

September 13, 2017

Kristin Kassner, Planning Director
Town of Burlington
Burlington Town Hall Annex
25 Center Street
Burlington, MA 01803

RE: Application for Minor Engineering Change
Former Building 19 ½ site
154 – 160 Cambridge Street, Burlington MA

Dear Kristin,

BSC Group Inc., on behalf of our Client, Heritage Trail, LLC, provides this letter and the accompanying supporting materials to the Burlington Planning Board as an application for a Minor Engineering Change in accordance with Town's Site Plan Regulations, for the proposed modification of the approved site plans for the proposed redevelopment of the former Building 19 ½ site, located at 154 – 160 Cambridge Street in Burlington, MA.

As you are aware, the redevelopment of the former Building 19 ½ site was reviewed by the Board and approved on November 3, 2016. The site plan mylars for the project were signed by the Board in April, 2017.

The following revisions and modifications have been proposed for the approved Site Plans for the redevelopment at the former Building 19 ½ site at 154 – 160 Cambridge St. These changes are the result of unanticipated site conditions encountered during and after the demolition of the existing buildings and associated infrastructure, onsite soils investigations related to the underground detention and infiltration areas, coordination with the project architects, MEP engineers, private utilities companies, design changes to minimize bedrock removal where possible, and to integrate the proposed Cambridge Street roadway improvements, for which the applications have recently been submitted to MassDOT, into the site plans. The specific modifications as shown on the red-lined site plans accompanying this letter, and described in the attached materials are summarized as follows:

- 1. Proposed Cambridge Street Roadway improvements** – The design plans for the proposed roadway improvements for Cambridge Street, including a new traffic signal at the site's southerly driveway, have been submitted to MassDOT District 4 as part of a Highway Access permit application. Copies of these plans and the supporting technical materials have been provided to the Planning staff in accordance with Condition 20.a. of the Planning Board's Site Plan Approval issued for this project. The limits of the roadway improvements work, which extends the edge of a widened Cambridge Street into the site by up to 14 feet, are now shown on the site plans. This widening required

Engineers
Environmental Scientists
Custom Software Developers
Landscape Architects
Planners
Surveyors



the new sidewalk, brick band, lighting, and landscaping along Cambridge Street be shifted easterly to the edge of the new Cambridge Street travel way. While the limits of the widening are shown on the accompanying site plans, the details of the proposed roadway improvements are shown on the Cambridge Street Transportation Improvements Plans.

2. **Site Layout Plan** – Minor revisions have been undertaken on the Site Layout Plan in response to the final architectural building plans, lighting design, site signage, and building access points.
3. **Site Grading** – The final design of the residential building required that a portion of the driveway and parking areas adjacent to the southeast corner of this building be regraded. This regrading resulted in the addition of two new catch basins to convey stormwater runoff into the site drainage system. This grading revision also allowed for the elimination of the proposed retaining wall located along the eastern parking area within the residential development. The grading will now tie into the existing ground surface within this area. Minor revisions to the grading at other locations across the site were undertaken due to the modifications noted below for the Site Drainage System.
4. **Site Drainage System** – Extensive onsite soils investigations found higher than anticipated ledge and/or estimated seasonal high groundwater elevations. The locations where proposed onsite infiltration systems could be utilized, in accordance with Mass DEP Stormwater requirements, were limited. The ledge and groundwater elevations within the residential portion of the site do not provide sufficient depth for the use of infiltration systems. A detention system is now proposed to contain and control runoff from this portion of the site. For the retail portion of the development, the infiltration system was revised, based upon the soils information obtained in new test pit excavations. The detention area has been modified as well, and is now routed through the infiltration system to maximize onsite infiltration. The regrading associated with the southeast corner of the residential building has necessitated the addition of two new catch basins in this area of the site. These modifications have resulted in the revision of the storm drainage system conveying runoff into these structures and discharging from the site. Overall, the proposed site drainage systems will still provide full treatment of stormwater to meet Mass DEP Stormwater standards, and will result in significant reductions in both peak runoff flow rates and volumes leaving the site by between 70 to 90%, depending upon the storm event, and eliminate sheet flow runoff from the site into Cambridge St. The attached Site Plan Drainage Exhibit provides a schematic plan depicting the locations of the onsite detention and infiltration systems as well as the locations of the onsite soils investigations. Please see the detailed information on the revised site provided in the Stormwater section below.



