

## RE: AWDM/0153/25 - Queens Parade North Road Lancing West Sussex

---

FAO – Mr Peter Barnett (Principal Planning Officer) and LLFA,

We are writing in response to the latest comments from West Sussex County Council as the Lead Local Flood Authority (LLFA), received 18<sup>th</sup> March 2025. This response states;

At present, the LLFA **objects** to the application, due to below:

*1) The Environment Agency has recently updated its flood risk modelling (NaFRA2) and this has resulted in a change of surface water flood risk profile at this site.*

*Please update the Flood Risk Assessment using the latest data.*

*2) Following the SuDS Hierarchy, the Applicant has stated that the only method of surface water discharge is to the existing foul sewer (which it is contended should be classified as a combined sewer due to existing surface water connections).*

*Following discussions with Southern Water, they have advised they classify this as a foul only sewer, irrespective of any existing connection. It is noted on our mapping that there is a private surface water system adjacent to the foul sewer in North Road. It must be demonstrated that the applicant has explored the private surface water system in order to follow the SuDS hierarchy. We would suggest contacting WSCC Highways and the Adur & Worthing Councils in the first instance to assist in ascertaining who manages and maintains this asset. When/if the asset owner is identified, we will need evidence that the asset owner is content for connections to be made. As this may be unsuitable for submitting to planning portal, we are happy for this to be sent to the email below.*

*3) If the Applicant wishes to pursue their existing strategy, we will need to see written confirmation from Southern Water that the proposal is acceptable, to establish that the site can be drained in principle. Their latest guidance is available here: Microsoft Word - Surface Water Management Policy v 0.3*

*Once these points have been addressed, we will review further, it may be possible to remove our objection at that stage, dependent on the level of information provided and any further queries arising*

## **(1.) Update NaFRA2 mapping**

We understand that the NaFRA2 mapping has been updated. Please see below for the amended surface water flood risk section of the report. This section below is an addendum to the existing Flood Risk Assessment (document reference: AEG5636\_BN15\_Lancing\_07) and should be referred to ahead of Sections 4.9 – 4.18.

### **Pluvial Flood Risk**

Pluvial flooding can occur during prolonged or intense storm events when the infiltration potential of soils, or the capacity of drainage infrastructure is overwhelmed leading to the accumulation of surface water and the generation of overland flow routes.

The new National Flood Risk Assessment (NaFRA2), published in Jan 2025, has updated the Risk of Flooding from Surface Water (RoFSW) products which show the chance of flooding from surface water to areas of land.

The RoFSW products are an assessment of where surface water flooding may occur when rainwater does not drain away through the normal drainage systems or soak into the ground but lies on or flows over the ground instead. It includes information about flooding extents and depths including the potential impact of climate change on flood risk, based on the latest UK Climate Projections (UKCP18).

Risk is displayed as one of three likelihood categories:

- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any year.
- Medium – Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year.
- Low – Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in any given year.

The new RoFSW depth mapping shows the annual chance of flooding (based on the three risk categories listed above) beyond a specific depth, for depths at the following intervals from 20cm to 120cm:

- 0.2m, 0.3m, 0.6m, 0.9m, 1.2m

As well as present day risk of flooding from surface water, climate change scenarios have been produced to indicate the predicted impacts of climate change on future flood risk. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. A near-term epoch (2040 – 2060 “2050s” epoch) and central allowances are being used initially, to support short and medium-term decisions informed by the highest flood likelihood projections.

The EA Online ‘Flood Risk from Surface Water -Climate Change’ map (Jan 2025) indicates that the site is at a ‘high’ ‘medium’ and ‘low’ risk of surface water flooding (Figure 1 **Error! Reference source not found.**). However, it is important to note that the ‘high’ surface water flood extent is associated with a topographical low point on the site, rather than an overland flow path from offsite. As such, this can be managed appropriately by SuDS (Sustainable Drainage Systems).

