback enforcement is key to maintaining sight lines.

Old Configuration – No Setback
from crosswalk indicated/enforced



Old Configuration – Setback
from crosswalk marked in red



Additional signage, pavement markings and cones/bollards are needed to help educate public



Cyclists are required to yield to pedestrians.

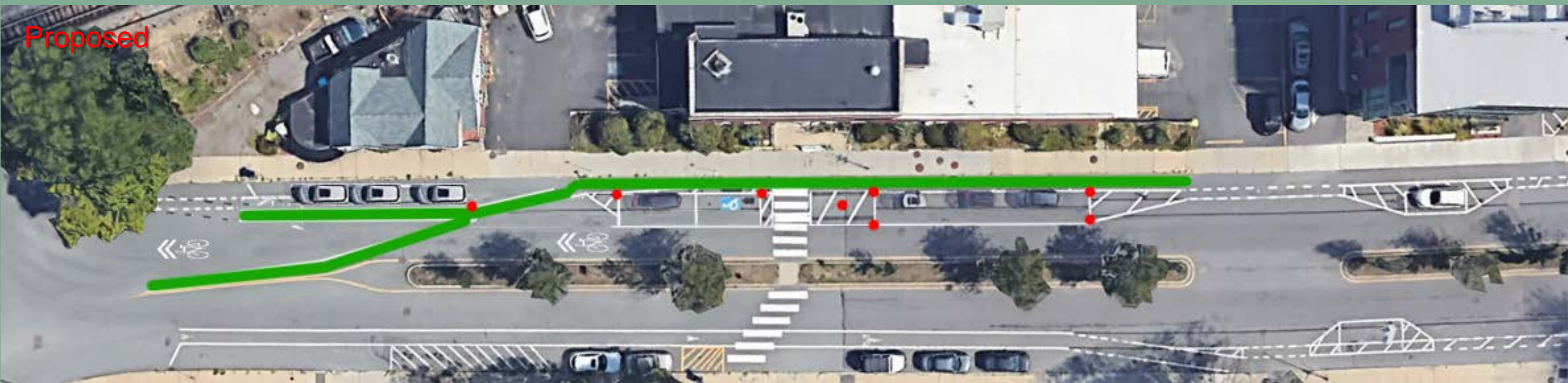
Here are example installations in front of a crosswalk and bike lane markings.



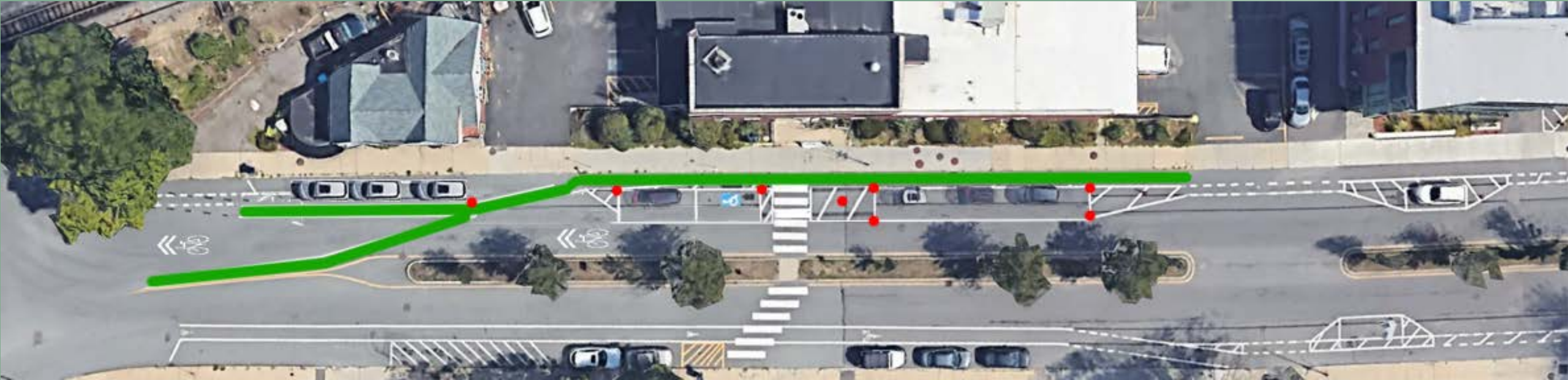
Concord Street Layout sign



Proposed changes to Post Office striping configuration



Proposed changes to Post Office striping configuration



Proposed changes include:

- Increase the width of the parking lane by reducing the buffer between Post Office parking lane and bike lane. This will make parallel parking easier and quicker with more room to open the driver side door.
- Add a parking space in front of the Flower Shop/Hair Salon and allow clearer visibility approaching the intersection by the bridge by switching the cycling and parking lane.
- Add cones/bollards to enforce setbacks. This will help protect the lane and ensure sight lines for the crosswalk.
- Green lines indicate additional paint/bike lane. Red dots indicate cones/bollards. Additional sharrows included.

