

Yugo Depot Point
15-27 Britannia St, London,
WC1X 9AH

Flood Risk Assessment and Drainage Strategy

GSA
Portman House
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London
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Document Control Sheet

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1 Introduction

1.1 Background

- 1.1.1 Hadfield Cawkwell Davidson Limited have been commissioned to undertake a flood risk assessment (FRA) and drainage strategy to support a Planning Application for the proposed development in an existing building at Britannia Street, London.

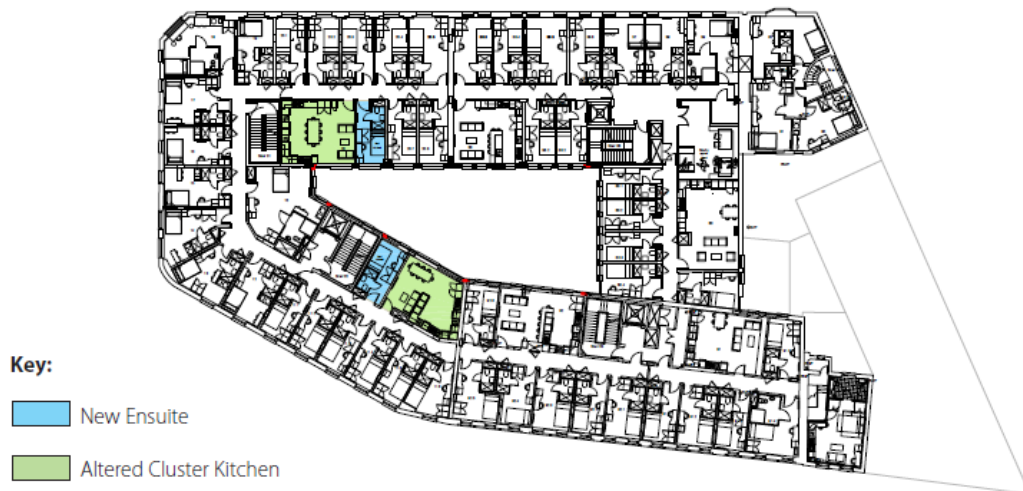
1.2 Development proposals

- 1.2.1 It is proposed to re-configure internal rooms in an existing student residence. Works are to be undertaken on the ground, first, second, third and fourth floors. The extent of the works is shown on the proposed layouts below:

Ground Floor Plan



First Floor Plan



Second Floor Plan



Third Floor Plan



Fourth Floor Plan



1.3 Report scope

- 1.3.1 The purpose of this report is to identify whether there are any flooding issues that may require consideration in the development proposals.
- 1.3.2 The report includes a drainage statement for the development.

1.4 Sources of information

- 1.4.1 This report is based on readily available information.
- 1.4.2 The following sources of information are referenced in this report.
 - National Planning Policy Framework, December 2023(NPPF)
 - GOV.UK flood risk maps
 - AECOM Level 1 Strategic Flood Risk Assessment, London Borough of Camden, January 2024

