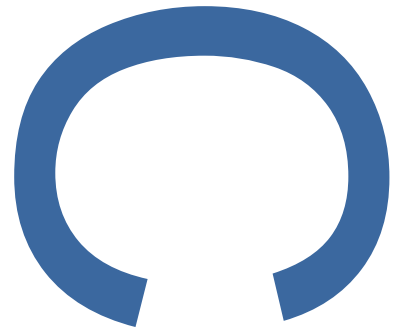


**LAND AT BREAM STREET  
AT THE JUNCTION OF STOUR  
ROAD & DACE ROAD,  
FISH ISLAND, LONDON**

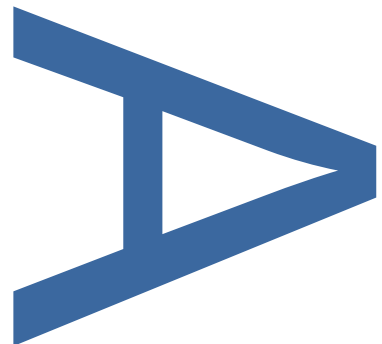


**AN ARCHAEOLOGICAL WATCHING  
BRIEF AND DEPOSIT MODELLING  
EXERCISE**



**PLANNING REFERENCE: 15/00278/FUL**

**LOCAL PLANNING AUTHORITY:  
LONDON LEGACY DEVELOPMENT  
CORPORATION**



**SITE CODE: BMT17**

**PCA REPORT NO: R12931**

**JULY 2017**

**PRE-CONSTRUCT ARCHAEOLOGY**



DOCUMENT VERIFICATION

LAND AT BREAM STREET AT THE JUNCTION OF  
STOUR ROAD & DACE ROAD, FISH ISLAND, LONDON

AN ARCHAEOLOGICAL WATCHING BRIEF AND  
DEPOSIT MODELLING EXERCISE

Quality Control

| Pre-Construct Archaeology Ltd |        |
|-------------------------------|--------|
| Project Number                | K4645  |
| Report Number                 | R12931 |

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**LAND AT BREAM STREET AT THE JUNCTION OF STOUR ROAD & DACE ROAD,  
FISH ISLAND, LONDON**

**AN ARCHAEOLOGICAL WATCHING BRIEF AND DEPOSIT MODELLING  
EXERCISE**

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**Site Code:** BMT17

**Local Planning Authority:** London Legacy Development Corporation

**Planning Application Number:** 15/00278/FUL

**Central National Grid Reference:** TQ 37300 84035

**Written By:** Przemek Polakiewicz  
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June 2017

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**Commissioning Client:** Orion Heritage Limited

**on behalf of:** Quadrant Construction

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**June 2017**

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## **1 ABSTRACT**

- 1.1 Pre-Construct Archaeology Limited was commissioned by Orion Heritage Limited on behalf of Quadrant Construction to carry out an archaeological watching brief during a geotechnical site investigation to monitor sixty-six test pits on land at Bream Street at the junction of Stour Road and Dace Road, Fish Island in the London Borough of Tower Hamlets. The results have been used to model the below ground sequence.
- 1.2 The aim of the deposit modelling exercise was to produce a predictive model for levels of ground disturbance and the possible extent of any surviving deposits of archaeological interest.
- 1.3 Ground investigation was undertaken by the geotechnical contractor Celtic enGlobe Ltd and monitored by PCA. This fieldwork was executed at various dates in April and May 2017, due to the high number of test pits in total as well as the ongoing last stage of demolition works. The data was compiled in order that surface levels of a number of stratigraphic units could be correlated across the study area. Five broad units or phases have been identified, comprising natural gravel, lower alluvium, peat, upper alluvium and made ground. Transects across the site were also produced to illustrate a cross section of the underlying deposits. These have been used to interpret the variation in elevation of the different units across the site and predict the potential survival of archaeologically significant deposits.
- 1.4 The alluvial deposits have been laid down in a riverine environment, with obvious evidence of a developing land surface, which found upper alluvial materials overlying peat and peat-like deposits. Numerous test pits across the site show deep truncation mostly caused by intensive industrial activity during the post-medieval period. Nevertheless, there is evidence of intact lower alluvium, represented by peat, lower clays, gravel and interfaces in between those layers.
- 1.5 Previous geotechnical investigations on the site (Card Geotechnics 2014) found between 2.00m and 4.80m of made ground throughout the investigations. The made ground was thicker towards the Lea Navigation, indicating ground raising in this area to consolidate the site (Card Geotechnics 2014). The archaeological watching brief during this phase of work confirmed the above sequence, however in the north-east part of study site (within grid squares I02 – I04 and J02) possible undisturbed, greenish grey upper alluvial materials were identified.
- 1.6 A thick sequence of made ground dated by archaeological objects from the late 18<sup>th</sup> to early or even the mid-20<sup>th</sup> century represented ground raising sequences, which enabled land transformation from marshy grounds to a relatively stable surface. The development of the study area in the late post-medieval period and in the 19<sup>th</sup> century was facilitated by the improvement works carried out to the Lea Navigation from the late 18<sup>th</sup> century onwards (Sulikowska 2015).
- 1.7 Although the site lies relatively close to areas which have produced archaeological materials from Roman, medieval and prehistoric periods (Sulikowska 2015), no evidence was found of such activity during the investigations.
- 1.8 The work has identified the presence of elevated gravel within the centre and centre-north of the

site, and again at the eastern side; these areas are considered to warrant further investigation, perhaps by means of 2 or 3 evaluation trenches, once the significantly contaminated made ground has been remediated.

