

PLOT 2, WANDLE TRADING ESTATE, GOAT ROAD, BEDDINGTON CORNER, LONDON BOROUGH OF SUTTON

Updated Geoarchaeological Deposit Model Report

NGR: TQ 279 668

Site Code: GRD16

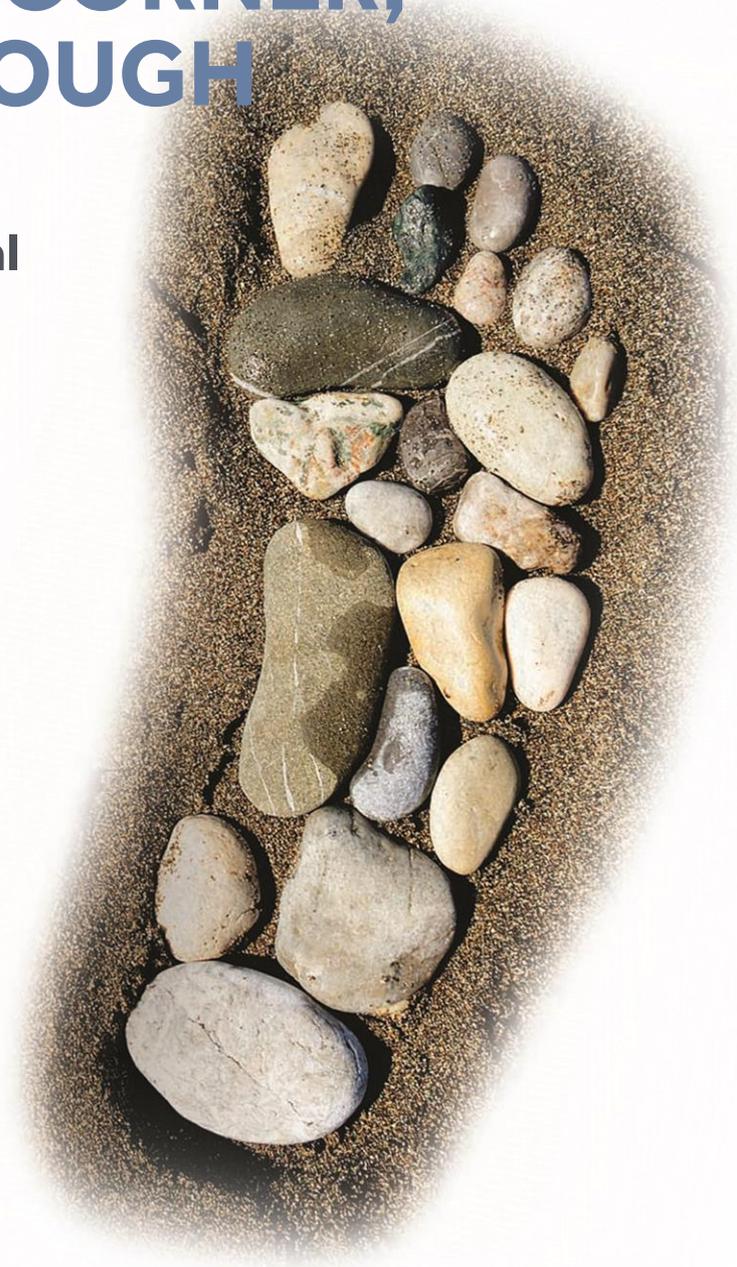
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CONTENTS

| | |
|---|----|
| 1. NON-TECHNICAL SUMMARY | 1 |
| 2. INTRODUCTION | 2 |
| 3. METHODS..... | 4 |
| 4. RESULTS AND INTERPRETATION OF THE LITHOSTRATIGRAPHIC DESCRIPTIONS AND DEPOSIT MODELLING..... | 9 |
| 5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS | 9 |
| 6. REFERENCES | 10 |
| 7. APPENDIX 1: OASIS FORM | 19 |

1. NON-TECHNICAL SUMMARY

A programme of geoarchaeological deposit modelling was carried out by Quaternary Scientific in connection with the proposed redevelopment of land at Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton. The aims of the geoarchaeological investigations at the site were: (1) to clarify the nature of the sub-surface stratigraphy across the site, in particular to elucidate the size and orientation of a possible palaeochannel traversing the site; and (2) to clarify the nature, depth, extent and date of any alluvium and peat deposits. In order to achieve these aims, a programme of geoarchaeological monitoring and deposit modelling was carried out. The deposit model incorporated the geotechnical borehole descriptions, records from those boreholes monitored in the field, and selected sedimentary sequences arising from archaeological investigations at the site.

The results of the investigations revealed that the sequence at the site beneath Plot 2 consists of the Late Devensian Wandle Gravel, whose surface lies at between 20.6 and 22.48m OD, overlain in places by up to 1.5m of generally coarse-grained (sand-rich) Alluvium, and Made Ground. Made Ground directly overlies the Gravel in places, indicating that the Gravel surfaces here may be truncated. In the absence of any organic-rich horizons or peat (such as that recorded elsewhere in the Wandle Valley), or evidence for former land surfaces/soil formation at the site, no further environmental archaeological investigations were recommended.

2. INTRODUCTION

1.1 Planning condition

Planning permission (ref: C2013/68191) has been granted for the residential redevelopment of the site, with the following condition for archaeology attached:

(22) No development shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted to and approved in writing by Local Planning Authority. The development shall only take place in accordance with the detailed scheme pursuant to this condition.

Reason: To ensure compliance with policy DM4 of the Site Development Policies DPD.

1.2 Site context

This report summarises the findings arising out of the geoarchaeological monitoring and deposit modelling undertaken by Quaternary Scientific (University of Reading) in connection with the proposed development of land at Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton (NGR centred on: TQ 279 668; site code: GRD16; Figures 1 & 2). Quaternary Scientific were commissioned by CgMs Consulting Ltd to undertake the geoarchaeological investigations. This updated report includes the results of a revised deposit model, following the addition of information from archaeological trenches excavated by Archaeology South East.

The site is divided into two plots. Plot 1 is located on the western side of the River Wandle and is represented within this report; Plot 2, the larger of the two plots, is located on the eastern side of the Wandle and was investigated as part of recent geoarchaeological investigations (Young 2016).

The outline of the site is markedly irregular, and was formerly occupied by now demolished industrial and commercial premises and associated hard standings. Map evidence indicates that the commercial development of the site commenced in the mid-19th century (CgMs, 2011). The site is located to the east of the River Wandle, which is a right bank tributary of the River Thames and is confluent with the Thames in Wandsworth about 9 km downstream from the present site. The ground level at the site is at about 23.0m OD, but this level reflects the presence of Made Ground, probably across most of the site and resting on natural sediments between 21.0m and 22.5m OD. It is not known to what extent, if at all, the natural sediments were truncated prior to the artificial raising of the ground level. The British Geological Survey (BGS) (1:50,000 Sheet 270 South London 1998) shows the site underlain by the Alluvium of the River Wandle which on the west side of the floodplain abuts the bedrock London Clay and on the east side abuts a narrow strip of Terrace Deposits assigned by the BGS to the Taplow Gravel of Wolstonian age. On its east side the Taplow Gravel abuts a more extensive and extensively quarried spread of Terrace Deposits assigned by the BGS to the Hackney Gravel of probable Middle Pleistocene age. These Terrace Deposits have also been described by Peake (1982), who regarded all the terrace deposits to the east of the Wandle as forming a single terrace, her Mitcham Terrace which she considered to be of Devensian age.

