

Our Ref; TN01
15 January 2024

81-88 BERESFORD STREET, LONDON, SE18 6BG
SURFACE WATER DRAINAGE TECHNICAL NOTE (RIBA2)

Purpose

The purpose of this Technical note is to discharge planning condition 32 and 44 as shown on Royal Borough of Greenwich, Decision Notice (ref: 21/4216/F) recreated below, and to provide a high level overview and conceptual design of the proposed surface water drainage strategy at 81-88 Beresford Street, London, SE18 6BG.

Condition 32 states:

Prior to above ground works confirmation shall be provided and approved by the Local Planning Authority (in consultation with Thames Water) that surface water flows can be accommodated and that either:

1. Surface water 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

1. All Surface water network upgrades required to accommodate the additional flows from the development have been completed.

The development shall only be carried out in accordance with the approved details.

Condition 44 states:

“Prior to commencement of the development (with the exception of demolition and site clearance), full details of the drainage and flood attenuation strategy shall be submitted to and approved in writing by the Local Planning Authority in consultation with Thames Water and the LLFA. The details shall seek to address the following matters:

- Measures to demonstrate that the post-development peak run-off rates will be at greenfield levels.*
- Supporting calculations to demonstrate the hydraulic performance of the proposed system to manage surface water on the site up to and including the 1 in 100 year plus 40% climate change rainfall event.*
- An updated drainage layout plan detailing the post development peak runoff flow rate and required attenuation volume in accordance with the supporting calculations to demonstrate the hydraulic performance of the system.*
- Evidence that properties are safeguarded from flooding in the event that the proposed drainage system fails or is exceeded.*
- Proposed attenuation location, dimensions and connection to the public sewer.*

The development shall be carried out in all respects in accordance with the approved details”.

Existing Site

Site Location

The land on which the proposed development is to be constructed is located at 81-88 Beresford Street, London, SE18 6BG. The site is located at grid reference (543679 ,179055) and has 0.095ha of existing impervious area. The site is brownfield in nature, consisting the former Woolwich Catholic Club.

The site is bound by Bereford Street to the South-West and existing commercial properties in all other directions of the existing development.

Existing Surface Water Regime

Thames Water Utility (TWU) is the drainage undertaker for the Royal Borough of Greenwich area. TWU drainage asset mapping (shown in **Appendix A**) indicates that foul water and combined water trunk sewers are present within the vicinity of the development.

The existing development has an impervious area of 0.095ha and is assumed to drain uncontrolled to the existing public foul water sewers, as shown in **Appendix B**.

Using the modified Rational Method and based on the 0.095 ha of impermeable area, the following existing flow rates can be calculated as shown in the below table.

Storm Event (Annual Exceedence Probability)	Predicted rainfall Intensity (mm/hr)	Existing Site Discharge Rate (l/s)
1 in 1 year	31	8.94 l/s
1 in 30 year	76	21.92 l/s
1 in 100 year	138	39.80 l/s

Proposed Site

The proposed development can be seen in in **Appendix C**, and consist of a 13 levels high rise building for student accommodation, roof and underground basement. The scheme proposes a green roof at level 9, as shown on the last page of **Appendix C**.

Surface Water Discharge Strategy

Part H of the Building Regulations (2010) recommends surface water run-off shall discharge to one of the following, listed in order of priority:

- An adequate soakaway or some other adequate infiltration system, or where that is not reasonably practicable,
- A watercourse, or, where that is not reasonably practicable,
- A sewer.

Each disposal option has been reviewed in the context of the site below;

Infiltration:

Infiltration discharge is considered unviable due to the red line boundary area fully encompassing building area preventing a clearance of 5m between building envelope and soakaway structures as of the Building Regulations Part H stipulation. As such discharging surface water to ground is ruled out due to these findings.

Watercourse:

There are no open watercourses located within close vicinity of the proposed development. As such discharging surface water to a watercourse is ruled out due to these findings.

Existing Sewers:

Due to infiltration and watercourse discharge not possible on this site, it is proposed the site will make a controlled discharge to the Thames Water foul water sewer, as per the existing scenario, due to no presence of Thames Water surface water sewers within close vicinity of the proposed development.

Surface Water Drainage Proposal

Proposed drainage plans, proposed catchment plan, greenfield runoff calculation and surface water network calculations are shown in **Appendix D**.

The proposed development, when fully built, will generate a total combined hardstanding of 0.093ha.

The proposed development consist of a 13 levels high rise building for student accommodation, roof and underground basement. The scheme proposes a green roof at level 9, as shown on the last page of **Appendix C**.

All proposed surface water runoff is to gravitate to basement level, where it will be attenuated via a concrete void located below basement level. The concrete void has been sized to attenuate runoff during the 100 year critical storm event + 40% climate change allowance. The concrete void has been designed to provide a 300m clearance between the critical water level and the finished floor level of the basement.

Proposed lined permeable blockwork will also be incorporated, collecting and treating its runoff before entering the concrete void, located at below basement level.

Greenfield runoff rates for the proposed development were calculated to be less than 2.0l/s, therefore it is proposed that a pre-packaged pump discharges runoff at a controlled rate of 2.0l/s, to minimise potential future blockages, to a proposed demarcation manhole located at ground floor level. From the proposed demarcation manhole runoff will gravitate to the TWU surface water sewer as shown in **Appendix D**.

SUDS Maintenance

It is proposed all SuDS features used within this development will be maintained and managed by the developer. It is proposed the proposed maintenance requirements and frequencies of the SuDS features used for this development will be carried out by the developer as of Table 1, Table 2 & Table 3 below.

Table 1: Operation and Maintenance Requirements for Concrete Void

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect and identify areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risk to performance)	Monthly
	For system where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary	Annually
	Remove sediment from pre-treatment structures and / or internal forebays	Annually, or as required
Remedial Actions	Repair / rehabilitate inlets, outlets, overflows and vents	As required
Monitoring	Inspect / check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Table 2: Operation and Maintenance Requirements for Green Roofs

Maintenance Schedule	Required Action	Typical Frequency
Regular Inspections	Inspect all components including soil substrate, vegetation, drains, irrigation systems (if applicable), membranes and roof structure for proper operation, integrity or waterproofing and structural stability	Annually and after severe storms
	Inspect soil substrate for evidence of erosion channels and identify any sediment sources	Annually and after severe storms
	Inspect drain inlets to ensure unrestricted runoff from the drainage layer to the conveyance or roof drain system	Annually and after severe storms
	Inspect underside of roof for evidence of leakage	Annually and after severe storms
Regular maintenance	Remove debris and litter to prevent clogging of inlet drains and interference with plant growth	Six monthly and annually or as required
	During establishment (ie year one), replace dead plants as required	Monthly (but usually responsibility of manufacturer)
	Post establishment, replace dead plants as required (where > 5% of coverage)	Annually (in autumn)
	Remove fallen leaves and debris from deciduous plant foliage	Six monthly or as required
	Remove nuisance and invasive vegetation, including weeds	Six monthly or as required
	Mow grasses, prune shrubs and manage other planting (if appropriate) as required – clipping should be removed and not allowed to accumulate	Six monthly or as required

Table 3: Operation and Maintenance Requirements for Pervious Pavements

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional Maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosphate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 hours after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

APPENDIX A – Thames Water Utility (TWU) Asset Mapping

Search Acumen
Vinters Park
New Cut Road
Maidstone
ME14 5NZ

Search address supplied	Catholic Club, 81-88, Beresford Street, London, SE18 6BG
Your reference	SA1227693-12276934
Our reference	CDWS/CDWS Standard/2020_4176893
Received date	24 March 2020
Search date	14 April 2020

Keeping you up-to-date

Commercial Drainage and Water Enquiry

The Commercial Drainage and Water Enquiry is specifically designed for those purchasing or leasing land or commercial property.

With comprehensive information regarding water and sewerage services and infrastructure assets, combined with appropriate guarantees for commercial property and land transactions, the Commercial Drainage and Water Enquiry mitigates risk and provides peace of mind for commercial property professionals and their advisers.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0845 070 9148

Question	Summary Answer
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Maps, Wayleaves, Easements, Manhole Cover and Invert levels

1.1	Where relevant, please include a copy of an extract from the public sewer map.	Map Provided
1.2	Where relevant, please include a copy of an extract from the map of waterworks.	Map Provided
1.3	Is there a wayleave/easement agreement giving Thames Water the right to lay or maintain assets or right of access to pass through private land in order to reach the Company's assets?	No
1.4	On the copy extract from the public sewer map, please show manhole cover, depth and invert levels where the information is available.	See Details

Drainage

2.1	Does foul water from the property drain to a public sewer?	See Details
2.2	Does surface water from the property drain to a public sewer?	See Details
2.3	Is a surface water drainage charge payable?	See Details
2.4	Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundaries of the property?	Yes
2.4.1	Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the boundaries of the property?	No
2.5	Does the public sewer map indicate any public sewer within 30.48 metres (100 feet) of any buildings within the property?	Yes
2.5.1	Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the 50metres of any buildings within the property?	No
2.6	Are any sewers or lateral drains serving, or which are proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?	No
2.7	Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?	No
2.8	Is the building which is or forms part of the property, at risk of internal flooding due to overloaded public sewers?	Not At Risk
2.9	Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.	3.078 Kilometres

Water

3.1	Is the property connected to mains water supply?	See Details
3.2	Are there any water mains, resource mains or discharge pipes within the boundaries of the property?	Yes
3.3	Is any water main or service pipe serving or which is proposed to serve the property, the subject of an existing adoption agreement or an application for such an agreement?	No
3.4	Is the property at risk of receiving low water pressure or flow?	No
3.5	What is the classification of the water supply for the property?	Hard
3.6	Please include details of the location of any water meter serving the property.	See Details

Question

Summary Answer

Charging

4.1.1	Who are the sewerage undertakers for the area?	Thames Water
4.1.2	Who are the water undertakers for the area?	Thames Water
4.2	Who bills the property for sewerage services?	See Details
4.3	Who bills the property for water services?	See Details
4.4	Is there a meter installed at this property?	See Details
4.5	Are there any trade effluent consents relating to this site/property for disposal of chemically enhanced waste?	No

Search address supplied: Catholic Club, 81-88, Beresford Street, London, SE18 6BG

Any new owner or occupier will need to contact Thames Water on 0800 316 9800 or log onto our website www.thameswater.co.uk and complete our online form to change the water and drainage services bills to their name.

The following records were searched in compiling this report: - the map of public sewers, the map of waterworks, water and sewer billing records, adoption of public sewer records, building over public sewer records, the register of properties subject to internal foul flooding, the register of properties subject to poor water pressure and the drinking water register.

Thames Water Utilities Ltd (TWUL) holds all of these.

TWUL, trading as Property Searches, are responsible in respect of the following:-

- (i) any negligent or incorrect entry in the records searched
- (ii) any negligent or incorrect interpretation of the records searched
- (iii) any negligent or incorrect recording of that interpretation in the search report
- (iv) and compensation payments

Please refer to the attached [Terms & Conditions](#). Customers and clients are asked to note these terms, which govern the basis on which this Commercial Drainage and Water search is supplied.

Maps, Wayleaves, Easements, Manhole Cover and Invert levels

1.1 Where relevant, please include a copy of an extract from the public sewer map.

A copy of an extract of the public sewer map is included, showing the public sewers, disposal mains and lateral drains in the vicinity of the property.

1.2 Where relevant, please include a copy of an extract from the map of waterworks.

A copy of an extract of the map of waterworks is included, showing water mains, resource mains or discharge pipes in the vicinity of the property.

1.3 Wayleaves & Easements

Is there a wayleave/easement agreement giving Thames Water the right to lay or maintain assets or right of access to pass through private land in order to reach the Company's assets?

No.

1.4 Manhole

On the copy extract from the public sewer map, please show manhole cover, depth and invert levels where the information is available.

Details of any manhole cover and invert levels applicable to this site are enclosed.

Drainage

2.1 Does foul water from the property drain to a public sewer?

We are unable to confirm the foul water connection details for the particular part of the property, nor any other part of the property, which you have identified without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required connection details.

2.2 Does surface water from the property drain to a public sewer?

We are unable to confirm the surface water connection details for the particular part of the property, nor any other part of the property, which you have identified without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required connection details.

2.3 Is a surface water drainage charge payable?

We are unable to answer this question without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required details.

2.4 Does the public sewer map indicate any public sewer, disposal main or lateral drain within the boundary of the property?

The public sewer map included indicates that there is a public sewer, disposal main or lateral drain within the boundaries of the property. However, from the 1st October 2011 there may be additional public sewers, disposal mains or lateral drains which are not recorded on the public sewer map but which may further prevent or restrict development of the property.

2.4.1 Does the public sewer map indicate any public pumping station or any other ancillary apparatus within the boundaries of the property?

The public sewer map included indicates that there is no public pumping station within the boundaries of the property.

2.5 Does the public sewer map indicate any public sewer within 30.48 metres (100 feet) of any buildings within the property?

The public sewer map included indicates that there is a public sewer within 30.48 metres (100 feet) of a building within the property.

2.5.1 Does the public sewer map indicate any public pumping station or any other ancillary apparatus within 50 metres of any buildings within the property?

The public sewer map included indicates that there is no public pumping station within 50 metres of any buildings within the property.

2.6 Are any sewers or lateral drains serving, or which are proposed to serve, the property the subject of an existing adoption agreement or an application for such an agreement?

Records confirm that Foul sewers serving the development, of which the property forms part are not the subject of an existing adoption agreement or an application for such an agreement.

The Surface Water sewer(s) and/or Surface Water lateral drain(s) are not the subject of an adoption agreement.

2.7 Has a sewerage undertaker approved or been consulted about any plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain?

There are no records in relation to any approval or consultation about plans to erect a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain. However, the sewerage undertaker might not be aware of a building or extension on the property over or in the vicinity of a public sewer, disposal main or drain.

2.8 Is the building which is or forms part of the property, at risk of internal flooding due to overloaded public sewers?

The property is not recorded as being at risk of internal flooding due to overloaded public sewers.

From the 1st October 2011 most private sewers, disposal mains and lateral drains were transferred into public ownership. It is therefore possible that a property may be at risk of internal flooding due to an overloaded public sewer which the sewerage undertaker is not aware of. For further information it is recommended that enquiries are made of the vendor.

2.9 Please state the distance from the property to the nearest boundary of the nearest sewage treatment works.

The nearest sewage treatment works is Beckton STW which is 3.078 kilometres to the north of the property.

Water

3.1 Is the property connected to mains water supply?

We are unable to confirm the water connection details for the particular part of the property, nor any other part of the property, which you have identified without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required connection details.

3.2 Are there any water mains, resource mains or discharge pipes within the boundary of the property?

The map of waterworks indicates that there are water mains, resource mains or discharge pipes within the boundaries of the property.

3.3 Is any water main or service pipe serving, or which is proposed to serve, the property the subject of an existing adoption agreement or an application for such an agreement?

Records confirm that water mains or service pipes serving the property are not the subject of an existing adoption agreement or an application for such an agreement.

3.4 Is the property at risk of receiving low water pressure or flow?

Records confirm that the property is not recorded on a register kept by the water undertaker as being at risk of receiving low water pressure or flow.

3.5 What is the classification of the water supply for the property?

The water supplied to the property has an average water hardness of 103.1mg/l calcium which is defined as HARD by ThamesWater.

3.6 Please include details of the location of any water meter serving the property.

We are unable to confirm the presence/location of a water meter for the particular part of the property which you have identified without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required details.

Charging

4.1.1 – Who is responsible for providing the sewerage services for the property?

Thames Water Utilities Limited, Clearwater Court, Reading, RG1 8DB is the sewerage undertaker for the area.

4.1.2 – Who is responsible for providing the water services for the property?

Thames Water Utilities Limited, Clearwater Court, Reading, RG1 8DB is the water undertaker for the area.

4.2 Who bills the property for sewerage services?

If you wish to know who bills the sewerage services for this property then you will need to contact the current owner. For a list of all potential retailers of sewerage services for the property please visit www.open-water.org.uk

4.3 Who bills the property for water services?

If you wish to know who bills the water services for this property then you will need to contact the current owner. For a list of all potential retailers of water services for the property please visit www.open-water.org.uk

4.4 Is there a meter installed at this property?

We are unable to confirm the presence/location of a water meter for the particular part of the property which you have identified without further details, such as either a copy of the water bill or water meter serial numbers which should enable us to locate the required details.

4.5 Trade Effluent Consent

Are there any trade effluent consents relating to this site/property for disposal of chemically enhanced waste?

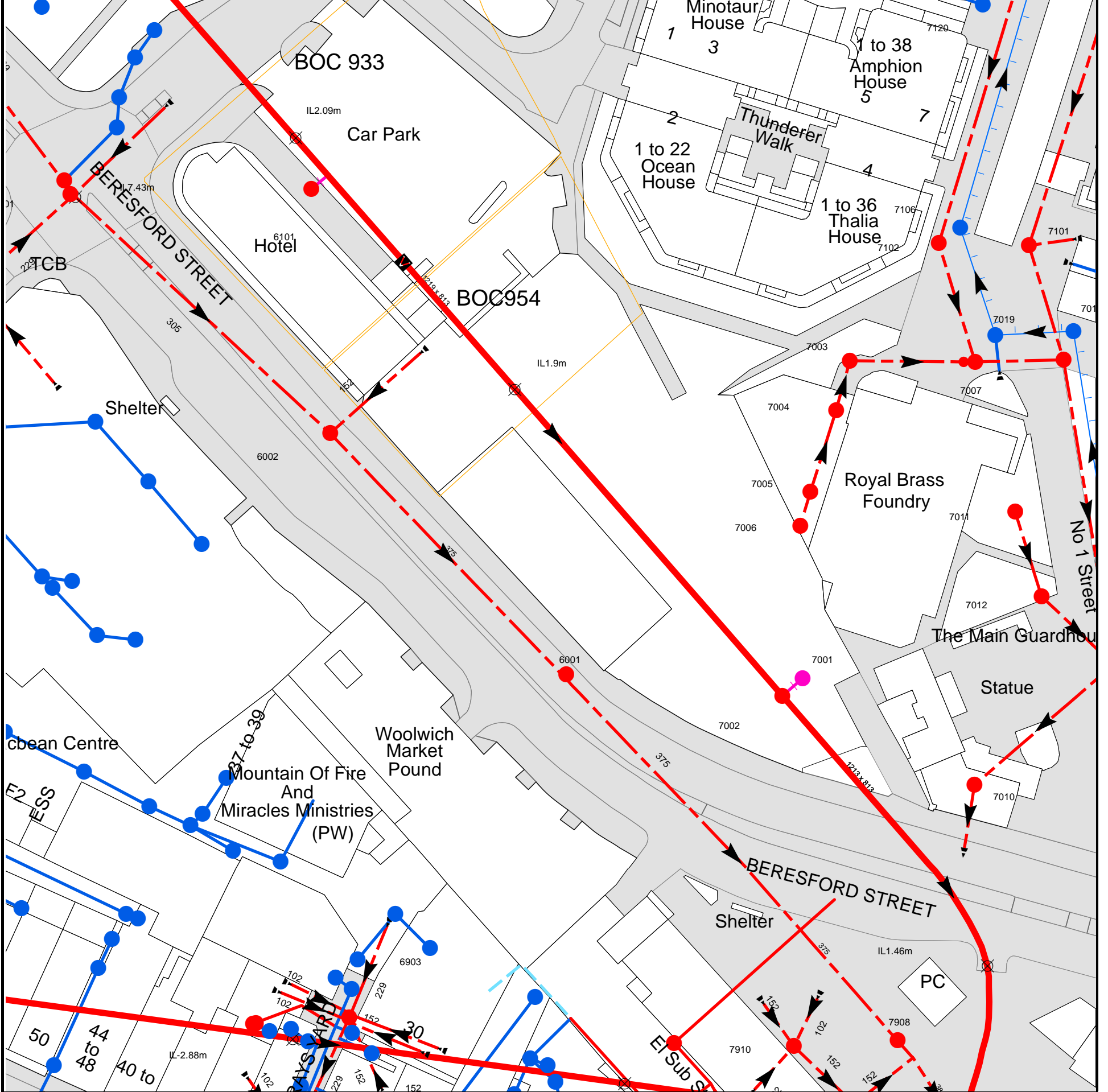
No.

Payment for this Search

A charge will be added to your suppliers account.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information.

CommercialDW Drainage and Water Enquiry Sewer Map- CDWS/CDWS Standard/2020 4176893



The width of the displayed area is 200m

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no survey information is available.



















Manhole Reference	Manhole Cover Level	Manhole Invert Level
60ZQ	n/a	n/a
60YX	n/a	n/a
50XV	n/a	n/a
60YY	n/a	n/a
50XU	n/a	n/a
50XT	n/a	n/a
50WU	n/a	n/a
50WT	n/a	n/a
50YX	n/a	n/a
50YW	n/a	n/a
50YY	n/a	n/a
60ZS	n/a	n/a
60YZ	n/a	n/a
6002	9.99	7.06
59UY	n/a	n/a
7102	n/a	n/a
7106	n/a	n/a
7120	n/a	n/a
7019	n/a	n/a
7101	n/a	n/a
7015	n/a	n/a
6001	10.02	n/a
69WX	n/a	n/a
7002	10.5	1.68
7910	11.73	10.02
7006	n/a	n/a
7001	10.5	n/a
7005	n/a	n/a
7004	n/a	n/a
7003	n/a	n/a
7908	10.26	6.06
7010	n/a	n/a
7007	n/a	n/a
7011	n/a	n/a
7012	n/a	n/a
7008	n/a	n/a
69RV	n/a	n/a
69RT	n/a	n/a
6903	12.62	11.08
69RS	n/a	n/a
69QZ	n/a	n/a
69SW	n/a	n/a
69TV	n/a	n/a
69SV	n/a	n/a
69SU	n/a	n/a
69XR	n/a	n/a
69SZ	n/a	n/a
69UT	n/a	n/a
69XS	n/a	n/a
59XQ	n/a	n/a
59XR	n/a	n/a
59XS	n/a	n/a
59XT	n/a	n/a
59XU	n/a	n/a
60ZR	n/a	n/a
69TZ	n/a	n/a
69UZ	n/a	n/a
69SY	n/a	n/a
60YW	n/a	n/a
69RW	n/a	n/a
69RY	n/a	n/a
50ZR	n/a	n/a
5101	9.96	n/a
6101	n/a	n/a
51YT	n/a	n/a
51YU	n/a	n/a
51YV	n/a	n/a
51YW	n/a	n/a
61ZS	n/a	n/a
51YQ	n/a	n/a

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Sewer Key - Commercial Drainage and Water Enquiry

Public Sewer Types (Operated & Maintained by Thames Water)

-  **Foul:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
-  **Surface Water:** A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.
-  **Combined:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.
-  Trunk Surface Water
-  Trunk Foul
-  Storm Relief
-  Trunk Combined
-  Vent Pipe
-  Bio-solids (Sludge)
-  Proposed Thames Surface Water Sewer
-  Proposed Thames Water Foul Sewer
-  Gallery
-  Foul Rising Main
-  Surface Water Rising Main
-  Combined Rising Main
-  Sludge Rising Main
-  Proposed Thames Water Rising Main
-  Vacuum





Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

-  Air Valve
-  Dam Chase
-  Fitting
-  Meter
-  Vent Column




Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

-  Control Valve
-  Drop Pipe
-  Ancillary
-  Weir






End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol, Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

-  Outfall
-  Undefined End
-  Inlet






Other Symbols

Symbols used on maps which do not fall under other general categories








-  /  Public/Private Pumping Station
-  Change of characteristic indicator (C.O.C.I.)
-  Invert Level
-  Summit

Areas

Lines denoting areas of underground surveys, etc.

-  Agreement
-  Operational Site
-  Chamber
-  Tunnel
-  Conduit Bridge

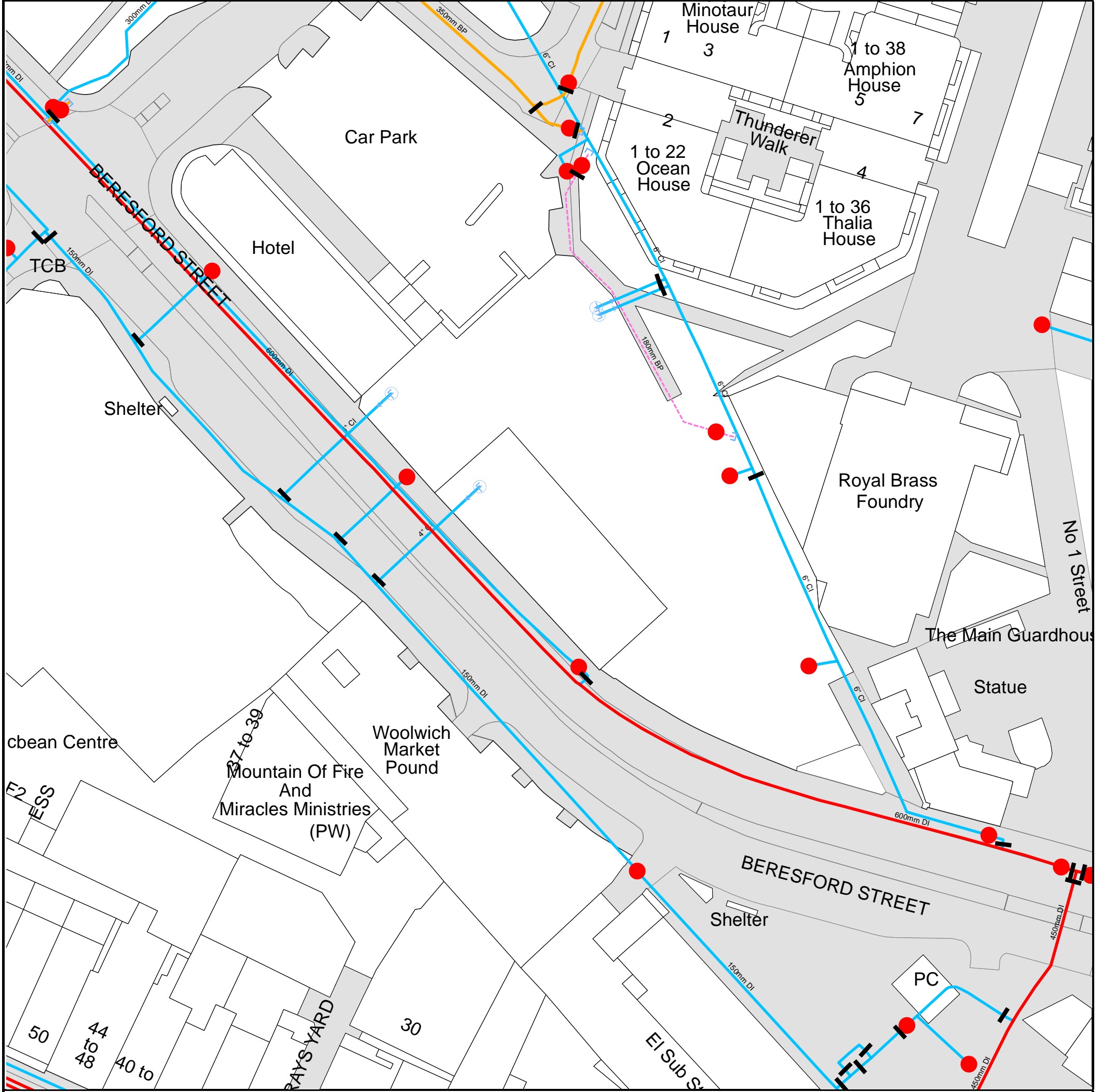
Other Sewer Types (Not Operated or Maintained by Thames Water)

-  Foul Sewer
-  Surface Water Sewer
-  Combined Sewer
-  Gully
-  Culverted Watercourse
-  Proposed
-  Abandoned Sewer

Notes:

- 1) All levels associated with the plans are to Ordnance Datum Newlyn.
- 2) All measurements on the plans are metric.
- 3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
- 4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
- 5) 'na' or '0' on a manhole level indicates that data is unavailable.