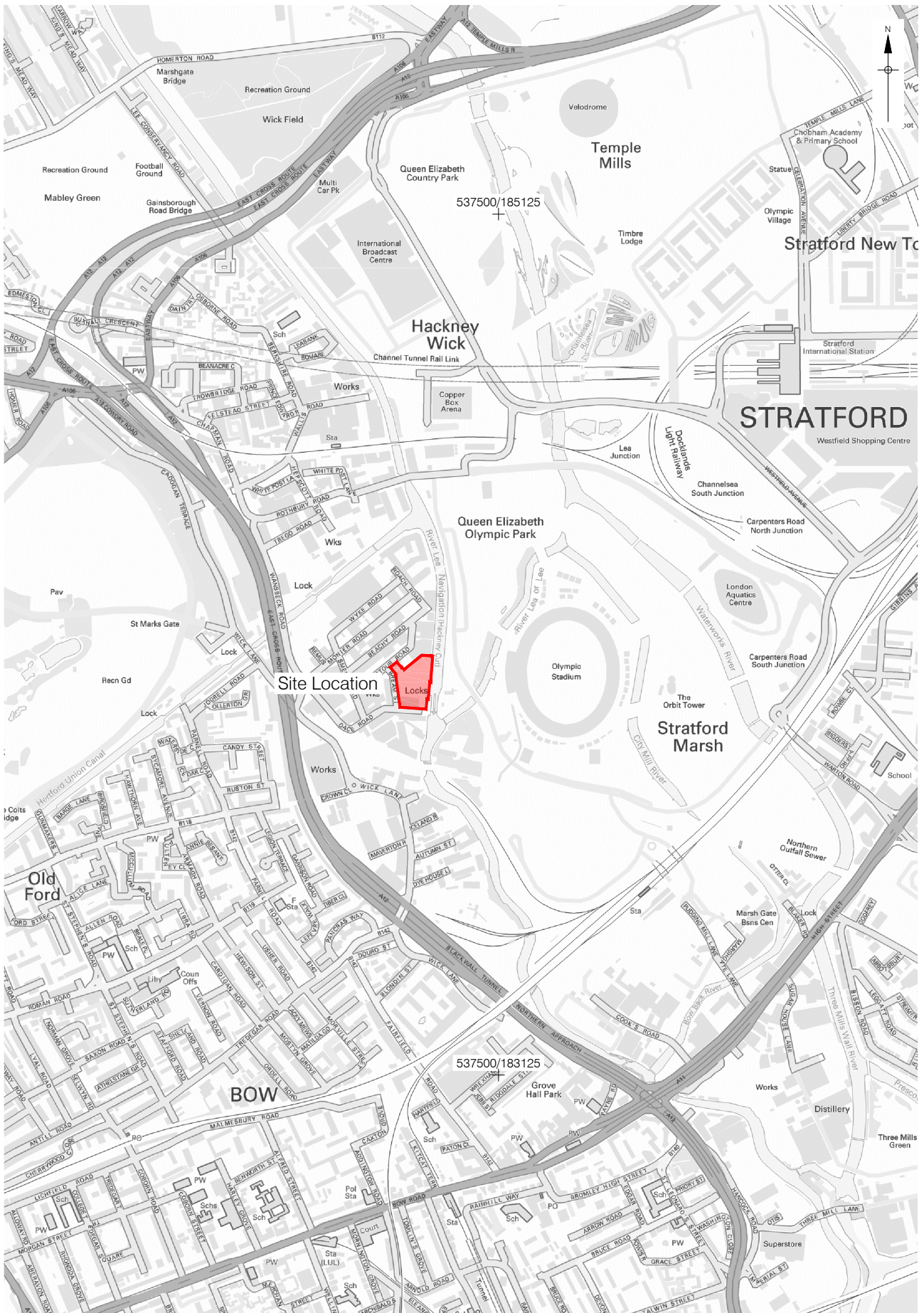
## **2 INTRODUCTION**

- 2.1 Pre-Construct Archaeology Limited (PCA) was commissioned by Orion Heritage Ltd. on behalf of Quadrant Construction Ltd to carry out an archaeological watching brief during a geotechnical site investigation on land at Bream Street, at the junction of Stour Road and Dace Road, Fish Island, London, E3 2NP in the London Borough of Tower Hamlets.
- 2.2 The aim of the deposit modelling exercise was to produce a predictive model for levels of ground disturbance and the possible extent of any surviving deposits of archaeological interest.
- 2.3 The model was created using data gathered by PCA during an archaeological watching brief which monitored the excavation of sixty-six out of seventy-nine test pits conducted across the site primarily for geotechnical and environmental purposes. Other data sources have also been used to support the dataset.
- 2.4 The site was centered at TQ 37300 84305 and measured approximately 0.85 ha in area. It was bordered by the River Lea Navigation (Hackney Cut) to the east, Dace Road to the south, Bream Street to the west, and Stour Road and buildings associated with H. Forman & Sons to the north. The site was irregular in shape. The majority of the site was vacant at the time of the work, covered by mostly tarmac and concrete slabs. In the southern, eastern and central parts of the site, remains of former industrial buildings and installations were visible.
- 2.5 The site is known from previous site investigations to include substantive thicknesses of made ground and alluvium overlying terrace gravels; significant ground contaminants (including asbestos containing materials, ACMs) within all deposits at the site; contaminated ground and perched water. These hazards derive from the industrial usage of the site in the 20<sup>th</sup> century.
- 2.6 The site lies within an Archaeological Priority Area as defined by the London Borough of Tower Hamlets. The desk-based assessment (Sulikowska 2015) highlighted two horizons of archaeological potential: an upper industrial horizon (within the made ground) dating from the 19<sup>th</sup> – 20<sup>th</sup> centuries and a lower horizon (within the alluvium) where palaeo-environmental, prehistoric and Roman remains may be expected. The archaeological advisor to the local planning authority, the London Legacy Development Corporation (LLDC), formerly John Gould of the Greater London Archaeological Advisory Service (GLAAS) at Historic England, required that the site be subject to an evaluation to investigate the archaeological potential. The level of ground contaminants at the site rendered such an approach unsafe to implement satisfactorily, and therefore a strategy was agreed whereby a planned site investigation would be archaeologically monitored to allow the buried topography to be mapped, and allow a better prediction about where within the site archaeological potential was strongest, within the lower archaeological strata. Then, a planned site wide remediation programme of the made ground deposits would be monitored by archaeologist to allow a record to be made of the upper potential horizon. At that stage, with the bulk of the contaminated material removed, it was planned that evaluation trenches could be executed in a safer manner (excavating to a lower depth) and targeting areas of potential rather than simply using a scatter-gun approach. This strategy was detailed within a

Written Scheme of Investigation (Mayo 2017) which was approved by GLAAS.

- 2.7 The first stage watching brief which monitored the initial site investigation was undertaken in April / May 2017, and is reported within this document.
- 2.8 The site was located at a height of c.5.5m OD in the south, sloping up to 7.7m OD in the north. The site was located directly adjacent to the River Lea Navigation and was built on reclaimed land from the river flood plain.

