

Monaghan Mushrooms Limited

Storrington Road, Thakeham

Geo-environmental and Geotechnical Investigation

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RSK GEOSCIENCES

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RSK GENERAL NOTES

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

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EXECUTIVE SUMMARY

Commissioning and purpose of assessment	RSK Environment Limited (RSK) was commissioned by Alder King on behalf of Monaghan Mushrooms Limited to carry out a geo-environmental and geotechnical investigation of the land at Storrington Road, Thakeham, RH20 3DY, grid reference TQ 10291 17117. The works are being undertaken to provide an assessment of the environmental risks and liabilities associated with site ownership or redevelopment. Currently we understand that a residential development is being considered for the site. RSK have been asked by the client to provide an interim report with the factual information and soil contamination analysis included. Groundwater contamination analysis and geotechnical assessments will be provided in a subsequent final report.
DESK-BASED ASSESSMENT	
Site description and proposed development	The site occupies an area of 30.1 hectares and currently comprises a series of buildings and access roads associated with mushroom production. The remaining area appears to comprise a series of fields, demarcated by hedgerows and wooded borders. RSK understands that the site in question is being considered for development for residential use. At the time of preparing this report, no proposed development plans were available.
History of site and surrounding area	The site was formerly occupied by a collection of nurseries central to the site dating from 1938 to 2006, with several phases of construction and demolition. From 1961 demolition of several nursery buildings and construction of new agricultural buildings occurred in the southeast corner of site with several tanks and an electricity substation shown. The west of the site comprised a collection of structures, including a former sewage works dating from 1978 to 2021. Potential sources of contamination identified on site involve the former sewage works, an array of demolition rubble, refuse abandoned vehicles and old fuel storage tanks. The site is currently disused but until relatively recently was used for mushroom production and office buildings to the east. The remainder of the site is derelict, comprising empty fields, abandoned farmhouse structure and waste mounds.
Geology and environmental setting	Historical BGS borehole data suggests the Site is underlain by bedrock deposits of the Fittleworth Member, comprising sandstone and mudstone with the Hythe Formation in the northeast corner of the site, comprising sandstone. No superficial deposits are noted to be beneath the site. There is also likely to be made ground associated with former development and demolition of historic structures on site. The nearest off site groundwater abstraction is 434m west of the site at Smock Alley at West Chiltington boreholes 1 for a potable water supply. The Envirocheck report indicates that the site lies within Zone III and Zone II of a groundwater Source Protection Zone (SPZ) for the potable abstraction 434m west of the site
Initial conceptual site model (CSM) and preliminary risk assessment (PRA)	Potentially complete contaminant linkages identified with a risk estimate of moderate to low or above include: • future site users – residential users [oral, dermal and inhalation exposure with impacted soil, soil vapour and dust/fibres, ingestion of home-grown produce, inhalation of vapours from groundwater and / or NAPL if present]

	• future adjacent site users – residential, public open space users [migration of contamination via dust/fibre deposition, vapour or groundwater migration combined with inhalation] • future buildings and services [direct contact with contaminated soils or groundwater and chemical attack] • groundwater in secondary A aquifer/ source protection zone within Fittleworth Member bedrock deposits [leaching from soils/ percolation to aquifer/ lateral migration of dissolved phase/ NAPL etc.] • future site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation].
INTRUSIVE INVESTIGATION & ASSESSMENT	
SI scope	The SI comprised 5 No. window sample boreholes were drilled to a maximum depth of 5.0m bgl and five locations were installed with combined gas and groundwater monitoring wells. 14no. trial pits were excavated to a maximum depth of 3.00m bgl.
SI factual findings	The ground investigation encountered a strata sequence comprising topsoil or made ground of over the Fittleworth Member. Perched groundwater within the made ground was only encountered within TP11 at 0.50m bgl. Groundwater water observed within TP9 at the base of the trial pit at 2.8 bgl. No other groundwater strikes were encountered during the intrusive investigation. A single return monitoring visit undertaken to date encountered groundwater levels at between 3.17m and 4.45m bgl. Potential asbestos containing material was encountered across the site at the surface and was also observed within the structures of the farmhouse buildings. Potential asbestos containing material was observed within the made ground at locations TP14 and WS2. Potential hydrocarbon contamination was also encountered at TP4, WS3 and WS4.
Refined conceptual site model and geo-environmental assessment	Based on the results of the site investigation and GQRA, the contaminant linkages that have been identified to be potentially complete (relevant contaminant linkages) and to require further action are: • risk to future site users from oral, dermal and inhalation exposure with contaminants in the made ground (PAHs and asbestos) • risks to future site users and adjacent site users from inhalation of volatile contaminants associated with petroleum hydrocarbon contaminants in the vicinity of TP4, WS3 and WS4 • risks to groundwater in secondary A aquifer within Fittleworth Member bedrock deposits • future site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation].
Recommendations including issues for further assessment	The following recommendations are made for further assessment of the site to investigate the risks identified above and to address remaining uncertainties: • groundwater sampling and generic quantitative risk assessment for controlled water and vapour inhalation risks to end users • further investigation to delineate the hydrocarbon contamination encountered in the vicinity of TP4, WS3 and WS4 • a programme of gas monitoring at the site

	• rurther investigations to delineate areas of made ground, confirm that the topsoil material at the site is suitable for the proposed use and confirm the stratigraphical success in northern area of the site • an updated asbestos survey to confirm the potential ACM debris / waste materials identified at ground level.

The information given in this summary is necessarily incomplete and is provided for initial briefing purposes only. The summary must not be used as a substitute for the full text of the report.

1 INTRODUCTION

1.1 Commissioning

RSK Environment Limited (RSK) was commissioned by Alder King on behalf of Monaghan Mushrooms Limited to carry out a geo-environmental and geotechnical investigation of the land at Storrington Road, Thakeham, RH20 3DY. The project was carried out to an agreed brief as set out in RSK's proposal (Ref. 305276 T02 (00), dated 21st of July 2022).

RSK's service constraints are shown in Appendix A.

The works are being undertaken to provide an assessment of the environmental risks and liabilities associated with site ownership or redevelopment. Currently we understand that a residential development is being considered for the site.

RSK have been asked by the client to provide an interim report with the factual information and soil contamination analysis included. Groundwater contamination analysis and geotechnical assessments will be provided in a subsequent final report.

1.2 Objectives

The objective of the work is:

- to identify any land contamination and/or geotechnical constraints to the proposed development and to support discharge of relevant planning conditions and relevant building control requirements
- to identify the need for any additional investigation or remediation works to demonstrate that the site is suitable for its proposed use
- to evaluate potential client environment liabilities as part of the due diligence process for acquisition/ disposal
- to inform land asset management.

1.3 Scope of works

The scope of this assessment has been developed in accordance with relevant British Standards and authoritative technical guidance as referenced through the report. The assessment of the contamination status of the site is in line with the technical approach presented in Land Contamination Risk Management (LCRM) (Environment Agency, 2021) – which supersedes CLR11 Model Procedures for Land Contamination – and in general accordance with BS 10175: 2011 + A2 2017 (BSI, 2017). It is also compliant with relevant planning policy and guidance.

The scope of the intrusive investigation has been designed in line with the recommendations of BS5930:2015+A1:2020 Code of practice for ground investigations (BSI, 2020), which maintains compliance with BS EN 1997-1 and 1997-2 and their related standards. It has also been developed in general accordance with BS 10175: 2011 + A2 2017.

A brief summary of relevant legislation and policy relating to land contamination is given in Appendix B.

The scope of works for the assessment has included the following:

Desk Study:

- review of the history of development on the site and surroundings, including a study of archival Ordnance Survey mapping, unexploded ordinance records (UXO) and other sources of historical information as appropriate, e.g. local archives, trade directories and planning records
- assessment of local geology, hydrogeology and hydrology
- the identification of potential geological hazards, including radon
- review of relevant information held by appropriate statutory authorities, e.g. the local Environmental Health Department and the Environment Agency, obtained in the form of an environmental database report (Envirocheck or GroundSure Report) and through direct contact where appropriate
- review of any previous site investigation reports made available
- completion of a site reconnaissance survey to assess the visual condition of the site
- development of an initial conceptual site model (CSM) of contamination on the site identifying possible pollutant linkages
- preliminary consideration of geotechnical constraints and hazards
- an assessment of the environmental risks and liabilities associated with site ownership or redevelopment
- identification of the need for further action, e.g. intrusive investigations, if any.

Intrusive Investigation

- design and implementation of an intrusive investigation, in situ testing, soil sampling, laboratory geo-environmental and geotechnical testing, groundwater and ground gas monitoring of installed boreholes
- interpretation of data to develop a refined conceptual site model (CSM)
- generic quantitative risk assessment (GQRA) of relevant contaminant linkages
- interpretation of ground conditions and geotechnical data to provide preliminary recommendations with respect to foundations and infrastructure design
- preparation of this factual and/or interpretative report.

1.4 Existing reports

The following reports detailing previous works at the site were made available for review:

- an asbestos survey was undertaken on 19-22/03/2014 by Mr W R Senior BOHS P402 (cert) of Asbestos Survey Consultants.

1.5 Limitations

This report is subject to the RSK service constraints given in Appendix A and limitations that may be described through this document.

2 SITE DETAILS

2.1 Site location

Site location details are presented in Table 1 and a site location plan is provided on Figure 1.

Table 1 Site location details

Site name	Storrington Road, Thakeham
Full site address and postcode	Storrington Road, Thakeham, RH20 3DY
National Grid reference (centre of site)	TQ 10291 17117

2.2 Site description

The site boundary and current site layout are shown on Figure 2. The site covers an area of circa 30.1 hectares. It is currently occupied by a series of buildings and access roads associated with mushroom production.

2.3 Surrounding land uses

The site is located in Thakeham, within a predominantly residential setting. Immediate surrounding land uses are described in Table 2.

Table 2 Surrounding land uses

North	Residential/Agricultural (Thakeham Village)
East	Agricultural (green fields) / sports pitches
South	Residential/Commercial (Abingworth Village)
West	Agricultural/forested land (Greyhound Brewery (380m)

2.4 Development plans

We understand that the site in question is being considered for development for residential use.

At the time of preparing this report, no proposed development plans are available.

No details of the proposed ground levels have been provided therefore for the purpose of this report it has been assumed that the current levels will remain unchanged.

3 DESK-BASED ASSESSMENT

The desktop study was designed generally to meet the objectives of a preliminary (phase 1) investigation, as defined by BS 10175:2011 + A2 2017 (BSI, 2017) and this assessment relates to LCRM Stage 1, Tier 1 preliminary risk assessment. The "vicinity" of the site for the purposes of this report is defined as locations situated within an approximate 250 m radius of the site, although certain sources and/ or sensitive targets further than 250 m may also have been considered.

The study aims principally to identify and assess the potential risks and liabilities associated with contamination of the ground, on and in the vicinity of the site. While this includes consideration of current operations and housekeeping on the site, the report does not constitute a comprehensive environmental audit of the site, as covered under ISO 14001.

3.1 Site history

3.1.1 Historical development record

The development history of the site and surrounding area based upon assessment of historical plans and records is detailed in Table 3. The historical maps reviewed are shown within the environmental database report in Appendix C.

Table 3 Summary of historical development

Date from	Date to	Historical Land Use (on-site)	Area of site
1938	2006	Chesswood nursery	Central/eastern boundary
1961	2006	Demolition of several nursery buildings and construction of new agricultural buildings with several tanks and an electricity substation in the southeast corner of site	SE corner
1978	2021	Sewage works including filter beds and tanks	Western field area
1982	2006	Covered and raised reservoir	Northeast
1991		Some further demolition of agricultural/nursey buildings in southeast corner, adjacent to tanks	
2000	Present	Electrical substations 4no.	Central
2006	Present	Old House farm	Central

Date from	Date to	Historical Land Use (off-site)	Distance (m) and orientation
1879	Present	Townhouse farm	100m NE
1938	2006	Rushfield nursery	100m S
1938	1978	High Bar nursery	250m S
1974	2006	Sludge Beds	190m N
1974	1993	Refuse Tip	210m N
1982	2021	Pump house (now labelled stream house)	Adjacent to southern site boundary
Relevant information sources: Historical OS maps ☒ Town plans ☒ Information from the Local Planning Authority ☐ Aerial photography ☒ Additional information provided by Envirocheck reports ☒ Previous reports ☐			
Note: Reference to published historical maps provides invaluable information regarding the land use history of the site, but historical evidence may be incomplete for the period pre-dating the first edition and between successive maps.			

Historical maps have identified that the site has been largely used for agricultural purposes for the last 142 years. Tree nurseries have populated the site for the majority of the time, with several phases of construction and demolition. The maps have highlighted a sewage works on site dating 1978 to 2021. The structure of these works still remains on site and can be seen on Google Earth. In addition, 4no. electrical substations are situated in the centre of the site.

Between 2006 and 2021 some structures to the east of the sewage farm appear to have been demolished, and the reservoir in the north of the site is no longer present.

3.1.2 Unexploded ordnance

A review of publicly available unexploded ordnance (UXO) risk maps indicates that the site is located in an area with low potential for wartime bombs to be present (Zetica, 2022).

3.2 Information from environmental database report

Relevant environmental permits and incidents detailed within the environmental database report (see Appendix C) are summarised below in Table 4.

Table 4 Summary of environmental permits, landfills and incidents

Data type	Entries on-site	Entries <250m from site	Entries >250m from site of relevance	Details
Agency and hydrological				
Environmental permits – incorporating Integrated Pollution Prevention and Control, Integrated Pollution Controls, Local Authority Integrated Pollution Prevention and Control	1	-	-	Monaghan Mushrooms T/A Thakeham Mushrooms Storrington Road, Thakeham, West Sussex, RH20 3DY Horsham District Council, Environmental Health Department. Local Authority Pollution Prevention and Control PG6/30 Production of compost for mushrooms Permit reference: EPR2 Status: Permitted
Enforcement and prohibition notices	-	-	-	-
Pollution incidents to controlled waters, Prosecutions relating to controlled waters, Substantiated pollution incident register, Water Industry Act referrals	2	2	-	<u>Pollution Incidents to controlled waters:</u> Rear of Fir Tree Lane, West Chillington (77m E of site) on 8th March 1994. Pollutant: Organic Wastes Note: River Is Blue/Grey In Colour And Smells Level Risen; Horticultural Ramble Down Lane (123m W of site) on 22nd January 1996. Pollutant: Organic Wastes Note: Brown Sludge In River <u>Prosecutions relating to controlled waters:</u> Chesswood Nurseries Site, Thakeham, RH20 (on site) on 3rd December 2001. Prosecution: Allowing compost effluent to enter a tributary of the River Chilt. <u>Substantiated pollution incident register:</u> On site, 4th July 2017 - Water Impact: Category 2 - Significant Incident.

Data type	Entries on-site	Entries <250m from site	Entries >250m from site of relevance	Details
				Pollutant agricultural materials and wastes.
Discharge consents	-	3	11	Nearest discharge consent located 159m south east of site at domestic property for discharge of other matter – surface water
Registered radioactive substances	-	-	-	-
Landfill and waste				
Active landfills	-	-	-	-
Historic / closed landfills	-	1	-	Dukes Hill, Thakeham, located 179m north east of site. Active between 1988 and 1990 for inert & industrial waste.
Other waste management licences	-	-	-	-
Potentially in-filled land (pit, quarry, pond, marsh, river, stream, dock etc)	-	-	-	-
Hazardous substances/ industrial land uses				
Control of Major Accident Hazards (COMAH) sites	-	-	-	-
Explosives sites, Notification of Installations Handling Hazardous Substances (NIHHS), Planning hazardous substance consents/ enforcements	-	-	-	-
Contaminated land Part 2A register entries and notices	-	-	-	-
Contemporary trade directory entries	4	2	-	On site: The Magic Log Co Ltd, Samson Services, Extra Mile Logistics. Thakeham cooling services Ltd. Coal & Smokeless Fuel Merchants & Distributors (169m SE)

Data type	Entries on-site	Entries <250m from site	Entries >250m from site of relevance	Details
				Oven Rescue, 30, Chestnut Drive, Thakeham, Pulborough (243m SE)
Fuel station entries	-	-	-	-
Note: Entries have only been included within the table where they are located within a 250m radius of the site or, where they fall outside of this radius but are considered to comprise a significant entry.				

3.3 Information from regulatory authorities

3.3.1 Planning records

Planning records held by the Local Authority Planning Department pertaining to the site and relevant to the current assessment are summarised in Table 5.

Table 5 Planning information

Year	Details and application reference no.	Part of site
2019	Ref No. DC/19/0350 Alteration of an existing access, associate engineering operations and landscaping	Monaghan Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2015	Ref No. DC/15/2417 Erection of pump house and associated covered water storage tank	Monaghan Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2014	Ref No. DISC/14/0221 Discharge of conditions 2, 3, 5, 11, 12, 13, 15 and 23 on DC/12/0841	Thakeham Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2012	Ref No. DC/12/1028 Change of use of building from Fuel Store Building (DC/10/0860) to Tray and Crate Storage and Filling involving external alterations to the building	Sussex Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2012	Ref No. DC/12/0841 Demolition of existing growing rooms and surrounding ancillary buildings, removal of compost production on site. Erection of new growing rooms (farms) required for the cultivation of mushrooms, a replacement office building, staff cafeteria, pack house building, ancillary plant structures and provision of open space and landscaped	Sussex Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY

Year	Details and application reference no.	Part of site
	areas (including re-directed footpaths). Refurbishment and extension of existing production and package buildings including alterations to entrance of the site.	
2011	Ref No. DC/11/1236 Prior notification relating to the installation of solar panels onto the roofs of buildings on the Chesswood site	Sussex Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2010	Ref No. DC/10/1316 Erection of new bunkers (1,697 sq metres) with aerated floors which will reduce odours, a replacement Gypsum and material store (2,800 sq metres), pasteurising tunnels (1,840.5 sq metres) and growing rooms (16,698.5 square metres) required for the cultivation of mushrooms, open space and landscaped areas (Including footpaths)	Sussex Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2010	Ref No. DC/10/0860 Fuel storage building	Sussex Mushrooms, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY
2004	Ref No. DC/04/0348 Change of use to coach storage and maintenance	Heveco Mushrooms Ltd, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY

3.3.2 Local Authority environmental health department information

The Environmental Health Department of Horsham District Council has been contacted for records of contamination in connection with the site

We are awaiting a response and an addendum letter will be issued once the information is received.

3.4 Site geology

3.4.1 Anticipated geological sequence

Published records (British Geological Survey, 2022) for the area and available historical borehole logs indicate the geology of the site to be characterised by the succession recorded in Table 6. There are 3 publicly available BGS historical boreholes located on or within 250 m of the site, a selection of which are presented in Appendix D.

Table 6 Site geology

Strata	Description	Estimated thickness	Permeability
Fittleworth Member	Glauconitic sandy clays and clayey sands: orange-brown where weathered; bright green where unweathered.	10 to 60m	Permeable
Hythe Formation (north east corner)	Fine to medium grained, sparsely glauconitic sands, sandstones and silts, locally pebbly, with calcareous or siliceous cement in beds or lenses in some areas.	18 to 100m	Permeable
Relevant information sources: BGS Geoindex BGS borehole logs Previous SI reports			

With reference to the historical data there have clearly been some/several phases of construction and demolition on the site and therefore the presence of made ground should be expected.

3.4.2 Radon

The environmental database report indicates that the site is not located within an 'Affected Area'. An 'Affected Area' is one with 1% or more homes above the radon Action Level of 200 Bq m^{-3}, and therefore the risk of significant ingress of radon into structures on-site is considered low and protection measures are not necessary in the construction of non-domestic buildings.

3.5 Mining and quarrying

No evidence has identified any mining and quarrying, past and present, within 500m of the site.

3.6 Hydrogeology

A summary of the hydrogeological setting of the site, with respect to the anticipated geological sequence set out in Section 3.5 is presented below in Table 7.

Table 7 Summary of hydrogeological setting

Condition	Description
Aquifer characteristics	The site is underlain by bedrock aquifers which comprise a Secondary A aquifer relating to the Fittleworth Member and a Principal aquifer within the Hythe Formation. The presence of cohesive material at shallow depth from weathered parts of the Fittleworth Member would be expected to restrict vertical and lateral migration of groundwater (and therefore mobile contamination, if present). However where more granular material within the Fittleworth Member is present or the Hythe Formation is present, vertical and lateral migration

Condition	Description
	of groundwater (and therefore mobile contamination, if present) would be considered to be a potentially higher risk.
Depth to groundwater and flow	The anticipated depth to the groundwater table is in the order of 1.80 m below ground level estimated from historic borehole log data. Shallow groundwater in the site area is anticipated to flow in a northeast-southwest direction, down the topography and with direction of flow of the River Store. It is also likely that shallow water may be present in any made ground deposits present on-site. The piezometric surface in the deeper aquifer is anticipated to be at approximately 0 AOD (some 50 m bgl). The regional direction of groundwater flow is to the southwest in line with local topography.
Rising groundwater levels	BGS groundwater flooding susceptibility: Potential for groundwater flooding of property situated below ground level as well as at the surface.
Groundwater recharge/ attenuation	The site has a combined coverage of hardstanding, buildings and unsurfaced ground. Therefore, there be some limit to infiltration into ground and groundwater recharge, except where SUDS are present. Where unsurfaced ground is present direct drainage to ground will be occurring.
Licensed groundwater abstractions	The environmental database report indicates that there are no current licensed groundwater abstractions. However, 8 historical groundwater abstractions have been previously undertaken on the site for horticultural watering between 1988 – 2017. The nearest off site groundwater abstraction is 434m west of the site at Smock Alley at West Chiltington boreholes 1 for a potable water supply. The borehole log from this abstraction (publicly available via the BGS) indicates that the perforated section of this well in installed within the underlying Hythe Formation, which at the borehole location is underlain by a significant thickness (ca 35m) of the Fittleworth beds.
Source protection zones	The Envirocheck report indicates that the site lies within Zone III and Zone II of a groundwater Source Protection Zone (SPZ) for the potable abstraction 434m west of the site. Groundwater within the Hythe Formation is likely to be in hydraulic continuity with the potable abstraction.

3.7 Hydrology

Table 8 Summary of hydrology in site area

Condition	Description
Surface watercourses / features	There is a small pond like feature within north-eastern area of the site, and a number of drains present in lower elevation areas of site to the southwest. The nearest identified surface watercourse is the Lancing Brook, located approximately 400 m to the north east of the site.
Surface water abstractions	There are no surface water abstractions identified by the environmental database, within a 1 km radius of the site.

Condition	Description
Site drainage	Evidence from Google Earth and aerial photography of the site indicates that a ditch/stream formerly crossed the centre of the site east to west. This feature appears to have been infilled or culverted beneath the site.
Preliminary flood risk assessment	The indicative floodplain map for the area, shows that the site does not lie within a floodplain of a surface water feature. The risk of surface water flooding each year has been assessed by the EA as low risk. A flood risk assessment (FRA) is outside the scope of this report. There is a risk of groundwater flooding on-site. BGS groundwater flooding susceptibility states there is potential for groundwater flooding of property situated below ground level as well as at the surface, due to rising groundwater levels.

3.8 Sensitive land uses

Table 9 provides a summary of any environmentally sensitive areas identified within 250 m of the site based on the environmental database report.

Table 9 Environmentally sensitive areas

Feature	Present within 250m of site?	Details	Likely pathways from site?
International designations – Ramsar wetland, Special Area of Conservation (SAC), Special Protection Area (SPA)	No	-	n/a
National designations – Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), ancient woodland	No	-	n/a
Local designations – Local Nature Reserve, Site of Importance for Nature Conservation (SINC)	No	-	n/a
Nearest high sensitivity development, e.g. residential	n/a	-	n/a

4 SITE RECONNAISSANCE FINDINGS

A site reconnaissance survey was completed on 18th August 2022 by RSK. The characteristics of the site observed during the walkover and from current ordnance Survey maps are summarised in Table 10. There was no access to most buildings on site, with exception to the offices and western farm building. Access was limited to the far the north-western areas of field due to 1m to 2m high grasses and overgrown shrubs and weeds.

A site plan is provided in Figure 2 with photographic records included in Appendix F detailing the main features identified below.

Whilst the walkover summary includes consideration of current operations and housekeeping on the site as potential sources of contamination, it does not constitute a comprehensive environmental audit of the site, as covered under ISO 14001.

Table 10 Site reconnaissance findings

Feature	Description
Physical characteristics	
Access constraints	Far north-eastern fields were inaccessible due to high grasses and overgrown shrubs. There was limited access to buildings.
Site topography	The Site is essentially level, sloping gradually to the south-west. There were steep gradient differences between the eastern edge of the site and the adjacent offsite road and within the eastern soft landscaping area and edge of the former growing house in the east of the site.
Surface cover	Surface cover is approximately 40% hard landscaping and 60% soft landscaping. The hard landscaping includes former mushroom production farm buildings, concrete and asphalt paving and public right of way and other structures. The soft landscaping includes straw and grass fields, grass areas and trees and vegetation. Some areas were inaccessible, and other area of crushed concrete had been deposited on top of soft landscaping areas.
Site drainage	There are many drain covers, drainage channels, drainages gullies, and soakaways located throughout the site on the hardstanding areas. There were not outfalls to surface watercourses observed There was stagnant water within observed open concrete infiltration tank in the west of the site. The site walkover was conducted during heavy rain. Large puddles formed as would be expected but no waterlogging or flooding was observed.
Surface water	Although not observed during the walkover, mapping indicates that small pond like feature is present within the north eastern area of the site, and a number of drains present in lower elevation areas of site to the south west.
Trees and hedges	The Site contains a mixture of mature and young trees which bordered the fields onsite. There was a substantial amount of shrubs and overgrown vegetation in the north and west of the site.

Feature	Description
Invasive species	Based upon the walkover survey obvious evidence of Japanese Knotweed or other invasive species has not been identified on-site. However, it should be noted that a detailed survey of the possible presence or absence of invasive species is outside of the scope of investigation and consideration should be given to commissioning a specialist survey, as necessary.
Existing buildings on-site	The Site contains 15 derelict former mushroom production farm buildings. The buildings usages include: Office buildings, storage, workshops, former tipping, packing, recycling, dispatch buildings, former peat shed, refrigerators, boiler rooms. The Site contains the remnants of former buildings/structures, demolished down to ground in the centre of the western area of the site There was no evidence observed of gas protection measures in buildings.
Retaining walls and adjacent buildings on or close to site boundary	There are no such structures on or close to the site boundary There is a two-storey residential building on the northern boundary approximately 50m from site boundary.
Basements on-site	No evidence of existing or infilled basements was observed.
Made ground, earthworks and quarrying	Crushed concrete is located in the north-western area of the site.
Potentially unstable slopes on or close to site	None observed.
Buried and overhead services present	There are several manhole covers on-site. Overhead services were noted too. It is to be noted that there is no electricity onsite due to vandalism.
Environmental characteristics	
Underground/ above ground storage tanks and pipework	There is a significant number of pipes leading to ground in the southern area of the site. There is also a number of oil, gas and cooling tanks located around the site adjacent to the buildings.
Potentially hazardous materials storage and use	There are connected and disused gas and oil tanks located throughout the site. There is also large piles of concrete blocks, timber and refuse in the centre and western areas of the site.
Asbestos-containing materials	Corrugated concrete and crushed concrete which may contain asbestos was observed on site. A detailed survey of the buildings would be required to confirm the presence or otherwise of asbestos-containing materials.
Waste storage	Recycling bins were observed in farm buildings in the west of the site.
Fly-tipping	Evidence of possible fly-tipping was noted in the centre of the site, west of the former peat shed and within the crush concreate west of the Public Right of Way (PRoW) in the centre of the site.

Feature	Description
Electricity sub-stations/ transformers	There are existing sub-stations located in the east and centre of the site.
Evidence of possible land contamination on-site	Oil leakage was not observed on site but there was evidence of derelict tipped over tanks which could potentially have previously leaked oil. There is also evidence of sewage works on site. The surrounding areas are overgrown and access was limited.
Potential off-site sources of ground contamination	Not observed.

Potentially significant land contamination or geotechnical issues arising from the survey are summarised below:

- a number of oil, gas and cooling tanks located around the site adjacent to the buildings
- large piles of concrete blocks, timber and refuse in the centre and western areas of the site
- corrugated concrete and crushed concrete which may contain asbestos was observed on site
- fly-tipping was noted in the centre of the site
- derelict tipped over tanks which could potentially have previously leaked oil
- existing sub-stations located in the east and centre of the site
- evidence of sewage works on site.

5 PRELIMINARY GEOTECHNICAL CONSTRAINTS

5.1 Design class

BS EN 1997-1 defines three different Geotechnical Categories that structures may fall into, which are summarised as follows:

- Category 1: Small and relatively simple structures for which it is possible to ensure that the fundamental requirements will be satisfied on the basis of experience and qualitative geotechnical investigations; with negligible risk
- Category 2: Conventional types of structure and foundation with no exceptional risk or difficult ground or loading conditions
- Category 3: Structures or part of structures, which fall outside limits of Geotechnical Categories 1 and 2. Examples include very large or unusual structures; structures involving abnormal risks, or unusual or exceptionally difficult ground or loading conditions; structures in highly seismic areas; structures in areas of probable site instability or persistent ground movements that require separate investigation or special measures.

Based on the information provided above on the proposed development and in view of the anticipated ground conditions, a Geotechnical Category of Category 1 has been assumed for the purposes of designing the geotechnical investigation. This should be reviewed at all stages of the investigation and revised where necessary.

5.2 Preliminary geotechnical hazards assessment

A summary of commonly occurring geotechnical hazards associated with the anticipated geology outlined in Section 3.5 above is given in Table 11 together with an assessment of whether the site may be affected by each of the stated hazards.

Table 11 Summary of preliminary geotechnical risks that may affect site

Hazard category	Hazard status based on desk study findings and proposed development		Engineering considerations if hazard affects site
	Could be present and/or affect site	Unlikely to be present and/or affect site	
Sudden lateral changes in ground conditions	☒	☐	Likely to affect ground engineering and foundation design and construction
Shrinkable clay soils	☒	☐	Design to NHBC Standards Chapter 4 or similar

Hazard category	Hazard status based on desk study findings and proposed development		Engineering considerations if hazard affects site
	Could be present and/or affect site	Unlikely to be present and/or affect site	
Highly compressible and low bearing capacity soils, (including peat and soft clay)	☒	☐	Likely to affect ground engineering and foundation design and construction
Silt-rich soils susceptible to rapid loss of strength in wet conditions	☒	☐	Likely to affect ground engineering and foundation design and construction
Running sand at and below water table	☒	☐	Likely to affect ground engineering and foundation design and construction
Karstic dissolution features (including 'swallow holes' in Chalk terrain)	☐	☒	May affect ground engineering and foundation design and construction – refer to Section 4.1.2
Evaporite dissolution features and/or subsidence	☐	☒	May affect ground engineering and foundation design and construction
Ground subject to or at risk from landslides	☐	☒	Likely to require special stabilisation measures
Ground subject to peri-glacial valley cambering with gulls possibly present	☒	☒	Likely to affect ground engineering and foundation design and construction
Ground subject to or at risk from coastal or river erosion	☐	☒	Likely to require special protection/stabilisation measures
High groundwater table (including waterlogged ground)	☒	☐	May affect temporary and permanent works
Rising groundwater table due to diminishing abstraction in urban area	☐	☒	May affect deep foundations, basements and tunnels
Geological faults, fissures and breaklines	☐	☒	May affect ground engineering and foundation design and construction
Underground mining, including shafts and adits (e.g. coal, mineral)	☐	☒	Likely to require further assessment including potentially special stabilisation measures
Effects of extreme temperature (e.g. cold	☐	☒	Likely to affect ground engineering and foundation design and construction

Hazard category	Hazard status based on desk study findings and proposed development		Engineering considerations if hazard affects site
	Could be present and/or affect site	Unlikely to be present and/or affect site	
stores or brick kilns/furnaces)			
Existing sub-structures (e.g. tunnels, foundations, basements, and adjacent sub-structures)	☒	☐	Likely to affect ground engineering and foundation design and construction
Filled and made ground (including embankments, infilled ponds and quarries)	☒	☐	Likely to affect ground engineering and foundation design and construction
Adverse ground chemistry (including expansive slags and weathering of sulphides to sulphates)	☐	☒	May affect ground engineering and foundation design and construction
Site topography	☐	☒	May affect ground engineering and foundation design and construction
Note: Seismicity is not included in the above table as this is not normally a design consideration in the UK.			

The environmental database report and the British Geological Survey, National Geoscience Information Service has stated that there although they may be present, there is very low risk of landslides, hazards associated with shrinking/swelling of clay ground and hazards associated with running sands. Made ground is expected on site due the site's history of redevelopment, and evidence of debris identified on the site walkover survey.

6 INITIAL CONCEPTUAL SITE MODEL

In the UK land contamination is assessed using a risk-based approach taking account of the magnitude (severity of the hazard) and likelihood (probability) of occurrence. A 'receptor' is something that could be adversely affected by contamination (e.g. people, an ecological system, property or a water body). A 'pathway' is a route or means by which a receptor is or could be exposed to or affected by a contaminant. A 'contaminant source' is a hazard but it can only pose a risk to a receptor where a pathway is present. The relationship between sources, pathways and receptors are referred to as a conceptual site model. A risk can only be released where a contaminant source, pathway and receptor are all in place, referred to as a 'pollutant linkage'.

In line with LCRM (Environment Agency, 2021) and BS 10175: 2011 + A2 2017 (BSI, 2017), RSK has used information in the preceding sections to identify hazards (sources of contaminants), receptors that may be impacted and plausible linking pathways. Where all three are present this is termed a potentially complete contaminant linkage and a qualitative risk estimation is made.

6.1 Potential soil, soil vapour and groundwater linkages

6.1.1 Potential sources of contamination

Potential sources of soil and groundwater contamination identified from current activities and the history of the site and surrounding area are presented in Table 12. Ground gas sources are addressed in the next section.

Table 12 Potential sources of soil and groundwater contamination

Potential sources	Contaminants of concern
On-site	
Made ground (i.e. fill material)	Unknown fill material but potentially including brick, ash and clinker and containing toxic and phytotoxic metals, inorganics, polycyclic aromatic hydrocarbons (PAHs), asbestos
Former sewage works (1978-2021)	Ammoniacal nitrogen, chloride, coliforms and e-coli (faecal coliforms), toxic and phytotoxic metals, inorganics, polycyclic aromatic hydrocarbons (PAHs), asbestos, petroleum hydrocarbons
Nurseries and mushroom farming	Herbicides, pesticides, fungicides, formaldehyde, Petroleum hydrocarbons (petrol/diesel), fertilisers
Old oil/gas tanks	Petroleum hydrocarbons, chlorinated solvents, toxic and phytotoxic metals
Electrical substations	Polychlorinated Biphenyls (PCBs)
Abandoned vehicles	Petroleum hydrocarbons (petrol/diesel), chlorinated solvents, toxic and phytotoxic metals

Potential sources	Contaminants of concern
Fly tipping refuse	Inert/ commercial/ industrial/ municipal waste. Landfill leachate including ammoniacal nitrogen, chloride
Off-site	
Pump House (adjacent south)	Toxic and phytotoxic metals, inorganics, polycyclic aromatic hydrocarbons (PAHs), asbestos, petroleum hydrocarbons
Nurseries (100m & 250m south)	Petroleum hydrocarbons (petrol/diesel), fertilisers and pesticides
Sludge Beds (190m north)	Ammoniacal nitrogen, chloride, coliforms and e-coli (faecal coliforms), toxic and phytotoxic metals, inorganics, polycyclic aromatic hydrocarbons (PAHs), asbestos, petroleum hydrocarbons
Refuse Tip (210m north)	Unknown fill material but potentially including brick, ash and clinker and containing toxic and phytotoxic metals, inorganics, polycyclic aromatic hydrocarbons (PAHs), asbestos

There is potential for LNAPL sources to be situated within the ground on-site due to the presence of abandoned vehicles and disused oil and gas storage tanks.

6.1.2 Sensitive receptors and linking exposure/ migration pathways

Sensitive receptors identified at or in the vicinity of the site that could be affected by the potential sources identified above comprise:

- future site users – residential users [oral, dermal and inhalation exposure with impacted soil, soil vapour and dust/fibres, ingestion of home-grown produce, inhalation of vapours from groundwater and / or NAPL if present]
- future adjacent site users – residential, public open space users [migration of contamination via dust/fibre deposition, vapour or groundwater migration combined with inhalation]
- future buildings and services [direct contact with contaminated soils or groundwater and chemical attack]
- future vegetation [direct contact with contaminated soils or groundwater and root uptake leading to phytotoxicity]
- groundwater in Secondary A aquifer within Fittleworth Member bedrock deposits; nearby drains; groundwater within the principal aquifer within the Hythe Formation, potable abstraction and SPZ [leaching from soils/ percolation to aquifer/ lateral migration of dissolved phase/ NAPL etc.].

Potential linking pathways are show in brackets for each item above.

Please note that construction workers and future maintenance workers have not been identified in the conceptual model as receptors because risks are considered to be managed through health and safety procedures according to the CDM Regulations.

Ecological receptors are only considered within the conceptual model in the context of statutory protected sites.

6.2 Potential ground gas linkages

6.2.1 Ground gas generation potential

Potential ground gas sources identified for the site and surrounding are shown in Table 13.

Table 13 Potential ground gas sources

Potential sources	Indicative ground gas generation potential (CIEH, 2008)	Additional information
On-site		
Made ground with low degradable organic content (e.g. up to 5% organic material and no easily degradable waste).	Very low	BGS geology viewer has not mapped made ground on-site. However it is expected likely to be present as a result of historical development at the site.
Sewage sludge	Moderate	The south western area of the site has a former sewage works. There is potential for sewage sludge to be present in the ground.
Fly tipping and refuse	Low	Potential for buried refuse on-site as mound of fly tipping debris and refuse were found at the centre of the site during the walkover.
Off-site		
Sludge Beds (190m north)	Low	-
Refuse Tip (210m north)	Moderate	The site accepted inert, industrial waste between 1988 and 1990.

Given the anticipated ground conditions set out above, significant potential sources of ground gas generation have been identified associated with the former sewage works and potential presence of sewage sludge and a off site historical landfill 210m north of the site.

6.2.2 Preferential pathways for ground gas migration

Credible preferential pathways potentially connecting the source and receptor through vertical and lateral migration are:

- geology of the Fittleworth member if found to be relatively permeable
- building foundations, piled foundations and vibro-stone columns
- construction joints and cracks within building structure
- utility routes and service penetrations into buildings.

6.2.3 Sensitive receptors and linking pathways

Sensitive receptors identified at or in the vicinity of the site that could be affected by the potential ground gas sources identified above comprise:

- future site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation]
- adjacent site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation]
- future buildings and services [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion].

The assessment has identified receptors to include building structures and current/ proposed end-users.

Construction workers have not been identified as receptors for the purposes of this assessment. Risks may still be present to construction workers especially where works include the entry into excavations within the ground. Construction workers should undertake appropriate risk assessments and risks should be managed through health and safety procedures and the use of PPE.

6.3 Preliminary risk assessment

The preliminary risk assessment findings and potentially complete contaminant linkages are shown in Table 14 overleaf. The risk classification based on the combination of hazard consequence and probability using a risk matrix from CIRIA C552 (Rudland et al., 2001), a summary of which is included in Appendix G. This relates to Tier 1 preliminary risk assessment in LCRM (Environment Agency, 2021).

Table 14 Risk estimation for potentially complete contaminant linkages

Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Potential risk	Justification
On-site sources						
Former sewage works and potential buried sewage Sludge Made ground (i.e. fill material) Nurseries and mushroom farming	Future Users	Ingestion of contaminated soil and dust	Likely	Medium	Moderate	Ground investigation required.
	Adjacent Site Users	Inhalation of contaminated dust and potential vapours	Low Likelihood	Medium	Moderate / Low	
	Vegetation	Uptake of phytotoxic COPCs	Low Likelihood	Minor	Low	Ground investigation required.
	Water supply pipes	Direct contact and permeation	Low Likelihood	Medium	Moderate / Low	Water supply pipelines are likely to have been laid in a designated trench with “clean” backfill, and therefore there is considered to be a low likelihood that any potential contaminants would be in contact with the water supply pipes. Ground investigation required.
	Groundwater within underlying secondary A aquifer (Fittleworth beds) and nearby drains/shallow surface watercourses	Leaching from soils and subsequent vertical and lateral migration of potential COPCs	Low Likelihood	Medium	Moderate / Low	Potential for soil contaminates to leach into the shallow groundwater within the secondary A aquifer.
	Groundwater within underlying Principal aquifer (Hythe Formation) and potable	Leaching from soils and subsequent vertical and lateral migration of potential COPCs	Unlikely	Medium	Low	Site is expected to be underlain by the Fittleworth Beds which, if found to comprise predominantly cohesive material may restrict contamination migration to the Principal Aquifer within the Hythe Formation. However

Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Potential risk	Justification
	abstraction 400m west of site					it should be noted that BGS records indicate that the Fittleworth Beds may be absent in northern areas of the site.
	Future Users (residents) / Adjacent site users / Buildings	Migration and accumulation of ground gas	Low Likelihood	Severe	Moderate	Presence of sewage sludge and the condition of the sewage works is unknown. Potential for Ground gas accumulation if buried waste is present.
Fly tipping/refuse, abandoned vehicles/fuel tanks and demolition rubble	Future Users	Ingestion of contaminated soil and dust Inhalation of contaminated dust and potential vapours	Likely	Medium	Moderate	As identified by the site reconnaissance walkover, several piles of refuse and evidence of potential fly-tipping were observed. Potential for furth buried waste on-site should not be discounted.
	Adjacent Site Users		Unlikely	Medium	Low	
	Vegetation	Uptake of phytotoxic COPCs	Likely	Minor	Low	Potential for localised contamination to be present based on walkover findings, however severity is likely to be minor so considered risk is to be low.
	Water supply pipes	Direct contact and permeation	Low Likelihood	Medium	Moderate / Low	water supply pipelines are likely to have been laid in a designated trench with “clean” backfill, and therefore there is considered to be a low likelihood that any potential contaminants would be in contact with the water supply pipes.
	Groundwater within underlying secondary A aquifer	Leaching from soils and subsequent vertical and lateral migration of potential COPCs	Low Likelihood	Medium	Moderate / Low	Potential for soil contaminates to leach into the shallow groundwater within the secondary A aquifer.
	Groundwater within underlying Principal aquifer	Leaching from soils and subsequent vertical and	Unlikely	Medium	Low	Site is expected to be underlain by the Fittleworth Beds which, if found to comprise predominantly cohesive material may restrict

Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Potential risk	Justification
	(Hythe Formation) and potable abstraction 400m west of site	lateral migration of potential COPCs				contamination migration to the Principal Aquifer within the Hythe Formation. However it should be noted that BGS records indicate that the Fittleworth Beds may be absent in northern areas of the site.
	Future Users (residents) / Adjacent site users / Buildings	Migration and accumulation of ground gas	Unlikely	Severe	Low	Unlikely to be a significant source of ground gases.
Electrical Substations	Future Users	Ingestion of contaminated soil and dust	Low Likelihood	Medium	Moderate / Low	There is a low likelihood that PCBs may have migrated into soils.
	Adjacent Site Users	Inhalation of contaminated dust and potential vapours	Unlikely	Medium	Low	Given that PCBs have very low mobility it is unlikely that any contaminates will migrate to adjacent site users.
	Water supply pipes	Direct contact and permeation	Unlikely	Medium	Low	Given that PCBs have very low mobility it is unlikely that any contaminates will migrate to water supply pipes.
	Groundwater within underlying secondary A aquifer	Leaching from soils and subsequent vertical and lateral migration of potential COPCs	Unlikely	Medium	Low	Given that PCBs have very low mobility it is unlikely that any contaminates will migrate to the groundwater.
Electrical Substations	Groundwater within underlying Principal aquifer (Hythe Formation) and potable abstraction 400m west of site	Leaching from soils and subsequent vertical and lateral migration of potential COPCs	Unlikely	Medium	Low	Site is expected to be underlain by the Fittleworth Beds which, if found to comprise predominantly cohesive material may restrict contamination migration to the Principal Aquifer within the Hythe Formation. However it should be noted that BGS records indicate that the Fittleworth Beds may be absent in northern areas of the site.

Potential source	Potential receptor	Possible pathway	Likelihood	Severity	Potential risk	Justification
Off-site Sources						
Pump House (adjacent south)	Site Users	Vertical and lateral migration	Unlikely	Medium	Low	There is the low likelihood that contaminates may have migrated onto site.
			Unlikely	Medium	Low	
Nurseries (100m & 250m south)	Site Users	Vertical and lateral migration	Unlikely	Medium	Low	Given distance to site and low likelihood of a significant sources risks are considered to be low.
			Unlikely	Medium	Low	
Sludge Beds (190m north)	Site Users	Inhalation of vapours associated with groundwater impacted by volatile substances	Unlikely	Medium	Very Low	Given distance to site and low likelihood of a significant sources risks are considered to be low.
	Site Users/ building	Migration and accumulation of ground gas	Unlikely	Severe	Low	Given distance to site and low likelihood of a significant sources risks are considered to be low.
Refuse Tip (210m north)	Site Users	Inhalation of vapours associated with groundwater impacted by volatile substances	Unlikely	Medium	Low	Given distance to site and low likelihood of a significant sources risks are considered to be low.
	Site Users/ building	Migration and accumulation of ground gas	Low Likelihood	Severe	Moderate	Given the uncertainty regarding the degree of ground gas production at this potential source, risks are considered to be moderate at this stage.

Risk matrix		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Potentially complete contaminant linkages with a potential risk of moderate or higher identified in Table 14 comprise:

- future site users – residential users [oral, dermal and inhalation exposure with impacted soil, soil vapour and dust/fibres, ingestion of home-grown produce, inhalation of vapours from groundwater and / or NAPL if present]
- future adjacent site users – residential, public open space users [migration of contamination via dust/fibre deposition, vapour or groundwater migration combined with inhalation]
- future buildings and services [direct contact with contaminated soils or groundwater and chemical attack]
- groundwater in secondary A aquifer/ source protection zone within Fittleworth Member bedrock deposits [leaching from soils/ percolation to aquifer/ lateral migration of dissolved phase/ NAPL etc.]
- future site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation].

These potentially complete contaminant linkages need to be assessed further through appropriate site investigation to target the identified sources of potential contamination and assess the feasibility of identified pathways.

6.4 Data gaps and uncertainties

Key data gaps and uncertainties identified in the CSM at desk study stage include:

- access not available to certain parts of site due to overgrown vegetation. Particularly surrounding the former sewage works
- identified geological succession across the site
- chemical testing of soil and groundwater
- ground gas monitoring results
- groundwater depth and flow direction are conceptual at this stage
- no development plans or information regarding the site's future use has been provided.

7 SITE INVESTIGATION STRATEGY & METHODOLOGY

7.1 Introduction

At the time of this report, RSK has carried out intrusive investigation works on 22nd – 23rd and 27th September 2022 and a single return monitoring visit on 4th October 2022.

7.2 Objectives

The specific objectives of the investigation were as follows:

- to establish the ground conditions underlying the site including the extent and thickness of any made ground
- to investigate specific potential sources of contamination identified in initial CSM
- to determine groundwater depth and flow direction
- to assess geotechnical properties of soils
- to address data gaps identified in section 6.4.

7.3 Selection of investigation methods

The techniques adopted for the investigation were chosen with consideration of the objectives and site constraints, which are described below:

- window sample drilling was chosen based on the requirement for manoeuvrability around site, proposed drill depth of 5.00m bgl or refusal, requirement for in-situ geotechnical data, and installation of monitoring wells
- two days with an 8-tonne tracked mechanical excavator to excavate 16No. trial pits.

Prior to conducting intrusive works, utility service plans were obtained and buried service clearance undertaken in line with RSK's health and safety procedures. Copies of statutory service records obtained by RSK as part of the agreed scope of works are contained in Appendix E.

7.4 Investigation strategy

The ground investigation was carried out using intrusive ground investigation techniques in general accordance with the recommendations of BS5930:2015+A1:2020, which maintains compliance with BS EN 1997-1 and 1997-2 and their related standards. Whilst every attempt was made to record full details of the strata encountered in the boreholes, techniques of hole formation and sampling will inevitably lead to disturbance, mixing or loss of material in some soils and rocks.

The investigation strategy involved targeted boreholes and trial pits with the selected locations based upon the information provided by the client and obtained in the desk study.

The constraints to the investigation were as follows:

- stockpiles of demolition rubble and derelict building structures prevented access to certain areas of the site
- due to delays with utility clearance, TP1 and TP7 were not completed.

Exploratory hole locations were proposed to avoid known service locations and buried service clearance was undertaken in line with RSK's health and safety procedures. The locations were positioned within across the site and in targeted area of suspected potential contamination, to obtain good coverage with the most relevant data.

Details of the investigation locations, installations and rationale are presented in Table 15. 16No. machine excavated trial pits were dug to a maximum depth of 3.00m bgl before being backfilled with arisings. Window sample boreholes were drilled to a maximum depth of 5.00m bgl or refusal and each was installed with a groundwater monitoring well. An exploratory hole location plan is shown on Figure 2.

Table 15 Exploratory hole and monitoring well location rationale

Investigation type	Number	Designation	Monitoring well installation	Rationale examples below
Boreholes by window sampling methods	5	WS1 to WS5	Gas/ groundwater	To determine the contamination and geotechnical status of the ground beneath the site and to install additional groundwater monitoring wells.
Trial-pits excavated by mechanical excavator	16	TP2 to TP6; TP8 to 16	n/a	To accurately log the upper strata in targeted and non-targeted locations beneath the site, principally in areas of suspected potential contamination. Collect samples from the shallow made ground soils.

7.4.1 Implementation of investigation works

The exploratory holes were logged by an engineer in general accordance with the recommendations of BS5930:2015+A1:2020 (which incorporates the requirements of BS EN ISO 14688-1, 14688-2 and 14689-1).

The monitoring well construction and associated response zones are detailed on the exploratory hole records in Appendix H.

The soil sampling and analysis strategy was designed to characterise each encountered soil strata, permit an assessment of the potential contaminant linkages identified and investigate the geotechnical characteristics. In addition, samples were taken to allow for geo-environmental and geotechnical testing to be undertaken.

Soils collected for laboratory analysis were placed in a variety of containers appropriate to the anticipated testing suite required. They were dispatched to the laboratory in cool boxes under chain of custody documentation. Samples were stored in accordance with the RSK quality procedures to maintain sample integrity and preservation and to minimise the chance of cross contamination.

Selected samples were placed in polythene bags for headspace screening with a photo-ionisation detector (PID) fitted with a 10.6 eV bulb. The PID screening results are presented on the exploratory hole records.

7.5 Monitoring programme

7.5.1 Groundwater monitoring and sampling

At the time of writing a single rounds of groundwater monitoring has been undertaken. The monitoring records, including dates, are shown in Appendix I.

Development of the monitoring wells following installation was undertaken comprising the removal of three well volumes using a disposable bailer.

Depths to groundwater were recorded using an electronic interface probe.

At the time of providing this interim report groundwater sampling has not yet been collected and the details and results of the groundwater sampling will be included in the final report.

7.6 Laboratory testing

Laboratory testing was undertaken at a UKAS accredited laboratory with ISO17025 and MCERTS accredited test methods were specified where applicable for contamination testing and as shown in the laboratory test certificates appended.

7.6.1 Chemical analysis of soil samples

The soil sampling strategy was designed to characterise made ground and/or natural strata typically within the upper 1.0m of the ground profile whilst also characterising deeper strata and the potential for contaminant migration from relevant sources of identified within the preliminary CSM.

The programme of chemical tests undertaken on soil samples obtained from the intrusive investigation is presented in Table 16 with the laboratory testing results contained in Appendix J.

Table 16 Summary of chemical testing of soil samples

Stratum	Tests undertaken	No. of tests
Topsoil	Asbestos screening and ID, Speciated PAH-16MS, Standard Metals Suite (Soil) As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn., Cr hexavalent, TPH CWG (spec.TPH),	4
	TOC	3

Stratum	Tests undertaken	No. of tests
	Organochlorine and organophosphorus pesticides, Herbicides	2
	Leachable metals	1
Made ground	Asbestos screening and ID, Speciated PAH-16MS. Standard Metals Suite (Soil) As, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn., Cr hexavalent	7
	TPH CWG (spec.TPH),	8
	pH	5
	TOC	4
	Cyanide total and cyanide free, Sulphate, Sulphide, Ammoniacal Nitrogen as N, Nitrate, Phosphates, Total coliforms and e-coli (faecal coliforms)	5
	PCB 7 plus WHO 12 congeners	1
	Leachable metals	4
	Bulk asbestos ID	2
Fittleworth Member	Asbestos screening and ID	3
	Speciated PAH-16MS.	3
	Standard Metals Suite (Soil) As, Cd, Cr, , Cu, Hg, Pb, Ni, Se, Zn.	3
	Cr hexavalent	6
	TPHCWG (spec.TPH),	7
	TOC	1

7.6.2 Geotechnical analysis of soils

Where appropriate disturbed, bulk and undisturbed soil samples were taken for geotechnical classification testing with the depth and nature of samples detailed within the exploratory hole records.

Where appropriate, testing was undertaken in accordance with BS 1377:1990 Method of Tests for Soils for Civil Engineering Purposes or, where superseded, by the relevant part of BS EN ISO 17892:2014 Geotechnical investigation and testing - Laboratory Testing of Soil. Tests carried out in order to classify the concrete class required on-site have been undertaken following the procedures within BRE SD1:2005.

The programme of geotechnical tests undertaken on samples obtained from the intrusive investigation is presented in Table 17.

Table 17 Summary of geotechnical testing undertaken

Strata	Tests undertaken	No. of tests
Fittleworth Member	Moisture content %	25
	Liquid/ plastic limits	16

Strata	Tests undertaken	No. of tests
	Sieve analysis	16
	BRE Suite	6

7.6.3 Chemical analysis of groundwater

At the time of issuing this interim report groundwater samples have yet to be collected. Chemical testing undertaken on groundwater samples obtained during the monitoring programme will be included in the final report.

8 SITE INVESTIGATION FACTUAL FINDINGS

The results of the intrusive investigation and subsequent geo-environmental and geotechnical laboratory analysis undertaken are detailed below.

8.1 Ground conditions encountered

The descriptions of the strata encountered, notes regarding visual or olfactory evidence of contamination, list of samples taken, field observations of soil and groundwater, in-situ testing and details of monitoring well installations are included on the exploratory hole records presented in Appendix H.

The exploratory holes revealed that the site is underlain by a variable thickness of topsoil and made ground over clayey sands (the Fittleworth Member). This appears to confirm the stratigraphical succession described within the preliminary CSM.

Table 6 General succession of strata encountered

Stratum	Exploratory holes encountered	Depth to top of stratum m bgl	Proven thickness (m)
Topsoil	WS5, TP2, TP5, TP8, TP9, TP13 & TP16	GL	0.20 – 0.45
Made ground	WS1 – WS4, TP3, TP4, TP6, TP10 – TP12, TP14 TP15	GL	0.30 – 0.90
Fittleworth Member	WS1, WS3 – WS5, TP2 – TP16	0.20	>2.15 – >4.50*
Notes * depth not proven			

8.1.1 Topsoil

Topsoil was encountered within 7no. exploratory hole locations to depths of between 0.20m and 0.45m bgl and generally comprised of dark brown sandy clay with frequent rootlets and organic material.

8.1.2 Made ground

Made Ground was encountered within 12no. exploratory hole locations to depths of between 0.30m and 0.90m bgl and generally comprised of dark brown slightly clayey gravelly fine to coarse sand. Gravel is subangular to subrounded fine to coarse flint with occasional fine fragements of brick and plastics.

Within TP4 between 0.25m and 0.40m bgl reworked chalk was recovered as structureless white mottled dark grey and black clayey subangular to subrounded fine to medium chalk gravel with ash, clinker and glass fragments.

8.1.3 Fittleworth member

The Fittleworth Member was encountered beneath the topsoil / made ground at a depth of between 0.20m and 0.90m bgl. The base of the Fittleworth Member was not proven in

any of the exploratory locations, but was encountered at thicknesses of >2.15m and >4.50m. Based on the site descriptions and in-situ tests carried out this layer can be described as orange-brown mottled grey sandy clay or clayey sand. Sandstone gravels were encountered within the Fittleworth Member in WS5, and below 2.3m bgl in TP13,

8.1.4 Visual/olfactory evidence of soil contamination

Potential asbestos containing material was observed at locations TP14 and WS2.

Hydrocarbon odours and black staining have been observed at locations TP4, WS3 and WS4. A summary of the PID readings collected from these locations is presented below in Table 19.

Table 19 PID readings

Location	Depth	PID reading
TP4	0.10	0.0
	0.30	0.0
	1.70	0.0
	2.20	162.0
WS3	2.50	205.1
	3.50	215.9
	4.50	39.6
	4.80	0.0
WS4	2.70	24.9
	3.50	0.5
	3.80	3.8

8.2 Groundwater and surface water

8.2.1 Groundwater encountered during intrusive works

Perched groundwater within the made ground was only encountered within TP11 at 0.50m bgl. Groundwater water observed within TP9 at the base of the trial pit at 2.8 bgl. No other groundwater strikes were encountered during the intrusive investigation.

8.2.2 Groundwater encountered during monitoring

Rest groundwater levels recorded during the monitoring programme are summarised in Table 20 based on the data provided in Appendix I.

Table 20 Summary of groundwater monitoring results

Monitoring well	Date	Response zone stratum	Depth to water (m bgl)	Depth to base of borehole (m bgl)
WS1	04/10/22	1.00 – 4.00	3.70	3.86
WS3		1.00 – 5.00	4.45	4.92
WS4		1.00 – 4.00	3.17	3.87
WS5		1.00 – 3.50	Dry	3.53

The findings are considered to potentially reflect the groundwater table in the Fittleworth Member.

It should be noted that groundwater levels might fluctuate for a number of reasons including seasonal variations. On-going monitoring would be required to establish both the full range of conditions and any trends in groundwater levels.

8.2.3 Visual/olfactory evidence of groundwater contamination

No visual evidence of groundwater contamination however PID readings of 71.4ppm in WS3 were encountered. In addition, PID readings identified 0.3ppm in WS4 and 0.1ppm in WS5.

8.3 Chemical laboratory results

The soil testing results are presented in Appendix J.

9 GEO-ENVIRONMENTAL ASSESSMENT

9.1 Refinement of initial CSM

Hydrocarbon odours and black staining have been observed at locations TP4, WS3 and WS4.

The Hythe Formation was not encountered during the site investigation however it should be noted that trial pit location TP7 was not completed. This trial pit was proposed to be located in the northeast of the site where the Hythe Formation is expected to outcrop, on the basis of BGS mapping.

The preliminary risk assessment highlighted the possibility of potential contamination associated with the former sewage works in the east of the site. However no visual or olfactory evidence of contamination was encountered during the intrusive investigation.

Where encountered, made ground was proven to depths of between 0.3 and 0.9m and therefore is considered unlikely to represent a significant source of ground gases.

Potential contamination associated with potential asbestos containing material (ACM) at the surface (and within many of the building structures) was detailed in the preliminary risk assessment and the asbestos survey report undertaken by Asbestos Survey Consultants. Potential ACMs were encountered at several exploratory locations in the east and centre of the site. The laboratory results have confirmed that the suspected materials comprise asbestos cement, containing chrysotile. A quantification was additionally requested following the positive identification of ACM.

Based on the findings during the intrusive works pollutant linkages associated with water supply pipes and future users/adjacent site users through oral, dermal and inhalation exposure with impacted soil, soil vapour and dust/fibres require further assessment.

9.2 Linkages for assessment

As described in LCRM (Environment Agency, 2021), there are two stages of quantitative risk assessment (QRA), Tier 2 generic (GQRA) and Tier 3 detailed (DQRA). The GQRA comprises the comparison of soil, groundwater, soil gas and / or ground gas results with generic assessment criteria (GAC) that are appropriate to the linkage being assessed. This comparison can be undertaken directly against the laboratory results or following statistical analysis depending upon the sampling procedure that was adopted. This assessment relates to LCRM Stage 1, Tier 2 generic quantitative risk assessment

Following the refinement of the CSM, the potentially complete contaminant linkages that require further assessment and the methodology of assessment are presented in Table 21.

Table 21 Linkages for GQRA

Potentially relevant contaminant linkage	Assessment method
Human health and phytotoxic-related linkages	
H1. Oral, dermal and inhalation exposure with impacted soil, soil vapour and dust by future residents	Human health GAC in Appendix K for a proposed residential end use with home-grown produce since the proposed end use is assumed to include residential gardens.
H2. Inhalation exposure of future residents to asbestos fibres	Qualitative assessment based on the asbestos minerals present, their form, concentration, location and the nature of the proposed development.
H3. Organic contaminants permeating potable water supply pipes	Comparison of soil data to GAC in Appendix M for plastic water supply pipes using UKWIR (2010) guidance.
Controlled waters-related linkages	
W1. Leaching of soil contaminants and dissolved phase migration to wider secondary aquifer	Comparison of leachate data to the relevant GAC in Table 1 of Appendix N.
W2. Migration of dissolved phase contaminants to wider secondary aquifer	Comparison of groundwater data to relevant GAC based on Environmental Quality Standard (EQS) in Table 1 of Appendix N.

At the time of writing, generic quantitative risk assessment of ground gas-related linkages were outside the scope of the investigation.

9.3 Methodology and assessment of human health and phytotoxic-related linkages

9.3.1 H1. Oral, dermal and inhalation exposure with impacted soil by future occupants/site users

A soil organic matter (SOM) of 1% has been selected since laboratory results within the total organic carbon results range from 0.3 % and 2.2%. The soil screening output spreadsheet is presented as Appendix O.

The ratio of soil contaminant concentrations of genotoxic PAHs (benz(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenz(ah)anthracene, indeno(123-cd)pyrene and benzo(ghi)perylene) against benzo(a)pyrene have been compared against lower and upper limits set out in C4SL project methodology (CL:AIRE, 2014). All genotoxic PAH ratios were within the upper and lower bounds of the underlying toxicological study. Therefore, and in accordance with HPA guidance (HPA, 2010), the assessment of genotoxic PAHs has been based on the use of benzo(a)pyrene as a surrogate marker. Therefore, a risk from genotoxic PAHs is only considered likely if the respective benzo(a)pyrene concentrations exceed the relevant GAC.

Exceedances of PAHs against the RSK GAC of residential with plant uptake were identified within the made ground at WS3 from 0.40m – 0.50m bgl. Therefore it is

considered that indicating that made soils in this location are not considered suitable for the proposed use.

The distribution of made ground and topsoil, as encountered during the site investigation, is shown in Figure 3.

In additional petroleum hydrocarbon concentrations above the GACs were identified in visually identifiable hydrocarbon impacted natural soils at WS3 from 2.50m – 2.60m bgl. Exceedances were detected for aliphatic fraction >EC8-EC10, >EC10- EC12; and aromatic fractions >EC8-EC10, >EC10-EC12, and >EC12-16. Given the depth of this sample (assuming basements are not proposed in this vicinity or site levels are otherwise not significantly reduced in this vicinity), these exceedances are considered unlikely to pose a significant risk to human health. However, it is noted that hydrocarbon impact has been identified in TP4, WS3 and WS4, which covers a relatively wide area. Further investigation is recommended to delineate the potential area of contamination and to identify whether more significant, currently undetected contamination is present in this area.

9.3.2 H2. Inhalation exposure of future occupants/site users to asbestos fibres

There was visible confirmation of ACM at exploratory location TP14 & WS2 within the made ground, in the form of a single fragment of tile. The samples taken of this material identified chrysotile cement bulk asbestos fibres. In addition, asbestos chrysotile fibres in the made ground were encountered within WS2 at 0.20m to 0.30m bgl, WS3 at 0.30m to 0.40m bgl and TP10 at 0.35m to 0.45m bgl.

As asbestos was identified, qualitative assessment based on the asbestos minerals present, their form, concentration, location and the nature of the proposed development is required.

It should be noted that asbestos is in several of the buildings on site and asbestos fragments were noted to be at ground level. It should also be noted that asbestos contamination can be extremely localised, and it may not be possible to delineate asbestos contamination within the made ground.

However, no asbestos has been detected in any of the 3no samples of topsoil tested for an asbestos screen.

9.3.3 H3. Organic contaminants permeating potable water supply pipes

For initial assessment purposes, the results of the investigation have been compared with the GAC presented in Appendix L for this linkage, which are reproduced from *UKWIR Report 10/WM/03/21. Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites* (UKWIR, 2010).

The results indicate that a relevant linkage may exist associated with organic contaminants and therefore pollutant polyethylene (PE) and/or polyvinyl chloride (PVC) water supply pipes are expected to be unsuitable for use on the development unless remedial measures are implemented that mitigate the risk.

It should be noted that at the time of this investigation the future routes of water supply pipes had not been established, hence the investigation and sampling strategy may not be fully compliant with UKWIR recommendations. Consequently, a targeted investigation

and specific sampling/analytical strategy may be required at a later date once the route(s) of the supply pipe(s) are known. In addition, it is recommended that the relevant water supply company be contacted at an early stage to confirm its requirements for assessment, which may not necessarily be the same as those recommended by UKWIR.

9.4 Methodology and assessment of controlled waters-related linkages

9.4.1 W1. Leaching of soil contaminants and dissolved phase migration to wider secondary aquifer (heavy metals)

There is no evidence of heavy metal contaminants having entered groundwater underlying the site. Concentrations of hazardous substances should therefore be assessed against MRV or background concentrations. Concentrations of non-hazardous pollutants should be assessed against target concentrations depending on the receptor, i.e. DWS for Principal aquifer or potable abstraction (and secondary aquifers' where these support significant local potable water supply), and EQS for surface water receptors and some secondary A and secondary B aquifers.

No leachable metals were found to exceed the GAC.

9.4.2 W2. Migration of dissolved phase contaminants to wider secondary aquifer

At the time of issuing this interim report groundwater samples have yet to be collected. Chemical testing undertaken on groundwater samples obtained during the monitoring programme will be included in the final report.

The Hythe Formation was not encountered during the site investigation, although time and and access constraints prevented exploratory locations being completed in the north of the site where this formation would be expected to outcrop. However, with reference to the historical mapping reviewed in Section 3.1, no significant development is indicated to have occurred in this area and the potential for mobile contamination to be present within this area is considered low. The Fittleworth Member has been found to comprise a variable orange-brown mottled grey sandy clay or clayey sand. Based on the thickness of the Fittleworth Member encountered within the investigation, coupled with the relatively high degree of fine-grained material within this stratum, it is considered that risks to the Principal Aquifer within the Hythe Formation (and the potable abstraction located 434m west of the site can be considered as low).

9.5 Uncertainties and implications in refined CSM and GQRA

In accordance with good practice, data gaps and uncertainties in the refined CSM have been identified at this stage. These are summarised in Table 22 along with the likely implications.

Table 7 Data gaps and uncertainties

Data gap/ uncertainty	Details	Implications
Groundwater sampling and analysis has not yet been completed.		Groundwater results will further inform generic quantitative risk assessment of risks to controlled waters and human health via vapour inhalation pathways.
Source of hydrocarbon impact and lateral extent of impact has not been determined.	Hydrocarbon odours and black staining were encountered within TP4, WS3 and WS4.	Potentially higher concentrations of contaminants could be present closer to the original source of the hydrocarbon contamination.
Areas of limited investigation – areas of north and west of the site.	Due to time constraints and access restrictions areas of the site in the north and west of the site have a limited frequency of sampling.	Given the distribution of existing results, it is considered likely that these areas comprise topsoil (which the existing data indicates is suitable for the proposed use) overlying natural ground; however further investigations would be recommended to reduce uncertainty in this regard. Possible presence of Hythe Formation outcropping or at shallower depth in northern areas of the site.
Delineation of areas of made ground.		Would of value to delineate areas where remediation of asbestos impacted soils will be required.
Ground gas monitoring.		Required to assess ground gas risks.

10 GEOTECHNICAL ASSESSMENT

At this stage the geotechnical assessment has not be included in the interim report and the geotechnical assessment will be included in the final report upon receipt of the geotechnical laboratory analysis.

11 CONCLUSIONS AND RECOMMENDATIONS

11.1 Geo-environmental assessment

Based on the results of the site investigation and GQRA, the contaminant linkages that have been identified to be potentially complete (relevant contaminant linkages) and to require further action are:

- risk to future site users from oral, dermal and inhalation exposure with contaminants in the made ground (PAHs and asbestos)
- risks to future site users and adjacent site users from inhalation of volatile contaminants associated with petroleum hydrocarbon contaminants in the vicinity of TP4, WS3 and WS4
- risks to groundwater in secondary A aquifer within Fittleworth Member bedrock deposits
- future site users – residential users [migration and ingress of ground gases into buildings, build-up in confined spaces and explosion/ asphyxiation].

The investigation has identified that areas of made ground at the site (which appear to be located in south-eastern and central areas of the site which have been subject to historical phases of redevelopment) are present which include asbestos and, locally PAH – impacted soils. However, it should also be noted that asbestos contamination can be extremely localised, and it may not be possible to delineate asbestos contamination within the made ground.

However, no asbestos has been detected in any of the 3no samples of topsoil tested for an asbestos screen, nor have any contaminants been detected in excess of generic assessment criteria within the topsoil samples tested. Therefore, on the basis of these results it is considered that the topsoil material present at the site is suitable for use within a residential with private gardens end use scenario. It is recommended however that additional sampling and testing be undertaken to confirm this assessment. The distribution of made ground and topsoil, as encountered during the site investigation, is shown in Figure 3.

Visual and olfactory evidence of petroleum hydrocarbon contamination has been encountered within TP4, WS3 and WS4, located in the southeast of the site. Historical mapping indicates the presence of historical tanks in this vicinity. Petroleum hydrocarbon concentrations above the GACs were identified in visually identifiable hydrocarbon impacted natural soils at WS3 from 2.50m to 2.60m bgl. Exceedances were detected for aliphatic fraction >EC8-EC10, >EC10- EC12; and aromatic fractions >EC8-EC10, >EC10-EC12, and >EC12-16. Given the depth of this sample (assuming basements are not proposed in this vicinity or site levels are otherwise not significantly reduced in this vicinity), these exceedances are considered unlikely to pose a significant risk to human health. However, it is noted that hydrocarbon impact has been identified in TP4, WS3 and WS4, which covers a relatively wide area. Further investigation is recommended to delineate the potential area of contamination and to identify whether more significant, currently undetected contamination is present in this area. Groundwater sampling and

analysis is recommended to assess risks to controlled water and refine the assessment of risk to human health via vapour inhalation pathways.

The investigation has not identified any significant evidence of a significant source of hazardous ground gases on site. However, given the recorded landfill site ca 200m to the north, a programme of ground gas monitoring is recommended.

It should be noted that this interim report will be updated following the receipt of groundwater analytical results.

11.2 Geotechnical

To be included once laboratory results received.

11.3 Recommendations

The following recommendations are made for further assessment of the site to investigate the risks identified above and to address remaining uncertainties:

- groundwater sampling and generic quantitative risk assessment for Controlled Waters and vapour inhalation risks to end users
- further investigation to delineate the hydrocarbon contamination encountered in the vicinity of TP4, WS3 and WS4
- a programme of gas monitoring at the site
- further investigations to delineate areas of made ground, confirm that the topsoil material at the site is suitable for the proposed use and confirm the stratigraphical succession in northern area of the site
- an updated asbestos survey to confirm the potential ACM debris / waste materials identified at ground level.

REFERENCES

Standards and guidance

AGS (May 2021), 'Assessment and Control of Asbestos Risk in Soil- Part 1: Protection of personnel working on Ground Investigations'.

AGS (May 2021), 'Assessment and Control of Asbestos Risk in Soil- Part 2: Protection of Personnel working in Geotechnical and Geoenvironmental Laboratories.

Baker, K., Hayward, H., Potter, L., Bradley, D. and McLeod, C. (2009), CIRIA Report C682. The VOCs Handbook. Investigating, assessing and managing risks from inhalation of VOCs at land affected by contamination.

Boyle, R. A. and Witherington, P. J. (2007), 'Guidance on Evaluation of Development Proposals on Sites where Methane and Carbon Dioxide are Present', National House-Building Council and RSK Group.

British Standards Institution (BSI) (1990), 'BS 1377:1990. Methods of test for soils for civil engineering purposes'.

British Standards Institution (BSI) (2020), 'BS 5930:2015+A1:2020. Code of practice for ground investigations'.

British Standard Institution (BSI) (2019), 'BS 8485:2015+A1:2019. Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings'.

British Standards Institution (BSI) (2017), 'BS 10175:2011 + A2:2017. Investigation of potentially contaminated sites: Code of practice'.

British Standards Institution (BSI) (2013), BS8576:2013. Guidance on investigations for ground gas – permanent gases and volatile organic compounds (VOCs).

Building Research Establishment (2005), BRE Special Digest 1: Concrete in aggressive ground.

Card G, Wilson S, Mortimer S, (2012). A Pragmatic Approach to Ground Gas Risk Assessment. CL:AIRE Research Bulletin RB17. CL:AIRE, London, UK. ISSN 2047- 6450 (Online).

Chartered Institute of Environmental Health (CIEH), (2008), The Local Authority Guide to Ground Gas. Wilson, Card and Haines, September 2008.

CIRIA (2014). Good practice on the testing and verification of protection systems for buildings against hazardous ground gases.

Environment Agency (2021), 'Technical Guidance WM3. Guidance on the classification of and assessment of waste, 1st Edition, v.1.2, October 2021.

Environment Agency (2020), Land contamination risk management, https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm, April 2021.

National House Building Council (NHBC) (2016), Technical Extra, April 2016.

Norbury, D. (2010), Soil and Rock Description in Engineering Practice.

Part IIA of the Environmental Protection Act (Contaminated Land Regulations (England)) 2002.

Rudland, D. J., Lancefield, R. M. and Mayell, P. N. (2001), CIRIA C552. Contaminated Land Risk Assessment: A Guide to Good Practice.

Stone, K., Murray, A., Cooke, S., Foran, J., Gooderham, L., (2009) CIRIA C681, Unexploded Ordnance (UXO). A guide or the construction industry.

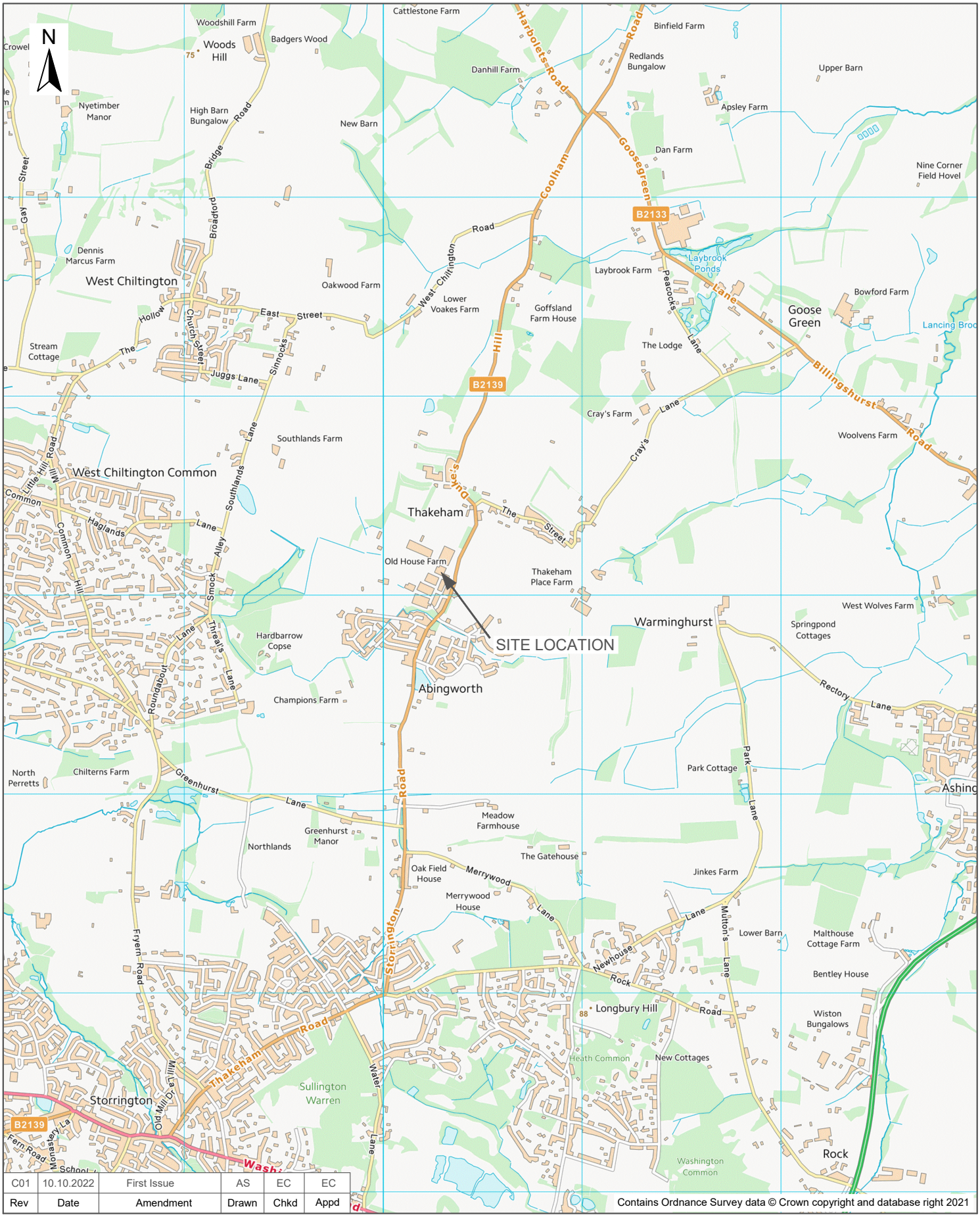
Transport and Road Research Laboratory, (1970), 'TRRL Road Note 29 (Appendix 1). Road pavement design'.

Transport and Road Research Laboratory (1984), 'TRRL Report LR1132 (Table C1)'.

UK Water Industry Research, (2010), UKWIR Report 10/WM/03/21. Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites.

FIGURES

FIGURE 1 SITE LOCATION PLAN



Rev	Date	Amendment	Drawn	Chkd	Appd
C01	10.10.2022	First Issue	AS	EC	EC

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Client: Monagham Mushrooms Ltd

Project Name: Storrington Road, Thakeham

Description: Site Location Plan

Dimension	Size	Scale	Geolocation	Project ID	Drawing no.	Rev	File name
m	A4	1:25,000	510291,117117	305276	11101	C01	305276-ST-111-SS-D-C-11101-C01

FIGURE 2 EXPLORATORY HOLE LOCATION PLAN

N

TP16
TP7
TP15
TP14
TP11
TP6
TP13
TP8
TP5
WS2
WS5
WS1
TP10
TP12
TP9
TP1
WS3
TP4
TP2
TP3
WS4

Sewage Works
Drain
Track
Old House Farm
Rushfield Bungalows
Stream House
Woodlands Cottages
Recreation Ground
HIGH BAR AVE
ES5

LEGEND

- Site boundary
- Trial Pit Location
- Window Sample Location

Rev	Date	Amendment	Drawn	Chkd	Appd
C01	10.10.22	First Issue	AS	EC	EC

RSK GEOSCIENCES
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Web: www.rsk.co.uk

Client: Monagham Mushrooms Ltd

Project Name: Storrington Road, Thakeham

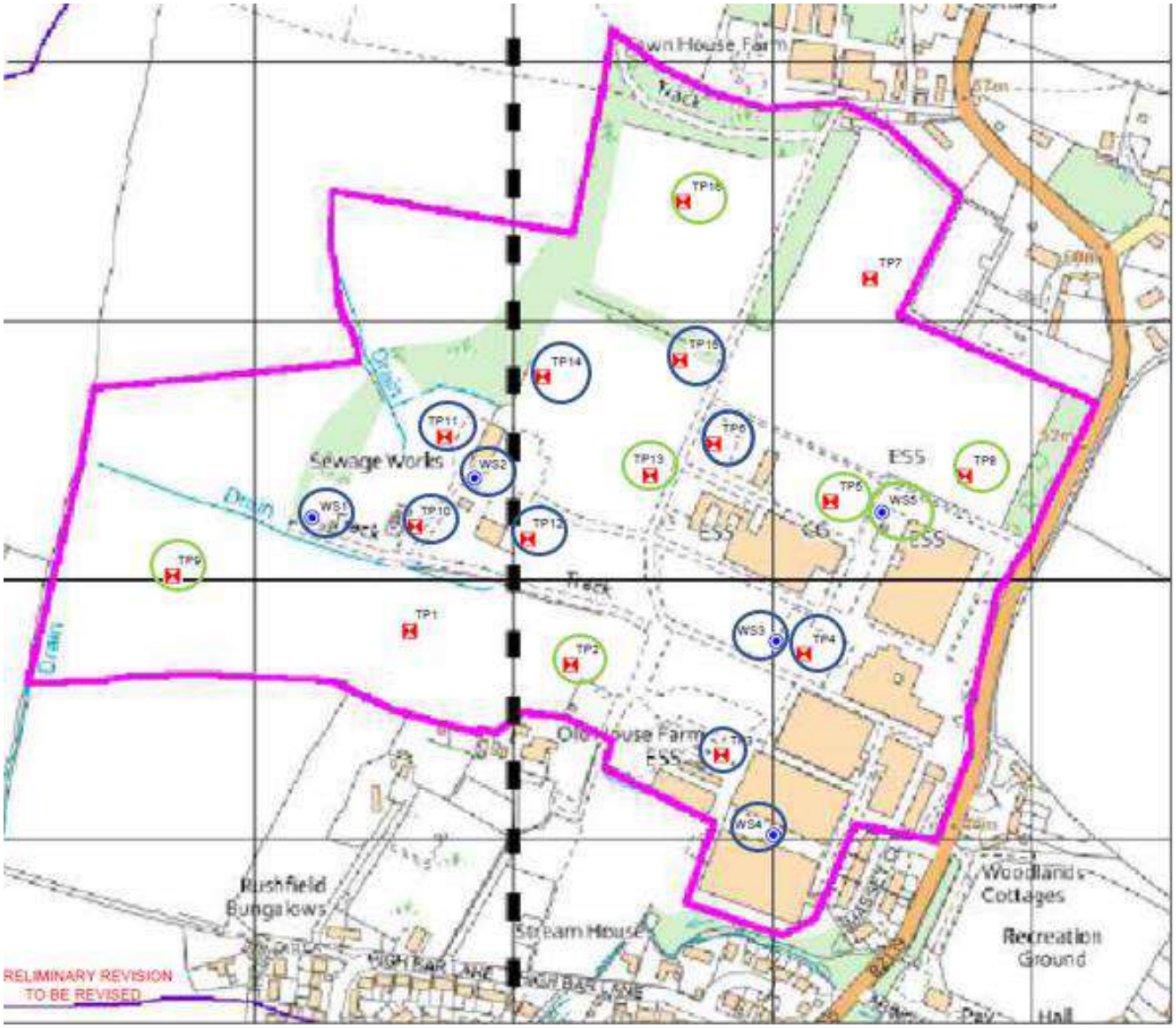
Description: Exploratory Hole Location Plan

Project ID	Drawing no.	Revision
305276	22201	C01

File name: 305276-ST-222-SS-D-C-22201-C01

Dimensions	Scale	Size
m	NTS	A3

FIGURE 3 DISTRIBUTION OF MADE GROUND & TOPSOIL



Topsoil encountered at exploratory location

Made Ground encountered at exploratory location

RSK GEOSCIENCES	**DISTRIBUTION OF MADE GROUND & TOPSOIL**	**Client: Monaghan Mushrooms Ltd**	**Figure No: 3**
		Site: Storrington Road, Thakeham	**Job No: 305276**
		Scale: Not to Scale	**Source: Client**

APPENDICES

APPENDIX A
SERVICE CONSTRAINTS

1. This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Monaghan Mushrooms Limited (the "Client") in accordance with the terms of a contract [RSK Environment Standard Terms and Conditions] between RSK and the Client. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by an environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.
2. Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. **Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.**
4. It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK 's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date of this report, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the Client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, persistent, bioaccumulative or toxic chemicals (including PFAS compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.
7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of information, including documentation, obtained from third parties and from the Client on the history and usage of the site,

unless specifically identified in the Services or accreditation system (such as UKAS ISO 17020:2012 clause 7.1.6):

a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.

b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.

c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the Client and RSK.

8. The intrusive environmental site investigation aspects of the Services are a limited sampling of the site at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope between the client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species are not present.

9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.

10. The comments given in this report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

11. Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works.

12. Unless stated otherwise, only preliminary geotechnical recommendations are presented in this report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed.

APPENDIX B
SUMMARY OF LEGISLATION AND POLICY RELATING TO LAND CONTAMINATION

Part IIA of the Environmental Protection Act 1990

Part IIA of the Environmental Protection Act 1990 (Part IIA) and its associated Contaminated Land Regulations 2000 (SI 2000/227), which came into force in England on 1 April 2000, formed the basis for the current regulatory framework and the statutory regime for the identification and remediation of contaminated land. Part IIA of the EPA 1990 defines contaminated land as 'any land which appears to the Local Authority in whose area it is situated to be in such a condition by reason of substances in, on or under the land, that significant harm is being caused, or that there is significant possibility of significant harm being caused, or that pollution of controlled waters is being or is likely to be caused'. Controlled waters are considered to include all groundwater, inland waters and estuaries.

In August 2006, the Contaminated Land (England) Regulations 2006 (SI 2006/1380) were implemented, which extended the statutory regime to include Part IIA of the EPA as originally introduced on 1 April 2000, together with changes intended chiefly to address land that is contaminated by virtue of radioactivity. These have been replaced subsequently by the Contaminated Land (England) (Amendment) Regulations 2012, which now exclude land that is contaminated by virtue of radioactivity.

The intention of Part IIA is to deal with contaminated land issues that are considered to cause significant harm on land that is not undergoing development (see Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance, April 2012). This document replaces Annex III of Defra Circular 01/2006, published in September 2006 (the remainder of this document is now obsolete).

Planning Policy

Land contamination is often addressed via the planning process during redevelopment of sites. This approach was documented in Planning Policy Statement: Planning and Pollution Control PPS23, which states that it remains the responsibility of the landowner and developer to identify land affected by contamination and carry out sufficient remediation to render the land suitable for use. PPS23 was withdrawn early in 2012 and has been replaced by much reduced guidance within the National Planning Policy Framework (NPPF), reference ISBN: 978-1-5286-1033-9, July 2021. For sites in Wales, reference should be made to Planning Policy Wales (Welsh Government. Edition 11, February 2021).

The new framework has limited guidance on contaminated land, as follows:

Chapter 11. Making effective use of land

117 Planning policies and decisions should promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land.

118. Planning policies and decisions should:

c) give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.

Chapter 15. Conserving and enhancing the natural environment

170. Planning policies and decisions should contribute to and enhance the natural and local environment by:

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Ground conditions and pollution

178. Planning policies and decisions should ensure that:

a) a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);

b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part 2A of the Environmental Protection Act 1990; and

c) adequate site investigation information, prepared by a competent person, is available to inform these assessments.

179. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

Water Resources Act (WRA)

The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009 updated the Water Resources Act 1991, which introduced the offence of causing or knowingly permitting pollution of controlled waters. The Act provides the Environment Agency with powers to implement remediation necessary to protect controlled waters and recover all reasonable costs of doing so.

Water Framework Directive (WFD)

The Water Framework Directive 2000/60/EC is designed to:

- enhance the status and prevent further deterioration of aquatic ecosystems and associated wetlands that depend on the aquatic ecosystems
- promote the sustainable use of water
- reduce pollution of water, especially by ‘priority’ and ‘priority hazardous’ substances
- ensure progressive reduction of groundwater pollution.

The WFD requires a management plan for each river basin be developed every six years.

Groundwater Directive (GWD)

The 1980 Groundwater Directive 80/68/EEC and the 2006 Groundwater Daughter Directive 2006/118/EC of the WFD are the main European legislation in place to protect groundwater. The 1980 Directive is due to be repealed in December 2013. The European legislation has been transposed into national legislation by regulations and directions to the Environment Agency.

Priority Substances Directive (PSD)

The Priority Substances Directive 2008/105/EC is a 'Daughter' Directive of the WFD, which sets out a priority list of substances posing a threat to or via the aquatic environment. The PSD establishes environmental quality standards for priority substances, which have been set at concentrations that are safe for the aquatic environment and for human health. In addition, there is a further aim of reducing (or eliminating) pollution of surface water (rivers, lakes, estuaries and coastal waters) by pollutants on the list. The WFD requires that countries establish a list of dangerous substances that are being discharged and EQS for them. In England and Wales, this list is provided in the River Basin Districts Typology, Standards and Groundwater threshold values (Water Framework Directive) (England and Wales) Directions 2010. In order to achieve the objectives of the WFD, classification schemes are used to describe where the water environment is of good quality and where it may require improvement.

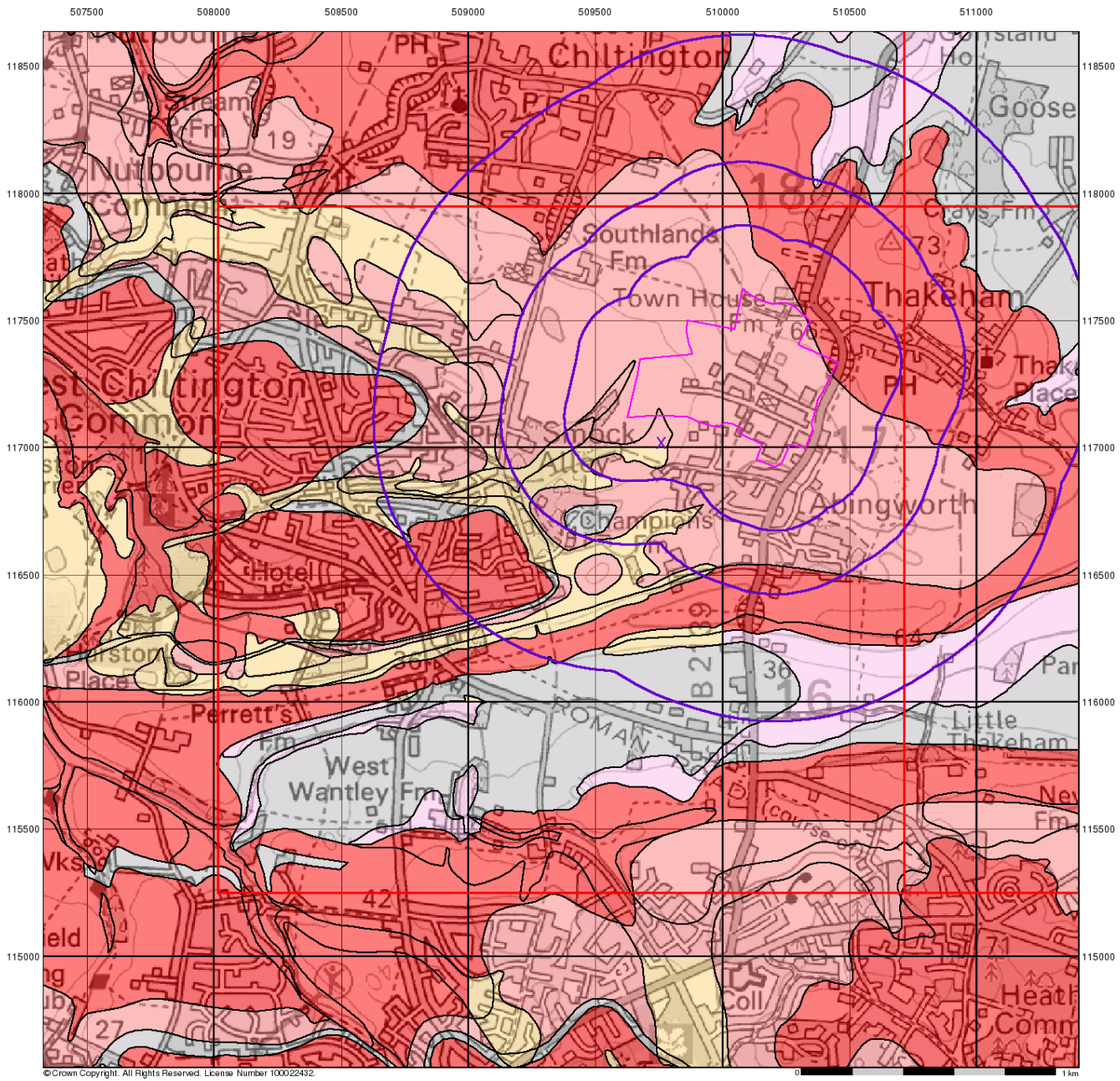
Environmental Permitting Regulations (EPR)

The Environmental Permitting (England and Wales) Regulations 2016 (as amended) provide a single regulatory framework that streamlines and integrates waste management licensing, pollution prevention and control, water discharge consenting, groundwater authorisations, and radioactive substances regulation. Schedule 22, paragraph 6 of EPR 2016 states: 'the regulator must, in exercising its relevant functions, take all necessary measures - (a) to prevent the input of any hazardous substance to groundwater; and (b) to limit the input of non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.'

