

# CAMBRIDGE DISCOVERY PARK

**BUILDING 400, 500 AND 600 AND GARAGE B SUPPLEMENTAL FILING -  
SEPTEMBER 24, 2014**

**RESPONSES TO QUESTIONS  
FROM SEPTEMBER 2, 2014 PLANNING BOARD HEARING**



10 Acorn Park Drive  
Cambridge, MA  
02140

Submitted by

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## Introduction to Supplemental Materials

On July 22, 2014, BHX, LLC, as Trustee of the Acorn Park Holdings Realty Trust (“Bulfinch”), submitted an application for a Major Amendment to the Master Plan Special Permit for Cambridge Discovery Park (PB#198). The application requested that a Hotel use be added to the list of allowed uses on the Master Plan Special Permit. The applicable Special District 4 zoning already allows hotels by right, because this use is allowed by right in the underlying Office 2 zoning district. The proposed hotel would be built in lieu of the office/laboratory building previously proposed for the Building 600 location.

As part of that application, Bulfinch also requested a special permit under Section 20.63.7 of the Cambridge Zoning Ordinance, for relief from certain Parkway Overlay District requirements otherwise applicable to the hotel facade facing the Concord Turnpike and the Alewife exit ramp. Specifically, Bulfinch requested special permit relief from Section 20.64.3(1), to allow the principal entrance of the hotel to face the internal roadway rather than the highway exit ramp, and from Section 20.64.3(2), to allow for reduced facade/rooftop articulation of the side of the hotel facing the highway and exit ramp. Bulfinch also requested Design Review of the proposed hotel building, as required by Condition 2 of the Cambridge Discovery Park Master Plan Special Permit.

On July 30, 2014, Bulfinch requested a Minor Amendment to PB#198 to decouple Buildings 500 and 600, which are shown as a joined pair in the approved master plan, and to adjust the footprint of Building 500. Bulfinch also requested Design Review of Buildings 400 & 500, and of Garage B, as required by Condition 2 of the Cambridge Discovery Park Master Plan Special Permit.

On September 2, 2014, the Planning Board held a public hearing on these applications. This supplemental submission responds to comments and questions raised by the Planning Board at that hearing regarding the proposed Building 600 hotel and the designs of Buildings 400 and 500.

## Hotel Location

Some of the Planning Board members (and public commenters) questioned why the hotel should not be moved to the Building 500 location adjacent to the urban wild.

There are three essential reasons the hotel has been proposed for the Building 600 location rather than the Building 500 location. First, for the view of the adjacent urban wild / Alewife Reservation to be beneficial to occupants, the reservation must be substantially visible to occupants of the building itself. Office users are predominantly daytime users of the building and, therefore, far more likely to be able to enjoy the view and proximity to the natural areas adjacent to the Building 500 location. By contrast, hotel guests are more likely to be present in the evening and overnight hours, when any view of the adjacent areas will be obscured by darkness.

Second, the comparative amount of light generated by office versus hotel use, and its relative impact on the adjacent reservation, is similarly quite different due to the timing of occupancy for each use. As noted above, office users tend to be daytime occupants of the building and thus generate modest lighting contrast to the outside environment. Conversely, because hotel guests typically occupy their rooms during evening and overnight hours, interior lighting will tend to cast a broader expanse of light outside the building, potentially into the edges of the urban wild.

Finally, any hotel tenant is likely to demand visibility to the motorists along Route 2, the main thoroughfare through the area. Placing the hotel along Route 2 provides greater exposure for the hotel. By contrast, placing the hotel at the Building 500 location, on the south side of the campus along Acorn Park Drive, would obscure its presence to travelers along Route 2.

Another question was raised regarding the potential effects of possible future proposals to add a second hotel to Cambridge Discovery Park. The Master Plan for Discovery Park has evolved over time to respond to market demands and the greater Cambridge community. At the moment, there is no anticipated need for a second hotel within the Park (and the owner of the first hotel is likely to oppose a competitor locating so close). If, someday, a second hotel makes sense from a market perspective, then Bulfinch will bring that proposal forward for further discussion with the Planning Board. However, at this time it would be premature to speculate as to the interaction of more than one hotel with the rest of Discovery Park.

