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**GLADMAN DEVELOPMENTS LIMITED**

**CROSS ROAD, DEAL**

# HYDROGEOLOGICAL SITE INVESTIGATION REPORT

**MAY 2024**

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| | |
|---|---|
| **DATE ISSUED:** | **MAY 2024** |
| **JOB NUMBER:** | **GM12741** |
| **REPORT NUMBER:** | **0004** |
| **VERSION:** | **V1.0** |
| **STATUS:** | **FINAL** |

**GLADMAN DEVELOPMENTS LIMITED**

**CROSS ROAD, DEAL**

# HYDROGEOLOGICAL SITE INVESTIGATION REPORT

**MAY 2024**

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**REVIEWED BY:**

Rik Ingram Technical Director - Hydrogeology

**APPROVED BY:**

Rik Ingram Technical Director - Hydrogeology

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| DRAWINGS | TITLE | SCALE |
|---|---|---|
| GM12741-001 | Site Location Plan | 1:10,000 |
| GM12741-005 | Groundwater Monitoring Network | 1:5,000 |

# 1 INTRODUCTION

## 1.1 Background

1.1.1 Wardell Armstrong LLP (WA) has been commissioned by Gladman Developments Limited (the Client) to undertake the installation of groundwater monitoring boreholes as part of a site investigation (SI) for a site at Cross Road, Deal (the Site) to support the monitoring of groundwater levels at the Site. Groundwater level monitoring will be required by Southern Water as a condition of the Planning Permission (Application Reference: 21/01822). The requirement for monitoring is indicated because the Site overlies a Principal Aquifer and Southern Water operates a Public Water Supply (PWS) groundwater abstraction located approximately 300 m east north east of the Site.

1.1.2 The Site refers to a proposed residential development comprising the erection of up to 140 dwellings including affordable housing with public open space, landscaping and vehicular access centred approximately at National Grid Reference (NGR): TR 36041 50521. The location of the Site is presented on Drawing Ref: GM12741-001.

1.1.3 The SI was undertaken in January 2024. The SI comprised the drilling of three boreholes (BH1, BH2 and BH3). Piezometers were installed in all three boreholes to facilitate groundwater level monitoring. The locations of the groundwater monitoring boreholes are presented on Drawing Reference: GM12741-002.

1.1.4 The drilling operations were undertaken by Geotron UK Ltd., under the supervision of a WA hydrogeologist. The Client appointed WA as the Principal Designer and Geotron UK Ltd. as the Principal Contractor.

## 1.2 Basis of Report

1.2.1 This report is based on the following reports and documents relating to the Site.

- Hydrogeological Conceptual Site Model report produced by WA in May 2024 which includes proposals for the monitoring required to obtain seasonal groundwater level fluctuations at the Site.
- Preliminary Risk Assessment: Land west of Cross Road, Cross Road, Deal CT14 9LA, by RSK; dated June 2021 (RSK reference: 52285-R01 (00); referred to as PRA 2021);
- Borehole logs.

1.2.2 WA consulted Southern Water on the proposed SI, proposed monitoring network and the subsequent proposed development. A Southern Water hydrogeologist indicated that the proposed monitoring network and monitoring programme was sufficient to determine the seasonal variations in groundwater levels at and in the vicinity of the Site. Southern Water provided WA with the location of the nearby PWS and its associated adits, one of which intersects the Site at its north east corner. The location of the adit which intersects the Site is presented on Drawing No GM12741-002.

1.3 Structure of Report

1.3.1 Section 2 of this report summarises the environmental setting of the Site. Drilling and monitoring borehole construction are described in Section 3.

## 2 SITE DESCRIPTION AND SITE SETTING

2.1.1 The Site is located on land directly north of Ellens Road and directly east of Cross Road, Deal, Kent. The Site location including the Site boundary is presented on Drawing No GM12741-001. The Site covers an area of approximately 8.2 hectares. Access can be obtained at the south east corner and the north east corner of the Site on Cross Road.

2.1.2 The proposed development of the Site refers to a residential development comprising the erection of up to 140 dwellings including affordable housing with public open space, landscaping and vehicular access.

2.1.3 Within the Site, the western corner extending north east and south east is covered by dense semi-mature and mature shrubs and trees. The remainder of the Site comprises arable land divided into two fields; the larger field is located in the central section of the Site and is used for crops. The smaller field is located in the north of the Site and comprises vacant/fallow land. Additionally, semi-mature and mature hedgerows are generally present around the perimeter for the Site.

2.1.4 Based on the Envirocheck Report provided at Appendix C to the PRA 2021, the Site comprised agricultural land and vacant/fallow land from the first available historical Ordnance Survey Plan in 1877 to present.

2.2 Topography

2.2.1 The topography of the Site gradually falls from approximately 30 m above Ordnance Datum (AOD) in the north and northeast to approximately 16 mAOD in the south and south west across the Site.

