



Belmont Citizens Forum

Belmont Community Path Update, Part One

Feasibility Study Plan would Renew Transportation Infrastructure and Create New Public Spaces



PARE CORP. K3 LANDSCAPE ARCHITECTURE

At left, an aerial view of Waverley Square, with Lexington Street on the left, Trapelo Road on the right, and Church Street at the bottom. At right, the feasibility study proposed to “box over” Waverley Station and move the parking lot onto Church Street, creating a 31,000-square-foot park traversed by the community path.

By Vincent Stanton, Jr.

A bicycle and pedestrian path stretching from the Charles River in East Cambridge to the town of Berlin, beyond Interstate 495, is in various states of design or construction. The path is complete from Brighton Street in Belmont to Lowell Street in Somerville (via Alewife station and Davis Square.) From the Belmont/Waltham border west to Route 128, a path is being designed. Construction is likely to start in early 2019.

That leaves a 2.1-mile gap in Belmont. Filling the gap is difficult because of Belmont’s dense settlement and hilly topography and because

much of the former Central Massachusetts Railroad right-of-way through town was sold off. That right-of-way is the route for most of the Mass Central Rail Trail elsewhere.

In 2014 the Belmont Board of Selectmen appointed the Community Path Implementation Advisory Committee (CPIAC) to engage engineering and design consultants to study possible routes through Belmont. Last December, the selectmen accepted CPIAC’s recommendation to endorse the route proposed by Pare Corporation and K3 Landscape Architecture (“the Pare team”).¹ The endorsement is an important step for the Belmont Community Path, but challenges remain. Funding for design

and construction of the path must be secured, and the town must obtain necessary land parcels and easements.

The recommended route's estimated cost is \$27.9 million, assuming the most expensive option for each path segment (as mandated by CPIAC), and including a 40% contingency (30% is standard). The high contingency reflects the unusual level of interaction with the MBTA in the design and construction phases, because so much of the proposed path goes over, under,

or parallel to the Fitchburg commuter rail line. The consultants also prepared a "lowest recommended" budget of \$22.6 million by reducing retaining walls and landscaping.

Typically, path construction costs are paid from state and federal funds through the regional Transportation Improvement Program (TIP), which paid for the Fitchburg Cutoff path from Brighton Street to Alewife Station and for reconstruction of the Belmont Street/Trapelo Road corridor. Belmont's responsibility is to provide the complete route, including environmental permitting, land acquisitions, and easements if necessary, and to pay for design. As a rule of thumb, path design costs about 10% of total project costs, which in this case would be \$2.2 million to \$2.8 million.

Upon completion of 25% design, which requires about half the design budget (5% of total costs), a project becomes eligible for review by the Boston Metropolitan Planning Organization, which allocates TIP funds. Although municipalities are usually responsible for all design costs, the Belmont path is not typical because of its extensive overlap with MBTA property, including the Fitchburg Line right-of-way (see below). Belmont should seek partial design funding from MassDOT.

The budget may seem rich for a pedestrian and bicycle path, but that description fails to capture the scope of the project proposed by the Pare team, which will transform all modes of transportation in Belmont, will fund vital infrastructure, and will create attractive new public spaces that Belmont could not otherwise even consider. Further, the cost per mile is in line with similar paths that parallel live rail lines, like the 1.9-mile path that will run beside the Green Line Extension from Lowell Street in Somerville to Lechmere in Cambridge.

This article is not intended to summarize the feasibility study (which is available on the town's website) but rather to explain the proposed path's benefits for Belmont—a subject largely beyond the scope of the study. In this issue of the newsletter, I will review three notable aspects of the project; in the next issue, I will cover three more. Sidebars provide additional context and history.

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Belmont Citizens Forum Inc. is a not-for-profit organization that strives to maintain the small-town atmosphere of Belmont, Massachusetts, by preserving its natural and historical resources, limiting traffic growth, and enhancing pedestrian safety. We do this by keeping residents informed about planning and zoning issues, by participating actively in public hearings, and by organizing forums. The *BCF Newsletter* is published six times a year, in January, March, May, July, September, and November. Published material represents the views of the authors and not necessarily those of the Belmont Citizens Forum.

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Belmont's Existing Community Path



GOOGLE MAPS

Belmont's current bike path—the first 603 feet of the Fitchburg Cutoff path—is fenced in on both sides for its entire length, and lies 16 to 40 feet from the live rail.

Yes, Belmont already has a community path!

The first 603 feet of the Fitchburg Cutoff path, starting at Brighton Street, is located in Belmont. The remainder of the path (about 85%) is in Cambridge. The Fitchburg Cutoff path was an informal packed-earth shortcut from Belmont to Alewife station for decades before it was paved in 2011 and 2012. Its design and construction were entirely funded by the TIP program as part of a larger project connecting Alewife station to Davis Square.

This segment of the Fitchburg Cutoff path has been problem-free since the path opened.

The Belmont segment of the path is the least attractive part, bordered on both sides by walls or fences for its entire length (see above). For the first 1,150 feet, from Brighton Street and

into Cambridge, the south edge of the path is between 20 and 40 feet from the Fitchburg Line tracks, except at the Brighton Street sidewalk where the separation narrows to 16 feet.

While neither the narrow, constricted path corridor nor the proximity to the Fitchburg Line tracks could be considered attractive design elements, the path has nevertheless become popular with pedestrians and cyclists, including young families and older citizens out for a walk.

Also worth noting is that this segment of the Fitchburg Cutoff path has been problem-free since the path opened. That should not be surprising; a 2013 study of 88 existing rails-with-trails in 33 states spanning 20 years showed that such paths are safe and increasingly popular.¹

¹ "America's Rails-with-Trails Report," published by the Rails to Trails Conservancy, is a study of 161 trails that run parallel to live rail lines. <https://www.railstotrails.org/resource-library/resources/americas-rails-with-trails/>



VINCENT STANTON, JR.

The 1907 ramp that wraps around the Lions Club.

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1. Bring Belmont commuter rail stations (almost) into ADA compliance

Older stations on the MBTA commuter rail lines are exempted from the requirement to comply with the Americans with Disabilities Act by a waiver granted by the Massachusetts Architectural Access Board (MAAB). However, station improvements above a certain percentage of value trigger expiration of the waiver. In 2012 the MBTA spent \$353,000 to repair disintegrating platforms at Waverley station, well over the assessed station value of \$44,000. The MAAB ordered the MBTA to make Waverley station ADA-compliant or to close it. (Any work at Belmont Center station would trigger a similar chain of events.)

In 2015 the MBTA proposed that Belmont Center and Waverley stations be replaced with a single station and parking garage on south Pleasant Street—a location distant from business or residential districts, with a garage that would draw additional traffic to clogged Pleasant Street. Faced with overwhelming community opposition, the MBTA sought and was eventually granted an MAAB waiver for Waverley station until June 2026. The MBTA argued that accessibility upgrades at other stations would benefit more customers. Without a plan for Waverley, the MAAB will likely compel the MBTA to close the station in eight years.

The Pare plan for Waverley Square, developed in consultation with the MBTA, includes elevators on each side of the tracks, connecting the path and surface parking to the train platforms approximately 21 feet below. Several adjacent property owners strongly support preserving Waverley station and making it fully accessible; a public-private partnership may enable better connections to neighboring businesses and residences on both sides of the station.

The Pare proposal does not, of course, provide the mini-high platforms that the MBTA uses to enable wheelchair boarding at most commuter rail stations and at many outlying Red and Green Line stations. However, the cost of building 45-foot-long mini-high platforms, together with ramps and stairs mandated by MAAB regulations, is likely to be low relative to full elevated platforms. For example, the MBTA is now replacing mini-high platforms at the Mansfield commuter rail station, plus rebuilding the train platforms, adding lighting, guard rails, bollards, signage, curb cuts, and parking lot improvements for better accessibility, all for \$7.5 million.

