GEOSPHERE ENVIRONMENTAL

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SITE:	Twickenham Riverside, Diamond Jubilee Gardens, London
DATE:	08/12/2020

DOCUMENT CONTROL SHEET

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This report is based on the site findings at the time of the associated walkover/site investigation works and information provided by the client at the time of writing. Should site conditions alter or development proposals alter, a reassessment of the enclosed findings should be undertaken. Refer to Appendix 1 for full details of report limitations.

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VERSION RECORD

Version	Date	Document Revision Details	Prepared By:	Admin
V1	16/11/2020	Draft text issued only for review by designers	JD	No Admin
V2	19/11/2020	Updated geotechnical assessments	SG, JD	CJ
V3	08/12/2020	Updated geotechnical assessments	SG, JD	CJ

EXECUTIVE SUMMARY

DESK STUDY DATA REVIEW	
Site Location / Description	The site was located at Twickenham Riverside, Diamond Jubilee Gardens, London, TW1 3DS, to the south of the urban centre of Twickenham. The site was approximately L-shaped and comprised the landscaped public gardens area in the centre and west of the site, The Embankment to the south, various derelict buildings and an electrical substation in the centre-east, car park at the east end of the site, two-storey retail / bank structures at the northern corner. The scope of this investigation is limited to the areas depicted.
Previous site investigations	Two phases of previous site investigation have been provided; one within the central/west section of the current public gardens area and encountered Made Ground up to 3.5mbgl, over granular soils to ~5mbgl, over Clay (London Clay). A phase investigating the eastern (car park) section encountered corresponding ground conditions with localised detectable hydrocarbon concentrations in the soil and groundwater.
History	The early historical map editions indicated the site to be part of the ground of Richmond House with a public house in the northern corner. From the early 19th century the majority of the site was the Twickenham Swimming Baths with associated structures; these became unused by circa 1980 then redeveloped for the Diamond Jubilee Gardens.
Conceptual Model	The site data provides a number of potential sources of contamination including the data from the previous site investigations. (It should be noted that the investigation of all of these is outside the scope of this investigation).
SITE INVESTIGATION DATA REVIEW	
Site Works	This phase of investigation comprised 2no. LCP BHs to 25mbgl, 2 no, trial pit soakaways, 4 no. hand-tool-excavated pits, 4 no. windowless sampler boreholes; 1 soil-gas/groundwater monitoring visit.
Ground Conditions	In-ground-obstructions were encountered in 2no. initial attempts for the LCP BHs and all 10 positions attempted for the windowless sampler BHs. Made Ground was encountered to 1.70mbgl, underlain by River Terrace deposits to up to 5.5mbgl and London Clay (very stiff fissured clay) to 25mbgl.
Gas Monitoring	Two soil gas monitoring visits have been undertaken to date; very low soil gas concentrations (CO_2 and CH_4) with no significant flow values, groundwater levels measured between 2.4mbgl and 12.24mbgl.
Laboratory Results	The sampled and analysed soils indicate no significant contamination; groundwater sampled from the BHs of this phase indicates groundwater quality as anticipated with no evidence of contamination.
Updated Conceptual Model	Based upon the available soil quality data the risk to receptors is generally low. However, the extent of ground conditions investigated across the site is limited

		as a result of the obstructions encountered, preventing deeper drilling/ sampling; the extent of Made Ground across site is understood to be significant as a result of the backfilled swimming pool.
Geotechnical Considerations		It is assumed that a piled foundation scheme will be considered an option for the proposed structures and a raft foundation design is also applicable. The locally shallow groundwater level may need to be taken into consideration for basement excavations but based upon the limited data is currently considered to be below the likely excavation depths.
Further Works / Recommendations		A Detailed UXO threat assessment should be undertaken for the scheme; this may result in a requirement for UXO specialist presence or other mitigation measures during site preparation and construction phases. Assessment of the extent of the remaining in-ground obstructions and the Made Ground above and below the backfilled or demolished swimming pool structures. Investigation of soils within any areas of the site not yet intrusively investigated/analysed. Further investigation of the groundwater quality in the east of the site where previous investigation indicated hydrocarbon contamination. Continue the soil gas and groundwater monitoring but also assess the variation in groundwater elevations to help inform any potential dewatering requirements. Development of a scheme design and materials management plan/regime to remove the extant structures and in-ground structures to facilitate re-processing and re-use of suitable site-won materials.
This Executive Summary only provides a summary of the site data and its assessment. It does not provide a definitive engineering analysis and is for guidance only. It is recommended that the reader reviews the report in its entirety and any material referenced therein.		

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TABLES

1. INTRODUCTION

Geosphere Environmental Ltd was commissioned by Arcadis LLP on behalf of the Client, London Borough of Richmond Upon Thames to undertake a Phase 1 Desk Study and Phase 2 Ground Investigation for a proposed residential development at Twickenham Riverside, Diamond Jubilee Gardens, London Postcodes TW1 3SD and TW1 3SU centre at locations just to the north of the subject site.

It was understood that the site is to be redeveloped comprising demolition of existing structures and construction of two mixed commercial and residential blocks up to four stories in height and including a basement within the southern block, together with vehicle parking, soft and hard landscaping and pedestrianisation of existing roadway. Proposed development plans, ref. TRS-HAL-A-3100-P04 to TRS-HAL-A-3100-P06 dated March 2020 are provided within Appendix 3, although specific details have been provided within the relevant report sections.

This investigation and resulting report have been undertaken to the requirements of a Site Investigation Scope of Works, produced by Webb Yates Engineers, document reference J3932-S-SC-001/Rev01, dated May 2020 and should be considered in conjunction with this report. A summary of report objectives is provided within the following sections.

1.1 Objectives of Phase 1 - Desk Study

The primary objectives of the desk study were to:

- Review the findings of a previous site investigation covering a portion of the current site;
- Provide an assessment of environmental sensitivity at the site and the surrounding area in relation to any suspected or known contamination which may significantly affect the site and the proposed development;
- Review historical mapping records and uses of the site and surrounding area;
- Review the findings of an Unexploded Ordnance assessment;
- Provide an environmental risk assessment based on the findings of desk-based information;
- Indicate whether further works are required, and the nature of the works, to enable a more complete assessment of the site.

These were achieved by:

- Undertaking a walkover of the site;
- Researching and assessing the available information regarding the current site status, including recorded geology, hydrogeology and hydrology of the site and surrounding area, as well as the history of the site;
- Developing a Conceptual Site Model.

1.2 Objectives of Phase 2 - Ground Investigation

The primary objectives of this ground investigation were to:

- Assess the ground conditions at the site for use in the structural design of the proposed development;
- Assess the potential risk to human health and the environment based on the findings of the investigation.

These were to be achieved by:

- Undertaking an intrusive investigation of the site, based upon the proposed development layout and the scope agreed with the client;
- Logging and sampling the soils on the site and noting any visual or olfactory evidence of contamination;
- Undertaking laboratory chemical analysis and geotechnical testing of selected soil samples to assess soil quality and ground conditions at the site;
- Installing monitoring wells for ground gas and groundwater level monitoring sampling;
- Creating a Conceptual Site Model and defining suitable remedial/mitigating and verification actions.

It should be noted that the scope of intrusive works is limited to the areas indicated within the Webb Yates scope document (with subsequent variations) and as illustrated within the exploratory hole location plans. It is understood that the data from the previous investigations (see below) and this phase of investigation will be combined by the designers.

2. SITE SETTINGS

2.1 Site Description

A Site Location Plan and Site Plan are included within Appendix 3 as Drawing references 4955,SI,001,Rev0 and 4955,SI,002,Rev0 respectively along with a provided topographic survey of the site. The latter is annotated to assist the description below.

The subject site was situated north west of the River Thames in Twickenham, to the south of the urban centre of Twickenham and opposite Eel Pie Island and may be located by National Grid Reference (NGR) TQ 16290 73170 and postcode TW1 5DS. The site was approximately L-shaped and comprised an area of 0.98 hectares (ha), with topography indicating the site to naturally slope downwards towards the south east and River Thames by approximately 2.5m, although a large portion of the site was level and at 2.5m height buttressed retaining wall existed in the south east (see below).

A site walkover was undertaken on 22 July 2020. At the time of the walkover, the site was multi-use and comprised a number of areas described as:

- The north-west and central portion of the site, forming the majority of the site was the public/communal area of the Diamond Jubilee Gardens, which included a children's' play area, a mix of artificially turfed and hard surfacing, vegetated plant beds and café, with various mature trees on the northern border.
- A number of derelict structures existed in the centre-east and far east of the site, understood to have historically been part of Twickenham Swimming Baths. An electrical substation is at the north of these. These areas were outside the areas of investigation of this phase.
- A number of current commercial 'high street' retail structures comprise the north-eastern corner, understood to be a bank and clothing retail. These were not accessed within this investigation phase. (See section 7).
- An area of hardstanding, vehicle access and (generally disused) car parking formed the eastern section, at the south east of the retail units. This was partially fenced-off with evidence of previous ground-breaking, possibly for ground investigation.
- The Embankment formed part of the southern / south-eastern section of the site and included the roadway and car parking along its length with pedestrian promenade fronting onto the River Thames.

In terms of elevations, the site varies as the Gardens area is a plateau of ~8mAOD with steps transecting the south-eastern boundary (a series of retaining walls) down to the Embankment at ~5mAOD. The eastern car park area is at <8mAOD in the north, sloping gently to the south to ~7mAOD, with a vehicle ramp leading to Water Lane down to ~5mAOD.

The north east boundary of the site was largely formed by Water Lane, beyond which was light retail and residential properties, leading down to the public open space of The Embankment. The south east and southern boundary was formed by the embankment/ promenade along the River Thames, with a boat

launch platform at the northern/ eastern end. The south western boundary was formed by Wharf Lane, beyond which were various lengths of brick wall, varying from 2.5m and 4.0m in height and were associated with adjacent residential properties and garages, car parking and retail structures. The north west boundary was formed by an unnamed road, with adjacent retail/residential properties located beyond and extending to King Street.

A number of features of interest existed on the site. An electricity sub-station was noted to the north of the larger of the derelict buildings, towards the end of the unnamed road. The retaining wall in the south east suggests the land behind it to have been 'made-up', with anecdotal and other evidence indicating that this was where a lido swimming pool existed, presently backfilled. Elsewhere onsite, a number of mature trees, largely Birch, were noted to exist.

Access was not provided within the onsite derelict structures, although it was understood that they included a toilet block and a facilities building for the historic swimming baths.

No visual or olfactory evidence of gross contamination was noted to exist during the site walkover.

Photographic records are presented in Appendix 12 of this report.

2.2 Previous Investigations

A previous phase of intrusive investigation has been provided and is reported by Southern Testing as a letter report dated 14 October 2010, reference SKT/ER/J1337 and is summarised below.
In addition, a previous Desk Study and Ground Investigation was undertaken by Geotechnical and Environmental Associates Ltd (GEA) for the area of land in the north and east of the subject site, reported under reference J17205 (Issue No 2) dated November 2017.
The purpose of the GEA report was to provide and assess environmental and historical baseline information and data for the preliminary assessment of contamination risk to the site, and to undertake an intrusive-based investigation so that quantitative assessment of contamination risk may be compiled for subsequent remediation recommendations, including hazardous ground gas assessment. Further to the above, investigation of the soil properties beneath the site was undertaken so that the geotechnical parameters could be proposed for the structural development of the proposed scheme.
An Unexploded Ordnance report was also undertaken for the investigation site, undertaken by others, which shall be summarised later within this report.

2.2.1 Southern Testing Letter Report

This phase of intrusive works targeted the "central" section of the subject site, the former swimming pool and baths area, prior to development into the extant Diamond Jubilee Gardens. A combination of handtool excavated pits and flight-auger boreholes (to up to 7.5mbgl) encountered Made Ground between 0.7 and 3.5m thickness, overlying sand/gravel to between 5.0 and 5.5mbgl, underlain by London Clay. The Made is interpreted to have the appearance of demolition material from the former baths (concrete cobbles, brick, paving slabs). The chemical analysis indicates no significant contamination when compared to current screening concentrations. Hydrocarbons are recorded in concentrations greater than a conservative screening value of 100mg/kg; significant hydrocarbon contamination was not encountered but of course,

cannot be fully discounted as a potential concern due to the variability of Made Ground and historic filling practices.

2.2.2 GEA Desk Study

Based upon the findings of the Desk Study, a low risk was determined for the site from potential contaminative sources, including Made Ground and hydrocarbons from an historic council depot (c. 1907). These sources were considered to present the perceived (low) risk to end-users of the site (future residents), groundwater, aquifer (permeable layers of soil), site workers and services (water pipes).

2.2.3 GEA Intrusive works

The intrusive works comprised the formation of a number of exploratory boreholes, extended to depths ranging from 4.0m and 5.0m (small diameter) and 25.0mbgl (cable percussion) and included the installation of monitoring wells together with regular recording visits.

The ground conditions encountered recorded a gravelly clay Made Ground from the surface, extending to depths from 0.6m and 1.7mbgl, with a range of anthropogenic materials and hydrocarbon odours noted. The Made Ground was underlain directly by granular soils of the Kempton Park Gravel Formation, extending to depths ranging from 4.9m and 5.8mbgl, with groundwater strikes at 4.5mbgl coinciding with hydrocarbon odours. The London Clay formed the bedrock stratum to the above and extended to the full depth of the investigation. Groundwater was monitored on 3 occasions in September and October 2017, between 2.66mAOD and 3.01mAOD; no comment was provided regarding the likelihood of tidal influence.

2.2.4 GEA Contamination Assessment

Based upon the results of chemical analysis on selected soil samples, no elevated concentrations of contaminants were noted to exist compared to the adopted threshold screening values. However, the screening values and land-use scenario utilised within the GEA report was for a commercial land-use.

(Arguably a more sensitive land use will require *consideration* in the current scheme, for example, residential without plant uptake, due to the residential properties proposed within part of the scheme. If these are constrained to the upper floors of the buildings and have no private garden areas at ground floor level, it is likely that a commercial land-use scenario should still apply.)

Groundwater sampling indicated some diesel type hydrocarbons to exist (within BH WS2, in the vicinity of the extant electrical substation) above contemporary drinking water standards, which was attributed to leaching of some tarmac through the ground. Whist development of the site was considered likely to remove a portion of the contaminants, it was recommended that further investigation was undertaken in the vicinity of borehole BH1 to delineate the affected area for remediation.

In consideration of the current proposed development scheme, it is possible that the proposed structure will provide a pathway break between any contamination and the end user receptors; this may require full consideration when the design is finalised. However, it would be prudent to assess the hydrocarbon contamination regime (if still present) to address risk to construction workers, any potential dewatering activities in this area of the site, risk to controlled waters and placement of potable water pipes in this area.

Regardless of the soil contamination risk, it was recommended that a 600mm clean topsoil layer was placed in areas of proposed soft landscaping as a barrier to end users from areas of remaining Made Ground, together with validation testing. Elsewhere onsite, excavations for basements may locate and remove

contaminants, although if contamination is found to extend beyond the site boundary, containment barriers or treatment curtain may be required and additional investigation may benefit in determining this.
Ground gas monitoring indicated a low risk to the site, with Gas Screening Values (GSVs) falling within the CIRIA guidance as Characteristic Situation 1 – very low risk, although a vapour proof membrane may be prudent to protect against hydrocarbon odours within the groundwater.
The classification of soil wastes, under the European Waste Directive, indicated the Made Ground to be Non-Hazardous (17 05 04), natural soils around groundwater levels to be Hazardous (17 05 03) and other natural soils to be Inert (17 05 04), although it would be necessary to liaise with the receiving landfill operator (or other receiving facility) as to the specific characteristics, classification and resulting disposal costs.

2.2.5 GEA Foundation Assessment

The results of the intrusive investigation indicated the Kempton Park Gravel to be suitable as a bearing stratum for either spread or raft foundations, including within basements, although groundwater levels would need to be considered when designing basement floors at depth of 4.0m. The Kempton Park Gravels are considered to provide a Nett Allowable Bearing Pressure of 175kN/m^2.
Retaining walls for basement structures could be contiguous or secant and should be designed on an effective friction angle of 33 degrees within the Kempton Park Gravels, 27 degrees in the Made Ground and 24 degrees should retaining structures penetrate the London Clay Formation.
Alternatively, piles may be a more suitable option, dependent on final loadings imposed by the proposed structure. In the presence of possible instability of the gravels and in the presence of groundwater, continuous flight auger piles would be the most appropriate, where loads for a 20m pile would achieve in the region of 710kN (no basement) and 660kN (with basement).

2.3 Geological Setting

Details of the geology underlying the site have been obtained from the British Geological Survey (BGS) digital mapping at a scale of 1:50,000, which is provided within the Envirocheck Report included in Appendix 4.

2.3.1 Superficial Deposits

The geological map indicated the site to be underlain by superficial deposits of the Langley Silt Member – clay and silt. It should be noted that Alluvium – clay, silt, sand and peat, are reported within the footprint of the River Thames.

Further to the above, the wider area indicates the Kempton Park Gravel to exist and therefore there is a potential for the soil type to be encountered beneath the reported superficial deposits and above the bedrock soils.

The site was within an urban area and, although not indicated as present upon the site, the possibility that Made Ground is present cannot be discounted. (The site information regarding Made Ground is considered further below).

2.3.2 Bedrock Geology

The geological map indicated bedrock Geology underlying the site to comprise the London Clay Formation – clay and silt.

2.3.3 Geohazards and Ground Workings

Table 1 below, summarises the factors that may have a potential impact upon the engineering of the proposed development:

Table 1 – Geohazards and Ground Workings

Potential Hazard	Recorded Risk [m] / [Direction]			Comments
	Onsite	Within 250m	Within 500m	
Collapsible Ground.	Very low.	3/SE No hazard. 234/SE Very low.	-	
Compressible Ground.	No hazard.	3/SE High. 234/SE Moderate.	-	
Ground Dissolution.	No hazard.	-	-	
Landslide.	Very low.	250/SW Low.	-	
Running Sand.	No hazard.	3/SE Low.	234/SE Very low.	
Shrinking or Swelling Clay.	Very low – Moderate.	60/NE Low.	-	

2.4 Hydrogeological Setting

2.4.1 Underlying Aquifers

The hydrogeological data provided within the Envirocheck Report indicates the site is underlain by Unproductive Strata, although should the Kempton Park Gravel exist beneath the site, this is classified as a Principal Aquifer. Furthermore, should alluvial soils be encountered onsite, these should be classified as representing a Secondary Undifferentiated Aquifer.

The Environment Agency defines a **Principal Aquifer** as 'layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale'.

Secondary Aquifer Type A - permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

Secondary Undifferentiated Aquifer - has been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

Unproductive Strata - rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

2.4.2 Groundwater Vulnerability

In areas of unproductive strata, the groundwater vulnerability status remains unclassified, although in view of adjacent superficial soils which may occur beneath the site, the groundwater vulnerability is increased to Medium. The Environment Agency defines areas of medium vulnerability as areas that offer some groundwater protection. They are likely to be characterised by intermediate leaching soils and/or the presence of intermediate permeability superficial deposits.

Soils of intermediate leaching potential are soils that can possibly transmit a wide range of pollutants, or are soils that can "…possibly transmit non- or weakly adsorbed pollutants and liquid discharges but are unlikely to transmit adsorbed pollutants".

2.4.3 Source Protection Zones

The site was not located within a groundwater source protection zone (SPZ). There were no groundwater abstractions recorded within 1km of the subject site.

2.4.4 Groundwater

The Envirocheck data indicates the site is not in an area with potential for groundwater flooding to occur.

2.5 Hydrological Setting

The nearest surface watercourse or feature was the River Thames, located adjacent and south east of the site. It is assumed that all aspects regarding the flooding status / potential for the site are being investigated and assessed by others. Detailed flood risk assessment is outside the scope of this report, other than the data provided within Table 2 below.

2.6 Radon

The HPA 'Indicative Atlas of Radon' 2007 (ref**. R.5**), indicates the site to lie within an area where there is a probability of <1% of present or future homes being above the action level of 200Bq/m^3. As such, the site is not classified as a Radon Affected Area. This is confirmed by the Building Research Establishment, Report 211, 2007, (ref. **R.7**).

2.7 Nitrate Vulnerable Zone

The site was not located within an area designated as a nitrate vulnerable zone.

3. ENVIRONMENTAL SEARCHES

3.1 Environmental Searches Summary

The environmental searches are detailed fully within the Envirocheck Report presented within Appendix 4.

Table2 below, summarises the most relevant findings:

Table 2 - Environmental Searches Summary

Activity	Distance From The Site			Comments [m]/[direction]
	Onsite	Within 250m	250m to 500m	
1. Incidents and Registers				
Discharge Consents.	0	2	1	145/E: Unknown discharge. 184/NE, 454/N: discharge of other matter-surface water.
Local Authority Pollution Prevention and Control.	0	3	1	46/W, 104/N, 158/W: dry cleaning. 304/NE: petrol filling station.
Pollution Incidents to Controlled Waters.	2	8	7	0/NE: Category 3 (Minor) - storm sewage. 0/N, 16/E, 44/SW, 48/SW, 263/SW, 264/SW, 266/SW, 445/E: Category 3 (Minor) – oils. 262/SW: Category 2 (Significant) – oil. 12/S, 44/SW, 46/N: Category 3 (Minor) – unknown sewage. 90/NE, 111/NE, 259/SW: Category 3 (Minor) – general. 268/SW: Category 3 (Minor) – Miscellaneous.
2. Flooding				
Extreme Flooding from Rivers or Sea without Defences.	YES	YES	YES	Onsite: Small areas adjacent to the site boundary to the east. Off Site: Small areas adjacent to extent of Zone 3. Larger areas covering York House Gardens (200m/NE) and Ham Lands (250m/S).
Flooding from Rivers or Sea without Defences.	YES	YES	YES	Onsite: Adjacent to south east site boundary. Offsite: Adjacent to the river Thames (10m land coverage), extending across Eel Pie Island and between 100m – 200m of south bank.
Areas Benefiting from Flood Defences.	YES	YES	YES	Onsite: Small areas adjacent to south east site boundary. Offsite: Sporadic distribution adjacent to the River Thames.
Flood Defences.	YES	YES	-	Onsite: East. Offsite: 50m/SE.
3. Landfills and Waste Treatment / Disposal Sites				
Potentially Infilled Land (Non-Water).	-	-	1	364/SE: Unknown filled Ground (1992 mapping).

Table 2 - Environmental Searches Summary				
Activity	**Distance From The Site**			**Comments**
	Onsite	**Within 250m**	**250m to 500m**	**[m]/[direction]**
4. Contemporary Trade Entries of Concern				
Contemporary Trade Directory Entries.	0	61	46	*Only active entries or significantly contaminative entries will be reported below. For full listings see Appendix 4.* 40/W: carpet cleaners. 108/W: car body repairs. 117/E: antiques. 120+121/E: boatbuilders. 156/W, 179/N, 251/N,460/NE: dry cleaners 169/N: printers. 185/W: builder's merchants. 300/NE: petrol filling station.
Fuel Stations.	0	0	1	304/NE: Richmond Road Petrol Station.
Commercial Services.	0	9	4	96/SW, 107/W (3 entries), 113/W, 127/W: vehicle repairs. 185/W: metal workers. 204/N: Distribution (2 Entries).
Education and Health.	0	0	1	429/N: Hospital – St Johns and Amyand House.
Manufacturing and Production.	0	13	3	74/NW, 82/E, 83/E, 92/E (2 entries), 105/E, 124/N, 125/N, 132/W (2 entries), 218/E, 236/NW (2 Entries) - unspecified works.
5. Designed Environmentally Sensitive Sites				
Local Nature Reserves	0	1	0	147/SE Ham Lands

Where no relevant or significant data records exist for an activity, it is removed from the summary table, however, all data is included within Appendix 4.

4. SITE HISTORY

4.1 Historical Maps

A review of the history of the site has been conducted based upon the historical maps included within the Envirocheck report included in Appendix 5.

The relevant changes of the subject site and immediate surrounding area from the large-scale mapping are detailed in Table 3 below:

Table 3 - Historical Summary

Date	Potentially Contaminative Land Uses / Significant Changes	
	Onsite [Direction]	**Off-site [Distance/Direction]**
1869 - 1871 (1:10,560)	• Site appeared partially developed with a number of structures in the northern corner including a Public House and post office. • Richmond House structure forms part of the north west site boundary, with gardens and various buildings continuing across the remainder of the site. • Developed embankment to the River Thames appears adjacent to the south east site boundary. • A possible structure (unlabelled) in the eastern corner of the site.	• Surrounding area largely residential in the north with areas of orchard 100m/NW. • Richmond House continues off-site in north west. • 30m/SE - Eel Pie Island shown a largely undeveloped. • 120m/N – Brewery. • 200m/SE – Island Hotel. • 200m/S - Land south of River Thames shown as open undeveloped field.
1880 (1:2500)	• No significant changes of note.	• No significant changes of note.
1894 - 1896 (1:500) **1891 - 1898** (1:2,500) **1896-1899** (1:10,560)	• The developed embankment becomes part of The Embankment, with continues off-site in the north west. • Structure in eastern corner more defined but unlabelled.	• 10-20/NW - Town hall depicted. • 90/SW - Nursery. • 90m/N - Maltkiln • 100m/NW – Small-scale residential development of former orchards. • 200m/E – Thames Electric and Steam Launch Works (Eel Pie Island). • 250m/SW – Fish Pond.
1914 (1:2,500)	• No significant changes of note.	• 0m/NW – King Street indicated to include a tramway. • 50m/SE – Large-scale residential development of the eastern half of Eel Pie Island. • 90m/N – Maltkiln no longer noted. • 200/NW - Motor works. • 220m/NW – Large-scale residential development of former orchards.
1920 (1:10,560)	• Structural redevelopment in the northern corner of site, including a public house.	• No significant changes of note.
1934 (1:2,500)	• By 1934, swimming bath with associated structures depicted on site in the north west and central portion of the site.	• 0m/SW – Residential development of Thames Eyat, including present day garages and Tennis courts. • 0m/NE – High Street commercial development. • 90m/W – Picture Theatre.

Table 3 - Historical Summary

Date	Potentially Contaminative Land Uses / Significant Changes	
	Onsite [Direction]	**Off-site [Distance/Direction]**
1933 & 1934-1935 & 1938 (1:10,560)	• Additional structures in the centre-north and eastern section of site.	• 100m/W – Former nursery redeveloped as residential properties. • 200/NW Motor works becomes a rubber works and is structurally redeveloped.
1940 (1:10,560) **1948** (*ap*)	• Possible WW2 bomb damage in north-east of site.	• Possible bomb damage extending off-site up to 50m/NE.
1959 - 1962 (1:2,500) **1960 - 1966** (1:10,000)	• Area identified as Twickenham Baths and including a bath house and paddling pool.	• 0m/NW – King Street no longer indicated to include a tramway. • 50m/E – Works (Eel Pie Island). • 90m/W – Picture Theatre renamed Odeon Cinema. • 200/NW - rubber works identified as Works.
1972 (1:2,500) **1975** (1:10000)	• Car Park shown in North east of site. • Public conveniences shown in eastern corner of site. • Electricity substation noted in north of site.	• 5m/NE – Car Park.
1990 - 1991 (1:2500) **1992** (1:10000)	• Structural development of the Public House to include High Street commercial structures.	• 200/NW - Works redeveloped as a car park.
1999 (AP) **1999** (1:10,000)	• Roadway noted on The Embankment, together with vehicle parking.	• No significant changes of note.
2006 (1:10,000)	• No significant changes of note.	• 200m/E – Thames Electric and Steam Launch Works no longer noted.
2020 (1:10,000)	• Swimming pool on site shown as infilled and hardstanding.	• No significant changes of note.

- Notes:
- It should be noted that the dates of the maps do not always correspond with the time of the surveys.
- ap – aerial photography

Where no significant factors or changes occur within a map edition(s) it is summarised with "No significant changes of note".

Please note that the alignment and extent of the detailed site area in early map editions is often mis-aligned compared to modern mapping due to variation in mapping/digitisation processes; this is compensated for where possible within the interpretation.

4.1.1 Summary of other Site Data

The following website provides excellent information on the former layout of the swimming baths period of use of part of the site.
https://lidosalive.com/twickenham.html

This includes an aerial image viewing the site from the north, clearly showing the extent of the Twickenham Baths structure that occupied the southern section of the site, including what is now the Embankment area. The structure was substantial along with the two circular fountains depicted in the east and west of the Baths area and the two-storey structure at the east end of the Baths area, interpreted to be a café or similar. Of note also is the elevation drop from the north to south of the site, as current elevation changes; the baths structure at The Embankment is likely to have been between two and three storeys.

In addition, this website
https://www.britainfromabove.org.uk/en/image/EAW025282
provides a number of wider scale aerial images of the site. These generally confirm the above assessments.

It is understood that the baths closed circa 1980 following creation in the late 1920s or early 1930s. The pool was backfilled with, it is assumed and understood with site-won demolition material (or equally likely, imported demolition materials) circa 2004 with the creation of the extant Diamond Jubilee Gardens created between 2010 and 2012.

5. UNEXPLODED ORDNANCE

As mentioned within Section 1.3, a preliminary Unexploded Ordnance Risk Assessment (UXO) was undertaken by 1st Line Defence as part of the previous Desk Study and Ground Investigation Report undertaken by Geotechnical and Environmental Associates Limited.

The risk assessment was reported under reference EP5167-00, dated August 2017 and was focussed on an area of land in the north and east of the current site boundary.

The findings of the preliminary UXO assessment indicated that no recorded WW2 bomb strikes existed within the site area, although a V-1 bomb was recorded to have fallen immediately south of the site which is thought to have directly impacted the site. The historical maps within this report provide a 1948 aerial photograph indicating areas on and offsite visibly affected by the impact through the removal of former structure, although this is not conclusive evidence.

Based upon the findings of the preliminary UXO report, it was recommended that a detailed assessment was necessary to prove whether the site was damaged prior to the V-1 strike and therefore negate the risk.

A recent UXO assessment, undertaken as part of the current investigation, re-assessed the current site extent for UXO risk. The UXO assessment was undertaken by 1st Line Defence under reference EP11494-00, dated July 2020. The findings generally replicated that of the previous study; the report is provided at Appendix 13 for reference. Of note is the following summary:
"London bomb census mapping indicates that a V-1 bomb fell within the south-eastern section of the site during the war. Several bombs also fell within the general vicinity of the site. No damage was recorded onsite on MCC War Damage mapping, despite the fact that a V-1 flying bomb was recorded as falling within the south-eastern section of the site. Given the recorded bombing on site, it is anticipated that access on site would have been impeded until it was deemed safe to return, increasing the likelihood that items of UXO would have gone unnoticed and unreported."