5. **Site Sanitary Sewer and Water Services** – Coordination with the final design of the proposed buildings with the project architects and MEP engineers required that the location and sizes of the sanitary sewer and water service connections to the buildings be modified. For the retail portion of the site, to minimize ledge excavation, the sanitary sewer lines from the buildings to the existing sewer connection to Dearborn Road have been modified. The water connection to the existing municipal water service extending from Howard Street into the site is shown on the plan. This connection, which was requested by the DPW/Engineering Department, provides a redundant water service to the residential portion of the site, extending from Cambridge Street to Howard Street.
6. **Site Utilities** – Coordination with the final design of the proposed buildings with the project architects and MEP engineers required that the location and sizes of utilities connections to the building be modified. These utilities include the building roof drains, sanitary sewer, water services, gas, electric, and communications services. Coordination with the private utilities companies also has resulted in revisions to these utilities. In particular, Eversource has indicated that they will require not only a connection to service the retail portion of the site directly from Cambridge Street, but will also require this connection be extended to Dearborn Road through the 20' wide portion of the site that extends to that road. This extension will provide a redundant connection within the Eversource distribution system for both the residential customers along Dearborn Road, as well as to the retail portion of the project site. This connection will run underground across the site to a new utility pole to be installed on the project site adjacent to the Dearborn Road Right of Way.
7. **Site Landscaping** – Minor modifications have been made to the Site Landscaping Plan to accommodate the revisions to the project as noted above.
8. **Site Lighting** - Minor modifications have been made to the site lighting, as shown on the Site Layout Plan, to accommodate the revisions to the project as noted above.
9. **Stormwater** - The proposed development reduces the onsite impervious area from 92% to 72%, and provides landscaped buffers within the parking fields as well as along the site perimeter. A new stormwater collection and treatment system will be installed within the site. The proposed onsite drainage system will maintain the site's connections to the two existing 12-inch diameter drain lines that currently tie into the Cambridge Street drainage system. The northerly existing 12-inch drain line will receive treated stormwater runoff from the proposed drainage system, which includes an underground detention system, located within the residential development. The southerly existing 12-inch drain line will receive treated runoff from the retail development after the stormwater flows through an underground detention basin which then passes through a connected but separate underground infiltration system. The existing southerly 12-inch drain line connection into the MassDOT drainage system in Cambridge Street will be replaced with a new 12-inch drain. The former considerable sheet flow from the site into Cambridge Street will be eliminated, as onsite runoff will be collected within a new onsite storm drainage system. The flows to each of these two 12-inch drain lines have been maintained at or below the pipe flowing full capacities for up to a 25-year design



storm event. This results in a significant reduction in the peak flow rates and runoff volumes into the Cambridge Street drainage system from the existing conditions. Please see the Peak Flow Rate and Flow Volume Summary Tables below.

This new storm drainage system will not only treat the onsite runoff, in accordance with Mass DEP Stormwater Standards, but it will eliminate the untreated surface runoff to Cambridge Street, detain in underground drainage systems most onsite stormwater runoff, while also recharging a substantial portion of the stormwater runoff collected. This proposed onsite drainage system significantly reduces the overall offsite peak flow rates and runoff volumes into the existing Cambridge Street drainage system by between 68% to nearly 90%. The onsite infiltration system has been sized to the maximum extent practicable, based upon extensive onsite geotechnical investigations. A considerable portion of the site was found to have shallow depths to bedrock and/or high groundwater levels, limiting the amount of available onsite infiltration. Please see the Test Pit Plan, located in the Geotechnical Report and Subsequent Soils Investigations section within the Appendices of the Stormwater Report. This Plan indicates where onsite geotechnical investigations were conducted and notes groundwater and ledge elevations encountered at each of these investigation sites. The previously noted Site Drainage Exhibit Plan shows the existing drainage system within Cambridge Street and the site's connections into it, as well as the locations of onsite geotechnical investigations.