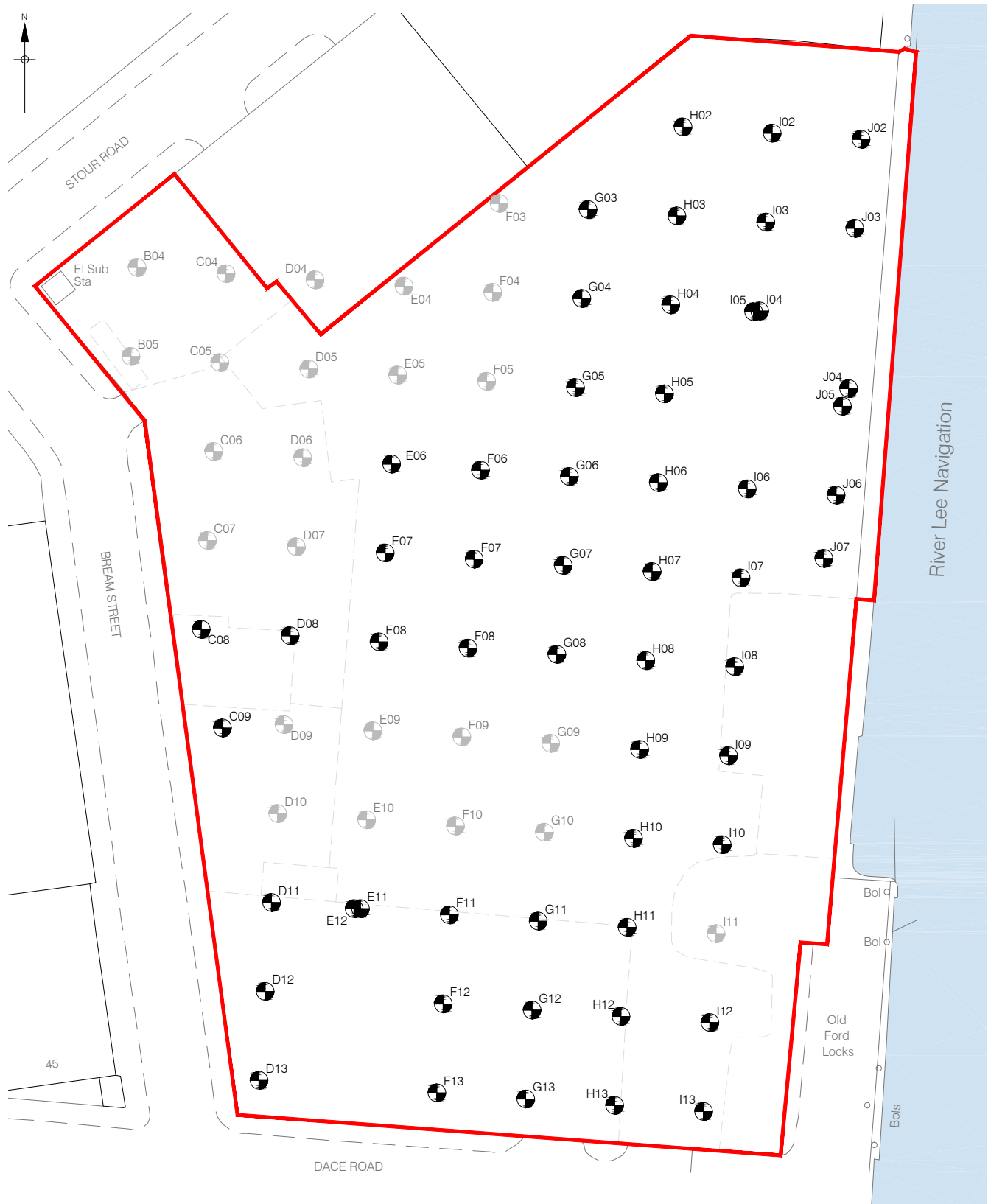






0 500m

Contains Ordnance Survey data © Crown copyright and database right 2017  
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 06/06/17 MR

Figure 1  
 Site Location  
 1:12,500 at A4



-  H02 Boreholes monitored
-  B04 Boreholes not monitored/  
Insufficient data

0 25m

Figure 2  
 Borehole Location Plan  
 1:625 at A4

### 3 PLANNING BACKGROUND

3.1 Full details of planning national, regional and local planning policies which are relevant to the site are detailed within the DBA.

3.2 The site lies within an Archaeological Priority Area as defined by the London Borough of Tower Hamlets.

3.3 An application to redevelop the site was made to the LLDC in May 2015 under number 15/00278/FUL. The application is for:

*Demolition of existing building, existing structures, removal of existing trees and associated site clearance to enable a mixed use development of 7 buildings and basement to provide up to 24,989m<sup>2</sup> of floorspace (GIA) comprising employment (Use Classes B1-B8), residential (Use Class C3) (up to 204 units), retail (Use Classes A1 and A3) and exhibition/leisure uses (Use Class D1/D2), parking and servicing space, hard and soft landscaping, public realms, creation of new vehicular access and other associated works.*

3.4 Planning permission has been granted, subject to a number of conditions. Condition 15 states:

A) *No development other than demolition to existing ground level shall take place until (i) a programme of archaeological evaluation has been submitted to and approved by the Local Planning Authority in writing (ii) the approved archaeological evaluation programme has been implemented and (iii) a report on that evaluation has been submitted to the Local Planning Authority.*

B) *If heritage assets of archaeological interest are identified by the evaluation under Part A, then before development, other than demolition to existing ground level, commences (i) a Written Scheme of Investigation shall be submitted to and approved by the Local Planning Authority in writing.*

C) *No development or demolition other than demolition to existing ground level shall take place other than in accordance with the Written Scheme of Investigation approved under Part (B) and archaeological works shall be carried out by a suitably qualified investigating body acceptable to the Local Planning Authority.*

D) *The development shall not be occupied until a site investigation and post investigation assessment has been completed in accordance with the programme set out in the Written Scheme of Investigation approved under Part (B), and the provision for analysis, publication and dissemination of the results and archive deposition has been secured.*

3.5 Consultation between John Gould of GLAAS and Orion Heritage Limited led to a requirement for a trial-trench evaluation to ascertain the site's archaeological and geoaerchaeological potential.

## 4 GEOLOGICAL AND TOPOGRAPHICAL BACKGROUND

- 4.1 The underlying geology of the site comprises clay, silt and sand of the Lambeth Group, overlain by Quaternary alluvial deposits comprising silty, peaty and sandy clay. Kempton Park River Terrace Gravels are recorded just to the west. The site sits at an elevation of approximately 5m above OD (Sulikowska 2015).
- 4.2 Nearby site investigations at the Crown Works to the south have revealed a sequence of approximately 1.9m of made ground and levelling layers, overlying a number of alluvial deposits (at c 2.6m OD) which were approximately 1-1.2m thick. The alluvium overlay the gravel geology, encountered at an elevation between 1m and 1.7m OD. Test pits excavated in Stour Wharf to the north revealed a similar stratigraphic sequence: made ground (c1.0m thick) over alluvium (c 3.9m thick) above natural gravel deposits, which were encountered at around 1m-1.6m OD) (Sulikowska 2015)
- 4.3 Geotechnical investigations on the site (Card Geotechnics 2014) found between 2.0m and 4.8m thickness of made ground throughout the investigations. The made ground was thicker towards the Lea Navigation, indicating ground raising in this area to consolidate the site. A layer of alluvium was encountered in all but one of the investigations. The alluvium was between 0.20 and 1.00m thick in all except WS2 where it was 2.2m thick. WS 3, in the north-east of the site, encountered a layer of peat 0.20m thick below the made ground. Kempton Park Gravel was present in all the interventions.
- 4.4 A further SI has recently been completed (Tweedie Evans Consulting Limited 2016) which has confirmed the 2014 deposit model. Both datasets have revealed the following site profile:

| Depth (mbgl) |     |      |      | Deposit  |
|--------------|-----|------|------|--|
| from         |     | to   |      |  |
| Min          | Max | Min  | Max  |  |
| 0.0          | 0.0 | 1.9  | 4.9  | Made Ground  |
| 1.9          | 4.9 | 2.9  | 4.4  | Alluvium (clay with localised pockets of peat)             |
| 2.9          | 4.4 | >5.0 | 10.5 | Kempton Park Gravel (fine to medium sand and sandy gravel) |

## 5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 5.1 The archaeological and historical background is summarised from the desk-based assessment (Sulikowska 2015), which considered a study area within 300m of the site.