Throughout the intrusive works of this phase UXO Risk Mitigation Measures were in place, comprising a UXO specialist with down-the-hole magnetometer being present onsite to supervise the drilling of the holes (to agreed depths or ground conditions). No magnetometer anomalies or other factors of concern in this regard were recorded.

As outlined above, a Detailed UXO Assessment is recommended for the redevelopment scheme.

6. PRELIMINARY CONCEPTUAL SITE MODEL

The risk assessment methodology is based upon current guidelines (ref. **R.1**), and legislation (refs**. R.12** and **R.13**).

The current guidance requires that a conceptual model be formulated, based upon the findings of the research. The conceptual site model is limited at this stage to the identification and assessment of potential 'hazards', identified or suspected from the results of the research; the potential 'receptors' that may be affected and the anticipated 'pathways' to those receptors. The findings are summarised in the following subsections.

The guidance proposes a four-stage approach for the assessment of contamination and the associated risks. The four stages are listed below:

- Hazard Identification;
- Hazard Assessment;
- Risk Estimation;
- Risk Evaluation.

In accordance with the guidance, (ref. **R.1**), only the first two stages are addressed in the preliminary conceptual site model; should hazards exist which are a potential risk then more intrusive investigation works are recommended.

6.1 Hazard Identification: Onsite

The desk-based research and historical review identified the following potential hazards on the site:

1. Minor pollution incidents (sewage and oils);
2. Made Ground associated with historic infilling of land;
3. Made Ground associated with backfilling of former swimming baths;
4. Potential leaching of contaminated water from former swimming baths;
5. Current on-site structures associated with former swimming baths;
6. Oil/fuel spillages within car park area in the north of the site;
7. Previously identified contaminants: hydrocarbons within groundwater;
8. Electricity sub-station.

A proportion of these can be discounted as low-risk or low-impact, or have other mitigating factors. Others may require investigation and risk assessment as part of a pre-construction preparation phase to limit risk or delays.

For example: Items 4 and 5, are likely to pose a low level of impact to the soils / groundwater at the site. Items 2 and 3 are the principal reasons for these phases of ground investigation.
Items 1 and 6 and 8 *may* be related; the previous investigation assessed soil quality in the vicinity of the electrical substation (WS2).
The potential sources and extents of hydrocarbon contamination are wide and could be either of these potential sources or others. WS2 exhibits detectable or marginally elevated PAH and speciated TPH concentrations in soils to 3.7mbgl; an absence of detectable concentrations of PCBs is reported in the soil sample at 0.4mgl but if there had been a significant transformer oil leak it is more likely to have migrated vertically and laterally, to be potentially detected within the sample at 3.7mbgl (that was not scheduled for PCBs).
Considering that there are detectable concentrations (>620mg/kg) of hydrocarbons at 3.7mbgl at WS, the presence of oils and PCBs in soils and shallow groundwater in the vicinity of WS2 cannot be fully discounted. Similarly, the source of these being the electrical substation cannot be ruled out.
Further investigation is warranted (but is outside the scope if this current phase of investigation.

6.2 Hazard Identification: Offsite

The desk-based research and historical review identified the following potential hazard(s) offsite that may impact upon the site:

- Made Ground associated with redevelopment activities.

6.3 Hazard Assessment

The preliminary risk assessment has identified a few potential sources of contamination that may pose risk to human health and the Controlled Waters. Potential pollutant linkages that require further consideration are presented in Table 4 shown overleaf:

Table 4 – Conceptual Model

Sources	PATHWAYS:					RECEPTORS:						Risk Rating	Comments
	Root Uptake	Direct Contact	Ingestion	Respiration	Gas Accumulation	Plants	End Users	Structures (Concrete)	Services/Utilities	Construction Workers	Controlled Waters (GW)		
Minor pollution incidents (sewage and oils).	U	U	U	U	U	N	Mi	N	Mi	Mi	Mi	NR-LR	The minor categorised pollution incidents were both recorded in the north of the site and were reported in 1992 and 1998, therefore it is likely that any substances have dissipated to a low level of risk, where applicable.
Made Ground associated with historic infilling of land.	Li	Li	Li	Li	Li	Mi	S	Mi	Mi	Mo	Mo	MR-VH	The topography of the site indicates the site to have been artificially raised by approximately 2.5m. It is unknown the type of materials which may reside in the Made Ground, although given the historic period in which the site was developed to its current site level (c. 1934) it is possible hazardous materials (i.e. asbestos, metals, aromatic hydrocarbons, tar, etc) exist within the soils.
Made Ground associated with backfilling of former swimming baths.	U	U	U	U	U	N	Mi	N	Mi	Mi	Mi	NR-LR	The historical maps indicate the swimming baths were infilled between the period of 2006 and 2020. It is likely that materials used to backfill within this period were sourced from a controlled supplier and therefore is less likely to contain harmful contaminants.
Current onsite structures associated with former swimming baths.	Li	Li	Li	Li	Li	Mi	N	N	N	S	Mi	NR-VH	The historic maps indicate current on-site structures to have been constructed c. 1934, therefore the potential for asbestos to exist within the building fabric is high, presenting a risk during their removal as part of the proposed development. Furthermore, chemicals or fuels associated with maintenance of the swimming baths may still reside if not appropriately decommissioned prior to dereliction.
Oil/fuel spillages within car park area in the north of the site.	Li	Li	Li	U	U	Mi	Mi	N	Mi	Mi	Mo	NR-HR	Whist it is unknown the severity of the contamination potential, previous investigation in this area (particularly borehole no. 1) recorded elevated hydrocarbons in conjunction with groundwater. Although this was attributed

				to leaching of tarmac, there may also be contribution from this source.
Previously identified contaminants: hydrocarbons within groundwater.	Li Li Li U U	N N N N Mi Mo	MR	This proven linkage from the previous investigation shall require further investigation to delineate its effect on the site.
Electricity sub-station.	U Li Li N N	Mi Mi Mi Mi Mi S	LR-HR	The historic maps indicate this feature to appear from the 1972 maps. Leaks of oils containing Polychlorinated Biphenyls (PCBs) from the equipment cannot be ruled-out although or, generally, a low likelihood (see item 8 above). A worst-case scenario is that the hydrocarbons in soils/groundwater discussed in items 6 and 7 above (Section 6.1) also contain PCBs from a transformer leak.
Made Ground associated with redevelopment activities.	U U U U U	Mi Mi Mi Mi Mi Mi	LR	The surrounding topography does not show signs of large quantities of Made Ground to exist, although re-development of structures may introduce leachable contaminants to the soils that may migrate to the site, including hazardous ground gases.

Legend:-

See Comparison of Consequence Against Probability within Appendix 6 for Key to Legend.

Probability:		**Consequence (Severity):**		**Risk Rating:**	
				Very High Risk	**VH**
Negligible (N)		Negligible (N)		High Risk	**HR**
Unlikely (U)		Mild (Mi)		Medium Risk	**MR**
Likely (L)		Moderate (Mo)		Low Risk	**LR**
Highly Likely (HL)		Severe (S)		Negligible Risk	**NR**

7. PHASE 2 - SITE WORKS

7.1 Methodology

This site investigation was carried out in accordance with the practices set out in BS 10175: 2011+A1:2013, (ref. **R.14**) and BS 5930: 2015 (ref. **R.15**).

The location of exploratory holes was based on a proposed exploratory hole location plan provided by Webb Yates Engineers, reference J3932-S-SK-0001 dated May 2020. The final locations of exploratory holes were positioned to account for restrictions to access or encountered obstructions and are shown on Drawing numbers 4955,SI/003-005/Rev0 within Appendix 3.

Soil infiltration testing was carried out on the basis of the practices set out in BRE Digest 365, 'Soakaway Design'. 2016 (ref. **R.9**), which requires, in summary, a total of three infiltration tests to be undertaken in succession over a 24-hour period or tests to be undertaken on consecutive days. Where a test exhibited appreciable infiltration and the "75%" infiltration level was achieved, a further infiltration "run", or more was undertaken.

7.2 Scope

Site works were carried out from 24 August 2020 to 28 August 2020 and comprised the following:

- Formation of four handtool--dug trial pit excavations (HP01 to HP03), extending to depths ranging from 0.2m and 1.2mbgl;
- Formation of two machine excavated trial pits (TP101 and TP102), extending to depths ranging from 2.2m and 2.3m, together with subsequent soil infiltration testing to the requirements of BRE365:2016;
- Formation of ten small diameter exploratory holes (WS01, WS01A, WS01B, WS02, WS2A, WS02B, WS03, WS03A, WS03B, WS04), using windowless sampler methods, extended to depths ranging from 0.50mbgl to 1.4mbgl (encountering shallow impenetrable obstructions in all locations);
- Formation of two exploratory holes (BH01 and BH02), using cable percussion techniques, extended to a depth of 25.0mbgl;
- Installation of two no. dual-pipe ground gas/groundwater well pipes within BH1 and BH2 respectively, together with subsequent monitoring and sampling; and
- Associated soil logging, sampling and in situ testing within each exploratory hole.

BH01, was relocated towards the north east of the former swimming baths due to obstructions at initial attempts to undertake the hand-tool-excavated service inspection pits at 1.0mbgl (BH01A and BH01B). See below for further information.

7.3 Ground Conditions Encountered

The sequence and indicative thickness of the strata encountered are provided in Table 5 below:

Table 5 - Ground Conditions

Strata	Depth Encountered (mbgl)		Strata Thickness (m)	Composition
	From	To		
Surfacing materials.	GL	0.04 – 0.35	0.04 – 0.35	**BH01**: Paving slab **BH02, TP101 and HP02:** Black flexible surfacing **WS01 – WS03:** Topsoil
Made Ground.	GL – 0.35	0.50 – 1.70	0.60 – 1.70 (where proven)	**BH02** Type 1 granular sub-base. **ALL OTHER EXPLORATORY HOLES** Typically, a dark grey brown sand with varying organic content, brick and concrete gravel. **HP02** With concrete at base.
River Terrace Deposits (Kempton Park Gravels).	1.00 – 1.70	2.20 – 5.50	2.60 – 3.80 (Where proven)	**BH01, BH02, TP101 and TP102** Typically, a gravelly sand with flint as gravel.
London Clay Formation.	3.60 - 5.50	25.00	Unproven	**BH01 and BH02** A dark greyish brown fissured clay.

7.3.1 Encountered obstructions - Discussion and Interpretation:

The target depth for the window sampler boreholes was 5.0mbgl, although these were terminated due to drilling refusal upon obstructions; at all except WS4, these were at between 0.5mbgl and 1.0mbgl and these are interpreted to have been on a extant slab of concrete (or similar) that may have formed the base of the former Swimming Baths building in this part of the site.

Similarly, the obstructions encountered in the hand-tool-excavated service inspection pits of BH01A and BH01B, and interpreted to be remnant of the former swimming pool. Within BH01A, a ceramic pipe was encountered at 1mbgl; although unlikely to be live, further progress was not appropriate and it was not possible to relocate the rig within this immediate area due to access constraints and other suspected buried services. Within the pit at BH01B a blue-painted concrete obstruction was encountered at 1.0mbgl, with the appearance of a swimming pool floor, despite being located outside the swimming pool extent, as *indicated* by tiles / marking at ground surface; the latter may have been placed approximately.

WS4, was located within the petanque pitch in the centre-south of the scheme. This encountered a brick obstruction at circa 0.7mbgl, interpreted to be a former foundation. Further progression was halted at an obstruction at 1.4mbgl; this may be associated with the obstruction encountered in WS1 to WS3.

Within HDP03, located at the southern face of the buildings in the northern corner of the site (the rear of the retail or bank building) a suspected basement was encountered. Underneath the surface asphalt and underlying concrete, during breaking-out, a series of reinforcing bars were encountered and voids noticed into a suspected basement. Drawings later provided by the client indicate a series of potential basements along this section of the site; no damage was made and the shallow excavation (0.15mbgl) was carefully sealed and re-instated.

7.4 Visual and Olfactory Evidence of Contamination

The intrusive works recorded a variety of anthropogenic materials within the Made Ground, including brick and concrete, paving slabs and, within the holes encountering obstructions, items such as concrete slabs.

With the exception of the above, no other evidence of contamination was noted within the soils encountered. No evidence of gross contamination was noted in any of the exploratory holes formed.

8. LABORATORY TESTING

8.1 Methodology

Representative disturbed and undisturbed samples were taken at the depths shown on the exploratory hole records and dispatched to the laboratory. The exploratory hole logs are included in Appendix 7.

Samples were collected for environmental purposes in amber glass jars and sealed plastic pots and kept in a cool box with cooling aid.

Geotechnical samples were recovered in plastic tubs, plastic bulk bags and undisturbed U100 liners to prevent moisture loss.

8.2 Environmental Testing Suite

8.2.1 Quality Control

The environmental laboratories used (DETS and I2 Analytical) are accredited laboratories by the United Kingdom Accreditation Service (UKAS), and at least 50% of individual parameters are from methods pending accreditation to the Environment Agency Monitoring Certification Scheme (MCERTS) for the range of analyses undertaken as part of this investigation. The MCERTS performance standard for the chemical testing of soil is an application of ISO 17025: 2005, specifically for the chemical testing of soil.

8.2.2 Environmental Testing Suite – Soils

The suite of chemical analyses was based upon a standard suite of test to assess potential contamination along with the findings of the Phase 1 desk study, the conceptual model, observations on site and the client's scope. The chemical analyses were carried out on a number of soil samples and four groundwater samples. The nature of the analyses is detailed below:

- Metals screen - arsenic, cadmium, chromium, lead, mercury, selenium, boron (water soluble), beryllium, copper, nickel, vanadium and zinc;
- Organic screen – total extractable hydrocarbons (EPH) or speciated (TPHCWG) total petroleum hydrocarbons (TPH) including benzene, toluene, ethylbenzene and xylenes (BTEX); polyaromatic hydrocarbons (PAH) – USEPA 16 suite;
- Inorganics screen - cyanide (total), sulphate (water soluble);
- Others - pH, organic matter, asbestos screen (soil only).

The groundwaters obtained were subject to similar suite of analyses.

8.2.3 Waste Acceptance Criteria

Two soil samples were subject to a full Waste Acceptance Criteria suite of analyses, to assist waste classification in anticipation of soils being removed from site for construction purposes. A copy of the laboratory test results is included in Appendix 10.

8.3 Geotechnical Testing

The geotechnical testing has been chosen based on the soils encountered during the site investigation and was undertaken in accordance with BS 1377 at a UKAS accredited laboratory.

The following tests were undertaken:

- Moisture content determination;
- Plasticity testing;
- pH and soluble sulphate testing;
- Particle size distribution testing by wet sieve method;
- Determination of undrained shear strength by triaxial compression.

A copy of the laboratory test results is included in Appendix 11.

9. MONITORING

9.1 Ground Gas

Ground gas monitoring was undertaken by a suitably qualified environmental consultant or technician, using a GFM436 landfill gas analyser and a MultiRaeLite Photo-ionisation detector (PID). The main determinants recorded were methane (CH_4), carbon dioxide (CO_2), oxygen (O_2), VOCs as well as flow.

Ground gas monitoring has been carried out on two occasions to date with future visits planned on approximately quarterly basis as requested by the scope. These will be reported as an updated report.

The results of ground gas monitoring are included in Appendix 9 and a summary is presented in Table 6 below:

Table 6 - Ground Gas Monitoring Results Summary

Location	Typical Concentration					Flow Rate (max.)	VOC	Atmos.c Pressure
	Methane (CH_4)	Carbon Dioxide (CO_2) [% v/v]		Oxygen (O_2) [% v/v]				
	[% v/v]	(Max.)	(Min.)	(Max.)	(Min.)	(l/hr)	(ppm)	(mb)
BH1 (shallow and deep)	<0.1	2.5	0.8	19.1	19.1	0.4	2	1028
BH2 (shallow and deep)	<0.1	0.6	0.1	19.7	18.8	<0.1	1	1030

9.2 Groundwater

The measured groundwater levels were recorded during the two monitoring visits undertaken to date, using a dipmeter and the results of monitoring are presented in Table 7 below:

Table 7 – Groundwater Monitoring Results

Monitoring Well	Depth of Monitoring Well (mbgl)	Groundwater Encountered at (mbgl)					
		Visit 1	Visit 2	Visit 3			
		17/09/20	02/12/20				
BH1 (shallow)	6.3	5.30	4.96				
BH1 (deep)	20.4	5.05	5.36				
BH2 (Shallow)	4.2	2.47	2.44				
BH2 (deep)	20.7	12.24	2.76				

Notes:
Dry - no groundwater encountered
n/m – not measured
0 - well filled with water

10. RISK ASSESSMENT

10.1 Risk to Human Health

10.1.1 Methodology

The current guidance requires that a conceptual model be formulated, based upon the findings of the research. The conceptual model is limited at this stage to the identification and assessment of potential 'hazards', identified or suspected from the results of the research; the potential 'receptors' that may be affected and the anticipated 'pathways' to those receptors. The findings are summarised in the following subsections.

The guidance proposes a four-stage approach for the assessment of contamination and the associated risks. The four stages are listed below:

- Hazard Identification;
- Hazard Assessment;
- Risk Estimation;
- Risk Evaluation.

The risk assessment for UXO is addressed within Section 5 and the Preliminary UXO threat assessment report in Appendix 13.

10.1.2 Soil Quality Screening Values

The results of the soil analyses have been compared to soil quality screening values where deemed applicable, such as:

- The LQM/CIEH S4ULs for Human Health Risk Assessment, (ref. **R.32**);
- Defra/CL:AIRE Final C4SLs, (ref. **R.31**).

Where the concentrations reported by the laboratory analysis (and thus determined onsite) are at or below the respective screening concentrations, they are considered not to pose a risk and are removed from further consideration, unless otherwise stated in the following sections.

10.1.3 Soil Quality Data and Land Use Scenarios

Details of proposed development indicates residential end-use (buildings and hardstanding) with limited soft landscaping, as outline in Section 1.

The land-use scenario for the scheme applied to this risk assessment is Residential with Plant Uptake ("RwPu") as a preliminary measure, with a Soil Organic Matter of 1%', as an initial data screening approach..

This is likely to be slightly conservative because the scheme is unlikely to have residential garden areas at ground level straight ono the extant ground conditions.

10.2 Soil Quality assessment

Table 8 below, summarises the soil quality assessment of this phase of soil sampling and analysis. No elevated concentrations of the subject analytes were recorded:

Table 8 - Summary of Soil Analyses and Comparison with Current Screening Values

Analyte	Analyte Concentration Range (mg/kg)		Screening Value (mg/kg) for Land Use	Number of Elevated Concentrations
	Minimum	Maximum	Residential With Plant Uptake (1% SOM Assumed)	
Arsenic	9	16	37	0
Beryllium	<0.5	0.9	1.7	0
Boron	<1	2.3	290	0
Cadmium	<0.2	<0.2	11	0
Chromium	15	31	910	0
Chromium VI	<2	<2	6	0
Copper	15	20	2400	0
Lead	10	207	200	0
Mercury (inorganic)	<1	<1	40	0
Nickel	9	29	180	0
Selenium	<3	<3	250	0
Vanadium	30	54	410	0
Zinc	45	83	3700	0
Cyanides	<2	2	5/20 Δ	-
pH	7.6	8.8	n/a	-
w/s sulphate (mg/L)	0.1	0.36	n/a	-
PAHs (Total USEPA 16)	<1.6	4.6	n/a	0
Benzo(a)pyrene	<0.1	0.5	2.2	0
Dibenz(a,h)anthracene	<0.1	<0.1	0.24	0

Naphthalene	<0.1	<0.1	2.3	0
EPH / TPH	<6	<42	100*	0
BTEX (sum)	<0.018	0.02	0.13◇	0
PCBs (sum)	<0.1	<0.1	n/a	n/a
*Nominal screening value along with assessing individual EC Groups concentrations where necessary. All soils with speciated TPHCWG data exhibit concentrations <LLODs for each EC band group. Δ superceded but indicative value ◇ indicative sum value				

With regard to the analysis for PCBs, the sampling locations were not in the vicinity of the electrical transformer but the soil samples do not record detectable concentrations.

10.2.1 Asbestos

Results of asbestos screening did not indicate the presence of asbestos within the (Made Ground) soils. However, it is recommended that a discovery strategy is in place for asbestos should it be encountered within the soils during the construction phase, due to the variable nature of Made Ground.

Any suspected asbestos encountered within the soils during the demolition and construction phase of the proposed development should be left in situ and temporarily fenced off, until its identification and removal/treatment has been established. Works in the immediate area of the suspected asbestos should cease during this period until a suitably qualified and authorised person has given permission for works to continue.

10.3 Ground Gas

The results of the soil gas monitoring have been compared with current guidance (ref.**R.35**) however, only one return visit has been undertaken to date, based upon the scope. Further (~quarterly visits) will be undertaken and the report updated accordingly. Outline soil gas assessment is provided here but for the complete assessment further data is required.

The results show no detectable methane concentrations within the monitoring wells and negligible to very low concentrations of carbon dioxide and VOCs. No significant gas flow was detected within the wells; a maximum of 0.4l/hr at BH2 only.

On the basis of this limited dataset the gas screening values of <0.01l_{CH4}/hr and <0.01 l_{CO2}/hr have been calculated.

Based upon this and the current guidance, no gas protection measures are required for the proposed structure's however, this is subject to (i) further soil gas data monitoring and (ii) the potential re- assessment of the soil gas regime when replaced following construction. This is consistent with the assessments made with the previous reports.

10.4 Risk to Controlled Waters

The risk to Controlled Waters is assessed utilising the available data from this phase of investigation. Further assessment may be required to assess the groundwater conditions within pre-existing monitoring wells and groundwater sampling points.

The groundwater sampling undertaken from BH01 and BH02 of this investigation indicate no elevated concentrations of analytes within the water samples. The sampled groundwater shows no impact by contaminants / the analytes and a low risk is posed based upon this data.

However, as outlined below within Section 12, further assessment is necessary in the eastern section of the site where previous investigation encountered hydrocarbons in groundwater at GEABH2. The risk to controlled waters in this part of the site is not low.

10.5 Risk to Plants

A review of the commonly occurring phytotoxic chemicals boron, copper, nickel and zinc, has been undertaken based upon the now superseded ICRCL guidance. Although the ICRCL trigger threshold levels have been withdrawn, there are no equivalent guidance values for phytotoxicity.

Concentrations of metals were recorded at concentrations below the thresholds considered to have phytotoxic effects – a low risk is posed to plants. However, any proposed soft-landscaped and planting areas will likely be created as part of the scheme and suitable quality subsoils and topsoils should be imported.

10.6 Risk to Services - Pipes

A comparison of the laboratory results has been made against the Contaminated Land Assessment Guidance, published by Water UK (ref. **R.18**). Note, the full range of thresholds given in this guidance have not specifically been tested for.

Whilst no specific potable water pipeline protection is envisaged necessary, based upon the available near-surface soil data, it is advised that the UK Water Industry Research Guidance (ref. **R.19**) is adopted and consultation with the local water company is sought prior to laying any services. For example, considering the civil engineering works and soil movements to construct the scheme, new potable water pipes are likely to be laid within Made Ground in most parts of the site and this should be of suitable quality when placed in areas of potable water pipe runs.

10.7 Updated Conceptual Site Model

Following the findings of the site investigation the Preliminary Conceptual Site Model for the site has been reviewed and the conclusions are presented in Table 9 overleaf:.

Table 9 – Updated Conceptual Site Model

Sources	PATHWAYS:					RECEPTORS:						Risk Rating	Comments
	Root Uptake	Direct Contact	Ingestion	Respiration	Gas Accumulation	Plants	End Users	Structures (Concrete)	Services/Utilities	Construction Workers	Controlled Waters (GW)		
General soil quality: Made Ground	U	U	U	U	U	N	N	N	N	N	N	NR/LR	Soil quality of this phase of investigation does not pose a hazard to receptors; other phases of investigation have encountered localised contamination or potential hazard sources. Recommendations are provided below.
Hydrocarbons in groundwater (GEABH2)	N	U	U	U	U	N	N	Mi	Mo	Mo	Mo	MR	Further investigation of the groundwater regime and the hydrocarbons concentrations in (soil and) groundwater in the east of the site is warranted.

Legend:-
See Comparison of Consequence Against Probability within Appendix 6 for Key to Legend.

Probability:		Consequence (Severity):		Risk Rating:	
				Very High Risk	**VH**
Negligible (N)		Negligible (N)		High Risk	**HR**
Unlikely (U)		Mild (Mi)		Medium Risk	**MR**
Likely (L)		Moderate (Mo)		Low Risk	**LR**
Highly Likely (HL)		Severe (S)		Negligible Risk	**NR**

11. GEOTECHNICAL CONSIDERATIONS

11.1 Proposed Development

As mentioned previously, the site is to be redeveloped to comprise the demolition of existing structures and the construction of two mixed commercial and residential blocks up to four stories in height and including a basement within the southern block, together with vehicle parking, soft and hard landscaping and pedestrianisation of existing roadway. Proposed development plans, ref. TRS-HAL-A-3100-P04 to TRS-HAL-A-3100-P06 dated March 2020 are provided within Appendix 3.

Development information provided by Webb Yates Engineers indicate finished floor levels on the Upper Terrace to reside at 7.6maOD, with basement level in the vicinity of Wharf Lane residing at 4.6maOD. The Lower Terrace is proposed to reside at the current level of 4.2maOD. Structural information indicates internal column design loads to be in the region of 3,750 kN, with live loads in the region of 1,400 kN, although it is anticipated that the final design of structures will utilise a lighter superstructure and therefore reduce the design load.

The following recommendations should therefore be reviewed and updated, where applicable, once the final design is known.

11.2 Summary of Ground Conditions

Given the variability in site levels across the investigated area, together with refusals noted within a number of exploratory holes, the full soil profile was only encountered within a small number of holes. Therefore, for background information only, the findings of the previous investigation have been utilised.

Made Ground, including any surface materials, was recorded to extend to depths ranging from 0.6m to 1.7mbgl. This was underlain by granular soils of the River Terrace Deposits, extending to depths ranging from 2.2m to 5.8m, and was underlain by soils of the London Clay Formation extending to the full depth of this investigation. It can be noted that within the other phases of investigation by others the Made Ground was recorded to 3.5mbgl (Southern Testing borehole SH2, interpreted to be located to the east of the extant café building within the Gardens; deep Made Ground here to be anticipated).

Groundwater was encountered to reside within the River Terrace Deposits at depths ranging from 2.44m and 5.36m below current ground levels, with the shallower encountered depth being located in the vicinity of BH02 of the current investigation and the deeper groundwater being encountered with BH01 of the current investigation and located at a higher ground level.

11.3 Foundations

11.3.1 Ground Desiccation

Where soils are identified as being non-plastic, they are generally regarded as not having volume change potential and therefore not likely to induce any ground movements associated with changing soil moisture conditions. These soils include granular soils of the Made Ground and River Terrace Deposits.

The results of geotechnical classification testing indicate the London Clay to typically contain soils that are of very high plasticity and high-volume change potential, although the moisture condition of the soils indicate that no desiccation exists with the soils.

Whilst the effect of trees upon cohesive soils is typically assessed as to the effect on the proposed development, it is unlikely that this would present a problem given the soil profile and the assumed foundation type (Piles).

11.3.2 Foundation Options

Based upon the anticipated loads associated with the proposed development, a conventional trench fill or pad foundation would be considered not suitable and an alternative foundation solution should be adopted. Possible alternative foundation types include piles, terminating within the underlying bedrock London Clay Formation, or a raft foundation bearing on to the loose to dense granular River Terrace Deposits.

For a raft foundation of size 6.7m x 7.3m, an equivalent square raft of dimensions 7.0m has been derived and used to undertake the following assessments. In order to estimate the total settlement of a raft of the above dimensions with an imposed pressure of 60kN/m^2 and 80kN/m^2 at founding level, the following assumptions have been made:

- The raft is evenly distributed with no allowance for point loads beneath the underside of the foundation;
- Where a basement is absent, the existing granular Made Ground soils are utilised as a capping layer to the natural soils and hold a minimum compaction of 50kN/m^2;
- Where a basement exists, the raft bears directly onto the soils of the River Terrace Deposits;
- River Terrace Deposits are designed to a minimum of 40kN/m^2, based on in-situ testing results.

Based upon the above, total drained settlements of between 14mm and 19mm have been calculated. Settlements in granular soils will typically comprise immediate settlement. Based upon recorded groundwater levels and proposed finished floor levels, the design of raft foundations is unlikely to require precautions for buoyancy due to the presence of groundwater.

Alternatively, piled foundations are considered suitable and are likely to be carried by a combination of adhesion (skin friction) and end bearing within the River Terrace Deposits and London Clay Formation soils, terminating within the latter. Piling would also allow the volume of soil to be disposed of to be minimised.

The proven ground conditions would indicate that bored piles could be employed to provide a suitable foundation solution. However, the method of installation will have to accommodate the presence of groundwater within the River Terrace Deposits.

Dependent upon the method employed it is considered likely that driving displacement (driven piles) through River Terrace Deposits would prove disruptive to nearby properties and their occupants and as such is unlikely to be permitted.

For the purposes of this initial discussion and for reasons given above, consideration has been given to the adoption of cast in situ piles (e.g. CFA). The use of CFA piles would prove beneficial as this method does not require casing or the use of bentonite slurries. However, there are certain practical constraints when considering the incorporation of pile reinforcement.

The modelled ground profile has been taken from BH01 as this incorporates soil information relevant to finished floor level, although in-situ and laboratory-based information has been derived from both deep boreholes. The finished floor level has been taken to be 7.6maOD. Groundwater level has been monitored at 3.1maOD and so interpreted that this is within the range of groundwater elevations; season and tidal fluctuations are likely to apply, of course.

In consideration of the inclusion of a basement structure into design proposals, an initial 3.0m of the soil profile has been removed and represents the most conservative approach, although a comparison has been provided for the structure absent of a basement.

The competency of the soil profile used for these calculations is based upon the examination of the recovered samples and the results of in situ and laboratory testing.