At Belmont Center station, the Pare team proposes ADA-compliant connections from both the path and Concord Avenue to the edge of the north (outbound) train platform. Connection to the south (inbound) platform (not discussed in the Pare report) could be with an upgraded version of the existing system of wooden ramps over the tracks. Alternately, morning inbound trains could be re-routed to the north track, to minimize the need to use a cross-track ramp. (This system of routing trains through the most

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Funding the Belmont path: the “TIP” Funding process and beyond

The Transportation Improvement Program (TIP) is administered by MassDOT via the Boston Metropolitan Planning Organization (MPO); however, most of the money for TIP projects (80 or 90%, depending on the purpose) comes from the Federal Highway Administration or the Federal Transit Administration. Here’s how the Boston MPO website describes the TIP funding process:

Each year, approximately 150 transportation infrastructure projects, collectively costing more than one billion dollars, are submitted as candidates to receive funding through the Boston Region MPO’s rolling, five-year capital investment program, the Transportation Improvement Program (TIP). The types of projects that are eligible for TIP funding include intersection improvements, Complete Streets redesigns, bicycle and pedestrian connections, highway reconstruction, transit maintenance, and transit expansion. Typically, approximately \$95 million is available in any given year for such projects . . . The vision established in the MPO’s Long-Range Transportation Plan, Charting Progress to 2040, guides the project selection process.

To be eligible for TIP funding, a path must have reached 25% design, though usually municipalities pay for full design. However, the Belmont Community Path will require closer cooperation with MBTA than typical paths in MassDOT District 4, which encompasses Belmont and 61 other communities mostly to the north and west, including Arlington, Everett, and Revere, but also small towns like Amesbury, Boxford, and Tyngsborough.

In Belmont, the path design and construction issues are much closer to those in MassDOT District 6, which includes Somerville and Cambridge, where a planned community path will run parallel to the new Green Line Extension (GLX) from Lowell Street in Somerville to Lechmere Square in Cambridge. That’s a closer analog to

the Belmont path than the Massachusetts Central Rail Trail west of Belmont, which will occupy an abandoned right-of-way. Funding for design of the GLX path came from MassDOT and MBTA, not from Somerville or Cambridge (though when the project was in doubt, those cities did contribute significant resources for a redesign).

Virtually the entire Belmont path will either border or occupy MBTA land, including a tunnel, a bridge, and the covering over of Waverley station, all of which will help realize top MassDOT priorities relating to access, multi-modal transportation, and green initiatives.

The Belmont path has already been flagged as a high-priority segment of the regional path network by the Central Transportation Planning Staff of the Boston MPO and by the allied Metropolitan Area Planning Council (MAPC). An internal CTPS study¹ ranked the Waltham to Waverley Square segment of trail second highest out of 234 “critical gaps” in the path network roughly inside route 495 (after a segment of the Somerville Community Path which has subsequently been constructed).

Since path design and construction will require extensive coordination with the MBTA and its contractors, there is a compelling case for MassDOT or MBTA to participate in the design and to absorb much of the cost.

¹ “Bicycle Network Evaluation,” 2014 Boston MPO study prioritizing gaps in the community path network inside route 495 (author: Beth Isner) http://www.ctps.org/data/pdf/programs/livability/MPO_0515_Bicycle_Network.pdf The Waltham to Waverley Square segment is covered in a more recent CTPS report entitled “Bicycle Network Gaps Feasibility Evaluations - Massachusetts Central Rail Trail” by Casey Claude, Boston Region MPO Staff http://www.bostonmpo.org/data/pdf/studies/bikeped/Bike_Network_Gap_MCRT.pdf

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accessible side of a station is used elsewhere in the MBTA commuter rail system. The recently completed Fitchburg Line Improvement Project made switching tracks in Belmont possible by introducing a new crossover behind the high school.)

A third possibility, which would require the assent of the Belmont Lions Club, would be to re-open the 1907 ramp that wraps around the outside of the Lions club and connects the train platform to the Royal Road sidewalk. However, the ramp's grade slightly exceeds the MAAB upper limit, and the ramp is broken by only one landing, while MAAB regulations specify landings at intervals of not more than 30 feet. Two new landings and a significant regrading of the ramp would be required.

As at Waverley station, separate funding for mini-high platforms at the Belmont Center station would be required. The curved tracks in that station present a challenge because mini-high platforms (which must extend 45 feet by MAAB regulations) have to be nearly flush with the edges of train cars to allow safe boarding. However, the tracks at the east end of the station, and extending over the granite bridge, are straight and should be compatible with 45-foot mini-high platforms.

With funding for the community path providing ADA-compliant connections to the Waverley Square and Belmont Center train platforms, the MBTA could build mini-high platforms at a small fraction of the cost proposed for complete ADA upgrades in 2015. This is Belmont's best opportunity to preserve both commuter rail stations and to bring both into ADA compliance soon.

2. New connections to transit

New routes to mass transit provided by the community path should increase ridership on bus and train lines at Belmont Center and Waverley Square, as those destinations become easier and safer to reach for more residents. To maximize the value of transit connections, the town will need spurs off the main path.

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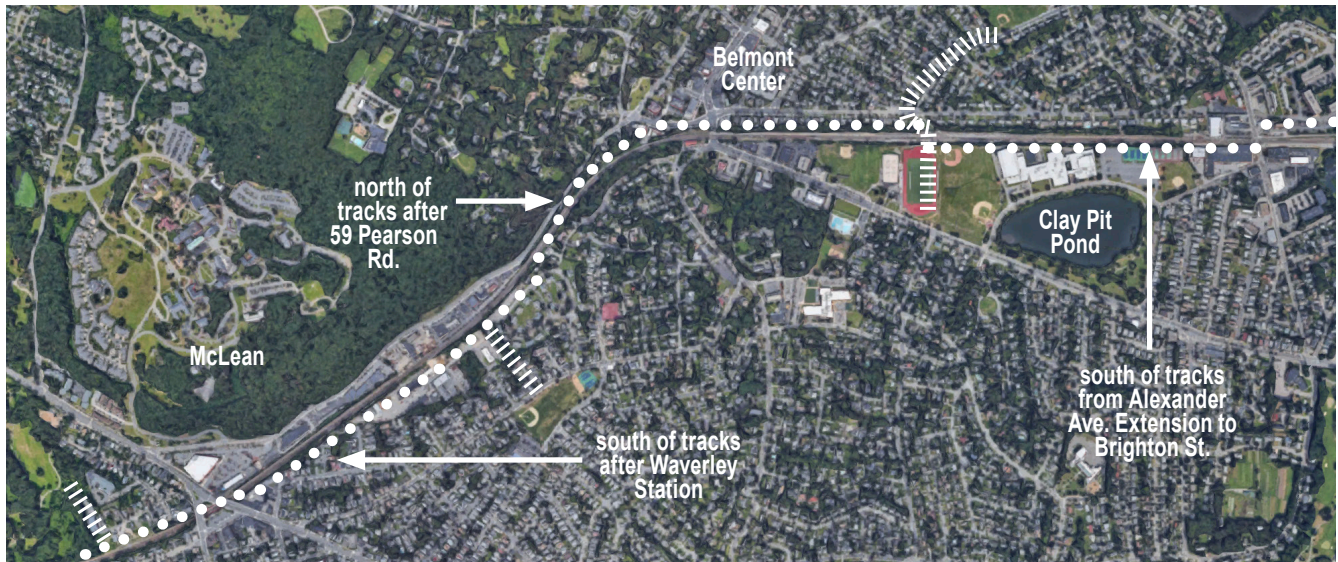
Plus ça change...

In 1983 the Underpass Study Committee was created by Town Meeting to report on possible safe crossing routes at Alexander Avenue Extension, following the death of a high school student on the tracks in 1982. The committee deemed a tunnel too expensive and ended up recommending a pedestrian-bicycle path across the tracks at grade, with fencing to prevent crossing elsewhere. The MBTA was never consulted and the proposal went nowhere.

