



REPORTS4PLANNING

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WATER MANAGEMENT STATEMENT

152-154 UXBRIDGE ROAD
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1. INTRODUCTION

1.1. Background

Reports 4 Planning has been commissioned by Kumarasamy Sivakumaran to complete a Water Management Statement for the proposed development at 152-154 Uxbridge Road, London, UB4 0JH. This Statement should be read in conjunction with the following assessment:

- Reports 4 Planning (December 2021). Surface Water Management Strategy – 215516DRA.

1.2. Site Location

The Site is within the London Borough of Hillingdon and comprises an end of terrace property fronting onto the northern side of Uxbridge Road. The location of the site is shown in Appendix A - Site Location Plan.

1.3. Site Description

The site extends to approximately 700 square metres, with the current property at 152-154 Uxbridge Road forming an end of terrace commercial/residential property with rear service yard. An aerial view of the site showing its layout is shown in Appendix B.

1.4. Site Topography

The topography of the site is generally flat.

1.5. Proposed Development

It is proposed to demolish the existing buildings and erect a 3-storey building containing 9no. 2 and 3 bed apartments, a retail unit and car and cycle parking.

2. RELEVANT PLANNING POLICY

Local Planning Authorities (LPAs) have a responsibility to take account of water – in both flooding and drainage matters as material considerations in the determination of planning applications for new developments. They are also required to consult with the relevant Water Authority, Environment Agency and Highway Authority, each of whom has a responsibility for giving approval to different drainage proposals. To address this, a Water Management statement is required to accompany all planning applications where water will be used and/or disposed of to ensure compliance with the following policy drivers:

The Hillingdon Local Plan: Part 1: Strategic Policies was adopted in November 2012 and is the key strategic planning document for Hillingdon. The Local Plan Part 2: Development Management Policies sets out detailed policies that will form the basis of the Council's decisions on individual planning applications. The following policies are addressed by this Statement

- London Borough of Hillingdon Local Plan Part 2 - Policy DMEI 10 Water Management, Efficiency & Quality; and
- The London Plan 2021 – policy SI 5 and SI 13.

Policy DMEI 10: Water Management, Efficiency, and Quality

A) Applications for all new build developments (not conversions, change of use, or refurbishment) are required to include a drainage assessment demonstrating that appropriate sustainable drainage systems (SuDS) have been incorporated in accordance with the London Plan Hierarchy (Policy 5.13: Sustainable drainage).

B) All major new build developments, as well as minor developments in Critical Drainage Areas or an area identified at risk from surface water flooding must be designed to reduce surface water run-off rates to no higher than the pre-development greenfield run-off rate in a 1:100 year storm scenario, plus an appropriate allowance for climate change for the worst storm duration. The assessment is required regardless of the changes in impermeable areas and the fact that a site has an existing high run-off rate will not constitute justification.

C) Rain Gardens and non householder development should be designed to reduce surface water run-off rates to Greenfield run-off rates.

D) Schemes for the use of SuDS must be accompanied by adequate arrangements for the management and maintenance of the measures used, with appropriate contributions made to the Council where necessary.

E) Proposals that would fail to make adequate provision for the control and reduction of surface water run-off rates will be refused.

F) Developments should be drained by a SuDS system and must include appropriate methods to avoid pollution of the water environment. Preference should be given to utilising the drainage options in the SuDS hierarchy which remove the key pollutants that hinder improving water quality in Hillingdon. Major development should adopt a 'treatment train' approach where water flows through different SuDS to ensure resilience in the system.

Water Efficiency

G) All new development proposals (including refurbishments and conversions) will be required to include water efficiency measures, including the collection and reuse of rain water and grey water.

H) All new residential development should demonstrate water usage rates of no more than 105 litres/person/day.

I) It is expected that major development proposals will provide an integrated approach to surface water run-off attenuation, water collection, recycling and reuse.

Water and Wastewater Infrastructure

J) All new development proposals will be required to demonstrate that there is sufficient capacity in the water and wastewater infrastructure network to support the proposed development. Where there is a capacity constraint the local planning authority will require the developer to provide a detailed water and/or drainage strategy to inform what infrastructure is required, where, when and how it will be delivered.

The London Plan 2021

Policy SI 5 Water Infrastructure of the London Plan 2021 includes the following:

A In order to minimise the use of mains water, water supplies and resources should be protected and conserved in a sustainable manner.

B Development Plans should promote improvements to water supply infrastructure to contribute to security of supply. This should be done in a timely, efficient and sustainable manner taking energy consumption into account.