The illustrative calculations provided within Table 10 below, for axially loaded pile capacities have been undertaken for a single pile acting in compression. Available capacities may vary for piles acting in tension:

Table 10 – Preliminary Pile Loads (kN)

Pile Diameter (mm)	Pile Depth (m bgl)			
	15		20	
	Inc. 3.0m Basement	No Basement	Inc. 3.0m Basement	No Basement
300	210	226	357	374
450	342	367	550	574
600	492	525	769	802

Notes:

[1] The above values have been calculated based on N60 SPT values as these represent a conservative approach.

[2] In this case, the upper 1.5m/3.0m of the soil profile has been ignored to account for the loss of friction from the Made Ground/inclusion of a basement.

Table 10 – Preliminary Pile Loads (kN)				
Pile Diameter (mm)	**Pile Depth (m bgl)**			
	15		**20**	
	Inc. 3.0m Basement	**No Basement**	**Inc. 3.0m Basement**	**No Basement**
[3] A global factor of safety of 2.5 has been used in all cases.				
[4] The soil profile assumes a final site level (ground level) of 7.60m aOD (BH01)				

Working capacities for pile groups should be assessed when final design details are known, although for preliminary design purposes it is likely that piles spaced at least 3 x pile diameter from other piles in any group will behave as single piles.

Where preliminary and working pile load tests are undertaken it may be appropriate to reduce Safety Factors, although 2.5 may be a minimum local authority requirement. Should testing not be undertaken it is suggested that a factor of safety of at least 3.0 should be adopted.

For all piling options it is recommended that the advice of specialist foundation contractors be sought at the earliest opportunity. Piling specifications should be obtained from specialist contractors with reference to their particular products as this may affect the calculated capacity.

The selection of piling techniques should not only consider attainable pile capacities but also consider access constraints applicable to particular plant and potential vibration effects on existing adjacent foundations.

11.3.3 Excavations, Temporary Works and Groundwater Ingress

All excavations within the Made Ground and River Terrace Deposits must be assumed to be subject to short term instability. Excavations below the water table are likely to be problematic without positive groundwater control.

It is expected that excavations within the cohesive London Clay Formation soils will be stable in the short term. However, where excavations are required to remain stable in the medium or long term they should be suitably supported or side slopes battered back to a safe angle of repose.

Where personnel access is required to any excavation its stability should be assessed by a suitably qualified and experienced responsible person. For general guidance it is recommended that where access is required to excavations greater than 1.2m depth excavations should be fully supported or side slopes battered back to a safe angle of repose.

Further guidance may be obtained from CIRIA document 97, 'Trenching Practice (ref. **R.19**).

Particular attention must be paid to ensuring the stability of adjacent structures, neighbouring sites as well as road frontages and the adjacent River Thames.

Standing water levels were recorded between 2.47mbgl (BH2, shallow installation) and 12.24mbgl (BH2 deep installation) depth across the site. At BH1, the GWL varied between 5.05mbgl and 5.30mbgl. These standing water levels indicate that the potential for perched groundwater at various levels within the made ground and natural soils should be considered during excavations.

Excavations beneath the water table, and particularly granular soils, will require positive drainage to maintain adequately dry working conditions and excavation stability. Where encountered, ingress of perched water should be adequately dealt with by pumping from sumps.

The control of groundwater may also be addressed in the structural design, for example by raising the basement floor construction above the standing groundwater level, or by adopting a contiguous or secant piled walls sealed into the London Clay Formation soils around the perimeter of the basement. Although based on the recorded groundwater levels, it is unlikely that this will be required.

All structures founded below the water table must be designed to accommodate the forces of buoyancy, either by self-weight or by tension piles, if necessary.

11.4 Retaining Structures

The construction of a basement will require careful consideration to be given to the stability of adjacent structures, services and property. Given the proximity of sensitive structures adjacent to proposed basements, it is considered unlikely that a basement could be constructed in an 'open' unsupported excavation. Retaining structures are likely to be required, i.e. propped opposing walls or cantilevered piled walls. Alternatively, a contiguous or secant pile wall could be constructed into the River Terrace Deposits to provide a suitable retaining structure, either acting in cantilever or propped. A secant pile wall or wing-jetted contiguous pile wall would effectively ensure control against water ingress associated with known water bodies or perched water bodies not revealed by the investigation.

It is recommended that retaining structures should be designed using effective shear strength parameters. Suggested geotechnical parameters for use in design are provided in Table 11 below:

Table 11 – Summary of Drained Soil Properties

Strata	Angle of Internal Friction (ϕ) (degrees)	Cohesion (kPa)	Bulk Density (kN/m^3)
Made Ground	28	0	18
River Terrace Deposits	33	0	22
London Clay Formation	18	0	19

Excavations - Stability of Cut Slopes

To minimise the risk of slope instability, temporary cut slopes, where required, should ideally be limited to the narrowest practicable bay widths, preferably working by progressive cutting and backfilling of narrow bays. Short lengths of open slope face will have a greater degree of stability as they will have some support by arching.

Should cuttings be made below the standing water level they must be expected to be unstable and prone to collapse.
Temporary slopes should be cut to as shallow a gradient as is practicable, although a shallower gradient will, of course, attract less risk. The slopes should be regularly inspected for evidence of movement or distress.
Temporary faces should be left open for the minimum period possible. Care should be taken during construction to prevent the crests of temporary slopes from being loaded, (e.g. haulage traffic should be routed away from the crest).

Specific measures to prevent ponding at the top of the slope, and to prevent water flowing down the face of the excavation should be adopted.
Long Term Stability - Hydrostatic (Uplift) Pressures: Seepage into excavations must be anticipated, and this can be expected at shallow depth. The possibility of perched groundwater at various levels within the made ground soils should not be overlooked.
Where the maintenance of lateral drainage from behind and beneath deep structures or through floor slabs cannot be guaranteed they must be built with sufficient dead weight to counteract the effect of uplift (hydrostatic) pressure that may be created by the presence of water. Alternatively, uplift may be resisted by the installation of tension piles or ground anchors.

11.5 Floor Slabs

In view of the adoption of a piled foundation, it is likely that ground floors will be suspended for all sensitive structures. However, where River Terrace Deposits are proven at formation level, ground bearing floor slabs may be adopted. It is not considered appropriate to use the existing Made Ground as a formation soil.
Where ground bearing floors are adopted, formations should be adequately proof rolled and any soft / loose or otherwise unsuitable materials excavated and replaced with a suitable engineered fill.
Differential movement between the floor slab and structural walls and across the floor slab itself should be anticipated. It is therefore recommended that ground bearing floors should be fully debonded from structural load bearing walls and suitably reinforced top and bottom to enable spanning of soft spots.
The detailing of services through or beneath ground bearing floors should incorporate flexible connections and where appropriate enhanced falls.

11.6 Soil Infiltration Data

Planning policy, together with the support of The Environment Agency, recommend the maximum practical use of Sustainable Urban Drainage Systems, (SuDS), within proposals for new developments. There is a requirement that SuDS be installed, where appropriate, in order to limit the amount of surface runoff entering drainage systems and to return surface water into the ground to follow its natural drainage path. Further guidance, including details of SUDS methods, is provided within CIRIA Report C753 'The SuDS Manual', 2015 (ref. **R.22**). CIRIA 687 entitled 'Planning for SUDS – Making it Happen', published in 2010 (ref. **R.23**), states that the Flood and Water Management Act 2010 aims to encourage Local Authorities to be responsible for the approval and eventual adoption of SuDS, although adoption of roadways which include permeable paving is often rejected.

Soakaway testing was undertaken in two trial pits (TP/SK01 and TP/SK02) and was undertaken in general accordance with the guidance provided within BRE Digest 365 'Soakaway Design', 2016 (ref. **R.9**). In addition, a borehole falling head test was undertaken in the BH01 and BH02 of this phase. A summary of the infiltration rates is presented in Table 12 below, and provided in full within Appendix 8:

Table 12 – Infiltration Testing Results (m/s)

Location	Test 1	Test 2	Test 3	Comments
TP/SK101	$3.31x10^{-5}$	$2.23x10^{-5}$	$1.86x10^{-5}$	
TP/SK102	No result	$4.66x10^{-5}$	$6.64x10^{-5}$	Collapse of pit due to loose soils.

Based upon the results of the infiltration testing, it is clear that infiltration within both test locations was appreciable. It is therefore considered that soakaways in these locations are considered to be designed to an infiltration value of $1.86x10^{-5}$ m/s.
It is recommended that liaison with the relevant regulatory bodies and third parties (i.e. the LPA, The Environment Agency, Thames Water) is undertaken at an early stage to ensure any surface water drainage proposals are approved.

11.7 Concrete Classification

The results of chemical tests within the Made Ground and River Terrace Gravels indicate a sulphate concentration of between <10mg/l and 16mg/l as a 2:1 water/soil extract. Within the London Clay Formation soils, sulphate concentrations are reduced in the range of between 218mg/l and 604mg/l as a 2:1 water/soil extract. A pH value in the range of 7.6 to 8.8 was recorded across all soils encountered.

In consideration of the previous usage of the site, it is recommended that brown-field conditions be assumed for the purposes of assessing the aggressive chemical environment for concrete classification (ACEC class).

Given the presence of permeable natural soils (River Terrace Deposits) and the noted occurrence of groundwater seepages, mobile conditions can be reasonably assumed for shallow buried structures. Although any foundations (i.e. piles) crossing into the London Clay Formation may be designed to accommodate for static groundwater conditions

In accordance with the BRE digest (ref. **R.6**), a DS-1 Design Sulphate Class and an AC-1 ACEC classification may be assumed as a minimum for the design of concrete in contact with Made Ground and natural River Terrace Deposits at the site. However, where deeper foundations are adopted and cross into the London Clay Formation, a DS-2 Design Sulphate Class and an AC-1s ACEC classification may be assumed as a minimum for the design of concrete

11.8 Waste Materials - Considerations

Under the European Waste Directive, waste materials from the scheme will require waste category classification; in addition to which, it will be required to be pre-treated, prior to disposal, in order to apply any possible waste volume reduction.

The pre-treatment process(es) must be physical, thermal, chemical or biological, including sorting. It must change the characteristics of the waste in order to reduce its volume, hazardous nature, facilitate handling or enhance recovery. The waste producer can carry out the treatment but they will need to provide documentation to prove that this has been carried out. Alternatively, the treatment can be carried out by an approved contractor. The Environment Agency has issued a Position Paper#13 which states that in certain circumstances, segregation at source may be considered as pre-treatment and thus excavated material may not have to be treated prior to landfilling if the soils can be segregated onsite prior to excavation by sufficiently characterising the soils in situ prior to excavation. The latter segregation of soils and other site materials is common / standard practice on construction sites but a detailed Materials Management Plan that is adhered-to can greatly assist waste reduction/recycling/re-use rates.

The soils encountered within this phase of investigation have been considered to be likely to be excess or waste soil, in the absence of a Materials Management Plan or similar for the scheme at this stage.

If the Claire DoWCoP (ref. **R.37**) is applied to this scheme so that soils and site clearance / preparation / demolition materials are assessed within a mass-balance / volume assessment, then it may be possible to design the scheme as a zero-waste-soil (or low volume waste soil) scheme, by re-using as much as possible onsite.

Granular and anthropogenic materials (i.e. demolition waste / rubble, hardcore) from the site will require assessment and re-processing to enable suitability for re-use onsite. This may be more cost effective than disposal of material and re-import. Alternatively, it may be applicable to remove the soils to an off-site treatment / processing facility for re-import with cost-savings remain, due to the avoidance of landfill taxes. Reputable, suitably licenced and competent contractors should be engaged to assist the designs and costings.

11.8.1 Soil – Waste classification

Waste is classified as being either Hazardous or Non-Hazardous; in addition, landfills receiving waste are classified as accepting hazardous or non-hazardous wastes or the non-hazardous sub-category of inert waste, in accordance with the Waste Directive. Similarly, the facilities providing soil / materials treatment and re-use will require the material to be classified as either non-hazardous or hazardous. Waste classification is a staged process and this investigation (along with other site data) represents the initial phases of that process. Landfilling excess soil/materials normally incurs significantly greater costs that the various options for re-use, treatment-and-re-use or others.
Once the extent and location of the excess or waste (soil / materials) that is to be removed has been defined, further sampling and testing may be necessary. The results from this ground investigation should be used to help define the sampling plan for such further testing and, moreover, the optioneering and design for soil re-use, aggregate manufacture etc. within the scheme and for export and re-use.

(It should be noted that "WAC" analysis (leaching test results) must not be used for waste classification purposes, other than for some landfill destinations. However, undertaking WAC testing at the time of analysis does enable all waste soil removal and disposal options to be considered.)

The below assessments of the classification of the excavated soils is provided for guidance only and should be confirmed by the receiving facility (landfill/non-landfill) once the soils to be discarded have been identified and, where necessary, re-analysed.

Analysis has been undertaken to assist this assessment, utilising the available soil analysis data from this phase and has been assessed, in accordance with WM3 (ref. **R.33**).

- All of the assessed soils are non-hazardous (for non-landfill destinations).
- The sample BH1+BH2, composite, 2.0-24.0 (laboratory report reference 20-10989) was analysed to assess the likely pile arisings waste category. For non-landfill destinations this soil is indicated to be non-hazardous. For landfill destinations this is indicated to be not inert, thus hazardous (SNRH) due to a marginally elevated leachable selenium concentration only. This is common for London clay soils.
- Various samples including *BH01A +BH01B, composite, 0.20-0.80* were analysed to assess the likely waste classification of the materials (demolition rubble) encountered near-surface. For non-landfill destinations this soil is indicated to be non-hazardous. For landfill destinations this is indicated to be inert.
- Soil represented by sample *WS01A and WS2, J1, Combined, 0.2mbgl* (laboratory report 20-10290) is not inert (if destined for landfill) due to an elevated TOC value (only).

However, the volume of samples encountered from these investigation works should be considered compared to the volumes of Made Ground soil onsite and the inherent variability of Made Ground. Further testing, once the ground is accessible is recommended.
In summary, the natural soils, as arisings from excavations or piles, are suitable for re-use on site. As are some of the Made Ground soils, based upon this phase of soil sampling and assessment but as with the

variability of Made Ground as indicated by the previous reports, this is subject to variation and should be assessed further as the scheme progresses.

12. CONCLUSIONS AND RECOMMENDATIONS

12.1 Conclusions

A phase of previous investigation of the northern / eastern section of the site indicates that the ground conditions comprise Made Ground over Kempton Park Gravel (encountered to depths up to 5.8mbgl), overlying London Clay and are consistent with the anticipated geology. Localised detectable concentrations of hydrocarbons and PAHs in soils were recorded, with recommendations considered below.

As assessed by the previous investigations(s) for other parts of the scheme, the site comprised formerly (i) the premises and gardens of Richmond Gardens and (ii) various buildings (public house) in the north of the site before being developed in the early 20th century into the Twickenham Swimming Baths (Lido) and associated buildings and facilities. These became unused and derelict by the 1980s with demolition/clearance in 2004 and redevelopment into the extant Diamond Jubilee Gardens in 2011/2012.

Anecdotal evidence suggests that the base of the swimming pool was not removed as part of the site clearance scheme and the demolition rubble / materials were used to fill the void. Evidence to further this assessment was encountered in the hand-tool-excavated service inspection pit of BH01B.

The scope of this investigation was limited to defined areas and encountered significant in-ground obstructions at a number of locations; these are interpreted to be the floor / base of the former swimming pool and a structural floor slab (or similar) of the former Swimming Baths structure along the centre-south of the site.

The quality of the soils and groundwater sampled within this phase of investigation do not pose a significant risk to all modelled receptors. However, soil quality / potential groundwater contamination factors from previous investigations with different risk assessments are considered below.

12.2 Recommendations

The previous phase of investigation included recommendation to investigate soil and groundwater quality at a location WS2; this is in the vicinity of the extant electrical transformer in the centre-north of the site. This investigation was outside the scope of this scheme and is should be noted that a high voltage cable is recorded in that area.

The chemical data within that report (including assessment of PCBs in a soil sample at 0.4mbgl) can discount the presence of PCBs in the shallow soils but the potential for PCBs to be in soils and possibly groundwater at depth at this location cannot be fully discounted because there are detectable concentrations of TPH (>620mg/kg) at 3.7mbgl but PCBs were not analysed in that sample. The TPH concentration in soil is not significantly elevated but the presence of PCBs within it cannot be discounted. However, a groundwater sample from BH2 reports elevated concentrations of hydrocarbons (but PCBs were not-analysed-for. These hydrocarbon concentrations require further assessment, if only to (a) inform the

costs of any dewatering activities that may be necessary in this part of the site and (b) determine the risk to Controlled Waters.

As part of the preparation to upgrade, relocate or decommission this electrical substation it is recommended that further investigation of soils and groundwater in this part of the site is undertaken to inform any basement excavations and general scheme risk assessments.

In consideration of the current proposed development scheme, it is possible that the proposed structure will provide a pathway break between any contamination and the end user receptors; this may require full consideration when the design is finalised and subject to any further ground data. However, it would be prudent to assess the hydrocarbon contamination in the east of the site (if still present) to address risk to construction workers, any potential dewatering activities in this area of the site, risk to controlled waters and placement of potable water pipes in this area. The previous report recommends consideration of designing with a hydrocarbon-vapour proof/resistant membrane to the structure(s). Until the risks presented by this potential contamination are proved to be sufficiently low, this is a prudent measure for the structure(s) in the east of the site.

Due to the nature of the site, the ground conditions, buried services and obstructions present, the various phases of intrusive investigation have been constrained and provide a limited picture of (a) the nature of the swimming pool backfill material (b) the general ground model and potential risks to the scheme. It is assumed that an appropriate juncture the site will be made available for a wider scheme of intrusive works to expose the remnant structures across the site, assess the ground conditions in more detail and the risks to all receptors and develop the ground model and designs.

It is assumed that to facilitate the proposed structures and site remodelling at least some of the remaining swimming pool base / floor slab, as assumed to be present and intact, will have to be removed. This has the potential to create a large volume of re-processable materials (brick, concrete, rubble etc.) for re-use on site, if determined to be suitable for that re-use. A scheme of re-use of site-won materials would form part of a Materials Management Plan for the redevelopment, for submission to Claire for use throughout the scheme and would require validation at the completion of the scheme.

The infiltration testing indicates suitable ground conditions within the River Terrace Gravels. Additional or confirmatory infiltration testing is likely to be warranted when ground-access is possible in the areas of proposed SUDs within the final scheme design. Similarly, the status of the hydrocarbon contamination in groundwater in the east of the site may prevent the use of this area for SUDs, unless any hydrocarbons contamination is removed or remediated.

Continue the soil gas and groundwater monitoring within this phase of works but also undertake groundwater sampling of any serviceable monitoring wells of the previous ground investigation phases. For example: assessment of groundwater quality (hydrocarbon content) in the east of the site, based upon previous hydrocarbon concentrations within BH2 (GEA) that may still be present and the source is undefined

at this stage. Assessment of concentrations of PCBs would also address the potential source being the electrical substation.

To determine in more detail the variation in groundwater elevation, further regular monitoring undertaken or the installation of a series of dataloggers could be could be combined with the above for circa 1 week: if a datalogger was installed within each of the serviceable monitoring points to attain regular readings greater clarity of the groundwater regime would be available.

A Detailed UXO risk assessment should be undertaken for the scheme. This may result in a requirement for UXO specialist presence or other mitigation measures during site preparation and construction phases. Further site wide investigation of shallow ground conditions and remaining obstructions / structures, to inform risk and designs is required site-wide. Development of a scheme design and materials management regime to clear the extant structures, assess and penetrate or remove the remaining in-ground obstructions while also facilitating re-processing and re-use of suitable site-won materials (where proven safe-to-do-so) for regrading, and in retaining structures.

Assuming that demolition of the remaining buildings will be necessary to progress the scheme it would be necessary to (a) fully update the building Asbestos Register, where present or (b) undertake a Refurbishment and Demolition (asbestos survey) of the buildings, in accordance with MDHS guidance (ref. **R.16**) and in advance of any disturbance works. The extant electrical substation will require appropriate liaison with the owners/ operators along with the same for all buried services such as cable and the sewerage system in the southern corner of the site.

Cohesive ground conditions and the presence of mature trees should be taken into consideration; this generally applies to the north of the site, where the mature tree will require protection (assuming they are to be retained) and cohesive soils over the granular river terrace deposits may have an influence.

Any further site investigation should be designed in general accordance with and undertaken in general compliance with BS10175, (ref. **R.14**) and BS5930, (ref. **R.15**), CLR 11 and other current guidances.

It is recommended that this report be submitted to the Local Authority as part of the planning submission for the site.

12.3 Recommendations – summary

A Detailed UXO assessment is required for the scheme along with groundwater quality sampling in the east of the site; site-wide further soil / obstruction investigation is likely to be beneficial to the scheme design when ready access is permitted. Groundwater elevation measurements using dataloggers within monitoring wells should inform any groundwater level variation design considerations, potentially due to tidal influences.

APPENDICES

Appendix 1 – Report Limitations and Conditions

General Limitations and Exceptions

This report was prepared solely for our Client for the stated purposes only and is not intended to be relied on by any other party or for any other use. No extended duty of care to any third party is implied or offered.

Geosphere Environmental Ltd does not purport to provide specialist legal advice.

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon, until considered in the context of the whole report.

Interpretations and recommendations contained within the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based upon current legislation in force at that time.

Environmental and Geotechnical Reporting (including Phase 1, Phase 2 and Site Walkovers) Limitations and Exceptions

The comments given in this report and the options expressed herein are based on the readily available information collated for the report and an assessment based upon the current guidance which for Phase 1 / Phase 2 report is primarily the Contaminated Land Research (CLR) Report and notable, CLR report 3, 'Documentary research on industrial sites'.

The report has been prepared in relation to the proposed end-use and should another end-use be intended, reassessment may be required.

No warranty is given as to the possibility of future changes in the condition of the site.

The opinions expressed cannot be absolute, due to the limitation of time and resources imposed by the agreed brief.

With regards to any aspect of land contamination referred to, this is limited to those aspects specifically stated and necessarily qualified. No liability shall be accepted for other aspects which may be the result of gradual or sudden pollution incidents, past or present land uses and the potential for associated contamination migration.

Any Desk Study Report / data has been produced largely from the information purchased from The Landmark Information Group. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. The information purchased has been assumed to be correct and free from errors. However, there is the possibility that some data may be missing from the report including (but not limited to) unrecorded land uses both onsite and offsite or unrecorded pollution events. No attempt has been made to verify the information.

The accuracy of any map extracts cannot be guaranteed. It is possible that different conditions existed onsite, between and subsequent to the various map surveys provided.

Any site walkover undertaken is a snapshot of the site recording the visually evident conditions at the time of the walkover in the areas readily accessible. It is possible that after the walkover, the site was altered (for example by fly-tipping or groundworks) or before the walkover, the site conditions changed removing evidence of potentially contaminative features (such as oil tanks removed).

Any intrusive works only cover a tiny proportion of the site. Where exploratory holes are positioned by Geosphere Environmental Limited, they are located to give as good a coverage of the site as possible and to target features / proposed land use where applicable, whilst allowing for areas that cannot be accessed, Client requested locations and other site / time / budget constraints. While assumptions may have been drawn between exploratory holes on the ground conditions and / or extent or otherwise of any contamination, this is for guidance only and no liability can be accepted on its accuracy.

Foundation design is outside of the remit of Geosphere Environmental Limited unless specifically stated and it is recommended that the services of foundation design specialists are sought as required. Any foundation appraisal contained within the report is limited to foundation optioneering.

Any conceptual site model is based upon the information available at the time of conducting this assessment and is an interpretive assessment of the conditions at the site. Redevelopment and / or further investigation of the site may reveal additional information and therefore alter the conceptual site model and the report conclusions.

Any infiltration testing results are considered to be representative of the ground conditions at the locations tested and at the time of testing. As well as lateral variation in ground conditions, seasonal changes in ground water level may affect the results.

Any post-fieldwork monitoring (including ground gas / groundwater) is a snapshot of the conditions at the time of monitoring.

Appendix 2 – References

R.1. CLR 11, 'Model Procedures for the Management of Contaminated Land: Risk Assessment Procedure', DoE 2004.

R.2. CIRIA SP69, 'The Engineering Implications of Rising Groundwater Levels in London, 1989.

R.3. The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

R.4. "The Lost Rivers of London: A Study of Their Effects Upon London and Londoners, and the Effects of London and Londoners on Them", N Barton, 1962.

R.5. Health Protection Agency and British Geological Survey, Report HPA-RPD-033 'Indicative Atlas of Radon in England and Wells', 2007.

R.6. BRE Special Digest 1, 'Concrete in Aggressive Ground, 2005.

R.7. BRE Report 211, 'Radon, Guidance on the Protective Measures for New Buildings, 2015.

R.8. BRE Digest 240, 'Low-rise Buildings on Shrinkable Clay Soils: Part 1'. September 1993.

R.9. BRE Digest 365, 'Soakaway Design', 2016.

R.10. BRE Digest 412 'Desiccation on Clay Soils', 1996.

R.11. Nitrates Directive (91/676/EEC) 1991.

R.12. The Environmental Protection Act, Part IIA, Section 78, 1990.

R.13. Environment Act 1995, Section 57, DoE 1995.

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Appendix 3 – Drawings

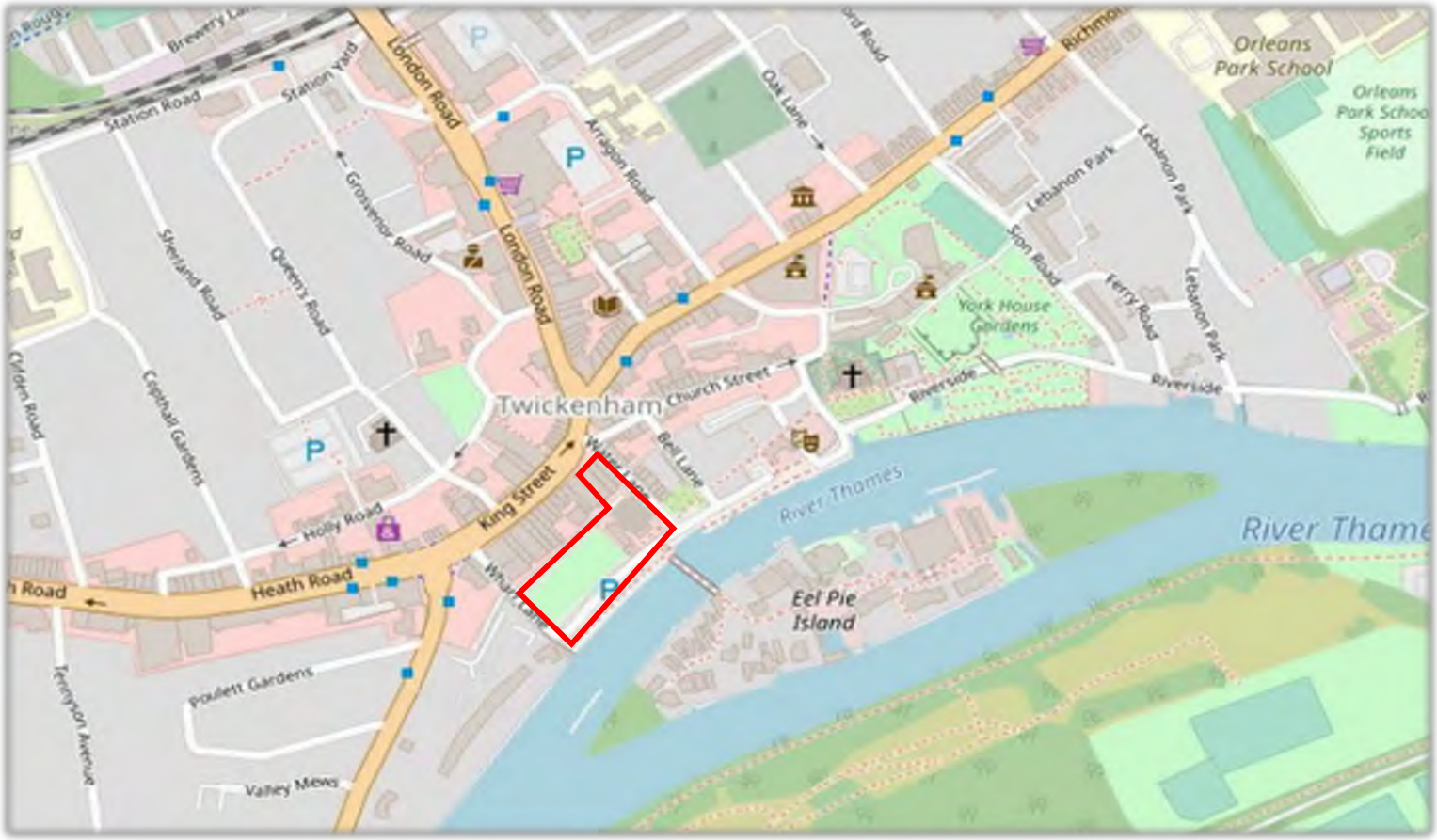
Site Location Plan – Drawing ref. 4955,SI/001/Rev0

Exploratory Hole Location Plans – Drawing refs. 4955,SI,003/Rev0 to 005/Rev0

HP02 Detail – Drawing ref 4955,SI/006/Rev0

Topographic and Buried Utilities Survey (as provided) - Drawing ref. 20135_F

Proposed Development Plan – Drawing ref. 200325_Proposed Site Map (002)



GEOSPHERE ENVIRONMENTAL

LEGEND

Site Location (approximate outline)

SOURCE

© OpenStreetMap contributors

PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

Site Location Plan

DRAWING NUMBER

4955,SI/001/Rev0

SCALE	DATE
NTS	16/09/2020
DRAWN BY	**CHECKED BY**
PC	JD

LEGEND

Area with no access for site investigation equipment (extant structures / overgrown or outside of Scope)

Added comments / annotations

Electrical substation

Retaining wall / structure (approximate location and extent)

SOURCE

Excerpt from provided drwg ref:26576se-01 (dated26/06/2020)

PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

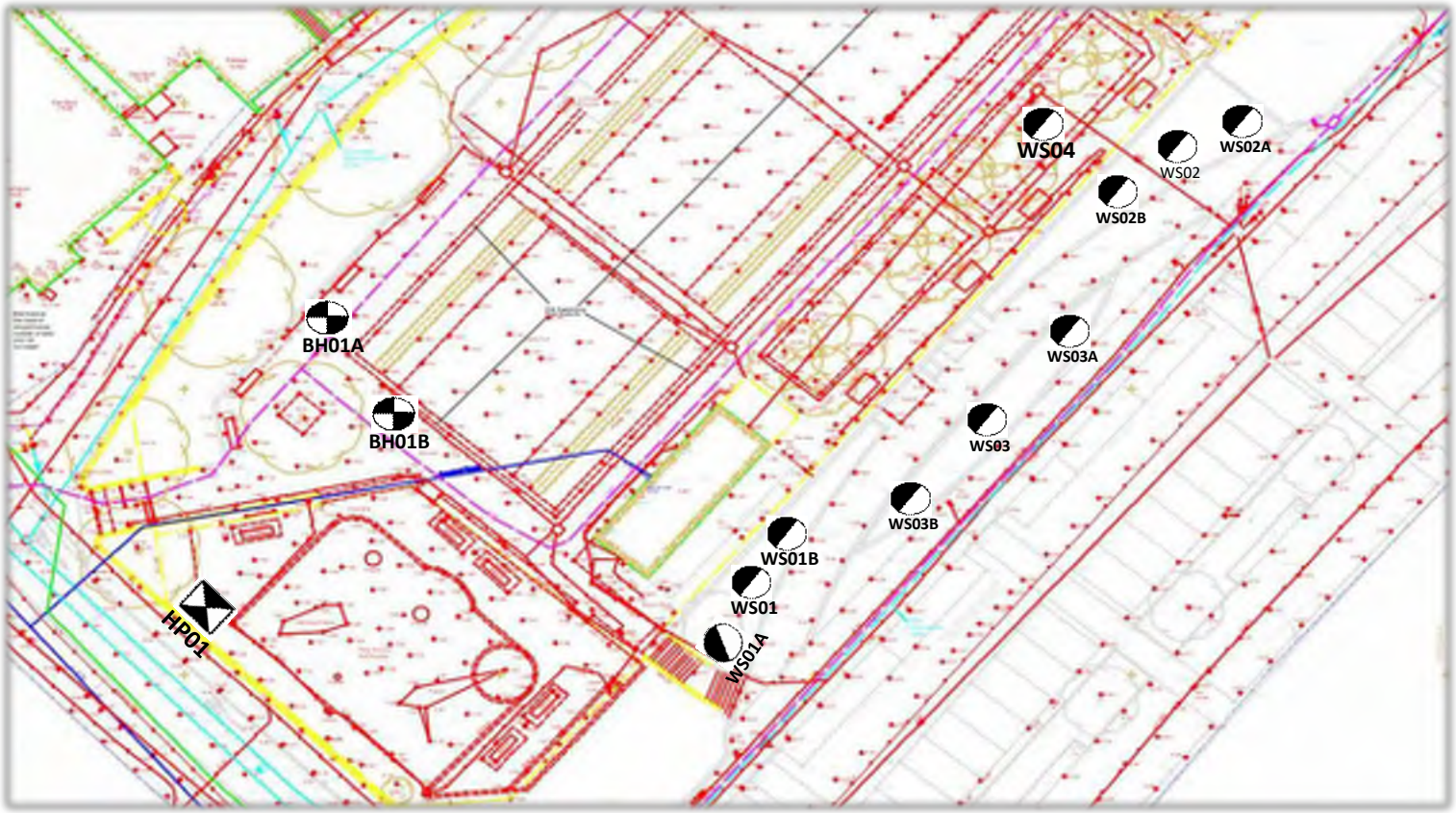
Site Plan

DRAWING NUMBER

4955,SI/002/Rev0

SCALE	DATE
See original Plan	16/09/2020

DRAWN BY	CHECKED BY
JD	SG



GEOSPHERE ENVIRONMENTAL

LEGEND

- Site boundary
- Borehole
- Window Sample
- Trial Pit (Infiltration Test)
- Hand Excavated Pit (Foundation Exposure)

SOURCE

Excerpt from provided drwg ref:26576se-01 (dated26/06/2020)

PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

Site Plan

DRAWING NUMBER

4955,SI/003/Rev0

SCALE	DATE
NTS	16/09/2020
DRAWN BY	**CHECKED BY**
JD	SG

N

GEOSPHERE ENVIRONMENTAL

LEGEND

Borehole

SOURCE

Excerpt from provided drwg ref:26576se-01 (dated26/06/2020)

PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

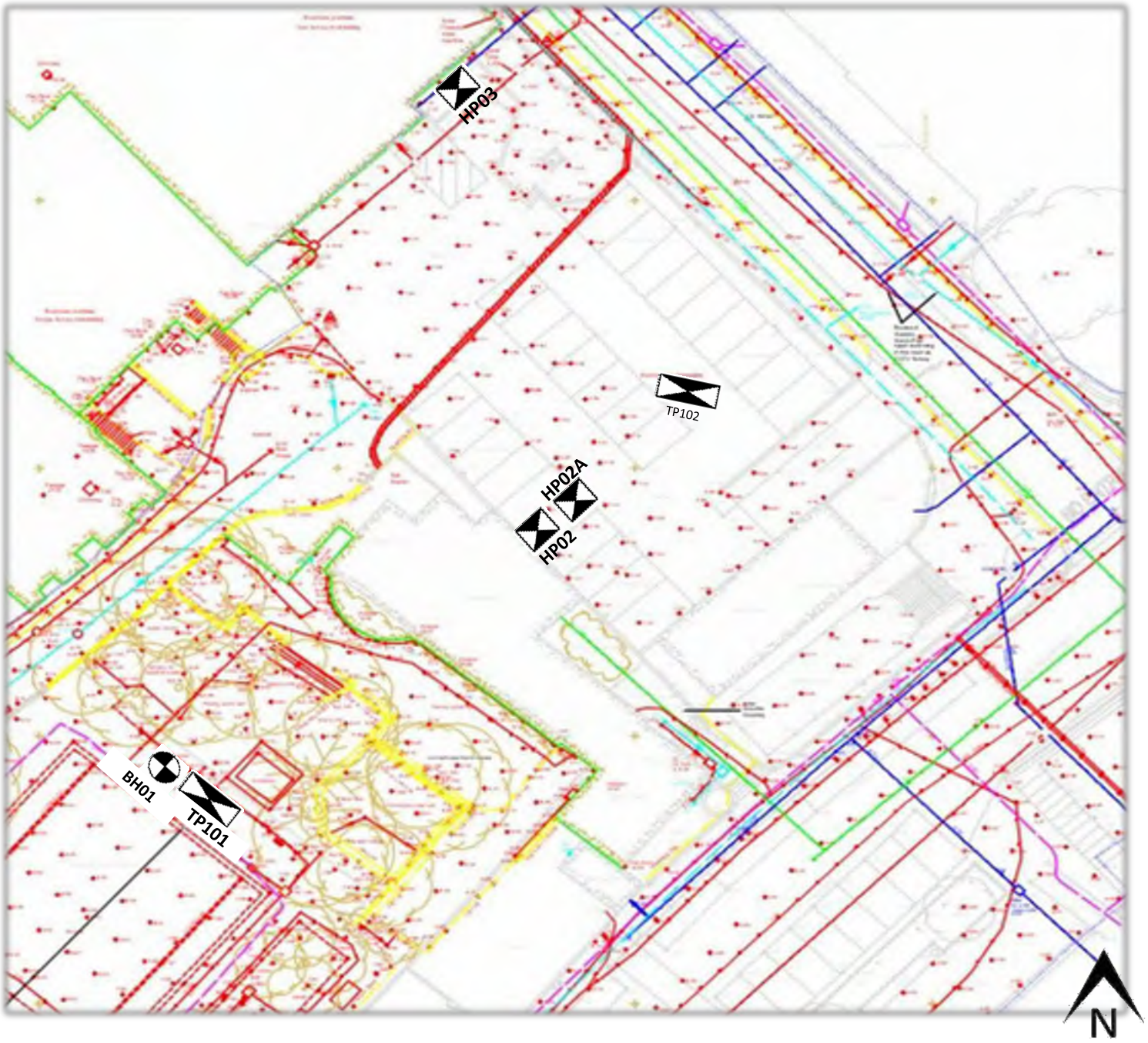
Exploratory Hole Location Plan (West 2)

DRAWING NUMBER

4955,SI/004/Rev0

SCALE	DATE
NTS	16/09/2020
DRAWN BY	**CHECKED BY**
JD	SG

N



GEOSPHERE ENVIRONMENTAL

LEGEND

Trial Pit (Infiltration Test)

Hand Excavated Pit (Foundation Exposure)

Borehole

SOURCE

Excerpt from provided drwg ref:26576se-01 (dated26/06/2020)

PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

Exploratory Hole Location Plan (East 1)

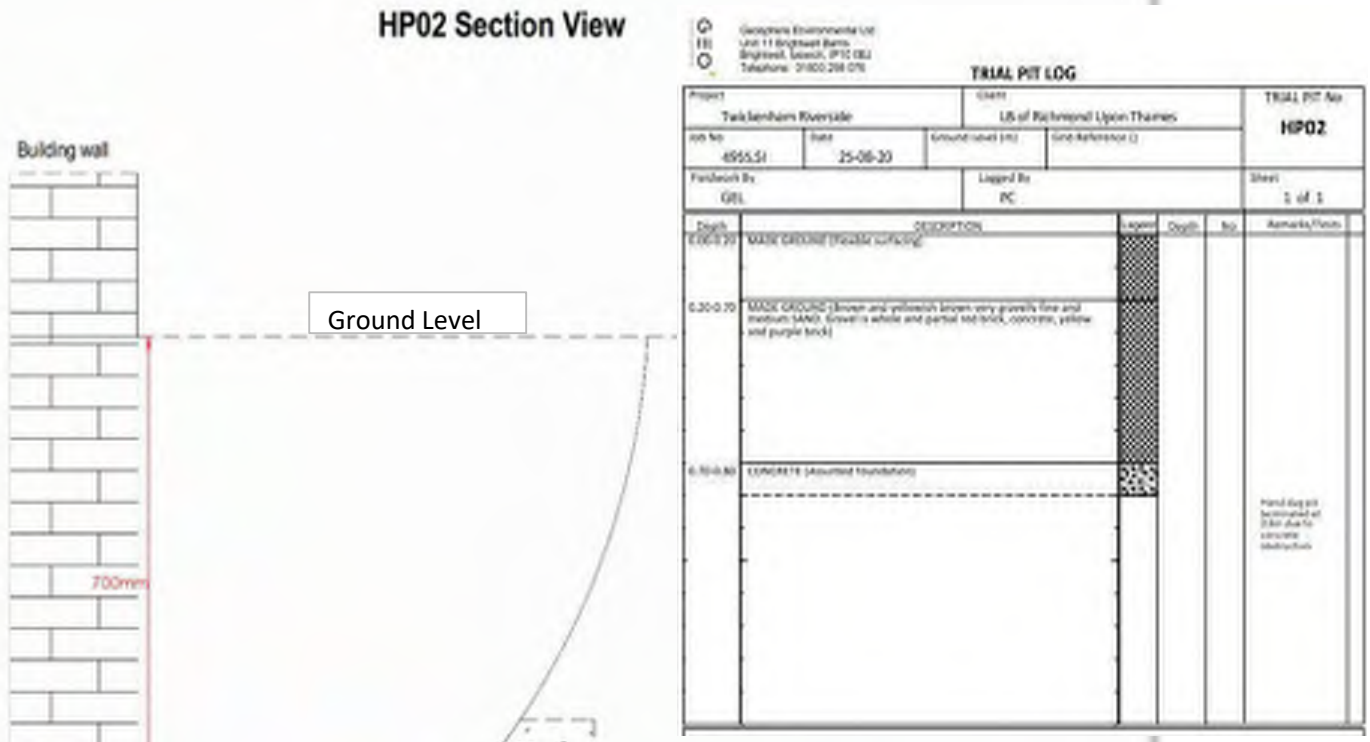
DRAWING NUMBER

4955,SI/005/Rev0

SCALE	DATE
NTS	16/09/2020
DRAWN BY	**CHECKED BY**
JD	SG

GEOSPHERE ENVIRONMENTAL

HP02 Section View



TRIAL PIT LOG

Project: Twickenham Riverside	Client: LB of Richmond Upon Thames		TRIAL PIT No: HP02
Job No: 4955.SI	Date: 25-08-20	Ground Level (m):	Grid Reference:
Fieldwork By: GEL	Logged By: PC		Sheet: 1 of 1

Depth	DESCRIPTION	Legend	Depth	No	Remarks/Tests
0.00-0.20	MADE GROUND (Possible surfacing)				
0.20-0.70	MADE GROUND (Brown and yellowish brown very gravelly fine and medium SAND. Gravel is whole and partial red brick, concrete, yellow and purple brick)				
0.70-0.80	CONCRETE (Assumed foundation)				
					Hand dug pit terminated at 0.80m due to concrete obstruction

LEGEND

SOURCE

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PROJECT

TWICKENHAM RIVERSIDE PROJECT - Diamond Jubilee Gardens and Wharf Lane

TITLE

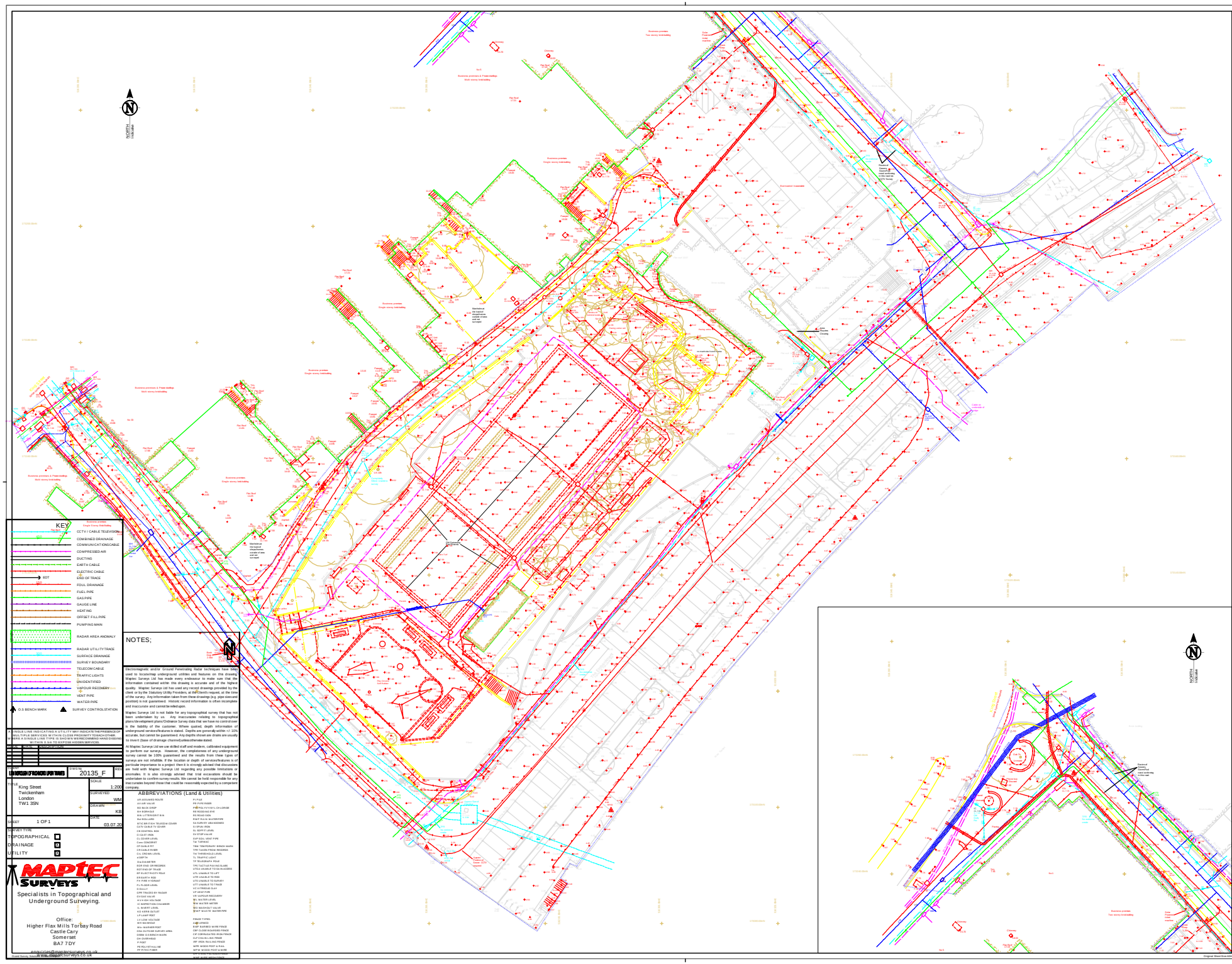
HP02 Details

DRAWING NUMBER

4955,SI/006/Rev0

SCALE	DATE
As marked	16/09/2020
DRAWN BY	**CHECKED BY**
PC	JD

N



A SINGLE LINE INDICATING A UTILITY MAY INDICATE THE PRESENCE OF MORE THAN ONE SERVICE. WHERE A SINGLE LINE IS SHOWN WITH A NUMBER OF WIRES A SINGLE LINE TYPE IS SHOWN WITH RECOMMENDED NUMBER OF WIRES (1 SIG TO EXPOSE HIDDEN SERVICES).

NO.	SCALE	DESCRIPTION

LONDON BOROUGH OF RICHMOND UPON THAMES | DWG No. 20135_F | REV.

SITE: King Street, Twickenham, London, TW1 3SN

SCALE: 1:200

SURVEYED: WM

DRAWN: KB

DATE: 03.07.20

SHEET: 1 OF 1

SURVEY TYPE: TOPOGRAPHICAL [X] DRAINAGE [X] UTILITY [X]

MAPTEC SURVEYS
Specialists in Topographical and Underground Surveying.
Office:
Higher Flax Mills Torbay Road
Castle Cary
Somerset
BA7 7DY
www.maptecsurveys.co.uk

Electromagnetic and/or Ground Penetrating Radar techniques have been used to locate/map underground utilities and features on this drawing. Maptec Surveys Ltd has made every endeavour to make sure that the information contained within this drawing is accurate and of the highest quality. Maptec Surveys Ltd has used any record drawings provided by the client or by the Statutory Utility Providers, at the client's request, at the time of the survey. Any information taken from these drawings (e.g. pipe sizes and positions) is not guaranteed. Historic record information is often incomplete and inaccurate and cannot be relied upon.

Maptec Surveys Ltd is not liable for any topographical survey that has not been undertaken by us. Any inaccuracies relating to topographical plans / development plans / Ordnance Survey data that we have no control over is the liability of the customer. Where quoted, depth information of underground services/features is stated. Depths are generally within +/- 10% accurate, but cannot be guaranteed. Any depths shown are drains are usually to invert (base of drainage channel) unless otherwise stated.

At Maptec Surveys Ltd we use skilled staff and modern, calibrated equipment to perform our surveys. However, the completeness of any underground survey cannot be 100% guaranteed and the results from these types of surveys are not infallible. If the location or depth of services/features is of particular importance to a project then it is strongly advised that discussions are held with Maptec Surveys Ltd regarding any possible limitations or anomalies. It is also strongly advised that trial excavations should be undertaken to confirm survey results. We cannot be held responsible for any loss/costs beyond those that could be reasonably expected by a competent company.

TOPOGRAPHICAL & MEASURED BUILDING SURVEYS

ABBREVIATIONS & SYMBOLS

AH	Arch Head/Height	FH	Fire Hydrant	RSJ	Rolled Steel Joist
AR	Actumed Road	FBD	Floor Board Direction	SI	Sign Post
AV	Air Valve	FH	Fire Hydrant	SP	Arch Spring Point Height
BC	Bollard Collision	FL	Floor Level	SS	Soil Stack
BH	Bore Hole	FP	Flag Pole	SW	Surface Water
BL	Bed Level	FW	Foul Water	SY	Stay
BO	Bollard	GG	Gully Grate	TM	Transfer Plating
BrP	Brace Post	GV	Gas Valve	TC	Telecom Cover
BS	Bus Stop	HH	Head Height	TH	Tree Pit
BU	Bush	IC	Inspection Cover	TH-L	Threshold Level
BW	Barbed Wire Fence	IL	Invert Level	TL	Top of Low
BX	Box (Utilities)	IR	Iron Railing	TOH	Top of Hill
CB	Close Board Fence	KO	Kerb Outlet	TP	Telegraph Pole
CH	C/S Height	LP	Lamp Post	TC	Cable TV/Cover
CL	Crown Level	MH	Manhole	UB	Unknown/Blown
CLA	Cast Iron Fence	MK	Marker Post	UC	Unknown/Cover
C-Lev	Ceiling Level	MR	Mirror Robot	UK	Unknown Tree
Cvt	Culvert	OHL	Overhead Line (aprox)	USB	Under Side/Beam
CP	Chestnut Paling Fence	Pole	Panel Fence	UTL	Usable To/all
CR	Cable Riser	PB	Post Box	VP	Vent Pipe
CS	Close Board Fence	PC	Pedestrian Gate	WC	Water Closet
DA	Down Pipe at Height	PO	Pump	WH	Windy Hole
DP	Down Pipe	PPI	Post & Rail/Fence	WL	Water Level
DR	Drain	PWI	Post & Wire Fence	WM	Water Meter
EL	Electric Limit	PWM	Partition Wall	WO	Wash Out
EP	Electric Pole	RE	Rodding Eye	WP	Floor to Ceiling Height
ER	Earth Rail	RL	Ridge Level		
FB	Flower Bed/Planter	RM	Rising Main(s)		
FE	Fence Rail	RP	Round Top		
FBD	Floor Board Direction	RSD	Roller Shutter Door		

DRAWING NOTE

Topographical Surveys

Trees are drawn to scale showing the average canopy spread. Descriptions and heights should be used as a guide only.

All building names, descriptions, number of storeys, construction type including roof line details are indicative only and taken externally from ground level.

All below ground details including drainage, voids and services have been identified from above ground and therefore all details relating to these features including; sizes, depth, description etc will be approximate only. All critical dimensions and connections should be checked and verified prior to starting work.

Detail, services and features may not have been surveyed if obstructed or not reasonably visible at the time of the survey.

Measured Building Surveys

Measurements to internal walls are taken to the wall finishes at approx 1m above the floor level and the wall assumed to be vertical.

Cill heights are measured as floor to the cill and head heights are measured from cill to the top of window.

General

The contractor must check and verify all site and building dimensions, levels, utilities and drainage details and connections prior to commencing work. Any errors or discrepancies must be notified to Survey Solutions immediately.

The accuracy of the digital data is the same as the plotting scale implies. All dimensions are in metres unless otherwise stated.

The survey control listed is only to be used for topographical surveys at the stated scale. All control must be checked and verified prior to use.

Do not scale from this drawing.

SURVEY GRID AND LEVEL DATUM

The co-ordinate system established for the survey is related to Ordnance Survey (OS) national grid at a single point using GPS Smartnet, then orientated to Grid North with a scale factor of 1.000.

The level datum established for this survey is related to Ordnance Survey (OS) using GPS Smartnet.

To avoid discrepancies, any co-ordinated data used in conjuction with this survey must be derived directly from this control data.

SURVEY GRID AND LEVEL DATUM

The co-ordinate system for this survey is related to Ordnance Survey (OS) national grid at a single point using GPS Smartnet, then orientated to Grid North with a scale factor of 1.000.

The survey grid is based on arbitrary coordinates for survey control point [ST01] of 1000.000mE, 1020.000mN and a [magnetic] bearing of [160]° between [ST01] and [ST02] with a scale factor of 1.0000.

The survey grid is based on the following existing survey control points which were previously established by others:

ST01 - 1234.000mE, 1234.000mN
ST02 - 1234.000mE, 1234.000mN

All levels relate to an arbitrary level datum value of 50.00m which has been assigned to survey control point ST01.

The level datum established for this survey is related to the Ordnance Survey (OS) using GPS Smartnet.

All levels relate to an Ordnance Survey (OS) benchmark situated on [big house] and taken at [123.64m].

All levels relate to an existing survey control point [ST01] and taken as [123.45m] which was previously established by others.

To avoid discrepancies, any co-ordinated data used in conjunction with this survey must be derived directly from this control.

The major contour interval is 1 metre and the minor contour interval is 0.500 metres.

SURVEY GRID AND LEVEL DATUM

The co-ordinate system established for this survey is related to Ordnance Survey (OS) national grid at a single point using GPS Smartnet, then orientated to Grid North with a scale factor of 1.000.

The level datum established for this survey is related to Ordnance Survey (OS) using GPS Smartnet.

To avoid discrepancies, any co-ordinated data used in conjuction with this survey must be derived directly from this control data.

CONTROL CO-ORDINATES

STATIONS	EASTINGS	NORTHINGS	LEVEL	DESCRIPTION
9303	516296.475	173173.864	8.063	Pin/Nail
9304	516296.475	173173.864	7.763	Pin/Nail
9305	516235.302	173180.001	7.324	Pin/Nail
9306	516193.681	173167.687	7.203	Pin/Nail
9307	516291.518	173257.282	7.789	Pin/Nail
ST01	516312.247	173232.087	8.063	Pin/Nail
ST02	516299.529	173211.340	7.920	Pin/Nail
ST05	516277.855	173191.813	8.123	Pin/Nail
BP01	516292.596	173188.807	8.063	Pin/Nail
BP02	516303.095	173185.857	8.068	Pin/Nail
BP03	516291.551	173189.513	8.086	Pin/Nail
BP04	516279.810	173192.345	8.101	Pin/Nail
BP05	516293.545	173185.054	8.288	Pin/Nail

REV.	DESCRIPTION	ENGINEER	APPR.	DATE

SURVEY SOLUTIONS
Ipswich Coventry Yeovil Norwich Perth Nottingham Brentwood
Tel No: 0845 0805 969 Fax No: 0845 0805 970
www.survey-solutions.co.uk enquiries@survey-solutions.co.uk
LAND SURVEYING BUILDING SURVEYING UNDERGROUND SURVEYING

PROJECT TITLE: KING STREET, TWICKENHAM, TW1 3SN.

DRAWING DETAIL: TOPOGRAPHICAL SURVEY Sheet 1 of 1

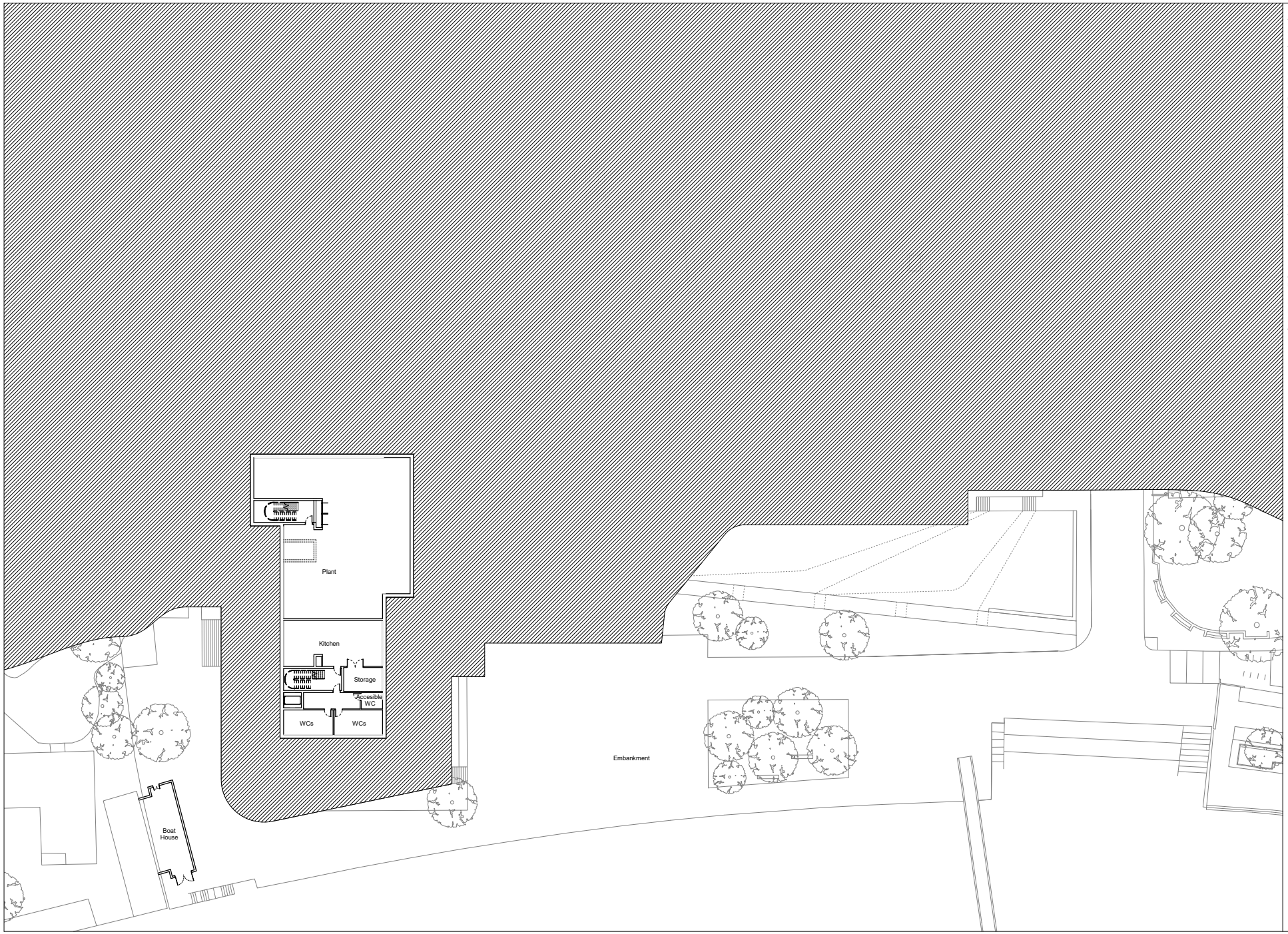
CLIENT: LDN BOROUGH OF RICHMOND UPON THAMES | SCALE: 1:200

SURVEYOR	SURVEY DATE	CHECKED BY	APPROVED BY	DWG STATUS
BP/NF	19-05-2020	JM	JM	FINAL

DRAWING NUMBER	REVISION	ISSUED DATE
2657/tex-01		25-06-2020

Original Sheet Size A0


KING STREET
WHARF LANE
WATER LANE
Water Lane Building
Wharf Lane Building
Winter Garden
Diamond Jubilee Gardens
Pavillion
Pontoon
Site Boundary
Eel Pie Bridge
RIVER THAMES
0 5 10 15m
N



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Existing site levels based on Stanfords Portal LIDAR Height Data DTM Survey Information (13/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409.

Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

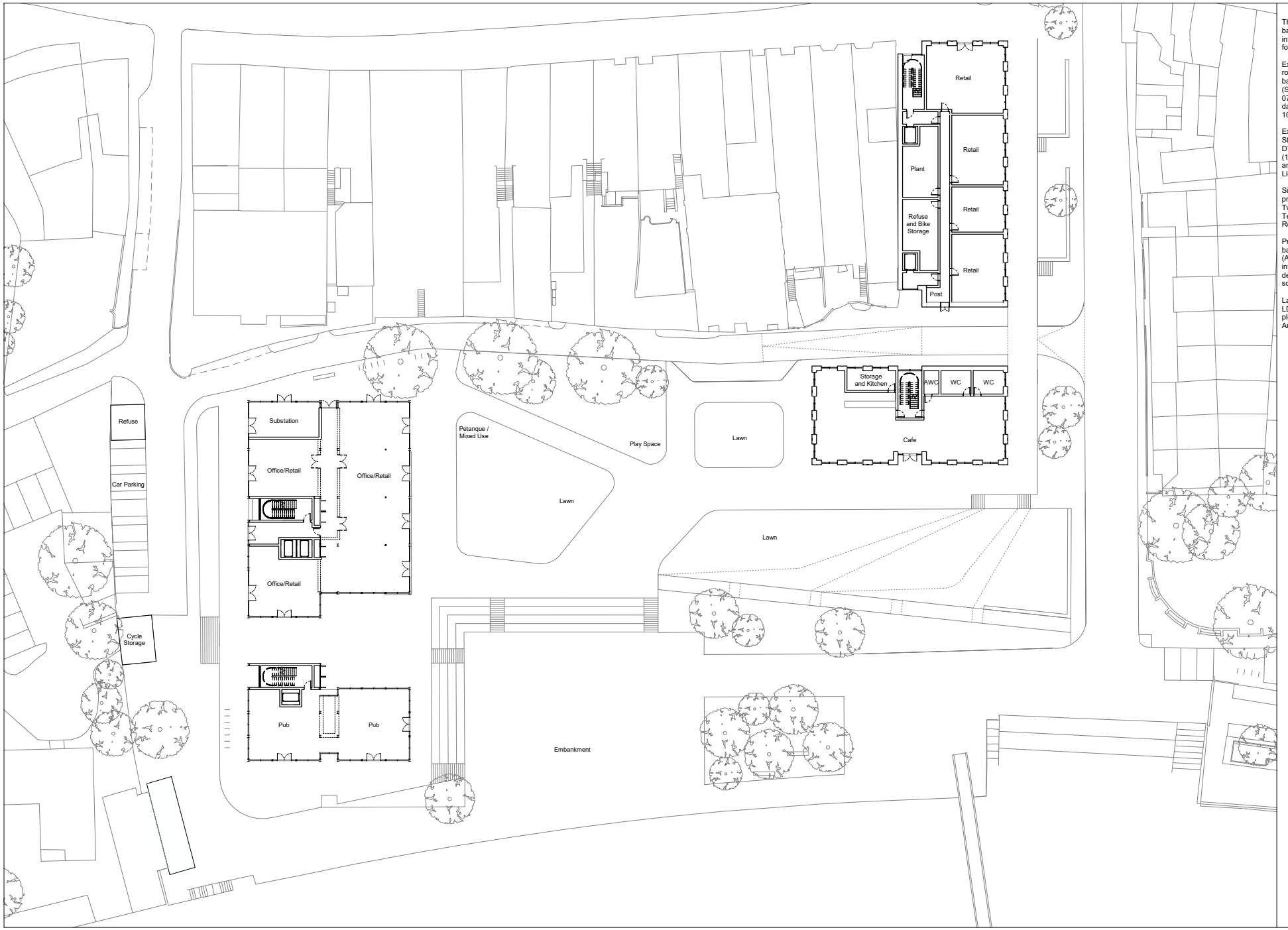
Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Ground Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number	Rev.
Subject	Lower Ground Floor Plan		TRS-HAL-A-	3100	P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 26/03/20	Scale 1 : 250	at A1



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Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

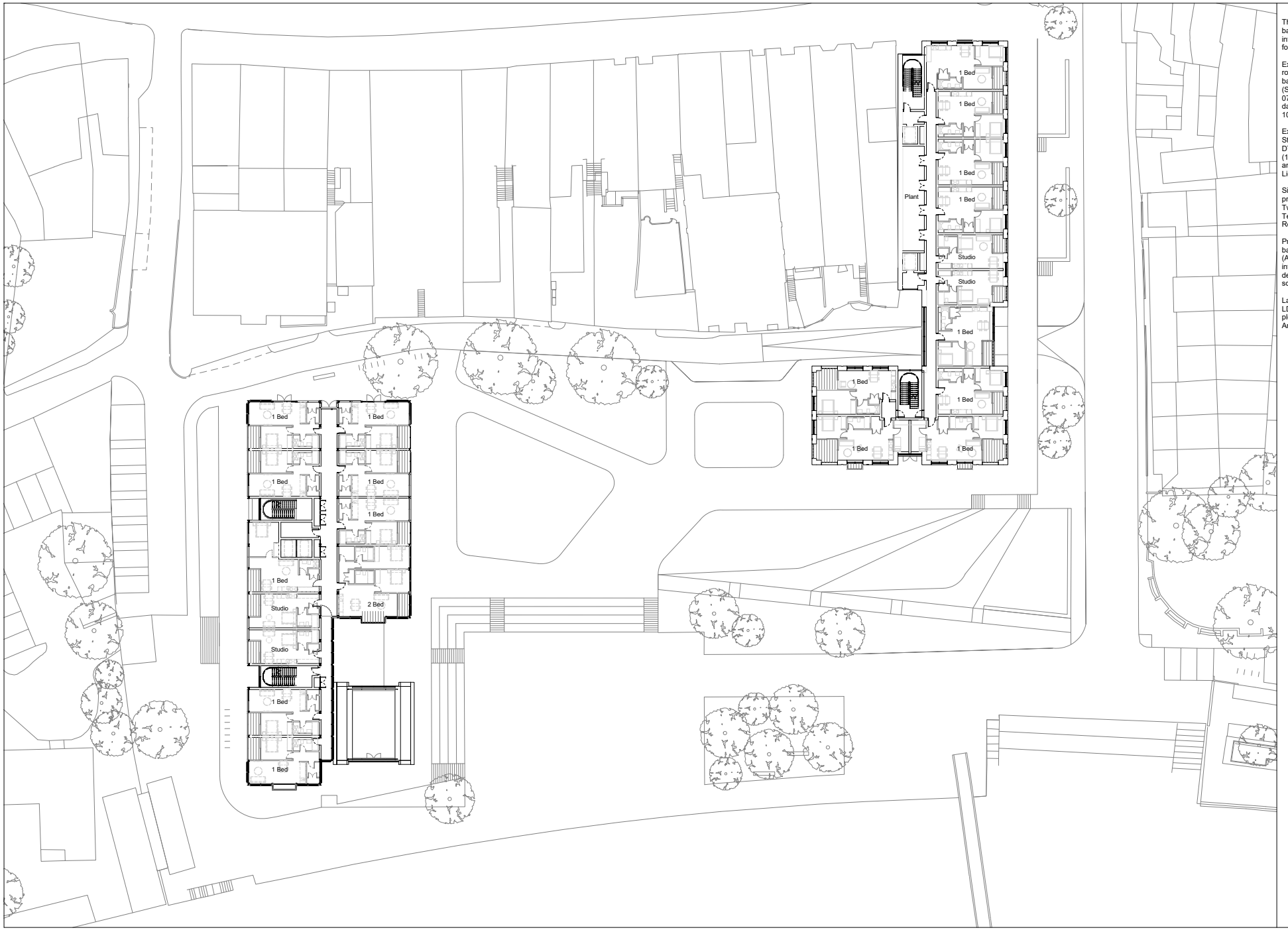
Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Ground Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number	Rev.
Subject	Ground Floor Plan		TRS-HAL-00-00-DR-A-	3101	P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 30/07/19	Scale 1 : 250	at A1



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Existing site levels based on Stanfords Portal LIDAR Height Data DTM Survey Information (13/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409.

Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

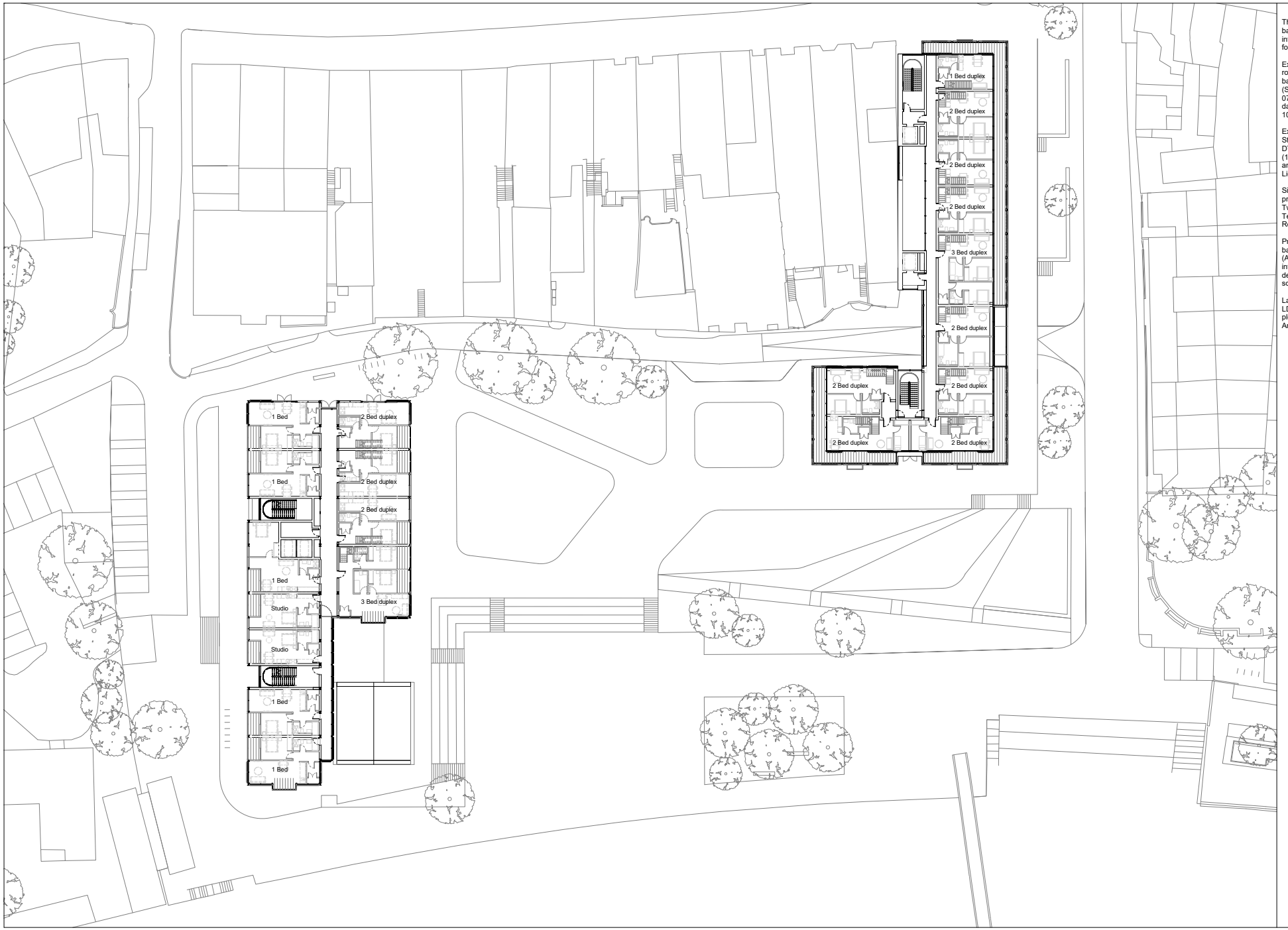
Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Ground Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number / Rev.
Subject	First Floor Plan		TRS-HAL-A-	3102 / P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 26/03/20	Scale 1 : 250 at A1



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Existing site levels based on Stanfords Portal LIDAR Height Data DTM Survey Information (13/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409.

Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Ground Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

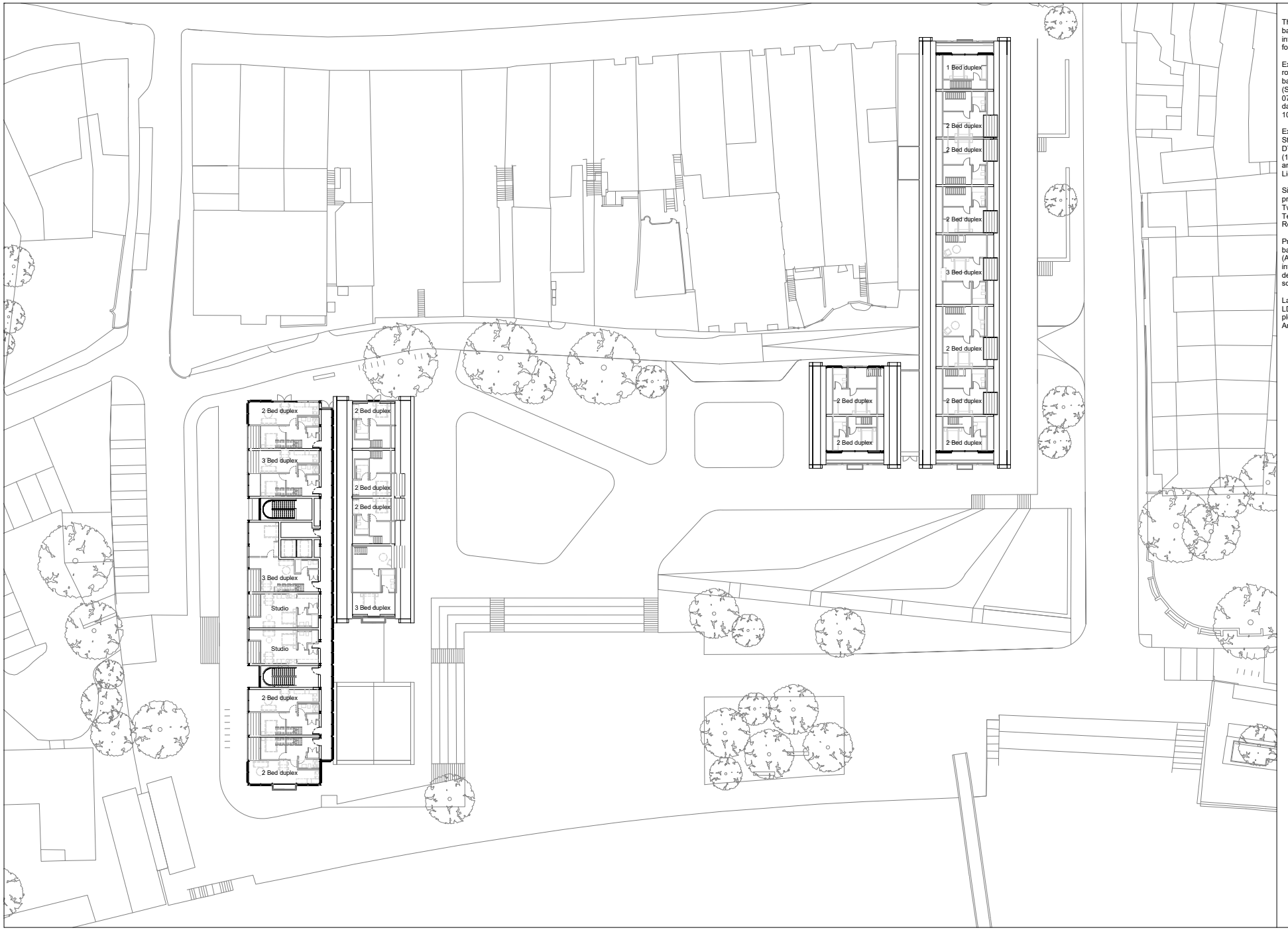
Date	Rev.	Description	Approved By

N

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number / Rev.
Subject	Second Floor Plan		TRS-HAL-A-	3103 / P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 26/03/20	Scale 1 : 250 at A1



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Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

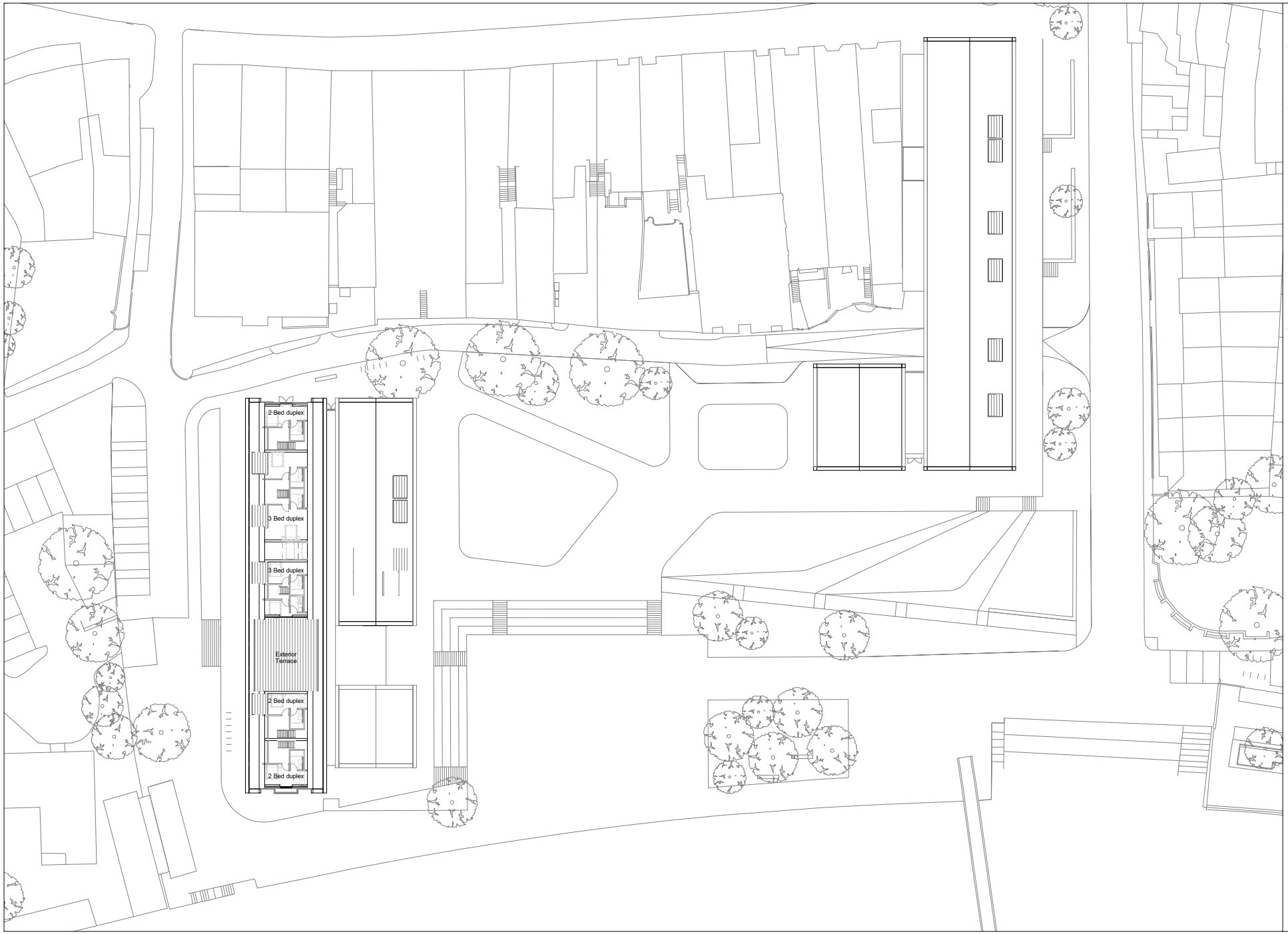
Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Ground Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number / Rev.
Subject	Third Floor Plan		TRS-HAL-A-	3104 P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 26/03/20	Scale 1 : 250 at A1



This drawing is illustrative, not based on accurate survey information and should not be used for legal purposes.

Existing locations of buildings, roads, waterways and parkland based on Ordnance Survey data (Stanfords OS MasterMap 07/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409

Existing site levels based on Stanfords Portal LIDAR Height Data DTM Survey Information (13/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409.

Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

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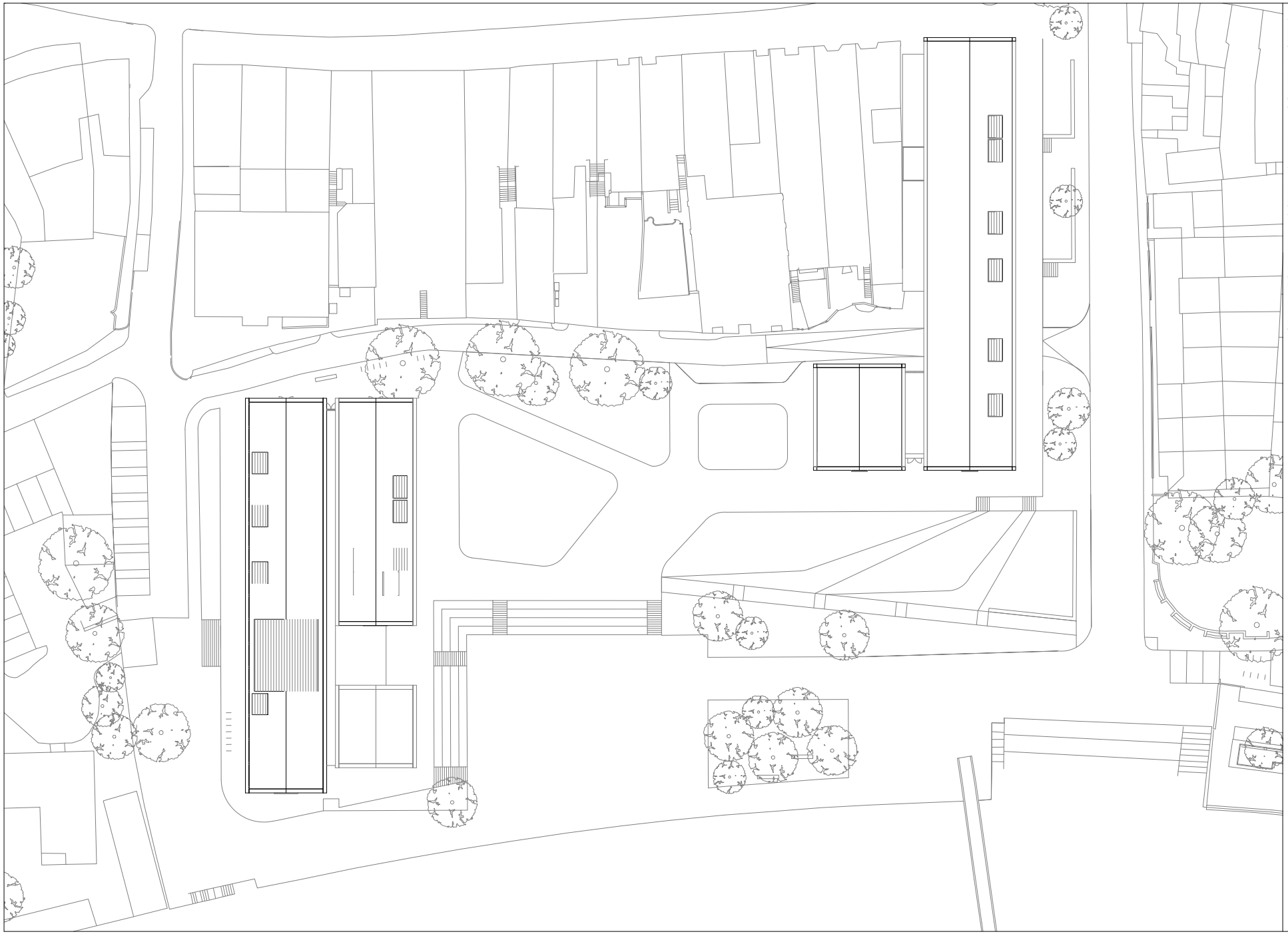
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number / Rev.
Subject	Fourth Floor Plan		TRS-HAL-A-	3105 P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 07/06/20	Scale 1 : 250 at A1



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Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape shown does not reflect LDA Design's latest scheme - please refer to Landscape Architect's drawings

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16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Ingeneers	MB

Date	Rev.	Description	Approved By

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code TRS	File Name	Number / Rev.
Subject	Roof Plan		TRS-HAL-A-	3106 / P04
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk		Date 26/03/20	Scale 1 : 250 at A1

Appendix 4 – Envirocheck Data Search Report

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
253856302_1_1

Customer Reference:
4955,GI

National Grid Reference:
516290, 173170

Slice:
A

Site Area (Ha):
0.89

Search Buffer (m):
1000

Site Details:

Diamond Jubilee Gardens site
Twickenham Riverside
off Wharf Lane
TWICKENHAM
TW1 4QH

Client Details:

Mrs A Davies
Geosphere Environmental Ltd
Brightwell Barns
Ipswich Road
Brightwell
Suffolk
IP10 0BJ

Prepared For:

Richmond and Wandsworth Borough Councils

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LANDMARK INFORMATION GROUP

Contents

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.
In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1		Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		2	1	4
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 3				3
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 3		3	1	2
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4	Yes			
Pollution Incidents to Controlled Waters	pg 4	2	8	7	13
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 9		1		1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 10				1
Water Abstractions	pg 10				4 (*32)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 19	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information		1	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 19	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 19	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 19	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 22	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences	pg 23	Yes	Yes	n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences	pg 24	Yes	Yes	n/a	n/a
OS Water Network Lines	pg 24		3	4	11

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 27	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 27			1	1
Potentially Infilled Land (Water)					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents	pg 28				1
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology			n/a	n/a	n/a
BGS Estimated Soil Chemistry					
BGS Recorded Mineral Sites	pg 29				3
BGS Urban Soil Chemistry	pg 29		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 32	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 33	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 33		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 33	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 33		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 33	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 34		61	46	107
Fuel Station Entries	pg 51			1	1
Points of Interest - Commercial Services	pg 52		9	4	30
Points of Interest - Education and Health	pg 55			1	
Points of Interest - Manufacturing and Production	pg 55		13	3	28
Points of Interest - Public Infrastructure	pg 59		3	9	24
Points of Interest - Recreational and Environmental	pg 62	1	2		11
Gas Pipelines					
Underground Electrical Cables					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 64		1		
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	223	1	516450 172950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	224	1	516400 172900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	235	1	516300 172850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	256	1	516450 172900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (W)	259	1	516000 173250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14SW (E)	370	1	516700 173050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (W)	389	1	515850 173050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NE)	434	1	516700 173450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SW)	487	1	516050 172650
1	**Discharge Consents** Operator: J E Perry Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Palm Beach, Eel Pie Island, Twickenham, London Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.0573 Permit Version: 1 Effective Date: 20th December 1985 Issued Date: 20th December 1985 Revocation Date: 16th April 1991 Discharge Type: Unknown Discharge Environment: Saline Estuary Receiving Water: River Thames **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A13NE (E)	145	2	516500 173200
2	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: CSO ON UNADOPTED SEWERAGE NETWORK (NOT WATER COMPANY) Location: Surface Water Outfall, Church Lane/Embankment, Twickenham, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cntw.0228 Permit Version: 1 Effective Date: 16th January 1990 Issued Date: 16th January 1990 Revocation Date: 30th June 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Saline Estuary Receiving Water: River Thames **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	184	2	516500 173300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Mr S Pannifer Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: 2b Cole Park Road, Twickenham, Middlesex Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: Ctwc.2291 Permit Version: 1 Effective Date: 21st March 1988 Issued Date: 21st March 1988 Revocation Date: 12th August 1996 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: River Crane **Status: Authorisation revoked** Positional Accuracy: Located by supplier to within 100m	A18SW (N)	454	2	516200 173700
4	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Anyand Park Road, Twickenhamanyand Park Roadtwickenham Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2369 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tidal Thames **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	678	2	516500 173900
4	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Anyand Park Road, Twickenhamanyand Park Roadtwickenham Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2369 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tidal Thames **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A18NE (N)	678	2	516500 173900
5	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Twickenham Technical College Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2134 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 13th October 2015 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Crane **Status: Surrendered under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	987	2	515400 173700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Twickenham Technical College Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2134 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Crane **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A17SW (NW)	987	2	515400 173700
6	**Integrated Pollution Prevention And Control** Name: Proper Energy Limited Location: Twickenham Biodiesel Plant Epr/Bp3334gu/S002, 37, Hamilton Road,,, TWICKENHAM, Middlesex, TW2 6SN Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: EP3530ZQ Original Permit Ref: Bp3334gu Effective Date: 26th February 2013 **Status: Surrender Effective** Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Automatically positioned to the address Activity Code: 4.1 A(1) (A) (II) Activity Description: Organic Chemicals; Oxygen Containing Compounds Eg Alcohols Primary Activity: Y	A12NW (W)	826	2	515443 173383
6	**Integrated Pollution Prevention And Control** Name: Proper Energy Limited Location: Twickenham Biodiesel Plant, 37, Hamilton Road,,, TWICKENHAM, Middlesex, TW2 6SN Authority: Environment Agency - South East Region, North East Thames Area Permit Reference: BP3334GU Original Permit Ref: Bp3334gu Effective Date: 21st April 2009 **Status: Superseded By Variation** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 4.1 A(1) (A) (II) Activity Description: Organic Chemicals; Oxygen Containing Compounds Eg Alcohols Primary Activity: Y	A12NW (W)	826	2	515443 173383
6	**Integrated Pollution Prevention And Control** Name: Proper Energy Limited Location: Twickenham Biodiesel Plant, 37, Hamilton Road,,, TWICKENHAM, Middlesex, TW2 6SN Authority: Environment Agency, Thames Region Permit Reference: BP3334GU Original Permit Ref: Bp3334gu Effective Date: 21st April 2009 **Status: Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 4.1 A(1) (A) (II) Activity Description: Organic Chemicals; Oxygen Containing Compounds Eg Alcohols Primary Activity: Y	A12NW (W)	826	2	515443 173383
7	**Local Authority Pollution Prevention and Controls** Name: Kings Clothes Care Specialists Location: 45 King Street, Twickenham, Tw1 3sg Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/15 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	46	3	516184 173132