- 6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbology present on the plan, please contact a member of Property Searches on 0118 925 1504.



The width of the displayed area is 200m

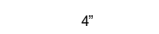

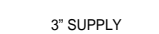
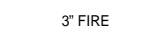



The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

Based on the Ordnance Survey Map with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.







Waterworks Key - Commercial Drainage and Water Enquiry

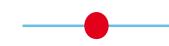
Water Pipes (Operated & Maintained by Thames Water)

- 
4" Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
- 
16" Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.
- 
3" SUPPLY Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.
- 
3" FIRE Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
- 
3" METERED Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.
- 
Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.
- 
Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

Valves

-  General Purpose Valve
-  Air Valve
-  Pressure Control Valve
-  Customer Valve

Hydrants








-  Single Hydrant

Meters






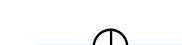



-  Meter

End Items

Symbol indicating what happens at the end of a water main.

-  Blank Flange
-  Capped End
-  Emptying Pit
-  Undefined End
-  Manifold
-  Customer Supply
-  Fire Supply

Operational Sites

-  Booster Station
-  Other
-  Other (Proposed)
-  Pumping Station
-  Service Reservoir
-  Shaft Inspection
-  Treatment Works
-  Unknown
-  Water Tower

Other Symbols



-  Data Logger

PIPE DIAMETER

DEPTH BELOW GROUND

Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Other Water Pipes (Not Operated or Maintained by Thames Water)

- 
Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.
- 
Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.

For your guidance:

- Thames Water Property Searches Complaints Procedure:
 - Thames Water Property Searches offers a robust complaints procedure. Complaints can be made by telephone, in writing, by email (searches@thameswater.co.uk) or through our website (www.thameswater-propertysearches.co.uk)

As a minimum standard Thames Water Property Searches will:

- endeavour to resolve any contact or complaint at the time of receipt. If this isn't possible, we will advise of timescales;
- investigate and research the matter in detail to identify the issue raised (in some cases third party consultation will be required);
- provide a response to the customer within 10 working days of receipt of the complaint;
- provide compensation, if no response or acknowledgment that we are investigating the case is given within 10 working days of receipt of the complaint;
- keep you informed of the progress and, depending on the scale of investigation required, update with new timescales as necessary;
- provide an amended search, free of charge, if required;
- provide a refund if we find your complaint to be justified; take the necessary action within our power to put things right.

If you want us to liaise with a third party on your behalf, just let us know.

If you are still not satisfied with the outcome provided, we will refer the matter to a Senior Manager, for resolution, who will respond again within 5 working days.

If you remain dissatisfied with our final response you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). Further information can be obtained by visiting www.tpos.co.uk or by sending an email to admin@tpos.co.uk

Question 1.1

For your guidance:

- The Water Industry Act 1991 defines Public Sewers as those which Thames Water have responsibility for. Other assets and rivers, watercourses, ponds, culverts or highway drains may be shown for information purposes only.
- The company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.
- Assets other than public sewers may be shown on the copy extract, for information.

Question 1.2

For your guidance:

- The “water mains” in this context are those, which are vested in and maintainable by the water company under statute.
- Assets other than public water mains may be shown on the plan, for information only.
- Water companies are not responsible for private supply pipes connecting the property to the public water main and do not hold details of these. These may pass through land outside of the control of the seller, or may be shared with adjacent properties. The buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Question 2.1

For your guidance:

- Water companies are not responsible for any private drains that connect the property to the public sewerage system and do not hold details of these. The property owner will normally have sole responsibility for private drains serving the property. These may pass through land outside the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- If foul water does not drain to the public sewerage system, the property may have private facilities in the form of a cesspit, septic tank or other type of treatment plant.
- An extract from the public sewer map is enclosed. This will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

Question 2.2

For your guidance:

- Sewerage Undertakers are not responsible for any private drains that connect the property to the public sewerage system, and do not hold details of these.
- The property owner will normally have sole responsibility for private drains serving the property. These private drains may pass through land outside of the control of the seller and the buyer may wish to investigate whether separate rights or easements are needed for their inspection, repair or renewal.
- In some cases, 'Sewerage Undertakers' records do not distinguish between foul and surface water connections to the public sewerage system.
- At the time of privatisation in 1989, Sewerage Undertakers were sold with poorly-kept records of sewerage infrastructure. The records did not always show which properties were connected for surface water drainage purposes. Accordingly, billing records have been used to provide an answer for this element of the drainage and water search.
- Due to the potential inadequacy of 'Sewerage Undertakers' infrastructure records with respect to surface water drainage, it is the customer's responsibility to inform the Sewerage Undertaker that they do not receive the surface water drainage service. If on inspection, the buyer finds that surface water from the property does not drain to a public sewer, then the property may be eligible for a rebate of the surface water drainage charge. If you wish to know who bills the sewerage services for this property then you will need to contact the current owner. For a list of all potential retailers of sewerage services for the property please visit www.open-water.org.uk.
- If surface water from the property does not drain to the public sewerage system, the property may have private facilities in the form of a soakaway or private connection to a watercourse.
- An extract from the public sewer map is enclosed. This will show known public sewers in the vicinity of the property and it should be possible to estimate the likely length and route of any private drains and/or sewers connecting the property to the public sewerage system.

Question 2.3

For your guidance:

- If surface water from the property drains to a public sewer, then a surface water drainage charge is payable.
- Where a surface water drainage charge is currently included in the property's water and sewerage bill but, on inspection, the buyer finds that surface water from the property does not drain to a public sewer, then the property may be eligible for a rebate of the surface water drainage charge. If you wish to know who bills the sewerage services for this property then you will need to contact the current owner. For a list of all potential retailers of sewerage services for the property please visit www.open-water.org.uk.

Question 2.4

For your guidance:

- Thames Water has a statutory right of access to carry out work on its assets. Employees of Thames Water or its contractors may, therefore, need to enter the property to carry out work.
- Please note if the property was constructed after 1st July 2011 any sewers and/or lateral drain within the boundary of the property are the responsibility of the householder.
- The approximate boundary of the property has been determined by reference to the Ordnance Survey Record or the map supplied.
- The presence of a public sewer running within the boundary of the property may restrict further development. The Company has a statutory right of access to carry out work on its assets, subject to notice. This may result in employees of the Company, or its contractors, needing to enter the property to carry out work.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Question 2.4.1

For your guidance:

- Private pumping stations installed before 1st July 2011 will be transferred into the ownership of the sewerage undertaker.
- From the 1st October 2016 private pumping stations which serve more than one property have been transferred into public ownership but may not be recorded on the public sewer map.
- The approximate boundary of the property has been determined by reference to the Ordnance Survey Record or the map supplied.
- The presence of a public pumping station within the boundary of the property may restrict further development. The company has a statutory right of access to carry out work on its assets, subject to notice. This may result in employees of the company, or its contractors, needing to enter the property to carry out work.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Question 2.5

For your guidance:

- From the 1st October 2011 there may be additional lateral drains and/or public sewers which are not recorded on the public sewer map but are also within 30.48 metres (100 feet) of a building within the property.
- The presence of a public sewer within 30.48 metres (100 feet) of the building(s) within the property can result in the local authority requiring a property to be connected to the public sewer.
- The measurement is estimated from the Ordnance Survey record, between the building(s) within the boundary of the property and the nearest public sewer.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Question 2.5.1

For your guidance:

- Private pumping stations installed before 1st July 2011 will be transferred into the ownership of the sewerage undertaker.
- From the 1st October 2016 private pumping stations which serve more than one property have been transferred into public ownership but may not be recorded on the public sewer map.
- The presence of a public pumping station within 50 metres of the building(s) within the property can result in the local authority requiring a property to be connected to the public sewer.
- The measurement is estimated from the Ordnance Survey record, between the building(s) within the boundary of the property and the nearest public sewer.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an 'as constructed' record. It is recommended these details be checked with the developer.

Question 2.6

For your guidance:

- Any sewers and/or lateral drains within the boundary of the property are not the subject of an adoption agreement and remain the responsibility of the householder. Adoptable sewers are normally those situated in the public highway.
- This enquiry is of interest to purchasers who will want to know whether or not the property will be linked to a public sewer.
- Where the property is part of a very recent or ongoing development and the sewers are not the subject of an adoption application, buyers should consult with the developer to ascertain the extent of private drains and sewers for which they will hold maintenance and renewal liabilities.
- Final adoption is subject to the developer complying with the terms of the adoption agreement under Section 104 of the Water Industry Act 1991 and meeting the requirements of 'Sewers for Adoption' 6th Edition.

Question 2.7

For your guidance:

- From the 1st October 2011 most private sewers, disposal mains and lateral drains were transferred into public ownership and the sewerage undertaker may not have been approved or consulted about any plans to erect a building or extension on the property over or in the vicinity of these.
- Buildings or extensions erected over a sewer in contravention of building controls may have to be removed or altered.

Question 2.8

For your guidance:

- For reporting purposes buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- A sewer is “overloaded” when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- “Internal flooding” from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- “At Risk” properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company’s reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water Utilities Ltd on Tel: 0800 316 9800 or website www.thameswater.co.uk

Question 2.9

For your guidance:

- The nearest sewage treatment works will not always be the sewage treatment works serving the catchment within which the property is situated.
- The sewerage undertaker’s records were inspected to determine the nearest sewage treatment works.
- It should be noted that there may be a private sewage treatment works closer than the one detailed above that has not been identified.
- As a responsible utility operator, Thames Water Utilities Ltd seeks to manage the impact of odour from operational sewage works on the surrounding area. This is done in accordance with the Code of Practice on Odour Nuisance from Sewage Treatment Works issued via the Department of Environment, Food and Rural Affairs (DEFRA). This Code recognises that odour from sewage treatment works can have a detrimental impact on the quality of the local environment for those living close to works. However DEFRA also recognises that sewage treatment works provide important services to communities and are essential for maintaining standards in water quality and protecting aquatic based environments. For more information visit www.thameswater.co.uk

Question 3.1

For your guidance:

- The Company does not keep details of private supplies. The situation should be checked with the current owner of the property.

Question 3.2

For your guidance:

- The boundary of the property has been determined by reference to the plan supplied. Where a plan was not supplied, the Ordnance Survey Record was used. If the Water undertaker mentioned in Question 4.1.2 is not Thames Water Utilities Ltd the boundary of the property has been determined by the Ordnance Survey.
- The presence of a public water main within the boundary of the property may restrict further development within it. Water companies have a statutory right of access to carry out work on their assets, subject to notice. This may result in employees of the Company, or its contractors, needing to enter the property to carry out work.

Question 3.3

For your guidance:

- This enquiry is of interest to purchasers who will want to know whether or not the property will be linked to the mains water supply.

Question 3.4

For your guidance:

- “Low water pressure” means water pressure below the regulatory reference level, which is the minimum pressure when demand on the system is not abnormal.
- Water Companies are required to include in the Regulatory Register that is presented annually to the Director General of Water Services, properties receiving pressure below the reference level, provided that allowable exclusions do not apply (i.e. events which can cause pressure to temporarily fall below the reference level)
- The reference level of service is a flow of 9 litres/minute at a pressure of 10metres / head on the customer's side of the outside stop valve (osv). The reference level of service must be applied on the customer's side of a meter or any other company fittings that are on the customer's side of the main stop tap. The reference level applies to a single property. Where more than one property is served by a common service pipe, the flow assumed in the reference level must be appropriately increased to take account of the total number of properties served. For two properties, a flow of 18 litres/minute at a pressure of 10metres/head on the customers' side of the osv is appropriate. For three or more properties the appropriate flow should be calculated from the standard loadings provided in BS806-3 or the Institute of Plumbing handbook.
- **Allowable exclusions** The Company is required to include in the Regulatory Register properties receiving pressure below the reference level, provided that allowable exclusions listed below do not apply.
- **Abnormal demand:** This exclusion is intended to cover abnormal peaks in demand and not the daily, weekly or monthly peaks in demand, which are normally expected. Companies should exclude from the reported figures properties which are affected by low pressure only on those days with the highest peak demands. During the report year companies may exclude, for each property, up to five days of low pressure caused by peak demand.
- **Planned maintenance:** Companies should not report low pressures caused by planned maintenance. It is not intended that companies identify the number of properties affected in each instance. However, companies must maintain sufficiently accurate records to verify that low-pressure incidents that are excluded because of planned maintenance are actually caused by maintenance.
- **One-off incidents:** This exclusion covers a number of causes of low pressure; mains bursts; failures of company equipment (such as pressure reducing valves or booster pumps); firefighting; and action by a third party. However, if problems of this type affect a property frequently, they cannot be classed as one-off events and further investigation will be required before they can be excluded.
- **Low-pressure incidents of short duration:** Properties affected by low pressure, which only occur for a short period, and for which there is evidence that incidents of a longer duration would not occur during the course of the year, may be excluded from the reported figures.
- Please contact your water undertaker mentioned in Question 4.1.2 if you require further information on water pressure.

Question 3.5

For your guidance:

- Water hardness can be expressed in various indices for example the hardness settings for dishwashers are commonly expressed in Clark's degrees, but check with the manufacturer as there are also other units. The following table shows the normal ranges of hardness.

Thames Water Hardness Category	Calcium (mg/l)	Calcium Carbonate (mg/l)	English Clarke degrees	French degrees	General/German degrees
Soft	0 to 40	0 to 100	0 to 7	0 to 10	0 to 5.6
Medium	41 to 80	101 to 200	8 to 14	11 to 20	5.7 to 11.2
Hard	Over 80	Over 200	Over 14	Over 20	over 11.2

- Please contact your water undertaker mentioned in Question 4.1.2 if you require further information on water hardness.

Question 3.6

For your guidance:

- Where a meter does not serve the property and the customer wishes to consider this method of charging, they should contact the current owner if they wish to know who bills the water services for this property. For a list of all potential retailers of water services for the property please visit www.open-water.org.uk.

Question 4.4

For your guidance:

- The Water Industry Act 1991 Section 150, The Water Resale Order 2001 provides protection for people who buy their water or sewerage services from a person or company instead of directly from a water or sewerage company. Details are available from the Office of Water Services (OFWAT) website is www.ofwat.gov.uk.
- The Company may install a meter at the premises where a buyer makes a change of use of the property or where the buyer uses water for:
 - Watering the garden other than by hand (this includes the use of sprinklers).
 - Automatically replenishing a pond or swimming pool with a capacity greater than 10,000 litres.
 - A bath with a capacity in excess of 230 litres.
 - A reverse osmosis unit
- Where a meter does not serve the property and the customer wishes to consider this method of charging, they should contact the current owner if they wish to know who bills the sewerage and water services for this property. For a list of all potential retailers of sewerage and water services for the property please visit www.open-water.org.uk.

Question 4.5

For your guidance:

- If a Trade effluent consent applies to the premises which are the subject of this search, it is for the applicant to satisfy itself as to the suitability of the consent for its client's requirements. The occupier of any trade premises in the area of a sewerage undertaker may discharge any trade effluent proceeding from those premises into the undertaker's public sewers if he does so with the undertaker's consent. If, in the case of any trade premises, any trade effluent is discharged without such consent or other authorisation, the occupier of the premises shall be guilty of an offence.
- Please note any existing consent is dependent on the business being carried out at the property and will not transfer automatically upon change of ownership.
- For further information regarding Trade Effluent consents please contact: Trade Effluent Control, Crossness STW, Belvedere Road, Abbey Wood London SE2 9AQ.

CommercialDW Drainage and Water Enquiry Terms and Conditions

Customer and Clients are asked to note these terms, which govern the basis on which this CommercialDW Drainage & Water Enquiry is supplied

Definitions

'Client' means the person, company or body who is the intended recipient of the Report with an actual or potential interest in the Property.

'Company' means a water service company or their data service provider producing the Report.

'Customer' means the person, company, firm or other legal body placing the Order, either on their own behalf as Client, or, as an agent for a Client.

'Order' means any request completed by the Customer requesting the Report.

'Property' means the address or location supplied by the Customer in the Order.

'Report' means the drainage and/or water report prepared by The Company in respect of the Property.

'Thames Water' means Thames Water Utilities Limited registered in England and Wales under number 2366661 whose registered office is at Clearwater Court, Vastern Road, Reading, Berks, RG1 8DB;

Agreement

1 Thames Water agrees to supply the Report to the Customer and the Client subject to these terms. The scope and limitations of the Report are described in paragraph 2 of these terms. Where the Customer is acting as an agent for the Client then the Customer shall be responsible for bringing these terms to the attention of the Client. The Customer and Client agree that the placing of an Order for a Report indicates their acceptance of these terms.

The Report

2. Whilst Thames Water will use reasonable care and skill in producing the Report, it is provided to the Customer and the Client on the basis that they acknowledge and agree to the following:-

2.1 The information contained in the Report can change on a regular basis so Thames Water cannot be responsible to the Customer and the Client for any change in the information contained in the Report after the date on which the Report was produced and sent to the Client.

2.2 The Report does not give details about the actual state or condition of the Property nor should it be used or taken to indicate or exclude actual suitability or unsuitability of the Property for any particular purpose, or relied upon for determining saleability or value, or used as substitute for any physical investigation or inspection. Further advice and information from appropriate experts and professionals should always be obtained.

2.3 The information contained in the Report is based upon the accuracy, completeness and legibility of the address and other information supplied by the Customer or Client.

2.4 The Report provides information as to the location and connection of existing services and should not be relied on for any other purpose. The Report may contain opinions or general advice to the Customer and the Client and Thames Water cannot ensure that any such opinion or general advice is accurate, complete or valid and accepts no liability therefore.

2.5 The position and depth of apparatus shown on any maps attached to the Report are approximate, and are furnished as a general guide only, and no warranty as to its correctness is given or implied. The exact positions and depths should be obtained by excavation trial holes and the maps must not be relied on in the event of excavation or other works made in the vicinity of apparatus shown on any maps.

Liability

3 Thames Water shall not be liable to the Client for any failure, defect or non-performance of its obligations arising from any failure of, or defect in any machine, processing system or transmission link or anything beyond Thames Water's reasonable control or the acts or omissions of any party for whom Thames Water are not responsible.

3.1 Where the Customer sells this report to a Client (other than in the case of a bona fide legal adviser recharging the cost of the Report as a disbursement) Thames Water shall not in any circumstances (whether for breach of contract, negligence or any other tort, under statute or statutory duty or otherwise at all) be liable for any loss or damage whatsoever and the Customer shall indemnify Thames Water in respect of any claim by the Client.

3.2 Where a report is requested for an address falling within a geographical area where Thames Water and another Company separately provide Water and Sewerage Services, then it shall be deemed that liability for the information given by Thames Water or the Company as the case may be will remain with Thames Water or the Company as the case may be in respect of the accuracy of the information supplied. Where Thames Water is supplying information which has been provided to it by another Company for the purposes outlined in this agreement Thames Water will therefore not be liable in any way for the accuracy of that information and will supply that information as agent for the Company from which the information was obtained.

3.3 Except in respect of death or personal injury caused by negligence, or as expressly provided in these Terms:

3.3.1 The entire liability of Thames Water or the Company as the case may be in respect of all causes of action arising under or in connection with the Report (whether for breach of contract, negligence or any other tort, under statute or statutory duty or otherwise at all) shall not exceed £2,000,000 (two million pounds); and

3.3.2 Thames Water shall not in any circumstances (whether for breach of contract, negligence or any other tort, under statute or statutory duty or otherwise at all) be liable for any loss of profit, loss of goodwill, loss of

reputation, loss of business or any indirect, special or consequential loss, damage or other claims, costs or expenses;

Copyright and Confidentiality

4. The Customer and the Client acknowledge that the Report is confidential and is intended for the personal use of the Client. The copyright and any other intellectual property rights in the Report shall remain the property of Thames Water or the Company as the case may be. No intellectual or other property rights are transferred or licensed to the Customer or the Client except to the extent expressly provided

4.1 The Customer or Client is entitled to make copies of the Report but is not permitted to copy any maps contained in, or attached to the Report

4.2 The maps contained in the Report are protected by Crown Copyright and must not be used for any purpose outside the context of the Report.

4.3 The Customer and Client agree (in respect of both the original and any copies made) to respect and not to alter any trademark, copyright notice or other property marking which appears on the Report.

Payment

5. Unless otherwise stated all prices are inclusive of VAT. The Customer shall pay for the price of the Report specified by Thames Water, without any set off, deduction or counterclaim.

5.1 Unless payment has been received in advance, Customers shall be invoiced for the agreed fee once their request has been processed. Any such invoice must be paid within 14 days. Where the Customer has an account with Thames Water, payment terms will be as agreed with Thames Water.

5.2 No payment shall be deemed to have been received until Thames Water has received cleared funds.

5.3 If the Customer fails to pay Thames Water any sum due Thames Water shall be entitled but not obliged to charge the Customer interest on the sum from the due date for payment at the annual rate of 2% above the base lending rate from time to time of Natwest Bank, accruing on a daily basis until payment is made. Thames Water reserves the right to claim interest under the Late Payment of Commercial Debts (Interest) Act 1998.

5.4 Thames Water reserves the right to increase fees on reasonable prior written notice at any time.

Cancellations or Alterations

6. Once an Order is placed, Thames Water shall not be under any obligation to accept any request to cancel that Order and payment for the Order shall still be due upon completion of the Report. In cases where an error has been made in the original Order (e.g. the Customer has supplied an incorrect address), the Customer will need to place a second Order, detailing the correct information, and shall be liable to pay a second charge in accordance with clause 5 above.

Delivery

7. On receiving your order the reports will be posted to you within 10 working days from receipt.

7.1 Delivery is subject to local post conditions and regulations. All items should arrive within 12 working days, but Thames Water cannot be held responsible should delays be caused by local post conditions, postal strikes or other causes beyond the control of Thames Water.

General

8. If any provision of these terms is or becomes invalid or unenforceable, it will be taken to be removed from the rest of these terms to the extent that it is invalid or unenforceable. No other provision of these terms shall be affected.

8.1 These terms shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts.

8.2 Nothing in this notice shall in any way restrict the Customer or Clients statutory or any other rights of access to the information contained in the Report.

These Terms & Conditions are available in larger print for those with impaired vision.

Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of TWUL until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment 14 days from due date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service, or will be held to be invalid.
4. TWUL does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL's terms and conditions shall apply.
6. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. A charge may be made at TWUL's discretion for increased administration costs.

A copy of TWUL's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 316 9800.

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

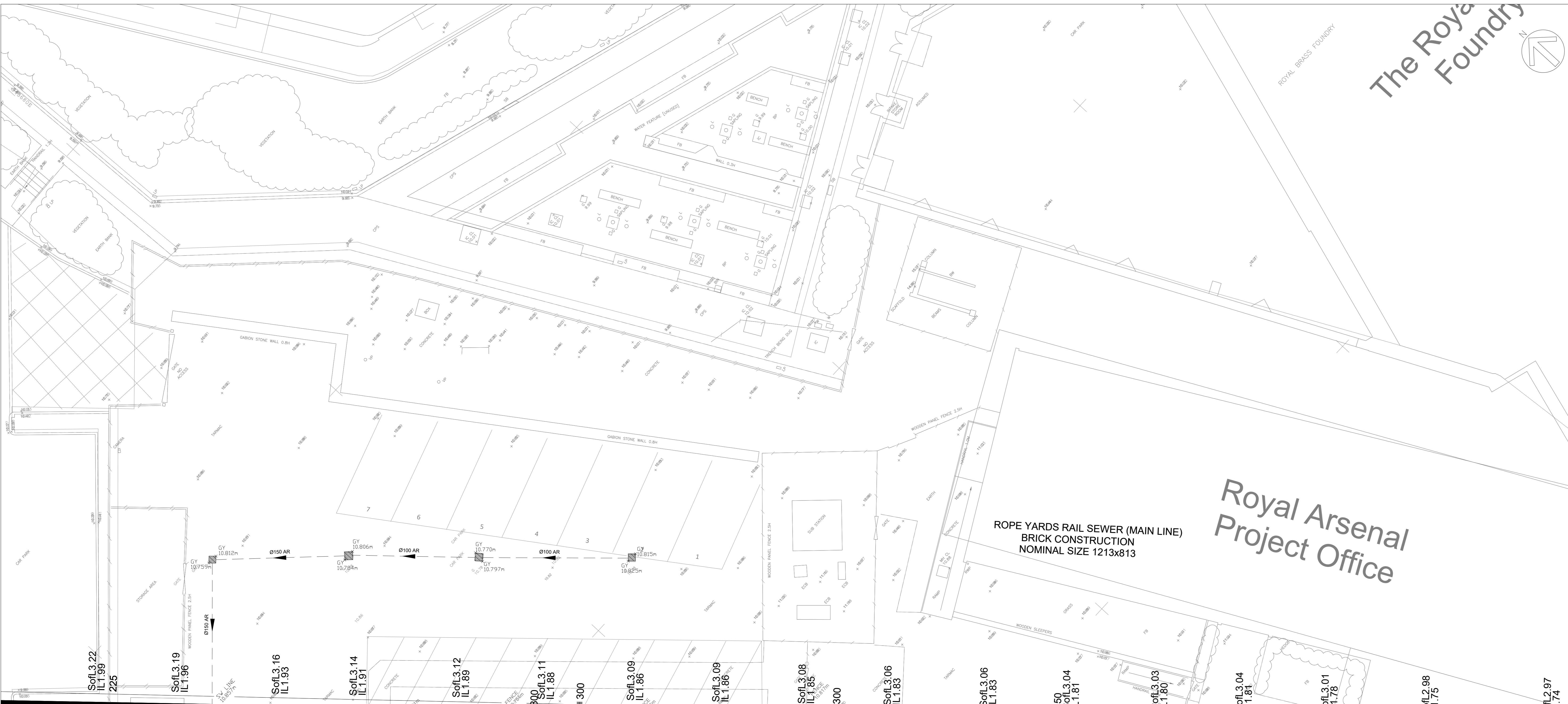
If the goods or services covered by this invoice falls under the regulation of the Water Industry Act 1991, and you remain dissatisfied you can refer your complaint to CC Water on 0845 039 2837 (it will cost you the same as a local call) or write to them at 11 Belgrave Road, London SW1V 1RB.