## 2.3 Geology

2.3.1 The geology in the vicinity of the Site is described below based on information from the BGS 1:50,000 scale series geological mapping (Sheet 290, Dover, Solid and Drift edition)[1], the online BGS GeoIndex[2] together with the records of 9 boreholes drilled within 500 metres of the Site available from BGS GeoIndex (referred to below as the BGS borehole logs).

***Superficial Geology***

2.3.2 There are no superficial deposits recorded within the Site. Superficial deposits of Head generally consisting of poorly sorted and poorly stratified angular rock debris, clayey hillwash and soil creep with lenses of silt, clay or peat and organic material[3] is found immediately adjacent to the south western boundary of the Site and curves northwards east of the Site. Head deposits are also located approximately 350 m north east of the Site.

***Bedrock Geology***

2.3.3 The bedrock geology within the far northern and eastern extents of the Site comprises the Margate Chalk Member which forms part of the Newhaven Chalk Formation. The Margate Chalk Member generally consists of smooth white chalk with little flint. Based on the BGS borehole log (BGS ref: TR35SE51), the Margate Chalk Member has a thickness of up to 4 m in the vicinity of the Site. The Margate Chalk Member is underlain by the Seaford Chalk Formation. The bedrock within the remainder of the Site comprises the Seaford Chalk Formation. The Seaford Chalk Formation generally consists of firm white chalk with semi-continuous nodular and tabular flint seams. Based on the BGS mapping data, the Seaford Chalk Formation has a thickness of approximately 55 m to 60 m in the vicinity of the Site. The Newhaven Chalk Formation and the Seaford Chalk Formation both form part of the White Chalk Subgroup[3].

## 2.4 Hydrogeology

2.4.1 The hydrogeology at and in the vicinity of the Site is summarised below based on information taken from the online BGS GeoIndex, BGS borehole records, BGS Reports,

[1] BGS, 1:50,000 Scale Series Geological Mapping, Sheet 290, Dover, Solid and Drift Edition. Accessed: 01/11/2023. Available online: https://webapps.bgs.ac.uk/data/MapsPortal/map.html?id=10174300010174
[2] BGS, GeoIndex (onshore). Accessed: 01/11/2023. Available online: https://www.bgs.ac.uk/map-viewers/geoindex-onshore/
[3] BGS, Lexicon of Named Rock Units. Accessed: 01/11/2023. Available online: https://www.bgs.ac.uk/technologies/the-bgs-lexicon-of-named-rock-units/

the online DEFRA Magic Map application and data provided by the EA, Dover District Council and Southern Water.

2.4.2 The superficial Head underlying the land immediately adjacent to the south western boundary of the Site is likely to have a low permeability[4].

2.4.3 The White Chalk Subgroup underlying the Site is water bearing and is considered to have a low primary permeability and a high secondary permeability. Based on information gathered from the BGS Research Report[5] groundwater flow within the White Chalk Subgroup is concentrated within a few large fractures which are most commonly present at or within a few tens of metres of the water table. These fractures are often further enhanced due to dissolution as a result of the lithology, groundwater flux and the geochemical nature of the aquifer.

2.4.4 Based on data gathered from the EA Catchment Data Explorer[6], the Site is located within the East Kent Chalk – Stour Water Body, which has a catchment area of 593.8 $km^2$. In 2019 the Overall Water Body classification of the East Kent Chalk – Stour Water Body was 'Poor'.

***Aquifer Designations***

2.4.5 The superficial Head underlying the land immediately adjacent to the south western boundary of the Site is designated by the EA as a Secondary A Aquifer. Secondary A Aquifers are described by the EA as comprising permeable layers that can support local water supplies, and may form an important source of base flow to rivers.

2.4.6 The White Chalk Subgroup is designated by the EA as a Principal Aquifer. Principal Aquifers are described by the EA as able to provide significant quantities of drinking water and water for business needs. Principal Aquifers may also support rivers, lakes and wetlands[7].

[4] BGS Report, *An appraisal of the early Palaeogene deposits of North Kent,* 2002. Accessed: 09/11/2023. Available online: https://nora.nerc.ac.uk/id/eprint/509480/1/CR02315N.pdf
[5] BGS, Research Report, *The Chalk aquifer of the North Downs*, 2008. Accessed 09/11/2023.
[6] EA (2023). Catchment Data Explorer. Accessed 01/02/2024. Available online: https://environment.data.gov.uk/catchment-planning
[7] EA Guidance, Protect groundwater and prevent groundwater pollution, 2017. Accessed: 09/11/2023. Available online: https://www.gov.uk/government/publications/protect-groundwater-and-prevent-groundwater-pollution/protect-groundwater-and-prevent-groundwater-pollution

Based on data gathered from the online DEFRA Magic Map Application, the Site is located in an area where Groundwater Vulnerability is High and in a Drinking Water Safeguard Zone for groundwater[8].