The following tables summarize the results of hydrodynamic modeling conducted for the project (as is fully detailed in the accompanying Stormwater Report for Design Point POA-A) which indicates that the proposed project will result in a significant reduction in combined flow rate and volume of stormwater discharged through the two 12-inch diameter drain pipes connecting into the Cambridge Street drainage system:

Table 1.1 Design Point POA-A, Peak Flow Rates to the Cambridge Street Drainage System

	Existing Site Flow Rate (cfs)	Previous Proposed Site Flow Rate (cfs)	Current Proposed Flow Rate (cfs)	Current Change From Existing (cfs)/%
2 Year Storm	18.53	1.45	1.88	-16.65/-90%
10 Year Storm	27.50	3.00	3.50	-24.00/-87%
25 Year Storm	33.24	4.09	4.63	-28.61/-86%
100 Year Storm	40.87	5.32	6.21	-34.66/-85%

Table 1.2 Design Point POA-A, Flow Volumes to the Cambridge Street Drainage System

	Previous Existing Site Flow Volume (cf)	Current Proposed Site Flow Volume (cf)	Proposed Site Flow Volume (cf)	Current Change From Existing (cf)/%
2 Year Storm	62,596	12,153	11,718	-50,878/-81%
10 Year Storm	94,743	20,125	20,473	-74,270/-78%
25 Year Storm	115,521	25,526	30,361	-85,160/-74%
100 Year Storm	143,225	33,759	47,001	-96,224/-67%



As has been previously noted, the reductions shown above in both stormwater flow rate and volumes are achieved by a significant reduction in impervious area (approximately 20% reduction) on site, onsite underground detention and infiltration of stormwater runoff collected within the proposed drainage system.

In support of this Minor Engineering Change application, we have provided six (6) copies of the following materials:

- This cover letter;
- A check in the amount of \$500.00 to cover the Application Filing Fee;
- Minor Engineering Change Application Form, signed by the applicant;
- Site Plan Drainage Exhibit Plan, dated September 1, 2017.
- Layout Site Plan, Site Grading and Drainage Plan, Site Utility Plan and Site Landscape Plan, revised through September 1, 2017, from 2016 Site Plan approval as signed by the Planning Board, with the proposed modifications highlighted in red;
- Only 3 copies - Stormwater Report for the project site, revised through September 1, 2017;

We respectfully request that this application be placed on the Planning Board agenda for your upcoming meeting scheduled for October 5, 2017.

Please do not hesitate to contact our office at your convenience should you have any questions or comments on this letter and the accompanying materials. Should you so desire, we would be happy to meet with you, the Planning staff or other Town staff to discuss the project.

On behalf of our Client and myself, I thank the Planning Board and its staff for the consideration and assistance you have afforded to us on this project.

Sincerely,

BSC GROUP, INC.

Francis D. DiPietro, P.E.,
Senior Project Manager, Senior Associate

Attachments

Kevin Duffy, Duffy Properties, LLC



**Town of Burlington
 Planning Board
 25 Center Street, Burlington MA 01803
 Phone: 781-270-1645**

http://www.burlington.org/community_development/planning.php

**FORM V
 APPLICATION FOR A MINOR ENGINEERING CHANGE**

To: The Planning Board
 Town of Burlington, Massachusetts

Date: 09-13-17

The undersigned hereby respectfully requests, pursuant to Section 3 of the Burlington Planning Board's Rules & Regulations, that the Planning Board approve as a "Minor Engineering Change" the following modifications to the property located at:

Address: 154 - 160 Cambridge Street

for which there is an approved Site Plan on file with the Planning Board which is:

Entitled: 154 - 160 Cambridge Street Site Plan Approval

Submitted By: Heritage Trail, LLC

Prepared By: BSC Group, Inc.