Ways to pay your bill

By Post – Cheque only, made payable to 'Thames Water Utilities Ltd' writing your Thames Water account number on the back. Please fill in the payment slip below and send it with your cheque to Thames Water Utilities Ltd., PO Box 223, Swindon SN38 2TW	By BACS Payment direct to our bank on account number 90478703, sort code 60-00-01 may be made. A remittance advice must be sent to Thames Water Utilities Ltd., PO Box 223, Swindon SN38 2TW. Or fax to 01793 424599 or email: cashoperations@thameswater.co.uk	Telephone Banking By calling your bank and quoting your invoice number and the Thames Water's bank account number 90478703 and sort code 60-00-01	By Swift Transfer You may make your payment via SWIFT by quoting NWBKGB2L together with our bank account number 90478703, sort code 60-00-01 and invoice number
--	--	---	--

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.

APPENDIX B – Existing Drainage Plan



GENERAL LEGEND

Site red line boundary (0.0944 ha)

EXISTING DRAINAGE LEGEND

FWMH
 Existing Thames Water Foul Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 29 July 2023).
 Existing Thames Water Combined Water Trunk Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 29 July 2023).
 Existing Private Combined Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 29 July 2023).
 Existing Private Foul Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 29 July 2023).

EXISTING CATCHMENT PLAN LEGEND:

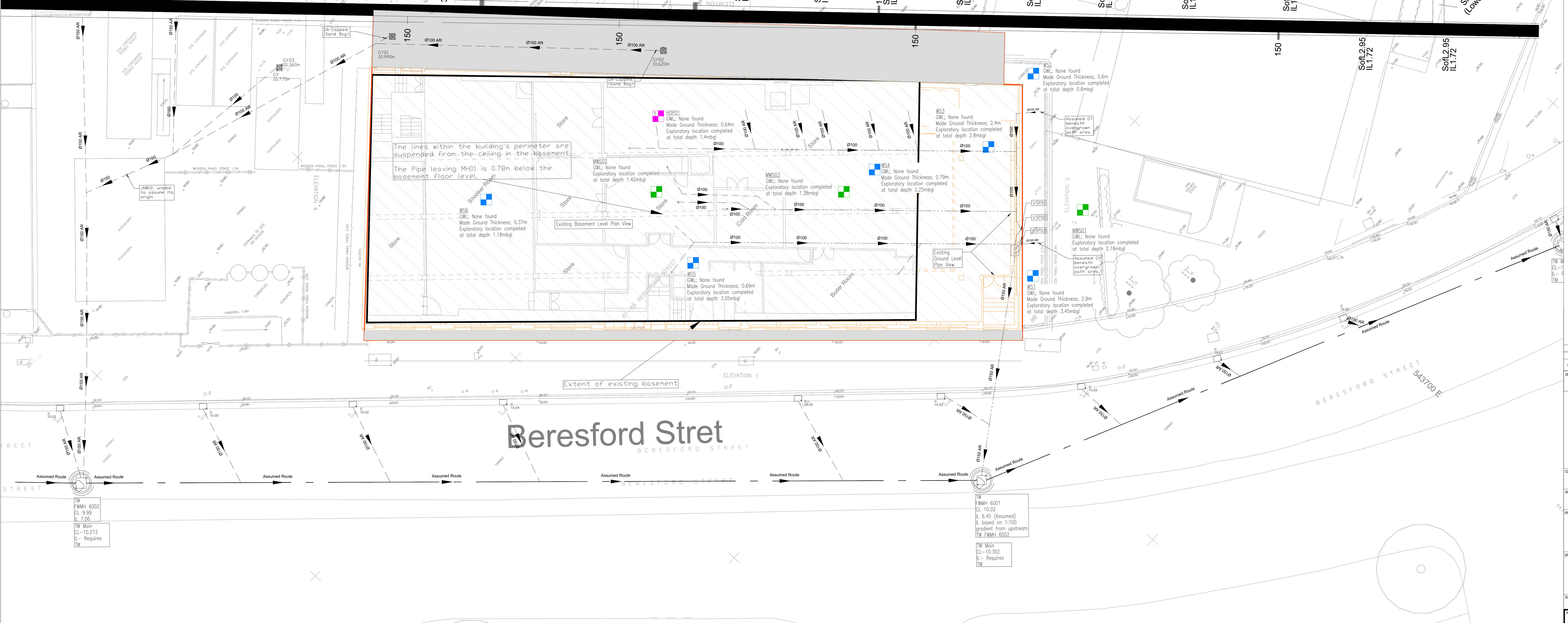
Catchment Area (ha)	Impermeable Area (ha)	Direct Discharge location
Catchment 1 (Roofs)	0.076 ha	Unknown
Catchment 2 (Hardstanding)	0.019 ha	Unknown
Total	0.095 ha	

GROUND INVESTIGATION LEGEND

- Location of Boreholes
- Location of Window Samples
- Location of Hand Dug Pits

Results as shown herein as taken from:
 • BOM Site Investigation and Risk Assessment Former Catholic Club, Beresford Street, Ref. L-22272-2-6-2-23-287-SE Rev. A Dated 22/03/23
 • Ground Risk Investigation Report Ref. GR000056-2-1.0, dated 23/12/2022.

- ### DO NOT SCALE
- The contractor shall comply with the health and safety requirements as set out in the CDM Regulations.
 - All works are to be undertaken in accordance with the Building Regulations and latest relevant British Standards.
 - Conflicting information between this drawing and information given by others must be referred to the engineer before the works commence.
 - The contractor shall, before commencing the works, verify all existing outfall invert levels and site and setting out dimensions. The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions, and alignment of all parts of the works. Any discrepancies are to be reported to the Engineer.
 - All products used are to be CE marked in accordance with the Construction Products Directive (CPD/89/106/EEC).
 - The contractor shall be responsible for locating all existing utilities prior to commencing construction and protecting all existing services affected by the works.
 - Any unidentified hazards discovered during the progress of works are to be reported immediately to the engineer.
 - This drawing should not be used for setting out.



12	28-09-23	DM	Latest OCTY findings added.	DM	DM
11	10-07-23	DM	DEPT TENDER ISSUE	DM	DM
REV	DATE	BY	REASON OF CHANGE	CHK	APP

ISSUING STATUS: TENDER

CIVILISTIX In partnership with Form

Site: Hils Road, Cambridge CB2 1GE
 Tel: +44 (0)1223 343 277 E: enquiries@civilstix.com
 www.civilstix.com

CLIENT: FORM Structural Design

ARCHITECT: Hatfield Cawkwell Davidson

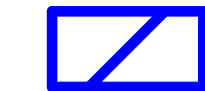
PROJECT: 81-88 Beresford Street, London (SE18 6BG)

DRAWING TITLE: Existing Drainage General Arrangement Plan

SCALE @ A3: 1:100 CHECKED/ APPROVED BY: DM DATE: 10-07-2023

PROJECT No: 1-713 DRAWING No: C-001 REV: 12

Appendix C – Proposed Development

KEY:
 Amenity area subject to interior designer input.

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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



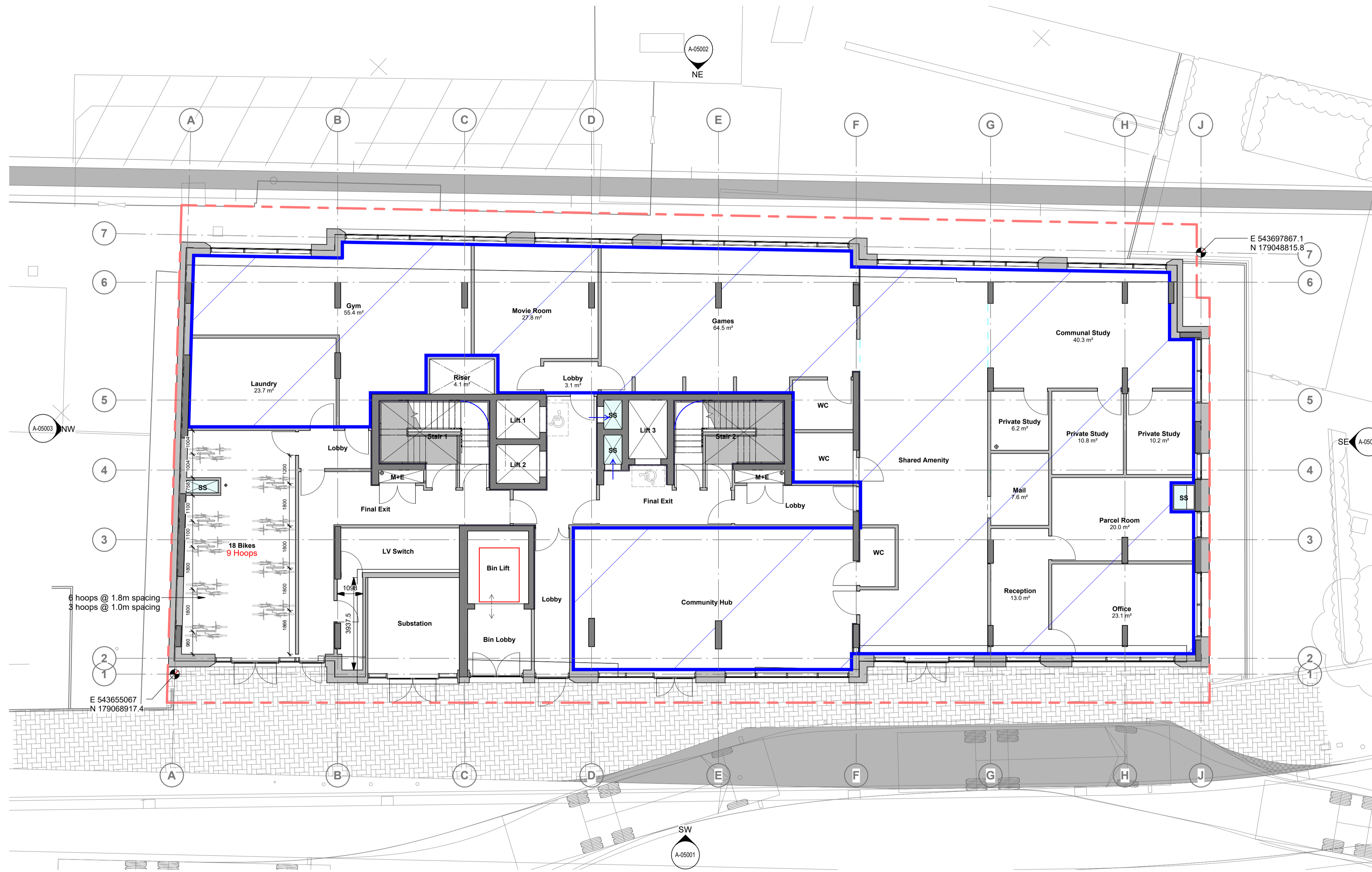
This drawing has been compiled using the following third-party models.

Form:
 Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
 (Issued 27/09/2023)

This drawing has been compiled using the following third-party survey information, supplied by others. HCD takes no responsibility for the accuracy of the information shown.

Cloud 10 Ltd:
 0504 - T[1] - Mar-2021 - Topographic Survey [Sheet 1 of 2]
 0504 - T[2] - Mar-2021 - Topographic Survey [Sheet 2 of 2]
 0504 - T-dby[1] - Mar-2021 - Boundary Survey Overlay [Sheet 1 of 2]
 0504 - B - Mar-2020 - Basement plan

Unknown:
 220404_Beresford_SewerSurveyOverlay.dwg



- REVISION: P08 BY: JB CHECKED: JRP DATE: 29/09/2023
- Stage 3 Issue. Issued for tender.
- REVISION: P07 BY: JB CHECKED: MM DATE: 27/09/2023
- Abseyance notes updated. Structural model updated to that issued 27/09/2023.
- REVISION: P06 BY: JB CHECKED: MM DATE: 20/09/2023
- Abseyance notes updated. Structural model updated to that issued 15/09/2023. Smoke shaft adjacent gridline J increased in size to enable offset from basement to floors above.
- REVISION: P05 BY: JB CHECKED: MM DATE: 12/09/2023
- The structure shown in this drawings is now linked in from the Form revit model. Abseyance notes updated.
- REVISION: P04 BY: JB CHECKED: - DATE: 14/08/2023
- Internal amenity layout reverted back to planning scheme.
- REVISION: P03 BY: JB/MM CHECKED: - DATE: 04/08/2023
- External wall moved back 225mm. Wall changed to full brick. Layout updated to better reflect comments received. Gridlines updated to better suit new location of external envelope. Core wall thicknesses updated. Indicative columns shown. TIL Kerb line and updated lajby location shown.
- REVISION: P02 BY: JB CHECKED: JRP DATE: 26/06/2023
- Stair cores updated, surrounding corridors and rooms updated to suit reduced core length. Community Hub relocated to accommodate revised sub-station and LV switchroom layout.
- REVISION: P01 BY: JB CHECKED: ARB DATE: 02/06/2023
- First issue. Issued for coordination.

A4 | FOR TENDER

CLIENT



HURLINGTON
 CAPITAL

PROJECT

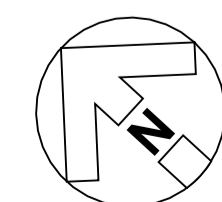
**BERESFORD STREET
 WOOLWICH, LONDON**

**PROPOSED GROUND FLOOR PLAN
 (LEVEL 00)**

Hadfield Cawkwell Davidson
 Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO: 2022-262	SCALE: 1:100 @ A1	REV: P08
PROJECT: 22262	ORIGINATOR: HCD AZ	SPACE: 00
FUNCTION: DR	FORM: A-04000	DISCIPLINE - NUMBER: 00

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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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P07 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



Architecture - In Abeyance

1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance

Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance

Smoke shaft size and studio access width to be checked.

Structure - In abeyance.

1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

- REVISION P07 BY JB CHECKED MM DATE: 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.
- REVISION P06 BY JB CHECKED - DATE: 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.
- REVISION P05 BY JB/MM CHECKED JB/MM DATE: 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centred on the updated plan.
- REVISION P04 BY JB CHECKED JRP DATE: 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.
- REVISION P03 BY JB CHECKED ARB DATE: 07/06/2023
Stair cores updated. Rooms re-arranged to suit.
- REVISION P02 BY JB CHECKED ARB DATE: 02/06/2023
Issued for coordination.
- REVISION P01 BY JB CHECKED - DATE: 03/05/2023
First issue. Issued as work in progress.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
C A P I T A L

PROJECT

BERESFORD ST, LONDON

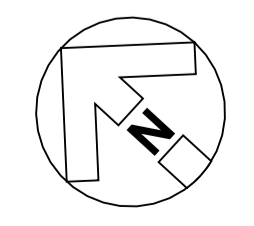
TITLE

PROPOSED FIRST FLOOR PLAN (LEVEL 01)

Hadfield Cawkwell Davidson

Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P07
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 01	FORM DR	DISCIPLINE NUMBER A-04001



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

- REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.
- REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.
- REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.
- REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.
- REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

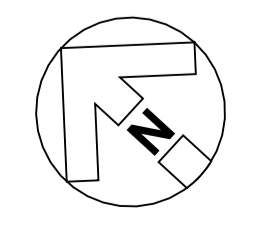
HURLINGTON
C A P I T A L

PROJECT
BERESFORD ST, LONDON

TITLE
PROPOSED SECOND FLOOR PLAN (LEVEL 02)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 02	FORM DR	DISCIPLINE NUMBER A-04002



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.

0m 2 4 6 8 10
1:100

P05 - The structure shown in this drawing is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)

A-05002
NE



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023

The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023

External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023

NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023

Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023

First issue. Issued for coordination.

STATUS

S0 | WORK IN PROGRESS

CLIENT



HURLINGTON
CAPITAL

PROJECT

BERESFORD ST, LONDON

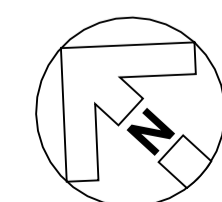
TITLE

**PROPOSED THIRD FLOOR PLAN
(LEVEL 03)**

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1:100 @ A1	REV P05
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PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ	SPACE 03	FORM DR	DISCIPLINE NUMBER A-04003
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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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
C A P I T A L

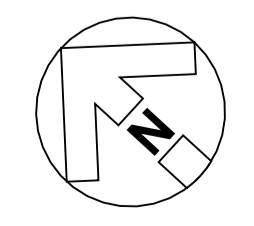
PROJECT

BERESFORD ST, LONDON

PROPOSED FOURTH FLOOR PLAN (LEVEL 04)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 04	FORM DR	DISCIPLINE NUMBER A-04004



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
CAPITAL

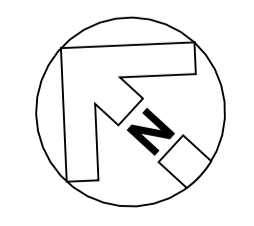
PROJECT

BERESFORD ST, LONDON

PROPOSED FIFTH FLOOR PLAN (LEVEL 05)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 05	FORM DR	DISCIPLINE NUMBER A-04005



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
C A P I T A L

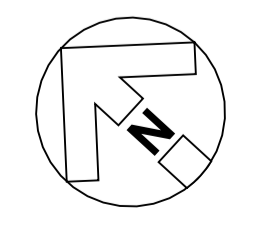
PROJECT

BERESFORD ST, LONDON

PROPOSED SIXTH FLOOR PLAN (LEVEL 06)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 06	FORM DR	DISCIPLINE - NUMBER A-04006



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.

0m 2 4 6 8 10
1:100

P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023

The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023

External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023

NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023

Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023

First issue. Issued for coordination.

STATUS

S0 | WORK IN PROGRESS

CLIENT



HURLINGTON
CAPITAL

PROJECT

BERESFORD ST, LONDON

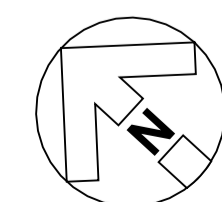
TITLE

PROPOSED SEVENTH FLOOR PLAN (LEVEL 07)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO: 2022-262 SCALE: 1:100 @ A1 REV: P05

PROJECT: 22262 ORIGINATOR: HCD | AZ | 07 FORM: DR | A-04007



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 STRUCTURAL ENGINEER'S DRAWINGS. FOR M&E INFORMATION, REFER TO M&E ENGINEER'S AND SUB-CONTRACTORS' DRAWINGS. FOR HEALTH & SAFETY INFORMATION, REFER TO HEALTH & SAFETY RISK ASSESSMENTS.



P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)



Architecture - In abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 1No. window.

Architecture - In Abeyance
Smoke shaft size and studio access width to be checked.

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
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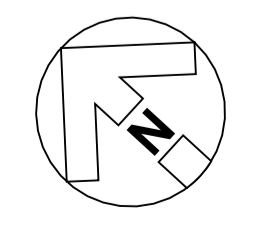
PROJECT

BERESFORD ST, LONDON

PROPOSED EIGHTH FLOOR PLAN (LEVEL 08)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 08	FORM DR	DISCIPLINE NUMBER A-04008

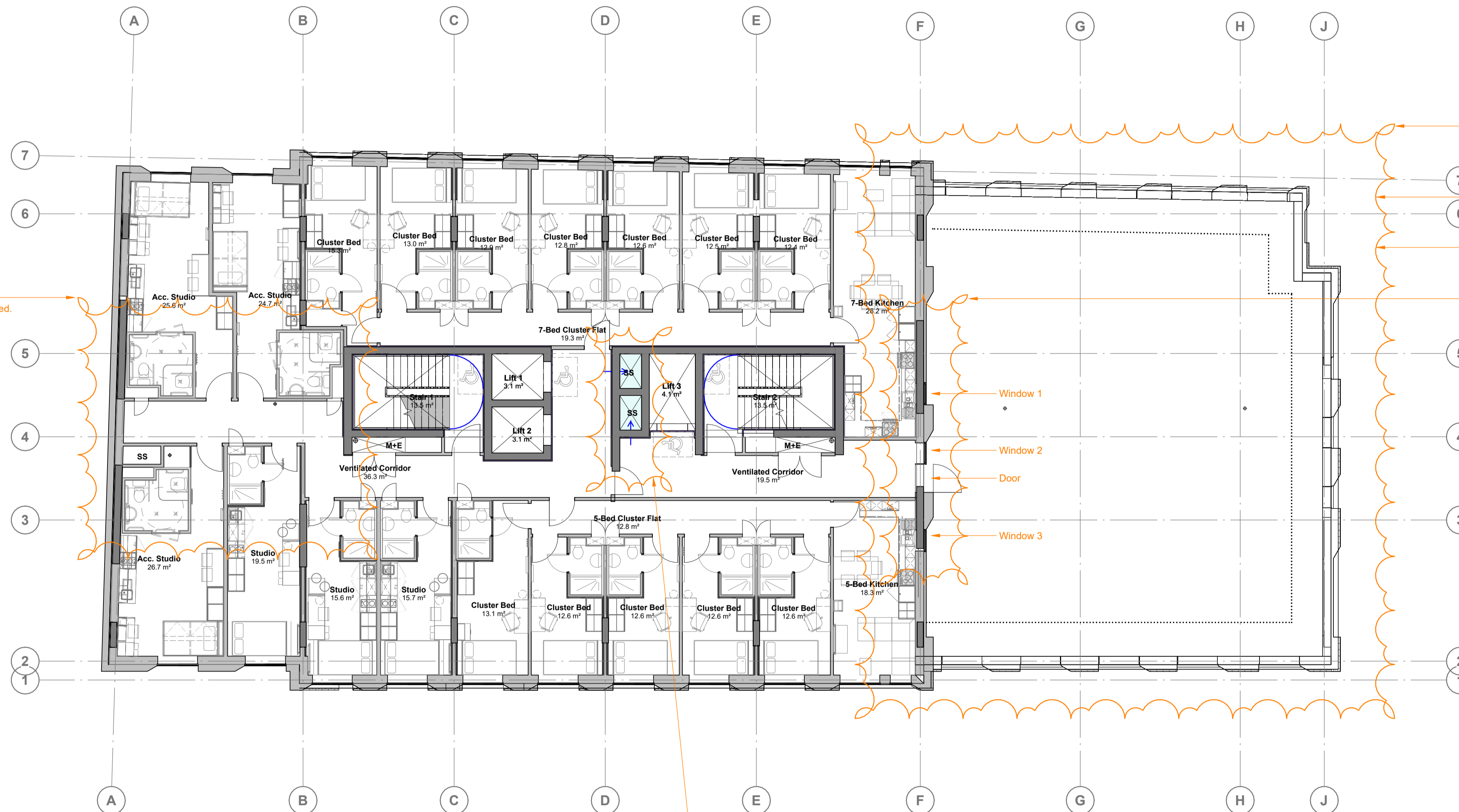


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P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



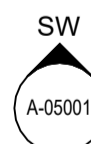
Architecture - In Abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Mechanical - In abeyance
Push pull extract system design to be completed. Fan shown is indicative only.

Landscape - In abeyance
Landscape design to be provided in DWG and respond to requirements of the smoke management system.

Architectural - In abeyance
Balustrade to be updated to suite smoke management system.

Structural - In Abeyance
Shear wall to be updated to suite 3No. windows and roof access door



Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

REVISION: P05 BY: JB CHECKED: MM DATE: 12/09/2023

The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.

REVISION: P04 BY: JB CHECKED: - DATE: 04/08/2023

External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION: P03 BY: JB/MM CHECKED: JB/MM DATE: 24/07/2023

NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION: P02 BY: JB CHECKED: JRP DATE: 26/06/2023

Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.

REVISION: P01 BY: JB CHECKED: ARB DATE: 02/06/2023

First issue. Issued for coordination.

STATUS

S0 | WORK IN PROGRESS

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PROJECT

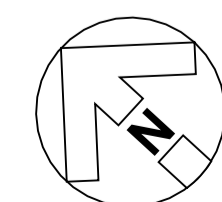
BERESFORD ST, LONDON

TITLE

PROPOSED NINTH FLOOR PLAN (LEVEL 09)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO: 2022-262	SCALE: 1 : 100 @ A1	REV: P05
PROJECT: 22262	ORIGINATOR: HCD AZ	DATE: 09
FUNCTION: DR	DISCIPLINE: A-04009	



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P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



Architecture - In Abeyance
1. Acc. Studio entrances widths to be checked.
2. Ensuites to be built in-situ.

Structural - In Abeyance
Shear wall to be updated to suite 3No. windows

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

- REVISION: P05 BY: JB CHECKED: MM DATE: 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed.
- REVISION: P04 BY: JB CHECKED: - DATE: 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.
- REVISION: P03 BY: JB/MM CHECKED: JB/MM DATE: 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.
- REVISION: P02 BY: JB CHECKED: JRP DATE: 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.
- REVISION: P01 BY: JB CHECKED: ARB DATE: 02/06/2023
First issue. Issued for coordination.