## Hotel Design

Enclosed are several images showing updates to the hotel design in response to comments received at the September 2, 2014 hearing.

Specifically with respect to the hotel building, the design has been vetted more thoroughly with the likely tenant (Marriott) which resulted in a reduction in the massing of the building to allow for a more compact footprint. This has allowed the hotel to be pulled farther away from Garage B, which promotes greater visibility into the Cambridge Discovery Park campus from Route 2. The smaller building also lends itself to changes to the courtyard area (discussed below), as well as an increase in the landscaped area between the hotel and the Building 500 location. In addition, the corners of the hotel building have been treated such that they provide a greater sense of entry to Discovery Park.

The courtyard design has been modified to reduce from ten to eight the number of short-term parking spaces adjacent to the hotel, thereby reducing the overall paving area associated with the hotel. In addition, the courtyard paving has been modeled after the drop-off area treatment of Building 200/300, to use pavers rather than asphalt. This will provide a more pedestrian friendly environment. To further the pedestrian experience, flush curbs now are proposed, with bollards to clearly communicate to motorists which areas of the courtyard are not accessible to vehicles. Also, the courtyard is oriented favorably with respect the active use spaces within the hotel, allowing public dining and lounge spaces to spill out onto the elevated entry plaza to promote a more animated feel to the hotel and the courtyard.

There were several questions regarding the proposed hotel signage. The hotel is set back from the Arlington line such that any new signage on the hotel would be located entirely in Cambridge. The proposal is for a single 10ft. by 10ft. sign, fully compliant with the Cambridge Zoning Ordinance, facing Route 2 and shown in the enclosed image. With respect to the existing sign located in Arlington, the only change to that sign would be the addition of the hotel tenant name (as would be the case for any other new tenant in Discovery Park) – a change that does not require any alteration of the physical dimensions of the sign itself.

With respect to the facades of the hotel, several comments were received regarding the selected building materials and coloration as well as edge plantings. The appearance of the hotel has been simplified while adding a more refined level of detail. The revised proposal uses a tan-colored cast stone material with dark metal panel elements, to assimilate with the other buildings in the Discovery Park campus. The hotel would consist of three repeating block unit heights, of four, eight, and twelve inches (see enclosed image as precedent). This approach would create a stone-like appearance and would feel more residential in nature than the larger panelized precast used in Buildings 100 and 200/300.

With respect to landscaping, the previously-shown meadow grass has been replaced with clusters of trees and turf plantings.

## Images of Revised Hotel Design



Aerial view of hotel showing relationship to Garage B and Buildings 400 and 500



Plan view of hotel and revised courtyard area



**Perspective view of hotel, courtyard, and Building 500**



**Elevated courtyard and flush curbing using pavers**



Perspective from Route 2 including hotel sign

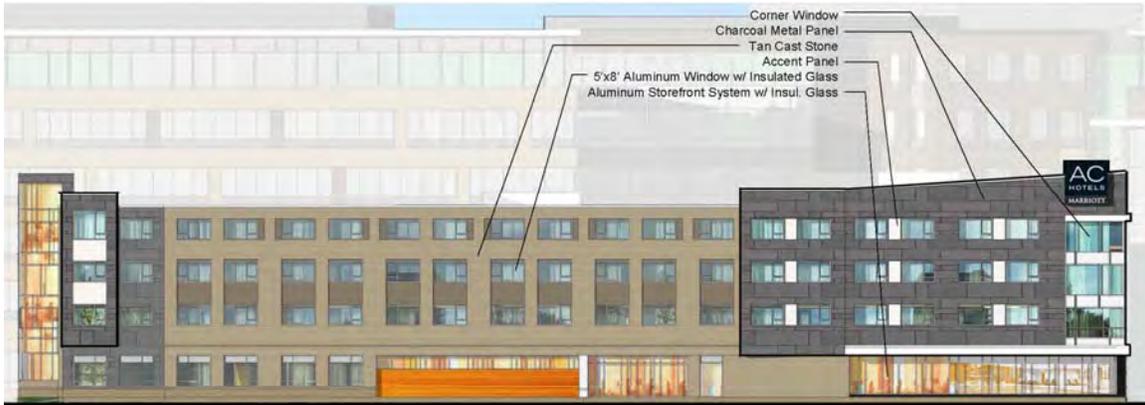


South Elevation (Entry Courtyard)



East Elevation (Acorn Park)

Proposed hotel façade materials – South and East Elevations



**North Elevation (Rt 2)**



**West Elevation (Garage B)**

**Proposed hotel façade materials – North and West Elevations**

## Buildings 400 & 500 Design Narrative

Comments related to the design of Buildings 400 and 500 related primarily to the level of detail provided, the location and design of the loading dock area, and accessibility.