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	**Local Authority Pollution Prevention and Controls** Name: Sky Dry Cleaners Location: 13 York Street, Twickenham, Tw1 3jz Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/28 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A13NE (N)	104	3	516300 173359
9	**Local Authority Pollution Prevention and Controls** Name: Mel Dry Cleaners Location: 24 Heath Road, Twickenham, Tw1 4bz Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/19 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	158	3	516075 173162
10	**Local Authority Pollution Prevention and Controls** Name: Shell Oak Lane Location: 5-11 Richmond Road, TWICKENHAM, Middlesex, TW1 3AB Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 17/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A18SE (NE)	304	3	516459 173508
11	**Local Authority Pollution Prevention and Controls** Name: Beaucare Dry Cleaners Location: 146 Heath Road, Twickenham, Tw1 4bn Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/01 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	553	3	515678 173144
12	**Local Authority Pollution Prevention and Controls** Name: Esso Petroleum Co Ltd Location: West London Terminal, Bedfont Road, Staines, Middlesex, TW19 7LZ Authority: London Borough of Hounslow, Environmental Health Department Permit Reference: PPC083 Dated: 28th July 1999 Process Type: Local Authority Air Pollution Control Description: PG1/13 Processes for the storage, loading and unloading of petrol at terminals **Status:** **Authorised** Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	852	4	517100 173600
	Nearest Surface Water Feature	A13NE (E)	0	-	516347 173176
13	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Embankment, TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Storm Sewage Note: Not Supplied Incident Date: 4th July 1998 Incident Reference: THSE1998039493 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	0	2	516300 173195

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 11th May 1995 Incident Reference: SE950210 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (N)	0	2	516300 173200
14	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 2nd May 1997 Incident Reference: THSE1997032206 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (S)	12	2	516300 173100
15	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Wharfe Lane Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: SE920329 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (E)	16	2	516370 173180
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 14th June 1995 Incident Reference: SE950302 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	44	2	516205 173095
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 23rd March 1990 Incident Reference: SE900082 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	44	2	516200 173100
16	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 28th April 1995 Incident Reference: SE950185 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	48	2	516200 173095

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 29th October 1995 Incident Reference: SE950500 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (N)	46	2	516300 173300
18	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: ISLEWORTH, Middlesex Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 16th July 1997 Incident Reference: THSE1997028732 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	90	2	516400 173270
18	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: General Note: Not Supplied Incident Date: 6th July 1998 Incident Reference: THNE1998039473 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	111	2	516400 173300
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: 153 Fulwell Park A, TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: General Note: No Pollution Found Incident Date: 10th October 1998 Incident Reference: THNE1998040836 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	259	2	516005 173005
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 5th September 1997 Incident Reference: THN11997029365 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	262	2	516005 173000
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Marlow Crescent Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed incident Incident Date: 23rd March 1999 Incident Reference: THNE1999042288 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Approximate location provided by supplier	A13SW (SW)	263	2	516000 173005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ivy Bridge Estate, ISLEWORTH Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 17th May 1996 Incident Reference: N1960264 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	264	2	516005 172995
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 19th September 1995 Incident Reference: SE950447 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	266	2	516000 173000
19	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: The Barmy Elms P/H Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Other Note: Not Supplied Incident Date: 1st August 1996 Incident Reference: SE960454 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (SW)	268	2	516000 172995
20	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Riverside, TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th August 1990 Incident Reference: SE900241 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	445	2	516800 173200
21	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Near Railway Street, TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 30th September 1996 Incident Reference: N1960510 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18SW (NW)	531	2	516000 173700
22	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 17th May 1991 Incident Reference: SE910115 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	588	2	516200 172500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Swan Island Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 12th December 1989 Incident Reference: SE890431 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	608	2	516100 172500
24	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Swan Island Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 26th May 1992 Incident Reference: SE920170 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (S)	623	2	516030 172510
24	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Eel Pie Island Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: SE950360 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NW (SW)	644	2	516000 172500
25	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: STRAWBERRY HILL Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 11th August 1992 Incident Reference: SE920269 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	675	2	516040 172450
26	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Swanisland, TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Not Supplied Incident Date: 17th February 1997 Incident Reference: THSE1997031884 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	705	2	516100 172400
26	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 9th April 1998 Incident Reference: 38469 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	710	2	516100 172395

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: HAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 22nd March 1996 Incident Reference: SE960127 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	745	2	517100 173200
28	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 15th January 1994 Incident Reference: NE940030 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	778	2	515500 173400
29	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: TWICKENHAM Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 1st February 1990 Incident Reference: N1900047 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A17NE (NW)	950	2	515700 174000
30	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: 1A Strawberry Hill Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: Not Supplied Incident Reference: SE930137 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7SW (SW)	959	2	515600 172400
31	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Marble Hill Park Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 17th November 1991 Incident Reference: SE910330 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	969	2	517300 173400
	River Quality Name: Not Supplied GQA Grade: Unclassified Tidal River Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1995	A13SE (SE)	178	2	516393 172944

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Crane GQA Grade: River Quality C Reach: Duke Of N'S R (Lower) - Tideway Estimated Distance (km): 3.4 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A18SW (N)	554	2	516082 173770
32	**Substantiated Pollution Incident Register** Authority: Environment Agency - South East Region, Kent & South London Area Incident Date: 14th August 2003 Incident Reference: 181948 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Pollutant Not Identified: Not Identified	A18SW (N)	502	2	516139 173734
33	**Water Abstractions** Operator: Trustees Of Ham Polo Club Licence Number: 28/39/35/0008 Permit Version: 102 Location: River Thames At Ham Polo Club, Petersham, Surrey Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ham Polo Club - Petersham Surrey Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 28th January 2015 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	979	2	517329 173290
33	**Water Abstractions** Operator: Trustees Of Ham Polo Club Licence Number: 28/39/35/0008 Permit Version: 101 Location: River Thames At Ham Polo Club, Petersham, Surrey Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ham Polo Club - Petersham Surrey Authorised Start: 01 May Authorised End: 31 October Permit Start Date: 23rd June 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	979	2	517329 173290
33	**Water Abstractions** Operator: Trustees Of Ham Polo Club Licence Number: 28/39/35/0008 Permit Version: 101 Location: River Thames At Ham Polo Club, Petersham, Surrey Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ham Polo Club - Petersham Surrey Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 23rd June 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	979	2	517329 173290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	**Water Abstractions** Operator: Trustees Of Ham Polo Club Licence Number: 28/39/35/0008 Permit Version: 100 Location: River Thames At Ham Polo Club, Petersham, Surrey Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): 227 Yearly Rate (m3): 3410 Details: River Thames At Ham Polo Club, Petersham, Surrey Authorised Start: 01 May Authorised End: 30 September Permit Start Date: 1st October 1981 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15NW (E)	980	2	517330 173290
	Water Abstractions Operator: St Margarets Res Grounds Licence Number: 28/39/34/0006 Permit Version: 100 Location: Borehole At St. Margaret'S Lake, Twickenham Authority: Environment Agency, Thames Region Abstraction: Private Non-Industrial Amenity: Lake And Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 20 Yearly Rate (m3): 7168 Details: St. Margaret'S Lake, Twickenham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 8th October 1982 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A24NW (N)	1438	2	516800 174600
	Water Abstractions Operator: Kier Construction Limited Licence Number: Th/039/0034/003 Permit Version: 1 Location: River Gravels At Twickenham - Point D Authority: Environment Agency, Thames Region Abstraction: Construction: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A25SW (NE)	1588	2	517480 174308
	Water Abstractions Operator: Kier Construction Limited Licence Number: Th/039/0034/003 Permit Version: 1 Location: River Gravels At Twickenham - Point A Authority: Environment Agency, Thames Region Abstraction: Construction: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A25SW (NE)	1594	2	517448 174350

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: D G Tilles & R H Tilles Licence Number: 28/39/34/0008 Permit Version: 103 Location: The Exiles Ground, Twickenham- Borehole A Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Exiles Ground, Twickenham Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 24th April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20NE (NE)	1631	2	517840 173860
	Water Abstractions Operator: D.G.Tilles & R.H.Tilles Licence Number: 28/39/34/0008 Permit Version: 102 Location: Borehole At The Exiles Ground, Twickenham Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Exiles Ground, Twickenham Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 14th September 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20NE (NE)	1631	2	517840 173860
	Water Abstractions Operator: Threadneedle Property Part. Licence Number: 28/39/34/0008 Permit Version: 101 Location: Borehole At The Exiles Ground, Twickenham Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Exiles Ground, Twickenham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20NE (NE)	1631	2	517840 173860
	Water Abstractions Operator: Cable & Wireless (Meadowbank) Ltd Licence Number: 28/39/34/0008 Permit Version: 100 Location: Borehole At The Exiles Ground, Twickenham Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 56 Yearly Rate (m3): 5300 Details: The Exiles Ground, Twickenham Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 15th October 1996 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20NE (NE)	1631	2	517840 173860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Kier Construction Limited Licence Number: Th/039/0034/003 Permit Version: 1 Location: River Gravels At Twickenham - Point C Authority: Environment Agency, Thames Region Abstraction: Construction: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A25SW (NE)	1645	2	517521 174347
	Water Abstractions Operator: Kier Construction Limited Licence Number: Th/039/0034/003 Permit Version: 1 Location: River Gravels At Twickenham - Point B Authority: Environment Agency, Thames Region Abstraction: Construction: Transfer between sources Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd April 2018 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A25SW (NE)	1647	2	517490 174383
	Water Abstractions Operator: Petersham Nurseries Limited Licence Number: 28/39/35/0004 Permit Version: 102 Location: Gravels At 143 Petersham Road, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Petersham Nurseries, Petersham Road, Richmond, Surrey Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 15th May 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1730	2	518080 173320
	Water Abstractions Operator: Petersham Nurseries Limited Licence Number: 28/39/35/0004 Permit Version: 101 Location: Gravels At 143 Petersham Road, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Gravels At 143 Petersham Road, Richmond, Surrey Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 11th November 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1730	2	518080 173320

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Petersham Nurseries Limited Licence Number: 28/39/35/0004 Permit Version: 101 Location: Gravels At 143 Petersham Road, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Gravels At 143 Petersham Road, Richmond, Surrey Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 11th November 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1730	2	518080 173320
	Water Abstractions Operator: Petersham Nurseries Limited Licence Number: 28/39/35/0004 Permit Version: 100 Location: Gravels At 143 Petersham Road, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Horticulture And Nurseries: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 27 Yearly Rate (m3): 227 Details: Gravels At 143 Petersham Road, Richmond, Surrey Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 9th July 1973 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(E)	1748	2	518100 173300
	Water Abstractions Operator: Petersham Nurseries Limited Licence Number: 28/39/35/0004 Permit Version: 100 Location: Gravels At 143 Petersham Road, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Horticulture and Nurseries: Spray Irrigation - Spray Irrigation Definition Order Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Gravels At 143 Petersham Road, Richmond, Surrey Authorised Start: 01 October Authorised End: 30 September Permit Start Date: 9th July 1973 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1748	2	518100 173300
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 101 Location: Richmond Golf Club - Borehole 'B' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1765	2	518020 172600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 100 Location: Richmond Golf Club - Borehole 'B' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 11th February 1974 Permit End Date: 30th September 2007 Positional Accuracy: Located by supplier to within 10m	(E)	1765	2	518020 172600
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: Th/039/0037/004 Permit Version: 1 Location: Duke Of Northumberland River - Mogden Sewage Treatment Works Authority: Environment Agency, Thames Region Abstraction: Water supply related: General Use (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Mogden Stw, Isleworth, Middlesex Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st April 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1830	2	515406 174858
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: Th/039/0037/001 Permit Version: 1 Location: Duke Of Northumberland River - Mogden Sewage Treatment Works Authority: Environment Agency, Thames Region Abstraction: Water supply related: General Use (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Na Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 12th August 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1830	2	515406 174858
	Water Abstractions Operator: Thames Water Utilities Ltd Licence Number: 28/39/37/0007 Permit Version: 1 Location: D.Of Northumberland- Mogden Sewage Treatment Wrks, Isleworth Authority: Environment Agency, Thames Region Abstraction: Water supply related: General Use (Low Loss) Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Mogden Stw, Isleworth Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NW)	1830	2	515410 174860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: The Catholic Education Service Licence Number: 28/39/34/0010 Permit Version: 1 Location: Borehole 'A' At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Kingston Road, Teddington, M'Sex Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1888	2	516680 171240
	Water Abstractions Operator: The Catholic Education Service Licence Number: 28/39/34/0010 Permit Version: 1 Location: Borehole 'A' At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Private Water Undertaking: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Kingston Road, Teddington, M'Sex Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1888	2	516680 171240
	Water Abstractions Operator: Trustees Of The Lensbury Club Licence Number: 28/39/34/0007 Permit Version: 100 Location: Borehole 'A' At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 91 Yearly Rate (m3): 6000 Details: Lensbury Club, Teddington, Middlesex Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 25th October 1995 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1912	2	516600 171200
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 101 Location: Richmond Golf Club - Borehole 'C' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1928	2	518250 172830

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 100 Location: Richmond Golf Club - Borehole 'C' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 11th February 1974 Permit End Date: 30th September 2007 Positional Accuracy: Located by supplier to within 10m	(E)	1928	2	518250 172830
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 102 Location: Borehole 'B' At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Lensbury Club, Teddington, Middlesex. Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 23rd November 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1971	2	517020 171260
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 101 Location: Borehole 'B' At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Lensbury Club, Teddington, Middlesex Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 22nd December 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1971	2	517020 171260
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 105 Location: Borehole At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 15th February 2019 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1975	2	517024 171257

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 105 Location: Borehole At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Storage Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 15th February 2019 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1975	2	517024 171257
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 104 Location: Borehole At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 29th February 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1975	2	517024 171257
	Water Abstractions Operator: Lensbury Limited Licence Number: 28/39/34/0007 Permit Version: 103 Location: Borehole At Lensbury Club, Teddington Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: The Lensbury Club, Teddington Authorised Start: 01 March Authorised End: 31 October Permit Start Date: 1st April 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1975	2	517024 171257
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 101 Location: Richmond Golf Club - Borehole 'A' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 1st October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(E)	1986	2	518200 172450

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Richmond Golf Club Licence Number: 28/39/35/0005 Permit Version: 100 Location: Richmond Golf Club - Borehole 'A' Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 269 Yearly Rate (m3): 28200 Details: Richmond Golf Club, Sudbrook Park Authorised Start: 01 April Authorised End: 30 September Permit Start Date: 11th February 1974 Permit End Date: 30th September 2007 Positional Accuracy: Located by supplier to within 100m	(E)	1986	2	518200 172450
	Groundwater Vulnerability Map Combined Classification: Unproductive Aquifer (may have productive aquifer beneath) Combined Vulnerability: Unproductive Combined Aquifer: Unproductive Bedrock Aquifer, Unproductive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: 3-10m Superficial Recharge: High	A13SW (SE)	0	5	516288 173169
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A13SW (SE)	0	5	516288 173169
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A13SW (SE)	0	5	516288 173169
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516264 173118
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516269 173125
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516299 173159
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516267 173122
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516319 173148
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516244 173122
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516294 173162

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (S)	5	2	516282 173087
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	10	2	516233 173114
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	11	2	516232 173113
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	33	2	516355 173234
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	41	2	516363 173238
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	55	2	516372 173248
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	57	2	516374 173249
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	59	2	516213 173063
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	66	2	516180 173175
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	70	2	516207 173052
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	77	2	516394 173258
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	77	2	516417 173232
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	92	2	516404 173267
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	113	2	516424 173278
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	113	2	516424 173278
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	122	2	516432 173282

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	124	2	516434 173283
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	142	2	516173 172983
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	145	2	516172 172980
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	152	2	516169 172972
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	152	2	516169 172972
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	153	2	516090 173195
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	163	2	516458 173315
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	164	2	516495 173273
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (W)	169	2	516067 173175
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	175	2	516477 173312
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	179	2	516485 173309
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (W)	182	2	516050 173160
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	199	2	516504 173319
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	204	2	516507 173322
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	211	2	516139 172920
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	214	2	516514 173329

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	225	2	516132 172908
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	226	2	516522 173338
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	228	2	516524 173339
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	233	2	516527 173342
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	243	2	516123 172893
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516303 173155
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516264 173112
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516301 173156
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	0	2	516259 173112
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516319 173148
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (S)	5	2	516282 173087
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	12	2	516243 173100
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	13	2	516243 173098
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	77	2	516417 173232
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	83	2	516416 173129
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	140	2	516473 173262

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	145	2	516492 173137
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (E)	145	2	516500 173189
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	149	2	516171 172974
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	149	2	516176 172970
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13NE (NE)	163	2	516458 173315
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	169	2	516454 173327
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	190	2	516154 172935
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (E)	221	2	516574 173155
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SW (SW)	225	2	516136 172904
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	245	2	516423 172890
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	0	2	516328 173201
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SE (SE)	0	2	516299 173159
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	9	2	516233 173114
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	21	2	516346 173227
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	35	2	516237 173069
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	80	2	516203 173043
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	100	2	516426 173258
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	113	2	516424 173278

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	142	2	516173 172983
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	145	2	516453 173295
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	159	2	516471 173295
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	164	2	516465 173308
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	167	2	516487 173289
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	185	2	516152 172943
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	226	2	516522 173338
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13SW (SW)	243	2	516123 172893
	Flood Water Storage Areas None				
	Flood Defences Type: Flood Defences Reference: Not Supplied	A13NE (E)	0	2	516312 173171
	Flood Defences Type: Flood Defences Reference: Not Supplied	A13SE (SE)	50	2	516358 173109
34	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 734.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A13SE (SE)	26	6	516345 173132
35	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 649.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 2	A13SE (SE)	117	6	516374 173005
36	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 265.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A13SW (S)	130	6	516254 172955
37	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 169.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A8NW (S)	386	6	516123 172728

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 86.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (S)	386	6	516123 172728
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 544.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A8NW (SW)	458	6	516050 172683
40	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 979.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A14NW (E)	483	6	516836 173240
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2217.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Crane Catchment Name: Thames Primacy: 1	A18SW (N)	501	6	516143 173735
42	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 188.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 2	A8NW (S)	548	6	516111 172560
43	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 135.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A8NW (S)	548	6	516111 172560
44	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 103.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A8SW (S)	662	6	516154 172432
45	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 52.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 2	A8SW (S)	662	6	516154 172432
46	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 111.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 2	A8SW (S)	698	6	516110 172405

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	**OS Water Network Lines** Watercourse Form: Tidal river Watercourse Length: 644.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: River Thames Catchment Name: Thames Primacy: 1	A8SW (S)	748	6	516199 172339
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	796	6	516671 172396
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 300.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A9SW (SE)	810	6	516670 172378
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SW (SW)	981	6	515614 172356
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 92.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A7SW (SW)	989	6	515605 172354

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: London Borough of Richmond Upon Thames - Has no landfill data to supply		0	7	516288 173169
52	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A13SE (SE)	364	-	516535 172833
53	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A12NW (W)	867	-	515382 173308

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**Planning Hazardous Substance Consents** Name: St Mary'S University Location: Waldegrave Road, Twickenham, Tw1 4sx Authority: London Borough of Richmond upon Thames Application Ref: 04/1085 Hazardous Substance: Unknown at time of report Maximum Quantity: 0 Application date: 14th April 2004 **Decision: Unknown at time of reportUnknown** Positional Accuracy: Manually positioned to the address or location	A7SE (SW)	965	7	515808 172238

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry No data available				
55	**BGS Recorded Mineral Sites** Site Name: Ham Sand & Gravel Pit Location: Ham, Richmond, Surrey Source: British Geological Survey, National Geoscience Information Service Reference: 19674 Type: Opencast **Status: Ceased** Operator: Ham River Grit Co. Operator Location: Not Supplied Periodic Type: Quaternary Geology: Kempton Park Gravel Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	596	1	516620 172600
56	**BGS Recorded Mineral Sites** Site Name: Twickenham Gravel Pit Location: Twickenham, Surrey Source: British Geological Survey, National Geoscience Information Service Reference: 164159 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Kempton Park Gravel Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A12NW (W)	863	1	515383 173298
57	**BGS Recorded Mineral Sites** Site Name: Ham Gravel Pit Location: Ham, Richmond, Surrey Source: British Geological Survey, National Geoscience Information Service Reference: 164161 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary, Devensian Geology: Kempton Park Gravel Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8SE (S)	888	1	516417 172208
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516188, 173322 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.00 mg/kg Cadmium Measured Concentration: 0.70 mg/kg Chromium Measured Concentration: 58.20 mg/kg Lead Measured Concentration: 380.60 mg/kg Nickel Measured Concentration: 23.80 mg/kg	A13NW (NW)	119	1	516188 173322
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516264, 172716 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 22.90 mg/kg Cadmium Measured Concentration: 0.40 mg/kg Chromium Measured Concentration: 60.00 mg/kg Lead Measured Concentration: 89.90 mg/kg Nickel Measured Concentration: 30.20 mg/kg	A8NW (S)	368	1	516264 172716

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 515794, 173274 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.30 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 56.20 mg/kg Lead Measured Concentration: 355.90 mg/kg Nickel Measured Concentration: 19.50 mg/kg	A12NE (W)	459	1	515794 173274
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516755, 173443 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.90 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 69.10 mg/kg Lead Measured Concentration: 799.90 mg/kg Nickel Measured Concentration: 26.80 mg/kg	A14NW (NE)	475	1	516755 173443
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 515887, 172759 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.00 mg/kg Cadmium Measured Concentration: 2.00 mg/kg Chromium Measured Concentration: 74.20 mg/kg Lead Measured Concentration: 272.30 mg/kg Nickel Measured Concentration: 35.00 mg/kg	A7NE (SW)	504	1	515887 172759
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516653, 172693 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 16.30 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 70.90 mg/kg Lead Measured Concentration: 79.80 mg/kg Nickel Measured Concentration: 22.10 mg/kg	A9NW (SE)	546	1	516653 172693
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516270, 173829 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 15.90 mg/kg Cadmium Measured Concentration: 1.00 mg/kg Chromium Measured Concentration: 76.60 mg/kg Lead Measured Concentration: 509.40 mg/kg Nickel Measured Concentration: 22.60 mg/kg	A18SW (N)	574	1	516270 173829

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516728, 173723 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.70 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 70.20 mg/kg Lead Measured Concentration: 473.30 mg/kg Nickel Measured Concentration: 29.90 mg/kg	A19SW (NE)	641	1	516728 173723
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 515724, 173777 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.80 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 76.90 mg/kg Lead Measured Concentration: 264.90 mg/kg Nickel Measured Concentration: 19.30 mg/kg	A17SE (NW)	769	1	515724 173777
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516303, 172232 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 28.10 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 49.80 mg/kg Lead Measured Concentration: 98.50 mg/kg Nickel Measured Concentration: 27.70 mg/kg	A8SE (S)	852	1	516303 172232
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 517228, 173180 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.30 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 61.50 mg/kg Lead Measured Concentration: 75.40 mg/kg Nickel Measured Concentration: 20.70 mg/kg	A14NE (E)	873	1	517228 173180
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 517162, 172797 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 35.90 mg/kg Cadmium Measured Concentration: 0.30 mg/kg Chromium Measured Concentration: 59.80 mg/kg Lead Measured Concentration: 418.30 mg/kg Nickel Measured Concentration: 41.40 mg/kg	A9NE (SE)	895	1	517162 172797

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 516389, 174188 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 25.30 mg/kg Cadmium Measured Concentration: 1.00 mg/kg Chromium Measured Concentration: 78.00 mg/kg Lead Measured Concentration: 456.20 mg/kg Nickel Measured Concentration: 40.00 mg/kg	A23SE (N)	938	1	516389 174188
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 515811, 172216 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.70 mg/kg Cadmium Measured Concentration: 0.90 mg/kg Chromium Measured Concentration: 53.60 mg/kg Lead Measured Concentration: 215.00 mg/kg Nickel Measured Concentration: 18.40 mg/kg	A7SE (SW)	983	1	515811 172216
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 515276, 172853 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 14.90 mg/kg Cadmium Measured Concentration: 0.60 mg/kg Chromium Measured Concentration: 57.90 mg/kg Lead Measured Concentration: 178.60 mg/kg Nickel Measured Concentration: 19.30 mg/kg	A11SE (W)	995	1	515276 172853
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A13SW (SE)	0	1	516288 173169

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	3	1	516324 173142
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	234	1	516436 172908
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Compressible Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	3	1	516324 173142
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	234	1	516436 172908
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	250	1	516111 172891
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	3	1	516324 173142
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	234	1	516436 172908
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516290 173167
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	60	1	516404 173220
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (SE)	0	1	516288 173169

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	**Contemporary Trade Directory Entries** Name: Deep Clean Location: 39 King Street, Feltham, Middlesex Classification: Carpet, Curtain & Upholstery Cleaners **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	40	-	516194 173148
58	**Contemporary Trade Directory Entries** Name: Merlin Cleaners Location: 45, King Street Parade, King Street, Twickenham, TW1 3SG Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	41	-	516189 173130
58	**Contemporary Trade Directory Entries** Name: Pressgang Location: 45, King Street Parade, King Street, Twickenham, TW1 3SG Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	41	-	516189 173130
58	**Contemporary Trade Directory Entries** Name: Pack & Send Location: 45, King Street Parade, King Street, Twickenham, TW1 3SG Classification: Freight Forwarders **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	42	-	516189 173130
58	**Contemporary Trade Directory Entries** Name: Minuteman Press Location: 55, King Street Parade, King Street, Twickenham, TW1 3SG Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (SW)	55	-	516185 173102
58	**Contemporary Trade Directory Entries** Name: Elektrotek Location: 55 King St Pde,King St, Twickenham, Middlesex, TW1 3SG Classification: Electrical Appliance Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (SW)	56	-	516184 173102
59	**Contemporary Trade Directory Entries** Name: Snappy Snaps Location: 3, London Road, Twickenham, TW1 3SX Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	57	-	516257 173302
59	**Contemporary Trade Directory Entries** Name: Snappy Snaps Location: 3, London Road, Twickenham, Middlesex, TW1 3SX Classification: Photo & Digital Imaging Bureaus **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	57	-	516257 173302
60	**Contemporary Trade Directory Entries** Name: Centurion Location: Church Street, Twickenham, TW1 3NJ Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A13NE (NE)	86	-	516351 173314
60	**Contemporary Trade Directory Entries** Name: C C F N I H R Location: Grange House, 15, Church Street, Twickenham, TW1 3NL Classification: Laboratories **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	93	-	516360 173316
60	**Contemporary Trade Directory Entries** Name: Cleaners Of Twickenham Location: 9-11, Church Street, Twickenham, TW1 3NJ Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	123	-	516388 173330
61	**Contemporary Trade Directory Entries** Name: Local Cleaning Twickenham Ltd Location: 1, Heath Road, Twickenham, TW1 4AW Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	87	-	516144 173137

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	**Contemporary Trade Directory Entries** Name: Crump Location: 65, Holly Road, Twickenham, TW1 4HF Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	113	-	516141 173202
61	**Contemporary Trade Directory Entries** Name: Fotoswift Location: 10, Heath Road, Twickenham, TW1 4BZ Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	123	-	516113 173169
61	**Contemporary Trade Directory Entries** Name: Scan Medical Ltd Location: 67a, Holly Road, Twickenham, TW1 4HF Classification: Medical Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	127	-	516114 173184
61	**Contemporary Trade Directory Entries** Name: Car Care Location: 67, Holly Road, Twickenham, TW1 4HF Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	127	-	516114 173184
61	**Contemporary Trade Directory Entries** Name: Star Print Stationers & Artist'S Materials Location: 20, Heath Road, Twickenham, TW1 4BZ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	148	-	516085 173160
61	**Contemporary Trade Directory Entries** Name: Charms Location: 22, Heath Road, Twickenham, TW1 4BZ Classification: Jewellery Manufacturers & Repairers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	152	-	516081 173161
61	**Contemporary Trade Directory Entries** Name: M E L Dry Cleaners Location: 24, Heath Road, Twickenham, TW1 4BZ Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	156	-	516077 173159
61	**Contemporary Trade Directory Entries** Name: Fardon Graham Location: 96a, Holly Road, Twickenham, TW1 4HF Classification: Print Finishers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	163	-	516089 173212
62	**Contemporary Trade Directory Entries** Name: Carriages & Cars Location: 7, York Street, Twickenham, Middlesex, TW1 3JZ Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NW (N)	90	-	516292 173346
62	**Contemporary Trade Directory Entries** Name: Sky Location: 13, York Street, Twickenham, TW1 3JZ Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	106	-	516302 173361
62	**Contemporary Trade Directory Entries** Name: Tiger Books International Location: 26a, York Street, Twickenham, TW1 3LJ Classification: Distribution Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	110	-	516336 173355
62	**Contemporary Trade Directory Entries** Name: Oven Cleaning Twickenham Location: 26-28, York Street, Twickenham, TW1 3LJ Classification: Oven cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	121	-	516343 173364

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	**Contemporary Trade Directory Entries** Name: Mccoy Hill Location: 31, Garfield Road, Twickenham, Middlesex, TW1 3JS Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NE (N)	138	-	516327 173388
63	**Contemporary Trade Directory Entries** Name: Woodentots Location: 90, Queens Road, Twickenham, TW1 4ET Classification: Toys, Games & Sporting Goods - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	94	-	516180 173243
63	**Contemporary Trade Directory Entries** Name: Positive Metering Systems Location: 88, Queens Road, Twickenham, TW1 4ET Classification: Chemical Plant & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	103	-	516171 173255
63	**Contemporary Trade Directory Entries** Name: The Little Body Shop Location: 59, Holly Road, Twickenham, TW1 4HF Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (W)	108	-	516153 173209
63	**Contemporary Trade Directory Entries** Name: Twickenham Coachworks Location: Holly Road, Twickenham, TW1 4HF Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	130	-	516139 173227
64	**Contemporary Trade Directory Entries** Name: Bromptons Dry Cleaners Location: 19, London Road, Twickenham, TW1 3SX Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	109	-	516237 173351
65	**Contemporary Trade Directory Entries** Name: Nicholas Dyson Location: Eel Pie Boat Yard,Eel Pie Island, Twickenham, Middlesex, TW1 3DY Classification: Antiques - Repairing & Restoring **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A13SE (E)	117	-	516465 173146
65	**Contemporary Trade Directory Entries** Name: Eel Pie Boatyard Ltd Location: Eel Pie Island, Twickenham, Middlesex, TW1 3DY Classification: Boatbuilders & Repairers **Status: Active** Positional Accuracy: Manually positioned to the address or location	A13NE (E)	120	-	516475 173172
65	**Contemporary Trade Directory Entries** Name: Eel Pie Island Slipways Ltd Location: Eel Pie Island, Twickenham, TW1 3DY Classification: Boatbuilders & Repairers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (E)	121	-	516476 173172
65	**Contemporary Trade Directory Entries** Name: Dock & Slipway Location: Eel Pie Island, Twickenham, TW1 3DY Classification: Ports, Docks & Harbours **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	121	-	516476 173172
66	**Contemporary Trade Directory Entries** Name: Shotline Steel Swimming Pools Location: The Haven Studio, Eel Pie Island, Twickenham, TW1 3DY Classification: Swimming Pool Contractors, Repairers & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (SE)	122	-	516414 173066
67	**Contemporary Trade Directory Entries** Name: Eel Pie Rowing Supplies Location: Eel Pie Island, Twickenham, Middlesex, TW1 3DY Classification: Boatbuilders & Repairers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13SE (E)	124	-	516450 173106