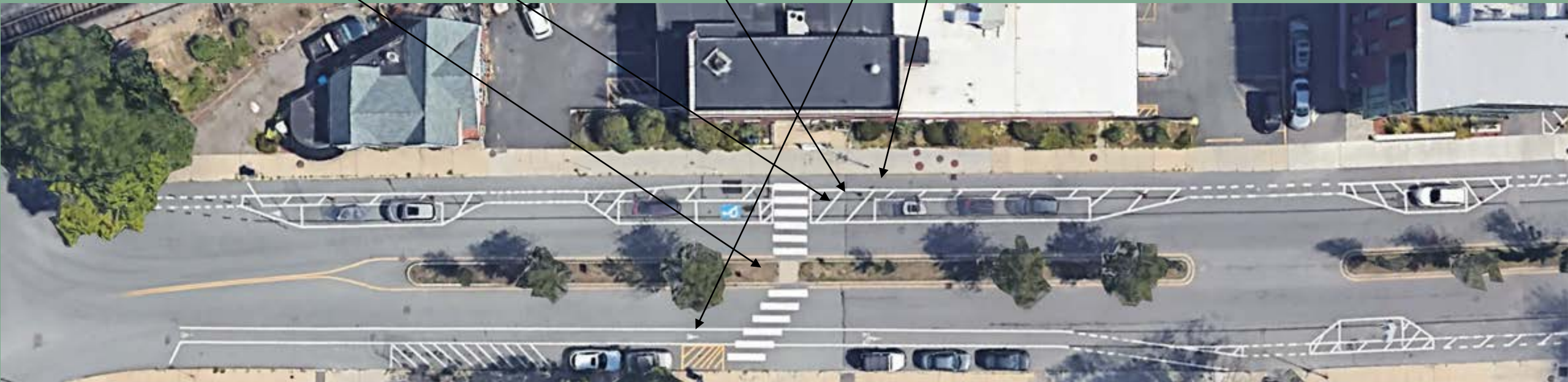
Lighted Crossing



**Bolted
Bollards/Dividers**



Stencils for Bike Lane



Bolt-Down Speed Table for Post Office



Concord Street Layout sign



Appendix 3: Crosswalk Safety Improvement Policy and Application – DRAFT 5/4/23

Appendix 1: Crosswalk Safety Improvement Policy and Application – DRAFT

5/4/23

This policy is based on the guidance for unregulated crossings as described by Mass DOT and the Federal Guidance from USDOT. An unregulated crossing is one where there is no existing method of traffic regulation, such as Stop signs and Traffic Lights.

The policy and application structure takes its cue from the traffic calming policy detailed above but is focused on specific intersections and the promotion of pedestrian safety and improving walkability in the town.

Towns approach improving crosswalk safety with both reactive (response to alerts/complaints) and proactive (as a result of planning or project design) methods. The Crosswalk Improvement process is meant to support both methods, making improvements while evolving a plan to make Belmont a safe walking community.

To distinguish a need to address a crosswalk vs a larger traffic calming issue use the following checklist:

1. The issue is with a specific unregulated crossing on a specific street or intersection of streets, not with a length of the street itself.
2. The improvement is needed for pedestrian/bicycle safety and to support walking routes that use this crossing.
3. Traffic Calming issues that encompass a larger area might include specific crosswalk issues.

Crosswalk Improvement overview and objectives:

The objectives of the Crosswalk Improvement process are:

- a. Increased driver observance of the rights of pedestrians/cyclists in the designated crosswalks.
- b. Decreased stopping time of drivers observing the crosswalk.
- c. Increased use of walking routes in Belmont for residents and visitors by linking safer crossings to make walking/cycling more appealing across the town.