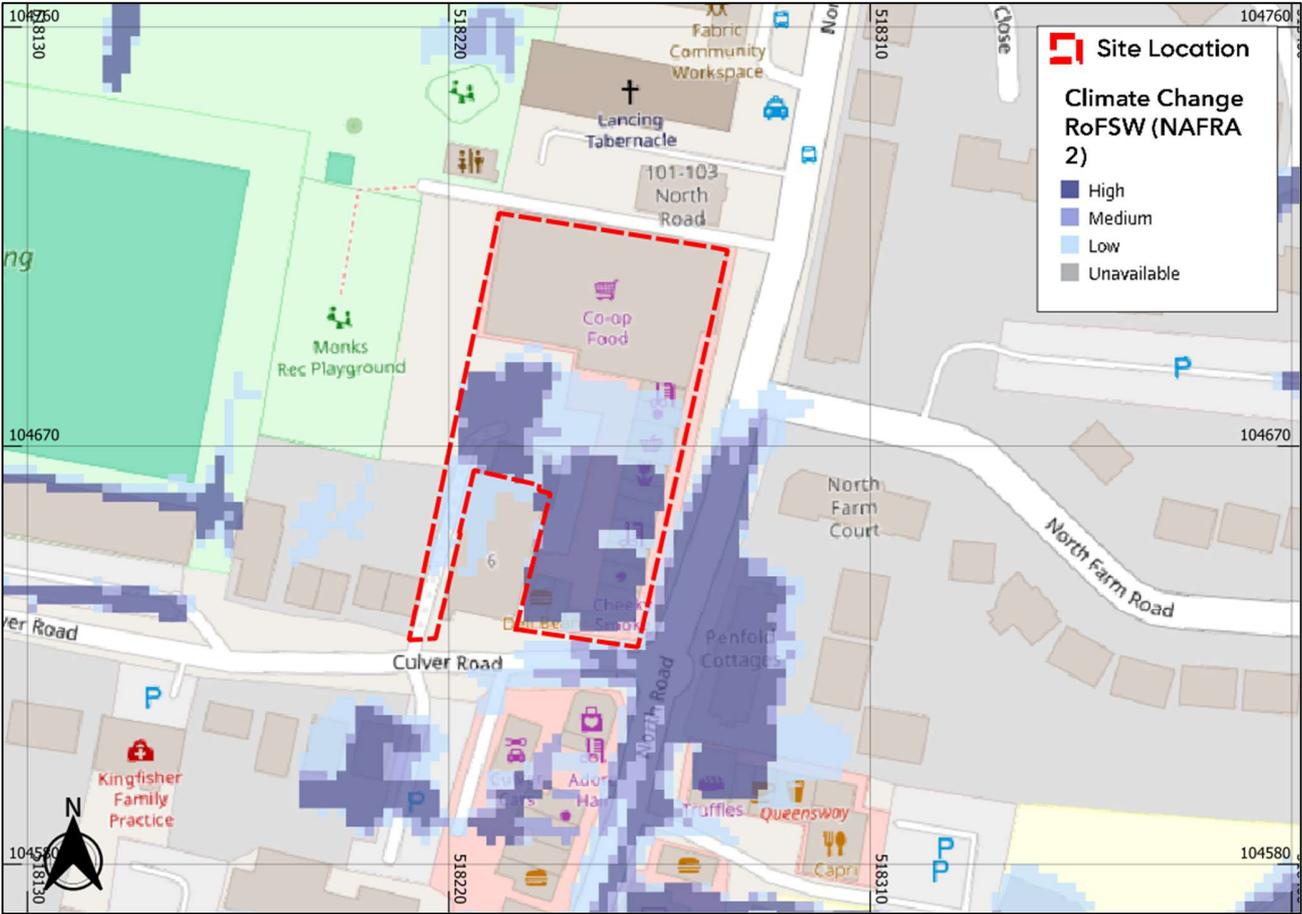


Figure 1: EA Surface Water Flood Risk Mapping Climate Change Extent (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

Analysis of the climate change RoFSW flood depth map shows that the site is at a ‘high’ ‘medium’ and ‘low’ risk of surface water flooding to depths exceeding 0.2m (Figure 2).

