CampbellReith
consulting engineers

163 Sumatra Road
London, NW6 1PN

Basement Impact Assessment
Audit

For

London Borough of Camden

Project Number: 13398-77
Revision: F1

July 2022

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Document History and Status

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Document Details

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Project Name	163 Sumatra Road
Planning Reference	2018/4477/P and 2020/3552/P

Contents

Appendix

1.0 NON-TECHNICAL SUMMARY

1.1. CampbellReith was instructed by London Borough of Camden, (LBC) to carry out an audit on the Basement Impact Assessment submitted as part of the Planning Submission documentation for 163 Sumatra Road, NW6 1PN. The D1 audit, issued on 26 January 2021 (ref. NScb13398-77-280121-163 Sumatra Road-D1), considered the documentation submitted under planning reference 2020/3552/P. This audit refers to planning reference no. 2018/4477/P, which relates to the same property and proposed development, and is the planning reference under which the majority of the updated documentation referenced herein has been supplied. The basement is considered to fall within Category B as defined by the Terms of Reference.

1.2. The Audit reviewed the Basement Impact Assessment (BIA) for potential impact on land stability and local ground and surface water conditions arising from basement development in accordance with LBC's policies and technical procedures.

1.3. CampbellReith was able to access LBC's Planning Portal and gain access to the latest revision of submitted documentation and reviewed it against an agreed audit check list. The latest documentation has been provided under planning reference 2018/4477/P, with only the BIA itself provided to planning reference 2020/3552/P.

1.4. The site layout and the proposed development are described in paragraphs 4.2 – 4.3 of this audit.

1.5. The qualifications of the individuals involved in the BIA are in accordance with LBC guidance. Screening and scoping assessments are presented, supported by desk study information.

1.6. The site investigation indicates the proposed basement will be founded in the London Clay, which is considered a suitable bearing stratum.

1.7. The BIA confirmed that there will be no adverse impact on the hydrogeological environment.

1.8. The site is confirmed to have a medium risk from surface water flooding. A Flood Risk Assessment (FRA) has been presented and indicates various mitigation measures to deal with surface water flooding which should be adopted during construction.

1.9. There will be an increase in surface water run-off from the site and the FRA presented mitigation measures against the potential of increased flow rates into the public sewer.

1.10. It is proposed to construct the remaining sections of the basement perimeter using traditional reinforced concrete underpinning. The BIA confirmed that temporary propping is proposed.

1.11. The geotechnical parameters presented in the BIA are considered reasonably conservative. A Ground Movement Assessment (GMA) has been undertaken. An assessment of the anticipated

damage potentially occurring at neighbouring properties is predicted to be within Category 1 (Very Slight) of the Burland Scale.

1.12. The BIA confirmed that a monitoring strategy to ensure that ground movements are limited to those predicted will be developed before construction. It is recommended that a structural survey investigating the existing condition of the on-site building and adjoining properties be undertaken as part a Party Wall Agreement.

1.13. Based on the additional information provided it can be confirmed that the BIA meets the requirements of Camden Planning Guidance: Basements.

2.0 INTRODUCTION

2.1. CampbellReith was instructed by London Borough of Camden (LBC) on 6 January 2021 to carry out a Category B Audit on the Basement Impact Assessment (BIA) submitted as part of the Planning Submission documentation for 163 Sumatra Road, London NW6 1PN, Camden Reference 2020/3552/P. Additional information was provided under planning reference 2018/4477/P.

2.2. The Audit was carried out in accordance with the Terms of Reference set by LBC. It reviewed the Basement Impact Assessment for potential impact on land stability and local ground and surface water conditions arising from basement development.

2.3. A BIA is required for all planning applications with basements in Camden in general accordance with policies and technical procedures contained within:

- Camden Local Plan 2017 - Policy A5 Basements.
- Camden Planning Guidance: Basements. March 2018.
- Guidance for Subterranean Development (GSD). Issue 01. November 2010. Ove Arup & Partners.

2.4. The BIA should demonstrate that schemes:

a) maintain the structural stability of the building and neighbouring properties;

b) avoid adversely affecting drainage and run off or causing other damage to the water environment;

c) avoid cumulative impacts upon structural stability or the water environment in the local area;

and evaluate the impacts of the proposed basement considering the issues of hydrology, hydrogeology and land stability via the process described by the GSD and to make recommendations for the detailed design.

