



Oldfield Road, Hampton

Flood Risk Assessment

For Shurgard UK

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1. Introduction

This report has been prepared by Hydrock Consultants Limited (Hydrock) on behalf of our client Shurgard UK, in support of a development scheme located at Oldfield Road, Hampton, TW12 2HR.

Local Planning Authorities are advised by the Government's National Planning Policy Framework (NPPF) to consult the Environment Agency (EA) on development proposals in areas at risk of flooding and / or for sites greater than 1 hectare in area. As the site is less than 1 hectare in size and is considered to be at low risk of flooding, a Flood Risk Assessment (FRA) would typically not be required. However, owing to the target rating of BREEAM Excellent, an FRA will be required to demonstrate the required credits are achieved under BREEAM 2018 New Construction.

The report has been prepared to consider the requirements of NPPF through:

- » Assessing whether the proposed development is likely to be affected by flooding;
- » Assessing whether the proposed development is appropriate in the suggested location; and
- » Detailing measures necessary to mitigate any flood risk identified, to ensure that the proposed development and occupants would be safe, and that flood risk would not be increased elsewhere.

The report considers the requirements for undertaking an FRA as stipulated in the NPPF Technical Guidance. Only those requirements that are appropriate to a development of this nature have been considered in the compilation of this report.

This report has been prepared in accordance with current EA policy.

2. Site Information

2.1 Location

The site is located in Hampton within the London Borough of Richmond Upon Thames, approximately 20 km south west of the city of London.

The site is bound:

- » To the north by a railway line beyond which lies a residential development;
- » To the east by a retail unit 'Waitrose & Partners Hampton';
- » To the south by residential development; and
- » To the west by residential development.

The nearest watercourse to the site is the River Thames, located approximately 600m south of the site, a Main River under the EA jurisdiction. There are a number of reservoirs located within close proximity of the site in addition to further reservoirs and surface water bodies associated with the Thames Water Hampton Water Treatment Works.

The site address and Ordnance Survey Grid Reference is provided in Table 1 below, with site boundaries and locations shown in Figure 1.

Table 1 - Site Referencing Information

Site Referencing Information	
Site Address	74, Oldfield Road, The Beveree, Hampton, London Borough of Richmond upon Thames, London, Greater London, England, TW12 2HS, United Kingdom
Grid Reference	TQ 13144 69772 513144 169772

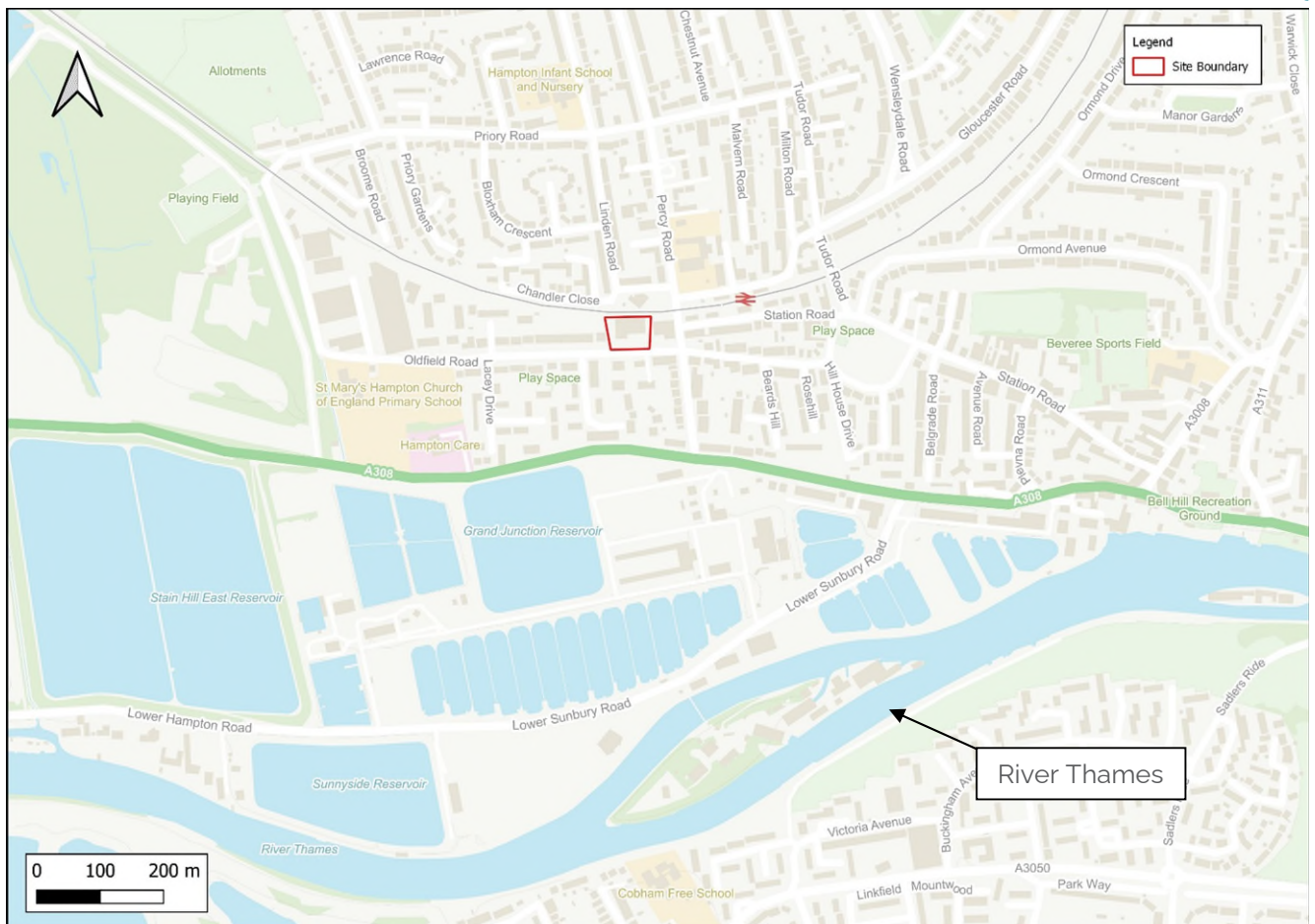


Figure 1: Site Location

2.2 Topography

A topographic survey was undertaken for the site in July 2023 (Appendix A). Topographic levels are measured in meters Above Ordnance Datum (m AOD). The site is shown to slope from approximately 17.4 m AOD in the south western extents of the site to 16.7 m AOD in the north eastern extents of the site.