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	**Contemporary Trade Directory Entries** Name: Zenith Time Co (Gb) Ltd Location: 17, Heath Road, Twickenham, TW1 4AW Classification: Clocks & Watches - Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	146	-	516085 173119
69	**Contemporary Trade Directory Entries** Name: P A K 2000 Location: Queens House, 2, Holly Road, Twickenham, Middlesex, TW1 4EG Classification: Packaging Materials Manufacturers & Suppliers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	154	-	516154 173336
70	**Contemporary Trade Directory Entries** Name: M F Airport Parking Location: 26, London Road, Twickenham, TW1 3AZ Classification: Car Painters & Sprayers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	162	-	516255 173414
70	**Contemporary Trade Directory Entries** Name: London Boys Scrap Yards In Twickenham Location: 26, London Road, Twickenham, TW1 3AZ Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	162	-	516255 173414
70	**Contemporary Trade Directory Entries** Name: Bright & Beautiful Location: Suite 102,26 London Road, Twickenham, Middlesex, TW1 3AZ Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A13NW (N)	162	-	516255 173414
70	**Contemporary Trade Directory Entries** Name: Springer Miller International Location: Sovereign House, 26-30, London Road, Twickenham, TW1 3RW Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	162	-	516255 173414
70	**Contemporary Trade Directory Entries** Name: The Printing Room Location: 37, London Road, TWICKENHAM, TW1 3SZ Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	169	-	516208 173403
70	**Contemporary Trade Directory Entries** Name: Bonjour Dry Cleaners Location: 34, London Road, Twickenham, TW1 3RR Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	179	-	516244 173429
70	**Contemporary Trade Directory Entries** Name: London Dry Cleaners Location: 36, London Road, Twickenham, Middlesex, TW1 3RR Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	185	-	516241 173434
71	**Contemporary Trade Directory Entries** Name: Amsoil Location: 31, York Street, Twickenham, TW1 3JZ Classification: Lubricant Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	163	-	516353 173406
71	**Contemporary Trade Directory Entries** Name: Performance Oils Ltd Location: 31, York Street, Twickenham, TW1 3JZ Classification: Lubricant Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	163	-	516353 173406
71	**Contemporary Trade Directory Entries** Name: Repromac Location: 31, York Street, Twickenham, TW1 3JZ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	163	-	516353 173406

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
72	**Contemporary Trade Directory Entries** Name: Scientaire Thermal Systems Ltd Location: 40c, Heath Road, Twickenham, TW1 4BZ Classification: Air Conditioning Equipment & Systems **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	185	-	516047 173152
72	**Contemporary Trade Directory Entries** Name: Hedsor Engineers Ltd Location: 40c, Heath Road, Twickenham, TW1 4BZ Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	185	-	516047 173152
72	**Contemporary Trade Directory Entries** Name: Screwfix Location: 36-40, Heath Road, Twickenham, TW1 4BZ Classification: Builders' Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	185	-	516046 173152
72	**Contemporary Trade Directory Entries** Name: Bst Aircon Location: 40c, Heath Road, Twickenham, Middlesex, TW1 4BZ Classification: Air Conditioning Equipment & Systems **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	185	-	516047 173152
73	**Contemporary Trade Directory Entries** Name: Team Engineering Location: 37-39, York Street, Twickenham, TW1 3LP Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	196	-	516384 173427
73	**Contemporary Trade Directory Entries** Name: Conservation & Restorer Of Fine Art Location: Studio 2, 27a, Arragon Road, Twickenham, TW1 3NG Classification: Art Restoration & Picture Cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	217	-	516368 173458
73	**Contemporary Trade Directory Entries** Name: Sauflon Pharmaceuticals Ltd Location: 49-53, York Street, Twickenham, TW1 3LP Classification: Optical Goods - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	233	-	516416 173451
73	**Contemporary Trade Directory Entries** Name: Sauflon Location: 49-53, York Street, Twickenham, TW1 3LP Classification: Optical Goods - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	233	-	516416 173451
74	**Contemporary Trade Directory Entries** Name: Londark Ltd Location: 39, Heath Road, Twickenham, TW1 4AW Classification: Plastic Products - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	217	-	516015 173105
74	**Contemporary Trade Directory Entries** Name: Callaghan Interiors Location: 50, Heath Road, Twickenham, TW1 4BX Classification: Wallpapers & Wall Coverings **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	238	-	515993 173136
74	**Contemporary Trade Directory Entries** Name: Ruben'S Bakehouse Location: 52, Heath Road, Twickenham, TW1 4BX Classification: Dairies **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	243	-	515987 173136
74	**Contemporary Trade Directory Entries** Name: Nevis Services Location: 52-64 Heath Rd, Twickenham, Middlesex, TW1 4BX Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A13SW (W)	243	-	515987 173136

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	**Contemporary Trade Directory Entries** Name: The Platonic Fireplace Co Location: Unit 3 Ground Floor, Phoenix Wharf, Eel Pie Island, Twickenham, TW1 3DY Classification: Fireplaces & Mantelpieces **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (E)	225	-	516579 173205
76	**Contemporary Trade Directory Entries** Name: Johnsons The Cleaners Location: 50 London Road, Twickenham, Middlesex, TW1 3RJ Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (N)	251	-	516228 173499
77	**Contemporary Trade Directory Entries** Name: Mondo Circuits Ltd Location: 35, Grosvenor Road, Twickenham, TW1 4AD Classification: Printed Circuit Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	252	-	516113 173435
78	**Contemporary Trade Directory Entries** Name: Y-Cam Location: 55-61 Heath Road, Twickenham, Middlesex, TW1 4AW Classification: Computer Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13SW (W)	256	-	515978 173089
78	**Contemporary Trade Directory Entries** Name: Thames Car Radio Location: 71, Heath Road, Twickenham, TW1 4AW Classification: Radio Communication Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	304	-	515929 173094
79	**Contemporary Trade Directory Entries** Name: Lenslocker Camera And Lens Hire Location: 57b, York Street, Twickenham, TW1 3LP Classification: Photographic Equipment & Supplies - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	259	-	516443 173464
79	**Contemporary Trade Directory Entries** Name: Shell Service Station Location: 5-11, Richmond Road, Twickenham, TW1 3AB Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	300	-	516465 173499
79	**Contemporary Trade Directory Entries** Name: Shell Service Station Location: 5-11, Richmond Road, Twickenham, TW1 3AB Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SE (NE)	304	-	516459 173508
80	**Contemporary Trade Directory Entries** Name: Patricia Garner Location: 55, Arragon Road, Twickenham, TW1 3NG Classification: Art Restoration & Picture Cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	265	-	516324 173518
80	**Contemporary Trade Directory Entries** Name: Sungate Furniture Location: Flat 1, 61, Arragon Road, Twickenham, TW1 3NG Classification: Shop Fittings Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	280	-	516311 173535
81	**Contemporary Trade Directory Entries** Name: Resolute (Uk) Location: 69, Sherland Road, Twickenham, TW1 4HB Classification: Lighting Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	295	-	516007 173366
82	**Contemporary Trade Directory Entries** Name: Pump-Repair.Com Location: 48, Copthall Gardens, Twickenham, TW1 4HJ Classification: Pumps - Sales, Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (W)	308	-	515966 173290

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	**Contemporary Trade Directory Entries** Name: Ocz Technology Location: Copthall Gdns, Twickenham, Middlesex, TW1 4HJ Classification: Computer Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	342	-	515938 173310
83	**Contemporary Trade Directory Entries** Name: Macmillan Bloedel Pulp & Paper Sales Ltd Location: Regal Ho,London Rd, Twickenham, Middlesex, TW1 3QS Classification: Paper & Pulp Mills **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	333	-	516180 173570
83	**Contemporary Trade Directory Entries** Name: Scrap Car Now Today Cash Twickenham Location: London Road, Twickenham, Middlesex, Tw1 3az Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	355	-	516146 173580
83	**Contemporary Trade Directory Entries** Name: Erico Data Services Ltd Location: 8th Floor Regal Ho,68 London Rd, Twickenham, Middlesex, TW1 3QS Classification: Oil & Gas Extraction **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	369	-	516162 173602
83	**Contemporary Trade Directory Entries** Name: C D A Compact Disc Ltd Location: Regal Ho,68 London Rd, Twickenham, Middlesex, TW1 3QS Classification: Record, Tape & CD Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	369	-	516162 173602
83	**Contemporary Trade Directory Entries** Name: Frequentis Location: Frist Floor, Regal House, 70, London Road, Twickenham, TW1 3QS Classification: Computer Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: Fast Cash 4 Scrap Cars Twickenham Aeg Location: Regal House, Twickenham, Middlesex, TW1 3QS Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: Jain International Food Ltd Location: Regal House, 70, London Road, Twickenham, TW1 3QS Classification: Food Products - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: T S Scrap Yards In Enfield Location: Regal House, Twickenham, Middlesex, tw1 3qs Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: T S Scrap Yards In Twickenham Location: Regal House, 70, London Road, Twickenham, TW1 3QS Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: M C Engineers & Constructors Ltd Location: Regal House, 70, London Road, Twickenham, TW1 3QS Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: Cool It Uk Ltd Location: Regal House, 70, London Road, Twickenham, Middlesex, TW1 3QS Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	370	-	516162 173603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	**Contemporary Trade Directory Entries** Name: Silver Knit Ltd Location: Regal House,70 London Rd, Twickenham, Middlesex, TW1 3QS Classification: Lingerie & Hosiery Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	370	-	516161 173602
83	**Contemporary Trade Directory Entries** Name: Macopharma Location: Regal House, 70, London Road, Twickenham, TW1 3QS Classification: Chemists' & Pharmacists' Suppliers & Wholesalers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SW (N)	370	-	516162 173603
83	**Contemporary Trade Directory Entries** Name: Cool It Location: Regal House, 70, London Road, Twickenham, Middlesex, TW1 3QS Classification: Air Conditioning & Refrigeration Contractors **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	370	-	516162 173603
84	**Contemporary Trade Directory Entries** Name: Richmond & Twickenham Blinds Location: 15, Amyand Park Road, Twickenham, TW1 3HB Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	351	-	516258 173605
85	**Contemporary Trade Directory Entries** Name: T W Building Location: 8a, Queens Road, Twickenham, TW1 4EX Classification: Damp & Dry Rot Control **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NW (NW)	368	-	516010 173496
85	**Contemporary Trade Directory Entries** Name: Cleaning Services Twickenham Location: 5, Queens Road, Twickenham, TW1 4EZ Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (NW)	411	-	515966 173512
86	**Contemporary Trade Directory Entries** Name: Petrol In Diesel Car Location: 43, Amyand Park Road, TWICKENHAM, TW1 3HB Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	390	-	516313 173644
87	**Contemporary Trade Directory Entries** Name: Todd Doors Location: 93, Heath Road, Twickenham, TW1 4AW Classification: Door Manufacturers - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	398	-	515833 173110
87	**Contemporary Trade Directory Entries** Name: Twickenham Cleaners Location: 105,105,Heath Road, Twickenham, Middlesex, TW1 4AZ Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	405	-	515826 173107
87	**Contemporary Trade Directory Entries** Name: Twickenham Cleaners Location: 105a, Heath Road, Twickenham, TW1 4AZ Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	405	-	515826 173107
87	**Contemporary Trade Directory Entries** Name: Twickenham Cleaners Location: 105a, Heath Road, Twickenham, TW1 4AZ Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	405	-	515826 173107
87	**Contemporary Trade Directory Entries** Name: Lizabeth Launderettes Location: 110, Heath Road, Twickenham, TW1 4BW Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	427	-	515803 173147

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	**Contemporary Trade Directory Entries** Name: Tamplins Mazda Location: 87-109 Heath Rd, Twickenham, Middlesex, TW1 4AW Classification: Car Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	404	-	515828 173093
89	**Contemporary Trade Directory Entries** Name: St Johns & Amyand House Location: St. Johns & Amyand House, Strafford Road, Twickenham, TW1 3AD Classification: Hospitals **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	429	-	516405 173668
90	**Contemporary Trade Directory Entries** Name: Schmidt Kitchens Twickenham Location: 114-116, Heath Road, Twickenham, TW1 4BW Classification: Kitchen Furniture Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	443	-	515788 173149
90	**Contemporary Trade Directory Entries** Name: Absolute Cleaners Twickenham Location: 111, Twickenham, TW1 4AH Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SE (W)	467	-	515764 173106
90	**Contemporary Trade Directory Entries** Name: Cleaners Twickenham Location: Kestrel House, 111, Heath Road, Twickenham, TW1 4AF Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	467	-	515764 173106
90	**Contemporary Trade Directory Entries** Name: Grays Tyres & Exhausts Location: 124, Heath Road, Twickenham, TW1 4BN Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	478	-	515753 173152
91	**Contemporary Trade Directory Entries** Name: Ariana Dry Cleaners Location: 59, Richmond Road, Twickenham, TW1 3AW Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	460	-	516598 173597
92	**Contemporary Trade Directory Entries** Name: Kadfire Location: 61, Richmond Road, Twickenham, TW1 3AW Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (NE)	464	-	516601 173599
92	**Contemporary Trade Directory Entries** Name: Marble Hill Fireplaces Location: 70, Richmond Road, Twickenham, TW1 3BE Classification: Fireplaces & Mantelpieces **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	497	-	516650 173597
93	**Contemporary Trade Directory Entries** Name: Fiat Used Car Centre Location: 113, Heath Road, Twickenham, TW1 4AZ Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	490	-	515742 173099
93	**Contemporary Trade Directory Entries** Name: M K G 3000 Location: 113, Heath Road, Twickenham, Middlesex, TW1 4AZ Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	490	-	515742 173099
93	**Contemporary Trade Directory Entries** Name: Social Security Department Of Location: 121, Heath Road, Twickenham, TW1 4AZ Classification: Agricultural Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	518	-	515713 173105

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	**Contemporary Trade Directory Entries** Name: Seldram Supplies Ltd Location: 138-140, Heath Road, Twickenham, TW1 4BN Classification: Cleaning Materials & Equipment **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	521	-	515710 173146
93	**Contemporary Trade Directory Entries** Name: The Cakes World Location: 142, Heath Road, Twickenham, TW1 4BN Classification: Catering Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	529	-	515701 173151
94	**Contemporary Trade Directory Entries** Name: Proper Oils Location: 109 London Rd, Twickenham, Middlesex, TW1 1EE Classification: Oil Recycling & Disposal Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (NW)	526	-	516002 173696
95	**Contemporary Trade Directory Entries** Name: Lytesteel Location: 32, Candler Mews, Amyand Park Road, Twickenham, TW1 3JF Classification: Plant & Machinery Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	526	-	516345 173779
96	**Contemporary Trade Directory Entries** Name: Raymond Clark Specialist Sprayer Location: 27, Saville Road, Twickenham, TW1 4BQ Classification: Spraying - Paint & Coatings **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	528	-	515726 172978
97	**Contemporary Trade Directory Entries** Name: Beaucare Location: 146, Heath Road, Twickenham, TW1 4BN Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SE (W)	552	-	515678 173149
97	**Contemporary Trade Directory Entries** Name: Medivet Location: 148, Heath Road, Twickenham, Middlesex, TW1 4BN Classification: Veterinary Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	561	-	515670 173146
97	**Contemporary Trade Directory Entries** Name: Pro Cleaners Twickenham Location: 152, Heath Road, Twickenham, TW1 4BN Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	571	-	515660 173145
97	**Contemporary Trade Directory Entries** Name: All Trades Damp & Dry Rot Treatments Location: 152, Heath Road, Twickenham, Middlesex, TW1 4BN Classification: Damp & Dry Rot Control **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	571	-	515660 173145
97	**Contemporary Trade Directory Entries** Name: Quicktime Cleaning Location: 5, Prado Path, Twickenham, TW1 4BB Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	573	-	515658 173161
97	**Contemporary Trade Directory Entries** Name: The Print Cellar Location: A, 2, Laurel Avenue, Twickenham, TW1 4JA Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	586	-	515646 173167
97	**Contemporary Trade Directory Entries** Name: Quicktime Contractors Location: 2a, Laurel Avenue, TWICKENHAM, TW1 4JA Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	586	-	515646 173167

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
98	**Contemporary Trade Directory Entries** Name: Nuwold Location: 30, Radnor Road, Twickenham, TW1 4NQ Classification: Leather Garments & Products **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	557	-	515804 172774
99	**Contemporary Trade Directory Entries** Name: Jeremy Ross Location: 15, Holmes Road, Twickenham, TW1 4RF Classification: Picture & Picture Frame Renovating & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SW)	581	-	515887 172649
100	**Contemporary Trade Directory Entries** Name: Orleans Garage Location: 91-93, Richmond Road, Twickenham, TW1 3AW Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	582	-	516689 173678
101	**Contemporary Trade Directory Entries** Name: Glasshouse Location: 32, Heath Gardens, Twickenham, TW1 4LZ Classification: Stained Glass Designers & Producers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (W)	619	-	515629 172985
102	**Contemporary Trade Directory Entries** Name: Chilla Ltd Location: 1, Swan Island, Strawberry Vale, Twickenham, TW1 4RP Classification: Refrigeration Equipment Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (S)	630	-	516086 172482
102	**Contemporary Trade Directory Entries** Name: Medical Models Ltd Location: Swan Island, Strawberry Vale, Twickenham, TW1 4RP Classification: Medical Equipment Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (S)	630	-	516086 172482
102	**Contemporary Trade Directory Entries** Name: Powerco International Ltd Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Plant & Machinery Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	647	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: Swan Island Harbour Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Ports, Docks & Harbours **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A8SW (S)	647	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: Clothing Express Ltd Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A8SW (S)	647	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: Xpress Print & Design Ltd Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A8SW (S)	647	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: Suzie Clayton Ltd Location: 1, Strawberry Vale, Twickenham, Middlesex, TW1 4RY Classification: Lampshade Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	647	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: L J Motorcycle Repairs Ltd Location: 1 Strawberry Vale, Twickenham, Middlesex, TW1 4RY Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	648	-	516037 172480

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	**Contemporary Trade Directory Entries** Name: Mcivor Originals Location: 1 Strawberry Vale, Twickenham, Middlesex, TW1 4RY Classification: Homefurnishings - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	648	-	516037 172480
102	**Contemporary Trade Directory Entries** Name: Francis H Newman Shipyards Ltd Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Boatbuilders & Repairers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	650	-	516083 172461
102	**Contemporary Trade Directory Entries** Name: John Paul Jacques Location: 1, Strawberry Vale, Twickenham, TW1 4RY Classification: Cabinet Makers **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	650	-	516083 172461
102	**Contemporary Trade Directory Entries** Name: Swan Allen Location: 1b, Strawberry Vale, Twickenham, TW1 4RX Classification: Cleaning Materials & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8SW (S)	662	-	516043 172462
103	**Contemporary Trade Directory Entries** Name: The Mineralogical Society Location: 12, Baylis Mews, Twickenham, TW1 3HQ Classification: Scientific Apparatus & Instruments - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	635	-	516454 173868
104	**Contemporary Trade Directory Entries** Name: Marble Cleaning Services Location: 17, Leeson House, Haggard Road, Twickenham, TW1 3AJ Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	642	-	516705 173744
105	**Contemporary Trade Directory Entries** Name: Aaj Washing Machine Services Location: 110 Amyand Park Rd, Twickenham, Middlesex, TW1 3HP Classification: Washing Machines - Servicing & Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A18NE (N)	646	-	516529 173855
105	**Contemporary Trade Directory Entries** Name: A B A Alpha Location: 110, Amyand Park Road, Twickenham, TW1 3HP Classification: Washing Machines - Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	647	-	516530 173856
106	**Contemporary Trade Directory Entries** Name: Merry Maids Location: 1 Strawberry Vale, Twickenham, Middlesex, TW1 4RY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	648	-	516036 172480
106	**Contemporary Trade Directory Entries** Name: Mercury Motors Ltd Location: 5-7, Strawberry Vale, Twickenham, TW1 4RX Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8SW (S)	683	-	516011 172452
107	**Contemporary Trade Directory Entries** Name: W B Autos Location: 3-5, Edwin Road, Twickenham, TW1 4JJ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	655	-	515575 173146
107	**Contemporary Trade Directory Entries** Name: R Payne Location: 3-5, Edwin Road, Twickenham, TW1 4JJ Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	655	-	515575 173146

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	**Contemporary Trade Directory Entries** Name: S W Motors Location: 3-5, Edwin Road, Twickenham, TW1 4JJ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	656	-	515575 173146
107	**Contemporary Trade Directory Entries** Name: Percy Chapman & Son Ltd Location: 2, Colne Road, Twickenham, TW1 4JP Classification: Pet Foods & Animal Feeds **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	659	-	515571 173131
107	**Contemporary Trade Directory Entries** Name: Waste Collection Location: Electroline House, 15, Lion Road, Twickenham, TW1 4JH Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	666	-	515568 173192
107	**Contemporary Trade Directory Entries** Name: Everbright Fasteners Ltd Location: Stainless Ho,4-6 Edwin Rd, Twickenham, Middlesex, TW1 4JN Classification: Fasteners & Fixing Devices **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	666	-	515567 173191
107	**Contemporary Trade Directory Entries** Name: Print West Ltd Location: Electroline House, 15, Lion Road, Twickenham, Middlesex, TW1 4JH Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	666	-	515568 173192
107	**Contemporary Trade Directory Entries** Name: Bishco Location: Electroline House, 15, Lion Road, Twickenham, Middlesex, TW1 4JH Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	666	-	515568 173192
107	**Contemporary Trade Directory Entries** Name: Bishco Location: Electroline House, 15, Lion Road, Twickenham, TW1 4JH Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	666	-	515568 173192
107	**Contemporary Trade Directory Entries** Name: Coax Connectors Ltd Location: Korus House 6-8, Colne Road, Twickenham, TW1 4JR Classification: Wire Products - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	669	-	515562 173158
107	**Contemporary Trade Directory Entries** Name: Fusion Components Ltd Location: Korus House 6-8,Colne Road, Twickenham, Middlesex, TW1 4JR Classification: Electronic Component Manufacturers & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	669	-	515562 173158
107	**Contemporary Trade Directory Entries** Name: Twickenham Plating Group Ltd Location: 7-9, Edwin Road, Twickenham, TW1 4JJ Classification: Metal Finishing Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	671	-	515560 173146
108	**Contemporary Trade Directory Entries** Name: Hitchcock & King Location: 1, Heathlands Close, Twickenham, TW1 4BP Classification: Builders' Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	668	-	515566 173066
108	**Contemporary Trade Directory Entries** Name: C T D Printers Ltd Location: 2-3, Heathlands Close, Twickenham, TW1 4BP Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	673	-	515565 173033

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	**Contemporary Trade Directory Entries** Name: R Chocolate London Location: 5, Heathlands Close, Twickenham, TW1 4BP Classification: Confectionery Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	677	-	515568 172994
108	**Contemporary Trade Directory Entries** Name: Aston Colour Press Location: 4, Heathlands Close, Twickenham, TW1 4BP Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	677	-	515567 173001
109	**Contemporary Trade Directory Entries** Name: Labfacility Ltd Location: Electroline House, 15, Lion Road, Twickenham, TW1 4JH Classification: Temperature Monitoring Systems Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	668	-	515567 173213
110	**Contemporary Trade Directory Entries** Name: Homepride Cleaning Services Location: 1, Heatham Park, Twickenham, TW2 7SF Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17SE (NW)	684	-	515717 173637
110	**Contemporary Trade Directory Entries** Name: Homepride Cleaning Services Location: 1, Heatham Park, Twickenham, TW2 7SF Classification: Carpet, Curtain & Upholstery Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A17SE (NW)	684	-	515717 173637
111	**Contemporary Trade Directory Entries** Name: Barnham'S Location: 190, Heath Road, Twickenham, TW2 5TX Classification: Waste Disposal Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	724	-	515508 173094
112	**Contemporary Trade Directory Entries** Name: Clarke Iron Ltd Location: 34, Popes Grove, TWICKENHAM, TW1 4JY Classification: Blacksmiths & Forgemasters **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	741	-	515616 172718
113	**Contemporary Trade Directory Entries** Name: Turner Automotive Location: Twickenham, TW2 6SP Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	741	-	515490 173159
114	**Contemporary Trade Directory Entries** Name: Jack The Stripper Location: 8, The Green, Twickenham, TW2 5AA Classification: Paint & Varnish Stripping **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	776	-	515457 173074
115	**Contemporary Trade Directory Entries** Name: Lifetime Shutters & Blinds Ltd Location: 63, Perryfield Way, Richmond, Surrey, TW10 7SL Classification: Shutters - Internal **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (SE)	783	-	516905 172622
116	**Contemporary Trade Directory Entries** Name: Anthemion Location: Unit 30, Railway Arches, Popes Grove, TWICKENHAM, TW1 4JW Classification: Antiques - Repairing & Restoring **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	789	-	515537 172758
116	**Contemporary Trade Directory Entries** Name: Strawberry Hill Furniture Restoration Location: Unit 28, Railway Arches, Popes Grove, Twickenham, TW1 4JW Classification: Furniture - Repairing & Restoring **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	795	-	515533 172751

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
116	**Contemporary Trade Directory Entries** Name: Arch Welding & Fabrication Ltd Location: Unit 40,Railway Arches,Popes Gr, Twickenham, Middlesex, TW1 4JZ Classification: Metal Workers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	799	-	515533 172743
117	**Contemporary Trade Directory Entries** Name: R D Campbell & Co Ltd Location: 27, Orleans Road, Twickenham, TW1 3BJ Classification: Perfume Suppliers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19SW (NE)	801	-	516945 173728
118	**Contemporary Trade Directory Entries** Name: Pipeshield International Ltd Location: 185, London Road, Twickenham, TW1 1EJ Classification: Concrete Products **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NW (N)	814	-	516113 174050
119	**Contemporary Trade Directory Entries** Name: Samsons Transformers Location: Unit 24, 37, Hamilton Road, Twickenham, Middlesex, TW2 6SN Classification: Transformer Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	826	-	515443 173383
119	**Contemporary Trade Directory Entries** Name: Vivid Imaging Ltd Location: 37, Hamilton Road, Twickenham, Middlesex, TW2 6SN Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	826	-	515443 173383
119	**Contemporary Trade Directory Entries** Name: Chaffinch Location: 37, Hamilton Road, Twickenham, Middlesex, TW2 6SN Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	826	-	515443 173383
120	**Contemporary Trade Directory Entries** Name: General Screen Printing Location: 85, Whitton Road, Twickenham, TW1 1BT Classification: Copying & Duplicating Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17NE (NW)	842	-	515799 173940
121	**Contemporary Trade Directory Entries** Name: Action Graphics Ltd Location: Colne Road, Twickenham, TW2 6QL Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	847	-	515384 173140
121	**Contemporary Trade Directory Entries** Name: Twickenham Pet Supplies Location: 77, Colne Road, Twickenham, TW2 6QL Classification: Pet Foods & Animal Feeds **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	853	-	515378 173145
121	**Contemporary Trade Directory Entries** Name: The Green Service Centre Location: 76-78, Colne Road, Twickenham, TW2 6QE Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	854	-	515378 173186
121	**Contemporary Trade Directory Entries** Name: The Green Service Centre Location: 76-78, Colne Road, Twickenham, TW2 6QE Classification: Car Engine Tuning & Diagnostic Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	854	-	515378 173186
122	**Contemporary Trade Directory Entries** Name: Sovereign Accident Repair Centre Location: Unit 2, Ryecroft Works, Edwin Road, Twickenham, TW2 6SP Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	861	-	515372 173198

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
122	**Contemporary Trade Directory Entries** Name: Victors Location: Ryecroft Works,Edwin Rd, Twickenham, Middlesex, TW2 6SP Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	861	-	515372 173197
122	**Contemporary Trade Directory Entries** Name: Phoenix Automotive Structural Engineers Location: Unit 2, Ryecroft Works, Edwin Road, Twickenham, TW2 6SP Classification: Car Body Repairs **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	861	-	515372 173198
122	**Contemporary Trade Directory Entries** Name: Victors Bmw Specialist Location: Ryecroft Works,Edwin Road, Twickenham, Middlesex, TW2 6SP Classification: Garage Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	862	-	515371 173197
122	**Contemporary Trade Directory Entries** Name: The Twickenham Antiques Location: 80 Colne Rd, Twickenham, Middlesex, TW2 6QE Classification: Antiques - Repairing & Restoring **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	871	-	515361 173192
122	**Contemporary Trade Directory Entries** Name: D A Wright Engineering Location: Enessa Works, Edwin Road, Twickenham, TW2 6SU Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	885	-	515350 173223
123	**Contemporary Trade Directory Entries** Name: Rheological Ltd Location: Unit 5 Drummond Place, Twickenham, Middlesex, TW1 1JN Classification: Air Compressors **Status: Active** Positional Accuracy: Manually positioned to the address or location	A18NE (N)	863	-	516579 174068
123	**Contemporary Trade Directory Entries** Name: Powerhouse Design & Engineering Location: 6, Drummond Place, TWICKENHAM, TW1 1JN Classification: Machine Shops **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	875	-	516594 174076
123	**Contemporary Trade Directory Entries** Name: Toprail Systems Ltd Location: 6, Drummond Place, Twickenham, TW1 1JN Classification: Storage & Shelving Systems Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	875	-	516594 174076
124	**Contemporary Trade Directory Entries** Name: Dent Man Location: Twickenham Green, Twickenham, Middlesex, TW2 5AB Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A12SW (W)	865	-	515369 173051
125	**Contemporary Trade Directory Entries** Name: Fast Cleaners Twickenham Location: Crown House, 80, Crown Road, Twickenham, TW1 3ER Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	878	-	516904 173882
126	**Contemporary Trade Directory Entries** Name: Mobile Ultrasound Imaging Location: 33, Napoleon Road, Twickenham, TW1 3EW Classification: X-Ray Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	879	-	516795 173975
127	**Contemporary Trade Directory Entries** Name: Gumfighters (Uk) Ltd Location: Norcutt House, Norcutt Road, Twickenham, Middlesex, TW2 6SR Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (W)	890	-	515363 173335