2.5. LBC's Audit Instruction described the planning proposal as "*Conversion of 1x 5-bed dwelling (Class C3) to house in multiple occupation (HMO) with 12 rooms (Sui Generis) including rebuilding the front elevation; basement extension including front and rear lightwells; ground floor rear / side extensions; balconies at rear first and second floor, enlargement of rear gable elevation including two storey rear / side extension (at first and second floor); 2 rear dormers; front and rear rooflights and alterations to rear fenestration*". This corresponds with planning reference 2020/3552/P."

2.6. Planning reference 2018/4477/P describes the planning proposal as "*Re-building of front elevation of building following partial collapse; basement extension, including 2x front lightwells and 2x rear lightwells; rear extension to ground, first and second floors and roof level; alterations to fenestration, all in connection with conversion of former 1x 5-bed single family dwellinghouse to 3x 2-bed flats and 1x 3-bed flat"*

2.7. The Audit Instruction confirmed the applicant's property and neighbouring properties are not listed.

2.8. CampbellReith accessed LBC's Planning Portal (planning reference 2020/3552/P) on 8th January 2021 and gained access to the following relevant documents for audit purposes:

- Basement Impact Assessment (ref.: 18511/BIA), dated July 2020, by Soils Ltd;
- Existing and proposed plans, elevations and sections by Drawing and Planning, dated September 2020;
- Flood Risk Assessment (ref.: 18224/FRA), dated February 2020, by Soils Ltd.

2.9. The following additional information was obtained by CampbellReith through LBC's Planning Portal (planning reference 2018/4477/P) in June 2022, in response to the initial audit report and the queries summarised in Appendix 2:

- Basement Impact Assessment (ref.: 18511/BIA/Rev.1.02), dated February 2022, by Soils Ltd (also present on planning reference 2020/3552/P);
- Review of Events and Design Report (ref.:R20172/2A), dated December 2021, by Harold James Ltd;
- Report on the Condition of Temporary Works (ref.; R/22003/1), dated March 2022 by Martin Soper Ltd;
- Existing plans and elevations (ref. 2018/005) by Yoop Architects (drawings No. 005/EX/100, 120 and 121)
- Proposed plans (ref. SMROD-P201), elevations (ref. SMROD-E101 and E102) and sections (ref. SMROD-S101 to S106by Drawing and Planning, dated April and May 2022;
- Proposed Drainage Plan and Section drawings (ref. SMROD-D101 and D102), dated December 2021 by Drawing and Planning;
- Flood Risk Assessment (ref.: 18224/FRA), dated February 2020, by Soils Ltd.

3.0 BASEMENT IMPACT ASSESSMENT AUDIT CHECK LIST

Item	Yes/No/NA	Comment
Are BIA Author(s) credentials satisfactory?	Yes	See document issue status of the BIA.
Is data required by Cl.233 of the GSD presented?	Yes	
Does the description of the proposed development include all aspects of temporary and permanent works which might impact upon geology, hydrogeology and hydrology?	Yes	See Section 2 of the BIA.
Are suitable plan/maps included?	Yes	The assessment is supported by suitable drawings of existing and proposed development and by suitable maps to describe the environmental setting.
Do the plans/maps show the whole of the relevant area of study and do they show it in sufficient detail?	Yes	
Land Stability Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3 of the BIA.
Hydrogeology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3 of the BIA.
Hydrology Screening: Have appropriate data sources been consulted? Is justification provided for 'No' answers?	Yes	Section 3 of the BIA.
Is a conceptual model presented?	Yes	Section 5 of the BIA.

Item	Yes/No/NA	Comment
Land Stability Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4 of the BIA.
Hydrogeology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4 of the BIA.
Hydrology Scoping Provided? Is scoping consistent with screening outcome?	Yes	Section 4 of the BIA.
Is factual ground investigation data provided?	Yes	Section 5 of the BIA.
Is monitoring data presented?	Yes	Section 5.5 of the BIA.
Is the ground investigation informed by a desk study?	Yes	Section 2 of the BIA.
Has a site walkover been undertaken?	Yes	October 2018.
Is the presence/absence of adjacent or nearby basements confirmed?	Yes	The neighbouring properties are considered to have lower ground floors.
Is a geotechnical interpretation presented?	Yes	Section 7 of the BIA.
Does the geotechnical interpretation include information on retaining wall design?	Yes	Section 9 of the BIA.
Are reports on other investigations required by screening and scoping presented?	Yes	Flood Risk Assessment presented.
Are the baseline conditions described, based on the GSD?	Yes	
Do the base line conditions consider adjacent or nearby basements?	Yes	

