

**Boston Water and
Sewer Commission**



980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000

January 24, 2008

Mr. John FitzGerald
Project Manager
Economic Development
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201-1007

Re: Boston College Institutional Master Plan Notification Form /
Project Notification Form

Dear Mr. FitzGerald:

The Boston Water and Sewer Commission (Commission) has reviewed the Institutional Master Plan Notification Form / Project Notification Form (IMPNF / PNF) for Boston College. This letter provides the Commission's comments on the IMPNF / PNF.

The Master Plan presents plans for the physical development of Boston College's Chestnut Hill, Brighton and Newton campuses. As part of the plan, four new academic buildings, a Recreation Center, University Center, a fine arts district, parking facilities, new and replacement on-campus student housing, and renovations of existing buildings are proposed.

The Commission has the following comments regarding the IMPNF:

General

1. It is Boston College's responsibility to evaluate the capacity of the water, sewer and storm drainage systems service the campuses and individual project sites, to determine if the systems are adequate to meet future project demands. Evaluation of the capacity of existing systems on the campus to meet future project needs, and a discussion of any currently anticipated plans for any changes to these systems, must be provided in the Master Plan.
2. Boston College is advised that any new, relocated, reconstructed or expanded water, sanitary sewer, storm drainage or drinking water mains required to accommodate future development must be designed and constructed at Boston College's expense and in conformance with the Commission's Sewer Use and Water Distribution System regulations. Boston College should coordinate any plans to install, relocate, reconstruct or expand sanitary sewer, storm drainage or drinking water mains with the Commission.



3. Boston College must submit site plans and General Service Applications to the Commission for individual construction projects as they are proposed. Site plans must show the location of existing public and private water mains, sanitary sewers and storm drains serving project sites, as well as the locations of proposed service connections. With each site plan, Boston College must provide a detailed and updated estimate of water demand, sanitary sewer flows and stormwater runoff generation for the proposed project. The amount of potable water required for landscape irrigation must be quantified and provided separately.
4. To assure compliance with the Commission's requirements, Boston College should submit site plans and General Service Applications to the Commission for review when project designs are 50 percent complete.
5. As plans progress and are finalized, the Commission will require drawings of public and private water, sewer and storm drainage facilities in AutoCAD format. Drawings must include locations of any abandoned items, such as pipes and manholes, locations of new installations, profiles of sewer and drain lines, invert elevations of sewer and drain lines at the manholes, depth of water pipe at all gates, bends and connections, size and type of all pipes, valves and hydrants installed and rim elevations of all manholes.
6. Prior to demolition of any buildings, all water, sewer and storm drain connections to the buildings must be cut and capped at the main pipe in accordance with the Commission's requirements. Boston College must then complete a Termination Verification Approval Form for a Demolition Permit, available from the Commission, and submit the completed form to the City of Boston's Inspectional Services Department before a demolition permit will be issued.
7. Boston College should be aware that the US Environmental Protection Agency issued a draft Remediation General Permit (RGP) for Groundwater Remediation, Contaminated Construction Dewatering, and Miscellaneous Surface Water Discharges. If groundwater contaminated with petroleum products, for example, is encountered, Boston College will be required to apply for a RGP to cover these discharges.

Sewage / Drainage

1. The Brighton campus is served by separate sewers and storm drains. Separate sanitary sewer and storm drain services must be provided from new buildings constructed to the respective pipe in the street and on the campus.
2. Site plans must show in detail how drainage from building roofs and from other impervious areas will be managed. Roof runoff and other stormwater runoff must be conveyed separately from sanitary waste at all times.