Dated 04-19-16, and Revised to 03-28-17

Endorsed by the Planning Board on Approved 11-03-16; Signed 04-17

Proposed Change(s)

Please list proposed change(s) below. Include a statement supporting the basis for a "Minor Engineering Change". Attach additional pages as needed as well as redlined plans illustrating the proposed change(s). All pages of the plan that are affected must be redlined with proposed change(s).

Please see the attached cover letter which describes the proposed changes in detail.

Please Print

Applicant Name: Heritage Trail, LLC, Kevin Duffy, Principal,
Company: Duffy Properties LLC
Mailing Address: 465 Waverly Oaks Road, Suite 500, Waltham, MA 02452
Phone: 781-786-6006 EMAIL: kevinduffy@duffyproperties.com

Property Owner (if same as applicant, write "same") Name

: Same

Company:
Mailing Address:
Phone: EMAIL:
Signature

Designer/ Architect/ Engineer Name: Frank DiPietro
Company: BSC Group, Inc.
Mailing Address: 803 Summer Street, Boston, MA 02127
Phone: 617-896-4471 EMAIL: fdipietro@bscgroup.com

Attorney / Legal Representative Name: Mark Vaughan
Company: Riemer & Braunstein, LLC
Mailing Address: 700 District Avenue, Burlington, MA 01803
Phone: 617-880-3457 EMAIL: mvaughan@riemerlaw.com

I, the applicant, am fully aware that if the Planning Board grants approval for said minor engineering change(s), I will be responsible for updating the record mylar on file with the Planning Board to show all approved minor engineering change(s) and submitting the revised mylar and CAD file(s) to the Planning Board with the required number of prints of said plan as is specified in the Board's decision.

Applicant (Signature) 

FILING INSTRUCTIONS

It is recommended that you call 781-270-1645 prior to filing an application to arrange a submission appointment with the Senior Planner

Upon completion of the application, file the following with the Planning Department:

- Completed original application (ALL PAGES).
- Six folded paper copies of the current approved plan of record, redlined on all affected pages to show proposed change(s), and any other supporting documentation required.
- One set of submittal material and plans must also be in electronic pdf format
- Application Fee (Check or Money Order made payable to The Town of Burlington)

The Planning Department will stamp the application “received”, issue a receipt for the fee and assign a meeting date at which time this matter will be scheduled to be discussed by the Planning Board.

Planning Department:

Application & Fee Received By (Stamp/Initial):

Receipt# _____

Amount: _____

Rcv'd By: _____

Duffy Bros Management Co., Inc.

2011

Town of Burlington

DATE	INVOICE NO	DESCRIPTION	INVOICE AMOUNT	DEDUCTION	BALANCE	
9-07-17	Eng Change	Permit - Minor Eng Cha	500.00		500.00	
CHECK DATE	9-07-17	CHECK NUMBER	132982	TOTAL >	500.00	500.00

PLEASE DETACH AND RETAIN FOR YOUR RECORDS

WARNING - THIS CHECK IS PROTECTED BY SPECIAL SECURITY FEATURES

FAC (TM) 48203 6827037 02186C FCIS 01 870911 00 41 00 132982 500 00

Duffy Bros Management Co., Inc.

Belmont Savings Bank

465 Waverley Oaks Road
Suite 500
Waltham, MA 02452-8419

DATE: September 7, 2017
CHECK NO.: 132982
AMOUNT: *\$500.00

Pay: *****Five hundred dollars and no cents

PAY TO THE ORDER OF: Town of Burlington

SECURITY FEATURES INCLUDE MICROPRINTING • VOID PANTOGRAPH • ENDORSEMENT BACKER • BROWNSTAIN CHEMICAL REACTANT

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