In 1994, the Belmont Bikeway Planning Committee (BBPC) was appointed by the selectmen and ultimately brought about the first Belmont-focused community path feasibility study. The design firm Wallace-Floyd Associates (WFA) was hired as consultant. The route recommended by WFA coincides with the Pare team's preferred route in all but three locations:

- (1) the idea of boxing over Waverley station was not considered by WFA;
- (2) the Pare route avoids traversing Clark Lane by constructing a new pedestrian/bicycle bridge over the Fitchburg Line tracks behind the Belmont Housing Authority building at 59 Pearson Road, connecting to the south embankment of Pleasant Street;
- (3) the Pare route connects the Clark Street bridge to Belmont Center station on the north side of the tracks (vs. the south side in the WFA route).

The latter two differences are related in part to new MBTA regulations regarding bridge clearance. When the current Clark Street footbridge was constructed in the mid-1990s, only 18-foot clearance was required. Now bridges need to clear tracks by 22.5 feet. Raising the Clark Street bridge 4.5 feet and connecting it to Clark Street would be expensive, thus helping justify the cost of a new bridge. Also, the



Routes proposed in various studies and reports since 1983 mostly align with the current recommended route, as marked above. Hatch lines indicate proposed spurs to help connect residents to the path.

While differing in some details, all four studies
mostly agree on the preferred route.

northern route avoids the need to widen the underpass below Belmont Center Station, though it would still be an important link.

The BBPC eventually dissolved and there was no town effort concerning a path from 2000 until 2011, when the Community Path Advisory Committee (CPAC, not to be confused with the current committee, CPIAC) was established by the selectmen. Members were appointed in May 2012, started meeting in August 2012, and delivered their final report in June 2014. The CPAC recommendations also line up closely with the Pare team’s recommended route, differing in two of the three segments noted above (no “box over” at Waverley Square, and north and south routes were rated equal between Clark Street bridge and Belmont Center Station), and also in recommending a route along the north side of the tracks from Alexander Avenue Extension to Brighton Street (vs. the southerly route recommended in the Pare report). The northern route all the way to Brighton

Street is the second ranked option in the Pare report—a fallback if the southern route from Alexander Avenue to Brighton Street cannot be implemented.

The Pare study is the fourth professional study of possible community path routes in Belmont and by far the most complete. The two studies not mentioned above were performed by state planning agencies: a 1997 study by the Central Transportation Planning Staff (CTPS) of the Boston Metropolitan Planning Organization covered a route along the former Massachusetts Central Railroad line from Berlin, MA, to Belmont, and a 2012 study by the Metropolitan Area Planning Council covered eastern Waltham and Belmont. All four studies are available on the Belmont town website (see links accompanying the online version of this article). While differing some details, all four studies mostly agree on the preferred route.

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The route recommended by the Pare team is compatible with four spurs (not in the budget; these will be a future phase of development), three of which would connect residents to the path and to important destinations in Belmont:

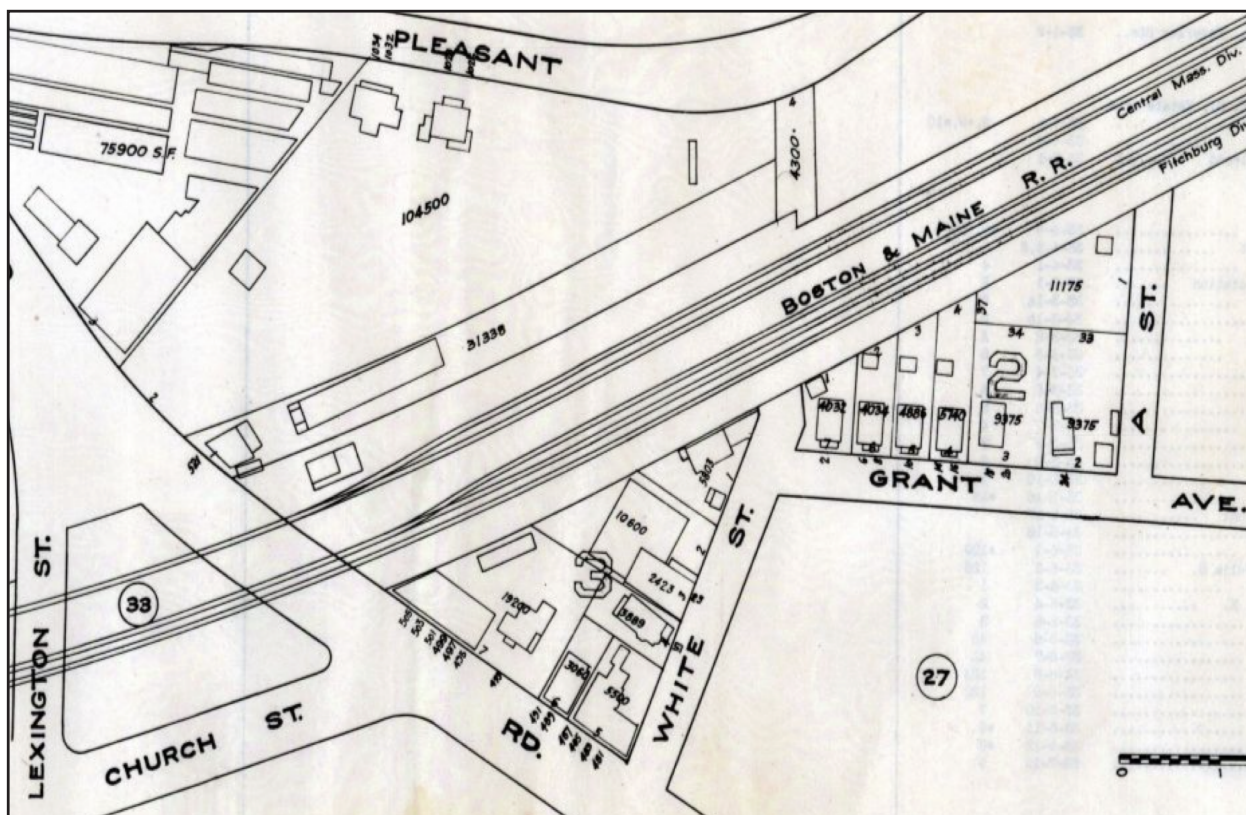
1. A spur along Midland Street would connect the Waverley and Beech street neighborhoods to the path and provide access to the Beech Street Center and Town Field.
2. A spur along Sherman Street to Alexander Avenue Extension would connect the Winn Brook neighborhood and school to the path and (via an Alexander Avenue underpass) to destinations on the south side of the tracks, including the high school, Underwood pool, playground, library, Powers Music School, and post office.
3. A spur across the high school property from the new underpass to a proposed upgraded signalized crossing at Concord Avenue would connect the neighborhoods south of Concord Avenue (where the majority of Belmont lives) to the path.

(A fourth proposed spur would connect the path to the Beaver Brook Reservation, just east of the Waltham border.)

Regarding the future of Belmont's commuter rail stations, state Senator Will Brownsberger, in a recent article on the MBTA's long term planning process, expressed "hope that our existing rail commuter corridors can be used to provide more frequent subway-like service" in the future. As traffic in Belmont worsens, such service would be an attractive option for residents who commute to Boston or points west.

In addition to improved connections to transit within Belmont, the path will provide an off-road route to Alewife station and the Red Line. Estimated bicycling time from Waverley Square to Alewife station (for example, for a resident of Agassiz Avenue) would be about 15 to 18 minutes to cover three miles, which compares favorably to automotive transportation, especially at rush hour. Cost of parking: free.

The Belmont path, when connected to the Waltham path, will also provide improved connections for commuters, shoppers, or diners accessing businesses in the approximately one-million-



Waverley Square in 1931, with the Fitchburg and Central Mass railroad lines (both owned by Boston & Maine RR) traversing the square at grade. Note that the Fitchburg Line had three tracks and the CMRR had two tracks east of Trapelo Road. The Star Market area was occupied by greenhouses.

square-foot Duffy Properties development between Waverley Oaks Road and the Fitchburg Line.

