

Belmont Citizens Forum

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A Newsletter for Belmont Residents

March 2005

Flooding, Sewers May Limit Uplands Plans

By Meg Muckenhoupt

Although O'Neill Properties has recently passed one state requirement for developing the Uplands, flooding and faulty sewers may yet derail the project. O'Neill's application now passes to Belmont's Zoning Board of Appeals, which is required by law to judge whether the application is "consistent with local needs." Does Belmont need more housing, more R&D space, or less flooding and raw sewage in local basements? The answer remains to be seen.

History

The Belmont Uplands lies south of Route 2, between Acorn Park Drive and the Alewife Reservation. O'Neill Properties acquired the Uplands site in 1998 as part of a larger parcel.

At first, O'Neill asked the town to approve zoning for a research and development building in the Uplands. Town Meeting amended the zoning in 2002, but after a downturn in the commercial real-estate market, O'Neill changed its plans. The firm asked the town to approve zoning for a residential development with 250 condominiums, then made another proposal for a 300-unit "40B" project.

A "40B" development is a project built under Massachusetts' Comprehensive Permit Law, otherwise known as chapter 40B. Under 40B, in exchange for setting aside 20% of units as affordable housing (defined by state standards), developers can override local regulations and build denser developments than a town would normally permit. The 250-unit development would have had 25% of its units—63 condominiums—designated as affordable, in line with

Belmont's inclusionary housing bylaw; the 300-unit plan is supposed to have 20% of its units—60 apartments—designed as affordable.

Belmont's Position on the 40B Project

Last year, O'Neill applied for bond approval to MassDevelopment, a state agency that can authorize tax-free bonds for affordable-housing developments. In a letter to MassDevelopment, dated June 29, 2004, the Board of Selectmen stated that it "does not

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Environmental Events Calendar

By Michael Stratford

Celebration of Spring. Sunday, March 20, 10 am–12 pm and 1 pm–3 pm. Celebrate the vernal equinox at Habitat Wildlife Sanctuary (10 Juniper Road, Belmont) by exploring signs of spring. The outdoor adventure hike will be preceded by an indoor puppet show and some traditional celebrations. Please call (617) 489–5050 to register for this event, which is intended for ages three and up. The cost is \$8 for members and \$10 for non-members.

Annual Meeting of Citizens for Lexington Conservation. Thursday, April 7, 8 pm. Featured speaker Roger Wrubel, director of Mass Audubon's Habitat Wildlife Sanctuary in Belmont, will discuss how valuing individual open-space parcels affects conservation efforts and planning. The meeting will be held at Estabrook Hall, located in the basement of Carey Hall, 1605 Massachusetts Ave., Lexington.

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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 on key subjects.

Our newsletter is published six times a year (January, March, May, July, September, and November).

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Contact Keith Ohmart at kohmnart@verizon.net or (781) 862–6216 for more information.

Bill McKibben Talk. Saturday, April 16, 7:30 pm–9:30 pm. Environmental author Bill McKibben discusses his new book *Global to Local: Signs of Hope in a Strained World*. This free talk is sponsored by Lexington Reads. Come to the Hancock Church, 1912 Massachusetts Avenue, Lexington. Contact Kay Tiffany at ktiffany@rcn.com or (781) 862-4726 for more information.

Belmont Citizens Forum Environmental

Committee Meeting. Tuesday, April 12, 7:30 pm–9 pm. Learn more about Belmont's environment. Come to the Staff Room of the Belmont Public Library. Contact Christine O'Neill at (617) 489-4456 or christineoneill@yahoo.com for more information.

Third Annual Docent Training at Alewife

Reservation. Saturday April 16 and April 23, 9 am–12 pm. Learn to guide your own tours: the Friends of Alewife Reservation (FAR) is providing three training sessions for potential Alewife Reservation docents. The cost for all three sessions is \$60, and participants must also purchase *Biodiversity in the Alewife Reservation Area* from FAR for \$10. Registration is required. Contact Lisa Maloney at lmaloney@oeb.harvard.edu or (508) 472–0522 for more information.

Mystic River Cleanup. Saturday, April 23, 10 am–12:30pm. Rain date: Sunday April 24, 12 pm–2:30pm. Kick off the spring season with a Mystic cleanup on Saturday, April 23, in the Ten Hills section of Somerville. Come to Blessing of the Bay Boathouse, 32 Shore Drive, Somerville. If you would like to volunteer, please contact Janet, at (781) 316-3438 or janet@mysticriver.org.

9th Annual Mystic Herring Run. Sunday, May 1, 9 am–12 pm. The 9th Annual Mystic Herring Run will take place at the Blessing of the Bay Boathouse (32 Shore Drive), in Somerville. This year's event will include a 5K Road Race, paddle race, awards ceremony, and informational tables. Registration is now open for both the 5K Road Race and the paddle race on www.active.com. For more information contact Janet, at (781) 316-3438 or janet@mysticriver.org.

Cambridge Traffic Calming Could Help Belmont

By Marta Van Dam

Bump-outs, speed humps, bollards, and chicanes are exotic words for down-to-earth ways to slow traffic and make roads safer—without creating traffic jams. In fact, roads with average speeds of 30 and 45 mph carry the same number of vehicles without traffic jams! On February 10, seventeen local organizations (including the Belmont Citizens Forum) sponsored a presentation by Cara Seiderman, the Transportation Program Manager for the City of Cambridge. Seiderman oversees the bicycle, pedestrian, and traffic calming programs in Cambridge, and serves on the Massachusetts Governor's Highway Design Manual Task Force. Her presentation focused on methods of traffic calming used both in Cambridge and beyond.