Item	Yes/No/NA	Comment
Is an Impact Assessment provided?	Yes	Section 8, 9 and 10 of the BIA.
Are estimates of ground movement and structural impact presented?	Yes	Section 9 of the BIA.
Is the Impact Assessment appropriate to the matters identified by screening and scoping?	Yes	The GMA should be reviewed. Mitigation against the potential for an increase in flow rate into the public sewer due to the increase in hardstanding should be presented in Section 8 of the BIA.
Has the need for mitigation been considered and are appropriate mitigation methods incorporated in the scheme?	Yes	Section 11 of the BIA.
Has the need for monitoring during construction been considered?	Yes	Section 11 of the BIA.
Have the residual (after mitigation) impacts been clearly identified?	Yes	The BIA concludes that residual impacts will be negligible.
Has the scheme demonstrated that the structural stability of the building and neighbouring properties and infrastructure will be maintained?	Yes	The GMA confirmed damage to neighbouring properties will be within Category 1 of the Burland Scale.
Has the scheme avoided adversely affecting drainage and run-off or causing other damage to the water environment?	Yes	See the FRA.
Has the scheme avoided cumulative impacts upon structural stability or the water environment in the local area?	Yes	As above.
Does report state that damage to surrounding buildings will be no worse than Burland Category 1?	Yes	Section 9 of the BIA.
Are non-technical summaries provided?	Yes	Section 11.2 of the BIA.

4.0 DISCUSSION

4.1. The BIA was undertaken by Soils Ltd. The reported qualifications of the authors are in line with those requested by LBC guidance.

4.2. The site is currently occupied by a three-storey terraced house with a small front yard, rear garden and a lower ground floor partially covering the building footprint. It is understood that part of the front façade and much of the front internal structure collapsed during previous stages of the basement development and that the existing basement excavation have been partially filled with gravel and rubble. The party walls to No. 161 and 165 Sumatra Road have been already underpinned as part of the previous stages.

4.3. The proposed works comprise the demolition of the existing structure and the construction of a three-storey residential building with a basement, including four lightwells, covering the entire footprint of the existing building and part of the rear garden. There will be two different basement levels at -2.75m and -4.13m beneath ground floor level towards the front and the rear garden respectively.

4.4. The LBC Instruction to proceed with the audit confirmed the applicant's property and neighbouring properties are not listed. The closest properties are No. 161 and No. 165 Sumatra Road to the west and the east respectively. Sumatra Road on the North side of the property, runs in a West-East direction, while the site is bounded by a railway to the south. The BIA states that neighbouring properties do not include full basements but do have lower ground floors similar to the applicant's property.

4.5. Screening and scoping assessments are presented and informed by desktop study information. Most of the relevant figures/maps from the Arup GSD and other guidance documents are referenced within the BIA to support responses to the screening questions.

4.6. A site investigation was undertaken in October 2012 to inform the basement design. A total of three window sample boreholes and one trial pit were undertaken. The ground investigation indicated Made Ground to a maximum depth of 1.10m bgl in the boreholes and to the full depth of the trial pit (1.22m bgl). The Made Ground was underlain by the London Clay which was proven to the base of the boreholes to a depth of 6.00m bgl.

4.7. Groundwater was not encountered during drilling. However, it was monitored between 1.97m and 4.10m bgl in two of the boreholes during four subsequent monitoring visits. Some of the groundwater levels monitored are above the proposed formation level. It is noted that the lowest level of the basement portion previously excavated was found flooded during the 2018 site walkover. The BIA states that groundwater control measures will be required, and that localised sump pumping may be sufficient to deal with groundwater ingress into the excavation.

4.8. Considering the absence of nearby basements, the BIA confirmed that there will not be any impact on the wider hydrogeological environment, and this is accepted.

4.9. A Flood Risk Assessment (FRA) has been presented in the BIA. The site is at very low risk from flooding from rivers, seas and reservoirs, and from groundwater, while it is at medium risk from surface water flooding. The FRA indicates various mitigation measures to deal with surface water flooding which should be adopted during construction.