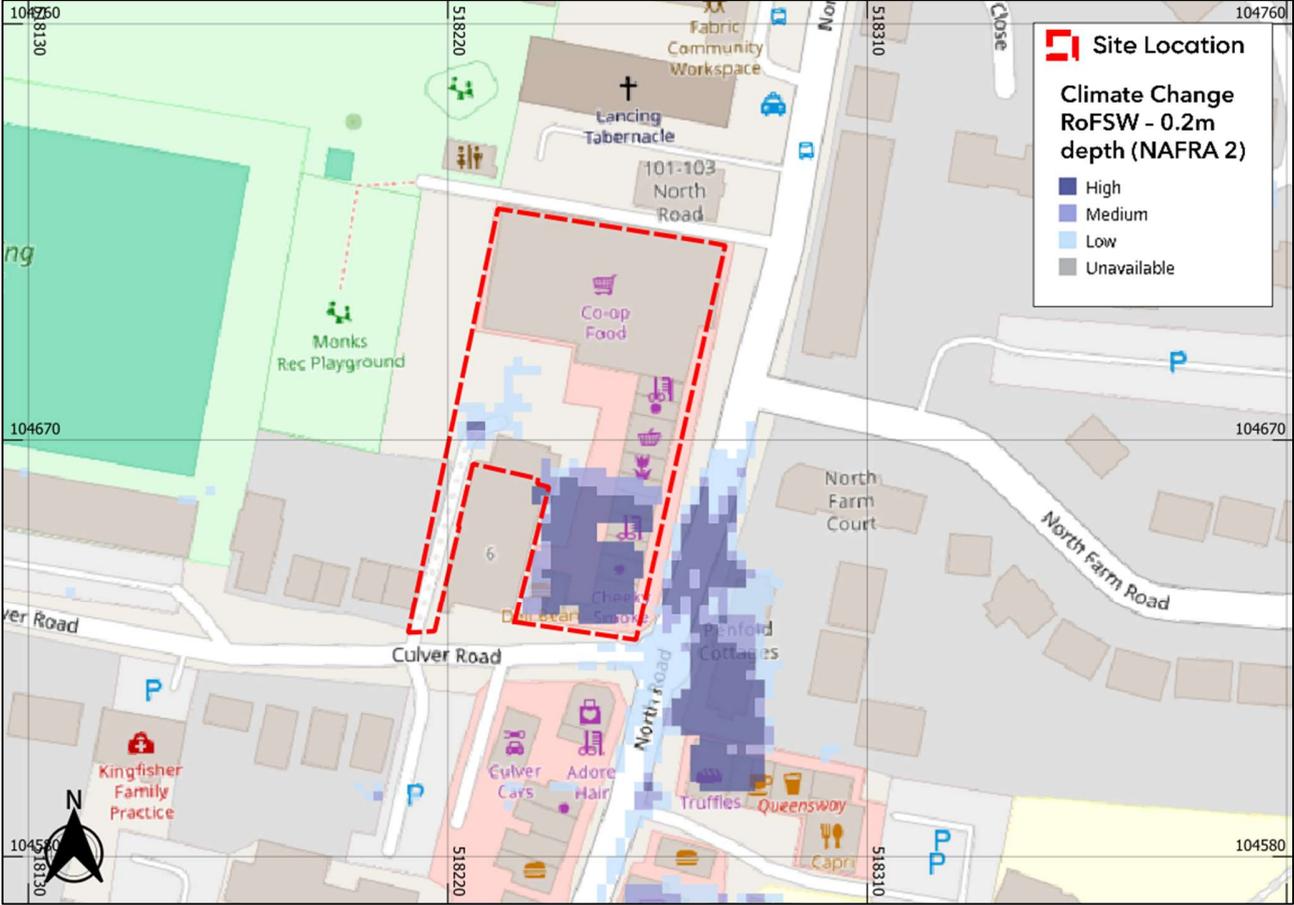


Figure 2: EA Surface Water Flood Risk Mapping Climate Change Depth >0.2m (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

Analysis of the climate change RoFSW flood depth map shows that the site is at a ‘medium’ and ‘low’ risk of surface water flooding to depths exceeding 0.3m (Figure 3). There are two pixels are a ‘high’ risk however, these are considered negligible in relation to the size of the site.