Five geotechnical boreholes forming a transect approximately NW to SE across the two areas of the Plot 2 site on the east side of the Wandle (CgMs, 2011), show a rather consistent sequence of sediments underlying the floodplain. Peaty clay, up to ca. 1.0m thick was recorded in all five boreholes, overlain in the most northerly borehole, closest to the Wandle, by orange-brown silty clay, but everywhere else directly overlain by Made Ground. In four of the five boreholes, the peaty clay rests directly on gravel at levels between ca. 20.0m and ca. 21.5m OD. In the remaining borehole nearly 2.0m of grey-brown silty clay intervened between the peaty clay and the gravel.

1.3 Palaeoenvironmental and archaeological significance

The existing records therefore indicate some variation in the height of the Gravel surface, and the type, thickness and age of the subsequent Holocene deposits across Plot 2. Such variations are significant as they represent different environmental conditions that would have existed in a given location. For example: (1) the varying surface of the Gravel may represent the location of former channels and bars; (2) the presence of 'peaty clay' may represent former terrestrial or semi-terrestrial land-surfaces, and (3) the silty clay Alluvium represent periods of inundation/flooding by estuarine or fluvial waters. Thus by studying the sub-surface stratigraphy across the site in greater detail, it will be possible to build an understanding of the former landscapes and environmental changes that took place across space and time.

Organic-rich sediments (in particular peat) also have high potential to provide a detailed reconstruction of past environments on both the wetland and dryland from the Mesolithic to Late Bronze Age periods. In particular, there is the potential to increase knowledge and understanding of the interactions between human activity, vegetation succession and climate in this area of the Wandle Valley. Significant vegetation changes include the Mesolithic/Neolithic decline of elm woodland, the Neolithic colonisation and decline of yew woodland; the Late Neolithic/Early Bronze Age growth of elm on peat, and the general decline of wetland and dryland woodland during the Bronze Age. Such investigations are carried out through the assessment/analysis of palaeoecological remains (e.g. pollen, plant macrofossils & insects) and radiocarbon dating. So called palaeoenvironmental reconstructions have been carried out in this general area of the Wandle Valley at Ravensbury Park (Halsey & Scaife, 2009), 57 Windsor Avenue (Halsey, 2006) and 118-120 Christchurch Road (Young & Batchelor, 2015; see Figure 1).

Finally, areas of high gravel topography, soils and peat represent potential areas that might have been utilised or even occupied by prehistoric people, evidence of which may be preserved in the archaeological (e.g. features and structure) and palaeoenvironmental record (e.g. changes in vegetation composition). Finds of Palaeolithic date within a one kilometre radius of the study site include a 'few flint flakes' at 64 Culvers Avenue, ca. 900m to the southwest (CgMs, 2011), located on the surface of the Hackney Gravel terrace underlying the site (MLO4469, TQ 2767 6587). Elsewhere, possible, residual Mesolithic flintwork was identified within silt that formed part of a migrating river which is thought to have formerly flowed through the site, east of London Road to the east of the study site (MLO63517-8, TQ 2850 6700). Fieldwalking in the same area also revealed Mesolithic

flintwork (MLO20482, TQ 2874 6646). An assemblage of Mesolithic flintwork was also identified at the Middleton Road site to the west (MLO64317, TQ2770 6660) (CgMs, 2011).

1.4 Aims and objectives

Further stratigraphic records are required to enhance our understanding of the sub-surface stratigraphy of the Plot 2, Wandle Trading Estate site, and for any further assessment/analysis of the deposits (if necessary). Six significant research aims were thus proposed within the geoarchaeological Written Scheme of Investigation for the site (Batchelor *et al.*, 2016), as follows:

1. To clarify the nature of the sub-surface stratigraphy across the site;
2. To determine the depth, extent and character of the any peat horizons recorded at the site;
3. To investigate whether the geoarchaeological records contain any evidence for natural and/or anthropogenic changes to the landscape (wetland and dryland) throughout the duration of the geoarchaeological sequence;
4. To establish whether the geoarchaeological records provide evidence for prehistoric and historic occupation locally to the site;
5. To establish evidence and possible causes for changes in woodland composition on the wetland and dryland surfaces during the different periods of peat formation;
6. To integrate the new geoarchaeological records with previous geotechnical records from the site to produce a site-wide deposit model of the main stratigraphic horizons.

The content of this report achieves the first two of these aims, and considers the potential of addressing aims 3 to 6 through laboratory-based assessment and analysis. The following objectives were carried out in order to address aims 1 & 2:

1. To monitor four selected geotechnical borehole sequences across the Plot 2 site (Figure 2);
2. To utilise the stratigraphic data from the new and existing geotechnical and archaeological records to produce a deposit model of the major depositional units across the site.

3. METHODS

Field investigations and lithostratigraphic descriptions

A total of four cable percussion boreholes (BH6, BH7A, BH9 and BH12) were monitored on the Plot 2 site in March 2016 (Figure 2) by Quaternary Scientific. The lithostratigraphy of the core samples was described in the field using standard procedures for recording unconsolidated sediment and organic sediments, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter) and inclusions (e.g. artefacts) (Tröels-Smith, 1955). The procedure involved: (1) cleaning the sample using a scalpel; (2) recording the physical properties, most notably colour using a Munsell Soil Colour Chart; (3) recording the composition; gravel (*Grana glareosa*; Gg), fine sand (*Grana arenosa*; Ga), silt (*Argilla granosa*; Ag) and clay (*Argilla steatoides*); (4) recording the degree of peat humification and (5) recording the unit boundaries e.g. sharp or diffuse. The results of the lithostratigraphic descriptions of the monitored boreholes are displayed in Tables 2 to 5.

Two visits to the site were made in July and August 2016 to observe archaeological trenches put down by Archaeology South East. Relevant stratigraphic data arising from these excavations were

included in a revised deposit model for the site (see below). Due to issues with contamination and high water tables, in practice this information was limited to measurements for the surface of the alluvium, and in places, the gravel.

Deposit modelling

The deposit model was based on a review of 22 borehole and test pit records from Plot 2, of which four were monitored in the field by Quaternary Scientific, and 37 stratigraphic sequences from selected sections within the archaeological trenches (Figure 2; Table 1). Sedimentary units were classified into four groupings: (1) London Clay, (2) Gravel; (3) Alluvium; and (4) Made Ground. The classified data for groups 1-4 were then input into a database with the RockWorks 16 geological utilities software. Models of surface height (using a nearest neighbour routine) were generated for the Gravel and Alluvium (Figures 3 and 4). Thickness of the Alluvium and Made Ground (Figures 5 and 6) was also modelled (also using a nearest neighbour routine). Because the sequences are not uniformly distributed over the area of investigation, the reliability of the models generated using RockWorks is variable. In general, reliability improves from outlying areas where the models are largely supported by scattered archival records towards the core area of commissioned boreholes/trenches. Because of the 'smoothing' effect of the modelling procedure, the modelled levels of stratigraphic contacts may differ slightly from the levels recorded in borehole logs and section drawings.