4.10. The site is within a Critical Drainage Area. The BIA and the FRA confirmed that impermeable areas of the site will be increased as a result of the proposed development. The FRA recommends the development to utilise sustainable drainage system (SuDS) to reduce the pressure on the combined sewer network. The SuDS should aim to achieve greenfield run-off rates.

4.11. It is noted that the final drainage scheme will require approval by the local flood authority and the owner of the public sewer system present in the area (Thames Water). A comment on the development has been submitted by Thames Water and is presented in Appendix 3. A capacity Report has been issued by Thames Water confirming there will be sufficient capacity on the network to serve the proposed development.

4.12. From the information submitted by the structural engineer and the BIA, it is understood that during the previous stages of works, the party walls with No. 161 and 165 Sumatra Road and a short distance under the left and right sides of the front elevation were underpinned before the collapse and temporary works were put in place to ensure safety of the remaining structure after the event. The Report on the Condition of Temporary Works undertaken in February 2022 indicates the temporary works to remain in place with no signs of any distress, movement or degradation of the structure.

4.13. It is proposed to construct the remaining sections of the basement perimeter using traditional reinforced concrete underpinning following a typical ‘hit and miss’ sequence. The current version of the proposed development considers a mixed type structure, including RC concrete walls, a blockwork staircase core, steel beams and traditional floor structures. The structural loads are considered transmitted at formation level by the underpinning and the staircase core slab. Temporary propping is proposed.

4.14. Geotechnical parameters to inform settlement, retaining wall calculations and foundation design have been presented in the BIA and are considered reasonable.

4.15. A Ground Movement Assessment (GMA) has been undertaken to demonstrate that ground movements and consequential damage to neighbouring properties will be within LBC’s policy requirements. The GMA shows that anticipated damage potentially occurring at neighbouring properties will be within Category 1 (Very Slight) of the Burland Scale.

4.16. An estimation of heave occurring due to the basement excavation has been included in the GMA, however they have not been included in the damage category assessment as heave movements counteract the settlement occurring at neighbouring properties, resulting in an under-estimation of the resulting ground movements in the short term.

4.17. The GMA states that the ground movements considered were due to excavation, application of structural loads and to workmanship errors. The horizontal deflection occurring at the proposed retaining wall has been calculated using the software WALLAP.

4.18. No internal survey of the effects of the previous underpinning works on neighbouring properties has been submitted. It is confirmed in the BIA that a ground movement monitoring regime will be implemented throughout construction of the basement, in accordance with current guidance. It is accepted that the detailed monitoring strategy will be developed at a later stage and will include contingency measures and trigger levels. It is recommended that a structural survey investigating the existing condition of existing building and adjoining properties be undertaken as part of a Party Wall Agreement.

5.0 CONCLUSIONS

5.1. The qualifications of the individuals involved in the BIA are in accordance with LBC guidance.

5.2. Screening and scoping assessments are presented, supported by desk study information. However, the description of the proposed development is not the one indicated in the Camden Planning portal and should be revised.

5.3. The site investigation indicates the proposed basement will be founded in the London Clay.

5.4. The BIA confirmed that there will be no adverse impact on the hydrogeological environment.

5.5. The site is confirmed to have a medium risk from surface water flooding. The FRA indicates various mitigation measures to deal with surface water flooding which should be adopted during construction.

5.6. There will be an increase in surface water run-off from the site and the FRA presented mitigation measures against the potential of increased flow rates into the public sewer.

5.7. It is proposed to construct the remaining sections of the basement perimeter using traditional reinforced concrete underpinning following a typical 'hit and miss' sequence. The structural loads are considered transmitted at formation level by the underpinning and the staircase core slab.

5.8. Geotechnical parameters have been presented and are considered reasonably conservative.

5.9. A Ground Movement Assessment (GMA) has been undertaken and confirms damages to neighbouring properties to be within Category 1 of the Burland Scale.

5.10. The BIA confirmed a monitoring strategy to ensure movements are limited to those predicted will be developed at a later stage. It is recommended a structural survey investigating the existing condition of existing building and adjoining properties to be undertaken as part of the Party Wall Agreement.

5.11. Based on the additional information provided it can be confirmed that the BIA meets the criteria of Camden Planning Guidance: Basements.