With respect to the level of detail, the approach has been consistent with the “kit of parts” approach for Buildings 100 and 200/300. Buildings 400 and 500 will consist of architectural precast concrete with an aluminum storefront window system. The applicant will continue to work with the Community Development Department through the schematic design and detail design stages as the specific articulation for each Building is refined and finalized. In addition, the final design is expected to work within a family of façade materials (as was done with Building 200/300) but provide a level of detail through the design process that adds character to each structure. The following images provide some additional detail on proposed materials for each building.

With respect to the loading area, Building 500 has primary frontage on two sides as it is located adjacent to the bend in Acorn Park Drive. Discovery Way is the only available frontage to provide access for service vehicles to minimize potential conflicts along Acorn Park Drive. The design of the loading area includes flush curb and the use of pavers to promote a positive pedestrian experience.

Significant consideration has been given to accessibility for persons with disabilities. The design now includes a ramp (along with stair access) into Building 500 from the southwest corner. All other main entries to Buildings 400 and 500, as well as the hotel, have accessible ramps (and major stairs). The design is intended to provide appropriate access to each building for all persons.



**Plan view of Buildings 400 and 500**



Perspective – Building 400



East Elevation (B500)



South Elevation (Acorn Park)

Building 500

Building 400 façade materials – East and South Elevation



**Perspective – Building 500**



**East Elevation (MDC Reservation)**



**South Elevation (Acorn Park)**

**Building 500 façade materials – East and South Elevation**

## Traffic Demand Management Measures Narrative

On September 22, 2014, Vanasse & Associates, on behalf of Bulfinch, submitted a letter to Ms. Clippinger identifying supplemental TDM measures for the Project. A copy of the letter is attached.



10 New England Business Center Drive  
Suite 314  
Andover, MA 01810-1000  
Office 978-474-8800  
Fax 978-688-6508

Ref: 6599

September 22, 2014

Ms. Susan E. Clippinger, Director  
City of Cambridge  
Traffic, Parking and Transportation Department  
344 Broadway  
Cambridge, MA 02139

Re: Cambridge Discovery Park  
TDM Plan - Hotel

Dear Sue:

As requested, Vanasse & Associates, Inc. (VAI) has provided supplemental TDM measures for the proposed hotel with the intent of a reduction in SOV to the hotel. The hotel already will be subject to the existing TDM Plan. These supplemented measures are summarized below:

Hotel Marketing Program:

- Hotel website to include a transportation options section. Information will include:
  - Transit schedules / links to MBTA website
  - Walk, bicycle and transit maps
  - Non-SOV modes access to hotel from Logan Airport and South Station.
- Transportation Materials made available in lobby.
  - Getting around Cambridge map
  - CitySmart transit brochure
  - CitySmart Walking brochure
  - CitySmart Biking brochure
- Hotel to join Alewife TMA.
- Parking Management:
  - Charge guests hotel market rate for parking
- Bicycle Measures:
  - Install fix-it station
  - Free day pass for hubway
  - Provide bicycle maps in lobby

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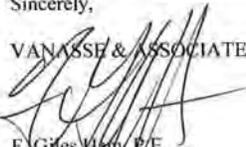
Ms. Susan E. Clippinger  
September 22, 2014  
Page 2

- Walking measures:
  - Provide Little River and Minuteman Path maps in lobby.
- Transit Measures:
  - Charlie Card sales on-site
  - Transit maps in lobby
  - Promotion of transit service to Logan Airport and South Station

In addition, the 2014 Transportation Monitoring Report has documented an SOV mode of 53 percent. The Bulfinch Company will continue to aggressively promote non-SOV modes to CDP. To this end, The Bulfinch Company will install a hubway to further promote bicycle travel to the area. In addition, The Bulfinch Company has committed to join the Alewife TMA. The 2015 transportation monitoring will occur in the spring 2015.