Paint Is Your Friend

One cost-effective material is paint. Painting lines on the road surface to create crosswalks or cut off curbs makes motorists slow down. A paint job can help drivers see pedestrians and reduce the distance that pedestrians must cross without first undertaking the expensive and extensive roadwork needed to create a curb extension or neckdown.

Chicanes, Roundabouts, and Rotaries

Two other interesting traffic-calming structures are chicanes and roundabouts. Chicanes are created by widening sidewalks or by alternating parking from one side of the street to the other to break up straightaways—essentially narrowing the street, which slows down drivers. The bump-outs also create additional area for landscaping, beautification, and parking.

Roundabouts look like rotaries but have small islands built in. The chief selling point of a roundabout is that it has only four potential crash-points (places where accidents are most likely to occur), whereas a typical rotary has 16. These enhanced safety aspects—from the perspective of both motorists and pedestrians—together with the additional landscaping opportunities, make a roundabout a very attractive calming device. For engineers who are interested in learning more about

roundabouts, a Roundabout Warrant and Design Workshop is being held in Cambridge on April 20, 2005. For more information, go to www.NEARoundabouts.org.

Speed Humps and Bumps

In Seiderman's opinion, vertical traffic devices like speed humps can be one of the best ways to reduce driving speeds, provided they are used judiciously. Cambridge has used speed humps and tables, raised intersections, and crosswalks very effectively. These devices are most commonly used in front of schools and parks but also make sense in other areas. Although less common, bollards (posts painted with black-and-white stripes) are also gaining

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*An example of a chicane, a traffic-calming device..
Used with permission www.pedbikeimages.org / Dan Burden*

Traffic Calming *continued from page 3*

in popularity because of their visual impact and their ability to caution motorists to slow down from a greater distance. Although the “Yield to Pedestrians” crossing cones also work, Seiderman noted the difficulty in keeping the cones put (people tend to bump them out onto the roadway) and the need to continuously monitor them, which cuts down on their inherent cost savings.



*A roundabout has four crash pints, rather than the 16 found in rotaries.
Used with permission [www.pedbikeimages.org/Portland Office of Transportation](http://www.pedbikeimages.org/Portland%20Office%20of%20Transportation).*

Road Diets

For roads that are too wide and just contain too much pavement, Seiderman prescribed a “road diet.” Not only are large roadways unattractive, but they are also more dangerous statistically. Adding a turning lane and reducing a four-lane roadway to three lanes can have a huge impact both visually and on safety statistics. Seiderman made this point most forcefully when she displayed two photos of roads of the same width: one with wide lanes (Road A), with speeds of 45 mph, and the other divided into fewer lanes with traffic islands, with speeds of 30 mph (Road B). The following questions were asked:

1) On which roadway does traffic move faster?

Answer: Road A.

2) Which roadway has fewer traffic accidents?

Answer: Road B.

3) Which roadway carries the most traffic? The surprising answer: Both the 30 mph and 45 mph roadways carry the same average amount of traffic per day.

This example debunks the myth that traffic calming creates greater congestion. Seiderman noted that slower traffic tends to move at a more even rate of speed, and that the lower number of accidents tends

to keep cars moving more freely. There are even some locations where more traffic can pass through because of the consistent traffic flow.

Seiderman said that traffic calming begins with good road design: good design helps to create an environment where cars can travel at the appropriate speed, pedestrians can move in safety, and pleasant landscaping can be established. Her parting thought was, “People should think about roads that create places, not just as spaces to get to other places.”

Some helpful websites she suggested are www.activelivingbydesign.org, www.walkable.org, www.bikewalk.org, www.walkinginfo.org, and www.walktoschool.org.

Marta Van Dam is a partner at the law firm of Gadsby Hannah LLP in Boston and lives in Belmont.

Waverley Trail Envisioned

Belmont could one day have its own version of Boston's "Freedom Trail." The plan for the "Waverley Trail," a proposed history trail running through the Waverley Square area, was introduced by enthusiasts at a meeting on February 17.

The trail is intended to emulate Boston's Freedom Trail, and would begin at the (now former) Fire Station on Trapelo Road, continuing to the Waverley Oaks park, taking in historic buildings (post-Civil War architecture) along the way with the appropriate "wayfinding" signs. This trail might enhance the town's historic perspective and make the Waverley area more attractive to visitors and businesses.

The cost to the town of Belmont is supposed to be nil and will partially be carried by the business community, and partially by grants. Adam Tocci, owner of Belmont Car Wash, enthusiastically endorsed the plan and was confident of the business community's financial support. For more information, please contact Kathleen Haverly at (617) 484-9963 or bcmom227@aol.com, or Paul Solomon at (617) 484-0117 or solomon@massmed.org.



GIS Can Help Town Stop Sewage Leaks

By Sue Bass

With a click of his mouse, Tim Richardson can show the light poles lining all the streets of Belmont. Another click brings up transformers. Another adds the terrain. Richardson, assistant manager of the Belmont Light Department, is enthusiastic about the department's new geographic information system (commonly called, despite the redundancy, a GIS system.)

"We have a lot of mapping needs," he said. The Light Department was using AutoCAD design software but wanted a system that was easier to update. The new GIS system, ArcGIS, used by many Massachusetts communities, can be linked to a

database. "Instead of maintaining a database on a map, I can maintain the database and the map takes care of itself," Richardson said.

The same system appeals to other town departments. Glenn Clancy, director of Community Development, would like to put Belmont's sewer and storm water pipes on it. Peter Castanino, director of Public Works, would like to add the water pipes. "Having all the information in one place has a lot of benefits for a lot of departments," he said.