C Development proposals should:

1. through the use of Planning Conditions minimise the use of mains water in line with the Optional Requirement of the Building Regulations (residential development), achieving mains water consumption of 105 litres or less per head per day (excluding allowance of up to five litres for external water consumption)
2. achieve at least the BREEAM excellent standard for the 'Wat 01' water category¹⁶⁰ or equivalent (commercial development)
3. incorporate measures such as smart metering, water saving and recycling measures, including retrofitting, to help to achieve lower water consumption rates and to maximise future-proofing.

Policy SI 13 Sustainable Drainage of the London Plan 2021 requires the use of sustainable drainage measures and includes the following:

A Development should utilise sustainable urban drainage systems (SUDS) unless there are practical reasons for not doing so, and should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the following drainage hierarchy:

1. store rainwater for later use
2. use infiltration techniques, such as porous surfaces in non-clay areas
3. attenuate rainwater in ponds or open water features for gradual release
4. attenuate rainwater by storing in tanks or sealed water features for gradual release
5. discharge rainwater direct to a watercourse

6. discharge rainwater to a surface water sewer/drain
7. discharge rainwater to the combined sewer.

Drainage should be designed and implemented in ways that deliver other policy objectives of this Plan, including water use efficiency and quality, biodiversity, amenity and recreation.

B Development proposals should aim to achieve greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible. There should also be a preference for green over grey features, in line with the following drainage hierarchy:

1. rainwater use as a resource (for example rainwater harvesting, blue roofs for irrigation)
2. rainwater infiltration to ground at or close to source
3. rainwater attenuation in green infrastructure features for gradual release (for example green roofs, rain gardens)
4. rainwater discharge direct to a watercourse (unless not appropriate)
5. controlled rainwater discharge to a surface water sewer or drain
6. controlled rainwater discharge to a combined sewer.

C Development proposals for impermeable surfacing should normally be resisted unless they can be shown to be unavoidable, including on small surfaces such as front gardens and driveways.

D Drainage should be designed and implemented in ways that promote multiple benefits including increased water use efficiency, improved water quality, and enhanced biodiversity, urban greening, amenity and recreation.”

3. WATER SUPPLY & FOUL DRAINAGE

The water service provider in this area is understood to be Affinity Water. The sewerage provider is Thames Water.

4. SURFACE WATER DISPOSAL

The proposed SuDS drainage system incorporates source control where possible and adopts the above drainage hierarchy to reduce the volume of runoff, improve water quality and provide amenity and habitat.

It is proposed to use the large area of flat roofs and terraces in the proposed design as green roofs to control runoff from roofed areas and provide opportunity for water storage and re-use.

Attenuation will be required to meet the requirement to reduce peak flow to original greenfield conditions and will be provided by storage in the green roof and terrace areas with residual attenuation within the parking area. More detailed consideration of each element is provided In the Surface Water Management Strategy (215516DRA) prepared by Reports 4 Planning in December 2021.

5. WATER USE

Residential development proposals require calculations to demonstrate that the daily non-recycled water use per person does not exceed 105 litres per day (excluding allowance of up to five litres for external water consumption). Outline water use calculations are provided in Appendix E, which show that, based on the current design stage (December 2021), it is possible to achieve these water efficiency levels. These calculations will be refined as the design and specification proceeds. Water efficient taps showers and sanitaryware (WCs) will be specified in due course. Consideration will also be given to the use of restrictors to optimise water flow through the system.

The site shall be developed to show full compliance with Building Regulations Part G (G2).

6. WATER CONSERVATION

The current design allows for the harvesting of rainwater for reuse. The large area of flat roofs and terraces in the proposed design will provide ample opportunity for water storage and re-use.

7. COMMERCIAL BREEAM STANDARDS

This element of the Policy relates to business and commercial premises and is therefore not applicable to this residential scheme.

8. WATER QUALITY

It is confirmed that these proposals would not result in an unacceptable risk to the quality and or quantity of water.