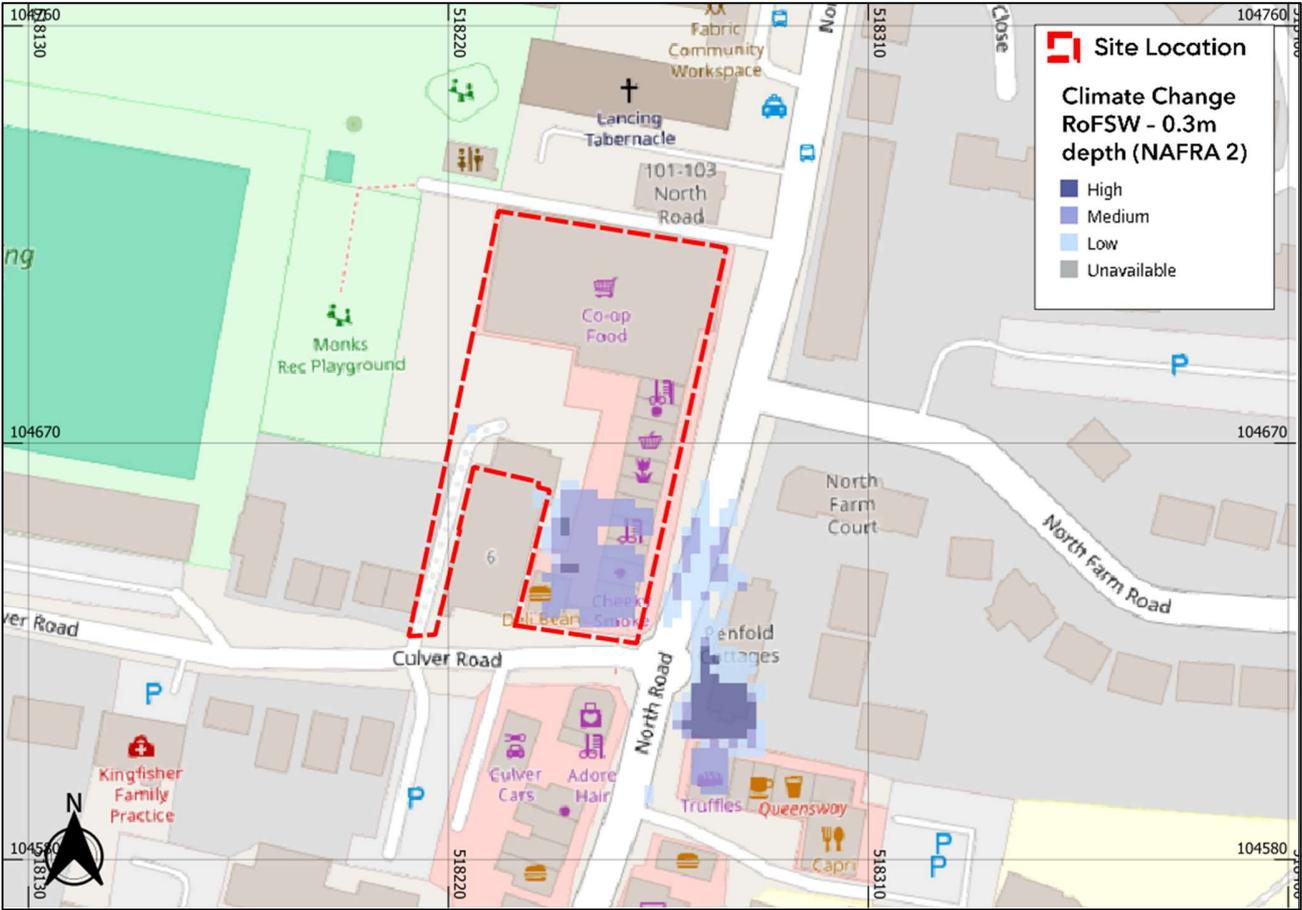


Figure 3: EA Surface Water Flood Risk Mapping Climate Change Depth >0.3m (Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © <https://www.openstreetmap.org> and contributors)