As a consequence of this the modelling procedure has been manually adjusted so that only those areas for which sufficient stratigraphic data is present will be modelled. In order to achieve this, a maximum distance cut-off filter equivalent to a 50m radius around each record is applied to all deposit models. In addition, it is important to recognise that multiple sets of sedimentary sequences are represented, put down at different times and recorded using different descriptive terms and subject to differing technical constraints in terms of recorded detail including the exact levels of the stratigraphic boundaries. Of the records used in the deposit model, the cores from the boreholes monitored and recorded by Quaternary Scientific (BH6, BH7A, BH9 and BH12) represent the most detailed record of the sediment sequences.

Table 1: Spatial attributes for those records used in the deposit model from Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

| Borehole number | Easting | Northing | Height (m OD) | Top of Alluvium (m bgl) | Top of Gravel (m bgl) | Top of London Clay (m bgl) |
|--|------------|------------|---------------|-------------------------|-----------------------|----------------------------|
| <i>Geotechnical borehole/test pit data</i> | | | | | | |
| BH1 | 527918.656 | 166901.19 | 22.898 | - | 1.9 | 3.5 |
| BH2 | 527950.251 | 166876.615 | 23.003 | - | 2 | 3.9 |
| BH3 | 527914.93 | 166848.892 | 23.07 | 1.9 | 2.4 | 3.7 |
| BH4 | 527944.959 | 166850.411 | 23.106 | - | 1.6 | 3.8 |
| BH5 | 527893.619 | 166821.248 | 23.79 | - | - | - |
| BH5A | 527899.591 | 166812.295 | 23.323 | - | 1.5 | 3.8 |
| BH6 | 527956.268 | 166807.552 | 23.817 | 2.5 | 3.2 | 4 |
| BH7A | 527896.996 | 166795.949 | 23.199 | - | 2.4 | 3.8 |
| BH8 | 527912.29 | 166764.618 | 23.821 | - | 2.5 | 3.9 |
| BH9 | 527990.392 | 166786.227 | 23.452 | 1.2 | 2.7 | 3.5 |
| BH10 | 527990.555 | 166751.932 | 23.476 | - | 2.2 | 3.9 |
| BH11 | 528019.991 | 166730.576 | 23.512 | - | 1.8 | 3.9 |
| BH12 | 528034.461 | 166719.519 | 23.385 | - | 2 | 3.6 |
| TP2 | 527907.75 | 166860.683 | 22.976 | - | 2.3 | - |
| TP3 | 527929.973 | 166805.765 | 23.104 | 1 | 1.9 | - |
| TP4 | 527944.349 | 166786.364 | 23.993 | 1.6 | 2.15 | - |
| TP5A | 527964.777 | 166804.405 | 23.64 | 2.2 | - | - |
| TP6 | 527982.168 | 166775.139 | 23.422 | 1.6 | 1.7 | - |
| TP7 | 528039.427 | 166768.273 | 23.141 | 1.6 | 1.9 | - |
| TP8 | 528023.074 | 166753.05 | 23.341 | 0.6 | 1.6 | - |
| TP9 | 528010.02 | 166724.155 | 23.441 | - | - | - |
| TP10 | 528063.092 | 166736.458 | 23.222 | - | 1.4 | - |
| <i>Archaeological trench data (selected trench areas; C = centre of trench, N/S/E/W = end of trench)</i> | | | | | | |
| TR1-C | 527922 | 166901 | 22.76 | - | 21.47 | - |
| TR1-W | 527915 | 166901 | 22.87 | 21.76 | - | - |

| Borehole number | Easting | Northing | Height (m OD) | Top of Alluvium (m bgl) | Top of Gravel (m bgl) | Top of London Clay (m bgl) |
|-----------------|---------|----------|---------------|-------------------------|-----------------------|----------------------------|
| TR1-E | 527943 | 166903 | 22.69 | 21.78 | - | - |
| TR2-S | 527928 | 166858 | 23.09 | - | 21.32 | - |
| TR2-N | 527923 | 166886 | 22.93 | - | 20.88 | - |
| TR2-C | 527927 | 166871 | 21.1 | 19.8 | - | - |
| TR3-S | 527915 | 166857 | 23.09 | 21.72 | - | - |
| TR3-C | 527914 | 166869 | 23.12 | 21.46 | - | - |
| TR4-N | 527923 | 166850 | 23.1 | - | 21.8 | - |
| TR4-S | 527914 | 166823 | 23.23 | - | 22.43 | - |
| TR5-N | 527943 | 166858 | 23.06 | 21.37 | - | - |
| TR5-S | 527935 | 166834 | 23.31 | - | 22.17 | - |
| TR6-N | 527955 | 166861 | 22.96 | - | 21.32 | - |
| TR6-S | 527948 | 166838 | 23.3 | 21.9 | - | - |
| TR7-W | 527923 | 166825 | 23.22 | - | 22.18 | - |
| TR7-C | 527941 | 166826 | 23.14 | - | 21.94 | - |
| TR8-N | 527936 | 166819 | 23.3 | - | 22 | - |
| TR8-C | 527934 | 166810 | 23.09 | 22.05 | - | - |
| TR8-S | 527929 | 166794 | 23.17 | - | 22.1 | - |
| TR9-N | 527950 | 166819 | 23.07 | - | 21.64 | - |
| TR9-C | 527945 | 166805 | 23.76 | 22 | - | - |
| TR11-N | 527972 | 166809 | 23.62 | - | 22.03 | - |
| TR11-S | 527989 | 166796 | 24.16 | - | - | - |
| TR10-W | 527921 | 166778 | 23.49 | - | 21.52 | - |
| TR10-E | 527932 | 166778 | 23.78 | - | 22.48 | - |
| TR13-E | 528020 | 166780 | 23.11 | 22.53 | - | - |
| TR13-W | 527997 | 166769 | 23.19 | 22.76 | - | - |
| TR14-N | 527977 | 166768 | 23.33 | 22.75 | - | - |
| TR14-S | 527984 | 166741 | 23.4 | 22.74 | - | - |

| Borehole number | Easting | Northing | Height (m OD) | Top of Alluvium (m bgl) | Top of Gravel (m bgl) | Top of London Clay (m bgl) |
|-----------------|---------|----------|---------------|-------------------------|-----------------------|----------------------------|
| TR12-E | 528027 | 166772 | 23.21 | 22.84 | - | - |
| TR12-W | 528003 | 166758 | 23.42 | - | - | - |
| TR15-N | 528041 | 166770 | 23.08 | - | - | - |
| TR15-S | 528041 | 166753 | 22.97 | 22.54 | - | - |
| TR17-N | 528055 | 166748 | 23.14 | 22.51 | - | - |
| TR17-S | 528061 | 166724 | 22.87 | 22.44 | - | - |
| TR16-E | 528031 | 166719 | 23.38 | 22.6 | - | - |
| TR16-W | 528005 | 166712 | 23.27 | 22.5 | - | - |