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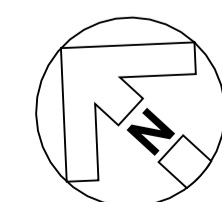
PROJECT

BERESFORD ST, LONDON

PROPOSED TENTH FLOOR PLAN (LEVEL 10)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO: 2022-262	SCALE: 1:100 @ A1	REV: P05
PROJECT: 22262	ORIGINATOR: HCD AZ	SPACE: 10
FORM: DR A-04010	DISCIPLINE: DR	NUMBER: 10



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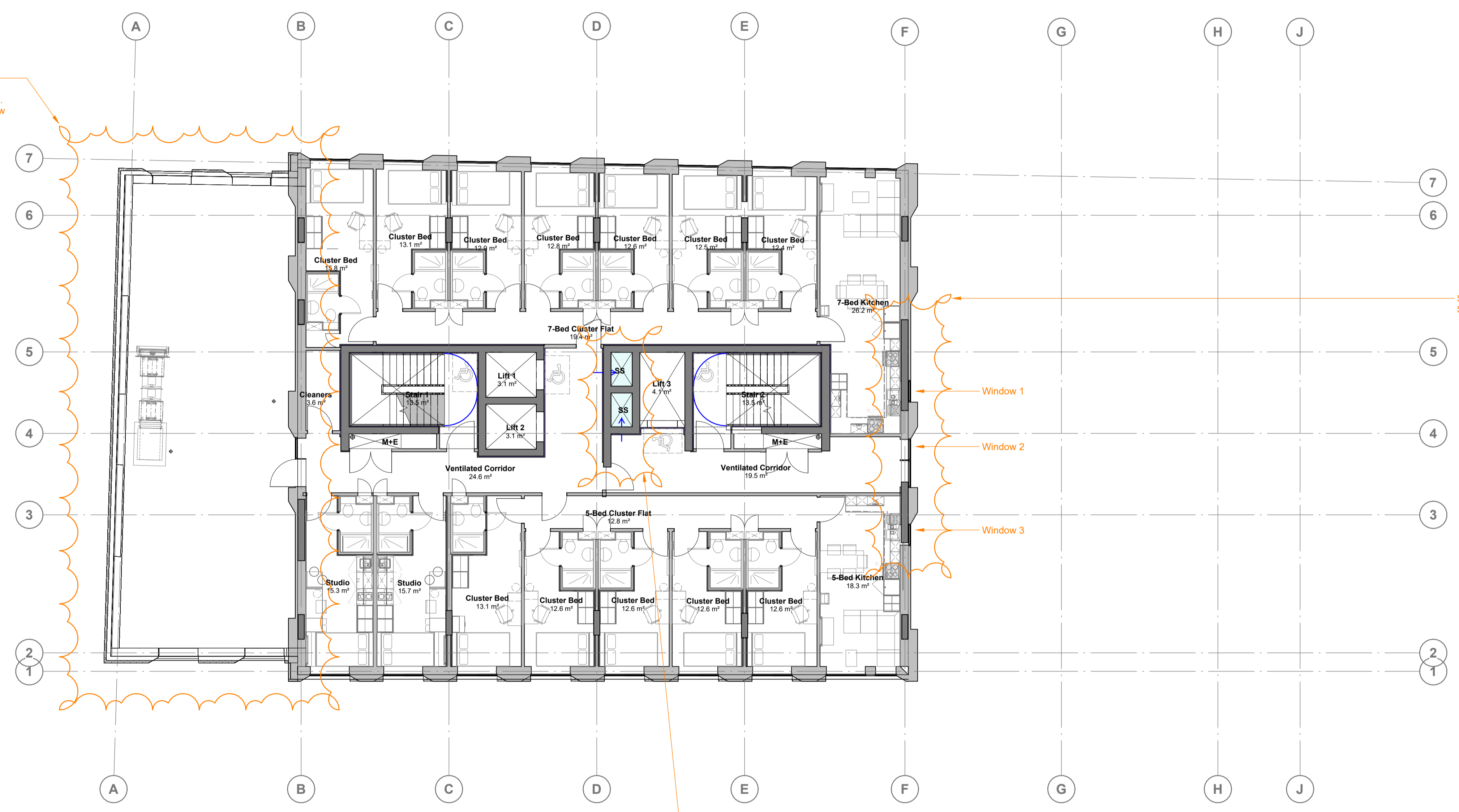
P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)

Mechanical - In abeyance
1. Push pull extract system design to be completed. Fan shown is indicative only.
2. Mechanical layout to be updated to show smoke management system. Note pH+ zone shown on planning drawings.

Structural - In Abeyance
Shear wall to be updated to suite 3No. windows

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.



REVISION P05	BY JB	CHECKED MM	DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.			
REVISION P04	BY JB	CHECKED -	DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.			
REVISION P03	BY JB/MM	CHECKED JB/MM	DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.			
REVISION P02	BY JB	CHECKED JRP	DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.			
REVISION P01	BY JB	CHECKED ARB	DATE 02/06/2023
First issue. Issued for coordination.			

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PROJECT

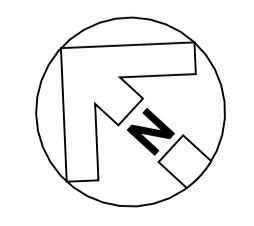
BERESFORD ST, LONDON

TITLE

PROPOSED ELEVENTH FLOOR PLAN (LEVEL 11)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 11	FORM DR	DISCIPLINE NUMBER A-04011



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P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.
Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



Structural - In Abeyance
Shear wall to be updated to suite 3No. windows

Structure - In abeyance.
1. Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
2. Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
3. Lift 3 wall at gridline 3 to be added to structural model.

- REVISION P05 BY JB CHECKED MM DATE 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.
- REVISION P04 BY JB CHECKED - DATE 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.
- REVISION P03 BY JB/MM CHECKED JB/MM DATE 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.
- REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.
- REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
First issue. Issued for coordination.

S0 | WORK IN PROGRESS

CLIENT

HURLINGTON
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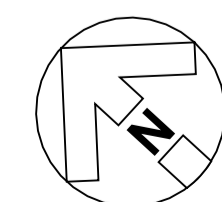
PROJECT

BERESFORD ST, LONDON

PROPOSED TWELFTH FLOOR PLAN (LEVEL 12)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P05
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 12	FORM DR	DISCIPLINE - NUMBER A-04012



NOTES

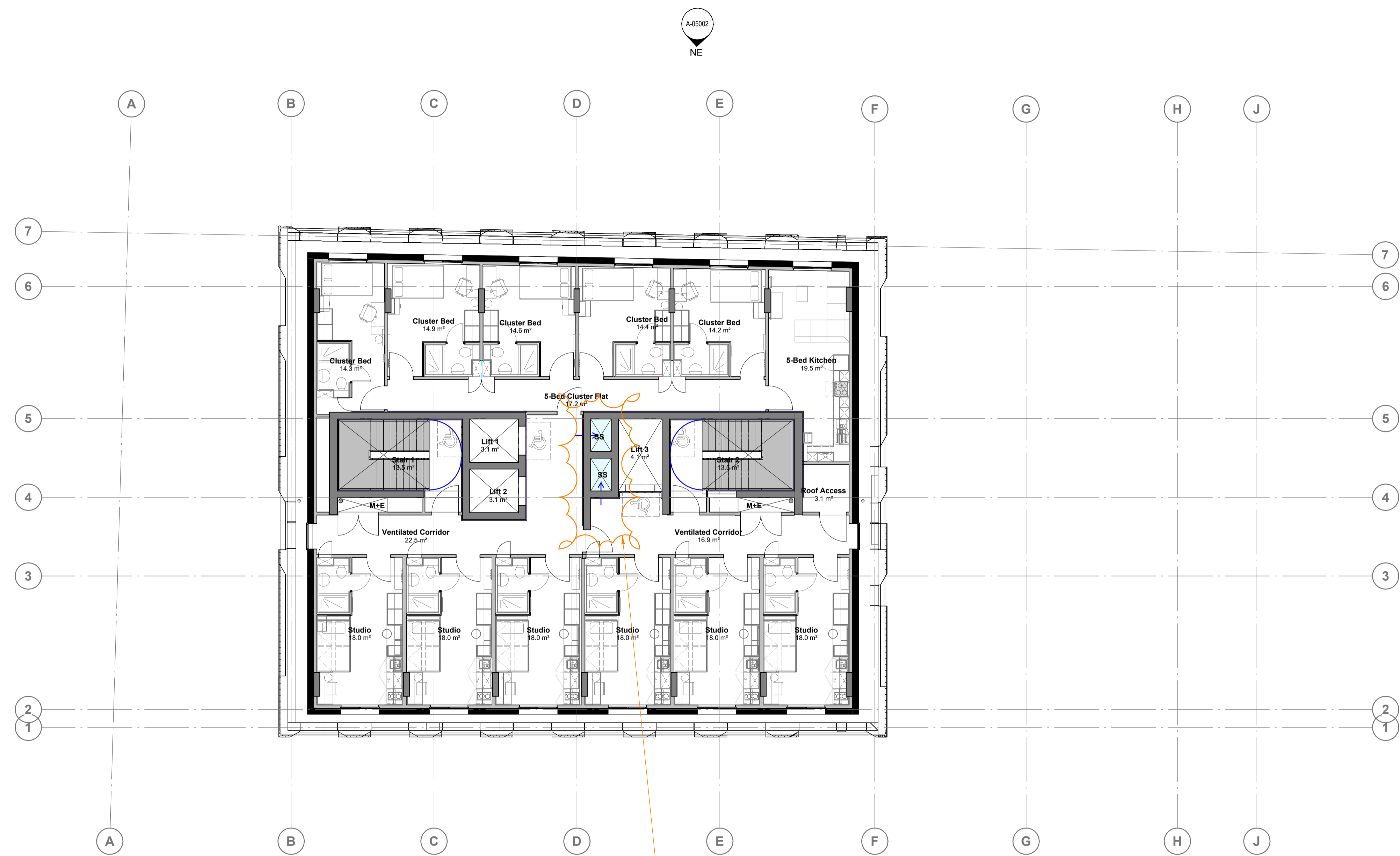
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P06 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 06/09/2023)



- Structure - In abeyance.
- Both SS risers to have 700 x 1500 opening 400 above ffl, located where blue arrows indicate.
 - Shear wall at corridor door to be reduced in length. Ideally to match the wall to the right of Lift 3. Or worst case would be to match Lift 2.
 - Lift 3 wall at gridline 3 to be added to structural model.

- REVISION P06 BY JB CHECKED MM DATE: 12/09/2023
The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed. Room layouts adjusted in line with the planning pack.
- REVISION P05 BY JB CHECKED - DATE: 04/08/2023
External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.
- REVISION P04 BY JB/MM CHECKED JB/MM DATE: 24/07/2023
NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.
- REVISION P03 BY JB CHECKED JRP DATE: 26/06/2023
Stair cores updated, surrounding corridors and rooms updated to suit reduced core length. Roof access room and CAT ladder added.
- REVISION P02 BY JB CHECKED - DATE: 16/06/2023
Additional Studio room added to SW side of the plan.
- REVISION P01 BY JB CHECKED ARB DATE: 02/06/2023
First issue. Issued for coordination.

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PROJECT

BERESFORD ST, LONDON

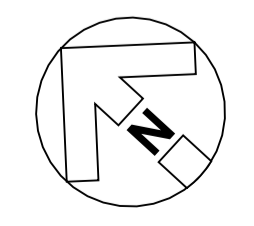
TITLE

PROPOSED THIRTEENTH FLOOR PLAN (LEVEL 13)

Hadfield Cawkwell Davidson

Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P06
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE 13	FORM DR	DISCIPLINE - NUMBER A-04013



NOTES

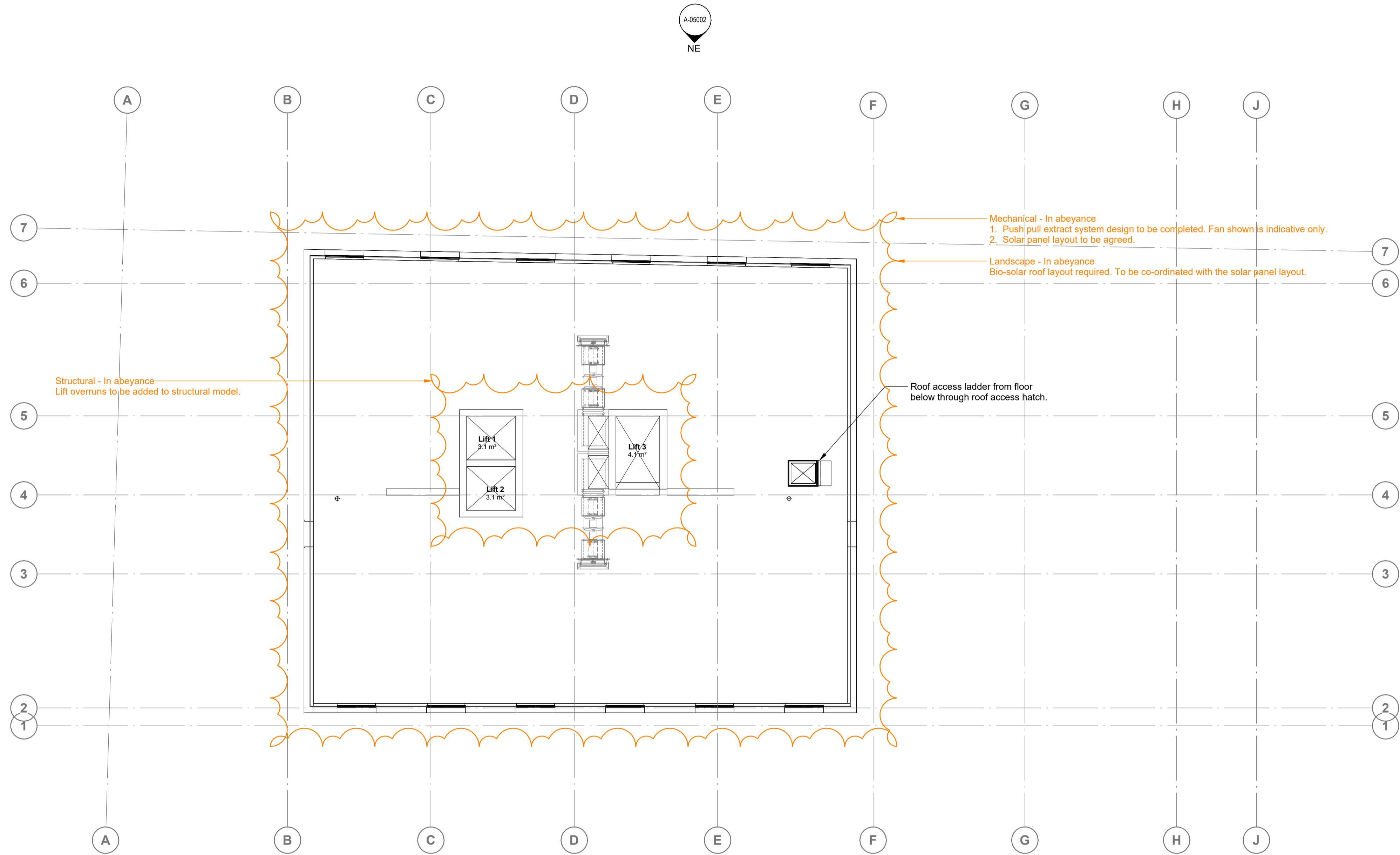
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P05 - The structure shown in this drawings is now linked in from the Form revit model.

This drawing has been compiled using the following third-party models.

Form: Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22) (Issued 06/09/2023)



REVISION: P05 BY: JB CHECKED: MM DATE: 12/09/2023

The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated. External facade changed from a brick slip to full brick system. Indicative line of internal face removed.

REVISION: P04 BY: JB CHECKED: - DATE: 04/08/2023

External wall changed to full brick. Core wall thicknesses updated. Indicative columns shown.

REVISION: P03 BY: JB/MM CHECKED: JB/MM DATE: 24/07/2023

NE External wall moved 225mm towards boundary. gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION: P02 BY: JB CHECKED: JRP DATE: 26/06/2023

Roof access indicated.

REVISION: P01 BY: JB CHECKED: ARB DATE: 02/06/2023

First issue. Issued for coordination.

STATUS

S0 | WORK IN PROGRESS

CLIENT



HURLINGTON CAPITAL

PROJECT

BERESFORD ST, LONDON

TITLE

PROPOSED ROOF PLAN (LEVEL 14)

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

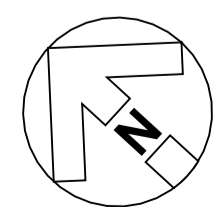
HCD PROJECT NO: 2022-262 SCALE: 1:100 @ A1 REV: P05

PROJECT: 22262 ORIGINATOR: HCD | AZ | 14 FORM: DR | A-04014

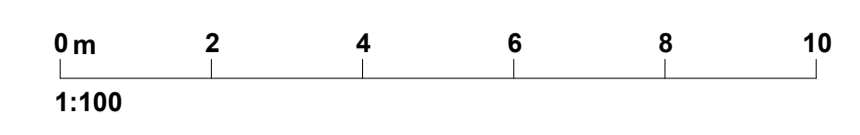
DISCIPLINE: ARCHITECTURE

DATE: 12/09/2023

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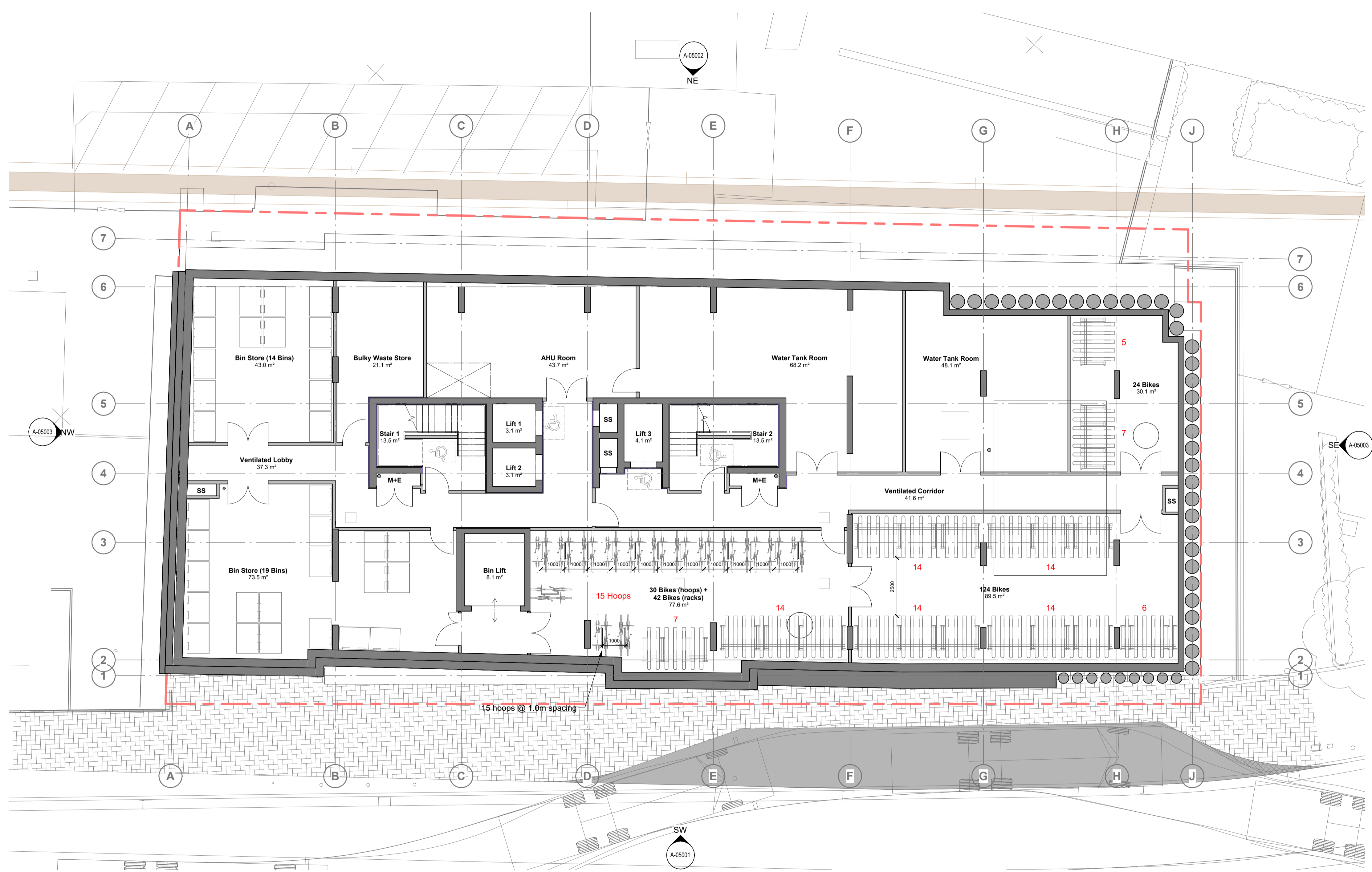
This drawing has been compiled using the following third-party models.

Form:
Structural Model - 3351-FSD-XX-ZZ-M3-S-1501 (R22)
(Issued 27/09/2023)

This drawing has been compiled using the following third-party survey information, supplied by others. HCD takes no responsibility for the accuracy of the information shown.

Cloud 10 Ltd:
0504 - T[1] - Mar-2021 - Topographic Survey [Sheet 1 of 2]
0504 - T[2] - Mar-2021 - Topographic Survey [Sheet 2 of 2]
0504 - T-dby[1] - Mar-2021 - Boundary Survey Overlay [Sheet 1 of 2]
0504 - B - Mar-2020 - Basement plan

Unknown:
220404_Beresford_SewerSurveyOverlay.dwg



- REVISION P07 BY JB CHECKED JRP DATE 29/09/2023
- Stage 3 Issue. Issued for tender.
- REVISION P06 BY JB CHECKED MM DATE 27/09/2023
- Abeyance notes updated. Structural model updated to that issued 27/09/2023. Layout of water tank room and cycle storage room updated. Additional escape added to cycle store. Lobby updated to reduce cycle storage area to under 100m².
- REVISION P05 BY JB CHECKED MM DATE 20/09/2023
- Abeyance notes updated. Structural model updated to that issued 15/09/2023. Smoke shaft added adjacent gridline J.
- REVISION P04 BY JB CHECKED MM DATE 12/09/2023
- The structure shown in this drawings is now linked in from the Form revit model. Abeyance notes updated.
- REVISION P03 BY JB/MM CHECKED - DATE 04/08/2023
- External wall moved back 225mm. Room furniture updated to better reflect comments received. Gridlines updated to better suit new location of external envelope. Core wall thicknesses updated. Indicative columns shown.
- REVISION P02 BY JB CHECKED JRP DATE 26/06/2023
- Stair cores updated, surrounding corridors and rooms updated to suit reduced core length.
- REVISION P01 BY JB CHECKED ARB DATE 02/06/2023
- First issue. Issued for coordination.

A4 | FOR TENDER

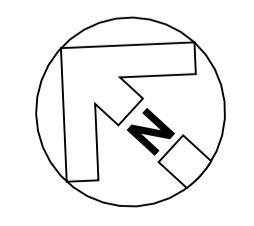


PROJECT
**BERESFORD STREET
WOOLWICH, LONDON**

TITLE
**PROPOSED BASEMENT PLAN
(LEVEL B1)**

Hadfield Cawkwell Davidson
Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO 2022-262	SCALE 1 : 100 @ A1	REV P07
PROJECT 22262	ORIGINATOR HCD	FUNCTION AZ
SPACE B1	FORM DR	DISCIPLINE NUMBER A-0400B



MODEL VIEW



TO DO

- Window alignment to be updated to suite revised wall buildup.

MODEL SHARING

WORKSETS - If shared models are workshared they should be detached from central before saving into the **Shared** directory for linking into other project models.

LINEWEIGHTS - HCD models use different lineweights to those derived from an out-of-the-box Revit template. Models received from others will need to be modified to match HCD standards as follows -

Manage > Transfer Project Standards

- Copy From: Select Current Building Model or a HCD Template (must be open in Revit)
- Select: Check None
- Select: Line Weight
- Click OK

Those receiving HCD models will need to follow a similar process to apply their company standards to suit their drawings.

MODEL REVISIONS

REVISION: P01 BY: JB DATE: 08/06/2023

First issue. Issued as work in progress.

REVISION: P02 BY: JB DATE: 27/06/2023

Stair cores updated, surrounding corridors and rooms updated to suit reduced core length. Level 13 roof access room added. Community Hub relocated to accommodate revised sub-station and LV switchroom layout.

REVISION: P03 BY: JB DATE: 27/07/2023

NE External wall moved 225mm towards boundary. Indicative inner line of full brick wall added. Room furniture updated to better reflect comments received from the client. Gridlines updated to better suit new location of external envelope. Core stairs re-centered on the updated plan.

REVISION: P04 BY: JB DATE: 07/08/2023

Core wall and column sizes updated to match structural markup. External walls updated to full brick build-up.

REVISION: P05 BY: JB DATE: 23/08/2023

External wall construction updated to meet U-value of 0.14.

REVISION: P06 BY: JB DATE: 12/09/2023

Model updated to suite NMA application.

NOTES:

MODEL STATUS

REVIT VERSION	2022
SHARED COORDINATES DEFINED	<input checked="" type="checkbox"/>
WORKSETS DEFINED	<input type="checkbox"/>

MODEL ISSUE STATUS

2D & 3D LINKS REMOVED	<input checked="" type="checkbox"/>
SHEETS REMOVED	<input checked="" type="checkbox"/>
VIEWS REMOVED	<input checked="" type="checkbox"/>
FAMILIES PURGED	<input checked="" type="checkbox"/>

MODEL USES

2D DOCUMENTATION	<input type="checkbox"/>
3D SPATIAL COORDINATION	<input type="checkbox"/>
3D VISUALS (SHADED)	<input type="checkbox"/>
3D VISUALS (REALISTIC)	<input type="checkbox"/>
4D PROGRAMMING	<input type="checkbox"/>
5D QUANTIFICATION	<input type="checkbox"/>
6D FM COBie	<input type="checkbox"/>
6D FM ASSET MANAGEMENT	<input type="checkbox"/>

Use for non-agreed purposes is at the user's own risk - no liability is accepted by Hadfield Cawkwell Davidson Limited.