3. Restore Waverley Square

Waverley Square was actually a square (really more of a trapezoid) until 1952, when the present trench was excavated and the Trapelo Road and Lexington Street bridges were constructed over the subterranean station. Before 1952, the Fitchburg Line (opened in 1843) and the Central Massachusetts Railroad (opened in 1881) crossed the square at grade, each with its own station (see 1931 map). The Pare proposal is to erect a roof over Waverley Square station between Trapelo Road and Lexington Street and to create a park on the approximately 18,000 square feet of new space. That would reinvent the square and provide a focal point for future private redevelopment of properties flanking the square. The community path would traverse the park, which would help reinvigorate it as a public space.

Belmont has a thrifty culture, made necessary by our heavy dependence on residential taxes . . . The community path is a once-in-a-generation opportunity to refresh and extend town transportation infrastructure, while also transforming Waverley Square, all with (mostly) state and federal funding.

The Pare report also proposes moving the Waverley station parking lot south, onto Church Street, which would become one way (toward Lexington Street) with angled parking (see planners' rendering on page 1). This reconfiguration would allow for "maintenance of the number of spaces currently in the Waverley station parking lot, but with closer proximity to the Waverley Square retailers," according to the

Pare study, and would add approximately 13,000 square feet to the park, for a total of about 31,000 square feet.

Just west of Waverley station, the path from Waltham, running along the embankment north of the Fitchburg Line, would split, with one arm ascending to cross Lexington Street into the new surface park and the other arm descending to connect to the station platform.

Without the community path, a new park in Waverley Square would not be imaginable. Whether this project element will be funded by the TIP remains to be seen, but in addition to being a boon to Waverley Square residents and landlords, the "box over" design also solves problems for the MBTA in terms of reduced station maintenance (no snow removal) and improved safety, and it fulfills MassDOT goals to increase multimodal transportation options.

Belmont has a thrifty culture, made necessary by our heavy dependence on residential taxes; approximately 95% of locally raised revenue (excluding state revenue-sharing for schools and roads, and a small amount of fee income) comes from homeowners. Belmontians historically are proud not only of the high performance of our schools and town services, but also of the efficient use of funds. The community path doesn't fit easily into that framework. Rather it should be viewed as a once-in-a-generation opportunity to refresh and extend town transportation infrastructure, while also transforming Waverley Square, all with (mostly) state and federal funding.

Vincent Stanton, Jr. is a Belmont Citizens Forum board member. He served on the Community Path Advisory Committee (2012-2014) and is now a member of the Community Path Implementation Advisory Committee. However, the views in this article (and all sidebars) are entirely his own.

Footnote

1. The Pare Corporation and K3 Landscape Architecture were hired by the town in 2016 to identify feasible routes for a community path. To view the Belmont Community Path Feasibility Study and slide presentations the team made in public meetings, go to <https://bit.ly/2ep3szk>

Look for "Belmont Community Path Update, Part Two" in the next issue of the *BCF Newsletter*.

Another Way to Preserve Belmont's Neighborhoods

Should Belmont residents consider a 'neighborhood conservation district' model?

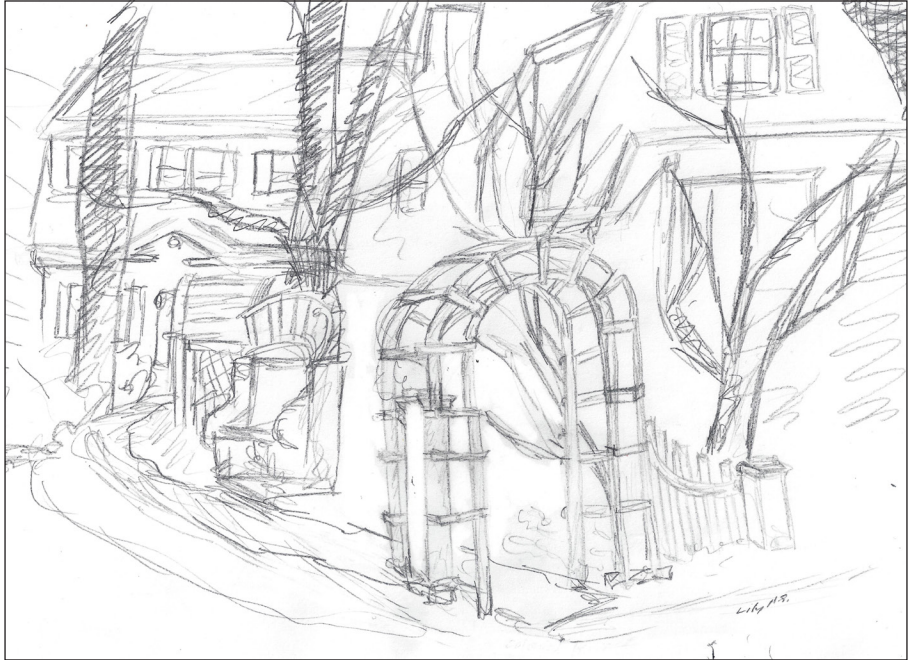
By Sharon Vanderslice

Belmont's cohesive and walkable neighborhoods, high-quality schools, extensive green space, and proximity to public transportation have made it one of the most desirable places to live in the Greater Boston area. And yet, skyrocketing real estate values and the overdevelopment that tends to accompany them currently threaten the very neighborhoods that have made this "town of homes" so appealing in the first place.

One tool that cities and towns around the country have used to preserve local neighborhoods from inappropriate development is the "neighborhood conservation district"

designation. Cities as close as Cambridge or Brookline and as far away as Chapel Hill, North Carolina, or San Antonio, Texas, have identified and preserved local neighborhoods of all sorts using legal restrictions regarding scale, massing, and architectural configuration. Less defined than a historic district but with the ability to be more specific than zoning regulations, the neighborhood conservation district allows the community to determine the character of a given area. Such districts usually place fewer limits on individual homeowners than a typical historic district does. For instance, paint colors and window replacements might not be limited.

According to Charles Sullivan, executive director of the Cambridge Historical Commission, the city of Cambridge currently has four such conservation districts: Harvard Square, a mixed-use development in the center of the city with 125 separate buildings; Avon Hill, a cohesive single-family residential neighborhood of about 200 homes bounded by Linnaean Street, Raymond Street, Upland Road,



Colonial Terrace, by Belmont High student Lily Hoffman Strickler.

and Massachusetts Avenue; Mid-Cambridge, a group of blocks north of Central Square between Prospect and Prescott Streets, comprising 2,200 buildings in total; and Half Crown-Marsh, 190 buildings between Brattle Street and the Charles River.

The town of Brookline currently has two conservation districts: Hancock Village, a development of 789 garden-style townhouse apartments designed by the Olmsted Brothers in the late 1940s; and the Greater Toxteth neighborhood of single-family residences that features an abundance of green space with many mature trees.

These districts are governed by review commissions that must issue Certificates of Appropriateness for new construction or alterations to ensure that such changes are compatible with the existing structures in the neighborhood. A typical review commission has a minimum of five members, including residents of the neighborhood and preservation experts in architectural and landscape design fields.



Waverley Square



Snake Hill Road



Walnut Hill



Clark Hill



Walnut Hill

Candidates for Conservation

Which neighborhoods in Belmont would be ripe for this type of preservation? Lauren Meier, co-chair of the Belmont Historic District Commission, has several to suggest:

- The original Belmont Park development off Concord Avenue, a pre-streetcar subdivision built in the 1890s and encompassing homes primarily in the late Victorian and Shingle style on School, Myrtle, Goden, and Oak Streets.
- The Snake Hill Road development off South Pleasant Street, a cohesive group of mid-20th-century modern homes designed by architect Carl Koch and built between 1940–1941, that has largely maintained its original look.
- Colonial Terrace, an intact and beautiful group of Dutch colonial homes on a cul-de-sac off Orchard Street.