***Source Protection Zones***

2.4.7 Based on data gathered from the online DEFRA Magic Map application, the Site is primarily located in a groundwater Source Protection Zone (SPZ) 1. A small area in the south east of the site is located in a groundwater SPZ 2. Based on information provided by Southern Water, a PWS with a maximum abstraction rate of 9092 $m^3$/day is located approximately 300 m east north east of the Site. It should be noted, however, that following correspondence with Southern Water, it is understood that the Southern Water PWS is not currently operational.

***Aquifer Properties***

2.4.8 Based on information gathered from the BGS Research Report[5] and the BGS Technical Report[9] regional transmissivity values for the Chalk aquifer are typically 1,500 $m^2$ per day. These values are likely to be increased by large productive fractures which generally develop preferentially along bedding planes and fractures. Within the White Chalk Subgroup at and in the vicinity of the Site, modelling has suggested that storage coefficient values are approximately 0.015.

***Groundwater Elevations and Flows***

2.4.9 No groundwater elevation data are available for the Site. Based on data gathered from the online Hydrology Data Explorer[10] and groundwater elevation data at the Southern Water PWS approximately 300 m east north east of the Site, groundwater elevations at and in the vicinity of the Site would be expected to be between approximately 2 mAOD and 4 mAOD during periods of low rainfall and between approximately 3 mAOD and 5 mAOD during periods of high rainfall.

2.4.10 Groundwater elevations at the Southern Water PWS have ranged between -0.04 mAOD and 4.00 mAOD with a median of 2.03 mAOD in the period January 2002 to December 2023. When pumping rates are high, groundwater elevations are drawn down and local groundwater flow is pulled toward the east north

[8] Magic Map (2023). Accessed: 01/11/2023. Available at: https://magic.defra.gov.uk/MagicMap.aspx
[9] British Geological Survey & Environment Agency (1997) The Physical Properties of Major Aquifers in England and Wales. *British Geological Survey Technical Report WD/97/34.* Environment Agency R&D Publication 8.
[10] DEFRA (2023) Hydrology Data Explorer. Accessed: 09/11/2023. Available online:

east, centred around the abstraction well within a cone of depression. It should be noted, however, that the PWS is not currently operational.

2.4.11 Based on the data gathered from the online Hydrology Data Explorer and groundwater elevation data at the Southern Water PWS, it is considered likely that the groundwater flow direction is to the north east. Based on the BGS hydrogeology map[11], it is considered that the English Channel, located approximately 1.8 km east of the Site is a discharge point for groundwater from the White Chalk Subgroup.

2.5 Hydrology

2.5.1 There are no surface water features at the Site. Based on the topography, drainage at the Site is anticipated to be towards the south.

2.5.2 Based on OS mapping, South Stream, a tributary of the River Stour is located approximately 1.3 km north west of the Site. The South Stream flows towards the north where it becomes the North Stream which ultimately flows into the River Stour approximately 7.6 km north of the Site.

***Surface Water Designations***

2.5.3 Based on the online DEFRA Magic Map application, the Site is located within the North and South Streams in the Lydden Valley Nitrate Vulnerable Zone. The Site is not located within a Drinking Water Safeguard Zone for surface water.

2.5.4 Based on data gathered from the EA Catchment Data Explorer[12], the Site is located within the South East River Basin District and is part of the Stour Management Catchment. Within the Stour Management Catchment area, the Site falls within the North and South Streams Operational Catchment. The Site is located in the North and South Streams at Northbourne Water Body surface water sub-catchment, which has a catchment area of 40.7 $km^2$. In 2019 the chemical classification of the North and South Streams at Northbourne Water Body[13] was 'Fail'. In 2022 the ecological classification of the North and South Streams at Northbourne Water Body was

[11] BGS (1970) Hydrogeological Map of the Chalk and Lower Greensand of Kent – Folkestone Beds and Hythe Beds (1:126,720). Accessed 01/02/2023. Available online: https://largeimages.bgs.ac.uk/iip/hydromaps.html?id=kent.jp2
[12] EA (2023). Catchment Data Explorer. Accessed 01/02/2024. Available online: https://environment.data.gov.uk/catchment-planning
[13] EA (2023). Catchment Data Explorer. North and South Streams at Northborne Water Body. Accessed 01/02/2024. Available online: https://environment.data.gov.uk/catchment-planning/WaterBody/GB107040019720

'Moderate'. Groundwater abstraction for public water supply is listed as being one of the reasons for the water body not achieving good status.

2.5.5 Based on the EA online Flood Map for Planning, the Site is located within a Flood Zone 1, indicating that there is a less than 0.1% annual probability of flooding in any given year.

## 3 DRILLING AND INSTALLATION OF GROUNDWATER MONITORING BOREHOLES

3.1.1 The drilling and installation of three boreholes (BH1, BH2 and BH3) was undertaken over an 8 working day period from 9 to 18 January 2024 inclusive. Piezometers were installed in all three boreholes to facilitate groundwater level monitoring. The drilling and installations were undertaken by Geotron UK Ltd. under the supervision of a WA hydrogeologist.