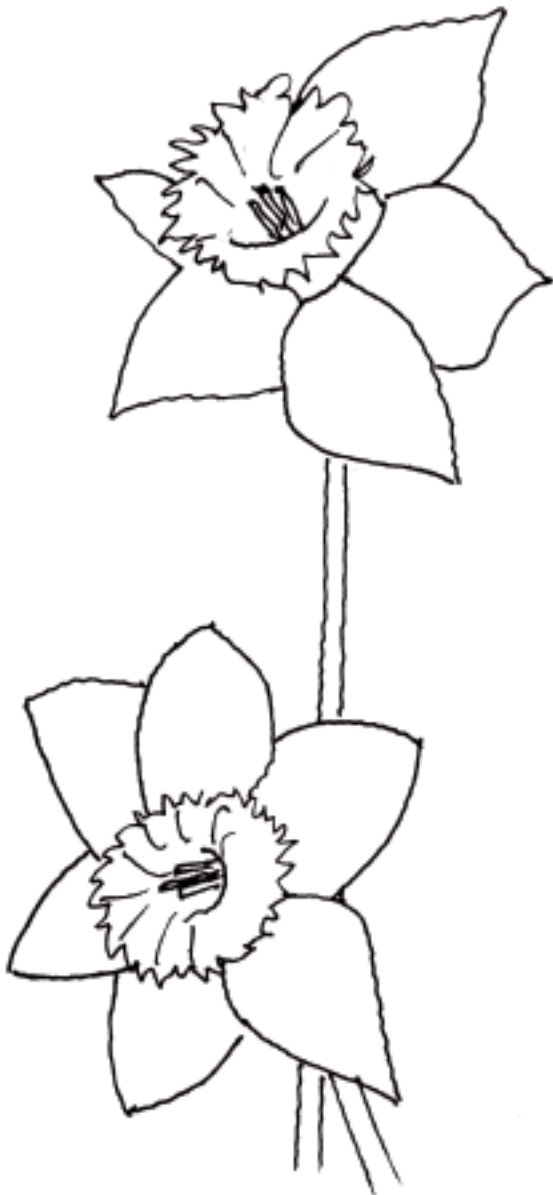
The need to display information graphically is so urgent that the Office of Community Development regularly hand-colors maps. Clancy has one that shows the age of sanitary sewer pipes in different colors by decad. You can see at a glance that about half the town's sewer system was built before 1930. You can also see where the most troubled sections are. A map reveals information that nothing else can.

"[The GIS system] opens up a lot of visual queries," Richardson said. "I can identify which homes have 400-amp service.... I can get an accurate count of how many customers lose power if a primary conduit goes out. Instead of a list of addresses, I can have a map. It's much easier to grasp."

While not cheap, a GIS system is not extraordinarily expensive, especially compared to hand-coloring maps. The Light Department has spent about \$30,000 in the last year building the base system, which will serve the needs of the entire town, said Tim McCarthy, manager of the department. The department still needs to hire someone, perhaps an intern, to go around town with global positioning equipment to determine exactly where all the manholes and other service boxes are, McCarthy said. The same intern can probably locate all the water, storm water, and sewer manholes at the same time he is looking for Light Department equipment.

Contracts to enter the sewer and storm water data – now mostly on paper maps and in stacks of notebooks – and additional software licenses and staff could add another couple of hundred thousand dollars. The exact numbers are still being explored.

"Once we have that we'll have a fairly robust system that will allow us to make 20-year or 40-year projections," said Ralph Jones, chairman of the town's Sewer/ storm water Committee and a major advocate for the GIS system.



Jones and Clancy, who are both charged with fixing the town's leaking sanitary and storm water sewers, are also looking into whether the repairs can be speeded up. So far, Clancy reports, Belmont has spent about \$1 million a year for the last three years trying to eliminate raw sewage from entering streams, mostly through fixing broken sewer pipes which were leaking sewage into adjacent storm drains. At that rate, Clancy said, it will take another three to five years just to eliminate pollution that the town is under state and federal mandates to stop. That's assuming that follow-up testing shows that all the broken pipes really have been fixed, he said. Some could have been missed.

In addition, Clancy said, Belmont has similar problems in the Wellington Brook watershed. Those broken pipes don't come under the government mandates because of quirks in where the water is tested. The polluted storm water flows through Clay Pit Pond first and is diluted. When it is tested downstream at Blair Pond, the water doesn't violate the government guidelines, but the town needs to fix those broken sanitary sewer pipes just the same.

The town has also spent more than \$1 million – 45% from a grant and 55% from a no-interest loan from the MWRA – trying to keep storm water out of the sanitary sewer system. In most cases, Clancy said, the problem is sump pumps that were hooked up to the sanitary sewer pipes instead of the storm-drain pipes. When storm water overloads the sanitary sewer pipes, raw sewage can back up into basement laundry tubs and toilets.

To speed up the government-mandated sanitary sewer repairs and begin repairing broken pipes in the rest of town, Jones recently suggested to the Sewer/storm water Committee that the town consider



borrowing to do the work rather than continuing on a pay-as-you-go basis. That would also benefit ratepayers, he said. "You'd replace \$1.1 million in capital expenses with \$60,000 in debt service."

Bill Pisano, an engineer who is a member of that committee, agreed. "The problems that exist now were created 40 years ago," he said.

- Sue Bass is a Belmont Town Meeting Member from Precinct 3 and a board member of the Belmont Citizens Forum.

Uplands Plan *continued from page 1*

support the development of housing at the Uplands.”

The selectmen stressed that the Uplands provides vital habitat for wildlife within the Alewife Reservation and referred to the Town’s Open Space plan, which identified the Uplands “as having extremely high environmental value.” The Board of Selectmen also observed that the Uplands “is geographically isolated from the community. It is split by the Cambridge City line and is surrounded by Route 2, Little Pond/Little River and the Acorn Park office complex. There are no residential abutters or amenities for school-aged children. There is no public transportation or pedestrian access to the site from the Town.”

