



City of Cambridge  
Department of Public Works

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TO: Planning Board

FROM: Katherine F. Watkins  
City Engineer

**RE: 75/109 Smith Place Special Permit Application**

We are in receipt of the Special Permit Application materials, dated December 16, 2019 for the redevelopment of the site known as 75/101 Smith Place. We have reviewed the materials and have presented below some comments related to the interests of the Department of Public Works.

The Applicant has met with the engineering division of the DPW and has been made aware of permitting requirements for the project. The DPW, based on the provided documentation, does not anticipate the project having any issue meeting all the requirements of the DPW as the project will be subject to thorough and complete engineering review at the time of the Building Permit Application.

**Citywide Planning Objectives:**

The DPW understands, through coordination with other City Departments, that items related how the project proposes to address/incorporate some of the planning objectives set in the Alewife District Plan, issued by the City in the Fall of 2019 as part of the Envision Cambridge Plan, will be outlined in the memorandum to the Board from the Planning Department. The DPW was involved in this discussion and will continue to work with the Applicant and other City Departments to ensure that the project plans are modified that the Standards outlined below are addressed.

**Climate Change / Resiliency:**

The Applicant has been asked to address flood level impacts and building resiliency associated with increased flood elevations presented in the November 2015 *Climate Change Vulnerability Assessment*. Flood Elevations associated with the 2070 10-year and 2070 100-year storm events have been provided to the Applicant.

The Applicant is proposing to elevate their structure to establish the first floor and garage entrance elevation above the 2070-100 year event and have started to consider how utility infrastructure to service the site can also be designed to be resilient. The DPW supports the proposal as it will establish the structure to be passively protected from the anticipated flooding events.

In response to the City's Alewife Preparedness Plan , as the project design is progressed, the DPW will work with the Applicant to develop a Site Action Plan. The Site Action Plan shall allow for future building adaptation to flooding and heat risk associated with climate change with an emphasis on providing safety and comfort to the building occupants. The plan shall include the below and be reviewed and approved by DPW and Fire Department staff through the building permit process.

- a. The Action Plan shall be reviewed by the Permittee and property management team every five years through 2070 to confirm the effectiveness of existing adaptation measures and the need for additional measures. The reviews shall be reviewed with DPW and the Fire Department.
- b. The Action Plan shall develop a notification regarding flooding risks that shall be included in the leases to ensure building occupants are informed of the flood risk. This plan shall be operational immediately upon occupancy of the building.
- c. The Action Plan shall develop a building user notification / evacuation plan. This plan shall be operational immediately upon occupancy of the building.
- d. The Action Plan shall develop information, guidance, and resources to assist building occupants sheltering in place, such as a disaster supply kit. This plan shall be operational immediately upon occupancy of the building.
- e. The Action Plan shall detail an operations plan for and flood protection measures. This plan shall be operational immediately upon occupancy of the building.
- f. The Action Plan shall develop the operation of the fire detection and suppression systems to ensure that they remain operable during flood events or loss of power. This plan shall be operational immediately upon occupancy of the building.
- g. The Action Plan shall address elevator operation and heated and cooled gathering spaces in each building in the event of loss of power. This plan shall be operational immediately upon occupancy of the building.
- h. The Action Plan shall identify appropriate public spaces in each building to locate key emergency medical supplies and other emergency response supplies. This plan shall be operational immediately upon occupancy of the building.
- i. The Action Plan shall develop a notification protocol to be utilized in the event of a flooding or other natural disaster. This plan shall be operational immediately upon occupancy of the building.

**Stormwater Management:**

The submitted documentation includes discussion of the proposed storm water management system for the development. The documentation indicates that the proposed system will meet the Mass DEP and City of Cambridge Concord Alewife Design Standards. Under the City Land Disturbance Regulations due to the project requiring a Special Permit from the Planning Board, the Applicant will need to obtain a Stormwater Control Permit from the Department of Public Works. The permit requirements cover the design standards and long term operation and maintenance of a management system for the project site, as well as the construction phase erosion and sedimentation control plans. A thorough review of the design will be completed at the time of this permit submission.

The design presented in the Special Permit Application is based on design storm events consistent with NOAA Atlas 14, Volume 10, Version 2 Point Precipitation Frequency Estimates. These design storms are more consistent with current storm intensities and frequencies than the model storm events typically used and required by the Mass DEP. We have discussed with the Applicant that as the design progresses, we will look to confirm that the Stormwater Management system is adequately sized to meet the City of

Cambridge requirements for future storm events consistent with what the City's Climate Change Studies are anticipating for 2030.

**Urban Forestry and Tree Ordinance:**

The Application materials indicate that there are no significant trees on the project parcel, and therefore no Tree Study was required.

The DPW will work with the Applicant to identify opportunities for tree plantings to increase canopy while taking into consideration other Citywide Planning Initiatives.

**Public Infrastructure:**

The Applicant understands the DPW requirements associated with public infrastructure and has committed to working with the DPW through the building permit process on design details.

- The applicant indicates that the proposed additional sewer generation will exceed the 15,000 gallon per day threshold and this will trigger removal of inflow and infiltration from the sewer system at a rate of 4 times the added flow. Prior to the approval of any Building Permit for the development, the DPW will need to understand the Applicants plan and schedule to complete work to address this requirement with the understanding that all I/I mitigation work shall be completed in advance of building occupancy.
- Work in the Public right of way of Smith Place and abutting streets will need to be reviewed and coordinated with the DPW, other interested City Departments and other adjacent development projects.

Again, to confirm that all of the items above are addressed by the proposal, a thorough review of the development at submission of a building permit and during design and construction will be required by the DPW .

Please feel free to contact me with any questions or concerns related to the comments provided above.

Sincerely,



Katherine F. Watkins, P.E.  
City Engineer