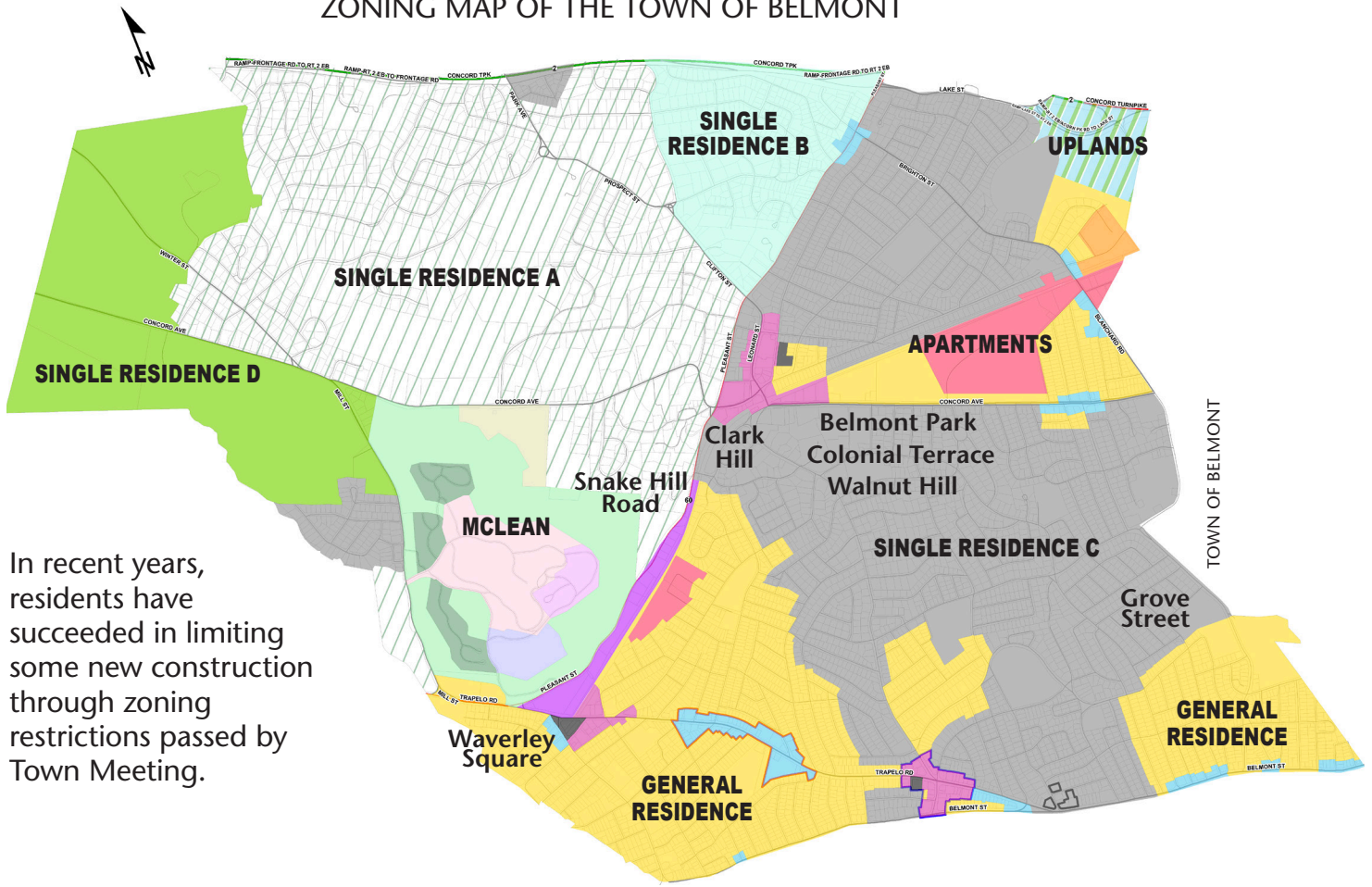


Waverley Square

Examples of neighborhoods suggested as candidates for conservation.

ALL PHOTOS BY SARA MCCABE

ZONING MAP OF THE TOWN OF BELMONT



In recent years, residents have succeeded in limiting some new construction through zoning restrictions passed by Town Meeting.

- Clark Hill, a neighborhood of Colonial Revival and Craftsman villas built in the 1870s behind what is now the All Saints Episcopal Church on Common Street.
- The original Walnut Hill, a group of noteworthy Prairie and Garrison Colonial-style houses, built in the early 1900s, on Cedar Road/Hillcrest Road/Fairmont Street/ and Highland Road (off Common Street).

Keeping Neighborhoods Affordable

In addition, says Meier, there are neighborhoods in town that are not necessarily historically significant, but which remain more affordable for teachers, firefighters, police officers, other public-sector employees, and citizens of more modest means. She cites the blocks of Garrison Colonial homes near the Grove Street playground (between Grove and School Streets) as one example of a neighborhood that is vulnerable to inappropriate new construction. “I worry about preserving modest housing,” says Meier. “Do we want to become a town of exclusively million-dollar houses?”

Other neighborhoods containing affordable homes include those along Lexington and Waverley Streets in Waverley Square. “But honestly,” says Meier, “any neighborhood could use this as a tool to retain its scale and character.”

Historic Districts vs. Conservation Districts

According to Charles Sullivan of the Cambridge Historical Commission, a neighborhood conservation district (NCD) is “a more flexible solution to specific local issues” than a historic district authorized by Chapter 40C of the Massachusetts General Laws, which takes a one-size-fits-all approach. The Harvard Square NCD in Cambridge, for instance, strictly protects upper stories, while allowing storefronts to be altered without review.

The Half Crown-Marsh NCD guidelines are written to protect highly valued sight lines across backyards in what is a very dense residential neighborhood. Avon Hill, on the other hand, permits more sizable additions on its larger lots but has architectural reviews to ensure that new construction is sympathetic to the neigh-

borhood. In other words, NCD design standards can be tailored to address the concerns of individual neighborhoods. Typically, the NCD process also allows more flexibility in structuring the governing review commission.

Step-by-Step Process

The common first step in establishing NCDs in any municipality is for a consultant or a town commission to conduct a study of local neighborhoods and suggest boundaries for individual districts as well as wording for a potential bylaw. Such a study is usually funded with grants, or in Belmont's case, could be funded by Community Preservation Act monies.

The second step is drafting an enabling neighborhood conservation district bylaw, which the Historic District Commission, with support from the selectmen, takes to Town Meeting for approval. (The city of Cambridge's enabling ordinance dates to 1983.) According to former preservation planner Greer Hardwicke of Brookline, her town's bylaw needed only majority approval of Town Meeting, as opposed to the two-thirds majority needed to initiate a new local historic district. A bylaw of this type might stipulate that a certain number of property owners within a given district would need to give approval before the process could move forward in that neighborhood. (Cambridge initiates the study process with a petition from as few as 10 registered voters.)

A neighborhood conservation district (NCD) is 'a more flexible solution to specific local issues.'

Third is the appointment of an NCD review commission/s by the Board of Selectmen, which may include residents of said districts as well as one or two members of the Historic District Commission and other preservation experts such as real estate professionals, architects, or landscape designers.

Fourth is the development of design guidelines unique and appropriate for each district by the NCD review commission within the parameters of the enabling legislation. According to Hardwicke, Brookline had block captains who



Belmont Park



Colonial Terrace



Waverley Square

Further examples of neighborhoods suggested as good candidates for conservation.

ALL PHOTOS BY SARA MCCABE



SARA MCCABE

Anne and Fred Paulsen's historic home in the Belmont Park neighborhood.

solicited opinions from individual homeowners on this subject.