Notes:

1. *The above information is provided for background but does not constitute site-specific advice*
2. *The above summary applies to England only. Variations exist within other countries of the United Kingdom*

APPENDIX C
ENVIRONMENTAL DATABASE REPORT



Groundwater Vulnerability

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

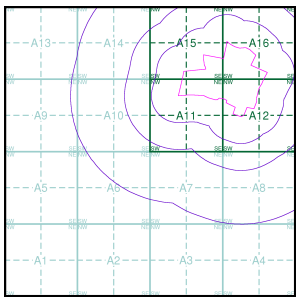
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



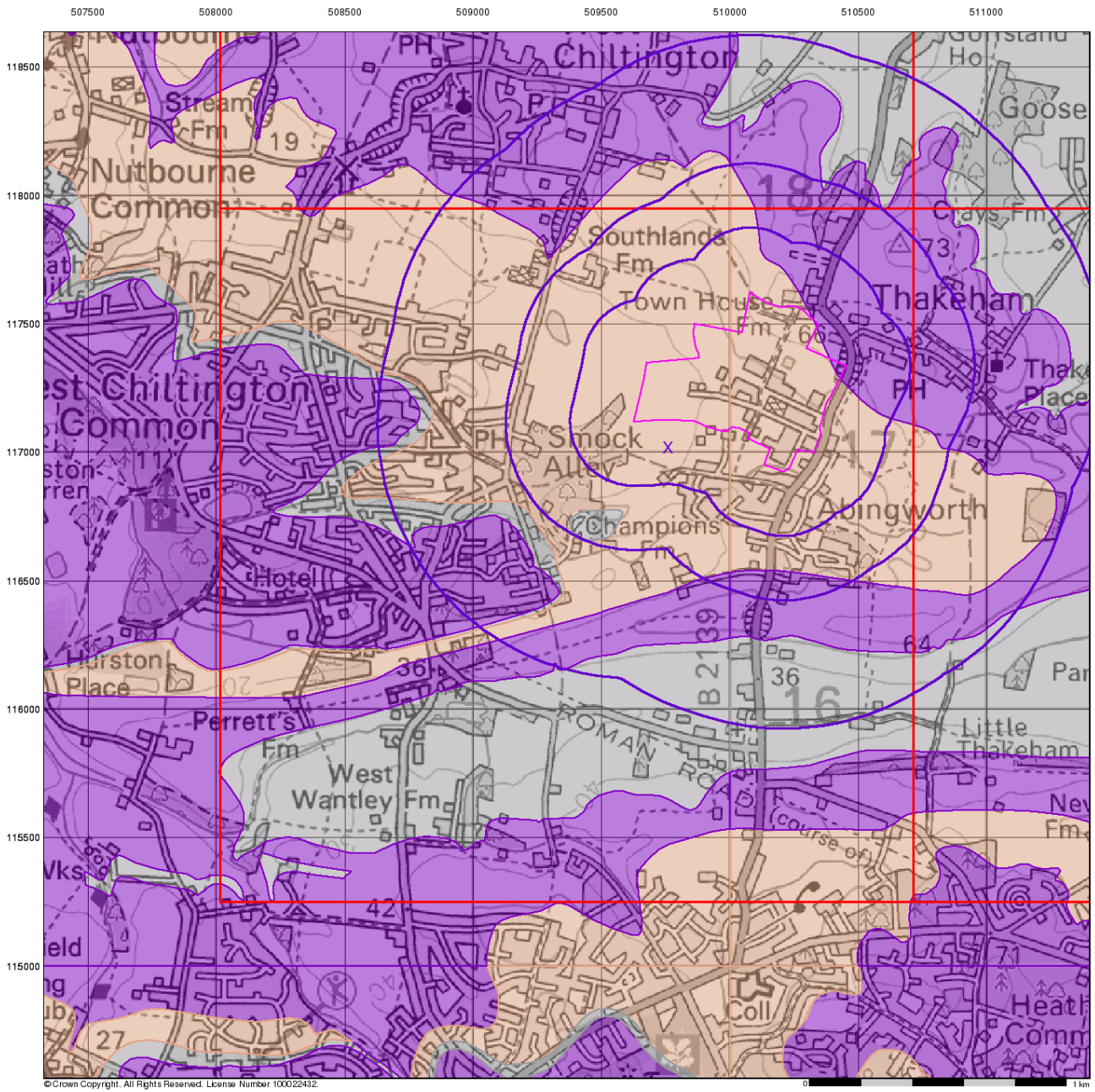
Order Details

Order Number:	299549974_1_1
Customer Ref:	305276
National Grid Reference:	509760, 117020
Slice:	A
Site Area (Ha):	30.1
Search Buffer (m):	1000

Site Details

Thakeham Mushrooms, Chesswood Nurseries, Storrington Road, Thakeham, PULBOROUGH, RH20 3DY

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Bedrock Aquifer Designation

General

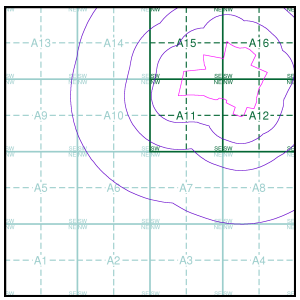
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



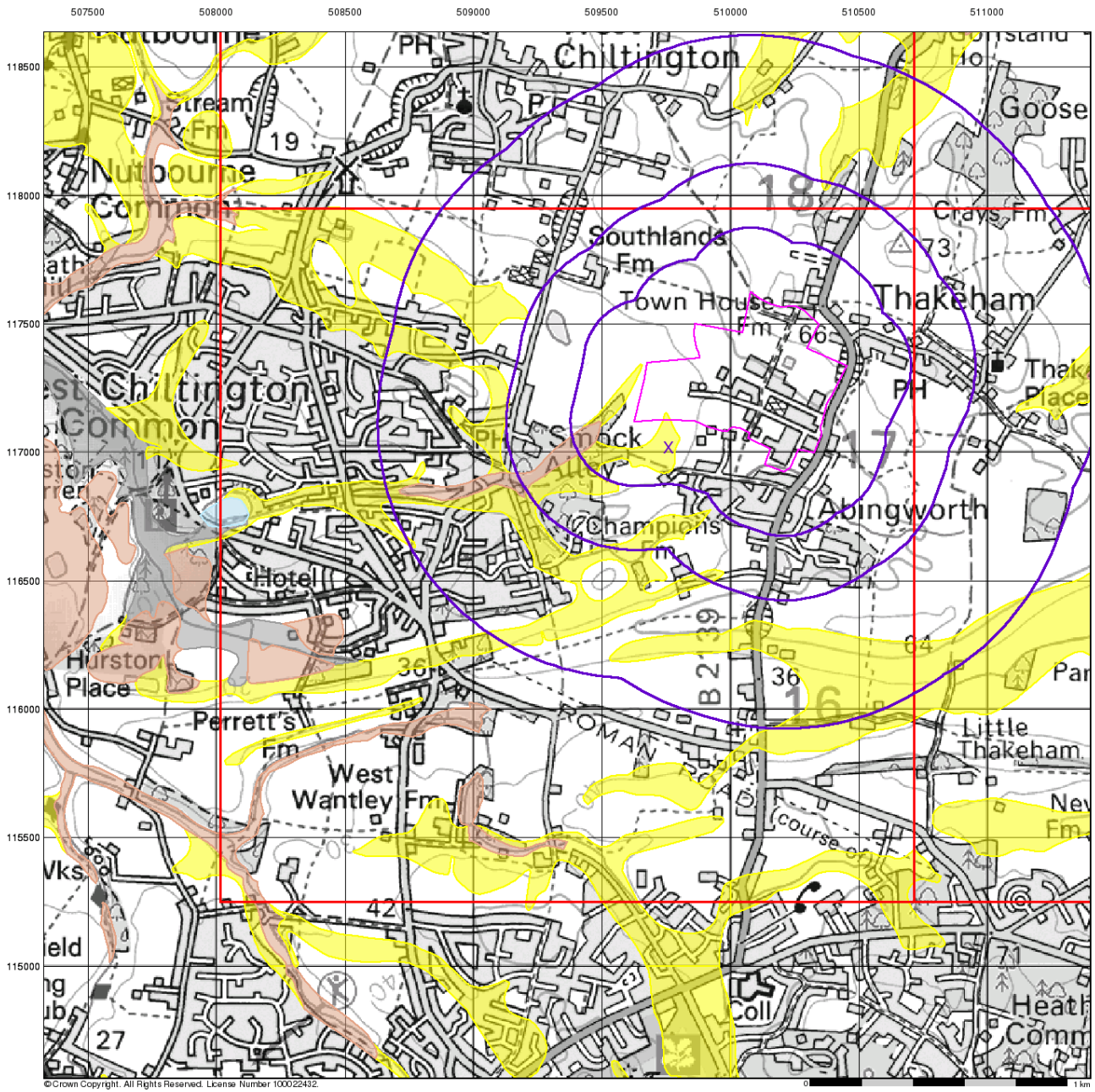
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Superficial Aquifer Designation

General

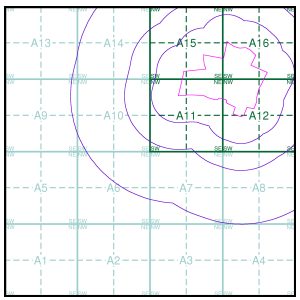
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



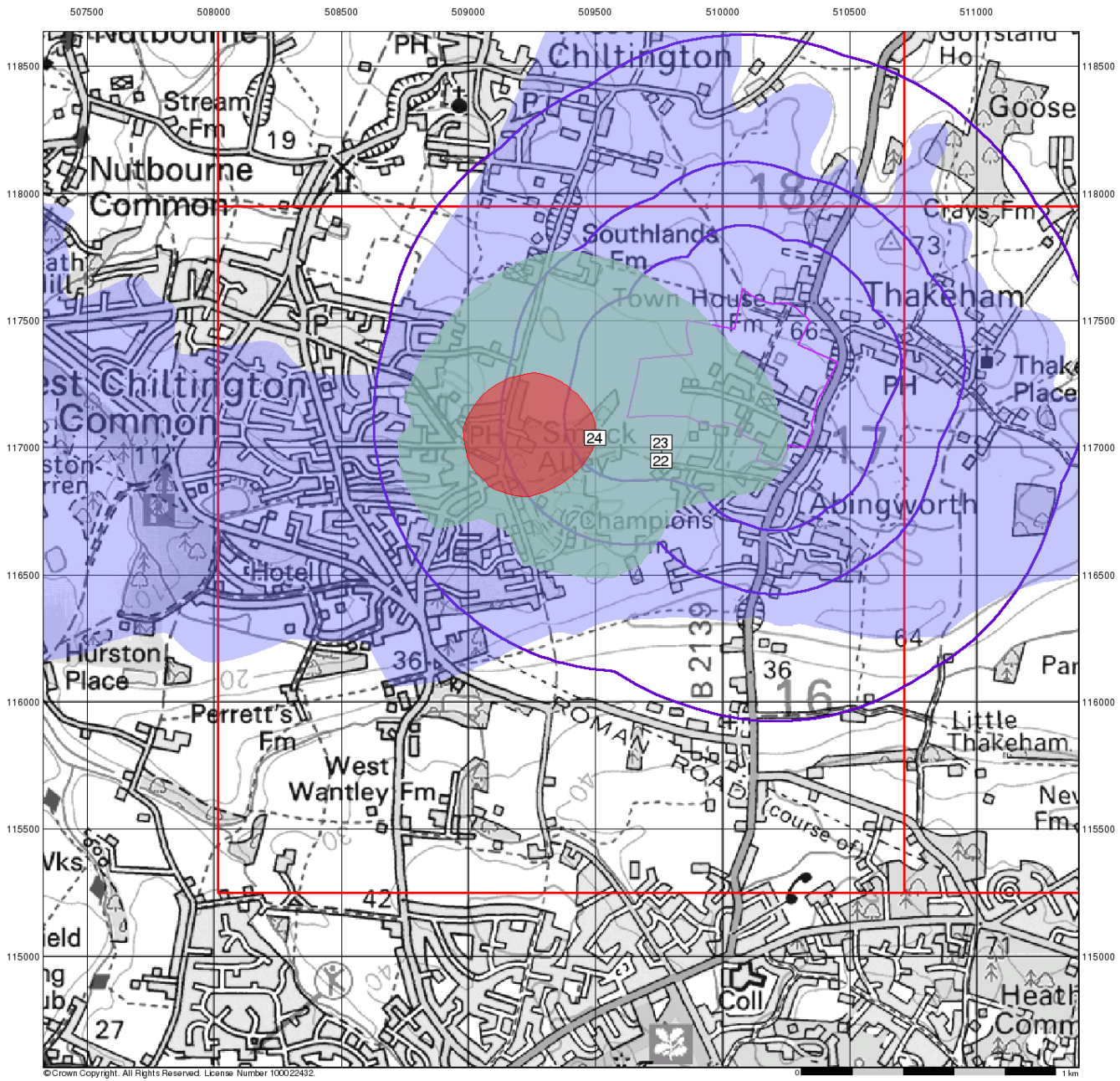
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Source Protection Zones

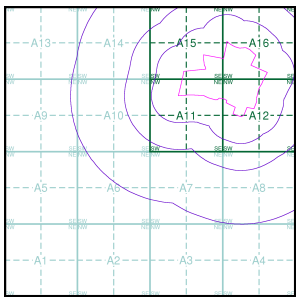
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



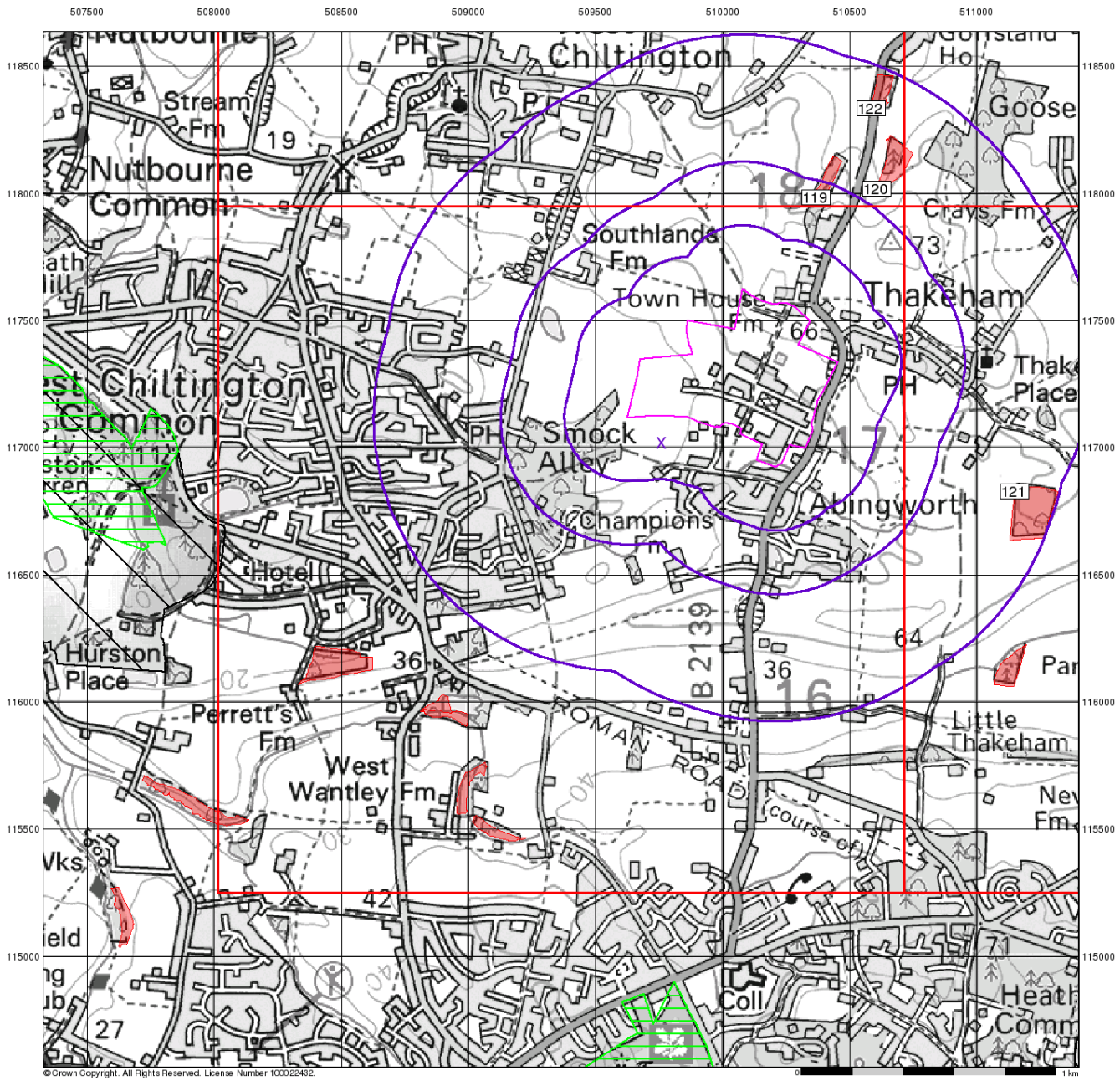
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Sensitive Land Uses

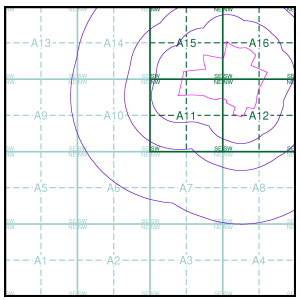
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



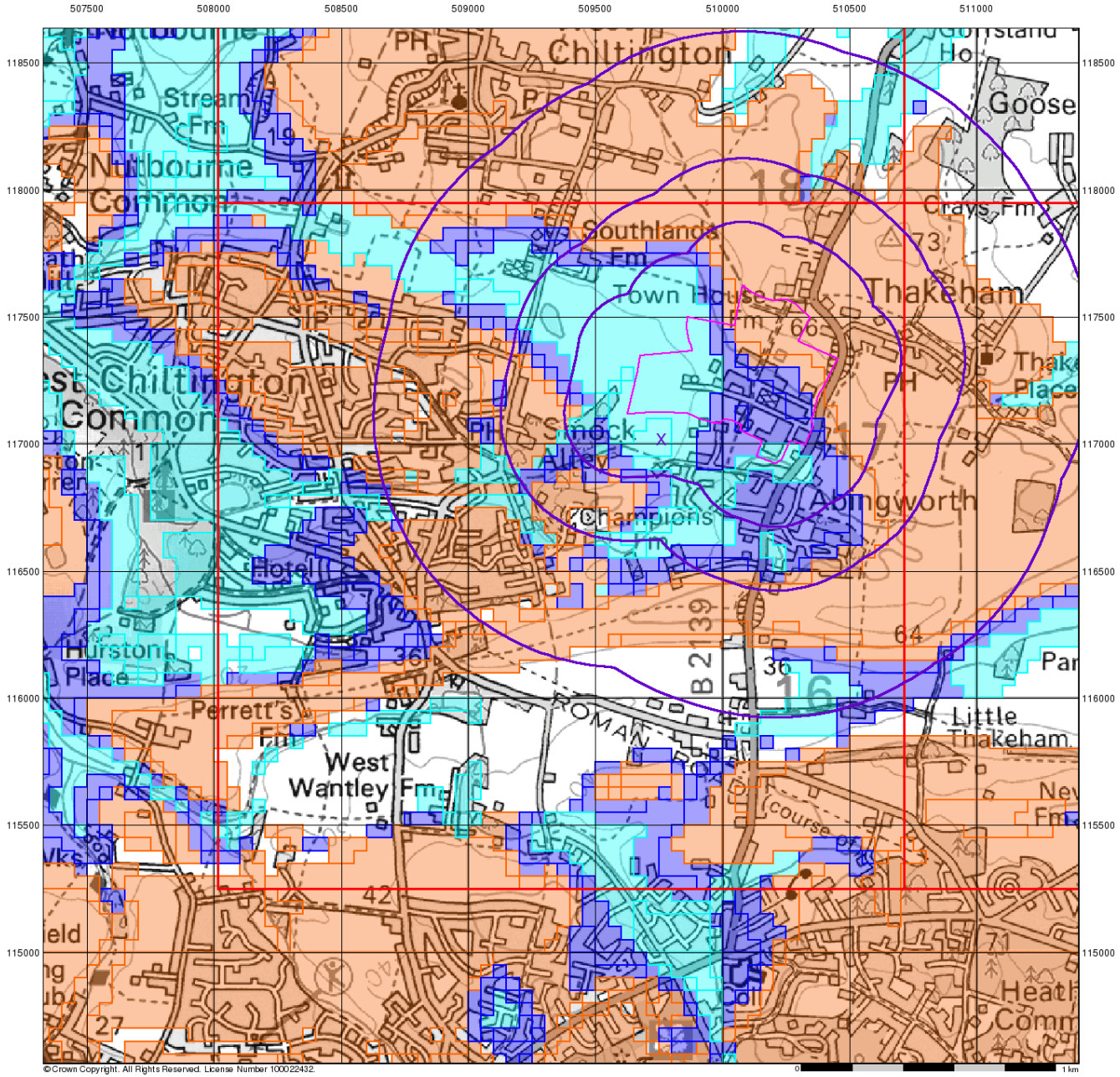
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RSK

BGS Flood GFS Data

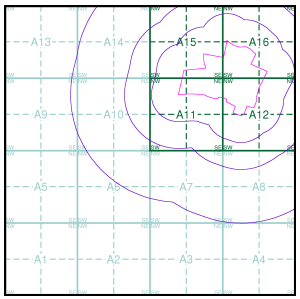
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	299549974_1_1
Customer Ref:	305276
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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
299549974_1_1

Customer Reference:
305276

National Grid Reference:
509760, 117020

Slice:
A

Site Area (Ha):
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Search Buffer (m):
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Site Details:

Thakeham Mushrooms, Chesswood Nurseries
Storrington Road
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PULBOROUGH
RH20 3DY

Client Details:

Miss E Sanders
RSK Environment Ltd
18 Frogmore Road
Hemel Hempstead
Hertfordshire
HP3 9RT

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	24
Hazardous Substances	-
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Industrial Land Use	27
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Data Suppliers	38
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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.

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Report Version v53.0

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	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 5		3	4	7
Prosecutions Relating to Controlled Waters	pg 8	1	n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8	1			
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 8	Yes			
Pollution Incidents to Controlled Waters	pg 9		2		1
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 9	1			
Water Abstractions	pg 9	7	1	2	(*6)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 13	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Source Protection Zones	pg 15	2	1		
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 15	12	13	19	25

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	pg 24		1		
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 24	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 24		2		
Potentially Infilled Land (Non-Water)	pg 24				1
Potentially Infilled Land (Water)	pg 24			4	2
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					
Planning Hazardous Substance Enforcements					

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	pg 25	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 25	Yes	Yes		
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
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	pg 25	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 25	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 25		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 25	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 26	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 26	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 27	4	2		
Fuel Station Entries					
Points of Interest - Commercial Services	pg 27			2	
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 27	7	1	14	
Points of Interest - Public Infrastructure	pg 29	2		2	
Points of Interest - Recreational and Environmental	pg 29		2		
Gas Pipelines					
Underground Electrical Cables					

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 31			1	3
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
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: Limited Potential for Groundwater Flooding to Occur	A16SW (NE)	0	1	510050 117350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15SE (NE)	0	1	510000 117450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (NE)	0	1	510000 117400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (NE)	0	1	510100 117250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	0	1	510000 117019
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SW (NE)	0	1	510050 117300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (E)	0	1	510050 117050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NW (E)	0	1	510350 117050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NE (E)	0	1	509800 117019
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (SE)	0	1	510000 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (NE)	0	1	509950 117350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	0	1	509900 117019
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16SW (NE)	0	1	510050 117400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (NW)	8	1	509650 117250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NE (E)	25	1	509758 117019
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (NW)	45	1	509600 117200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (N)	56	1	509900 117550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15SE (N)	62	1	509950 117550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (E)	68	1	510400 117000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (W)	77	1	509550 117100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (W)	79	1	509550 117050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (W)	104	1	509550 117019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NE (N)	108	1	509950 117700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (SW)	123	1	509650 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (W)	127	1	509500 117050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NW)	130	1	509500 117150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (E)	133	1	510450 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (W)	143	1	509550 117000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SW)	145	1	509550 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NE (N)	147	1	509950 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15NE (N)	148	1	509900 117700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (W)	177	1	509450 117100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NW)	179	1	509450 117150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (E)	179	1	510500 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NE (N)	179	1	509900 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (W)	187	1	509550 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NW)	190	1	509450 117200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15NE (N)	193	1	509758 117700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15NE (N)	217	1	509758 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (SW)	220	1	509700 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (SW)	222	1	509600 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (S)	223	1	509758 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (W)	227	1	509400 117050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11NW (W)	229	1	509400 117150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11NW (W)	237	1	509400 117019
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NW)	239	1	509400 117200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (W)	245	1	509450 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NW)	251	1	509400 117250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (SE)	264	1	510000 116700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SW (SE)	264	1	510350 116600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (SW)	270	1	509650 116850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (S)	271	1	509700 116850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (S)	273	1	509750 116850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A12SW (SE)	275	1	510150 116650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (W)	282	1	509450 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	288	1	509350 117200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NW (N)	297	1	509700 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (NW)	299	1	509350 117250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NE (W)	301	1	509350 117000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (S)	308	1	509758 116750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (W)	316	1	509400 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (NW)	348	1	509300 117250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	353	1	509350 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	360	1	509300 117300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NE (W)	368	1	509300 116950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (S)	371	1	509700 116750

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	A11SE (S)	373	1	509750 116750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (S)	375	1	509800 116600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SE)	386	1	510300 116550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	386	1	510300 117950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SE)	390	1	510000 116550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (W)	394	1	509300 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	408	1	509250 117300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (S)	420	1	509650 116700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	420	1	509250 117350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A11SW (SW)	421	1	509600 116700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (S)	421	1	509700 116700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	422	1	509950 116550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (SE)	425	1	510150 116500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SE)	427	1	510250 116500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (SE)	429	1	510000 116500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	430	1	509250 117400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	440	1	509900 116550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(NE)	444	1	510350 118000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A15NW (NW)	462	1	509450 117750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (S)	464	1	509850 116550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SE (NW)	468	1	509200 117350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE (S)	469	1	509800 116500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (S)	470	1	509700 116650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (SW)	471	1	509600 116650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10NE (W)	478	1	509150 117150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	479	1	509200 117400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SE (W)	480	1	509200 116900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	481	1	510300 118050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SE (NW)	488	1	509200 117450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SE (SW)	494	1	509350 116650
1	**Discharge Consents** Operator: F. W. Eddolls Esq. Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: THAKEHAM , West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01097 Permit Version: 1 Effective Date: 4th September 1963 Issued Date: 4th September 1963 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A11SE (SE)	159	2	510010 116850
2	**Discharge Consents** Operator: F. W. Eddolls Esq. Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Housing Estate At Furze Common, Thakeham, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: S01097 Permit Version: 1 Effective Date: 4th September 1963 Issued Date: 4th September 1963 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 10m	A11SE (SE)	192	2	509970 116850
2	**Discharge Consents** Operator: F. W. Eddolls Esq. Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Housing Estate At Furze Common, Thakeham, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01097 Permit Version: 1 Effective Date: 4th September 1963 Issued Date: 4th September 1963 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A11SE (SE)	216	2	509970 116810

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: F. W. Eddolls Esq. Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Housing Estate At Furze Common, Thakeham, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: S01097 Permit Version: 1 Effective Date: 4th September 1963 Issued Date: 4th September 1963 Revocation Date: 31st March 1997 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Lapsed (under Environment Act 1995, Schedule 23)** Positional Accuracy: Located by supplier to within 100m	A11SE (SE)	272	2	509930 116770
4	**Discharge Consents** Operator: Southern Water Services Limited. + Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: Smock Alley Wtw, Smock Alley, West Chiltington, West Sussex Authority: Environment Agency, Southern Region Catchment Area: The River Arun Reference: A00695 Permit Version: 1 Effective Date: 3rd April 1996 Issued Date: 3rd April 1996 Revocation Date: 23rd September 2009 Discharge Type: Trade Discharges - Process Effluent - Water Company (Wtw) Discharge Environment: Freshwater Stream/River Receiving Water: Unamed Trib Of River Chilt **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A10NE (W)	373	2	509290 116960
5	**Discharge Consents** Operator: F W Eddolls Esq Property Type: Not Given Location: THAKEHAM, West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: 288/10/3/98 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 4th September 1963 Revocation Date: Not Supplied Discharge Type: Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Not Supplied **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A11SW (SW)	388	2	509440 116780
6	**Discharge Consents** Operator: D F Armstrong Property Type: Undefined Or Other Location: Southlands Farm, Smock Alley, West Chiltington, PULBOROUGH , West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Given Reference: D01407 Permit Version: 1 Effective Date: 5th June 1963 Issued Date: 5th June 1963 Revocation Date: 13th January 2005 Discharge Type: Unknown Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Application refused - 1961 Rivers (Prevention of Pollution) Act** Positional Accuracy: Located by supplier to within 10m	A15NW (NW)	437	2	509450 117720

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: H A How Esq Property Type: Undefined Or Other Location: Smock Alley West Chiltington Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: S02562 Permit Version: 1 Effective Date: 8th December 1966 Issued Date: 8th December 1966 Revocation Date: 1st July 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A10SW (W)	725	2	508950 116860
8	**Discharge Consents** Operator: Mr J Mitchell & Miss J Hammond Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Land Adj Greenways Thakeham Land Adj Greenways, Storrington Road, Thakeham, Pulborough, West Sussex, Rh20 3ef Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P10331 Permit Version: 1 Effective Date: 30th May 2002 Issued Date: 30th May 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: Into Land **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A8SW (S)	752	2	510100 116180
9	**Discharge Consents** Operator: Mr L.C. Harvey & Mrs J. Simpson Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Greendene Farm House,Thakeham, W/S Green Dene Farm House, Storrington Road, Thakeham, Pulborough, West Sussex, Rh20 3ef Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12937 Permit Version: 1 Effective Date: 20th October 2006 Issued Date: 20th October 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Underground Water Receiving Water: Groundwater Via Soakaway **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A7SE (S)	893	2	510030 116050
9	**Discharge Consents** Operator: Mr J Denyer Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Greendene Barn, Storrington Road, Thakeham, Pulborough, West Sussex, Rh20 3ef Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12784 Permit Version: 1 Effective Date: 20th June 2006 Issued Date: 20th June 2006 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tributary Of River Arun **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A8SW (S)	910	2	510040 116030

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	**Discharge Consents** Operator: Mr Charles Harding Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Greenacre, Thakeham Greenacre, Storrington Road, Thakeham, West Sussex, Rh20 3ee Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12157 Permit Version: 1 Effective Date: 3rd August 2004 Issued Date: 3rd August 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Trib. River Stor **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A7SE (S)	926	2	510010 116020
10	**Discharge Consents** Operator: Mr & Mrs Bonnie Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Bumblesbrook, Fir Tree Lane, West Chiltington, Pulborough West Sussex Authority: Environment Agency, Southern Region Catchment Area: Not Supplied Reference: P07624 Permit Version: 1 Effective Date: 16th June 1999 Issued Date: 16th June 1999 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Freshwater River **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A10SW (W)	898	2	508770 116850
11	**Discharge Consents** Operator: Mr J Hanbury-Aggs Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: The Old Milking Parlour, Thakeham The Old Milking Parlour, Little Thakeham Farm, Storrington Road, Thakeham, West Sussex, Rh20 1hr Authority: Environment Agency, Southern Region Catchment Area: Adur Estuary & Freshwater Tributaries Reference: P12420 Permit Version: 1 Effective Date: 28th July 2005 Issued Date: 28th July 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Ditch To Trib Of River Stor **Status:** **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A8SE (SE)	999	2	510434 115952
12	**Prosecutions Relating to Controlled Waters** Location: Chesswood Nurseries Site, Chesswood Nurseries Site, Thakeham, RH20 3 Prosecution Text: Allowing Compost Effluent To Enter A Tributary Of The River Chilt. Prosecution Act: Wra91 Hearing Date: 3rd December 2001 Verdict: Guilty Fine: 5000 Cost: 833 Positional Accuracy: Manually positioned to the address or location	A12NW (E)	0	2	510292 117117
13	**Local Authority Pollution Prevention and Controls** Name: Monaghan Mushrooms T/A Thakeham Mushrooms Location: Storrington Road, Thakeham, West Sussex, RH20 3DY Authority: Horsham District Council, Environmental Health Department Permit Reference: EPR2 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/30 Production of compost for mushrooms **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A12NW (E)	0	3	510243 117168
	Nearest Surface Water Feature	A11NE (NE)	0	-	509904 117210

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	**Pollution Incidents to Controlled Waters** Property Type: Agricultural Location: Rear Of Fir Tree Lane, WEST CHILTINGTON Authority: Environment Agency, Southern Region Pollutant: Organic Wastes: Other Note: River Is Blue/Grey In Colour And Smells Level Risen; Horticultural Incident Date: 8th March 1994 Incident Reference: 883 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Organic Farm Waste Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (E)	77	2	510300 116900
15	**Pollution Incidents to Controlled Waters** Property Type: Other Farming Location: Ramble Down Lane Authority: Environment Agency, Southern Region Pollutant: Organic Wastes: Other Note: Brown Sludge In River Incident Date: 22nd January 1996 Incident Reference: 1562 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Farm - Other Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A11NW (W)	123	2	509600 117000
16	**Pollution Incidents to Controlled Waters** Property Type: Agricultural Location: Tributary River Chilt, Roundabout Lane, WEST CHILTINGTON Authority: Environment Agency, Southern Region Pollutant: Organic Wastes: Other Note: Stream Discoloured Brown; Horticultural Incident Date: 12th December 1994 Incident Reference: 1145 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Organic Farm Waste Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A10SE (W)	533	2	509200 116800
17	**Substantiated Pollution Incident Register** Authority: Environment Agency - Southern Region, Solent and South Downs Incident Date: 4th July 2017 Incident Reference: 1536573 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: Agricultural Materials And Wastes: Other Agricultural Material Or Waste	A11NE (NE)	0	2	509871 117230
18	**Water Abstractions** Operator: Thakeham Mushrooms Limited Licence Number: 25/097/R01 Permit Version: 2 Location: Borehole At Storrington Road, Thakeham Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering 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: 19th July 2017 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NW (NE)	0	2	510260 117237

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Water Abstractions** Operator: Thakeham Mushrooms Limited Licence Number: 25/097 Permit Version: 2 Location: Chesswood Nurseries Point B Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 6th June 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (E)	0	2	510210 116930
19	**Water Abstractions** Operator: Sussex Mushrooms Limited Licence Number: 25/097 Permit Version: 1 Location: Chesswood Nurseries Point B Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (E)	0	2	510210 116930
19	**Water Abstractions** Operator: Heveco Mushrooms Ltd Licence Number: 10/41/415302 Permit Version: 101 Location: Chesswood Nurseries Point 2 Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (E)	0	2	510210 116930
19	**Water Abstractions** Operator: Chesswood Produce Ltd Licence Number: 10/41/415302 Permit Version: 100 Location: Chesswood Nurseries Point 2 Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th February 1988 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (E)	0	2	510210 116930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Water Abstractions** Operator: Thakeham Mushrooms Limited Licence Number: 25/097/R01 Permit Version: 1 Location: Chesswood Nurseries Point B Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 4th May 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12SW (E)	4	2	510179 116931
20	**Water Abstractions** Operator: Heveco Mushrooms Ltd Licence Number: 10/41/415302 Permit Version: 101 Location: Chesswood Nurseries Point 1 Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NW (E)	0	2	510350 117070
20	**Water Abstractions** Operator: Chesswood Produce Ltd Licence Number: 10/41/415302 Permit Version: 100 Location: Chesswood Nurseries Point 1 Authority: Environment Agency, Southern Region Abstraction: Agriculture: Horticultural Watering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 330 Yearly Rate (m3): 88650 Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th February 1988 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A12NW (E)	0	2	510350 117070
21	**Water Abstractions** Operator: Southern Water Services Ltd Licence Number: 10/41/415303 Permit Version: 100 Location: Smock Alley At West Chiltington Borehole 1 Authority: Environment Agency, Southern Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10NE (W)	434	2	509210 117000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	**Water Abstractions** Operator: Southern Water Services Ltd Licence Number: 10/41/415303 Permit Version: 100 Location: Smock Alley At West Chiltington Borehole 2 Authority: Environment Agency, Southern Region Abstraction: Public Water Supply: Potable Water Supply - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (W)	434	2	509210 117000
	Water Abstractions Operator: Little River Ltd Licence Number: 415307A Permit Version: Not Supplied Location: Churchfield Farm, W CHILTINGTON Authority: Environment Agency, Southern Region Abstraction: Spray Irrigation Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 2818 Yearly Rate (m3): 27273 Details: Additional Purpose: Spray Irrigation Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13NE (NW)	1288	2	508485 117835
	Water Abstractions Operator: Little River Ltd Licence Number: 10/41/415307ca Permit Version: 100 Location: Churchfield Farm Reservoir Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Anti Frost Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 March Authorised End: 31 May Permit Start Date: 8th December 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A13NE (NW)	1294	2	508480 117840
	Water Abstractions Operator: Little River Ltd Licence Number: 10/41/415307ca Permit Version: 100 Location: Churchfield Farm Reservoir Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: See Licence Map Authorised Start: 01 May Authorised End: 31 October Permit Start Date: 8th December 2005 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	1294	2	508480 117840

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Little River Ltd Licence Number: 10/41/415307 Permit Version: 2 Location: Churchfield Farm Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 May Authorised End: 31 October Permit Start Date: 1st April 2016 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	1298	2	508478 117845
	Water Abstractions Operator: Little River Ltd Licence Number: 10/41/415307 Permit Version: 1 Location: Churchfield Farm Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Anti Frost Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 March Authorised End: 31 May Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	1298	2	508478 117845
	Water Abstractions Operator: Little River Ltd Licence Number: 10/41/415307 Permit Version: 1 Location: Churchfield Farm Authority: Environment Agency, Southern Region Abstraction: General Agriculture: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 May Authorised End: 31 October Permit Start Date: 8th June 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13NE (NW)	1298	2	508478 117845
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A11NE (E)	0	4	509758 117019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A11NE (E)	0	4	509787 117014
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A11NE (E)	0	4	510000 117019
	Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A16SE (NE)	0	4	510396 117346
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A11NE (E)	0	4	510000 117000
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A7NE (SE)	0	4	510000 116530
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A11NE (E)	0	4	509758 117019
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A11NE (E)	0	4	510000 117019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A11NE (E)	0	4	509758 117019
22	**Source Protection Zones** Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A11NE (E)	0	2	509758 117019
23	**Source Protection Zones** Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A11NE (E)	0	2	509758 117019
24	**Source Protection Zones** Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A11NW (W)	132	2	509499 117039
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
25	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 294.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (W)	0	5	509616 117068
26	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12NW (E)	0	5	510072 117050
27	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 71.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NE (NE)	0	5	509916 117214
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 90.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NE (NE)	0	5	509904 117210
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 238.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NE (N)	0	5	509833 117235

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NE (NE)	0	5	509904 117210
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SW (N)	0	5	509680 117289
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 34.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SE (NE)	0	5	509914 117300
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SE (NE)	0	5	509904 117333
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 168.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SE (NE)	0	5	509904 117333
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 65.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SE (NE)	0	5	509928 117342
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A15SE (NE)	0	5	509923 117340
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 525.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SE (SE)	10	5	509973 116811
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SW (E)	64	5	510256 116878

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SW (E)	73	5	510264 116872
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (NW)	75	5	509578 117238
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 415.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (NW)	82	5	509538 117191
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 161.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (NW)	83	5	509570 117238
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SW (E)	93	5	510286 116861
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 141.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SW (E)	98	5	510291 116858
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 124.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (W)	115	5	509604 117005
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (W)	117	5	509605 117005
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 88.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (W)	130	5	509484 117038

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 215.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11NW (W)	165	5	509484 117036
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 34.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (E)	221	5	510414 116796
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 108.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (E)	253	5	510438 116772
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 151.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SE (S)	267	5	509874 116696
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (SE)	354	5	510516 116700
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 219.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SE (S)	364	5	509844 116722
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SE (S)	364	5	509869 116700
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SE (S)	365	5	509867 116701
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10NE (W)	374	5	509294 116948

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 152.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10NE (W)	376	5	509295 116944
58	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 48.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (SE)	387	5	510545 116679
59	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 17.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (SE)	421	5	510592 116672
60	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 87.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (SE)	435	5	510609 116667
61	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (E)	476	5	510683 116684
62	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 84.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A12SE (E)	476	5	510688 116689
63	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 331.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SW (SW)	483	5	509539 116645
64	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SW (S)	494	5	509698 116628
65	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 80.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A11SW (S)	497	5	509695 116625

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	498	5	509187 116886
67	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	498	5	509188 116882
68	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 327.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (SW)	498	5	509339 116636
69	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 43.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	503	5	509174 116900
70	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 10.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	541	5	509132 116901
71	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 88.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10NE (W)	543	5	509105 116970
72	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 55.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	551	5	509121 116901
73	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A7NW (S)	552	5	509639 116568
74	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (SW)	575	5	509359 116611

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 109.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SE (W)	605	5	509068 116889
76	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 139.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A14NE (NW)	625	5	509134 117656
77	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A14NE (NW)	625	5	509135 117659
78	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 87.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SW (W)	713	5	508960 116865
79	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A14NW (NW)	722	5	509012 117630
80	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 387.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A14NW (NW)	728	5	509006 117632
81	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 42.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SW (W)	799	5	508874 116852
82	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 30.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SW (W)	839	5	508831 116852
83	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SW (W)	868	5	508803 116848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 853.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A10SW (W)	872	5	508797 116851
85	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 151.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A7SE (S)	915	5	509899 116011
86	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 130.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	927	5	510112 115992
87	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 25.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	937	5	510112 115992
88	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 17.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A7SE (S)	949	5	509904 116026
89	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	959	5	510095 115972
90	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 89.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A7SE (S)	965	5	509899 116011
91	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 15.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	988	5	510089 115944
92	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 90.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	999	5	510089 115932

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Rother and Arun Primacy: 1	A8SW (S)	999	5	510089 115932

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Dukes Hill, Thakeham, Sussex Name: Storrington, Townehouse Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD19973 First Input Date: 31st December 1988 Last Input Date: 31st December 1990 Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 3800/8056 BGS Ref: Not Supplied Other Ref: WD27/213	A16NW (NE)	179	2	510254 117751
	Local Authority Landfill Coverage Name: Horsham District Council - Has supplied landfill data		0	3	509758 117019
	Local Authority Landfill Coverage Name: West Sussex County Council - Has supplied landfill data		0	6	509758 117019
95	**Local Authority Recorded Landfill Sites** Location: Townhouse Farm, Dukes Hill, Thakeham Reference: 27/213 Authority: Horsham District Council, Environmental Health Department **Last Reported Status:** **Not Supplied** Types of Waste: Inert, Industrial Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A16NW (NE)	179	3	510247 117755
96	**Local Authority Recorded Landfill Sites** Location: Townhouse Farm, Duke'S Hill, Thakeham Reference: Not Supplied Authority: West Sussex County Council, Environment & Development **Last Reported Status:** **Unknown** Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A16NW (NE)	184	6	510288 117749
97	**Potentially Infilled Land (Non-Water)** Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1978	A6NE (SW)	795	-	509116 116510
98	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1961	A12SE (E)	324	-	510496 116723
99	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A11SE (S)	380	-	509828 116690
100	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1962	A11SE (S)	409	-	509814 116683
101	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1961	A12SE (E)	428	-	510602 116671
102	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1962	A11SE (S)	503	-	509710 116620
103	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1961	A8SW (S)	794	-	510115 116136

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Lower Greensand Group	A11NE (E)	0	1	509758 117019
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NE (E)	0	1	509758 117019
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A11NW (W)	131	1	509492 117090
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (W)	131	1	509492 117090
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NW (W)	131	1	509492 117090
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7NE (SE)	0	1	510000 116530
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (W)	131	1	509492 117090
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509758 117019
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	510000 117019
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NE (E)	0	1	509787 117014
	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	A11NE (E)	0	1	509758 117019
	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	A11NE (E)	0	1	510002 117019
	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	A11NE (E)	0	1	509758 117019
	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	A11NE (E)	0	1	510002 117019

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
104	**Contemporary Trade Directory Entries** Name: The Magic Log Co Ltd Location: Chesswood Nurseries, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	0	-	510291 117117
104	**Contemporary Trade Directory Entries** Name: Samson Services Location: Chesswood Nurseries, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY Classification: Freight Forwarders **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	0	-	510291 117117
104	**Contemporary Trade Directory Entries** Name: Extra Mile Logistics Location: Chesswood Nurseries, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY Classification: Distribution Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	0	-	510291 117117
104	**Contemporary Trade Directory Entries** Name: Thakeham Cooling Services Ltd Location: Chesswood Nurseries, Storrington Road, Thakeham, Pulborough, West Sussex, RH20 3DY Classification: Air Conditioning & Refrigeration Contractors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	0	-	510291 117117
105	**Contemporary Trade Directory Entries** Name: Powerdoor & Gate Ltd Location: High Bar Lane, Thakeham, Pulborough, West Sussex, RH20 3EH Classification: Door & Gate Operating Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (SE)	169	-	509921 116921
106	**Contemporary Trade Directory Entries** Name: Oven Rescue Location: 30, CHESTNUT DRIVE, THAKEHAM, PULBOROUGH, RH20 3QX Classification: Oven cleaning **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (SE)	243	-	510343 116721
107	**Points of Interest - Commercial Services** Name: R B C Location: Abingworth Lodge, Storrington Road, Thakeham, Pulborough, RH20 3EF Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SE)	447	7	510155 116481
107	**Points of Interest - Commercial Services** Name: R B C Valeting Location: Abingworth Lodge, Storrington Road, Thakeham, Pulborough, RH20 3EF Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A8NW (SE)	447	7	510155 116481
108	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12NW (E)	0	7	510227 117166
108	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12NW (E)	0	7	510222 117170
108	**Points of Interest - Manufacturing and Production** Name: Tanks Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12NW (E)	0	7	510243 117168

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12NW (E)	0	7	510116 117134
109	**Points of Interest - Manufacturing and Production** Name: Tanks Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12NW (E)	0	7	510129 117131
110	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12NW (NE)	0	7	510288 117239
110	**Points of Interest - Manufacturing and Production** Name: Tanks Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12NW (NE)	0	7	510289 117252
111	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	27	7	510176 117597
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	329	7	510397 117863
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	329	7	510391 117866
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	330	7	510404 117861
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	330	7	510409 117859
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	331	7	510415 117856
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	333	7	510421 117855
112	**Points of Interest - Manufacturing and Production** Name: Tanks Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A16NE (NE)	340	7	510389 117879

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	372	7	510429 117895
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	373	7	510435 117893
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	374	7	510441 117891
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	374	7	510446 117889
112	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A16NE (NE)	377	7	510454 117887
113	**Points of Interest - Manufacturing and Production** Name: Tank Location: RH20 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (SE)	355	7	510446 116654
114	**Points of Interest - Manufacturing and Production** Name: B F Armstrong Location: Southlands Lane, West Chiltington, Pulborough, RH20 2JU Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A15NW (NW)	455	7	509452 117742
115	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: RH20 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A11NE (NE)	0	7	509868 117254
115	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: RH20 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A11NE (NE)	0	7	509870 117248
116	**Points of Interest - Public Infrastructure** Name: Sludge Beds Location: RH20 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A16NW (NE)	269	7	510280 117835
116	**Points of Interest - Public Infrastructure** Name: Refuse Tip Location: RH20 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location	A16NW (NE)	300	7	510286 117865
117	**Points of Interest - Recreational and Environmental** Name: Play Area Location: RH20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SE (E)	145	7	509973 116936

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
118	**Points of Interest - Recreational and Environmental** Name: Play Area Location: RH20 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	167	7	510386 116843

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	**Ancient Woodland** Name: Not Supplied Reference: 1478350 Area(m²): 7308.1 Type: Ancient and Semi-Natural Woodland	(NE)	425	8	510365 117984
120	**Ancient Woodland** Name: Dukes Rough Reference: 1478349 Area(m²): 15081.14 Type: Ancient and Semi-Natural Woodland	(NE)	564	8	510604 118016
121	**Ancient Woodland** Name: Not Supplied Reference: 1478845 Area(m²): 30747.98 Type: Ancient and Semi-Natural Woodland	(E)	829	8	511148 116828
122	**Ancient Woodland** Name: Not Supplied Reference: 1478348 Area(m²): 7638.89 Type: Ancient and Semi-Natural Woodland	(NE)	836	8	510584 118335

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Horsham District Council - Environmental Health Department	February 2015	Annual Rolling Update
Environment Agency - Head Office	June 2020	Annually
Discharge Consents		
Environment Agency - Southern Region	April 2022	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Southern Region	March 2013	
Integrated Pollution Controls		
Environment Agency - Southern Region	January 2009	
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - Solent & South Downs Area	April 2022	Quarterly
Environment Agency - Southern Region	April 2022	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Horsham District Council - Environmental Health Department	June 2015	Variable
Local Authority Pollution Prevention and Controls		
Horsham District Council - Environmental Health Department	June 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Horsham District Council - Environmental Health Department	June 2015	Variable
Nearest Surface Water Feature		
Ordnance Survey	June 2022	
Pollution Incidents to Controlled Waters		
Environment Agency - Southern Region	December 1999	
Prosecutions Relating to Authorised Processes		
Environment Agency - Southern Region	July 2015	
Prosecutions Relating to Controlled Waters		
Environment Agency - Southern Region	March 2013	
Registered Radioactive Substances		
Environment Agency - Southern Region	June 2016	As notified
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register		
Environment Agency - South East Region - Solent & South Downs Area	April 2022	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2022	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2022	Quarterly
Water Abstractions		
Environment Agency - Southern Region	July 2022	Quarterly
Water Industry Act Referrals		
Environment Agency - Southern Region	October 2017	
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	July 2022	Bi-Annually

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2022	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2022	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	May 2022	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	May 2022	Quarterly
Flood Defences Environment Agency - Head Office	May 2022	Quarterly
OS Water Network Lines Ordnance Survey	July 2022	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites		
Environment Agency - Head Office	April 2022	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Southern Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Solent & South Downs Area	April 2022	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2022	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2022	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - Solent & South Downs Area	April 2022	Quarterly
Environment Agency - Southern Region - Solent and South Downs	April 2022	Quarterly
Environment Agency - Southern Region - Sussex Area	April 2022	Quarterly
Local Authority Landfill Coverage		
Horsham District Council - Environmental Health Department	February 2003	Not Applicable
West Sussex County Council - Environment & Development	February 2003	Not Applicable
Local Authority Recorded Landfill Sites		
Horsham District Council - Environmental Health Department	October 2018	
West Sussex County Council - Environment & Development	October 2018	
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	
Registered Landfill Sites		
Environment Agency - Southern Region - Solent and South Downs	March 2006	Not Applicable
Environment Agency - Southern Region - Sussex Area	March 2006	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Southern Region - Solent and South Downs	April 2018	
Environment Agency - Southern Region - Sussex Area	April 2018	
Registered Waste Treatment or Disposal Sites		
Environment Agency - Southern Region - Solent and South Downs	June 2015	
Environment Agency - Southern Region - Sussex Area	June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	January 2022	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements		
Horsham District Council - Planning Department	August 2015	Variable
West Sussex County Council - Environment & Development	October 2006	Annual Rolling Update
Planning Hazardous Substance Consents		
Horsham District Council - Planning Department	August 2015	Variable
West Sussex County Council - Environment & Development	October 2006	Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2022	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	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	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
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 2022	Quarterly
Fuel Station Entries Catalist Ltd - Experian	June 2022	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	June 2022	Quarterly
Points of Interest - Education and Health PointX	June 2022	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2022	Quarterly
Points of Interest - Public Infrastructure PointX	June 2022	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2022	Quarterly
Underground Electrical Cables National Grid	May 2021	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt		
Horsham District Council - Planning Department	October 2020	Quarterly
South Downs National Park	October 2020	Quarterly
Areas of Unadopted Green Belt		
Horsham District Council - Planning Department	October 2020	Quarterly
South Downs National Park	October 2020	Quarterly
Areas of Outstanding Natural Beauty		
Natural England	January 2021	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	February 2021	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	January 2021	Bi-Annually
National Parks		
Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	
Environment Agency - Head Office	June 2017	Bi-Annually
Ramsar Sites		
Natural England	August 2020	Bi-Annually
Sites of Special Scientific Interest		
Natural England	February 2021	Bi-Annually
Special Areas of Conservation		
Natural England	July 2020	Bi-Annually
Special Protection Areas		
Natural England	February 2021	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	**Horsham District Council - Environmental Health Department** Park House, North Street, Horsham, Sussex, RH12 1RL	Telephone: 01403 215100 Fax: 01403 732790 Website: www.horsham.gov.uk
4	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	**West Sussex County Council - Environment & Development** County Hall, Tower hall, Chichester, West Sussex, PO19 1RH	Telephone: 01243 777100 Website: www.westsussex.gov.uk
7	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.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.

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
·285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy.
County Borough Boundary (England)
Co. Burgh Bdy.
County Burgh Boundary (Scotland)
R.D. Bdy.
Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

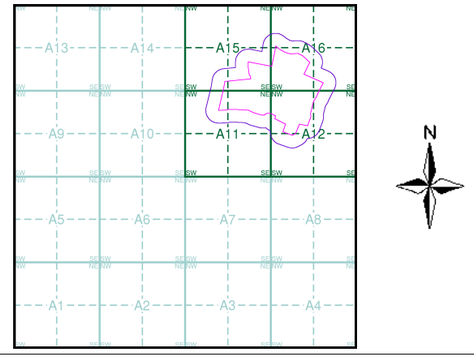
Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

RSK

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Sussex	1:10,560	1879 - 1880	2
Sussex	1:10,560	1898	3
Sussex	1:10,560	1912 - 1914	4
Sussex	1:10,560	1912 - 1914	5
Sussex	1:10,560	1938 - 1952	6
Historical Aerial Photography	1:10,560	1948	7
Ordnance Survey Plan	1:10,000	1961 - 1962	8
Ordnance Survey Plan	1:10,000	1978	9
Ordnance Survey Plan	1:10,000	1982	10
10K Raster Mapping	1:10,000	2000	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2021	13

Historical Map - Slice A



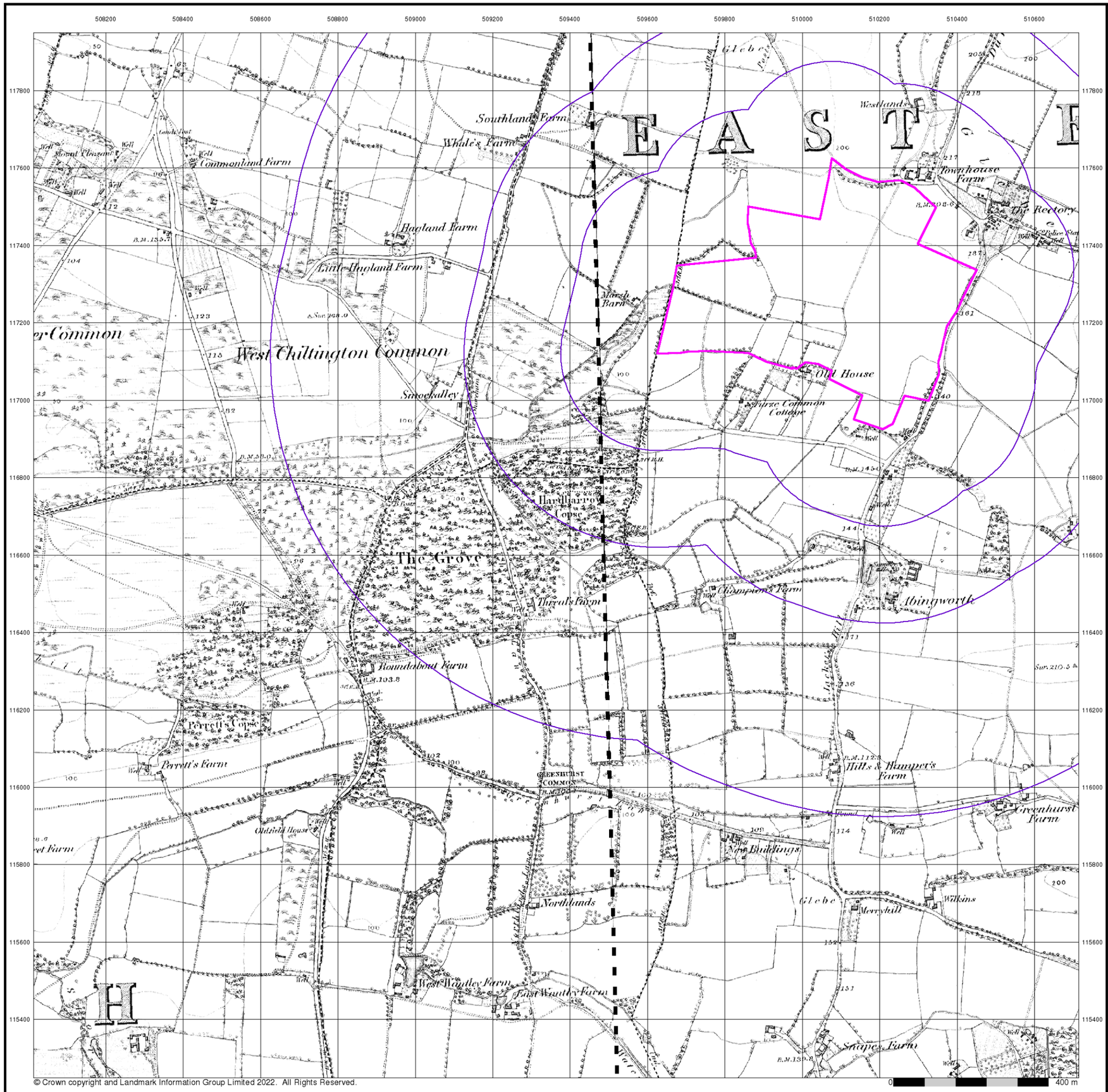
Order Details

Order Number: 299549974_1_1
Customer Ref: 305276
National Grid Reference: 509760, 117020
Slice: A
Site Area (Ha): 30.1
Search Buffer (m): 1000

Site Details

Thakeham Mushrooms, Chesswood Nurseries, Storrington Road, Thakeham, PULBOROUGH, RH20 3DY

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Fax: 0844 844 9951
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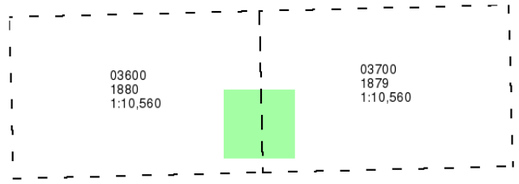
Sussex

Published 1879 - 1880

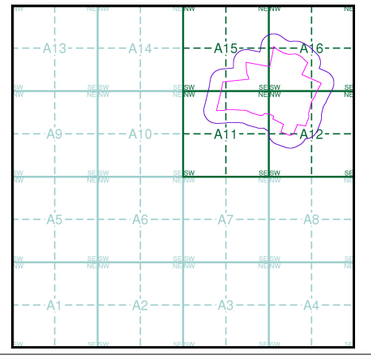
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



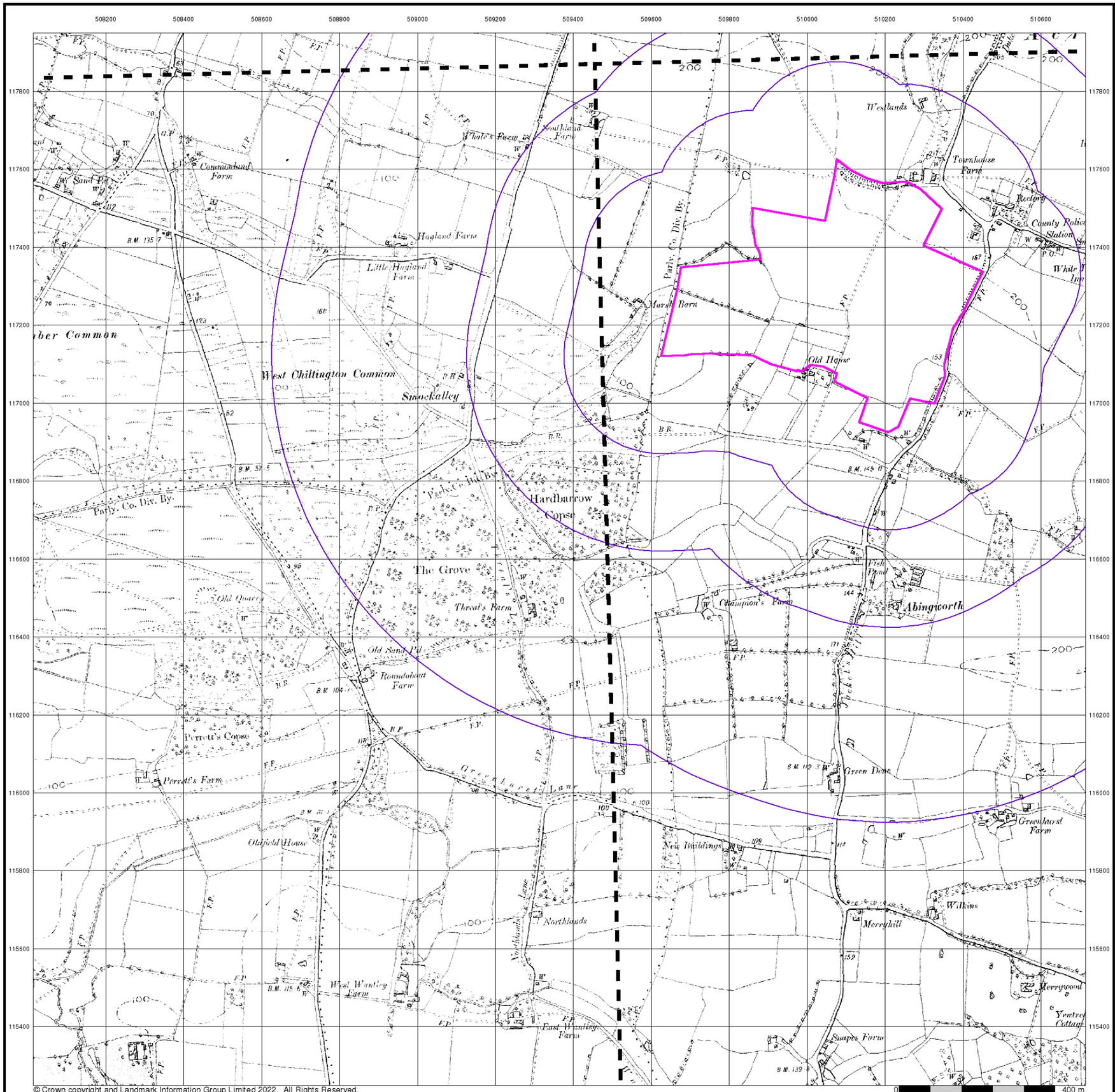
Order Details

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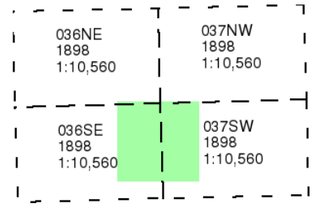
Sussex

Published 1898

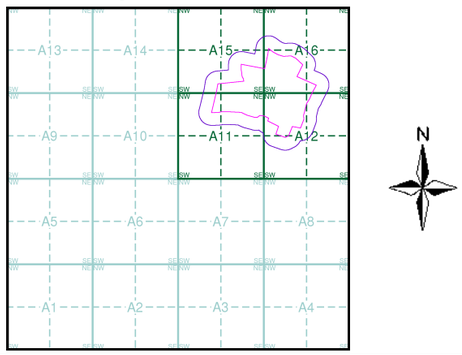
Source map scale - 1:10,560

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Historical Map - Slice A



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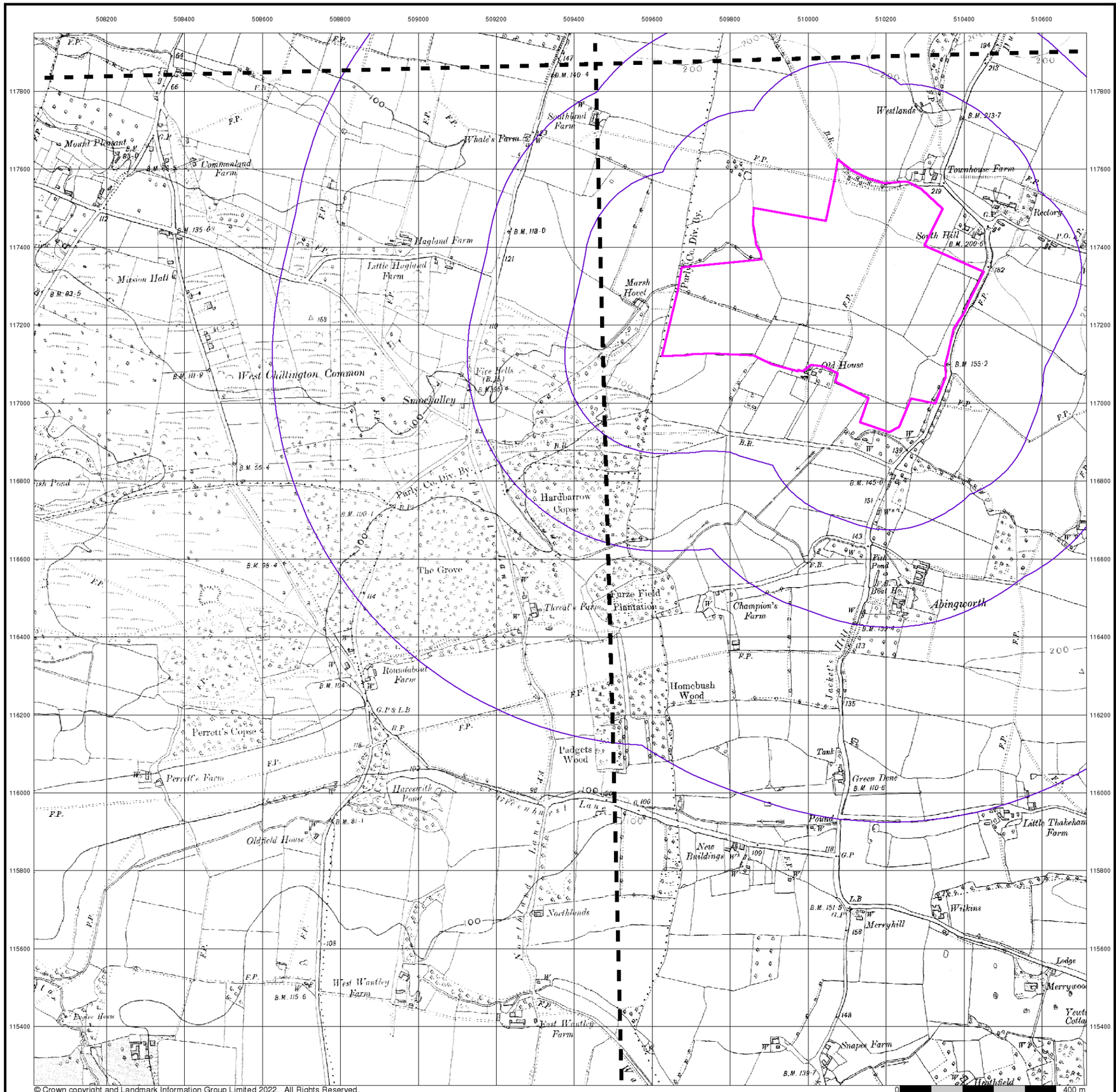
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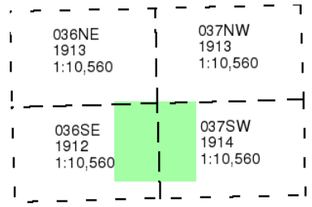
Sussex

Published 1912 - 1914

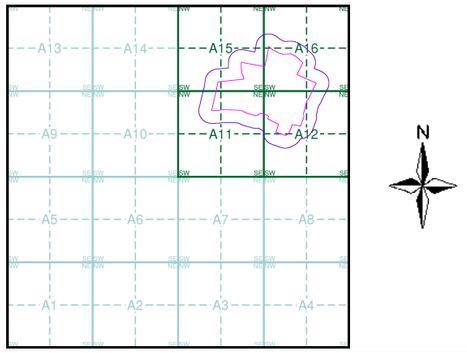
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

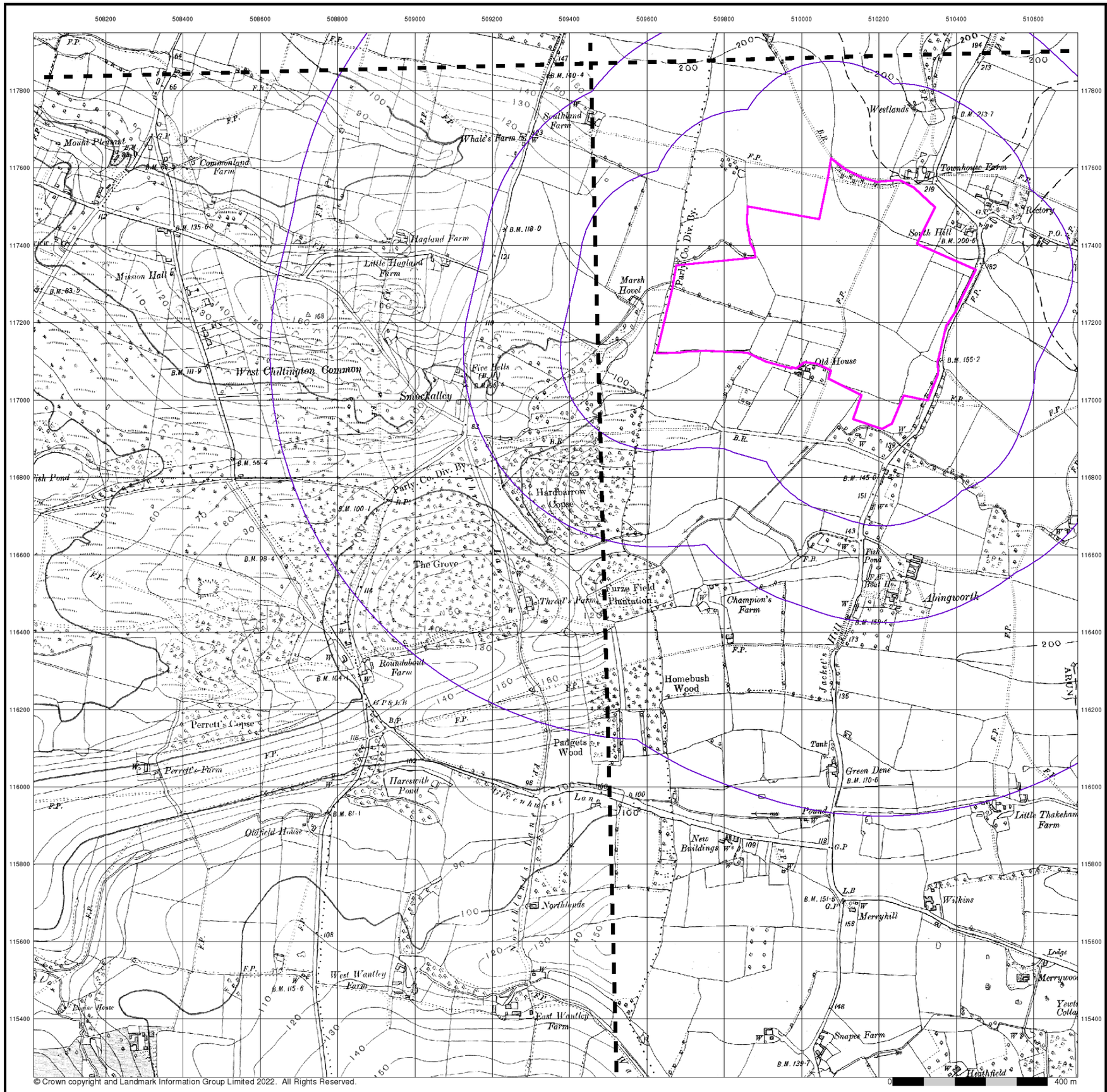
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Sussex

Published 1912 - 1914

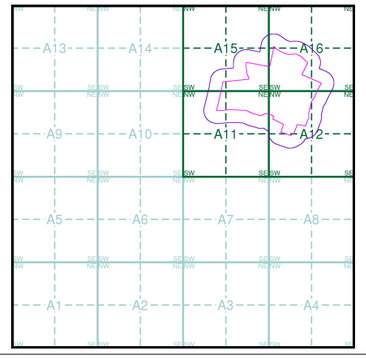
Source map scale - 1:10,560

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Map Name(s) and Date(s)

036NE 1913 1:10,560	037NW 1913 1:10,560
036SE 1912 1:10,560	037SW 1914 1:10,560

Historical Map - Slice A



Order Details

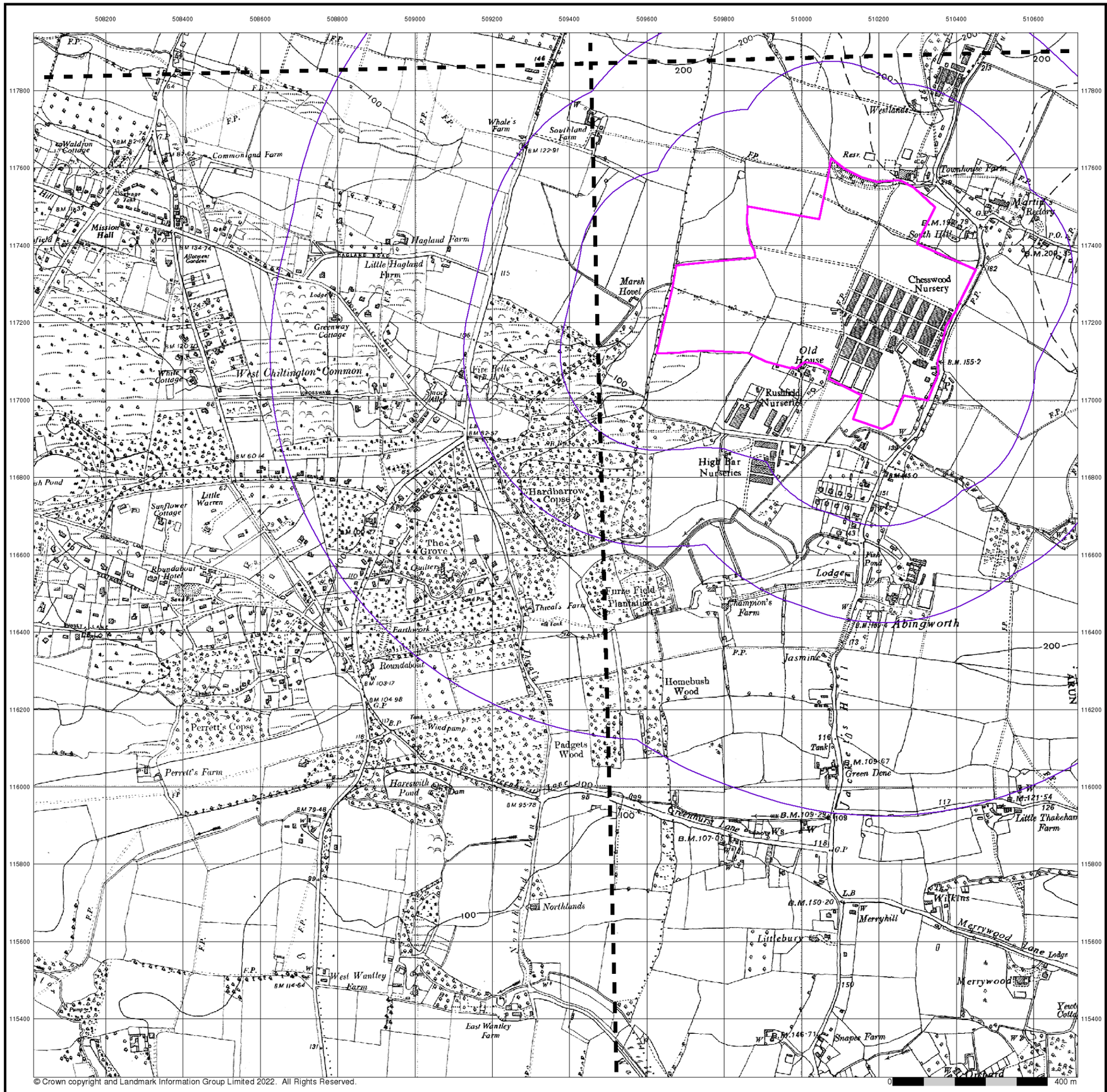
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Slice:	A
Site Area (Ha):	30.1
Search Buffer (m):	1000

Site Details

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117600
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116200
116000
115800
115600
115400
Commonland Farm
Whale's Farm
Southland Farm
Hagland Farm
Little Hagland Farm
Marsh Hovel
Greenway Cottage
West Chiltington Common
Five Bells
Chesswood Nursery
Old House
Rushfield Nurseries
High Bar Nurseries
Hardbarrow Copse
Little Warren
Sunflower Cottage
Roundabout Hotel
The Grove
Three Field Plantation
Champion's Farm
Abingworth
Jasmine
Homebush Wood
Padgets Wood
Perrett's Copse
Perrett's Farm
Haresmith Pond
Green Dene
Little Thakeham Farm
Northlands
Littlebury
Merrywood
Merrywood Lane Lodge
West Wantley Farm
East Wantley Farm
Snape Farm
Townhouse Farm
Martin's Rectory
Westlands
Resr.
Mission Hall
Waldron Cottage
White Cottage
Greenhurst Lane
Roundabout
Windpump
Earthwork
Thecal's Lane
Hagland Road
Lodge
Fish Pond
Sand Pit
Tank
Quarry
Allotment Gardens
Champion's Hill
South Hill
B.M. 122·91
B.M. 155·2
B.M. 109·67
B.M. 121·54
B.M. 109·29
B.M. 107·05
B.M. 150·20
B.M. 146·71
B.M. 200·35
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B.M. 95·78
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B.M. 62·42
B.M. 62·41
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B.M. 62·37
B.M. 62·36
B.M.



Historical Aerial Photography

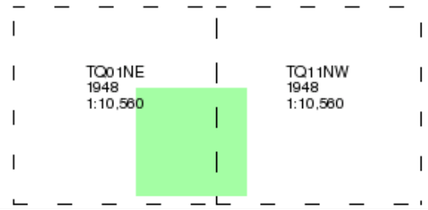
Published 1948

Source map scale - 1:10,560

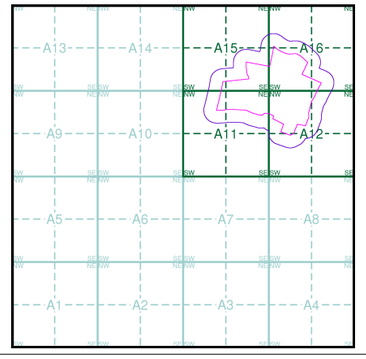
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)



Historical Aerial Photography - Slice A



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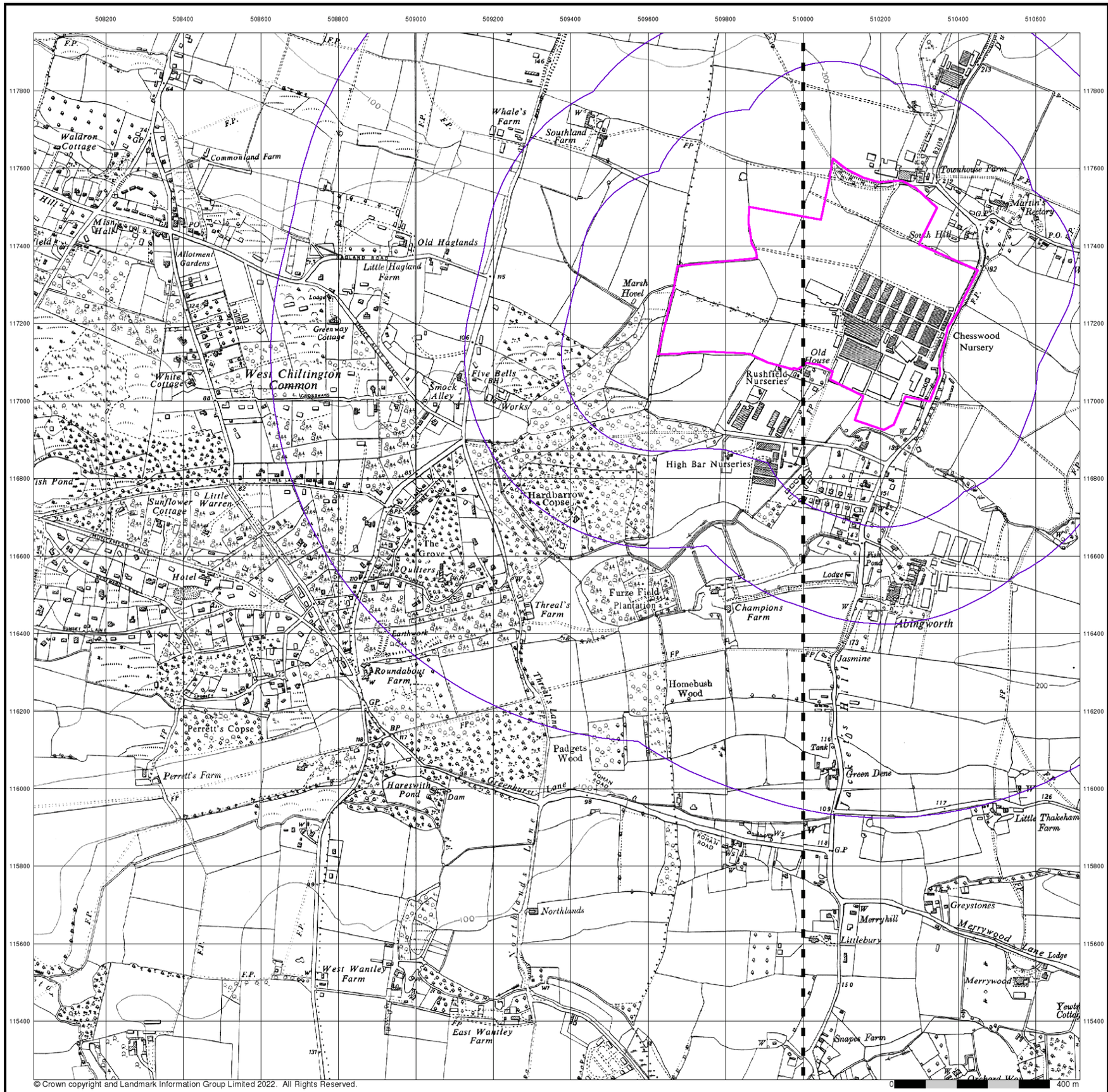
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Customer Ref:	305276
National Grid Reference:	509760, 117020
Slice:	A
Site Area (Ha):	30.1
Search Buffer (m):	1000

Site Details

Thakeham Mushrooms, Chesswood Nurseries, Storrington Road, Thakeham, PULBOROUGH, RH20 3DY

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Web: www.envirocheck.co.uk



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RSK

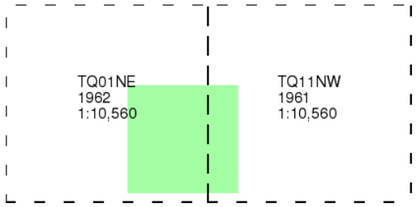
Ordnance Survey Plan

Published 1961 - 1962

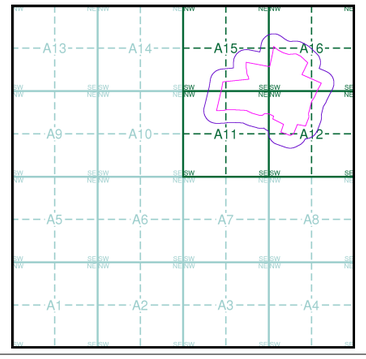
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



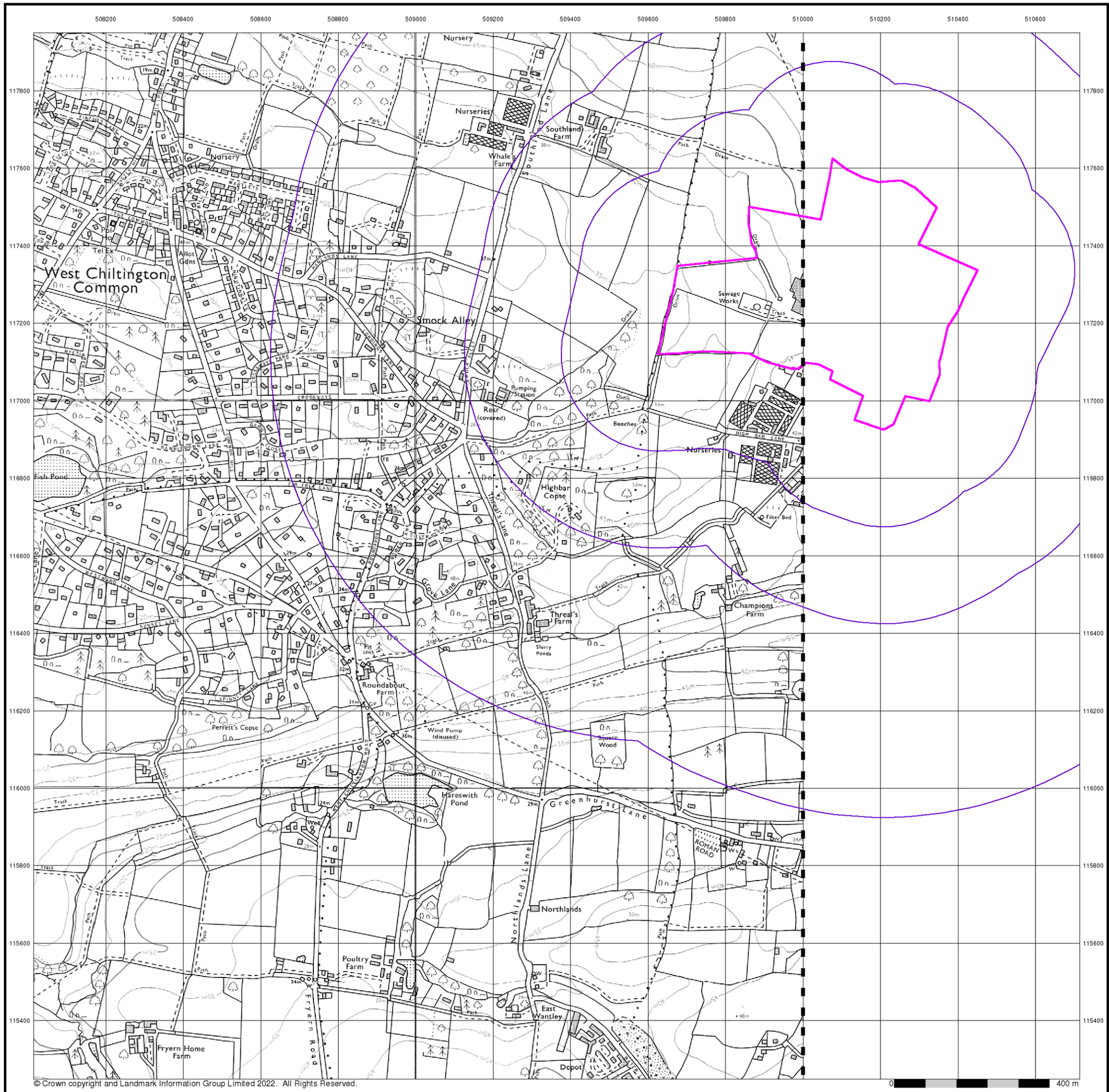
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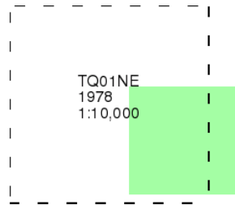
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Published 1978

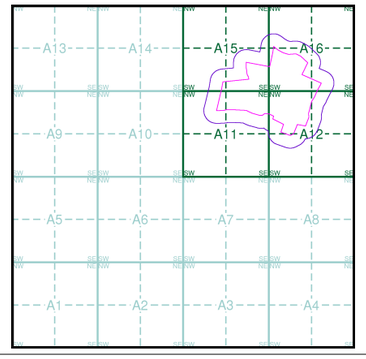
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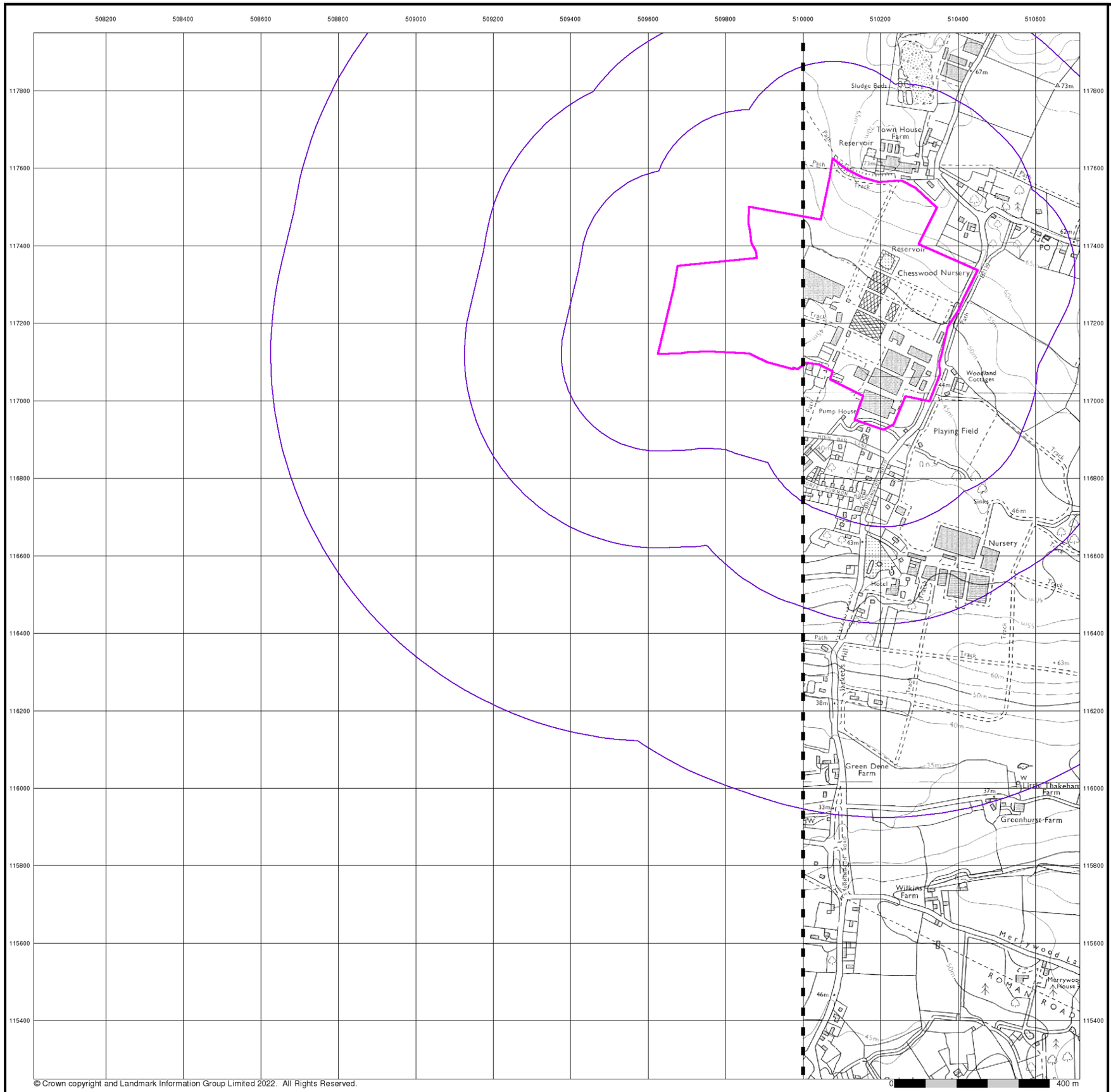
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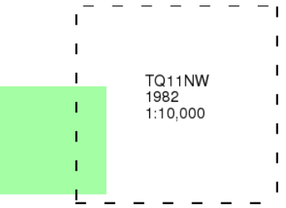
Ordnance Survey Plan

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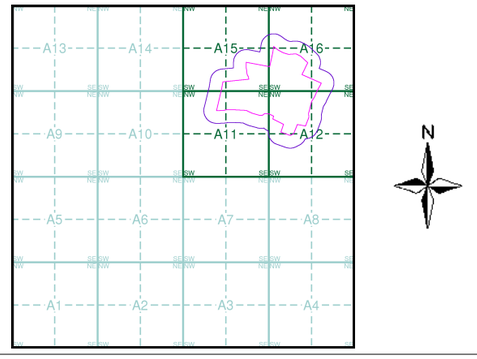
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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

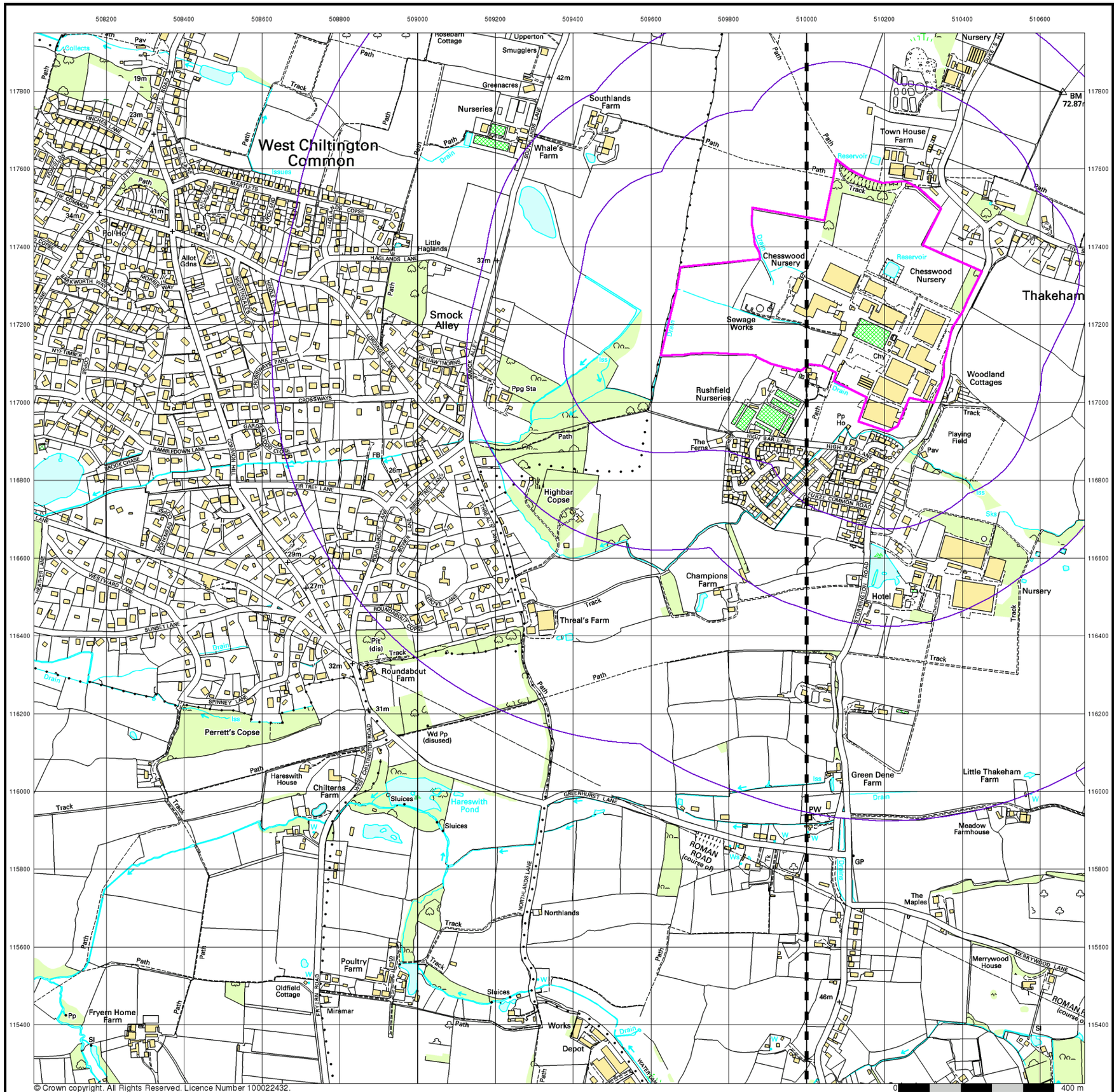
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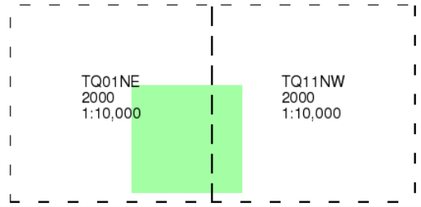
10k Raster Mapping

Published 2000

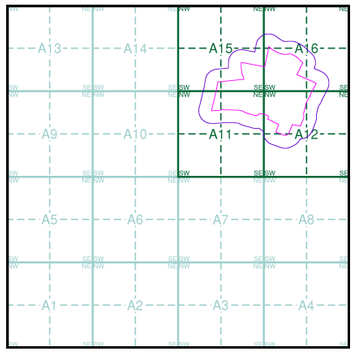
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The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

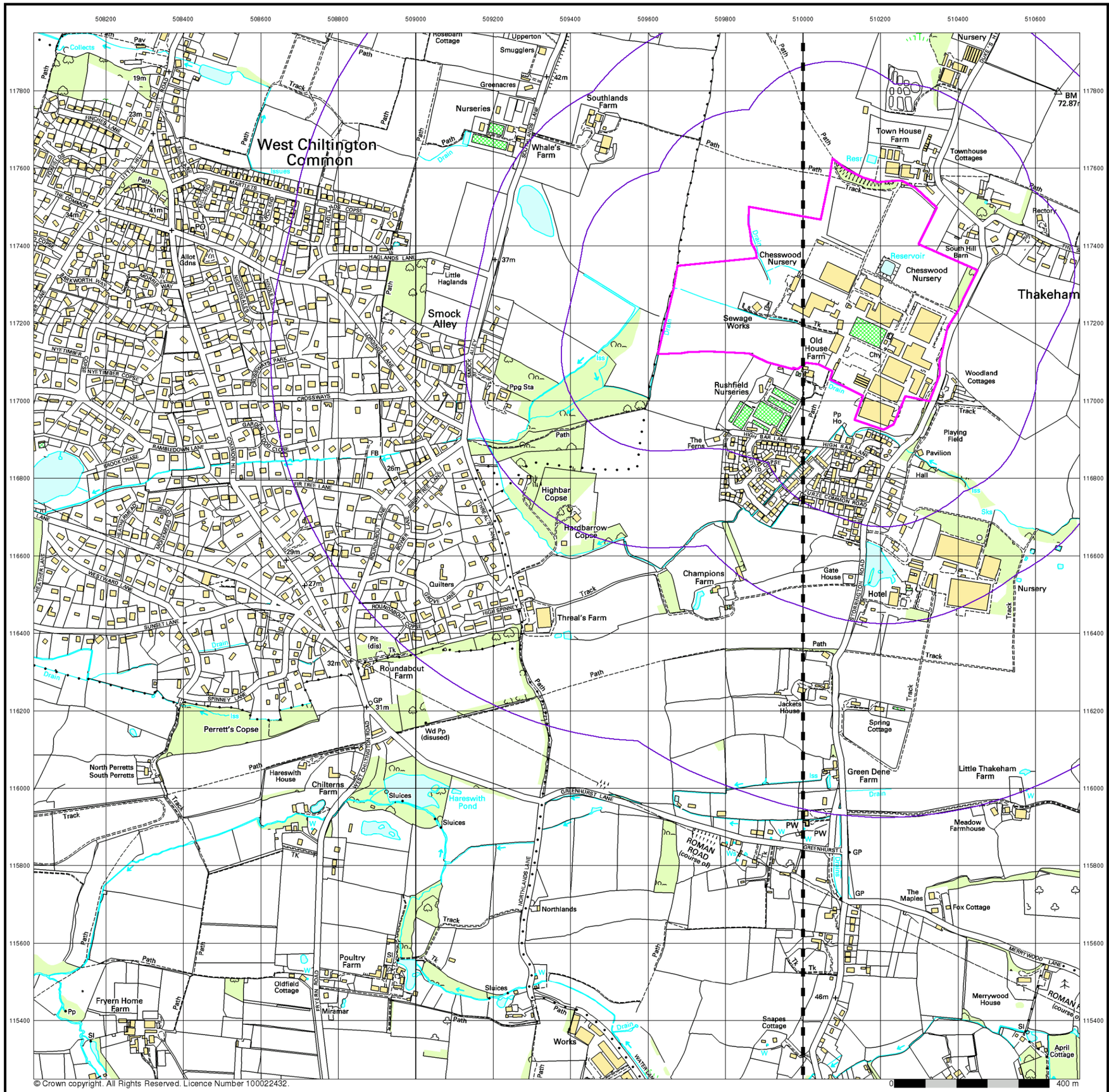
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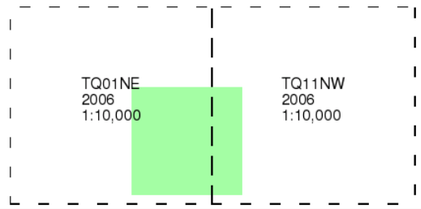
10k Raster Mapping

Published 2006

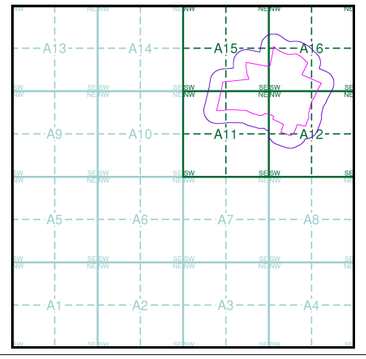
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The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

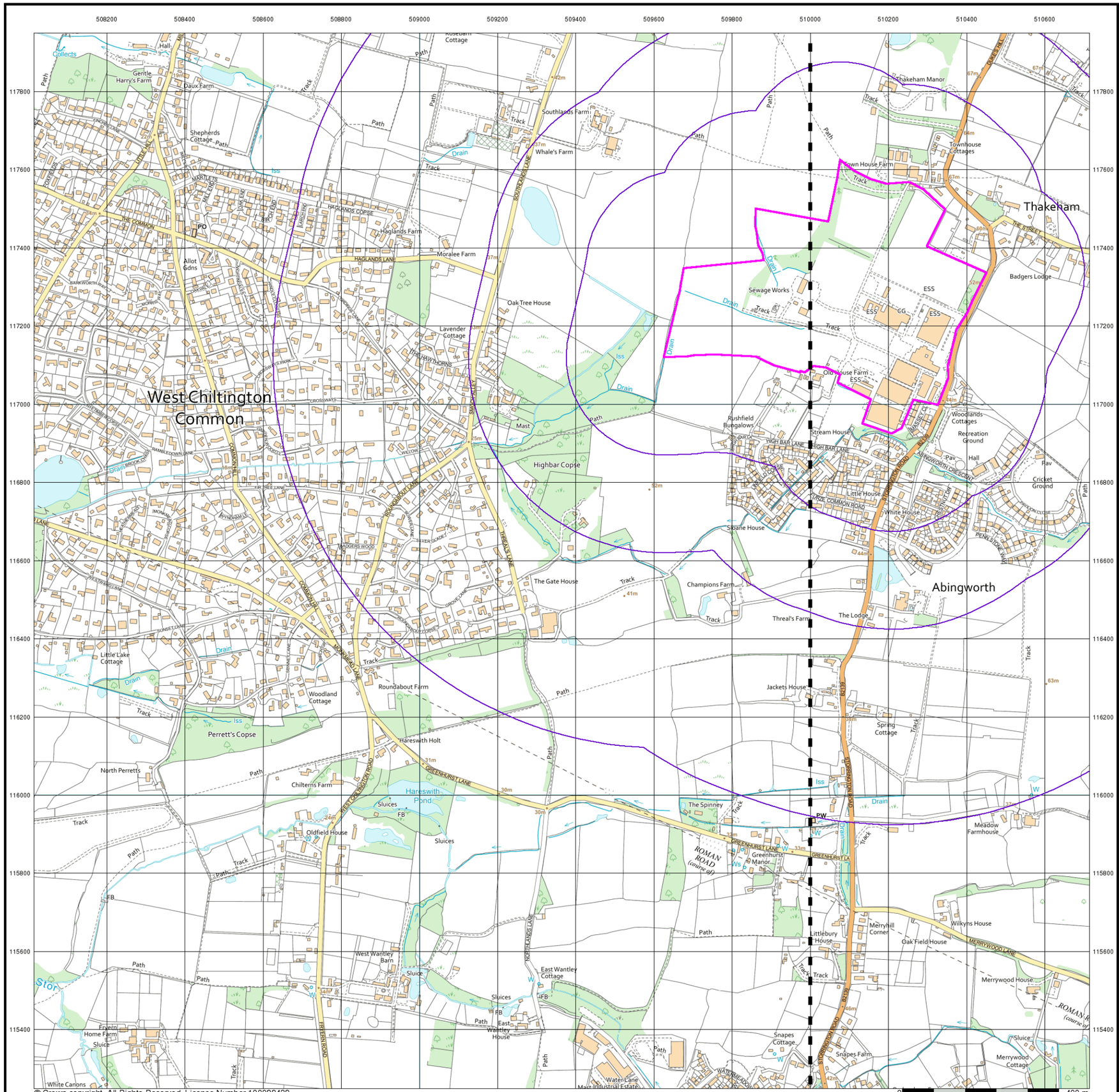
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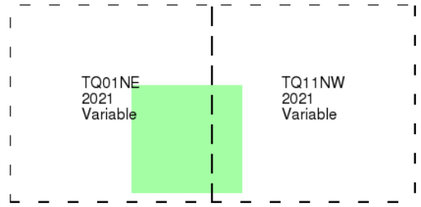
VectorMap Local

Published 2021

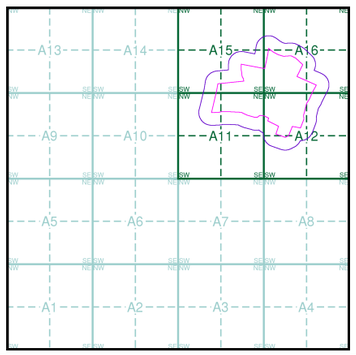
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VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	299549974_1_1
Customer Ref:	305276
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APPENDIX D
SUPPORTING DESK STUDY INFORMATION

Institute of Geological Sciences

RECORD OF SHAFT OR BOREHOLE

6-inch or 1:10 000 Map Registration No.