Sincerely,

VANASSE & ASSOCIATES, INC.



F. Giles Han, P.E.  
Managing Principal

FGH/mef

cc: File

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## Flooding Narrative

The project site is located within the flood zone of the Little River. A master plan Order of Conditions was issued for the redevelopment of the site which allowed development to occur in phases over time. The Order provided for the “banking” of onsite flood storage volumes and impervious area of the original, circa 2004 (Arthur D. Little Company) conditions. The “banking” mechanism allowed Bulfinch to remove former buildings and pavement prior to the construction of new buildings in accordance with the approved Master Plan. However, at no time during the build-out of the Master Plan is the site allowed to increase impervious area or lose available onsite flood storage volumes in relation to the 2004 conditions. Additionally, each phase of the Master Plan build-out requires an amendment to the Order to ensure conformance with the Wetlands Protection Act and the banking mechanism. The Project received an Order of Conditions for the construction of Building 100 and Garage A along with the remaining development of the project site per the Master Plan.

The following Amendments to the original Order of Conditions have been reviewed and approved by the City and/or MassDEP:

- 10/2009 – Building 200/300
- 12/2009 – Sanitary Pump Station
- 11/2013 – Building 600 (Hotel)
- 09/2014 – Building 400, 500 & Garage B

With respect to FEMA definitions, FEMA defines flood zones as follows:

Flood hazard areas: Identified on the Flood Insurance Rate Map as a Special Flood Hazard Area (SFHA). SFHA areas are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

The site falls within Zone AE (*i.e.*, the base flood elevation is determined) and also within the Regulatory Floodway. The floodway is defined as:

the channel of a stream plus any adjacent floodplain area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than the 1-percent flood elevation (100-year elevation).

The Project site is subject to two flood elevation peaks during flooding events. The first peak is caused by flooding from upstream tributary areas (Belmont) that flows through the site via the Little River. The second peak is caused when the tributary flood waters meet with the Mystic River, causing the Little River and the Mystic River to back up the Little River, causing a second, more significant flooding event. The second flooding event has been determined by FEMA to cause the 1-percent flood elevations.

Projects located within the Regulatory Floodway are prohibited unless the project proponent demonstrates through hydrologic and hydraulic analyses that the proposed development will not result in any increase in the flood level. The Project has performed the required analyses showing that the full build-out will not increase the 1-percent base flood elevation. The results of this analysis have been confirmed by the City and by FEMA through the issuance of a Conditional Letter of Map Revision (CLOMR).

In addition to FEMA confirming that the full build-out will not cause an increase in the 1-percent base flood elevation, the Project has been designed for increased and changing precipitation patterns. The current FEMA 1-percent base flood elevation is 7.6' NGVD 1929. The site has been constructed such that the first floor elevations of the constructed and proposed buildings are at elevation 10.8' NGVD 1929 (*i.e.*, more than three feet above the 1-percent base flood elevation). Additionally, the Project provides flood storage under the buildings in excess of that required by the Wetland Projection Act as shown in the following table.

**SUMMARY OF NET AVAILABLE FLOOD STORAGE VOLUMES  
FULL BUILD-OUT COMPARED WITH  
EXISTING 2004 STORAGE VOLUMES**

Elevation	Existing (2004)	Full Build-out		
	Incremental Flood Storage Available (Cubic Yards)	Incremental Flood Storage Available (Cubic Yards)	Net Incremental Flood Storage Change from 2004 (Cubic Yards)	
up to 4	25	4,736	4,711	
4 to 5	1,817	3,269	1,452	
5 to 6	7,235	10,854	3,619	
6 to 7	14,718	15,698	980	
7 to 7.6	10,573	11,383	810	11,572 cy 1-percent total increase in flood storage
7.6 to 8	7,048	8,529	1,481	
8 to 9	17,893	20,510	2,617	
9 to 10	18,098	21,446	3,348	
10 to 10.8	14,592	15,732	1,140	
<b>Total Storage</b>	<b>91,999</b>	<b>112,156</b>	<b>20,157</b>	8,585 cy Additional increase in flood storage

Note:

- 1.) Flood storage table reflects the current FEMA 100 flood elevation of 7.6' NGVD 29.
- 2.) All calculations have been based on this current best available data.