Analysis of the climate change RoFSW flood depth maps for depths exceeding 0.6m, 0.9m, and 1.2m show that the site is not at risk of surface water flooding exceeding these depths.

### Pluvial Flood Risk Summary

Analysis of the climate change RoFSW flood depth map shows that the site is at risk of surface water flooding, however, depths do not exceed 0.6m.

Additionally, due to topographical depressions on site it is likely that surface water risk is overestimated on site. As surface water is shown not to originate from a wider overland flow route, a SuDS strategy can mitigate any risk on site.

Based on the information available, the proposed development is considered to be at a low risk of surface water flooding.

## **(2 & 3) Drainage Discharge Location**

### **Proposed Drainage Strategy**

The submitted drainage strategy utilises the existing outfall connection, which is acknowledge discharges into a sewer owned by Southern Water. The CCTV survey evidence (Appendix A) confirms that this sewer actively receives surface water runoff from the site and potentially other off-site sources. Aegaea believe this asset's function reflects the historical drainage practice prevalent in the South Coast region, where SuDS were often not prioritised, resulting in surface water being directed into what are legacy combined sewers.

Crucially, our strategy proposes a significant improvement by restricting the discharge rate to just 2.0L/s, utilising an attenuation tank to manage runoff on site. The site currently discharges unrestricted. Therefore, our proposal delivers a tangible betterment (97.5%) to the legacy combined sewer compared to the existing scenario.

### **Private Sewer Request**

It is noted that the LLFA have requested that a new connection into an adjacent private sewer is sought and obtain evidence of consent from the asset owner(s). We must respectfully express our strong concern that this request is impractical and constitutes an unreasonable burden that threatens the viability of the approved scheme.

The process of satisfying this request involves several unachievable steps:

1. **Identifying all Asset Owners:** From our understanding the adjacent private sewer in question is owned collectively by a significant number of private residents. Determining the full extent of the private sewer and accurately identifying every property owner/resident who holds a legal stake in the asset is complex. Please see Appendix B which includes the current correspondence to date. Aegaea have contacted the LLFA regarding ownership of the private sewer and

requested a larger plan of the sewer. A larger plan was provided showing a 100m section of the sewer, however, a full plan of the sewer has still not been provided.

As we have established the sewer is at least 100m long. As such, establishing exactly all of the properties that are connected to this sewer via a CCTV survey will be a lengthy process, do we know if the records have been kept up to date, how long has the private sewer been in existence? Is there a cost to connect to the sewer? Whilst the benefits of discharging to separate systems are well known the number of unknowns associated with this option we believe are disproportionate compared to how Aegaea have demonstrated betterment in terms of **overall** discharge for the whole site not just the new development.

2. **Achieving Consent:** If we were to identify properties draining into this sewer, we would theoretically need unanimous, consent from all residents for a new connection. What is the path forward if, for example, residents agree, and residents refuse, or simply do not respond to correspondence, which is the most likely outcome?
3. **Scheme Jeopardy:** Pursuing this lengthy and complex process would lead to an unreasonable delay to the project, placing the planning permission and the overall development programme in jeopardy. Given that the development has already secured planning support, we are confident that a pragmatic solution exists that satisfies drainage requirements without imposing undue risk to the scheme. Whilst acknowledging that the proposed development is promoting a betterment over the whole of the existing due to the nature of the roof extensions.

## Proposed Pragmatic Compromise

We urge the LLFA to adopt a pragmatic approach and accept the reuse of the existing legacy connection based on the principle of betterment.