Appendix 1: Residents' Consultation Comments

None

Residents' Consultation Comments

Surname	Address	Date	Issue raised	Response
Unknown (redacted)	2 Gladys Road	14/11/2020	Structural stability	Additional information has been provided and is considered to appropriately address this issue - See Sections 4.12 – 4.18 of this audit
James L. Hunt	Sumatra Road	Unknown	Structural stability	
Tim Dulley	Unknown	25/11/2020	Structural stability and survey	
David Sladen	Unknown	22/11/2020	Structural stability	
Charles Openshaw	Unknown	19/11/2020	Structural stability and survey	
Graham Long	Unknown	17/11/2020	Structural stability	

Appendix 2: Audit Query Tracker

Audit Query Tracker

Query No	Subject	Query	Status	Date closed out
1	BIA format	The BIA should confirm that the desktop study information presented is in accordance to Appendix G1 of the Arup report.	Closed	08/06/2022
2	BIA format	The impact assessment presented in Section 8 of the BIA should be revised to include mitigation measures against the potential risk of an increase in flow rate into the public sewers due to the increase of hardstanding as part of the proposed development.	Closed	08/06/2022
3	Structural stability	The structural information submitted should be clarified as per paragraph 4.12. A Structural Engineering Report (SER) should be presented in the BIA in accordance with Camden's Guidance on the scope of engineering services.	Closed	08/06/2022
4	Land stability	The GMA should be revised to exclude ground movements due to heave as it this may result in an under-estimation of the category of damage occurring at neighbouring properties. Clarification on the propagation of horizontal movements at the back of the wall is required. Ground movements due to demolition shall be included.	Closed	08/06/2022
5	Structural stability	It is recommended that a structural survey investigating the existing condition of on-site building and adjoining properties be undertaken as part the Party Wall Agreement.	Note Only – See Section 4.18.	-
6	Drainage proposal	It is noted that the final drainage scheme will require approval by the local flood authority and the owner of the local public sewer system (Thames Water).	Note Only – See Section 4.11. and Appendix 3	-

Appendix 3: Supplementary Supporting Documents

Thames Water response and Capacity report

[redacted]

London Borough of Camden Our DTS Ref: 67508
Camden Town Hall Your Ref: 2020/3552/P
Argyle Street
Euston Road
London
WC1H 8EQ

23 November 2020

Dear Sir/Madam

Re: 163, SUMATRA ROAD, LONDON, -, NW6 1PN

Waste Comments
With the information provided, Thames Water has been unable to determine the waste water infrastructure needs of this application. Thames Water has contacted the developer in an attempt to obtain this information and agree a position for FOUL WATER drainage, but have been unable to do so in the time available and as such, Thames Water request that the following condition be added to any planning permission. "No development shall be occupied until confirmation has been provided that either:- 1. Capacity exists off site to serve the development, or 2. A development and infrastructure phasing plan has been agreed with the Local Authority in consultation with Thames Water. Where a development and infrastructure phasing plan is agreed, no occupation shall take place other than in accordance with the agreed development and infrastructure phasing plan, or 3. All wastewater network upgrades required to accommodate the additional flows from the development have been completed. Reason - Network reinforcement works may be required to accommodate the proposed development. Any reinforcement works identified will be necessary in order to avoid sewage flooding and/or potential pollution incidents. The developer can request information to support the discharge of this condition by visiting the Thames Water website at thameswater.co.uk/preplanning. Should the Local Planning Authority consider the above recommendation inappropriate or are unable to include it in the decision notice, it is important that the Local Planning Authority liaises with Thames Water Development Planning Department (telephone 0203 577 9998) prior to the planning application approval.

With the information provided Thames Water has been unable to determine the waste water infrastructure needs of this application. Thames Water has contacted the developer in an attempt to obtain this information and agree a position for SURFACE WATER drainage, but have been unable to do so in the time available and as such Thames Water request that the following condition be added to any planning permission. "No development shall be occupied until confirmation has been provided that either:- 1. Capacity exists off site to serve the development or 2. A development and infrastructure phasing plan has been agreed with the Local Authority in consultation with Thames Water. Where a development and infrastructure phasing plan

is agreed, no occupation shall take place other than in accordance with the agreed development and infrastructure phasing plan. Or 3. All wastewater network upgrades required to accommodate the additional flows from the development have been completed. Reason - Network reinforcement works may be required to accommodate the proposed development. Any reinforcement works identified will be necessary in order to avoid flooding and/or potential pollution incidents. The developer can request information to support the discharge of this condition by visiting the Thames Water website at thameswater.co.uk/preplanning. Should the Local Planning Authority consider the above recommendation inappropriate or are unable to include it in the decision notice, it is important that the Local Planning Authority liaises with Thames Water Development Planning Department (telephone 0203 577 9998) prior to the planning application approval.

