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PROJECT NAME

Upper Richmond
Road West

DATE

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SUSTAINABILITY STATEMENT



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Contents

Executive Summary.....	2
Resource Management.....	2
Land.....	2
Site Layout and Building Design.....	2
Renewable Energy	2
Energy and Carbon Dioxide Emissions.....	3
Water Efficiency.....	4
Table 1 - Water Consumption.....	4
Table 2 – Total Water Consumption and Compliance	5
Nature Conservation and Biodiversity.....	5
Materials and Waste.....	6
Adapting to Climate Change and Greening the City.....	7
Tackling Increased Temperature and Drought	7
Increasing Green Cover and Trees.....	7
Flooding.....	8
Pollution Management.....	9
Land Contamination.....	9
Air Pollution	9
Noise	9
Light Pollution.....	9
Water Pollution.....	10
Summary.....	10
References.....	10



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Executive Summary

The proposal is for the conversion of the existing building at 561-563 Upper Richmond Road West from a mixed-use development consisting of 1 shop and 2 flats into 2 family homes, with a total floor area of 279.54m². The glazed area as a proportion of façade area is 15 % for plot 1 and 17% for plot 2.

Resource Management

Land

Due to the existing building being retained and subdivided, there will be no increase in the area of hardstanding due to these works. Additionally, the impact on ground stability and flood risk will be minimal.

Site Layout and Building Design

The existing building will be reused and the overall site layout will remain unchanged. There is a garden to the rear of the property which will be retained and divided between the two new dwellings.

The building exists in a largely residential area, and the dwellings could be further divided into e.g. four flats, or the building could be converted into an HMO depending on the future needs of the local area.

Renewable Energy

Photovoltaic panel arrays have been proposed for the east, west and south facing roofs with the array size scaled to make maximum use of the available roof space. This will need to be confirmed by a survey prior to installation. Also proposed is the inclusion of air source heat pumps to space and hot water heating. For more information, please refer to the Energy Assessment.



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Energy and Carbon Dioxide Emissions

The new thermal elements and fenestration have been designed to meet and exceed the standards set out in Approved Documents L1B. These have been specified with low U-values to help reduce energy demand and improve comfort levels within the property. New, highly efficient systems will be installed to provide heating and hot water to the building while measures have been taken to further reduce energy consumption, such as installing low energy lighting throughout the dwellings.

Additionally, there are plans to include smart meters in the development to support the growth of demand side response. This will help enhance understanding of the potential for turning off non-essential equipment or running some equipment at a lower capacity during times of peak demand.

For more information, including details on the specification of the thermal elements and services, please refer to the Energy Assessment.

Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Water Efficiency

Measures will be put in place, including tap and shower flow restrictors, water saving appliances and low flush toilets, to ensure that the amount of water used by the two dwellings is kept to a minimum. The following tables show the calculated water consumption within the dwellings.

Table 1 - Water Consumption

Installation type	Unit of Measure	Capacity/ flow rate (1)	Use factor (2)	Fixed use (litres/ Person/ Day) (3)	Litres/ Person/ Day = [(1) x (2)] + (3) (4)
WC (single flush)	Flush volume (litres)	0.00	4.42	0.00	0.00
WC (dual flush)	Full flush volume (litres)	4.00	1.46	0.00	5.84
	Part flush volume (litres)	2.60	2.96	0.00	7.70
WCs (multiple fittings)	Average effective flushing volume (litres)	0.00	4.42	0.00	0.00
Taps (excluding kitchen/ Utility room taps)	Flow rate (litres/minute)	4.00	1.58	1.58	7.90
Bath (where shower Also present)	Capacity to overflow (litres)	180.00	0.11	0.00	19.80
Shower (where bath Also present)	Flow rate (litres/minute)	9.00	4.37	0.00	39.33
Bath only	Capacity to overflow (litres)	0.00	0.50	0.00	0.00
Shower only	Flow rate (litres/minute)	0.00	5.60	0.00	0.00
Kitchen/utility room Sink taps	Flow rate (litres/minute)	6.00	0.44	10.36	13.00
Washing machine	Litres/kg dry load	8.17	2.10	0.00	17.16
Dishwasher	Litres/place Setting	1.25	3.60	0.00	4.50
Waste disposal unit	Litres/use (If present = 1 If absent = 0)	0.00	3.08	0.00	0.00
Water softener	Litres/person/day	0.00	1.00	0.00	0.00

Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Table 2 – Total Water Consumption and Compliance

Calculation Step (continued from Table 1)	Description	Result
(5)	Total calculated use (litres/person/day) = (Sum column 4 of Table 1)	115.22
(6)	Contribution from greywater (litres/person/day)	0.00
(7)	Contribution from rainwater (litres/person/day)	0.00
(8)	Normalisation factor	0.91
(9)	Total water consumption (Code for Sustainable Homes) = [(5) – (6) – (7)] x (8) (litres/person/day)	104.85
Code for Sustainable Homes Credits	3 Level	Level 3 and 4
(10)	External water use	5.00
(11)	Total water consumption (Building Regulation 36) = (9) + (10) (litres/person/day)	109.85
Building Regulation 36 Compliance (110 litres/person/day)		Pass

Nature Conservation and Biodiversity

There is scope to enhance biodiversity on this project. There is a small space at the front of the properties which has some scope for infill planting to further increase the biodiversity on this site. This site is not near to any protected habitats, so there will be no effect on the conservation of any protected species due to these works.



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Materials and Waste

Where feasible, the most local suppliers of materials will be selected to minimise the environmental impact of transportation. Only suppliers with a certified chain of custody showing responsible sourcing will be used to source materials. This includes ensuring that 100% of timber is legally sourced.

A Site Waste Management Plan (SWMP) will be developed for this project. Waste groups to be monitored will be identified and targets set in order to identify how waste will be reduced, diverted from landfill, reused or recycled wherever possible. If waste is unavoidable, it will be disposed of responsibly.

Adequate waste and recycling storage will be developed from the existing provision to cater for this change in use of the site. Both the internal and external provision will comply with the recycling and waste collection requirements of the local authority, ensuring that recyclables and waste can be separated before collection.



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Adapting to Climate Change and Greening the City

Tackling Increased Temperature and Drought

This development is a low-rise, low energy demand residential building so the concern of contributing to heating the urban environment is not significant.

The building has been designed to have a high performing fabric so the overheating risk should be reduced. The building has been designed such that cross ventilation is possible through openable windows. This will help to reduce the need for mechanical ventilation now and in the case of a potentially warmer future climate. Furthermore, overheating can be avoided by using appropriate internal shading such as blinds and curtains.

Water efficiency measures (see above) will be put in place to decrease the effect that a drought would have on the dwellings.