Work by the Uplands Advisory Committee

In April 2004, the Board of Selectmen appointed the Uplands Advisory Committee to advise the town on the Uplands. Over the last year, the committee has worked to support a proposal for a “land swap.” The idea is that O’Neill would donate the Uplands to the Alewife Reservation (owned by the state Department of Conservation and Recreation [DCR]), and in

exchange the DCR would give O’Neill a nearby abandoned skating-rink site. The rink site could hold 150 housing units.

New Flood Information

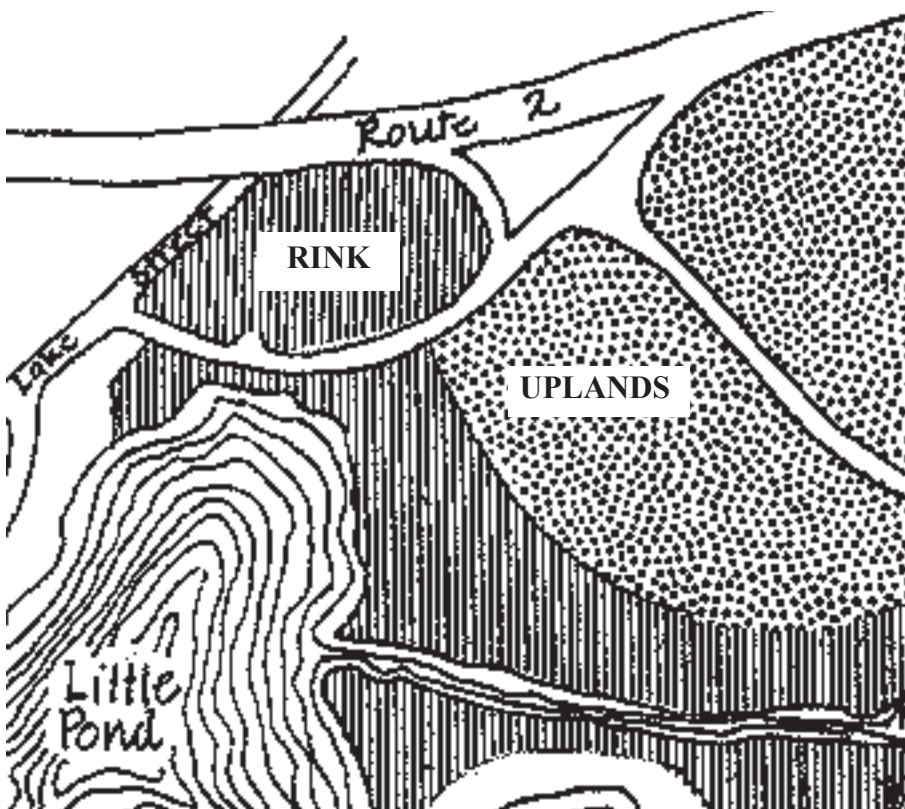
The Uplands plays a vital role in regional water management, reducing both flooding and water shortages by slowly releasing groundwater. The vegetation on the property also acts to reduce flooding through evaporation, via the forest’s natural transpiration from leaves and other vegetation.

The Federal Emergency Management Agency (FEMA) is currently in the process of reevaluating the 1982 floodplain maps. (See “What is a Floodplain Map?” on page 11.) Preliminary results show an increase of 29 inches in the height of the 100-year-floodplain (the area that would be covered by a flood that has a 1% chance of occurring in any given year), from 8.2 feet above sea level to 10.6 feet. This increase means that a larger part of the buildable area of the Uplands will fall within the floodplain and so be subject to:

- The state Building Code, which specifies that the lowest floor of any building must be above the 100-year flood elevation.
- The Wetlands Protection Act, which states that when flood storage is removed (i.e., when wetlands, which store and slowly release water during floods, are disrupted), new flood storage needs to be added near the original area and at the same elevation from which flood storage is being removed.

The Wetlands Protection Act also requires an inventory of significant wildlife-habitat areas; habitats identified must be taken into account in planning.

The new flood elevation would affect portions of both the 242,000-square-foot R&D/office complex for which O’Neill has zoning permission and the 300-unit 40B Project for which O’Neill is seeking approval. It would also affect the proposed land swap. Since the entire rink site is within the new 100-year floodplain,



A schematic map of the Uplands and the ice rink site.



Map of O'Neill's proposed 40B residential project, with 100-year-flood boundaries superimposed. The dashed line is the 1982 8'2" elevation: the solid line is the new 10'6" estimate.

construction on that property would require the creation of even larger flood detention facilities.

The new FEMA floodplain study is not yet final. However, the state's Wetlands Protection Act does allow the Belmont Conservation Commission to use new flood data developed by a professional engineer demonstrating that the 1982 FEMA flood delineation is no longer accurate. The Conservation Commission takes the position that O'Neill must consider the new flood data in its application for the R&D project.

Other Environmental Issues

The 300-unit 40B Project will discharge a high volume of sanitary waste to a town sewer system that is already in need of repair. That system connects to a

combined sewer overflow system that discharges untreated wastewater and sewerage directly into Alewife Brook during heavy rains. The combination of increased flooding levels, increased sewerage discharge from such a large scale development and a town sewer system already discharging into Belmont's basements and waterways should be a focus and concern for Belmont's Zoning Board of Appeals.

An Alternative for all Three Communities

With the support of Belmont, Arlington, and Cambridge, the DCR could buy the Uplands from O'Neill, using several funding sources. For example,
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What Is a Floodplain Map? And Why Does It Need to Be Updated?