3.1.2 A summary of the completed drilling and construction is presented in Table 1, Table 2 and Table 3. The borehole logs are included as Appendix A. The locations of the groundwater monitoring boreholes are presented on Drawing Reference: GM12741-005. The following sections summarise the drilling and installation of the groundwater monitoring boreholes.

3.2 Setting Out, Surveying and Setup

3.2.1 Prior to the commencement of drilling, Midland Survey Limited surveyed and marked out all borehole locations and ground elevations. Midland Survey Limited also carried out a 10m service clearance across the Site.

3.2.2 The WA Hydrogeologist was present during the setup of the drilling rig at each location, ensuring that the rig was located as close as practicably possible to the surveyed borehole positions. As Borehole BH2 is located in the vicinity of the Southern Water adit, plastic liner was placed beneath and around the drilling rig to further ensure that any potential waste water was not discharged to ground.

3.2.3 Rotary Open Hole drilling with added water was employed to drill the boreholes. Drilling cuttings were logged by the on-site WA Hydrogeologist. The geology encountered at borehole BH1 comprised 0.40 m of topsoil, followed by 0.25 m of a fine to coarse sand, followed by 3.35 m of chalk assumed to be of the Newhaven Chalk Formation, followed by 11.10 m of chalk assumed to be of the Seaford Chalk Formation. Borehole BH2 comprised 0.20 m of topsoil, followed by 0.30 m of a fine to

coarse sand, followed by 31.2 m of chalk assumed to be of the Seaford Chalk Formation. Borehole BH3 comprised of 0.60 m of topsoil, followed by 0.60m of a fine to coarse sand, followed by 11.10 m of chalk assumed to be of the Seaford Chalk Formation.

3.2.4 The target depth for each borehole varied based on the depth of the target geology. The final elevations of the boreholes varied between 1 mAOD and -5 mAOD, ensuring that the borehole could be sufficiently screened to capture periods of elevated groundwater levels and reduced groundwater levels.

3.2.5 The groundwater monitoring borehole installations comprised High Density Polyethylene (HDPE) standpipes of external diameter of 63 mm and internal diameter of 50 mm. Slotted HDPE standpipes with a slot aperture of 1 mm and slot spacing of 20 mm was used to screen the target geological strata. The ends of the HDPE pipes were fitted with a push-fit end cap and the top of the HDPE pipes were fitted with gas-tight bungs with gas taps.

3.2.6 The annulus (i.e., the space between the HDPE pipe and the wall of the borehole) was filled with washed 3-6 mm filter gravel from the base of the borehole to approximately 2 m above the slotted HDPE pipe and with progressively hydrated bentonite pellets to approximately 0.3 m below ground level. The headworks comprised a lockable steel riser pipe set in post-mix concrete.

3.3 Development of the Groundwater Monitoring Boreholes

3.3.1 The drilling contractor undertook the development of the borehole using air-lifting methods.

3.3.2 Physico-chemical parameters (including suspended sediments, pH, turbidity and electrical conductivity) were measured every 10 minutes. An estimate of volume purged was made and this compared to the volume of water used (consumed) during drilling. The development flushed out more water than was introduced.

3.3.3 Suspended sediments were measured using the 'bucket test': a 10-14 litre bucket was filled with the water from the developing borehole and suspended sediments were allowed to settle; when there was no more than an approximate coin-sized amount of sediment, the water was considered to contain an insignificant amount of suspended sediments.

3.3.4 pH, turbidity and electrical conductivity were measured using an Aquaread *AP-2000* physico-chemical probe.

3.3.5 Development ceased after a minimum 60 minutes when the following conditions had been met by the last three consecutive readings:

- the water contained an insignificant amount of suspended sediments (monitored by turbidity readings);
- pH was constant; and
- electrical conductivity was constant.

3.3.6 Groundwater arising from the borehole development was discharged to 1000 litre Intermediate Bulk Container (IBC) cubes. This water was subsequently transported off site by the drilling contractor for disposal.

3.4 Groundwater Elevation Monitoring

3.4.1 In-Situ groundwater level loggers, recording automatically at a fifteen-minute interval, were installed in the boreholes after development had been completed.

3.4.2 Groundwater elevations were manually measured using a dip meter prior to installation, immediately following the installation and prior to setting up groundwater level loggers. Groundwater levels in borehole BH1 ranged between 18.9 m below ground level (bgl) prior to the installation of the borehole to 24.55 mbgl prior to the installation of a groundwater level logger. Groundwater levels in borehole BH2 ranged between 20.05 mbgl prior to the installation of the borehole to 22.18 mbgl prior to the installation of a groundwater level logger. Groundwater levels in borehole BH3 ranged between 8.70 mbgl prior to the installation of the borehole to 11.20 mbgl prior to the installation of a groundwater level logger.

## 4 SUMMARY

4.1.1 Three groundwater monitoring boreholes (BH1, BH2 and BH3) have been installed at the Site to support the monitoring of groundwater levels at the Site. Groundwater level monitoring will be required by Southern Water as a condition of the Planning Permission (Application Reference: 21/01822). The requirement for monitoring is indicated because the Site overlies a Principal Aquifer and Southern Water operates a Public Water Supply (PWS) groundwater abstraction located approximately 300 m east north east of the Site.