## City Engineer's Report on Flood Storage – Hotel



City of Cambridge  
Department of Public Works

*Owen O'Riordan, Acting Commissioner*

147 Hampshire Street  
Cambridge, MA 02139  
theworks@cambridgema.gov

voice: 617 349 4800  
tdd: 617 499 9924

November 15, 2013

Jennifer Letourneau  
Conservation Commission Director  
344 Broadway  
Cambridge, MA 02139

RE: Notice of Intent, Cambridge Discovery Park, Building 600, Acorn Park Drive

Dear Jennifer,

I have reviewed the Notice of Intent for Cambridge Discovery Park, Building 600 dated October 31, 2013 submitted by BSC Group on behalf of BHX LLC, as Trustee for Acorn Park Holdings Realty Trust. This Notice of Intent is being submitted as an amendment to the original Order of Conditions issued on October 4, 2004 for the Cambridge Discovery Park redevelopment project, DEP file Number 123-180. As part of my review, I have examined the Notice of Intent, Stormwater Report and associated plans.

Special Conditions Nos. 44-50 of the October 4, 2004 Order of Conditions specify the requirements for future phases of the redevelopment project. Based on my review of the Building 600 submittal, the applicant has complied with these special conditions. It should be noted that Flood Storage table included in the Building 600 documents evaluates the incremental flood storage up to 7.6 feet NGVD rather than the 8.2 feet NGVD elevation used in the 2004 Order of Conditions. Use of the 7.6 feet NGVD flood elevation is consistent with Special Condition No. 46 as this is the applicable elevation established by FEMA at this time.

DPW will be reviewing the Building 600 project again during the building permit review process. DPW will finalize the details of the Stormwater Pollution Prevention Plan with the applicant, and once a contractor has been chosen and a schedule has been determined.

Please feel free to contact me if the Commission has any questions on DPW's technical review.

Sincerely,

James F. Wilcox, III  
Director of Engineering Services

CC: David Biancavilla, BSC Group Inc.  
Catherine Daly Woodbury, Cambridge Public Works

[www.cambridgema.gov/TheWorks](http://www.cambridgema.gov/TheWorks)



## City Engineer's Report on Flooding – Buildings 400 & 500



### City of Cambridge Department of Public Works

Owen O'Riordan, Commissioner

147 Hampshire Street  
Cambridge, MA 02139  
theworks@cambridgema.gov

Voice: 617 349 4800  
TDD: 617 499 9924

September 8, 2014

Jennifer Letourneau  
Conservation Commission Director  
344 Broadway  
Cambridge, MA 02139

RE: Notice of Intent, Cambridge Discovery Park, Buildings 400, 500 and Garage B, Acorn Park Drive

Dear Jennifer,

I have reviewed the Notice of Intent for Cambridge Discovery Park, Buildings 400, 500 and Garage B dated August 21, 2014 and submitted by BSC Group on behalf of BHX LLC, as Trustee for Acorn Park Holdings Realty Trust. This Notice of Intent is being submitted as an amendment to the original Order of Conditions issued on October 4, 2004 for the Cambridge Discovery Park redevelopment project, DEP file Number 123-180. As part of my review, I have examined the Notice of Intent, Stormwater Report and associated plans.

Special Conditions Nos. 44-50 of the October 4, 2004 Order of Conditions specify the requirements for future phases of the redevelopment project. Based on my review of the Buildings 400, 500 and Garage B submittal, the applicant has complied with these special conditions. It should be noted that the Flood Storage table included in the documents evaluates the incremental flood storage up to 7.6 feet NGVD rather than the 8.2 feet NGVD elevation used in the 2004 Order of Conditions. Use of the 7.6 feet NGVD flood elevation is consistent with Special Condition No. 46 as this is the applicable elevation established by FEMA at this time.

When the first building was being designed and permitted, FEMA's flood study consultant indicated that the 100-year flood elevation might increase to as high as 10.8 NGVD. The original building and subsequent buildings have been designed to 10.8 NGVD, over 2' higher than the actual 100-year flood elevation of 7.6 NGVD. I strongly support the continued use of this higher elevation for the ground floor for additional protection from large storm events.