SUITABILITY

S0 | WORK IN PROGRESS

CLIENT



HURLINGTON
C A P I T A L

PROJECT

BERESFORD ST, LONDON

TITLE

REVIT MODEL ISSUE SHEET



Broomgrove Lodge, 13 Broomgrove Rd, Sheffield, S10 2LZ T 0114 266 8181 www.hcd.co.uk

HCD PROJECT NO.	SCALE	REV			
2022-262	@ A3	P06			
PROJECT	ORIGINATOR	FUNCTION	SPACE	FORM	DISCIPLINE + NUMBER
22262	HCD	AZ	ZZ	DR	A-0002

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DISCLAIMER

(unless explicitly agreed otherwise, elsewhere)

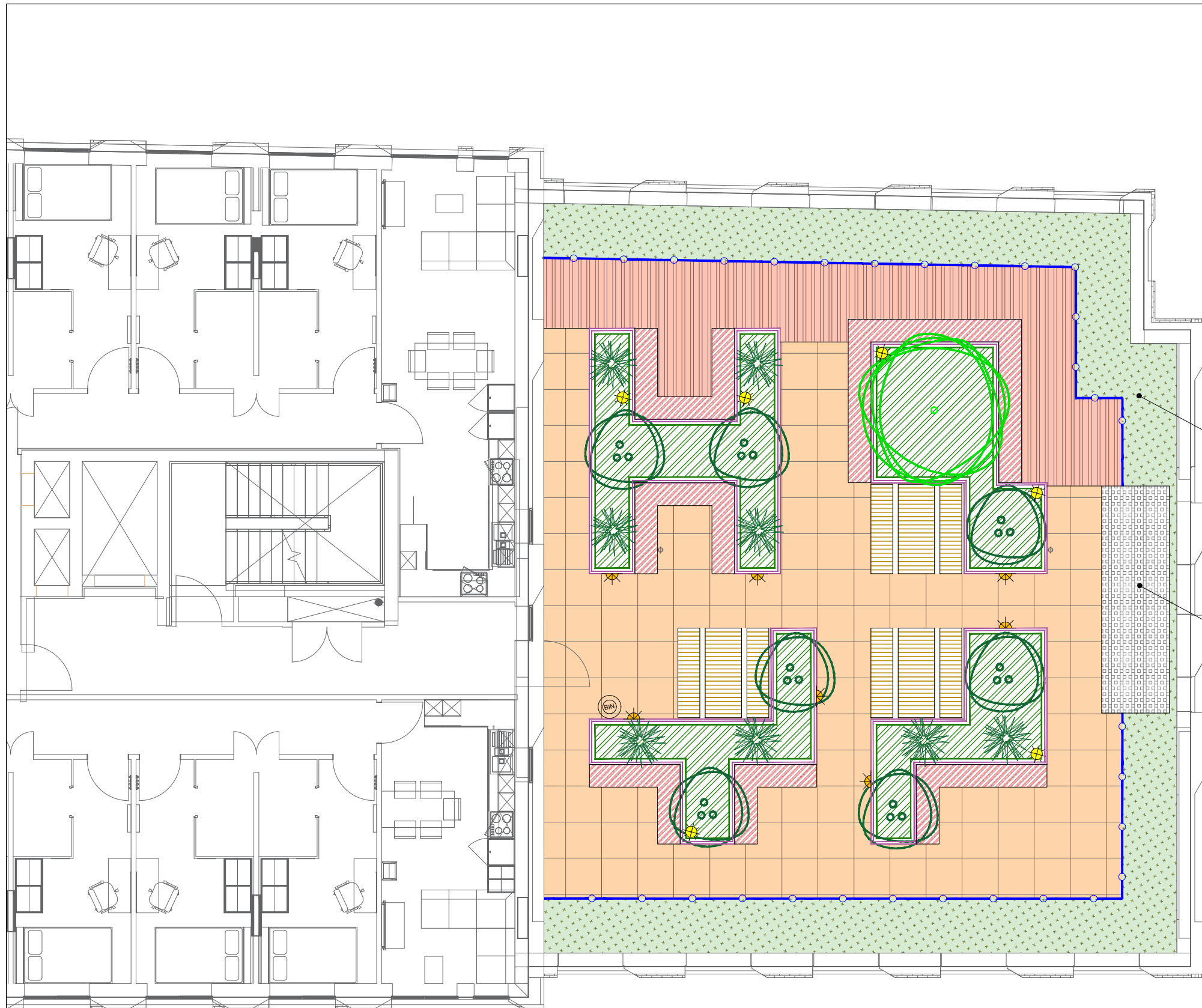
This Revit model is provided for the development of the project named opposite and may be shared amongst team members of other disciplines who contribute to this project only.

The model, and any components within it, are not to be used for any extension to this project or any other project without prior written agreement.

No liability is accepted for errors caused by transmission, upgrade or conversion by others.

Please note that -

- All elements/data within this model are subject to development/coordination. Please refer to issued drawings and their status for official information.
- Some elements are present for modelling and coordination purposes and may not form part of the assigned scope of works. These may need to be filtered out for specific model uses.
- Models from other consultants/subcontractors should be obtained directly from the responsible party or from the Common Data Environment if available on this project.

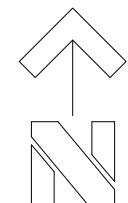


- KEY:**
- TREE PLANTING (400-500cm Height)
 - TREE PLANTING (350-400cm Height)
 - ORNAMENTAL SHRUB PLANTING
 - SPECIMEN PLANTING
 - EXTENSIVE SEDUM ROOF
Pre-grown matting. On 80mm recycled substrate medium. 40mm drainage layer.
- PAVING**
- PAVING
Marshall's Conservation X Concrete Paving 600 x 600 x 50mm thick. Finish: Smooth Ground. Colour: Silver Grey. On pedestal support system.
 - DECKING
WALLBARN Composite Decking. Installed on pedestal and joist support system. Colour: Walnut.
- PLANTER EDGES**
- 900MM HEIGHT STEEL PLANTER EDGING
STREET DESIGN Stratum. Powder Coated steel. Colour tbc
- FURNITURE**
- INTEGRATED TIMBER BENCH
FSC Hardwood Timber Slats. Pencil Round Finish. Filled with armrests.
 - PICNIC SET
BROXAP Desford Range. FSC Hardwood Timber Slats. Pencil Round Finish. PPC Dark Grey. Surface Fixed.
 - BALUSTRADE
Vertical Metal Bar. PPC Light Gold. 1600mm high tbc.
 - LITTER BIN
BROXAP Ravenfield Litter Bin.
 - ADV VENT ENCLOSURE
PPC colour tbc. Dimensions tbc.
- LIGHTING**
- WALL MOUNTED DOWN LIGHT
 - SHORT BOLLARD LIGHT

Extent of Sedum tbc

Vent Enclosure dims tbc

Scale 1:100
0 1 2 3 4 5 [m]



Based on HCD Architects drawing 04-009-P05.

Weddles	
LANDSCAPE ENVIRONMENTAL	ARCHITECTURE PLANNING
4 Westbrook Court, Sharrow Vale Road, Sharrow, Sheffield S11 8YZ www.weddles.co.uk	Tel (0114) 250 1181 Fax (0114) 250 1188 mail@weddles.co.uk

Job	BERESFORD STREET			
Title	LANDSCAPE GA. LEVEL 9			
scale@A3	drawn	date	drawing number	revision
1:100	NN	SEP 23	1590-WLD-L-04-002	-

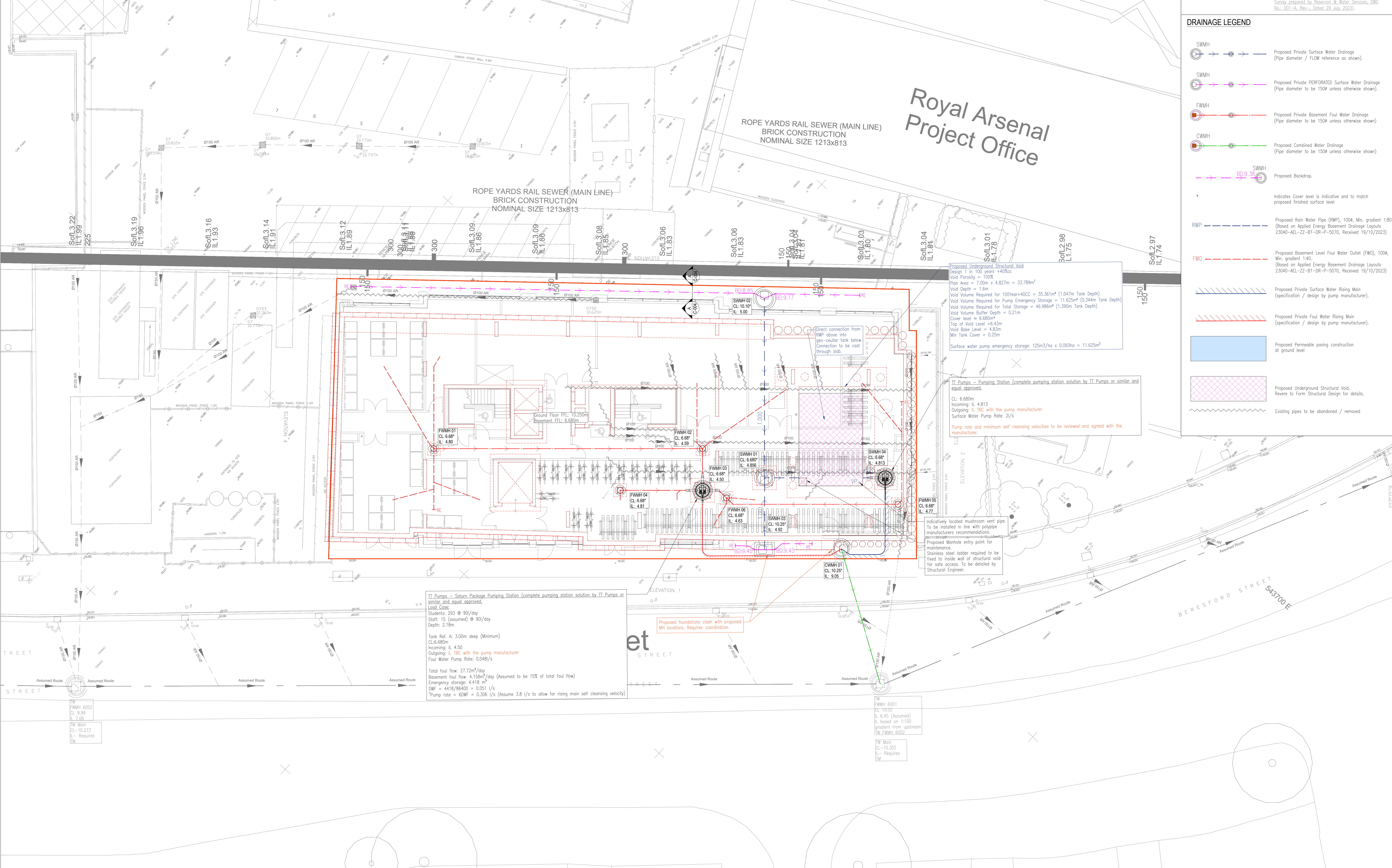
Appendix D – Proposed Drainage Plans, Proposed Catchment Plan, Greenfield Runoff Calculation and Surface Water Network Calculations

PROPOSED SURFACE WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) (approx)	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
SWMH 01	6.68 ⁺	4.86	2	1200 ⁺	Class B125 600x600	Triple Sealed Cover
SWMH 02	10.10 ⁺	5.00	A2	1200 ⁺	Class B125 600x600	Triple Sealed Cover
SWMH 03	10.25 ⁺	4.92	A2	1200x750	Class B400 1200x675	Triple Sealed Cover
SWMH 04	6.68 ⁺	4.83	PUMP	700 ⁺	Class B125 700 ⁺	Triple Sealed Cover PUMP @ 2.00/s

PROPOSED FOUL WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) (approx)	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
FWMH 01	6.68 ⁺	4.80	PPIC	450 ⁺	Class B125 450x450	Triple Sealed Cover
FWMH 02	6.68 ⁺	4.59	PPIC	450 ⁺	Class B125 450x450	Triple Sealed Cover
FWMH 03	6.68 ⁺	4.50	PUMP	700 ⁺	Class B125 700 ⁺	Triple Sealed Cover PUMP @ 3.80/s
FWMH 04	6.68 ⁺	4.81	PPIC	450 ⁺	Class B125 450x450	Triple Sealed Cover
FWMH 05	6.68 ⁺	4.77	PPIC	450 ⁺	Class B125 450x450	Triple Sealed Cover

PROPOSED COMBINED WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) (approx)	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
CWMH 01	10.25 ⁺	9.05	2	1200 ⁺	Class D400 600x600	Demonstration Chamber

- As of Table 11, Part II of the Building Regulations, all inspection chambers with cover greater than 1.2m shall utilize a restricted square 350 x 350 or circular 350⁺ cover.
- All chambers located within the building envelope to utilize triple sealed covers.
- All chamber covers to be laid flush with finished surface levels.
- Chambers within paved areas are to be recessed with paving to match.



GENERAL LEGEND

Site red line boundary (0.0944 ha)

EXISTING DRAINAGE LEGEND

- Existing Thames Water Foul Water Drainage (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 23 July 2023).
- Existing Thames Water Combined Water Trunk Drainage (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 23 July 2023).
- Existing Private Surface Water Drainage (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 23 July 2023).
- Existing Private Combined Water Drainage (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 23 July 2023).
- Existing Private Foul Water Drainage (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A, Rev., Dated 23 July 2023).

DRAINAGE LEGEND

- Proposed Private Surface Water Drainage (Pipe diameter / FLOW reference as shown).
- Proposed Private PERFORATED Surface Water Drainage (Pipe diameter to be 150⁺ unless otherwise shown).
- Proposed Private Basement Foul Water Drainage (Pipe diameter to be 150⁺ unless otherwise shown).
- Proposed Combined Water Drainage (Pipe diameter to be 150⁺ unless otherwise shown).
- Proposed Backdrop (SWMH BD-9.35).
- Proposed Rain Water Pipe (RWP), 100k, Min. gradient 1:80. (Based on Applied Energy Basement Drainage Layouts 23040-REL-ZZ-B1-DR-P-5070, Received 19/10/2023).
- Proposed Basement Level Foul Water Outlet (FWO), 100k, Min. gradient 1:40. (Based on Applied Energy Basement Drainage Layouts 23040-REL-ZZ-B1-DR-P-5070, Received 19/10/2023).
- Proposed Private Surface Water Rising Main (specification / design by pump manufacturer).
- Proposed Private Foul Water Rising Main (specification / design by pump manufacturer).
- Proposed Permeable paving construction at ground level.
- Proposed Underground Structural Void. Refer to Form Structural Design for details.
- Existing pipes to be abandoned / removed.

DO NOT SCALE

- The contractor shall comply with the health and safety requirements as set out in the CDM Regulations.
- All works are to be undertaken in accordance with the Building Regulations and latest relevant British Standards.
- Conflicting information between this drawing and information given by others must be referred to the engineer before the works commence.
- The contractor shall, before commencing the works, verify all existing outfall invert levels and site and setting out dimensions. The contractor shall be responsible for the layout and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the works. Any discrepancies are to be reported to the Engineer.
- All products used are to be CE marked in accordance with the Construction Products Directive (CPR)/EN/106/EC.
- The contractor shall be responsible for locating all existing utilities prior to commencing construction and protecting all existing services affected by the works.
- Any unidentified hazards discovered during the progress of works are to be reported immediately to the engineer.
- This drawing should not be used for setting out.

DRAINAGE

- All drain runs constructed with less than 600mm cover between finished ground level and crown of the pipe are to be encased with a minimum of 150mm Grade S7.5 concrete. The casing concrete is to be limited at every pipe joint position with 20mm Flexcell board to form joint and provide joint flexibility.
- All pipework 300mm⁺ or below to be verified clay, Hephworth Supersewer/Supersol or similar approved. All pipework greater than 300mm⁺ to be Class B concrete.
- All SYP/SS and FWP building spurs to be 1000 pipework laid of 140 for foul water and 180 for surface water.
- Refer to Architect and / or Mechanical & Electrical design packages for Rain Water Pipe (RWP) and Foul Water Outlet (FWO) exact setting out positions.
- All building drainage to be installed and tested in compliance with the Building Regulations Approved Document H, 2015 Edition and to be reviewed for compliance by Building Control prior to construction commencing.
- Insitu concrete for use in general drainage works shall be in accordance with BS5000 and in accordance with the recommendations of the site investigation report, and in accordance with BRE digest 1 'concrete in aggressive ground' to meet any expected sulphate conditions.
- All gullies, channels and manhole covers are to be set 5mm lower than indicated on the drawing (i.e. 5mm lower than the adjacent surface). All drain and street pipes are to be laid softfit to suit, unless shown otherwise.
- All above-ground drainage to incorporate rodding access facilities.
- All manhole covers and frames shall be manufactured from ductile iron and comply with BSEN124 and be marked 'TM' or 'SM'. They shall be non-ventilating type and have closed keyways. The minimum frame depth shall be 100mm.
- Small lightweight access covers should be secured (e.g. with screws) to deter unauthorised access.
- Manholes deeper than 1m to have galvanised steel step irons or fixed ladders.
- Contractor to undertake a pre-construction CCTV drainage survey to confirm that no existing third party connections require maintaining or diverting through the development site.
- Exact arrangement of Geo-cellular storage to provide sufficient access for maintenance and venting will be subject to specific manufacturer product details. It is recommended therefore, a design of geo-cellular storage is obtained from the clients chosen manufacturer prior to works commencing.
- As of Table 11, Part II of the Building Regulations ('Drainage and Waste Disposal'), all inspection chambers with cover greater than 1.2m shall utilize a restricted square 350 x 350 or circular 350⁺ cover.
- All chambers located within the building envelope to utilize triple sealed covers.
- All chambers covers to be laid flush with finished surface levels.
- Chambers within paved areas are to be recessed with paving to match.
- The formation level of all permeable paving shall either be flat or fall at the same gradient as the surface finish levels towards the closest sub formation drainage outlet.
- All adaptable sewers to be constructed in accordance with the latest revision of 'Design Construction Guidance (DCG)' and to the satisfaction of the statutory sewerage undertaking/overseeing engineer.

Comments

The locations of trees, planter beds and root barrier zones to be coordinated in relation to the drainage design with the landscape architect and arboriculturalist.

All landscape features including paving, kerbs, edgings, recreational zones etc. are to be provided by the landscape architect.

Pump rate and minimum self cleansing velocities to be reviewed and agreed with the manufacturer.

Proposed foundations clash with proposed MH locations. Requires coordination.

NO	DATE	BY	REASON FOR CHANGE	CHK	APP
14	07-11-23	DM	Base layout updated and proposals amended to include	DM	DM
13	28-09-23	DM	Existing drainage added from CCTV survey, proposed foundations added & proposed pump locations amended to suit structural proposals	DM	DM
12	21-08-23	NKR	CHART TENDER ISSUE	DM	DM
11	10-07-23	NKR	CHART TENDER ISSUE	DM	DM

DRAWING STATUS: **TENDER**

CIVILISTIX In partnership with **Form**

New Hills Road, Cambridge CB2 1GE
Tel +44 (0)223 243 277 E: enquiries@civilistix.com
www.civilistix.com

CLIENT: **FORM Structural Design**

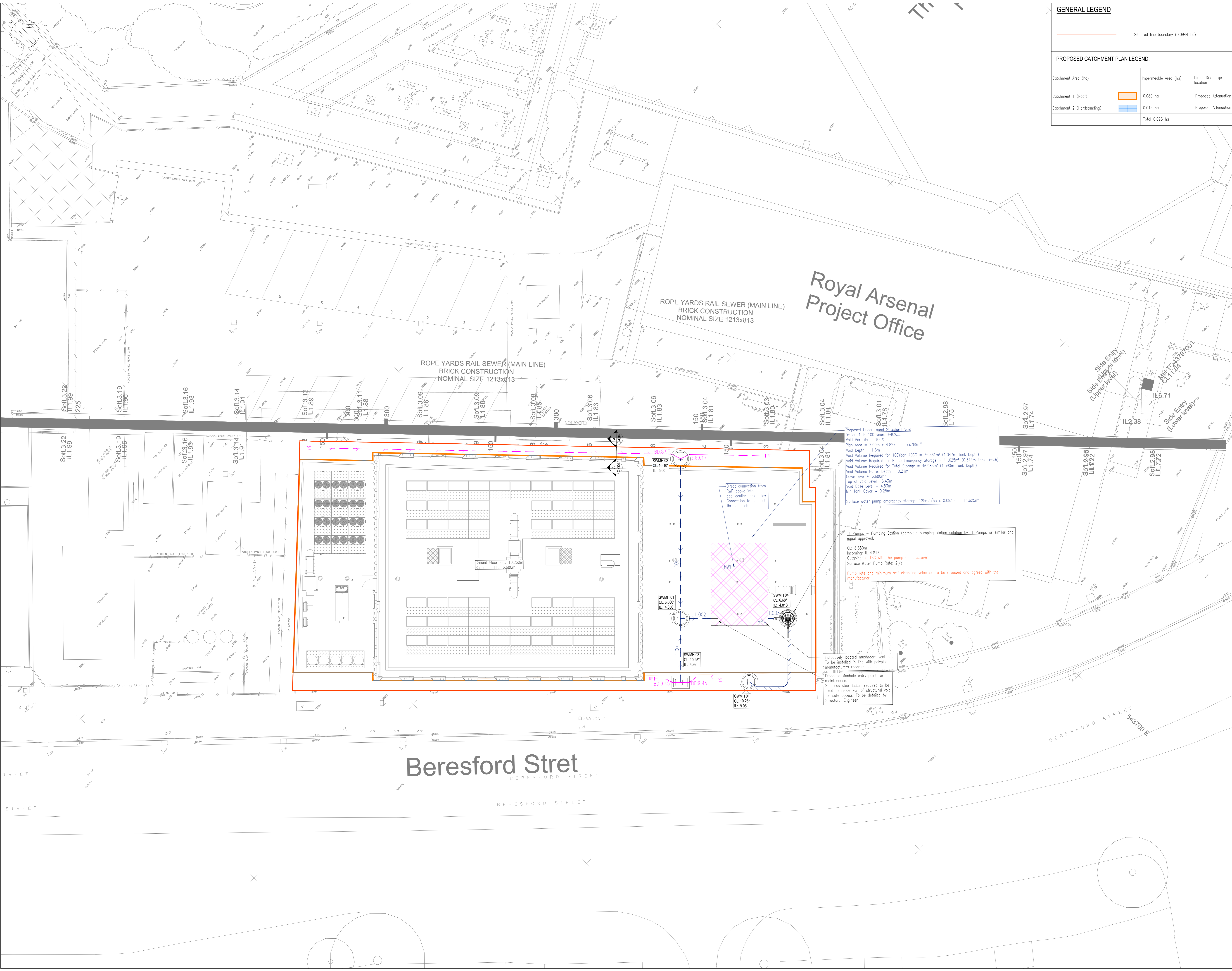
ARCHITECT: **Hadfield Cawkwell Davidson**

PROJECT: **81-88 Beresford Street, London (SE18 6BG)**

DRAWING TITLE: **Proposed Drainage General Arrangement Plan (Basement Floor)**

SCALE @ A1: 1:100 CHECKED/ APPROVED BY: DM DATE: 10-07-2023

PROJECT NO: 1-713 DRAWING NO: C-002 REV: 14



GENERAL LEGEND

Site red line boundary (0.0944 ha)

PROPOSED CATCHMENT PLAN LEGEND:

Catchment Area (ha)	Impermeable Area (ha)	Direct Discharge location
Catchment 1 (Roof)	0.080 ha	Proposed Attenuation Tank
Catchment 2 (Hardstanding)	0.013 ha	Proposed Attenuation Tank
Total 0.093 ha		

- DO NOT SCALE**
- GENERAL
- The contractor shall comply with the health and safety requirements as set out in the CDM Regulations.
 - All works are to be undertaken in accordance with the Building Regulations and latest relevant British Standards.
 - Conflicting information between this drawing and information given by others must be referred to the engineer before the works commence.
 - The contractor shall, before commencing the works, verify all existing outfall invert levels and site and setting out dimensions. The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions, and alignment of all parts of the works. Any discrepancies are to be reported to the Engineer.
 - All products used are to be CE marked in accordance with the Construction Products Directive (CPD/89/106/EEC).
 - The contractor shall be responsible for locating all existing utilities prior to commencing construction and protecting all existing services affected by the works.
 - Any unidentified hazards discovered during the progress of works are to be reported immediately to the engineer.
 - This drawing should not be used for setting out.

Royal Arsenal Project Office

ROPE YARDS RAIL SEWER (MAIN LINE)
BRICK CONSTRUCTION
NOMINAL SIZE 1213x813

Proposed Underground Structural Void
Design: 1 in 100 years +40%cc
Void Priority = 100%
Plan Area = 7.00m x 4.827m = 33.798m²
Void Depth = 1.6m
Void Volume Required for 100Year+40CC = 35.361m³ (1.047m Tank Depth)
Void Volume Required for Pump Emergency Storage = 11.625m³ (0.344m Tank Depth)
Void Volume Buffer Depth = 0.21m
Cover level = 6.680m
Top of Void Level = 6.43m
Void Base Level = 4.83m
Min Tank Cover = 0.25m
Surface water pump emergency storage: 125m³/ha x 0.093ha = 11.625m³

TT Pumps - Pumping Station (complete pumping station solution by TT Pumps or similar and equal approved)
CL: 6.680m
Incoming: IL 4.813
Outgoing: IL 10C with the pump manufacturer
Surface Water Pump Rate: 2l/s
Pump rate and minimum self cleansing velocities to be reviewed and agreed with the manufacturer.

Indicatively located mushroom vent pipe.
To be installed in line with poly pipe manufacturers recommendations.
Proposed Manhole entry point for maintenance.
Stainless steel ladder required to be fixed to inside wall of structural void for safe access. To be detailed by Structural Engineer.