4. RESULTS AND INTERPRETATION OF THE LITHOSTRATIGRAPHIC DESCRIPTIONS AND DEPOSIT MODELLING

The geoarchaeological and archaeological investigations (Tables 2 to 5) have permitted a programme of deposit modelling of the surface elevation and thickness of each of the major stratigraphic units beneath Plot 2 (Figures 3 to 6). Overlying the bedrock London Clay, the basal unit at the site is a horizon of sand and gravel, considered to represent the Late Devensian (15,000 to 10,000 years before present) Wandle Gravel, deposited within a high energy braided river environment and equivalent to the Shepperton Gravel of the Lower Thames Valley. The surface of the Gravel lies at between 20.6 (BH3, BH6 and TP2) and 22.48m OD (TR10-E). The Gravel surface generally rises towards the southeast (away from the River Wandle, and towards the Wolstonian Taplow Gravel terrace recorded to east of the site), where it generally lies at above ca. 21.5m OD (Figure 3). Areas of higher Gravel rising to ca. 21.9m OD are also recorded towards the centre of the site however, in the southern end of Trenches 4 and 5 and the eastern end of Trench 10. Towards the north of the site and the River, it is generally recorded at between ca. 20.6 and 21.5m OD. Although the amplitude of the Gravel surface at the site is limited (maximum of 1.6m), the topography of the Gravel surface is typical of that in a braided river system, with small, elevated gravel 'islands' separated by a network of shallow, intervening channels.

In ten of the 22 borehole records (BH3, BH6, BH7A, BH9, TP3-TP8) and in parts of 13 of the 17 archaeological trenches (TR1, TR2, TR3, TR5, TR6, TR8, TR9, TR12, TR13, TR14, TR15, TR16 and TR17) the Gravel is overlain by predominantly sand-rich, but in places silty or clayey Alluvium, typical of deposition under low- to moderate-energy fluvial conditions. In general, the Alluvium is recorded in areas of lower Gravel topography, indicating that such deposits accumulated predominately within the minor channel features. The Alluvium is recorded to a level of between 22.7 (TP8) and 20.9m OD (BH7A) (Figure 4), variations in its surface generally reflecting variable extents of truncation by the overlying Made Ground. Greater thicknesses of Alluvium are present towards the southeast of the site, where between ca. 0.6 and 1.5m is recorded (Figure 5); towards the north, thicknesses of less than 0.8m are present.

Overlying the Alluvium, and the Gravel where no Alluvium is recorded, is a horizon of Made Ground, generally between 0.5 and 2.5m thick (Figure 6). In general the Made Ground is thickest in the northern area of the site, probably as a result of the lower Gravel surfaces recorded here. Given that Made Ground directly overlies the Gravel in selected sequences, it should be noted that in these records it is unclear whether the level recorded represents a 'natural' or truncated level.

5. DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

The aims of the geoarchaeological investigations at the Plot 2, Wandle Trading Estate site were: (1) to clarify the nature of the sub-surface stratigraphy across the site, in particular to elucidate the size and orientation of a possible palaeochannel traversing the site; and (2) to clarify the nature, depth,

extent and date of any alluvium and peat deposits. In order to achieve these aims, a programme of geoarchaeological monitoring and deposit modelling was carried out, incorporating the geotechnical borehole descriptions and records from those boreholes monitored in the field, and observations from 17 archaeological trenches.

The sequence recorded at the Plot 2 site consists of the Late Devensian Wandle Gravel to a level of between 20.6 and 22.48m OD, overlain in places by up to 1.5m of generally coarse-grained (sand-rich) Alluvium, and Made Ground. Made Ground directly overlies the Gravel in places, indicating that the Gravel surfaces here may be truncated. Elsewhere in the Wandle Valley, approximately 1.5km to the northwest and downstream of the River Wandle, the Gravel surface was recorded at between ca. 15.8 and 15.9m OD at Ravensbury Park (Halsey & Scaife, 2009) and at between 16.1 and 17.05m OD at Dover House (Ward, 2006). Approximately 3km to the north at the 57 Windsor Avenue site (Halsey, 2006) the Gravel surface was recorded at between 11 and 11.94m OD, whilst at 118-120 Christchurch Road (Young & Batchelor, 2015) it was recorded at between 10.21m OD and 9.94m OD. At these sites, an organic horizon was recorded at the base of the alluvial sequence, which at 118-120 Christchurch Road was radiocarbon dated to the early Mesolithic (11,325-11,235 to *at least* 10,745-10,590 cal BP). These dates were consistent (albeit slightly earlier) with those at the Streatham House (see Figure 1; Saxby, 1991), Ravensbury Park and 57 Windsor Avenue sites, where accumulation of the peat/peaty clay began at 10,438-11,069, 10,277-10,567 and 10,271-10,558 cal BP respectively. No organic-rich or peaty horizons were recorded within any of the sequences at the present site.

In the absence of any organic-rich horizons or peat at the site, no further environmental archaeological investigations are recommended on sequences from the Plot 2 site. In addition, given the absence of evidence for any former land surfaces or soil formation at the site (and the archaeological investigations already carried out at the site), the archaeological potential of the Plot 2 site is considered to be low.

