## Boston Groundwater Trust

229 Berkeley St, Fourth Floor, Boston, MA 02116 617.859.8439 voice www.bostongroundwater.org

**Board of Trustees** 

January 23rd, 2017

Gary L. Saunders Tim Ian Mitchell Co-Chairs

Janine Commerford
Greg Galer
John Hemenway
Peter Shilland
Austin Blackmon
Daniel Manning
Josh Zakim
Charlotte Moffat
Lisa Soli
Aaron Michlewitz
William Moy

**Executive Director** 

Christian Simonelli

Christopher Tracy, Senior Project Manager Boston Planning & Development Agency One City Hall Square Boston, MA 02201-1007

Subject: 212 Stuart Street Project Notification Form

Dear Mr. Tracy:

Thank you for the opportunity to comment on the 212 Stuart Street project notification form (PNF) located in the Bay Village Neighborhood. The Boston Groundwater Trust was established by the Boston City Council to monitor groundwater levels in sections of Boston where the integrity of building foundations is threatened by low groundwater levels and to make recommendations for solving the problem. Therefore my comments are limited to groundwater related issues.

The project is located in the Groundwater Conservation Overlay District (GCOD) established under Article 32 of the Zoning Code. As stated in the PNF and confirmed at the scoping session the project is proposed to be designed and constructed to comply with the requirements of Article 32.

Also stated in the PNF and confirmed at the scoping session compliance with the GCOD requires both the installation of a recharge system and a demonstration that the project cannot cause a reduction in groundwater levels on site or on adjoining lots. The PNF states that the proposed new building is anticipated to be supported on reinforced concrete footings or mat foundation bearing on the natural, inorganic soils. The PNF also states that construction of the foundations and below-grade basement will require an excavation generally extending to the limits of the property and to depths of up to 15 to 20 feet below ground surface (ranging approximately El. 3' to El. -2' BCB). The proponent confirmed at the scoping session, no parking will be available onsite and the below-grade basement will be used for storage and a bike room.

As stated in the PNF and confirmed at the scoping session, the excavation will be conducted within an engineered lateral earth support system, which will be designed to provide excavation support, limit ground movements outside the excavation to protect adjacent facilities, and maintain groundwater levels outside the excavation by creating a groundwater "cutoff" between the excavation and the surrounding area. The lateral earth support system will be designed to be installed/sealed into the impervious soils below the excavation bottom to isolate the excavation and future below-grade basement from the groundwater table. Penetrations through the permanent below-grade walls (such as for utilities) will be permanently sealed. Temporary dewatering will be required inside the excavation during excavation and foundation construction to remove "free" water from the soils to be excavated as well as precipitation. The proponent confirmed at the scoping session that the dewatering effluent is scheduled to be deposited onsite into a recharge pit. The essentially watertight excavation support wall will prevent withdrawal of groundwater from outside the excavation. In the unlikely event that leakage occurs through the lateral earth support system walls, it will be promptly sealed by grouting of the wall.

Before the GCOD zoning approval can be put in place, the proponent must provide the BPDA and the Trust a letter stamped by a professional engineer registered in Massachusetts that details how it will accomplish what is stated in the PNF and meets the GCOD requirement for no reduction in groundwater levels on site or on adjoining lots.

I look forward to continuing to work with the proponent and the Agency to assure that this project can have only positive impacts on area groundwater levels.

Very truly yours,

Christian Simonelli

**Executive Director** 

CC: Kathleen Pederson, BPDA

Maura Zlody, BED