4.1.2 The groundwater monitoring boreholes were fitted with In-Situ groundwater level loggers, recording automatically at a fifteen-minute interval. The data will be used to

understand the temporal and spatial variation in groundwater level across the Site which will inform a Hydrogeological Risk Assessment of the Site. Monthly groundwater monitoring and reporting is proposed.

4.1.3 The indicative scope of work for the groundwater monitoring specifies: Manual groundwater level measurement ('dipping') and automatic logger monitoring, which will involve six monitoring visits to the site to ensure that the groundwater elevation maximum of the year has been recorded. Following each visit, download of logger data, which will then be compensated for atmospheric pressure. The monitoring work will culminate in a Baseline Groundwater Level Monitoring Report and an update of the associated HCSM Report.

| Table 1 – Borehole Locations, Depths, Dates, Drilling Methods and Geology Screened | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Borehole | Location[1] | | | Final Depth | | Drilling Date | | Installation Date | Drilling Method | Geology Screened |
| | Easting | Northing | Ground Elevation (mAOD) | mbgl | mAOD | From | To | | | |
| **BH1** | 636080.8 | 150781.6 | 28.81 | 30.00 | -1.19 | 10/01/2024 | 11/01/2024 | 11/01/2024 | Rotary Open Hole | Newhaven Chalk Formation & Seaford Chalk Formation |
| **BH2** | 636134.9 | 150516.9 | 26.60 | 31.70 | -5.10 | 16/01/2024 | 16/01/2024 | 16/01/2024 | Rotary Open Hole | Seaford Chalk Formation |
| **BH3** | 635967.6 | 150453.3 | 16.51 | 15.00 | 1.51 | 09/01/2024 | 10/01/2024 | 10/01/2024 | Rotary Open Hole | Seaford Chalk Formation |

**Note:** mAOD = metres above ordnance datum; mbgl = metres below ground level
[1]The eastings, northings and ground elevations in Table 1 were surveyed prior to the drilling rig setting up on each position. As it was not practicably possible for the rig to set up on each specified position, these true locations of the boreholes may differ from these values by approximately less than 1m.

| Table 2 – Borehole Installations (mbgl) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Borehole | Top of Casing (Lockable Borehole Cover) (mbgl) | Top of HDPE Pipe (mbgl) | Concrete (mbgl) | | Bentonite (mbgl) | | Gravel (mbgl) | | Plain HDPE Pipe (mbgl)* | | Slotted HDPE Pipe (mbgl)* | |
| | | | From | To | From | To | From | To | From | To | From | To |
| **BH1** | -0.21 | 0.07 | 0.00 | 0.30 | 0.30 | 14.40 | 14.40 | 30.00 | 0.07 | 15.15 | 15.15 | 30.00 |
| **BH2** | -0.15 | -0.06 | 0.00 | 0.30 | 0.30 | 14.60 | 14.60 | 31.70 | -0.06 | 16.85 | 16.85 | 31.70 |
| **BH3** | -0.29 | -0.09 | 0.00 | 0.30 | 0.30 | 6.30 | 6.30 | 15.00 | -0.09 | 9.06 | 9.06 | 15.00 |

**Notes:** mbgl = metres below ground level
* HDPE plain pipe and HDPE slotted pipe, inside diameter 50mm, 63mm outside diameter

| Table 3 – Borehole Installations (mAOD) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Borehole** | **Top of Casing (Lockable Borehole Cover) (mAOD)[1]** | **Top of HDPE Pipe (mAOD)[1]** | **Concrete (mAOD)** | | **Bentonite (mAOD)** | | **Gravel (mAOD)** | | **Plain HDPE Pipe (mAOD)*** | | **Slotted HDPE Pipe (mAOD)*** | |
| | | | **From** | **To** | **From** | **To** | **From** | **To** | **From** | **To** | **From** | **To** |
| **BH1** | 29.02 | 28.74 | 28.81 | 28.51 | 28.51 | 14.41 | 14.41 | -1.19 | 28.74 | 13.66 | 13.66 | -1.19 |
| **BH2** | 26.75 | 26.66 | 26.60 | 26.30 | 26.30 | 12.00 | 12.00 | -5.10 | 26.66 | 9.75 | 9.75 | -5.10 |
| **BH3** | 16.80 | 16.60 | 16.51 | 16.21 | 16.21 | 10.21 | 10.21 | 1.51 | 16.60 | 7.45 | 7.45 | 1.51 |

**Notes:** mAOD = metres above Ordnance Datum

* HDPE plain pipe and HDPE slotted pipe, inside diameter 50mm, 63mm outside diameter

[1] The elevations in Table 3 are based on the survey prior to the drilling rig setting up on each position. As it was not practicably possible for the rig to set up on each specified position, these true locations of the boreholes may differ from these values by approximately less than 1m.