6. REFERENCES

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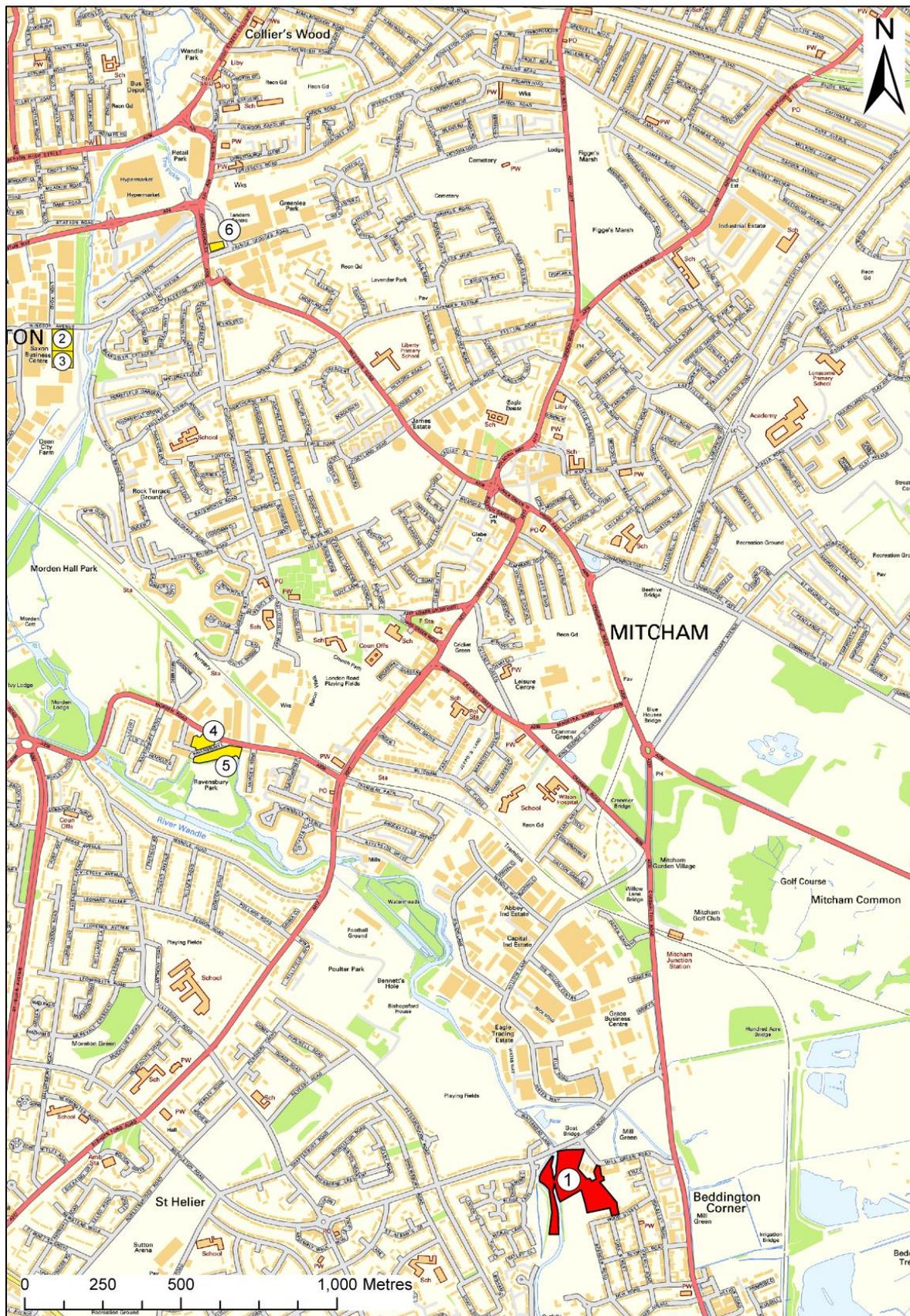


Figure 1: Location of (1) Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton; (2) Streatham House (Saxby, 1991); (3) Windsor Avenue (Halsey, 2006); (4) Dover House (Ward, 2006); (5) Ravenbury Park (Halsey & Scaife, 2009) and (6) 118-120 Christchurch Road, Colliers Wood (Young & Batchelor, 2015). Contains Ordnance Survey data © Crown copyright and database right [2012]. Contains Ordnance Survey data © Crown copyright and database right [2016].

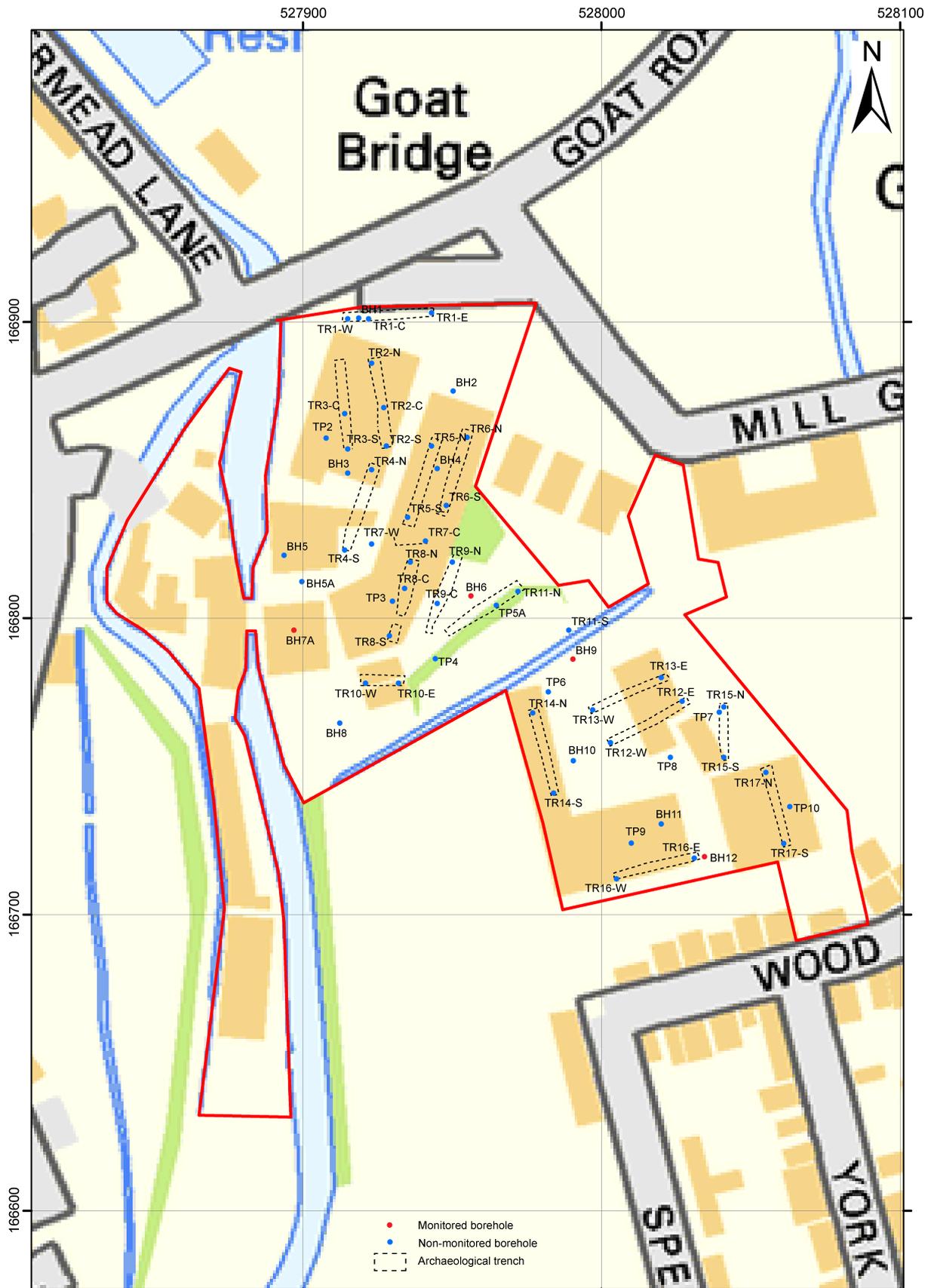


Figure 2: Location of the geotechnical boreholes, including those monitored by Quaternary Scientific (red), and archaeological trenches across Plot 2, the Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