### ***Prehistoric***

- 5.2 During the prehistoric period, the drier and higher ground overlooking the River Lea valley would have provided land suitable for settlement. The marshland located in the valley bottom, however, is unlikely to have been permanently settled, but the river environment would have provided varied resources and would have been utilised for hunting, fishing, stock grazing, with clay used for pottery manufacture and reeds for basketry etc.
- 5.3 There is evidence for Mesolithic activity in the wider area from worked flints recovered from the Olympic Park. Within 300m of the site an archaeological evaluation carried out in Crown Road, to the north, revealed peat dated to the Mesolithic period. The peat samples, which had not been previously been encountered for this area, were identified as being part of a prehistoric watercourse. Another former watercourse has been identified c. 180m to the south of the site, which now flows below ground, however it may have formed part of the River Lea valley landscape in the prehistoric period.
- 5.4 There is no evidence for Neolithic and Bronze Age activity within 300m of the site but such evidence was revealed during the Olympic Park investigations to the east.
- 5.5 The Lea Valley was settled during the Bronze Age and the Iron Age and well-preserved timber structures and trackways have been found in the valley, providing the local communities with access to and across the low-lying marshland. During the investigations to the east of the site within Olympic Planning Delivery Zone 3, a possible field boundary or drainage ditch of Late Iron Age or Romano-British origin was revealed. Further afield, the Olympic Park investigations revealed Iron Age settlements with roundhouses, pits and associated structures.

### ***Roman***

- 5.6 There are no recorded Romano-British remains within the site, but in the wider vicinity there is extensive archaeological evidence for Romano-British activity.
- 5.7 The study area is crossed by two postulated lines of the Roman Road from London to Chelmsford, located approximately 110m and 240m to the south-east of the site, respectively. A third Roman Road, from Holborn to the crossing at the River Lea is thought to have been located approximately 230m to the south of the site. Archaeological investigations in Wick Lane revealed a metalled surface, which has been interpreted as the remains of the later of these roads.
- 5.8 The rural surroundings of the Roman town would have comprised small settlements and larger villa estates alongside the major roads, with cemeteries also alongside the roads and there is evidence for settlement and funerary activity within the study area.
- 5.9 The archaeological investigations at Wick Lane, close to the Roman road and in proximity to the
-

presumed Lea crossing, revealed the remains of a large Roman building. This building, which appears to have been in use in from the 1st to the 3rd century AD, is thought to represent a probable mansio or stopping house, associated with the crossing of the River Lea.

- 5.10 During the Romano-British period, the rural settlement within the valley of the River Lea would have supplied *Londinium* with agricultural produce, as the valley would have been utilised as farmland for arable cultivation or marshland, providing grazing areas for animals.
- 5.11 Evidence for Romano-British activity alongside the river was revealed during the recent investigations at Crown Wharf Ironworks, immediately to the south of the site. Within a number of trenches, deposits were recorded which appear to have been laid in order to consolidate the alluvial material below and are thought to represent several phases of activity throughout the 3rd to 4th century AD. These deposits were recorded at a depth of approximately 2.5m below ground level (1.75m OD). During the fieldwork, approximately 40 timber piles and two substantial timber posts set on plank baseplates were recorded. These remains were sealed by the abovementioned layers and were also dated to the Romano-British period; they may have comprised a bridge or jetty or a similar structure associated with the management and utilisation of the riverside.

#### ***Saxon and Medieval***

- 5.12 The River Lea is thought to have been navigable in the early medieval period as Danish raids are mentioned in a late 9th century AD Chronicle. In order to draw the water away from the main river, and thus prevent further Danish excursions inland, King Alfred is believed to have commanded the excavation of a number of channels running from the River Lea, however, these may have been originally constructed as millstreams rather than as a defence measure (AOC Archaeology Group 2009). These channels, known as Bow Back Rivers, are located c. 150m east of the site.
- 5.13 There is evidence of Saxon activity at Old Ford, which is first recorded in the 13<sup>th</sup> century as Oldeford. Old Ford and the crossing would have been associated in the medieval period with a road linking the village to Bethnal Green. The ford would have provided the main crossing place until the early 12<sup>th</sup> century when Bow Bridge, was built about half a mile downstream.
- 5.14 The bottom of the river valley to the north of Old Ford would have comprised a marshy flood plain, which is likely to have been utilised as little more than seasonal pastures but with some localised water management such as the timber revetment structures found at the Olympic Park.

#### ***Post Medieval and Modern***

- 5.15 Throughout the post-medieval period, the bottom of the River Lea valley continued to be occupied by the marshy floodplain. Historic maps of the site and wider area from the 18<sup>th</sup> century show marshy pastures, divided by numerous drainage channels.
- 5.16 The development of the study area in the late post-medieval period and in the 19th century was