# APPENDIX A

## Copies of the Borehole Logs

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH1**
Sheet 1 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 10/01/2024 - 11/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636080.79 N150781.57 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 28.81m AoD | Final Depth: 30.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.40 | 28.41 | | Soft brown slightly sandy CLAY. Sand is fine to coarse. (TOPSOIL). | |
| | | | | | | 0.65 | 28.16 | | Brown fine to coarse SAND with frequent white and black specs. | |
| | | | | | | | | | Chalk recovered as white unstained GRAVEL of chalk with occasional black specs. (PROBABLE NEWHAVEN CHALK FORMATION). | 1 |
| | | | | | | | | | | 2 |
| | | | | | | | | | | 3 |
| | | | | | | 4.00 | 24.81 | | Chalk recovered as a white unstained GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION) | 4 |
| | | | | | | | | | | 5 |
| | | | | | | | | | | 6 |
| | | | | | | | | | | 7 |
| | | | | | | | | | *8.00m - 8.20m : Band of flint* | 8 |
| | | | | | | | | | *9.00m - 9.20m : Band of flint* | 9 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>15.15m | 15.15m<br>30.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 11:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH1**
Sheet 2 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 10/01/2024 - 11/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636080.79 N150781.57 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 28.81m AoD | Final Depth: 30.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Sample and In Situ Testing: Type | Sample and In Situ Testing: Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Chalk recovered as a white unstained GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION) | 10 |
| | | | | | | | | | | 11 |
| | | | | | | | | | 12.20m - 30.00m : Soft (Driller's description) | 12 |
| | | | | | | | | | | 13 |
| | | | | | | | | | 14.00m - 14.20m : Band of flint | 14 |
| | | | | | | | | | | 15 |
| | | | | | | | | | | 16 |
| | | | | | | | | | | 17 |
| | | | | | | | | | | 18 |
| | | | | | | | | | | 19 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>15.15m | 15.15m<br>30.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 11:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH1**
Sheet 3 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 10/01/2024 - 11/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636080.79 N150781.57 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 28.81m AoD | Final Depth: 30.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | ▽ | | | | | | | | Chalk recovered as a white unstained GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION) | 20 |
| | | | | | | | | | *21.00m - 22.50m : 0% Flush returns* | 21 |
| | | | | | | | | | *22.50m - 24.00m : 10% Flush returns* | 22 |
| | | | | | | | | | *24.00m - 25.50m : 50% Flush returns* | 23 |
| | | | | | | | | | *25.50m - 27.00m : 70% Flush returns* | 24 |
| | | | | | | | | | *27.00m - 28.50m : 60% Flush returns* | 25 |
| | | | | | | | | | *28.50m - 30.00m : 50% Flush returns* | 26 |
| | | | | | | | | | | 27 |
| | | | | | | | | | | 28 |
| | | | | | | | | | | 29 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>15.15m | 15.15m<br>30.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 11:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH1**
Sheet 4 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 10/01/2024 - 11/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636080.79 N150781.57 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 28.81m AoD | Final Depth: 30.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Sample and In Situ Testing: Type | Sample and In Situ Testing: Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 30.00 | -1.19 | | Chalk recovered as a white unstained GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION) | 30 |
| | | | | | | | | | End of Borehole at 30.00m | 31 |
| | | | | | | | | | | 32 |
| | | | | | | | | | | 33 |
| | | | | | | | | | | 34 |
| | | | | | | | | | | 35 |
| | | | | | | | | | | 36 |
| | | | | | | | | | | 37 |
| | | | | | | | | | | 38 |
| | | | | | | | | | | 39 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>15.15m | 15.15m<br>30.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 11:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH2**
Sheet 1 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 16/01/2024 - 17/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636134.86 N150516.89 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 26.60m AoD | Final Depth: 31.70m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 0.20 | 26.40 | | Soft brown slightly sandy CLAY. Sand is fine to coarse. (TOPSOIL). | |
| | | | | | | 0.50 | 26.10 | | Brown and white slightly gravelly fine to coarse SAND with frequent black specs. Gravel is angular to sub-angular fine to medium of chalk and flint. | |
| | | | | | | | | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 1 2 3 4 5 6 7 8 9 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>16.85m | 16.85m<br>31.70m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH2**
Sheet 2 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 16/01/2024 - 17/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636134.86 N150516.89 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 26.60m AoD | Final Depth: 31.70m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Sample and In Situ Testing: Type | Sample and In Situ Testing: Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 10 |
| | | | | | | | | | | 11 |
| | | | | | | | | | | 12 |
| | | | | | | | | | | 13 |
| | | | | | | | | | | 14 |
| | | | | | | | | | | 15 |
| | | | | | | | | | | 16 |
| | | | | | | | | | | 17 |
| | | | | | | | | | *18.00m - 31.70m : Soft (Driller's description)* | 18 |
| | | | | | | | | | | 19 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>16.85m | 16.85m<br>31.70m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH2**
Sheet 3 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 16/01/2024 - 17/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636134.86 N150516.89 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 26.60m AoD | Final Depth: 31.70m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | ▽ | | | | | | | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 20 21 22 23 24 25 26 27 28 29 |
| | | | | | | | | | *26.00m - 31.70m : 0% Flush returns* | |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>16.85m | 16.85m<br>31.70m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH2**
Sheet 4 of 4