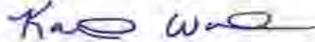
The effective maintenance of the drainage systems is key to the successful management of the stormwater. The Stormwater Report outlines the inspection schedule and the proponent has confirmed that they are meeting this schedule.

- 4 times a year for catch basins.
- 4 times a year and after major storm events for the vegetative sediment forebay.
- Annually for the stormwater wetland.

DPW will be reviewing the Buildings 400, 500 and Garage B again during the building permit review process. DPW will finalize the details of the Stormwater Pollution Prevention Plan with the applicant, once a contractor has been chosen and a schedule has been determined.

Please feel free to contact me if the Commission has any questions on DPW's technical review.

Sincerely,



Katherine F. Watkins, P.E.  
City Engineer

## Pedestrian Amenities Narrative

The Planning Board asked for additional information about the pedestrian bridge over Route 2, possibilities for a pedestrian connection to the proposed Belmont uplands residential project, and whether a pedestrian connection could be made from the Route 2 bus stop/pedestrian bridge area directly into the heart of Cambridge Discovery Park.

### ***The Route 2 Pedestrian Bridge***

The pedestrian bridge across Route 2, both ends of which are in Arlington, apparently was constructed to provide safer access between the Lanes & Games bowling alley and land in Arlington on the north side of Route 2. The pedestrian bridge also may have provided access for Arlington residents to the former Faces Discotheque. Today, the bridge appears to be little used. It may be that bowling has become less popular with the advent of video games and computers. It may be that, because access to the bridge from the north side requires walking through woods, crossing the Thorndike Field athletic facilities, or walking a considerable distance along the side of Route 2, Arlington pedestrians seeking to cross Route 2 now choose to do so via Lake Street or the Minuteman Path.

### ***Pedestrian Access to Belmont***

Bulfinch granted to Criterion Development Partners, the developer of the adjacent 227-unit VOX on Two project (formerly known as the Residences at Alewife), an easement for pedestrian access from that property over a portion of Cambridge Discovery Park to Acorn Park Drive. This provides a safer, more pleasant pedestrian connection between VOX on Two and the Alewife Red Line station. Absent this easement, residents and guests of that project would need to use the sidewalks along the south side of the Concord Turnpike and the Alewife exit ramp.

Bulfinch has discussed with O'Neill Properties, the owner of the adjacent Belmont land, the possibility of providing sidewalks along the Belmont portion of Acorn Park Drive. While Acorn Park Drive is a public way in Cambridge, it becomes a private way at the Belmont line. Consequently, O'Neill Properties' approval would be required for any new sidewalks along the Belmont portion of Acorn Park Drive. The existing pavement of Acorn Park Drive in Belmont is adequate for two-way travel, but lacks the width or shoulders for a pedestrian access (or a bicycle lane). Adding a sidewalk would require the cutting of numerous trees, and would involve work within land subject to flooding, bordering vegetated wetlands, and other resource areas protected under the Wetlands Protection Act. O'Neill Properties has expressed interest in providing pedestrian access from its property through Cambridge Discovery Park to the Alewife MBTA station and beyond. However, any development of such a connection is on hold at least until O'Neill Properties is able to proceed with construction of its Belmont uplands residential project.

### ***Pedestrian Access from Arlington into Discovery Park***

The south side of the Route 2 pedestrian bridge and the nearby MBTA bus stop both are located in Arlington. Arlington has zoned this area as part of an Open Space district. Arlington prohibits all office uses, research uses, restaurants, and hotels in its Open Space

districts. *See* Town of Arlington Zoning Bylaw, Section 5.04, Table of Use Regulations. Thus, the Arlington portion of Cambridge Discovery Park is zoned much more restrictively than is the larger, Cambridge portion. Massachusetts courts have long held that access to a use is an extension of that use. As early as 1950, the Massachusetts Supreme Judicial Court held that more restrictively zoned land in an adjoining municipality could not be used for access to a use not allowed on that adjoining land. *Brookline v. Co-Ray Realty Co.*, 326 Mass. 206, 211–213 (1950). The Arlington Zoning Bylaws do not authorize the Arlington Zoning Board of Appeals to grant use variances. Thus, Bulfinch is not able to construct a pedestrian connection directly across land in Arlington to the Discovery Park Campus.