- facilitated by the improvement works carried out to the Lea Navigation from the late 18th century onwards. The canals cut in the late 18th century to improve the navigation include the Hackney Cut, opened in 1769, which marks the eastern boundary of the site. The canal lock on the Hackney Cut, known as the Old Ford Locks (immediately to the east of the site), was built c. 1865 as a pair of locks allowing two-way working
- 5.17 By the time of the 1894-1896 Ordnance Survey maps the part of Fish Island between the Hertford Union Canal to the north and the Hackney Cut to the east appears to have been developed. This included the construction of terraced housing to the north of this area and industrial works. Investigations carried out within the study area revealed remains associated with post-medieval and 19th-century riverside activities.
- 5.18 The investigations at Crown Wharf Ironworks just to the south of the site revealed a sequence of alluvial deposits from the post-Roman to the post-medieval period, providing evidence that this area of landscape comprised a marshy floodplain. A number of post-medieval timber conduits and tanks were investigated, perhaps part of a waste management scheme; they were encountered at a depth of c. 1.75m below the ground level (2.65m OD).
- 5.19 Ordnance Survey maps of 1867-1870 show the site to be devoid of any structures although a number of drainage ditches likely to have been associated with the management of the marshland may have extended into the western part of the site. By the time of the 1894-1896 Ordnance Survey maps, Dace Road and Stour Road to the south and north of the site, respectively, appear to have already been laid out. However, Bream Street marking the western edge of the site is not depicted on the map and the only evidence for development within the site itself is a small canal-side building at the wharf associated with the Old Ford Lock.
- 5.20 Industrial development within the site commences in 1898 with the construction of factory buildings for Barrett and Elers Limited. The building constructed in 1898 was a two-storey gas purification building, the factory structure of which was located in the central part of the site with the building demolished only recently. Brick footings are visible across the site and some of these could be associated with the late 19th-century structure.
- 5.21 Subsequent Ordnance Survey maps (1916 and 1937 and 1948-1951) show in detail the development within the site during the first half of the 20th century, including the laying out of Bream Street and the construction by 1916 of terraced housing fronting onto Bream Street and Stour Road. The houses within the site appear to have survived the Second World War bombings until their demolition c. 1970.
- 5.22 The gas purification company prospered in the early 20th century and the works expanded following the construction of a building for the production of ebonite screw stoppers c. 1924. This plain and simple single storey building was located along the Hackney Cut and was characterised by tall windows facing the waterside. Another building for the production of gas from magnesium was constructed c. 1933 within the works, which are labelled as Carbonic Acid Gas Works on the 1937 Ordnance Survey map.
-

- 5.23 The factory buildings, as shown on the 1948-1951 Ordnance Survey map, comprised the abovementioned buildings and a number of associated smaller structures scattered within the site. In the later 20th century, the buildings became amalgamated, with the majority of the site built-up and the existing building at the corner of Dace Road and Bream Street constructed.



## **6 METHODOLOGY**

- 6.1 A geotechnical investigation of the site was undertaken by Celtic enGlobe Ltd. intermittently between 3rd April and 24<sup>th</sup> May 2017. Eighty-five test pits were originally proposed, of which seventy-nine were actually completed for various reasons. The proposed pits were set out on a grid-arrangement represented by lateral gridlines B-J and longitudinal gridlines 1-13. Of those, sixty-six test-pits (TPs C08 – J07) were monitored by PCA as a watching brief. Some removal of concrete obstructions in the ground was also monitored, although this was done from a distance for safety reasons.
- 6.2 Due to the ground contaminants PCA were not be able to retain any soil samples from the made ground. Finds recovered were cleaned and processed on site.
- 6.3 The stratigraphic sequence from within the site identified five broad units or phases, comprising gravel, lower alluvium, peat, upper alluvium and made ground.
- 6.4 Having isolated the data from the five broad phases the main relevant units of the alluvium, peat and the gravel were correlated and transect sections created (Figure 3) using the three-dimensional location data (easting, northing and elevation). The height of the top of the gravel was also mapped (Figure 4).

## **7 DEPOSIT MODEL SEQUENCE**

### **7.1 Phase 1 – Gravel**

- 7.1.1 Sedimentary deposits of gravel were encountered at varying heights across the site, ranging from 1.10m OD to 4.00m OD (Figure 4, Appendix 1). The gravel largely consisted of greyish sands and small to middle sized pebbles.
- 7.1.2 Isolated islands of higher gravel are suggested in Figure 4, located in the north, centre and centre east of the site. In some cases, the gravel was directly overlain by made ground, suggesting some level of truncation, and across the site the gravel was contaminated throughout by hydrocarbons.
- 7.1.3 No evidence for prehistoric activity was identified within the gravels in any of the test pits.

### **7.2 Phase 2 – Lower Alluvium**

- 7.2.1 The top of the lower alluvium was located at levels between 1.80m OD and 4.53m OD and it was between 0.30m and 1.30m thick. The deposits largely consisted of a complex mixture of silty yellowish light grey clay with inclusions of shell. The lower alluvium was not present in some of the interventions, where either peat or made ground directly overlay the gravel.
- 7.2.2 The lower alluvium was contaminated throughout by hydrocarbons.

### **7.3 Phase 3 – Peat**

- 7.3.1 The peat found at the site had a firm to spongy compaction appearing in mid brown to dark brownish colour with frequent inclusions of plant remains, often as thin fragile wooden branches.
- 7.3.2 The thickness of the formation varied from approximately 1.00 m to 0.20 m and the top of the layer was located between 4.11m OD and 2.16m OD. The highest OD value was roughly 2.40m BGL at 4.11m OD, in TP J07. The peat was concentrated in the central east and in the south-west parts of the site.