2.3 Geology

According to British Geological Survey (BGS) mapping, the site is wholly underlain by superficial deposits described as Taplow Gravel Member - sand and gravel, classified as a Principal Aquifer and indicating higher permeability. Principal aquifers provide significant quantities of drinking water and may also support rivers, lakes and wetlands. The superficial deposits are underlain by bedrock deposits described as London Clay Formation - clay and silt.

Soilscapes¹ mapping shows the site to contain 'Loamy soils with naturally high groundwater'.

¹ [LandIS - Land Information System - Soilscapes soil types viewer](#)

2.4 Proposed Development

The proposed development is for the following:

- » *"Redevelopment of the site to provide a self-storage facility (Use Class B8), comprising a maximum of 5,803 sqm GEA"*

A proposed site plan is included as Appendix B.

3. Assessment of Flood Risk

3.1 Fluvial and Tidal Flood Risk

As mentioned in Section 2.1, the closest watercourse to the site is the River Thames, a Main River located approximately 600 m south of the site under EA jurisdiction.

According to the current EA Flood Map for Planning (Figure 2), the site and immediate surrounding area is wholly located within Flood Zone 1 (Low Probability).

The site is located approximately 60 km from the nearest coastline, where the mouth of the River Thames (Thames Estuary, Southend-on-Sea) is located. The site is not believed to be directly impacted by tidal flood risk, however, the River Thames is known as a tidally influenced watercourse.

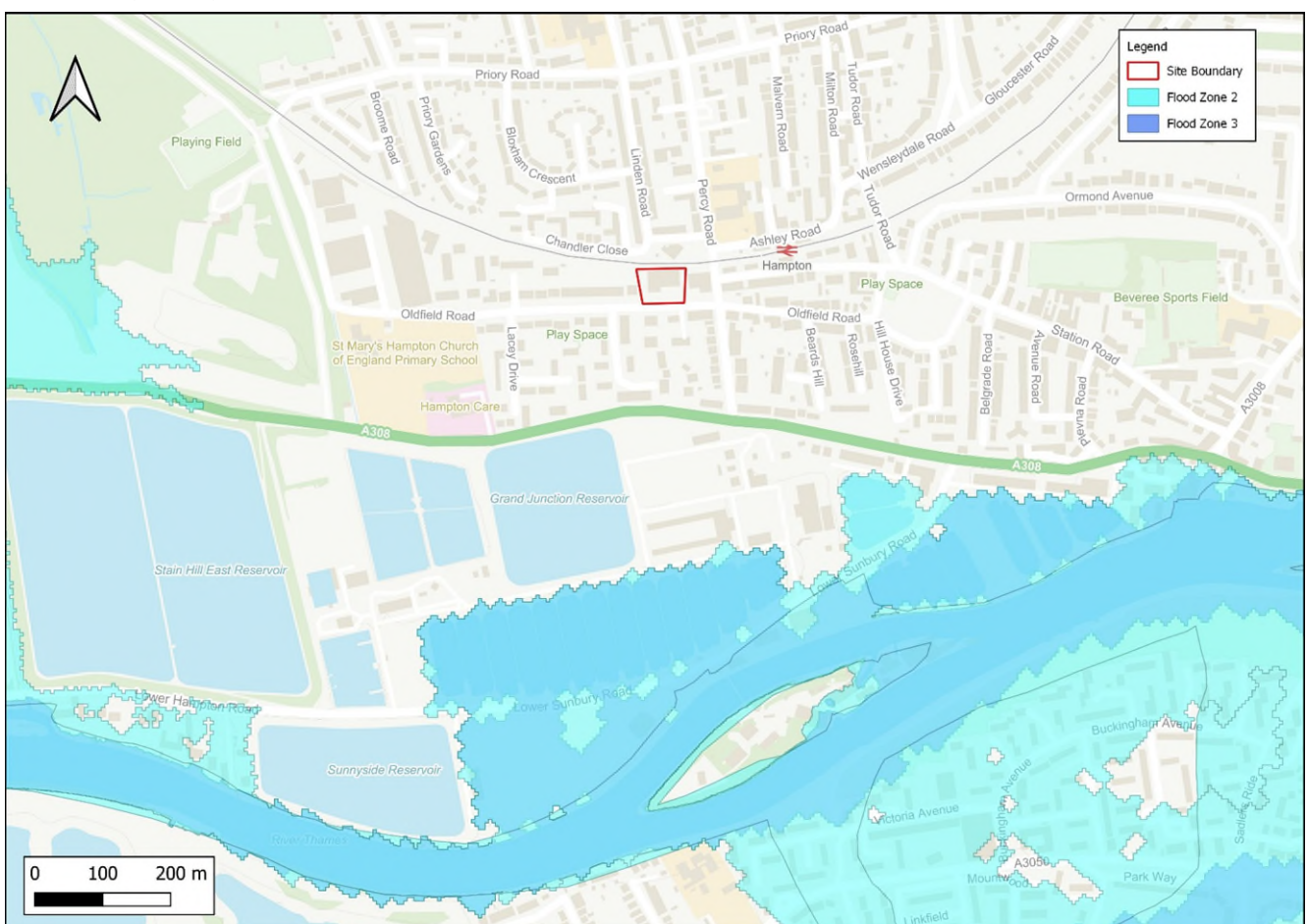


Figure 2: EA Flood Map for Planning (Rivers and Seas)

For reference, the EA Flood Zones are defined as follows:

- » Flood Zone 1 (Low Risk) comprises land assessed as having a $\leq 0.1\%$ AEP of fluvial flooding in any given year, equivalent to the 1 in 1,000-year return period flood event.
- » Flood Zone 2 (Moderate Risk) comprises land assessed as having a 0.1-1% AEP of fluvial flooding in any given year, equivalent to the 1 in 1,000 - 1 in 100-year return period flood event.
- » Flood Zone 3 (High Risk) comprises land assessed as having a $\geq 1\%$ AEP of fluvial flooding in any given year, equivalent to the ≤ 1 in 100-year return period flood event.
 - » Flood Zone 3a (High Risk) comprises land assessed as having a 1-3.33% AEP of fluvial flooding in any given year, equivalent to the 1 in 100 - 1 in 30-year return period flood event.