TQ 11 NW/17

Name and Number of Shaft or Borehole:

THAKEHAM

National Grid Reference

TQ 1084 1765

For whom made I.G.S.

Town or Village THAKEHAM County WEST SUSSEX

1-in or 1:50 000 New Series Map No.

318 BRIGHTON

Enter 'C' if Confidential

Exact site (reference to a fixed point on 1-in or 1:50 000 Map)

At Bramble Buildings, approx 340m NNW of St. Mary's Church, Thakeham.

Purpose for which made Stratigraphical Research

Ground level at ~~shaft~~ bore relative to O.D. Approx +64m. If not ground level give O.D. of beginning of shaft bore / m.

Made by I.G.S. Date of sinking September 20-25 1979

Information from Cores Examined by B. Young

Specimen Numbers and Additional Notes

Geological Classification	Description of Strata	Thickness metres	Depth metres
	6½'' ROCK BIT - NO CORES	6.0	6.0
LOWER GREENSAND - UNDIVIDED	SANDSTONE: very fine grained, silty, firm to friable, generally yellowish grey (5Y7/2) with occasional grey streaks and disturbed laminae of ? more clay-rich material, bioturbated, some scattered glauconite, some hollow casts of sponge spicules		
	[generally poor core condition]	1.09	7.09
	MUDSTONE: [extremely poor core - much disturbed and re-constituted by drilling, this lithology inter-preted and described from fragmentary samples]		

Institute of Geological Sciences

Name and Number of Borehole

THAKEHAM

6-in or 1: 10 000 Map Registration No.

TQ 11 NW/17

Page 2

National Grid Reference

TQ 1084 1765

Geological Classification	Description of Strata	Thickness *metres*	Depth *metres*
	Brought Forward	1.09	7.09
	compact, massive, smooth texture, resembles Fuller's earth, yellowish grey (5Y7/2) to dusky yellow (5Y6/4) and yellowish-orange (10YR6/6), core condition does not allow thickness to be determined but probably does not exceed 0.1m	0.10	77.19
	SANDSTONE: as above mudstone but strongly calcareous [very poor core condition to 8.07]	0.88	8.07
LOWER GREENSAND - UNDIVIDED	SANDSTONE: fine-grained, silty, calcareous, some scattered glauconite and occasional scattered hollow sponge spicule casts, generally yellowish-grey (5Y7/2) with grey streaks and disturbed laminae, strongly bioturbated, some oblique to sub-horizontal burrows up to c 2cm diameter with dark concentric fill, solid limonite in burrows at 8.50, 8.73 and between 9.00 and 9.05, some sub-vertical fissures, becoming harder below 9.10 and passing down to	1.33	9.40
	HARD SANDSTONE: fine-grained, compact, calcareous, a little scattered white mica, some scattered glauconite, yellowish-grey (5Y7/2) with grey (5Y4/1) wisps and laminae - these especially abundant between 9.46 and 9.68, bivalve cast at 9.48, a little very finely comminuted shell debris, ? a few hollow spicule casts, strongly bioturbated, passing down rapidly to	0.42	9.82
	SANDSTONE: as at 8.07, locally relatively friable, some vertical to sub-vertical fissures, rare spicule casts, limonite-filled burrow at 9.34	0.83	10.65

RECORD OF WELL (SHAFT OR BORE)

317

6" N.S. 317
1" O.S.
Grid Ref.

At Old Howe Farm

Town or Village Rhahehas County Sussex Six-inch quarter sheet 3.7 S.W.

Exact site Well is at Farm House (A rough sketch-map or a tracing from a map is very desirable)

in parish of TQ 1003 1707

Level of ground surface above sea-level (O.D.) 155 ft. If well starts below ground surface, state how far ft.

Shaft 25 ft., diameter ft. Bore 86 ft. Diameter of bore: at top 6 ins.; at bottom 6 ins.

Details of permanent lining tubes (internal diameters preferred) Lined part way, 6in

details unknown

TQ 11 11

Water struck at depths of (feet)

Rest-level of water below ~~above~~ top of well 6 feet. Suction at 20 feet. Yield on hours' test

days' test gallons per (with pump of capacity g.p.h.); depressing water level to feet

below top. Time of recovery hrs. Amount normally pumped daily g.p.h. for hours.

Quality (attach copy of analysis if available)

Sunk by for Mr. S. D. Phillips Date of well Dec Before 1939

Information from S. D. Phillips

(For Survey use only). GEOLOGICAL CLASSIFICATION.	NATURE OF STRATA (and any additional remarks).	THICKNESS Feet.	THICKNESS Inches.	DEPTH Feet.	DEPTH Inches.
Estimated					
Sandgate Beds / Hythe Beds	Lower Greensands. (No details furnished, except that map shows well To commence in Sandgate Beds)	130		130	
	On enquiry for Chanctonbury R.D.C. well [illegible] Borehole only and was sunk as yield of 22,000 g.p.h. in Dec 1939, the rest level dropped to 25 ft. Normal R.W.L. 16' down, in Jan 1940 pumps would not draw water R.W.L. 35' down. Suggested lowering of pump or deepening by 50' (see file 6298). T.H. 12.				
	Sited on 6" 37 S.W. Sussex OD 155 Used for garden only Visited S Bucks 31.2.41				
	DATA Bank				

GEOLOGICAL SURVEY AND MUSEUM, SOUTH KENSINGTON, LONDON, S.W.7.

For Survey use only

Date received	G.S.M. Office File No.	Site marked on 1" map (use symbol)

(*11815) W.L.29661/0.360 10,000 9/39 A. & E.W.Ltd. Op.686

DELEGATED APPLICATIONS

ASSESSMENT SHEET

APPLICATION NO./ADDRESS: **DC/10/0860: Sussex Mushrooms Storrington Road, Thakeham**

SITE AND SURROUNDINGS: On the south western side of existing complex of buildings assooiated with mushroom production

RELEVANT PLANNING HISTORY: Detailed planning history although none of especial relevance to this application which is also unrelated to the currently undetermined proposals for new mushroom bunkers and a major housing development

RELEVANT PLANNING POLICIES: Policies DC1, DC9 & DC25 of the General Development Control Policies Document are amongst those of relevance to the determination of the application.

REPRESENTATIONS AND CONSULTATION RESPONSES

Thakeham Parish Council raises no objection subject to conditions.

Public Health & Licensing originally commented that they wished an odour management plan to be submitted. Subsequently it was also commented that a suitable extraction and abatement system is installed.

West Sussex County Council raises no objection subject to conditions and further confirm was subsequently received that there was no objection on archaeological grounds.

The Environment Agency raises no objection.

Thakeham Village Action comment that it would be premature to grant permission before the relevant environmental permits are separately gained, a SEEDA grant should be secured, an odour management plan should be submitted, the building will be visible from the National Park, the application may be one that should be determined as a waste management development, and should permission be granted a condition should be imposed requiring the building to be demolished if no longer required.

1 letter of objection has been received on the grounds of increased noise and smell.

MEMBER COMMENTS:

Cllrs Arthur and Jenkins agree to the application being dealt with under delegated powers. No response from Cllr Circus.

HUMAN RIGHTS:

Article 8 (right to respect of a private and family life) and Article 1 of The First Protocol (protection of property) of the Human Rights Act 1998 are relevant to the application. Consideration of human rights is an integral part of the planning assessment set out below.

MAIN ISSUES:

The mains issues are the effect of the proposal upon the character and appearance of the area and the amenities of neighbouring properties.

PLANNING ASSESSMENT:

This application seeks permission for a fuel storage building of 49.3 metres in length, 18.1 metres in width and 7.4 metres in height (5 metres to the eaves).

The building would be located within the complex of existing buildings and parallel to an existing building of similar scale. A screen of trees to the south restricts longer distance views and so it is not considered that the proposal would adversely affect the character of the area.

It is considered that the use of the building can be adequately controlled by condition further to the odour management plan and archaeological details already submitted and accordingly it is considered that the proposal is acceptable.

RECOMMENDATION:

To GRANT planning permission subject to the fcllowing conditions:

01 A2 Full Permission

02 L1 Hard and Soft Landscaping

03 M1 Approval of Materials

04 Potential odour emissions from the building shall be controlled in accordance with the details submitted by letter from RSK Group PLC dated 6 July 2010 and in addition a suitable air extraction and abatement shall be installed in accordance with details to be submitted to and approved by the Local Planning Authority prior to the commencement of development and no spent compost shall be stored on site.

Reason: In the interests of amenity in accordance with policy DC9 of the General Development Control Policies Document of the Horsham District Local Development Framework.

05 O1 Hours of Working

06 V2 Hours of Working

Plans as per list

REASONS FOR RECOMMENDATION:

IDP1 The proposal is consistent with the provisions of the development plan

IS RECOMMENDATION CONTRARY TO THE PARISH COUNCIL'S VIEWS?

NO

SECTION 106 AGREEMENT (if applicable)

Authority for Head of Legal Services to be instructed to draft Section 106 agreement

Authorising Officer sign [redacted] ....Date....27./.8./2010.....

DELEGATED

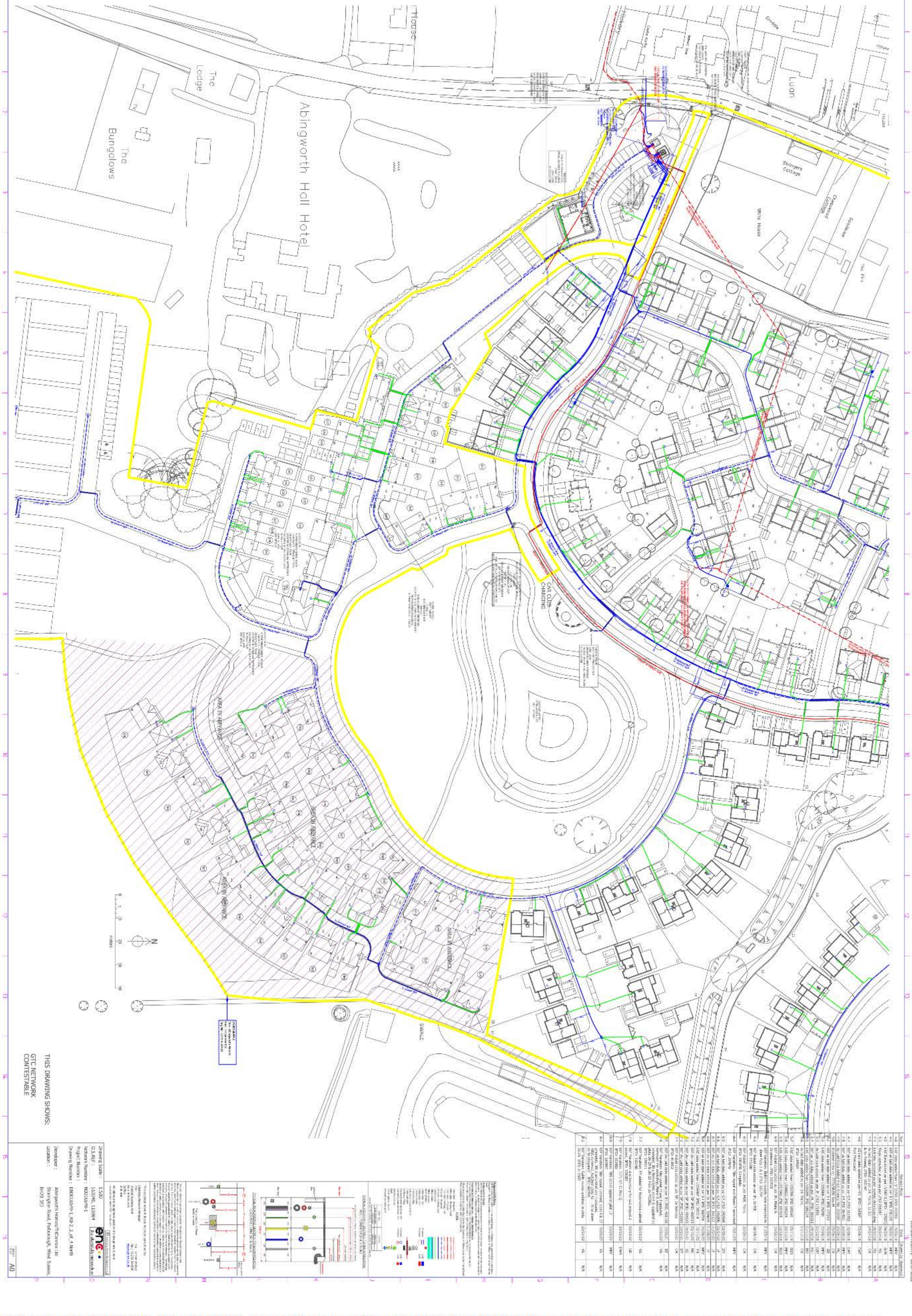
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Authorising Officer sign [redacted] ....Date....27./.8./2010.....

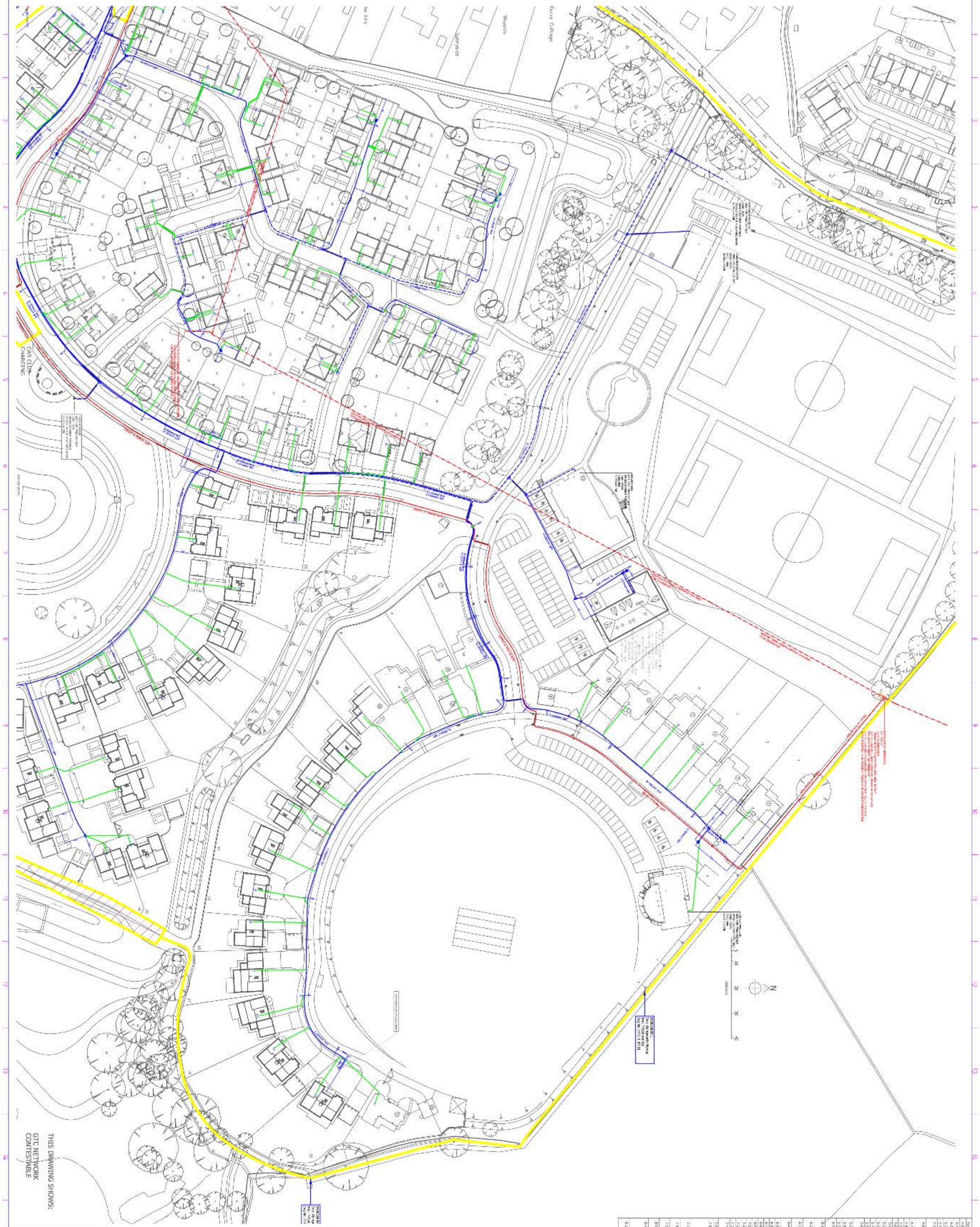
APPENDIX E
UTILITY SERVICE PLANS



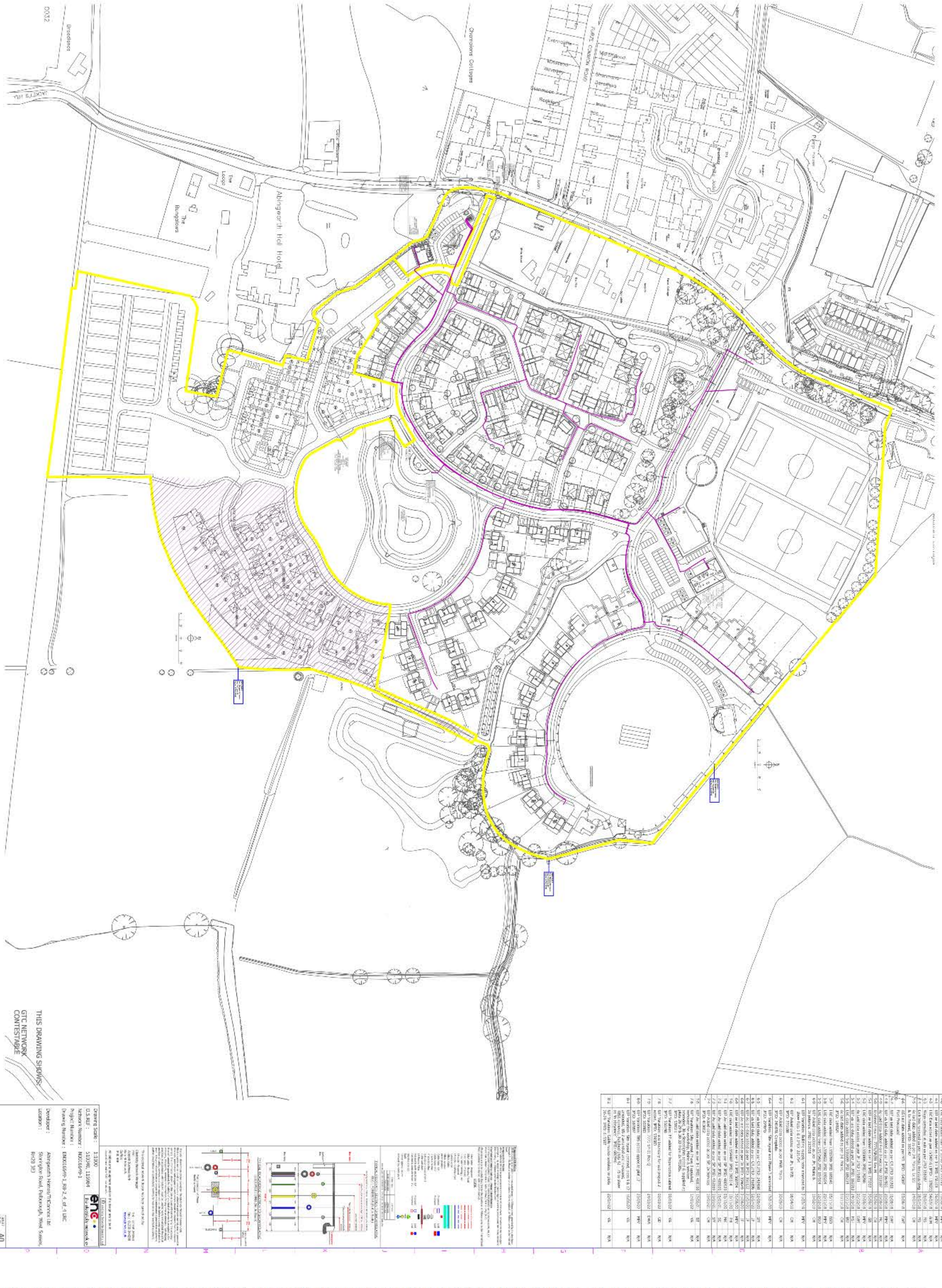
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GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:11:00. This drawing is reproduced from our records archive at the time of enquiry.

BRICK CUBICLE TO ENC SPEC
LOAD 5kVA
100AMP SPandN CUT-OUT,100AMP
FUSE WHOLE CURRENT METERING
NO EARTH PROVIDED MandE
INSTALLATION CONTRACTOR TO
INSTALL EARTH ROD AND RCD
PROTECTION

UKPN/ENC INTERFACE POINT
2-WAY LINK BOX
3c-300mm² W/F TO 3c-300mm² W/F
LOAD: 93kVA
FUSED AT: 160A
APPROX GRID REF: TQ103169
EARTHED AT UKPN SIDE

1 x PUMPING STATION SUPPLY
2KVA - 100A CUTOUT [TPandN],
100A FUSES, LOCATED WITHIN
SUITABLY WEATHERPROOF and
LOCKABLE PUMPING STATION KIOSK
3c-35mm² CNE

Storrington Road

N0017238-1

N0021927-1

N0016649-1

N0017238

27-02-2022

This design is across multiple drawings for details please refer to all drawings.

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. Marker tape for services should have a minimum of 150mm separation to any other cable.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over or further 75mm above the top of the cable.

Duct/Cable Protection
- Black ducting for mains shall be 150mm opp plastic ducting compliant with the CNR TS 12-01
- Ducting for LV single phase services shall be 38mm outside diameter black ducduct compliant with CNR TS 12-01
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a flash black line
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Tooltrac risers set out (except where specified).

Cable Colour Coding
For cable connection mains, the connected phases will be shown as R,Y, BY, BW Where R=Red, Y Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GBC documentation.

Excavation Carried Out by BUUK
The services highlighted in blue will be excavated and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
33kV Cable		
11kV Cable		
6.6kV Cable		
LSM Cable		
3.3kV Cable		
LV 3 Core Cable		
Service Cable		
Line/Cables		
Cable Joint		
Pot End		
Ducted Cable		
Excavated by BUUK Contractors		
Asset Boundary		
3 Way Link Box		
4 Way Link Box		
Earth		
Streetlight		
Substation		

Internal
Meter Box
Kiosk
HWDS
Point load
Sirtrac
Network Boundary
Point
Sheeting And Cu
Feeder Pillar

Plan Notes
The plan shows apparatus owned by the BUUK Group. Any third party apparatus indicated on these drawings is shown for indicative purposes only. The information shown on the plan is given without warranty, the accuracy cannot be guaranteed. No liability of any kind whatsoever is accepted by the company. Safe digging practices, in accordance with HSG47, must be used to verify and establish the actual position of mains, pipes, cables, services and other apparatus before any excavation is carried out. Based on or derived from OS data © Crown copyright and database right 2021. All rights reserved Ordnance Survey Licence number 100022432. Plotted Scale - 1:1000
Once apparatus has been laid it becomes the responsibility of the developer to ensure it is suitably protected, thereafter backfilling should be carried out as soon as possible. Replacement and repair of damaged apparatus, including administrative costs will be fully recharged to the Accessor. It will be the Developer's responsibility to recover this costs from the third parties.
Do not scale this drawing.
For a revision history of this network design please see separate revision history document.

gtc
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Tel: 01579 340555
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Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510270,116960	
Location: Keyworker Site, Thakeham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1 1 of 3 Entire site appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:1000	Sheet Size: A3 / Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:11:02. This drawing is reproduced from our records archive at the time of enquiry.

BRICK CUBICLE TO ENC SPEC
LOAD 5kVA
100AMP SPandN CUT-OUT,100AMP
FUSE WHOLE CURRENT METERING
NO EARTH PROVIDED MandE
INSTALLATION CONTRACTOR TO
INSTALL EARTH ROD AND RCD
PROTECTION

UKPN/ENC INTERFACE POINT
2-WAY LINK BOX
3c-300mm² W/F TO 3c-300mm² W/F
LOAD: 93kVA
FUSED AT: 160A
APPROX GRID REF: TQ103169
EARTHED AT UKPN SIDE

1 x PUMPING STATION SUPPLY
2KVA - 100A CUTOUT [TPandN],
100A FUSES, LOCATED WITHIN
SUITABLY WEATHERPROOF and
LOCKABLE PUMPING STATION KIOSK
3c-35mm² CNE

Storrington Road

N0017238-1

N0021927-1

N0016649-1

N0017238

27-02-2022

This design is across multiple drawings for details please refer to all drawings.

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. Marker tape for services should have a minimum of 150mm separation to any other cable.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over or further 75mm above the top of the cable.

Duct/Cable Protection
- Black ducting for mains shall be 150mm opp plastic ducting compliant with the CNR TS 12-01
- Ducting for LV single phase services shall be 38mm outside diameter black ducduct compliant with CNR TS 12-01
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a flash black line
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Tooltrac risers set out (except where specified).

Cable Colour Coding
For cable connection mains, the connected phases will be shown as R,Y, BY, BW Where R=Red, Y Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GBC documentation.

Excavation Carried Out by BUUK
The services highlighted in blue will be excavated and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
33kV Cable		
11kV Cable		
6.6kV Cable		
LSM Cable		
3.3kV Cable		
LV 3 Core Cable		
Service Cable		
Line/Cables		
Cable Joint		
Pot End		
Ducted Cable		
Excavated by BUUK Contractors		
Asset Boundary		
3 Way Link Box		
4 Way Link Box		
Earth		
Streetlight		
Substation		

Internal
Meter Box
Kiosk
HWDS
Point load
Sirtrac
Network Boundary
Point
Sheeting And Cu
Feeder Pillar

Plan Notes
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Once apparatus has been laid it becomes the responsibility of the developer to ensure it is suitably protected, thereafter backfilling should be carried out as soon as possible. Replacement and repair of damaged apparatus, including administrative costs will be fully recharged to the Accessor. It will be the Developer's responsibility to recover this costs from the third parties.
Do not scale this drawing.
For a revision history of this network design please see separate revision history document.

gtc
GTC, Westpit Business Park, Saltash, PL12 6LW
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Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510270,116960	
Location: Keyworker Site, Thakeham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1 1 of 3 Entire site appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:1000	Sheet Size: A3 / Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:11:02. This drawing is reproduced from our records archive at the time of enquiry.

N0017238 RH20 3GZ

POC Details

Name:
Capacity (kVA)2.6
DNO ref: 8200010147
Voltage: LV
Volt drop (%): 0.0
ELI: (mΩ): 0.0
Conn type: Pole termination

N0017238 RH20 3EJ

Linkbox Details

Owned by: UKPN SPN
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Pano size (A): 160

27-02-2022

This design is across multiple drawings for details please refer to all drawings

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. All services should have a minimum of 250mm separation to any other plant.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over a further 75mm above the top of the cable.

Ducting Specification

- Black ducting for mains shall be 150mm spiz plastic ducting compliant with the ENA TS 12-24
- Ducting for LV single phase service shall be 38mm outside diameter black twinduct compliant with ENA TS 12-24
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a thick black line
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

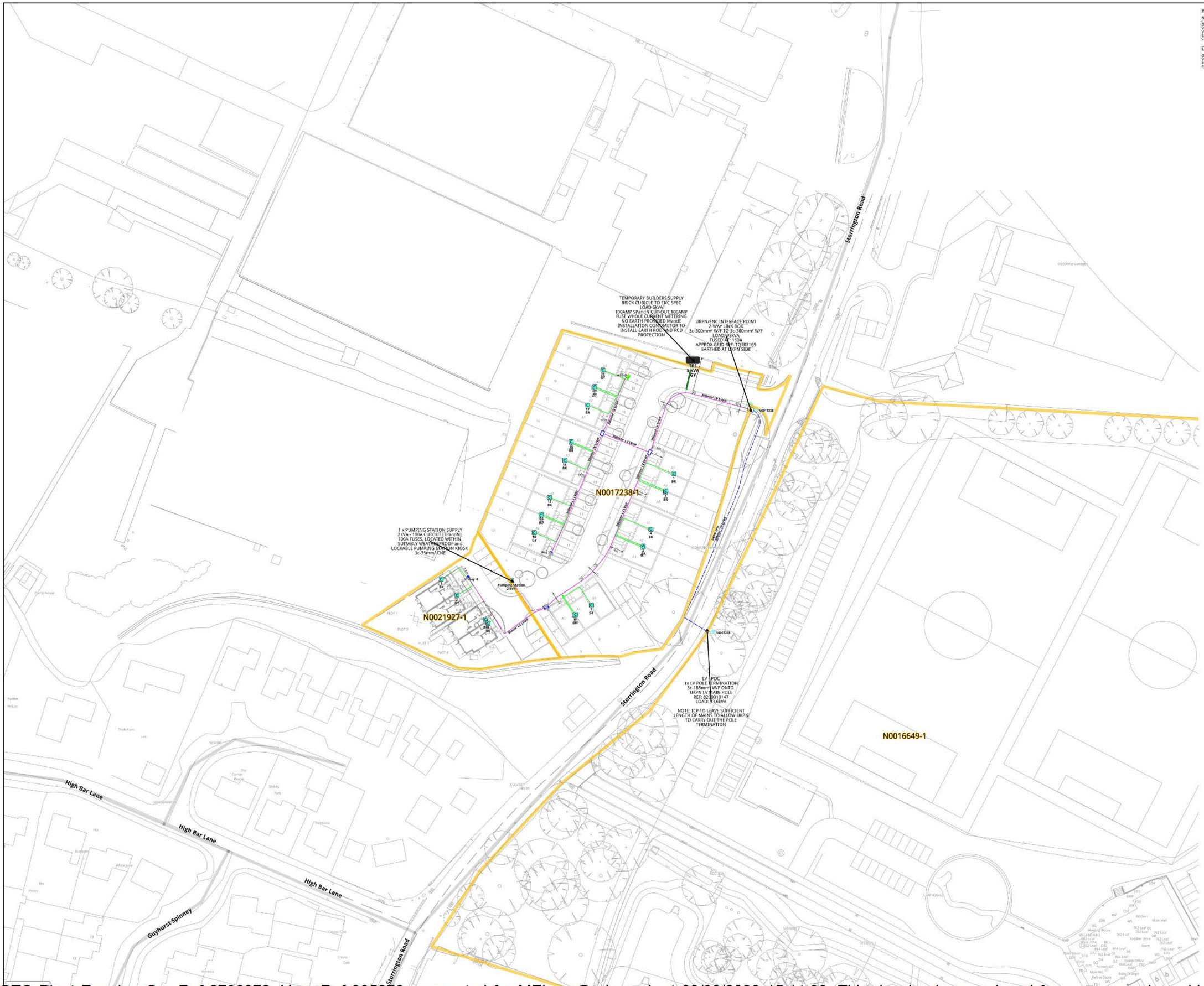
Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Trifurcating pot out (except where specified).

Cable Colour Coding
For single connection mains, the connected phases will be shown as R,Y, BY, BY Where R=Red, Y Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GBI documentation.

Excavation Carried Out by BUUK
Any services highlighted in blue will be exposed and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
132kV Cable		
66kV Cable		
33kV Cable		
11kV Cable		
LSM Cable		
LV/HT Cable		
LV 2 Core Cable		
Service Cable		
Unq Cables		
Cable Joint		
Fet End		
Ducted Cable		Internal
Excavated by BUUK Contractors		Meter Box
Asset Boundary		Kiosk
3 Way Link Box		HECO
4 Way Link Box		Point Load
Earth		Sirtice
Streetlight		Network Boundary
Substation		Point
		Shorting End Cap
		Feeder Pillar



Plan Notes
The plan shown apparatus owned by the RSA K Group. Any third party apparatus included on these drawings is shown for indicative purposes only. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service positions must be assumed by the company. Safe digging practices, in accordance with HSG47, must be used to verify and establish the actual position of apparatus. This plan is reproduced by the permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2037. Ordnance Survey Licence number 100022963.

Development Details
All an apparatus have been laid it becomes the responsibility of the developer to ensure it is suitably protected. Barrier backfilling should be carried out as soon as possible. Replacement and repair of damaged cables and associated apparatus work will be fully recharged to the developer. It will be the developer's responsibility to protect this asset from the third parties.

Revision Notes
For a revision history of this network design please see seperate revision history document.

GTC, Wealth Badmere Park, Suffolk. IP80 9UP
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www.gtc-uk.co.uk

Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510277,116961	
Location: Keyworker Site, Thakenham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1_2_of_3_appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:500	Sheet Size: A1
	Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 - generated for MElsom@rsk.co.uk at 09/08/2022 15:11:03. This drawing is reproduced from our records archive at the time of enquiry.

N0017238 RH20 3GZ

POC Details

Name:
Capacity (kVA)2.6
DNO ref: 8200010147
Voltage: LV
Volt drop (%): 0.0
ELI: (mΩ): 0.0
Conn type: Pole termination

N0017238 RH20 3EJ

Linkbox Details

Owned by: UKPN SPN
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Pano size (A): 160

27-02-2022

This design is across multiple drawings for details please refer to all drawings

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. All services should have a minimum of 250mm separation to any other plant.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over a further 75mm above the top of the cable.

Ducting Specification

- Black ducting for mains shall be 150mm spiz plastic ducting compliant with the ENA TS 12-24
- Ducting for LV single phase service shall be 38mm outside diameter black twinduct compliant with ENA TS 12-24
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a thick black line
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

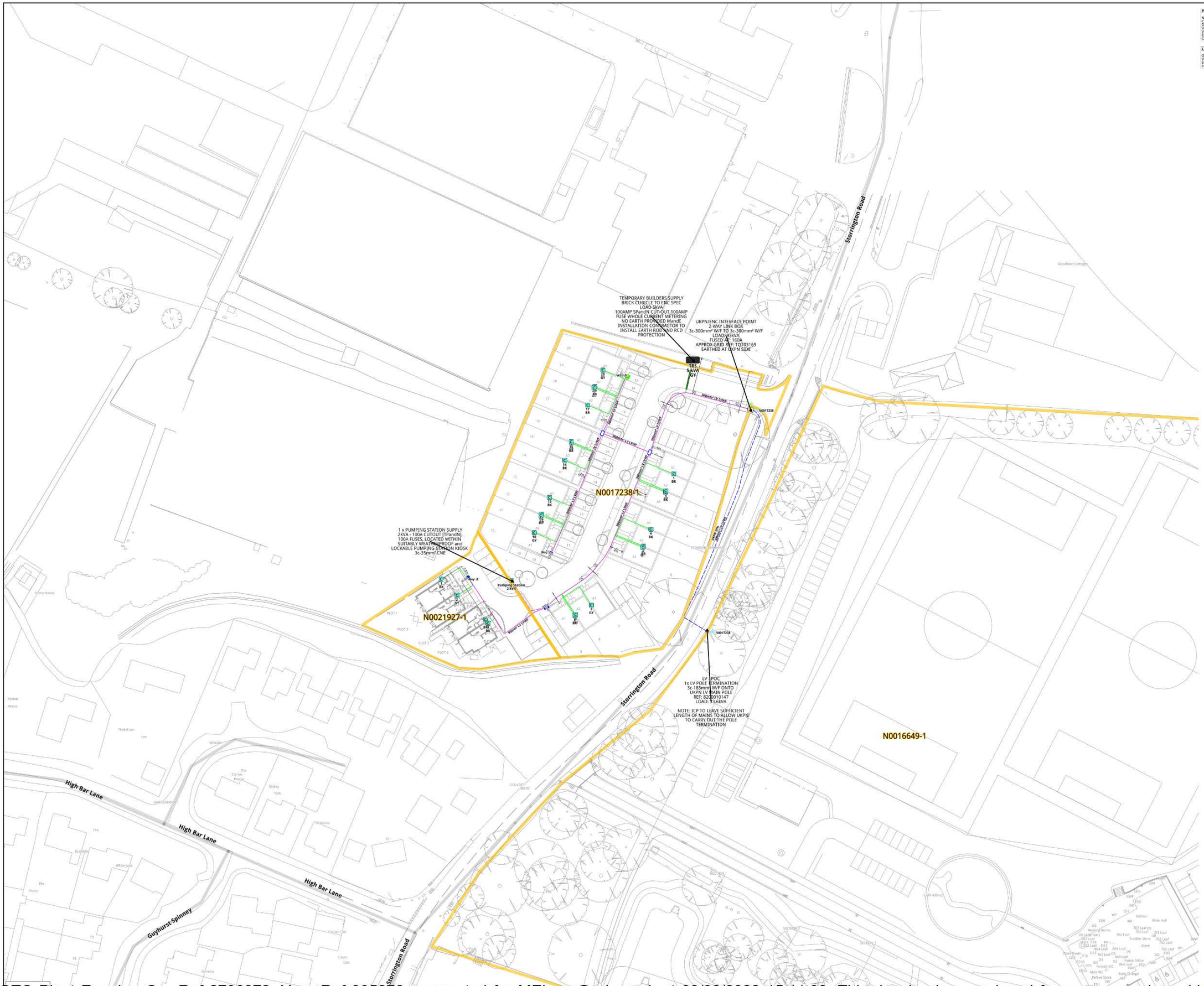
Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Trifurcating pot out (except where specified).

Cable Colour Coding
For single connection mains, the connected phases will be shown as R,Y, BY, BY Where R=Red, Y Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GBI documentation.

Excavation Carried Out by BUUK
Any services highlighted in blue will be exposed and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
132kV Cable		
66kV Cable		
33kV Cable		
11kV Cable		
LSM Cable		
LV/HT Cable		
LV 2 Core Cable		
Service Cable		
Unq Cables		
Cable Joint		
Fet End		
Ducted Cable		Internal
Excavated by BUUK Contractors		Meter Box
Asset Boundary		Kiosk
3 Way Link Box		HECO
4 Way Link Box		Point Load
Earth		Sirtice
Streetlight		Network Boundary
Substation		Point
		Shorting End Cap
		Feeder Pillar



Plan Notes
The plan shown apparatus owned by the RSA K Group. Any third party apparatus included on these drawings is shown for indicative purposes only. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service positions must be assumed by the company. Safe digging practices, in accordance with HSG47, must be used to verify and establish the actual position of apparatus. This plan is reproduced by the permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2037. Ordnance Survey Licence number 100022963.

Development Details
All an apparatus have been laid it becomes the responsibility of the developer to ensure it is suitably protected. Barrier backfilling should be carried out as soon as possible. Replacement and repair of damaged cables and associated apparatus work will be fully recharged to the developer. It will be the developer's responsibility to protect this asset from the third parties.

Revision Notes
For a revision history of this network design please see seperate revision history document.

GTC, Wealth Badmere Park, Suffolk. IP80 9UP
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www.gtc-uk.co.uk

Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510277,116961	
Location: Keyworker Site, Thakenham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1_2_of_3_appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:500	Sheet Size: A1
	Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 - generated for MElsom@rsk.co.uk at 09/08/2022 15:11:03. This drawing is reproduced from our records archive at the time of enquiry.

N0017238 RH20 3EJ

Linkbox Details

Owned by: UKPN SPN
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Fuse size (A): 160

N0017238 RH20 3GZ

POC Details

Name:
Capacity (kVA)32.6
DNO ref: 8200010147
Voltage: LV
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Conn type: Pole termination

27-02-2022

This design is across multiple drawings for details please refer to all drawings.

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. All services should have a minimum of 250mm separation to any other plant.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over a further 75mm above the top of the cable.

Duct Specification

- Black ducting for mains shall be 150mm spiri plastic ducting compliant with the ENA TS 12-24
- Ducting for LV single phase services shall be 38mm outside diameter black twinduct compliant with ENA TS 12-24
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a thick black line.
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Trifurcating pot out (except where specified).

Cable Colour Codes
For single connection mains, the connected phases will be shown as R,Y, BY, BY Where R=Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GS1 documentation.

Excavation Carried Out by BUUK
The services highlighted in blue will be excavated and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
132kV Cable		
66kV Cable		
33kV Cable		
11kV Cable		
LSM CKT		
LV/HT CKT		
LV 3 Core Cable		
Service Cable		
Line/Cables		
Cable Joint		
Air End		
Ducted Cable		
Excavated by BUUK Contractors		
Asset Boundary		
3 Way Link Box		
4 Way Link Box		
Earth		
Streetlight		
Substation		

Internal
Meter Box
Kiosk
HEC6
Point Load
Kiosk
Network Boundary
Point
Shorting End Cap
Feeder Pillar

TEMPORARY BUILDERS SUPPLY
BRICK CUBICLE TO ENC SPEC
LOAD 5kVA
100AMP SPandN CUT-OUT,100AMP
FUSE WHOLE CURRENT METERING
NO EARTH PROVIDED MandE
INSTALLATION CONTRACTOR TO
INSTALL EARTH ROD AND RCD
PROTECTION

UKPN/ENC INTERFACE POINT
2-WAY LINK BOX
3c-300mm² W/F TO 3c-300mm² W/F
LOAD(KVA)
FUSED AT: 160A
APPROX GRID REF: TQ103169
EARTHED AT UKPN SIDE

1 x PUMPING STATION SUPPLY
2KVA - 100A CUTOUT [TPandN],
100A FUSES, LOCATED WITHIN
SUITABLY WEATHERPROOF and
LOCKABLE PUMPING STATION KIOSK
3c-35mm² CNE

LV - POC
1x LV POLE TERMINATION
3c-185mm W/F ONTO
UKPN LV MAIN POLE
REF: 8200010147
LOAD: 13.6kVA

NOTE: ICP TO LEAVE SUFFICIENT
LENGTH OF MAINS TO ALLOW UKPN
TO CARRY OUT THE POLE
TERMINATION

Storrington Road
High Bar Lane
Guyhurst Spinney
Woodland Cottages

Plan Notes
This plan shows apparatus owned by the BUUK Group. Any third party apparatus included on these drawings is shown for indicative purposes only. The information shown on this plan is given without warranty, the accuracy cannot be guaranteed. No liability of any kind whatsoever is accepted by the company. Safe digging practices, in accordance with HSG47, must be used to verify and establish the actual position of apparatus. This plan is reproduced by the permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2017. All rights reserved Ordnance Survey Licence number 0100031963.
Developers Responsibility
Any diversion of apparatus will be the responsibility of the developer to ensure it is suitably protected. Diversion/backfilling should be carried out as soon as possible. Replacement and repair of damaged apparatus, including administrative costs will be fully recharged to the developer. It will be the developer's responsibility to recover the costs from the utility companies.
Revision Note:
For a revision history of this network design please see separate revision history document.

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Tel: 01787 280787
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Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510270,116960	
Location: Keyworker Site, Thakenham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1_3_of_3_Contestable_LV_appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:500	Sheet Size: A1
	Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 - generated for MElsom@rsk.co.uk at 09/08/2022 15:11:05. This drawing is reproduced from our records archive at the time of enquiry.

N0017238 RH20 3EJ

Linkbox Details

Owned by: UKPN SPN
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Fuse size (A): 160

N0017238 RH20 3GZ

POC Details

Name:
Capacity (kVA)32.6
DNO ref: 8200010147
Voltage: LV
Volt drop (%): 0.0
ELI: (mΩ) 0.0
Conn type: Pole termination

27-02-2022

This design is across multiple drawings for details please refer to all drawings.

Electric Notes
All electric mains, services and ducts that shall contain electric cables must be overlaid with electric identifiable marker tape laid 215mm above the crown of the duct/cable. All services should have a minimum of 250mm separation to any other plant.

Backfill Specification
Directly buried cables should be surrounded by cable sand installed to BS EN 13139 - Aggregate size of 0/2mm to CAT 4. A 75mm layer should be placed on the bedding of the trench over a further 75mm above the top of the cable.

Duct Specification

- Black ducting for mains shall be 150mm spiri plastic ducting compliant with the ENA TS 12-24
- Ducting for LV single phase services shall be 38mm outside diameter black twinduct compliant with ENA TS 12-24
- Ducting should be used when taking cables across roads and into buildings
- Ducts are shown on the drawing as a thick black line.
- Only one cable is allowed per duct.

Electric cable	Outside Diameter
Single Phase	38mm
3 Phase LV	150mm
HV	150mm

Service Risers
All service cables to properties are single phase 25mm² Al Cable terminated in Trifurcating pot out (except where specified).

Cable Colour Codes
For single connection mains, the connected phases will be shown as R,Y, BY, BY Where R=Brown / BK = black / GY = grey

Material Specification
All cables, equipment and construction method on this network are to be in accordance with GS1 documentation.

Excavation Carried Out by BUUK
The services highlighted in blue will be excavated and reinstated by BUUK contractors, the excavation and reinstatement of the other branches will be the responsibility of the customer.

	Proposed	Laid
132kV Cable		
66kV Cable		
33kV Cable		
11kV Cable		
LSM CKT		
LV/HT CKT		
LV 3 Core Cable		
Service Cable		
Line/Cables		
Cable Joint		
Air End		
Ducted Cable		
Excavated by BUUK Contractors		
Asset Boundary		
3 Way Link Box		
4 Way Link Box		
Earth		
Streetlight		
Substation		

Internal
Meter Box
Kiosk
HEC6
Point Load
Kiosk
Network Boundary
Point
Shorting End Cap
Feeder Pillar

TEMPORARY BUILDERS SUPPLY
BRICK CUBICLE TO ENC SPEC
LOAD 5kVA
100AMP SPandN CUT-OUT,100AMP
FUSE WHOLE CURRENT METERING
NO EARTH PROVIDED MandE
INSTALLATION CONTRACTOR TO
INSTALL EARTH ROD AND RCD
PROTECTION

UKPN/ENC INTERFACE POINT
2-WAY LINK BOX
3c-300mm² W/F TO 3c-300mm² W/F
LOAD(KVA)
FUSED AT: 160A
APPROX GRID REF: TQ103169
EARTHED AT UKPN SIDE

1 x PUMPING STATION SUPPLY
2KVA - 100A CUTOUT [TPandN],
100A FUSES, LOCATED WITHIN
SUITABLY WEATHERPROOF and
LOCKABLE PUMPING STATION KIOSK
3c-35mm² CNE

LV - POC
1x LV POLE TERMINATION
3c-185mm W/F ONTO
UKPN LV MAIN POLE
REF: 8200010147
LOAD: 13.6kVA

NOTE: ICP TO LEAVE SUFFICIENT
LENGTH OF MAINS TO ALLOW UKPN
TO CARRY OUT THE POLE
TERMINATION

Storrington Road
High Bar Lane
Guyhurst Spinney
Woodland Cottages

Plan Notes
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Developers Responsibility
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Revision Note:
For a revision history of this network design please see separate revision history document.

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Last Edit By:	
Last Approved By MIA VILLAR 15-02-2022	
Approved	
OS Ref: 510270,116960	
Location: Keyworker Site, Thakenham, RH20	
Developer/Client: Oakford Homes	
Drawing Number/Title: EN0017238-1_3_of_3_Contestable_LV_appendix	
Network Number: N0017238	Project Number: N0017238-1
Scale: 1:500	Sheet Size: A1
	Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 - generated for MElsom@rsk.co.uk at 09/08/2022 15:11:05. This drawing is reproduced from our records archive at the time of enquiry.

2

3

4

N0021927-1

N0017238-1

N0016649-1

Storrington Road

High Bar Lane

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:10:41. This drawing is reproduced from our records archive at the time of enquiry.

GROUND MOUNTED METER BOXES
Cavity boxes to be installed as standard. Semi concealed boxes are to be installed where denoted only (see legend).

26-02-2022

This design is solely for the purpose of assessing whether or not it is feasible to connect to the gas network and does not constitute a formal offer to connect. Please contact us to discuss your requirements in detail before carrying out any design work. Any design work undertaken prior to the issue of a formal offer is entirely at your own risk and is not carried out on behalf of GTC.

Service Capacity to Properties

Number of Bedrooms	Minimum Building Thermal Line			
	Up to 0.5 bar at the meter	> 0.5 bar up to 2.0 bar	> 2.0 bar up to 5.0 bar	> 5.0 bar up to 7.0 bar
Up to 125	0.25	2	4	6
126 to 250	1	2	4	6
251 to 500	1	2	4	6
501 to 1000	1	2	4	6

Building Proximity

- Where the service pipe will be laid in proximity to a building, the following minimum distances should be maintained between the service pipe and the building:
- Where the service pipe is laid in proximity to a building, the following minimum distances should be maintained between the service pipe and the building:

Gas Pipe Diameter (Nominal)	Distance from Building
75 mm & 90 mm	300 mm
63 mm	225 mm
32 mm	150 mm
25 mm	225 mm
180 mm & 250 mm	1.200 mm
Any size	600 mm

Mains Pressure

The gas mains are laid at an operating pressure of up to 7 bar.

Material Specification

Polyethylene (PE) pipes and fittings are to be manufactured from PE 100 resin conforming to BS EN 1555-1:2010 and BS EN 1555-3:2008.

Warning Tape Specification

Warning tape shall be yellow with the inscription "CAUTION GAS PIPELINE BURIED BELOW" in black lettering. The tape shall be manufactured to BS 4346 Part 1:1969 and be 150 mm wide.

Project

Proposed Gas Pipework	
Proposed Gas Pipework Diameter	
Proposed Gas Pipework Pressure	
Proposed Gas Pipework Material	
Proposed Gas Pipework Depth	
Proposed Gas Pipework Route	
Proposed Gas Pipework Status	
Proposed Gas Meter Point	
Proposed Gas Meter Point Status	
Gas Governor	

Grid Ref: 510412,116994

Land

Gas Consultation	
Electricity	
Water	
Waste	
Telecoms	
Other	
Existing Features	
Proposed Features	

Last Edit By:

Last Approved By: KEITH TELLING 26-01-2022

Approved

OS Ref.: 510412,116994

Location: Storrington Road, Pulborough, WEST SUSSEX, RH20 3EJ

Developer/Client:

Abingworth Homes

Drawing Number/Title:

N0016649-1_2_of_4_appendix

Network Number: N0016649

Project Number: N0016649-1

Scale: 1:2500 on A3

Revision: P7

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:10:45. This drawing is reproduced from our records archive at the time of enquiry.

GROUND MOUNTED METER BOXES

Cavity boxes to be installed as standard. Semi concealed boxes are to be installed where denoted only (see legend).

Storrington Road

Storrington Road

N0016649-1

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GROUND MOUNTED METER BOXES

Cavity boxes to be installed as standard. Semi concealed boxes are to be installed where denoted only (see legend).



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GROUND MOUNTED METER BOXES

Cavity boxes to be installed as standard. Semi concealed boxes are to be installed where denoted only (see legend).

14-05-2021

This design is across multiple drawings for details please refer to all drawings

Gas Notes

All gas mains and ducts that shall contain a gas main must be overlaid with gas identifiable marker tape 250mm above the apparatus. All gas services and ducts that shall contain a gas service must have a minimum of 150mm gas identifiable marker tape 75mm above the apparatus. All gas stand end ducts that shall contain a gas pipe should have a minimum of 250mm clearance from other utilities.

Maximum Proximity to Properties

Diameter of main (mm)	Minimum Building Proximity (m)			
	≤0.075 bar	>0.075 bar ≤ 2 bar	> 2 bar ≤ 3.5 bar	> 3.5 bar ≤ 7 bar
Up to 125	0.25	2	4	6
126 to 355	1	2	4	6
356 to 509	1	2	4	8
510 to 1000	1	3	12	15

Ducting Specification

- Ducting for mains must be yellow and non perforated and only used perpendicular carriageway crossings.
- Ducting for services must be yellow and perforated along its length.
- Only one pipe is allowed per duct.

Gas Pipe External Diameter	Duct Inside Diameter
25mm & 32mm	50mm
63mm	100mm
90mm	150mm
125mm	200mm
180mm & 250mm	300mm
315mm	400mm

Meter Positions

Per all meter box types any position where damage could occur, especially from vehicles shall be avoided.

Semi-concealed, Universal meter boxes shall not:

- Obstruct footpaths
- Be in driveways
- Block
- Be a trip hazard

Material Specification

For material specifications please refer to GQ-PSO-ES-0002 Gas Specification for Service Pipes, Boxes & Steel Risers.

Excavation Carried Out by BULK

The trenches highlighted in blue will be excavated and reinstated by BULK contractors, the excavation and reinstatement of the other trenches will be the responsibility of the customer.

	Proposed	Lid	
MP Pipe = 7bar			
IP Main 2bar – 7bar			
MP Pipe 0.75 - 2bar			
LP Pipe = 0.75mBar			
Service Pipe			
Ducted Pipe		Semi Concealed	S
Excavate by BULK Contractors		Cavity	C
Asset Boundary		Internal	I
Connection Point		Kiosk	K
Pressure Reduction Station		Manhole	M
Inclusion:		Point Load	P
Open / Closed Valve		Unibox	U
Network Boundary Point		End Cap	E
Other GTC Boundary			

Plan Notes

This plan shows apparatus owned by the RSUK Group. Any third party apparatus shown on this plan is shown for guidance only and its position may not be accurate. The information shown on this plan is given without any warranty as to accuracy cannot be guaranteed. No liability of any kind whatsoever is accepted by the company. Safe digging practices, in accordance with HSG47, must be used to verify and establish the actual position of apparatus. Reproduced by the permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2021. All rights reserved Ordnance Survey License number 0100031673.

Developers Responsibility

Where apparatus have been laid it becomes the responsibility of the developer to ensure that adequate protection and support measures are carried out as soon as possible. Replacement and repair of damaged apparatus, including administrative costs will be fully recharged to the Architect. It will be the developer's responsibility to cover the costs from the third parties.

Revision Notes

For a detailed history of this network design please see separate revision history document.

GTC, Wrogth Business Park, Gloucester, GL2 2QP
Tel: 01252 240363
www.gtc-uk.co.uk

Last Edit By:	
Last Approved By:	DANIEL GRAHAM 13-05-2021
Approved	
OS Ref:	510280,116960
Location:	Keyworker Site, Thakenham, RH20
Developer/Client:	Oakford Homes
Drawing Number/Title:	N0017238-1_1_of_1_appendix
Network Number:	N0017238
Project Number:	N0017238-1
Scale:	1:500
Sheet Size:	A1
Revision:	1

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GROUND MOUNTED METER BOXES

Cavity boxes to be installed as standard. Semi concealed boxes are to be installed where denoted only (see legend).

14-05-2021

This design is across multiple drawings for details please refer to all drawings

Gas Notes

All gas mains and ducts that shall contain a gas main must be overlaid with gas identifiable marker tape 250mm above the apparatus. All gas services and ducts that shall contain a gas service must have a minimum of 150mm gas identifiable marker tape 75mm above the apparatus. All gas stand end ducts that shall contain a gas pipe should have a minimum of 250mm clearance from other utilities.

Maximum Proximity to Properties

Diameter of main (mm)	Minimum Building Proximity (m)			
	≤0.075 bar	>0.075 bar ≤ 2 bar	> 2 bar ≤ 3.5 bar	> 3.5 bar ≤ 7 bar
Up to 125	0.25	2	4	6
126 to 355	1	2	4	6
356 to 509	1	2	4	8
510 to 1000	1	3	12	15

Ducting Specification

- Ducting for mains must be yellow and non perforated and only used perpendicular carriageway crossings.
- Ducting for services must be yellow and perforated along its length.
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25mm & 32mm	50mm
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MP Pipe = 7bar			
IP Main 2bar – 7bar			
MP Pipe 0.75 - 2bar			
LP Pipe = 0.75mBar			
Service Pipe			
Ducted Pipe		Semi Concealed	S
Excavate by BULK Contractors		Cavity	C
Asset Boundary		Internal	I
Connection Point		Kiosk	K
Pressure Reduction Station		Manhole	M
Inclusion:		Point Load	P
Open / Closed Valve		Unibox	U
Network Boundary Point		End Cap	E
Other GTC Boundary			

Plan Notes

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Revision Notes

For a detailed history of this network design please see separate revision history document.

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Tel: 01252 240363
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Last Approved By:	DANIEL GRAHAM 13-05-2021
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OS Ref:	510280,116960
Location:	Keyworker Site, Thakenham, RH20
Developer/Client:	Oakford Homes
Drawing Number/Title:	N0017238-1_1_of_1_appendix
Network Number:	N0017238
Project Number:	N0017238-1
Scale:	1:500
Sheet Size:	A1
Revision:	1

GTC Plant Enquiry. Our Ref 2706972, Your Ref 305276 generated for MElsom@rsk.co.uk at 09/08/2022 15:10:54. This drawing is reproduced from our records archive at the time of enquiry.

SAFE WORKING IN THE VICINITY OF UTILITY NETWORKS

(Refer to the HSE Guidance Document HSG47)

Introduction

This document should be issued to anyone intending on working in the vicinity of GTC and associated entities' utility networks and should be used in conjunction with HSG47, NJUG guidance and industry recognised practices.

Confirmation should be sought from the asset owner in any instance of ambiguity or if there is confusion.

Any querries regarding diversions, alterations, and disconnections for Gas, Water, Distributed Heat and Fibre please contact: Network_Variations@gtc-uk.co.uk

Any querries regarding diversions, alterations, and disconnections for Electric, please contact: Electricity.diversion@gtc-uk.co.uk

For more information please see the GTC website: https://www.gtc-uk.co.uk/ or alternatively contact plant.enquiries@bu-uk.co.uk

The Dangers

Damage to services can cause significant disruption and project delays and therefore incur considerable costs as well as the potential for severe or fatal injury to not only to those directly involved but also the general public.

Damages often have instantaneous reactions like explosive arcing with cables or leaks for gas and water mains however latent reactions due to damages that are ignored, consealed, or unnoticed can have much greater consequences.

General

1. It is imperative that all works are carried out in accordance with the guidance provided by the HSE (Health and Safety Executive) in their document HSG47 "Avoiding Danger from Underground Services", ISBN 978 0 7176 6584 6, 3rd Edition 2014. No party shall carry out any excavation works or other intrusive works such as piling, blasting or demolition without following the guidance in HSG47.

2. We own gas, electricity, water, waste water, fibre, and district heating apparatus located in the highway, private property and through the countryside. Some plant may be located in land for which a wayleave or easement has been granted and there may be no surface evidence of the presence of apparatus.

3. Ensure that you have obtained detailed plans of existing and proposed gas, electricity, water, waste water, fibre, and district heating networks before any works commence.

4. The position of the networks shall be pinpointed as accurately as possible by visually surveying the area for indications of apparatus, by means of a locating device, and reference the information gathered to the plans. Locating equipment must be tested and calibrated within the manufacturer's calibration date.

Excavation work should be carried out where applicable, carefully following recognised safe digging practices. Once a locating device has been used to determine position and route, excavation may proceed; trial holes should be dug using suitable hand tools to confirm the position of buried networks. During excavation the locating device should be reused to check position and route of buried apparatus.

Once the apparatus has been located, appropriate marking be made on the covering hard surface confirming location and any errors in plans identified, GTC should be advised to allow plans to be updated.

5. Hand-held power tools can damage buried apparatus and shall be used with care until the exact position of a utility has been determined. They may only be used to break a paved or concrete surface above the network, unless there are any indications that the network is particularly shallow; in such circumstances, accuracy of plant location is determined and excavation initiated adjacent to the apparatus.

6. No manhole, chamber or other structure shall be built over, around or under the network. Such structures, other pipes, ducts and cables should be laid to provide a minimum clearance from the existing network of 300mm or 1.5 times the diameter of the asset, whichever is the greater. No work should be carried out if this minimum clearance cannot be met or which results in a reduction of cover or protection over the network, without first consulting GTC, please seek advice from GTC.

7. Where an excavation uncovers any network apparatus the backfill shall be adequately compacted, particularly beneath the network, to prevent any settlement, which would subsequently damage the network. Backfill material adjacent to the network shall be selected fine material or sand, containing no stones, bricks or lumps of concrete etc. and shall be suitably compacted to give comparable support and protection to that provided before excavation. No power compaction shall take place until at least 200mm cover of selected fine fill has been suitably compacted by hand tools.

8. If the road construction is close to the top of the network, GTC shall be asked to identify whether any additional precautions are necessary. The road construction depth should not be reduced without permission from the local Highway Authority.

9. Costs incurred by GTC through direct or consequential damage shall be recharged.

10. Where utilities are within a duct the duct should be treated in the same manner as live utility cable/pipe/fibre and any work in the vicinity of the apparatus shall be carried out with caution.

Any damage caused no matter how insignificant or minor in appearance SHALL BE REPORTED to GTC as soon as possible.

Precautions for Gas Networks

11. Plans do not always show the presence of gas service pipes (from the gas main to premises) but their existence should be assumed with consideration given to the increased height of the service off-take fitting on the main.

12. The depth of cover for gas mains is typically 750mm in carriageways and grass verges, 600mm in footways and 1.1m in open field. The depth of cover for gas services is typically between 375mm and 600mm . Reference should always be made to the network drawing. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.

13. Gas pipes should be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.

14. If a gas leak is suspected, the following action should be taken immediately:

- Remove all people from the immediate vicinity of the escape. If the service connection to a building or the adjacent main has been damaged, warn the occupants to leave the building, and any adjoining building, until it is safe for them to return. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building may result in further, unseen damage to the connection inside the building. Gas leaking from the damage inside or gas travelling along the line of the service connection pipe from outside the building may cause a build-up of gas within the building.
- Prohibit smoking, and extinguish all naked flames and other sources of ignition i.e. stop excavator and compressor engines within at least 5.0m of the leak.
- Inform the National Gas Emergency Service immediately by dialling:

  0800 111 999

- Remain on site.
- Assist the Gas Emergency Service Provider staff, Police, Fire Services or other Statutory Authorities as requested.

15. Where gas pipes cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the gas pipe or cause excessive loading over the gas pipe then GTC shall be consulted.

16. No concrete or other hard material should be placed or left under or adjacent to any gas pipe as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a gas pipe.

17. Where an excavation uncovers a gas pipe with a damaged wrapping, GTC shall be informed, so that repairs can be made to prevent future corrosion and leakage.

18. Pipe restraints or thrust blocks close to gas mains shall not be removed or interfered with as they are a safety feature of the live gas network.

19. Anyone who carries out work near underground gas plant should observe any specific requirements made by the site manager, and ensure that access to the plant by the asset owners staff is available at all times. No unauthorised repairs to gas pipes should be made.

20. Where excavation is within 5m proximity to above or below ground pressure control equipment, ground workers must be aware of the possibility of encountering small auxilary pipework that is more susceptible to damage.

21. Where PE pipes and cables have been exposed and it is intended that hot work (e.g. welding, grinding, etc) be carried out, contact shall be made with GTC to confirm additional precautions and actions that may require to be undertaken.

22. GTC shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of gas pipes or 400m of gas pressure reduction equipment.
- Piling or boring within 15m of gas plant.
- Excavating within 10m of pressure reduction equipment.
- Reducing the cover or protection of a gas pipe.
- Carrying out deep excavations nearby (minimum of 2m up to 15m).
- Working within 3m of GTC's intermediate pressure (IP) mains.

Precautions for Electricity Networks

23. Plans do not always show the presence of electric service cables (from the electricity main to premises) but their existence should be assumed.

24. In most cases there will be no permanent surface marker posts or other visible indication of the presence of a buried cable. Even if no cables are shown on plans or detected by a locator, there may still be cables present, which could be live and a close watch should be kept for any signs which could indicate their presence such as marker tape, tape tile, concrete tiles and wooden battens. Any marker which is disturbed by our excavations must be replaced once work is completed.

25. Typically underground cables are laid in trenches between 450mm and 1000mm deep, although some high voltage cables will be deeper, however, depths should never be assumed.

26. A cable is positively located only when it has been safely exposed. Even then, digging should still proceed with care as there may be other cables adjacent or lower down.

27. Occasionally, cables are terminated in the ground by means of a seal, sometimes with external mechanical protection. These "pot ended" or "bottle ended" cables should be treated as live and should not be assumed to be abandoned or disused. They can be difficult to detect with locators even when "live".

28. Where practicable, such power tools shall only be used 500mm or more away from the indicated line of a cable buried in or below a hard surface. Having done so, the cable shall then be positively located by careful hand digging under the hard surface. The hard surface should be gradually removed until the cable is exposed. If the cable is not exposed then it must be assumed to be embedded within the surface. Where possible a cable locator shall be used as a depth guide down the side of the excavation.

29. Because of the difficulty in confirming depth, hand held power tools shall never be used over the cable unless either:

- The cable has already been exposed by digging under the surface to be broken out and it is at a safe depth (at least 300mm) below the bottom of the hard surface material.

  or

- Physical precautions have been taken to prevent the tool striking the cable.

30. Excavating close to electricity cables buried in concrete is dangerous and shall not be undertaken unless the cable(s) have been isolated. For this reason alone electricity cables should not be buried in concrete.

31. Where mechanical excavators are used in the possible vicinity of underground cables, the work should be arranged so that damage to cables is avoided so far as is reasonably practicable. To minimise danger to operatives those onsite shall be outside of the reach of the excavator bucket and shall not enter the trench whilst digging is undertaken. Excavator operators shall be instructed to stay in the cab if a cable is struck. If excavator operators have to exit the cab they should jump clear. If excavator operators climb down from the cab the risk of electrocution is significantly increased. If a cable is struck, the machine involved shall be subject to continous observation and no one shall enter the excavation or approach the machine or the cable until GTC have been contacted and the damaged cable has been made safe.

32. Where cables have been exposed:

- Any damage shall be reported to GTC immediately on: **0800 032 6990**

  And work shall not be undertaken in the vicinity of a damaged cable until GTC has investigated its condition.

- For more than 1.0m and they cross a trench, support shall be provided. If the exposed cable length is shorter than 1.0m support shall still be considered if joints have been exposed or the cable appears otherwise vulnerable to damage. Where advice and help is needed contact GTC.

- Suitable precautions shall be taken to prevent damage from on-going work in the excavation. This may involve for example the use of physical means (e.g. timber boards, sandbags etc) to prevent mechanical damage. Materials or equipment which could damage or penetrate the outer sheath of the cable shall not be used. Cables lying in the bottom of an excavation are particularly vulnerable and shall be protected by nail free wooden planks, troughing or other suitable means.

- Cables shall not be moved aside unless the operation is supervised by GTC.

- Precautions shall be taken to prevent access by members of the public.

33. GTC shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of plant or substations piling or boring within 15m of electric plant.

- Excavating within 10m of a substation.

- Carrying out deep excavations nearby (minimum of 2m up to 15m).

- Working near GTC's HV plant.

Precautions for Water Networks

34. Plans do not always show the presence of water service pipes (from the water main to premises) but their existence should be assumed with consideration given to the increased height of the service off-take fitting on the main.

35. The depth of cover for water mains are typically 900mm. The depth of cover for water services are typically 750mm. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.

36. Water mains shall be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.

37. The danger created by damaging a water pipe with an excavator is much greater than if the damage is done with a hand-held power tool. Water pipes may have projections such as valve housings, which are not shown on the plans and to allow for this mechanical excavators shall not be used within 500mm of a water pipe.

38. If a water leak is suspected, the following action should be taken immediately:

- Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building may result in further, unseen damage to the connection inside the building.
- Shut down all working plant and machinery in the vicinity of the damage
- Inform IWNL by dialling: **02920 442 716**
- Remain on site.
- Do not attempt to make a repair.
- Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.

39. Where water pipes cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the water pipe or cause excessive loading over the water pipe then GTC must be consulted.

40. No concrete or other hard material should be placed or left under or adjacent to any water pipe as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a water pipe.

41. Where an excavation uncovers a water pipe with a damaged wrapping, GTC shall be told, so that repairs can be made to prevent future corrosion and leakage.

42. Pipe restraints or thrust blocks close to water mains should never be removed.

43. Anyone who carries out work near underground water plant shall observe any specific requirements made by the site manager, and ensure that access to the plant by GTC staff is available at all times. No unauthorised repairs to water pipes should be made.

44. Where PE pipes and cables have been exposed and it is intended hot work (e.g. welding, grinding, etc) be carried out, contact shall be made with GTC to confirm additional precautions and actions that may require to be undertaken.

45. GTC shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of plant.

- Piling or boring within 15m of water plant.
- Excavating within 10m of water asset structures.
- Reducing the cover or protection of a water main or service.
- Carrying out deep excavations nearby (minimum of 2m up to 15m).

Precautions for Fibre Networks

46. Plans may not always show the presence of fibre ducts but their existence should be assumed if GTC advise they have fibre services deployed in the given area. Any planned excavation work should only proceed with due care and attention.

47. Chambers with IFNL or OFNL marked lids can be used as an onsite indictor that GTC have fibre plant deployed in a given area however an exclusion of their presence does not necessarily mean there is no plant present.

48. In most cases there will be no permanent surface marker posts or other visible indication of the presence of a buried fibre duct. Even if no ducts are shown on plans there may still be ducts present which could have live fibre service installed. A close watch shall be kept for any signs which could indicate duct presence such as marker tape. Any marker which is disturbed by our excavations must be replaced once work is completed.

49. The depth of cover for fibre duct is typically between 350mm and 600mm in footways and grass verges, 600mm in carriageways and 1m in agricultural deployments. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.

50. Fibre ducts should be located by hand digging before mechanical excavation begins. When the positions and depth of the ducts have been determined, work can proceed. Even then, digging should still proceed with care as there may be other ducts adjacent or lower down.

51. If fibre duct damage is suspected, the following action should be taken immediately:

- Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage at the point of impact. For example, damage to a fibre connection outside the building may result in further, unseen damage to the connection inside the building.
- Shut down all working plant and machinery in the vicinity of the damage.
- Inform GTC Fibre immediately on: **02920 028 726**
- Remain on site.
- Do not attempt to make a repair.
- Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.

52. Where fibre ducts cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress on the duct. For ducts parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the duct from the excavation, the type of soil and any

excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the fibre duct or cause excessive loading over the fibre duct then GTC must be consulted.

53. No concrete or other hard material shall be placed or left under or adjacent to any fibre duct as this can cause damage to the duct at a later date. Any backfill should comply with the requirements of NRSWA. Concrete backfill should not be used within 300mm of a fibre duct.

54. Anyone who carries out work near underground fibre plant should observe any specific requirements made by the site manager, and ensure that access to the plant by GTC staff is available at all times. No unauthorised repairs to fibre ducts should be made.

55. Where fibre ducts have been exposed and it is intended hot work (e.g. welding, grinding, etc) be carried out, contact must be made with GTC to confirm additional precautions and actions that may require to be undertaken.

56. GTC shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of plant or fibre asset structures.
- Piling or boring within 15m of fibre plant.
- Excavating within 10m of fibre asset structures (including the OSCP).
- Reducing the cover or protection of a fibre asset.
- Carrying out deep excavations nearby (minimum of 2m up to 15m).

Precautions for District Heating Networks

For information with respect to Dstrict Heating Networks this could also include District Cooling.

57. Plans do not always show the presence of District Heating service pipes (from the District Hearing main to premises) but their existence should be assumed.

58. The depth of cover for District Heating mains is typically a minimum of 600mm under normal light carriageways and during construction activities, additional temporary protective bridging should be placed over DHN pipe runs. The depth of cover for District Heating services is typically 6000mm. Remember these covers are to finished level, you may be working in an area, which will be made up or lowered at a later date.

59. District Heating mains shall be located by hand digging before mechanical excavation begins. When the positions and depth of the pipes have been determined, work can proceed.

60. The danger created by damaging a District Heating with an excavator is much greater than if the damage is done with a hand-held power tool. District Heating pipes may have projections such as valve housings, which are not shown on the plans and to allow for this mechanical excavators should not be used within 600mm of a District Heating pipe.

61. If a water leak is suspected, the following action should be taken immediately:

- Remove all people from the immediate vicinity of the damage. It is important to note that a mechanical excavator may not only cause damage/leakage at the point of impact. For example, damage to a service connection outside the building may result in further, unseen damage to the connection inside the building.
- Shut down all working plant and machinery in the vicinity of the damage.
- Inform Metropolitan by dialling: **02920 100 346**
- Remain on site.
- Do not attempt to make a repair.
- Assist Approved Contractors, Police, Fire Services or other Statutory Authorities as requested.

62. Where District Heating cross or are parallel and close to excavations, changes in backfill etc. may cause differential ground settlement and increased stress in the pipe. For pipes parallel and close to excavations, the degree of risk depends upon the depth of the excavation, the distance of the pipe from the excavation, the type of soil and any excessive loading from heavy construction plant and materials. Wherever excavation works may affect the support of the District Heating or cause excessive loading over the water pipe then Metropolitan must be consulted.

63. No concrete or other hard material should be placed or left under or adjacent to any District Heating as this can cause pipe fracture at a later date. Concrete backfill should not be used within 300mm of a District Heating.

64. Where an excavation uncovers a District Heating pipe with a damaged insulation, Metropolitan should be told, so that repairs can be made to prevent future corrosions and leakage.

65. Pipe restraints , Anchor blocks or foam padding close to district heating mains shall never be removed.

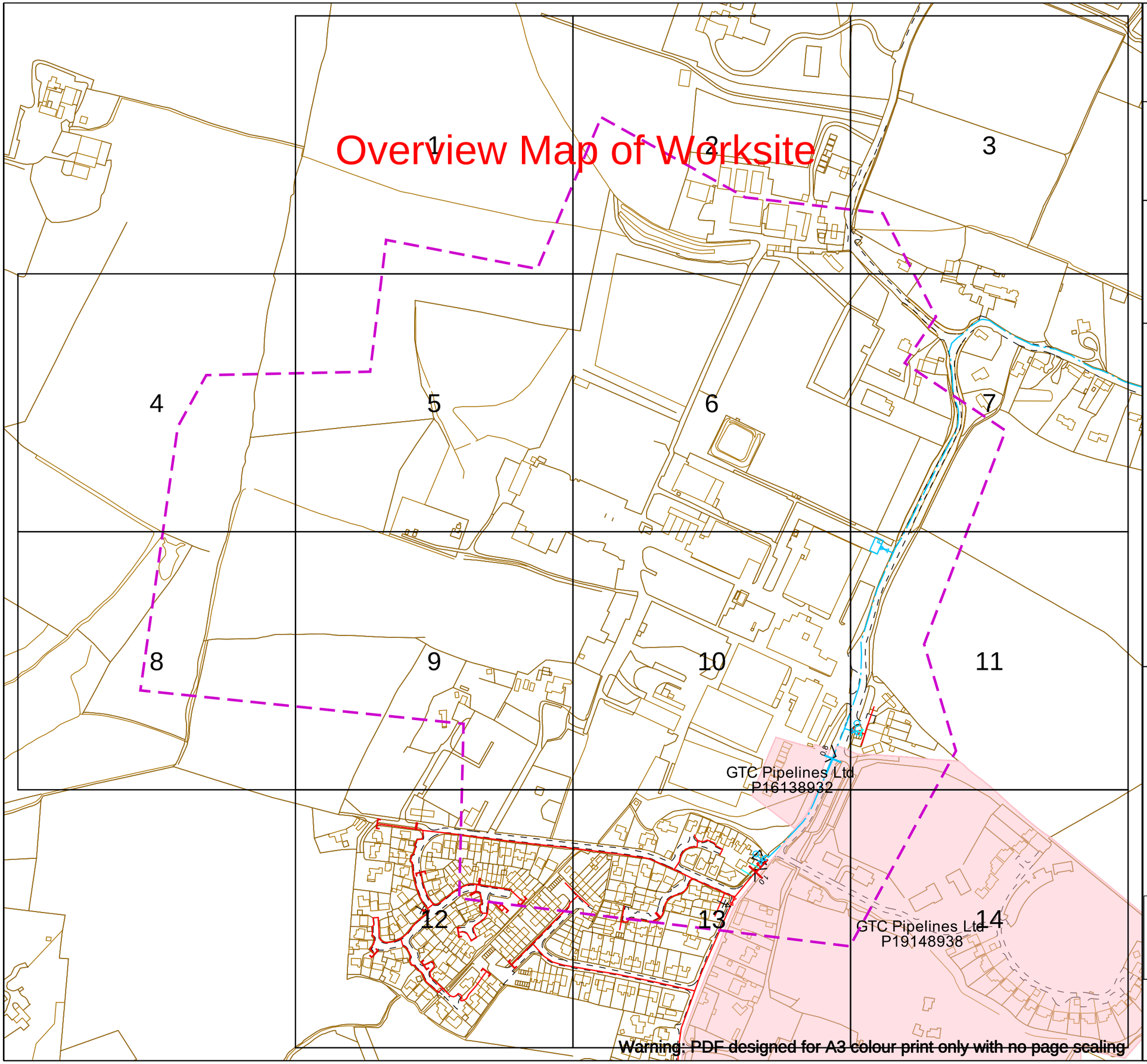
66. Anyone who carries out work near underground district heating plant shall observe any specific requirements made by the site manager, and ensure that access to the plant by the asset owners staff is available at all times. No unauthorised repairs to district heating pipes shall be made.

67. Where District Heating pipes have been exposed and it is intended hot work (e.g. welding, grinding, etc) will be carried out, contact shall be made with Metropolitan to confirm additional precautions and actions that may require to be undertaken.

68. Metropolitan shall be consulted if it is intended to carry out any of the following activities:

- Using explosives within 30m of gas pipes or 400m of gas pressure reduction equipment.
- Piling or boring within 15m of District Heating pipe.
- Reducing the cover or protection of a District Heating pipe.
- Carrying out deep excavations nearby.

Overview Map of Worksite



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Email:
plantlocation@sgn.co.uk

Date Requested: 09/08/2022
Job Reference: 26544914
Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:4100 (When plotted at A3)

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

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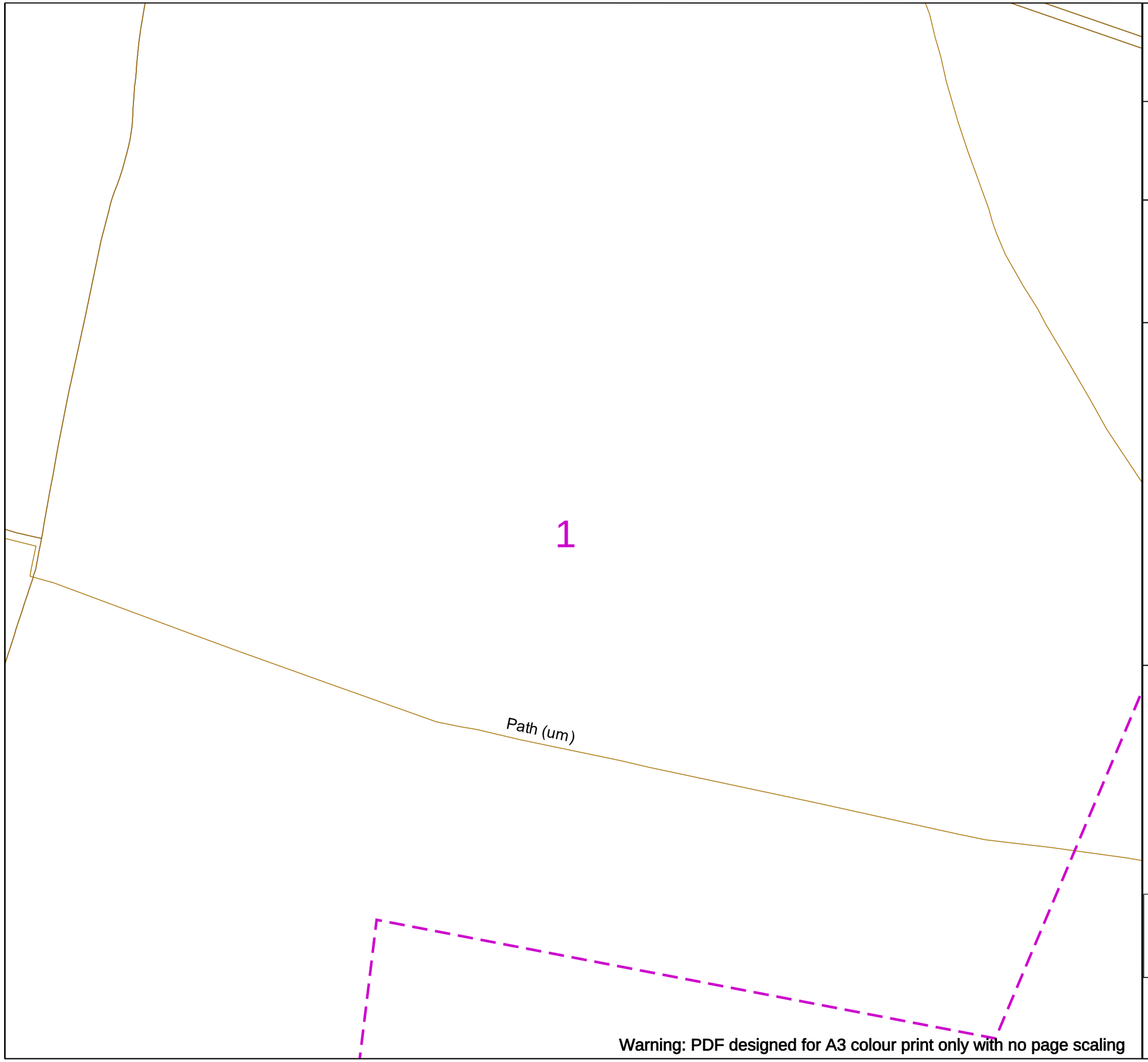
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

Digsite: Line: Area:

Linesearch beforeUdig

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Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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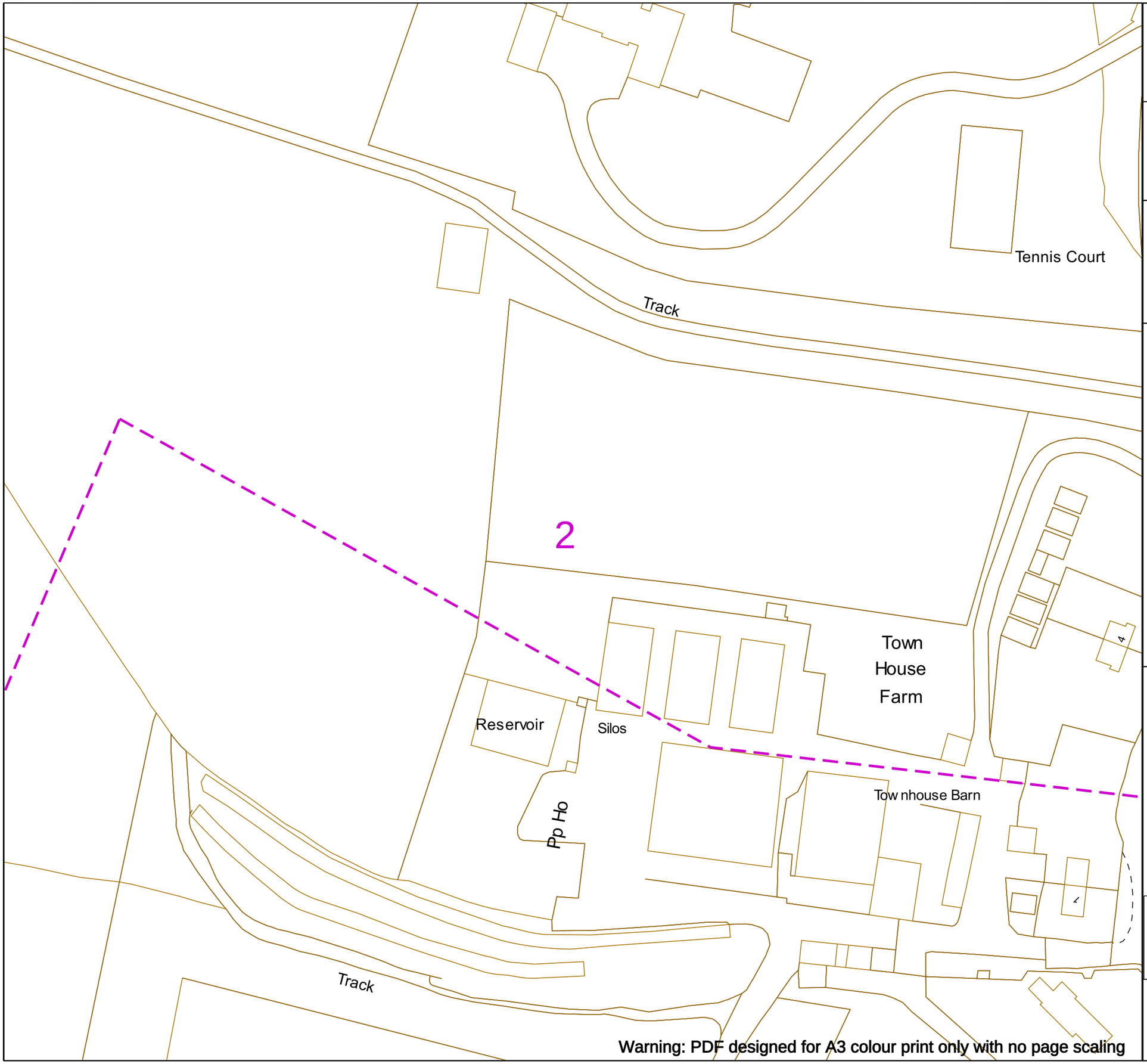
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Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

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Job Reference: 26544914
Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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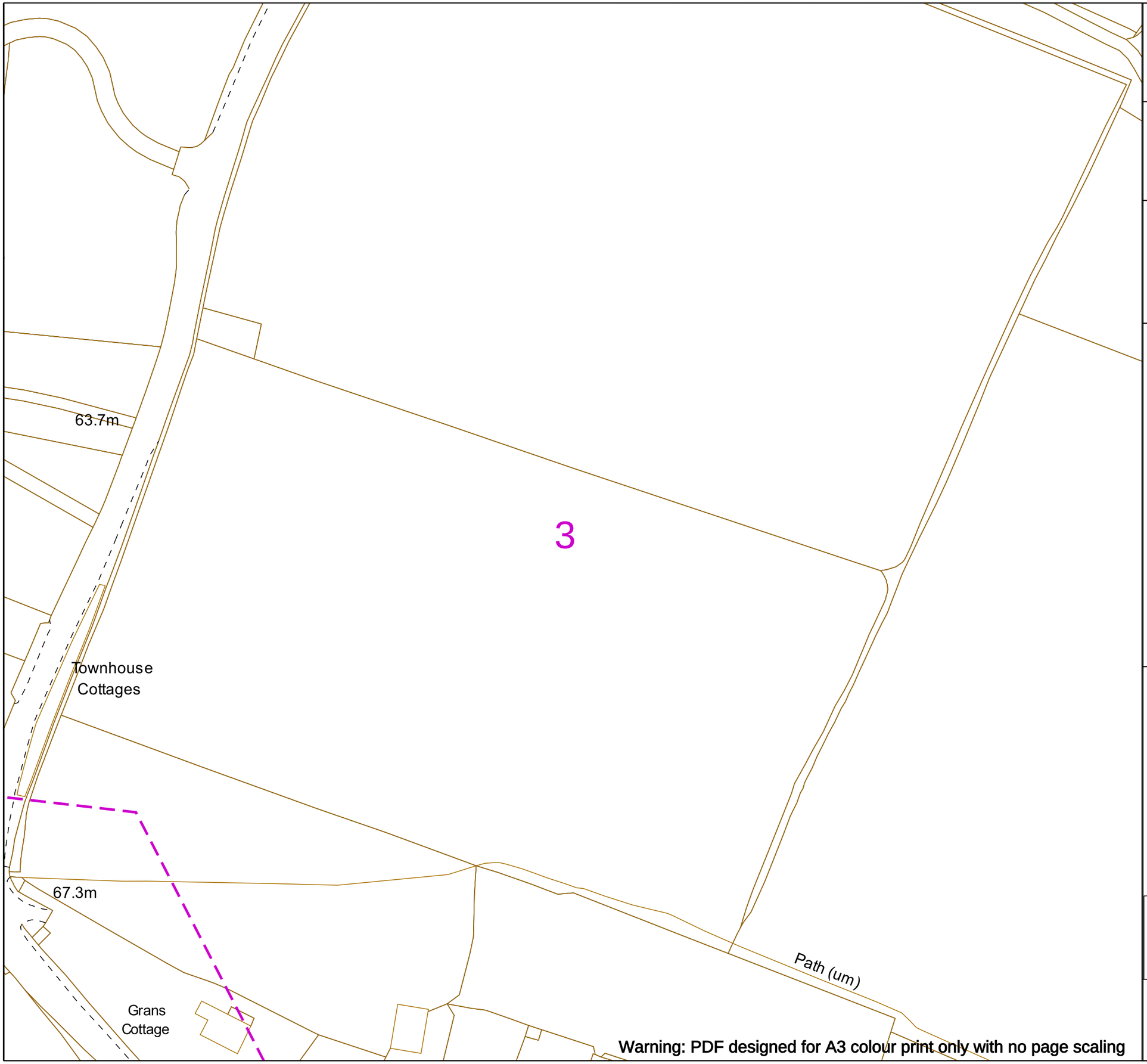
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

Digsite: Line: Area:

Linesearch beforeUdig

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Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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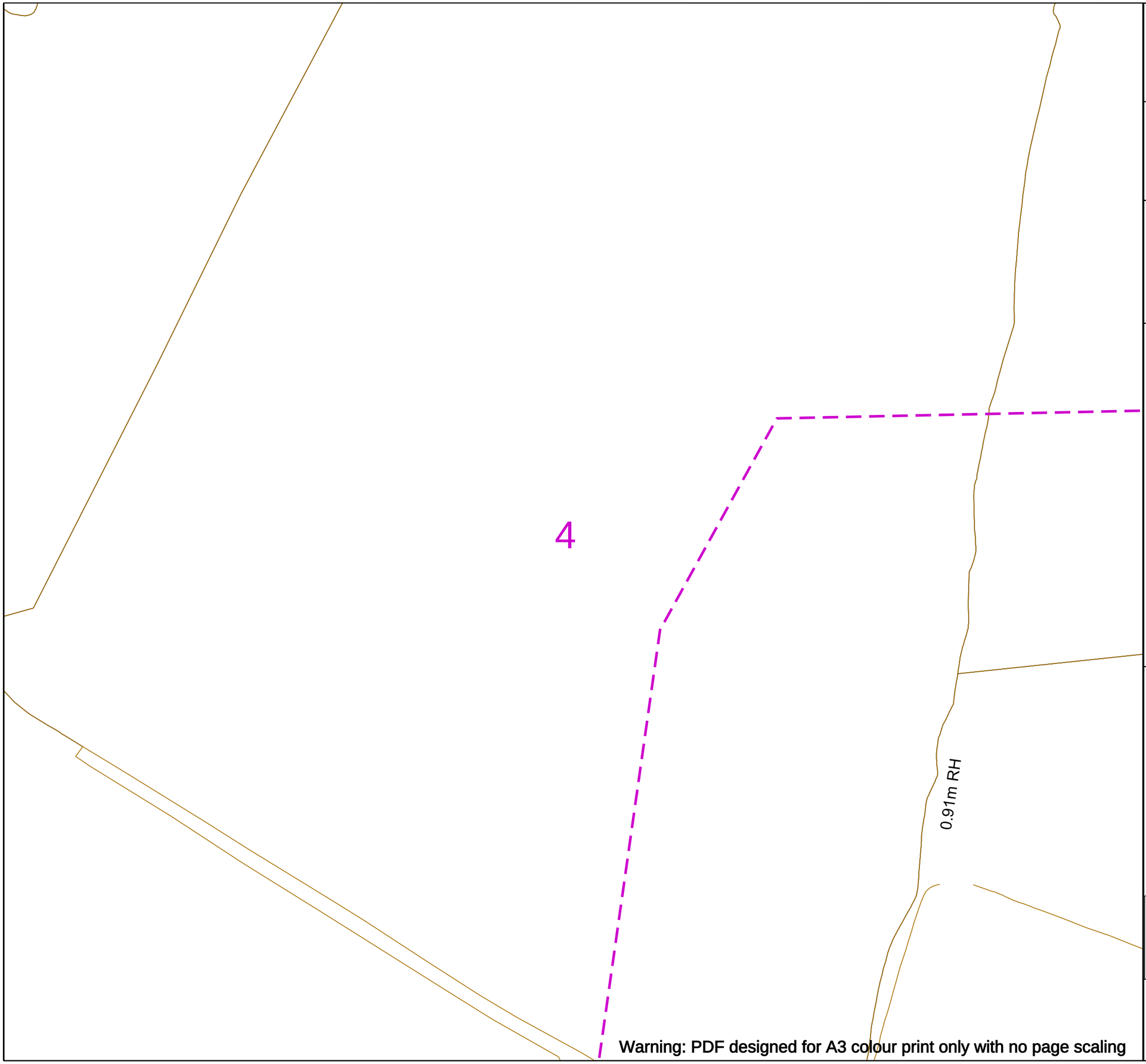
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

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Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

