# 2793 – 151 Shaftesbury Avenue, Response to LB Camden Drainage Officer Comments

Status: Preliminary
Date: 14.01.2025
Rev 01
Job no. 2793
Prepared by Alex O'Hare
Approved by James Mumford

| Issue | Date | Reason for Issue | Author |
|---|---|---|---|
| 01 | 14.01.2025 | Planning Response | Alex O'Hare |

## Contents

# 1. Introduction

This report has been prepared by Heyne Tillett Steel (HTS) on behalf of Royal London Mutual Insurance Society Limited, in support of the recent planning application at 151 Shaftesbury Avenue, London WC2H 8AL.

This note provides a response to comments received from London Borough of Camden's (LBC's) Drainage Officer on the planning application, received via email dated 19.12.24, via DP9 Ltd, and subsequent discussions with LBC Case officer and DP9 Ltd.

# 2. HTS Response to Officer Comments

## 2.1 Major / Minor Development & Run-off Rates

HTS determine the definition of a major application is as defined in The Town and Country Planning Order (TTCPO) 2015 which states:

*"major development" means development involving any one or more of the following:*

*a) the winning and working of minerals or the use of land for mineral-working deposits;*

*b) waste development;*

*c) the provision of dwellinghouses where—*

*a. the number of dwellinghouses to be provided is 10 or more; or*

*b. the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);*

***d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or***

*e) development carried out on a site having an area of 1 hectare or more;*

A Flood Risk Assessment and Drainage strategy was submitted as part of the planning application. This includes details of the proposed drainage and SuDS strategy, referencing national, region, and local planning policy, including greenfield run-off rate requirements of the London Plan.

Opportunities have been maximised to reduce surface water run-off rates as far as possible within the constraints of the redevelopment.

Tables 5, 6, and 7 of the planning report summarise that SuDs have been accommodated in the form of blue and green roofs accommodated on upper roof and terrace which meet greenfield run-off rates for their respective catchment areas.

Maximising SuDs features achieves an overall betterment in surface water run-off of 38% from the site compared to existing greenfield run-off rates as targeted by the London Plan.

It is not feasible to provide further surface water attenuation across the scheme based on the following constraints:

+ Additional blue roofs on lower terraces are not feasible to be accommodated whilst maintaining step-free access to the terraces

+ Additional attenuation above the slab within the basement is not feasible due to the spatial requirements for other uses serving the site's needs – including provision of sprinkler tanks to upgrade the fire strategy.

+ Additional attenuation below the slab at basement level is unfeasible due to the presence of a 2.0m reinforced concrete raft foundation, unsuitable to be demolished to accommodate a tank within or below the foundation.

## 2.2 LBC Strategic Flood Risk Assessment 2024

The Flood Risk Assessment and Drainage strategy submitted in support of the planning application had erroneously referred to the LBC Strategic Flood Risk Assessment (SFRA) 2014, not SFRA 2024.

A review of the SFRA 2024 report and mapping shows that the findings of the Flood Risk Assessment submitted for planning remains valid.

## 2.3 LBC SuDS Pro-Forma

A completed SuDs pro-forma is provided in Appendix A, in accordance with the Flood Risk Assessment and Drainage Strategy, including greenfield run-off rates and their respective volumetric attenuation requirements.

# Appendix A – LBC SuDs Proforma

Camden

GREATERLONDONAUTHORITY

LoDEG

## 1. Project & Site Details

| | |
|---|---|
| Project / Site Name (including sub-catchment / stage / phase where appropriate) | 2793 – 151 Shaftesbury Avenue |
| Address & post code | 151 Shaftesbury Avenue, London, WC2H 8AL |
| OS Grid ref. (Easting, Northing) | E 530010 |
| | N 181188 |
| LPA reference (if applicable) | |
| Brief description of proposed work | Remove the existing façade and additional stories to the building. The proposal also includes an opening at ground floor level and other minor internal changes |
| Total site Area | 822 $m^2$ |
| Total existing impervious area | 822 $m^2$ |
| Total proposed impervious area | 822 $m^2$ |
| Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)? | The site is in Critical Drainage Area Group3_005. |
| Existing drainage connection type and location | Unknown. Survey and CCTV to be completed |
| Designer Name | James Hayes |
| Designer Position | Civil Engineer |
| Designer Company | Heyne Tillett Steel |