- » Flood Zone 3b (Functional Floodplain) comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the EA. Flood Zone 3b is defined as land that has a 3.33% or greater annual probability of flooding, with any existing flood risk management infrastructure operating effectively; or land that is designed to flood (such as a flood attenuation scheme, even if it would only flood in more extreme events).

According to the 'Recorded Flood Outlines' dataset provided by the EA, the site is shown to be outside of the extents of historical flood events.

A review of the 2021 Level 1 Strategic Flood Risk Assessment (SFRA)² for Richmond Upon Thames concludes that there is no evidence to suggest that the site is at risk of fluvial flooding.

As such, the site is concluded to be at 'low' risk of fluvial flooding and 'negligible' risk of tidal flooding.

3.2 Surface Water Flood Risk

Surface water flooding (also known as pluvial flooding), occurs when natural and engineered drainage systems have insufficient capacity to cope with the volume of rainfall. Surface water flooding can occur in rural areas during medium intensity, long duration events where saturated ground conditions can prevent infiltration into the ground. The runoff would then be conveyed via overland flow routes dictated by the local topography.

The EA Long Term Flood Risk Map (Surface Water) in Figure 3 shows that surface water risk extents lay almost entirely outside of the site boundary, and therefore the site is at very low (<0.1% annual probability) risk of surface water flooding. There is evidence of a low surface water risk level (0.1 - 1% annual probability) south of the site on Oldfield Road where access is proposed.

² [Strategic Flood Risk Assessment - Level 1 \(richmond.gov.uk\)](https://www.richmond.gov.uk)



Figure 3: EA Surface Water Flood Risk Mapping

The site remains flood free across the High, Medium and Low risk scenarios. During the Low-risk scenario, the proposed access road could experience depths up to 300 mm (Figure 4). This is considered to be passable to people and vehicles. As such, the site is concluded to be at 'low' risk of surface water flooding. Mitigation measures are referenced in section 4.2 of this report.

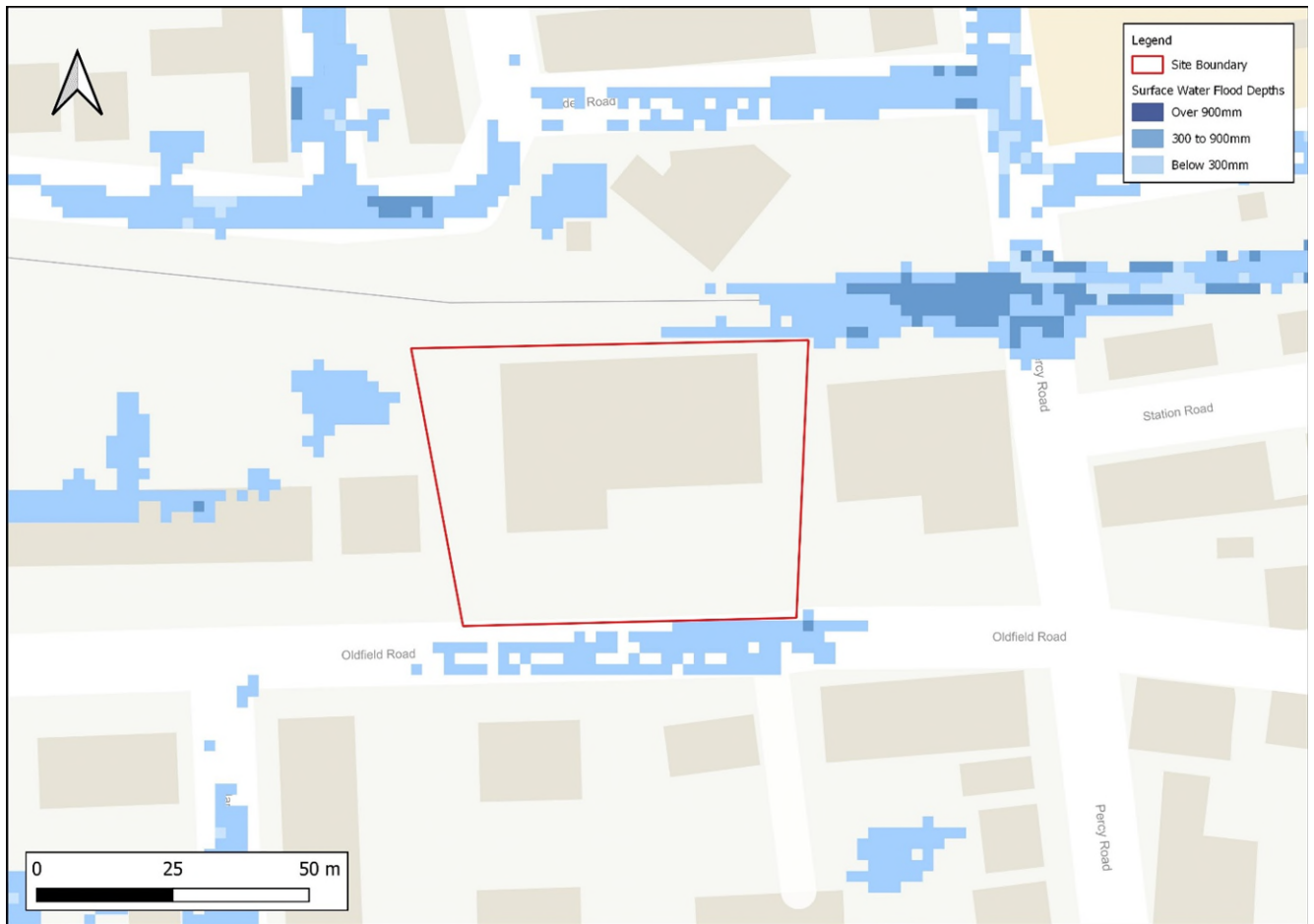


Figure 4: EA Long Term Flood Risk Map (Surface Water) - Depth (Low Risk)

3.3 Groundwater Flood Risk

Groundwater flooding is most likely to occur in low-lying areas with porous sub-surface geology. This flooding occurs when water emerges through the ground due to a high-water table following prolonged periods of heavy rainfall.