Appendix A – Site Location Plan

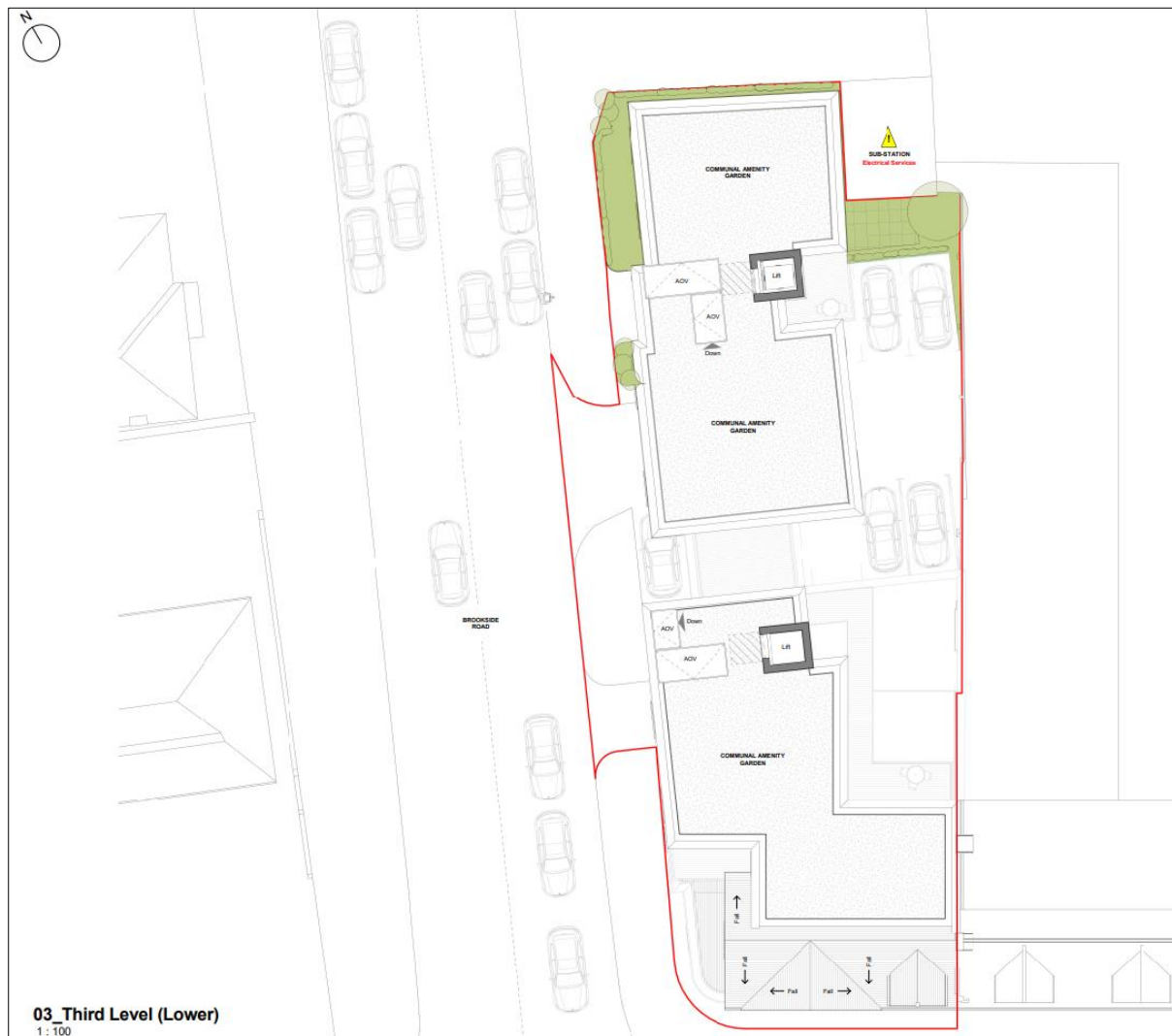


Appendix B – Site Aerial Plan



00_Ground Level
1 : 100

Appendix D – Proposed Roof Floor Plan



Appendix E – Outline Water Efficiency Calculations

The Water Calculator



<http://www.thewatercalculator.org.uk/>

Congratulations

152-154 Uxbridge Road, London

You are within your target maximum consumption of potable water (105 litres per person per day).

Total water consumption from your calculation

101.56

litres per person per day

This calculator is intended to inform design choices by demonstrating the likely impact of specification changes on total water consumption. Results can only be used to demonstrate compliance with the Code for Sustainable Homes when the calculations have been verified by a suitably qualified Code for Sustainable Homes assessor.

Calculation summary

Installation type	Unit of measure	Capacity / flow rate	Use factor	Fixed use	Litres / person / day
WCs (single flush)	Flush volume (litres)		4.42	0	17.5
WCs (dual flush)	Average effective flushing volume (litres)	3.96			
Taps (excl. kitchen/utility room)	Flow rate (litres / minute)	3.7	1.58	1.58	7.43
Bath (shower also present)	Capacity to overflow (litres)	155	0.11	0	17.05
Shower (bath also present)	Flow rate (litres / minute)	8	4.37	0	34.96
Kitchen/utility room sink taps	Flow rate (litres / minute)	6	0.44	10.36	13
Washing machine	Litres / kg dry load	8.17	2.1	0	17.16
Dishwasher	Litres / place setting	1.25	3.6	0	4.5
Waste disposal unit	Litres / use	☐	3.08	0	
Water softener	Litres / person / day	☐	1	0	
Contribution from Grey Water					undefined
Contribution from Rain Water					undefined
Normalisation factor					$\Sigma \times 0.91$