Resident Reactions

Former state Representative Anne Paulsen and her husband, Fred, a Town Meeting Member from Precinct 1 who grew up in Belmont, have lived for the past 52 years in a Queen Anne Shingle-style home on School Street that proudly displays a plaque from the Belmont Historical Society. Their home, with its accompanying carriage house, was formerly inhabited by the head of Bartlett Brothers Builders, who constructed many of the houses in the Belmont Park subdivision. Preserving the look and feel of this historic neighborhood is important to them and to other residents of the area.

"I think it's a great idea," says Anne of the prospect of designating her neighborhood as a conservation district. Unlike typical historic districts, which focus on architectural details of individual houses, an NCD targets the preservation of streetscapes, ensuring that additions or new construction are compatible with existing homes in the neighborhood. Like a block party, she says, an NCD would be a good forum for bringing residents together to decide how they want their neighborhood to look. The maintenance and

replacement of street trees, sustainable lawn care, traffic calming, and architectural repair are all potential topics of this conversation. Fred notes that contractor recommendations from neighbors can be invaluable. While neighborhood conservation districts do not regulate interior reconstruction, Fred says that, for instance, he was able to find a contractor to repair his antique pocket doors by getting a referral from a neighbor with a similar house in the neighborhood.

Steve Pinkerton, a resident of Dalton Road and a member of the Belmont Planning Board, has a different take. In response to creeping mansionization in his own neighborhood between Grove and School Streets, he—along with some of his neighbors—succeeded in proposing amendments to Belmont's zoning bylaw that limit the height, mass, and setbacks of new construction or additions in Single Residence-C neighborhoods throughout the town. These restrictions, which were passed by Town Meeting in 2016, stipulate that any construction (including a tear-down and rebuild) that increases the gross floor area of a nonconforming structure by more than 30% must apply for a special permit from the Belmont Planning Board.

Less defined than a historic district but with the ability to be more specific than zoning regulations, the neighborhood conservation district allows the community to determine the character of a given area.

In his mind, these amendments obviate the need for conservation district designation. "I think we've already done it," says Pinkerton. The newly amended bylaw prohibits buildings that exceed the average height of other houses in the immediate neighborhood. It requires setbacks compatible with neighboring homes (thus avoiding what he calls a "broken-tooth syndrome" in the streetscape), and it gives the Planning Board the ability to make judgment calls on architectural styles (bungalow vs. colonial, for instance), siding (clapboard vs. shingle), window design (double-hung vs. casement), exterior lighting, street trees, landscaping, and even the placement of ground-mounted outdoor mechanical equipment.

Similar restrictions on single- and two-family houses in General Residence districts were passed in 2014 to assure that new dwellings or additions to preexisting, nonconforming structures are in harmony with the neighborhood. "The goal," he says, "is not to freeze out improvements, but to do them in a reasonable way, so that new houses and additions don't come as a shock to the abutters. What you want to avoid is putting 5,000-square-foot houses on 7,000-square-foot lots." Still, he says, "it's a fine balance between people's property rights and the rights of neighbors who have to live with the results."

Would similar restrictions be welcome in the large-lot Single Residence-A district that is Belmont Hill? How does one ensure that a new house inhabits rather than dominates the surrounding landscape? Slade Street resident Roger Wrubel, who is the director of Belmont's 90-acre Habitat Education Center and Wildlife Sanctuary on Juniper Road, thinks the town would be wise to take a long-term view. Habitat was recently threatened with the proposed

construction of five enormous homes in the backyard of a house on Marsh Street that directly abuts the sanctuary's land.

While uncertain about the need for conservation districts, Wrubel says, "the town should really consider how Belmont would look in 50 years if you developed up to the limit of what the current zoning bylaw allows, because that is what will happen. Developers will figure out what's the most money they can make within the current zoning, and that's what they will build. Large lots will be subdivided unless the zoning changes or land is protected by restriction."

He personally thinks that the preservation of contiguous open space for wildlife is what's most important in areas near Habitat, Lone Tree Hill, Rock Meadow, and the Beaver Brook Reservation. "I'm not so concerned about the size of somebody's lawn on Evergreen Way."

Lauren Meier of the Historic District Commission (HDC) says that ultimately the support of residents is key to any preservation effort. "The HDC would consider taking on a neighborhood conservation district proposal only if there were substantial support from an individual neighborhood."

Sharon Vanderslice is a resident of the Pleasant Street Historic District and the founding editor of the Belmont Citizens Forum Newsletter.

CORRECTION

In the article "Thaddeus Frost House Local Historic District Proposed," in the last issue of the *BCF Newsletter* (March/April 2018), the wrong date was cited for Belmont Historic District Commission member Michael Chesson's report. We regret this error and have corrected all online versions to read, "The draft report was submitted to the MHC in October 2017 for the required 60-day review, and the MHC recommended the town proceed with establishing the district."

Belmont Announces First Annual Porchfest

By Mary Bradley

Porchfest is coming to Belmont!

The first annual Belmont Porchfest will be on Saturday, September 8, 2018. Porchfest is a celebration of community through music and arts performed by your friends and neighbors (and maybe even you) on porches throughout Belmont. Walk to a neighbor's house to hear a klezmer band or host a circus show on your front lawn.

You can sign up to play some music, host a band, or both. You can also support this event through a donation or sponsorship.

However you choose to participate, please save the date for a fun day of music on September 8. For registration, donations, and more information, go to belmontporchfest.org.



Congratulations to Kira Davidson, winner of the Porchfest logo contest. Kira is a Chenery Middle School student who plays flute and piano and loves animals. Her parents and brother are also musicians, and their home is filled with instruments.

Belmont Porchfest is made possible in part by a grant from the Belmont Cultural Council, a local agency that is supported by the Massachusetts Cultural Council.

Interns Wanted!

The Belmont Citizens Forum (BCF) is accepting proposals and résumés for 2018 summer internships from college and high school students.

Project proposals should align with the BCF mission statement on our website. BCF internships are unpaid. Most summer interns are able to complete enough work to publish articles describing their research in the *Belmont Citizens Forum Newsletter*. BCF internships offer a great chance to gain experience with the legwork and research behind local community organizing.

If interested, please send your résumé and a brief project proposal by May 30, 2018, to bcfprogramdirector@gmail.org.

Switch to digital delivery

Consider receiving the *Belmont Citizens Forum Newsletter* via email. You'll help us reduce our printing and mailing costs (among our biggest expenses), and also help save a few more trees.

Remember, you can always find printed copies at the Belmont Public Library and at the senior center. And if you are looking for previously published issues, you'll find them on our website, going back to 2000, at belmontcitizensforum.org.

To request electronic delivery only, email us at bcfprogramdirector@gmail.com. Please use "Electronic" in the subject line.

And thanks to everyone who has gone digital so far!

Preparing For Climate Change

By Will Brownsberger

This winter's storms have dramatized flooding in Boston and many other coastal areas. Is Belmont at risk? Despite climate change and rising sea levels, Belmont has minimal risk of direct seawater flooding in the next 50 years. The greatest threat to Belmont residents is the fragility of our regional infrastructure.

In the next five decades, scientists and planners predict a rise in sea level of as much as three feet. Stronger sustained winds in storms are also likely to produce greater storm surge. We will also see heavier rains. A detailed model of how water may move during storms in Greater Boston has been developed through a collaboration of state and local agencies and academics and consultants. Their assessment of changing risks should guide our planning.

Holding Back the Surge

In the biggest storms so far, the storm surge in Boston Harbor has reached a level of about 10 feet above sea level, with sea level defined as roughly the mid-tide level. The map on page 18 shows that a few parts of the Winn Brook neighborhood are below the 10-foot level.

The short answer from millions of dollars of modeling is, 'The ocean always wins.'