Therefore, the sites indication of higher permeability due to the superficial deposit's classification as a Principal Aquifer could have potential to be conducive to groundwater emergence. In addition, the topography of the site means that any subsurface groundwater flows in the wider area are likely to be directed downhill away from the site and to the main river and water bodies in the south.

According to British Geological Survey (BGS) Borehole records, there are several publicly available records registered within 400 m of the west of the site (BGS refs TQ16NW138 and TQ16NW139). The records suggest that both boreholes encountered groundwater at 1.10 m with slow seepage. However, as the site is predominantly hardstanding, this will inhibit the vertical migration of groundwater to the surface due to the presence of a permanent impermeable layer at the surface.

The 2021 SFRA also indicates that there is no risk of groundwater flooding at the site based on geological factors.

As such, the site is concluded to have a 'low' risk of groundwater flooding. It would be prudent to consider using preventative measures during the construction phase to reduce the probability of

groundwater seepage, for example by implementing groundwater dewatering measures and prioritising undertaking construction during the summer months where possible.

3.4 Infrastructure Flood Risk

Flooding from infrastructure failure refers to the risk of flooding from manmade waterbodies and features such as sewers, reservoirs, canals, docks or other such waterbodies. Sewer flooding is typically a result of heavy rainfall overwhelming the capacity of the local drainage system, or blockages in the existing sewer network, whereas flooding from other types of infrastructure can result from failures in embankments or retaining walls etc.

The EA's Flood Risk from Reservoirs mapping presents the maximum extent that may be affected in the event of an uncontrolled release of water (failure) from a reservoir. The mapping indicates that the site is not located in areas that would be at risk of flooding from a reservoir failure. Furthermore, there are no canals located in the vicinity of the site.

Considering the site location and its surroundings, it can be assumed that there is a private sewer network serving the site that is maintained for the existing site use. If existing sewers were to surcharge at the site it is likely that this would follow the general topography of the land discharging into the surface water bodies or watercourse in the south. For any public Thames Water sewers in the vicinity of the site, it is considered that any surcharging flows would be contained within Oldfield Road.

There is no evidence within the 2021 SFRA to suggest that the site is at risk of infrastructure flooding.

Given that there are no known risks of flooding from artificial sources at the site, it can be concluded that the risk of flooding from infrastructure failure is 'low'.

4. National Planning Policy Framework

4.1 Sequential & Exception Tests

Paragraph 023 of the Flood Risk and Coastal Change National Planning Practise Guidance (NPPG) states that the Sequential Test 'is designed to ensure that the areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding.'

This assessment has demonstrated that the site and surrounding areas are on land designated by the EA's Flood Zone Mapping as Flood Zone 1 (Low Risk). The site is also considered to be at 'low' or 'negligible' risk of all assessed sources and therefore the Sequential Test is not considered to be required.

The NPPG Flood Risk Vulnerability and Flood Zone Compatibility matrix (Table 2 of the NPPG) (Table 2) also indicated that 'less vulnerable' development is "appropriate" in Flood Zone 1 without application of the Exception Test.

Table 2: Flood Risk Vulnerability and Flood Zone Compatibility Matrix

	Essential Infrastructure	Highly Vulnerable	More Vulnerable	Less Vulnerable	Water Compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test Required	✓	✓	✓
Zone a	Exception Test Required	X	Exception Test Required	✓	✓
Zone 3b	Exception Test Required	X	X	X	✓

Accordingly, the application of the Exception Test is concluded to not be required in this instance.

4.2 Mitigation Measures

Whilst an Exception Test is not explicitly required under the NPPG, the following section details any measures recommended to mitigate any 'residual' flood risks and to ensure that the proposed development will be safer for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, akin to the requirements of section 'b' of the Exception Test as outlined in the NPPG.

4.2.1 Flow Route Mitigation

As there are no surface water flow routes on site it can be concluded that there is no direct impact on the proposed development layout.

4.2.2 *Safe Access and Egress*

It is proposed that the site is accessed via Oldfield Road to the south.

This route is located in both Flood Zone 1 and at Low risk of surface water flooding with depths expected to remain below 300 mm during all scenarios. This is deemed to be passable by both people and vehicles.

4.2.3 *Floodplain Storage*

Paragraph 49 of the NPPG states that where development may result in an increase in flood risk elsewhere as a result of 'loss of floodplain storage, the deflection or constriction of flood flow routes or through inadequate management of surface water'. Therefore, where flood storage from any source of flooding is lost, as a result of development, on-site level-for-level compensatory storage should be provided.

Given the location of the proposed development as wholly within Flood Zone 1 and therefore not on a floodplain, it is not considered necessary to elevate site levels.

4.2.4 *Finished Floor Levels*

It is recommended that, where possible, the ground floor thresholds are set above the adjacent ground levels by a minimum of 150mm as per building standards. This will address any residual risks of surface water flooding (e.g., blockage of the proposed drainage network serving the site or exceedance of the drainage design capacity) by directing runoff away from the site.

5. BREEAM Assessment

5.1 Overview

This section specifically addresses the requirements of the Building Research Establishment Environment Assessment Methodology (BREEAM) Pol 03 'Surface Water Run-Off' report. A total of five BREEAM credits can be achieved under this category which is split into three parts:

- » Flood risk (2 credits)
- » Surface water run off (2 credits)
- » Minimising watercourse pollution (1 credit)

The FRA included in Section 3 of this report has been used to assess the BREEAM score for flood risk, and the drainage strategy has been used to assess the BREEAM score for surface water run-off and minimising watercourse pollution.

5.2 Pol 03 - Flood Risk

As set out in Section 3 of this report, the site is located within Flood Zone 1, which therefore indicates a low probability of flooding from main rivers and the sea, both now and when accounting for climate change over the development lifetime. The site was found to be at a 'medium' probability of groundwater flooding and a 'low' low probability of flooding from all other sources. There are also no known historical flood incidents at the site.

Based on this, the scheme is concluded to meet the requirements necessary to achieve the two credits under Pol 03 - Flood risk.

5.3 Pol 03 - Surface Water Run-off

Assessment of the 2 available credits for surface water runoff is included separately in the drainage strategy (Document Ref: 31569-HYD-XX-XX-R-PP-C-7000).

5.4 Pol 04 - Minimising Watercourse Pollution

Assessment of the 1 available credit for managing watercourse pollution is addressed in separately in the drainage strategy (Document Ref: 31569-HYD-XX-XX-R-PP-C-7000).