By Michael Flamang

The federal government is currently updating Belmont's 20-year-old floodplain map, a move that will have important consequences for local residents, businesses, and future developers. This mapping is not a random event; the federal government has been identifying flood-prone areas for over 35 years.

In 1968, Congress set up the National Flood Insurance Program (NFIP) to help people recover from the effects of floods. Private insurance companies were unwilling to write policies to protect people who lived in flood-prone areas, so the NFIP took on the underwriting of flood insurance and the subsidizing of flood-insurance policies.

In support of the NFIP, the Federal Emergency Management Act (FEMA) has identified Special Flood Hazard Areas (SFHAs) across the country. An SFHA is defined as the land that would be inundated by a flood with a 1% chance of occurring in any given year. This 1% flood is the familiar "100-year flood." We've all heard the lines like "In 1972, the water got to the top steps of ..."

SFHAs are determined by a comprehensive flood-hazard assessment commissioned by FEMA and conducted by engineering consultants who specialize in hydrology. To find the SFHAs in a given area, you can consult the appropriate Flood Insurance Rate Map (FIRM). FIRMs are available for viewing on FEMA's web site: go to www.fema.gov and click on Flood Map Store.

To determine a flood-hazard area, engineers use statistical analyses of records of river flow, storm tides, and rainfall; floodplain topographic studies; and hydrologic and hydraulic analyses. A flood-hazard assessment covers areas subject to flooding along rivers and streams, along coastal areas and lakeshores, and in shallow flooding areas.

Many factors influence the flood-mapping process. Even something that should be simple to measure, like rainfall, presents challenges. For instance, where was the rain gauge located in relation to the study area? During Hurricane Ivan in 2004, one township in Northampton County,

Pennsylvania, measured 5 inches of rain in 24 hours. On the same day, in another corner of the same county, weather watchers stopped measuring at 10 inches when rain gauges flowed over. We often see similar weather patterns in New England. Other factors, like soil permeability (which measures how readily water can seep through the soil), are much more complicated.

To interpret the data, scientists from many disciplines have developed computer models for predicting flood elevations, making it possible to assess impacts that would otherwise be costly and difficult to measure. Scientists can now test hypothetical rainfall events by inputting values for rainfall (such as inches of rainfall and duration of storm) and soil permeability as well as for the contours of the land over which the water is flowing. The computer will then calculate the elevation that water flowing over the land would reach during that hypothetical rainfall event.

As computing power has grown, so too has the sophistication of models. Computers can now model catastrophic storm events and predict the effects in seconds. While the computing time has been reduced, one step in the modeling process cannot be cut short: model setup and calibration. The modeling team has to research flood records, talk to people in the area being modeled, and make measurements in the field. Once the model has been set up with the appropriate data, its predictions must be compared to historical records (such as locations known to have flooded under certain storm conditions). If the predictions do not match the actual flooding data, then assumptions made in the model are modified to bring it in line with the real-world event. The model is tested after each calibration by comparing its predictions to one or two other sets of flooding data collected in the past. When the model accurately matches the flooding data, then it can be used to make predictions. This time-consuming testing process must be performed diligently to ensure that the model's results are trustworthy.

Belmont's FIRM has an effective date of June

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Bulfinch Delays Building, May Restore Marsh

By Sue Bass

The Bulfinch Companies, developer of Cambridge Discovery Park at Alewife, next door to the Belmont Uplands, has notified state officials that it is delaying some construction. Though the Smithsonian Astrophysical Observatory (SAO) is still planning to move into a new six-story building on the former Arthur D. Little campus in December, the construction of a small annex to that building will be

delayed for at least a year. The 5,600-square-foot annex is for testing components for the Magellan Telescopes, two large optical telescopes located in the mountains of Chile. SAO has not yet received funding for the testing and so does not yet need the Magellan Annex.

Other changes reported to state officials under the Massachusetts Environmental Policy Act are phased construction of a 650-space parking garage; increased flood storage under the new building, to be known as Building 100; a new tank under Building 100 to store



sanitary sewage during major storms; and a new design for a storm water-detention pond to reduce encroachment on the wetlands buffer zone. Both the sanitary-sewage tank and the redesign of the storm water-detention pond were requested by the Cambridge Conservation Commission.

Meanwhile, Bulfinch is participating in an effort sponsored by the Friends of Alewife Reservation (FAR) to restore a 10-acre marsh on the 26.5-acre Cambridge Discovery Park campus, the largest wetland area in Cambridge and one of the largest wetlands in the region. The marsh is now mostly stagnant and is filled with invasive species like phragmites and purple loosestrife. According to a FAR funding application, restoring a more natural water flow and replanting native species could, “in conjunction with protected upland habitat, create a unique breeding and foraging habitat for the species that have started to repopulate the reservation.”

FAR has already passed the initial hurdle to receive state funding for the restoration from the Coastal Zone Management (CZM) office, part of the Executive Office of Environmental Affairs. As a result, said Tim Smith, a wetlands scientist with CZM’s Wetland Restoration Program, CZM “will give some technical support. It doesn’t necessarily come with any money.” So far, Smith said, those exploring the restoration don’t know how much money would be required. Right now, they are concentrating on compiling research previously conducted on the wetlands area.

At a January meeting, Smith noted that before state money is granted for work on private property, the state would likely require a conservation restriction or some other guarantee that the property would be protected in perpetuity. Charles LeRay, attorney for Bulfinch, said the developer is aware of the need for such protection. There are difficulties, though. Many of the restoration techniques being considered for the marsh would violate any stringent conservation restriction. “One suggestion was to surround it with a dike and flood it to drown the phragmites,”



LeRay said—not a practice allowed under most conservation restrictions.