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 16/01/2024 - 17/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E636134.86 N150516.89 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 26.60m AoD | Final Depth: 31.70m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 30 |
| | | | | | | | | | | 31 |
| | | | | | | 31.70 | -5.10 | | End of Borehole at 31.70m | 32 |
| | | | | | | | | | | 33 |
| | | | | | | | | | | 34 |
| | | | | | | | | | | 35 |
| | | | | | | | | | | 36 |
| | | | | | | | | | | 37 |
| | | | | | | | | | | 38 |
| | | | | | | | | | | 39 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>16.85m | 16.85m<br>31.70m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH3**
Sheet 1 of 2

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 09/01/2024 - 10/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E635967.60 N150453.62 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 16.51m AoD | Final Depth: 15.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Soft brown slightly sandy CLAY. Sand is fine to coarse. (TOPSOIL). | |
| | | | | | | 0.60 | 15.91 | | Brown fine to coarse SAND with frequent white and black specs. | 1 |
| | | | | | | 1.20 | 15.31 | | Chalk recovered as a white slightly gravelly SAND with frequent black specs. Gravel is chalk and flint. (PROBABLE SEAFORD CHALK FORMATION). | 2 |
| | | | | | | 3.90 | 12.61 | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 3 4 5 6 7 8 9 |

| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>9.06m | 9.06m<br>15.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# Rotary Open Hole Borehole Log

BOREHOLE REFERENCE
**BH3**
Sheet 2 of 2

| | | | |
|---|---|---|---|
| Project Name: Cross Road, Deal | Client: Gladman Developments Ltd | Date: 09/01/2024 - 10/01/2024 | |
| Location: Cross Road, Deal, Kent | Contractor: Geotron UK Ltd | Co-ords: E635967.60 N150453.62 | |
| Project No. : GM12741 | Drilling Equipment: Cocmacchio 305 | Level : 16.51m AoD | Final Depth: 15.00m |

| Logged By | Checked By | Approved By | Bit Type | Core Barrel |
|---|---|---|---|---|
| EB | GH | GC | | |

| Install. / Backfill | Water Strikes | Sample and In Situ Testing: Depth (m) | Type | Results | Flush | Depth (m) | Level (m) | Legend | Stratum Description | Scale |
|---|---|---|---|---|---|---|---|---|---|---|
| | ▽ | | | | | | | | Chalk recovered as a white unstained sandy GRAVEL of chalk and flint with frequent black and grey specs. (PROBABLE SEAFORD CHALK FORMATION). | 10 |
| | | | | | | | | | | 11 |
| | | | | | | | | | | 12 |
| | | | | | | | | | | 13 |
| | | | | | | | | | | 14 |
| | | | | | | 15.00 | 1.51 | | End of Borehole at 15.00m | 15 |
| | | | | | | | | | | 16 |
| | | | | | | | | | | 17 |
| | | | | | | | | | | 18 |
| | | | | | | | | | | 19 |