### **7.4 Phase 4 – Upper Alluvium**

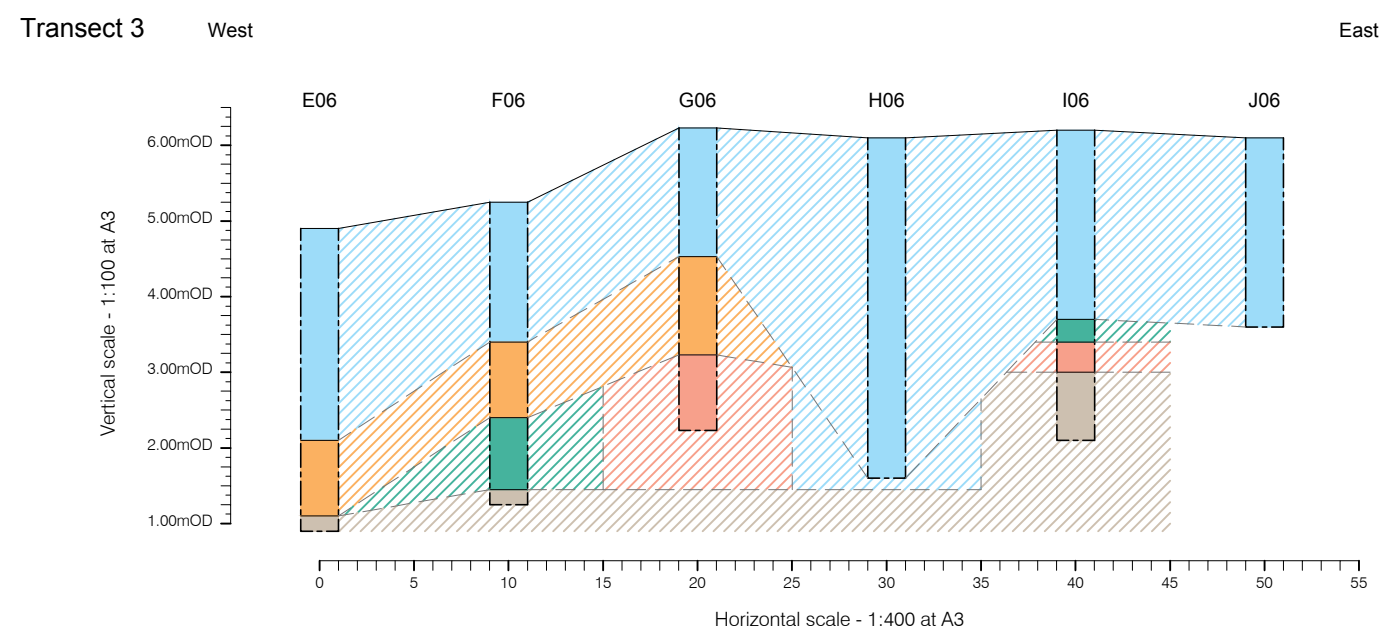
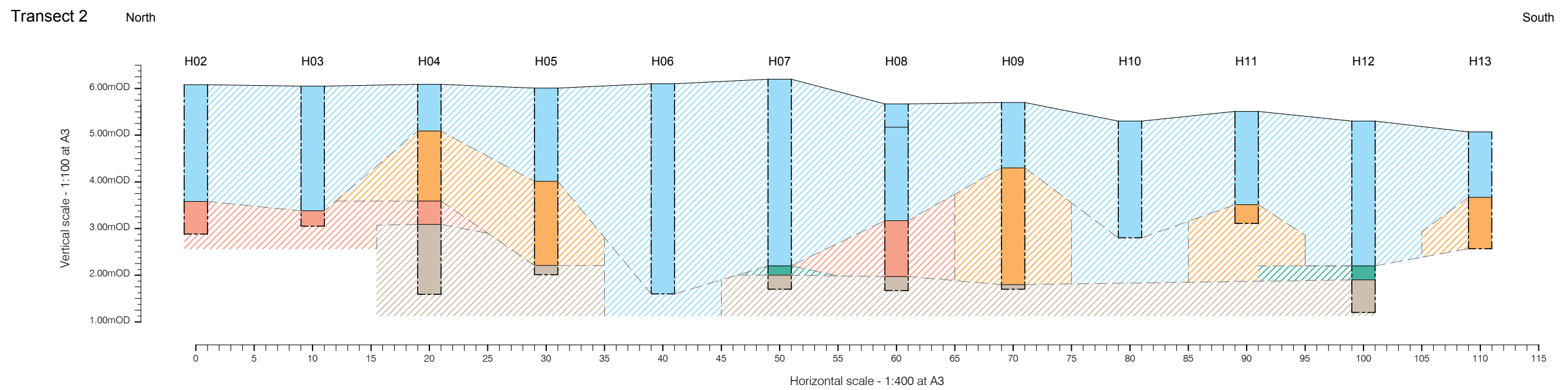
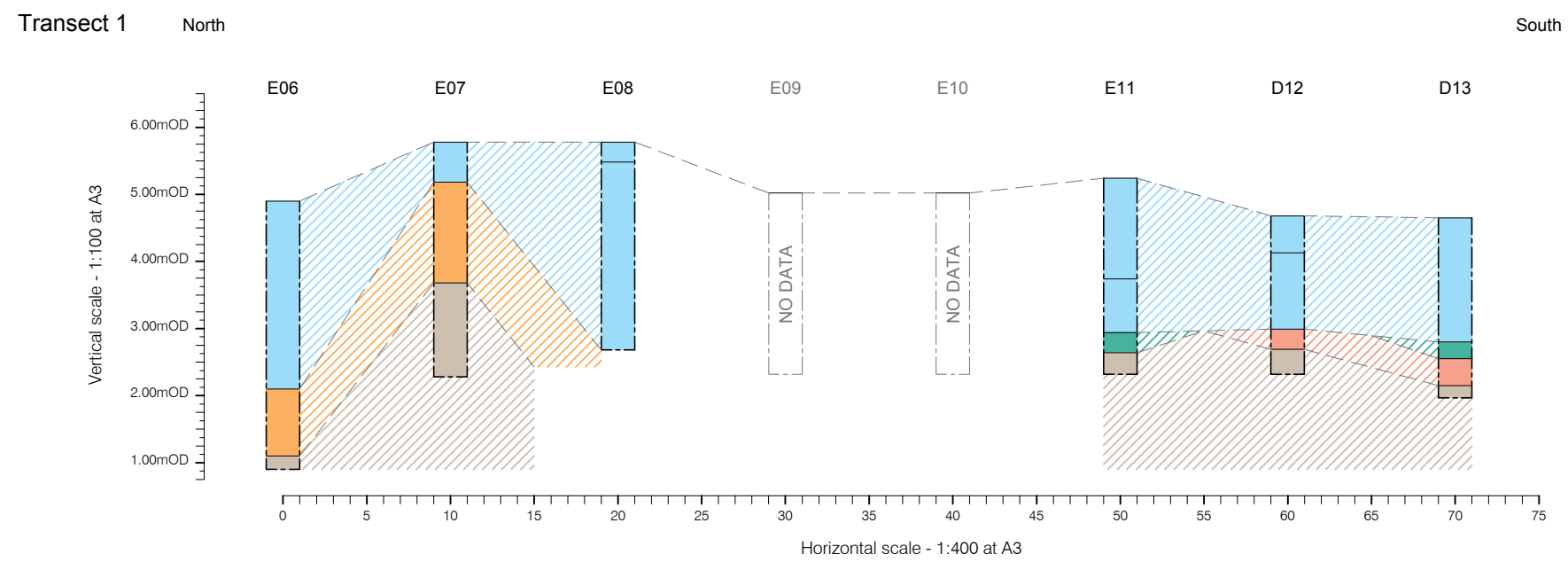
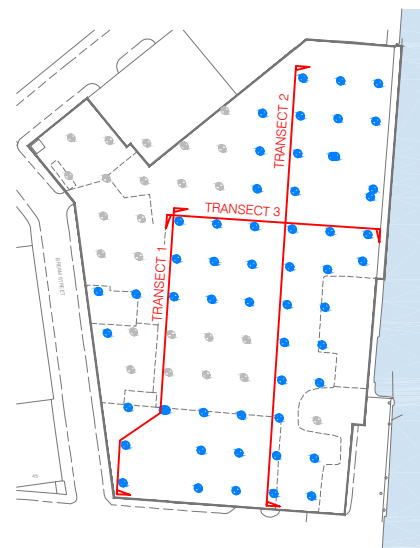
- 7.4.1 The upper intact alluvial deposits were seen in various locations throughout the site. The material mostly consisted of stiff to firm dark bluish grey silty clays. Thick to mid sized wooden branches were seen as inclusions in the upper alluvium, as well as occasional lenses of rounded gravel pebbles. In deeper parts of the layer, concentrations of small shells appeared.
- 7.4.2 The upper alluvial deposits ranged in thickness from 0.50m (test pits D08, E13, G06) to 3.80m (I05) and were found at heights between 5.49m OD in TP J04 and 2.10m OD in E06. These alluvial deposits had clearly been impacted and affected by contamination such as asbestos and hydrocarbons, resulting from land use and development from the late 18<sup>th</sup> century through to the late 20<sup>th</sup> century.