3. The Department of Environmental Protection (DEP), in cooperation with the Massachusetts Water Resources Authority (MWRA) and its member communities, are implementing a coordinated approach to flow control in the MWRA regional wastewater system, particularly the removal of extraneous clean water (e.g., infiltration / inflow (I/I)) in the system. In this regard, DEP has been routinely requiring proponents proposing to add significant new wastewater flow to assist in the I/I reduction effort to ensure that the additional wastewater flows are offset by the removal of I/I. Currently, DEP is typically using a minimum 4:1 ratio for I/I removal to new wastewater flow added. The Commission supports the DEP / MWRA policy, and will require Boston College to develop a consistent inflow reduction plan.
4. Boston College must fully investigate methods for retaining stormwater on project sites before the Commission will consider requests to discharge additional stormwater to the Commission's system. Under no circumstances will stormwater be allowed to discharge to a sanitary sewer. A feasibility assessment for retaining stormwater on site must be submitted with each site plan.
5. The discharge of dewatering drainage to a sanitary sewer is prohibited by the Commission. The proponent is advised that the discharge of any construction site dewatering drainage to the storm drainage system requires a Drainage Discharge Permit from the Commission and an NPDES Permit issued by the Environmental Protection Agency (EPA).
6. Boston College is advised that a Drainage Discharge Permit is also required for the long-term (permanent) discharge to a drainage system of infiltrated groundwater collected via an underdrain system, such as those that are commonly installed in below-grade parking garages.
7. For each phase of construction covering one acre or more, Boston College will be required to obtain coverage under the EPA's NPDES General Permit for Construction. A copy of the Notice of Intent and the pollution prevention plan prepared pursuant to the Permit should be provided to the Commission, prior to the commencement of construction.
8. In conjunction with each site plan and General Service Application submitted, Boston College must submit to the Commission's Engineering Customer Service Department a detailed stormwater management plan. Each plan must:
 - Identifies best management practices for controlling erosion and for preventing the discharge of sediment and contaminated groundwater or stormwater runoff to the Commission's drainage system when the construction is underway.



- Includes a site map which shows, at a minimum, existing drainage patterns and areas used for storage or treatment of contaminated soils, groundwater or stormwater, and the location of major control or treatment structures to be utilized during the construction.
 - Provides a stormwater management plan in compliance with the DEP's standards mentioned above. The plan should include a description of the measures to control pollutants in stormwater after construction is completed.
9. Any uncovered parking or paved areas that are built, require particle separators on all drains that will collect the runoff from these areas. Specifications for particle separators are provided in the Commission's Requirements for Site Plans.
 10. The Commission requests that Boston College install a permanent casting stating: "Don't Dump: Drains to Charles River" next to any catch basin installed. Boston College may contact the Commission's Operations Division for information regarding the purchase of the castings.
 11. The Commission encourages Boston College to explore additional opportunities for protecting stormwater quality on the campus by minimizing sanding and the use of deicing chemicals, pesticides, and fertilizers.
 12. Oil traps are required on all drains discharging from all new and existing enclosed parking garages. Discharges from garage drains must be directed to a building sewer and not to a building storm drain. The requirement for oil traps are provided in the Commission's Requirements for Site Plans.
 13. Grease traps are required in all new and existing cafeteria or kitchen facilities in accordance with the Commission's Sewer Use Regulations. Boston College is advised to consult with Mr. Richard Fowler, Deputy Superintendent of Field Operations prior to preparing plans for grease traps.
 14. Boston College should note Article V of the Commission's Sewer Use Regulations as it pertains to medical and laboratory facilities.

Water

1. The Commission utilizes a Fixed Radio Meter Reading System to obtain water meter readings. Where a new water meter is needed, the Commission will provide a Meter Transmitter Unit (MTU) and connect the device to the meter. For information regarding the installation of MTUs, Boston College should contact the Commission's Meter Installation Department.



2. Boston College should explore opportunities for implementing water conservation measures in addition to those required by the State Plumbing Code. In particular, Boston College should consider outdoor landscaping which requires minimal use of water to maintain. If Boston College plans to install in-ground sprinkler systems, the Commission recommends that timers, soil moisture indicators and rainfall sensors be installed. The use of sensor-operated faucets and toilets in common areas of buildings should also be considered.

Thank you for the opportunity to comment on this project.

Yours truly,

John P. Sullivan, P.E.
Chief Engineer

JPS/cj

- c:
- T. Keady, Boston College
 - J. Levesque, Boston College
 - H. Muise, Vanasse Hangen Brustlin
 - F. Schwarz, Vanasse Hangen Brustlin
 - K. Pedersen, BRA
 - M. Zlody, BED
 - P. Larocque, BWSC