In the meantime, LeRay noted that the wetland is protected from development by its zoning, by the state Wetlands Protection Act, and by federal regulations.

Mark DiOrio, general counsel and senior vice president of the Bulfinch Companies, said other investors would also have to be consulted before a conservation restriction could be put on the land. He noted that Bulfinch has supported the wetland restoration by pledging \$10,000 in seed money and by persuading Ingeborg Hegemann of the BSC Group, Bulfinch’s environmental consultant, to donate her services on the marsh restoration. He said Bulfinch expected to be asked to make larger donations in future.

- Sue Bass is a Belmont Town Meeting Member from Precinct 3 and a board member of the Belmont Citizens Forum.

No Public Hearing on New Quadrangle Zoning

By Mike Nakagawa

The city of Cambridge has been studying ways to encourage development of its last large “underutilized” commercial district, which lies along the Belmont border. The boundaries of Cambridge’s Concord-Alewife area run north from Concord Avenue to the Alewife T station and west from Alewife Brook Parkway to the Belmont town line; the district also includes the Fresh Pond shopping center. Over the last two years, the Concord-Alewife



Planning Study Committee has been examining the area, and the results of the study have now been incorporated into draft zoning recommendations for the site. On March 1, without any public hearing to discuss the draft zoning proposal, Cambridge’s Planning Board gave unanimous support for the Community Development department to submit a formal zoning petition to City Council for approval.

The Concord-Alewife area currently houses 4.5 million square feet of development, much of which is low-activity, light-industrial usage. The city is already projecting a transformation to 7.3 million square feet of high-activity development in the next 20 years for this half square mile. (Cambridge is 6.5 square miles in total.) Yet this projected new development would be only one-third of the potential allowed under the revised zoning.

One of the key concerns for the city has been transportation issues. The additional traffic expected

will not affect Cambridge much because the district is at the edge of the city, at the end of a limited-access highway. However, the area is currently a traffic bottleneck for commuters from the northwestern suburbs, as well as for cross traffic on Route 16.

In fact, two-thirds of the traffic in the area is not heading for Alewife destinations but just passing through, as shown in traffic analyses reviewed in the planning study. Unfortunately, Cambridge is taking the view that because most of the traffic is regional, the city cannot be responsible for solving the problem. In fact, Cambridge was careful to exclude regional traffic issues from the planning study.

During the discussion of the draft zoning at the city’s Planning Board meeting in January, an old concept was revisited. One developer stated that since there is a limit to how many cars can fit on the road, once the roadway reaches its capacity, the situation cannot be made any worse. As Alewife Brook Parkway is already at its capacity during peak hours, the developer suggested that more of the vehicles on the road might as well have local destinations rather than just being pass-through traffic. Several Planning Board members expressed their approval of this theory. The idea is an old one, dating back to the large-scale development planned for the heavily contaminated property of the W.R. Grace chemical company, across Alewife Brook Parkway from the T station. (That development has been delayed because of the contamination issues.)

However, the theory fails to acknowledge that pass-through commuters will look for ways to circumvent the Alewife bottleneck as delays become significant. Unfortunately, there are few alternative roadways designed to handle high-volume traffic, and so frustrated drivers will spill onto the surrounding residential streets.

The study predicted an increase of over 1,000 cars in just the peak afternoon hour—which translates into that many cars added to the end of the lines or, more likely, driving through the surrounding neighborhoods after drivers lose patience with the increased delays. However, even these published traffic projections seem suspicious. In the commercial area south of the commuter rail tracks (known to planners as the Quadrangle), planned development will convert the existing 1.9 million square feet of light usage to 3.1 million square feet of high usage, but traffic is

For Dense Building On Belmont's East Border

expected to increase by fewer than 300 cars total in the peakhour.

Apparently, city planners are counting on a lot of subway use, even though they acknowledge that almost the entire Quadrangle is more than a 15-minute walk from the station. The city isn't even planning to build a pedestrian bridge over the tracks; the hope is that property owners, encouraged by zoning bonuses, will build a pedestrian bridge. In addition, to encourage development near the subway station, property owners far from the station will be allowed to sell all their development rights to sites near the station, while still being able to develop or maintain their own site at a fairly significant level.

What the planning study has failed to consider, despite repeated reminders from residents outside the study area (who were excluded from being mem-

bers of the study committee), is that almost the whole commercial region is in the Alewife floodplain, which has been subject to repeated flooding in the last few years. Unfortunately, the area surrounding the subway station is the lowest part of the region and is also adjacent to the state's Alewife Brook Reservation, a 120-acre urban wetland and wildlife refuge.

During the March 1 Planning Board discussion, the Community Development department listed two key infrastructure priorities: a pedestrian/bicycle bridge over the commuter rail tracks and a new east-west roadway through the center of the Quadrangle. Shown on the map, but not mentioned was a potential large pond that could store storm water.

The Federal Emergency Management Agency

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(FEMA) is currently revising the estimated flood elevations for the area, which would redefine how much area is covered under the state's Wetlands Protection Act. With increases of 2.5 feet mentioned in discussions of the flood study, most of the Concord-Alewife area could be facing state restrictions. Although a resident noted that a draft of the FEMA revisions was planned for release this spring, the Planning Board did not recommend waiting for the zoning to be revised based on the new information before the petition was submitted to City Council.

While existing zoning prevents development in the area from contributing to flooding, building new structures in the floodplain would restrict actions that compensate for past transgressions. Furthermore, future development outside the floodplain, where zoning is not similarly regulated, is sure to create new impervious surfaces, adding more storm water to the sewer system and contributing to flooding. To prepare, Cambridge could build additional flood-storage capacity in areas not already used for floodwaters—a project that could be part of the greater transformation of this area.