Allowing the scheme to proceed with the proposed strategy will result in a measurable improvement to the existing drainage scenario. If the current situation was to persist, where a large roof area (1,160m<sup>2</sup>) drains unrestricted (89.8l/s during the 1 in 100-year (plus climate change) storm event) into the legacy combined sewer (the sewer has been in place since a time when drainage was combined, the existing building has discharged into this system since its construction), this is the worst-case scenario.

To provide a pragmatic solution we could amend the drainage design and reduce the runoff rate to 1.0l/s, thus providing more storage on site and providing a greater betterment in terms of runoff rates (99% betterment).

To further assist the LLFA in their review and provide absolute clarity on the existing pipe's function, we could undertake another CCTV survey of the existing connection and surrounding sewer network if that would be helpful in establishing the legacy combined nature of the asset. Do the LLFA / LPA have a preferred contractor to have confidence in the findings?

We would welcome a Teams call to discuss these points if there are any further questions.

Yours Faithfully/Sincerely,



**Jack Allen BSc (Hons), MSc and the Aegaea Team**

[enquiries@aegaea.com](mailto:enquiries@aegaea.com) / [jack@aegaea.com](mailto:jack@aegaea.com)

Enclosed:

- CCTV Survey (November 2024)

# Appendix A - CCTV Survey

518250E

518250E

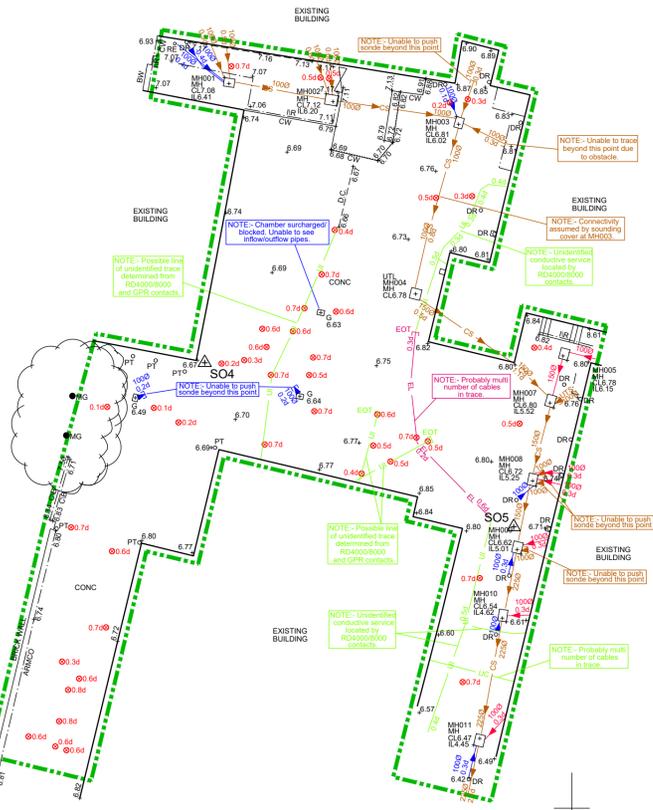
518250E

104700N

104700N

104650N

104650N



**Legend:**

- SW - STORM WATER SEWERS
- FW - FRESH WATER SEWERS
- WM - WATER MAIN
- GM - GAS MAIN
- EL - ELECTRIC CABLES
- DUCT - CABLE DUCTING
- BT - BT (UNDERGROUND)
- CTV - CABLE TV
- CCTV - CLOSED CIRCUIT TV
- UI - UNIDENTIFIED FEATURE
- LI - LINE OF POSSIBLE SUB-SURFACE FEATURE DETERMINED FROM GPR CONTACTS
- UP - UNIDENTIFIED PIPE
- UC - UNIDENTIFIED CABLE
- UNPR - UNPROVEN FEATURE
- UNPR - Cable Trace signal lost at this point
- UNPR - Unable to Trace Sewer past this point due to Blockage / Obstacle / Pipe Material
- FW - LATERAL CONNECTIONS
- SW - EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.
- FW - EXTENT OF SURVEY BY SURVEY OPERATIONS LTD.(JULY 2022)
- FW - CONNECTIVITY BETWEEN CHAMBERS FROM CCTV REPORT
- SW - COVER POSITION FROM CCTV REPORT NOT SURVEYED ON TOPOGRAPHICAL SURVEY
- 0.00 - BURIED FEATURE FOUND USING RADAR