6. Summary

This report has been prepared by Hydrock on behalf of our client Shurgard UK in support of a proposed development scheme located at Oldfield Road, Hampton, TW12 2HR.

A detailed assessment of flood risk has identified that the site is located wholly within Flood Zone 1 (Low Risk). The site is at 'low' or 'negligible' risk from all assessed sources.

This report therefore demonstrates that, in respect to flood risk, the proposed development:

- » Is suitable in location proposed if mitigation measures are considered;
- » Will be adequately flood resistant and resilient;
- » Will not place additional persons at risk of flooding, and will offer a safe means of access and egress;
- » Will not increase flood risk elsewhere as a result of the proposed development through the loss of floodplain storage or impedance flood flows; and
- » Will put in place measures to ensure surface water is appropriately managed.

As such, the application is concluded to meet flood risk requirements of the NPPF.

Appendix A Topographic Survey

DISCLAIMER

At GEO UK LTD we use skilled and experienced staff, modern up to date techniques and top of the range electromagnetic and radar technology to locate and trace sub surface utilities. However the performance of the equipment employed in non-invasive surveys can be adversely affected by factors outside the control of GEO UK LTD. Therefore GEO UK LTD cannot guarantee that all utilities present or likely to have been located. It is the responsibility of the Client to consult regional authority records and undertake the appropriate high wire investigations.

Where similar services run close proximity it may be impossible to separately trace individual services as the trace signal can experience interference in such cases, services will therefore be single, unidentified line. The displayed depth will refer to the shallowest detected utility.

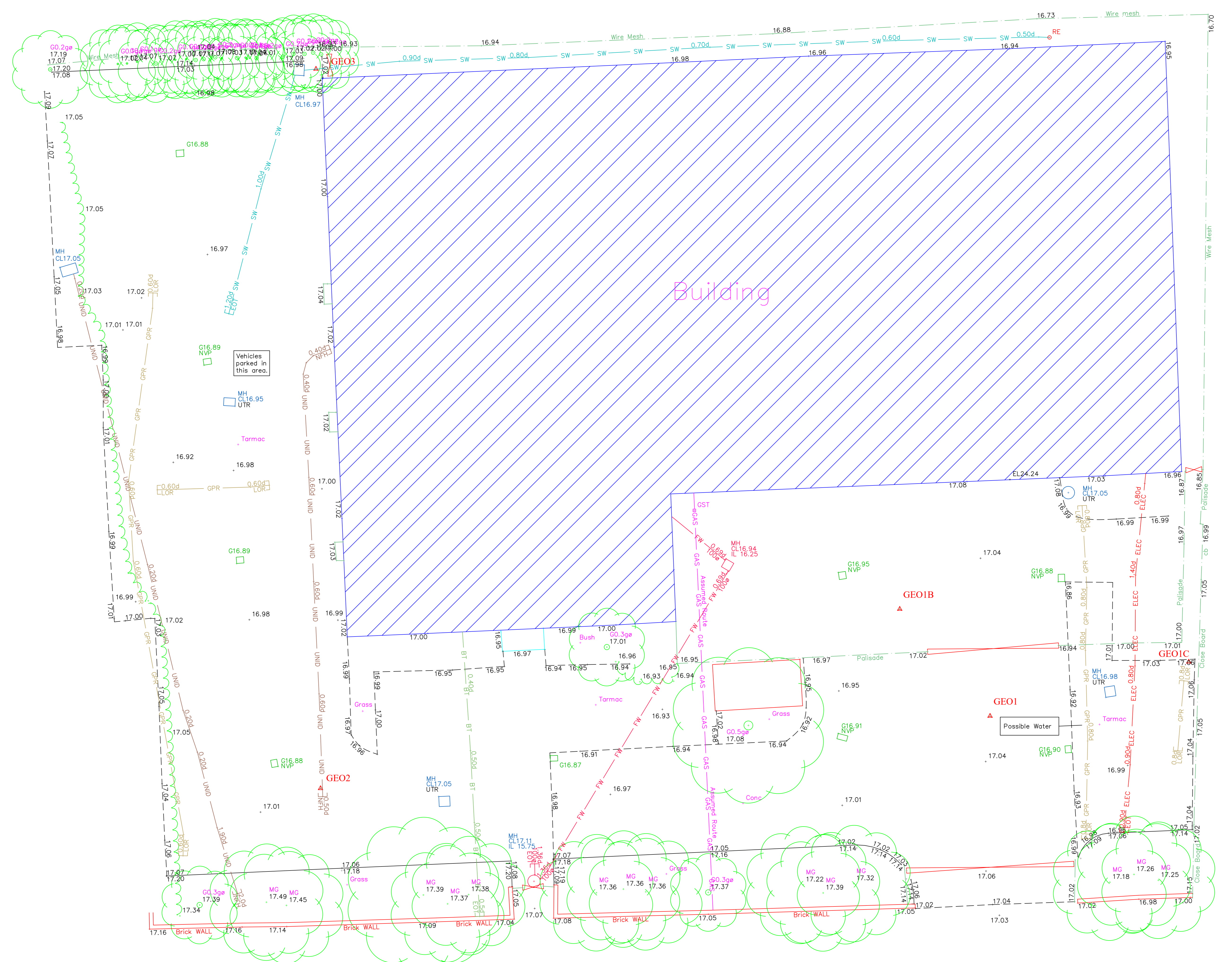
Successful tracing of non-conductive materials may be limited. Drainage gullies are one tested where possible to prove connectivity but it is not always possible to introduce the probe due to narrow pipe size and/or accumulated silt.

Depth information of underground services/featuress are generally accurate to within +/- 10% (i.e. a pipe of 2m deep may be located to +/-200mm) but this cannot be guaranteed. Clearly shown utility refers to the top of the service. Clearly shown and depth depths are usually to invert (base of drainage channel) unless otherwise stated.

Some above ground features may have been obscured at time of survey. It is not always possible to generate the Ground Penetrating Radar in areas including, but not limited to, dense vegetation, rubble, debris and/or equipment ground.