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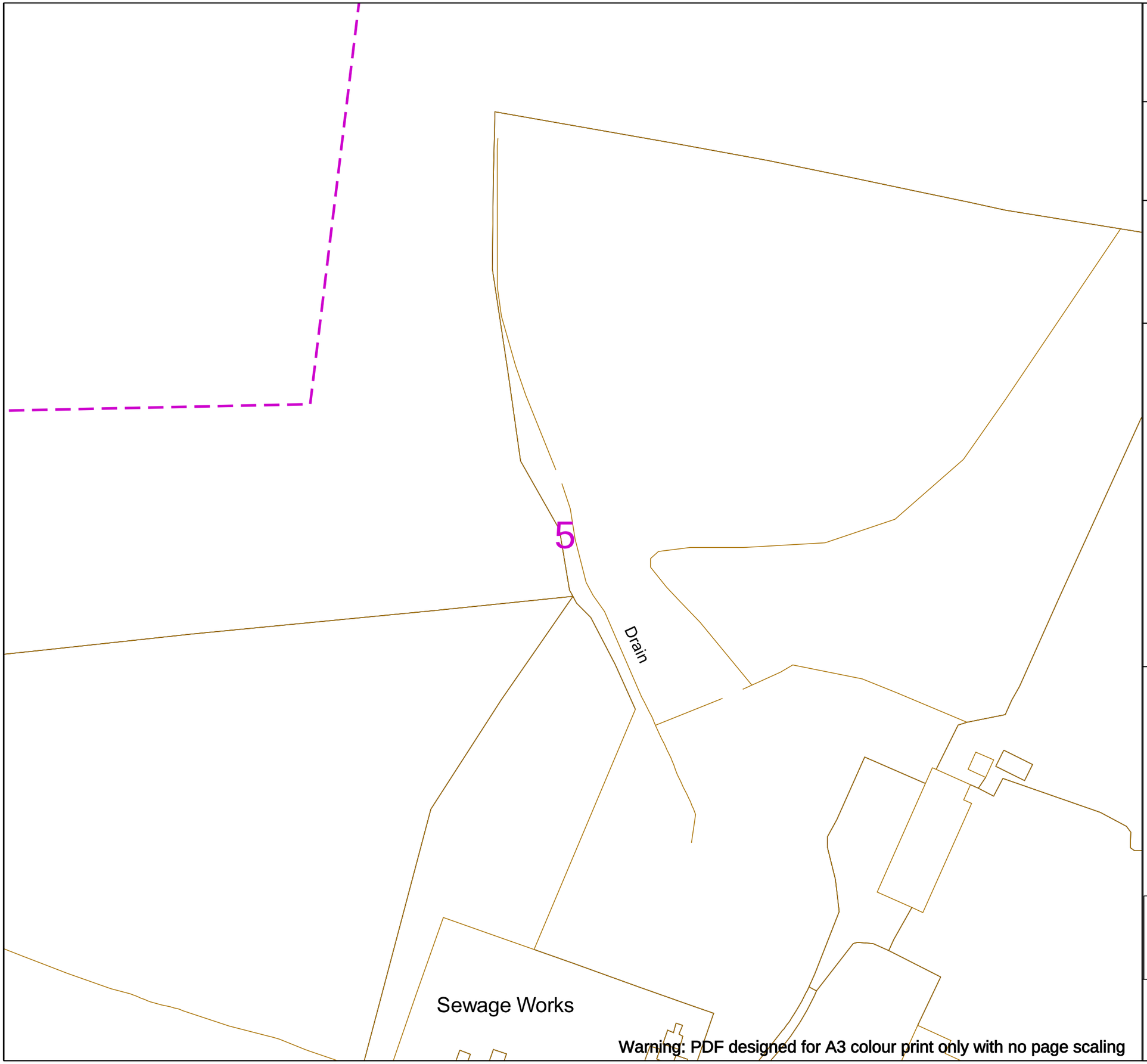
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

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Job Reference: 26544914
Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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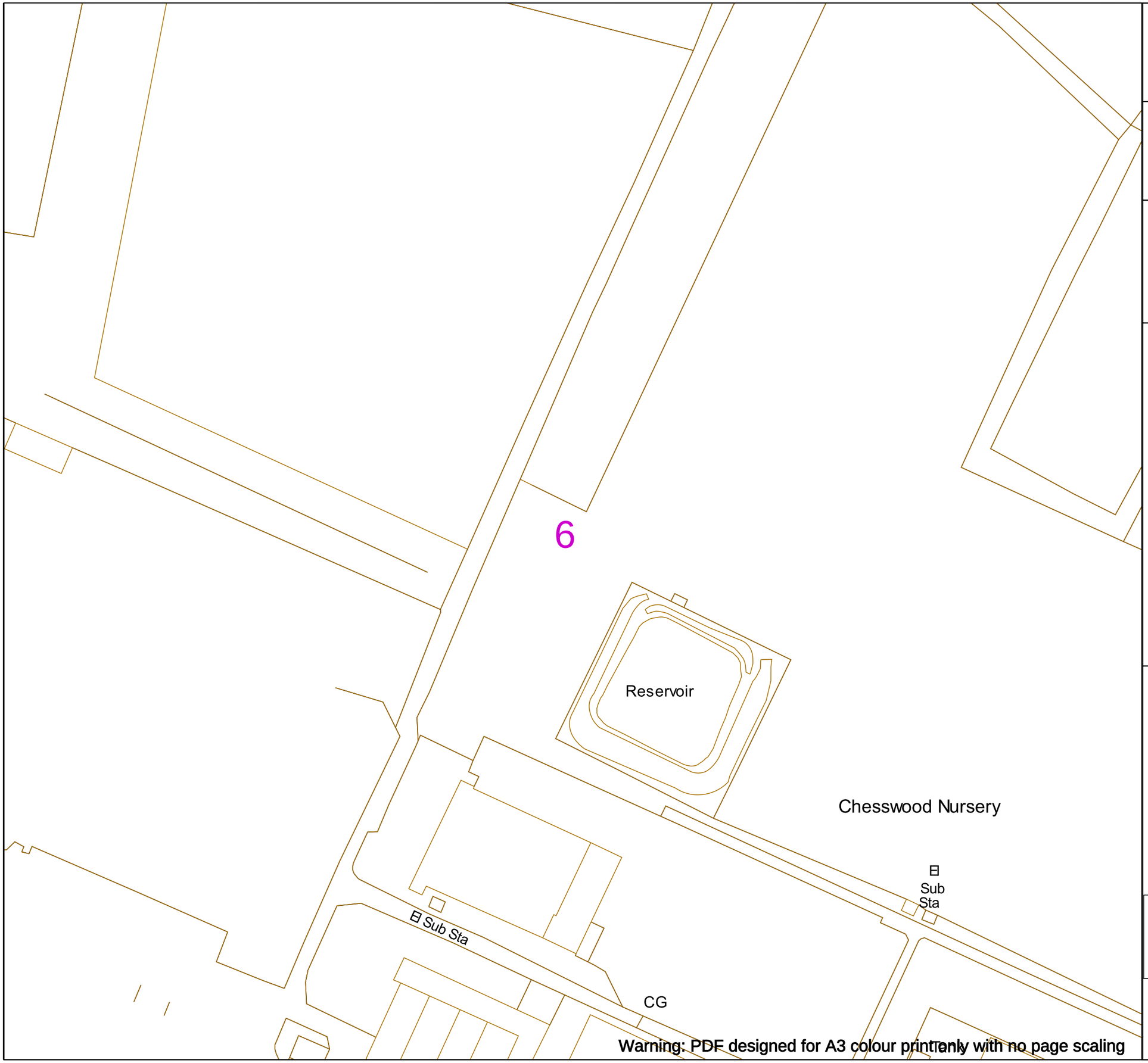
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite:
Line:
Area:

Linesearch before dig

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Date Requested: 09/08/2022
Job Reference: 26544914
Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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Low Pressure Mains
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Intermediate Pressure Mains
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SSSIs

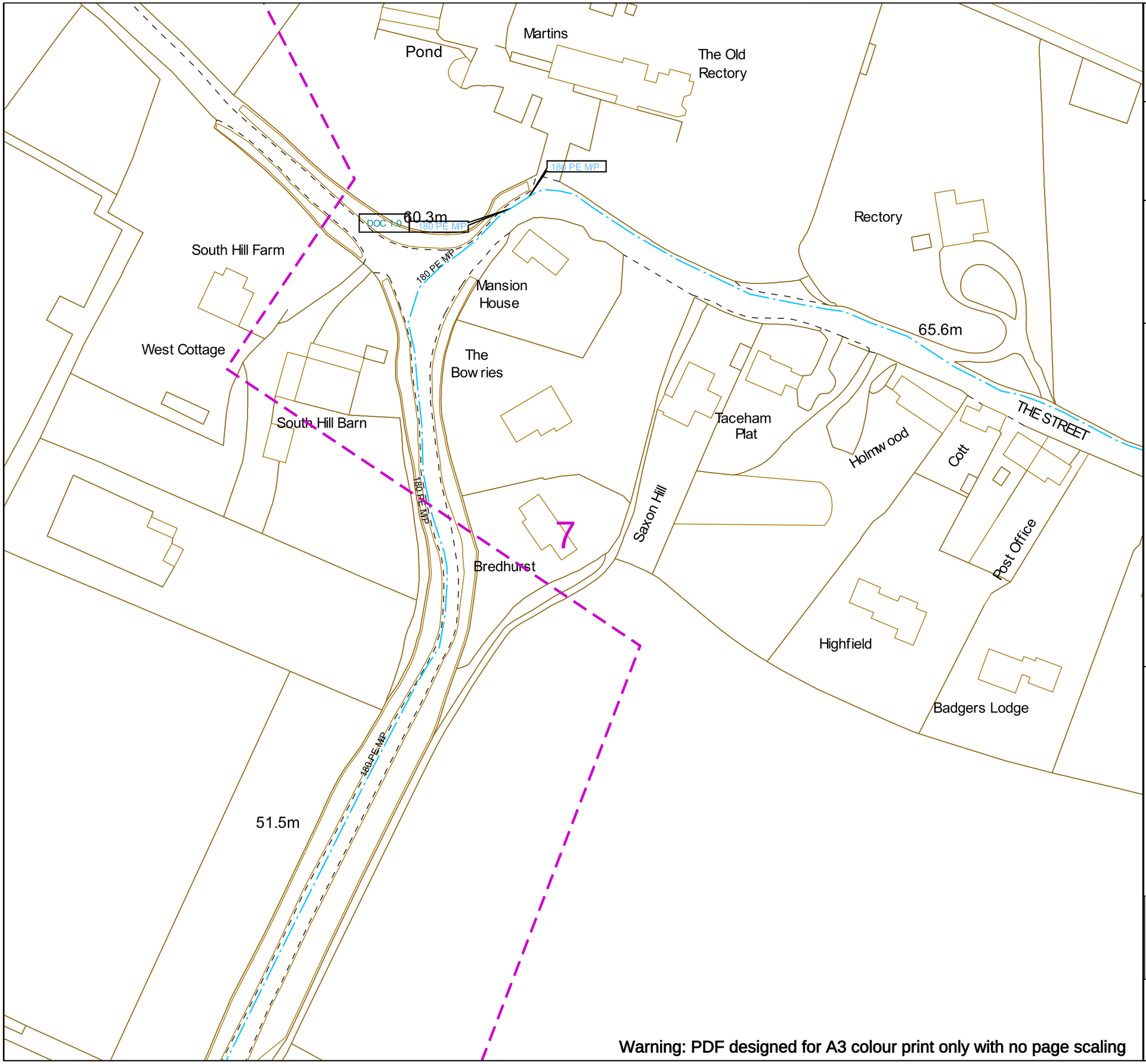
Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

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Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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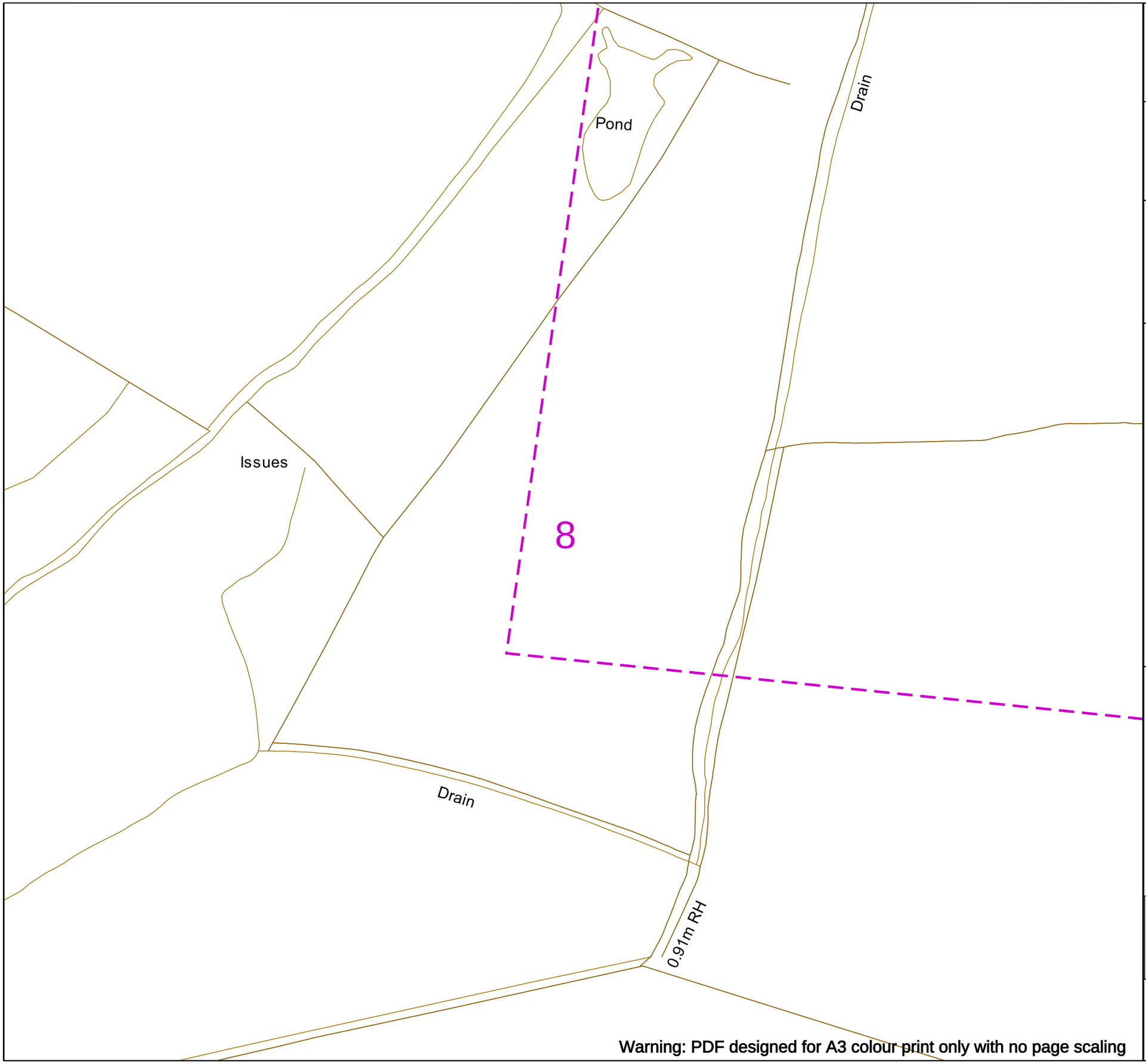
Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

Digsite: Line: Area:

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Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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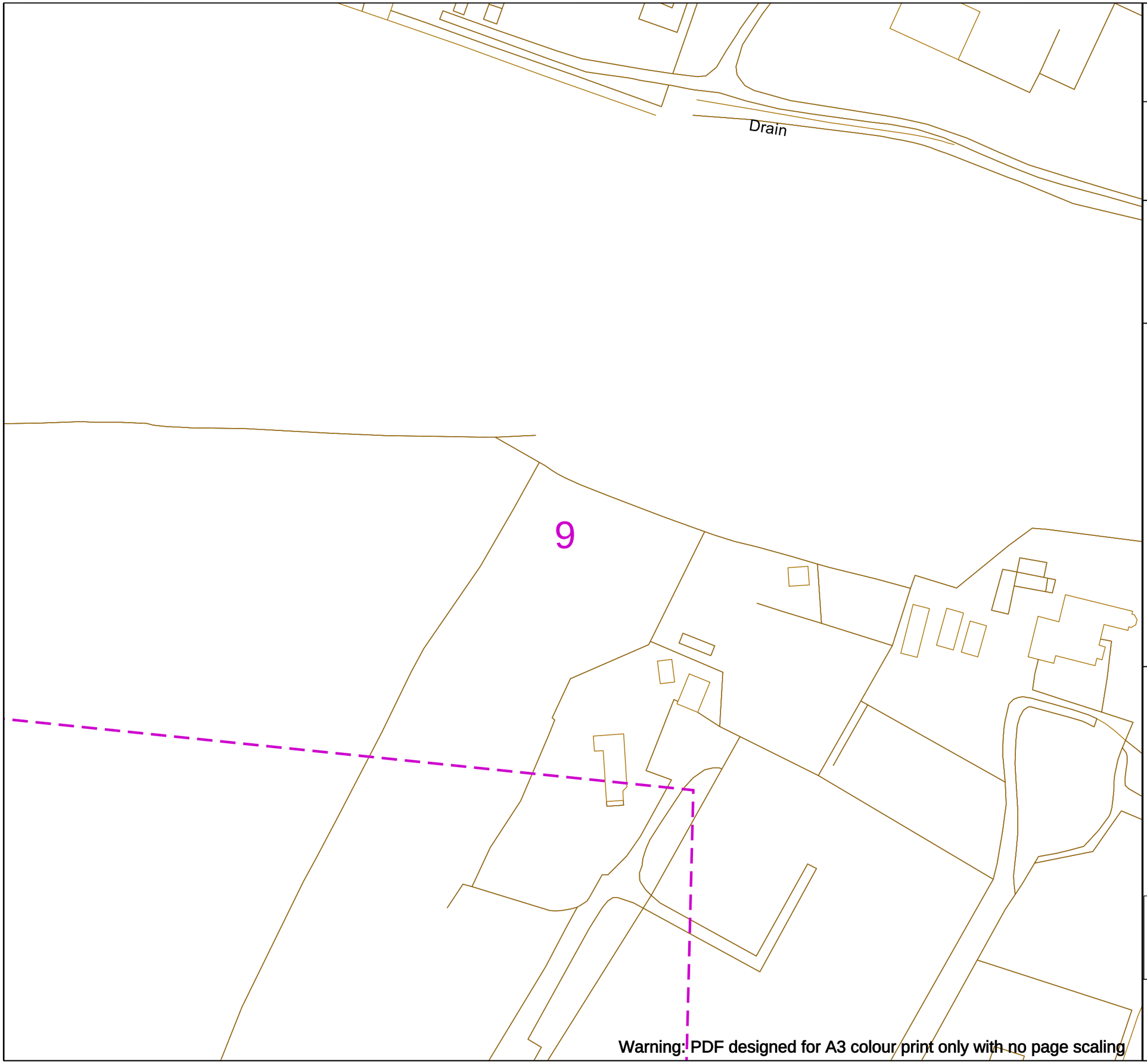
Low Pressure Mains
Medium Pressure Mains
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GTs
SSSIs

Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

Digsite: Line: Area:

Linesearch beforeUdig

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Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

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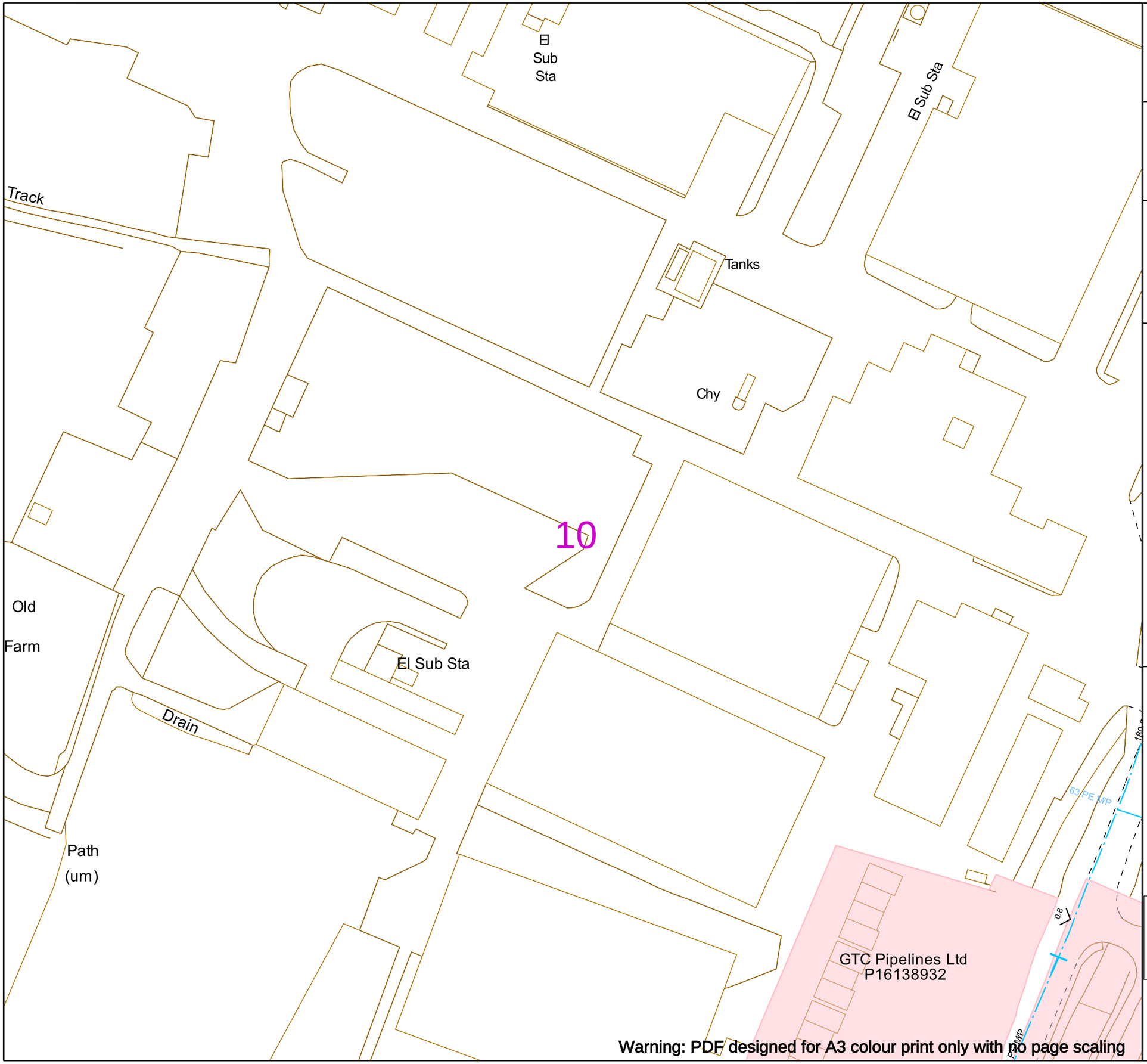
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Medium Pressure Mains
Intermediate Pressure Mains
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GTs
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Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

Linesearch before dig

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plantlocation@sgn.co.uk

Date Requested: 09/08/2022
Job Reference: 26544914
Site Location: 510025 117225
Requested by: Miss Monique Elsom

Your Scheme/Reference: 305276

Scale: 1:1000 (When plotted at A3)

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

Low Pressure Mains
Medium Pressure Mains
Intermediate Pressure Mains
High Pressure Mains
LAs
GTs
SSSIs

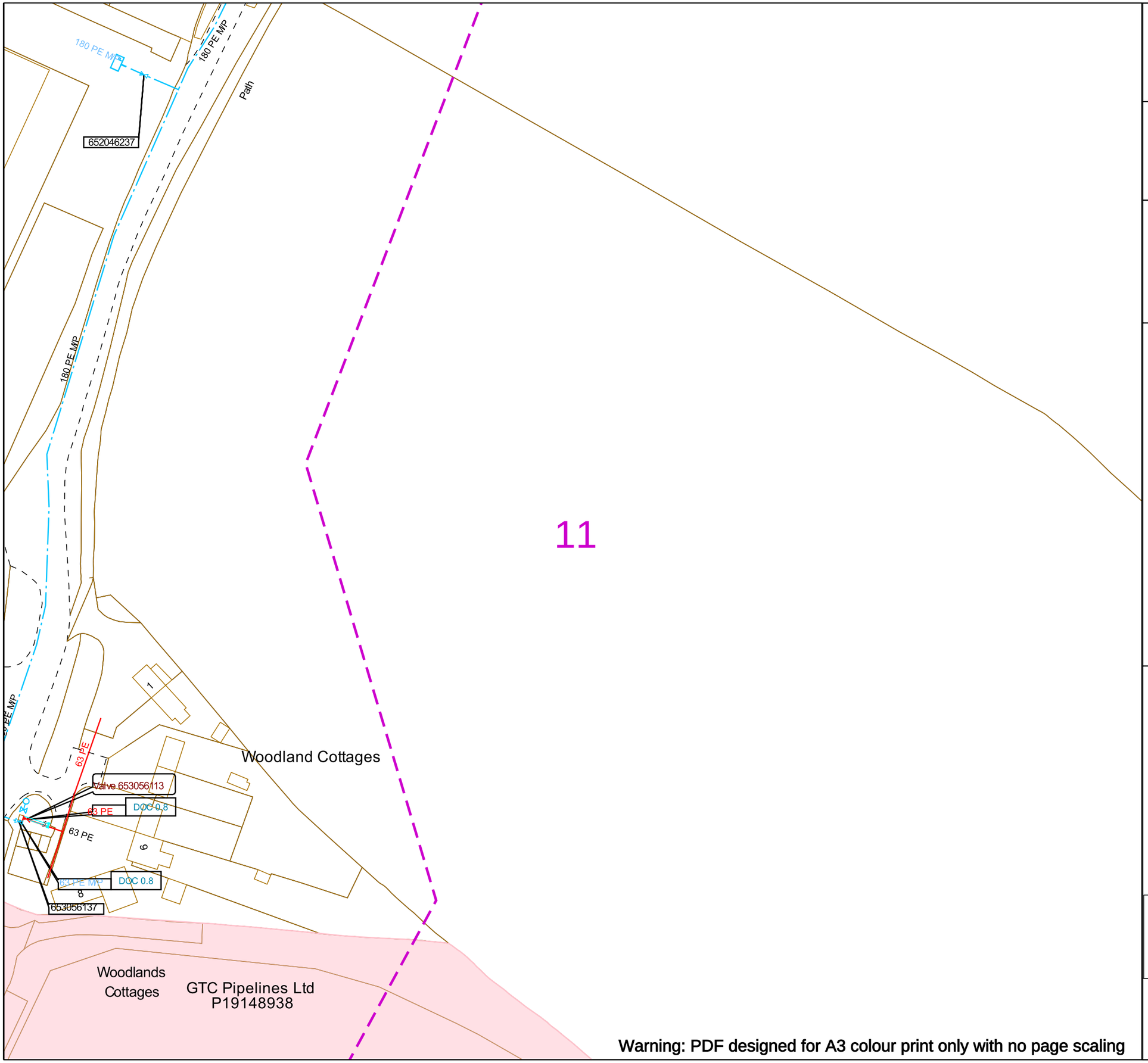
Some Examples Of Plant Items
Valve
Syphon
Depth of Cover
Diameter Change
Material Change

Digsite: Line: Area:

Linesearch before dig

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N
W E
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SGN
Your gas. Our network.

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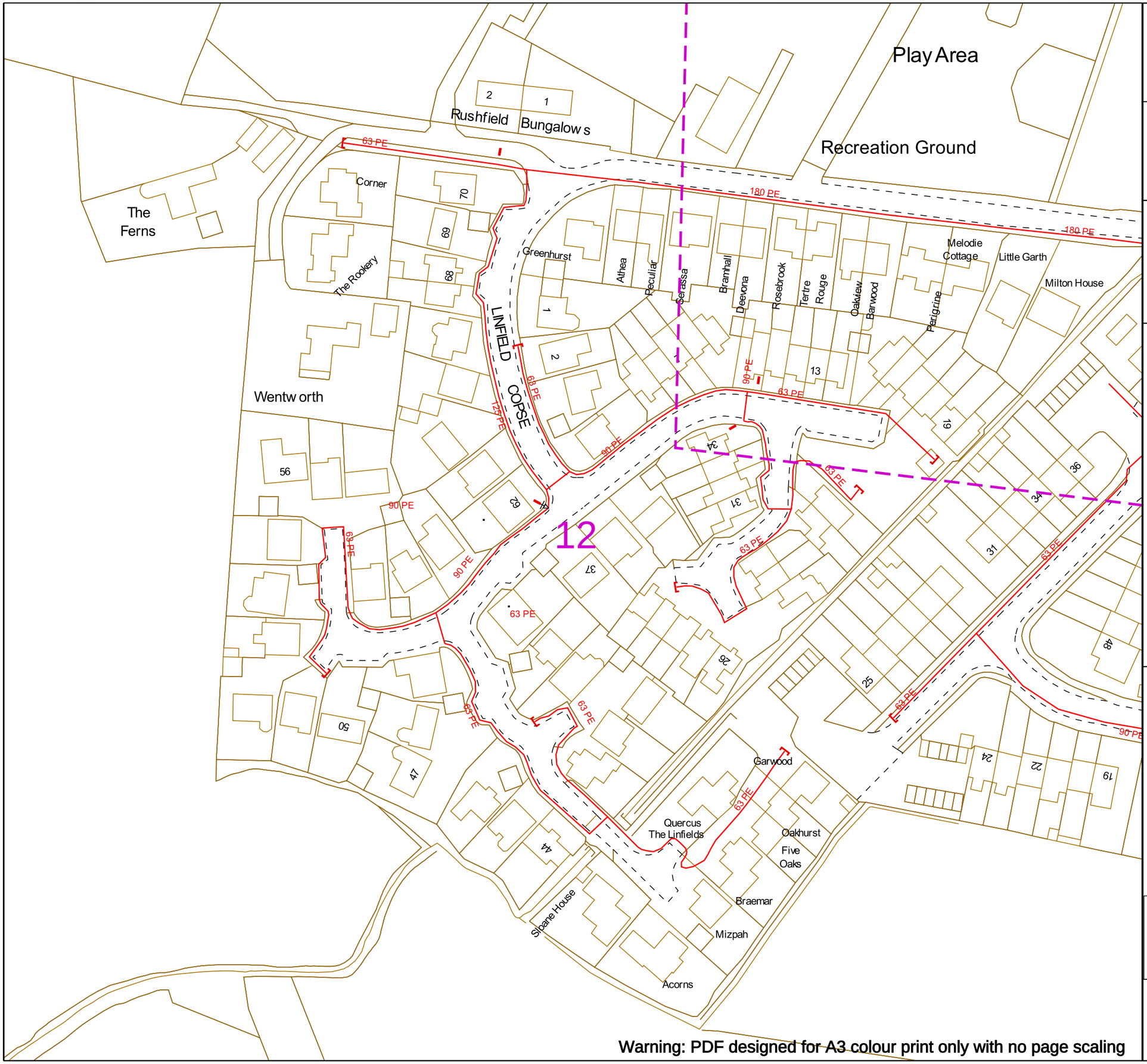
Some Examples Of Plant Items
Valve | Syphon | Depth of Cover | Diameter Change | Material Change

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SGN
Your gas. Our network.

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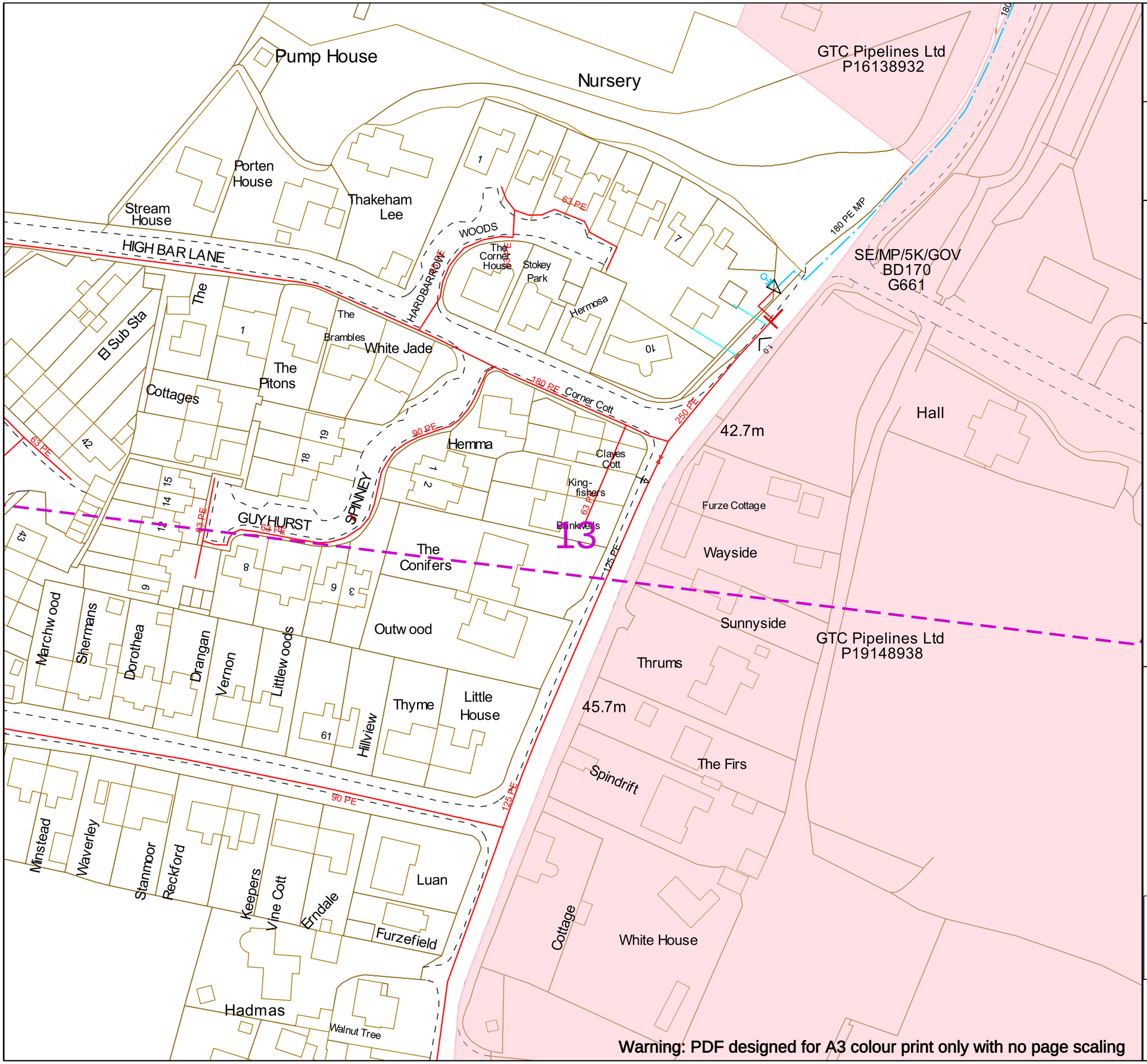
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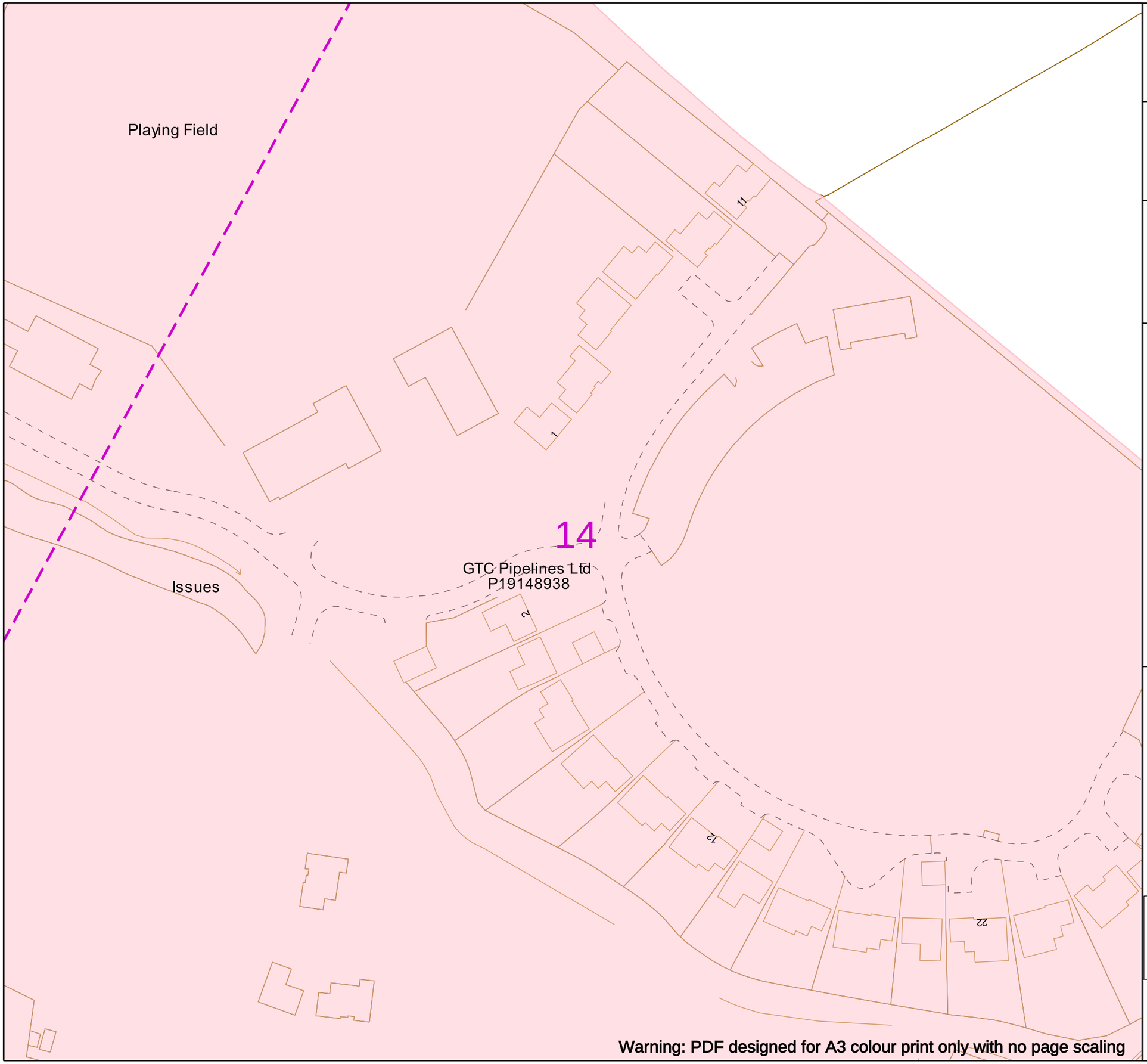
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Our Ref: 26544914 Your Ref: 305276

Tuesday, 09 August 2022

Monique Elsom
Spring Lodge Spring Lodge 172 Chester Road
Helsby
Hertfordshire
WA6 0AR

Dear Monique Elsom

Thank you for your enquiry dated Tuesday, 09 August 2022

Please find an extract from our mains records for your proposed work area, any SGN assets are described in the map legend. **On some occasions blank maps may be sent to you, this is due to your proposed work being in a no gas area but within our operational boundaries.**

This mains record only shows the pipes owned by SGN in our role as a Licensed Gas Transporter (GT). Please note that privately owned gas pipes or pipes owned by other GTs may be present in this area and information regarding those pipes needs to be requested from the owners. If we know of any other pipes in the area we will note them on the plans as a shaded area and/or a series of x's.

The information shown on this plan is given without obligation or warranty and the accuracy cannot be guaranteed. Service pipes, valves, siphons, stub connections etc. are not shown but their presence should be anticipated. Your attention is drawn to the information and disclaimer on these plans. The information included on the plan is only valid for 28 days.

On the mains record you may see the low/medium/intermediate pressure gas main near your site. There should be no mechanical excavations taking place above or within 0.5m of a low/medium pressure system or above or within 3.0m of an intermediate pressure system. You should, where required confirm the position using hand dug trial holes.

A colour copy of these plans and the gas safety advice booklet enclosed should be passed to the senior person on site in order to prevent damage to our plant and potential direct or consequential costs to your organisation.

Safe digging practices in accordance with HSE publication HSG47 "Avoiding Danger from Underground Services" must be used to verify and establish the actual position of the mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all relevant people (direct labour or contractors) working for you on or near gas pipes.

It must be stressed that both direct and consequential damage to gas plant can be dangerous for your employees and the general public and repairs to any such damage will incur a charge to you or the organisation carrying out work on your behalf. Your works should be carried out in such a manner that we are able to gain access to our apparatus throughout the duration of your operations.

If you require any further information please do not hesitate to contact us.

Yours sincerely,
The Safety Admin Team
For more information, visit our Dig Safely pages on sgn.co.uk
Tel: 0800 912 1722

SGN is a brand name of Scotia Gas Networks Limited
Registered in England & Wales No. 04958135
Registered Office: St Lawrence House | Station Approach | Horley | Surrey RH6 9HJ
Authorised and regulated by the Financial Conduct Authority


SGN
Your gas. Our network.
Dig safely
Measures to avoid injury
and damage to gas pipes
eCAT4

The following protective and precautionary measures MUST be taken when working in the vicinity of gas mains and services.

It is the responsibility of the property owner or company carrying out the work to make sure they've complied with the relevant legislation and Health and Safety Executive (HSE) guidance, eg HS(G)47. In practice, this means that whoever is carrying out the work MUST obtain gas mains location information and/or maps showing the indicative position of the gas network before any work takes place.

To avoid injury to yourself, your employees, colleagues and the general public you MUST suitably mark the position of the pipes on site.

HS(G)47 outlines best practice that should be followed to ensure you work safely:

1. Plan the work, obtain maps.
2. Detecting, identifying and marking underground services.
3. Safe excavation and safe digging practices.

In addition to the requirements under the Health and Safety At Work etc. Act 1974 to prevent injuries to employees and others (not employed), it is an offence under regulation 15 of the Pipelines Safety Regulations 1996 to cause damage to a pipeline (which includes gas mains and services as well as higher pressure pipelines) so as to give rise to a danger to persons.

You MUST make sure that current full colour copies of our maps are issued to all relevant personnel on site and they're aware of the presence and location of our gas mains and services prior to any excavation.

In a gas emergency

If you cause a gas leak or suspect a main or service pipe or equipment is leaking, you MUST take the following emergency actions immediately:

- **Ask people to move away from the area of the gas escape.**
- **Call 0800 111 999 immediately.**

1. **Don't** attempt to repair the escape or stop the leakage.
2. As gas may enter buildings, ask people in the surrounding premises to **leave** until it's safe for them to return.
3. **Stop** anyone going near the immediate vicinity of the gas escape.
4. **Prohibit** smoking and extinguish all naked flames.
5. **Don't** use mobile phones or other ignition sources.
6. **Assist** our representatives and other emergency services such as the police, ambulance, and fire service as requested.

Additional reference material

- SGN guidance for Safe Working in the Vicinity of Pipelines & Associated Installations operating >7barg. Applicable for HP only.
- HS(G)47 **Avoiding Danger from Underground Services** available from **hse.gov.uk**
- NJUG **Utilities Guidance on Positioning and Colour Coding of Apparatus** available from **njug.org.uk**





Making an enquiry for gas mains or services maps

Please visit our **Dig safely** pages on **sgn.co.uk** for plant protection information and links to our online mapping system and other associated information and guidance.

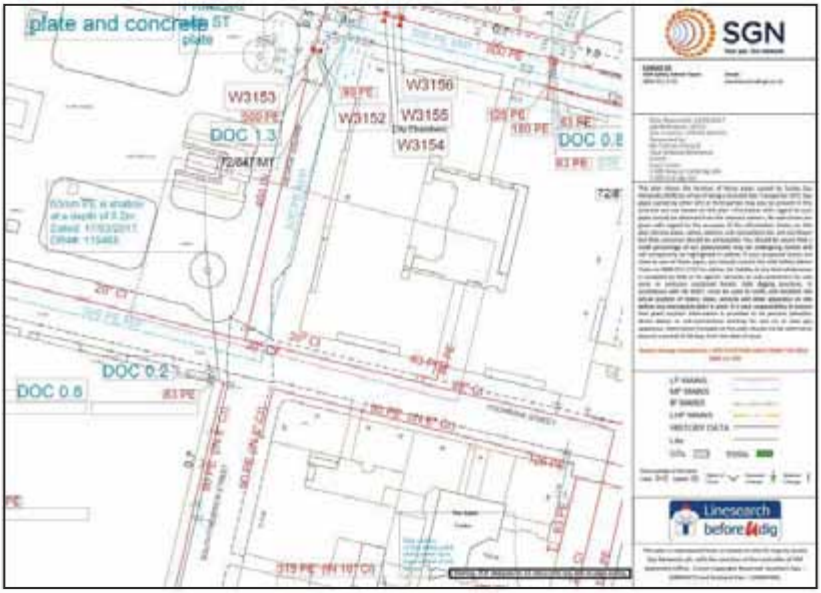
Our simple and easy to use online mapping system is available 24/7, 365 days a year.

You'll need to register/log in and provide a few details about your site location and the work you'll be carrying out. We'll respond immediately by email.

What you're likely to be sent

You'll be sent an email with a map. This will be an extract from our gas mains record, showing your site and any of our gas pipes as well as relevant safety information.

We always send out safety information, however we may forward your enquiry on to a local plant protection officer or a pipelines engineer to make direct contact with you depending on the work location.



Example of a gas map

Note: Service pipes are not shown on our maps

When working near our gas mains and services

Safe system of work

To satisfy ourselves that work in the vicinity of our gas mains is being carried out safely, we may ask for a copy of your risk assessment and/or method statement paperwork.

Where work falls under the Construction (Design and Management) Regulations 2015 reference to our gas mains and services MUST be made within your site Health and Safety file.

Financial

Every reasonable precaution MUST be taken to avoid personal injury or damage to our gas network at all times.

If we incur any costs to repair direct or consequential damage or divert any gas main or service, you'll be recharged in full.

HSE

Any damage to our gas mains or services will be subject to legislative reporting responsibilities to the Health and Safety Executive under Reporting of Injuries, Diseases & Dangerous Occurrences Regulations 2013, Gas Safety Management Regulations 1996, and the Pipelines Safety Regulations 1996.

Minimum safe working distances

Depending on the activity being undertaken and the gas mains or services you are working within the vicinity of, there are different safe distances that MUST be adhered to. SGN plant protection officers or pipeline engineers will inform you of these if required.

Surface boxes and manholes

Do not bury or move our surface boxes. Free access MUST be maintained during and after your work. No manhole cover or other structure can be built over, around or under a gas main, and no work is to be carried out that results in a reduction or increase in cover or protection without prior written agreement.

Deep excavations

Adequate protection, approved by us, MUST be applied for any deep excavations in the vicinity of our gas mains and services that may affect its security and integrity. Ground movement around gas mains MUST be prevented. We MUST be contacted if a sewer trench or any other water authority is to be constructed at greater than 1.5 metres depth near a buried gas main or service pipe. You MUST give us detailed drawings showing the line and width of the proposed sewer or other trench, together with the soil group classification of the area concerned.



Crossing our mains or services

The placing of heavy construction plant, equipment, materials or the passage of heavy vehicles over our gas mains is prohibited unless specifically agreed protective measures (ie the construction of reinforced crossing points) have been carried out. This is particularly important where reductions in side support or ground cover are planned. You MUST NOT carry out any work in servitudes/easements without our prior written consent.

Exposed plant

Where excavations in the vicinity of our gas mains affect its support, the plant MUST be adequately supported and protected in consultation with us and to our satisfaction. It MUST be protected from impact, restraints and thrust blocks, and supports MUST NOT be removed without our agreement.

Hot work

One of our representatives should be present when welding or other hot work involving naked flames is being carried out near our gas mains, as there's potential for heat damage to plastic pipeline/coatings.

Backfilling

Concrete backfill should not be placed closer than 300mm to our mains. No concrete or hard material should be placed under or adjacent to any of our gas mains. Shuttering MUST be constructed to maintain the stated clearances and prevent fresh concrete encasing our mains or services. Material used for backfill around our gas mains MUST conform to the following:

- If sand, it MUST be well-graded in accordance with BS EN 12620:2002.
- It MUST NOT contain any sharp particles (stones, bricks, lumps or corrosive materials).
- Foamed concrete MUST NOT be used.
- It MUST be laid to a minimum depth of 250mm above the crown of the gas main.

Note: Power ramming MUST NOT take place until a 300mm hand rammed layer has been completed over the crown of the main.

Access

Free access to our sites, mains and services, including temporary structures and spoil heaps MUST be available at all times.





Mechanical excavation

Mechanical excavators (including breaker attachments) MUST NOT be used within the following distances from the confirmed location of our gas mains and services shown on our gas maps without prior agreement:

Type of mains and services	Gas map identification	Hand excavation required inside	Pipe pressure indication shown on map
Low Pressure (LP)	0 – 75mbar	0.5 metres	
Medium Pressure (MP)	75mbar to 2 bar	0.5 metres	
Intermediate Pressure (IP)	2 – 7 bar	3.0 metres	
High Pressure (HP)	Above 7 bar	You must seek approval from us prior to any work	

Major accident hazard pipelines

High pressure pipeline

No work is to take place near an HP pipeline until it is agreed with us. After agreement and before any work does take place, the location of our pipeline MUST be marked up and its position confirmed by digging trial holes with our personnel in attendance.





Pipeline markers

High pressure

We will be involved in any work taking place near high pressure pipelines. We will provide you with additional information that you MUST familiarise yourself with before carrying out any work.

The default method of excavating near high pressure gas pipelines MUST always be by hand.



Wind turbines

The UK Onshore Pipelines Operations Association (UKOPA) has identified the appropriate exclusion zone (distance from the base of the wind turbine mast to the edge of the pipeline) as 1.5 times the turbine height. Contact MUST be made with us during the planning stages of a wind turbine or wind farm.



Tree planting

If trees or shrubs are to be planted in the vicinity of our gas mains and services, the selection of tree or shrub type and how it's planted MUST be considered carefully. This is to avoid root damage to buried mains or services, and to ensure our subsequent excavations for main repair and maintenance won't damage the trees or shrubs.

Written approval from us MUST be obtained before any tree planting is carried out on a servitude/easement. Any approval we grant to plant trees

The following trees and those of similar size (deciduous or evergreen) MUST NOT be planted within 6m of the centre line of the main: ash, beech, birch, most conifers, elm, maple, lime, horse chestnut, oak, and sycamore. Apple and pear trees are also included in this category.

Dwarf apple stocks may be planted up to 3m of the centre line of the main.



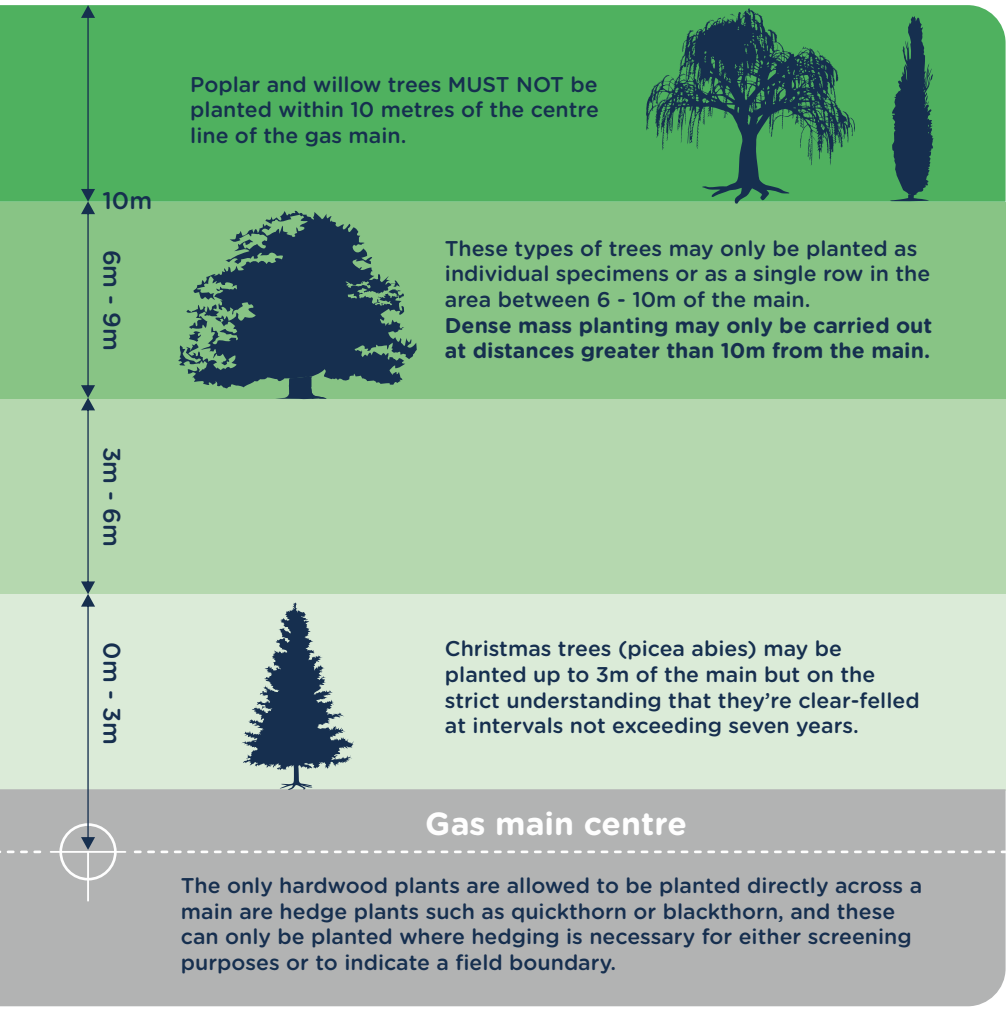
In cases where screening is required, the following are shallow rooting and may be planted close to the gas mains and services: blackthorn, broom, cotoneaster, elder, hazel, laurel, quickthorn, privet, snowberry and most ornamental shrubs.

Gas main centre

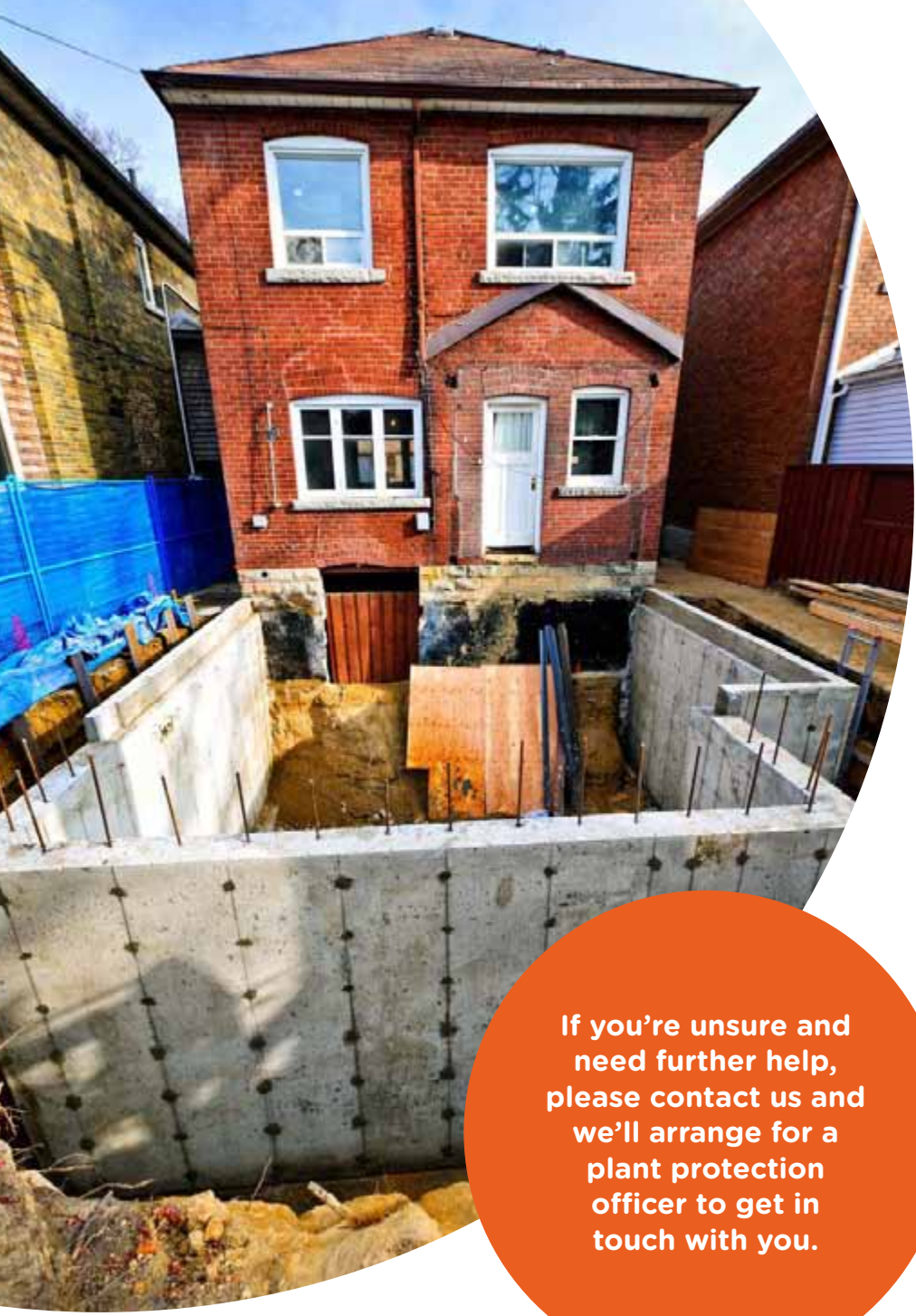
Raspberries, gooseberries and blackcurrants may be planted on the gas main, but a four metre strip, centred on the main, MUST be left clear at all times.

on a servitude/easement will be subject to us retaining the right to remove any tree, which in our opinion may become a danger to our mains in the future.

The written consent to plant trees will state what area may be planted and also the type of tree. The diagram details the specific species and the distances they MUST be planted from gas mains or services. You MUST contact us for further information.



Note: For further guidance, please refer to NJUG 10.



If you're unsure and need further help, please contact us and we'll arrange for a plant protection officer to get in touch with you.

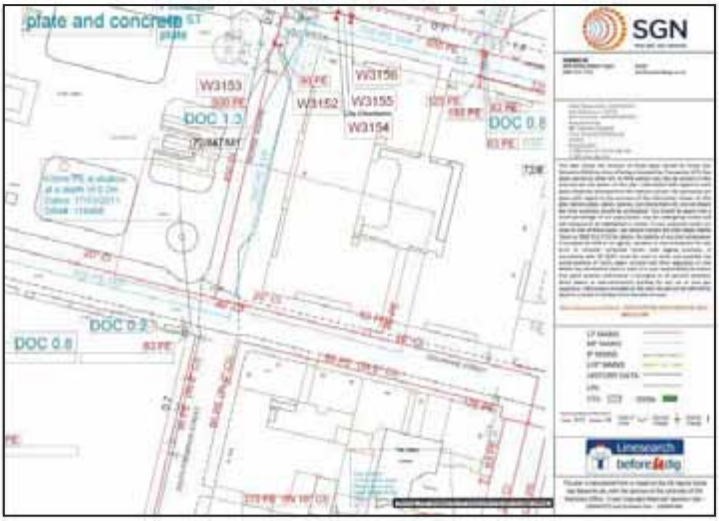
Gas services/work in gardens

If you're going to be carrying out work around your home, or a third party is carrying out work on your behalf, we may send you a site map of our gas mains and services but your own gas service won't be marked.

The simplest way to understand the location of your gas service is to know where it enters your house.







< Your gas service pipe usually takes the shortest route to the gas main, as shown on the sample network map/drawing.



We provide a free plant location enquiry service and we're always happy to help.

www Visit our **Dig safely** pages on **sgn.co.uk**

0800 912 1722 *

*All calls are recorded and may be monitored

SGN064N (03/17)



Stop!

Think before you dig!

UK Power Networks
Delivering your electricity

ukpowernetworks.co.uk



Every year, people are killed or seriously injured when they come into contact with high voltage electricity.

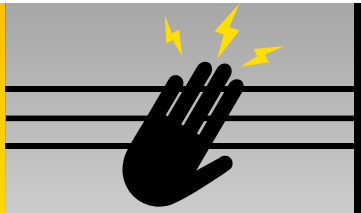
This can have a far-reaching and devastating effect on family, friends and colleagues.

Distractions, working long hours, rushing to get the job done, can all impact on how we work and our safety.

Taking time to plan, being prepared and focusing on the way we work can help keep us safe.

WOODEN POLES CAN CARRY TELEPHONE AND ELECTRICITY WIRES. **NEVER ASSUME** THE WIRE IS A TELEPHONE WIRE





LINES CAN BE **RE-ENERGISED** AT ANY TIME

400,000 VOLTS

ELECTRICITY SYSTEMS CARRY VOLTAGE UP TO 400,000 VOLTS. **EVEN 230 VOLTS (DOMESTIC VOLTAGE) CAN BE LETHAL**

Be Bright Stay Safe

UK Power Networks
Delivering your electricity

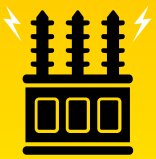


RUBBER BOOTS
WILL NOT PROTECT YOU!

OUR NETWORK DISTRIBUTES ELECTRICITY THROUGH UNDERGROUND CABLES, PYLONS, OVERHEAD POWER LINES, SUBSTATIONS AND OTHER EQUIPMENT







National power cut helpline

POWER CUT? CALL 105

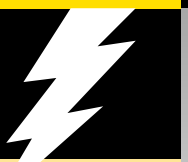
OR CALL US 24 HOURS A DAY ON
0800 31 63 105

TAKE NOTICE

OF ANY YELLOW '**DANGER OF DEATH**' WARNING SIGNS. AND STAY WELL AWAY!



REMEMBER ELECTRICITY **CAN JUMP GAPS**



OVERHEAD POWER LINES ARE OFTEN UNINSULATED (BARE)



CABLES ARE OUT OF SIGHT ALWAYS REQUEST CABLE PLANS BEFORE STARTING WORK





CARRY OBJECTS AND EQUIPMENT **HORIZONTALLY AND AT LOW LEVEL TO THE GROUND**

TOUCHING ANYTHING IN CONTACT WITH ELECTRICAL EQUIPMENT, EVEN THE LOWEST OF VOLTAGES, CAN BE FATAL



The electricity network is designed to keep you safe. But how safe are you when you are working?

UK Power Networks is the country's biggest electricity distributor, making sure the lights stay on for more than eight million homes and businesses across London, the South East and the East of England.

The safety of our customers and staff is our top priority.

Underground cables carry a powerful electrical charge which can be conducted through machinery and equipment with fatal consequences. Anyone working close to live underground cables should take the time to read this simple leaflet and identify the precautions they should be taking.

WATCH OUR EXCAVATION ANIMATION BY SCANNING THE QR CODE WITH YOUR PHONE CAMERA.





Keep well away - Electricity can kill

Remember:

- The depth and location of cables and services shown on the plans may have changed because of subsequent site alterations
- Be aware that not all cables and services may be shown on the plans
- Cables do not run in straight lines. Underground cables may be deflected around underground obstacles and can change depth
- Wear Personal Protective Equipment to minimise the harm of electric shock and burns





How can we help?

If you work or live in the UK Power Networks area contact us or look on our website. We provide free information and advice about the precautions and safe working practices to be followed when working close to electrical equipment.

Further advice and guidance is available from the Health and Safety Executive (HSE):
HSG85 - Electricity at Work – Safe Working Practices
GS6 - Avoiding Danger from Overhead Power Lines
HSG47 - Avoiding Danger from Underground Services

What to do in an emergency

If a mains electricity cable is damaged:

- **STOP WORK IMMEDIATELY**
- Notify UK Power Networks: Dial 105
- If you damage a cable, stay calm, keep clear, and call for help
- Call the emergency services if anyone is injured or there is a fire. Anyone who has received an electric shock should go to hospital as damage may have occurred to the heart
- Always treat the cable(s) as live even if they are not sparking
- Never remove anything that is stuck or in contact with the cable
- Stay clear - keep everyone away until assistance arrives



To request your **FREE** vehicle cab stickers visit **www.ukpowernetworks.co.uk/internet/en/safety/**

If you are unsure who your network operator is then please visit **www.energynetworks.org**

Be Bright Stay Safe

You could be in danger when carrying out your everyday trades activities such as digging, construction and demolition.

- Contact UK Power Networks or Line Search Before U Dig (LSBUD) in advance of the works to obtain relevant cable plans or to request disconnections. The cable plans will only show the indicative route and not the route into the property
- Ensure the cable plans are shown to and understood by those on site BEFORE starting work
- Confirm the cable location by using a Cable Avoidance Tool (CAT) before digging commences. Once found, mark cable positions with spray paint or similar

For cable plans visit www.linesearchbeforeudig.co.uk or www.ukpowernetworks.co.uk

- Complete a risk assessment and ensure it covers electrical hazards
- Use spades and shovels with insulated handles in preference to forks and picks
- Look around for anything in the vicinity that would have an electricity service such as street lights, CCTV cameras, or meter boxes and identify where the cables are
- Look for electrical wires, cables and equipment near to where you are going to work and check for warning signs and any other hazards
- Contact UK Power Networks to agree a safe method of work if there is a cable encased in concrete, DO NOT BREAK OPEN
- Make sure everyone on site is aware of the presence and location of electrical cables
- Before demolishing a building make sure supplies are disconnected, preferably well clear of the work area. For guidance on how to arrange a disconnection visit www.ukpowernetworks.co.uk

NATIONAL POWER CUT HELPLINE

POWER CUT? CALL 105

ADD THIS NUMBER TO YOUR TELEPHONE CONTACTS LIST

Be Bright Stay Safe

Stop! Think before you dig!

#bebrightstaysafe

@UKPowerNetworks /ukpowernetworks

National power cut helpline

POWER CUT? CALL 105

Or call us
24 hours a day on
0800 31 63 105

For safety advice about overhead power lines, disconnections and general enquiries, go to:
www.ukpowernetworks.co.uk

To request your **FREE** vehicle cab stickers visit
www.ukpowernetworks.co.uk/internet/en/safety/

If you are unsure who your network operator is then please visit
www.energynetworks.org

what3words

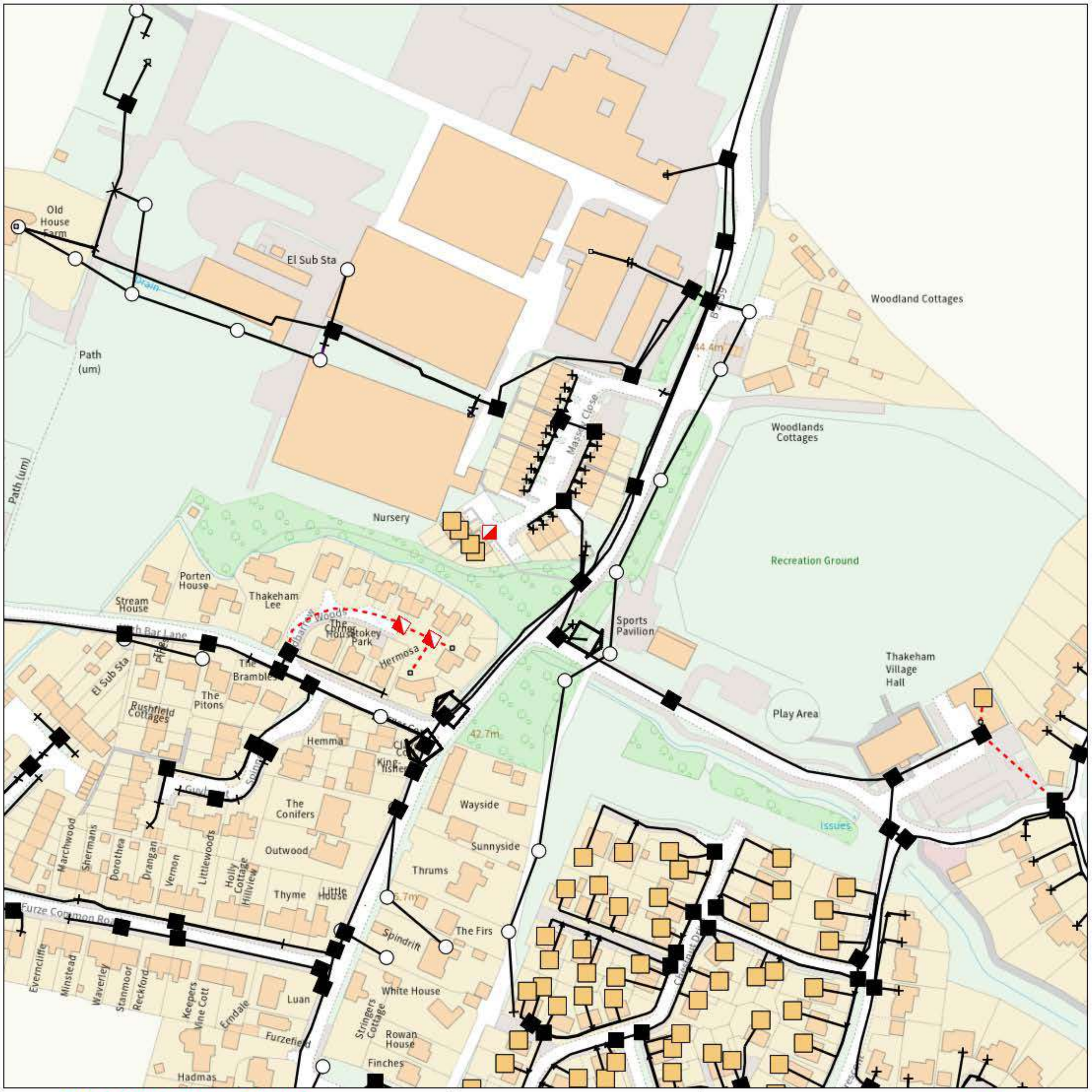
Scan the QR code on your phone to get the app

To report broken or damaged electrical equipment or in an emergency call 0800 31 63 105 or 105 and use what3words to help us locate you faster.

Linesearch beforeUdig

UK Power Networks
Delivering your electricity

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

Reproduced from the Ordnance Survey map by BT
by permission of Ordnance Survey on behalf of the
Controller of Her Majesty's Stationary Office
(C) Crown Copyright British Telecommunications plc 100028040

KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

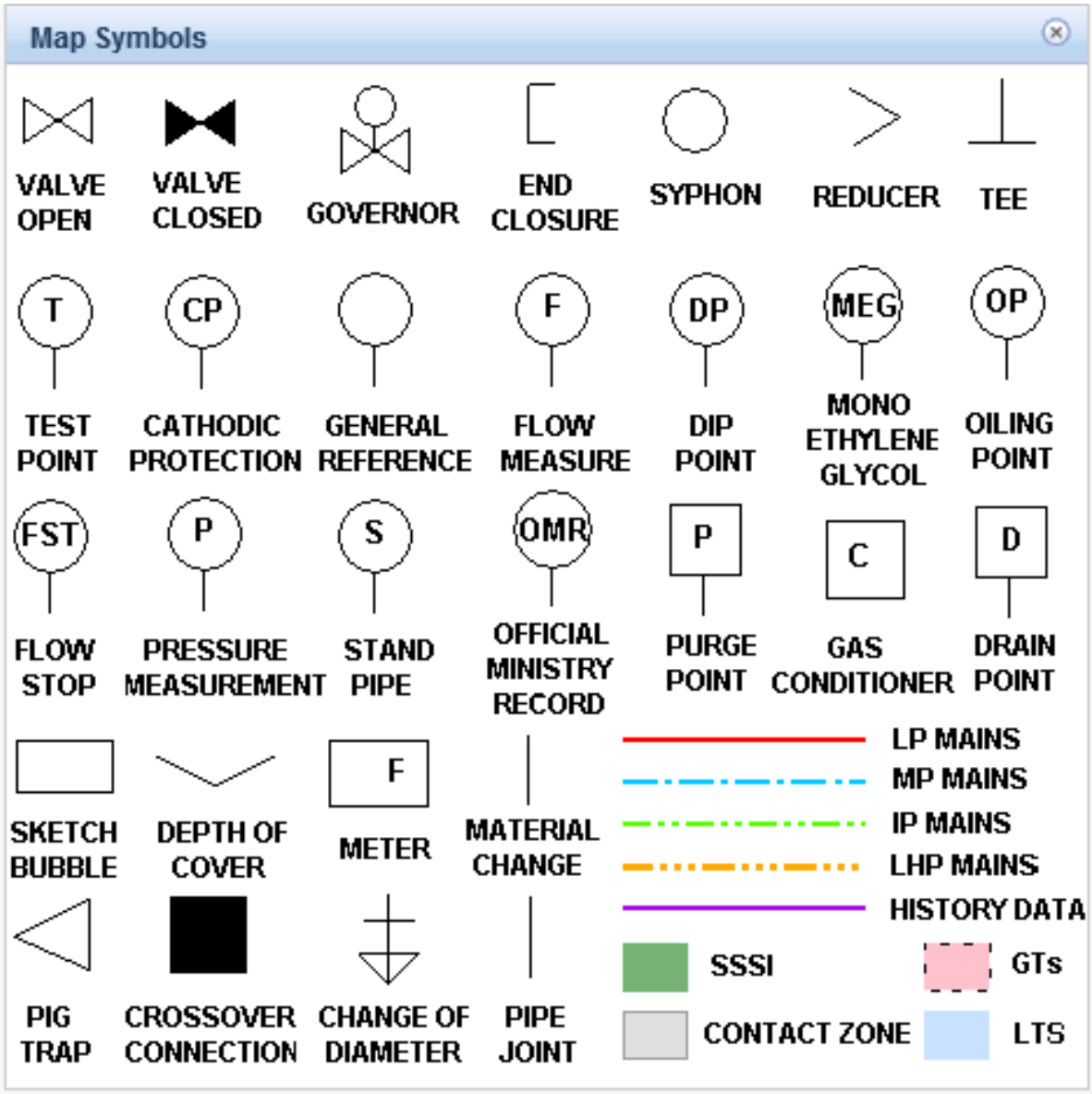
Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : FEN03116J
Map Reference : (centre) TQ1027016921
Easting/Northing : (centre) 510270,116921
Issued : 09/08/2022 15:11:45

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk


Map Symbols
VALVE OPEN
VALVE CLOSED
GOVERNOR
END CLOSURE
SYPHON
REDUCER
TEE
T
TEST POINT
CP
CATHODIC PROTECTION
GENERAL REFERENCE
F
FLOW MEASURE
DP
DIP POINT
MEG
MONO ETHYLENE GLYCOL
OP
OILING POINT
FST
FLOW STOP
P
PRESSURE MEASUREMENT
S
STAND PIPE
OMR
OFFICIAL MINISTRY RECORD
P
PURGE POINT
C
GAS CONDITIONER
D
DRAIN POINT
SKETCH BUBBLE
DEPTH OF COVER
F
METER
MATERIAL CHANGE
LP MAINS
MP MAINS
IP MAINS
LHP MAINS
HISTORY DATA
PIG TRAP
CROSSOVER CONNECTION
CHANGE OF DIAMETER
PIPE JOINT
SSSI
GTs
CONTACT ZONE
LTS

Network Records NetMAP Symbols Booklet - South East England

Version 1.2

Released October 2010

Always check with your local Network Records office or the UK Power Networks server to ensure that you are using the most up to date copy of this booklet - Tel: 08000 565866

Index:-

Page no:		Contents:
1	.....	Guidance notes.
2	.....	The area covered by this guide.
3	1:500 (& 1:1250) view	
	.....	Scenery.
4	.....	Scenery (UK Power Networks use only).
7	.....	Primary distribution line route (EHV).
8	.....	Secondary distribution cables (HV/LV).
9	.....	Secondary distribution cable terminology.
12	.....	Cable ducts.
13	.....	Poles.
14	.....	EHV, HV and LV sites.
15	.....	Joints.
16	.....	Street furniture
17	.....	Miscellaneous.
18	.....	Connectivity.
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21	.....	Operational status colours.
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25	.....	Primary and secondary sites.
27	.....	Switch types.
28	1:10000 view (UK Power Networks use only).	
	.....	Notes.
29	.....	Secondary distribution cables.
30	.....	Primary and secondary sites.

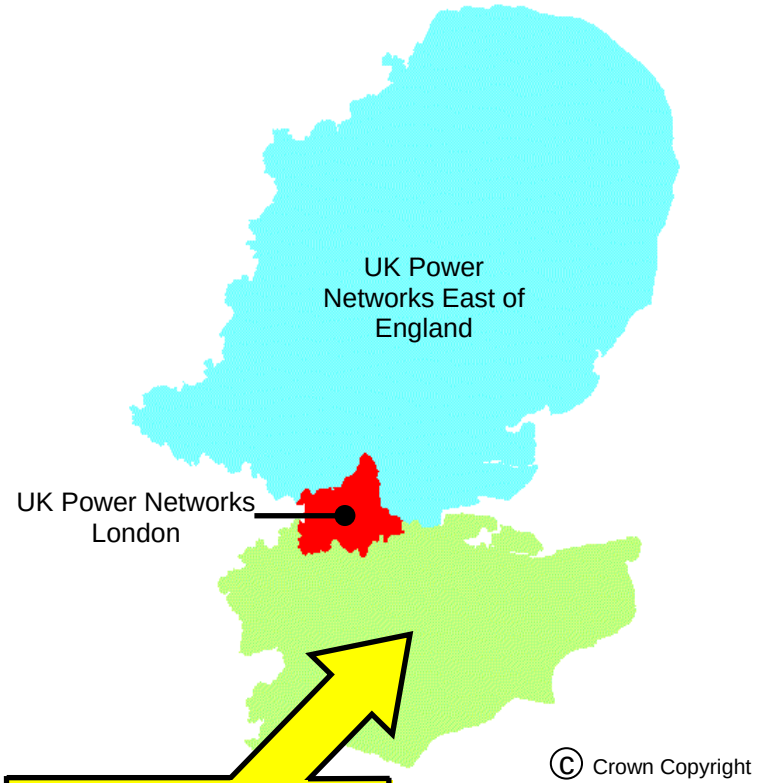
Guidance notes.

Important notice:
If you do not understand the NetMAP record that you are using, please contact the UK Power Networks Network Records team for guidance on **Tel: 08000 565866.**

- The position of apparatus shown on NetMAP is believed to be correct, but the original landmarks may have altered since the apparatus was installed.
- It must be assumed that there is at least one service to each property, lamp column, street sign etc.
- Third party cables are not usually shown.
- When viewed in black and white, the line-style indicates the voltage.
- All LV cables are 4 core and all HV cables are 3 core – unless otherwise stated.
- All cables are copper – unless otherwise stated.

Plan Provision Team
and CableWatch
Fore Hamlet
Ipswich
Suffolk IP3 8AA
Tel: 08000 565866

The area covered by this guide:



UK Power Networks South East England.
This is the only area where this booklet applies

1:500 (& 1:1250) view

Scenery

NetMAP system	Description
	Secondary buildings and fence lines
	Building line
	Kerb line
	UK Power Networks / SPN licence boundary (not visible unless selected)

Scenery for UK Power Networks use only - boxed in red

NetMAP system	Description
 Inset Network – Contact xxxx IDNO for further information	Area of inset network - not the asset of UK Power Networks (only visible to UK Power Networks and their immediate contractors)
	Proposed Cross Rail route (only visible to UK Power Networks and their immediate contractors)
	High pressure pipelines in the general vicinity (only visible to UK Power Networks and their immediate contractors)

Note: Pipelines are only viewable on NetMAP by UK Power Networks staff and their immediate contractors. Do not carry out any excavation without consent from the relevant agency - legally protected high pressure petroleum products pipeline route in the general vicinity - consult www.linewatch.co.uk for contacts and guidance. Pipeline contact numbers can also be found on the intranet – out of hours, contact our Control Centre.

	Water - surface water (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 1 (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 2 (only visible to UK Power Networks and their immediate contractors)
	Water - Source Protection Zone 3 (only visible to UK Power Networks and their immediate contractors)

section continued on next page

Scenery for UK Power Networks use only - boxed in red

NetMAP system	Description
	Historical - Scheduled Monuments (only visible to UK Power Networks and their immediate contractors)
	Historical - Parks and Gardens (only visible to UK Power Networks and their immediate contractors)
	Historical - Areas of Archaeological Potential (AAP) (only visible to UK Power Networks and their Immediate contractors)
	Nature - Ramsar Wetlands of International Importance (only visible to UK Power Networks and their immediate contractors)
	Nature - Special Area of Conservation (SAC) (only visible to UK Power Networks and their immediate contractors)
	Nature - Special Protected Area (SPA) (only visible to UK Power Networks and their immediate contractors)
	Nature - Site of Special and Scientific Interest (SSSI) (only visible to UK Power Networks and their immediate contractors)

section continued on next page

Scenery for UK Power Networks use only - boxed in red

NetMAP system	Description
	Nature - Local Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Nature - National Nature Reserve (only visible to UK Power Networks and their immediate contractors)
	Nature - Area of Outstanding Natural Beauty (AONB) (only visible to UK Power Networks and their immediate contractors)
	Nature - National Park (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - very high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - high sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - medium sensitivity (only visible to UK Power Networks and their immediate contractors)
	Fluid filled cables - low sensitivity (only visible to UK Power Networks and their immediate contractors)

Primary distribution line route (1:500 view)

NetMAP system	Description
	275–400kV National Grid route
	132kV cable route
	33kV cable route

Approximate routes only – see seperate record

Secondary distribution cables (1:500 view)

NetMAP system	Description
	11kV underground cable
	11kV overhead line
	6.6kV underground cable
	6.6kV overhead line
	<6.6kV underground cable
	<6.6kV overhead line
	LV underground cable
	LV overhead line
Pilot	Pilot cable
2c SU pl	LV street lighting (pl)
	Service overhead line
	Service underground
	Logical service connection

Secondary distribution cable terminology (1:500 view)

HV underground

sta	PILCSTA (paper insulated lead covered steel tape armour)
(no text)	PILCSWA (paper insulated lead covered steel wire armour)
XLPE	XLPE (cross linked polyethylene) insulation
bcs	CAS (corrugated aluminium sheath) belted construction
scs	CAS (corrugated aluminium sheath) with screened cores
ua	PILC (paper insulated lead covered) unarmoured
c/c	Concentric cores
Poly	Poly (polyethylene) insulation
BOTES	BOTES – Board of Trade earth screen
of	Oil filled
33 kV design	Constructed to 33 kV specification
ax	Triplex with aluminium conductor
cx	Triplex with copper conductor

HV overhead

(no text)	Bare open wire
pvc	Open wire PVC covered
cat	ABC (aerial bundled or bunched conductor) with supporting strain wire
+ew	Open wire with extra earth conductor
ccc	Compact covered conductor

Overhead line materials

sca	Steel cored aluminium
cc	Cadmium copper
st	Steel
sil	Silmalec
ccs	Copper covered steel
cpl	Compactal

section continued on next page

Secondary distribution cable terminology continued
(1:500 view)

LV underground mains and services

W	Waveform
We	Waveform with seperate earth wire
H	Hybrid – copper neutral with aluminium phase conductor
He	Hybrid with seperate earth wire
ua	PILC (paper insulated lead covered) unarmoured
(no text)	PILC (paper insulated lead covered) with/without armour
XLPE	XLPE (cross linked polyethylene) insulation
DISTRI	PISTA (paper insulated steel tape armour) 4c SAC (solid aluminium core) with lead covered neutral
c/c	Concentric cores
s/c	Split concentric with seperated neutral and earth wires
CONSAC	Paper insulated aluminium sheathed 3 core with solid aluminium cores
vb	Vulcanised bitumen/rubber insulation
Capothene	Capothene core insulation
tby	Tape braid and yarn
swa	PILSWA (paper insulated lead steel wire armour)
sac	PILSTA (paper insulated steel tape armour) solid aluminium core
Solidal	4 sector SAC with solid aluminium cores
LSF	Low smoke and fume (orange cable)
Trough	Cable laid in filled trough

LV overhead mains and services

(no text)	Bare open wire
ABC	Aerial bundled (or bunched) conductor
cat	ABC (aerial bundled or bunched conductor) with supporting strain wire
pvc	PVC covered open wire
c/c	Concentric cores
H	Hybrid – copper neutral with aluminium phase conductor
ue	Under eaves – hessian covered lead cable
vir	Vulcanised India rubber insulation

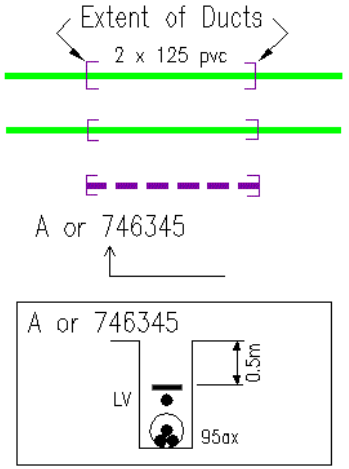
section continued on next page

Secondary distribution cable terminology continued
(1:500 view)

Various annotation

.1	Cable size (sq. inches)
185	Cable size (sq. millimetres)
a	Aluminium
ITC	Instrument traced cable or ITC - cable traced electronically using Cable Avoidance Tool (CAT) or similar

Cable ducts **(1:500 view)**

NetMAP system	Description
	Duct 2 way Duct 1 way (no text) Spare duct Cross section arrow Cross section showing: duct, tile depth, tile, single LV cable and HV Triplex cable

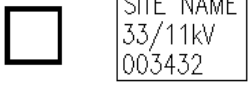
Duct materials

(no text)	Earthenware
pvc	PVC
st	Steel
asb	Asbestos
fbr	Fibre
wi	Iron
cp	Concrete pipe
t/e	Trenchless excavation

Poles (1:500 view)

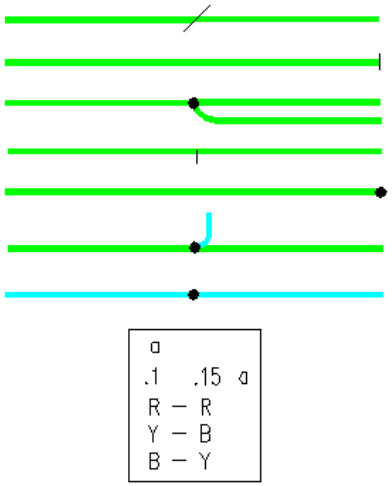
NetMAP system	Description
(S) 999999	Section pole Pole number (unique)
	Single leg
	H pole
	3 member
	4 member
	Strut
	Pole support (stay)
	Flying stay
	Tower 33kV to 400kV

EHV, HV and LV sites (1:500 view)

NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
	Ground mounted primary substation showing name, transformer voltage and SPENS number
	Pole mounted substation showing name and SPENS number
	Ground mounted substation showing name and SPENS number
	2 way link box
	4 way link box
	Link box without busbar
	(options similar to 1:2500 view) LV distribution pillar
	Voltage regulator
	Voltage balancer
	Open point
	Open point – out of phase
	Overhead open point

Note: For LV linking, use the 1:2500 view

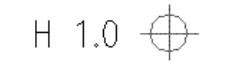
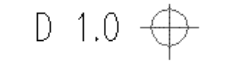
Joints (1:500 view)

NetMAP system	Description
	Straight (same for HV) Pot end (same for HV) Branch (same for HV) Sleeve repair Capped end Service to LV main Under eaves service Jointing phase drawing

Street furniture (1:500 view)

NetMAP system	Description
	Pole mounted street light
	Street light Zebra crossing Road sign Bollard Pelican crossing
	Traffic controller Advertising sign Amplifier station
	Control cubicle
	Text displayed/description
	Pay and display Bus shelter TBS Kiosk Water meter PL pillar TCB
	Unknown

Miscellaneous (1:500 view)

NetMAP system	Description
	Underground chamber or draw pit
	Earth conductor
	Earth pin
	Height marker
	Depth marker
	Supply point
	Missing data in or near this location
	Contaminated land reference

Connectivity (1:500 view)

NetMAP system	Description
	Edge node
	Node
	Connector
	Pole termination (nothing visible unless selected)

Edge nodes, nodes, connectors and pole termination joints may not appear on screen unless turned on and selected.

Abbreviations (1:500 view)

NetMAP system	Description
NR	No record
SU	Size unknown
AB	Abandoned
(M)	PME available
VO5	Year LV linking verified
MS	Milestone
MP	Marker post
pmt	Pole mounted transformer
pl	Public lighting
TBS	Temporary builder's supply
TCB	Telephone call box
CET	Cable electronically traced
IT	Instrument traced (same as CET)
CAT	Cable avoidance tool (same as CET)
+sl	Street lighting
+sw	Switch wire
2c	2 core
PESL	Public Electricity Supply License
Added	Supplied by SPN
Excluded	Not supplied by SPN
IIP	Assumed open point
VSxxxx	Vacant site
CB	Callender box

Cable phasing (1:500 view)

Old core colours	Shown on map		New core colours
Neutral	Neutral	Neutral	Blue
Red	R	L1	Brown
Yellow	Y	L2	Black
Blue	B	L3	Grey

Note:– Scott is a different phasing system

Operational status colours (1:500 view)

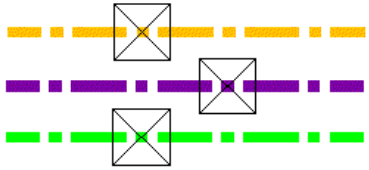
PROPOSAL	Symbols and cables appear in ORANGE
OUT OF SERVICE	Cable and joints appear in BLACK
ABANDONED	Cables and joints appear in GREY

1:2500 view - for UK Power Networks use only - boxed red

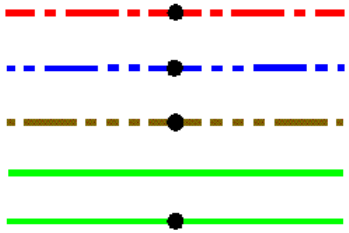
Notes

1. No underground HV cables are shown on the 1:2500 view
2. Poles and joint details are similar to the 1:500 view
3. For cable/line information refer to the 1:500 view

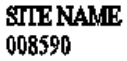
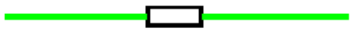
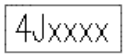
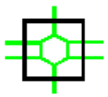
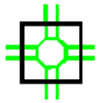
Primary distribution line route (1:2500 view)

NetMAP system	Description
	275–400kV National Grid route 132kV cable route 33kV cable route

Secondary distribution cables (1:2500 view)

NetMAP system	Description
	11kV overhead line 6.6kV overhead line <6.6kV overhead line LV underground cable LV overhead line

Primary and secondary sites (1:2500 view)

NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
	Ground mounted substation showing capacity, phase, name and SPENS number
	Pole mounted substation showing capacity, phase, name and SPENS number
	Primary substation showing name and SPENS number (no site shown)
	2 way link box
	4 way link box
	Link box identifier
	4 way link box without busbar
	6 way link box without busbar
	8 way link box without busbar

section continued on next page

Primary and secondary sites continued (1:2500 view)

NetMAP system	Description
	LV distribution pillar
	Voltage regulator
	Voltage balancer
	Open point
	Open point – out of phase
	Earth pin

Switch types (1:2500 view)

NetMAP system	Description
ABSD	Air brake switch disconnector
A/R	Auto recloser
A/S	Sectionaliser
FUSE	Fuse
S/D	Surge diverter
PF	Pathfinder
ASL	Automatic sectionalising links
PMR	Pole mounted recloser
PMS	Pole mounted sectionaliser
GVR	Gas vacuum recloser

1:10000 view - for UK Power Networks use only - boxed red

Notes

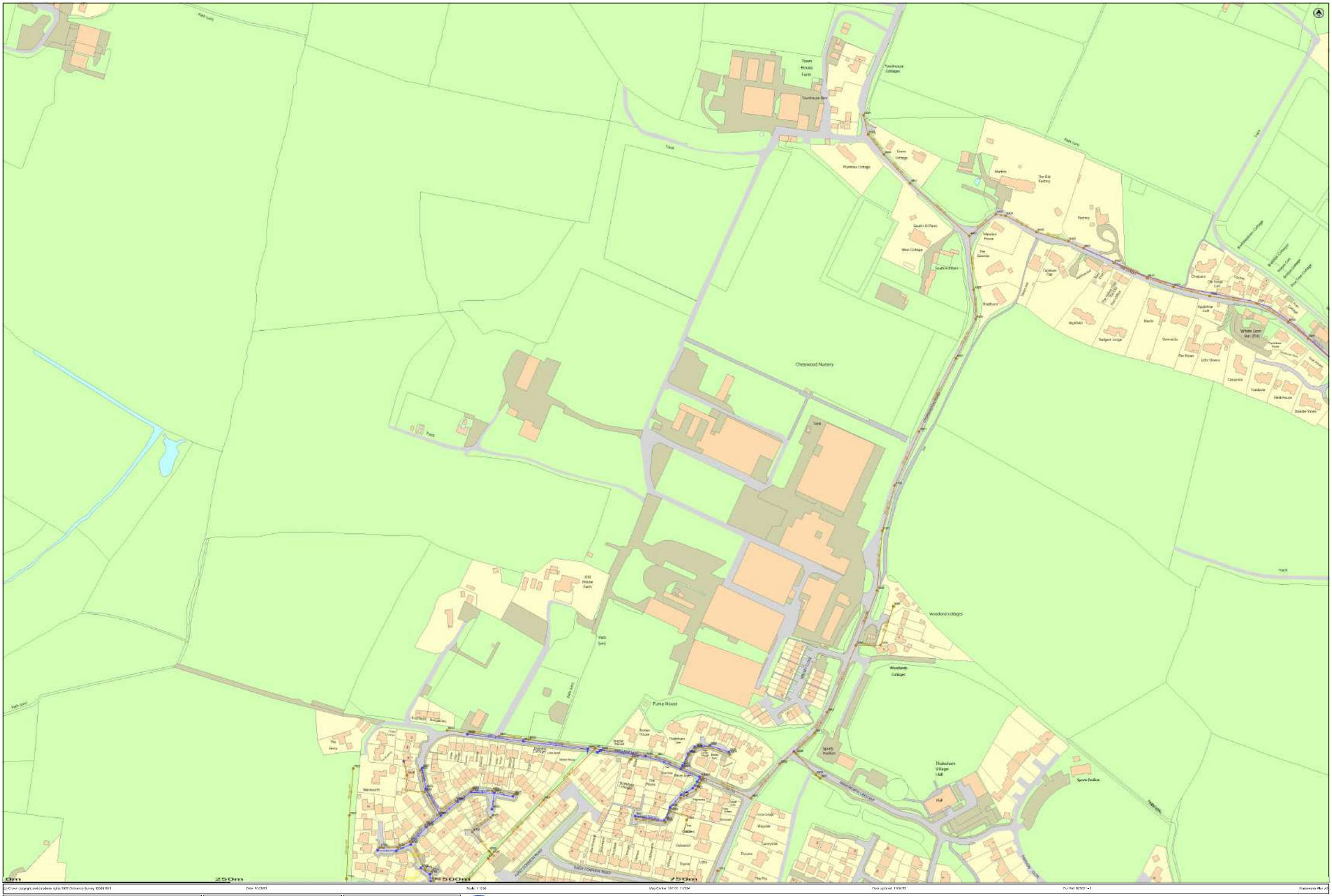
1. No EHV cables/overhead lines shown on 1:10000 view.
2. For congested areas print at 1:5000.
3. HV site used instead of branch joint on 1:10000 for connectivity purposes. The site is not displayed until it is selected.