Increasing Green Cover and Trees

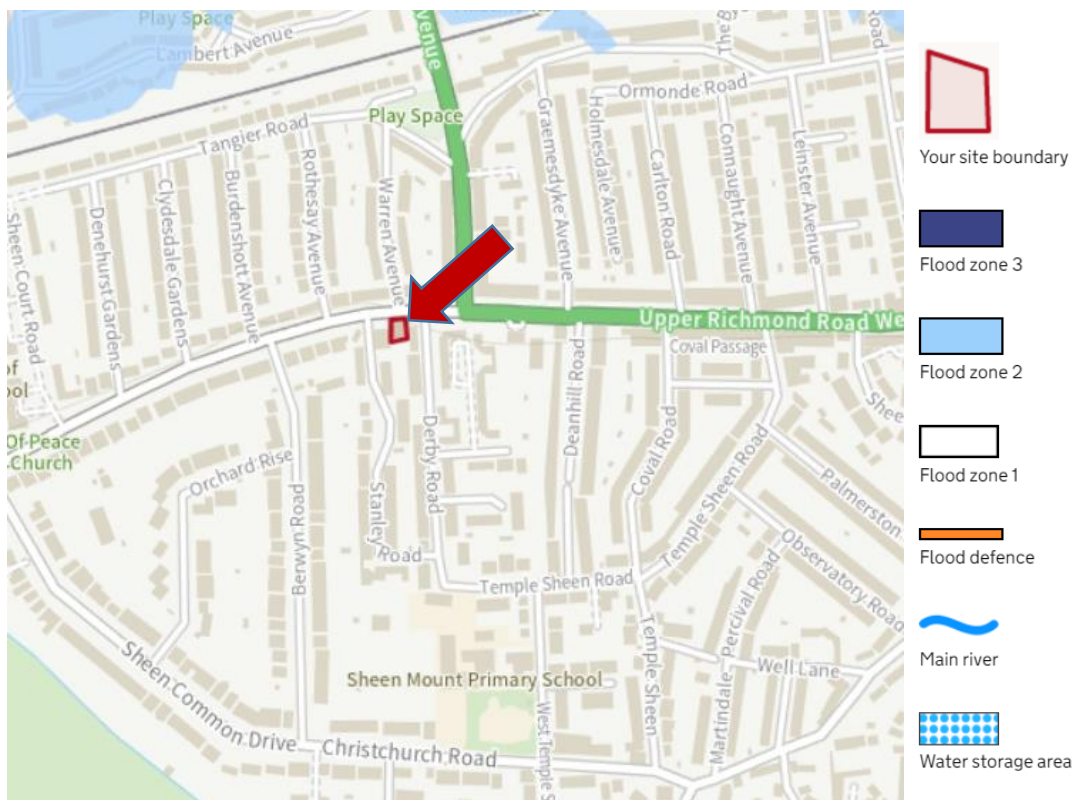
Due to the size of the plot there is limited scope for increasing green cover. However, the rear garden, if carefully and appropriately managed, could support one or two medium sized trees.

Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Flooding

As can be seen from this flood map, the property is in Flood Zone 1, which is the lowest risk zone. Additionally due to the nature of the works as a conversion, there would be minimal impact on the flood risk at this site.



Note – the red arrow points to 561-563 Upper Richmond Road West, which lies in flood zone 1.



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Pollution Management

Land Contamination

Due to the nature of the site as dwellings within a largely residential area, the likelihood of land contamination as a result of these works is minimal. Therefore, no decontamination or bioremediation works are required.

Air Pollution

As air source heat pumps are proposed for this site, there are no localised emissions associated with the heating of the properties.

Additionally, emissions from car journeys can be reduced by utilising local public transport links. The nearest bus stops are a 2-minute walk away, whilst Mortlake station is approximately a 5-minute walk away, serving local destinations. Additionally, Mitcham station has regular services to London Waterloo, serving destinations nationally and providing access to the centre of London. The nearest underground station is Richmond, accessible by bus, with regular services to central London.

Noise

Due to the nature of the works as a conversion from a mixed-use site to a purely residential scheme, it is anticipated that the noise pollution produced will be minimal.

Light Pollution

No external artificial lighting is planned as part of these works. Whilst internal artificial lights will be fitted, the use of curtains and nets will limit the spillage of light to the external environment during the times when these are operational.



Sustainability Statement

Project: 5493KJ - 2024.05 SAP (Upper Richmond Rd West - Mehdi Taghavi)

Water Pollution

The utilisation of existing sewer connections, along with the planting front and rear, will minimise the polluting effect on the water at this location.

Summary

These proposed dwellings have been well designed to cope with and mitigate against the effects of climate change and reduce energy demand. As the possibility for cross-ventilation has been included within the design, the necessity for mechanical ventilation should be reduced. Convenient amenities and public transport links reduce the necessity for car journeys. The gardens included within the site can be used for infill planting and increasing biodiversity.

The likely impact on the local environment as a result of these proposed building works will be minimal.

References

[Approved Document L1B](#)

[Sustainable Design and Construction SPG](#)

[Government Flood Map for Planning](#)

[SWMP – WRAP](#)