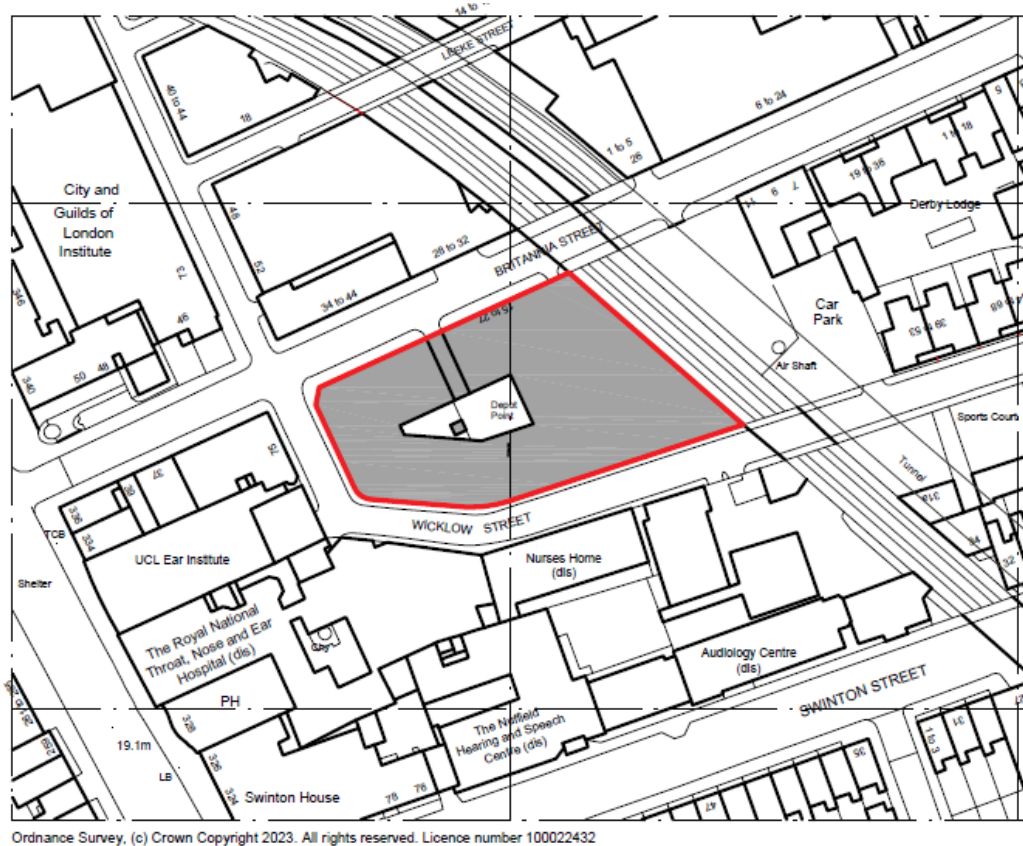
2 Site Information

2.1 Location

- 2.1.1 The site is located within the London Borough of Camden, adjacent to both Britannia Street to the north and Wicklow Street to the south. To the east is bounded by a London Underground line. The building sits within 0.4 miles of St Pancras International and Kings Cross Stations.

Access to the building is from the intersection of Britannia Street and Wicklow Street, to the northwest of the building.

Existing Site Plan



2.2 Description

- 2.2.1 Depot Point is a 5-storey student residence with internal courtyard. The building is primarily constructed in masonry and was built in 1900.

2.3 Hydrology

- 2.3.1 River Fleet runs north and east of the site.

2.3.2 The site is in an area where the aquifer designation is 'unproductive'.

3 Flood Risk

3.1 Sources of flooding

- 3.1.1 The purpose of this report is to identify potential sources of flooding and the likely mechanisms by which flooding could occur.
- 3.1.2 The following potential sources of flooding have been considered:
- Fluvial - flooding from rivers or sea.
 - Groundwater - flooding from rising groundwater levels.
 - Pluvial - flooding from surface water flows from adjacent land.
 - Infrastructure failure - flooding from sewers, drains, or impounded water bodies.

3.2 Fluvial flooding

The Environment Agency (EA) GOV.UK webpage, 'Flood Map for Planning', shows:

- 3.2.1 The site and surrounding area in Flood Zone 1.
- 3.2.2 That the site is at very low risk of flooding from rivers or sea (very low risk means that this area has a chance of flooding less than 0.1% each year).

AECOM Level 1 Strategic Flood Risk Assessment, London Borough of Camden, January 2024 shows:

- 3.2.3 That the site does not have a history of flooding.
- 3.2.4 The site is not within the vicinity of flood defences.

3.3 Ground water flooding

AECOM Level 1 Strategic Flood Risk Assessment, London Borough of Camden, January 2024 shows:

- 3.3.1 The site is not in an area susceptible to ground water flooding.

3.4 Pluvial flooding (surface water)

AECOM Level 1 Strategic Flood Risk Assessment, London Borough of Camden, January 2024 shows:

- 3.4.1 The site is not in an area where streets flooded in 1975, 2002 or 2021.
- 3.4.2 The site is in an area at risk from surface water flooding albeit it the flooding shown appears to be on the line of a 'reduced level' rail line entering/exiting St Pancras/Kings Cross Railway station.

3.5 Flooding from infrastructure

Sewers

AECOM Level 1 Strategic Flood risk Assessment, London Borough of Camden, January 2024 shows:

- 3.5.1 The site is in North Swinton Street Critical Drainage Area.
- 3.5.2 The site is in an area served by Thames Water combined sewers.
- 3.5.3 The site is in an area where there were reported incidents of sewer flooding in the period January 2013 – April 2023.

Impounded water bodies

AECOM Level 1 Strategic Flood Risk Assessment, London Borough of Camden, January 2024 shows:

- 3.5.4 The site is in the reservoir 'wet day' scenario flood map (Highgate No 3) albeit this appears to be on the line of a 'reduced level' rail line entering/exiting St Pancras/Kings Cross Railway station. The site is not in the reservoir 'dry day' scenario flood zone.