Beresford Street
BERESFORD STREET

BERESFORD STREET 543700 E

REV	DATE	BY	SUMMARY OF CHANGE	CHK	APP
T4	07-11-23	DM	See basis updated and proposals amended to 2023	DM	DM
T3	28-09-23	DM	Proposed pumps relocated to suit structural proposals	DM	DM
T2	31-08-23	NK	DMT TENDER ISSUE	DM	DM
T1	10-07-23	NK	DMT TENDER ISSUE	DM	DM

DRAWING STATUS: **TENDER**

CIVILISTIX In partnership with **Form**

Nine Hills Road, Cambridge CB2 1QE
Tel +44 (0)223 343 277 E: enquiries@civilistix.com
www.civilistix.com

CLIENT: **FORM Structural Design**

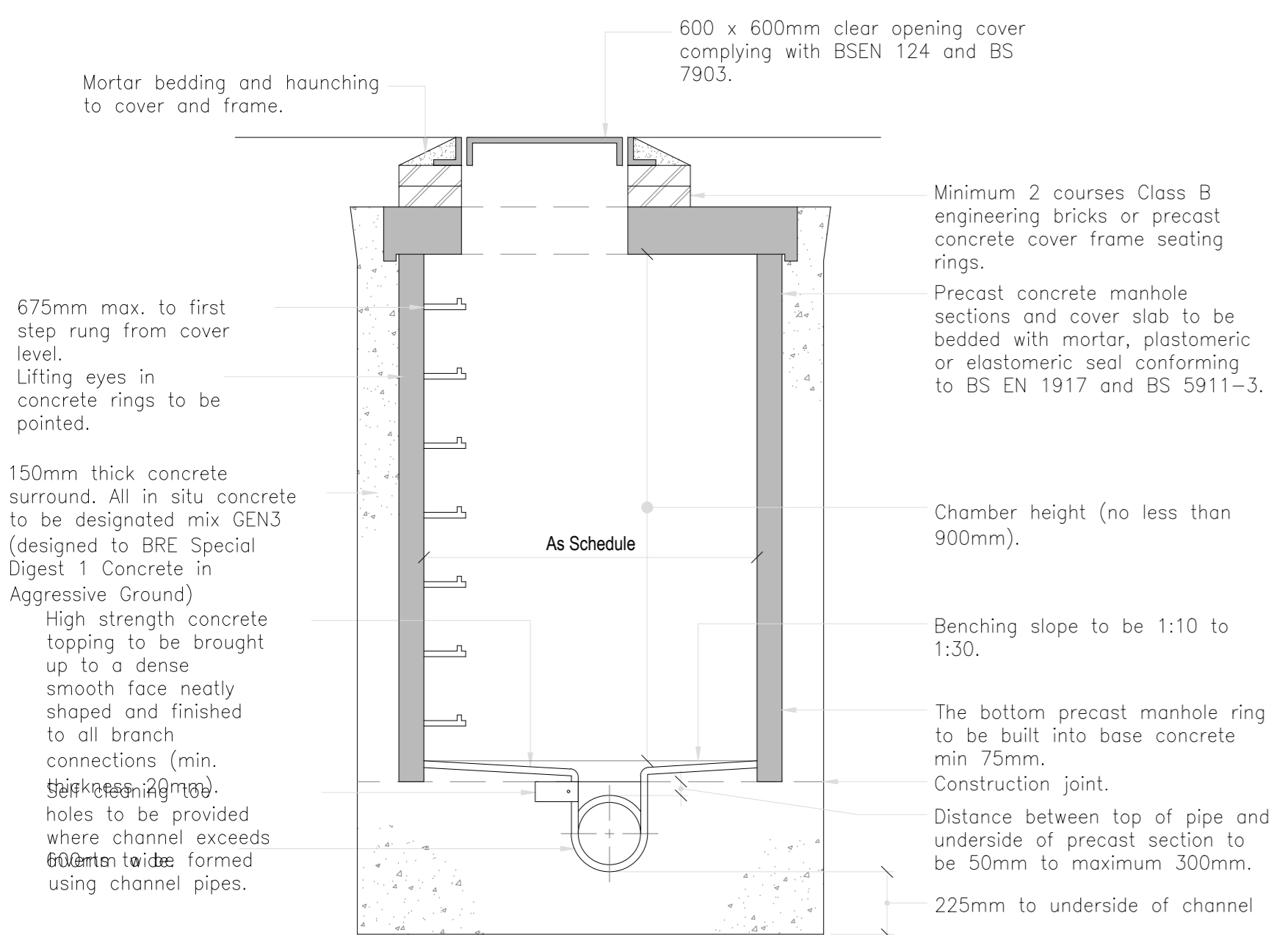
ARCHITECT: **Hadfield Cawkwell Davidson**

PROJECT: **81-88 Beresford Street, London (SE18 6BG)**

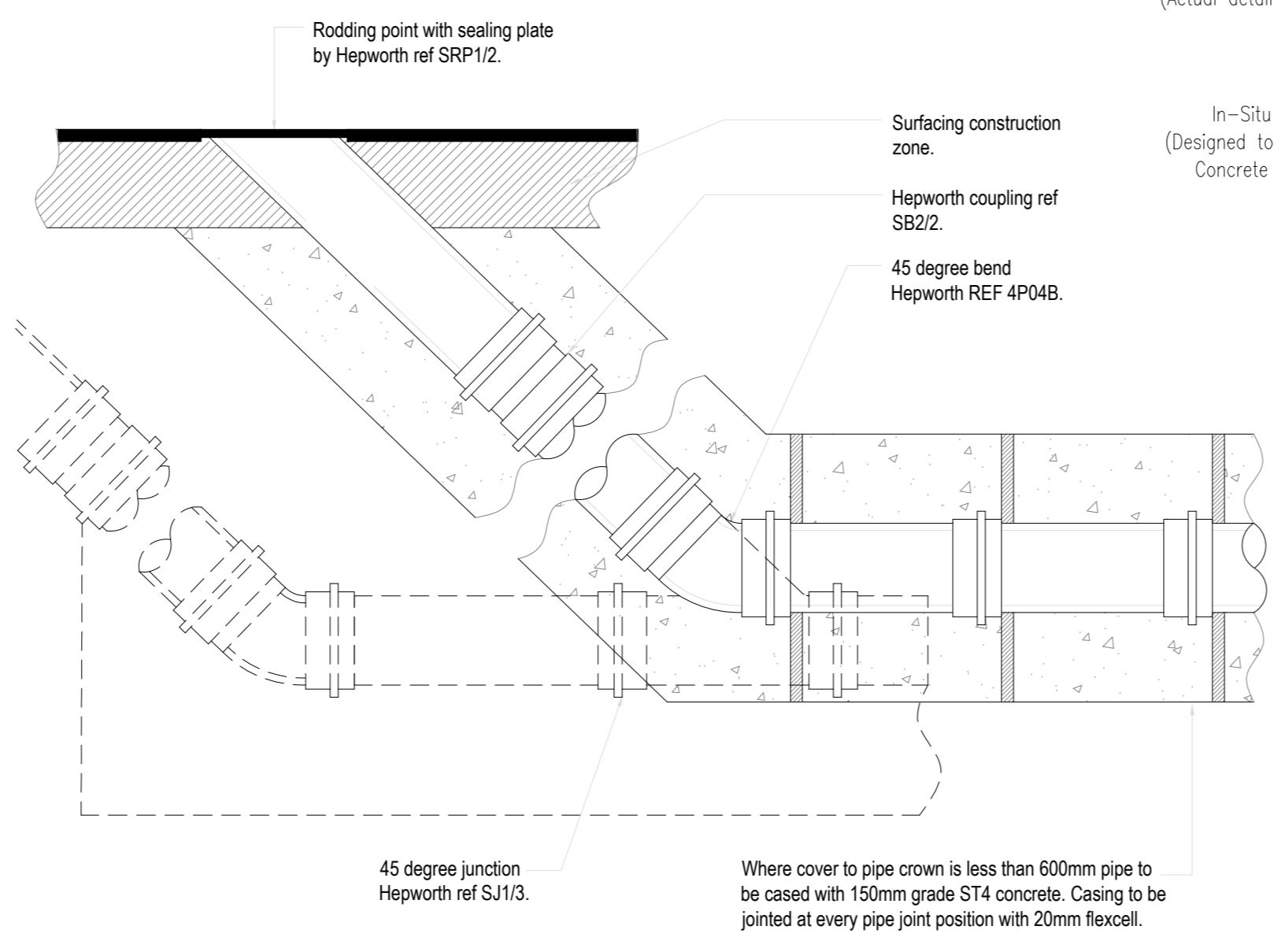
DRAWING TITLE: **Proposed Surface Water Catchment Plan**

SCALE @ A4: 1:100 | CHECKED/ APPROVED BY: DM | DATE: 10-07-2023

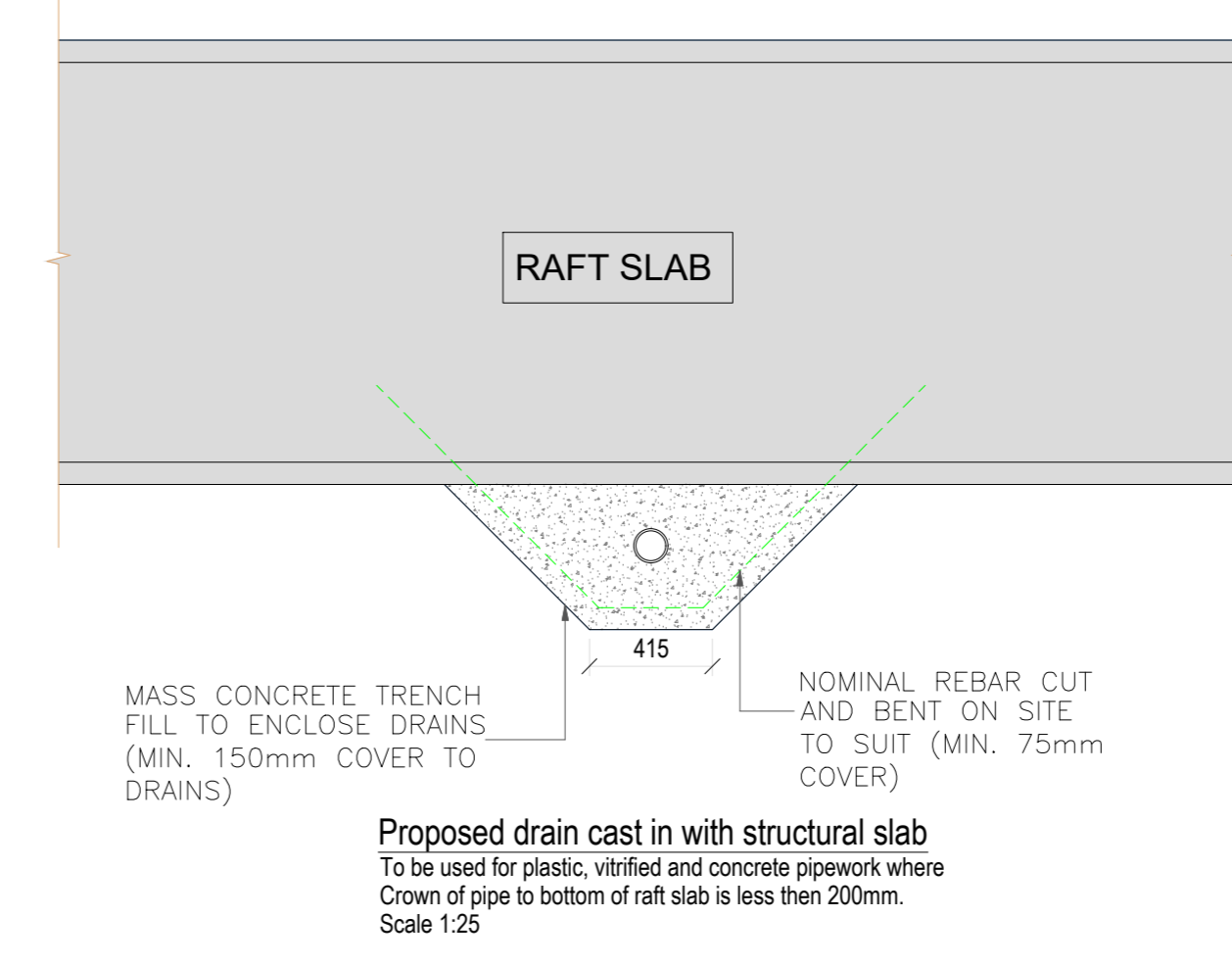
PROJECT No: 1-713 | DRAWING No: C-003 | REV: T4



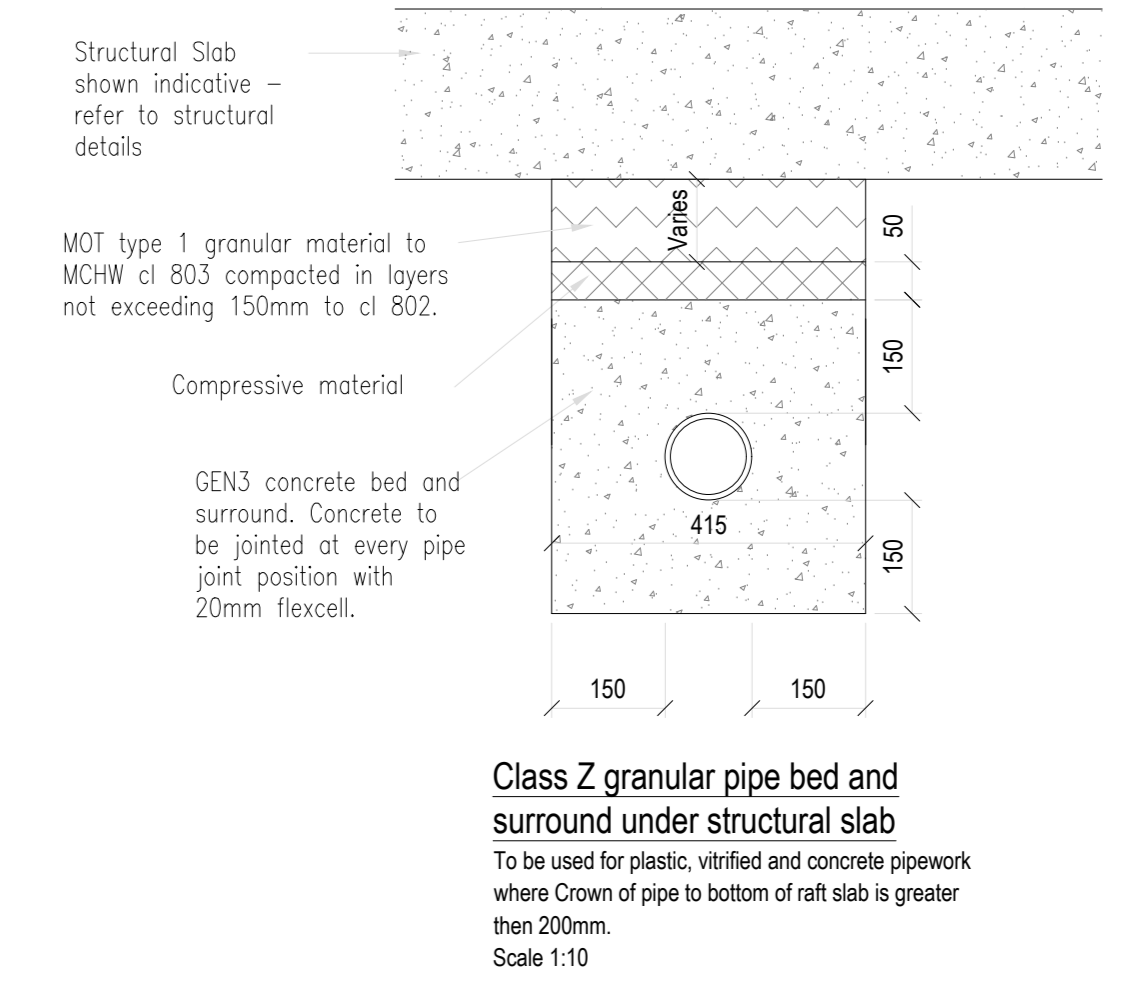
Typical Manhole Detail - Type B (1:20)
(Max depth from cover level to soffit of pipe of 3.0m)
Manhole construction shall comply with Design and Construction Guidance for foul and surface water sewers.



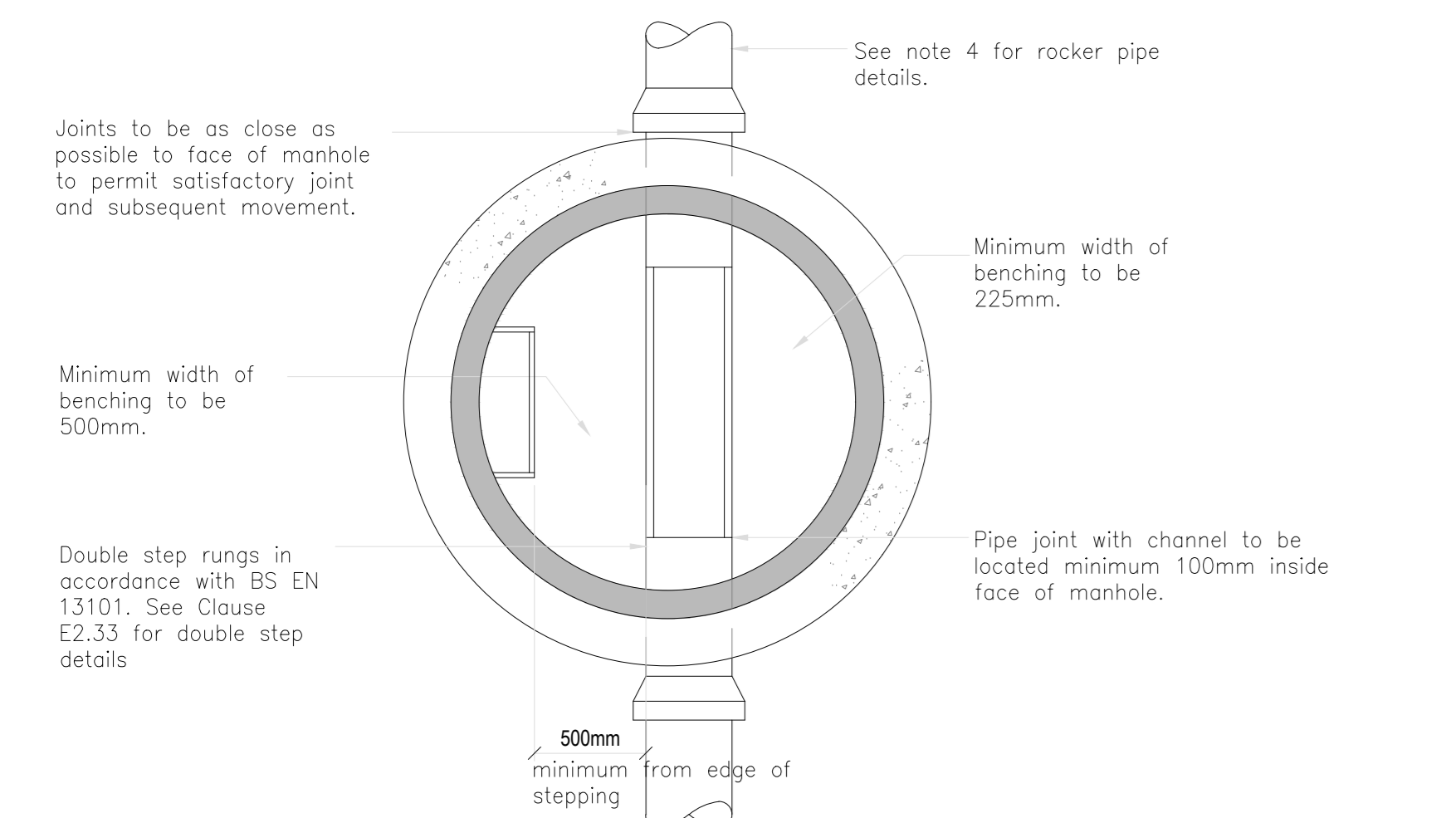
Typical Vertical Backstop Detail (1:20)
Manhole construction shall comply with Sewers for Adoption 7th Edition



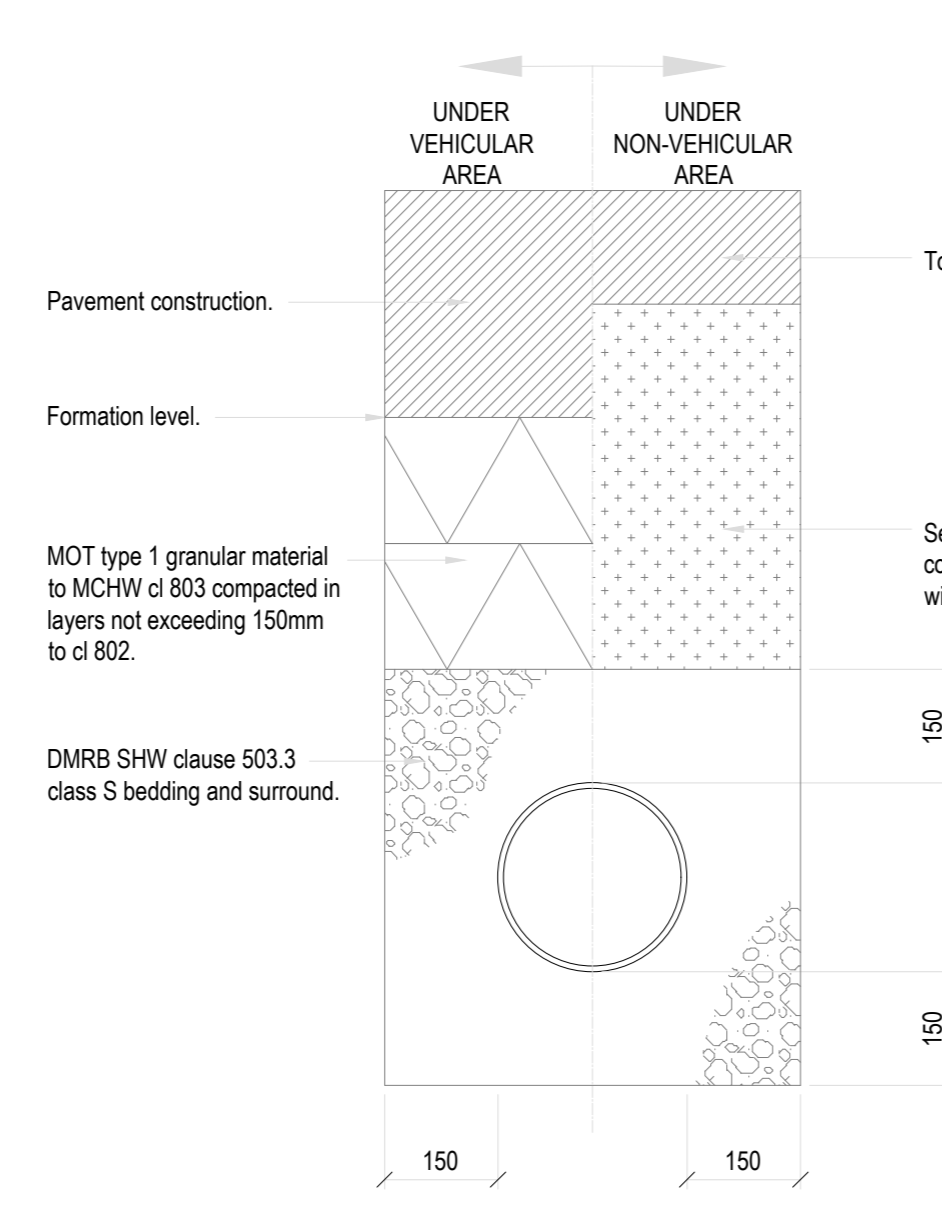
Proposed drain cast in with structural slab
To be used for plastic, vitrified and concrete pipework where crown of pipe to bottom of raft slab is less than 200mm.
Scale 1:25



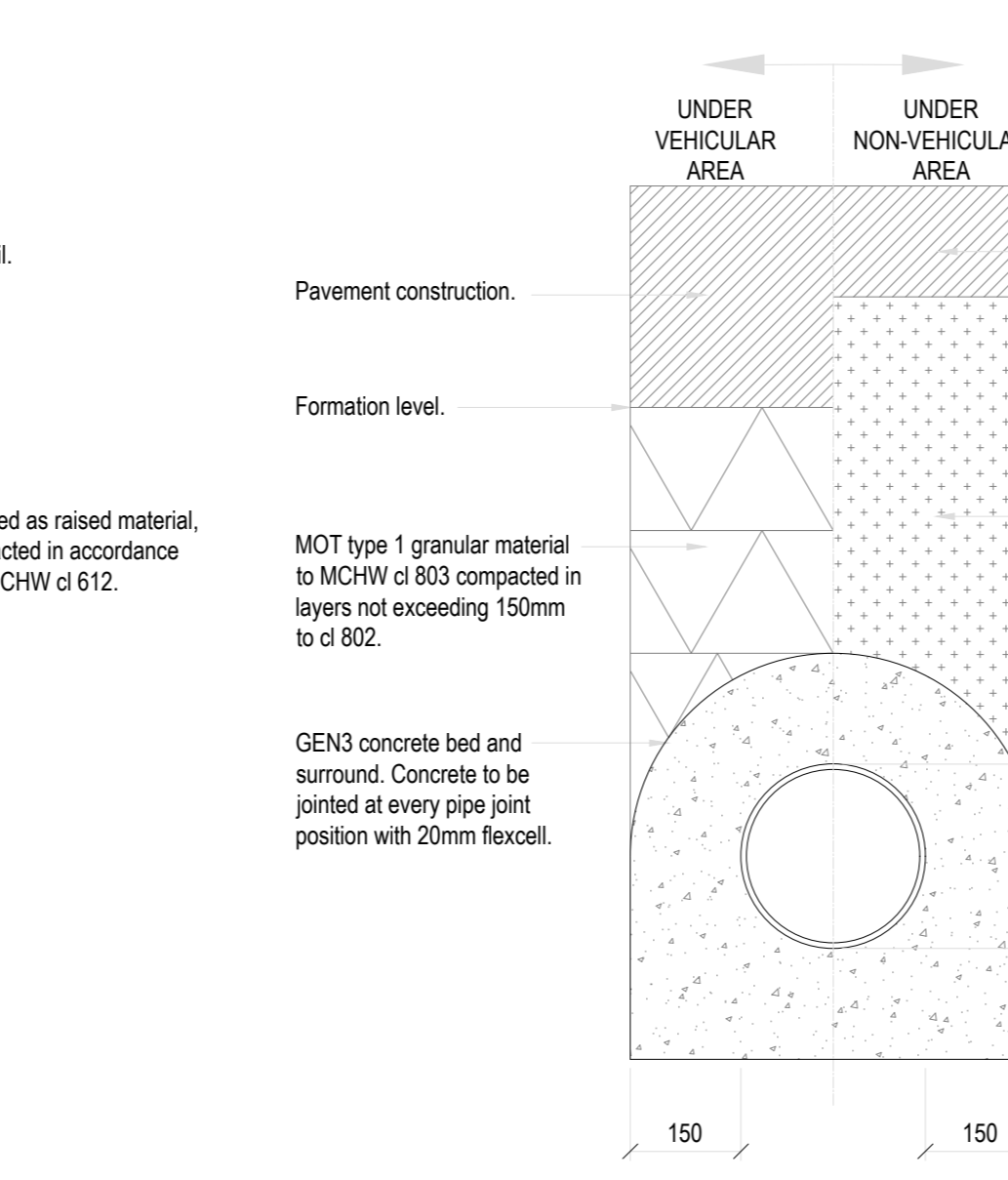
Class Z granular pipe bed and surround under structural slab
To be used for plastic, vitrified and concrete pipework where crown of pipe to bottom of raft slab is greater than 200mm.
Scale 1:10



Typical Manhole Detail - Type B (1:20)
(Max depth from cover level to soffit of pipe of 3.0m)
Manhole construction shall comply with Design and Construction Guidance for foul and surface water sewers.