Regulated vs Unregulated Crosswalks, Traffic Calming

The emphasis on most crosswalk improvement is on unregulated crossings; crossings that do not have full signalization, as defined by the MUTCD standards, such as

traffic lights and stop signs. Crosswalk Improvement may use regulatory measures such as Stop signs and pedestrian activated stop lights.

Individuals and Departments/Organizations that may submit Crosswalk Improvement Requests

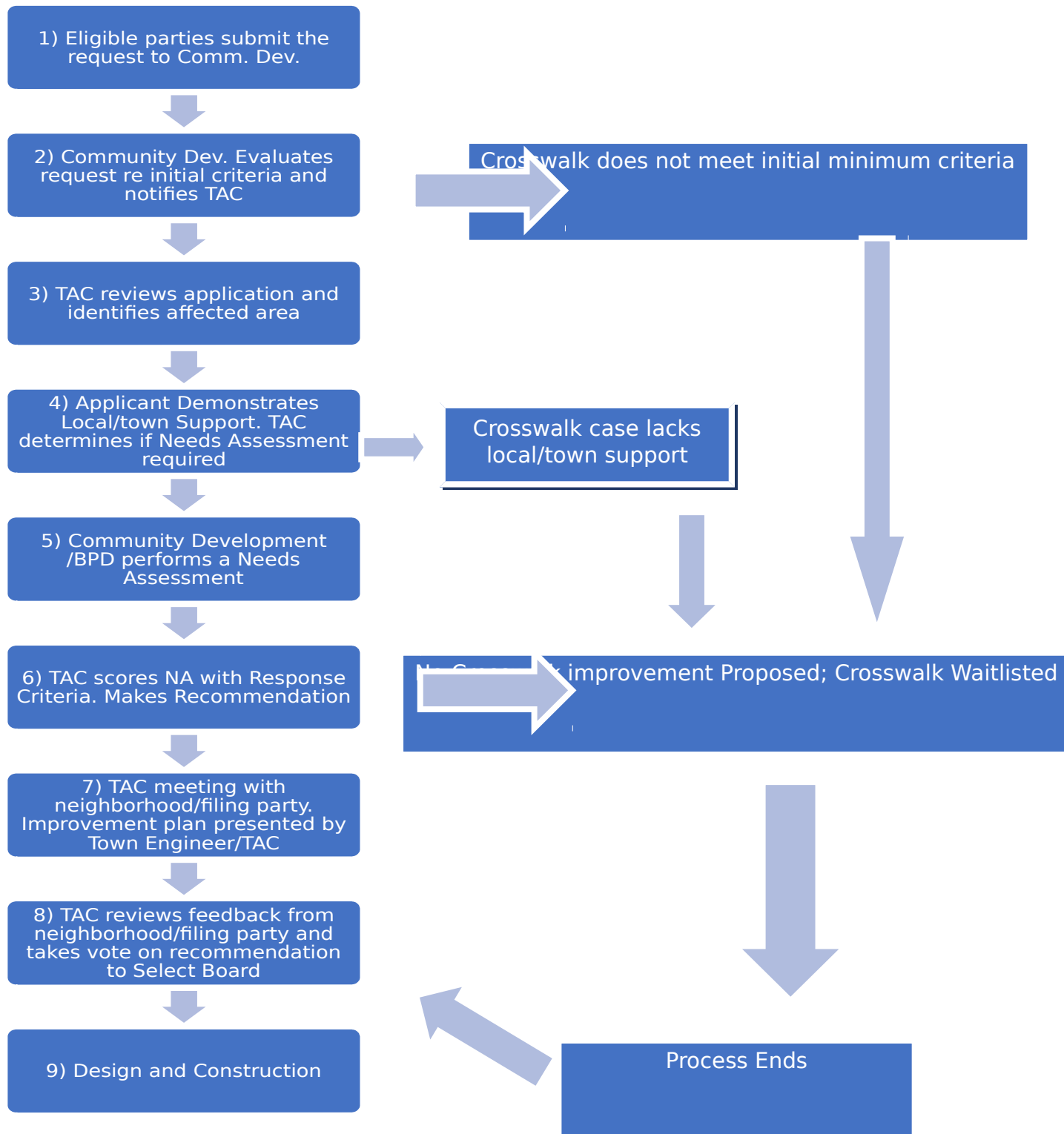
Crosswalk improvements can be approached in either a bottom-up or a top-down fashion; either through resident complaints, town and school officials or as a result of a town-wide planning process or a design process for a related project. Examples of application submitters include:

Please use the same (edited) request form included in the main Traffic Calming Policy. Check that the issue is a crosswalk. The TAC maintains a spreadsheet of Crosswalks that are of concern or that have pending improvement requests. This can be found on the TAC page of the town website.