So far, the city has paid little attention to the concerns of residents outside the study area. The 30,000 residents of the North and West Cambridge neighborhoods that border the study area were excluded from the Study Committee, as were all Belmont residents. The representatives of the study area's 700 residents have limited their discussion to token improvements for their neighborhood.

For more information, visit Cambridge's website: <http://www.cambridgema.gov/~CDD/cp/zng/concalew/index.html>.

-Mike Nakagawa is a North Cambridge resident and a board member of Alewife Neighbors, Inc.



Floodplain Mapping *continued from page 11*

15, 1982. Considering the effort and time needed to produce a floodplain map, the data upon which it was based may be as much as 10 years older than that. Since that time, there has been considerable development around Alewife Brook, which has in turn affected the floodplain in Belmont. For these reasons, the map is currently being revised. FEMA has contracted with several engineering firms to update the maps. The Michael Baker Corporation of Alexandria, Virginia, handles public requests for FIRM revisions and information, but companies with regional expertise do the local studies for flood-insurance maps. In Massachusetts, efforts to update FIRMs are directed by the Commonwealth's Department of Conservation and Recreation.

- Mike Flamang is an environmental engineer and Belmont resident

Purecoat Committee Plans to Reuse Site

By Meg Muckenhoupt

Belmont's Purecoat North Committee plans to make recommendations to the selectmen for the reuse of the Hittinger Street site near Belmont High School by June. The electroplating firm is still operating, but has been fined by the EPA for past environmental violations. Belmont selectmen endorsed reusing the Purecoat property as a residential site in January. The first uncertainty is who might reuse the site. "Purecoat North is potentially for sale," said Noah Sachs, who chairs the Purecoat North committee, but the property has not yet been put on the market.

The presence or lack of toxic waste on the property will affect who might buy it and the price. In the past, Purecoat North (formerly Cambridge Plating) has been cited for releases of the toxics trichlorethylene (TCE) and hexavalent chromium.

Just what chemicals may be on the property now is under dispute. Joseph Fiacco is a Purecoat North committee member and an environmental consultant with over a decade of experience assessing and remediating more than 50 hazardous and solid waste sites. He has written two letters to Purecoat North on behalf of the committee alleging flaws in toxics monitoring at the site.

The tricky question is what the town could do if toxic waste was found under the building. Belmont has no bylaws for hazardous waste; the town can only prosecute errant owners under the town's nuisance law, which the Health Department has used to ask Purecoat North to dispel a lingering vinegar odor. In mid-February, Purecoat was granted an extension until June 16 to abate the odor. If Purecoat North ever declared bankruptcy, the site "could be vacant for a long time," said Sachs.

The temporary town committee is supposed to "recommend strategies toward elimination of public safety and health hazards and public nuisances" at Purecoat's Hittinger Street facility. Purecoat's attorney, Shepard Johnson, called the committee's work "inaccurate and inflammatory" in a February 1 letter to the Board of Selectmen, and demanded that the committee be barred from using the Board's stationery.

The Purecoat North committee would like more input from the community about reuse of the parcel, including density, height, and traffic concerns. For more information, contact Noah Sachs at (617) 484-2688.

- Meg Muckenhoupt is editor of the Belmont Citizens Forum Newsletter.



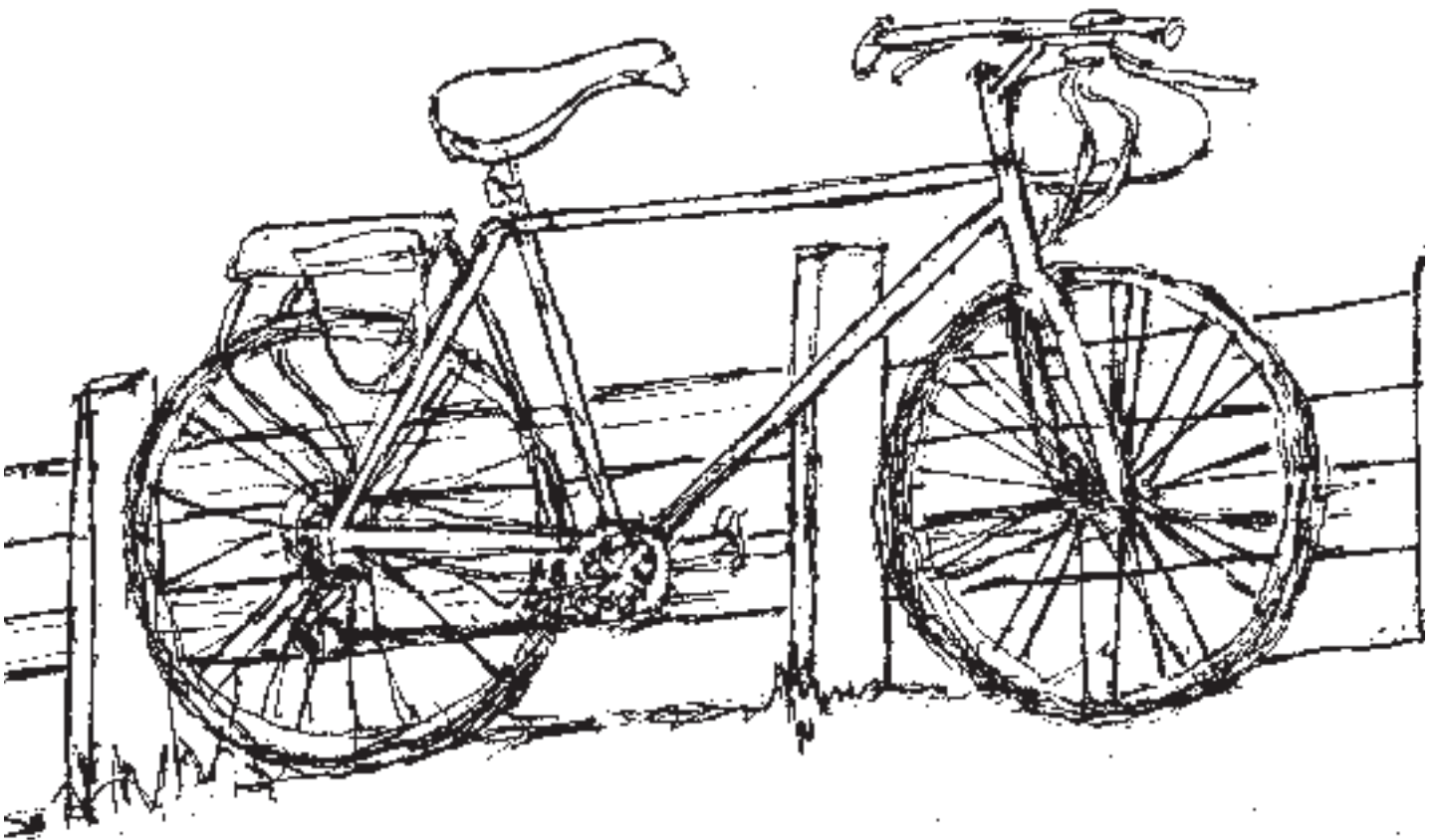
Northland, Belmont Citizens Forum Settle Suit