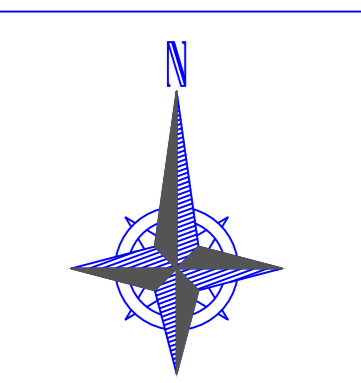
Existing record information that was made available to GEO UK LTD by the Client or by the relevant utility provider should be regarded only as an indication and cannot be guaranteed.

Excavation in the vicinity of services shown should be carried out with due diligence (see report).



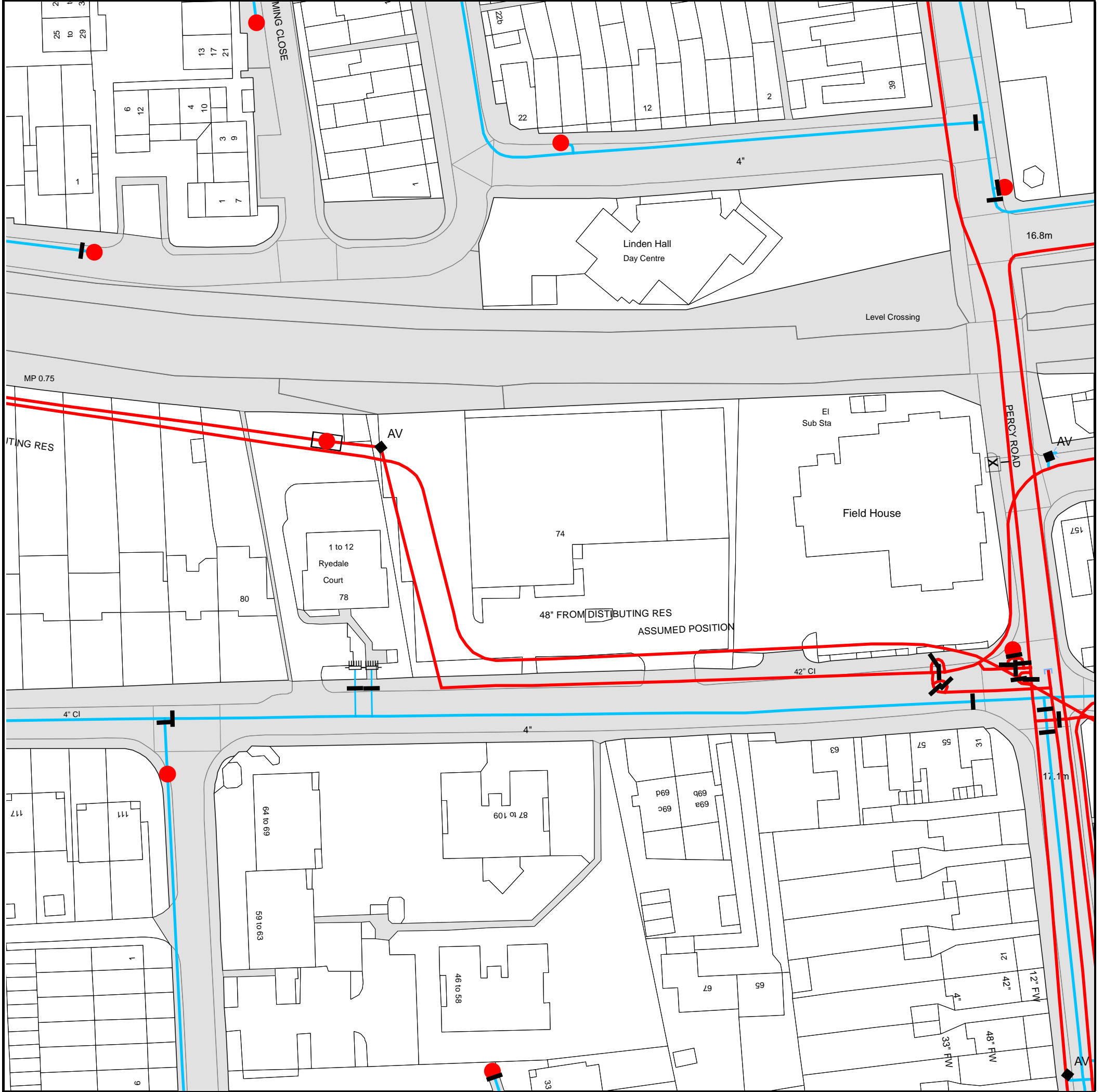
SURVEY STATIONS			
Name	Easting	Northing	Height
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GEO2	513116.346	169737.659	17.011
GEO1B	513148.767	169747.703	17.002
GEO1C	513164.944	169744.749	17.059
GEO1A	513149.704	169719.456	17.033
GEO5	513116.095	169777.929	16.991

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1:100 Scale G2457 - Chiffels Road Hampton Geographical Utility Survey New/Rev