As required by Building regulations part H paragraph 2.36, Thames Water requests that the Applicant should incorporate within their proposal, protection to the property to prevent sewage flooding, by installing a positive pumped device (or equivalent reflecting technological advances), on the assumption that the sewerage network may surcharge to ground level during storm conditions. If as part of the basement development there is a proposal to discharge ground water to the public network, this would require a Groundwater Risk Management Permit from Thames Water. Any discharge made without a permit is deemed illegal and may result in prosecution under the provisions of the Water Industry Act 1991. We would expect the developer to demonstrate what measures will be undertaken to minimise groundwater discharges into the public sewer. Permit enquiries should be directed to Thames Water's Risk Management Team by telephoning 02035779483 or by emailing wwqriskmanagement@thameswater.co.uk. Application forms should be completed on line via www.thameswater.co.uk. Please refer to the Wholsesale; Business customers; Groundwater discharges section.

As you are redeveloping a site, there may be public sewers crossing or close to your development. If you discover a sewer, it's important that you minimize the risk of damage. We'll need to check that your development doesn't limit repair or maintenance activities, or inhibit the services we provide in any other way. The applicant is advised to read our guide working near or diverting our pipes. https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development/Working-near-or-diverting-our-pipes.

We would expect the developer to demonstrate what measures will be undertaken to minimise groundwater discharges into the public sewer. Groundwater discharges typically result from construction site dewatering, deep excavations, basement infiltration, borehole installation, testing and site remediation. Any discharge made without a permit is deemed illegal and may result in prosecution under the provisions of the Water Industry Act 1991. Should the Local Planning Authority be minded to approve the planning application, Thames Water would like the following informative attached to the planning permission: "A Groundwater Risk Management Permit from Thames Water will be required for discharging groundwater into a public sewer. Any discharge made without a permit is deemed illegal and may result in prosecution under the provisions of the Water Industry Act 1991. We would expect the developer to demonstrate what measures he will undertake to minimise groundwater discharges into the public sewer. Permit enquiries should be directed to Thames Water's Risk Management Team by telephoning 020 3577 9483 or by emailing trade.effluent@thameswater.co.uk . Application forms should be completed on line via www.thameswater.co.uk. Please refer to the Wholsesale; Business customers; Groundwater discharges section.

Water Comments
If you are planning on using mains water for construction purposes, it's important you let Thames Water know before you start using it, to avoid potential fines for improper usage. More information and how to apply can be found online at thameswater.co.uk/buildingwater.

On the basis of information provided, Thames Water would advise that with regard to water network and water treatment infrastructure capacity, we would not have any objection to the above planning application. Thames Water recommends the following informative be attached to this planning permission. Thames

Water will aim to provide customers with a minimum pressure of 10m head (approx 1 bar) and a flow rate of 9 litres/minute at the point where it leaves Thames Waters pipes. The developer should take account of this minimum pressure in the design of the proposed development.

Supplementary Comments

There is no drainage strategy to review, this needs to be supplied before Thames Water can make an assessment and should follow Policy 5.13 of the London Plan which requires all developments to reduce the peak flow and volume of surface water discharging off the site, where greenfield rates should be aimed for and the drainage hierarchy followed: 1. Rainwater harvesting (including a combination of green and blue roofs) 2. Infiltration techniques and green roofs 3. Rainwater attenuation in open water features for gradual release 4. Rainwater discharged direct to watercourse (unless not appropriate) 5. Rainwater attenuation above ground (including blue roofs) 6. Rainwater attenuation below ground 7. Rainwater discharge to a surface water sewer or drain 8. Rainwater discharge to a combined sewer.
Please provide the point(s) of connection, discharge method and discharge rate for surface and foul water pre and post development. For surface water please also provide current discharge rates and greenfield runoff rates.