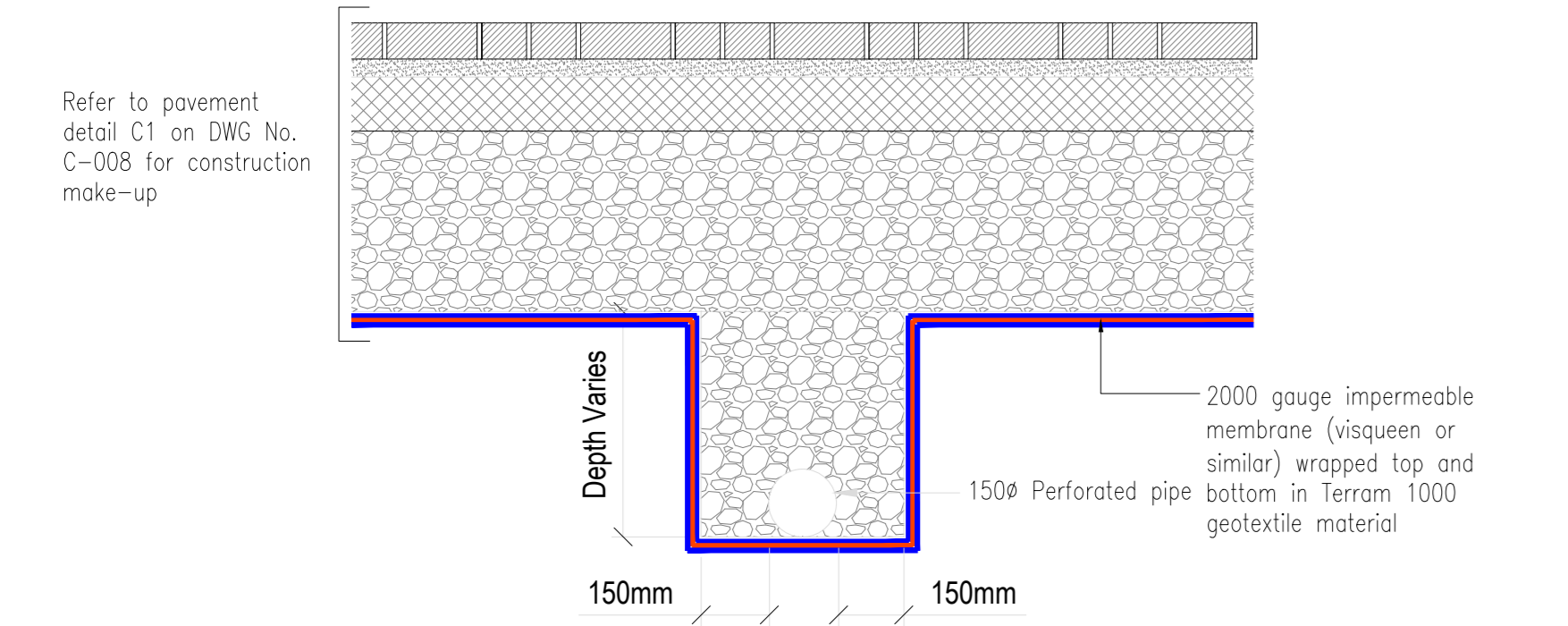


Class S granular pipe bed and surround
To be used for plastic, vitrified and concrete pipework where cover to crown is greater than 900mm.

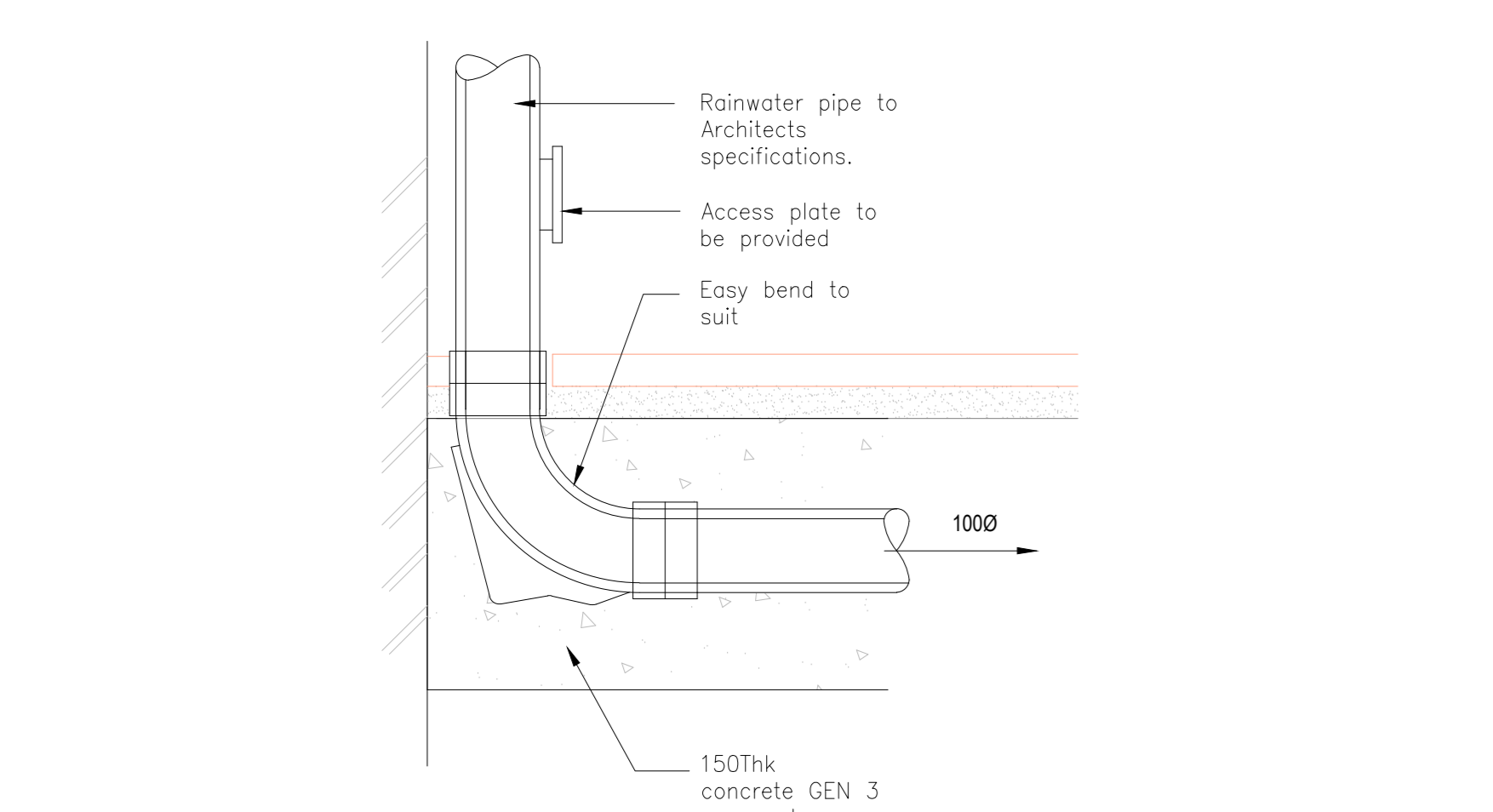


Class Z granular pipe bed and surround
To be used for plastic, vitrified and concrete pipework where cover to crown is less than 900mm.

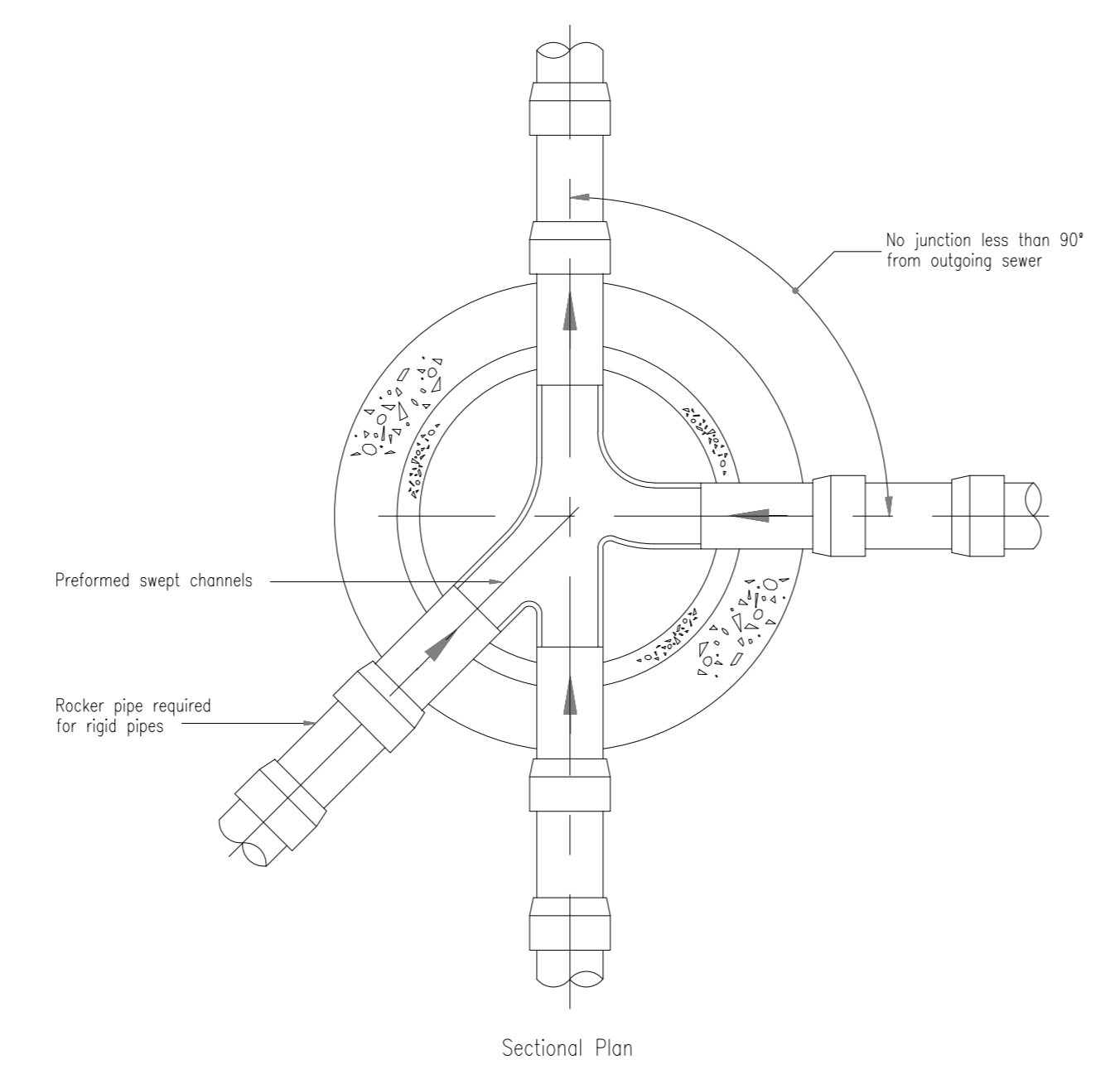
Pipe Bedding Details (1:10)



Section A-A - Typical Sub-Formation Drainage Arrangement (1:15)



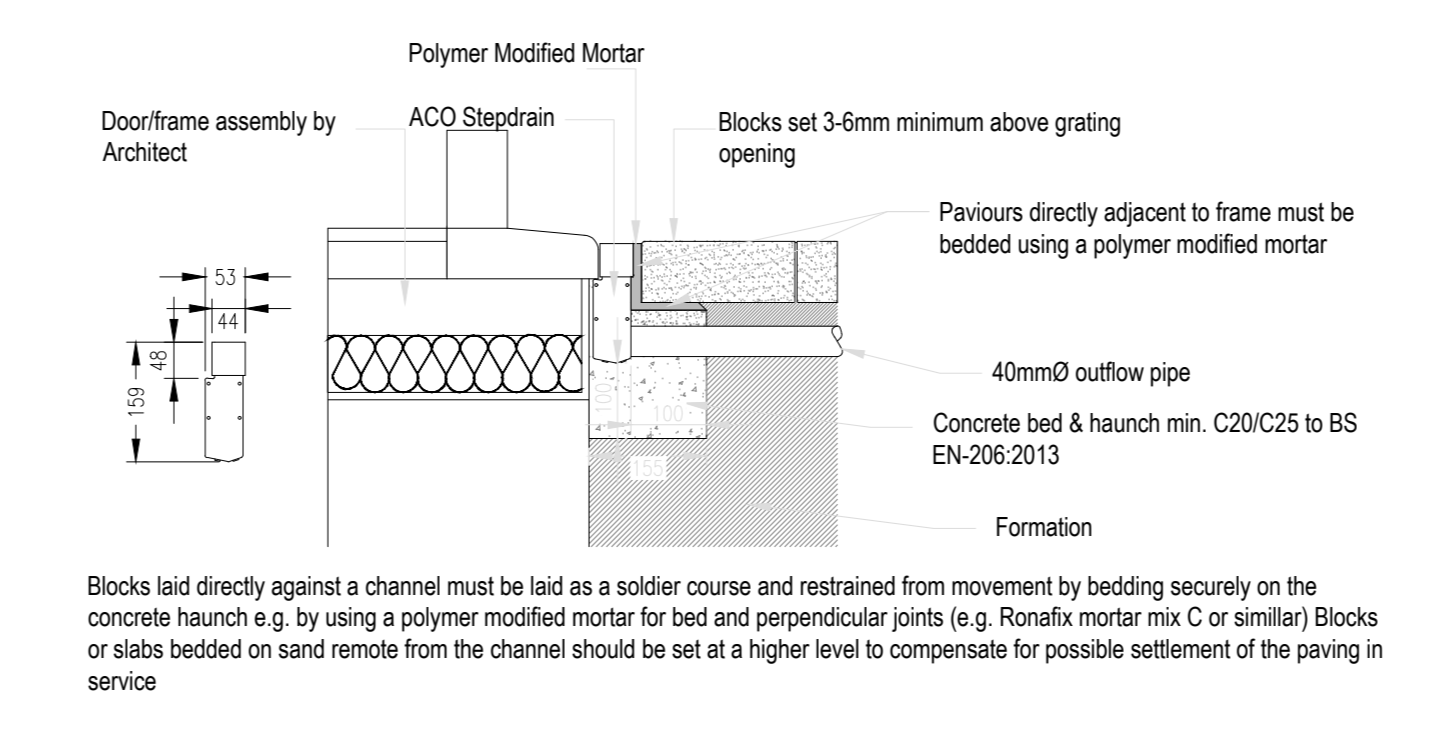
RWP Detail (1:10)



Typical Arrangement of Pipe Junctions Within Manholes (NTS)

Nominal diameter (mm)	Maximum effective length (m)
150 - 600	0.6
601 - 750	1.00
over 750	1.25

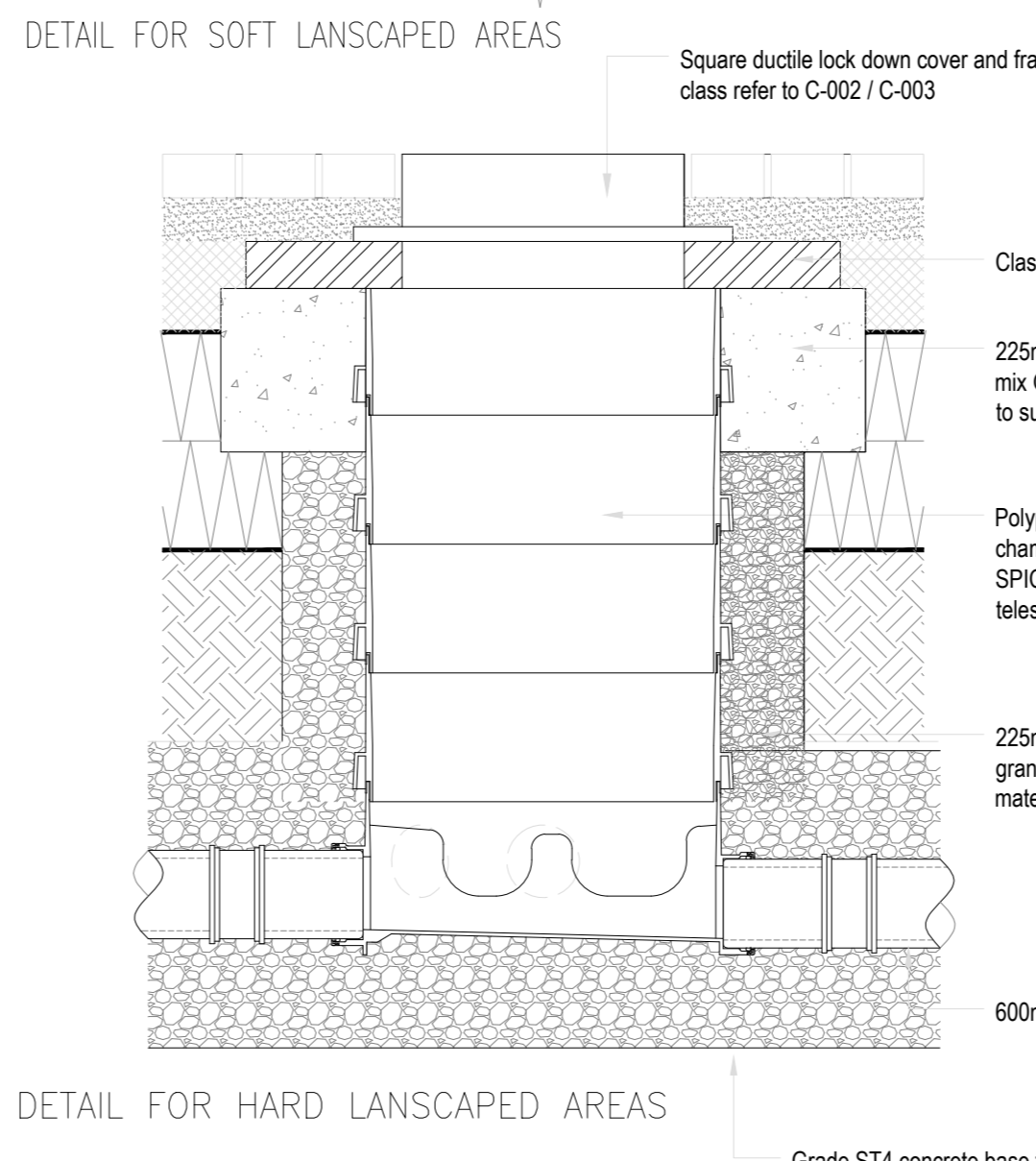
All pipes entering the bottom of the manhole to have soffits level.



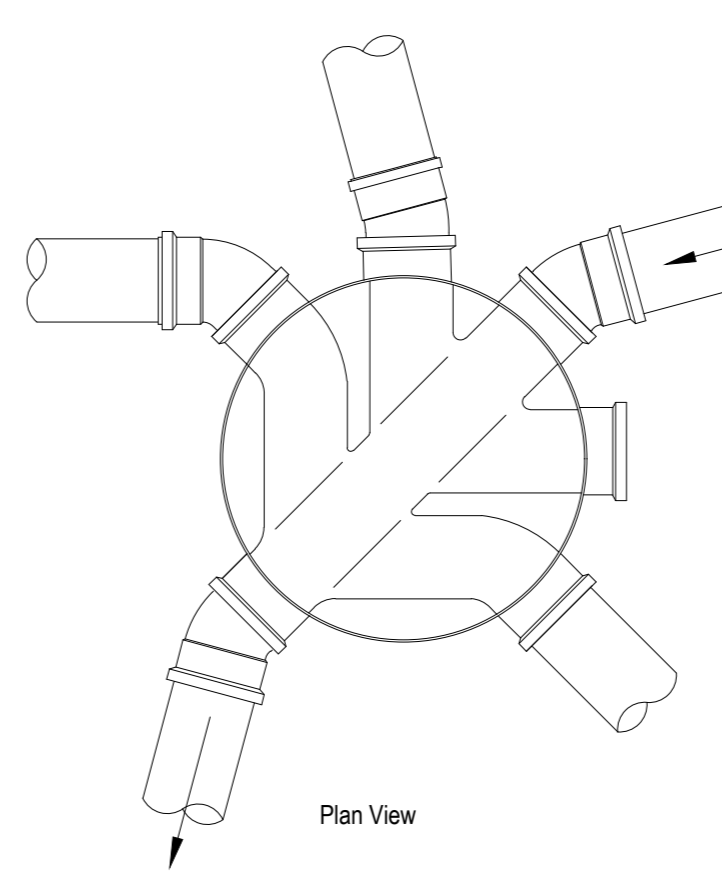
ACO Stepdrain (1:10)
Stimline Domestic Level Threshold Door Drainage



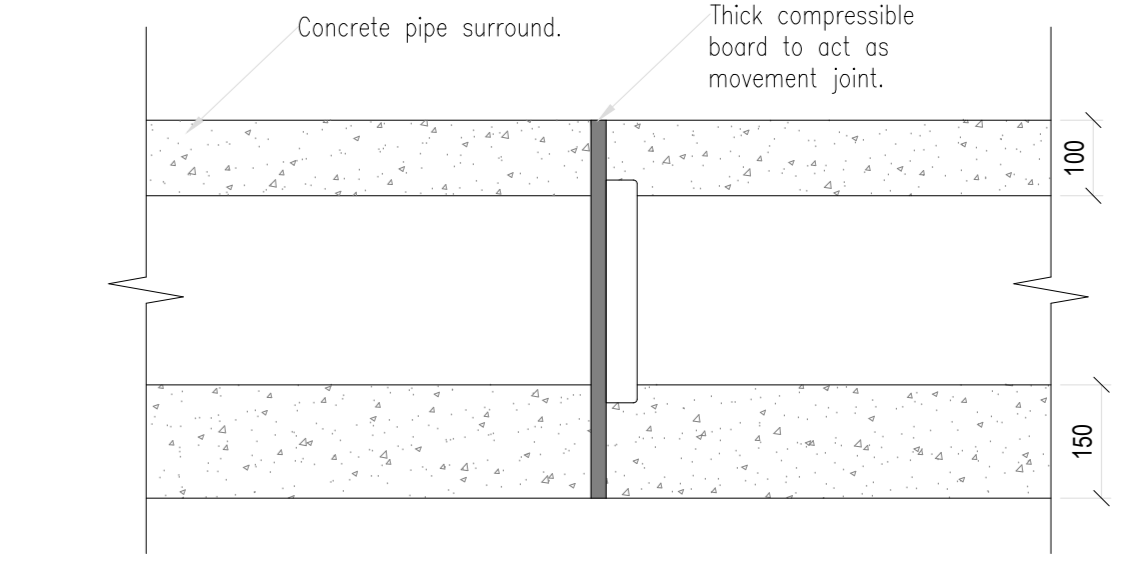
Polypipe Rainwater Diffuser Arrangement (1:10)



Typical Wavin PPIC Manhole Detail (1:10)



Chamber Plan View (1:10)



Joints for concrete encased pipes detail.