The Belmont Citizens Forum is pleased to announce settlement terms it has agreed to with Northland Residential Corp., the developer that is planning to build 121 town houses on land it is buying from McLean Hospital. Northland has agreed to provide \$300,000 to mitigate problems related to its development plus \$15,000 to reimburse the Citizens Forum for legal costs. The funds will be administered through an escrow improvement account. The selection of the mitigation projects will be made by the Belmont Citizens Forum.

The Citizens Forum anticipates using these funds to seed a variety of McLean-related projects that are part of its mission: preserving natural resources, limiting traffic growth, and enhancing pedestrian safety. A

portion of the money might be used as matching funds toward constructing a bike path and to help start a shuttle bus for commuters traveling between the McLean developments, Alewife and points in between. Northland has also agreed that The Woodlands at Belmont Hill Condominium Association will provide an annual contribution to encourage traffic demand-management initiatives.

The settlement was reached in June 2004. However, its terms were required to remain confidential until Northland Residential completed its purchase of a portion of the McLean Hospital land. This closing occurred on March 8. We will keep you informed about the details of mitigation projects as they unfold. We appreciate your continued support.



We need you.

If you can volunteer even a few hours a month, you can make a difference. You do not need to be an expert—just a person who cares about our town.

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Make checks payable to Belmont Citizens Forum and mail to Belmont Citizens Forum, P.O. Box 609, Belmont MA 02478. Thank you!

Design Review Boards *continued from page 20*

an advisory capacity.

According to Chris Skelly at the Massachusetts Historical Commission, 42 communities in Massachusetts have groups that offer design reviews, including Bedford, Boston, Brookline, Cambridge, Cohasset, Dedham, Duxbury, Lexington, Natick, Needham, Sudbury, Wellesley, Winchester, and Woburn. Some of these communities, like Brookline, have only a design advisory team (DAT)—a group of design professionals that is called in to help the planning board with design issues. A DAT is an informal version of a design review board, so the members can change on a project-by-project basis. Both options recognize that many planning boards, which rarely include design professionals, do not have the expertise to review architectural features.

At Belmont’s Special Town Meeting on February 7, 2005, there seemed to be a consensus that establishing clear design criteria for new construction projects could assist the town in getting good development while not scaring off developers. The conversation at that meeting focused on the Waverley Square fire station—the lack of any design guidelines

in Belmont’s zoning bylaw has necessitated the use of some tried and true general guidelines for that redevelopment project, to avoid creating new design guidelines specific to Waverley Square.

Cities and towns implement design guidelines by creating zoning overlay districts in targeted areas and along corridors where design is critical to the character of the town. Since town centers typically have the highest concentration of historic structures, many towns and cities control their major commercial centers through historic design review. In Belmont, though, our town centers are not historic districts, and neither are areas like south Pleasant Street, so the Historic District Commission does not regulate design there. Therefore, Belmont needs to take the initiative and establish design criteria that set out a vision for how the centers should look and feel in the future. Design guidelines that add overlay districts to the zoning bylaw are an effective way to clearly help new developments become compatible with the neighborhood they will inhabit for years to come.

- Thayer Donham is an architect/ planner and a Precinct 5 Town Meeting member.

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People Are Asking

What is a Design Review Board?

By Thayer Donham

As we consider our town's future, one of the concerns that arise is how to control development and make it compatible with the community. Two approaches that could be helpful are (1) setting up a design review board and (2) adding new design guidelines for specific areas of town to Belmont's zoning bylaw. These strategies are not mutually exclusive, but given Belmont's small size and its less-than-rapid rate of development, only one may be necessary.

In Belmont, both the Planning Board and the Historic District Commission may review new construction if the project occurs within the

boundaries of the Pleasant Street Historic District or if the applicant requests a special permit requiring site-plan review from the Planning Board. Other communities in Massachusetts, though, also have design review boards, which review new construction in areas like town centers for a certain quality or for compatibility with the surrounding neighborhood.

A design review board is made up of design professionals, like architects and landscape architects, who advise a planning board on design issues. A design review board typically reviews building bulk and the relationship of a building with surrounding features, as well as architectural features like doors and windows, materials, signage, and landscaping. Most design review boards in Massachusetts do not have regulatory authority and therefore can act only in

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