Secondary distribution cables (1:10000 view)

NetMAP system	Description
	11kV underground cable
	6.6kV underground cable
	<6.6kV underground cable
	11kV overhead line
	6.6kV overhead line
	<6.6kV overhead line

Primary and secondary sites (1:10000 view)

NetMAP system	Description
Note: EHV and HV sites are identified by a unique 6 digit number (SPENS)	
SITE NAME 008590	Primary substation showing name and SPENS number
SITE NAME 521234	11kV ground mounted substation showing name and SPENS number
SITE NAME 524514	6.6kV ground mounted substation showing name and SPENS number
SITE NAME 523634	<6.6kV ground mounted substation showing name and SPENS number
SITE NAME pmt 527522	11kV pole mounted substation showing name and SPENS number
SITE NAME pmt 525743	6.6kV pole mounted substation showing name and SPENS number
SITE NAME pmt 526543	<6.6kV pole mounted substation showing name and SPENS number
SITE NAME 527238	Pole mounted switching substation showing name and SPENS number



(c) Crown copyright and database rights 2022 Ordnance Survey 100031673 | Date: 10/08/22 | Scale: 1:1250 | Map Centre: 510131, 117224 | Data updated: 21/07/22 | Our Ref: 923621 • 2 | Wastewater Plan A0

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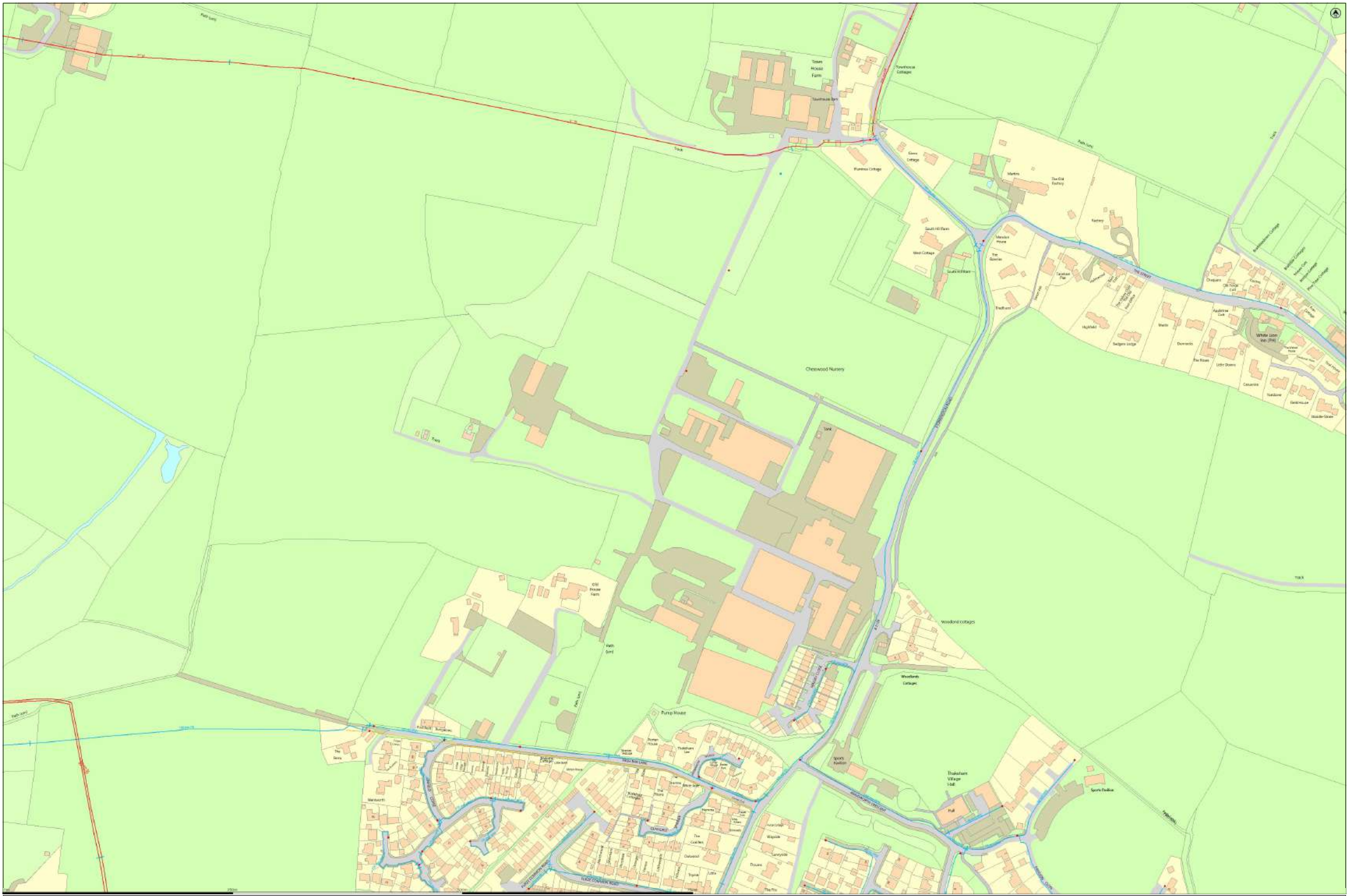
mailbox@mk2.co.uk

020076

WATER for LIFE

Southern Water.

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0801	F	0,00	37,75	
0803	F	41,42	40,58	
0804	F	0,00	0,00	
1701	F	45,83	43,90	
1703	F	0,00	0,00	
1801	F	0,00	0,00	
1802	F	41,98	0,00	
1803	F	42,28	40,25	
1809	F	42,12	40,15	
1810	F	42,22	40,15	
1811	F	42,13	39,92	
1812	F	41,95	39,84	
1819	F	41,66	40,18	
1820	F	41,55	39,99	
1821	F	41,43	39,81	
1822	F	41,41	0,00	
1823	F	0,00	0,00	
2801	F	42,84	0,00	
2802	F	42,39	40,29	
2804	F	41,83	40,55	
2805	F	0,00	0,00	
2806	F	0,00	0,00	
2901	F	43,02	40,88	
3001	F	44,44	42,56	
3002	F	45,84	44,68	
3003	F	45,34	43,68	
3004	F	0,00	43,65	
3101	F	47,03	45,12	
3102	F	46,12	46,30	
3501	F	63,22	61,82	
3502	F	65,60	63,93	
3503	F	66,89	65,25	
3504	F	67,25	65,44	
3801	F	0,00	0,00	
3901	F	43,24	41,12	
4201	F	49,63	48,00	
4301	F	52,38	50,68	
4302	F	55,83	54,52	
4303	F	57,34	56,03	
4401	F	60,20	58,57	
4402	F	62,42	60,90	
5401	F	65,63	64,12	
5402	F	65,51	63,89	
5403	F	64,95	63,30	
5404	F	63,34	61,80	
6301	F	62,59	0,00	
6401	F	63,84	62,24	
6402	F	66,25	63,53	
7301	F	58,46	0,00	
7302	F	61,65	0,00	
7702	F	36,39	35,00	
7801	F	39,39	37,75	
7802	F	40,49	38,15	
8301	F	54,41	0,00	
8302	F	55,83	0,00	
8700	F	37,99	36,48	
8701	F	38,20	36,02	
8702	F	38,30	35,79	
8703	F	37,90	35,35	
8704	F	37,80	35,29	
8705	F	37,60	35,22	
8800	F	38,60	36,47	
8801	F	38,78	36,68	
8802	F	39,69	37,57	
8803	F	39,72	37,79	
8804	F	39,03	36,77	
8805	F	0,00	0,00	
8901	F	40,61	0,00	
9701	F	37,79	35,99	
9702	F	37,94	36,37	
9703	F	37,98	36,16	
9704	F	37,78	35,99	
9801	F	0,00	36,84	
9802	F	0,00	0,00	
9803	F	39,30	36,92	
9804	F	39,19	37,19	
9805	F	38,68	37,35	
9806	F	38,19	36,53	
9901	F	40,82	0,00	
0850	S	39,86	38,34	
0851	S	39,97	0,00	
0852	S	39,86	38,59	
0853	S	9,45	40,19	
1850	S	40,50	38,68	
1851	S	41,36	39,16	
1852	S	41,64	39,34	
1853	S	10,30	39,67	
1854	S	10,20	39,60	
1855	S	10,29	39,54	
1856	S	10,23	39,48	
1857	S	10,07	39,45	
1858	S	41,65	39,59	
1859	S	41,52	39,47	
1860	S	41,40	39,28	
1861	S	41,38	39,18	
2850	S	41,85	39,89	
8750	S	38,28	36,15	
8751	S	38,14	36,74	
8752	S	37,88	36,88	
8753	S	37,94	36,54	
8754	S	37,61	36,56	
8755	S	37,79	36,45	
8851	S	38,77	37,06	
8852	S	38,64	37,86	
8853	S	39,69	38,19	
8854	S	38,56	36,92	
9850	S	41,07	38,77	
9851	S	38,60	37,31	
9852	S	39,07	37,28	
9853	S	38,53	37,35	
9854	S	39,25	37,18	
9855	S	39,04	37,11	
9950	S	40,55	39,24	



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Date: 10/08/22

Scale: 1:1250

Map Centre: 510131, 117224

Data updated: 21/07/22

Our Ref: 923621 • 1

Clean Water Plan A3

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freedom@mkz.co.uk
01825776

WATER for LIFE

from Southern Water

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks (Operations)
Limited

Our Ref: 26544914 Your Ref: 305276

Wednesday, 10 August 2022

Monique Elsom
Spring Lodge Spring Lodge 172 Chester Road
Helsby
Hertfordshire
WA6 0AR

Dear Monique Elsom

Thank you for contacting us regarding UK Power Networks equipment at the above site. I have enclosed a copy of our records which show the electrical lines and/or electrical plant. I hope you find the information useful.

I have also enclosed a fact sheet which contains important information regarding the use of our plans and working around our equipment. Safety around our equipment is our number one priority so please ensure you have completed all workplace risk assessments before you begin any works.

Should your excavation affect our Extra High Voltage equipment (6.6 KV, 22 KV, 33 KV or 132 KV), please contact us to obtain a copy of the primary route drawings and associated cross sections.

If you have any further queries do not hesitate to contact us.

Plan Provision
0800 056 5866

Registered Office:
Newington House
237 Southwark Bridge Road
London SE1 6NP

Registered in England and Wales No: 3870728

Company:
UK Power Networks (Operations) Limited

This information is made available to you on the terms set out below. If you do not accept the terms of use set out in this fact sheet please do not use the plans and return them to UK Power Networks.

1. UK Power Networks does not warrant that the information provided to you is correct. You rely upon it at your own risk.

2. UK Power Networks does not exclude or limit its liability if it causes the death of any person or causes personal injury to a person where such death or personal injury is caused by its negligence.

3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise how for any loss, damage, costs, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.

4. The information about UK Power Networks electrical plant and/or electric lines provided to you belongs to and remains the property of UK Power Networks. You must not alter it in any respect.

5. The information provided to you about the electrical plant and/or electric lines depicted on the plans may NOT be a complete record of such apparatus belonging to UK Power Networks. The information provided relates to electric lines and/or electrical plant belonging to UK Power Networks that it believes to be present but the plans are not definitive: other electric lines and/or electrical plant may be present and that may or may not belong to UK Power Networks.

6. Other apparatus not belonging to UK Power Networks is not shown on the plan. It is your responsibility to make your own enquiries elsewhere to discover whether apparatus belonging to others is present. It would be prudent to assume that other apparatus is present.

7. You are responsible for ensuring that the information made available to you is passed to those acting on your behalf and that all such persons are made aware of the contents of this letter.

8. Because the information provided to you may not be accurate, you are recommended to ascertain the presence of UK Power Networks electric lines and/or electrical plant by the digging of trial holes. Trial holes should be dug by hand only.

   Excavations must be carried out in line with the Health and Safety Executive guidance document HSG 47. We will not undertake this work. A copy of HSG 47 can be obtained from the Health and Safety Executives website.

   All electric lines discovered must be considered LIVE and DANGEROUS at all times and must not be cut, resited, suspended, bent or interfered with unless specially authorised by UK Power Networks.

   The electric line and electrical plant belonging to UK Power Networks remains so even when made dead and abandoned and any such electric line and/or electrical plant exposed shall be reported to UK Power Networks.

   Where your works are likely to affect our electric lines and/or electrical plant an estimate of the price of any protective /diversionary works can be prepared by UK Power Networks Branch at Metropolitan House, Darkes Lane, Potters Bar, Herts. , EN6 1AG, telephone no. 0845 2340040

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237 Southwark Bridge Road
London SE1 6NP

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9 Any work near to any overhead electricity lines must be carried out by you in accordance with the Health and Safety Executive guidance document GS6 and the Electricity at Work Regulations.

The GS6 Recommendations may be purchased from HSE Books or downloaded from the Energy Networks Association's website.

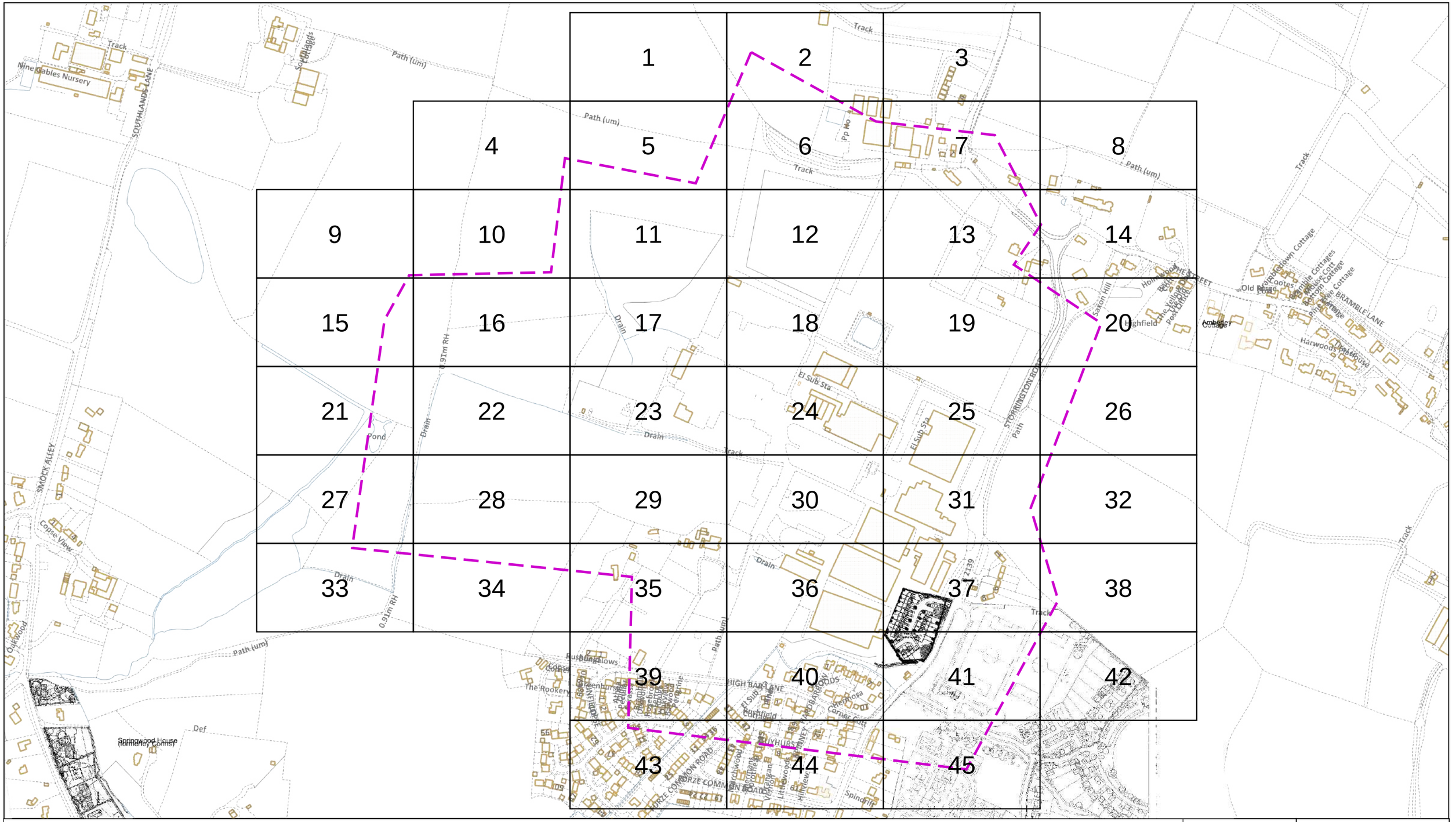
If given a reasonable period of prior notice UK Power Networks will attend on site without charge to advise how and where "goal posts" should be erected. If you wish to use this service, in the first instance please telephone: 0845 6014516 between 08:30 and 17:00 Monday to Friday.

10. You are responsible for the security of the information provided to you. It must not be given, sold or made available upon payment of a fee to a third party.

11. If in carrying out work on land in, on, under or over which is installed an electric line and/or electrical plant that belongs to UK Power Networks you and/or anyone working on your behalf damages (however slightly) that apparatus you must inform immediately UK Power Networks by our emergency 24 hour three digit telephone number **105** providing;

- your name, address and telephone number;
- the date, time and place at which such damage was caused;
- a description of the electric line and/or electrical plant to which damage was caused;
- the name of the person whom it appears to you is responsible for that damage;
- the nature of the damage.

12. The expression "UK Power Networks" includes UK Power Networks (EPN) plc, UK Power Networks (LPN) plc, UK Power Networks (SEPN) plc, UK Power Networks and any of their successors and predecessors in title.



Dig Sites Area: Line:

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This plan must be used with the attached 'Symbols' document.

Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:4612 (When plotted at A3)

1. The position of the apparatus shown on this drawing is believed to be correct but the original landmarks may have been altered since the apparatus was installed.
2. The exact position of the apparatus should be verified - use approved cable avoidance tools prior to excavation using suitable hand tools.
3. It is essential that trial holes are carefully made avoiding the use of mechanical tools or picks until the exact location of all the cables have been determined.
4. It must be assumed that there is a service cable into each property, lamp column and street sign, etc.
5. All cables must be treated as being live unless proved otherwise by UK Power Networks.
6. The information proved must be given to all people working near UK Power Networks plant and equipment. Do not use plans more than 3 months after the issue date for excavation purposes.
7. Please be aware that electric cables/lines belonging to other owners of licensed electricity distribution systems may be present and it is your responsibility to identify their location.

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2. UK Power Networks does not exclude or limit its liability if it causes the death of any persons or causes personal injury to a person.
3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.
4. This plan has been provided to you on the basis of the terms of use set out in the covering letter that accompanies this plan. If you do not accept and/or do not understand the terms of use set out in the covering letter you must not use the plan and must return it to the sender of the letter.
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UK Power Networks

IF IN DOUBT - ASK!
PHONE 0800 056 5866
EMERGENCY - If you damage a cable or line
Phone 0800 783 8838
(24hrs) URGENTLY

LOOK OUT LOOK UP

ALWAYS LOOK UP BEFORE YOU START WORK
Refer to HSE Guidance note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.

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1

0 25 50

metres

Dig Sites Area: Line:

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N W E S

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0 25 50
metres

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:500 (When plotted at A3)

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N W E S

UK Power Networks

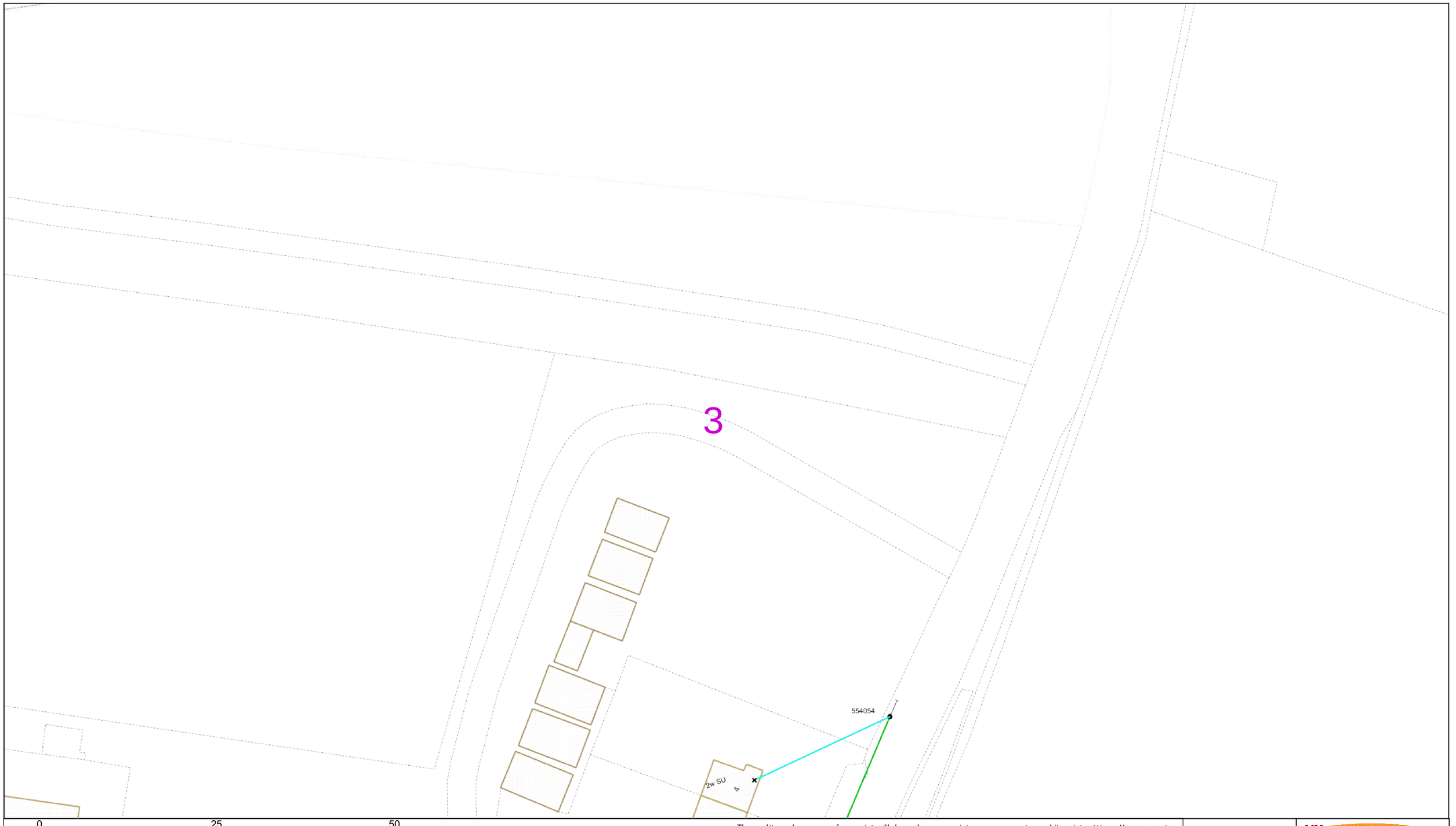
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0 25 50
metres

Dig Sites Area: Line:

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N W E S

UK Power Networks

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Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

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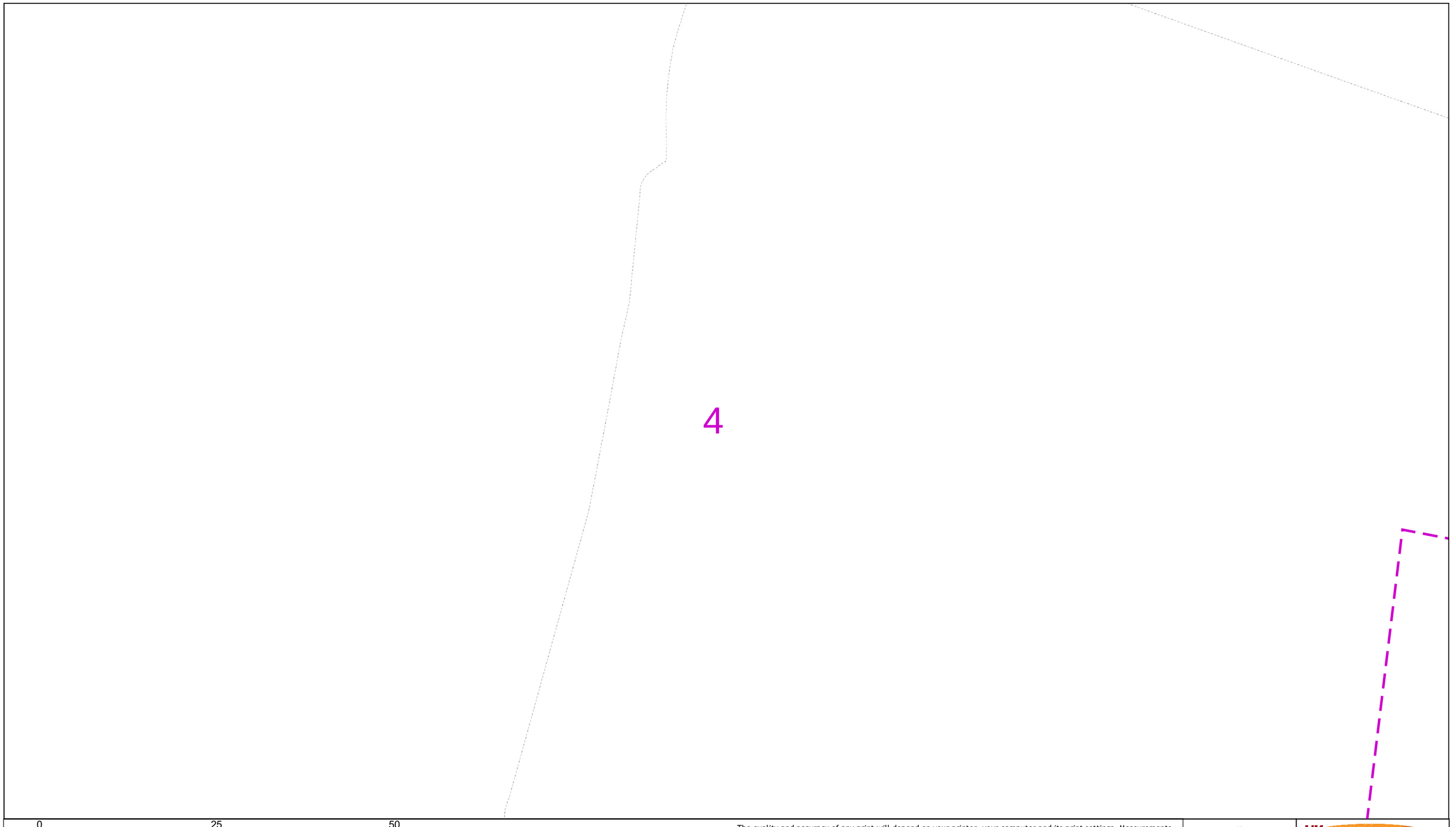
IF IN DOUBT - ASK!
PHONE 0800 056 5866
EMERGENCY - If you damage a cable or line
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0 25 50
metres

Dig Sites Area: Line:

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:500 (When plotted at A3)

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N W E S

UK Power Networks

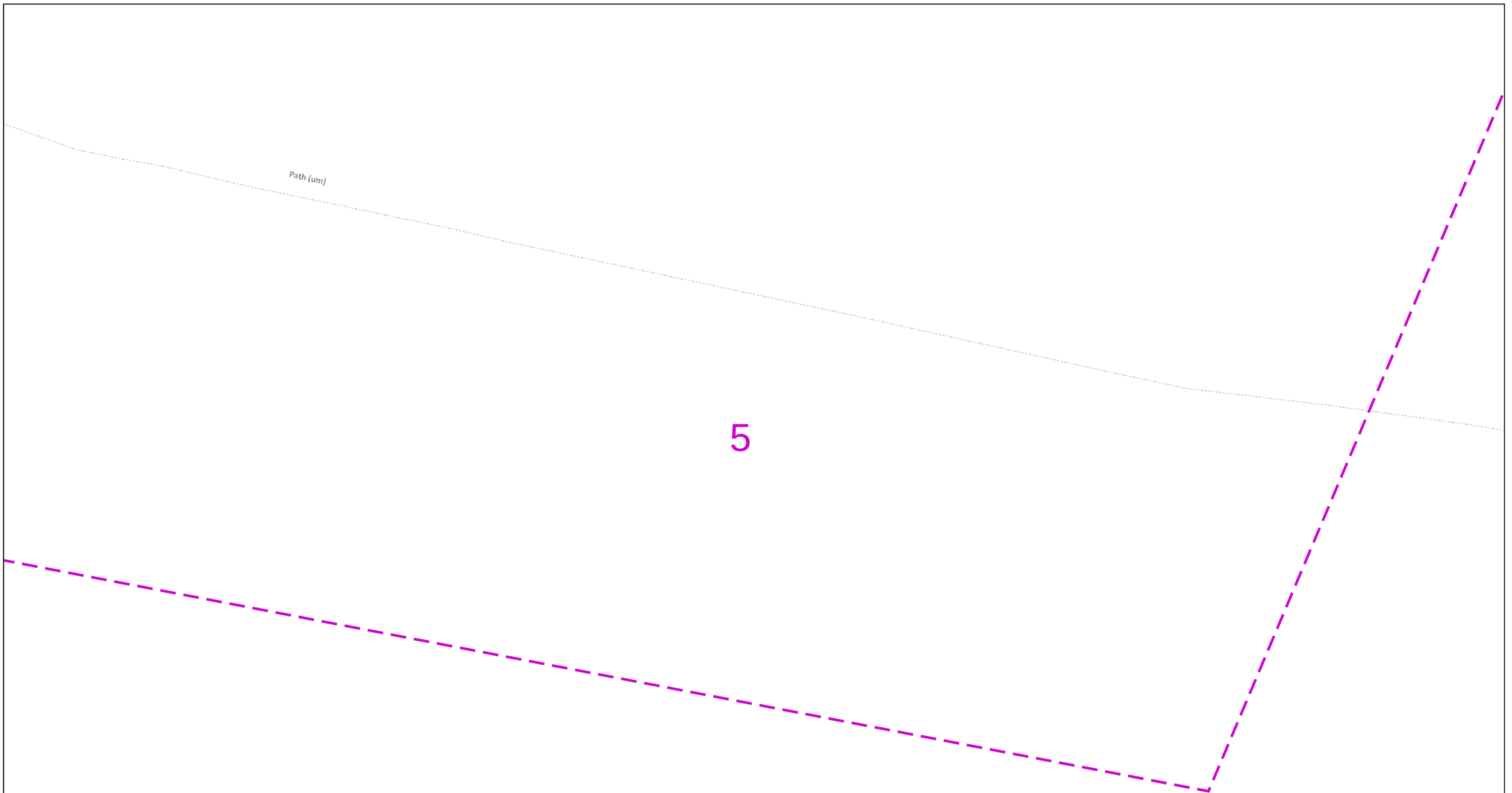
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0 25 50
metres

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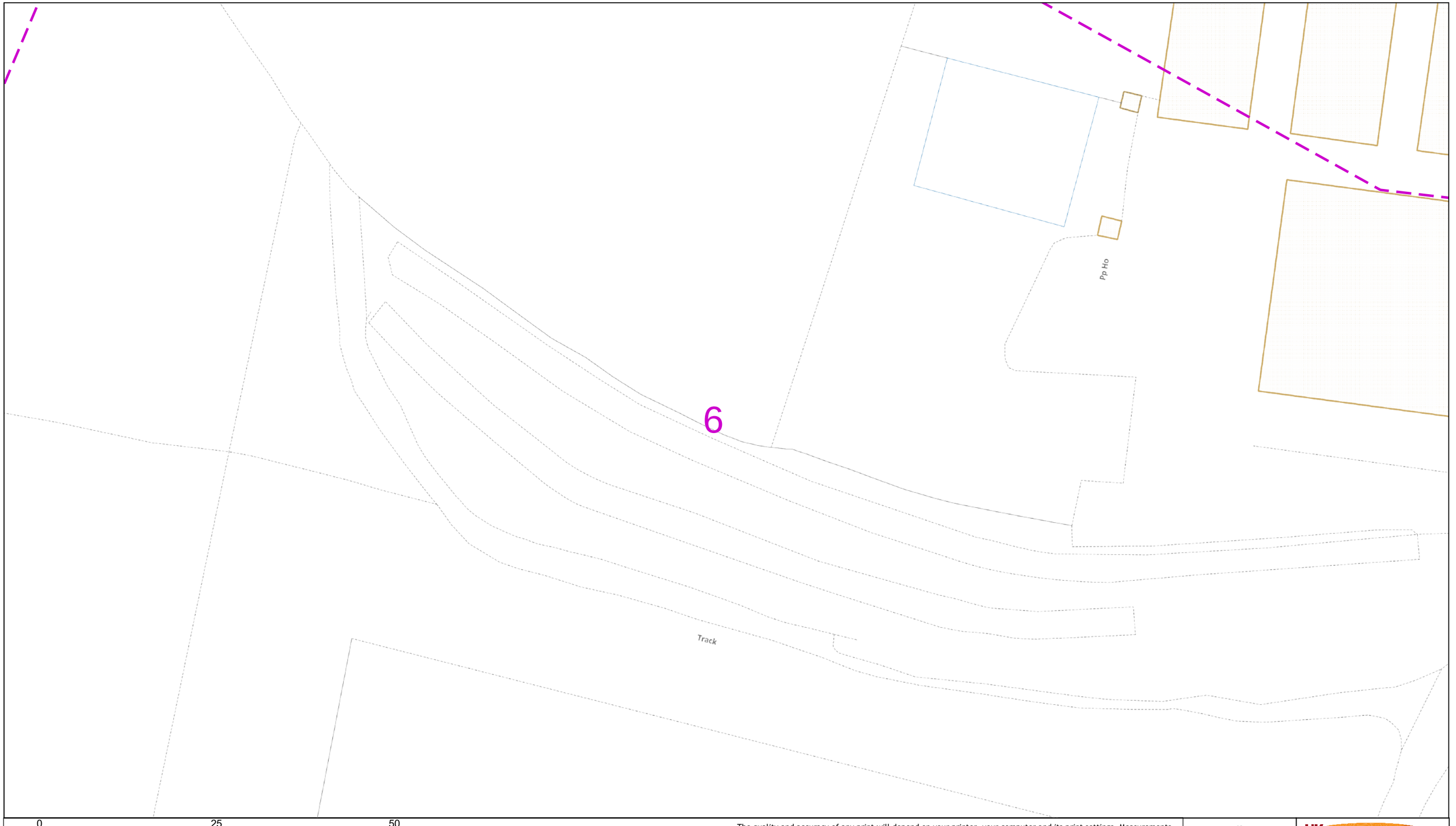
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metres

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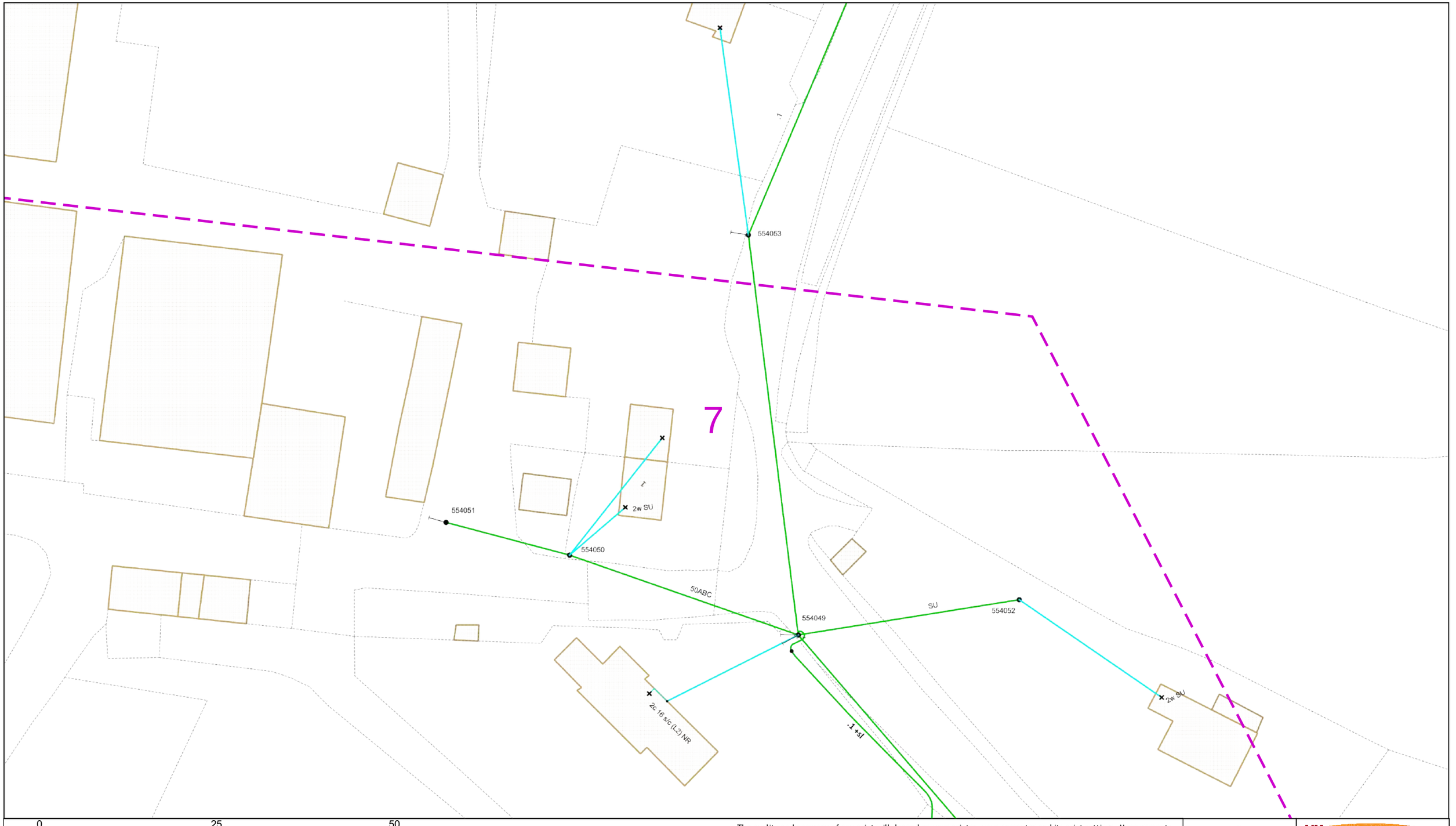
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0 25 50
metres

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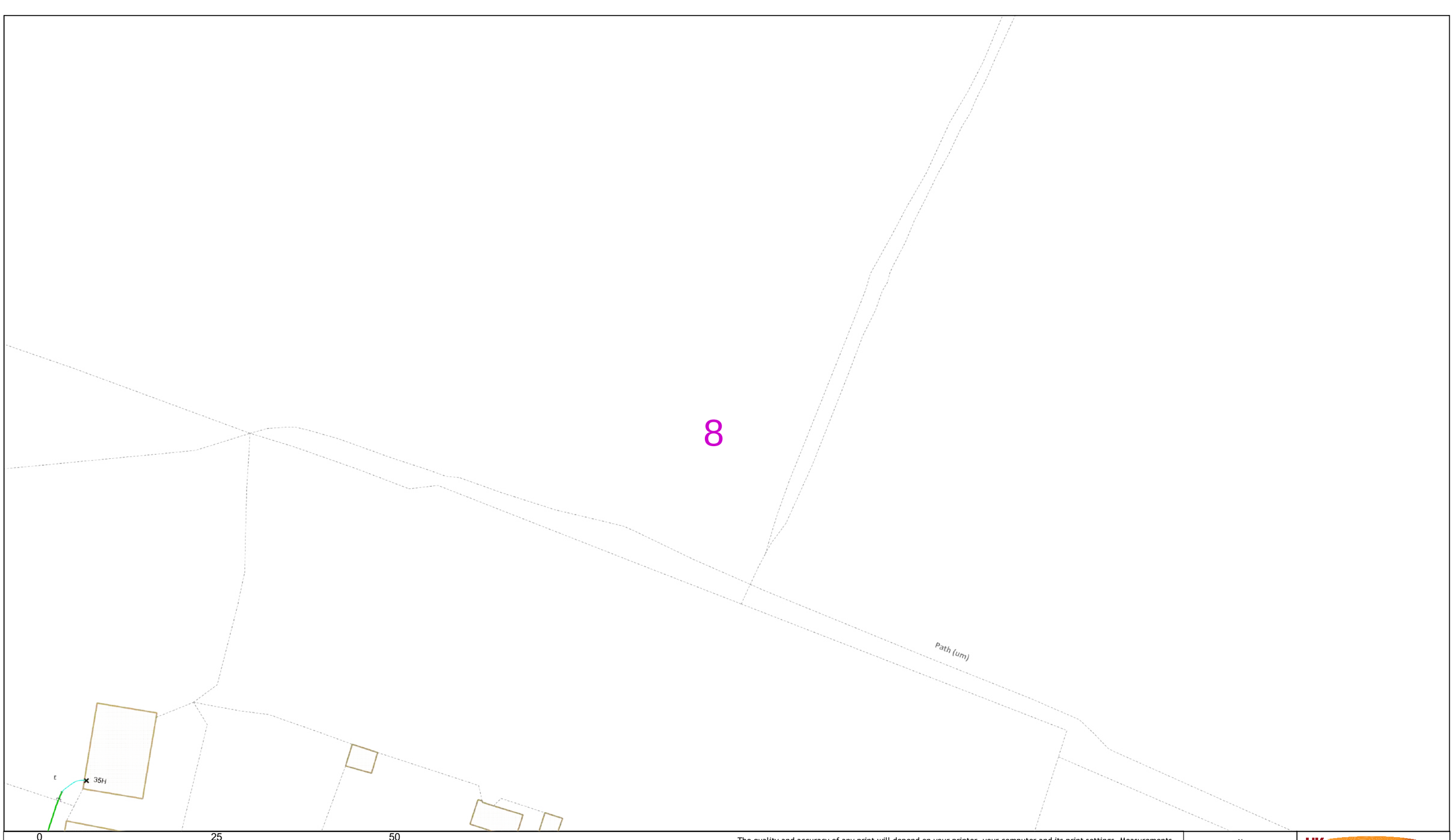
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0 25 50
metres

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Miss Monique Elsom
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9

0 25 50
metres

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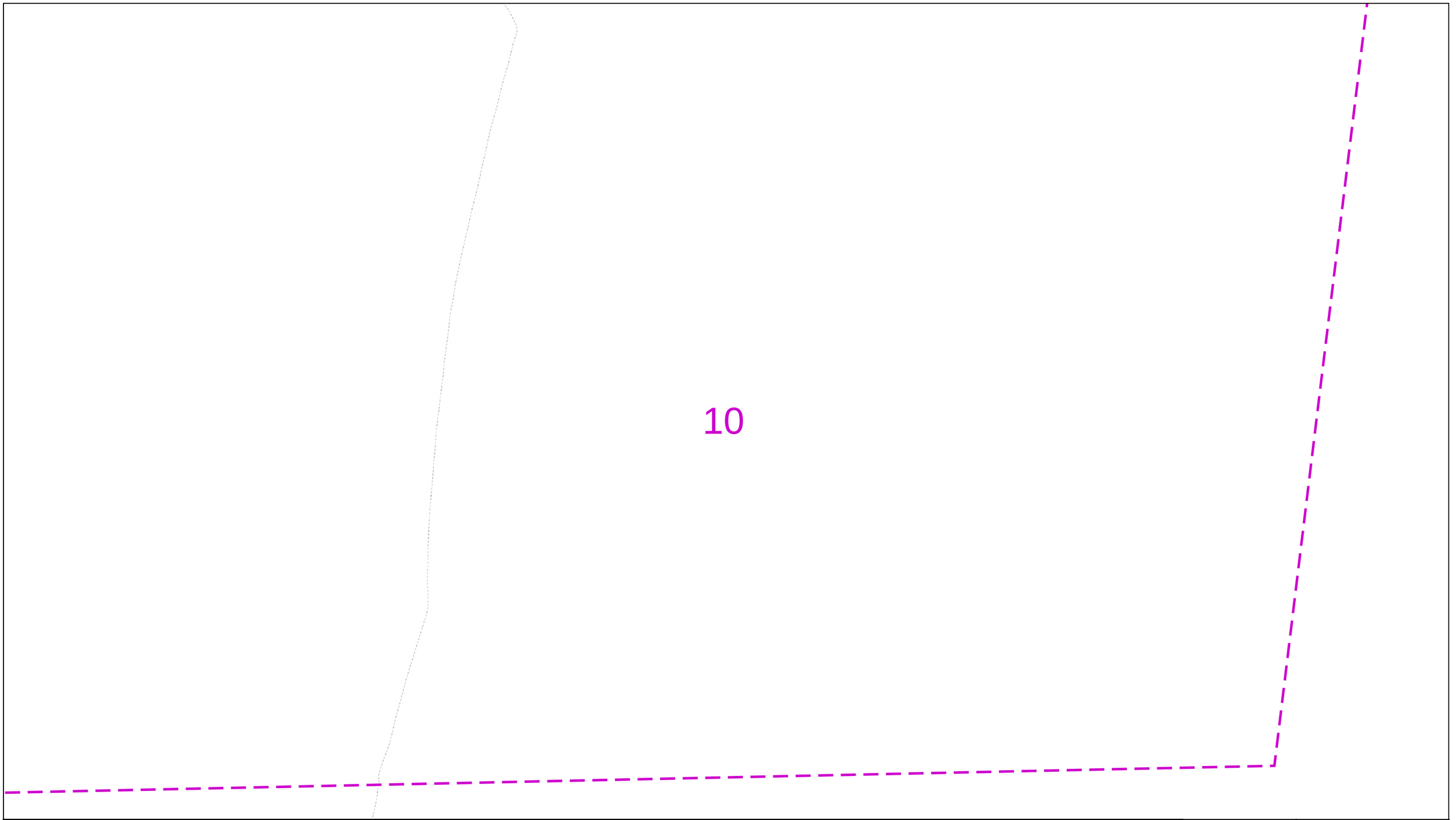
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N NE E SE S SW W NW

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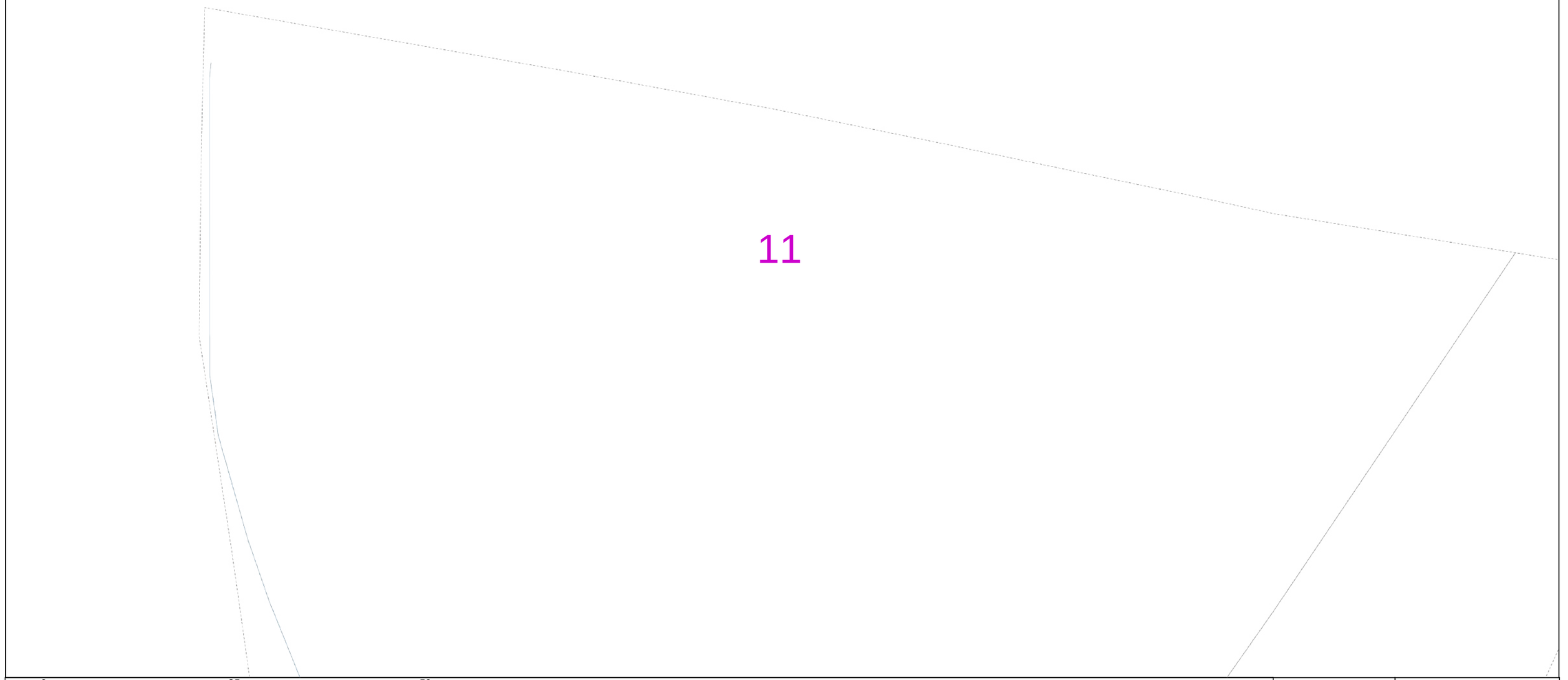
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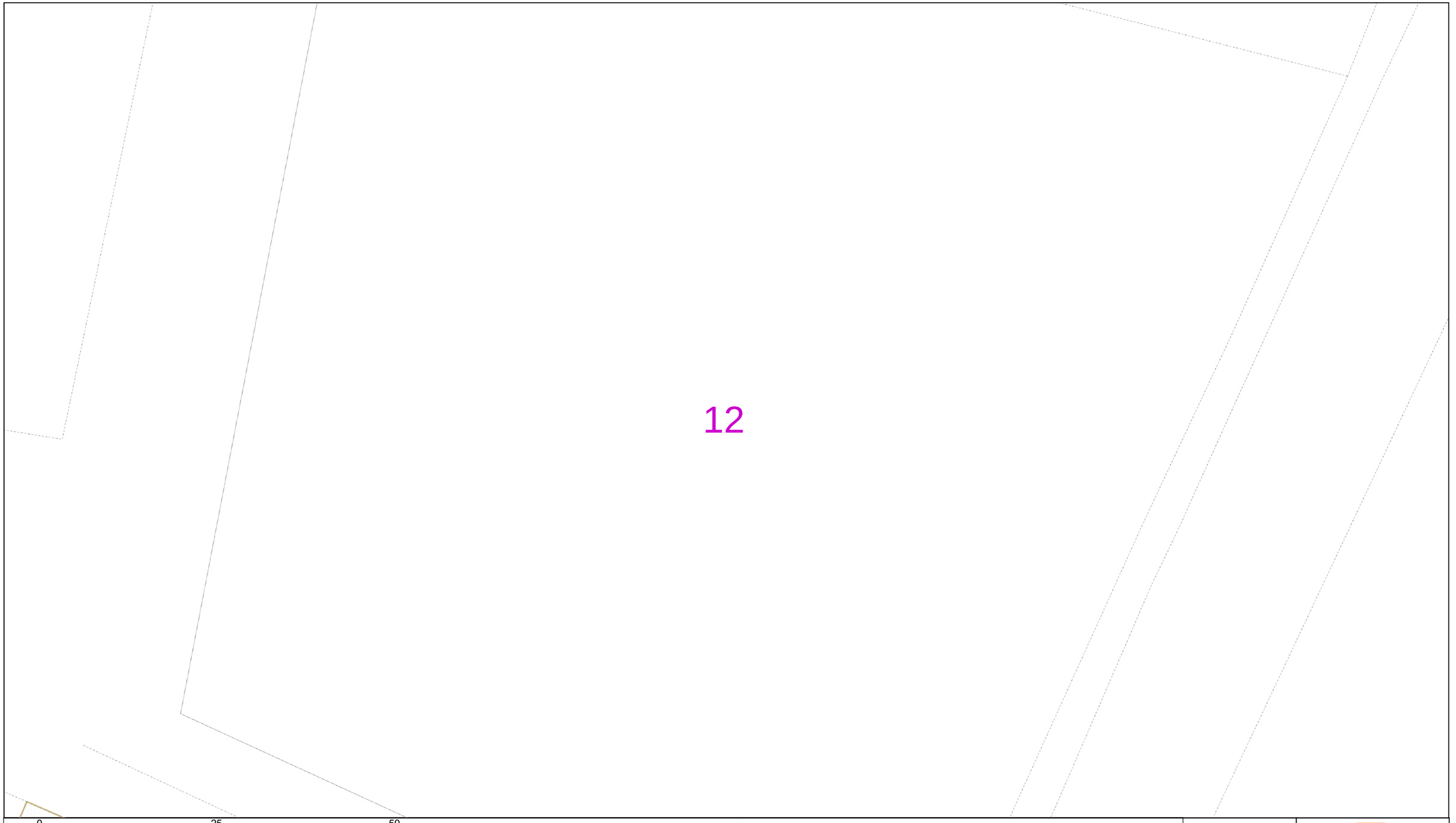
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metres

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Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

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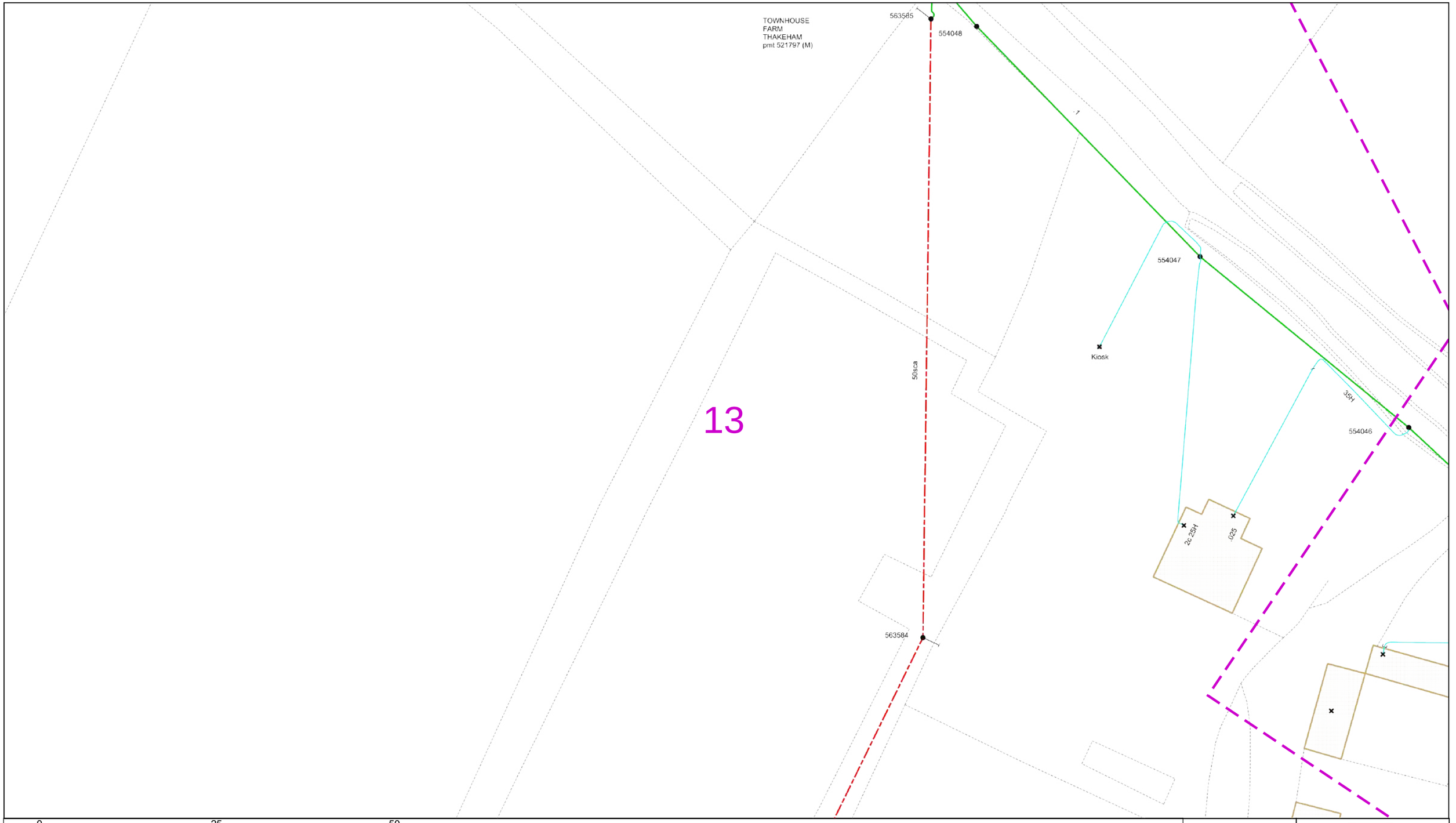
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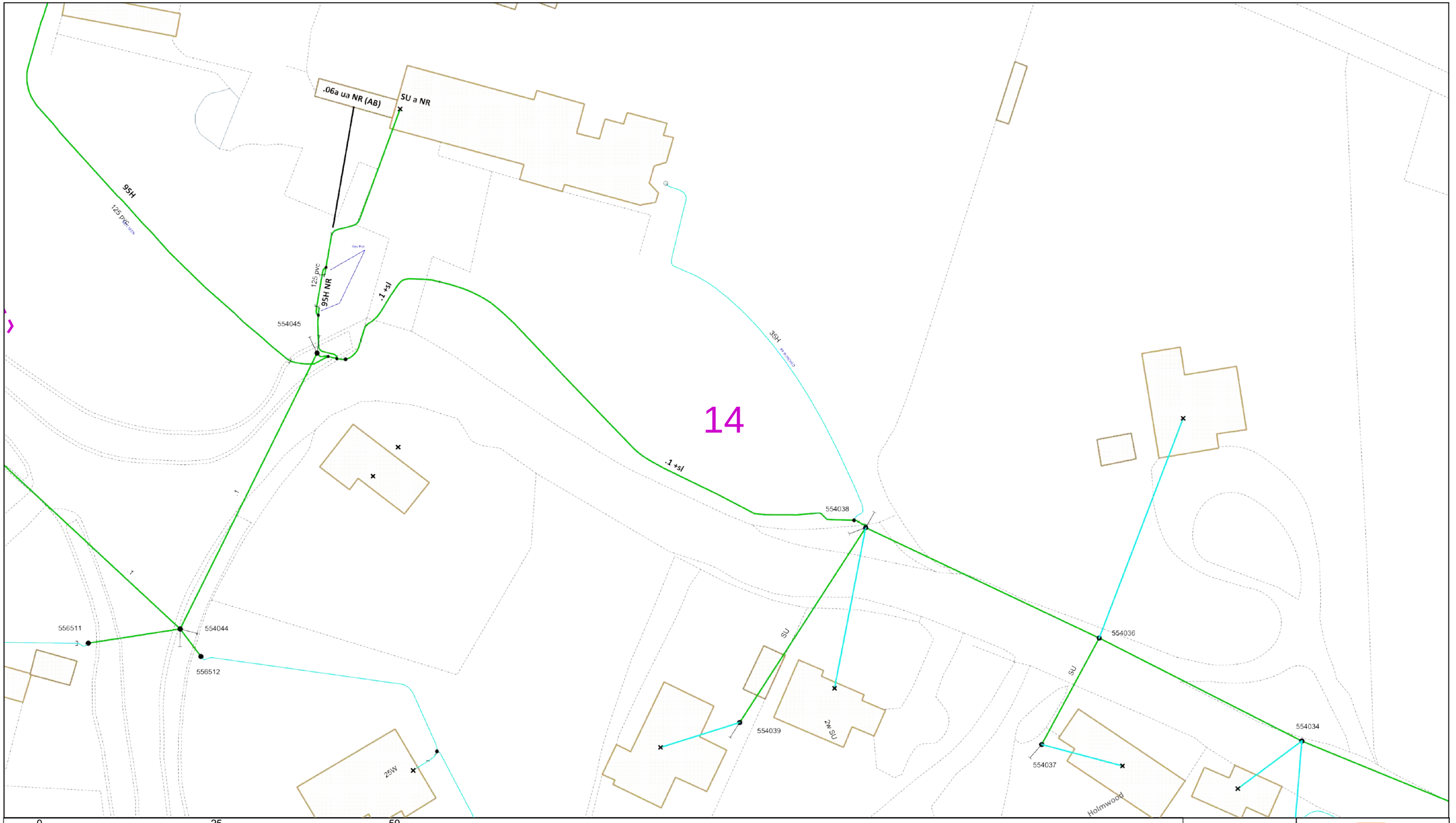
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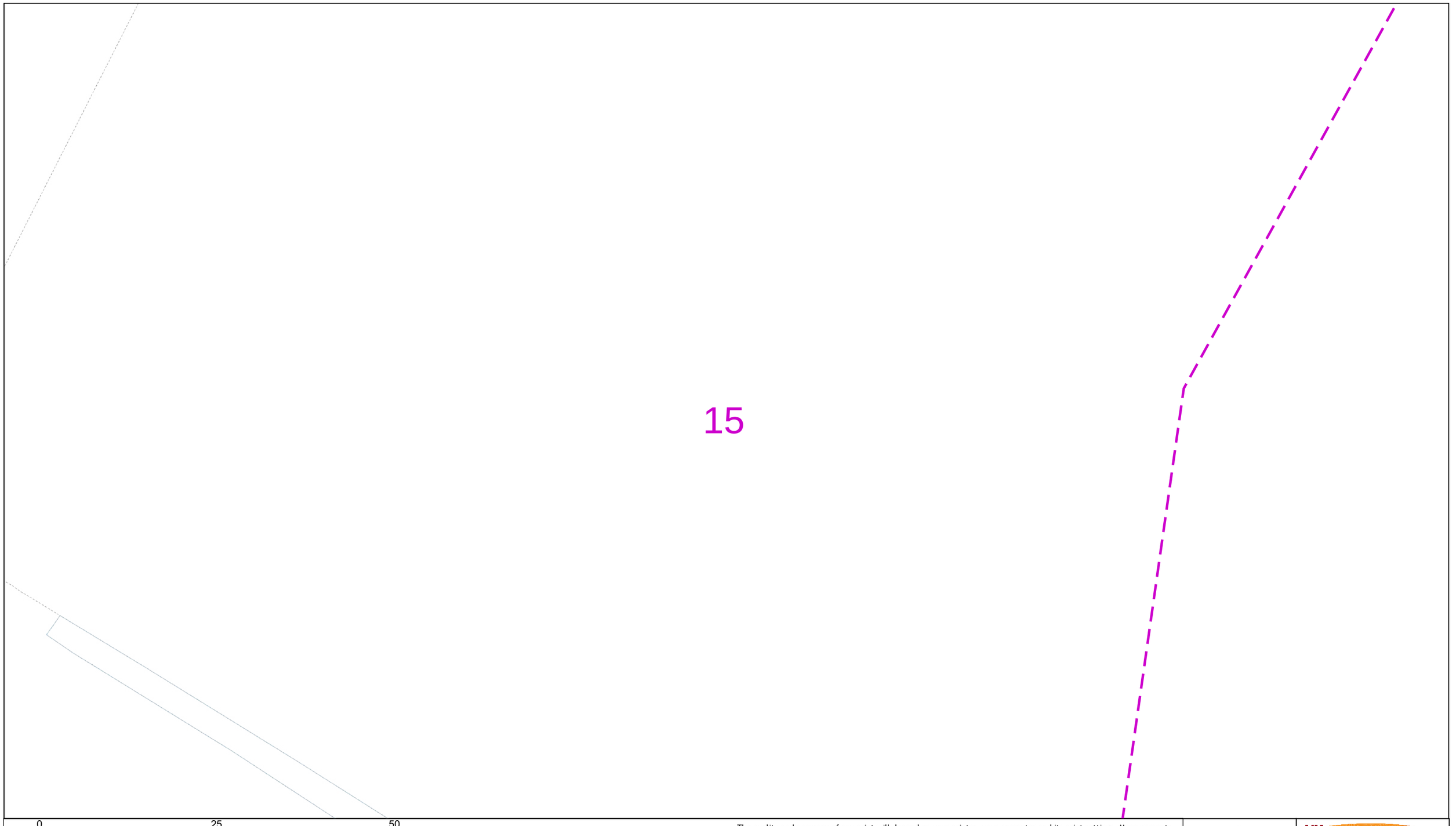
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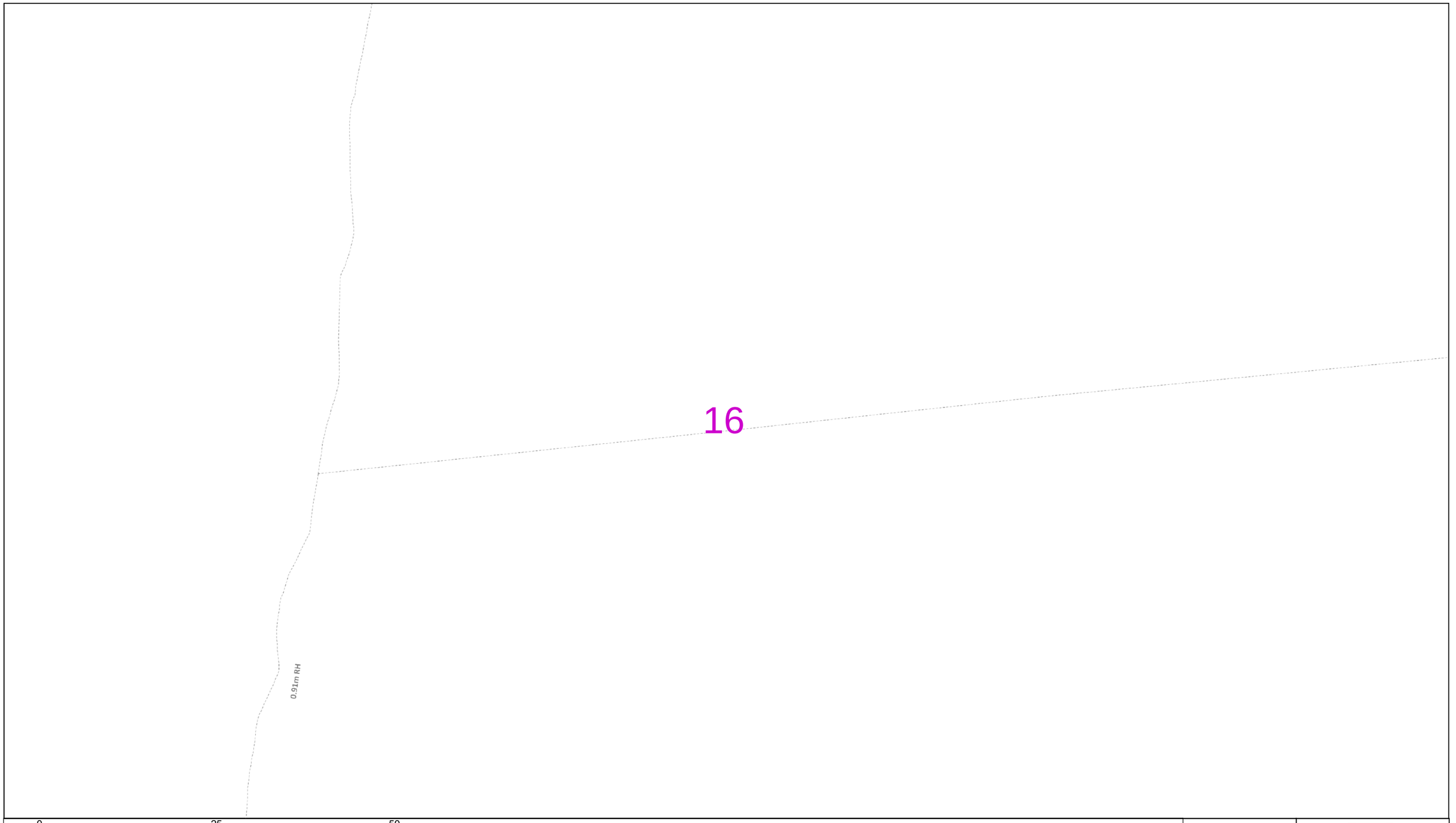
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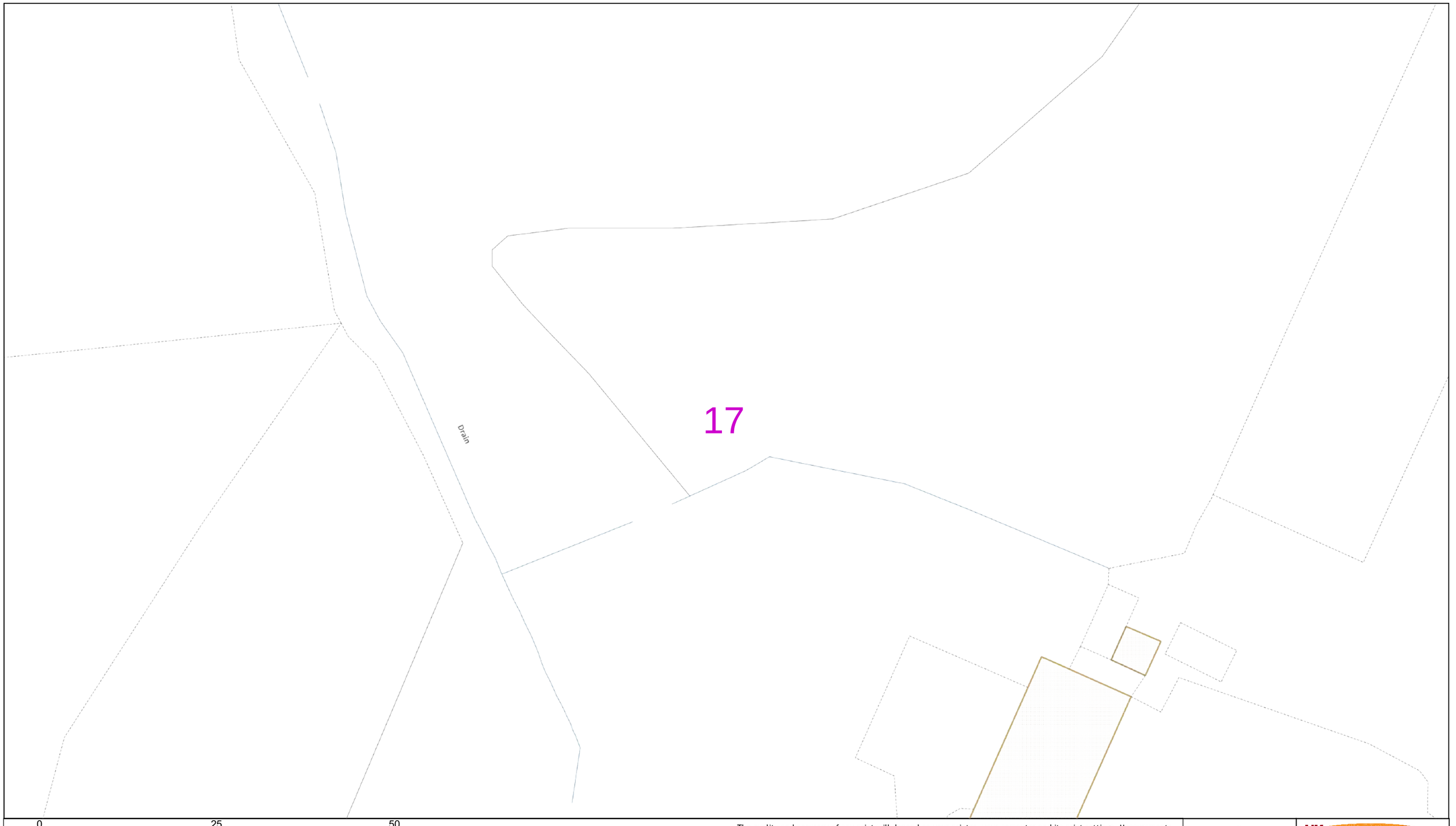
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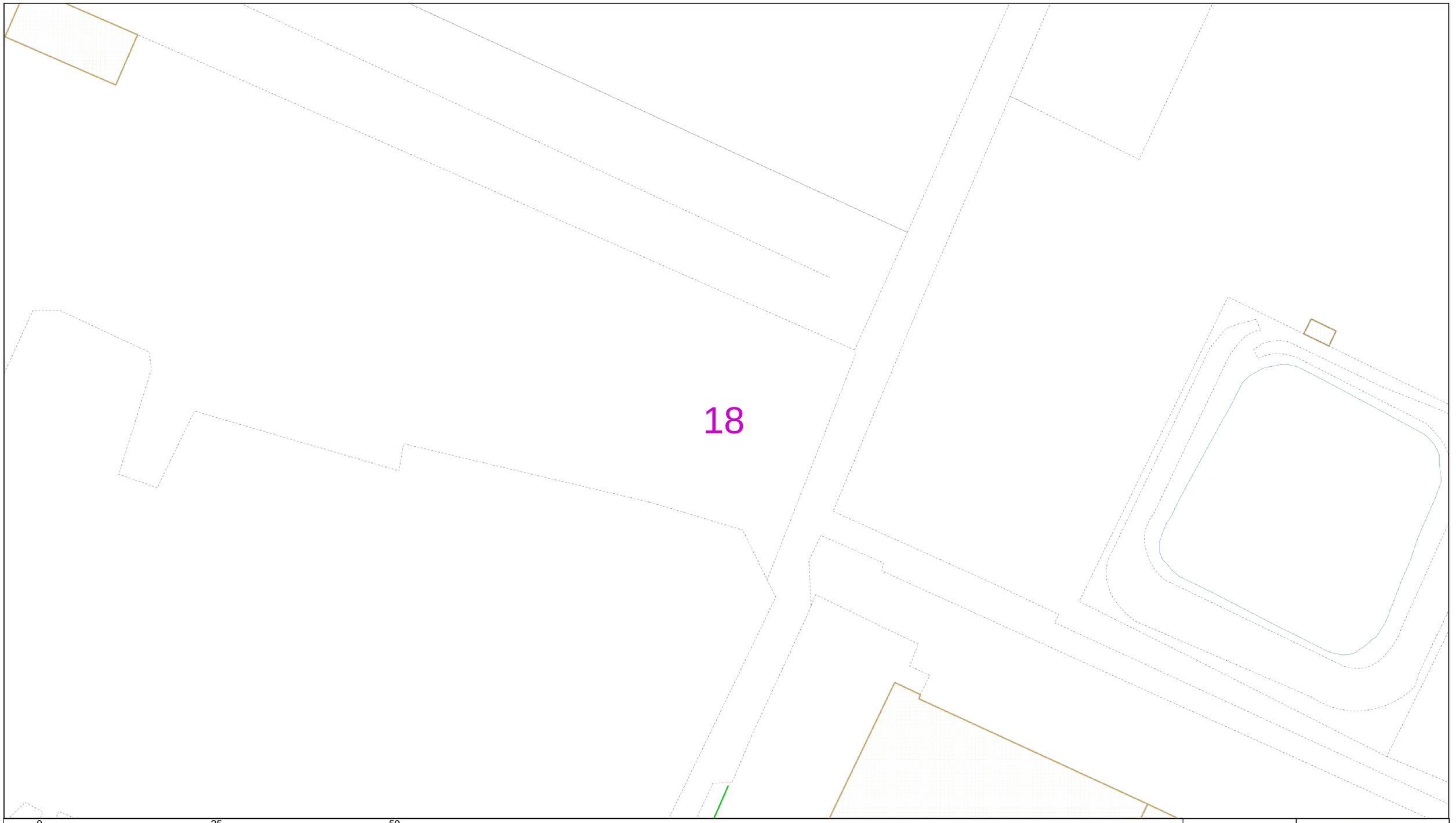
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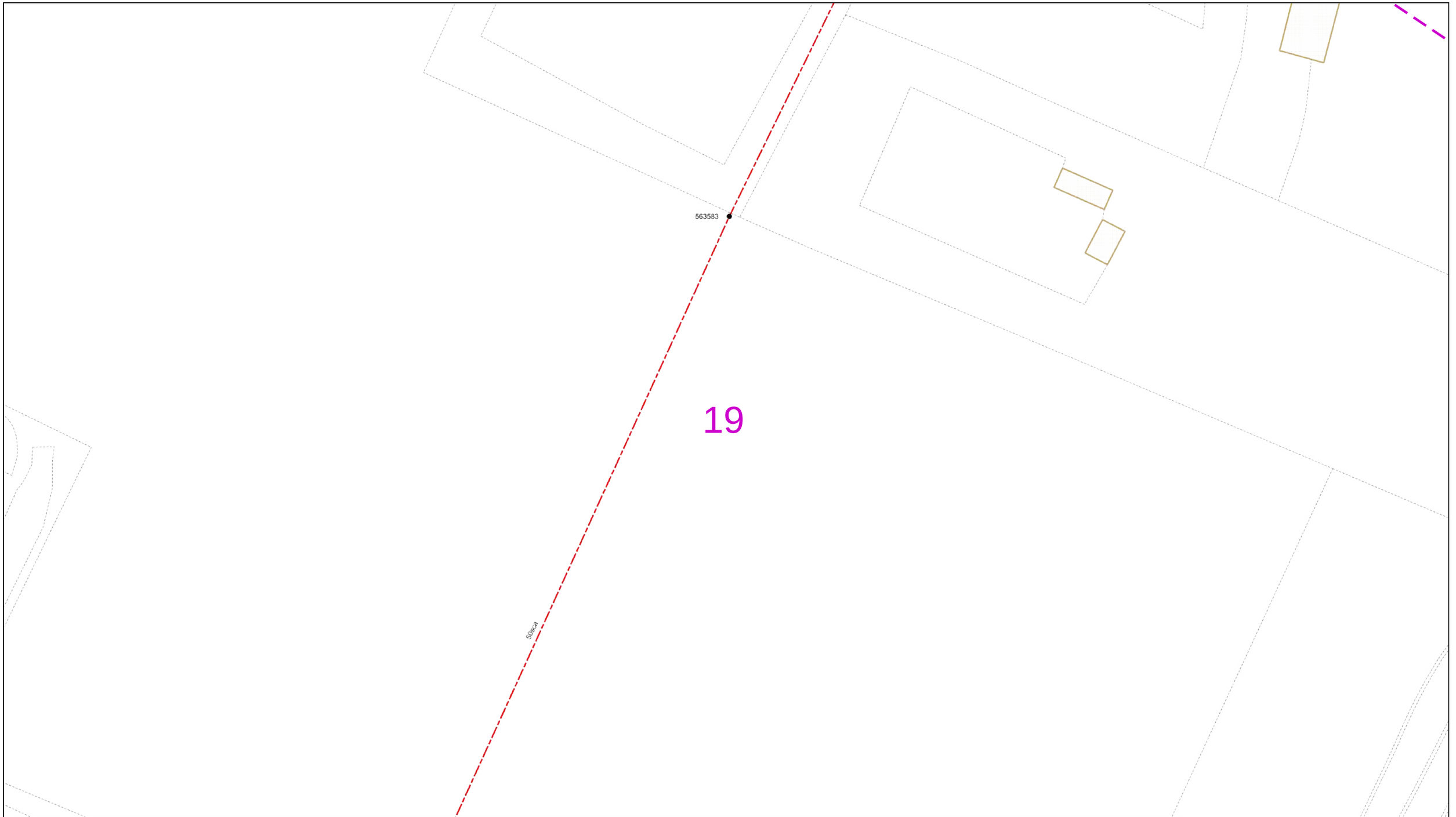
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0 25 50
metres

Dig Sites Area: Line:

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:500 (When plotted at A3)

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UK Power Networks

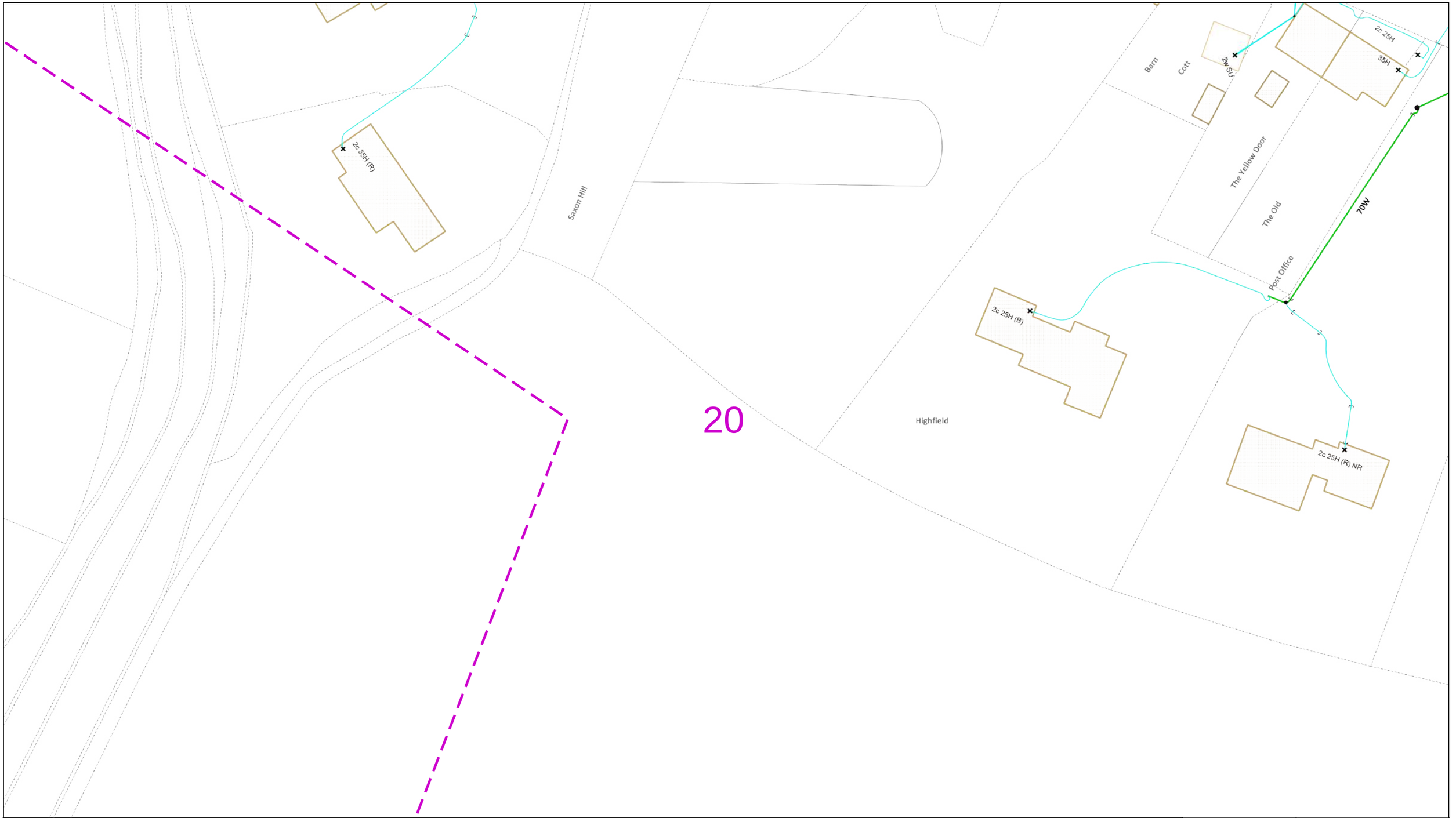
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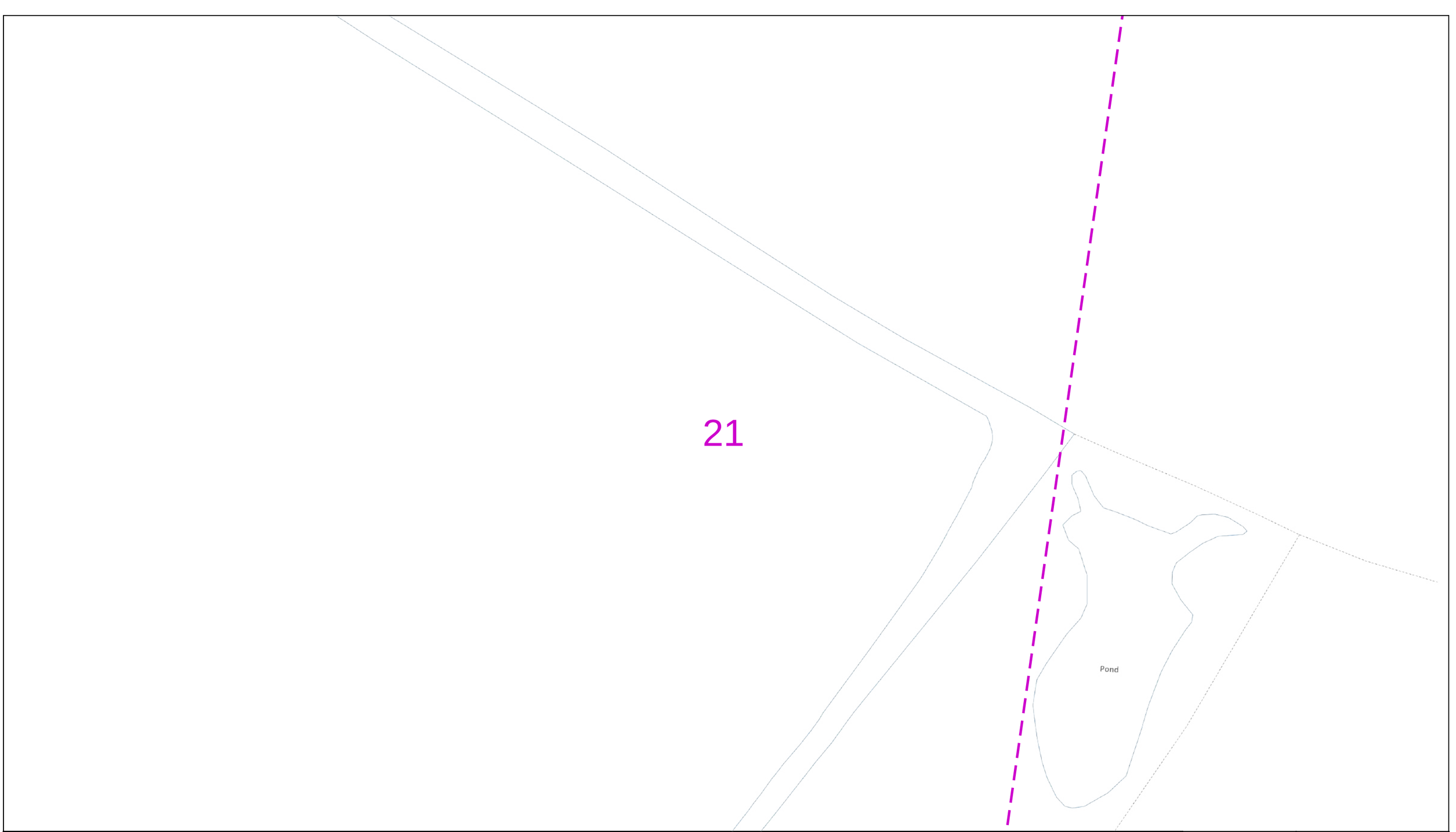
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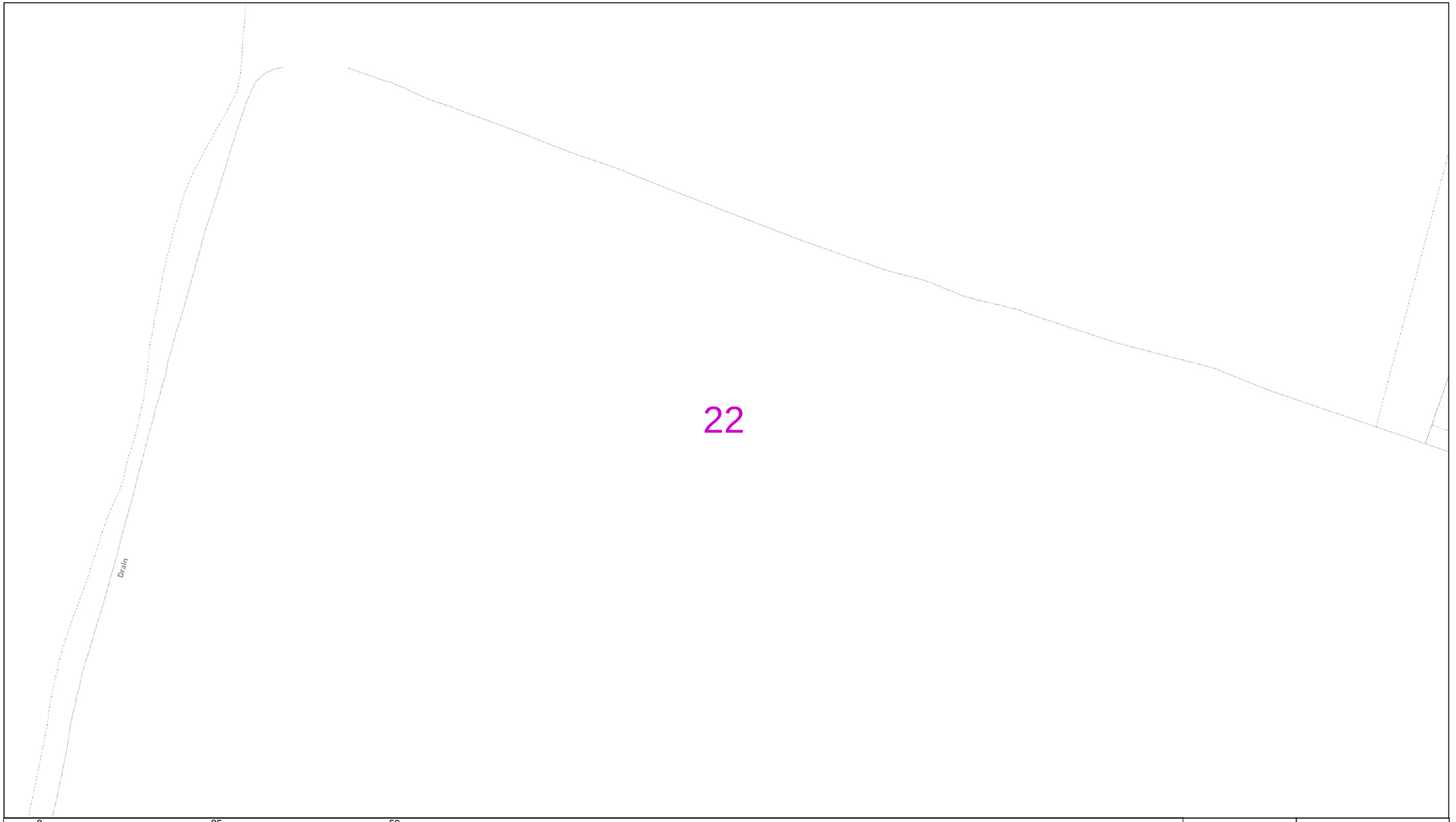
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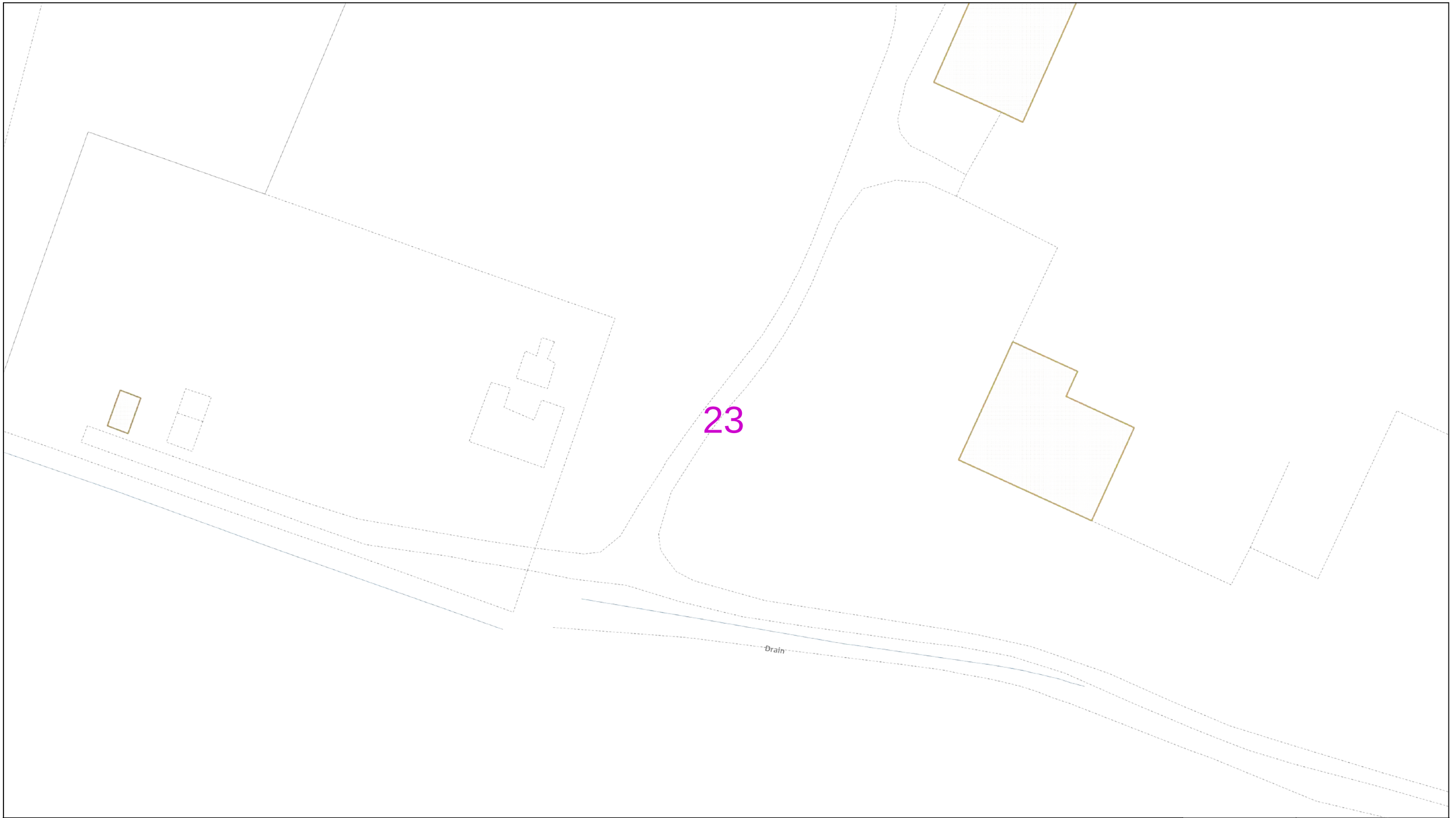
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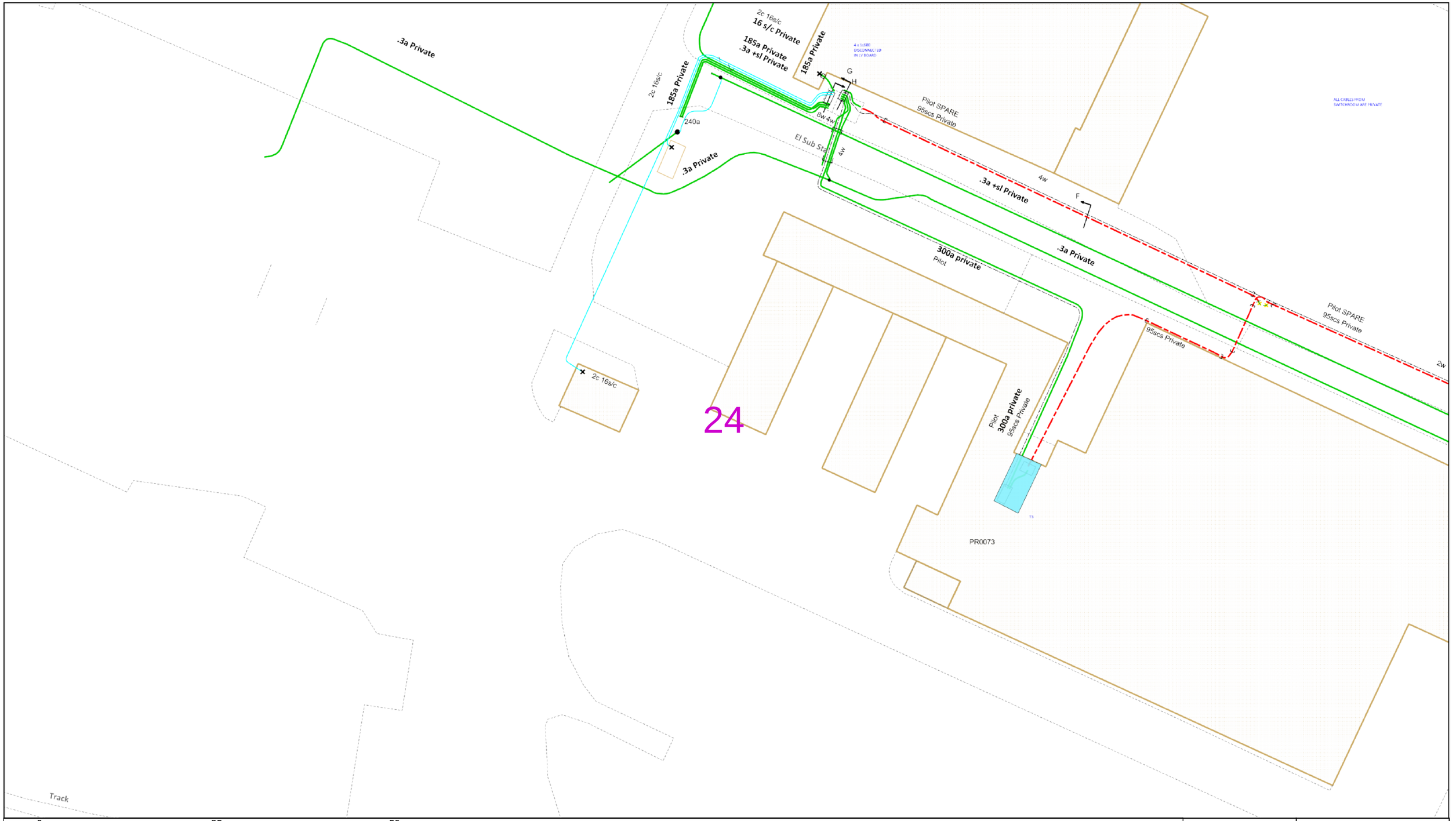
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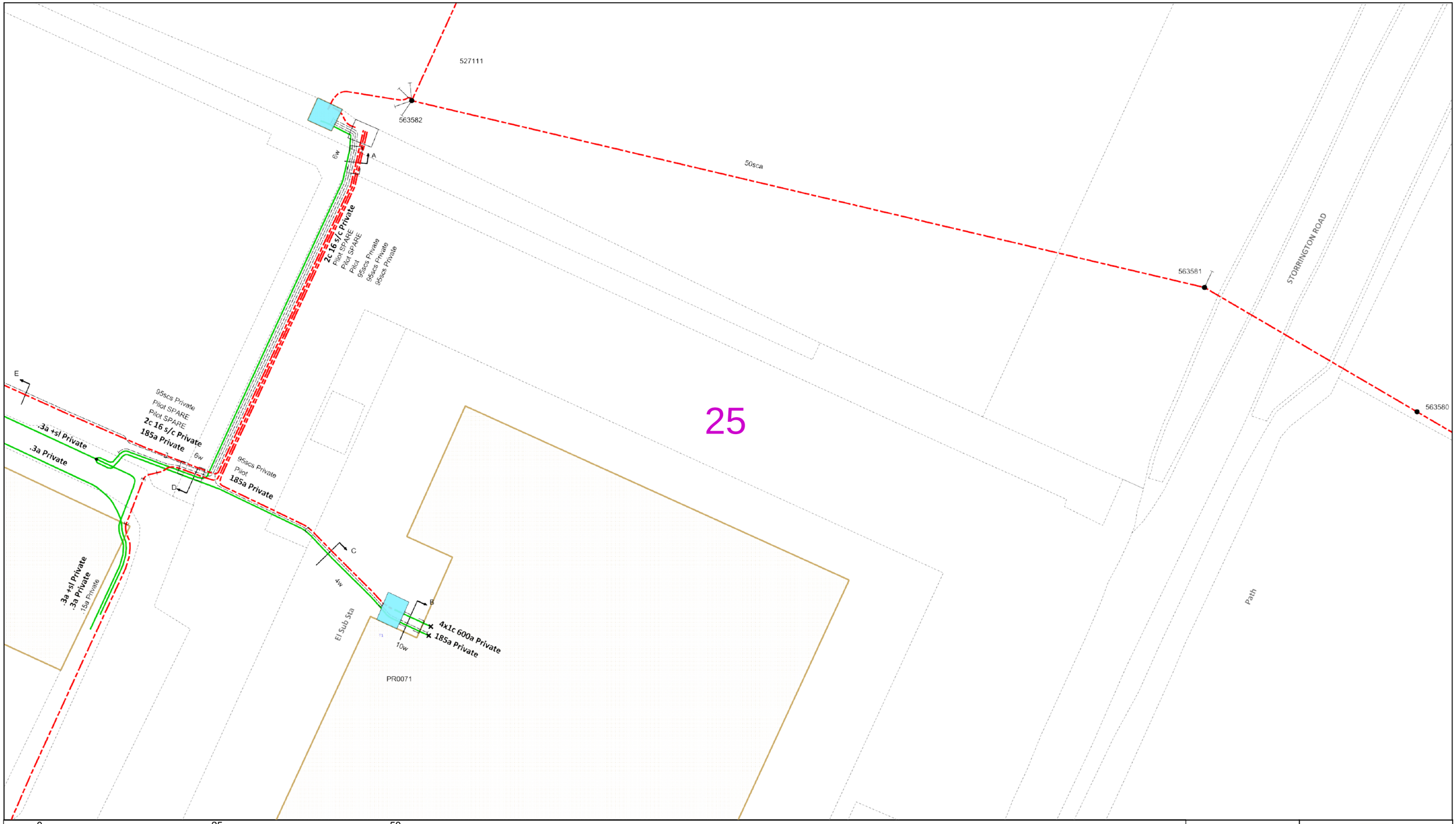
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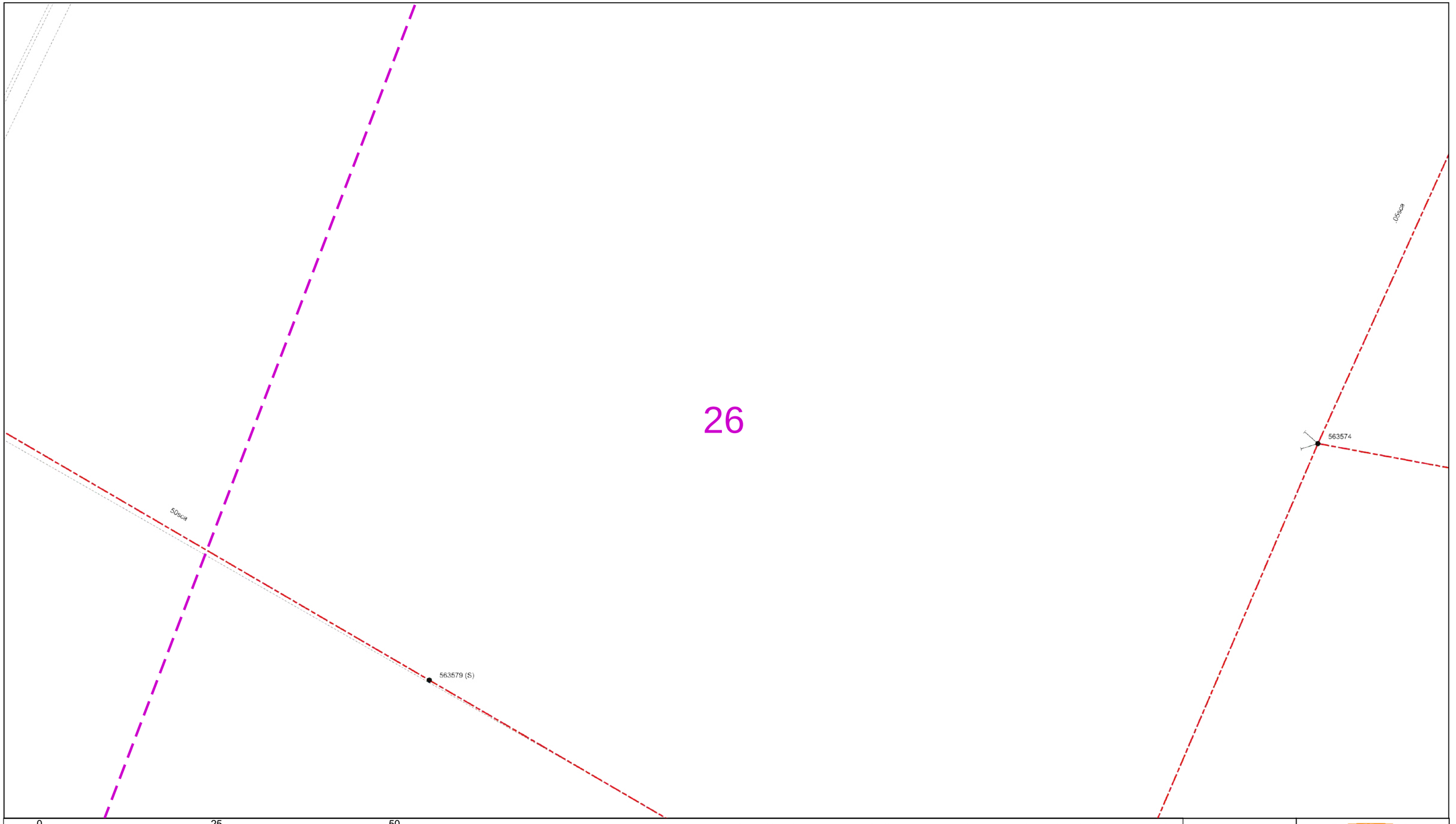
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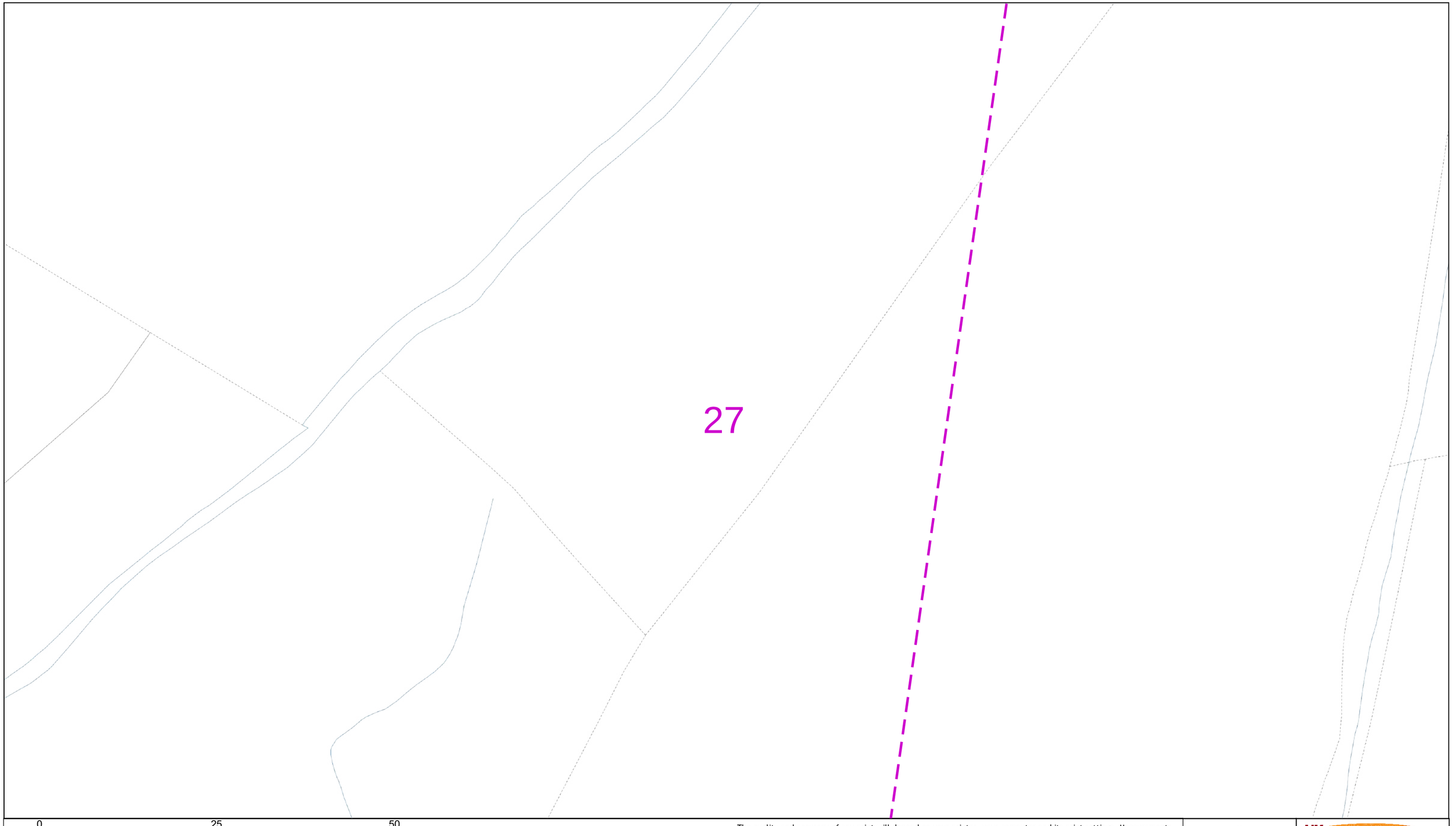
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metres