Yours faithfully
Development Planning Department

Development Planning,
Thames Water,
Maple Lodge STW,
Denham Way,
Rickmansworth,
WD3 9SQ
[redacted]

Clean Water

Your reference: DS6091304

Your site address: 163 Sumatra Road, West Hampstead NW6 1PN

Mr Jeremy Stein
Drawing and Planning Ltd
6 Chatsworth Avenue
Hendon
NW4 1HT

Clean water capacity report

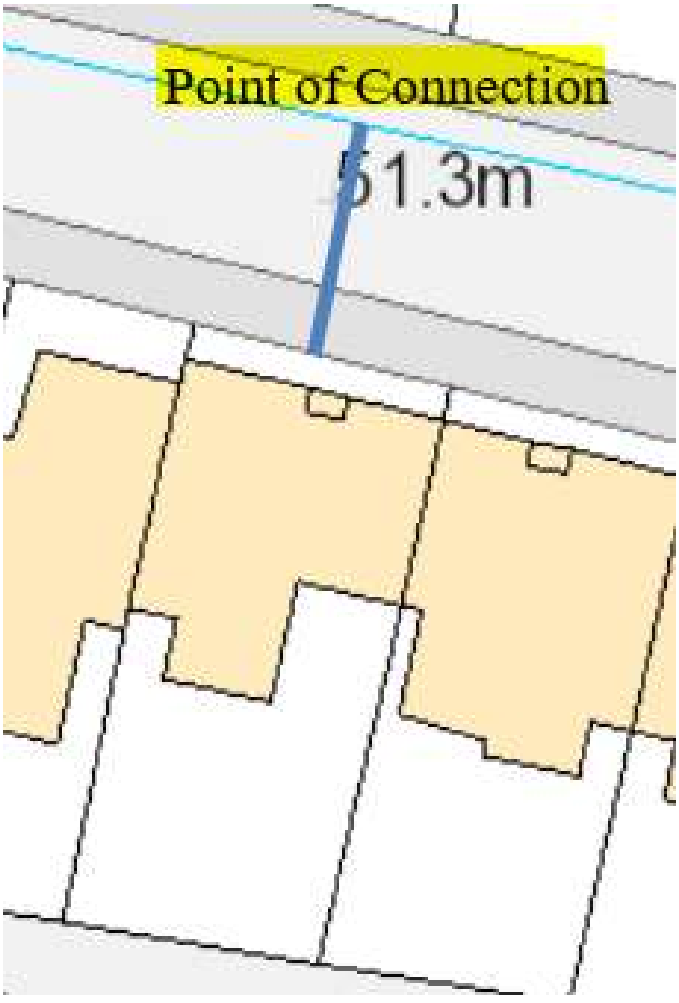
Status: Capacity confirmed
Date: 29th December 2021
Validity: Valid until 28th December 2022 or for the duration of your Local Authority planning permission when this report is used to support your application.

We confirm that there will be sufficient capacity on our clean water network to serve the following properties on your development: 12-room HMO.

Please be aware that this report is based upon the details and drawings provided. If there are any subsequent changes to these, then the contents of this report will become invalid and a new assessment will be needed.

Please note that the below POC is based on desktop study and it might change after capacity check study or site-specific survey.

Nearest point of connection



100mm main on Sumatra Road.

Contaminated land

If your site is on contaminated land, any new water pipes laid should be barrier pipe which is more expensive. If you think this is not the case you will need to provide a soil report when applying for new mains and services.

Diversions

From our records we don't anticipate that any clean water assets need to be diverted to accommodate your proposals.

Building water

It's important that you apply for a building water supply before you start using water on site even if you believe your supply is already metered. We need to ensure your account is properly set up and you have the correct meter for your supply or fines maybe imposed. Apply here.

Fire hydrant and sprinkler demand

Please note that we cannot confirm whether a fire hydrant or sprinkler demand can be accommodated on a new connection. You'll need to contact an independent consultant or specialist company for hydrant testing for fire-fighting purposes. Valve operations must be carried out by our Network Service Technician which can be booked on 0800 316 9800.

Asset location search

If you need help in identifying the location of existing water mains and sewers, you can get this information from any property search provider. We have a Property Searches team who will carry out an asset location search, which provides information on the location of known Thames Water clean and/or wastewater assets, including details of pipe sizes, direction of flow and depth (for which a fee is payable). You can find out more online or by calling us on 0845 070 9148.

Issued on behalf of the Clean Water Pre-Planning team, Developer Services, Thames Water, Clearwater Court, Vastern Road, Reading, RG1 8DB

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