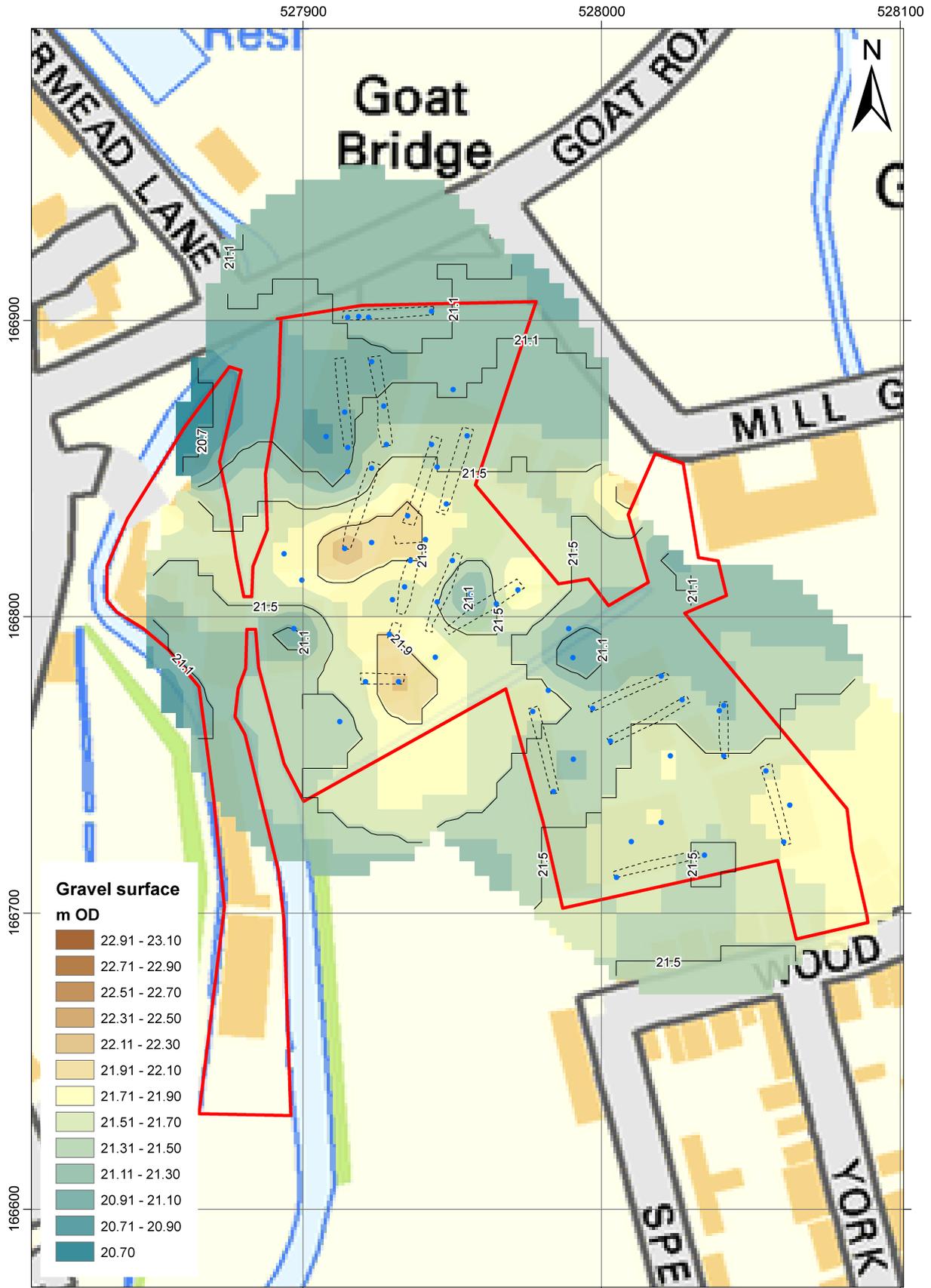


Figure 3: Surface of the Wandle Gravel (m OD) (based on records from Plot 2 only)

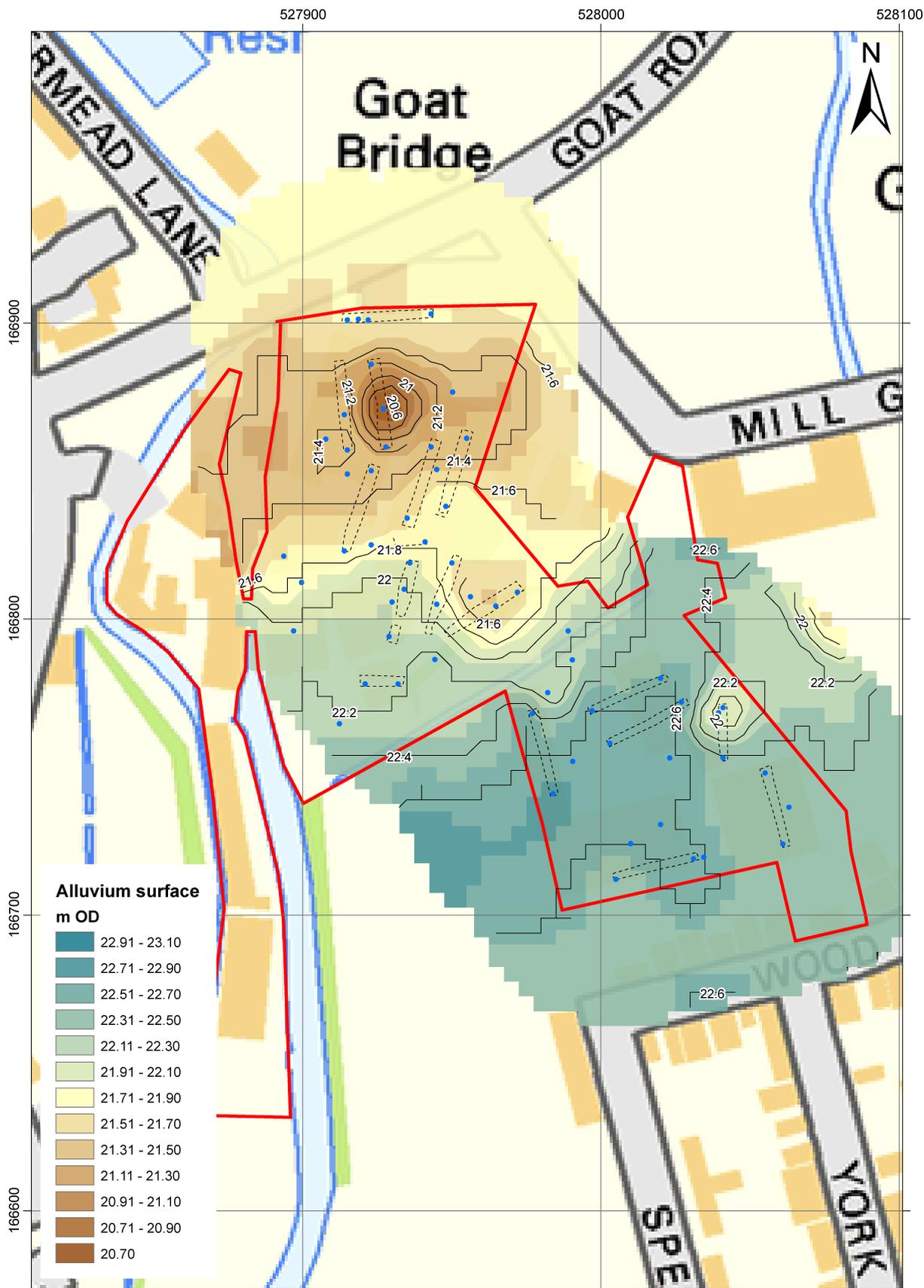


Figure 4: Surface of the Alluvium (m OD) (based on records from Plot 2 only)