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
127	**Contemporary Trade Directory Entries** Name: Wooster & Co Location: Norcutt Ho,Norcutt Rd, Twickenham, Middlesex, TW2 6SR Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	893	-	515360 173330
127	**Contemporary Trade Directory Entries** Name: 3 W P Ltd Location: 2, Norcutt Road, Twickenham, TW2 6SR Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	918	-	515343 173369
127	**Contemporary Trade Directory Entries** Name: Ventalution Location: Lockcorp House, 75, Norcutt Road, Twickenham, TW2 6SR Classification: Ventilators & Ventilation Systems **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (W)	928	-	515337 173383
128	**Contemporary Trade Directory Entries** Name: Blowup Location: 146, Amyand Park Road, Twickenham, TW1 3HY Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NW (NE)	901	-	516678 174069
129	**Contemporary Trade Directory Entries** Name: Churchill Garage Location: 193, Richmond Road, Twickenham, TW1 2NJ Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A19NE (NE)	909	-	516968 173860
130	**Contemporary Trade Directory Entries** Name: Billy Allen Autos Ltd Location: 56, The Green, Twickenham, Middlesex, TW2 5AB Classification: Car Breakers & Dismantlers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	916	-	515320 173033
130	**Contemporary Trade Directory Entries** Name: Billy Allen Autos Ltd Location: 56, The Green, Twickenham, TW2 5AB Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	916	-	515320 173033
130	**Contemporary Trade Directory Entries** Name: Billy Allen Location: 56, The Green, Twickenham, Middlesex, TW2 5AB Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	916	-	515320 173033
130	**Contemporary Trade Directory Entries** Name: Billy Allen Autos Ltd Location: 56, The Green, Twickenham, TW2 5AB Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	916	-	515320 173033
131	**Contemporary Trade Directory Entries** Name: Imperial Printers Uk Ltd Location: 101, Colne Road, Twickenham, TW2 6QL Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	918	-	515313 173149
132	**Contemporary Trade Directory Entries** Name: Tfse Location: 5, Moor Mead Road, Twickenham, TW1 1JS Classification: Catering Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18NE (N)	924	-	516467 174162
133	**Contemporary Trade Directory Entries** Name: Chemdry Pro Care Location: 18, Crane Road, Twickenham, TW2 6RY Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (W)	929	-	515307 173240

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	**Contemporary Trade Directory Entries** Name: Reynolds Bros Ltd Location: A, 1, May Road, Twickenham, TW2 6QW Classification: Concrete Contractors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	933	-	515302 173040
134	**Contemporary Trade Directory Entries** Name: Richmond International Geoscience Location: 1a, May Road, Twickenham, TW2 6QW Classification: Oil & Gas Exploration Supplies & Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	933	-	515302 173042
134	**Contemporary Trade Directory Entries** Name: First Choice Carpet Cleaning & Upholstery Location: A, 70, The Green, Twickenham, TW2 5AG Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (W)	968	-	515268 173028
134	**Contemporary Trade Directory Entries** Name: Sporting Composites Ltd Location: 76, The Green, Twickenham, TW2 5AG Classification: Sports Equipment Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (W)	985	-	515251 173024
134	**Contemporary Trade Directory Entries** Name: Premier Energy Location: 76, The Green, Twickenham, Middlesex, TW2 5AG Classification: Industrial Engineers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A11SE (W)	985	-	515251 173024
134	**Contemporary Trade Directory Entries** Name: R & F Taylor Location: May Yard, May Road, Twickenham, TW2 6QP Classification: Precision Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (W)	992	-	515242 173049
135	**Contemporary Trade Directory Entries** Name: Eurowash Location: 99, Whitton Road, Twickenham, TW1 1BZ Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A17NE (NW)	958	-	515706 174016
136	**Contemporary Trade Directory Entries** Name: Pressing Needs Location: 9, Erncroft Way, Twickenham, TW1 1DA Classification: Ironing & Home Laundry Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A17NE (NW)	970	-	515767 174073
137	**Contemporary Trade Directory Entries** Name: M K G 3000 Location: Tower Road, Twickenham, TW1 4PP Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A7SW (SW)	994	-	515537 172415
137	**Contemporary Trade Directory Entries** Name: Peaches & Clean Location: Tower Rd, Twickenham, Middlesex, TW1 4PS Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A7SW (SW)	998	-	515552 172392
138	**Fuel Station Entries** Name: Shell Oak Lane Location: 5-11, Richmond Road Oak Lane, , Twickenham, Outer London, TW1 3AB Brand: SHELL Premises Type: Petrol Station **Status: Open** Positional Accuracy: Manually positioned to the address or location	A18SE (NE)	304	-	516459 173508

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
139	**Fuel Station Entries** Name: New Island Filling Station Location: East Lancashire Road , , Twickenham, Outer London, TW1 3DY Brand: OBSOLETE Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Manually positioned to the address or location	A8SW (S)	689	-	516010 172446
140	**Points of Interest - Commercial Services** Name: S K Auto Locksmith Location: Thames Eyot, Cross Deep, Twickenham, TW1 4QL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13SW (SW)	96	8	516199 173021
141	**Points of Interest - Commercial Services** Name: The Little Body Shop Location: 59 Holly Rd, Twickenham, Middlesex, TW1 4HW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	107	8	516154 173208
141	**Points of Interest - Commercial Services** Name: The Little Body Shop Location: 59 Holly Road, Twickenham, TW1 4HF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	107	8	516154 173208
141	**Points of Interest - Commercial Services** Name: The Little Body Shop Location: 59 Holly Road, Twickenham, TW1 4HF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	107	8	516155 173208
141	**Points of Interest - Commercial Services** Name: Twickenham Autos Location: 65 Holly Road, Twickenham, TW1 4HF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	113	8	516141 173202
141	**Points of Interest - Commercial Services** Name: Carcare Location: 67 Holly Road, Twickenham, TW1 4HF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (W)	127	8	516114 173184
142	**Points of Interest - Commercial Services** Name: Hedsor Engineers Ltd Location: 40c Heath Road, Twickenham, TW1 4BZ Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A13SW (W)	185	8	516046 173152
143	**Points of Interest - Commercial Services** Name: Pure Juice Company Ltd Location: 44 London Road, Twickenham, TW1 3RR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (N)	204	8	516233 173452
143	**Points of Interest - Commercial Services** Name: Pure Juice Company Ltd Location: 44 London Road, Twickenham, TW1 3RR Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A13NW (N)	204	8	516233 173452
144	**Points of Interest - Commercial Services** Name: Shell Oak Lane Location: 5-11 Richmond Road, Twickenham, TW1 3AB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13NE (NE)	295	8	516452 173501
144	**Points of Interest - Commercial Services** Name: Shell Car Wash Location: 5-11 Richmond Road, Twickenham, TW1 3AB Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A13NE (NE)	300	8	516465 173499

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Points of Interest - Commercial Services					
144	Name: Location: Category: Class Code: Positional Accuracy:	Car Wash 5-11 Richmond Road, Twickenham, TW1 3AB Personal, Consumer and other Services Vehicle Cleaning Services Positioned to address or location	A18SE (NE)	304	8	516459 173508
	Points of Interest - Commercial Services					
145	Name: Location: Category: Class Code: Positional Accuracy:	Macopharma (UK Ltd) Regal House 70, London Road, Twickenham, TW1 3QS Transport, Storage and Delivery Distribution and Haulage Positioned to address or location	A18SW (N)	370	8	516162 173603
	Points of Interest - Commercial Services					
146	Name: Location: Category: Class Code: Positional Accuracy:	Orleans Garage 91-93 Richmond Road, Twickenham, TW1 3AW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A19SW (NE)	582	8	516689 173678
	Points of Interest - Commercial Services					
146	Name: Location: Category: Class Code: Positional Accuracy:	Orleans Garage 91-93 Richmond Road, Twickenham, TW1 3AW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A19SW (NE)	582	8	516689 173678
	Points of Interest - Commercial Services					
146	Name: Location: Category: Class Code: Positional Accuracy:	Orleans Garage 91-93 Richmond Road, Twickenham, TW1 3AW Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A19SW (NE)	582	8	516689 173678
	Points of Interest - Commercial Services					
147	Name: Location: Category: Class Code: Positional Accuracy:	L J Motorcycle Repairs Unit D1 1, Strawberry Vale, Twickenham, TW1 4RP Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8SW (S)	650	8	516036 172478
	Points of Interest - Commercial Services					
147	Name: Location: Category: Class Code: Positional Accuracy:	Mercury Motors Ltd 5-7 Strawberry Vale, Twickenham, TW1 4RX Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8SW (S)	683	8	516011 172452
	Points of Interest - Commercial Services					
147	Name: Location: Category: Class Code: Positional Accuracy:	Mercury Motors Ltd 5-7 Strawberry Vale, Twickenham, TW1 4RX Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8SW (S)	683	8	516011 172452
	Points of Interest - Commercial Services					
147	Name: Location: Category: Class Code: Positional Accuracy:	Mercury Motors 5-7 Strawberry Vale, Twickenham, TW1 4RX Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A8SW (S)	683	8	516011 172452
	Points of Interest - Commercial Services					
148	Name: Location: Category: Class Code: Positional Accuracy:	S W Motors 3-5 Edwin Road, Twickenham, TW1 4JJ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12SW (W)	655	8	515575 173146
	Points of Interest - Commercial Services					
148	Name: Location: Category: Class Code: Positional Accuracy:	S W Motors 3-5 Edwin Road, Twickenham, TW1 4JJ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12SW (W)	655	8	515575 173146
	Points of Interest - Commercial Services					
148	Name: Location: Category: Class Code: Positional Accuracy:	Xpress Auto Locksmith Services 3-5 Edwin Road, Twickenham, TW1 4JJ Repair and Servicing Vehicle Repair, Testing and Servicing Positioned to address or location	A12SW (W)	656	8	515575 173146

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	**Points of Interest - Commercial Services** Name: S W Motors Location: 3-5 Edwin Road, Twickenham, TW1 4JJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	656	8	515575 173146
148	**Points of Interest - Commercial Services** Name: Bishco London Ltd Location: Electroline House, Lion Road, Twickenham, Middlesex, TW1 4JH Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	665	8	515568 173192
149	**Points of Interest - Commercial Services** Name: Arch Welding & Fabrication Location: 40 Popes Grove, Twickenham, TW1 4JY Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A7NE (SW)	713	8	515648 172722
149	**Points of Interest - Commercial Services** Name: Clarke Iron Location: Arch 34 Popes Gro, Twickenham, Middlesex, TW2 5TA Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A7NW (SW)	741	8	515616 172718
149	**Points of Interest - Commercial Services** Name: Clarke Iron Ltd Location: 34 Popes Grove, Twickenham, TW1 4JY Category: Construction Services Class Code: Metalworkers Including Blacksmiths Positional Accuracy: Positioned to address or location	A7NW (SW)	741	8	515616 172718
150	**Points of Interest - Commercial Services** Name: Proper Energy Location: 37a Hamilton Road, Twickenham, TW2 6SN Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	812	8	515448 173349
150	**Points of Interest - Commercial Services** Name: Proper Oils Location: 37 Hamilton Road, Twickenham, TW2 6SN Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	826	8	515443 173383
151	**Points of Interest - Commercial Services** Name: The Green Service Centre Location: 76-78 Colne Road, Twickenham, TW2 6QE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	854	8	515378 173186
151	**Points of Interest - Commercial Services** Name: Turner Automotive Location: Ryecroft Works, Edwin Rd, Twickenham, Middlesex, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	861	8	515372 173198
151	**Points of Interest - Commercial Services** Name: Victors Location: Ryecroft Works, Edwin Rd, Twickenham, Middlesex, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	861	8	515372 173197
151	**Points of Interest - Commercial Services** Name: Phoenix A S E Location: Unit 2 Ryecroft Works, Edwin Road, Twickenham, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	861	8	515372 173198
151	**Points of Interest - Commercial Services** Name: Victors Location: Ryecroft Works, Edwin Road, Twickenham, Middlesex, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	861	8	515372 173197

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	**Points of Interest - Commercial Services** Name: Turner Automotive Location: Ryecroft Works, Edwin Road, Twickenham, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	861	8	515372 173198
151	**Points of Interest - Commercial Services** Name: Phoenix Automotive Structural Engineers Location: Unit 2 Ryecroft Works, Edwin Road, Twickenham, TW2 6SP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12NW (W)	862	8	515371 173197
152	**Points of Interest - Commercial Services** Name: Churchill Garage Location: 193 Richmond Road, Twickenham, TW1 2NJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NE (NE)	909	8	516968 173860
152	**Points of Interest - Commercial Services** Name: Churchill Garage Location: 193 Richmond Road, Twickenham, TW1 2NJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NE (NE)	909	8	516968 173860
153	**Points of Interest - Commercial Services** Name: Billy Allen Autos Ltd Location: 56 The Green, Twickenham, TW2 5AB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	915	8	515322 173027
153	**Points of Interest - Commercial Services** Name: Billy Allen Autos Ltd Location: 56 The Green, Twickenham, TW2 5AB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	916	8	515320 173033
154	**Points of Interest - Commercial Services** Name: French Correction Garage Location: 148 Amyand Park Road, Twickenham, TW1 3HY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19NW (NE)	923	8	516691 174086
155	**Points of Interest - Commercial Services** Name: M K G 3000 Location: Tower Road, Twickenham, TW1 4PP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7SW (SW)	994	8	515537 172414
156	**Points of Interest - Education and Health** Name: St Johns & Amyand House Location: St. Johns & Amyand House, Strafford Road, Twickenham, TW1 3AD Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SE (N)	429	8	516405 173668
157	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	74	8	516215 173284
157	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (N)	124	8	516219 173357
157	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (N)	125	8	516219 173358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
158	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	82	8	516428 173147
158	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	83	8	516428 173146
158	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	92	8	516443 173158
158	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	92	8	516443 173159
158	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	105	8	516452 173145
159	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (W)	132	8	516112 173190
159	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (W)	132	8	516112 173190
160	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	218	8	516573 173189
161	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	236	8	516113 173413
161	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	236	8	516113 173413
162	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SE (NE)	354	8	516492 173545
162	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A18SE (NE)	354	8	516496 173543

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
163	**Points of Interest - Manufacturing and Production** Name: Regus Plc Location: Regal House 70, London Road, Twickenham, TW1 3QS Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A18SW (N)	370	8	516162 173603
164	**Points of Interest - Manufacturing and Production** Name: Tank Location: TW1 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	620	8	516167 173863
165	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12NW (W)	634	8	515598 173173
166	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	653	8	516100 172454
166	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	654	8	516096 172454
166	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	661	8	516030 172468
166	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	662	8	516026 172469
167	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	655	8	515576 173143
167	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12SW (W)	669	8	515562 173156
167	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	737	8	515494 173119
167	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12SW (W)	737	8	515494 173123
168	**Points of Interest - Manufacturing and Production** Name: St Margarets Business Centre Location: TW1 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	805	8	516546 174018

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
168	**Points of Interest - Manufacturing and Production** Name: St Margarets Business Centre Location: TW1 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	808	8	516546 174022
169	**Points of Interest - Manufacturing and Production** Name: Works Location: TW1 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A19SE (NE)	809	8	516975 173706
170	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	814	8	515418 173077
170	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	814	8	515418 173077
170	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12SW (W)	824	8	515409 173062
170	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	825	8	515408 173065
171	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	856	8	515376 173182
171	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	857	8	515375 173182
171	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12NW (W)	860	8	515373 173196
171	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	861	8	515372 173194
171	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12NW (W)	866	8	515366 173182
171	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	869	8	515363 173184

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	**Points of Interest - Manufacturing and Production** Name: Enessa Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12NW (W)	889	8	515347 173232
171	**Points of Interest - Manufacturing and Production** Name: Enessa Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	892	8	515344 173234
172	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A17NE (NW)	858	8	515847 173990
173	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	919	8	515314 173059
173	**Points of Interest - Manufacturing and Production** Name: Works Location: TW2 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A12SW (W)	920	8	515314 173057
174	**Points of Interest - Public Infrastructure** Name: Twickenham Police Station Location: 41 London Road, Twickenham, TW1 3SY Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A13NW (N)	194	8	516191 173423
174	**Points of Interest - Public Infrastructure** Name: Metropolitan Police Service Location: 41 London Road, Twickenham, TW1 3SY Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A13NW (N)	195	8	516191 173423
174	**Points of Interest - Public Infrastructure** Name: Metropolitan Police Service Twickenham Location: 41 London Road, Twickenham, TW1 3SY Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A13NW (N)	195	8	516191 173423
175	**Points of Interest - Public Infrastructure** Name: Shell Service Station Location: 5-11 Richmond Road, Twickenham, TW1 3AB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18SE (NE)	304	8	516459 173508
175	**Points of Interest - Public Infrastructure** Name: Shell Oak Lane Location: 5-11 Richmond Road, Twickenham, TW1 3AB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18SE (NE)	304	8	516459 173508
175	**Points of Interest - Public Infrastructure** Name: Shell Oak Lane Location: 5-11 Richmond Road, Twickenham, TW1 3AB Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A18SE (NE)	304	8	516459 173508
175	**Points of Interest - Public Infrastructure** Name: Oak Lane Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	316	8	516386 173556

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
175	**Points of Interest - Public Infrastructure** Name: Oak Lane Cemetery Location: TW1 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	321	8	516398 173557
176	**Points of Interest - Public Infrastructure** Name: Twickenham Rail Station Location: Mary'S Terrace, TW1 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A18SW (N)	465	8	516171 173705
176	**Points of Interest - Public Infrastructure** Name: Twickenham Station Location: Mary'S Terrace, TW1 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A18SW (N)	465	8	516171 173705
176	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	500	8	516144 173734
176	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	500	8	516147 173735
176	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	519	8	516232 173771
176	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	520	8	516234 173772
177	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	526	8	516056 173727
177	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	527	8	516053 173726
177	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	542	8	515969 173693
177	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	544	8	515967 173693
178	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	577	8	516319 173832

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	579	8	516322 173833
178	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	666	8	516348 173919
178	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	666	8	516346 173919
179	**Points of Interest - Public Infrastructure** Name: Bishco Location: Electroline House 15, Lion Road, Twickenham, TW1 4JH Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	666	8	515568 173192
179	**Points of Interest - Public Infrastructure** Name: Bishco London Ltd Location: Electroline House 15, Lion Road, Twickenham, TW1 4JH Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12NW (W)	666	8	515568 173192
180	**Points of Interest - Public Infrastructure** Name: Barnham's Location: 190 Heath Road, Twickenham, TW2 5TX Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A12SW (W)	725	8	515507 173093
181	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	760	8	516361 174012
181	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	762	8	516364 174014
182	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	842	8	516324 174097
182	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	844	8	516328 174098
182	**Points of Interest - Public Infrastructure** Name: Weir Location: TW1 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	916	8	516290 174171
183	**Points of Interest - Public Infrastructure** Name: Weir Location: TW2 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	851	8	515460 173495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	**Points of Interest - Public Infrastructure** Name: Weir Location: TW2 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	853	8	515458 173495
184	**Points of Interest - Public Infrastructure** Name: Weir Location: TW2 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	946	8	515339 173450
184	**Points of Interest - Public Infrastructure** Name: Weir Location: TW2 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	948	8	515337 173450
185	**Points of Interest - Public Infrastructure** Name: Strawberry Hill Rail Station Location: Strawberry Hill Station, TW1 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A7SW (SW)	979	8	515527 172448
185	**Points of Interest - Public Infrastructure** Name: Strawberry Hill Station Location: Strawberry Hill Station, TW1 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A7SW (SW)	979	8	515527 172448
186	**Points of Interest - Recreational and Environmental** Name: Playground Location: Wharf Lane, TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	0	8	516247 173128
187	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	133	8	516164 173315
187	**Points of Interest - Recreational and Environmental** Name: Play Area Location: TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	136	8	516160 173315
188	**Points of Interest - Recreational and Environmental** Name: Playground Location: TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	622	8	516008 172520
189	**Points of Interest - Recreational and Environmental** Name: Play Area Location: TW10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	684	8	516777 172623
190	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	735	8	516386 173984
190	**Points of Interest - Recreational and Environmental** Name: Playground Location: Lancaster Place, TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NE (N)	741	8	516388 173990

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
190	**Points of Interest - Recreational and Environmental** Name: Playground Location: Lancaster Place, TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NE (N)	743	8	516389 173992
191	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	779	8	517119 173342
191	**Points of Interest - Recreational and Environmental** Name: Playground Location: Riverside, TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	779	8	517119 173342
192	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	805	8	517035 172754
192	**Points of Interest - Recreational and Environmental** Name: Playground Location: Riverside Drive, TW10 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	805	8	517035 172754
193	**Points of Interest - Recreational and Environmental** Name: Play Area Location: TW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	808	8	516028 174020
194	**Points of Interest - Recreational and Environmental** Name: Playground Location: Craneford Way, TW2 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SW (NW)	958	8	515379 173583

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
195	**Local Nature Reserves** Name: Ham Lands Multiple Area: Y Area (m2): 600125.3 Source: Natural England Designation Date: 1st January 1992	A13SE (SE)	147	9	516392 172984

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Royal Borough of Kingston upon Thames - Environmental Health Department	April 2013	Annual Rolling Update
Spelthorne Borough Council - Environmental Health Department	April 2014	Annual Rolling Update
London Borough of Wandsworth - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Merton - Environmental Health Department	January 2015	Annual Rolling Update
Environment Agency - Head Office	June 2020	Annually
London Borough of Hounslow - Contaminated Land Section	May 2014	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	October 2013	Annual Rolling Update
Elmbridge Borough Council - Environmental Health Department	September 2013	Annual Rolling Update
London Borough of Richmond upon Thames - Planning and Review Department	September 2014	Annual Rolling Update
Discharge Consents		
Environment Agency - Thames Region	July 2020	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Integrated Pollution Controls		
Environment Agency - Thames Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - Kent & South London Area	July 2020	Quarterly
Environment Agency - South East Region - North East Thames Area	July 2020	Quarterly
Environment Agency - South East Region - West Thames Area	July 2020	Quarterly
Environment Agency - Thames Region	July 2020	Quarterly
Local Authority Integrated Pollution Prevention And Control		
London Borough of Wandsworth - Environmental Health Department	August 2014	Variable
Elmbridge Borough Council - Environmental Health Department	December 2014	Variable
Spelthorne Borough Council - Environmental Health Department	December 2014	Variable
London Borough of Hounslow - Environmental Health Department	February 2013	Variable
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Variable
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Variable
Royal Borough of Kingston upon Thames - Environmental Health Department	June 2016	Variable
London Port Health Authority - Environmental Services	October 2014	Variable
London Borough of Merton - Environmental Health Department	September 2014	Variable
Local Authority Pollution Prevention and Controls		
London Borough of Wandsworth - Environmental Health Department	August 2014	Annual Rolling Update
Elmbridge Borough Council - Environmental Health Department	December 2014	Annual Rolling Update
Spelthorne Borough Council - Environmental Health Department	December 2014	Annual Rolling Update
London Borough of Hounslow - Environmental Health Department	February 2013	Annual Rolling Update
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Annual Rolling Update
Royal Borough of Kingston upon Thames - Environmental Health Department	June 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	October 2014	Annual Rolling Update
London Borough of Merton - Environmental Health Department	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Elmbridge Borough Council - Environmental Health Department	April 2013	Variable
London Borough of Wandsworth - Environmental Health Department	August 2014	Variable
Spelthorne Borough Council - Environmental Health Department	December 2014	Variable
London Borough of Hounslow - Environmental Health Department	February 2013	Variable
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Variable
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Variable
Royal Borough of Kingston upon Thames - Environmental Health Department	June 2016	Variable
London Port Health Authority - Environmental Services	October 2014	Variable
London Borough of Merton - Environmental Health Department	September 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	June 2020	
Pollution Incidents to Controlled Waters		
Environment Agency - Thames Region	September 1999	Not Applicable

Agency & Hydrological	Version	Update Cycle
Prosecutions Relating to Authorised Processes		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Environment Agency - Thames Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - South East Region - Kent & South London Area	July 2020	Quarterly
Environment Agency - South East Region - North East Thames Area	July 2020	Quarterly
Environment Agency - South East Region - West Thames Area	July 2020	Quarterly
Environment Agency - Thames Region - North East Area	July 2020	Quarterly
Environment Agency - Thames Region - South East Area	July 2020	Quarterly
Water Abstractions		
Environment Agency - Thames Region	July 2020	Quarterly
Water Industry Act Referrals		
Environment Agency - Thames Region	October 2017	Quarterly
Groundwater Vulnerability Map		
Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Source Protection Zones		
Environment Agency - Head Office	October 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	June 2020	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	June 2020	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	June 2020	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	June 2020	Quarterly
Flood Defences		
Environment Agency - Head Office	June 2020	Quarterly
OS Water Network Lines		
Ordnance Survey	June 2020	Quarterly
Surface Water 1 in 30 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability		
Environment Agency - Head Office	October 2013	Annually

Agency & Hydrological	Version	Update Cycle
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	October 2019	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	July 2020	Quarterly
Environment Agency - South East Region - North East Thames Area	July 2020	Quarterly
Environment Agency - South East Region - West Thames Area	July 2020	Quarterly
Environment Agency - Thames Region - North East Area	July 2020	Quarterly
Environment Agency - Thames Region - South East Area	July 2020	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - Kent & South London Area	July 2020	Quarterly
Environment Agency - South East Region - North East Thames Area	July 2020	Quarterly
Environment Agency - South East Region - West Thames Area	July 2020	Quarterly
Environment Agency - Thames Region - North East Area	July 2020	Quarterly
Environment Agency - Thames Region - South East Area	July 2020	Quarterly
Local Authority Landfill Coverage		
Elmbridge Borough Council - Environmental Health Department	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hounslow - Environmental Health Department	May 2000	Not Applicable
London Borough of Merton - Environmental Health Department	May 2000	Not Applicable
London Borough of Richmond upon Thames	May 2000	Not Applicable
London Borough of Wandsworth - Environmental Health Department	May 2000	Not Applicable
Royal Borough of Kingston upon Thames - Environmental Health Department	May 2000	Not Applicable
Spelthorne Borough Council - Environmental Health Department	May 2000	Not Applicable
Surrey County Council	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
London Borough of Wandsworth - Environmental Health Department	April 2003	Not Applicable
Elmbridge Borough Council - Environmental Health Department	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hounslow - Environmental Health Department	May 2000	Not Applicable
London Borough of Merton - Environmental Health Department	May 2000	Not Applicable
London Borough of Richmond upon Thames	May 2000	Not Applicable
Spelthorne Borough Council - Environmental Health Department	May 2000	Not Applicable
Surrey County Council	October 2018	Not Applicable
Royal Borough of Kingston upon Thames - Environmental Health Department	September 2003	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Thames Region - North East Area	June 2015	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Elmbridge Borough Council	February 2016	Variable
London Borough of Ealing	February 2016	Variable
London Borough of Hounslow	February 2016	Variable
London Borough of Merton	February 2016	Variable
London Borough of Richmond upon Thames	February 2016	Variable
London Borough of Wandsworth - Technical Services	February 2016	Variable
Royal Borough of Kingston upon Thames	February 2016	Variable
Spelthorne Borough Council - Planning Department	February 2016	Variable
Surrey County Council	February 2016	Variable
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update
Planning Hazardous Substance Consents		
Elmbridge Borough Council	February 2016	Variable
London Borough of Ealing	February 2016	Variable
London Borough of Hounslow	February 2016	Variable
London Borough of Merton	February 2016	Variable
London Borough of Richmond upon Thames	February 2016	Variable
London Borough of Wandsworth - Technical Services	February 2016	Variable
Royal Borough of Kingston upon Thames	February 2016	Variable
Spelthorne Borough Council - Planning Department	February 2016	Variable
Surrey County Council	February 2016	Variable
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	June 2020	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	July 2020	Quarterly
Fuel Station Entries Catalist Ltd - Experian	June 2020	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	June 2020	Quarterly
Points of Interest - Education and Health PointX	June 2020	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2020	Quarterly
Points of Interest - Public Infrastructure PointX	June 2020	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2020	Quarterly
Underground Electrical Cables National Grid	August 2020	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	April 2020	Bi-Annually
Areas of Adopted Green Belt		
Elmbridge Borough Council	June 2020	As notified
London Borough of Ealing	June 2020	As notified
London Borough of Hounslow	June 2020	As notified
London Borough of Merton	June 2020	As notified
London Borough of Richmond upon Thames	June 2020	As notified
London Borough of Wandsworth - Technical Services	June 2020	As notified
Royal Borough of Kingston upon Thames	June 2020	As notified
Spelthorne Borough Council	June 2020	As notified
Areas of Unadopted Green Belt		
Elmbridge Borough Council	June 2020	As notified
London Borough of Ealing	June 2020	As notified
London Borough of Hounslow	June 2020	As notified
London Borough of Merton	June 2020	As notified
London Borough of Richmond upon Thames	June 2020	As notified
London Borough of Wandsworth - Technical Services	June 2020	As notified
Royal Borough of Kingston upon Thames	June 2020	As notified
Spelthorne Borough Council	June 2020	As notified
Areas of Outstanding Natural Beauty		
Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	April 2020	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	July 2019	Bi-Annually
National Parks		
Natural England	April 2017	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Environment Agency - Head Office	December 2017	Bi-Annually
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites		
Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest		
Natural England	May 2020	Bi-Annually
Special Areas of Conservation		
Natural England	July 2020	Bi-Annually
Special Protection Areas		
Natural England	April 2019	Bi-Annually
World Heritage Sites		
Historic England	July 2019	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**London Borough of Richmond upon Thames - Environmental Health Department** 4 Waldegrave Road, Teddington, Middlesex, TW11 8EN	Telephone: 020 8891 1411 Fax: 020 8891 7702 Website: www.richmond.gov.uk
4	**London Borough of Hounslow - Environmental Health Department** Civic Centre, Lampton Road, Hounslow, Middlesex, TW3 4DN	Telephone: 020 8583 2000 Website: www.hounslow.gov.uk
5	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
6	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
7	**London Borough of Richmond upon Thames** Civic Centre, 44 York Street, Twickenham, Middlesex, TW1 3BZ	Telephone: 020 8891 1411 Fax: 020 8891 7702 Website: www.richmond.gov.uk
8	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
10	**Historic England** 1 Waterhouse Square, 138 - 142 Holborn, London, EC1N 2ST	Telephone: 0370 333 0607 Email: customers@historicengland.org.uk Website: www.historicengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.