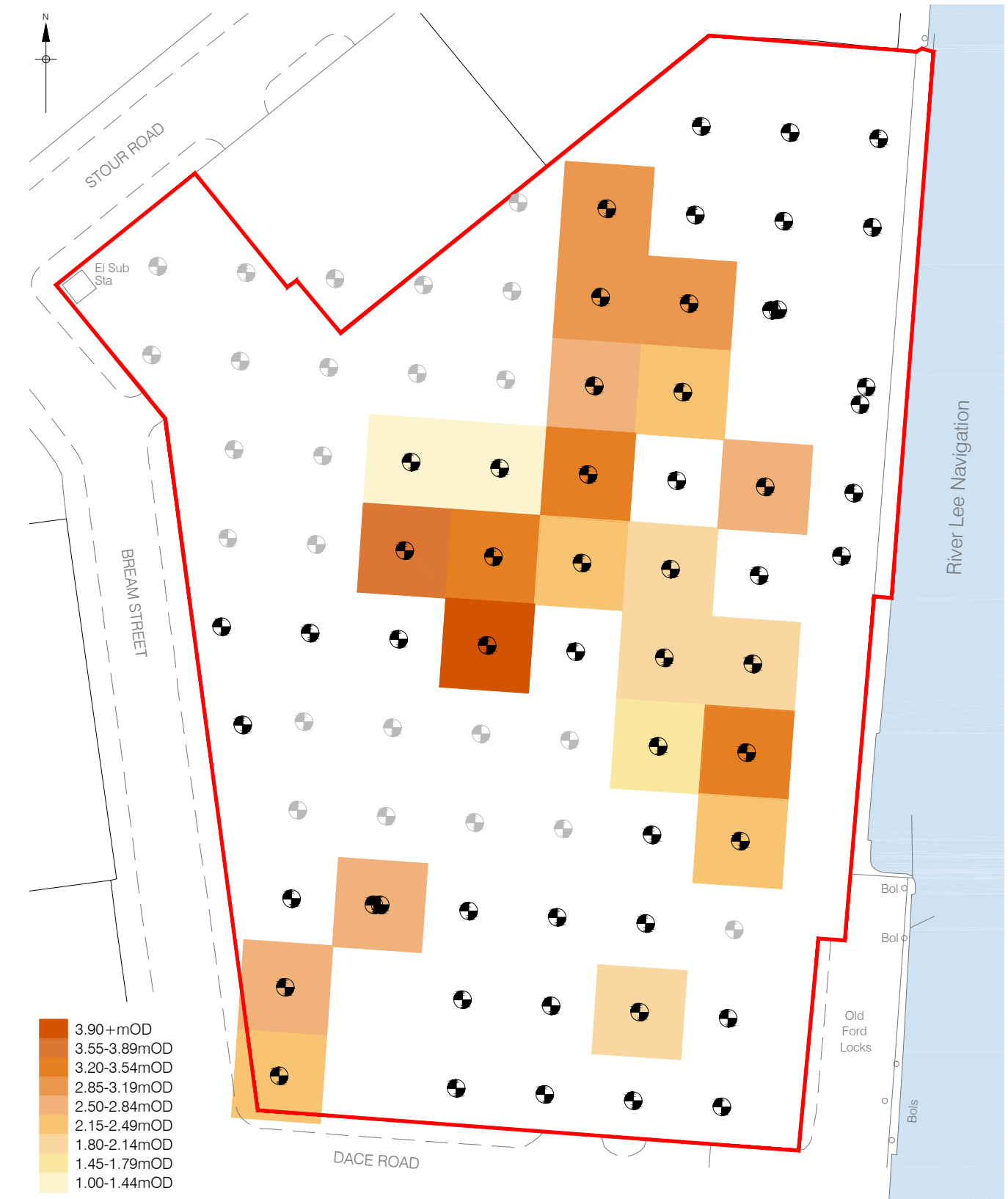
### **7.5 Phase 5 – Made Ground**

- 7.5.1 Deposits of made ground, of varying thickness, were found throughout the site. These appeared

to be entirely related to the site's industrial use during the late 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries. The made ground deposits were formed of various materials including demolition debris and industrial waste.

- 7.5.2 Various interventions on the eastern part of the site (test pits I02, I05, I05 – I07 and J02) suggested that here the made ground was of late 18<sup>th</sup> century date. Elsewhere in the site the historical maps suggest that late 19<sup>th</sup> century housing and activity was present (Sulikowska 2015), and the test-pitting unearthened archaeological stratigraphy containing artefacts dating from this period. For example, ebonite screw stoppers were deposited in great quantities in a metal tank recorded in test pit E07. These probably related to a moulding factory built in the central part of the site during the late 19<sup>th</sup> century (Sulikowska 2015). No structural remains retaining to these buildings were seen.
- 7.5.3 The made ground contained extensive amounts of contamination as was expected from the previous geotechnical investigations (Sulikowska 2015; Card Geotechnics 2014; Tweedie Evans Consulting Limited 2016).
- 7.5.4 Made ground deposits ranged in thickness from 0.50m in test pits C08, I05 – I06, E12 to 4.50m in H06, and were found at heights between 6.10m OD in test pit H06 and 3.74m OD in E11. In several places, the made ground directly overlay the top of the gravel, suggesting that the natural deposits were truncated in these areas. In H06, the made ground was over 4m thick and natural ground was not reached within the test pit.
- 7.5.5 The made ground was overlain by a variety of concrete surfaces which all appeared to date from the 20<sup>th</sup> century. All the buildings on the site appeared to have been much altered and modified during their use and nothing obvious remained of any 19<sup>th</sup> century industrial surfaces.
- 7.5.6 The modern surfaces varied in thickness from approx. 0.20m to 1.00m (F07, F08) and were found at heights ranging from 4.65m OD to 6.51m OD.