3.6 The Sequential and Exception Tests

- 3.6.1 In accordance with the National Planning Policy Framework (NPPF) the flood risk vulnerability classification of buildings used for student accommodation is 'more vulnerable'.
- 3.6.2 The NPPF advocates a sequential approach for areas at risk of flooding and states that inappropriate development should be avoided by directing development away from areas at highest risk. The sequential test is used to ensure this.
- 3.6.3 With reference to NPPF and the requirement for development on sites of lowest flood risk, the proposed development is in an area where there has been reports of street flooding. The risk is assessed to be low, the building is existing without change of use, however the Local Authority may require that a Sequential Test be undertaken.
- 3.6.4 Results of a Sequential Test (if required) will determine the requirement for an Exception Test.

4 Risk Management and Drainage Strategy

4.1 Introduction

- 4.1.1 The development must not increase flood risk beyond the site.
- 4.1.2 It must be safe to access and egress the development.

4.2 Flood Risk

- 4.2.1 The development is in a 'Critical Drainage Area'. A 'Critical Drainage Area' is defined as a 'discrete geographic area where multiple and interlinked sources of flood risk (surface water, ground water, sewer, main River and/or tidal) cause flooding in one or more Local Flood Risk Zones'. The area surrounding the development could be affected by sewer flooding.
- 4.2.2 The development is within an existing student accommodation building adding 12 studio/cluster beds to the existing 205. The development is a refurbishment of an existing building and the proposals do not affect the building fabric/impermeable area etc. There is no increase in surface water run-off. The development will not affect or contribute to the flooding hotspot.

4.3 Safe access and egress

- 4.3.1 Current access and egress arrangements to the development will not be affected by the proposals.

4.4 Drainage Strategy

- 4.4.1 Foul water from the proposed en-suite bathrooms will connect to the existing foul water drainage system.

5 Conclusions

5.1 Summary of flood risk

5.1.1 A summary of the flood risks identified in this assessment is shown in the table below:

Table 2 Flood risk summary

Flooding source	Flood risk
Fluvial (rivers)	Very Low
Groundwater	Unlikely
Pluvial (surface water)	Unlikely
Sewers	Low
Impounded Water bodies	Low

5.2 Sequential and Exception Tests

5.2.1 A Sequential Test may be required by the Local Authority. The results of a Sequential Test (if required) will determine the requirement for an Exception Test.

5.3 Implications for development

5.3.1 The proposals will not affect surface water run-off from the existing development.

5.4 Drainage strategy

5.4.1 Foul water from the proposed en-suite bathrooms will connect to the existing foul water drainage system.

5.5 Flood Exceedance

5.5.1 The development will not affect flood exceedance routes.

5.6 Safe Access and Egress

5.6.1 Current access and egress arrangements to the development will not be affected by the proposals.

5.7 In Conclusion

5.7.1 The development will not increase flood risk off site, access and egress arrangements from the building will not be affected.

Appendix A - Drawings

A.1 Existing Layout Drawings

NOTES

DO NOT SCALE FROM THIS DRAWING.
VERIFY ALL DIMENSIONS AND SETTING OUT ON SITE.
NOTIFY ANY DISCREPANCIES TO THE ARCHITECT.
FOR STRUCTURAL INFORMATION, REFER TO
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FOR M&E INFORMATION, REFER TO M&E ENGINEER'S
AND SUB-CONTRACTOR'S DRAWINGS.
FOR HEALTH & SAFETY INFORMATION, REFER TO
HEALTH & SAFETY RISK ASSESSMENTS.

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PROJECT

DEPOT POINT, BRITANNIA STREET
LONDON

TITLE

GA PLAN
EXISTING
LEVEL 0

Hadfield Cawkwell Davidson

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PROJECT

DEPOT POINT, BRITANNIA STREET
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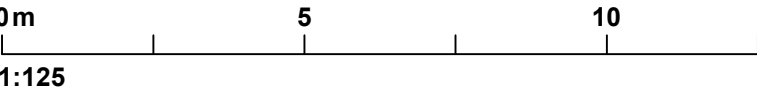
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LONDON**

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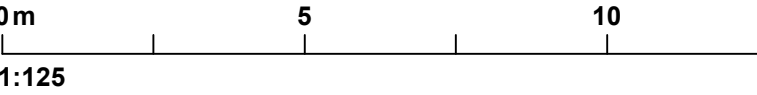
**GA PLAN
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