FIGURE B 7 TYPICAL MANHOLE DETAIL - TYPE A2
Depth from cover level to soffit of pipe 3 m to 6 m with ladder
Rigid material construction with concrete surround

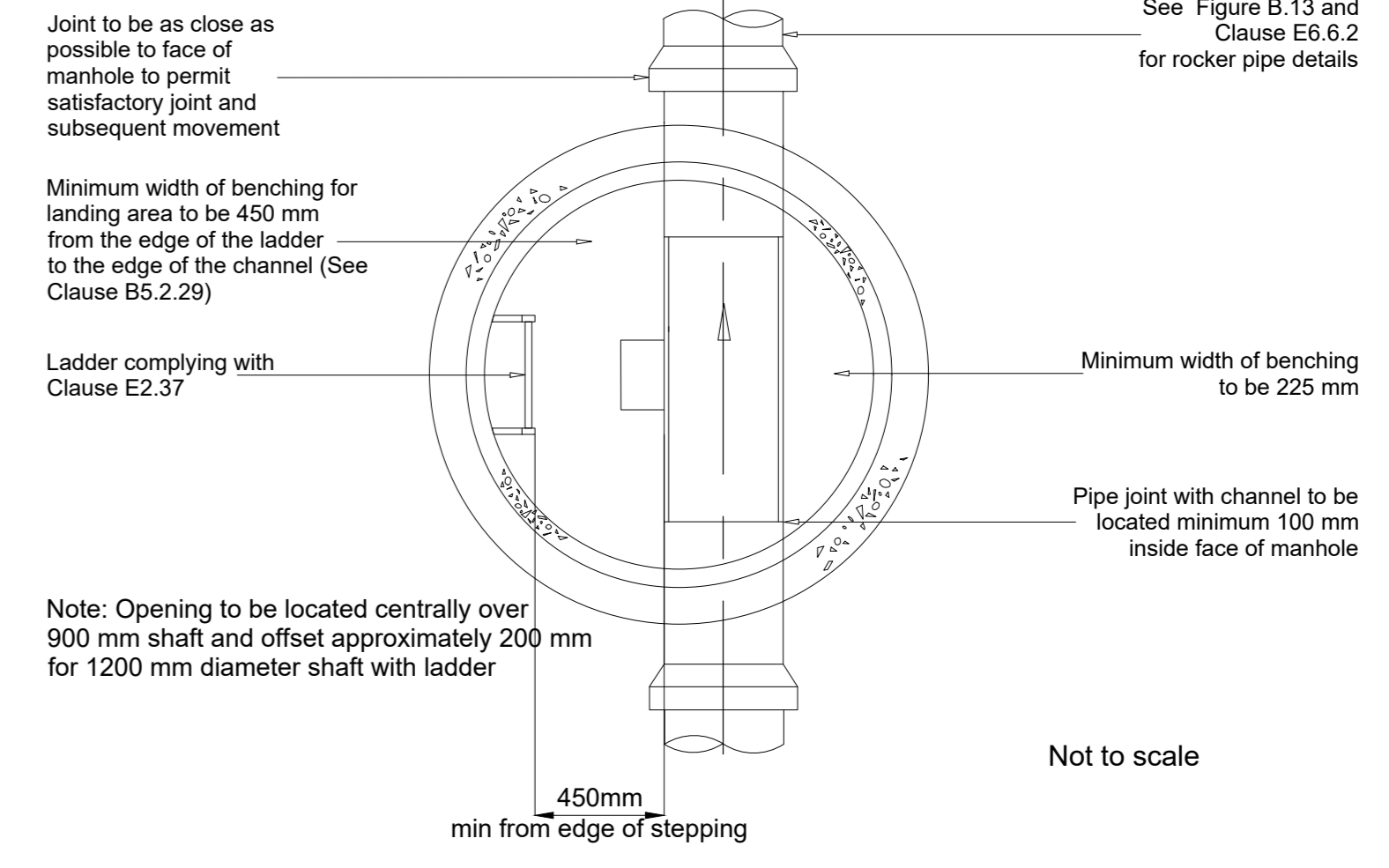
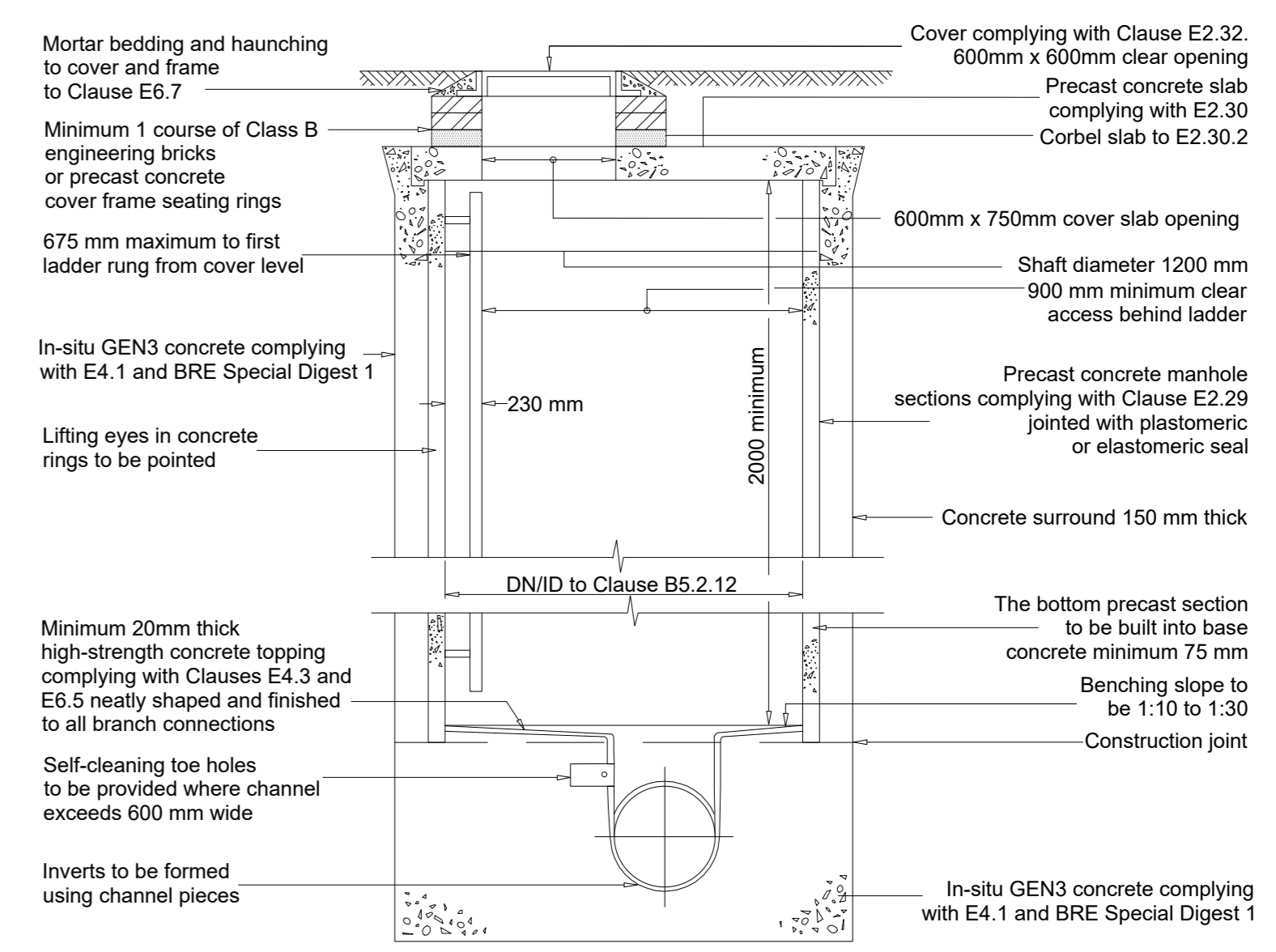
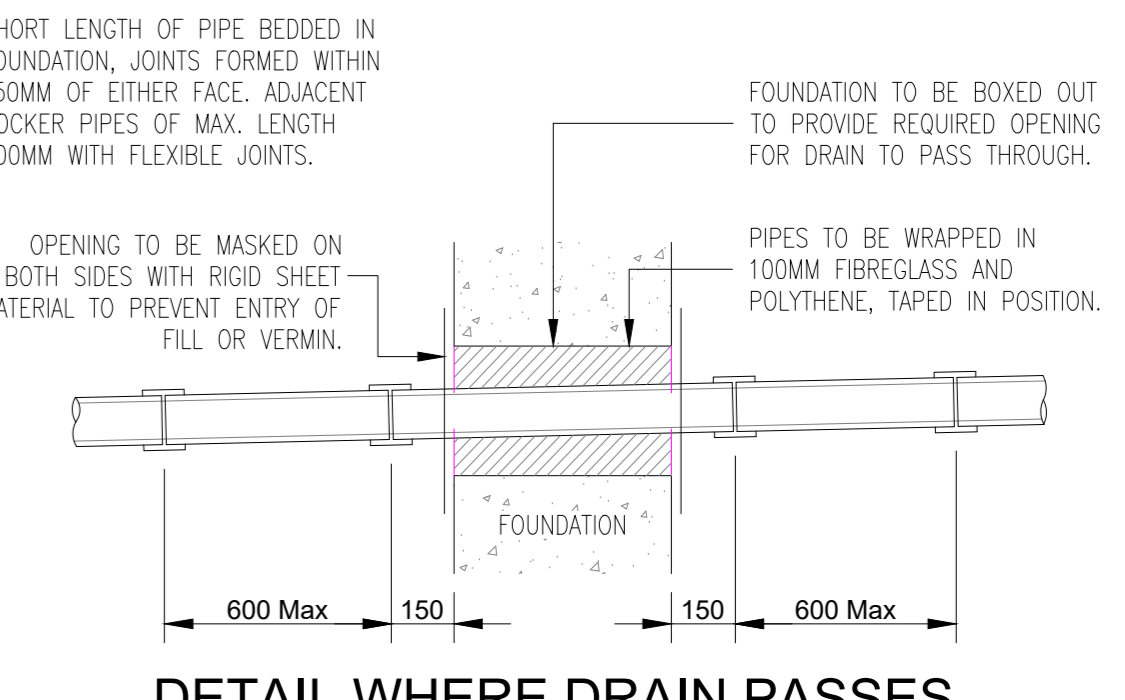


Figure B 7 Typical Manhole Detail - Type A2
Depth from cover level to soffit of pipe 3 m to 6 m with ladder
Rigid material construction with concrete surround

- In all installations, the main channel of the inspection chamber should always be used. Where the chamber is being used as a change of direction for the drainage system, short radial bends of 15°, 15°, 30° and 45° can be used in the inlet and outlet to achieve the required angle.
- Side inlet branch connectors enter the inspection chamber approx. 50mm above the invert of the main channel.
- 320mm dia. chambers are supplied with 2no. blanking plugs for the side inlets and 400mm dia. chambers are supplied with 3no. blanking plugs.



DETAIL WHERE DRAIN PASSES THROUGH FOUNDATION
1:20

DO NOT SCALE

- GENERAL**
- The contractor shall comply with the health and safety requirements as set out in the CDM Regulations.
 - All works are to be undertaken in accordance with the Building Regulations and latest relevant British Standards.
 - Conflicting information between this drawing and information given by others must be referred to the engineer before the works commence.
 - The contractor shall, before commencing the works, verify all existing utility levels and site and setting out dimensions. The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions, and alignment of all parts of the works. Any discrepancies are to be reported to the Engineer.
 - All products used are to be CE marked in accordance with the Construction Products Directive (CEN/EN/ISO/IEC).
 - The contractor shall be responsible for locating all existing utilities prior to commencing construction and protecting all existing services affected by the works.
 - Any unidentified hazards discovered during the progress of works are to be reported immediately to the engineer.
 - This drawing should not be used for setting out.

TENDER



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CLIENT: **FORM Structural Design**

ARCHITECT: **Hadfield Cawkwell Davidson**

PROJECT: **81-88 Beresford Street, London (SE18 6BG)**

DRAWING TITLE: **Proposed Drainage Construction Details**

SCALE @ A4: As Shown | CHECKED/ APPROVED BY: DM | DATE: 10-07-2023

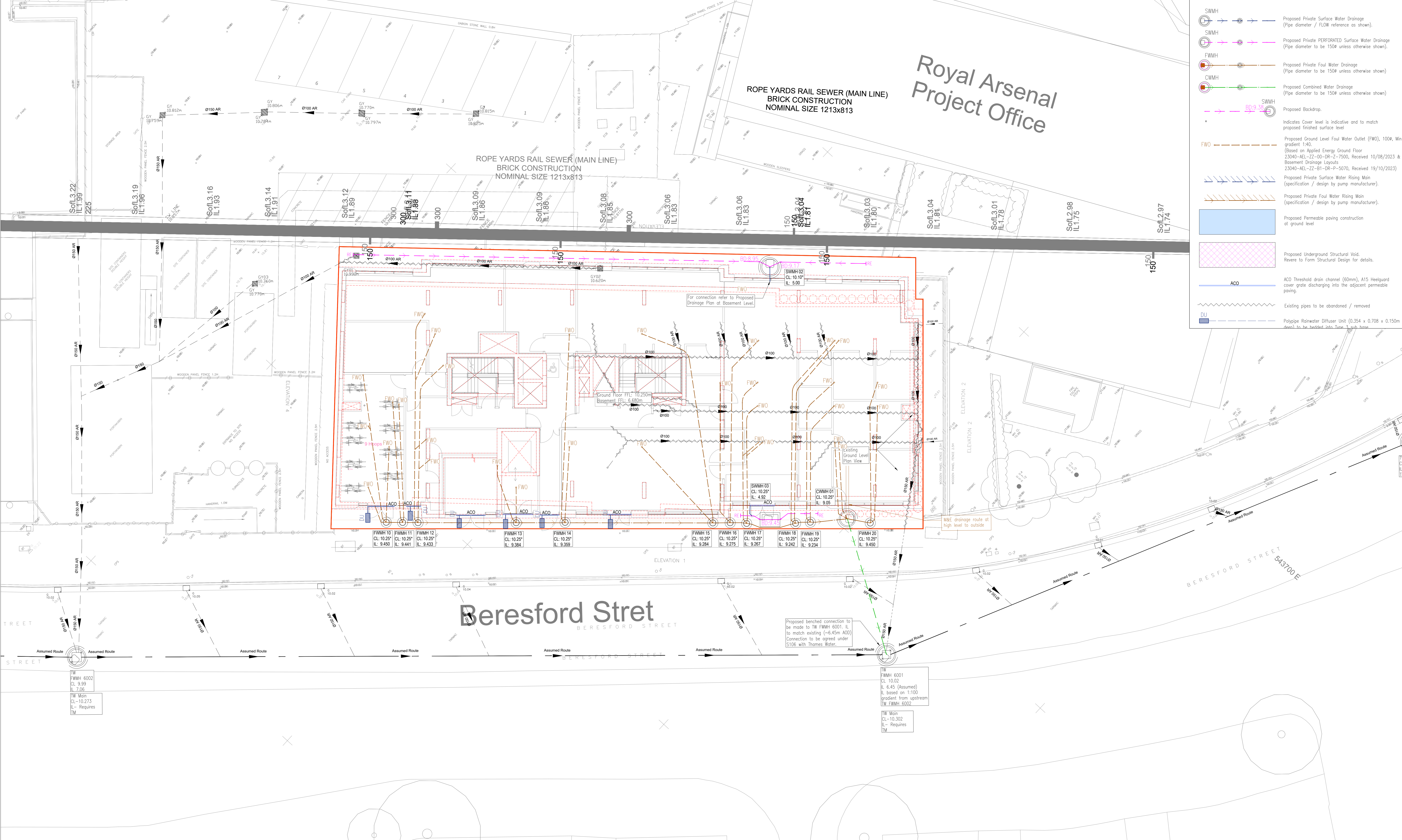
PROJECT No: 1-713 | DRAWING No: C-004 | REV: 12

PROPOSED SURFACE WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) approx	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
SWMH 02	10.10*	5.00	A2	1200x	Class D400 600x600	-
SWMH 03	10.25*	4.92	A2	1200x750	Class D400 1200x675	-

PROPOSED FOUL WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) approx	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
FWMH 10	10.25*	9.450	PPIC	450x	Class C250 450x450	-
FWMH 11	10.25*	9.441	PPIC	450x	Class C250 450x450	-
FWMH 12	10.25*	9.433	PPIC	450x	Class C250 450x450	-
FWMH 13	10.25*	9.384	PPIC	450x	Class C250 450x450	-
FWMH 14	10.25*	9.359	PPIC	450x	Class C250 450x450	-
FWMH 15	10.25*	9.284	PPIC	450x	Class C250 450x450	-
FWMH 16	10.25*	9.275	PPIC	450x	Class C250 450x450	-
FWMH 17	10.25*	9.267	PPIC	450x	Class C250 450x450	-
FWMH 18	10.25*	9.242	PPIC	450x	Class C250 450x450	-
FWMH 19	10.25*	9.234	PPIC	450x	Class C250 450x450	-
FWMH 20	10.25*	9.450	PPIC	450x	Class C250 450x450	-

PROPOSED COMBINED WATER MANHOLE SCHEDULE						
Note: Levels to be confirmed. Levels to Ordnance Survey Datum.						
MANHOLE REF	COVER LEVEL (m) approx	INVERT LEVEL (m)	MANHOLE TYPE	MANHOLE SIZE (mm)	COVER & FRAME	NOTES
CWMH 01	10.25*	9.05	2	1200x	Class D400 600x600	Incoming rising main from basement LUL

- As of Table 11, Part H of the Building Regulations, all inspection chambers with cover greater than 1.2m shall utilize a restricted square 350 x 350 or circular 350 cover
- All chamber covers to be laid flush with finished surface levels
- Chambers within paved areas are to be recessed with paving to match.



GENERAL LEGEND

Site red line boundary (0.0944 ha)

EXISTING DRAINAGE LEGEND

- Existing Thames Water Foul Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A Rev., Dated 23 July 2023).
- Existing Thames Water Combined Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A Rev., Dated 23 July 2023).
- Existing Private Surface Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A Rev., Dated 23 July 2023).
- Existing Private Combined Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A Rev., Dated 23 July 2023).
- Existing Private Foul Water Drainage. (Drainage information as taken from CCTV Connectivity Survey prepared by Reservoir & Water Services, DWG No. 001-A Rev., Dated 23 July 2023).

DRAINAGE LEGEND

- Proposed Private Surface Water Drainage (Pipe diameter / FLOW reference as shown).
- Proposed Private PERFORATED Surface Water Drainage (Pipe diameter to be 150mm unless otherwise shown).
- Proposed Private Foul Water Drainage (Pipe diameter to be 150mm unless otherwise shown).
- Proposed Combined Water Drainage (Pipe diameter to be 150mm unless otherwise shown).
- Proposed Backdrop.
- Indicates Cover level is indicative and to match proposed finished surface level.
- Proposed Ground Level Foul Water Outlet (FWO), 1000, Min. gradient 1:40. (Based on Applied Energy Ground Floor 23040-AL-ZZ-00-DR-2-7500, Received 10/08/2023 & Basement Drainage Layouts 23040-AL-ZZ-01-DR-2-5070, Received 19/10/2023)
- Proposed Private Surface Water Rising Main (specification / design by pump manufacturer).
- Proposed Private Foul Water Rising Main (specification / design by pump manufacturer).
- Proposed Permeable paving construction of ground level.
- Proposed Underground Structural Void. Refer to Form Structural Design for details.
- ACO threshold drain channel (60mm), A15 Helguard cover grate discharging into the adjacent permeable paving.
- Existing pipes to be abandoned / removed.
- Polypipe Rainwater Diffuser Unit (0.354 x 0.708 x 0.150m deep) to be bedded into Type 1 granular sub-base.

DO NOT SCALE

- The contractor shall comply with the health and safety requirements as set out in the CDM Regulations.
- All works are to be undertaken in accordance with the Building Regulations and latest relevant British Standards.
- Conflicting information between this drawing and information given by others must be referred to the engineer before the works commence.
- The contractor shall, before commencing the works, verify all existing outfall invert levels and site and setting out dimensions. The contractor shall be responsible for the final and proper setting out of the works and for the correctness of the position, levels, dimensions, and alignment of all parts of the works. Any discrepancies are to be reported to the Engineer.
- All products used are to be CE marked in accordance with the Construction Products Directive (CEN/EN/ISO/IEC).
- The contractor shall be responsible for locating all existing utilities prior to commencing construction and protecting all existing services affected by the works.
- Any unidentified hazards discovered during the progress of works are to be reported immediately to the engineer.
- This drawing should not be used for setting out.

DRAINAGE

- All drain runs constructed with less than 600mm cover between finished ground level and crown of the pipe are to be encased with a minimum of 150mm Grade S14 concrete. The casing concrete is to be jointed at every pipe joint position with 20mm Flexcell board to form joint and provide joint flexibility.
- All pipework 300mm or below to be vitrified clay, Hesporth Supersewer/Supersol or similar approved. All pipework greater than 300mm to be Class H concrete.
- All SVP/SS and FWP building spurs to be 1000 pipework laid of 140 for foul water and 150 for surface water.
- Refer to Architect and / or Mechanical & Electrical design packages for Rain Water Pipe (RWP) and Foul Water Outlet (FWO) exact setting out positions.
- All building drainage to be installed and tested in compliance with the Building Regulations Approved Document H, 2015 Edition and to be reviewed for compliance by Building Control prior to construction commencing.
- Insitu concrete for use in general drainage works shall be in accordance with BS5262 and in accordance with the recommendations of the site investigation report, and in accordance with BRE digest 1 'concrete in aggressive ground' to meet any expected sulphate conditions.
- All gullies, channels and manhole covers are to be set 5mm lower than indicated on the drawing (i.e. 5mm lower than the adjacent surface). All drain and sewer pipes are to be laid soft to stiff, unless shown otherwise.
- All above-ground drainage to incorporate rodding access facilities.
- All manhole covers and frames shall be manufactured from ductile iron and comply with BSEN124 and be marked 'TM' or 'SM'. They shall be non-ventilating type and have closed keyways. The minimum frame depth shall be 100mm.
- Small lightweight access covers should be secured (e.g. with screws) to deter unauthorized access.
- Manholes deeper than 1m to have galvanised steel step irons or fixed ladders.
- Contractor to undertake a pre-construction CCTV drainage survey to confirm that no existing third party connections require maintaining or diverting through the development site.
- Exact arrangement of Geo-cellular storage to provide sufficient access for maintenance and venting will be subject to specific manufacturer product details. It is recommended therefore, a design of geo-cellular storage is obtained from the clients chosen manufacturer prior to works commencing.
- As of Table 11, Part H of the Building Regulations ('Drainage and Waste Disposal'), all inspection chambers with cover greater than 1.2m shall utilize a restricted square 350 x 350 or circular 350 cover.
- All chambers located within the building envelope to utilize triple sealed covers.
- All chambers covered to be laid flush with finished surface levels.
- Chambers within paved areas are to be recessed with paving to match.
- The formation level of all permeable paving shall either be flat or fall at the same gradient as the surface finish levels towards the closest sub formation drainage outlet.
- All adaptable sewers to be constructed in accordance with the latest edition of 'Design Construction Guidance (DCG)' and to the satisfaction of a statutory appointed and independent overseeing engineer.

Comments

The locations of trees, planter beds and root barrier zones to be coordinated in relation to the drainage design with the landscape architect and arboriculturalist.

All landscape features including paving, kerbs, edgings, recreational zones etc. are to be provided by the landscape architect.

Pump rate and minimum self-cleaning velocities to be reviewed and agreed with the manufacturer.

Proposed foundations clash with proposed MH locations. Requires coordination.

REV	DATE	BY	SUMMARY OF CHANGE	CHK	APP
14	05-11-23	DM	Revised details updated and proposals amended to suit.	DM	DM
13	28-09-23	DM	Design changes added from CCTV survey and proposals amended to suit.	DM	DM
12	31-08-23	DM	DMHT TENDER ISSUE	DM	DM
11	10-07-23	DM	DMHT TENDER ISSUE	DM	DM

DRAWING STATUS: TENDER

CIVILISTIX In partnership with **Form**

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CLIENT: **FORM Structural Design**

ARCHITECT: **Hadfield Cawkwell Davidson**

PROJECT: **81-88 Beresford Street, London (SE18 6BG)**

DRAWING TITLE: **Proposed Drainage General Arrangement Plan (Ground Floor)**

SCALE @ A4: 1:100 CHECKED/ APPROVED BY: DM DATE: 10-07-2023

PROJECT No: 1-713 DRAWING No: C-005 REV: 14

Calculated by:	Kevin Henning
Site name:	1-713
Site location:	SE18 6BG

Site Details

Latitude:	51.49219° N
Longitude:	0.06818° E
Reference:	347739495
Date:	Jan 15 2024 16:51

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Runoff estimation approach

Site characteristics

Total site area (ha):

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

Soil characteristics

	Default	Edited
SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

Hydrological characteristics

	Default	Edited
SAAR (mm):	581	581
Hydrological region:	6	6
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

Default Edited

Q _{BAR} (l/s):	0.37	0.37
1 in 1 year (l/s):	0.31	0.31
1 in 30 years (l/s):	0.84	0.84
1 in 100 year (l/s):	1.17	1.17
1 in 200 years (l/s):	1.37	1.37

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	60.00
Return Period (years)	5	Maximum Rainfall (mm/hr)	100.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	4.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
SWMH1	0.000	4.00	6.680	1200		543680.735	179048.189	1.824
SWMH2	0.005	4.00	10.100	1200		543690.708	179057.353	5.100
SWMH3	0.005	4.00	10.250	1200	750	543676.730	179044.516	5.330
TANK	0.082	4.00	6.680	1		543686.434	179046.618	1.850
PUMP	0.000	4.00	6.680	1200		543686.903	179041.462	1.867

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	SWMH2	SWMH1	13.544	0.600	5.000	4.856	0.144	94.1	150	4.22	97.5
1.001	SWMH3	SWMH1	5.434	0.600	4.920	4.856	0.064	84.9	150	4.08	98.7
1.002	SWMH1	TANK	2.596	0.600	4.856	4.830	0.026	99.8	150	4.03	99.2
1.003	TANK	PUMP	1.703	0.600	4.830	4.813	0.017	100.2	150	4.07	98.9

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.036	18.3	1.3	4.950	1.674	0.005	0.0
1.001	1.091	19.3	1.3	5.180	1.674	0.005	0.0
1.002	1.005	17.8	2.7	1.674	1.700	0.010	0.0
1.003	1.004	17.7	24.7	1.700	1.717	0.092	0.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	13.544	94.1	150	Circular	10.100	5.000	4.950	6.680	4.856	1.674
1.001	5.434	84.9	150	Circular	10.250	4.920	5.180	6.680	4.856	1.674
1.002	2.596	99.8	150	Circular	6.680	4.856	1.674	6.680	4.830	1.700
1.003	1.703	100.2	150	Circular	6.680	4.830	1.700	6.680	4.813	1.717

Link	US Node	Dia (mm)	Width (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	SWMH2	1200		Manhole	Adoptable	SWMH1	1200	Manhole	Adoptable
1.001	SWMH3	1200	750	Manhole	Adoptable	SWMH1	1200	Manhole	Adoptable
1.002	SWMH1	1200		Manhole	Adoptable	TANK	1	Manhole	Adoptable
1.003	TANK	1		Manhole	Adoptable	PUMP	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)	
SWMH1	543680.735	179048.189	6.680	1.824	1200			1	1.001	4.856	150
							2	1.000	4.856	150	
							0	1.002	4.856	150	
SWMH2	543690.708	179057.353	10.100	5.100	1200			0	1.000	5.000	150
SWMH3	543676.730	179044.516	10.250	5.330	1200	750		0	1.001	4.920	150
TANK	543686.434	179046.618	6.680	1.850	1			1	1.002	4.830	150
PUMP	543686.903	179041.462	6.680	1.867	1200			1	1.003	4.813	150
								0	1.003	4.830	150

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	0.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	40	0	0

Node PUMP Online Depth/Flow Control

Flap Valve	x	Invert Level (m)	4.813	Design Flow (l/s)	2.0
Replaces Downstream Link	✓	Design Depth (m)	1.867		

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.010	2.000	1.867	2.000

Node TANK Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.830	Depth (m)	1.600
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	90	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	4.827	Number Required	1
Porosity	1.00	Pit Length (m)	7.000		

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.87%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
120 minute winter	SWMH1	118	5.877	1.021	1.2	1.1542	0.0000	SURCHARGED
120 minute winter	SWMH2	118	5.876	0.876	1.0	0.9913	0.0000	SURCHARGED
120 minute winter	SWMH3	118	5.877	0.957	1.0	0.8609	0.0000	SURCHARGED
120 minute winter	TANK	118	5.877	1.047	17.1	35.3611	0.0000	SURCHARGED
120 minute winter	PUMP	118	5.876	1.063	2.6	1.2022	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
120 minute winter	SWMH1	1.002	TANK	0.8	0.279	0.045	0.0457	
120 minute winter	SWMH2	1.000	SWMH1	0.6	0.264	0.033	0.2384	
120 minute winter	SWMH3	1.001	SWMH1	0.6	0.287	0.031	0.0957	
120 minute winter	TANK	1.003	PUMP	2.6	0.978	0.146	0.0300	
120 minute winter	PUMP	Depth/Flow		2.0				41.8