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

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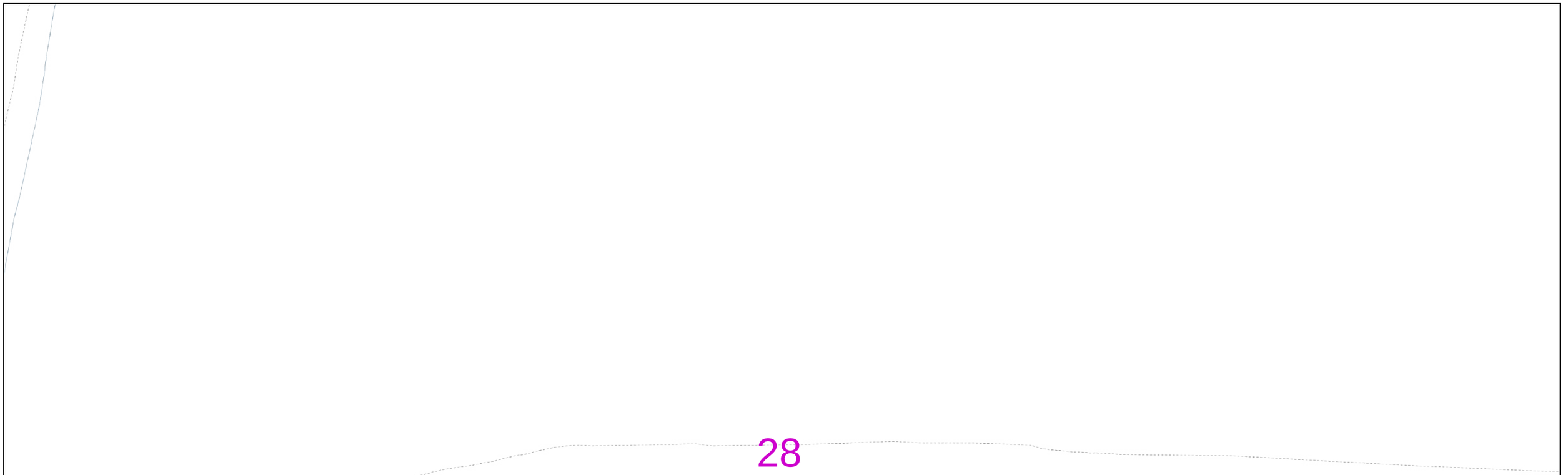
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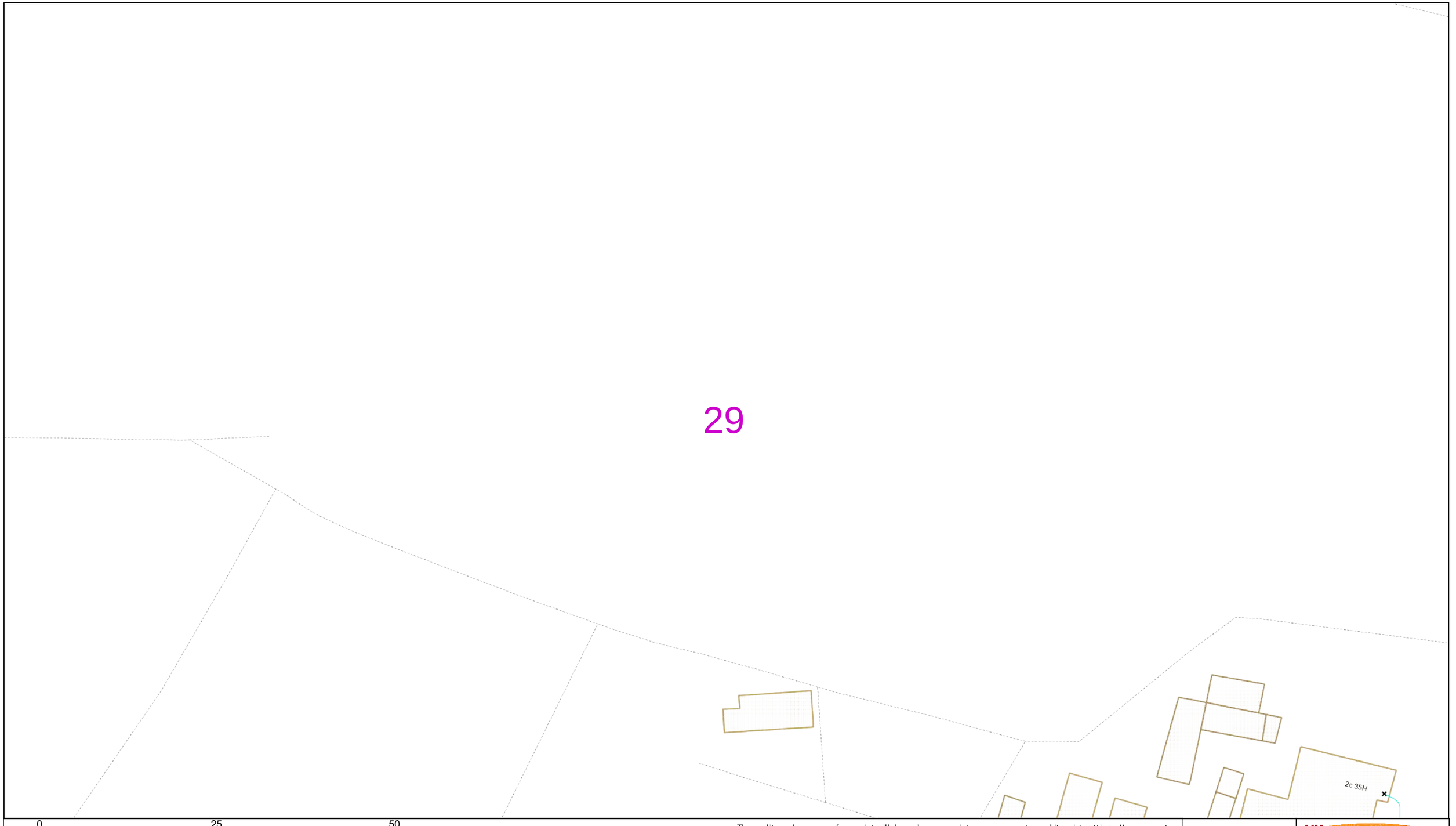
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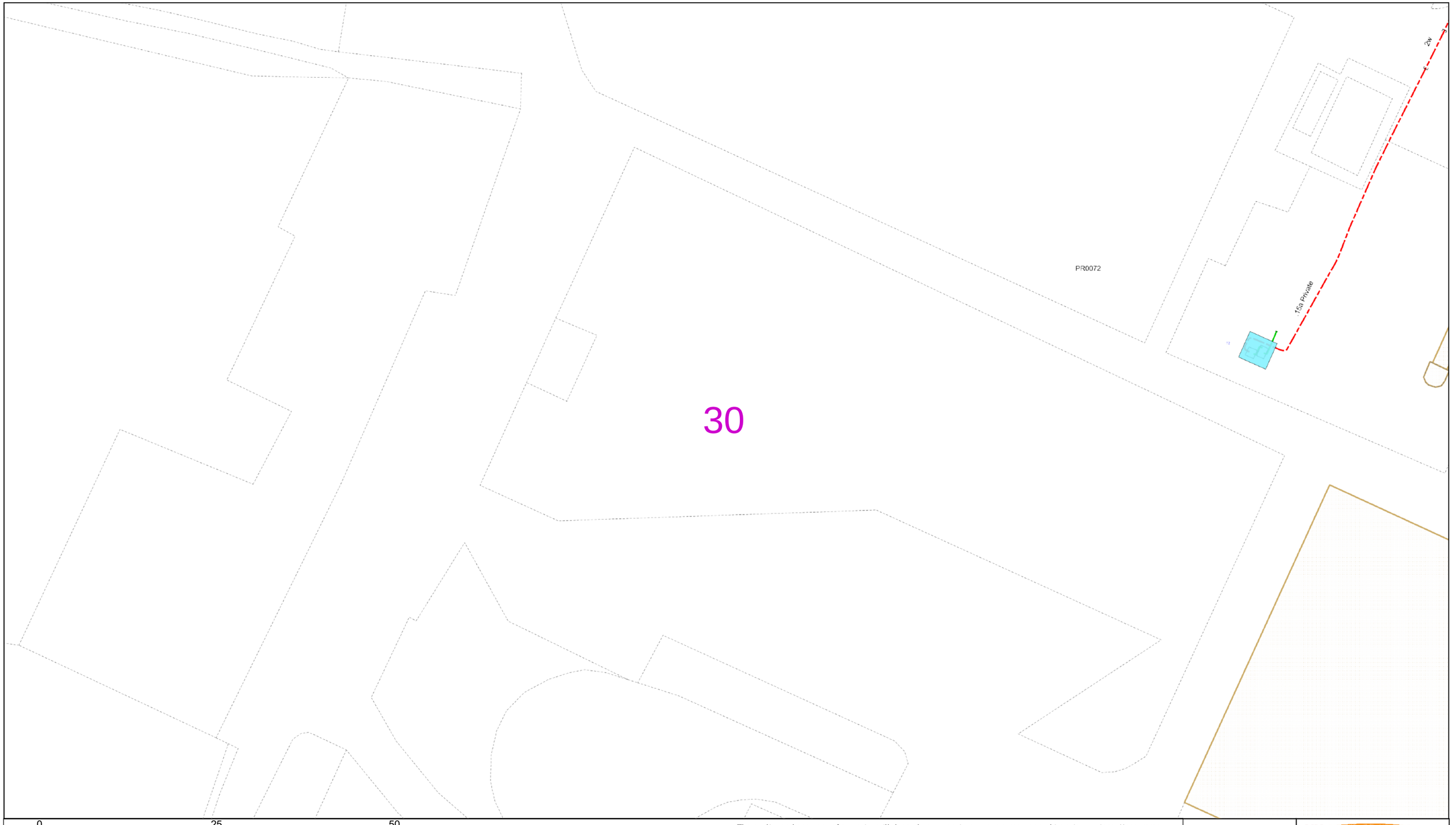
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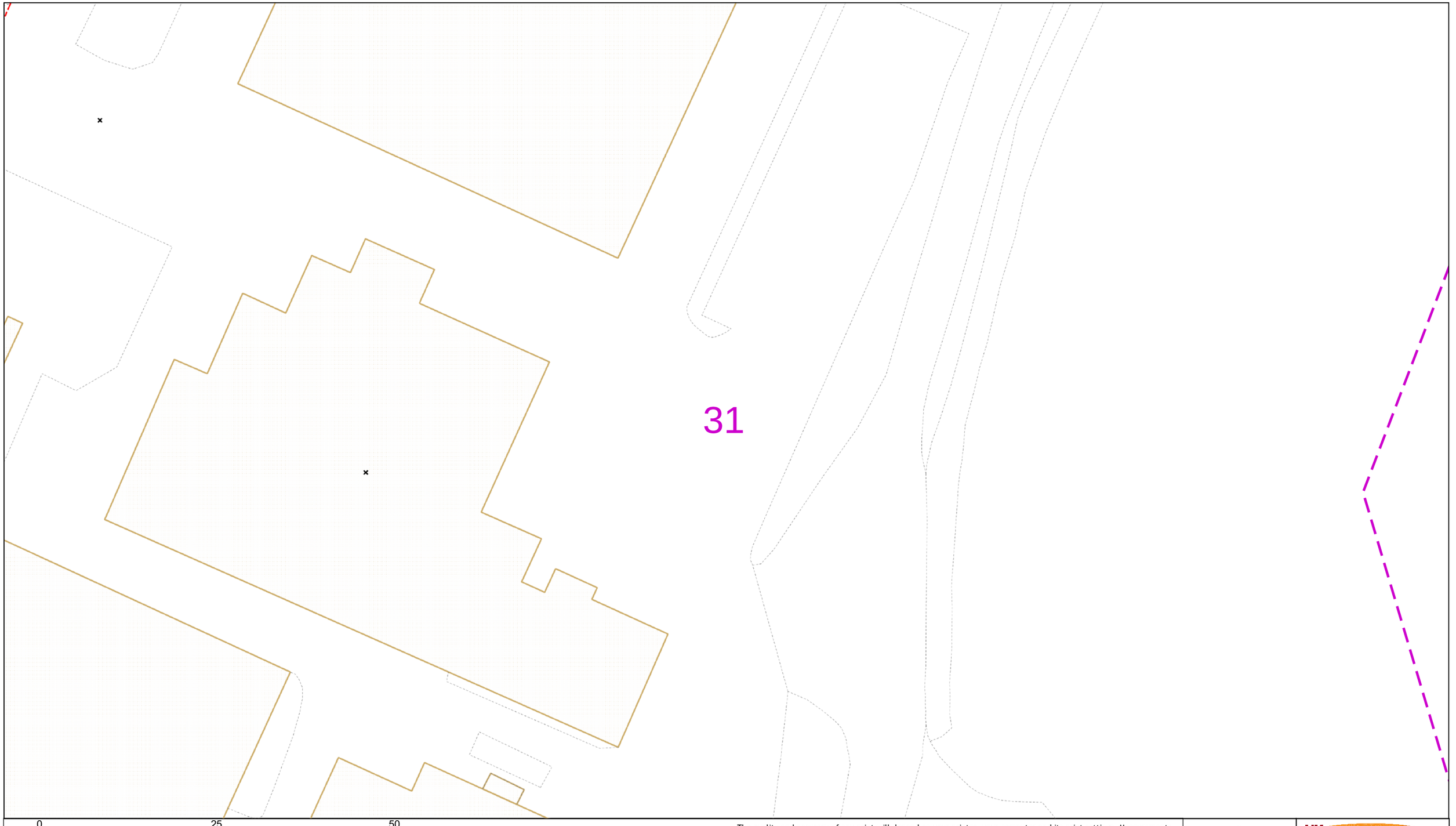
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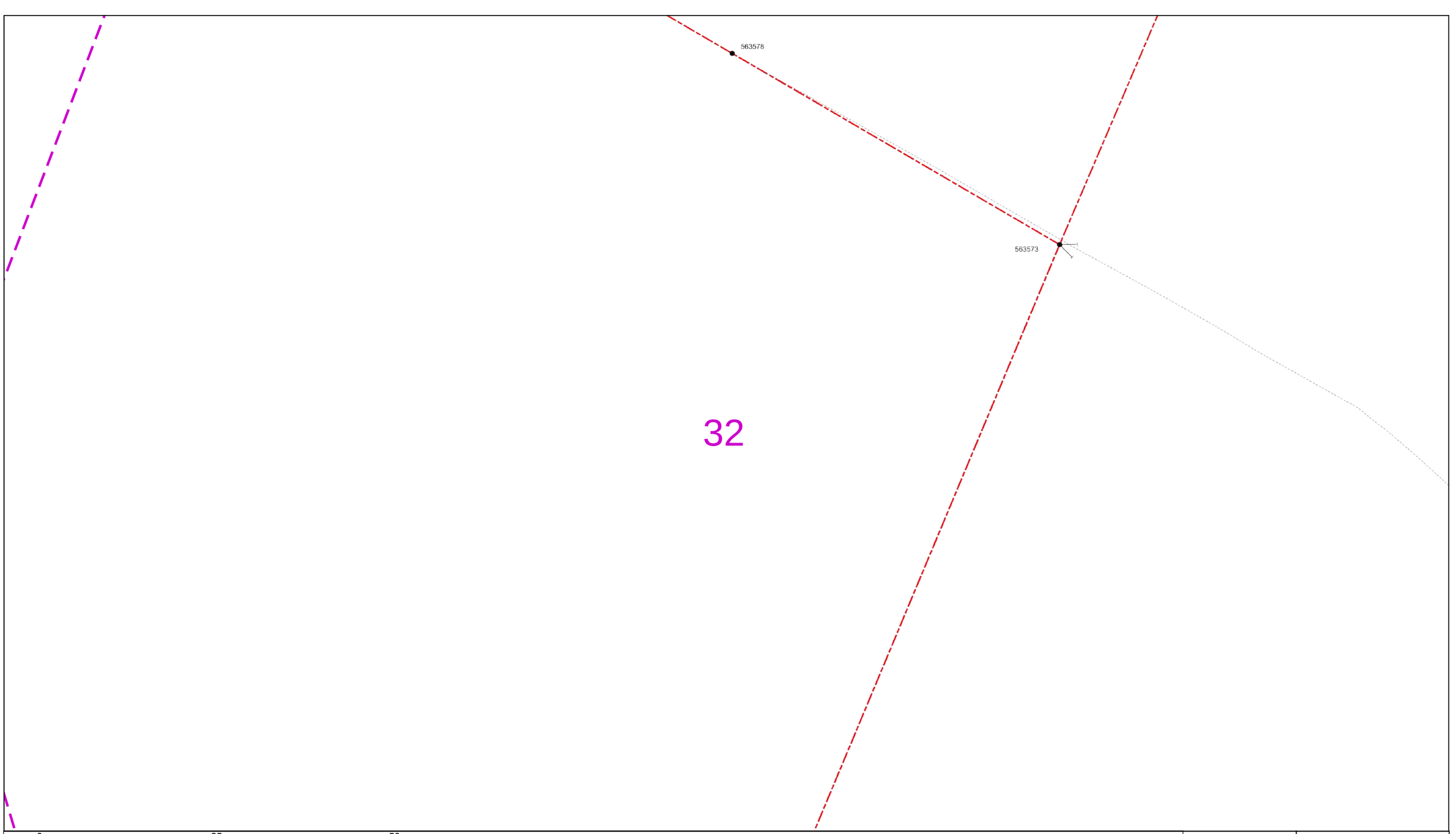
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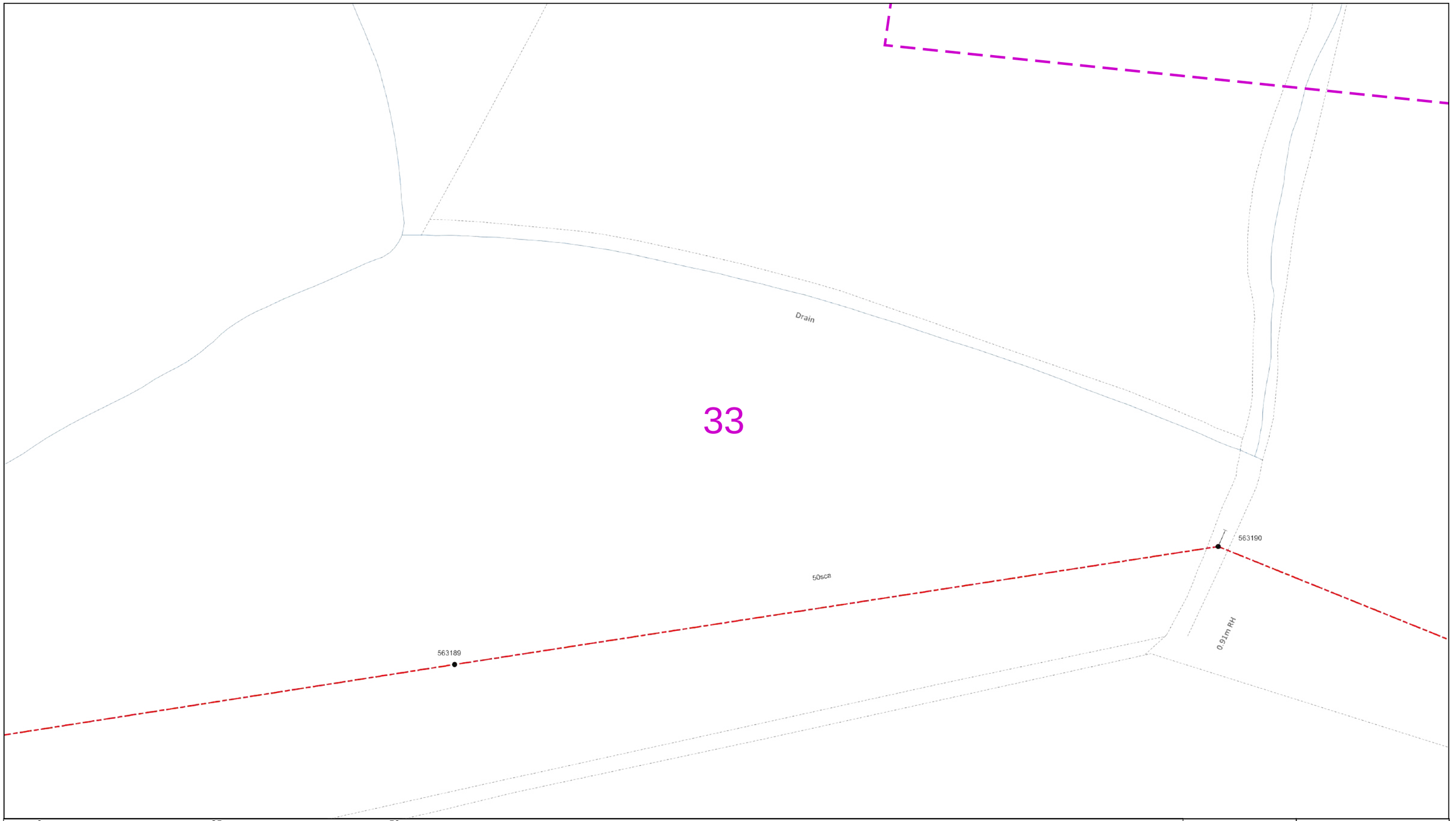
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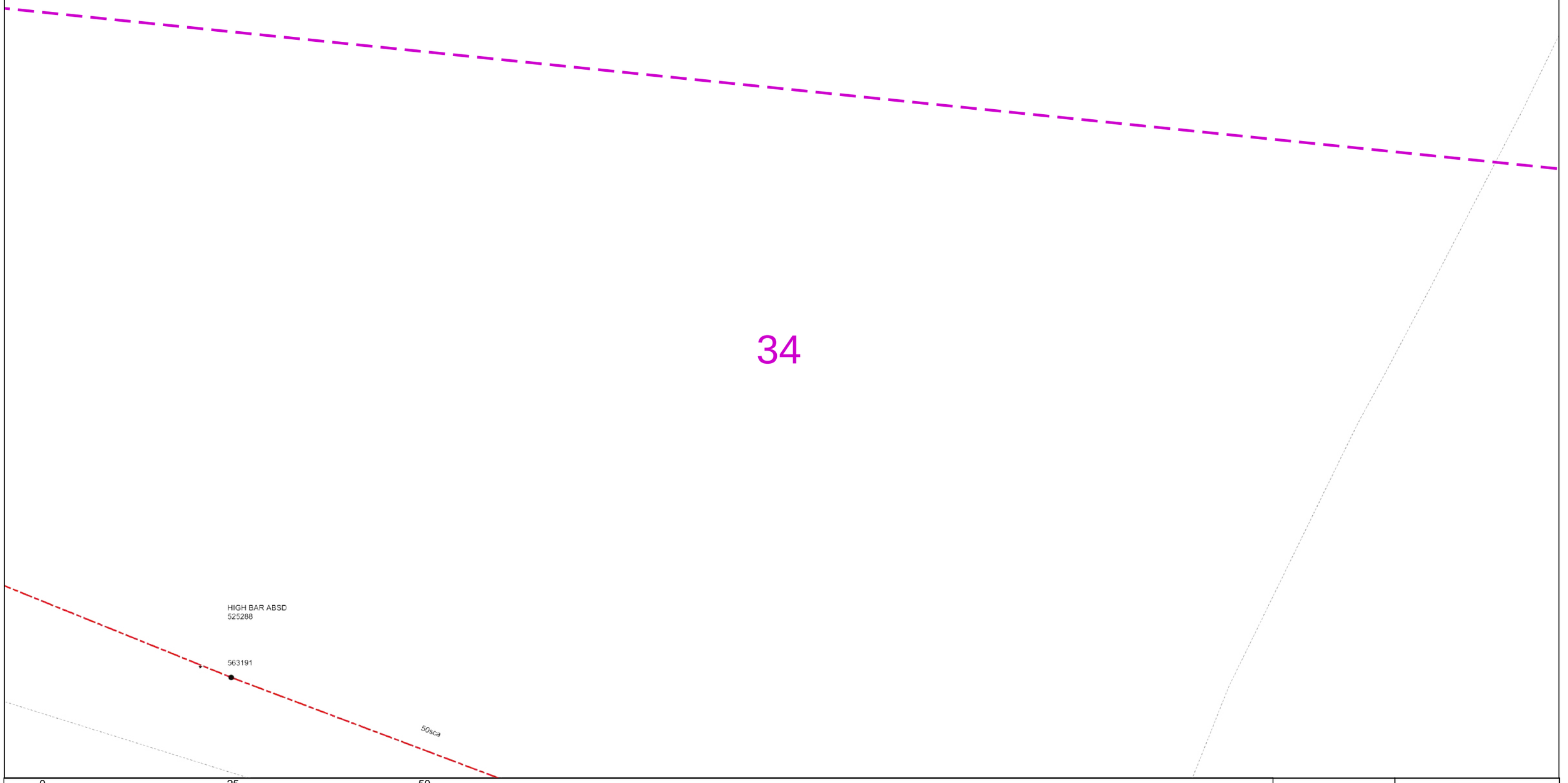
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0 25 50
metres

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:500 (When plotted at A3)

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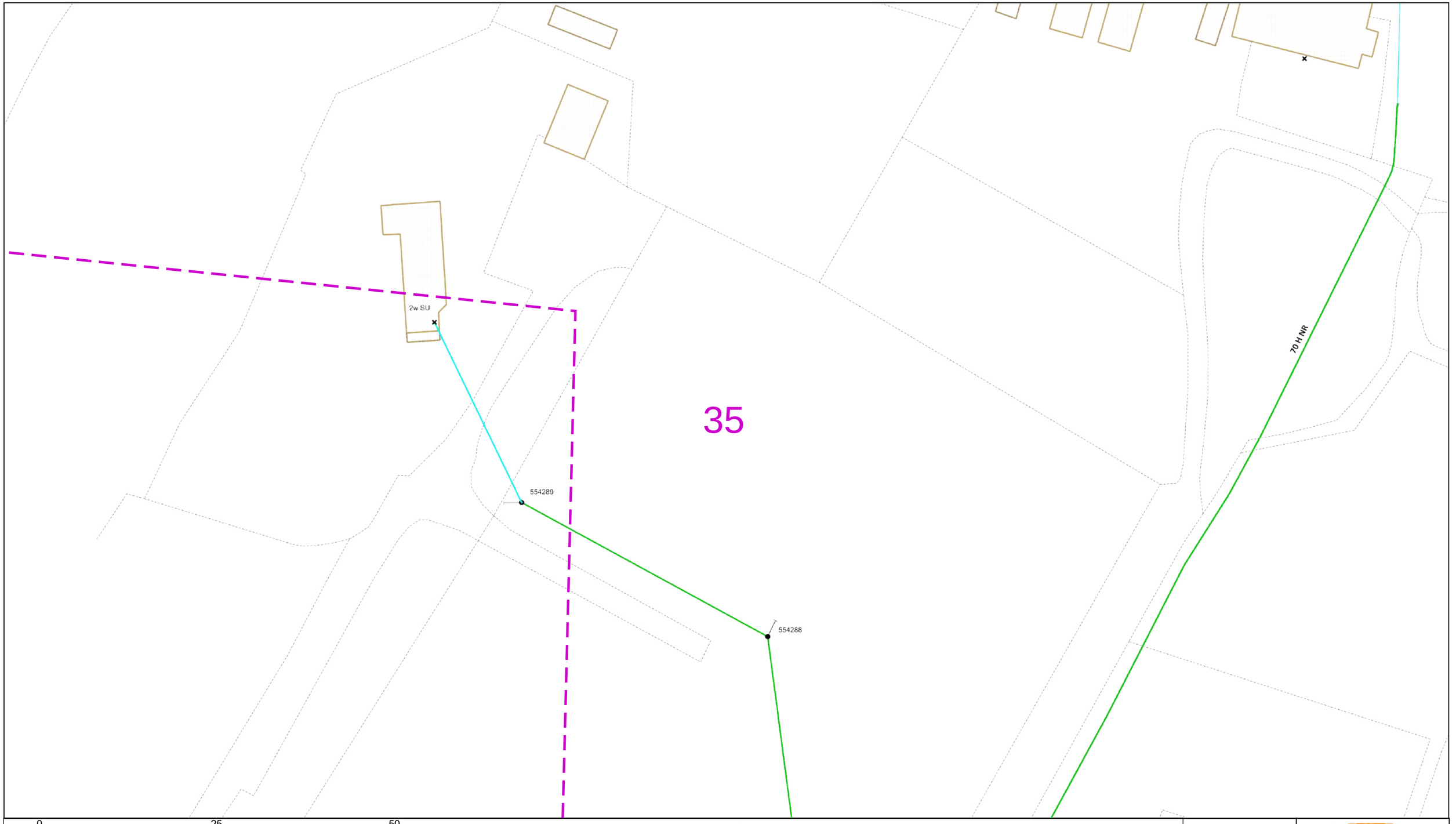
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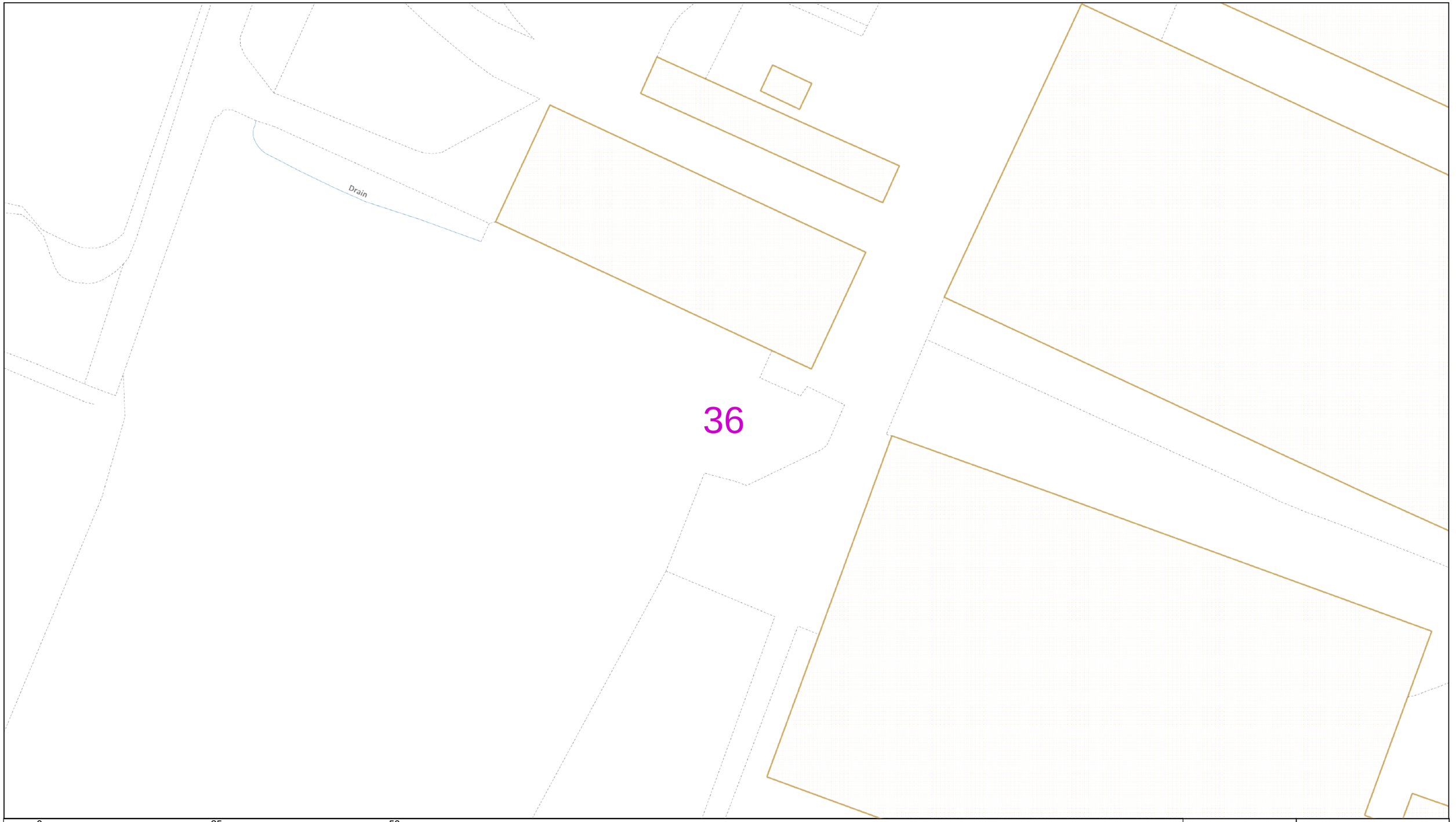
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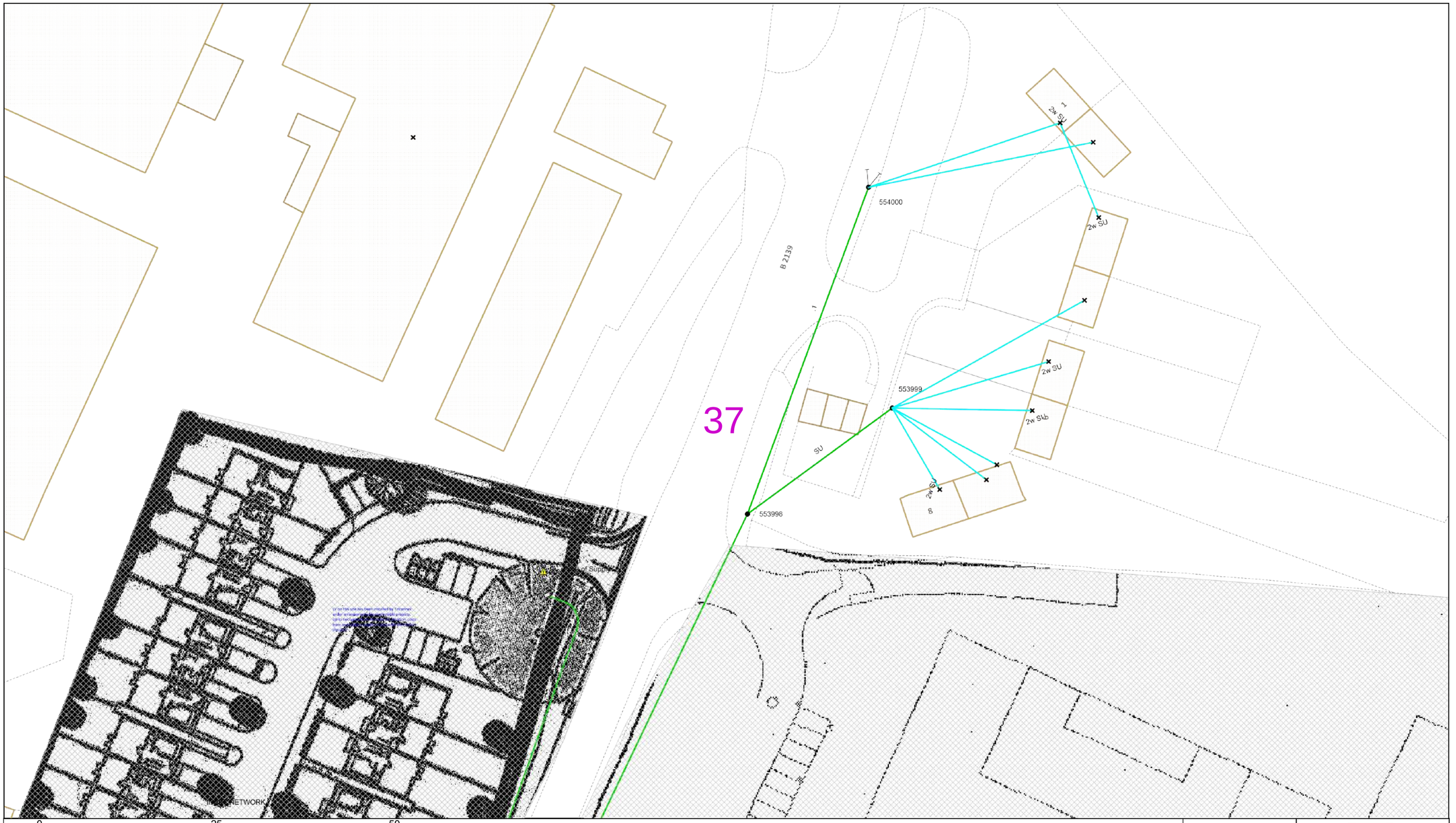
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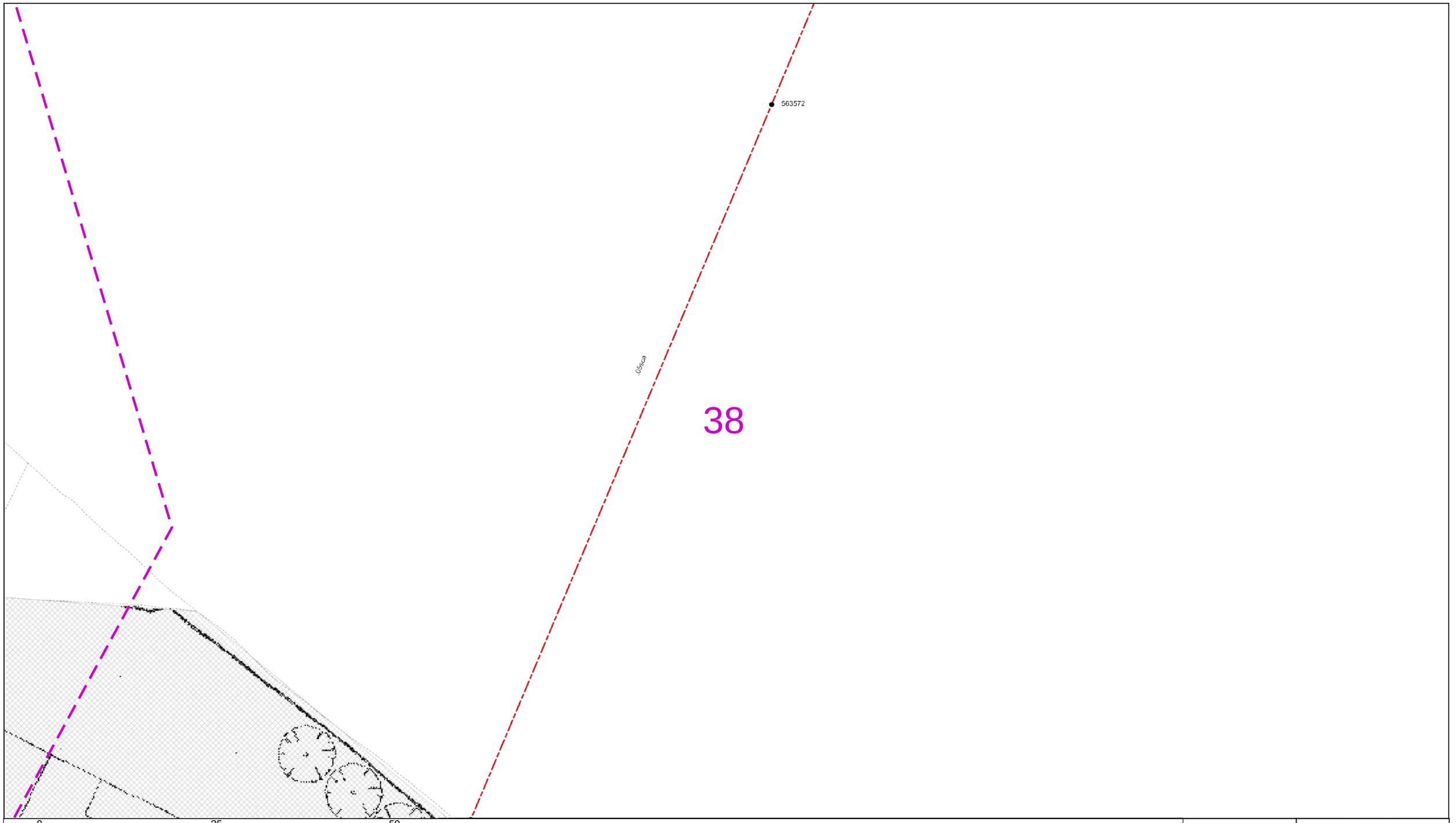
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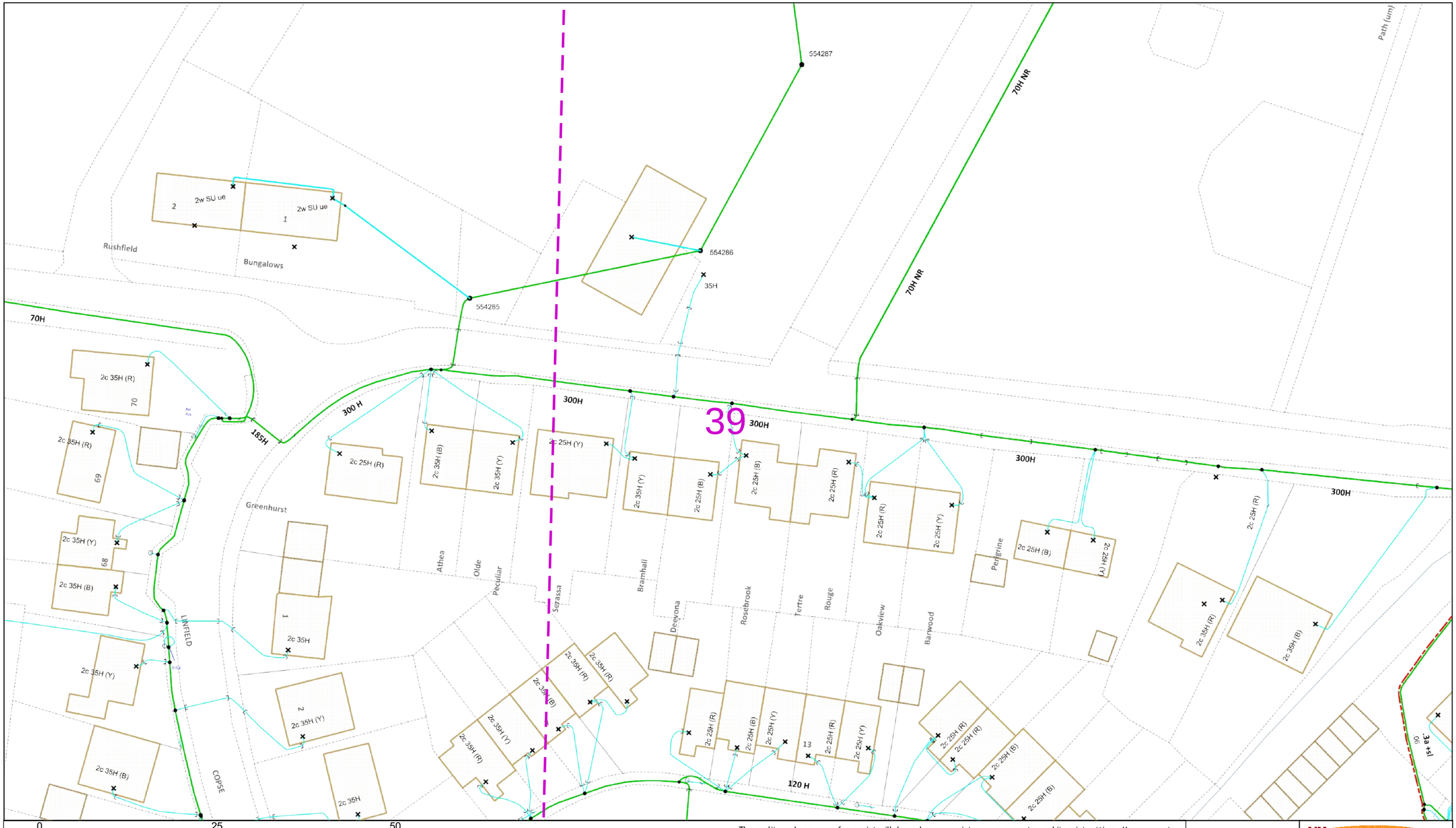
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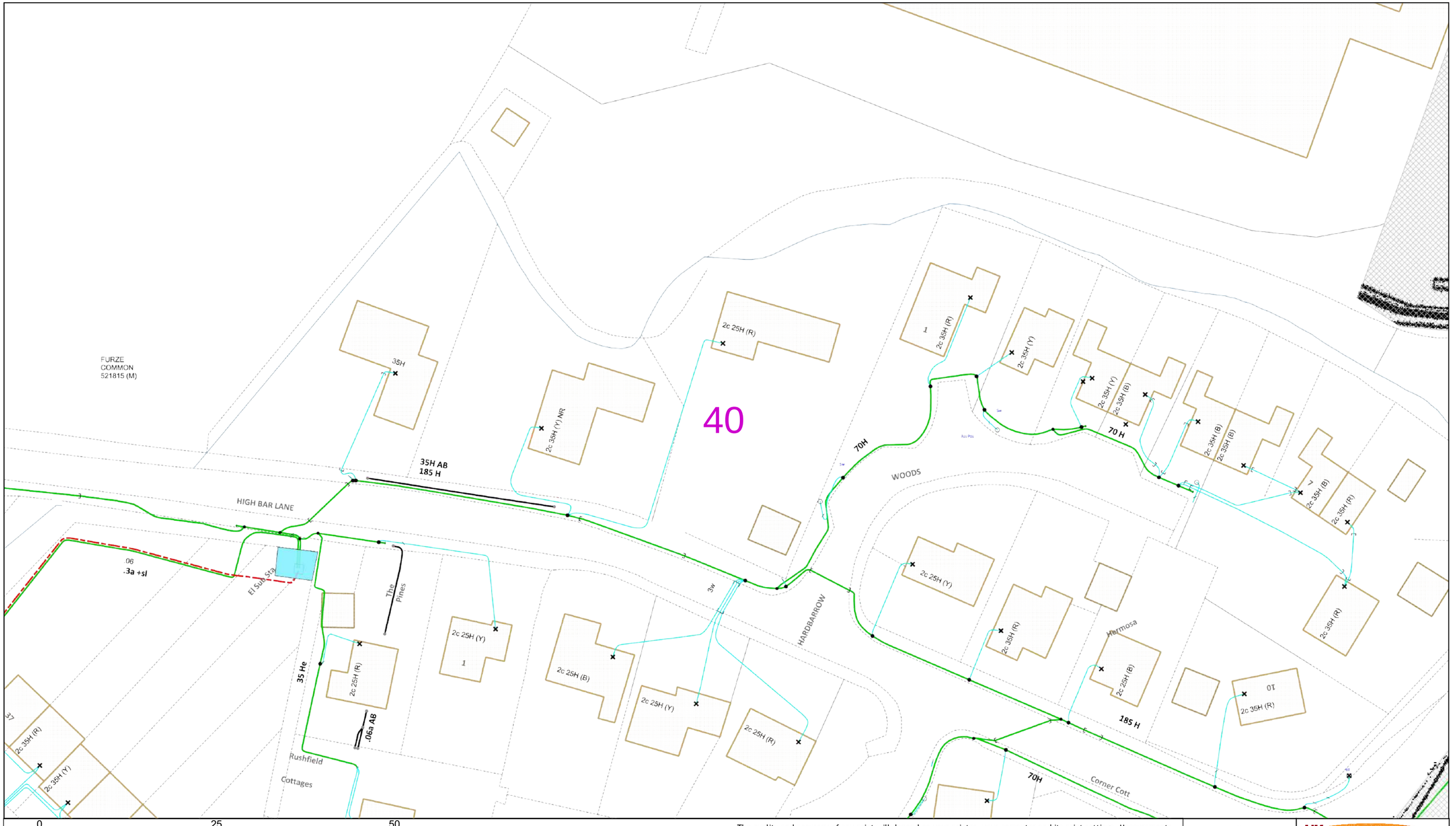
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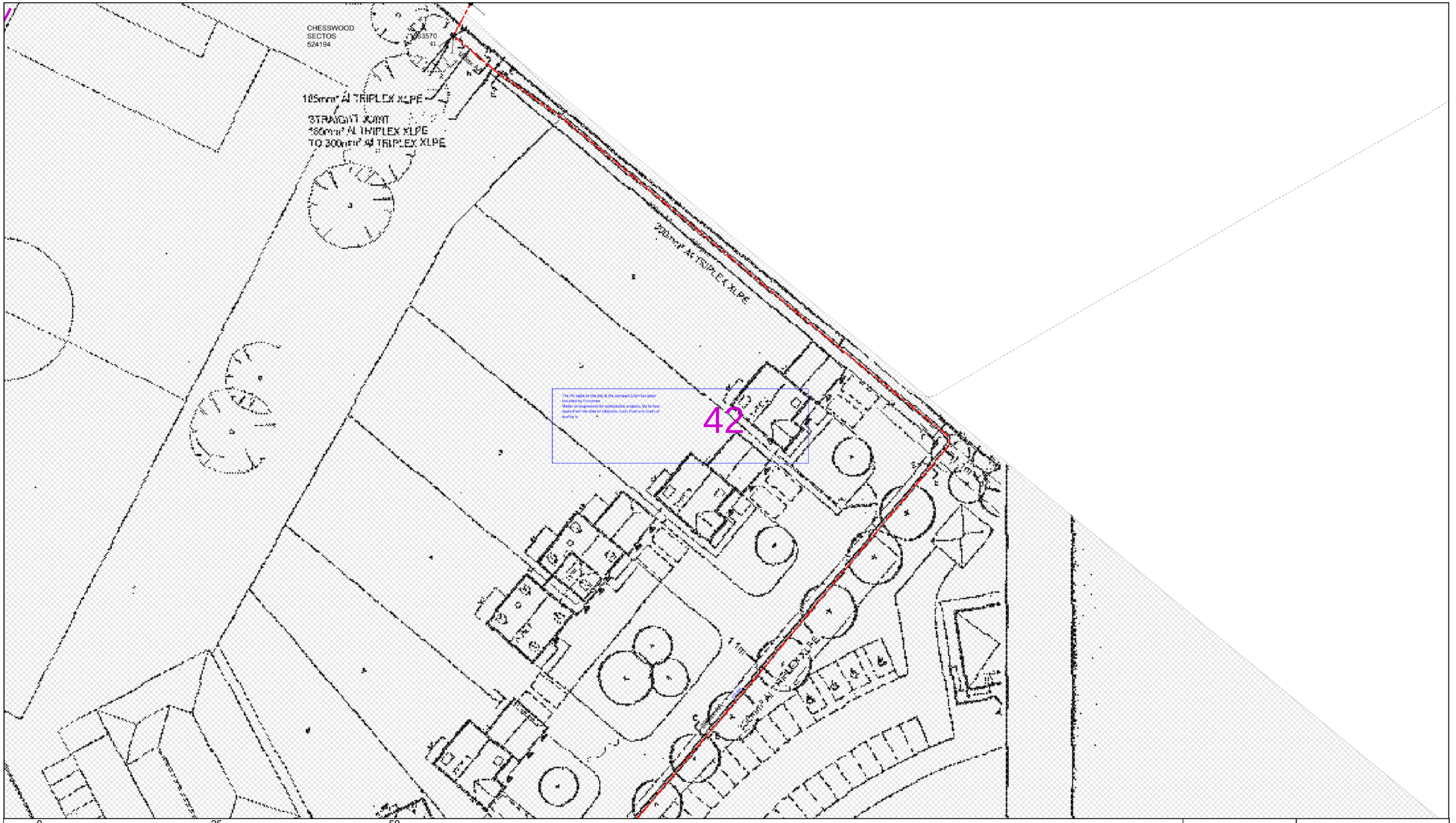
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EMERGENCY - If you damage a cable or line Phone 0800 783 8838 (24hrs) URGENTLY

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Date Requested: 10/08/2022
Job Reference: 26544914
Site Location: 509551 116776
Requested by:
Miss Monique Elsom
Your Scheme/Reference: 305276

Scale: 1:500 (When plotted at A3)

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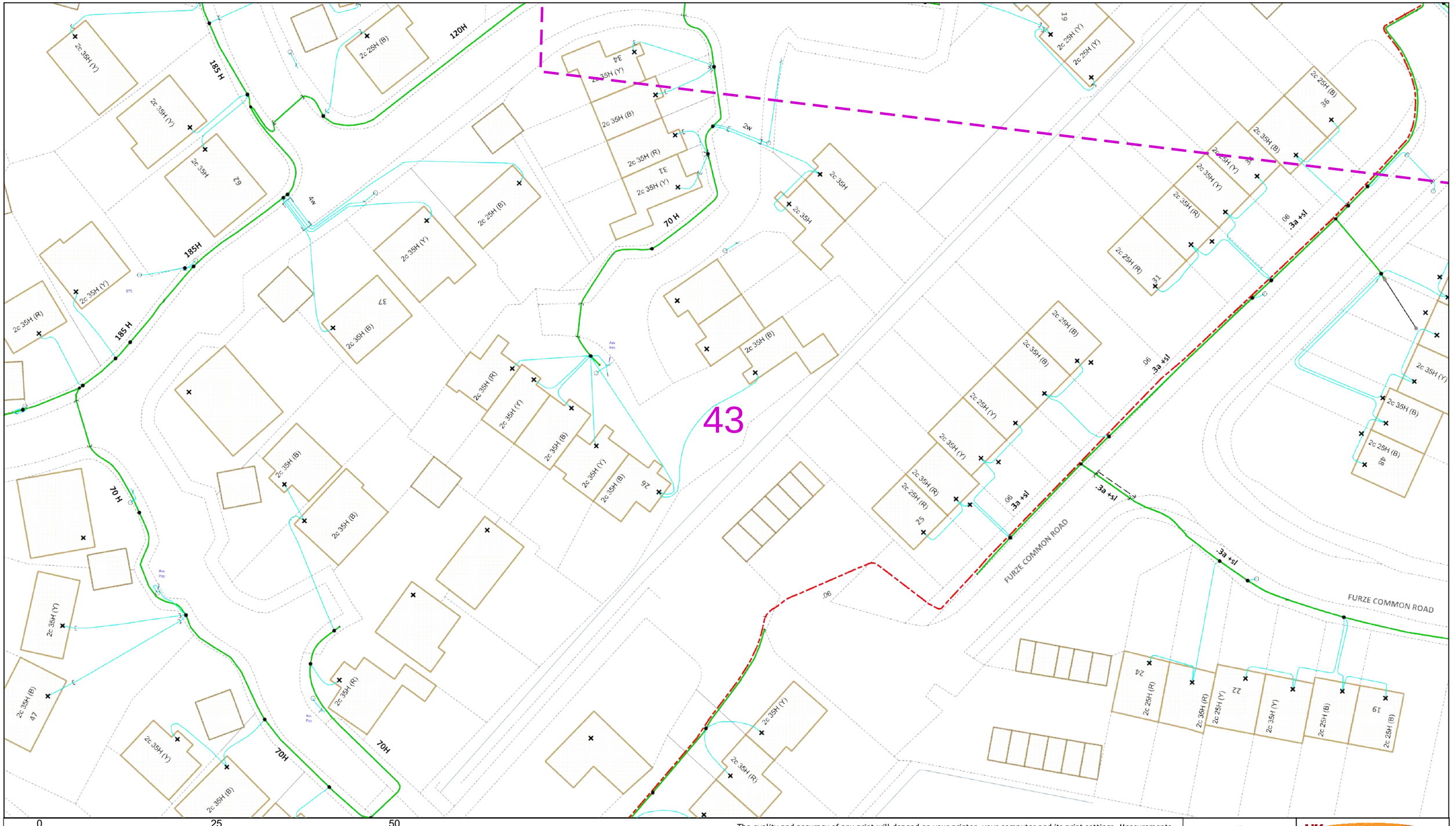
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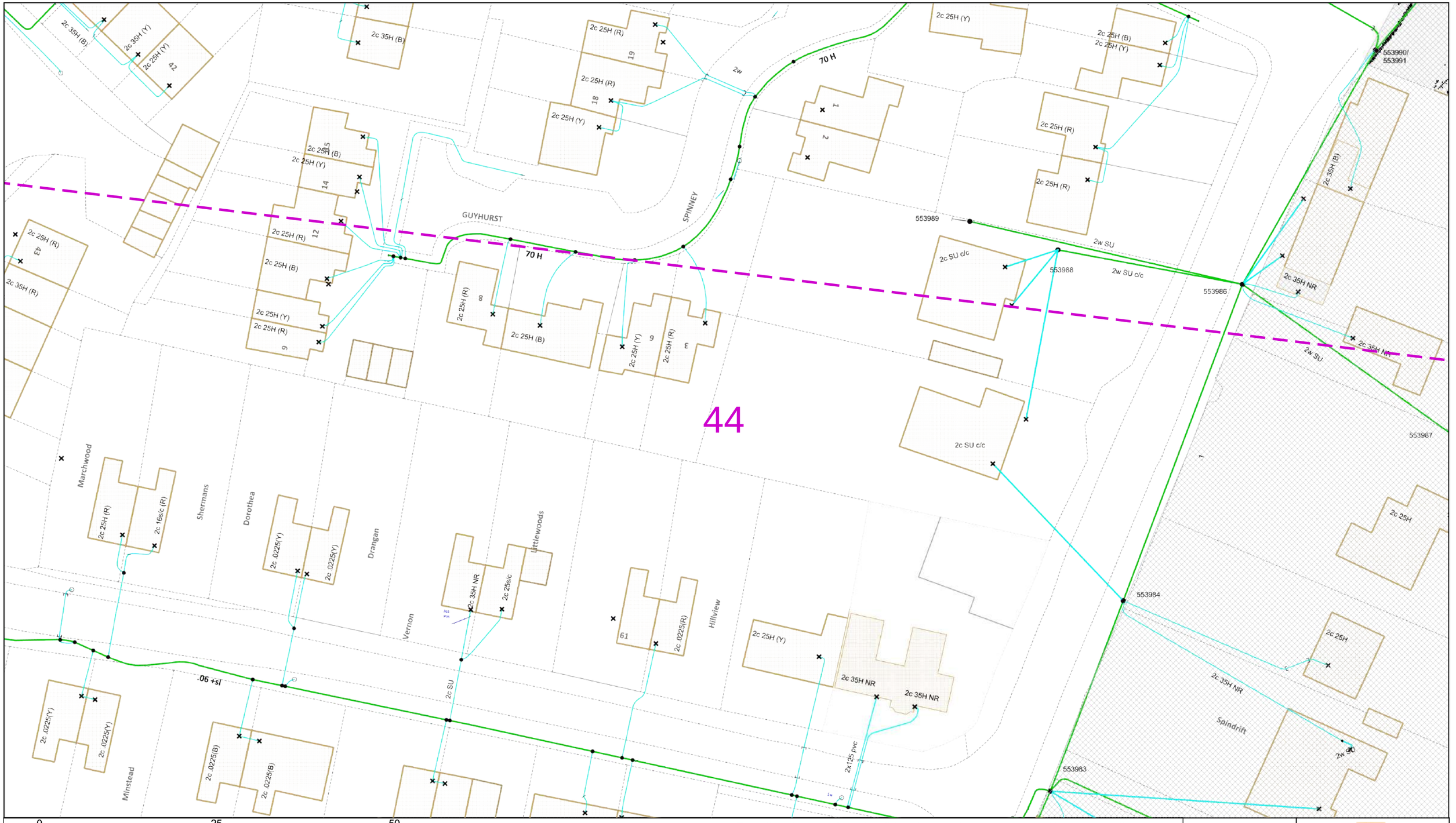
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0 25 50 metres

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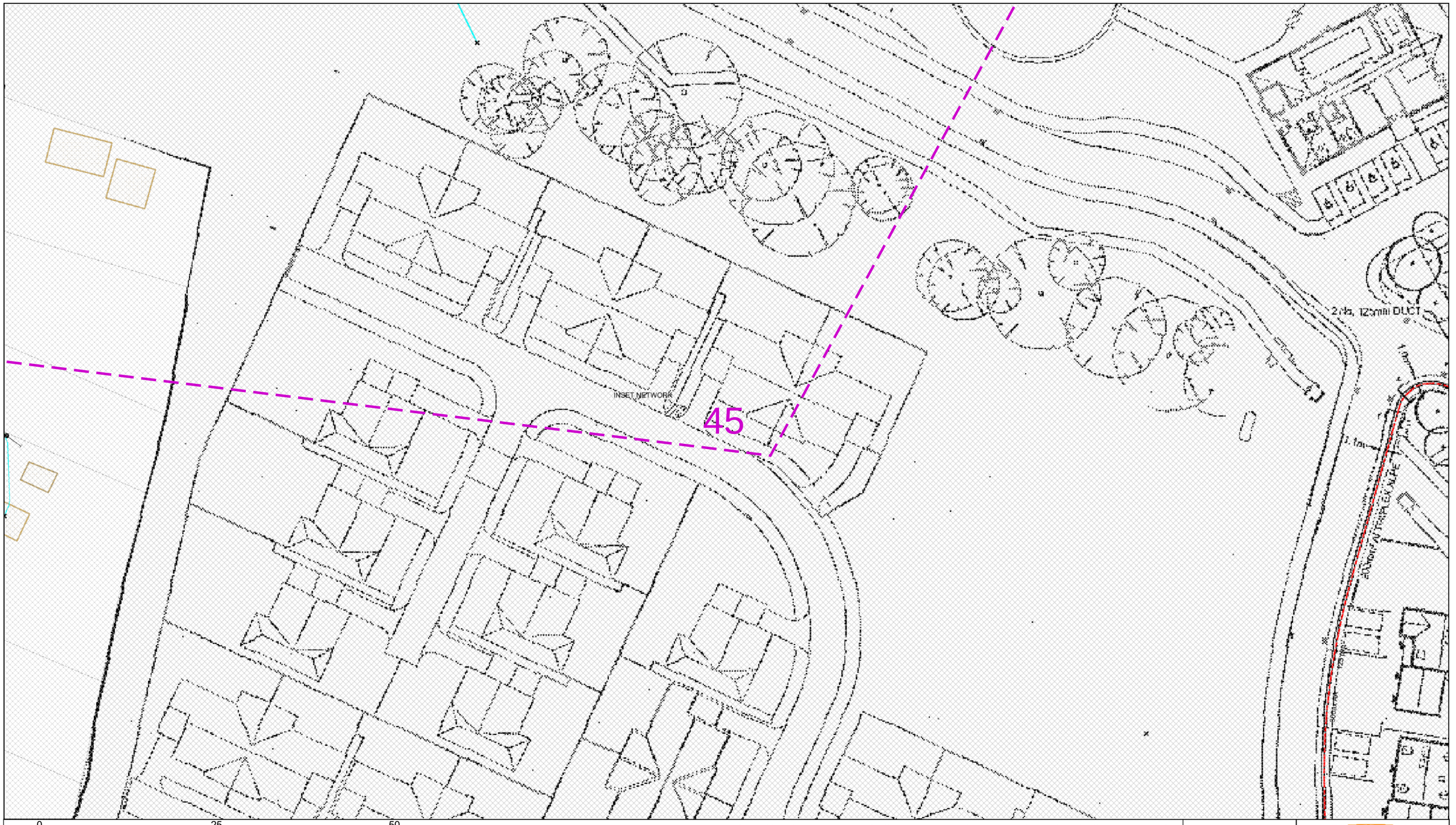
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0 25 50
metres

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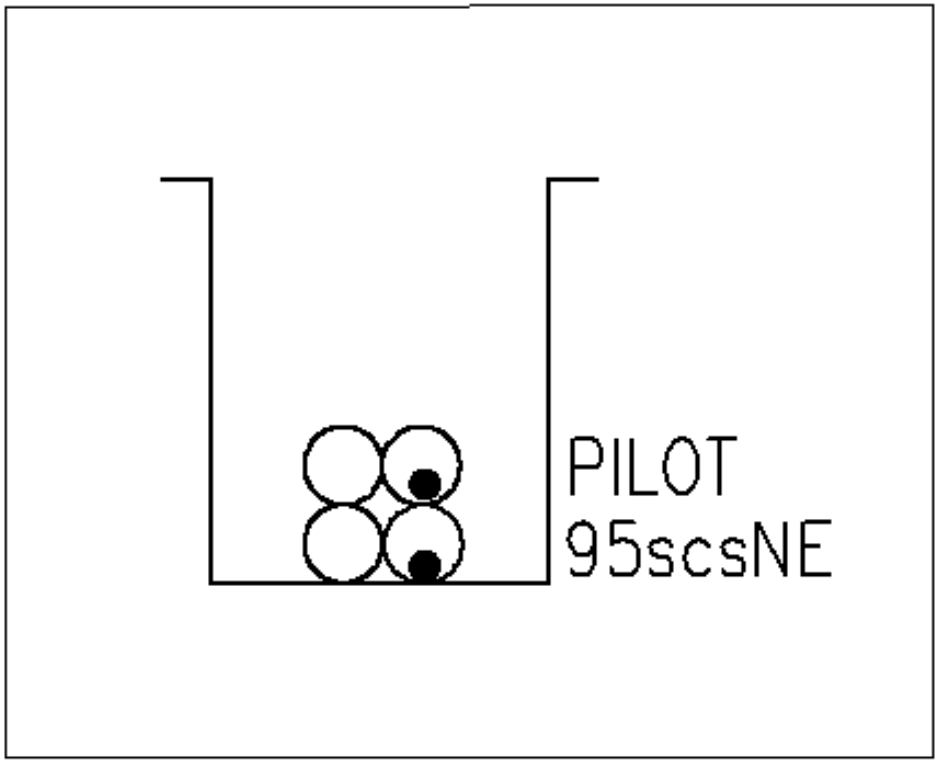
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Cross Section : F



Cross Section
F

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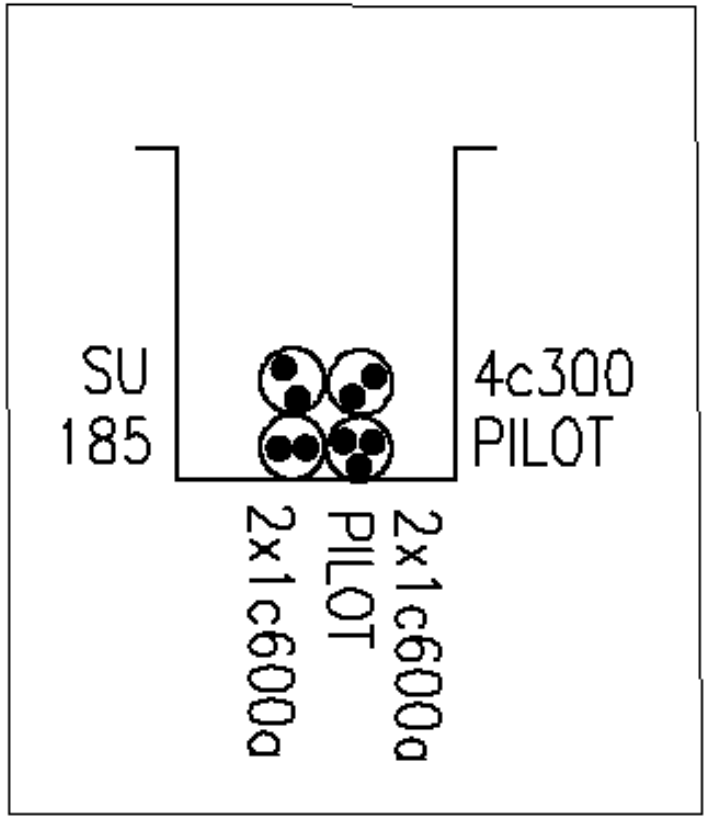
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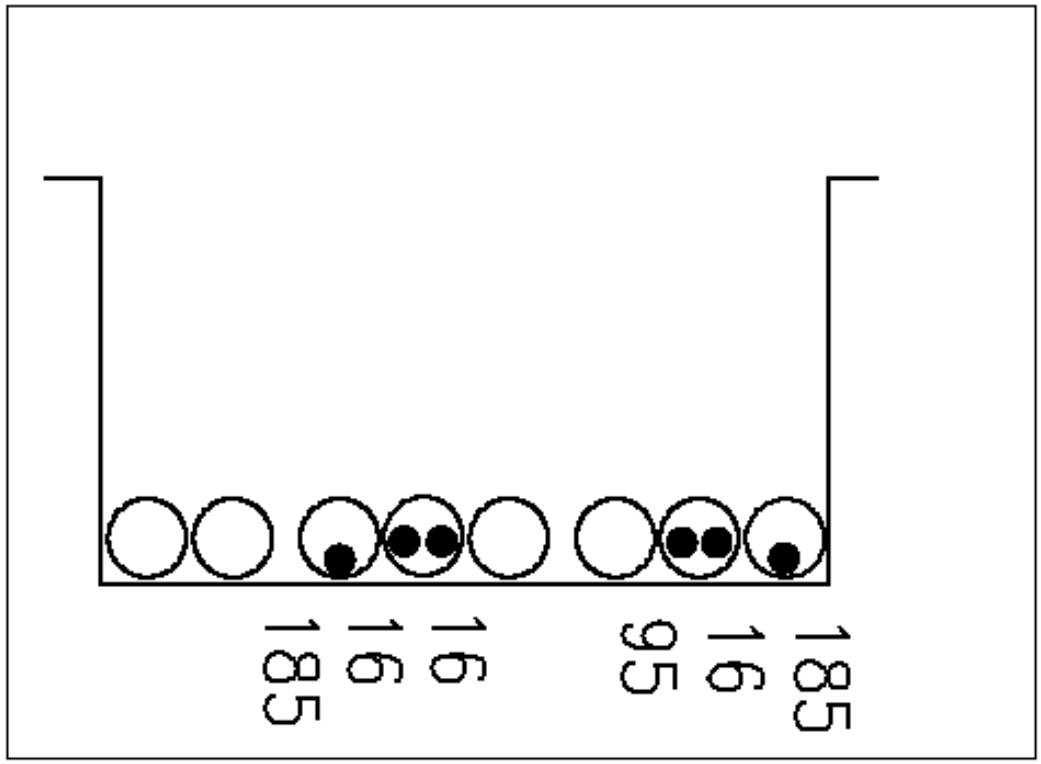
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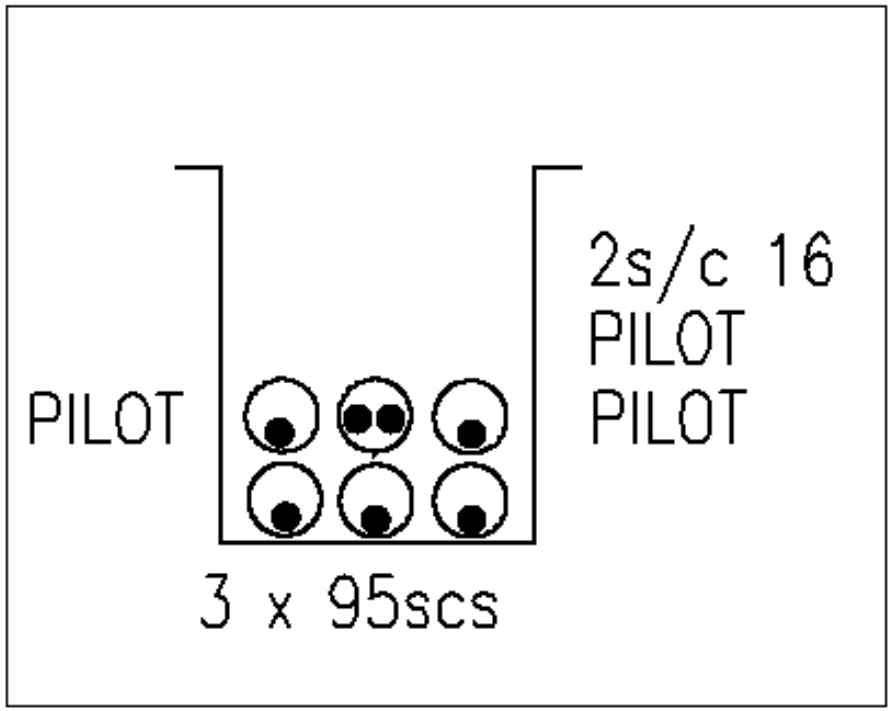
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3. Subject to paragraph 2 UK Power Networks has no liability to you in contract, in tort (including negligence), for breach of statutory duty or otherwise for any loss, damage, cost, claims, demands, or expenses that you or any third party may suffer or incur as a result of using the information provided whether for physical damage to property or for any economic loss (including without limitation loss of profit, loss of opportunity, loss of savings, loss of goodwill, loss of business, loss of use) or any special or consequential loss or damage whatsoever.
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IF IN DOUBT - ASK! PHONE
0800 056 5866
EMERGENCY - If you damage a cable or line
Phone 0800 783 8838 (24hrs)
URGENTLY

UK Power Networks

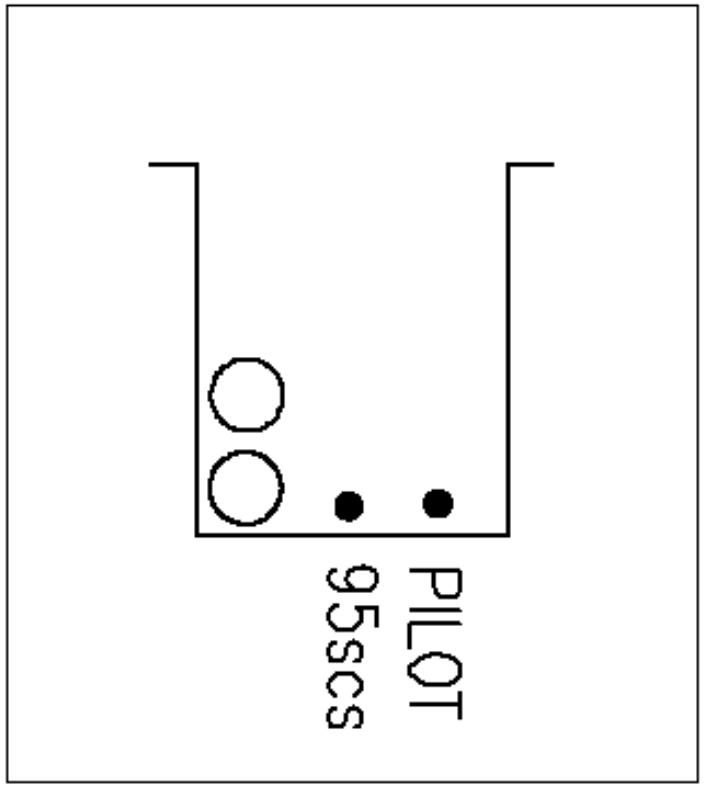
LOOK OUT LOOK UP

ALWAYS LOOK UP BEFORE YOU START WORK
Refer to HSE Guidance note GS6

Maps produced at 1:2500 scale are Geo-Schematics which show LV mains cables and overhead lines (in some cases all voltages). Prior to carrying out excavations you must refer to the 1:500 records to determine the location of all known underground plant and equipment.

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Cross Section : E



Cross Section
E

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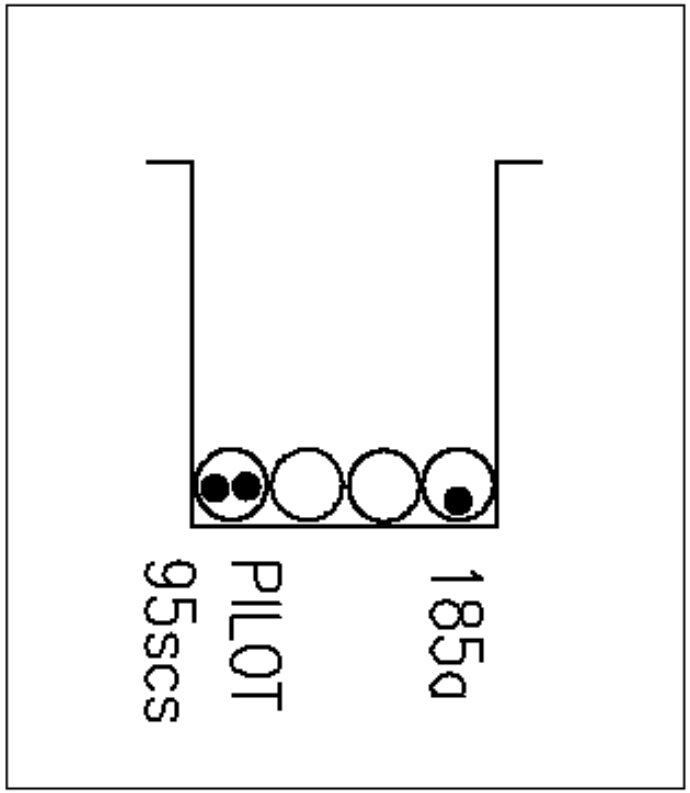
UK Power Networks

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Cross Section : C



Cross Section C

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UK Power Networks

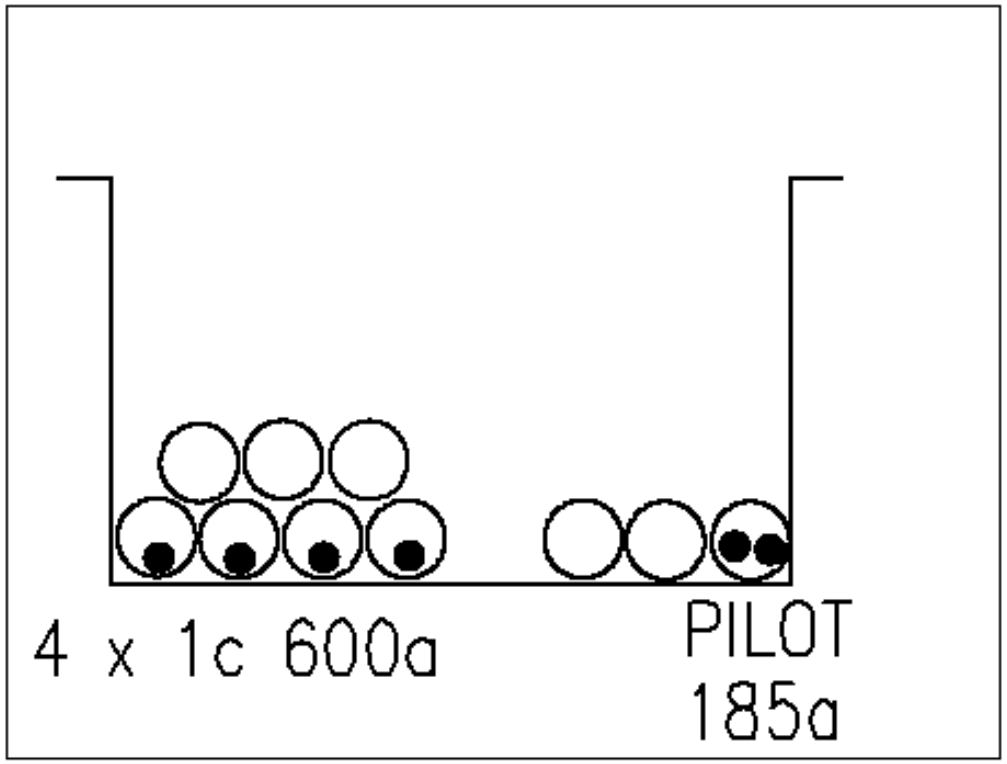
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Cross Section : B



Cross Section
B

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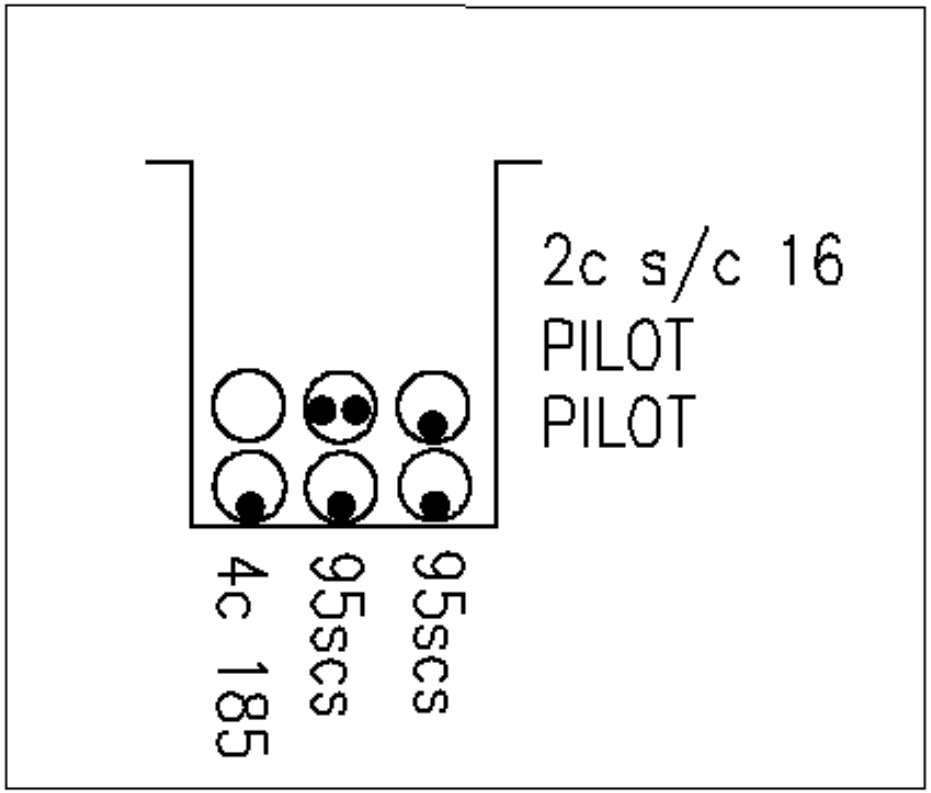
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Cross Section : D



Cross Section
D

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UK Power Networks Feedback Tool

Please help UK Power Networks improve the accuracy of their network records and help make it safer for all those working around them in future.

All you need to do is:

1. Use your phone camera to scan the QR code:
2. Provide feedback on what you have found on site (good or bad)
3. Upload a photo if needed

Thank you for making the area a safer place to dig.

UK Power Networks, working with LSBUD

Safety Advice - Valves

Guidance when undertaking work near gas valves in our network areas

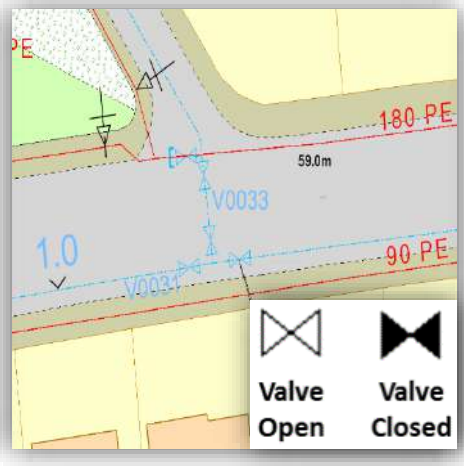
SGN manages the network that distributes gas to 5.8 million homes and businesses across Scotland and the south of England.

Due to a manufacturing issue, we are currently replacing or upgrading certain valve types that are at risk of bolt failure. In extreme cases, this can lead to gas escapes. This is a safety hazard and we have produced this guide to ensure you undertake adequate safety precautions when working near gas valves.

Identifying gas valves

The images below are an illustration of typical gas valves. Please note, valves come in various colours, shapes and sizes, and you may come across a valve that looks different to those found in the images.







What should you do?

When planning to work in our network areas, please observe the following points:

1. You must contact us before starting any work activity within **3.0m** of a gas valve identified on our maps.
2. If an unexpected gas valve is exposed you must immediately stop excavation works and report this to us.
3. To protect yourself against the risks associated with exposing a valve, we advise that you contact us when in doubt.

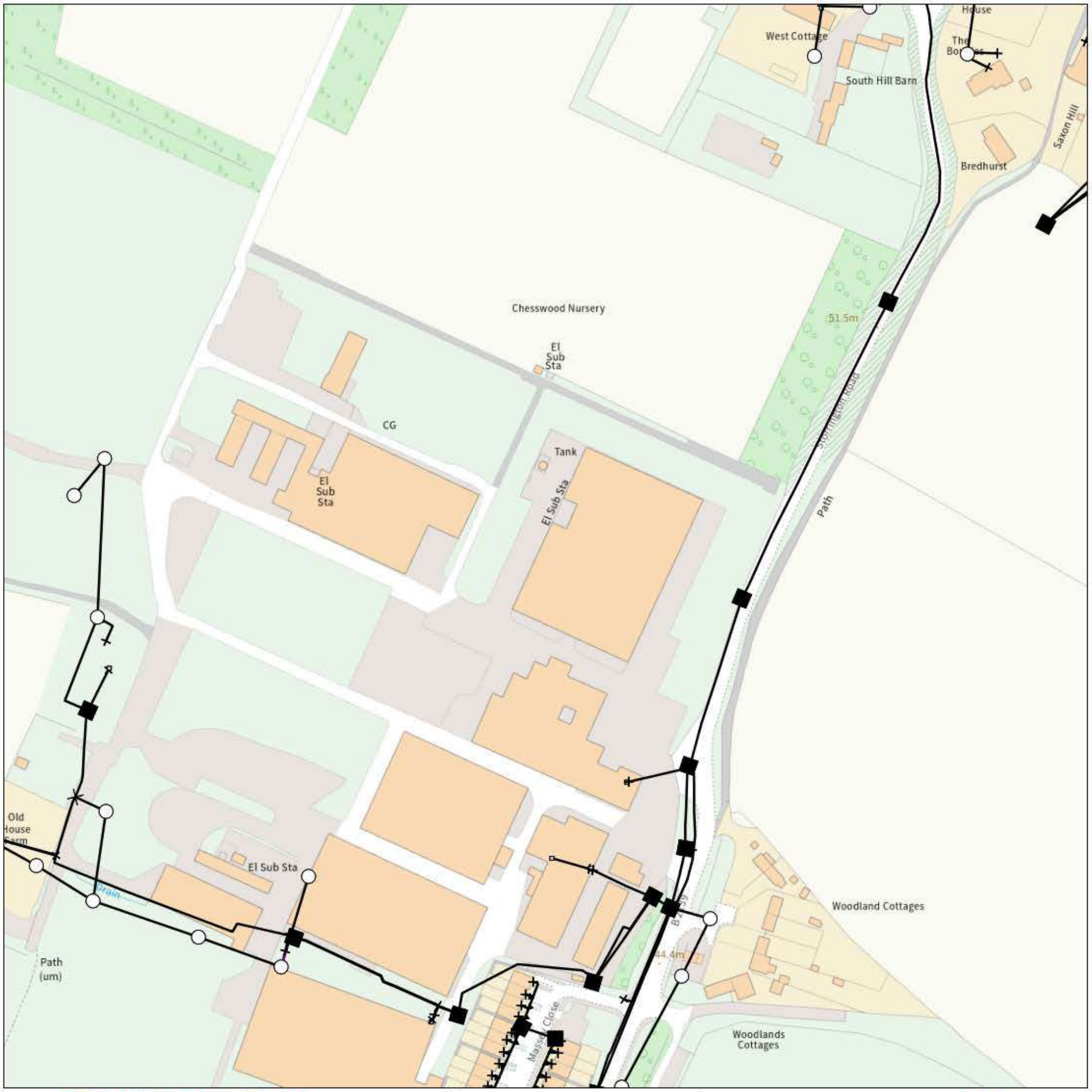
Contact details

If you require further information or need assistance please contact us:

Safety Admin Team: **0800 912 1722**
plantlocation@sgn.co.uk

Valve enquiries will be forwarded to a local engineer who will provide further safety information.