Crosswalk Improvement Process Steps

The Crosswalk Improvement process is meant to provide a method for making and managing requests to improve the safety of Crosswalks in Belmont. The steps are largely the same as in Section III above with some small modifications that are specific to Crosswalks.

The process is summarized in the flow chart below:



Step 1: Submitting the Request: An eligible party in the town submits the request to Community Development. Community Development logs the request and notifies TAC.

- **Anyone who lives and/or works** on Belmont streets and is concerned about a crosswalk in their neighborhood; usually a neighborhood group that uses the crosswalk in question.
- **Town agencies/boards** such as the Belmont Police Traffic Sargent, Community Planning, Select Board, Recreation Department, etc....
- **Community organizations** concerned about pedestrian/cyclist safety in town such as Safe-Routes-to-School groups at the schools, the Beech St. Senior Center, etc...

Neighborhood groups and community organizations should follow the same traffic calming application process and file a (edited) Traffic Calming Request (Section XIII) under the same terms as described in section III. The same terms of process and transparency apply to crosswalk improvements as apply to traffic calming. The application should have the same level of support as a Traffic Calming Request, specifically:

- a. at least five different street addresses or
- b. fifty percent of the abutters in the directly affected area (whichever is less).

Crosswalk improvement can also occur outside of this process as a result of an infrastructure project, such as:

- Recommendations included in town planning documents such as a transportation plan, Complete Streets Prioritization Plan, Safe Streets and Roads 4 All plan, School/Town construction design documents, etc...
- As part of an intersection or roadway redesign within the town.

Step 2: Community Development evaluates the Request: CD ensures the crosswalk meets the Initial Criteria:

- existing crosswalk location meets MUTCD (2009) standards for siting.
- Crosswalk is used to access a school, or another public facility such as the Senior Center, Town buildings, Shopping districts. (within 500 feet of one of these)
- Crosswalk lacks safety features such as updated clear striping, bump outs, lane narrowing, pedestrian pedestal sign)
- Roadway is heavily travelled per 2018 BSC traffic study (or existing BPD traffic study)
- Subject of Complaints from neighbors/users
- Crosswalk has a documented history of injury/incidents

Steps 3, 4: TAC reviews the request: TAC meets with the filing party at a TAC meeting, determines if the request has local/town support and determines if a Needs Assessment is required. If a Needs Assessment is required Tac asks Community Development to coordinate with Belmont PD Traffic to make the necessary site visits and measurements.

Step 5 Needs Assessment Performed: A standard Needs Assessment addresses the crosswalk and surrounding roadway for site lines and predicted stopping distance at 25MPH, The speed study (BPDSS) assesses speed and vehicle counts

Criteria	Criteria Threshold/ Remediation
Initial Crosswalk Safety Score vs MUTCD standard	Lower score = higher priority/remediation for site-lines (shrubs, obstructions) and crosswalk placement.
Recorded speed of vehicles on roadway (BPDSS)	Score for each 1mph of Average (85 th ?) speed above 25mph = /Remediation for speed
Recorded number of vehicles on roadway (BPDSS)	Score for each 100 cars/hour recorded/ Remediation for visibility
Number and Nature of Anecdotal Complaints; Reported incidents-collisions	Score for number complaints categorized by issues with visibility, vehicle speed. /Remediation varies with complaint/incident
Results of a Walkability Checklist for crosswalk	Results of the user survey
Results of TAC Responsivity Survey	Score for count of cars ignoring pedestrians in Crosswalk/Remediation for Visibility

- Initial Crosswalk Safety Score: list of current conditions such as painted crossing bars, basic crosswalk warning signs on the side of the road, Pedestal pedestrian signs in the middle of the road at crosswalk, etc..
- Recorded speed of vehicles on roadway: Speed Study data from the Belmont Police Traffic Division.
- Recorded number of vehicles on roadway: Vehicle counts from the above survey.
- Roadway Physical Attributes: Rated pavement condition, distance to major intersections, quality of lines of sight
- Number and Nature of anecdotal complaints: Number of complaints received by phone, email, social media, etc.. Reported Incidents/Accidents as recorded by the Belmont Police database.
- Results of a Walkability Checklist for Crosswalk: Using the survey tool shown below, the walkability of the crosswalk can be assessed, both by the filing parties and by TAC members on a site visit.
- Results of a TAC Responsivity Survey: Recorded # of cars passing with a pedestrian waiting in crosswalk ready to cross. Surveys done by TAC volunteers.