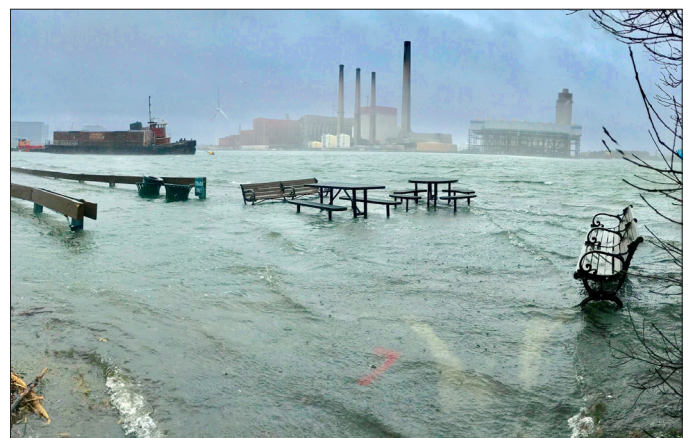
While Winn Brook residents have long experienced local fresh-water flooding during heavy rainfall, they are at low risk of salt-water flooding despite their low elevation. Unlike the low-lying areas in South Boston, the low-lying areas of Winn Brook are protected by the Amelia Earhart dam at the mouth of the Mystic River. The dam is effectively a seawall. It controls the water level in the Mystic basin, which includes Little Pond. Huge pumps keep the river from rising much even when extreme rains coincide with a high storm tide.

For Belmont, the hard question is how storm surge in the harbor will interact with the Amelia Earhart. Can the pumps keep up if water overtops the seawall? What if there has been heavy rain, and flood waters are coursing down the Mystic to meet the storm surge?

The short answer from millions of dollars of modeling is, "The ocean always wins." If the sea outflanks or rises above the Amelia Earhart, we can't do much. The pumps won't remotely keep up with the flow. The ocean always wins in another sense—it dominates flow models



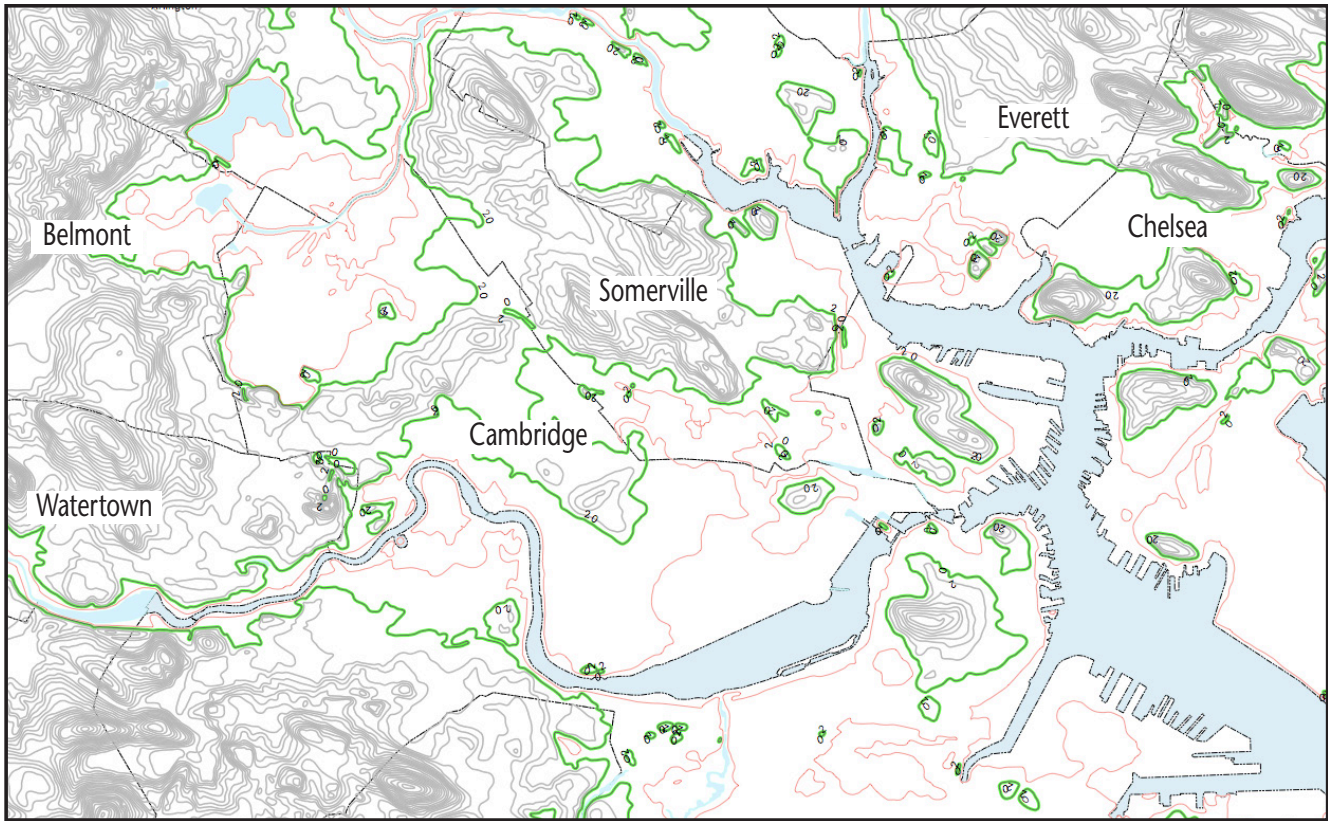
DAVID BURSON



BRYAN GAMMONS

Top: High tide at the Amelia Earhart seawall in March 2018. Note the water is much higher on the ocean side (right) than on the river side.

Bottom: March 2018 saltwater flooding at the Schrafft's City Center outside the seawall.



MAP CREATED BY THE AUTHOR WITH INFORMATION FROM THE U.S. CENSUS, MASSGIS, U.S.G.S. AND THE NATIONAL ELEVATION DATASET.

Red lines are the 10-foot-above-sea-level contours and green lines are the 20-foot contours. The graphic shows that there are a few parts of the Winn Brook neighborhood that are below the 10-foot level.

even in the heaviest rain scenarios. Rain creates only very modest additional risk. So, the main question is how frequently, and for how long, the Amelia Earhart dam will be flanked or overtopped by storm surge, and how much damage can we expect from the overflow?

It appears that the Amelia Earhart will be flanked before it is overtopped. Low-lying areas immediately around the seawall create pathways for water to enter. Risks of flanking the seawall are estimated to reach the 1% level by 2045.

Adding berms and other structures in those pathways may lower risks and buy a decade or two, but they are not a 50-year solution. The city of Cambridge has funded some outstanding analysis that shows that the Arlington and Cambridge neighborhoods near Alewife will be at 20% annual risk of flooding by 2070. The at-risk zone will extend to the very lowest areas of Belmont, but most of the Winn Brook neighborhood appears to lie above the zone facing 1% modeled risk.

Every neighborhood in Belmont will face elevated risk of fresh-water flooding during heavy rains, but for the next 50 years, Belmont

is relatively safe from salt-water inundation. Even as time goes on and the risks grow, most of the town is more than 30 feet above sea level and thus well beyond meaningful inundation risk for at least a century.

State of the State

But Belmont is not an island. If the Red Line or the major Boston highway tunnels are flooded and cannot be quickly restored, the regional economy will suffer. Power, water, or sewage outages would create hardship for many in Belmont and the region.

The responsibility for making infrastructure resilient is not owned by any one agency. In Massachusetts, responsibility for infrastructure is especially fragmented. We have tended to fund infrastructure by creating more or less independent borrowing authorities—MassPort, the Massachusetts Water Resources Authority, the MBTA, MassDOT. Also, in comparison to other states, our municipal units cover very small geographic areas.

Governor Baker is accepting more responsibility than past administrations for driving a statewide resiliency-planning process. In September 2016, the governor issued Executive Order 569 which requires the Secretary of Energy and Environmental Affairs to:

. . . within two years of this Order, publish a Climate Adaptation Plan that includes a statewide adaptation strategy incorporating: (i) observed and projected climate trends based on the best available data, including but not limited to, extreme weather events, drought, coastal and inland flooding, sea level rise and increased storm surge; . . . within one year of this Order, establish a framework for each Executive Office to assess its and its agencies' vulnerability to climate change and extreme weather events, and to identify adaptation options for its and its agencies' assets.