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy. It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.

openreach

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

Accidents happen

If you do damage any Openreach equipment please let us know by calling 0800 023 2023 (opt 1 + opt 1) and we can get it fixed ASAP

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Controller of Her Majesty's Stationary Office
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KEY TO BT SYMBOLS

	Planned	Live
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

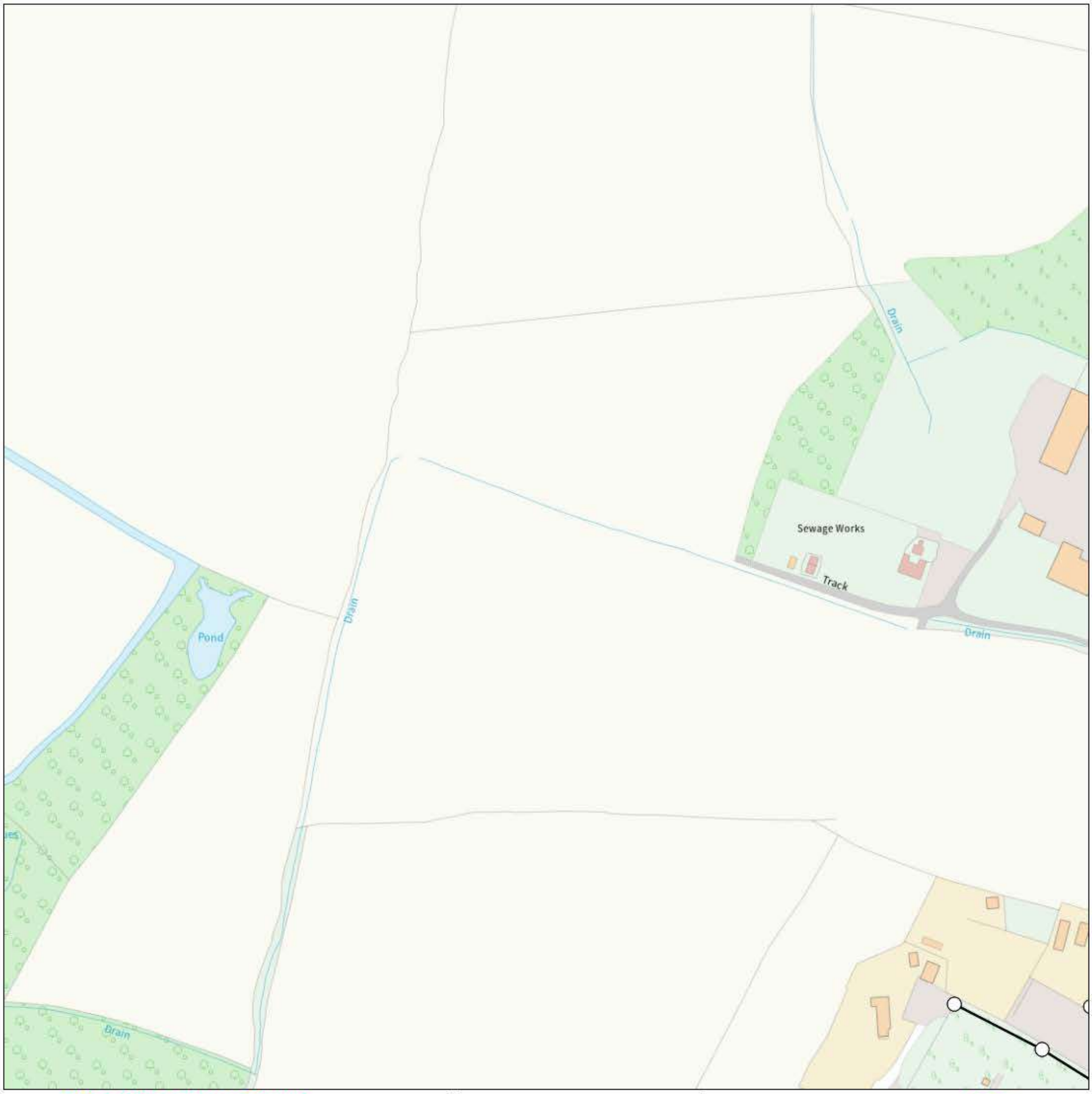
Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	In Place	Pending Remove	Not In Use
Power Cable				
Power Duct				N/A

BT Ref : VWI03113Q
Map Reference : (centre) TQ1028817201
Easting/Northing : (centre) 510288,117201
Issued : 09/08/2022 15:12:02

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

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Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : WHG03114G
Map Reference : (centre) TQ0973717248
Easting/Northing : (centre) 509737,117248
Issued : 09/08/2022 15:12:07

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

Maps by email Plant Information Reply



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KEY TO BT SYMBOLS

	Planned	*Live*
PCP		
Pole		
Box		
Manhole		
Cabinet		

Change Of State	+	Hatchings	
Split Coupling	×	Built	
Duct Tee	▲	Planned	
Building		Inferred	
Kiosk	K	Duct	

Other proposed plant is shown using dashed lines.
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Information valid at time of preparation. Maps are only valid for 90 days after the date of publication.

	Pending Add	*In Place*	*Pending Remove*	*Not In Use*
Power Cable				
Power Duct				N/A

BT Ref : ZID03112W
Map Reference : (centre) TQ1022917511
Easting/Northing : (centre) 510229,117511
Issued : 09/08/2022 15:11:35

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk

APPENDIX F
SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG

Photo no. **1**	**Date:** 23/09/2022	
Location: TP2		
Description: Overview of exploratory location TP2.		

PHOTOGRAPHIC LOG

Photo no. **2**	**Date:** 23/09/2022	
Location: TP2		
Description: Excavation depth: 2.7m bgl.		

PHOTOGRAPHIC LOG

Photo no. **3**	**Date:** 23/09/2022	
Location: TP2		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no. **1**	**Date:** 23/09/2022	
Location: TP3		
Description: Overview of exploratory location TP3.		

PHOTOGRAPHIC LOG

Photo no. **2**	**Date:** 23/09/2022	
Location: TP3		
Description: Excavation depth: 2.7m bgl.		

PHOTOGRAPHIC LOG

Photo no. **3**	**Date:** 23/09/2022	
Location: TP3		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	23/09/2022

Location: TP4



Description:

Overview of exploratory location TP4.

PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	23/09/2022

Location: TP4



Description:

Excavation depth: 2.9m bgl.

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	23/09/2022	
Location: TP4		
Description: Greyish-brown granular made ground material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
4	23/09/2022	
Location: TP4		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	23/09/2022

Location: TP5

Description:

Overview of the stratigraphic layers encountered at exploratory location TP5.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	23/09/2022

Location: TP5

Description:

Excavation depth: 2.7m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	23/09/2022	
Location: TP5		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	23/09/2022	
Location: TP6		
Description: Overview of exploratory location TP6.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	23/09/2022	
Location: TP6		
Description: Excavation depth: 3.0m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	23/09/2022	
Location: TP6		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	23/09/2022

Location: TP8

Description:

Overview of exploratory location TP8.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	23/09/2022

Location: TP8

Description:

Excavation depth: 2.5m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	23/09/2022

Location: TP8

Description:

Orange-brown clayey sand material extracted from depth.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP9

Description:

Overview of exploratory location TP8.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	22/09/2022

Location: TP9

Description:

Excavation depth: 2.9m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	22/09/2022

Location: TP9

Description:

Grey mottled brown clayey sand material extracted from depth.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP10

Description:

Overview of exploratory location TP10.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	22/09/2022

Location: TP10

Description:

Excavation depth 3.0m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	22/09/2022

Location: TP10

Description:

Grey mottled brown clayey sand material extracted from depth.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP11

Description:

Overview of exploratory location TP11. Trial pit terminated at 0.5m bgl due to ingress of groundwater.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	22/09/2022

Location: TP11

Description:

Made ground material extracted from 0-0.5m bgl. Large concrete blocks visible.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP12

Description:

Overview of exploratory location TP12.



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	22/09/2022	
Location: TP12		
Description: Excavation depth: 3.1m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	22/09/2022	
Location: TP12		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP13

Description:

Excavation depth: 3.1m bgl



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	22/09/2022

Location: TP13

Description:

Overview of the stratigraphic layers encountered at exploratory location TP13.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	22/09/2022

Location: TP13

Description:

Orange-brown clayey sand material extracted from depth.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	22/09/2022

Location: TP14

Description:

Overview of exploratory location TP14.



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	22/09/2022	
Location: TP14		
Description: Excavation depth: 2.8m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	22/09/2022	
Location: TP14		
Description: Orange-brown mottled grey clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	22/09/2022	
Location: TP15		
Description: Overview of exploratory location TP15.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	22/09/2022	
Location: TP15		
Description: Excavation depth: 2.7m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	22/09/2022

Location: TP15

Description:

Orange-brown mottled grey clayey sand material extracted from depth.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	23/09/2022

Location: TP16

Description:

Overview of exploratory location TP16.



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	23/09/2022	
Location: TP16		
Description: Excavation depth: 2.8m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	23/09/2022	
Location: TP16		
Description: Orange-brown clayey sand material extracted from depth.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	23/09/2022	
Location: TP16		
Description: Overview of exploratory location TP16.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	27/09/2022	
Location: WS1		
Description: Material extracted from the hand pit to 1.2m bgl and core sample from 1-2m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	27/09/2022	
Location: WS1		
Description: Core sample from 2-3m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**
3	27/09/2022

Location: WS1

Description:

Core sample from 3-4m bgl.

Trial pit completed at 4.0m bgl due to refusal.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	27/09/2022

Location: WS2

Description:

Hand pit terminated at 0.5m bgl due to observation of potential asbestos containing material.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	27/09/2022

Location: WS2

Description:

Made ground material extracted from 0.5m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**
1	27/09/2022

Location: WS3

Description:

Overview of hand excavated pit and spoil heap of made ground material from 0-1.2m bgl.



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	27/09/2022	
Location: WS3		
Description: Overview of core samples from 1-5m bgl.		



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	27/09/2022	
Location: TP16		
Description: Black staining observed at 2.7m bgl.		



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	27/09/2022	
Location: WS4		
Description: Overview of material extracted from hand excavated pit to 1.2m bgl and core samples from1-2m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
2	27/09/2022	
Location: WS4		
Description: Overview of core samples from 1-4m bgl.		

PHOTOGRAPHIC LOG

Photo no.	**Date:**	
3	27/09/2022	
Location: WS4		
Description: Evidence of black staininbg observed at 2.7m bgl.		



PHOTOGRAPHIC LOG

Photo no.	**Date:**	
1	27/09/2022	
Location: WS5		
Description: Overview of material extracted from hand excavated pit to 1.2m bgl and core sample from 1-2m bgl.		



PHOTOGRAPHIC LOG

Photo no.	**Date:**
2	27/09/2022

Location: WS5

Description:

Overview of material extracted from hand excavated pit to 1.2m bgl and core samples from 1-3.5m bgl. Borehole completed at 3.5m bgl due to refusal.



PHOTOGRAPHIC LOG

Photo no. **1**	**Date:** 17.08.2022
Description: Site Access Constraints. Unlocked by security staff onsite.	



Photo No. **2**	**Date:** 17.08.2022
Description: Office buildings and former packing buildings. Overhead services. Old buildings with cracks visible.	



Photo No.	Date:	
3	17.08.2022	
Description: Eastern boundary of site with hardstanding surface, former growing room building and soft land scaping slope leading to norther straw fields.		

Photo No.	Date:	
4	17.08.2022	
Description: Drain cover and channels on eastern hardstanding area. Located throughout the site.		

Photo No.	Date:
5	17.08.2022



Description:

Exposed insulation in the former mushroom production buildings. Possible asbestos concern.

Photo No.	Date:
6	17.08.2022



Description:

Locked substation in eastern corner of site.

Photo No.	Date:	
7	17.08.2022	
Description: Substation in centre of site adjacent to field		

Photo No.	Date:	
8	17.08.2022	
Description: Large tank behind eastern growing room,.		

Photo No.	Date:
9	17.08.2022

Description:

Straw field in north of site



Photo No.	Date:
10	17.08.2022

Description:

Buried service from street lights and pipes running below ground from tanks.



Photo No.	Date:	
11	17.08.2022	
Description: Buried services shown by pipes above ground.		

Photo No.	Date:	
12	17.08.2022	
Description: Corrugated concrete on buildings nay include asbestos		

Photo No.	Date:
13	17.08.2022



Description:

Cracks in buildings all over site. This photo is the west face of the office buildings.

Photo No.	Date:
14	17.08.2022



Description:

Unknown above ground storage tank and compressor between former growing rooms.

Photo No.	Date:
15	17.08.2022



Description:

Raised manhole covers sporadically located around site.

Photo No.	Date:
16	17.08.2022



Description:

Former peat shed, north of all buildings in the centre of the site.

Photo No.	Date:	
17	17.08.2022	
Description: Oil and gas tank adjacent to rubbish and waste in the centre of site. Vegetation surrounding area is overgrown.		

Photo No.	Date:	
18	17.08.2022	
Description: Abandoned vehicles near rubbish in centre of the site.		

Photo No.	Date:	
19	17.08.2022	
Description: Concrete Public Right of Way (ProW) running north to south through centre of the site.		

Photo No.	Date:	
20	17.08.2022	
Description: Piles of rubble, rubbish, concrete, brick, plastic and metal adjacent to PRoW.		

Photo No.	Date:
21	17.08.2022



Description:

Overgrown north-western field with shrubs and grasses. Mature and young trees border the site.

Photo No.	Date:
22	17.08.2022



Description:

Large concrete block adjacent to path running to west of site where former building was erected (building remnants).

Photo No.	Date:
23	17.08.2022



Description:

Burnt tyres and crushed concrete in the centre of the site

Photo No.	Date:
24	17.08.2022



Description:

Rubbish and overgrown shrubs in the centre of the site.

Photo No.	Date:
25	17.08.2022



Description:

Disused vehicles and wooden and plastic pallets stacked.

Photo No.	Date:
26	17.08.2022



Description:

Large pile of broken timber pallets adjacent to the western buildings

Photo No.	Date:	
27	17.08.2022	
Description: Oil storage tanks located adjacent to western buildings.		

Photo No.	Date:	
28	17.08.2022	
Description: Recycling bins located within western farm building.		

Photo No.	Date:
29	17.08.2022



Description:

Inside western farm building. Contain remnants of refrigerator and electrical wiring.

Photo No.	Date:
30	17.08.2022



Description:

Large mounds of soil and concrete blocks in the west of site on hardstanding.

Photo No.	Date:
31	17.08.2022



Description:

Large sewage tank and derelict building

Photo No.	Date:
32	17.08.2022



Description:

Infiltration tank in west of site.

Photo No.	Date:
33	17.08.2022



Description:

Unknown structure/tank above ground with below ground concrete structure. Could not access any closer due to overgrown vegetation.

Photo No.	Date:
34	17.08.2022



Description:

Overgrown pathway to western fields. Trees surround the border of western site boundary.

Photo No.	Date:
35	17.08.2022



Description:

South-western field and mature trees. Group of shrubs and trees in the centre of field.

Photo No.	Date:
36	17.08.2022



Description:

Mound of concrete blocks in the south-west of site.

Photo No.	Date:
37	17.08.2022



Description:

Hardstanding and grass area in the south of site. Grass are in the centre formerly used for greenhouses.

Photo No.	Date:
38	17.08.2022



Description:

Unknown aboveground storage tanks located in south of site, north of former boiler room

Photo No.	Date:
39	17.08.2022



Description:

Unknown aboveground storage tanks located in south of site, north of former boiler room

Photo No.	Date:
40	17.08.2022



Description:

Unknown aboveground storage tanks located in south of site, between former boiler room and growing rooms

Photo No.	Date:
41	17.08.2022

Description:

Unknown concrete structure above ground with concrete grid. Appears to extend below ground. Black staining observed at ground surface adjacent to this feature Located between growing rooms in south of site.



Photo No.	Date:
42	17.08.2022

Description:

Area of hardstanding and unknown above ground tank in the south of the site adjacent to office building.



Photo No.	Date:
43	17.08.2022



Description:

Unknown storage and gas cylinders adjacent to former workshop building in south east of site.

Photo No.	Date:
44	17.08.2022



Description:

Hard standing asphalt road between offices and former growing rooms.

APPENDIX G
TECHNICAL BACKGROUND

G1 Desk Study

Aquifer designation and Source protection zones

Principal aquifer: layers of rock or drift deposit that have high intergranular and/or fracture permeability (usually providing a high level of water storage). They may support water supply and/or river base flow on a strategic scale.

Secondary A aquifer: 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.

Secondary B aquifer: predominantly lower permeability layers that may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary undifferentiated aquifer: it has not been possible to attribute either a category A or B to a rock type. In most cases this means that it was previously designated as both a minor and non-aquifer in different locations owing to the variable characteristics.

Unproductive' strata: low permeability with negligible significance for water supply or river base flow.

The EA generally adopts a three-fold classification of source protection zones (SPZ) surround abstractions for public water supply. The Site is situated in an area defined as follows:

- Zone 1 or the 'inner protection zone' is located immediately adjacent to the groundwater source and is based on a 50-day travel time from any point below the water table to the source. It is designed to protect against the effects of human activity and biological/chemical contaminants that may have an immediate effect on the source
- Zone 2 or the 'outer protection zone' is defined by a 400-day travel time from a point below the water table to the source. The travel time is designed to provide delay and attenuation of slowly degrading pollutants
- Zone 3 or the 'total catchment' is the area around the source within which all groundwater recharge is presumed to be discharged at the source.

Preliminary risk assessment methodology

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. An outline conceptual model should be formed at the preliminary risk assessment stage that collates all the existing information pertaining to a site in text, tabular or diagrammatic form. The outline conceptual model identifies potentially complete (termed possible) contaminant linkages (contaminant–pathway–receptor) and is used as the basis for the design of the site investigation. The outline conceptual model is updated as further information becomes available, for example as a result of the site investigation.

Production of a conceptual model requires an assessment of risk to be made. Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the

likelihood and the consequences of an event must be taken into account when assessing risk. RSK has adopted guidance provided in CIRIA C552 for use in the production of conceptual models.

The likelihood of an event can be classified on a four-point system using the following terms and definitions based on CIRIA C552:

- highly likely: the event appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution
- likely: it is probable that an event will occur or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term
- low likelihood: circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term
- unlikely: circumstances are such that it is improbable the event would occur even in the long term.

The severity can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to severity are:

- severe: short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short-term risk to an ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000)
- medium: chronic damage to human health ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem
- mild: pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures or the environment
- minor: harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequences have been classified, a risk category can be assigned according to the table below.

		Consequences			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**Highly likely**	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very low	Very low

Definitions of these risk categories are as follows together with an assessment of the further work that may be required:

- very high: there is a high probability that severe harm could occur or there is evidence that severe harm is currently happening. This risk, if realised, could result in substantial liability; urgent investigation and remediation are likely to be required
- high: harm is likely to occur. Realisation of the risk is likely to present a substantial liability. Urgent investigation is required. Remedial works may be necessary in the short term and are likely over the long term
- moderate: it is possible that harm could arise, but it is unlikely that the harm would be severe and it is more likely that the harm would be relatively mild. Investigation is normally required to clarify the risk and determine the liability. Some remedial works may be required in the longer term
- low: it is possible that harm could occur, but it is likely that if realised this harm would at worst normally be mild
- very low: there is a low possibility that harm could occur and if realised the harm is unlikely to be severe.

G2 Site Investigation Methodology

Ground gas monitoring

An infrared gas meter was used to measure gas flow, concentrations of carbon dioxide (CO_2), methane (CH_4) and oxygen (O_2) in percentage by volume, while hydrogen sulphide (H_2S) and carbon monoxide (CO) were recorded in parts per million. Initial and steady state concentrations were recorded. In addition, during the first monitoring round, all wells were screened with a PID to establish if there are any interferences and cross-sensitivity of other hydrocarbons with the infrared gas meter.

Low flow groundwater sampling

Groundwater samples were retrieved using a United States Environment Protection Agency (USEPA) approved low-flow purging and sampling methodology.

The low-flow method relies on moving groundwater through the well screen at approximately the same rate as it flows through the geological formation. This results in a significant reduction in the volume of water extracted before sampling and significantly reduces the amount of disturbance of the water in the monitoring well during purging and sampling. Drawdown levels in the monitoring well and water quality indicator parameters (pH, temperature, electrical conductivity, redox potential and dissolved oxygen) are monitored during low-flow purging and sampling, with stabilisation indicating that purging is complete and sampling can begin. As the flow rate used for purging, in most cases, is the same or only slightly higher than the flow rate used for sampling, and because purging and sampling are conducted as one continuous operation in the field, the process is referred to as low-flow purging and sampling.

Reuse of suitable materials

The Definition of Waste: Development Industry Code of Practice (CL:AIRE, 2011) (CoP) was developed in cons**u**ltation with the Environment Agency and development industry to enable the

re-use of materials under certain scenarios and subject to demonstrating that specific criteria are met. The current reuse scenarios covered by the CoP comprise

- reuse on the site of origin (with or without treatment)
- direct transfer of clean and natural soils between sites
- use in the development of land other than the site of origin following treatment at an authorised Hub site (including a fixed soil treatment facility).

The importation of made ground soils (irrespective of contamination status) or crushed demolition materials is not permitted currently under the CoP and requires either a standard rules environmental permit or a U1 waste exemption (see below).

In the context of excavated materials used on-sites undergoing development, four factors are considered to be of particular relevance in determining if the material is a waste or when it ceases to be waste:

- the aim of the Waste Framework Directive is not undermined, i.e. if the use of the material will create an unacceptable risk of pollution of the environment or harm to human health it is likely to be waste
- the material is certain to be used
- the material is suitable for use both chemically and geotechnically
- only the required quantity of material will be used.

The CoP requires the preparation of a materials management plan (MMP) that confirms the above factors will be met. This plan needs to be reviewed by a 'Qualified Person' (QP) who will then issue a declaration form to the EA. As the project progresses, data must be collated and on completion a verification report produced that shows the MMP was followed and describes any changes.

The MMP establishes whether specific materials are classified as waste and how excavated materials will be treated and/or reused in line with the CoP. The MMP is likely to form part of the site waste management plan.

APPENDIX H
EXPLORATORY HOLE RECORDS

KEY TO EXPLORATORY HOLE LOGS - SUMMARY OF ABBREVIATIONS

SAMPLING

Sample type codes:

B	=	Bulk disturbed sample.
D	=	Small disturbed sample.
ES	=	Soil sample for environmental testing.

IN-SITU TESTING

SPT = Standard Penetration Test using split spoon sampler. ($_{(NR)}$ indicates 'No Sample Recovery').

PID = Photo Ionisation Detector Results, in ppm.

ADDITIONAL NOTES

1. All soil and rock descriptions and legends in general accordance with BS EN ISO 14688-1:2018, 14688-2:2018, 14689:2018, and BS5930:2015+A1:2020.
2. Material types divided by a broken line (- - -) indicates an unclear boundary.
3. Fracture spacings (If) quoted in the Description of Strata for specific strata or specific fracture sets are also quoted in mm, e.g. (25/80/230) referring to (Min/Avg/Max).
4. The data on any sheet within the report showing the AGS icon is available in the AGS format.

KEY TO EXPLORATORY HOLE LOGS - SUMMARY OF GRAPHIC SYMBOLS

WATER COLUMN SYMBOLS



First water strike, second water strike etc.



Standing water level following first strike, standing water level following second strike etc.



Seepage.



Standing water level recorded at documented date.

MATERIAL GRAPHIC LEGENDS



Gravelly clayey SAND



Clayey gravelly SAND with COBBLES



Clayey SAND



Clayey SAND with COBBLES



MADE GROUND



SAND



Sandy CLAY



Sandy silty CLAY



Gravelly sandy CLAY



Topsoil

INSTRUMENTATION SYMBOLS



Backfill



Bentonite cement pellets



Concrete



Gravel filter



Plain pipe



Slotted pipe

FINAL

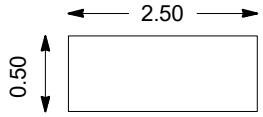
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP2**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**43.97**	**E:510037.1 N:117144.4**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						TOPSOIL: Dark brown sandy CLAY with frequent rootlets and organic materials. Sand is fine to medium. (TOPSOIL)	(0.40)	
							0.40	
0.40-0.50 0.40	1	ES PID	1xT+1xJ+1xV 0.0ppm			Orange brown mottled grey sandy CLAY with occasional organic materials. Sand is fine to medium. (FITTLEWORTH MEMBER)		
1.70-1.80	2	D					(2.20)	
2.00 2.00	3	D PID	0.0ppm					
							2.60	
2.60-2.70	4	D				Orange brown mottled grey clayey fine to medium SAND. (FITTLEWORTH MEMBER)	2.70	
						Trial pit completed at 2.70m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**GAndrew**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

FINAL

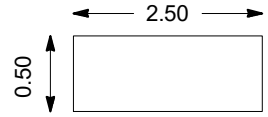
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP3**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**44.51**	**E:510165.8 N:117060.8**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						Made Ground: Dark brown gravelly clayey fine to medium SAND with frequent rootlets. Gravel is subangular to subrounded coarse of flint. (MADE GROUND)	0.20	
0.40-0.50 0.40	1	ES PID	1xT+1xJ+1xV 0.0ppm			Made Ground: Dark brown slightly gravelly clayey fine to medium SAND with occasional organic materials and black staining. Gravel is subangular to subrounded fine to medium flint and brick. (MADE GROUND) . . . At 0.50m bgl: metal bar.	(0.60)	
0.80-0.90	2	D				Orangish brown mottled grey sandy CLAY. Sand is fine to medium. (FITTLEWORTH MEMBER)	0.80 (1.90)	
2.00-2.10	3	D						
2.60-2.70	4	B					2.70	
						Trial pit completed at 2.70m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**GAndrew**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

FINAL

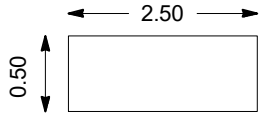
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP4**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**47.64**	**E:510223.1 N:117140.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20 0.10	1	ES PID	1xT+1xJ+1xV 0.1ppm			MADE GROUND: Brown sandy angular to subangular fine to coarse concrere, brick and flint GRAVEL with medium cobble content. Sand is fine to coarse. Cobbles are subangular concrete and brick. (MADE GROUND)	0.25	
0.30-0.40 0.30	2	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: White mottled dark grey and black clayey subangular to subrounded fine to medium GRAVEL of structureless CHALK with ash, clinker and abundant glass fragments. (MADE GROUND)	0.40	
1.20-1.30	3	B				Orangish brown mottled grey clayey fine to medium SAND with frequent organic materials. (FITTLEWORTH MEMBER)	(1.40)	
1.70-1.80 1.70	4	ES PID	1xT+1xJ+1xV 0.0ppm				1.80	
1.80-1.90	5	D				Orangish brown mottled grey sandy CLAY with frequent organic material. Sand is fine. (FITTLEWORTH MEMBER)	(0.40)	
2.20-2.30 2.20	6	ES PID	1xT+1xJ+1xV 162.0ppm			Dark grey mottled black clayey fine to medium SAND. (FITTLEWORTH MEMBER) . . . Between 2.20m and 3.00m bgl: black staining and hydrocarbon odour.	2.20	
2.70-2.80	7	D					(0.80)	
						Trial pit completed at 3.00m bgl.	3.00	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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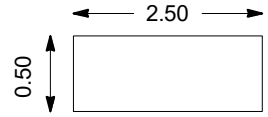
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP5**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**50.40**	**E:510248.7 N:117261.7**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.15-0.25 0.15	1	ES PID	0.0ppm			TOPSOIL: Dark brown slightly gravelly sandy CLAY with frequent rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of flint. (TOPSOIL)	0.25	
						Dark brown clayey fine to medium SAND with occasional organic materials. (FITTLEWORTH MEMBER)	0.40	
0.60-0.70 0.60	2	ES PID	1xT+1xJ+1xV 0.0ppm			Orangish brown mottled grey clayey fine to medium SAND with occasional organic materials. (FITTLEWORTH MEMBER)		
1.00-1.10	3	D				. . . At 1.10m bgl: old clay pipe	(2.00)	
2.00-2.10	4	D						
							2.40	
2.40-2.50	5	D				Greyish brown mottled orange dense slightly clayey medium SAND. (FITTLEWORTH MEMBER)	(0.30)	
							2.70	
						Trial pit completed at 2.70m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

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GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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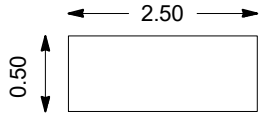
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP6**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22**	**49.10**	**E:050156.8 N:117289.6**	**1** of **1**
	End: **23.09.22**			

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.25-0.35	1	ES	1xT+1xJ+1xV			MADE GROUND: Dark brown slightly clayey gravelly sand fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint. Frequent fragments and blocks of concrete and brick. (MADE GROUND)	(0.35)	
0.25-0.35	2	ES	1xT				0.35	
0.25		PID	0.0ppm			. . . At 0.30m bgl: fragment of black bitumen pipe.		
0.40-0.50	3	B				Orangeish brown slightly sandy gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse of flint. (FITTLEWORTH MEMBER)	(0.35)	
							0.70	
						Dark orangish brown mottled grey sandy CLAY with occasional organic materials. Sand is fine to medium. (FITTLEWORTH MEMBER)	(1.10)	
							1.80	
1.80-1.90	4	D				Orangish brown mottled grey clayey fine to coarse SAND with occasional organic materials. (FITTLEWORTH MEMBER)	(1.10)	
2.70-2.80	5	D					2.90	
						Trial pit completed at 2.90m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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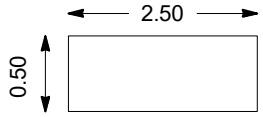
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP8**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**56.19**	**E:510345.6 N:117329.2**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30-0.40 0.30	1	ES PID	1xT+1xJ+1xV 0.0ppm			TOPSOIL: Dark brown loose slightly gravelly clayey fine to medium SAND with frequent rootlets. Gravel is subangular to subrounded of flint. (TOPSOIL)	(0.45) 0.45	
1.70-1.80 1.70-1.80	2 3	D B				Orangish brown loose clayey fine to medium SAND with occasional organic materials (FITTLEWORTH MEMBER)	(1.85) 2.30	
2.35-2.45	4	D				Orangish brown mottled grey dense slightly clayey fine SAND. (FITTLEWORTH MEMBER)	2.50	
						Trial pit completed at 2.50m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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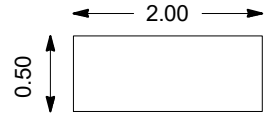
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP9**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22** End: **22.09.22**	**34.85**	**E:509777.7 N:117199.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						TOPSOIL: Dark brown slightly gravelly sandy CLAY with frequent rootlets. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium flint. (TOPSOIL)	(0.30) 0.30	
0.30-0.40 0.30	1	ES PID	2xT+2xJ+2xV 0.0ppm			Orange mottled grey sandy CLAY with occasional organics. Sand is fine to coarse. (FITTLEWORTH MEMBER)	(2.30)	
1.60	2	D						
2.40-2.50	3	B						
2.60	4	D		1			2.60	
						Blueish grey mottled orange claye fine to medium SAND. (FITTLEWORTH MEMBER)	2.80	
						Trial pit completed at 2.80m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**GAndrew**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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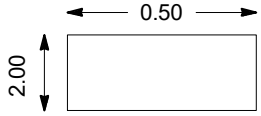
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP10**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22**	**38.92**	**E:509912.7 N:117222.3**	**1** of **1**
	End: **22.09.22**			

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
						MADE GROUND. Light brown slightly clayey gravelly fine to coarse SAND withf requent fragments and blocks of brick concrete and tile. (MADE GROUND)	(0.50) 0.50	
0.35-0.45 0.35	6	ES PID	2xT+2xJ+2xV 0.0ppm					
						Dark brown mottled black slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium of flint. (FITTLEWORTH MEMBER)	(0.80) 1.30	
1.00-1.00 1.00-1.10 1.00	1 7	D ES PID	 2xT+2xJ+2xV 0.2ppm					
1.30-1.30	2	B				Dark grey mottled black clayey fine to coarse SAND with frequent organic materials. (FITTLEWORTH MEMBER)	(0.50) 1.80	
1.80-1.80	3	D				Blueish grey mottled orange sandy silty CLAY with rare gravels subangular to subrounded fine of flint. Sand is fine to medium. (FITTLEWORTH MEMBER)	2.00	
						Bluish grey mottled orange clayey fine to coarse SAND with frequent organic material. (FITTLEWORTH MEMBER)	(1.00) 3.00	
2.70-2.70	4	D						
3.00-3.00	5	B				Trial pit completed at 3.00m bgl		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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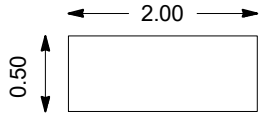
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP11**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22** End: **22.09.22**	**43.88**	**E:509961.0 N:117303.3**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.35-0.45 0.35	1	ES PID	1xT+1xJ+1xV 0.0ppm	1		MADE GROUND: Dark brown sandy GRAVEL with high cobble content and occasional plastics. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse of flint. Cobbles are subangular to subrounded of flint, concrete, brick, asphalt and mortar. (MADE GROUND) . . . At 0.50m bgl: perched water ingress	(0.50) 0.50	
						Trial pit terminated at 0.50m bgl due to water ingress.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained stable during excavation.
3. Perched groundwater encountered at 0.50m bgl
4. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

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GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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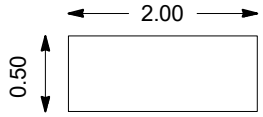
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP12**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22** End: **22.09.22**	**43.18**	**E:510013.5 N:117243.4**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30-0.40 0.35	1	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Light brown slightly clayey gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of flint, brick and concrete. (MADE GROUND)	(0.40) 0.40	
1.00	2	D				Orangish brown mottled grey slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine of flint. (FITTLEWORTH MEMBER)	(2.70)	
2.00	3	D						
3.00	3	D				. . . Below 2.80m bgl: Sand content increases	3.10	
						Trial pit completed at 3.10m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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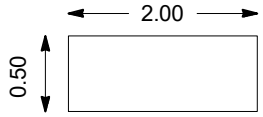
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP13**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22** End: **22.09.22**	**47.63**	**E:510121.5 N:117293.7**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30-0.40 0.30	1	ES PID	1xT+1xJ+1xV 0.0ppm			TOPSOIL: Dark brown clayey fine to medium SAND with frequent rootlets. Rare gravel is subangular to subrounded fine flint. (TOPSOIL)	0.20	
1.20	2	D				Orangish brown very sandy CLAY. Sand is fine to medium and occasional organic material. (FITTLEWORTH MEMBER)	(2.70)	
2.00	3	D				. . . Below 2.00m bgl: rare subrounded medium to coarse flint gravel . . . Below 2.30m bgl; occasional tabular cobbles of medium to coarse grained sandstone	2.90	
2.90-3.00	4	B				Light yellowish brown very clayey fine to medium SAND with rare dark brown subrounded coarse sandstone cobbles. (FITTLEWORTH MEMBER) Trial pit completed at 3.00m bgl.	3.00	

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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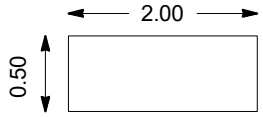
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP14**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**22.09.22** End: **22.09.22**	**46.86**	**E:510013.8 N:117352.6**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.10	1	ES	1xT+1xJ+1xV			MADE GROUND: Dark brown slightly gravelly clayey fine to medium SAND with frequent rootlets. Gravel is subangular to subrounded of flint and concrete.	0.20	
0.20-0.30 0.20	2	ES PID	1xT+1xJ+1xV 0.0ppm			(MADE GROUND) . . . At ground level: corrugated concrete tile (Suspected ACM)	0.30	
0.50	3	D				MADE GROUND: Dark brown slightly gravelly fine to medium SAND. Gravel is subangular to subrounded fine to medium of flint. Occasion fragments of asphalt and building stone. (MADE GROUND)		
						Orangish brown mottled grey clayey fine to coarse SAND with occasional organic materials. (FITTLEWORTH MEMBER)	(1.20)	
1.50	4	D					1.50	
						Blueish grey mottled orange clayey fine to coarse SAND. (FITTLEWORTH MEMBER)		
2.20-2.30	5	B					(1.40)	
2.60	6	D						
							2.90	
						Trial pit completed at 2.90m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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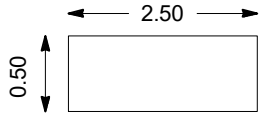
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP15**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**51.15**	**E:510127.6 N:117357.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30 0.20	1	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Greyish brown slightly clayey gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to medium of flint, concrete, brick and tile. (MADE GROUND)	(0.30) 0.30	
0.50-0.60	2	D				Orangish brown slightly gravelly clayey fine to coarse SAND. Gravels is subangular to subrounded fine of flint and sandstone. (FITTLEWORTH MEMBER)	(0.30) 0.60	
0.65-0.75 0.65	3	ES PID	1xT+1xJ+1xV 0.3ppm			Greyish brown mottled orange clayey fine to coarse SAND with occasional organic materials. (FITTLEWORTH MEMBER) . . . Between 0.65m and 0.75m bgl: black staining	(1.90) 2.50	
1.60-1.70	4	D						
2.50-2.60	5	D				Greyish brown mottled orange slightly clayey fine to medium SAND. (FITTLEWORTH MEMBER)	2.70	
2.60-2.70	6	B						
						Trial pit completed at 2.70m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

FINAL

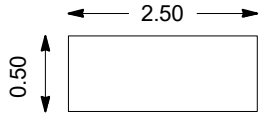
TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Storrington Road	**Monaghan Mushrooms Ltd**	**TP16**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**23.09.22** End: **23.09.22**	**61.82**	**E:510193.0 N:117482.1**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30 0.20	1	ES PID	1xT+1xJ+1xV 0.0ppm			TOPSOIL: Dark brown sandy CLAY with frequent rootlets and occasional organic material,. Sand is fine to medium. (TOPSOIL)	(0.30) 0.30	
						Orangish brown soft very sandy CLAY with occasional organic material. Sand is fine to medium. (FITTLEWORTH MEMBER)	(0.70) 1.00	
1.00 1.00	2 3	D D				Orangish brown mottled grey stiff sandy CLAY with occasional organic material. Sand is fine to medium. (FITTLEWORTH MEMBER) . . . Below 1.00m bgl: clay becomes stiff	(1.40) 2.40	
1.70-1.80	4	B						
2.00	5	D						
						Orange mottled grey loose clayey fine to medium SAND. (FITTLEWORTH MEMBER)	(0.40) 2.80	
2.80	6	D				Trial pit completed at 2.80m bgl.		

Plan (Not to Scale)



General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Trial pit remained dry and stable during excavation.
3. Trial pit backfilled with arisings in reverse order upon completion.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**Tracked excavator**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log TRIAL PIT LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 13:55 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS1**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**37.10**	**E:509848.0 N:117235.5**	**1** of **2**

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.40-0.50 0.40	3 	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Dark brown clayey fine to medium SAND with rare gravel subangular to subrounded of flint. and frequent rootlets. (MADE GROUND)	0.20	
	0.50-0.60 0.50	1 	ES PID	1xT+1xJ+1xV 0.0ppm			MADE GROUND: Reddish brown slightly clayey gravelly fine to medium SAND. Gravel is subangular to subrounded fine to coarse of flint, brick and concrete. (MADE GROUND)	(0.50) 0.70	
	0.80-0.90 0.80	2 	ES PID	1xT+1xJ+1xV 0.0ppm			Dark brown mottled grey sandy CLAY with occasional organic materials. Sand is fine. (FITTLEWORTH MEMBER)	(0.60) 1.30	
1.00 - 2.00 (115mm dia) 100% rec	1.00-1.45	1	SPT	N=8			Orangish brown mottled grey sandy CLAY with occasional organic materials. Sand is fine. (FITTLEWORTH MEMBER)	(0.70) 2.00	
2.00 - 3.00 (98mm dia) 100% rec	2.00-2.45 2.00	1 1	SPT D	N=7			Orangish brown loose mottled grey clayey fine SAND. (FITTLEWORTH MEMBER)	(2.45) 4.45	
3.00 - 4.00 (65mm dia) 100% rec	3.00-3.45 3.00 3.50	1 2 4	SPT D D	N=14					
	4.00-4.45 4.00	1 3	SPT D	N=62					

Borhole terminated at 4.0m bgl due to SPT refusal.

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Inspection pit hand dug to 1.20m depth.
3. No groundwater encountered.
4. 50mm diameter gas/groundwater monitoring well complete with flush protective cover installed to 4.00m depth on completion. Response zone 1.00m to 4.00m depth.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS1**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**37.10**	**E:509848.0 N:117235.5**	**2** of **2**

Progress	Samples / Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	AGS

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS2**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**43.60**	**E:509964.3 N:117268.5**	**1** of **1**

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.25-0.35 0.25 0.35-0.45	1 2	ES PID ES	1xT+1xJ+1xV 0.0ppm 1xT			MADE GROUND: Dark brown slightly clayey gravelly fine to coarse SAND. Gravel is subangular to subrounded fine coarse of flint, concrete, brick and plastics. (MADE GROUND)	(0.45)	
							. . . At 0.40m bgl: suspected ACM observed (corrugated cement tile with visible fibres).	0.45	
							Borehole terminated at 0.45m bgl due to observation of ACM.		

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. No groundwater encountered.
3. Borehole terminated at 0.45m bgl due potential ACM.
4. Borehole backfilled with arisings and made safe.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS3**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**---**	**---**	**1** of **2**

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.40-0.50	1	ES	1xT+1xJ+1xV			MADE GROUND: Dark blackish brown gravelly slightly clayey fine to coarse SAND with moderate cobble content. Gravel is subangular to subrounded fine to coarse of flint,brick, concrete, glass and plastics. Cobbles are subangular to subrounded of coal. (MADE GROUND)	(0.50)	
							0.50		
							. . . At 0.30m bgl: thin reworked chalk layer . . . At 0.40m bgl: dark black asphalt layer with ash and clinker and glass fragments		
	0.80-0.90	1	B				Orangish brown loose clayey fine to medium SAND. (FITTLEWORTH MEMBER)		
	1.00-1.45	1	SPT	N=2				(1.60)	
1.00 - 2.00 (115mm dia) 100% rec	1.50-1.60	2	D						
	2.00-2.45	1	SPT	N=4				2.10	
2.00 - 3.00 (98mm dia) 100% rec	2.50-2.60 2.50	2	ES PID	1xT+1xJ+1xV 205.1ppm			Dark black mottled grey sandy CLAY with occasional gravels subangular to subrounded fine to medium of flint. (FITTLEWORTH MEMBER) . . . Below 2.50m bgl: dark black staining and strong hydrocarbon odour.		
	2.70-2.80	3	D					(1.70)	
	3.00-3.45	1	SPT	N=10					
3.00 - 4.00 (65mm dia) 100% rec	3.50-3.60 3.50	3	ES PID	1xT+1xJ+1xV 215.9ppm					
	3.70-3.80	4	D					3.80	
	4.00-4.45	1	SPT	N=6			Orangish brown mottled grey clayey fine to medium SAND. (FITTLEWORTH MEMBER)		
4.00 - 5.00 (45mm dia) 100% rec									

Drilling Progress and Water Observations

Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Inspection pit hand dug to 1.20m depth.
3. No groundwater encountered.
4. 50mm diameter gas/groundwater monitoring well complete with flush protective cover installed to 5.00m depth on completion. Response zone 1.00m to 5.00m depth.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS3**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**---**	**---**	**2** of **2**

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
4.00 - 5.00 (45mm dia) 100% rec	4.50-4.60	4	ES	1xT+1xJ+1xV			Orangish brown mottled grey clayey fine to medium SAND. (FITTLEWORTH MEMBER) *(stratum copied from 3.80m from previous sheet)*	(1.65)	
	4.50		PID	39.6ppm					
	4.80-4.90	5	D						
	4.80-4.90	6	B						
	4.80		PID	0.0ppm					
	5.00-5.45	1	SPT	N=24					
								5.45	
							Borehole completed at 5.45m bgl.		

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

FINAL

WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS4**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**42.92**	**E:510194.2 N:117004.1**	**1** of **2**

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
							MADE GROUND: Dark brown slightly gravelly clayey fine SAND with frequent rootlets. Gravel is subangular to subrounded fine of flint. (MADE GROUND)	0.15	
								0.30	
							MADE GROUND: Dark brown slightly gravelly clayey fine SAND with occasional organic materials. Gravel is subangular to subrounded fine to medium of flint, brick and plastics. (MADE GROUND)		
							Dark orangish brown mottled grey clayey fine to medium SAND with occasional organic material. (FITTLEWORTH MEMBER)	(1.00)	
	1.00-1.45	1	SPT	N=5					
	1.10-1.20	1	B					1.30	
1.00 - 2.00 (115mm dia) 100% rec	1.50	2	D				Orangish brown mottled grey very clayey fine to medium SAND. (FITTLEWORTH MEMBER)		
	2.00-2.45	1	SPT	N=19					
2.00 - 3.00 (98mm dia) 100% rec	2.50	3	D					(2.30)	
	2.70-2.80	1	ES	1xT+1xJ+1xV			. . . At 2.70m bgl: hydrocarbon odour and black staining		
	2.70		PID	24.9ppm					
	3.00-3.45	1	SPT	N=35					
3.00 - 4.00 (75mm dia) 100% rec	3.50-3.60	2	ES	1xT+1xJ+1xV				3.60	
	3.50		PID	0.5ppm			Dark grey mottled orangish brown dense clayey fine SAND. (FITTLEWORTH MEMBER)		
	3.80-3.90	4	D						
	3.80		PID	3.8ppm				(0.85)	
	4.00-4.45	1	SPT	N=62					
								4.45	

Borehole terminated at 4.0.00m bgl due to SPT refusal.

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Inspection pit hand dug to 1.20m depth.
3. No groundwater encountered.
4. 50mm diameter gas/groundwater monitoring well complete with flush protective cover installed to 4.00m depth on completion. Response zone 1.00m to 4.00m depth.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

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WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS4**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**42.92**	**E:510194.2 N:117004.1**	**2** of **2**

Progress	Samples / Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	AGS

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

FINAL

WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Storrington Road	**Monaghan Mushrooms Ltd**	**WS5**

Contract Ref:	Start:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:
305276	**27.09.22** End: **27.09.22**	**50.79**	**E:510280.8 N:117247.1**	**1** of **1**

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
							TOPSOIL. Dark brown clayey fine to medium SAND with frequent rootlets. (TOPSOIL)	0.20	
	0.30-0.40 0.30	1	ES PID	1xT+1xJ+1xV 0.0ppm			Brown loose slightly clayey gravelly fine to coarse SAND with low cobble content. Gravel is subangular to subrounded fine to coarse of flint and sandstone. Cobbles are subangular to subrounded of flint . (FITTLEWORTH MEMBER)	(1.10)	
	0.90-1.00	5	B						
	1.00-1.45	1	SPT	N=10				1.30	
1.00 - 2.00 (115mm dia) 100% rec	1.50-1.60	1	D				Dark orangish brown mottled grey dense very clayey fine to medium SAND with occasional organic materials and rare gravels subangular to subrounded medium to coarse of sandstone. (FITTLEWORTH MEMBER)		
	2.00-2.45	1	SPT	N=9					
2.00 - 3.00 (98mm dia) 75% rec	2.50-2.60	2	D					(2.35)	
	2.80-2.90	3	B						
	3.00-3.45	1	SPT	N=51					
3.00 - 3.50 (55mm dia) 50% rec	3.30-3.50	4	B						
	3.50-3.65	1	SPT	NP				3.65	
							Borehole terminated at 3.65m bgl due to SPT refusal		

Drilling Progress and Water Observations

Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Position checked with Ground Penetrating Radar, CAT and Genny prior to excavation.
2. Inspection pit hand dug to 1.20m depth.
3. No groundwater encountered.
4. 50mm diameter gas/groundwater monitoring well complete with flush protective cover installed to 3.50m depth on completion. Response zone 1.00m to 3.50m depth.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Tracked window sampling	**Dando Terrier**	**OSI**	**JLilley**	

GINT_LIBRARY_V10_01.GLB LibVersion: v8_07_001 PrjVersion: v8_07 | Log WINDOW SAMPLE LOG - A4P | 305276-STORRINGTON-ROAD.GPJ - v10_01. | 05/10/22 - 14:08 | EC3 |

APPENDIX I
GROUNDWATER DATA SHEET

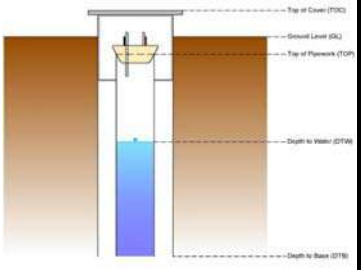
Groundwater Gauging Data Form

Project Information	Project Name:	Storrington Road, Thakeham		
	Project Number:	305276		
	Measurement Date:	04/10/2022	Sampled by:	James Lilley
	Weather:	Overcast		
	Well Notes - e.g. Condition, access, safety:			

	Water Level Meter Used (X that applicable):				
	Interface probe	X			

Measurement datum:	***Top Of Cover*** **(TOC),** ***Ground Level*** **(GL),** ***Top Of Pipework*** **(TOP).** If 'Ground Level', the offset from datum to GL will be 0m. **Record a positive offset if the datum is higher than GL or a negative offset if the datum is below GL.** See figure for definitions.

Measurement Datum:		Offset from **datum** to GL (m):	



Time	BH ID	Offset from **datum** to GL (m)	Product present? (Y/N)	Depth to product from datum (m)	Type of product (LNAPL / DNAPL)	Depth to Water (m)	Depth to Base (m)	Notes
	WS1	0	N			3.700	3.860	
	WS3	0	N			4.450	4.920	PID 71.4ppm
	WS4	0	N			3.170	3.870	PID 0.3ppm
	WS5	0	N				3.530	Monitoring well Dry - PID 0.1ppm

APPENDIX J
LABORATORY CERTIFICATES FOR SOIL ANALYSIS

Emily Chissell
RSK
Chancery House
Premier Way
Abbey Park Industrial Estate
Romsey
SO51 9AQ

Derwentside Environmental Testing Services Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 22-08108

Site Reference:	Storrington Road, Thakeham
Project / Job Ref:	305276
Order No:	P02129411
Sample Receipt Date:	27/09/2022
Sample Scheduled Date:	28/09/2022
Report Issue Number:	1
Reporting Date:	04/10/2022

Authorised by:

[redacted]

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22	23/09/22	23/09/22	23/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP2	TP3	TP4	TP4	TP4
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.40 - 0.50	0.40 - 0.50	0.30 - 0.40	0.30 - 0.40	2.20 - 2.30
Reporting Date: 04/10/2022	**DETS Sample No**	614656	614657	614658	614659	614660

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected		Not Detected		Not Detected
TOC (Total Organic Carbon)	%	< 0.1	MCERTS		0.3			
Arsenic (As)	mg/kg	< 2	MCERTS	12		2		15
W/S Boron	mg/kg	< 1	NONE	< 1		< 1		< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2		< 0.2		< 0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	19		3		14
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2		< 2		< 2
Copper (Cu)	mg/kg	< 4	MCERTS	8		12		10
Lead (Pb)	mg/kg	< 3	MCERTS	10		19		11
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1		< 1		< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	10		6		21
Selenium (Se)	mg/kg	< 2	MCERTS	< 3		< 3		< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	35		24		38

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22	23/09/22	23/09/22	23/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP5	TP5	TP8	TP9	TP15
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.15 - 0.25	0.60 - 0.70	0.30 - 0.40	0.30 - 0.40	0.65 - 0.75
Reporting Date: 04/10/2022	**DETS Sample No**	614661	614662	614663	614664	614670

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Screen (S)	N/a	N/a	**ISO17025**			Not Detected	Not Detected	Not Detected
TOC (Total Organic Carbon)	%	< 0.1	**MCERTS**	1.5				
Arsenic (As)	mg/kg	< 2	**MCERTS**			6	16	8
W/S Boron	mg/kg	< 1	NONE			< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	**MCERTS**			< 0.2	< 0.2	< 0.2
Chromium (Cr)	mg/kg	< 2	**MCERTS**			8	28	9
Chromium (hexavalent)	mg/kg	< 2	NONE			< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	**MCERTS**			12	7	5
Lead (Pb)	mg/kg	< 3	**MCERTS**			18	13	6
Mercury (Hg)	mg/kg	< 1	**MCERTS**			< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	**MCERTS**			6	17	9
Selenium (Se)	mg/kg	< 2	**MCERTS**			< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	**MCERTS**			38	48	28

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP16	TP16			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.20 - 0.30	0.20 - 0.30			
Reporting Date: 04/10/2022	**DETS Sample No**	614671	614672			

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected				
TOC (Total Organic Carbon)	%	< 0.1	MCERTS					
Arsenic (As)	mg/kg	< 2	MCERTS	9				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2				
Chromium (Cr)	mg/kg	< 2	MCERTS	10				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	MCERTS	15				
Lead (Pb)	mg/kg	< 3	MCERTS	28				
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1				
Nickel (Ni)	mg/kg	< 3	MCERTS	8				
Selenium (Se)	mg/kg	< 2	MCERTS	< 3				
Zinc (Zn)	mg/kg	< 3	MCERTS	54				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22	23/09/22	23/09/22	23/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP2	TP4	TP4	TP8	TP9
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.40 - 0.50	0.30 - 0.40	2.20 - 2.30	0.30 - 0.40	0.30 - 0.40
Reporting Date: 04/10/2022	**DETS Sample No**	614656	614658	614660	614663	614664

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	0.50	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.72	< 0.1	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.56	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	0.45	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	0.34	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.45	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.19	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.43	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	0.28	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	0.19	< 0.1	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	4.1	< 1.6	< 1.6	< 1.6

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP15	TP16			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.65 - 0.75	0.20 - 0.30			
Reporting Date: 04/10/2022	**DETS Sample No**	614670	614671			

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6			

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Soil Analysis Certificate - TPH CWG Banded							
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22	23/09/22	23/09/22	23/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP2	TP4	TP4	TP8	TP9
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.40 - 0.50	0.30 - 0.40	2.20 - 2.30	0.30 - 0.40	0.30 - 0.40
Reporting Date: 04/10/2022	**DETS Sample No**	614656	614658	614660	614663	614664

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	13	< 2	< 2
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	43	< 2	< 2
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	63	< 3	< 3
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	119	< 21	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	7	< 2	< 2
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	40	< 2	< 2
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	47	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	165	< 42	< 42

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP15	TP16			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.65 - 0.75	0.20 - 0.30			
Reporting Date: 04/10/2022	**DETS Sample No**	614670	614671			

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C16 - C21	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C21 - C34	mg/kg	< 10	**MCERTS**	< 10	< 10			
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C12 - C16	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C16 - C21	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aromatic >C21 - C35	mg/kg	< 10	**MCERTS**	< 10	< 10			
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21			
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42			

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Soil Analysis Certificate - BTEX / MTBE							
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22	23/09/22	23/09/22	23/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP2	TP4	TP4	TP8	TP9
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.40 - 0.50	0.30 - 0.40	2.20 - 2.30	0.30 - 0.40	0.30 - 0.40
Reporting Date: 04/10/2022	**DETS Sample No**	614656	614658	614660	614663	614664

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP15	TP16			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.65 - 0.75	0.20 - 0.30			
Reporting Date: 04/10/2022	**DETS Sample No**	614670	614671			

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2			
Toluene	ug/kg	< 5	MCERTS	< 5	< 5			
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2			
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
MTBE	ug/kg	< 5	MCERTS	< 5	< 5			

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Soil Analysis Certificate - PCB (7 Congeners)						
DETS Report No: 22-08108	**Date Sampled**	23/09/22				
RSK	**Time Sampled**	None Supplied				
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP5				
Project / Job Ref: 305276	**Additional Refs**	None Supplied				
Order No: P02129411	**Depth (m)**	0.60 - 0.70				
Reporting Date: 04/10/2022	**DETS Sample No**	614662				

Determinand	**Unit**	**RL**	**Accreditation**				
PCB Congener 28	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 52	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 101	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 118	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 138	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 153	mg/kg	< 0.008	NONE	< 0.008			
PCB Congener 180	mg/kg	< 0.008	NONE	< 0.008			
Total PCB (7 Congeners)	mg/kg	< 0.1	NONE	< 0.1			

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Soil Analysis Certificate - PCB (12 Congeners)						
DETS Report No: 22-08108	**Date Sampled**	23/09/22				
RSK	**Time Sampled**	None Supplied				
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP5				
Project / Job Ref: 305276	**Additional Refs**	None Supplied				
Order No: P02129411	**Depth (m)**	0.60 - 0.70				
Reporting Date: 04/10/2022	**DETS Sample No**	614662				

Determinand	**Unit**	**RL**	**Accreditation**					
PCB Congener 77	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 81	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 105	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 114	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 118	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 123	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 126	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 156	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 157	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 167	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 169	mg/kg	< 0.008	NONE	< 0.008				
PCB Congener 189	mg/kg	< 0.008	NONE	< 0.008				
Total PCB (12 Congeners)	mg/kg	< 0.1	NONE	< 0.1				

Analytical rsults are expressed on a dry weight basis where samples are assisted-dried at less than 30^{O}C

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Soil Analysis Certificate - Organochlorine Pesticides							
DETS Report No: 22-08108	**Date Sampled**	23/09/22					
RSK	**Time Sampled**	None Supplied					
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP9					
Project / Job Ref: 305276	**Additional Refs**	None Supplied					
Order No: P02129411	**Depth (m)**	0.30 - 0.40					
Reporting Date: 04/10/2022	**DETS Sample No**	614664					

Determinand	**Unit**	**RL**	**Accreditation**					
Aldrin	mg/kg	< 0.02	NONE	< 0.02				
alpha-HCH	mg/kg	< 0.02	NONE	< 0.02				
beta-HCH	mg/kg	< 0.02	NONE	< 0.02				
cis-chlordane	mg/kg	< 0.02	NONE	< 0.02				
delta-HCH	mg/kg	< 0.02	NONE	< 0.02				
Dieldrin	mg/kg	< 0.02	NONE	< 0.02				
Endosulfan A	mg/kg	< 0.02	NONE	< 0.02				
Endosulfan B	mg/kg	< 0.02	NONE	< 0.02				
Endrin	mg/kg	< 0.02	NONE	< 0.02				
gamma-HCH (Lindane)	mg/kg	< 0.02	NONE	< 0.02				
Heptachlor	mg/kg	< 0.02	NONE	< 0.02				
Heptachlor epoxide	mg/kg	< 0.02	NONE	< 0.02				
Hexachlorobenzene (HCB)	mg/kg	< 0.02	NONE	< 0.02				
Isodrin	mg/kg	< 0.02	NONE	< 0.02				
Methoxychlor	mg/kg	< 0.02	NONE	< 0.02				
o,p' - DDD	mg/kg	< 0.02	NONE	< 0.02				
o,p' - DDE	mg/kg	< 0.02	NONE	< 0.02				
o,p' - DDT	mg/kg	< 0.02	NONE	< 0.02				
p,p' - DDD	mg/kg	< 0.02	NONE	< 0.02				
p,p' - DDE	mg/kg	< 0.02	NONE	< 0.02				
p,p' - DDT	mg/kg	< 0.02	NONE	< 0.02				
trans-chlordane	mg/kg	< 0.02	NONE	< 0.02				
Trifluralin	mg/kg	< 0.02	NONE	< 0.02				

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Soil Analysis Certificate - Organophosphorus Pesticides							
DETS Report No: 22-08108	**Date Sampled**	23/09/22					
RSK	**Time Sampled**	None Supplied					
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP9					
Project / Job Ref: 305276	**Additional Refs**	None Supplied					
Order No: P02129411	**Depth (m)**	0.30 - 0.40					
Reporting Date: 04/10/2022	**DETS Sample No**	614664					

Determinand	**Unit**	**RL**	**Accreditation**					
Azinphos-methyl	mg/kg	< 0.1	NONE	< 0.1				
Chlorfenvinphos, alpha	mg/kg	< 0.1	NONE	< 0.1				
Chlorfenvinphos, beta	mg/kg	< 0.1	NONE	< 0.1				
Chlorpyriphos-methyl	mg/kg	< 0.1	NONE	< 0.1				
Diazinon	mg/kg	< 0.1	NONE	< 0.1				
Dichlorvos	mg/kg	< 0.1	NONE	< 0.1				
Dimethoate	mg/kg	< 0.1	NONE	< 0.1				
Fenitrothion	mg/kg	< 0.1	NONE	< 0.1				
Fenthion	mg/kg	< 0.1	NONE	< 0.1				
Malathion	mg/kg	< 0.1	NONE	< 0.1				
Mevinphos, €	mg/kg	< 0.1	NONE	< 0.1				
Mevinphos, (Z)	mg/kg	< 0.1	NONE	< 0.1				
Parathion-ethyl	mg/kg	< 0.1	NONE	< 0.1				
Parathion-methyl	mg/kg	< 0.1	NONE	< 0.1				
Phorate	mg/kg	< 0.1	NONE	< 0.1				

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Soil Analysis Certificate - Triazine Herbicides						
DETS Report No: 22-08108	**Date Sampled**	23/09/22				
RSK	**Time Sampled**	None Supplied				
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP9				
Project / Job Ref: 305276	**Additional Refs**	None Supplied				
Order No: P02129411	**Depth (m)**	0.30 - 0.40				
Reporting Date: 04/10/2022	**DETS Sample No**	614664				

Determinand	**Unit**	**RL**	**Accreditation**					
Atrazine	mg/kg	< 0.1	NONE	< 0.1				
Prometryn	mg/kg	< 0.1	NONE	< 0.1				
Propazine	mg/kg	< 0.1	NONE	< 0.1				
Simazine	mg/kg	< 0.1	NONE	< 0.1				
Terbuthylazine	mg/kg	< 0.1	NONE	< 0.1				
Terbutryn	mg/kg	< 0.1	NONE	< 0.1				
Ametryn	mg/kg	< 0.1	NONE	< 0.1				

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4480

Leachate Analysis Certificate						
DETS Report No: 22-08108	**Date Sampled**	23/09/22	23/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP4	TP16			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.30 - 0.40	0.20 - 0.30			
Reporting Date: 04/10/2022	**DETS Sample No**	614659	614672			

Determinand	Unit	RL	Accreditation					
Arsenic	ug/l	< 5	ISO17025	< 5	< 5			
Boron	ug/l	< 5	ISO17025	19	22			
Cadmium	ug/l	< 0.4	ISO17025	< 0.4	< 0.4			
Chromium	ug/l	< 5	ISO17025	< 5	< 5			
Copper	ug/l	< 5	ISO17025	< 5	< 5			
Lead	ug/l	< 5	ISO17025	< 5	< 5			
Mercury	ug/l	< 0.05	ISO17025	< 0.05	< 0.05			
Nickel	ug/l	< 5	ISO17025	< 5	< 5			
Selenium	ug/l	< 5	ISO17025	< 5	< 5			
Zinc	ug/l	< 2	ISO17025	4	5			

Subcontracted analysis (S)

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Soil Analysis Certificate - Sample Descriptions
DETS Report No: 22-08108
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
614656	TP2	None Supplied	0.40 - 0.50	15	Light brown sandy clay
614657	TP3	None Supplied	0.40 - 0.50	12.2	Brown sandy clay
614658	TP4	None Supplied	0.30 - 0.40	15.4	Light grey sandy clay
614660	TP4	None Supplied	2.20 - 2.30	15.1	Brown sandy clay
614661	TP5	None Supplied	0.15 - 0.25	12.2	Brown sandy clay with stones
614662	TP5	None Supplied	0.60 - 0.70	13.2	Brown sandy clay with vegetation
614663	TP8	None Supplied	0.30 - 0.40	15	Brown sandy clay with stones
614664	TP9	None Supplied	0.30 - 0.40	13.9	Brown sandy clay with stones
614670	TP15	None Supplied	0.65 - 0.75	13.8	Brown sandy clay
614671	TP16	None Supplied	0.20 - 0.30	13	Brown loamy sand with vegetation

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08108
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

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Water Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08108
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	UF	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR dete	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 – C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichlorometha	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered
UF Unfiltered

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DETS Report No: 22-08140

Site Reference:	Storrington Road, Thakeham
Project / Job Ref:	305276
Order No:	P02129445
Sample Receipt Date:	29/09/2022
Sample Scheduled Date:	29/09/2022
Report Issue Number:	1
Reporting Date:	04/10/2022

Authorised by:

[redacted]
Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

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Soil Analysis Certificate						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22	27/09/22	27/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS1	WS1	WS2	WS2	WS3
Project / Job Ref: 305276	**Additional Refs**	1	1	1	2	1
Order No: P02129445	**Depth (m)**	0.50 - 0.60	0.50 - 0.60	0.25 - 0.35	0.35 - 0.45	0.40 - 0.50
Reporting Date: 04/10/2022	**DETS Sample No**	614766	614767	614768	614769	614770

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Screen [S]	N/a	N/a	**ISO17025**	Not Detected		Detected		Detected
Sample Matrix [S]	Material Type	N/a	NONE			Chrysotile fibres present in microscopic cement debris		Bundles of Chrysotile fibres
Asbestos Type [S]	PLM Result	N/a	**ISO17025**			Chrysotile		Chrysotile
pH	pH Units	N/a	**MCERTS**	7.9		8.4		
Total Cyanide	mg/kg	< 2	NONE	< 2		< 2		
Free Cyanide	mg/kg	< 2	NONE	< 2		< 2		
Total Sulphate as SO_4	mg/kg	< 200	**MCERTS**	840		7782		
Total Sulphate as SO_4	%	< 0.02	**MCERTS**	0.08		0.78		
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	**MCERTS**	64		408		
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	**MCERTS**	0.06		0.41		
Sulphide	mg/kg	< 5	NONE	< 5		< 5		
TOC (Total Organic Carbon)	%	< 0.1	**MCERTS**	1.1		1.1		
Ammoniacal Nitrogen as NH_4	mg/kg	< 0.5	**ISO17025**	0.9		2.8		
Water Soluble Nitrate (2:1) as NO_3	mg/kg	< 3	**MCERTS**	15		40		
Water Soluble Nitrate (2:1) as NO_3	mg/l	< 1.5	**MCERTS**	7.5		20.1		
W/S Phosphate as PO_4 (2:1)	mg/kg	< 3	NONE	< 3		< 3		
Arsenic (As)	mg/kg	< 2	**MCERTS**	5		14		10
W/S Boron	mg/kg	< 1	NONE	< 1		< 1		1
Cadmium (Cd)	mg/kg	< 0.2	**MCERTS**	< 0.2		1.4		0.4
Chromium (Cr)	mg/kg	< 2	**MCERTS**	8		33		9
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2		< 2		< 2
Copper (Cu)	mg/kg	< 4	**MCERTS**	31		188		38
Lead (Pb)	mg/kg	< 3	**MCERTS**	49		146		186
Mercury (Hg)	mg/kg	< 1	**MCERTS**	< 1		< 1		< 1
Nickel (Ni)	mg/kg	< 3	**MCERTS**	11		27		13
Selenium (Se)	mg/kg	< 2	**MCERTS**	< 3		< 3		< 3
Zinc (Zn)	mg/kg	< 3	**MCERTS**	46		509		286

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22	27/09/22	27/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS3	WS3	WS3	WS3	WS4
Project / Job Ref: 305276	**Additional Refs**	1	2	3	4	1
Order No: P02129445	**Depth (m)**	0.40 - 0.50	2.50 - 2.60	3.50 - 3.60	4.60	2.70 - 2.80
Reporting Date: 04/10/2022	**DETS Sample No**	614771	614772	614773	614774	614775

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Screen [S]	N/a	N/a	**ISO17025**			Not Detected		
Sample Matrix [S]	Material Type	N/a	NONE					
Asbestos Type [S]	PLM Result	N/a	**ISO17025**					
pH	pH Units	N/a	**MCERTS**					
Total Cyanide	mg/kg	< 2	NONE					
Free Cyanide	mg/kg	< 2	NONE					
Total Sulphate as SO_4	mg/kg	< 200	**MCERTS**					
Total Sulphate as SO_4	%	< 0.02	**MCERTS**					
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	**MCERTS**					
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	**MCERTS**					
Sulphide	mg/kg	< 5	NONE					
TOC (Total Organic Carbon)	%	< 0.1	**MCERTS**					
Ammoniacal Nitrogen as NH_4	mg/kg	< 0.5	**ISO17025**					
Water Soluble Nitrate (2:1) as NO_3	mg/kg	< 3	**MCERTS**					
Water Soluble Nitrate (2:1) as NO_3	mg/l	< 1.5	**MCERTS**					
W/S Phosphate as PO_4 (2:1)	mg/kg	< 3	NONE					
Arsenic (As)	mg/kg	< 2	**MCERTS**			7		
W/S Boron	mg/kg	< 1	NONE			< 1		
Cadmium (Cd)	mg/kg	< 0.2	**MCERTS**			< 0.2		
Chromium (Cr)	mg/kg	< 2	**MCERTS**			6		
Chromium (hexavalent)	mg/kg	< 2	NONE		< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	**MCERTS**			5		
Lead (Pb)	mg/kg	< 3	**MCERTS**			7		
Mercury (Hg)	mg/kg	< 1	**MCERTS**			< 1		
Nickel (Ni)	mg/kg	< 3	**MCERTS**			14		
Selenium (Se)	mg/kg	< 2	**MCERTS**			< 3		
Zinc (Zn)	mg/kg	< 3	**MCERTS**			22		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS4	WS5			
Project / Job Ref: 305276	**Additional Refs**	2	1			
Order No: P02129445	**Depth (m)**	3.50 - 3.60	0.30 - 0.40			
Reporting Date: 04/10/2022	**DETS Sample No**	614776	614777			

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025		Not Detected			
Sample Matrix (S)	Material Type	N/a	NONE					
Asbestos Type (S)	PLM Result	N/a	ISO17025					
pH	pH Units	N/a	MCERTS					
Total Cyanide	mg/kg	< 2	NONE					
Free Cyanide	mg/kg	< 2	NONE					
Total Sulphate as SO_4	mg/kg	< 200	MCERTS					
Total Sulphate as SO_4	%	< 0.02	MCERTS					
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	MCERTS					
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	MCERTS					
Sulphide	mg/kg	< 5	NONE					
TOC (Total Organic Carbon)	%	< 0.1	MCERTS		2.2			
Ammoniacal Nitrogen as NH_4	mg/kg	< 0.5	ISO17025					
Water Soluble Nitrate (2:1) as NO_3	mg/kg	< 3	MCERTS					
Water Soluble Nitrate (2:1) as NO_3	mg/l	< 1.5	MCERTS					
W/S Phosphate as PO_4 (2:1)	mg/kg	< 3	NONE					
Arsenic (As)	mg/kg	< 2	MCERTS		7			
W/S Boron	mg/kg	< 1	NONE		< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS		< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS		8			
Chromium (hexavalent)	mg/kg	< 2	NONE		< 2			
Copper (Cu)	mg/kg	< 4	MCERTS		15			
Lead (Pb)	mg/kg	< 3	MCERTS		49			
Mercury (Hg)	mg/kg	< 1	MCERTS		< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS		7			
Selenium (Se)	mg/kg	< 2	MCERTS		< 3			
Zinc (Zn)	mg/kg	< 3	MCERTS		70			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22	27/09/22	27/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS1	WS2	WS3	WS3	WS5
Project / Job Ref: 305276	**Additional Refs**	1	1	1	3	1
Order No: P02129445	**Depth (m)**	0.50 - 0.60	0.25 - 0.35	0.40 - 0.50	3.50 - 3.60	0.30 - 0.40
Reporting Date: 04/10/2022	**DETS Sample No**	614766	614768	614770	614773	614777

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	1.37	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.70	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	0.18	4.70	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	1.26	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	0.35	0.38	11.30	< 0.1	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	0.36	0.34	9.78	< 0.1	0.12
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.16	0.21	7.22	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	0.21	0.22	5.68	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.25	0.34	8.61	< 0.1	0.14
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.15	2.48	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.20	0.35	6.92	< 0.1	0.12
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.18	0.40	3.56	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.97	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.17	0.42	2.81	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	1.9	3	67.4	< 1.6	< 1.6

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22	27/09/22	27/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS2	WS3	WS3	WS3	WS3
Project / Job Ref: 305276	**Additional Refs**	1	1	2	3	4
Order No: P02129445	**Depth (m)**	0.25 - 0.35	0.40 - 0.50	2.50 - 2.60	3.50 - 3.60	4.60
Reporting Date: 04/10/2022	**DETS Sample No**	614768	614770	614772	614773	614774

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	12.30	< 0.05	< 0.05
Aliphatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2	283	10	< 2
Aliphatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2	356	18	< 2
Aliphatic >C12 - C16	mg/kg	< 3	**MCERTS**	< 3	13	334	17	< 3
Aliphatic >C16 - C21	mg/kg	< 3	**MCERTS**	17	110	10	< 3	< 3
Aliphatic >C21 - C34	mg/kg	< 10	**MCERTS**	< 10	648	< 10	74	< 10
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	770	994	119	< 21
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2	38	< 2	< 2
Aromatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2	186	3	< 2
Aromatic >C12 - C16	mg/kg	< 2	**MCERTS**	< 2	14	235	10	< 2
Aromatic >C16 - C21	mg/kg	< 3	**MCERTS**	15	146	9	< 3	< 3
Aromatic >C21 - C35	mg/kg	< 10	**MCERTS**	14	899	< 10	< 10	< 10
Aromatic (C5 - C35)	mg/kg	< 21	NONE	29	1058	469	< 21	< 21
Total >C5 - C35	mg/kg	< 42	NONE	45	1828	1463	132	< 42

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22		
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS4	WS4	WS5		
Project / Job Ref: 305276	**Additional Refs**	1	2	1		
Order No: P02129445	**Depth (m)**	2.70 - 2.80	3.50 - 3.60	0.30 - 0.40		
Reporting Date: 04/10/2022	**DETS Sample No**	614775	614776	614777		

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	16	< 2	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	34	< 2	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	103	< 3	< 3		
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	113	< 3	< 3		
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	27	< 10	< 10		
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	293	< 21	< 21		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	24	< 2	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	97	< 2	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	112	< 3	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	30	< 10	< 10		
Aromatic (C5 - C35)	mg/kg	< 21	NONE	263	< 21	< 21		
Total >C5 - C35	mg/kg	< 42	NONE	556	< 42	< 42		

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Soil Analysis Certificate - BTEX / MTBE							
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22	27/09/22	27/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS2	WS3	WS3	WS3	WS3
Project / Job Ref: 305276	**Additional Refs**	1	1	2	3	4
Order No: P02129445	**Depth (m)**	0.25 - 0.35	0.40 - 0.50	2.50 - 2.60	3.50 - 3.60	4.60
Reporting Date: 04/10/2022	**DETS Sample No**	614768	614770	614772	614773	614774

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

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Soil Analysis Certificate - BTEX / MTBE							
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22		
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS4	WS4	WS5		
Project / Job Ref: 305276	**Additional Refs**	1	2	1		
Order No: P02129445	**Depth (m)**	2.70 - 2.80	3.50 - 3.60	0.30 - 0.40		
Reporting Date: 04/10/2022	**DETS Sample No**	614775	614776	614777		

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5		

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Leachate Analysis Certificate						
DETS Report No: 22-08140	**Date Sampled**	27/09/22	27/09/22	27/09/22		
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS1	WS2	WS3		
Project / Job Ref: 305276	**Additional Refs**	1	2	1		
Order No: P02129445	**Depth (m)**	0.50 - 0.60	0.35 - 0.45	0.40 - 0.50		
Reporting Date: 04/10/2022	**DETS Sample No**	614767	614769	614771		

Determinand	Unit	RL	Accreditation					
Arsenic	ug/l	< 5	ISO17025	< 5		< 5		
Boron	ug/l	< 5	ISO17025	9		42		
Cadmium	ug/l	< 0.4	ISO17025	< 0.4		< 0.4		
Chromium	ug/l	< 5	ISO17025	< 5		< 5		
Copper	ug/l	< 5	ISO17025	5		< 5		
Lead	ug/l	< 5	ISO17025	< 5		5		
Mercury	ug/l	< 0.05	ISO17025	< 0.05		< 0.05		
Nickel	ug/l	< 5	ISO17025	< 5		< 5		
Selenium	ug/l	< 5	ISO17025	< 5		< 5		
Zinc	ug/l	< 2	ISO17025	5		6		

Subcontracted analysis (S)

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Bulk Analysis Certificate						
DETS Report No: 22-08140	**Date Sampled**	27/09/22				
RSK	**Time Sampled**	None Supplied				
Site Reference: Storrington Road, Thakeham	**TP / BH No**	WS2				
Project / Job Ref: 305276	**Additional Refs**	2				
Order No: P02129445	**Depth (m)**	0.35 - 0.45				
Reporting Date: 04/10/2022	**DETS Sample No**	614769				

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Type (S)	PLM Result	N/a	**ISO17025**	Chrysotile				
Sample Matrix (S)	Material Type	N/a	NONE	Cement				

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification) that is in accordance with the Health and Safety Executive HSG 248 Appendix 2.

This report refers to samples as received, and Dets Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

RL: Reporting Limit

Subcontracted analysis (S)

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Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 22-08140	
RSK	
Site Reference: Storrington Road, Thakeham	
Project / Job Ref: 305276	
Order No: P02129445	
Reporting Date: 04/10/2022	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
614766	WS1	1	0.50 - 0.60	7.9	Light brown loamy sand with stones and vegetation
614768	WS2	1	0.25 - 0.35	9.3	Brown clayey sand with stones
614770	WS3	1	0.40 - 0.50	8.1	Brown clayey sand with stones and concrete
614772	WS3	2	2.50 - 2.60	16.2	Brown sandy clay
614773	WS3	3	3.50 - 3.60	15.5	Light brown sandy clay
614774	WS3	4	4.60	17.9	Light brown sandy clay
614775	WS4	1	2.70 - 2.80	11.9	Light brown sandy clay
614776	WS4	2	3.50 - 3.60	19	Light brown sandy clay
614777	WS5	1	0.30 - 0.40	16.9	Light brown sandy loam

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08140
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129445
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

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Water Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08140
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129445
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	UF	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR dete	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 – C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichlorometha	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered
UF Unfiltered

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DETS Report No: 22-08142

Site Reference:	Storrington Road, Thakeham
Project / Job Ref:	305276
Order No:	P02129411
Sample Receipt Date:	29/09/2022
Sample Scheduled Date:	29/09/2022
Report Issue Number:	1
Reporting Date:	04/10/2022

Authorised by:

[redacted]

Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

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Soil Analysis Certificate						
DETS Report No: 22-08142	**Date Sampled**	22/09/22	22/09/22	22/09/22	22/09/22	22/09/22
RSK	**Time Sampled**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP10	TP10	TP11	TP12	TP14
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: P02129411	**Depth (m)**	0.35 - 0.45	0.35 - 0.45	0.35 - 0.45	0.30 - 0.40	GL - 0.10
Reporting Date: 04/10/2022	**DETS Sample No**	614785	614786	614787	614788	614789

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Screen (S)	N/a	N/a	**ISO17025**	Detected			Not Detected	
Sample Matrix (S)	Material Type	N/a	NONE	Bundles of Chrysotile fibres				
Asbestos Type (S)	PLM Result	N/a	**ISO17025**	Chrysotile				
pH	pH Units	N/a	**MCERTS**	9.9		8.0	8.2	
Total Cyanide	mg/kg	< 2	NONE	< 2		< 2	< 2	
Free Cyanide	mg/kg	< 2	NONE	< 2		< 2	< 2	
Total Sulphate as SO_4	mg/kg	< 200	**MCERTS**	2381		5358	432	
Total Sulphate as SO_4	%	< 0.02	**MCERTS**	0.24		0.54	0.04	
W/S Sulphate as SO_4 (2:1)	mg/l	< 10	**MCERTS**	368		1330	88	
W/S Sulphate as SO_4 (2:1)	g/l	< 0.01	**MCERTS**	0.37		1.33	0.09	
Sulphide	mg/kg	< 5	NONE	< 5		11	< 5	
TOC (Total Organic Carbon)	%	< 0.1	**MCERTS**			2.4		
Ammoniacal Nitrogen as NH_4	mg/kg	< 0.5	**ISO17025**	0.8		0.5	0.5	
Water Soluble Nitrate (2:1) as NO_3	mg/kg	< 3	**MCERTS**	24		12	5	
Water Soluble Nitrate (2:1) as NO_3	mg/l	< 1.5	**MCERTS**	11.9		6.2	2.3	
W/S Phosphate as PO_4 (2:1)	mg/kg	< 3	NONE	< 3		< 3	< 3	
Arsenic (As)	mg/kg	< 2	**MCERTS**	10			8	
W/S Boron	mg/kg	< 1	NONE	< 1			< 1	
Cadmium (Cd)	mg/kg	< 0.2	**MCERTS**	< 0.2			< 0.2	
Chromium (Cr)	mg/kg	< 2	**MCERTS**	11			10	
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			< 2	
Copper (Cu)	mg/kg	< 4	**MCERTS**	11			12	
Lead (Pb)	mg/kg	< 3	**MCERTS**	27			18	
Mercury (Hg)	mg/kg	< 1	**MCERTS**	< 1			< 1	
Nickel (Ni)	mg/kg	< 3	**MCERTS**	11			17	
Selenium (Se)	mg/kg	< 2	**MCERTS**	< 3			< 3	
Zinc (Zn)	mg/kg	< 3	**MCERTS**	68			45	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Subcontracted analysis (S)

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Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 22-08142	**Date Sampled**	22/09/22	22/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP10	TP12			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.35 - 0.45	0.30 - 0.40			
Reporting Date: 04/10/2022	**DETS Sample No**	614785	614788			

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	0.16	< 0.1			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	1	< 0.1			
Pyrene	mg/kg	< 0.1	MCERTS	1.66	< 0.1			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.71	< 0.1			
Chrysene	mg/kg	< 0.1	MCERTS	0.76	< 0.1			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.93	< 0.1			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.39	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.89	< 0.1			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.59	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	0.14	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.47	< 0.1			
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	7.7	< 1.6			

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Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 22-08142	**Date Sampled**	22/09/22	22/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP10	TP12			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.35 - 0.45	0.30 - 0.40			
Reporting Date: 04/10/2022	**DETS Sample No**	614785	614788			

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aliphatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aliphatic >C12 - C16	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C16 - C21	mg/kg	< 3	**MCERTS**	< 3	< 3			
Aliphatic >C21 - C34	mg/kg	< 10	**MCERTS**	< 10	< 10			
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21			
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01			
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05			
Aromatic >C8 - C10	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C10 - C12	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C12 - C16	mg/kg	< 2	**MCERTS**	< 2	< 2			
Aromatic >C16 - C21	mg/kg	< 3	**MCERTS**	5	< 3			
Aromatic >C21 - C35	mg/kg	< 10	**MCERTS**	27	< 10			
Aromatic (C5 - C35)	mg/kg	< 21	NONE	32	< 21			
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42			

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Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 22-08142	**Date Sampled**	22/09/22	22/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP10	TP12			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.35 - 0.45	0.30 - 0.40			
Reporting Date: 04/10/2022	**DETS Sample No**	614785	614788			

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2			
Toluene	ug/kg	< 5	MCERTS	< 5	< 5			
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2			
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2			
MTBE	ug/kg	< 5	MCERTS	< 5	< 5			

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Leachate Analysis Certificate						
DETS Report No: 22-08142	**Date Sampled**	22/09/22	22/09/22			
RSK	**Time Sampled**	None Supplied	None Supplied			
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP10	TP14			
Project / Job Ref: 305276	**Additional Refs**	None Supplied	None Supplied			
Order No: P02129411	**Depth (m)**	0.35 - 0.45	GL - 0.10			
Reporting Date: 04/10/2022	**DETS Sample No**	614786	614789			

Determinand	Unit	RL	Accreditation					
Arsenic	ug/l	< 5	ISO17025	5				
Boron	ug/l	< 5	ISO17025	28				
Cadmium	ug/l	< 0.4	ISO17025	< 0.4				
Chromium	ug/l	< 5	ISO17025	< 5				
Copper	ug/l	< 5	ISO17025	6				
Lead	ug/l	< 5	ISO17025	< 5				
Mercury	ug/l	< 0.05	ISO17025	< 0.05				
Nickel	ug/l	< 5	ISO17025	< 5				
Selenium	ug/l	< 5	ISO17025	< 5				
Zinc	ug/l	< 2	ISO17025	4				

Subcontracted analysis (S)

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Bulk Analysis Certificate						
DETS Report No: 22-08142	**Date Sampled**	22/09/22				
RSK	**Time Sampled**	None Supplied				
Site Reference: Storrington Road, Thakeham	**TP / BH No**	TP14				
Project / Job Ref: 305276	**Additional Refs**	None Supplied				
Order No: P02129411	**Depth (m)**	GL - 0.10				
Reporting Date: 04/10/2022	**DETS Sample No**	614789				

Determinand	**Unit**	**RL**	**Accreditation**					
Asbestos Type (S)	PLM Result	N/a	**ISO17025**	Chrysotile				
Sample Matrix (S)	Material Type	N/a	NONE	Cement				

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification) that is in accordance with the Health and Safety Executive HSG 248 Appendix 2.

This report refers to samples as received, and Dets Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

RL: Reporting Limit

Subcontracted analysis (S)

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Soil Analysis Certificate - Sample Descriptions
DETS Report No: 22-08142
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
614785	TP10	None Supplied	0.35 - 0.45	11.4	Light brown clayey sand with stones
614787	TP11	None Supplied	0.35 - 0.45	16.2	Brown clayey sand with stones
614788	TP12	None Supplied	0.30 - 0.40	13	Light brown clayey sand with stones

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

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Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08142
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received

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Water Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 22-08142
RSK
Site Reference: Storrington Road, Thakeham
Project / Job Ref: 305276
Order No: P02129411
Reporting Date: 04/10/2022

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	UF	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	UF	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	UF	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR dete	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 – C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	UF	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E121
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichlorometha	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Low heat with persulphate addition followed by IR detection	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

Key

F Filtered
UF Unfiltered

APPENDIX K
GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH

Generic assessment criteria for human health: residential scenario with home-grown produce

Background

RSK's generic assessment criteria (GAC) were initially prepared following the publication by the Environment Agency (EA) of soil guideline value (SGV) and toxicological (TOX) reports, and associated publications in 2009[1]. RSK GAC were updated following the publication of GAC by LQM/CIEH in 2009[2]. RSK GAC are periodically revised when updated information on toxicological, land use or receptor parameters is published.

Updates to the RSK GAC

In 2014, the publication of Category 4 Screening Levels (C4SL)[3,4], as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3)[5] used in the generation of SGVs.

C4SL were initially published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern (LLTC; see Section 2.3 of research project report SP1010[3]). Further C4SL were published in 2021 for vinyl chloride, tetrachloroethene (PCE) and trichloroethene (TCE). Where a C4SL has been published, the RSK GAC duplicates the C4SL using all input parameters within the SP1010 final project report[3] and associated chemical specific reports[6], and adopts them as GAC for these substances. Due to the use of decimal places rather than significant figures applied to the Contaminated Land Exposure Assessment (CLEA) tool outputs, the GAC presented may be marginally differently to the C4SL values, however any differences between the values are minimal and would not equate to an unacceptable risk.

For all other substances the C4SL exposure modifications, with the exception of the "top two" produce type approach taken in the C4SL, have been applied to the current RSK GAC. These include alterations to daily inhalation rates for residential and commercial scenarios, reducing soil adherence factors in children (age classes 1 to 12 only) for residential land use, reducing exposure frequency for dermal contact outdoors for residential land use, and updated produce type consumption rates (90th percentile) based on recent data from the National Diet and Nutrition Survey.

The RSK GAC have also been revised with updated toxicology published by LQM/CIEH in 2015[7] or by the USEPA[14], where a C4SL has not been published.

RSK GAC derivation for metals and organic compounds

Model selection

Soil assessment criteria (SAC) were calculated using the CLEA tool v1.071, supporting EA guidance[5,8,9] and revised exposure scenarios published for the C4SL[3]. The SAC are also termed GAC.

Conceptual model

In accordance with SR3[5], the residential with home-grown produce scenario considers risks to a female child between the ages of 0 and 6 years old as the highest risk scenario. In accordance with Box 3.1 of SR3[5], the pathways considered for production of the SAC in the residential with home-grown produce scenario are

- direct soil and dust ingestion
- consumption of home-grown produce
- consumption of soil attached to home-grown produce
- dermal contact with soil and indoor dust
- inhalation of indoor and outdoor dust and vapours.

Figure 1 is a conceptual model illustrating these linkages.

In line with guidance in the EA SGV report for cadmium[1], the RSK GAC for cadmium has been derived based on estimates representative of lifetime exposure. Although young children are generally more likely to have higher exposures to soil contaminants, the renal toxicity of cadmium, and the derivation of the TDI_{oral} and TDI_{inh}, are based on considerations of the kidney burden accumulated over 50 years or so. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period.

With respect to volatilisation, the CLEA model assumes a simple linear partitioning of a chemical in the soil between the sorbed, dissolved and vapour phase[9]. The upper boundaries of this partitioning are represented by the maximum aqueous solubility and pure saturated vapour concentration of the chemical. The CLEA model estimates saturated soil concentrations where these limits are reached[9]. The CLEA software uses a traffic light system to identify when individual and/or combined assessment criteria exceed the lower of either the aqueous- or vapour-based soil saturation limits. Model output cells are flagged red where the saturated soil concentration has been exceeded and the contribution of the indoor and outdoor vapour pathway to total exposure is greater than 10%. In this case, further consideration of the following is required[9]:

- Free phase contamination may be present.
- Exposure from the vapour pathways will be over-predicted by the model, as in reality the vapour phase concentration will not increase at concentrations above saturation limits
- Where the vapour pathway contribution is greater than 90%, it is unlikely the relevant health criteria value (HCV) will be exceeded at soil concentrations at least a factor of ten higher than the relevant HCV.

Where the vapour pathway is the predominant pathway (contributes greater than 90% of exposure) or the only exposure route considered and the cell is highlighted red (SAC exceeds saturation limit), the risk based on the assumed conceptual model is likely to be negligible as the vapour risk is assumed to be tolerable at maximum possible soil concentrations. In such circumstances, the vapour pathway exposure should be considered based on the presence of free phase or non-aqueous phase liquid sources and the measured concentrations of volatile organic compounds (VOC) in the vapour phase. Screening could be considered based on setting the SAC as the modelled soil saturation limits. However, as stated within the CLEA handbook[9], this is likely to not be practical in many cases because of the very low saturation limits and, in any case, is highly conservative.

It should also be noted that for mixtures of compounds, free phase may be present where soil (or groundwater) concentrations are well below saturation limits for individual compounds.

Where the vapour pathway is only one of the exposure pathways considered, an additional approach can then be utilised as detailed within Section 4.12 of the CLEA model handbook[9], which explains how to calculate an effective assessment criterion manually.

SR3[5] states that, as a general rule of thumb, it is recognised that estimating vapour phase concentrations from dissolved and sorbed phase contamination by petroleum hydrocarbons are at least a factor of ten higher than those likely to be measured on-site. RSK has therefore applied an empirical subsurface to indoor air correction factor of 10 into the CLEA model chemical database for all petroleum hydrocarbon fractions (including BTEX, trimethylbenzenes and the polycyclic aromatic hydrocarbons (PAH) naphthalene, acenaphthene and acenaphthylene) to reduce this conservatism.

Input selection

The most up-to-date published chemical and toxicological data was obtained from EA Report SC050021/SR7[10], the EA TOX[1] reports, the C4SL SP1010 project report and associated appendices[3,6], the 2015 LQM/CIEH report[7] or the USEPA IRIS database[14]. Where a LLTC[3,6] has been published for a substance, RSK has used these input parameters to derive the RSK GAC. Toxicological and specific chemical parameters for 1,2,4-trimethylbenzene, barium, methyl tertiary-butyl ether (MTBE), 1,1,2-trichlorethane, 1,1-dichloroethene, 1,2-dichloropropane, 2-chloronaphthalene, chloroethane, chloromethane, cis 1,2-dichloroethene, dichloromethane, hexachloroethane and trans 1,2-dichloroethene were obtained from the CL:AIRE Soil Generic Assessment Criteria report[11].

For TPH, aromatic hydrocarbons C_5–C_8 were not modelled, as this range comprises benzene (>EC5-EC7) and toluene (>EC7-EC8), which are modelled separately.

Physical parameters

For the residential with home-grown produce scenario, the CLEA default building is a small, two-storey terrace house with a concrete ground-bearing slab. The house is assumed to have a 100m^2 private garden consisting of lawn and flowerbeds, incorporating a 20m^2 plot for growing fruit and vegetables consumed by the residents. SR3[5] notes this residential building type to be the most conservative in terms of potential for vapour intrusion. The building parameters used in the production of the RSK GACs are the default CLEA v1.06 inputs presented in Table 3.3 of SR3[3], with a dust loading factor detailed in Section 9.3 of SR3[5]. The parameters for a sandy loam soil type were used in line with Table 4.4 of SR3[5]. This includes a value of 6% for the percentage of soil organic matter (SOM) within the soil. In RSK's experience, this is rather high for many sites. To avoid undertaking site-specific risk assessments for SOM, RSK has produced an additional set of GAC for SOM of 1% and 2.5% for all substances using the CLEA tool.

Summary of modifications to the default CLEA SR3[5] input parameters for residential with home-grown produce land-use scenario

In summary, the RSK GAC were produced using the default input parameters for soil properties, the air dispersion model, building properties and the vapour model detailed in SR3[5]. Modifications to the default SR3[5] exposure scenarios based on the C4SL exposure scenarios[3] are presented in Tables 2 and 3 below.

The final selected GAC are presented by pathway in Table 4 and the combined GAC in Table 5.

Figure 1: Conceptual model for residential scenario with home-grown produce

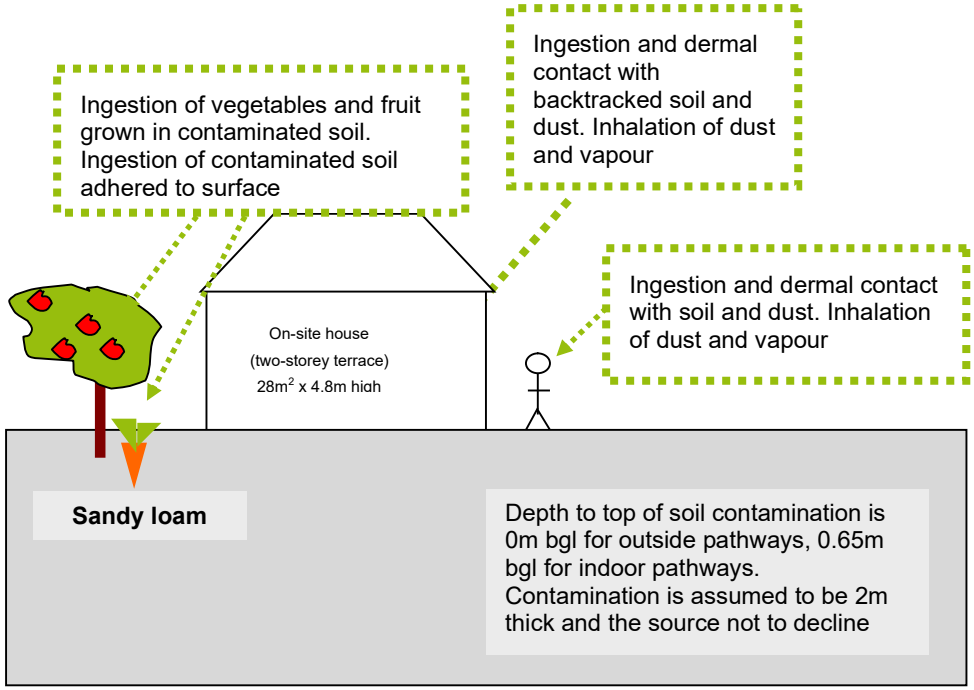


Table 1: Exposure assessment parameters for residential scenario with home-grown produce – inputs for CLEA model

Parameter	Value	Justification
Land use	Residential with homegrown produce	Chosen land use
Receptor	Female child age 1 to 6	Key generic assumption given in Box 3.1, SR3[5]
Building	Small terraced house	Key generic assumption given in Box 3.1, SR3. Small, two-storey terraced house chosen, as it is the most conservative residential building type in terms of protection from vapor intrusion (Section 3.4.6, SR3)[5]
Soil type	Sandy Loam	Most common UK soil type (Section 4.3.1, from Table 3.1, SR3)[5]
Start AC (age class)	1	Range of age classes corresponding to key generic assumption that the critical receptor is a young female child aged 0–6. From Box 3.1, SR3[5]
End AC (age class)	6	
SOM (%)	6	Representative of sandy loamy soil according to EA guidance note dated January 2009 entitled 'Changes We Have Made to the CLEA Framework Documents'[13]
	1	To provide SAC for sites where SOM <6% as often observed by RSK
	2.5	
pH	7	Model default

Table 2: Residential with home-grown produce – modified home-grown produce data

Name	Consumption rate 90th percentile (g FW kg^{-1} BW day^{-1}) by age class						Dry weight conversion factor (g DW g^{-1} FW)	Home-grown fraction (average)	Home-grown fraction (high end)	Soil loading factor (g g^{-1} DW)	Preparation correction factor
	1	2	3	4	5	6					
Green vegetables	7.12	5.87	5.87	5.87	4.53	4.53	0.096	0.05	0.33	1.00E-03	2.00E-01
Root vegetables	10.7	2.83	2.83	2.83	2.14	2.14	0.103	0.06	0.4	1.00E-03	1.00E+00
Tuber vegetables	16	6.6	6.6	6.6	4.95	4.95	0.21	0.02	0.13	1.00E-03	1.00E+00
Herbaceous fruit	1.83	3.39	3.39	3.39	2.24	2.24	0.058	0.06	0.4	1.00E-03	6.00E-01
Shrub fruit	2.23	0.46	0.46	0.46	0.19	0.19	0.166	0.09	0.6	1.00E-03	6.00E-01
Tree fruit	3.82	10.3	10.3	10.3	5.16	5.16	0.157	0.04	0.27	1.00E-03	6.00E-01
Justification	Table 3.4, SP1010 (3)						Table 6.3, SR3(5)	Table 4.19, SR3(5)		Table 6.3, SR3(5)	

Table 3: Residential with home-grown produce – modified and use and receptor data

Parameter	Unit	Age class					
		1	2	3	4	5	6
EF (soil and dust ingestion)	day yr^{-1}	180	365	365	365	365	365
EF (consumption of home-grown produce)	day yr^{-1}	180	365	365	365	365	365
EF (skin contact, indoor)	day yr^{-1}	180	365	365	365	365	365
EF (skin contact, outdoor)	day yr^{-1}	170	170	170	170	170	170
EF (inhalation of dust and vapour, indoor)	day yr^{-1}	365	365	365	365	365	365
EF (inhalation of dust and vapour, outdoor)	day yr^{-1}	365	365	365	365	365	365
Justification		Table 3.5, SP1010(3); Table 3.1, SR3(5)					
Soil to skin adherence factor (outdoor)	mg cm^{-2} day^{-1}	0.1	0.1	0.1	0.1	0.1	0.1
Justification		Table 3.5, SP1010(3)					
Inhalation rate	m^3 day^{-1}	5.4	8.0	8.9/f	10.1	10.1	10.1
Justification		Mean value USEPA, 2011(12); Table 3.2, SP1010(3)					
Notes: For **cadmium**, the exposure assessment for a residential land use is based on estimates representative of lifetime exposure AC1-18. This is because the TDI_{oral} and TDI_{inh} are based on considerations of the kidney burden accumulated over 50 years. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period. See the Environment Agency Science Report SC05002/ TOX 3(1), Science Report SC050021/Cadmium SGV(1) and the project report SP1010(3) for more information.							