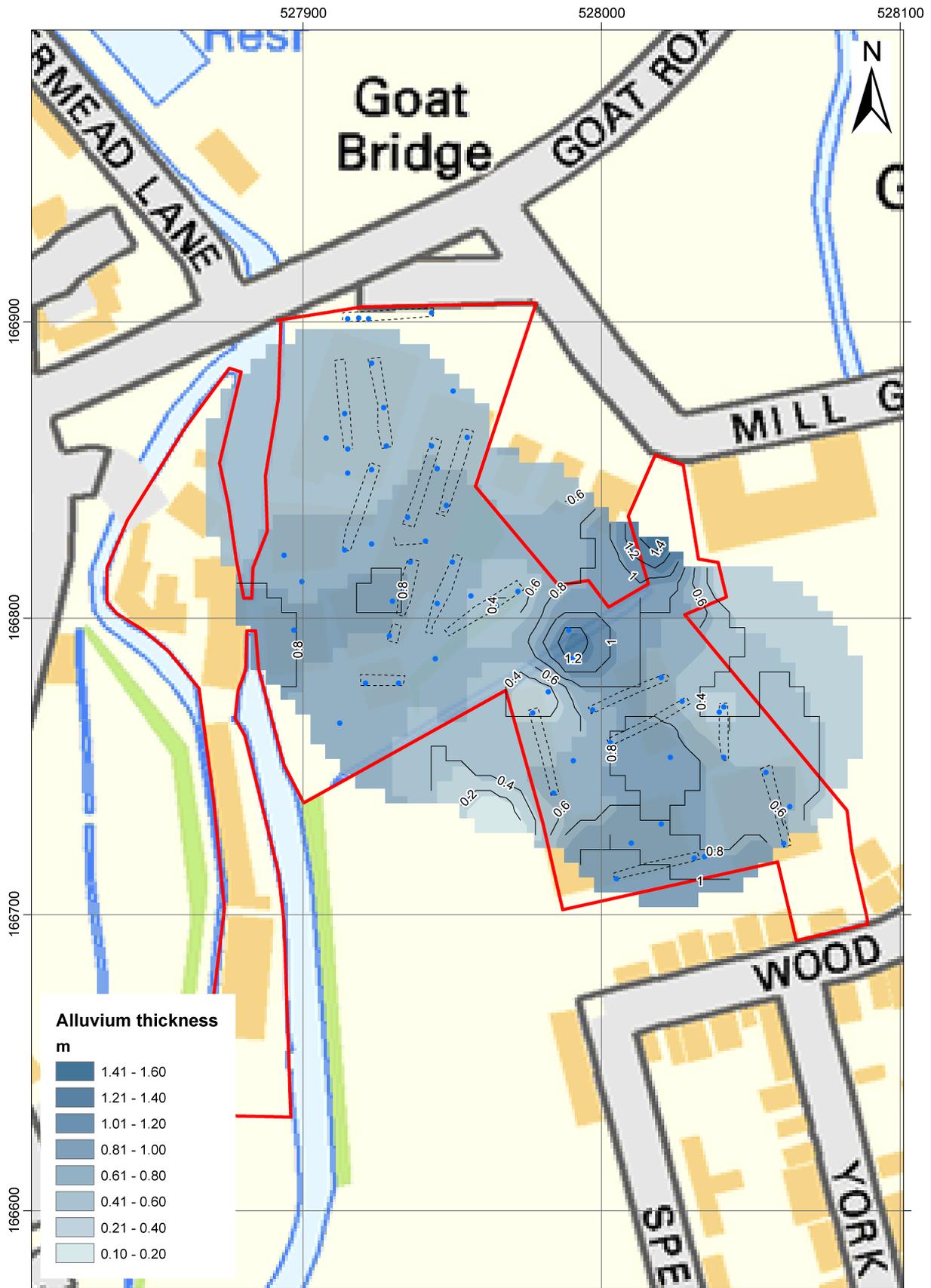


Figure 5: Thickness of Alluvium (m) (based on records from Plot 2 only)

