

**Lead Local Flood Authority – London Borough of Camden**

Statutory Consultee for all Major Developments (SuDS)

Statutory Consultee for all Major developments &gt;1ha

Scheme Address	The Hall School 23 Crossfield Road London NW3 4NT
Planning Reference	2019/1325/P
Size of site (as stated on application form)	0.2180ha
Type of application	Condition
Date	22/08/2019
Recommendation:	Condition not required

Description of Development:

Variation of Condition 2 (approved plans) and removal of condition 4 (staircase details) of planning permission dated 05/07/2018 ref no2016/6319/P for demolition of the Centenary and Wathen Hall buildings erection of new four storey building, two storey rear extension, enlarged basement; changes to include reduction of basement area and depth by one floor, reduction in scale of the extension to replace Wathen Hall, removal of external staircase and terrace, new louvers to windows on front elevation.

Review of additional submission (10/07/19) to determine whether condition is still recommended:

Previous identified issues (21/05/19):

- No modelling of 1:100yr plus 40% climate change runoff and volumes
- No technical drainage plan is provided.
- No details of green roof design including soil depth, any permavoid attenuation, and overall storage volume
- No details of flow controls at the green roof and sewer discharge point
- No overland flow route drawings for exceedance events
- No appliance water consumption or savings target/calculations are given

Previous proposed condition;

*Prior to commencement of development, full details of the sustainable drainage system including 173 m<sup>2</sup> green roof attenuation with flow controls and full details of water-saving appliances shall be submitted to and approved in writing by the Local Planning Authority. Such a system should be designed to accommodate all storms up to and including a 1:100 year storm with a 40% provision for climate change such that flooding does not occur in any part of a building or in any utility plant susceptible to water, and shall demonstrate the reduced run-off rates approved by the Local Planning Authority. Details shall include a lifetime maintenance plan for the system, which shall thereafter be retained and maintained in accordance with the approved details.*

*Reason: To reduce the rate of surface water run-off from the buildings and limit the impact on the storm-water drainage system in accordance with policies CC2 and CC3 of the London Borough of Camden Local Plan Policies*

### Documents Reviewed

- Proposed Lower Ground Floor Plan, Drawing No. 2190008-EWP-ZZ-B1-DR-S-0900 Rev P3 / Elliot Wood / May 2019;
- Overland Flow Routes for Exceedance Events, 2190008-EWP-ZZ-B1-DR-C-2000 Rev P1 / Elliot Wood / June 2019;
- Flood Risk Assessment, Rev P1 / Elliot Wood / March 2019; and,
- Correspondence from the LPA - 2019/1325/P *The Hall School - Variation – LLFA* (May 2019).

### **Review:**

#### **Full details of the Green Roof**

- *No details of green roof design including soil depth, any permavoid attenuation, and overall storage volume*
- *No details of flow controls at the green roof and sewer discharge point*

### **Provided.**

Comments;

The MicroDrainage calculations show the discharge from the green roof to be as follows:

Return period	Without green roof	With green roof
1 in 1	2.3	0.6
1 in 30	5.5	1.9
1 in 100	7.2	3.4
1 in 100 + 40%		3.4

It should be noted the data input information used to model the green roof in MicroDrainage indicate no flow control device is to be install in the green roof. Justification is provided in Section 5.7 of the Proposed Drainage Strategy for not considering the installation of flow control devices. It should be noted the green roof operates without failure up to the 1 in 100-year + 40% climate change event with no flow control device installed.

### **Calculations and Plans**

- No modelling of 1:100yr plus 40% climate change runoff and volumes
- No technical drainage plan is provided.

### **Provided**

Microdrainage calculations have been provided for the 1 in 100 year + 40% climate change event

Drawing 2190008-EWP-ZZ-B1-DR-C-2000 indicates location of drainage assets

A comparison of the calculations submitted in demonstration of the existing runoff rate (11.5 l/s – assuming 50mm/hr is the rainfall intensity for the 1 in 1 year design storm) with the MicroDrainage calculations for the 1 in 1 year event (i.e. 2.3 l/s) show a betterment of greater than 50% is achieved without the presence of a green roof.

### **Exceedance**

- *No overland flow route drawings for exceedance event*

### **Provided**

Drawing 2190008-EWP-ZZ-B1-DR-C-2000 indicates that exceedance flow would gather in the green space in the north west of the site and courtyard areas to the south of the site

### **Recommendation:**

**Condition No longer required.**