**UNIDENTIFIED** - A buried feature or utility that has been located, but we are unable to state what it is.

**UNPROVEN** - The assumed location of a reported feature or utility, usually taken from records, but not found during the utility trace (due to various conditions).

**CAUTION** - Electric pot ended cables, even when they are live, are unable to be detected or traced.

**Legend:**

- EL - UNPROVEN ELEC
- BT - UNPROVEN BT
- GM - UNPROVEN GAS
- WM - UNPROVEN WATER
- SW - UNPROVEN SURFACE
- FW - UNPROVEN FRESH

All unproven lines without additional notes on drawing show the approximate location of a reported utility or feature as indicated on available stat records.

**UNDERGROUND UTILITIES SERVICES DISCLAIMER**

Where indicated, no allowance has been made for sub-surface entry into manholes, other chambers or confined spaces below ground level. Therefore any details relating to depths, sizes etc. are taken from the surface and as such will be approximate.

We have endeavoured to supply you with the most accurate data possible by using methods and equipment that are at the forefront of our industry. We have taken great care in the detection of pipework and buried features, but as with all methods of detecting underground or buried utilities the information provided is based on results obtained from electromagnetic techniques, and as such may be liable to distortion or errors beyond the reasonable control of the operator or his instruments.

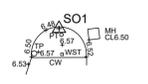
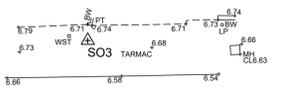
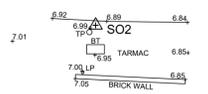
It is the responsibility of the user under Health & Safety (HSG47) Guidelines to satisfy himself of the suspected location of any services prior to excavation of the services shown.

**NOTE 1**

This utility survey has been undertaken using:  
 A: Radiodetection RD4000 + RD4000 TID  
 B: Malis Geoscience Grounds Probing Radar

**NOTE 2**

Power carrying features shown on this drawing are shown as an individual service line. This does not necessarily represent the number of cables actually present and it is possible that there could be multi numbers of cables including HV, LV and communications transmission cables following the same trace line. These could be at different depths, the trace signal from the deeper cables being masked by signal emitted from the shallower service above. Cable runs could also be present running parallel to the single line shown.



518200E

518250E

© Survey Operations Limited 2024  
 Reproduction in whole or in part by any means is prohibited without the prior permission of Survey Operations Limited.



**Note:**  
 The survey is plotted on a plane local Grid. Orientation to National Grid.  
 All levels relate to Ordnance Datum, achieved using the OS National GPS Network.

Survey Control Markers established for Mapping purposes only and should not be used for Construction without the written approval of Survey Operations Ltd.

Drainage information must be verified with local authority records before use

SURVEY STATIONS			
Name	Easting	Northing	Height
SO1	518235.62	104618.30	6.55
SO2	518182.18	104619.67	6.99
SO3	518211.18	104627.13	6.71
SO4	518229.20	104675.21	6.67
SO5	518246.71	104665.92	6.68



Smith Street, Skelmersdale, Lancs. WN8 8LN  
 Tel: 01695 725662 Fax: 01695 51816  
 Email: mail@survops.co.uk - www.survops.co.uk

Client  
 Aegaea

Drawing Title  
 Utility Survey of Land at:  
 Queens Parade  
 Lancing

Scale(s)	1:200	Surveyor	MWK
Date	Nov 24	Drawn	DS
Job Number	24J120	Checked	SO

Sheet Size & Drg Number & Revision  
**A1 24J120/001**