References

1. Environment Agency (2009), 'Science Reports SC050021 - SGV and TOX reports for: benzene, toluene, ethylbenzene, xylene, mercury, selenium, nickel, arsenic, cadmium, phenol, dioxins, furans and dioxin-like PCBs'; 'Supplementary information for the derivation of SGV for: benzene, toluene, ethylbenzene, xylene, mercury, selenium, nickel, arsenic, cadmium, phenol, dioxins, furans and dioxin-like PCBs', and 'Contaminants in soil: updated collation of toxicological data and intake values for humans: benzene, toluene, ethylbenzene, xylene, mercury, selenium, nickel, arsenic, cadmium, phenol, dioxins, furans and dioxin-like PCBs'. Available at: https://www.gov.uk/government/publications/contaminants-in-soil-updated-collation-of-toxicological-data-and-intake-values-for-humans and https://www.gov.uk/government/publications/land-contamination-soil-guideline-values-sgvs (accessed 4 February 2015)

2. Nathanial, C. P., McCaffrey, C., Ashmore, M., Cheng, Y., Gillet, A. G., Ogden, R. C. and Scott, D. (2009), *LQM/CIEH Generic Assessment Criteria for Human Health Risk Assessment*, second edition (Nottingham: Land Quality Press).

3. Contaminated Land: Applications in Real Environment (CL:AIRE) (2014). 'Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination', Revision 2, DEFRA research project SP1010.

4. Department for Environment, Food and Rural Affairs (Defra) (2014), 'SP1010: Development of Category 4 Screening Levels for assessment of land affected by contamination – Policy Companion Document', Revision 2.

5. Environment Agency (2009), *Science Report – SC050021/SR3. Updated technical background to the CLEA model* (Bristol: Environment Agency).

6. Contaminated Land: Applications in Real Environment (CL:AIRE) (2014). 'Appendices C to H). DEFRA research project SP1010'. CL:AIRE (2021). Category 4 Screening Levels: Trichloroethene (TCE). CL:AIRE, London. ISBN 978-1-905046-38-6. CL:AIRE (2021). Category 4 Screening Levels: Vinyl Chloride. CL:AIRE, London. ISBN 978-1-905046-36-2. CL:AIRE (2021). Category 4 Screening Levels: Tetrachloroethene (PCE). CL:AIRE, London. ISBN 978-1-905046-37-9.

7. Nathanial, C. P., McCaffrey, C., Gillet, A. G., Ogden, R. C. and Nathanial, J. F. (2015), *The LQM/CIEH S4ULs for Human Health Risk Assessment* (Nottingham: Land Quality Press).

8. Environment Agency (2009), *Human health toxicological assessment of contaminants in soil. Science Report – Final SC050021/SR2* (Bristol: Environment Agency).

9. Environment Agency (2009), *Science Report – SC050021/SR4 CLEA Software (version 1.05) Handbook* (Bristol: Environment Agency).

10. Environment Agency (2008), *Science Report SC050021/SR7. Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values* (Bristol: Environment Agency).

11. CL:AIRE (2010), *Soil Generic Assessment Criteria for Human Health Risk Assessment* (London: CL:AIRE).

12. USEPA (2011), *Exposure factors handbook*, EPA/600/R-090/052F (Washington, DC: Office of Research and Development).

13. Environment Agency (2009), 'Changes made to the CLEA framework documents after the three-month evaluation period in 2008', released January 2009.

14. USEPA (2010). Hydrogen cyanide and cyanide salts. Integrated Risk Information Systems (IRIS) Chemical Assessment Summary. September 2010. https://www.epa.gov/iris (accessed 9 December 2015)

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE

Table 4

Human Health Generic Assessment Criteria by Pathway for Residential With Home-Grown Produce Scenario

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Metals													
Arsenic	(a,b)	3.71E+01	5.26E+02	NR	NR	3.71E+01	5.26E+02	NR	NR	3.71E+01	5.26E+02	NR	NR
Barium	(b)	1.34E+03	NR	NR	NR	1.34E+03	NR	NR	NR	1.34E+03	NR	NR	NR
Beryllium		1.13E+02	1.72E+00	NR	NR	1.13E+02	1.72E+00	NR	NR	1.13E+02	1.72E+00	NR	NR
Boron		3.00E+02	5.20E+06	NR	NR	3.00E+02	5.20E+06	NR	NR	3.00E+02	5.20E+06	NR	NR
Cadmium	(a)	2.30E+01	4.88E+02	2.21E+01	NR	2.30E+01	4.88E+02	2.21E+01	NR	2.30E+01	4.88E+02	2.21E+01	NR
Chromium (III) - trivalent	(c)	1.84E+04	9.07E+02	NR	NR	1.84E+04	9.07E+02	NR	NR	1.84E+04	9.07E+02	NR	NR
Chromium (VI) - hexavalent	(a,d)	5.85E+01	2.06E+01	NR	NR	5.85E+01	2.06E+01	NR	NR	5.85E+01	2.06E+01	NR	NR
Copper		2.72E+03	1.41E+04	2.47E+03	NR	2.72E+03	1.41E+04	2.47E+03	NR	2.72E+03	1.41E+04	2.47E+03	NR
Lead	(a)	2.01E+02	NR	NR	NR	2.01E+02	NR	NR	NR	2.01E+02	NR	NR	NR
Elemental Mercury (Hg^0)	(d)	NR	2.35E-01	NR	4.31E+00	NR	5.60E-01	NR	1.07E+01	NR	1.22E+00	NR	2.58E+01
Inorganic Mercury (Hg^{2+})		3.95E+01	3.63E+03	3.91E+01	NR	3.95E+01	3.63E+03	3.91E+01	NR	3.95E+01	3.63E+03	3.91E+01	NR
Methyl Mercury (Hg^{4+})		1.26E+01	1.87E+01	7.52E+00	7.33E+01	1.26E+01	3.62E+01	9.34E+00	1.42E+02	1.26E+01	7.68E+01	1.08E+01	3.04E+02
Nickel	(d)	1.27E+02	1.81E+02	NR	NR	1.27E+02	1.81E+02	NR	NR	1.27E+02	1.81E+02	NR	NR
Selenium	(b)	2.58E+02	NR	NR	NR	2.58E+02	NR	NR	NR	2.58E+02	NR	NR	NR
Vanadium		4.13E+02	1.46E+03	NR	NR	4.13E+02	1.46E+03	NR	NR	4.13E+02	1.46E+03	NR	NR
Zinc	(b)	3.86E+03	3.63E+07	NR	NR	3.86E+03	3.63E+07	NR	NR	3.86E+03	3.63E+07	NR	NR
Cyanide (free)		1.37E+00	1.37E+04	1.37E+00	NR	1.37E+00	1.37E+04	1.37E+00	NR	1.37E+00	1.37E+04	1.37E+00	NR
Volatile Organic Compounds													
Benzene	(a)	2.62E-01	9.01E-01	2.03E-01	1.22E+03	5.39E-01	1.68E+00	4.08E-01	2.26E+03	1.16E+00	3.48E+00	8.72E-01	4.71E+03
Toluene		1.53E+02	9.08E+02	1.31E+02	8.69E+02	3.49E+02	2.00E+03	2.97E+02	1.92E+03	7.95E+02	4.55E+03	6.77E+02	4.36E+03
Ethylbenzene		1.10E+02	8.34E+01	4.74E+01	5.18E+02	2.61E+02	1.96E+02	1.12E+02	1.22E+03	6.00E+02	4.58E+02	2.60E+02	2.84E+03
Xylene - m		2.10E+02	8.25E+01	5.92E+01	6.25E+02	5.01E+02	1.95E+02	1.40E+02	1.47E+03	1.15E+03	4.56E+02	3.27E+02	3.46E+03
Xylene - o		1.92E+02	8.87E+01	6.07E+01	4.78E+02	4.56E+02	2.08E+02	1.43E+02	1.12E+03	1.05E+03	4.86E+02	3.32E+02	2.62E+03
Xylene - p		1.98E+02	7.93E+01	5.66E+01	5.76E+02	4.70E+02	1.86E+02	1.33E+02	1.35E+03	1.08E+03	4.36E+02	3.10E+02	3.17E+03
Total xylene		1.92E+02	7.93E+01	5.66E+01	6.25E+02	4.56E+02	1.86E+02	1.33E+02	1.47E+03	1.05E+03	4.36E+02	3.10E+02	3.46E+03
Methyl tertiary-Butyl ether (MTBE)		1.54E+02	1.04E+02	6.22E+01	2.04E+04	2.97E+02	1.69E+02	1.08E+02	3.31E+04	6.03E+02	3.21E+02	2.10E+02	6.27E+04
1,1,1,2 Tetrachloroethane		5.39E+00	1.54E+00	1.20E+00	2.60E+03	1.27E+01	3.56E+00	2.78E+00	6.02E+03	2.92E+01	8.29E+00	6.46E+00	1.40E+04
1,1,2,2-Tetrachloroethane		2.81E+00	3.92E+00	1.64E+00	2.67E+03	6.10E+00	8.04E+00	3.47E+00	5.46E+03	1.36E+01	1.76E+01	7.67E+00	1.20E+04
1,1,1-Trichloroethane		3.33E+02	9.01E+00	8.77E+00	1.43E+03	7.26E+02	1.84E+01	1.80E+01	2.92E+03	1.62E+03	4.04E+01	3.94E+01	6.39E+03
1,1,2 Trichloroethane		1.95E+00	1.25E+00	7.62E-01	4.03E+03	4.21E+00	2.55E+00	1.59E+00	8.21E+03	9.35E+00	5.59E+00	3.50E+00	1.80E+04
1,1-Dichloroethene		1.93E+01	3.29E-01	3.23E-01	2.23E+03	3.85E+01	5.82E-01	5.74E-01	3.94E+03	8.15E+01	1.17E+00	1.16E+00	7.94E+03
1,2-Dichloroethane		3.17E-02	9.20E-03	7.13E-03	3.41E+03	5.73E-02	1.33E-02	1.08E-02	4.91E+03	1.09E-01	2.28E-02	1.88E-02	8.43E+03
1,2,4-Trimethylbenzene		NR	1.76E+00	NR	4.74E+02	NR	4.26E+00	NR	1.16E+03	NR	9.72E+00	NR	2.76E+03
1,3,5-Trimethylbenzene	(e)	NR	NR	NR	2.30E+02	NR	NR	NR	5.52E+02	NR	NR	NR	1.30E+03
1,2-Dichloropropane		4.28E+00	3.40E-02	3.37E-02	1.19E+03	8.44E+00	6.00E-02	5.96E-02	2.11E+03	1.77E+01	1.21E-01	1.20E-01	4.24E+03
Carbon Tetrachloride (tetrachloromethane)		3.10E+00	2.58E-02	2.57E-02	1.52E+03	7.11E+00	5.65E-02	5.62E-02	3.32E+03	1.62E+01	1.28E-01	1.27E-01	7.54E+03
Chloroethane		NR	1.17E+01	NR	2.61E+03	NR	1.59E+01	NR	3.54E+03	NR	2.57E+01	NR	5.71E+03
Chloromethane		NR	1.17E-02	NR	1.91E+03	NR	1.38E-02	NR	2.24E+03	NR	1.85E-02	NR	2.99E+03
Cis 1,2 Dichloroethene		1.56E-01	NR	NR	3.94E+03	2.66E-01	NR	NR	6.61E+03	5.18E-01	NR	NR	1.29E+04
Dichloromethane		7.04E-01	3.05E+00	6.24E-01	7.27E+03	1.27E+00	4.06E+00	1.08E+00	9.68E+03	2.33E+00	6.42E+00	1.92E+00	1.53E+04
Tetrachloroethene (PCE)		1.33E+01	3.19E-01	3.11E-01	4.24E+02	3.11E+01	7.15E-01	6.99E-01	9.51E+02	7.12E+01	1.64E+00	1.60E+00	2.18E+03
Trans 1,2 Dichloroethene		6.45E+00	2.76E-01	NR	3.42E+03	1.29E+01	4.99E-01	NR	6.17E+03	2.74E+01	1.02E+00		1.26E+04
Trichloroethene (TCE)		9.30E-03	3.61E-02	NR	1.54E+03	1.95E-02	7.57E-02	NR	3.22E+03	4.34E-02	1.68E-01	NR	7.14E+03
Vinyl Chloride (chloroethene)		1.13E-02	1.47E-02	6.38E-03	1.36E+03	2.09E-02	1.90E-02	9.97E-03	1.76E+03	3.88E-02	2.91E-02	1.66E-02	2.69E+03
Semi-Volatile Organic Compounds													
2-Chloronaphthalene		2.76E+02	5.39E+00	5.29E+00	1.14E+02	6.59E+02	1.33E+01	1.30E+01	2.80E+02	1.45E+03	3.17E+01	3.10E+01	6.69E+02

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE

Table 4

Human Health Generic Assessment Criteria by Pathway for Residential With Home-Grown Produce Scenario

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Acenaphthene		2.27E+02	4.86E+04	2.26E+02	5.70E+01	5.41E+02	1.18E+05	5.38E+02	1.41E+02	1.18E+03	2.68E+05	1.17E+03	3.36E+02
Acenaphthylene		1.85E+02	4.59E+04	1.84E+02	8.61E+01	4.42E+02	1.11E+05	4.40E+02	2.12E+02	9.78E+02	2.53E+05	9.74E+02	5.06E+02
Anthracene		2.43E+03	1.53E+05	2.39E+03	1.17E+00	5.53E+03	3.77E+05	5.45E+03	2.91E+00	1.10E+04	8.76E+05	1.09E+04	6.96E+00
Benzo(a)anthracene		1.01E+01	2.47E+01	7.18E+00	1.71E+00	1.42E+01	4.37E+01	1.07E+01	4.28E+00	1.69E+01	6.26E+01	1.33E+01	1.03E+01
Benzo(a)pyrene	(a)	4.96E+00	3.51E+01	NR	9.11E-01	4.96E+00	3.77E+01	NR	2.28E+00	4.96E+00	3.89E+01	NR	5.46E+00
Benzo(b)fluoranthene		2.96E+00	1.93E+01	2.56E+00	1.22E+00	3.89E+00	2.13E+01	3.29E+00	3.04E+00	4.43E+00	2.22E+01	3.69E+00	7.29E+00
Benzo(g,h,i)perylene		3.77E+02	1.87E+03	3.14E+02	1.54E-02	4.09E+02	1.94E+03	3.38E+02	3.85E-02	4.23E+02	1.97E+03	3.48E+02	9.23E-02
Benzo(k)fluoranthene		8.92E+01	5.41E+02	7.66E+01	6.87E-01	1.10E+02	5.76E+02	9.22E+01	1.72E+00	1.21E+02	5.91E+02	1.00E+02	4.12E+00
Chrysene		1.66E+01	1.19E+02	1.46E+01	4.40E-01	2.54E+01	1.49E+02	2.17E+01	1.10E+00	3.19E+01	1.66E+02	2.67E+01	2.64E+00
Dibenzo(a,h)anthracene		2.90E-01	1.45E+00	2.41E-01	3.93E-03	3.43E-01	1.64E+00	2.84E-01	9.82E-03	3.69E-01	1.74E+00	3.04E-01	2.36E-02
Fluoranthene		2.87E+02	3.83E+04	2.85E+02	1.89E+01	5.63E+02	8.87E+04	5.60E+02	4.73E+01	9.00E+02	1.83E+05	8.96E+02	1.13E+02
Fluorene		1.77E+02	6.20E+03	1.72E+02	3.09E+01	4.19E+02	1.53E+04	4.07E+02	7.65E+01	8.98E+02	3.62E+04	8.77E+02	1.83E+02
Hexachloroethane		2.68E-01	NR	NR	8.17E+00	6.57E-01	NR	NR	2.01E+01	1.55E+00	NR	NR	4.81E+01
Indeno(1,2,3-cd)pyrene		3.09E+01	2.12E+02	2.70E+01	6.13E-02	4.22E+01	2.38E+02	3.59E+01	1.53E-01	4.92E+01	2.50E+02	4.11E+01	3.68E-01
Naphthalene		2.78E+01	2.33E+01	1.27E+01	7.64E+01	6.66E+01	5.58E+01	3.04E+01	1.83E+02	1.53E+02	1.31E+02	7.06E+01	4.32E+02
Phenanthrene		9.85E+01	7.17E+03	9.72E+01	3.60E+01	2.24E+02	1.76E+04	2.22E+02	8.96E+01	4.48E+02	4.07E+04	4.43E+02	2.14E+02
Pyrene		6.25E+02	8.79E+04	6.20E+02	2.20E+00	1.25E+03	2.04E+05	1.24E+03	5.49E+00	2.05E+03	4.23E+05	2.04E+03	1.32E+01
Phenol		1.60E+02	4.58E+02	1.20E+02	2.42E+04	2.96E+02	6.95E+02	2.09E+02	3.81E+04	5.86E+02	1.19E+03	3.93E+02	7.03E+04
Total Petroleum Hydrocarbons													
Aliphatic hydrocarbons EC_5-EC_6		4.99E+03	4.24E+01	4.23E+01	3.04E+02	1.13E+04	7.79E+01	7.78E+01	5.58E+02	2.50E+04	1.61E+02	1.60E+02	1.15E+03
Aliphatic hydrocarbons >EC_6-EC_8		1.49E+04	1.04E+02	1.03E+02	1.44E+02	3.43E+04	2.31E+02	2.31E+02	3.22E+02	7.11E+04	5.29E+02	5.28E+02	7.36E+02
Aliphatic hydrocarbons >EC_8-EC_{10}		1.61E+03	2.68E+01	2.67E+01	7.77E+01	2.91E+03	6.55E+01	6.51E+01	1.90E+02	4.26E+03	1.56E+02	1.54E+02	4.51E+02
Aliphatic hydrocarbons >EC_{10}-EC_{12}		4.57E+03	1.33E+02	1.32E+02	4.75E+01	5.51E+03	3.31E+02	3.26E+02	1.18E+02	5.98E+03	7.93E+02	7.65E+02	2.83E+02
Aliphatic hydrocarbons >EC_{12}-EC_{16}		6.27E+03	1.11E+03	1.06E+03	2.37E+01	6.34E+03	2.78E+03	2.41E+03	5.91E+01	6.36E+03	6.67E+03	4.34E+03	1.42E+02
Aliphatic hydrocarbons >EC_{16}-EC_{35}	(b)	6.46E+04	NR	NR	8.48E+00	9.17E+04	NR	NR	2.12E+01	1.10E+05	NR	NR	5.09E+01
Aliphatic hydrocarbons >EC_{35}-EC_{44}	(b)	6.46E+04	NR	NR	8.48E+00	9.17E+04	NR	NR	2.12E+01	1.10E+05	NR	NR	5.09E+01
Aromatic hydrocarbons >EC8-EC_{10}		5.76E+01	4.74E+01	3.45E+01	6.13E+02	1.38E+02	1.16E+02	8.38E+01	1.50E+03	3.07E+02	2.77E+02	1.94E+02	3.58E+02
Aromatic hydrocarbons >EC_{10}-EC_{12}		8.29E+01	2.58E+02	7.52E+01	3.64E+02	1.96E+02	6.39E+02	1.79E+02	8.99E+02	4.25E+02	1.52E+03	3.91E+02	2.15E+03
Aromatic hydrocarbons >EC_{12}-EC_{16}		1.47E+02	2.85E+03	1.45E+02	1.69E+02	3.36E+02	7.07E+03	3.32E+02	4.19E+02	6.81E+02	1.68E+04	6.74E+02	1.00E+03
Aromatic hydrocarbons >EC_{16}-EC_{21}	(b)	2.63E+02	NR	NR	5.37E+01	5.45E+02	NR	NR	1.34E+02	9.34E+02	NR	NR	3.21E+02
Aromatic hydrocarbons >EC_{21}-EC_{35}	(b)	1.09E+03	NR	NR	4.83E+00	1.47E+03	NR	NR	1.21E+01	1.70E+03	NR	NR	2.90E+01
Aromatic hydrocarbons >EC_{35}-EC_{44}	(b)	1.09E+03	NR	NR	4.83E+00	1.47E+03	NR	NR	1.21E+01	1.70E+03	NR	NR	2.90E+01

Notes:

EC - equivalent carbon. SAC - soil assessment criteria.

The CLEA model output is colour coded depending upon whether the soil saturation limit has been exceeded.

Calculated SAC exceeds soil saturation limit and may significantly affect the interpretation of any exceedances as the contribution of the indoor and outdoor vapour pathway to total exposure is >10%.

Calculated SAC exceeds soil saturation limit but the exceedance will not affect the SAC significantly as the contribution of the indoor and outdoor vapour pathway to total exposure is <10%.

Calculated SAC does not exceed the soil saturation limit.

The SAC for organic compounds are dependant upon soil organic matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs napthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway (Section 10.1.1, SR3)

(a) SAC for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead are derived using the C4SL toxicology data.

(b) SAC for boron and selenium should not include the inhalation pathway as no expert group HCV has been derived; aliphatic and aromatic hydrocarbons >EC16 should not include inhalation pathway due to their non-volatile nature and inhalation exposure being minimal (oral, dermal and inhalation exposure is compared to the oral HCV); arsenic should only be based on oral contribution (rather than combined) owing to the relative small contribution from inhalation in accordance with the SGV report. The Oral SAC should be adopted for zinc and benzo(a)pyrene.

(c) SAC for CrIII should be based on the lower of the oral and inhalation SAC (see LQM/CIEH 2015 Section 6.8)

(d) SAC for elemental mercury, chromium VI and nickel should be based on the inhalation pathway only.

(e) SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4 trimethylbenzene may be used.

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - RESIDENTIAL WITH HOME-GROWN PRODUCE

Table 5
Human Health Generic Assessment Criteria for Residential with home-grown produce

Compound	SAC for Soil SOM 1% (mg/kg)	SAC for Soil SOM 2.5% (mg/kg)	SAC for Soil SOM 6% (mg/kg)
Metals			
Arsenic	37	37	37
Barium	1,300	1,300	1,300
Beryllium	1.7	1.7	1.7
Boron	300	300	300
Cadmium	22	22	22
Chromium (III) - trivalent	910	910	910
Chromium (VI) - hexavalent	21	21	21
Copper	2,500	2,500	2,500
Lead	200	200	200
Elemental Mercury (Hg^0)	0.2	0.6	1.2
Inorganic Mercury (Hg^{2+})	39	39	39
Methyl Mercury (Hg^{4+})	10	10	10
Nickel	130	130	130
Selenium	258	258	258
Vanadium	410	410	410
Zinc	3,900	3,900	3,900
Cyanide (free)	1.4	1.4	1.4
Volatile Organic Compounds			
Benzene	0.20	0.41	0.87
Toluene	130	300	680
Ethylbenzene	50	110	260
Xylene - m	59	140	327
Xylene - o	61	143	332
Xylene - p	57	133	310
Total xylene	57	133	310
Methyl tertiary-Butyl ether (MTBE)	60	110	210
1,1,1,2 Tetrachloroethane	1.20	2.78	6.46
1,1,2,2-Tetrachloroethane	1.6	3.5	7.7
1,1,1-Trichloroethane	9	18	39
1,1,2 Trichloroethane	0.8	1.6	3.5
1,1-Dichloroethene	0.32	0.57	1.16
1,2-Dichloroethane	0.007	0.011	0.019
1,2,4-Trimethylbenzene	1.8	4.3	9.7
1,3,5-Trimethylbenzene	NR	NR	NR
1,2-Dichloropropane	0.034	0.060	0.120
Carbon Tetrachloride (tetrachloromethane)	0.026	0.056	0.127
Chloroethane	11.7	15.9	25.7
Chloromethane	0.012	0.014	0.019
Cis 1,2 Dichloroethene	0.16	0.27	0.52
Dichloromethane	0.62	1.08	1.92
Tetrachloroethene (PCE)	0.31	0.70	1.60
Trans 1,2 Dichloroethene	0.28	0.50	1.02
Trichloroethene (TCE)	0.009	0.020	0.043
Vinyl Chloride (chloroethene)	0.006	0.010	0.017
Semi-Volatile Organic Compounds			
2-Chloronaphthalene	5	13	31
Acenaphthene	230	540	1,170
Acenaphthylene	180	440	970
Anthracene	2,400	5,500	10,900
Benzo(a)anthracene	7	11	13
Benzo(a)pyrene	5	5	5
Benzo(b)fluoranthene	2.6	3.3	3.7
Benzo(g,h,i)perylene	310	340	350
Benzo(k)fluoranthene	77	92	100
Chrysene	15	22	27
Dibenzo(a,h)anthracene	0.24	0.28	0.30
Fluoranthene	290	560	900
Fluorene	170	410	880
Hexachloroethane	0.27	0.66	1.55
Indeno(1,2,3-cd)pyrene	13	30	71
Naphthalene	13	30	71
Phenanthrene	100	220	440
Pyrene	620	1,240	2,040
Phenol	120	210	390
Total Petroleum Hydrocarbons			
Aliphatic hydrocarbons EC_5-EC_6	42	78	160
Aliphatic hydrocarbons >EC_6-EC_8	100	230	530
Aliphatic hydrocarbons >EC_8-EC_{10}	27	65	154
Aliphatic hydrocarbons >EC_{10}-EC_{12}	130 (48)	330 (118)	760 (283)
Aliphatic hydrocarbons >EC_{12}-EC_{16}	1,100 (24)	2,400 (59)	4,300 (142)
Aliphatic hydrocarbons >EC_{16}-EC_{35}	65,000 (8)	92,000 (21)	110,000
Aliphatic hydrocarbons >EC_{35}-EC_{44}	65,000 (8)	92,000 (21)	110,000
Aromatic hydrocarbons >EC_8-EC_{10}	30	80	190
Aromatic hydrocarbons >EC_{10}-EC_{12}	80	180	390
Aromatic hydrocarbons >EC_{12}-EC_{16}	140	330	670
Aromatic hydrocarbons >EC_{16}-EC_{21}	260	540	930
Aromatic hydrocarbons >EC_{21}-EC_{35}	1,100	1,500	1,700
Aromatic hydrocarbons >EC_{35}-EC_{44}	1,100	1,500	1,700
Minerals			
Asbestos	Stage 1 test – No asbestos detected with ID; Stage 2 test - <0.001% dry weight (exceedance of either equates to an exceedance of the GAC)[1]		

Notes:

'-' Generic assessment criteria not calculated owing to low volatility of substance and therefore no pathway, or an absence of toxicological data.

NR - SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4 trimethylbenzene may be used

EC - equivalent carbon. SAC - soil assessment criteria.

[1] LOD for weight of asbestos per unit weight of soil calculated on a dry weight basis using PLM, handpicking and gravimetry.

The SAC for organic compounds are dependent on Soil Organic Matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs napthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway, section 10.1.1, SR3.

(VALUE IN BRACKETS)

RSK has adopted an approach for petroleum hydrocarbons in accordance with LQM/CIEH whereby the concentration modelled for each petroleum hydrocarbon fraction has been tabulated as the SAC with the corresponding solubility or vapour saturation limits given in brackets.

APPENDIX L
GENERIC ASSESSMENT CRITERIA POTABLE WATER SUPPLY PIPES

A range of pipe materials is available and careful selection, design and installation is required to ensure that water supply pipes are satisfactorily installed and meet the requirements of the Water Supply (Water Fittings) Regulations 1999 in England and Wales, the Byelaws 2000 in Scotland and the Northern Ireland Water Regulations. The regulations include a requirement to use only suitable materials when laying water pipes and laying water pipes without protection is not permitted at contaminated sites. The water supply company has a statutory duty to enforce the regulations.

Contaminants in the ground can pose a risk to human health by permeating potable water supply pipes. To fulfil their statutory obligation, UK water supply companies require robust evidence from developers to demonstrate either that the ground in which new plastic supply pipes will be laid is free from specific contaminants, or that the proposed remedial strategy will mitigate any existing risk. If these requirements cannot be demonstrated to the satisfaction of the relevant water company, it becomes necessary to specify an alternative pipe material on the whole development or in specific zones.

In 2010, UK Water Industry Research (UKWIR) published *Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites* (Report Ref. No. 10/WM/03/21). This report reviewed previously published industry guidelines and threshold concentrations adopted by individual water supply companies.

The focus of the UKWIR research project was to develop clear and concise procedures, which provide consistency in the pipe selection decision process. It was intended to provide guidance that can be used to ensure compliance with current regulations and to prevent water supply pipe failing prematurely due to the presence of contamination.

The report concluded that in most circumstances only organic contaminants pose a potential risk to plastic pipe materials and Table 3.1 of the report provides threshold concentrations for polyethylene (PE) and polyvinyl chloride (PVC) pipes for the organic contaminants of concern. The report also makes recommendations for the procedures to be adopted in the design of site investigations and sampling strategies, and the assessment of data, to ensure that the ground through which water supply pipes will be laid is adequately characterised.

Risks to water supply pipes have therefore been assessed against the threshold concentrations for PE and PVC pipe specified in Table 3.1 of Report 10/WM/03/21, which have been adopted as the GAC for this linkage and are reproduced in Table A3 below.

Since water supply pipes are typically laid at a minimum depth of 0.75 m below finished ground levels, sample results from depths between 0.5 m and 1.5 m below finished level are generally considered suitable for assessing risks to water supply. Samples outside these depths can be used, providing the stratum is the same as that in which water supply pipes are likely to be located. The report specifies that sampling should characterise the ground conditions to a minimum of 0.5 m below the proposed depth of the pipe.

It should be noted that the assessment provided in this report is a guide and the method of assessment and recommendations should be checked with the relevant water supply company.

Table L1: Generic assessment criteria for water supply pipes

		Pipe material	
		GAC (mg/kg)	
	Parameter group	**PE**	**PVC**
1	Extended VOC suite by purge and trap or head space and GC-MS with TIC (Not including compounds within group 1a)	0.5	0.125
1a	• BTEX + MTBE	0.1	0.03
2	SVOCs TIC by purge and trap or head space and GC-MS with TIC (aliphatic and aromatic C_5–C_{10}) (Not including compounds within group 2e and 2f)	2	1.4
2e	• Phenols	2	0.4
2f	• Cresols and chlorinated phenols	2	0.04
3	Mineral oil C_{11}–C_{20}	10	Suitable
4	Mineral oil C_{21}–C_{40}	500	Suitable
5	Corrosive (conductivity, redox and pH)	Suitable	Suitable
Specific suite identified as relevant following site investigation			
2a	Ethers	0.5	1
2b	Nitrobenzene	0.5	0.4
2c	Ketones	0.5	0.02
2d	Aldehydes	0.5	0.02
6	Amines	Not suitable	Suitable
Notes: where indicated as 'suitable', the material is considered resistant to permeation or degradation and no threshold concentration has been specified by UKWIR.			

APPENDIX M
GENERIC ASSESSMENT CRITERIA FOR CONTROLLED WATERS

GENERIC ASSESSMENT CRITERIA FOR CONTROLLED WATERS

Protection of the water environment

The water environment in the United Kingdom is protected under a number of regulatory regimes. The relevant environmental regulator is consulted where there may be a risk that pollution of 'controlled waters' may occur or may have occurred in the past.

The term 'controlled waters' refers to coastal waters, inland freshwaters and groundwater. The EU Water Framework Directive (WFD) (2000/60/EC) is implemented via domestic regulations and guidance, covering aspects of groundwater and surface water protection as well as drinking water supply policy. Domestic legislation and guidance will vary across the United Kingdom. Therefore, the relevant legislation for England, Wales, Northern Ireland and Scotland should be reviewed, alongside guidance provided by the Environment Agency (EA), Natural Resource Wales (NRW), the Scottish Environmental Protection Agency (SEPA) or the Northern Ireland Environment Agency (NIEA), as appropriate.

The main objectives of the protection and remediation of groundwater under threat from land contamination are set out within "The Environment Agency's approach to groundwater protection", version 1.0 (March 2017)[(1)] and the associated guidance "Land contamination groundwater compliance points: quantitative risk assessments (March 2017)[(1a)] that have replaced the previous guidance document "Groundwater Principles and Practice (GP3)". When assessing risks to groundwater, the following need to be considered:

- Where pollutants have not yet entered groundwater, all necessary and reasonable measures must be taken to:
    - ***prevent*** *the input of* ***hazardous*** *substances into groundwater (see description of hazardous substances below)*
    - ***limit*** *the entry of other (non-hazardous) pollutants into groundwater to avoid pollution, deterioration in the status of groundwater bodies and to prevent sustained, upward trends in pollutant concentrations in groundwater.*
- Where pollutants have already entered groundwater, the priority is to take all necessary and reasonable measures to:
    - ***minimise*** *further entry of "contaminants" where there is a defined source*
    - ***limit the pollution*** *of groundwater or any effect on the status of the groundwater body from the future expansion of the 'plume', if necessary, by actively reducing its extent.*

Within the context of groundwater risk assessments on sites affected by land contamination, "reasonable" means feasible without involving disproportionate costs. What costs are "disproportionate" depends on site-specific circumstances, which may include:

- Considerations of technical feasibility such as identified by the remedial options appraisal, this may be due to the distribution or nature of the contamination and the available remedial methods to treat the identified contamination;
- Sustainability considerations.

DEFINITIONS AND SUBSTANCE CLASSIFICATIONS

Risks to surface waters:

When assessing risks to surface waters, the following list of definitions should be understood:

Priority substances (PS) are harmful substances originally identified under the Water Framework Directive (WFD) 2000/60/EC as substances 'presenting a significant risk to or via the aquatic environment' at a European level. Member States are required to incorporate the identified **PS** into their country-wide monitoring programmes. There are currently 33 **PS** defined within the Priority Substances Directive (2013/39/EU; Annex 1), with a further 12 additional substances due to come into force from 22 December 2018. Directive 2013/39/EU has been transposed into domestic legislation for England and Wales by The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

Under the umbrella of **PS**, there is a sub-set of substances identified as being "hazardous", and these are referred to as **Priority hazardous substances (PHS).** The list of **PHS** is defined at EU level within the Priority Substances Directive (2013/39/EU). The WFD defines hazardous substances as 'substances (or groups of substances) that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances that give rise to an equivalent level of concern.' There are currently **21 PHS** (previously 15 PHS, with a further 6 substances added in 22 December 2018).

There is also another group of substances defined at EU level and which are referred to as **other pollutants (OP)** in Directive 2013/39/EU**.** These are additional substances which although not **priority substances**, have EQS which are identical to those laid down in the legislation which applied prior to 13 January 2009 (Directive 2008/105/EU). The **OP** are listed along with the **priority substance (PS)** within the Priority Substances Directive (2013/39/EU),and their associated EQS are also listed therein. There are 6 **OP** defined within the Priority Substances Directive (2013/39/EU).

In addition to the EU level substances, there are also a group of pollutants defined at a Member State level, referred to as **Specific pollutants (SP)**. These substances are pollutants which are released in significant quantities into water bodies in each of the individual European Member States. Under the WFD, Member States are required to set their own EQS for these substances. An indicative list of **SP** is given in Annex VIII of the WFD. Many of the substances categorised as **SP** in the UK were formerly List 2 substances under the old Groundwater Directive (80/68/EEC). The **SP** are defined within Part 2 (Table 1) of The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

Risks to groundwater:

When assessing risks to groundwater, the following definitions should be understood:

Under the requirements of the Groundwater Daughter Directive (2006/118/EU), the UK has published a list of substances it considers to be **hazardous substances** with respect to groundwater. In their advisory capacity to the government, this list has been derived by the UK Joint Agencies Groundwater Directive Advisory Group (JAGDAG), of which the Environment Agency is a member. The latest JAGDAG list of **hazardous substances** was published in January 2019 and the Environment Agency will use the updated list of hazardous substances from this date for all new activities that may lead to the discharge of hazardous substances to groundwater. The list is extensive and can be found in full at:

https://www.wfduk.org/stakeholders/jagdag

Selecting the appropriate assessment criteria

When assessing the risks to controlled waters, various assessment criteria apply, depending on the nature of the assessment and the conceptual site model.

Where a surface water body is involved, then Environmental Quality Standards (EQS) are the relevant assessment criteria as they are designed to be protective of surface water ecology.

Where a public water supply or a Principal aquifer is involved, then the standards defined in The Water Supply (Water Quality) Regulations(2) are the primary source of assessment criteria. The Private Water Supplies Regulations(3) may also be applicable in some cases. For instances where there are no UK assessment criteria, then the World Health Organisation (WHO) drinking water guidelines(4) may be used.

This appendix presents the generic assessment criteria (GAC) that RSK considers suitable for assessing risks to controlled waters for our most commonly encountered determinants. A full list of EQS for England and Wales are included in The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.

The RSK GAC for controlled waters are presented in **Table 1** and **Table 2**. In line with the Environment Agency's Remedial Targets Methodology, the GAC for controlled waters are termed 'target concentrations'.

The appropriate target concentrations should be selected with consideration to:

- the site conceptual model (i.e. the receptor at potential risk);
- whether the substance is already present in groundwater at the site;
- whether or not the substance is classified as a priority hazardous substance under the Priority Substances Directive (2013/39/EC) (see above), or as a hazardous substance according to the current list of JAGDAG determinations(5); and
- background concentrations in the aquifer (if applicable).

It is important to remember that the WFD and Environment Agency guidance(1 & 1a) support a sustainable, risk-based approach be applied to groundwater contamination. Exceedance of any target concentration does not necessarily imply that an unacceptable risk exists or that remediation is inevitably required.

Target concentrations shaded in green are statutory values	Target concentrations shaded in orange are non-statutory values

Note: Units µg/l throughout (unless otherwise stated)

Table 1: Target concentrations for controlled waters (excluding TPH CWG fractions)

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
Metals & other inorganics						
Hazardous substance	Specific pollutant	Arsenic	-	10[2]	50[6a]	25[6a]
Non-hazardous pollutant	Priority substance	Cadmium	0.1[7]	5[2]	≤0.08, 0.08, 0.09, 0.15, 0.25 [6b]	0.2[6a]
(Not determined)	-	Chromium (total)	-	50[2]	8.1 Sum values for chromium III and VI	-
(Not determined)	Specific pollutant	Chromium (III)	-	Use value for total chromium	4.7[6a]	-
Hazardous substance	Specific pollutant	Chromium (VI)			3.4[6a]	0.6[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
(Not determined)	Specific pollutant	Copper	-	2,000[2]	1 bioavailable[6a]	3.76 dissolved, where DOC ≤1mg/l[6a]
						3.76µg/l + (2.677µg/l x ((DOC/2) – 0.5µg/l)) dissolved, where DOC >1mg/l[6a]
Hazardous substance	Priority substance	Lead	-	10[2]	1.2 bioavailable[6a]	1.3[6a]
Hazardous substance	**Priority hazardous substance**	Mercury	0.01[7]	1[2]	0.07[6c]	0.07[6c]
Non-hazardous pollutant	Priority substance	Nickel	-	20[2]	4.0 bioavailable[6a]	8.6[6a]
Non-hazardous pollutant	-	Selenium	-	10[2]	-	-
Non-hazardous pollutant	Specific pollutant	Zinc	-	3,000[8]	10.9 bioavailable[6a]	6.8 dissolved [6a]
(Not determined)	Specific pollutant	Iron	-	200[2]	1000[6a]*1	1000[6a])*1
(Not determined)	Specific pollutant	Manganese	-	50[2] (0.05mg/l)	123 bioavailable[6a] (0.123mg/l)	-
(Not determined)	-	Aluminium	-	200[2]	-	-

Substance classification		Determinant	Target concentrations (µg/l)			
					EQS or best equivalent	
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	**Priority hazardous substance**	Tributyltin compounds (Tributyltin-cation)	0.001[7]	-	0.0002[6a]	0.0002[6a]
(Not determined)	-	Sodium	-	200,000[2] (200 mg/l)	-	-
Non-hazardous pollutant	Specific pollutant	Cyanide (Hydrogen cyanide)	-	50[2] (0.05 mg/l)	1[6a] (0.001 mg/l)	1[6a] (0.001 mg/l)
Non-hazardous pollutant	-	Total ammoniacal nitrogen[$]	-	500[2] (0.5 mg/l) as NH_4 (472 expressed as NH_3; 389 expressed as N)	300[6f] (0.3 mg/l) as N (364 expressed as NH_3; 386 expressed as NH_4)	-
Non-hazardous pollutant	Specific pollutant	Ammonia un-ionised (equilibrium ratio calculated) (NH_3)	-	-	-	21[6a] (0.021 mg/l)
Non-hazardous pollutant	Specific pollutant	Chlorine	-	-	2[6a] (0.002 mg/l)	10[6d] (0.01 mg/l)
(Not determined)	-	Chloride	-	250,000[2] (250 mg/l)	-	-
(Not determined)	-	Sulphate	-	250,000[2] (250 mg/l)	-	-
(Not determined)	-	Nitrate (as NO_3)	-	50,000[2] (50 mg/l)	-	-

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
(Not determined)	-	Nitrite (as NO_2)	-	500[2] (0.5 mg/l)	10[9] (0.01 mg/l)	-
Volatile organic compounds (VOC)						
Non-hazardous pollutant	Other pollutant	Tetrachloroethene (tetrachloroethylene; PCE)	0.1[7]	10[2] sum of TCE and PCE	10[6a]	10[6a]
Hazardous substance	Other pollutant	Trichloroethene (trichloroethylene; TCE)	0.1[7]		10[6a]	10[6a]
Hazardous substance *(1,1,2,2-tetra - choloroethane)*	Specific pollutant	Tetrachloroethane	-	-	140[6a]	-
Hazardous substance	Other pollutant	Carbon tetrachloride (tetrachloromethane)	0.1[7]	3.0[2]	12[6a]	12[6a]
Non-hazardous pollutant	Priority substance	1,2-Dichloroethane	1.0[7]	3.0[2]	10[6a]	10[6a]
Non-hazardous pollutant	-	1.2-Dichloroethene (DCE) sum of cis and trans	-	50.0[4]	-	-
Hazardous substance	-	Vinyl chloride (chloroethene, chloroethylene)	-	0.5[2]	-	-
Non-hazardous pollutant	Priority substance	Dichloromethane	-	20[4]	20[6a]	20[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
Non-hazardous pollutant	Priority substance	Trichlorobenzenes	0.01[7]	-	0.4[6a]	0.4[(6a)]
Hazardous substance	Priority substance	Trichloromethane (Chloroform)	0.1[7]	100[2a] (sum of **trihalomethanes** – chloroform, bromform, dibromochloromethane, bromodichloromethane)	2.5[6a]	2.5[6a]
(Not determined)	-	Bromoform	-		-	-
(Not determined)	-	Dibromochloromethane	-		-	-
(Not determined)	-	Bromodichloromethane	-		-	-
Non-hazardous pollutant	**Priority hazardous substance**	Di(2-ethylhexyl) phthalate (bis(2-ethylhexyl) phthalate, DEHP)	-	8[4]	1.3[6a]	1.3[6a]
(Not determined)	Specific pollutant	Benzyl butyl phthalate	-	-	7.5[6a]	0.75[6e]
Hazardous substance	**Priority hazardous substance**	Hexachlorobutadiene (as a pesticide, but reported in a VOC suite)	0.005[7]	0.1[2]	0.6[6c]	0.6[6c]
Semi-volatile organic compounds (SVOC)						
(Not determined) *Not to be confused with acenaphthene, which is a hazardous substance*	-	Acenaphthylene (Aro EC12-EC16)	-	-	5.8[10]	
Hazardous substance	**Priority hazardous substance**	Anthracene (Aro EC16-EC21)	-	-	0.1[6a]	0.1[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
			Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
Groundwater receptors[5]	Surface water receptors[6]				Freshwater	Transitional (estuaries) and coastal waters
Non-hazardous pollutant	Priority substance	Naphthalene (Aro EC10-EC12)	-	-	2[6a]	2[6a]
Hazardous substance	Priority substance	Fluoranthene (Aro EC21-EC35) not used as an indicator for this EC band	-	-	0.0063[6a]	0.0063[6a]
Hazardous substance(s)	**Priority hazardous substance(s)**	Benzo(a)pyrene (Aro EC21-EC35)	-	0.01[2]	0.00017[6a]	0.00017[6a]
		Benzo(b)fluoranthene (Aro EC21-EC35)	-	0.1[2] sum of the concentration of the four specified compounds	No EQS for these substances. B(a)P should be used as the indicator compound instead.	
		Benzo(k)fluoranthene (Aro EC21-EC35)	-			
		Benzo(g,h,i)perylene (Aro EC21-EC35)	-			
		Indeno(1,2,3-cd) pyrene (Aro EC21-EC35)	-			
Non-hazardous pollutant	Specific pollutant	Phenol	-	-	7.7[6a]	7.7[6a]
Hazardous substance	Specific pollutant	2,4-Dichlorophenol	0.1[7]	-	4.2[6a]	0.42[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
			Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
Groundwater receptors[5]	Surface water receptors[6]				Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Priority substance	Pentachloro-phenol (PCP) (as a pesticide, but reported in an SVOC suite)	0.1[7]	0.1[2]	0.4[6a]	0.4[6a]
Petroleum hydrocarbons						
Hazardous substance	-	Total petroleum hydrocarbons	-	See Table 2 for individual (non-statutory) TPH CWG fractions with respect to drinking water receptors	See individual risk driving compounds (i.e. BTEX and PAH) for specific EQS	
Hazardous substance	Priority substance	Benzene (Aro EC5-EC7)	1[7]	1[2]	10[6a]	8[6a]
Hazardous substance	Specific pollutant	Toluene (Aro EC7-EC8)	4[7]	700[4]	74[6a]	74[6a]
Hazardous substance	-	Ethylbenzene (Aro EC8-EC10)	-	300[4]	300[11]	-
Hazardous substance	-	Xylenes (Aro EC8-EC10)	3[7]	500[4]	30[11]	-
Non-hazardous pollutant	-	Methyl tertiary butyl ether (MTBE)	-	15[12]	-	

Substance classification		Determinant	Target concentrations (µg/l)			
			Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
Groundwater receptors[5]	Surface water receptors[6]				Freshwater	Transitional (estuaries) and coastal waters
Pesticides, fungicides, insecticides and herbicides						
(Not determined) – assume to be Hazardous Substance as per below	-	Total pesticides	-	0.5[2]	-	-
(Not determined) - assume to be Hazardous Substance as per below	-	Other individual pesticides (unless otherwise detailed below)	-	0.1[2]	-	-
Hazardous substance(s)	Other pollutant (Cyclodiene pesticides)	Aldrin	0.003[7]	0.03[2]	0.01[6a] (sum of all four)	0.005[6a] (sum of all four)
		Dieldrin	0.003[7]	0.03[2]		
		Endrin	0.003[7]	0.1[2b] ('other individual pesticide')		
		Isodrin*[2]	0.003[7]	0.1[2b] ('other individual pesticide')		
Hazardous substance	Other pollutant	DDT (total)	0.002[7]	0.1[2] ('other individual pesticide')	0.025[6a]	0.025[6a]
Hazardous substance	Specific pollutant	Carbendazim	-	0.1[2] ('other individual pesticide')	0.15[6a]	-

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Specific pollutant	Chlorothalonil	-	0.1[2] ('other individual pesticide')	0.035[6a]	-
Hazardous substance	Priority substance	Cypermethrin	-	0.1[2] ('other individual pesticide')	8.0E^{-5}[6a]	8.0E^{-6}[6a]
Hazardous substance	Specific pollutant	Dimethoate	0.01[7]	0.1[2] ('other individual pesticide')	0.48[6a]	0.48[6a]
(Not determined)	Specific pollutant	Glyphosate	-	0.1[2] ('other individual pesticide')	196[6a]	196[6a]
Hazardous substance	Specific pollutant	Linuron	-	0.1[2] ('other individual pesticide')	0.5[6a]	0.5[6a]
Non-hazardous pollutant	Specific pollutant	Mecoprop	0.04[7]	0.1[2] ('other individual pesticide')	18[6a]	18[6a]
Non-hazardous pollutant	Specific pollutant	Methiocarb	-	0.1[2] ('other individual pesticide')	0.01[6a]	-
Non-hazardous pollutant	Specific pollutant	Pendimethalin	-	0.1[2] ('other individual pesticide')	0.3[6a]	-

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Specific pollutant	Permethrin	0.001[7]	0.1[2] ('other individual pesticide')	0.001[6a]	0.0002[6a]
Hazardous substance	Priority substance	Alachlor	-	0.1[2] ('other individual pesticide')	0.3[6a]	0.3[6a]
Hazardous substance	Priority substance	Atrazine	0.03[7]	100[4] ('other individual pesticide')	0.6[6a]	0.6[6a]
Hazardous substance	Priority substance	Diuron	-	0.1[2] ('other individual pesticide')	0.2[6a]	0.2[6a]
Hazardous substance	**Priority hazardous substance**	Endosulphan	0.005[7]	0.1[2] ('other individual pesticide')	0.005[6a]	0.0005[6a]
Non-hazardous pollutant	Priority substance	Isoproturon	-	0.1[2] ('other individual pesticide')	0.3[6a]	0.3[6a]
Hazardous substance	Priority substance	Simazine	0.03[7]	0.1[2] ('other individual pesticide')	1[6a]	1 [6a]
Hazardous substance	**Priority hazardous substance**	Trifluralin	0.01[7]	0.1[2] ('other individual pesticide')	0.03[6a]	0.03[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters
Hazardous substance	Priority substance	Dichlorvos	-	0.1[2] ('other individual pesticide')	6.0E^{-4}[6a]	6.0E^{-5}[6a]
Hazardous substance	Priority substance	Heptachlor and heptachlor epoxide	-	0.03[2]	2.0E^{-7}[6a]	1.0E^{-08}[6a]
Miscellaneous						
(Not determined)	Specific pollutant	Triclosan (antibacterial agent)	-	-	0.1[6a]	0.1[6a]
Hazardous substance	**Priority hazardous substance**	Perfluoro-octane sulfonic acid (and its derivatives) (PFOS)	-	-	6.5E^{-4}[6a]	1.3E^{-4}[6a]
Hazardous substance	**Priority hazardous substance**	Hexabromo cyclododecane (HBCDD)	-	-	0.0016[6a]	0.0008[6a]

Substance classification		Determinant	Target concentrations (µg/l)			
Groundwater receptors[5]	Surface water receptors[6]		Minimum reporting value	UK drinking water standard (or best equivalent)	EQS or best equivalent	
					Freshwater	Transitional (estuaries) and coastal waters

Notes:

'-' A target concentration is not available.

$Please note that total ammonia (NH_4^+ and NH_3) is equivalent to ammoniacal nitrogen in laboratory reports

*1 Please note that although iron is listed in the 2015 Direction as 1.000 µg/l, the EQS remains at 1mg/l in Scotland and it is assumed this is an error and should read either 1,000 or 1000µg/l.

*2 Please note that although Isodrin is not listed in name within the group of "Cyclodiene pesticides" in Table 1 of Schedule 3 Part 3 of the 2015 Direction[6], the CAS number for Isodrin (465-73-6) **is** listed and therefore it is assumed that it has been missed off the named list of substances.

*3 Total petroleum hydrocarbons is used for consistency, but is an analytical method-defined measurement for a mixture of hydrocarbons subject to environmental analysis[11].

"Bioavailable" in relation to copper, zinc, nickel and manganese (but not lead) is the generic EQSbioavailable[6a] derived from the Metal Bioavailability Assessment Tool (M-BAT) developed by the Water Framework Directive UK Technical Advisory Group (WFDTAG). Exceedance of this value should prompt a site-specific assessment using the M-BAT with pH, DOC and Ca to derive a site-specific EQS termed the $PNEC_{dissolved}$. http://www.wfduk.org/resources/rivers-lakes-metal-bioavailability-assessment-tool-m-bat.

For zinc, if there is an exceedance of the EQSbioavailable in an initial GQRA, Tier 2 required that the EQS for zinc should also have the ambient background concentration of zinc added as well

Table 2: World Health Organization (WHO) guide values for TPH CWG fractions in drinking water[13] (as referenced in CL:AIRE, 2017[11])

TPH CWG fraction	WHO guide value for drinking water[13] (µg/l)
Aliphatic fractions:	
Aliphatic EC5-EC6	15,000
Aliphatic >EC6-EC8	15,000
Aliphatic >EC8-EC10	300
Aliphatic >EC10-EC12	300
Aliphatic >EC12-EC16	300
Aliphatic >EC16-EC21	-
Aliphatic >EC21-EC35	-
Aromatic fractions:	
Aromatic EC5-EC6	10 (benzene)
Aromatic >EC6-EC8	700 (toluene)
Aromatic >EC8-EC10	300 (ethyl benzene) 500 (xylenes)
Aromatic >EC10-EC12	90
Aromatic >EC12-EC16	90
Aromatic >EC16-EC21	90
Aromatic >EC21-EC35	90
Reference: World Health Organisation (WHO), 2008. Petroleum products in drinking-water. Background document for development of WHO guidelines for drinking water quality. WHO/SDE/WSH/05.08/123. World Health Organisation, Geneva[13].	

References

1. Environment Agency (2018), 'The Environment Agency's approach to groundwater protection', version 1.2, February 2018 (formerly contained within GP3). https://www.gov.uk/government/collections/groundwater-protection

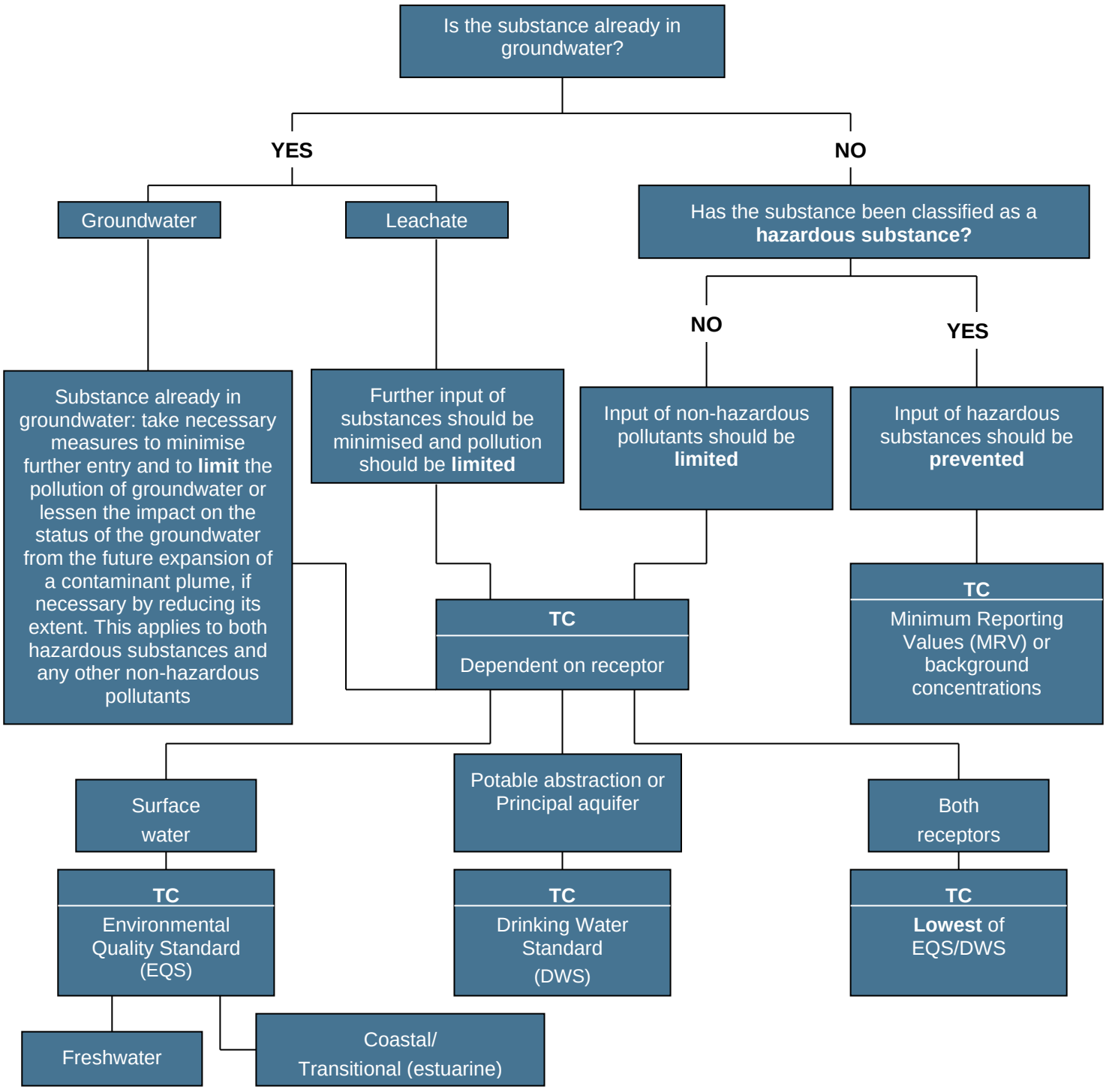
1a. Environment Agency (2017), 'Land contamination groundwater compliance points: quantitative risk assessments', March 2017 (formerly contained within GP3) [accessed 29 March 2017]. https://www.gov.uk/government/collections/groundwater-protection

2. The Water Supply (Water Quality) Regulations 2016 (SI 2016/619)
    - 2a. Sum of chloroform, bromoform, dibromochloromethane and bromodichloromethane
    - 2b. Standard applies to individual pesticides except aldrin, dieldrin, heptachlor and heptachlor epoxide, for which a separate standard is defined.
3. The Private Water Supplies (England) Regulations 2016. SI 2016 / 618
4. WHO (2011), *Guidelines for drinking-water quality*, 4th edn
5. JAGDAG hazard substance determinations (January 2019): This list contains substances that are determined to be hazardous substances or non-hazardous pollutants for the purposes of the groundwater directive 2006/118/EC. https://www.wfduk.org/stakeholders/jagdag [accessed 1 February 2021]
   The absence of an assessment or substance from the list means an assessment has not been completed and is therefore presented as 'Not determined'. For further details on how substances are assessed, see the Joint Agencies Groundwater Directive Advisory Group (JAGDAG) 'Methodology for the determination of hazardous substances in groundwater for the purposes of the groundwater directive 2006/118/EC' which is available from the JAGDAG website. The methodology is a UK –wide framework that sets criteria for how to assess whether a substance is a hazardous substances in groundwater.
6. The Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015.
    - 6a. The EQS for these substances are based on a "long term mean" or an "annual average (AA)" EQS.
    - 6b. For cadmium and its compounds the EQS values vary depending on the hardness of the water as specified in five class categories (Class 1: < 40 mg CaCO3/l, Class 2: 40 to < 50 mg CaCO3/l, Class 3: 50 to < 100 mg CaCO3/l, Class 4: 100 to < 200 mg CaCO3/l and Class 5: ≥ 200 mg CaCO3/l).
    - 6c. The EQS for Mercury and hexachlorobutadiene are based on a "maximum acceptable concentration (MAC)" EQS in absence of an "annual average (AA)" EQS.
    - 6d. The EQS for chlorine in saltwater is based on the 95th percentile concentration of total residual oxidant, which refers to the sum of all oxidising agents existing in water, expressed as available chlorine.
    - 6e. The recommended saltwater standard is derived using a safety factor of 100. Where the standard is failed, it is recommended that supporting evidence of ecological damage should be obtained before committing to expensive action.
    - 6f. EQS for total ammonia is as per Schedule 3, Part 1, Table 7 of of the above directions. EQS applies to river types 1, 2 and 4 and 6 (namely upland and low alkalinity). The EQS for a lowland and high alkalinity rivers (types 3, 5 and 7) is 600µg/l (0.6mg/l).

   Additional information on the Metal Bioavailability Assessment Tool (M-BAT) is available at http://www.wfduk.org/resources/rivers-lakes-metal-bioavailability-assessment-tool-m-bat

7. Minimum reporting values listed at https://www.gov.uk/government/publications/values-for-groundwater-risk-assessments/hazardous-substances-to-groundwater-minimum-reporting-values (updated 13 January 2017; accessed 29 March 2017). Note target concentration for xylenes is 3 μg/l each for o-xylene and m/p xylene as it may not be possible to separate m- and p-xylene; 135 tcb, 124 tcb, 123 tcb each to 0.01 μg/l)
8. The Surface Waters (Abstraction for Drinking Water) (Classification) Regulations 1996 (as amended). SI 1996 / 3001
9. Council Directive on the Quality of Fresh Waters Needing Protection or Improvement in Order to Support Fish Life (Freshwater Fish Directive) (78/659/EEC)
10. WRc plc (2002), R&D Technical Report P45.
11. CL:AIRE, 2017. Petroleum Hydrocarbons in Groundwater: Guidance on assessing petroleum hydrocarbons using existing hydrogeological risk assessment methodologies. V1.1.
12. Drinking Water Inspectorate (London, UK). Environmental Information Request on MTBE in drinking water. Ref. DWI 1/10/18; dated 28 November 2006. Value is based on the odour threshold for MTBE, which is lower than a health-based guideline value
13. World Health Organisation (WHO), 2008. Petroleum products in drinking-water. Background document for development of WHO guidelines for drinking water quality. WHO/SDE/WSH/05.08/123. World Health Organisation, Geneva. [accessed 29 March 2017] http://www.who.int/water_sanitation_health/dwq/chemicals/petroleumproducts_2add_june2008.pdf

FLOW CHART TO ASSIST WITH SELECTION OF TARGET CONCENTRATIONS



TC = Target concentration

When leachate is being assessed the 'compliance point' is the groundwater body. Therefore dilution within the groundwater body may be applied with caution before comparing with the TC.

When directly assessing a receptor, e.g., a river, the appropriate TC should be selected.

APPENDIX N
GQRA DATA SCREENING TABLES - SOILS

Project / Site name: 305276 Storrington Road, Thakeham

Lab Report Number			23/09/2022	22/09/2022	23/09/2022	27/09/2022	27/09/2022
Lab Sample Number							
Sample Reference			TP4	TP10	TP16	WS1	WS3
Depth (m)			0.30 - 0.40	0.35 - 0.45	0.20 - 0.30	0.50 - 0.60	0.40 - 0.50
Date Sampled			614659	614786	614672	614767	614771
Analytical Parameter (Leachate Analysis)	**Units**	**Water Resources (EQS)**					
Heavy Metals / Metalloids							
Arsenic (dissolved)	mg/l	0.05	0.005	0.005	0.005	0.005	0.005
Barium (dissolved)	mg/l						
Beryllium (dissolved)	mg/l						
Boron (dissolved)	mg/l		0.019	0.028	0.022	0.009	0.042
Cadmium (dissolved)	mg/l	0.00008	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chromium (hexavalent)	mg/l	0.0034					
Chromium (dissolved)	mg/l	0.0081	0.005	0.005	0.005	0.005	0.005
Copper (dissolved)	mg/l	0.001	<0.005	<0.005	<0.005	<0.005	<0.005
Iron (dissolved)	mg/l	1					
Lead (dissolved)	mg/l	0.0012	<0.005	<0.005	<0.005	<0.005	<0.005
Mercury (dissolved)	mg/l	0.00007	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Nickel (dissolved)	mg/l	0.004	<0.005	<0.005	<0.005	<0.005	<0.005
Selenium (dissolved)	mg/l						
Vanadium (dissolved)	mg/l	0.02					
Zinc (dissolved)	mg/l	0.0109	0.005	0.004	0.005	0.005	0.006
Petroleum Hydrocarbons							
Diesel Range Organics (C10 - C28)	mg/l						
Diesel Range Organics (C10 - C25)	mg/l						
Mineral Oil (C10 - C40)	mg/l						
TPH1 (C10 - C40)	mg/l						
TPH2 (C6 - C10)	mg/l						
TPH-CWG - Aliphatic >C5 - C6	mg/l						
TPH-CWG - Aliphatic >C6 - C8	mg/l						
TPH-CWG - Aliphatic >C8 - C10	mg/l						
TPH-CWG - Aliphatic >C10 - C12	mg/l						
TPH-CWG - Aliphatic >C12 - C16	mg/l						
TPH-CWG - Aliphatic >C16 - C21	mg/l						
TPH-CWG - Aliphatic >C21 - C35	mg/l						
TPH-CWG - Aliphatic (C5 - C35)	mg/l						
TPH-CWG - Aromatic >C5 - C7	mg/l						
TPH-CWG - Aromatic >C7 - C8	mg/l						
TPH-CWG - Aromatic >C8 - C10	mg/l						
TPH-CWG - Aromatic >C10 - C12	mg/l						
TPH-CWG - Aromatic >C12 - C16	mg/l						
TPH-CWG - Aromatic >C16 - C21	mg/l						
TPH-CWG - Aromatic >C21 - C35	mg/l						
TPH-CWG - Aromatic (C5 - C35)	mg/l						
EPH (DRO)	mg/l						

Project / Site name: 305276 Storrington Road, Thakeham

Lab Report Number			23/09/2022	22/09/2022	23/09/2022	27/09/2022	27/09/2022
Lab Sample Number							
Sample Reference			TP4	TP10	TP16	WS1	WS3
Depth (m)							
Date Sampled			0.30 - 0.40	0.35 - 0.45	0.20 - 0.30	0.50 - 0.60	0.40 - 0.50
VOCs							
Chloromethane	mg/l						
Chloroethane	mg/l						
Bromomethane	mg/l						
Vinyl Chloride	mg/l						
1,1-dichloroethene	mg/l						
1,1,2-Trichloro 1,2,2-Trifluoroethane	mg/l						
Cis-1,2-dichloroethene	mg/l						
MTBE (Methyl Tertiary Butyl Ether)	mg/l						
1,1-dichloroethane	mg/l						
2,2-Dichloropropane	mg/l						
Trichloromethane	mg/l	0.0025					
1,1,1-Trichloroethane	mg/l	0.1					
1,2-dichloroethane	mg/l	0.01					
1,1-Dichloropropene	mg/l						
Trans-1,2-dichloroethene	mg/l						
Benzene	mg/l	0.01					
Tetrachloromethane	mg/l	0.012					
1,2-dichloropropane	mg/l						
Trichloroethene	mg/l	0.01					
Dibromomethane	mg/l						
Bromodichloromethane	mg/l						
Cis-1,3-dichloropropene	mg/l						
Trans-1,3-dichloropropene	mg/l						
Toluene	mg/l	0.074					
1,1,2-Trichloroethane	mg/l						
1,3-Dichloropropane	mg/l						
Dibromochloromethane	mg/l						
Tetrachloroethene	mg/l	0.01					
1,2-Dibromoethane	mg/l						
Chlorobenzene	mg/l						
1,1,1,2-Tetrachloroethane	mg/l						
Ethylbenzene	mg/l						
p & m-xylene	mg/l	0.03					
Styrene	mg/l						
Tribromomethane	mg/l						
o-xylene	mg/l	0.03					
1,1,2,2-Tetrachloroethane	mg/l						
Isopropylbenzene	mg/l						
Bromobenzene	mg/l						
N-Propylbenzene	mg/l						
2-Chlorotoluene	mg/l						
4-Chlorotoluene	mg/l						
1,3,5-Trimethylbenzene	mg/l						
Tert-Butylbenzene	mg/l						
1,2,4-Trimethylbenzene	mg/l						
Sec-Butylbenzene	mg/l						
1,3-dichlorobenzene	mg/l						
P-Isopropyltoluene	mg/l						
1,2-dichlorobenzene	mg/l						
1,4-dichlorobenzene	mg/l						
Butylbenzene	mg/l						
1,2-Dibromo-3-chloropropane	mg/l						
1,2,4-Trichlorobenzene	mg/l	0.0004					
Hexachlorobutadiene	mg/l	0.0006					
1,2,3-Trichlorobenzene	mg/l						

Project / Site name: 305276 Storrington Road, Thakeham

Lab Report Number			23/09/2022	22/09/2022	23/09/2022	27/09/2022	27/09/2022
Lab Sample Number							
Sample Reference			TP4	TP10	TP16	WS1	WS3
Depth (m)							
Date Sampled			0.30 - 0.40	0.35 - 0.45	0.20 - 0.30	0.50 - 0.60	0.40 - 0.50
SVOCs							
Aniline	mg/l						
Phenol	mg/l	0.0077					
2-Chlorophenol	mg/l						
Bis(2-chloroethyl)ether	mg/l						
1,3-Dichlorobenzene	mg/l						
1,2-Dichlorobenzene	mg/l						
1,4-Dichlorobenzene	mg/l						
Bis(2-chloroisopropyl)ether	mg/l						
2-Methylphenol	mg/l						
Hexachloroethane	mg/l						
Nitrobenzene	mg/l						
4-Methylphenol	mg/l						
Isophorone	mg/l						
2-Nitrophenol	mg/l						
2,4-Dimethylphenol	mg/l						
Bis(2-chloroethoxy)methane	mg/l						
1,2,4-Trichlorobenzene	mg/l						
Naphthalene	mg/l	0.002					
2,4-Dichlorophenol	mg/l	0.0042					
4-Chloroaniline	mg/l						
Hexachlorobutadiene	mg/l	0.0006					
4-Chloro-3-methylphenol	mg/l						
2,4,6-Trichlorophenol	mg/l						
2,4,5-Trichlorophenol	mg/l						
2-Methylnaphthalene	mg/l						
2-Chloronaphthalene	mg/l						
Dimethylphthalate	mg/l						
2,6-Dinitrotoluene	mg/l						
Acenaphthylene	mg/l	0.0058					
Acenaphthene	mg/l	0.0058					
2,4-Dinitrotoluene	mg/l						
Dibenzofuran	mg/l						
4-Chlorophenyl phenyl ether	mg/l						
Diethyl phthalate	mg/l						
4-Nitroaniline	mg/l						
Fluorene	mg/l	0.0021					
Azobenzene	mg/l						
Bromophenyl phenyl ether	mg/l						
Hexachlorobenzene	mg/l						
Phenanthrene	mg/l	0.003					
Anthracene	mg/l	0.0001					
Carbazole	mg/l						
Dibutyl phthalate	mg/l						
Anthraquinone	mg/l						
Fluoranthene	mg/l	0.0000063					
Pyrene	mg/l						
Butyl benzyl phthalate	mg/l	0.0075					
Benzo(a)anthracene	mg/l						
Chrysene	mg/l						
Benzo(b)fluoranthene	mg/l	0.00000017					
Benzo(k)fluoranthene	mg/l	0.00000017					
Benzo(a)pyrene	mg/l	0.00000017					
Indeno(1,2,3-cd)pyrene	mg/l	0.00000017					
Dibenz(a,h)anthracene	mg/l						
Benzo(ghi)perylene	mg/l	0.00000017					

Notes:

U/S = Unsuitable Sample I/S = Insufficient Sample

Result exceeds RSK Water Resources EQS

Project / Site name: 305276 Storrington Road, Thakeham

Date sampled					23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	Max	Min		Further consideration/discounted for human health
RSK																		
Sample reference					TP2	TP3	TP4	TP4	TP5	TP5	TP8	TP9	TP15	TP16				
Additional ref																		
Depth					0.40 - 0.50	0.40 - 0.50	0.30 - 0.40	2.20 - 2.30	0.15 - 0.25	0.60 - 0.70	0.30 - 0.40	0.30 - 0.40	0.65 - 0.75	0.20 - 0.30				
DETS ref number					614656	614657	614658	614660	614661	614662	614663	614664	614670	614671				
		Human Health GAC for plant uptake (1% SOM)																
Analytical Parameter (Soil Analysis)	**Units**																	
Asbestos in Soil Screen / Identification Name	Type	yes			no		no	no			no	no	no	no	0	0		
Asbestos in Soil	Type														0	0		
Asbestos Identification Name (Subcontracted)	Type														0	0		
Asbestos Quantification (Subcontracted)	%														0	0		
															0	0		
General Inorganics															0	0		
pH	pH Units	NA													0	0		
Electrical Conductivity	µS/cm	NA													0	0		
Total Cyanide	mg/kg	650													0	0		
Complex Cyanide	mg/kg	NA													0	0		Total cyanide used as an indicator compounds
Free Cyanide	mg/kg	650													0	0		Total cyanide used as an indicator compounds
Total Organic Carbon (TOC)	%	NA				0.3			1.5						1.5	0.3		
															0	0		
Speciated PAHs															0	0		
Naphthalene	mg/kg	13	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Acenaphthylene	mg/kg	180	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Acenaphthene	mg/kg	230	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Fluorene	mg/kg	170	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Phenanthrene	mg/kg	100	RSK - Human health with home grown produce (1% OM)		< 0.1		0.5	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.5	0.5		
Anthracene	mg/kg	2,400	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Fluoranthene	mg/kg	290	RSK - Human health with home grown produce (1% OM)		< 0.1		0.72	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.72	0.72		
Pyrene	mg/kg	620	RSK - Human health with home grown produce (1% OM)		< 0.1		0.56	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.56	0.56		
Benzo(a)anthracene	mg/kg	7	RSK - Human health with home grown produce (1% OM)		< 0.1		0.45	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.45	0.45		PAH 16 used as indicator compounds
Chrysene	mg/kg	15	RSK - Human health with home grown produce (1% OM)		< 0.1		0.34	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.34	0.34		
Benzo(b)fluoranthene	mg/kg	2.6	RSK - Human health with home grown produce (1% OM)		< 0.1		0.45	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.45	0.45		
Benzo(k)fluoranthene	mg/kg	77	RSK - Human health with home grown produce (1% OM)		< 0.1		0.19	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.19	0.19		
Benzo(a)pyrene	mg/kg	5	RSK - Human health with home grown produce (1% OM)		< 0.1		0.43	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.43	0.43		
Indeno(1,2,3-cd)pyrene	mg/kg	27	RSK - Human health with home grown produce (1% OM)		< 0.1		0.28	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.28	0.28		PAH 16 used as indicator compounds
Dibenz(a,h)anthracene	mg/kg	0.24	RSK - Human health with home grown produce (1% OM)		< 0.1		< 0.1	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0	0		
Benzo(ghi)perylene	mg/kg	310	RSK - Human health with home grown produce (1% OM)		< 0.1		0.19	< 0.1			< 0.1	< 0.1	< 0.1	< 0.1	0.19	0.19		
Total EPA-16 PAHs	mg/kg														0	0		
															0	0		
Heavy Metals / Metalloids															0	0		
Arsenic (As)	mg/kg	37	RSK - Human health with home grown produce (1% OM)		12		2	15			6	16	8	9	16	2		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
W/S Boron	mg/kg	NA	RSK - Human health with home grown produce (1% OM)		< 1		< 1	< 1			< 1	< 1	< 1	< 1	0	0		
Cadmium (Cd)	mg/kg	22	RSK - Human health with home grown produce (1% OM)		< 0.2		< 0.2	< 0.2			< 0.2	< 0.2	< 0.2	< 0.2	0	0		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Chromium (hexavalent)	mg/kg	21	RSK - Human health with home grown produce (1% OM)		< 2		< 2	< 2			< 2	< 2	< 2	< 2	0	0		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Chromium (Cr)	mg/kg	910	RSK - Human health with home grown produce (1% OM)		19		3.0	14.0			8	28	9	10.0	28	3		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Copper (Cu)	mg/kg	2500	RSK - Human health with home grown produce (1% OM)		8		12	10			12	7	5	15	15	5		
Lead (Pb)	mg/kg	200	RSK - Human health with home grown produce (1% OM)		10		19	11			18	13	6	28	28	6		
Mercury (Hg)	mg/kg	0	RSK - Human health with home grown produce (1% OM)		< 1		< 1	< 1			< 1	< 1	< 1	< 1	0	0		
Nickel (Ni)	mg/kg	130	RSK - Human health with home grown produce (1% OM)		10		6	21			6	17	9	8	21	6		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Selenium (Se)	mg/kg	258	RSK - Human health with home grown produce (1% OM)		< 3		< 3	< 3			< 3	< 3	< 3	< 3	0	0		
Zinc (Zn)	mg/kg	3900	RSK - Human health with home grown produce (1% OM)		35		24	38			38	48	28	54	54	24		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Monoaromatics															0	0		
Benzene	µg/kg	200	RSK - Human health with home grown produce (1% OM)												0	0		
Toluene	µg/kg	130,000	RSK - Human health with home grown produce (1% OM)												0	0		
Ethylbenzene	µg/kg	50,000	RSK - Human health with home grown produce (1% OM)												0	0		
p + m xylene	µg/kg	59,000	RSK - Human health with home grown produce (1% OM)												0	0		
o -xylene	µg/kg	61,000	RSK - Human health with home grown produce (1% OM)															
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	60,000	RSK - Human health with home grown produce (1% OM)												0	0		
Petroleum Hydrocarbons															0	0		
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	42	RSK - Human health with home grown produce (1% OM)		< 0.01		< 0.01	< 0.01			< 0.01	< 0.01	< 0.01	< 0.01	0	0		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	100	RSK - Human health with home grown produce (1% OM)		< 0.05		< 0.05	< 0.05			< 0.05	< 0.05	< 0.05	< 0.05	0	0		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	27	RSK - Human health with home grown produce (1% OM)		< 2		< 2	13			< 2	< 2	< 2	< 2	13	13		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	130	RSK - Human health with home grown produce (1% OM)		< 2		< 2	43			< 2	< 2	< 2	< 2	43	43		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)		< 3		< 3	63			< 3	< 3	< 3	< 3	63	63		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	65,000	RSK - Human health with home grown produce (1% OM)		< 3		< 3	< 3			< 3	< 3	< 3	< 3	0	0		
TPH-CWG - Aliphatic >EC21 - EC34	mg/kg	65,000	RSK - Human health with home grown produce (1% OM)		< 10		< 10	< 10			< 10	< 10	< 10	< 10	0	0		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	NA	RSK - Human health with home grown produce (1% OM)		< 2		< 2	< 2			< 2	< 2	< 21	< 21	0	0		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	30	RSK - Human health with home grown produce (1% OM)		< 2		< 2	7			< 2	< 2	< 2	< 2	7	7		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	80	RSK - Human health with home grown produce (1% OM)		< 2		< 2	40			< 2	< 2	< 2	< 2	40	40		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	140	RSK - Human health with home grown produce (1% OM)		< 3		< 3	< 3			< 3	< 3	< 2	< 2	0	0		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	260	RSK - Human health with home grown produce (1% OM)		< 10		< 10	< 10			< 10	< 10	< 3	< 3	0	0		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)		< 21		< 21	47			< 21	< 21	< 10	< 10				
TPH-CWG - Aromatic >EC35 - EC44	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)										< 21	< 21	0	0		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	NA	RSK - Human health with home grown produce (1% OM)		< 42		< 42	165			< 42	< 42	< 42	< 42	165	165		
															0	0		
VOCs															0	0		
Dichlorodifluoromethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Vinyl Chloride	µg/kg	0.6	RSK - Human health with home grown produce (1% OM)												0	0		
Chloromethane	µg/kg	12	RSK - Human health with home grown produce (1% OM)												0	0		
Chloroethane	µg/kg	11,700	RSK - Human health with home grown produce (1% OM)												0	0		
Bromomethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Trichlorofluoromethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1-Dichloroethene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
MTBE	µg/kg	60,000	RSK - Human health with home grown produce (1% OM)												0	0		
trans-1,2-Dichloroethene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1-Dichloroethane	µg/kg	320	RSK - Human health with home grown produce (1% OM)												0	0		
cis-1,2-Dichloroethene	µg/kg	280	RSK - Human health with home grown produce (1% OM)												0	0		
2,2-Dichloropropane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Chloroform	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Bromochloromethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1,1-Trichloroethane	µg/kg	9,000	RSK - Human health with home grown produce (1% OM)												0	0		
1,1-Dichloropropene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Carbon Tetrachloride	µg/kg	26	RSK - Human health with home grown produce (1% OM)												0	0		
1,2-Dichloroethane	µg/kg	7	RSK - Human health with home grown produce (1% OM)												0	0		
Benzene	µg/kg	200	RSK - Human health with home grown produce (1% OM)												0	0		
1,2-Dichloropropane	µg/kg	34	RSK - Human health with home grown produce (1% OM)												0	0		
Trichloroethene	µg/kg	20	RSK - Human health with home grown produce (1% OM)												0	0		
Bromodichloromethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Dibromomethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
TAME	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
cis-1,3-Dichloropropene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		

Project / Site name: 305276 Storrington Road, Thakeham

Date sampled					23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	23/09/2022	Max	Min		Further consideration/discounted for human health
RSK																		
Sample reference					TP2	TP3	TP4	TP4	TP5	TP5	TP8	TP9	TP15	TP16				
Additional ref																		
Depth					0.40 - 0.50	0.40 - 0.50	0.30 - 0.40	2.20 - 2.30	0.15 - 0.25	0.60 - 0.70	0.30 - 0.40	0.30 - 0.40	0.65 - 0.75	0.20 - 0.30				
DETS ref number					614656	614657	614658	614660	614661	614662	614663	614664	614670	614671				
Toluene	µg/kg	130,000	RSK - Human health with home grown produce (1% OM)												0	0		
trans-1,3-Dichloropropene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1,2-Trichloroethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,3-Dichloropropane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Tetrachloroethene	µg/kg	200	RSK - Human health with home grown produce (1% OM)												0	0		
Dibromochloromethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,2-Dibromoethane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Chlorobenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1,1,2-Tetrachloroethane	µg/kg	1,200	RSK - Human health with home grown produce (1% OM)												0	0		
Ethyl Benzene	µg/kg	50,000	RSK - Human health with home grown produce (1% OM)												0	0		
m,p-Xylene	µg/kg	57,000	RSK - Human health with home grown produce (1% OM)												0	0		
o-Xylene	µg/kg	61,000	RSK - Human health with home grown produce (1% OM)												0	0		
Styrene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Bromoform	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		Included in TPH
Isopropylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,1,2,2-Tetrachloroethane	µg/kg	1,600	RSK - Human health with home grown produce (1% OM)												0	0		Included in TPH
1,2,3-Trichloropropane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
n-Propylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Bromobenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
2-Chlorotoluene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,3,5-Trimethylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
4-Chlorotoluene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		Included in TPH
tert-Butylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,2,4-Trimethylbenzene	µg/kg	1,800	RSK - Human health with home grown produce (1% OM)												0	0		
sec-Butylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
p-Isopropyltoluene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,3-Dichlorobenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,4-Dichlorobenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
n-Butylbenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,2-Dichlorobenzene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
1,2-Dibromo-3-chloropropane	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
Hexachlorobutadiene	µg/kg	NA	RSK - Human health with home grown produce (1% OM)												0	0		
SVOCs															0	0		
Phenol	mg/kg	120													0	0		
1,2,4-Trichlorobenzene	mg/kg	NA													0	0		
2-Nitrophenol	mg/kg	NA													0	0		
Nitrobenzene	mg/kg	NA													0	0		
0-Cresol	mg/kg	NA													0	0		
bis(2-chloroethoxy)methane	mg/kg	NA													0	0		
bis(2-chloroethyl)ether	mg/kg	NA													0	0		
2,4-Dichlorophenol	mg/kg	NA													0	0		
2-Chlorophenol	mg/kg	NA													0	0		
1,3-Dichlorobenzene	mg/kg	NA													0	0		
1,4-Dichlorobenzene	mg/kg	NA													0	0		
1,2-Dichlorobenzene	mg/kg	NA													0	0		
2,4-Dimethylphenol	mg/kg	NA													0	0		
Isophorone	mg/kg	NA													0	0		
Hexachloroethane	mg/kg	NA													0	0		
p-Cresol	mg/kg	NA													0	0		
2,4,6-Trichlorophenol	mg/kg	NA													0	0		
2,4,5-Trichlorophenol	mg/kg	NA													0	0		
2-Nitroaniline	mg/kg	NA													0	0		
4-Chloro-3-methylphenol	mg/kg	NA													0	0		
2-Methylnaphthalene	mg/kg	NA													0	0		
Hexachlorocyclopentadiene	mg/kg	NA													0	0		
Hexachlorobutadiene	mg/kg	NA													0	0		
2,6-Dinitrotoluene	mg/kg	NA													0	0		
Dimethyl phthalate	mg/kg	NA													0	0		Included in TPH
2-Chloronaphthalene	mg/kg	NA													0	0		
4-Chloroanaline	mg/kg	NA													0	0		
4-Nitrophenol	mg/kg	NA													0	0		
4-Chlorophenyl phenyl ether	mg/kg	NA													0	0		
3-Nitroaniline	mg/kg	NA													0	0		
4-Nitroaniline	mg/kg	NA													0	0		
4-Bromophenyl phenyl ether	mg/kg	NA													0	0		USEPA 2015 - Industrial 100mg/kg
Hexachlorobenzene	mg/kg	NA													0	0		
2,4-Dinitrotoluene	mg/kg	NA													0	0		
Diethyl phthalate	mg/kg	NA													0	0		
Dibenzofuran	mg/kg	NA													0	0		
Azobenzene	mg/kg	NA													0	0		
Dibutyl phthalate	mg/kg	NA													0	0		
Carbazole	mg/kg	NA													0	0		
bis(2-ethylhexyl)phthalate	mg/kg	NA													0	0		
Benzyl butyl phthalate	mg/kg	NA													0	0		
Di-n-octyl phthalate	mg/kg	NA													0	0		Aromatic hetrocyclic organic compound TPH used as indicator compound

PCBs

PCB Congener 28	mg/kg																	
PCB Congener 52	mg/kg																	
PCB Congener 101	mg/kg																	
PCB Congener 118	mg/kg																	
PCB Congener 138	mg/kg																	
PCB Congener 153	mg/kg																	
PCB Congener 180	mg/kg																	
Total PCB (7 Congeners)	mg/kg																	

Notes:

U/S = Unsuitable Sample I/S = Insufficient Sample

Residential GAC exceeded

GAC above theoretical soil saturation limit

Abestos positively identified in sample and quantified

NA Not applicable

Project / Site name: 305276 Storrington Road, Thakeham

Date sampled					27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	27/09/2022	Max	Min		Further consideration/discounted for human health
RSK																		
Sample reference					WS1	WS2	WS2	WS3	WS3	WS3	WS3	WS4	WS4	WS5				
Additional ref					Made Ground	Made Ground	Made Ground	Made Ground	Fittleworth Member	Fittleworth Member	Fittleworth Member	Fittleworth Member	Fittleworth Member	Fittleworth Member				
Depth					0.50 - 0.60	0.25 - 0.35	0.35 - 0.45	0.40 - 0.50	2.50 - 2.60	3.50 - 3.60	4.6	2.70 - 2.80	3.50 - 3.60	0.30 - 0.40				
DETS ref number					614766	614768	614769	614770	614772	614773	614774	614775	614776	614777				
		Human Health GAC for plant uptake (1% SOM)																
Analytical Parameter (Soil Analysis)	**Units**																	
Asbestos in Soil Screen / Identification Name	Type	na			not dectected	dectected	dectected	dectected							0	0		
Asbestos in Soil	Type	na				Chrysotile	Chrysotile cement	Chrysotile							0	0		
Asbestos Quantification	%														0	0		
															0	0		
General Inorganics															0	0		
pH	pH Units	NA			7.9	8.4									8.4	7.9		
Total Cyanide	mg/kg	650			<2	<2									0	0		
Free Cyanide	mg/kg	650			<2	<2									0	0		Total cyanide used as an indicator compounds
Total Sulphate as SO_4	mg/kg	NA			840	7782									7782	840		
Water Soluble Sulphate (Soil Equivalent)	g/l	NA			0.06	0.41									0.41	0.06		
Water Soluble Sulphate as SO_4 (2:1)	mg/kg	NA			64	408									408	64		
Sulphide	mg/kg	NA			<5	<5									0	0		
Ammonium as NH_4	mg/kg	NA			0.9	2.8									2.8	0.9		
W/S Phosphate as PO_4 (2:1)	mg/kg	NA			<3	<3									0	0		
Total Organic Carbon (TOC)	%	NA			1.1	1.1								2.2	2.2	1.1		
															0	0		
Speciated PAHs															0	0		
Naphthalene	mg/kg	13	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		< 0.1		< 0.1				< 0.1	0	0		
Acenaphthylene	mg/kg	180	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		< 0.1		< 0.1				< 0.1	0	0		
Acenaphthene	mg/kg	230	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		1.37		< 0.1				< 0.1	1.37	1.37		
Fluorene	mg/kg	170	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		0.7		< 0.1				< 0.1	0.7	0.7		
Phenanthrene	mg/kg	100	RSK - Human health with home grown produce (1% OM)		< 0.1	0.18		4.7		< 0.1				< 0.1	4.7	0.18		
Anthracene	mg/kg	2,400	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		1.26		< 0.1				< 0.1	1.26	1.26		
Fluoranthene	mg/kg	290	RSK - Human health with home grown produce (1% OM)		0.35	0.38		11.3		< 0.1				< 0.1	11.3	0.35		
Pyrene	mg/kg	620	RSK - Human health with home grown produce (1% OM)		0.36	0.34		9.78		< 0.1				0.12	9.78	0.12		
Benzo(a)anthracene	mg/kg	7	RSK - Human health with home grown produce (1% OM)		0.16	0.21		7.22		< 0.1				< 0.1	7.22	0.16		PAH 16 used as indicator compounds
Chrysene	mg/kg	15	RSK - Human health with home grown produce (1% OM)		0.21	0.22		5.68		< 0.1				< 0.1	5.68	0.21		
Benzo(b)fluoranthene	mg/kg	2.6	RSK - Human health with home grown produce (1% OM)		0.25	0.34		8.61		< 0.1				0.14	8.61	0.14		
Benzo(k)fluoranthene	mg/kg	77	RSK - Human health with home grown produce (1% OM)		< 0.1	0.15		2.48		< 0.1				< 0.1	2.48	0.15		
Benzo(a)pyrene	mg/kg	5	RSK - Human health with home grown produce (1% OM)		0.2	0.35		6.92		< 0.1				0.12	6.92	0.12		
Indeno(1,2,3-cd)pyrene	mg/kg	27	RSK - Human health with home grown produce (1% OM)		0.18	0.4		3.56		< 0.1				< 0.1	3.56	0.18		PAH 16 used as indicator compounds
Dibenz(a,h)anthracene	mg/kg	0.24	RSK - Human health with home grown produce (1% OM)		< 0.1	< 0.1		0.97		< 0.1				< 0.1	0.97	0.97		
Benzo(ghi)perylene	mg/kg	310	RSK - Human health with home grown produce (1% OM)		0.17	0.42		2.81		< 0.1				< 0.1	2.81	0.17		
Total EPA-16 PAHs	mg/kg														0	0		
															0	0		
Heavy Metals / Metalloids															0	0		
Arsenic (As)	mg/kg	37	RSK - Human health with home grown produce (1% OM)		5	14		10		7				7	14	5		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
W/S Boron	mg/kg	NA	RSK - Human health with home grown produce (1% OM)		< 1	< 1		1		< 1				< 1	1	1		
Cadmium (Cd)	mg/kg	22	RSK - Human health with home grown produce (1% OM)		< 0.2	1.4		0.4		< 0.2				< 0.2	1.4	0.4		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Chromium (hexavalent)	mg/kg	21	RSK - Human health with home grown produce (1% OM)		<2	<2		<2	<2	<2	<2			<2	0	0		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Chromium (Cr)	mg/kg	910	RSK - Human health with home grown produce (1% OM)		8	33		9		6				8	33	6		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Copper (Cu)	mg/kg	2500	RSK - Human health with home grown produce (1% OM)		31	188		38		5				15	188	5		
Lead (Pb)	mg/kg	200	RSK - Human health with home grown produce (1% OM)		49	146		186		7				49	186	7		
Mercury (Hg)	mg/kg	0	RSK - Human health with home grown produce (1% OM)		< 1	< 1		< 1		< 1				< 1	0	0		
Nickel (Ni)	mg/kg	130	RSK - Human health with home grown produce (1% OM)		11	27		13		14				7	27	7		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Selenium (Se)	mg/kg	258	RSK - Human health with home grown produce (1% OM)		< 3	< 3		< 3		< 3				< 3	0	0		
Zinc (Zn)	mg/kg	3900	RSK - Human health with home grown produce (1% OM)		46	509		286		22				70	509	22		Low volatility no concern from inhalation pathways, assuming dc pathways broken by cover layer.
Monoaromatics															0	0		
Benzene	µg/kg	200	RSK - Human health with home grown produce (1% OM)			< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	0	0		
Toluene	µg/kg	130,000	RSK - Human health with home grown produce (1% OM)			< 5		< 5	< 5	< 5	< 5	< 5	< 5	< 5	0	0		
Ethylbenzene	µg/kg	50,000	RSK - Human health with home grown produce (1% OM)			< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	0	0		
p + m xylene	µg/kg	59,000	RSK - Human health with home grown produce (1% OM)			< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2	0	0		
o -xylene	µg/kg	61,000	RSK - Human health with home grown produce (1% OM)			< 2		< 2	< 2	< 2	< 2	< 2	< 2	< 2				
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	60,000	RSK - Human health with home grown produce (1% OM)			< 5		< 5	< 5	< 5	< 5	< 5	< 5	< 5	0	0		
Petroleum Hydrocarbons															0	0		
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	42	RSK - Human health with home grown produce (1% OM)			< 0.01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0	0		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	100	RSK - Human health with home grown produce (1% OM)			< 0.05		< 0.05	12.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	12.3	12.3		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	27	RSK - Human health with home grown produce (1% OM)			< 2		< 2	283	10	< 2	16	< 2	< 2	283	10		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	130	RSK - Human health with home grown produce (1% OM)			< 2		< 2	356	18	< 2	34	< 2	< 2	356	18		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)			< 3		13	334	17	< 3	103	< 3	< 3	334	13		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	65,000	RSK - Human health with home grown produce (1% OM)			17		110	10	< 3	< 3	113	< 3	< 3	113	10		
TPH-CWG - Aliphatic >EC21 - EC34	mg/kg	65,000	RSK - Human health with home grown produce (1% OM)			< 10		648	< 10	74	< 10	27	< 10	< 10	648	27		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	NA	RSK - Human health with home grown produce (1% OM)			< 21		770	994	119	< 21	293	< 21	< 21	770	119		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	30	RSK - Human health with home grown produce (1% OM)			< 2		< 2	38	< 2	< 2	< 2	< 2	< 2	38	38		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	80	RSK - Human health with home grown produce (1% OM)			< 2		< 2	186	3	< 2	24	< 2	< 2	186	3		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	140	RSK - Human health with home grown produce (1% OM)			< 2		14	235	10	< 2	97	< 2	< 2	235	10		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	260	RSK - Human health with home grown produce (1% OM)			15		146	9	< 3	< 3	112	< 3	< 3	146	9		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)			14		899	< 10	< 10	< 10	30	< 10	< 10				
TPH-CWG - Aromatic >EC35 - EC44	mg/kg	1,100	RSK - Human health with home grown produce (1% OM)			29		1058	469	< 21	< 21	263	< 21	< 21	1058	29		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	NA	RSK - Human health with home grown produce (1% OM)			45		1828	1463	132	< 42	556	< 42	< 42	0	0		
															0	0		
PCBs																		
PCB Congener 28	mg/kg																	
PCB Congener 52	mg/kg																	
PCB Congener 101	mg/kg																	
PCB Congener 118	mg/kg																	
PCB Congener 138	mg/kg																	
PCB Congener 153	mg/kg																	
PCB Congener 180	mg/kg																	
Total PCB (7 Congeners)	mg/kg																	

Notes:

U/S = Unsuitable Sample I/S = Insufficient Sample

Residential GAC exceeded

GAC above theoretical soil saturation limit

Abestos positively identified in sample and quantified

NA Not applicable