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
(Symbol)	100mm PVC	(Symbol)	100mm PVC
(Symbol)	150mm PVC	(Symbol)	150mm PVC
(Symbol)	200mm PVC	(Symbol)	200mm PVC
(Symbol)	300mm PVC	(Symbol)	300mm PVC
(Symbol)	400mm PVC	(Symbol)	400mm PVC
(Symbol)	500mm PVC	(Symbol)	500mm PVC
(Symbol)	600mm PVC	(Symbol)	600mm PVC
(Symbol)	750mm PVC	(Symbol)	750mm PVC
(Symbol)	900mm PVC	(Symbol)	900mm PVC
(Symbol)	1000mm PVC	(Symbol)	1000mm PVC
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(Symbol)	63600mm PVC	(Symbol)	63600mm PVC
(Symbol)	64200mm PVC	(Symbol)	64200mm PVC
(Symbol)	64800mm PVC	(Symbol)	64800mm PVC
(Symbol)	65400mm PVC	(Symbol)	65400mm PVC
(Symbol)	66000mm PVC	(Symbol)	66000mm PVC
(Symbol)	66600mm PVC	(Symbol)	66600mm PVC
(Symbol)	67200mm PVC	(Symbol)	67200mm PVC
(Symbol)	67800mm PVC	(Symbol)	67800mm PVC
(Symbol)	68400mm PVC	(Symbol)	68400mm PVC
(Symbol)	69000mm PVC	(Symbol)	69000mm PVC
(Symbol)	69600mm PVC	(Symbol)	69600mm PVC
(Symbol)	70200mm PVC	(Symbol)	70200mm PVC
(Symbol)	70800mm PVC	(Symbol)	70800mm PVC
(Symbol)	71400mm PVC	(Symbol)	71400mm PVC
(Symbol)	72000mm PVC	(Symbol)	72000mm PVC
(Symbol)	72600mm PVC	(Symbol)	72600mm PVC
(Symbol)	73200mm PVC	(Symbol)	73200mm PVC
(Symbol)	73800mm PVC	(Symbol)	73800mm PVC
(Symbol)	74400mm PVC	(Symbol)	74400mm PVC
(Symbol)	75000mm PVC	(Symbol)	75000mm PVC
(Symbol)	75600mm PVC	(Symbol)	75600mm PVC
(Symbol)	76200mm PVC	(Symbol)	76200mm PVC
(Symbol)	76800mm PVC	(Symbol)	76800mm PVC
(Symbol)	77400mm PVC	(Symbol)	77400mm PVC
(Symbol)	78000mm PVC	(Symbol)	78000mm PVC
(Symbol)	78600mm PVC	(Symbol)	78600mm PVC
(Symbol)	79200mm PVC	(Symbol)	79200mm PVC
(Symbol)	79800mm PVC	(Symbol)	79800mm PVC
(Symbol)	80400mm PVC	(Symbol)	80400mm PVC
(Symbol)	81000mm PVC	(Symbol)	81000mm PVC
(Symbol)	81600mm PVC	(Symbol)	81600mm PVC
(Symbol)	82200mm PVC	(Symbol)	82200mm PVC
(Symbol)	82800mm PVC	(Symbol)	82800mm PVC
(Symbol)	83400mm PVC	(Symbol)	83400mm PVC
(Symbol)	84000mm PVC	(Symbol)	84000mm PVC
(Symbol)	84600mm PVC	(Symbol)	84600mm PVC
(Symbol)	85200mm PVC	(Symbol)	85200mm PVC
(Symbol)	85800mm PVC	(Symbol)	85800mm PVC
(Symbol)	86400mm PVC	(Symbol)	86400mm PVC
(Symbol)	87000mm PVC	(Symbol)	87000mm PVC
(Symbol)	87600mm PVC	(Symbol)	87600mm PVC
(Symbol)	88200mm PVC	(Symbol)	88200mm PVC
(Symbol)	88800mm PVC	(Symbol)	88800mm PVC
(Symbol)	89400mm PVC	(Symbol)	89400mm PVC
(Symbol)	90000mm PVC	(Symbol)	90000mm PVC
(Symbol)	90600mm PVC	(Symbol)	90600mm PVC
(Symbol)	91200mm PVC	(Symbol)	91200mm PVC
(Symbol)	91800mm PVC	(Symbol)	91800mm PVC
(Symbol)	92400mm PVC	(Symbol)	92400mm PVC
(Symbol)	93000mm PVC	(Symbol)	93000mm PVC
(Symbol)	93600mm PVC	(Symbol)	93600mm PVC
(Symbol)	94200mm PVC	(Symbol)	94200mm PVC
(Symbol)	94800mm PVC	(Symbol)	94800mm PVC
(Symbol)	95400mm PVC	(Symbol)	95400mm PVC
(Symbol)	96000mm PVC	(Symbol)	96000mm PVC
(Symbol)	96600mm PVC	(Symbol)	96600mm PVC
(Symbol)	97200mm PVC	(Symbol)	97200mm PVC
(Symbol)	97800mm PVC	(Symbol)	97800mm PVC
(Symbol)	98400mm PVC	(Symbol)	98400mm PVC
(Symbol)	99000mm PVC	(Symbol)	99000mm PVC
(Symbol)	99600mm PVC	(Symbol)	99600mm PVC
(Symbol)	100200mm PVC	(Symbol)	100200mm PVC
(Symbol)	100800mm PVC	(Symbol)	100800mm PVC
(Symbol)	101400mm PVC	(Symbol)	101400mm PVC
(Symbol)	102000mm PVC	(Symbol)	102000mm PVC
(Symbol)	102600mm PVC	(Symbol)	102600mm PVC
(Symbol)	103200mm PVC	(Symbol)	103200mm PVC
(Symbol)	103800mm PVC	(Symbol)	103800mm PVC
(Symbol)	104400mm PVC	(Symbol)	104400mm PVC
(Symbol)	105000mm PVC	(Symbol)	105000mm PVC
(Symbol)	105600mm PVC	(Symbol)	105600mm PVC
(Symbol)	106200mm PVC	(Symbol)	106200mm PVC
(Symbol)	106800mm PVC	(Symbol)	106800mm PVC
(Symbol)	107400mm PVC	(Symbol)	107400mm PVC
(Symbol)	108000mm PVC	(Symbol)	108000mm PVC
(Symbol)	108600mm PVC	(Symbol)	108600mm PVC
(Symbol)	109200mm PVC	(Symbol)	109200mm PVC
(Symbol)	109800mm PVC	(Symbol)	109800mm PVC
(Symbol)	110400mm PVC	(Symbol)	110400mm PVC
(Symbol)	111000mm PVC	(Symbol)	111000mm PVC
(Symbol)	111600mm PVC	(Symbol)	111600mm PVC
(Symbol)	112200mm PVC	(Symbol)	112200mm PVC
(Symbol)	112800mm PVC	(Symbol)	112800mm PVC
(Symbol)	113400mm PVC	(Symbol)	113400mm PVC
(Symbol)	114000mm PVC	(Symbol)	114000mm PVC
(Symbol)	114600mm PVC	(Symbol)	114600mm PVC
(Symbol)	115200mm PVC	(Symbol)	115200mm PVC
(Symbol)	115800mm PVC	(Symbol)	115800mm PVC
(Symbol)	116400mm PVC	(Symbol)	116400mm PVC
(Symbol)	117000mm PVC	(Symbol)	117000mm PVC
(Symbol)	117600mm PVC	(Symbol)	117600mm PVC
(Symbol)	118200mm PVC	(Symbol)	118200mm PVC
(Symbol)	118800mm PVC	(Symbol)	118800mm PVC
(Symbol)	119400mm PVC	(Symbol)	119400mm PVC
(Symbol)	120000mm PVC	(Symbol)	120000mm PVC
(Symbol)	120600mm PVC	(Symbol)	120600mm PVC
(Symbol)	121200mm PVC	(Symbol)	121200mm PVC
(Symbol)	121800mm PVC	(Symbol)	121800mm PVC
(Symbol)	122400mm PVC	(Symbol)	122400mm PVC
(Symbol)	123000mm PVC	(Symbol)	123000mm PVC
(Symbol)	123600mm PVC	(Symbol)	123600mm PVC
(Symbol)	124200mm PVC	(Symbol)	124200mm PVC
(Symbol)	124800mm PVC	(Symbol)	124800mm PVC
(Symbol)	125400mm PVC	(Symbol)	125400mm PVC
(Symbol)	126000mm PVC	(Symbol)	126000mm PVC
(Symbol)	126600mm PVC	(Symbol)	126600mm PVC
(Symbol)	127200mm PVC	(Symbol)	127200mm PVC
(Symbol)	127800mm PVC	(Symbol)	127800mm PVC
(Symbol)	128400mm PVC	(Symbol)	128400mm PVC
(Symbol)	129000mm PVC	(Symbol)	129000mm PVC
(Symbol)	129600mm PVC	(Symbol)	129600mm PVC
(Symbol)	130200mm PVC	(Symbol)	130200mm PVC
(Symbol)	130800mm PVC	(Symbol)	130800mm PVC