This is the right idea and in keeping with legislation I got passed in 2013 but which was never fully implemented. The near-term challenge will be to complete this process in a serious way. The long-term challenge will be to sustain focus and make the necessary investments. Many smaller projects have clear value: Gaps in land barriers need to be filled, tunnel entrances protected, vent structures elevated.

Looking to 2030 and 2070

Some agencies are further along than others in understanding the risks. MassDOT really got the regional conversation started by investing in modeling to understand the exposures of the central artery and tunnel system. The MBTA is further back; it has begun to think about the problem but has not begun an asset-by-asset determination of its exposures. I'm particularly anxious to see clear plans in place to protect the Red Line at Alewife and the Green Line in Back Bay.

We have a little time, and we can pace the investment, but we need to sustain the work. Every major project in the coming decades should be designed to reduce risk as well as improve service. Each agency must have the resources necessary to build and retain institutional knowledge of its own challenges.

The engineers and operators who work outside every day need to be insulated from the corrosive pressure of annual cost-cutting; they have knowledge that needs to be fed into the analytic inventories of problems. Once the inventories are complete, the staff must continue the risk-reduction effort.

There is an explicit consensus among planners in our region to focus on risks on two horizons: 2030 and 2070—near and medium term. The implicit consensus is not to look further. That is a reasonable choice.

If we don't kick our global fossil-fuel habit, seas will rise much higher and the coast will recede, inundating many great cities and rendering centuries of human planning and labor obsolete. But we should not plan on the doomsday scenario yet. A lot will happen over the coming decades that we cannot anticipate.

As far as we can responsibly presume to see, climate change is something we can prepare for. In the longer term, we have to hope to succeed in technological innovation and collective action that brings climate change under control. We need to simultaneously prepare for climate change and work to minimize it.

Will Brownsberger is a Belmont resident and the state senator since 2012 from the Second Suffolk and Middlesex District, which includes Belmont, Watertown, and parts of Allston, Brighton, Fenway-Kenmore, and Back Bay.



Freshwater flooding at Blair Pond due to heavy rain.

ALLEGRA MUJICA

Another Successful Lone Tree Hill Volunteer Day

More than 50 Volunteers Donate Time to Annual Cleanup and Planting

By Radha Iyengar

On Saturday, April 28, the Belmont Citizens Forum (BCF), in conjunction with the Judy Record Conservation Fund, held its sixth annual Lone Tree Hill Volunteer Day. More than 50 volunteers of all ages, including students from Chenery Middle School and Belmont High School, donated their time on this picture-perfect sunny day.

At the Pine Allee, in just two hours, the efficient volunteers planted more than 60 white pine saplings (of which 30 were transplants from Habitat Education Center and Wildlife Sanctuary). At the other end of the property, the volunteers collected 12 bags of trash, a big box of recyclables, one sneaker, a broken cast-iron pipe, and some heavy-gauge wire. This year single-use plastic bags, baby wipes, and cash-register receipts were among the most abundant items collected.

BCF is grateful to Sanctuary Director Roger Wrubel for sharing Mass Audubon volunteers and instructing them on how to handle saplings. We also thank David Ropes and James Sacco of Tree Specialists Inc. for supervising the planting, and the Judy Record Conservation Fund for funding their ongoing work and purchasing the trees. And a big shout-out goes to Jeff North for his help in coordinating the Pine Allee work; to Ellen O'Brien Cushman, chair, Land Management Committee for Lone Tree Hill, for ensuring the downed trees from the recent storms were removed by Saturday; and to Michael Santoro, DPW, Highway Division manager, and his staff, for picking up the trash.

Radha Iyengar is treasurer of the Belmont Citizens Forum and the organizer of BCF Volunteer Day.



SARA MCCABE

Roger Wrubel with Habitat saplings and volunteers.

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David Ropes teaches tree planting to volunteers.



Belmont High student Chloe Park planting a sapling.



BCF directors Anne-Marie Lambert (left) and Evie Malliris with some of the 12 bags of trash collected.

Lone Tree Hill: What to do if you see a problem

Your help is vital to keep Lone Tree Hill safe and enjoyable for everyone. If you see any problems—such as downed trees, broken limbs, or dangerous or excessive trash—please report it to the Land Management Committee for Lone Tree Hill by sending an email to grimble.lmc@gmail.com. Emails are checked regularly, but not daily, so you can expect an answers in a few days. If this is a time-critical issue of safety, please dial 911.



Your email should be as specific as possible about location, what you observed, when you observed it, and any suggestion you may have for resolving the issue. A member of the committee will address the problem and get back to you. For more information, visit the Lone Tree Hill page on the town website at belmont-ma.gov/land-management-committee-for-lone-tree-hill.

If you witness a more serious or urgent public safety issue, such as a crime or fire, please report it immediately by calling 911.

And while you're walking on Lone Tree Hill, why not carry along a bag to collect and dispose of any trash you may see along the way?

Thank you for your assistance!

Poetry in Nature

In early April, Belmont poet Stephanie Burt (far right) and Belmont Citizens Forum director Anne-Marie Lambert (far left) led a group of local residents on a poetry walk through Rock Meadow. The group explored the landscape and history of the area, including a pair of chickadees that inspired the reading of Marianne Moore's "Smooth Gnarled Crape Myrtle" and a discussion of the ice trade that inspired a reading of Burt's "Ice for the Ice Trade."

Burt is a Harvard professor and author of several books of poetry, including *Belmont* (2014) and *Advice From the Lights* (2017). The group enjoyed a crisp sunny day, with beautiful views of the meadow and forest, admiring a red-tailed hawk and emerging buds on the trees.



RADHA IYENGAR

COMMUNITY OPPORTUNITY

Sustainable Belmont is seeking volunteers for leadership positions. Sustainable Belmont's mission is to "develop, implement, and advocate for a variety of activities and initiatives to assist Belmont's government, residents, and businesses in becoming a more environmentally responsible community." Please email SustainableBelmont@gmail.com for more information.

Thank You to Our Contributors

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Ken Stalberg

Environmental Events

Grow Native:

Massachusetts Annual Native Plant Sale

Saturday, May 19, 9 AM–3 PM

Select from over 100 species and ask on-hand experts for advice. Rain or shine. grownativemass.org/programs/plantsale. UMass Field Station, 240 Beaver Street, Waltham.

Sustainable Belmont Meeting

Wednesday, June 6, 7–8:30 PM

Sustainable Belmont's regular monthly meeting. sustainablebelmont.net. Assembly Room, Belmont Public Library, Concord Avenue, Belmont.

Fresh Pond Day

Saturday, June 9, 11 AM–3 PM

Fresh Pond Day is the Cambridge Water Department's annual tribute to this invaluable

natural resource, sanctuary for wildlife, and recreational escape, featuring live wildlife presentations, a wildlife and bike parade, live music, and more. Free. For more information, contact Ranger Tim at (617) 349-6489, tpuopolo@cambridgeMA.gov. The Water Purification Facility at Fresh Pond Reservation, 250 Fresh Pond Parkway, Cambridge. Parking at the site will be limited. We strongly encourage parking at John M. Tobin School at 197 Vassal Lane, Cambridge.

Rain Garden Fundamentals

Saturday, June 30, 10:30 AM–Noon

Instructor Anna Fialkoff will explain how you can create a low-tech and effective rain garden, and which durable natives you should plant. Free. No registration required. Cambridge Public Library, 449 Broadway, Cambridge, MA. Underground parking garage.

Thank you for your continued support.

Your contribution makes a difference!

Each *BCF Newsletter* issue costs about \$4,000 to publish. *Thank you for your support!*

\$50 \$100 \$150 \$250

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www.belmontcitizensforum.org

Contact us:
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Thanks to everyone who came out to help at BCF's Lone Tree Hill Volunteer Day in April!

May/June 2018



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