By contrast, access over a public street is lawful for zoning purposes regardless of the types of use being served or the district in which the street is located. *E.g., Harrison v. Textron, Inc.*, 367 Mass. 540 (1975). Thus, pedestrians are free to use the sidewalks along Route 2 and Acorn Park Drive to travel to and from Cambridge Discovery Park.

## Little River Pedestrian Bridge Narrative

Over the years, various parties have expressed interest in having a pedestrian bridge over the Little River area, somewhere in the vicinity of Acorn Park Drive. For example, the Metropolitan District Commission's 2003 Alewife Reservation & Alewife Master Plan recommended a bridge over the Little River to connect the wetland on the north side of the Little River with the City's constructed stormwater wetland on the south side. More recently, the Planning Board also expressed interest in such a bridge. By contrast, the City of Cambridge Engineering Department has expressed initial opposition to a bridge in this area due to concerns that a bridge would interfere with flood waters.

The MDC Master Plan did not include funding for the design, construction, or maintenance of such a pedestrian bridge. Bulfinch agreed, in the Final Environmental Impact Report submitted during the Cambridge Discovery Park Massachusetts Environmental Policy Act (MEPA) review process, to contribute up to \$400,000 toward the design and construction of such a bridge. Bulfinch did not agree to incur the full cost of design and construction for such a bridge.

A pedestrian bridge across the Little River would not touch Cambridge Discovery Park. Rather, the north end would be on the Department of Conservation and Recreation's Alewife Reservation property, while the south end would be on DCR property or on the City's stormwater wetland property. The perceived benefits of such a bridge, at least in the MDC's Master Plan, would be increased pedestrian and bicycle access to the Alewife Reservation.

Bulfinch has hired BSC Group to undertake initial design work for a pedestrian bridge across the Little River, in consultation with DCR. Preliminary design assumptions are that the bridge would:

- be of pre-cast or a prefabricated steel truss construction;
- be arched as much as possible to provide clearance over the Little River for boaters, water fowl, and floating debris, subject to the grade/pitch limitations of the Architectural Access Board regulations and other applicable regulations; and
- span the Little River without intermediate pilings or footings.

Any bridge across the Little River near Cambridge Discovery Park would be within the floodway as defined and regulated by the United States Department of Homeland Security's Federal Emergency Management Agency. Because the bridge would occupy flood storage capacity, compensatory flood storage would have to be provided within the same watershed area. It is not clear that the adjacent DCR or City lands have ground at the required elevations that could be excavated to provide the required compensatory flood storage capacity. Additionally, DCR or City lands might be needed to provide replication areas for any wetlands destroyed or degraded by the bridge's footings or access paths.

The construction of a pedestrian bridge over the Little River would require several local and state permits, including:

- An order of conditions from the Cambridge Conservation Commission under the Massachusetts Wetlands Protection Act, M.G.L. c. 131, § 40;
- MEPA review for the placement of fill (the bridge and footings) within the regulatory floodway by a state agency and/or with state financial assistance, M.G.L. c. 30, § 61 *et seq.*; 301 CMR 11.00; and
- Chapter 91 license, M.G.L. c. 91; 310 CMR 9.00.

The original vision for a pedestrian bridge across the Little River was to facilitate access to and use of DCR's Alewife Reservation. More recently, there have been suggestions that such a bridge is needed to provide more direct access to restaurants, shopping, and offices in the Cambridge Park Drive area for residents of the new Vox on Two project or hotel guests staying at the Cambridge Gateway Inn or the proposed hotel at Cambridge Discovery Park, or access between residential projects in the Cambridge Park Drive area and Cambridge Discovery Park. This may be problematic. Article 97 of the Amendments to the Constitution of the Commonwealth of Massachusetts provides that:

The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose.

...

Lands and easements taken or acquired for such purposes shall not be used for other purposes or otherwise disposed of except by laws enacted by a two thirds vote, taken by yeas and nays, of each branch of the general court.

Thus, using Department of Conservation and Recreation property for a pedestrian bridge to facilitate access to and from off-site, private residential and commercial projects might require authorization by a special act of the Massachusetts Legislature.