## 2. Proposed Discharge Arrangements

### 2a. Infiltration Feasibility

| | |
|---|---|
| Superficial geology classification | Made Ground |
| Bedrock geology classification | London Clay Formation |
| Site infiltration rate | n/a m/s |
| Depth to groundwater level | m below ground level |
| Is infiltration feasible? | No |

### 2b. Drainage Hierarchy

| | *Feasible (Y/N)* | *Proposed (Y/N)* |
|---|---|---|
| 1 store rainwater for later use | N | N |
| 2 use infiltration techniques, such as porous surfaces in non-clay areas | N | N |
| 3 attenuate rainwater in ponds or open water features for gradual release | N | N |
| 4 attenuate rainwater by storing in tanks or sealed water features for gradual release | Y | Y |
| 5 discharge rainwater direct to a watercourse | N | N |
| 6 discharge rainwater to a surface water sewer/drain | N | N |
| 7 discharge rainwater to the combined sewer. | Y | Y |

### 2c. Proposed Discharge Details

| | |
|---|---|
| Proposed discharge location | Retain existing outfall |
| Has the owner/regulator of the discharge location been consulted? | Yes |

Camden

GREATERLONDONAUTHORITY

LoDEG

## 3. Drainage Strategy

### 3a. Discharge Rates & Required Storage

| | *Greenfield (GF) runoff rate (l/s)* | *Existing discharge rate (l/s)* | *Required storage for GF rate ($m^3$)* | *Proposed discharge rate (l/s)* |
|---|---|---|---|---|
| *Qbar* | 0.11 | | | |
| *1 in 1* | 0.1 | 9.1 | 21 | 6.25 |
| *1 in 30* | 0.26 | 28 | 39 | 17.65 |
| *1 in 100* | 0.36 | 36.7 | 61 | 22.95 |
| *1 in 100 + CC* | | | 89 | 31.85 |
| *Climate change allowance used* | | 40% | | |
| 3b. Principal Method of Flow Control | | Blue Roof Orifice | | |

### 3c. Proposed SuDS Measures

| | *Catchment area ($m^2$)* | *Plan area ($m^2$)* | *Storage vol. ($m^3$)* |
|---|---|---|---|
| Rainwater harvesting | 0 | | 0 |
| Infiltration systems | 0 | | 0 |
| Green roofs | 0 | 15 | 0 |
| Blue roofs | 0 | 322 | 24.52 |
| Filter strips | 0 | 0 | 0 |
| Filter drains | 0 | 0 | 0 |
| Bioretention / tree pits | 0 | 0 | 0 |
| Pervious pavements | 0 | 0 | 0 |
| Swales | 0 | 0 | 0 |
| Basins/ponds | 0 | 0 | 0 |
| Attenuation tanks | | | 0 |
| **Total** | **0** | **337** | **24.52** |

## 4. Supporting Information

| **4a. Discharge & Drainage Strategy** | *Page/section of drainage report* |
|---|---|
| Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results | NA |
| Drainage hierarchy (2b) | Section 5 |
| Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location | Appendix C |
| Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations | Appendix D |
| Proposed SuDS measures & specifications (3b) | Section 5 |
| **4b. Other Supporting Details** | *Page/section of drainage report* |
| Detailed Development Layout | Appendix A |
| Detailed drainage design drawings, including exceedance flow routes | |
| Detailed landscaping plans | |
| Maintenance strategy | Appendix E |
| Demonstration of how the proposed SuDS measures improve: | Section 5 |
| a) water quality of the runoff? | |
| b) biodiversity? | |
| c) amenity? | |