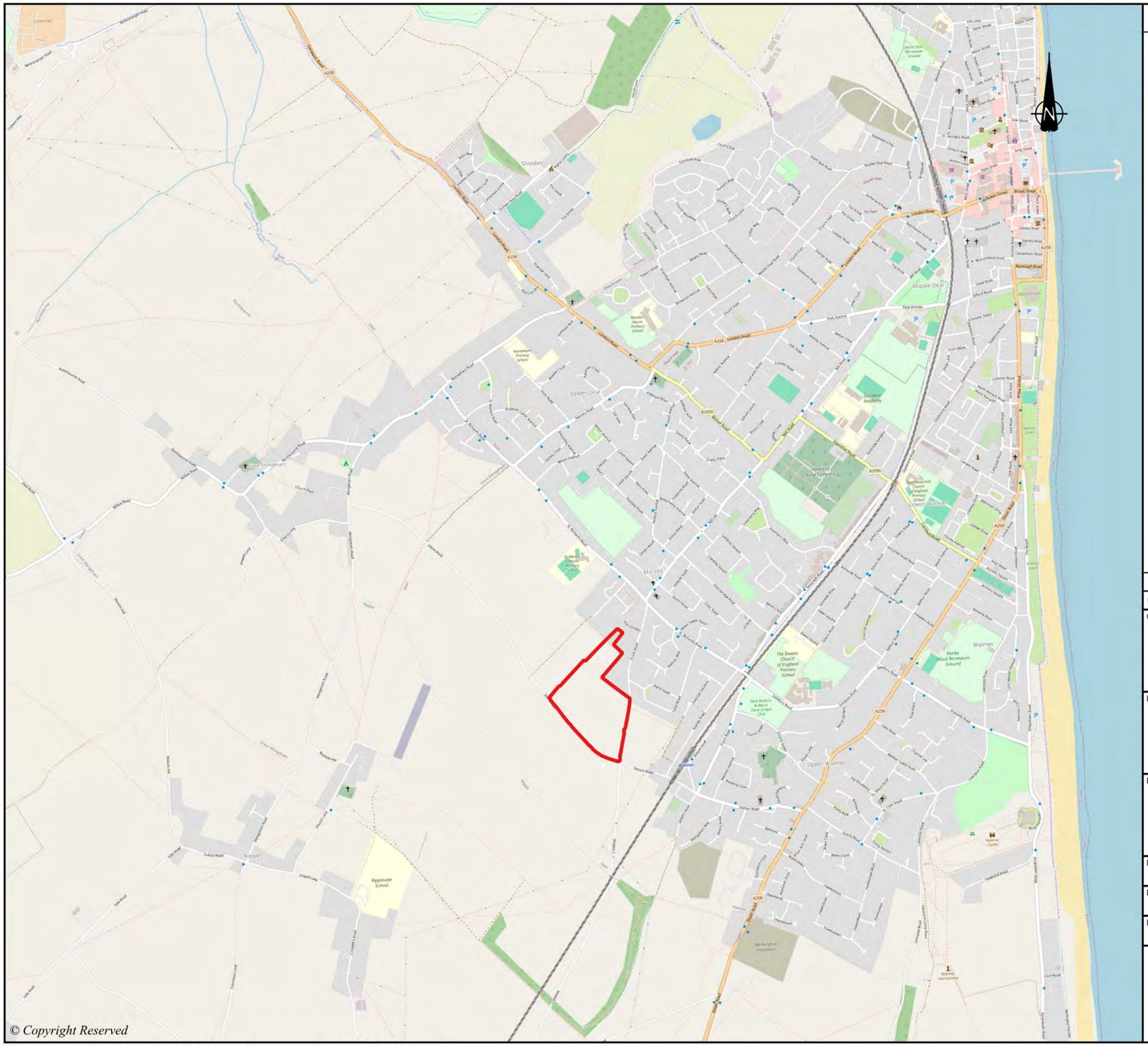
| Hole Diameter | | Casing Diameter | | Chiselling | | | | Inclination and Orientation | | | | Drilling Flush | | | | | | Installation | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base | Diameter | Base | Diameter | Top | Base | Duration | Tool | Top | Base | Inclination | Orientation | Top | Base | Type | Colour | Min (%) | Max (%) | Top | Base | Pipe Type | Diameter |
| | | | | | | | | | | | | | | | | | | 0.00m<br>9.06m | 9.06m<br>15.00m | PLAIN<br>SLOTTED | 50mm<br>50mm |

General Remarks

SERVICES: Location service cleared using a GPR Survey prior to drilling. TESTING: No in-situ testing undertaken. Groundwater levels shown were recorded following the borehole installations.

**Log printed on 08/05/2024 at 12:05**

# DRAWINGS






DO NOT SCALE FROM THIS DRAWING

## Key

Site Boundary

| REVISION | DETAILS | DATE | DRN | CHK'D | APP'D |
|---|---|---|---|---|---|
| A | First Issue | 02/05/24 | EB | RI | RI |

CLIENT

Gladman Developments Limited

PROJECT

Cross Road, Deal

DRAWING TITLE

Site Location

| DRG No. | REV | SUIT. CODE |
|---|---|---|
| GM12741-001 | A | - |

| DRG SIZE | SCALE | DATE |
|---|---|---|
| A3 | 1:15000 | May 2024 |

| DRAWN BY | CHECKED BY | APPROVED BY |
|---|---|---|
| EB | RI | RI |

wardell armstrong

\\WA.LOCAL\PROJECTS\GM\GM12741 - CROSS ROAD DEAL\03 - DESIGN\QGIS\HYDRO\HYDRO WORKS SPACE.QGS

EBROWN


DO NOT SCALE FROM THIS DRAWING

## Key

- Site boundary
- Approximate location of a groundwater monitoring borehole installed in January 2024

| REVISION | DETAILS | DATE | DR'N | CHK'D | APP'D |
|---|---|---|---|---|---|
| A | First Issue | 08/05/24 | EB | RI | RI |

CLIENT

Gladman Developments Limited

PROJECT

Cross Road, Deal

DRAWING TITLE

Proposed Monitoring Network

| DRG No. | REV | SUIT. CODE |
|---|---|---|
| GM12741-005 | A | - |

| DRG SIZE | SCALE | DATE |
|---|---|---|
| A3 | 1:5000 | May 2024 |

| DRAWN BY | CHECKED BY | APPROVED BY |
|---|---|---|
| EB | RI | RI |

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\\WA.LOCAL\PROJECTS\GM\GM12741 - CROSS ROAD DEAL\03 - DESIGN\QGIS\HYDRO\HYDRO WORKS SPACE.QGS

EBROWN

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