Example of a Walkability Checklist (source: Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations); to be given to neighborhood residents and or documented on a TAC site visit.

Location of walk

Rating Scale:



1. Did you have room to walk?

- ☐ Yes ☐ Some problems:
- ☐ Sidewalks or paths started and stopped
 - ☐ Sidewalks were broken or cracked
 - ☐ Sidewalks were blocked with poles, signs, shrubbery, dumpsters, etc.
 - ☐ No sidewalks, paths, or shoulders
 - ☐ Too much traffic
 - ☐ Something else _____

Rating: (circle one)

1 2 3 4 5 6

Locations of problems:

4. Was it easy to follow safety rules? Could you and your child...

- ☐ Yes ☐ No Cross at crosswalks or where you could see and be seen by drivers?
- ☐ Yes ☐ No Stop and look left, right and then left again before crossing streets?
- ☐ Yes ☐ No Walk on sidewalks or shoulders facing traffic where there were no sidewalks?
- ☐ Yes ☐ No Cross with the light?

Rating: (circle one)

1 2 3 4 5 6

Locations of problems:

Step 6: TAC reviews and scores the Needs Assessment; and characterizes the need remediation for the crosswalk. The TAC makes recommendations for the needed remediations based on recommendations from the Town Engineer and the DPW.

Step 7: Recommendations presented to filing parties and feedback noted.

The Town Engineer will present the findings and the TAC will discuss the findings and hear public comment. The TAC can do this either by meeting with the filing parties or by scheduling a public forum on the contemplated crosswalk improvement with the meeting date, time, place sent to area households and the agenda posted on the TAC page of the town website.

Step 8: TAC votes whether to recommend to the Select Board remediations/improvements and makes presentation at a SB meeting on the recommendations. Step 8 can be accomplished at the same meeting as Step 7.

Hardware Type	Effect / Impact	Cost
Pedestal Crossing sign in Middle of road	Visibility / Medium	\$500.0
Bollard Refuge Islands	Visibility / Medium	\$500 - \$1,500
Lane Narrowing with	Speed / High (with bollards)	\$500 - \$1,500

striping/bollards		
RRFB Ped. Actuated crossing signs	Visibility / High	\$7,000 - \$15,000

Other crosswalk improvement methods would include raised tables and placement of speed tables in advance of the crosswalk to either side of the crossing.

Sources for Crosswalk Safety Improvement Policy/Application Appendix:

- 1) USDOT-FHA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations:
https://safety.fhwa.dot.gov/ped_bike/step/docs/STEP_Guide_for_Improving_Ped_Safety_at_Unsig_Loc_3-2018_07_17-508compliant.pdf
- 2) SRTS Guide: Marking and Signing Crosswalks – Attached
- 3) 2009 MUTCD guidance on Crosswalk Markings – Attached
- 4) Main MUTCD site: <https://mutcd.fhwa.dot.gov/>
- 5) Town of Concord Crosswalk Policy and design Guidelines

Appendix 4: Cross Street Crash History

Crash Dt			St Num	St Name			
8/12/2018 10:25	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO INJURY
10/7/2018 21:29	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NON FATAL INJURY - NON INCAPACITATING
6/25/2020 2:56	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH LIGHT POLE OR OTHER POST/SUPPORT	NO APPARENT INJURY
2/3/2021 16:48	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO APPARENT INJURY
2/4/2021 14:39	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO APPARENT INJURY
11/8/2021 17:11	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO APPARENT INJURY
12/29/2021 18:23	CROSS ST		315	CROSS ST	ROADSIDE	COLLISION WITH PARKED MOTOR VEHICLE	NO APPARENT INJURY
6/17/2022 17:24	BRIGHTON ST	CROSS ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO APPARENT INJURY
10/15/2022 18:59	CROSS ST		315	CROSS ST	SHOULDER - PAVED	COLLISION WITH PARKED MOTOR VEHICLE	POSSIBLE INJURY
11/26/2022 12:16	CROSS ST	BRIGHTON ST			ROADWAY	COLLISION WITH MOTOR VEHICLE IN TRAFFIC	NO APPARENT INJURY