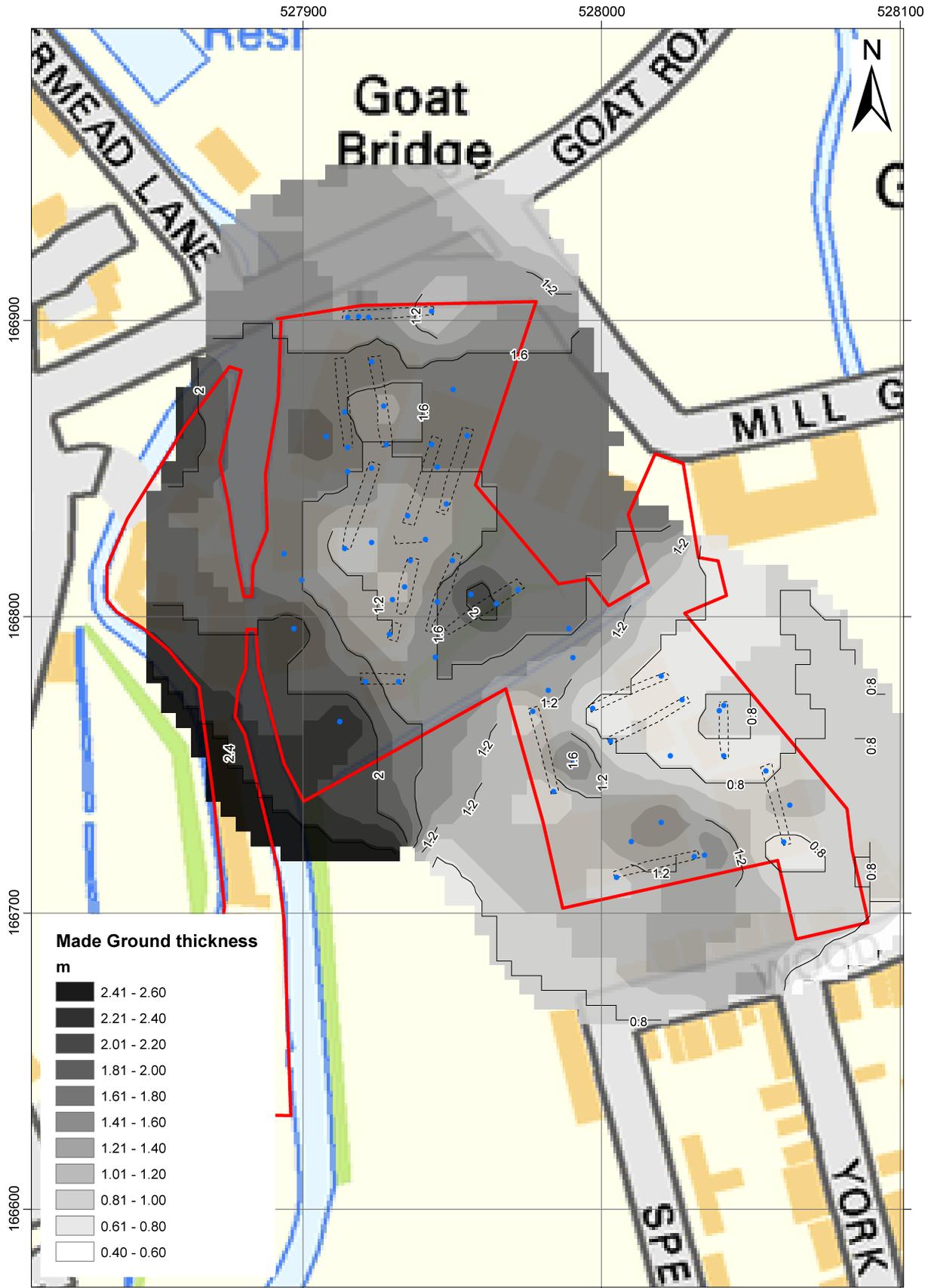


Figure 6: Thickness of Made Ground (m) (based on records from Plot 2 only)

Table 2: Lithostratigraphic description of borehole BH6, Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

| Depth (m OD) | Depth (m bgs) | Description | Interpretation |
|----------------|---------------|---|----------------|
| 23.82 to 21.32 | 0.00 to 2.50 | Made Ground of gravel, brick and concrete rubble in black clayey silt matrix. | MADE GROUND |
| 21.32 to 20.62 | 2.50 to 3.20 | Ga3 Ag1 Gg+ Dh+; greenish grey silty sand with a trace of detrital herbaceous material and occasional gravel clasts. Sharp contact in to: | ALLUVIUM |
| 20.62 to 19.82 | 3.20 to 4.00 | Gg3 Ga1; sandy gravel. Gravel is flint, up to 60mm in diameter, angular to rounded. | GRAVEL |

Table 3: Lithostratigraphic description of borehole BH7A, Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

| Depth (m OD) | Depth (m bgs) | Description | Interpretation |
|----------------|---------------|---|----------------|
| 23.20 to 21.00 | 0.00 to 2.20 | Made Ground of mortar, brick and concrete rubble in black sandy silt matrix. | MADE GROUND |
| 21.00 to 20.80 | 2.20 to 2.40 | Ga3 Ag1 Gg+; grey silty sand with occasional gravel clasts | ALLUVIUM |
| 20.80 to 19.40 | 2.40 to 3.80 | Gg3 Ga1; sandy gravel. Gravel is flint, up to 60mm in diameter, angular to rounded. | GRAVEL |

Table 4: Lithostratigraphic description of borehole BH9, Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

| Depth (m OD) | Depth (m bgs) | Description | Interpretation |
|----------------|---------------|--|----------------|
| 23.45 to 23.15 | 0.00 to 0.30 | Made Ground of gravel, brick and concrete rubble in black clayey silt matrix. | MADE GROUND |
| 23.15 to 22.25 | 0.30 to 1.20 | Made Ground of redeposited Alluvium (silty clay). | MADE GROUND |
| 22.25 to 21.65 | 1.20 to 1.80 | Ag2 As1 Sh1 Ga+ Dh+; dark brown organic clayey silt with traces of sand and detrital herbaceous material. Diffuse contact in to: | ALLUVIUM |
| 21.65 to 20.75 | 1.80 to 2.70 | Ag2 As2; dark grey silt and clay. Sharp contact in to: | ALLUVIUM |
| 20.75 to 19.95 | 2.70 to 3.50 | Gg3 Ga1; sandy gravel. Gravel is flint, up to 70mm in diameter, angular to rounded. | GRAVEL |

Table 5: Lithostratigraphic description of borehole BH12, Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton.

| Depth (m OD) | Depth (m bgs) | Description | Interpretation |
|----------------|---------------|---|----------------|
| 23.39 to 22.19 | 0.00 to 1.20 | Made Ground of gravel, brick and concrete rubble in black clayey silt matrix. | MADE GROUND |
| 22.19 to 21.39 | 1.20 to 2.00 | Made Ground of redeposited/disturbed sandy gravel and occasional brick fragments. | MADE GROUND |
| 21.39 to 19.79 | 2.00 to 3.60 | Gg3 Ga1; sandy gravel. Gravel is flint, up to 60mm in diameter, angular to rounded. | GRAVEL |

7. APPENDIX 1: OASIS FORM

OASIS ID: quaterna1-248325

Project details

| | |
|---|--|
| Project name | Wandle Valley Trading Estate |
| Short description of the project | A programme of geoarchaeological deposit modelling was carried out by Quaternary Scientific in connection with the proposed redevelopment of land at Plot 2, Wandle Trading Estate, Goat Road, Beddington Corner, London Borough of Sutton. The aims of the geoarchaeological investigations at the site were: (1) to clarify the nature of the sub-surface stratigraphy across the site, in particular to elucidate the size and orientation of a possible palaeochannel traversing the site; and (2) to clarify the nature, depth, extent and date of any alluvium and peat deposits. In order to achieve these aims, a programme of geoarchaeological monitoring and deposit modelling was carried out, incorporating the geotechnical borehole descriptions and records from those boreholes monitored in the field. The results of the investigations revealed that the sequence at the site consists of the Late Devensian Wandle Gravel, whose surface lies at between 20.6 and 21.8m OD, overlain in places by up to 1.5m of generally coarse-grained (sand-rich) Alluvium, and Made Ground. Made Ground directly overlies the Gravel in places, indicating that the Gravel surfaces here may be truncated. In the absence of any organic-rich horizons or peat (such as that recorded elsewhere in the Wandle Valley), or evidence for former land surfaces/soil formation at the site, no further environmental archaeological investigations are recommended. |
| Project dates | Start: 01-02-2016 End: 14-04-2016 |
| Previous/future work | No / No |
| Any project codes associated with reference codes | GRD16 - Sitecode |
| Type of project | Environmental assessment |
| Survey techniques | Landscape |

Project location

| | |
|---------|---------|
| Country | England |
|---------|---------|

Site location GREATER LONDON SUTTON WALLINGTON AND BEDDINGTON
Wandle Valley Trading Estate

Postcode CR4 4HZ

Site coordinates TQ 279 668 51.385304774503 -0.161761646613 51 23 07 N 000 09 42 W
Point

Project creators

Name of Quaternary Scientific (QUEST)
Organisation

Project brief CgMs Consulting
originator

Project design D.S. Young
originator

Project C.R. Batchelor
director/manager

Project supervisor D.S. Young

Type of Developer
sponsor/funding
body

Project archives

Physical Archive No
Exists?

Digital Archive No
Exists?

Paper Archive LAARC
recipient

Paper Contents "Environmental"

Paper Media "Report"
available

Entered by Daniel Young (d.s.young@reading.ac.uk)

Entered on 14 April 2016