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 (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.







Con29DW Commercial Drainage and Water Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

-  **Distribution Main:** The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.
-  **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.
-  **Supply Main:** A supply main indicates that the water main is used as a supply for a single property or group of properties.
-  **Fire Main:** Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.
-  **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.

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')

Valves

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

Hydrants

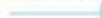



-  Single Hydrant

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
-  **Casement:** Ducts may contain high voltage cables. Please check with Thames Water.

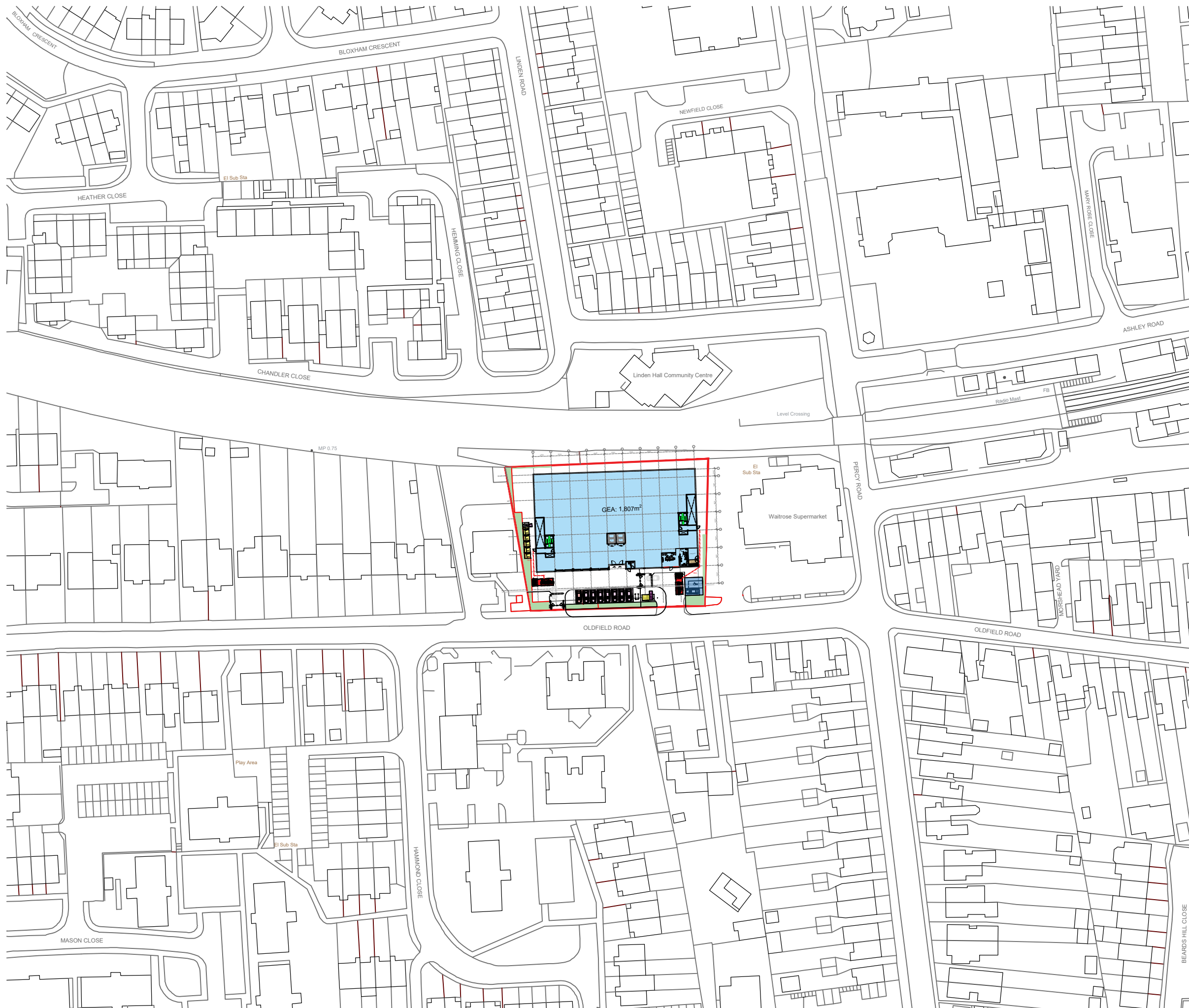
Other Water Pipes (Not Operated or Maintained by Thames Water)

-  **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.

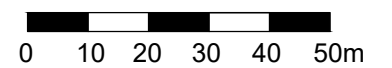
Appendix B Site Location Plan

All levels and dimensions to be checked on site prior to construction / fabrication; report discrepancies immediately. Do not scale dimensions from this drawings. This drawing is copyright protected.

REVISION



SCALE 1:1250



SCALE	DATE	DRAWN	CHECKED
1:1250@A3	July 23	HP	AT

PROJECT

Shurgard
Oldfield Road
Hampton

DRAWING

Location Plan
As Proposed



10 MONTROSE STREET
GLASGOW
G1 1RE

t 0141 229 7575
www.360architecture.com

DRAWING No.

23053GA-B-001