0 25m

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Figure 4  
Plan showing indicative heights of  
gravel deposits across the site  
1:625 at A4

## **8 CONCLUSIONS**

- 8.1 The sequences recorded from the site data have provided information concerning patterns of buried deposits across the study area. There are a number of broad conclusions that can be drawn from the deposit modelling exercise.
- 8.2 The top of the natural gravel was identified in the majority of the interventions at depths varying from 3.90m OD to 1.00m OD. The investigations illustrated that the top of the gravel was very varied, perhaps suggesting that there were small eyots within the site, formed between the channels of the Lea. The top of the gravel was clearly truncated in places by made ground and impacts from the 19<sup>th</sup> and 20<sup>th</sup> century buildings on the site. The gravel was highest in the centre of the site with another discrete elevated area to the east (Figure 4)
- 8.3 The natural terrace gravels were in places overlain by a lower alluvial deposit of blue – grey silt clay, this deposit generally being around 1.1m to 1.5m thick. Although, in places, lenses of gravel were observed in the alluvial deposits, it was not possible to satisfactorily sub-divide this unit any further than this. Peat was present in several locations, sometimes located directly over the gravel and sometimes located between the lower and upper alluvium or directly below the made ground.
- 8.4 Given the generally wet nature of the environment suggested by these deposits, it is unlikely that there would have been significant human occupation within the study area during later prehistory, though evidence of marginal activity at the edges of channels may be extant. Anthropogenic materials were not recovered from the lower alluvial or peat deposits in any of the test pits, and late industrial materials observed in the boreholes and test pits are likely to be the product of contamination from higher levels above.
- 8.5 Extensive amounts of made ground on the site illustrate ground raising episodes in the post-medieval and modern periods. The ground raising was carried out to allow the construction of industrial premises on the site.
- 8.6 It is also possible that consolidation works associated with the development of the site during the late 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries may have redeposited some alluvial material to a higher level especially along the eastern edge of the site in proximity to the Lea Navigation.
- 8.7 The presence of peat and humic rich soil deposits suggest a good survival of the natural deposits, despite the development of industry in the area during the latter half of the 19<sup>th</sup> century and throughout the sites use in the 20th century.
- 8.8 Although the site lies relatively close to areas which have produced archaeological materials from Roman, medieval and prehistoric periods, the archaeological watching brief did not identify any cultural material relating to these periods.
- 8.9 There was no evidence of prehistoric, Roman, medieval or post-medieval structures such as water front revetments or bridges. Land reclamation in the later post-medieval period was identified in the thick sequence of made ground identified throughout the site.
- 8.10 The site investigation work revealed significant levels of contamination to be present. Numerous
-

potential sources of on-site contamination were identified by the desk study and previous geotechnical investigations.

- 8.11 The watching brief indicated that the top of the natural gravel had not been extensively truncated by post-medieval development, other than in discrete areas. A sequence of alluvium and peat was also present, and direct truncation was generally limited to the top part of this sequence. Whilst no archaeological remains were identified during the watching brief, the investigations were limited by the size of the interventions and the access restrictions to the top of the lower deposits for safety reasons. High levels of contamination also limited the archaeological investigation.
- 8.12 Several areas on the site identified the top of the gravel terrace at a relatively high level (test pits E07, F07 - F08, G03 – G04, I09). These locations, concentrated in the centre, north and east of the site, may be the most lucrative places to locate evaluation trenches once the significant contamination – seen extensively across the site - has been mitigated. As the watching brief demonstrated no significant survival of archaeological material other than cultural finds within the made ground horizons, PCA suggests that extensive monitoring during the remediation process may not justify the significant risks of working within the contaminated made ground. However, 2 or 3 evaluation trenches targeted at the areas of higher gravel would be sensible to better explore the archaeological potential at the surface of the drift geology, and within the alluvium.

## **9 ACKNOWLEDGEMENTS**

- 9.1 PCA would like to thank Rob Smith of Orion Heritage for commissioning the monitoring exercise on behalf of Quadrant Construction and Mr Adam Single of Historic England Greater London Archaeological Advisory Service (GLAAS) for monitoring the project.
- 9.2 PCA would like to thank Quadrant Construction, as well as Celtic enGlobe, especially Rhys Davies and Chris Thomson for their helpful and kind assistance on site.
- 9.3 The author would like to thank Stacey Harris for some of the site supervision, Mark Roughley of PCA's CAD office for the illustrations and data processing and Chris Mayo for project management and editing.

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## 11 APPENDIX 1: DEPOSIT MODEL DATA

The deposit model includes data provided by Celtic englobe for locations not archaeologically monitored.

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| B04          | 537259.50 | 184074.49 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| B05          | 537258.80 | 184064.51 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| C04          | 537269.47 | 184073.79 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| C05          | 537268.77 | 184063.81 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| C06          | 537268.08 | 184053.84 | 5.10                  |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| C07          | 537267.38 | 184043.86 | 5.10                  |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| C08          | 537266.68 | 184033.89 | 5.15                  | 4.75                      | 1.60                      | 3.15                      | 0.80                      |                    |                    |                           |                           |                      | 2.80                  |
| C09          | 537269.06 | 184022.84 | 5.30                  | 5.00                      | 2.50                      |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| D04          | 537279.45 | 184073.09 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| D05          | 537278.75 | 184063.11 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| D06          | 537278.06 | 184053.14 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| D07          | 537277.36 | 184043.16 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| D08          | 537276.66 | 184033.19 | 5.28                  | 4.78                      | 1.50                      | 3.28                      | 0.50                      |                    |                    |                           |                           |                      | 2.50                  |
| D09          | 537275.97 | 184023.21 | 5.00                  |                           |                           |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| D10          | 537275.27 | 184813.24 | 5.00                  |                           |                           |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| D11          | 537274.57 | 184003.26 | 5.32                  | 4.78                      | 2.20                      |                           |                           |                    |                    |                           |                           |                      | 3.00                  |
| D12          | 537273.87 | 183933.29 | 4.68                  | 4.12                      | 1.20                      |                           |                           |                    |                    | 2.98                      | 0.30                      | 2.68                 | 2.50                  |
| D13          | 537273.17 | 183983.31 | 4.65                  | 4.05                      | 1.00                      |                           |                           | 3.05               | 0.25               | 2.80                      | 0.40                      | 2.40                 | 2.50                  |
| E04          | 537289.43 | 184072.39 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| E05          | 537288.73 | 184062.42 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| E06          | 537288.03 | 184052.44 | 4.90                  | 4.90                      | 2.80                      | 2.10                      | 1.00                      |                    |                    |                           |                           | 1.10                 | 4.00                  |
| E07          | 537287.33 | 184042.47 | 5.78                  |                           |                           | 5.18                      | 2.00                      |                    |                    |                           |                           | 3.78                 | 3.50                  |
| E08          | 537286.64 | 184032.49 | 5.78                  | 5.48                      | 2.80                      |                           |                           |                    |                    |                           |                           |                      | 3.00                  |
| E09          | 537285.94 | 184022.51 | 5.02                  |                           |                           |                           |                           |                    |                    |                           |                           |                      | 2.70                  |

| Test Pit No. | Eastings     | Northings    | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|--------------|--------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |              |              |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| E10          | 537285.24    | 184012.54    | 5.02                  |                           |                           |                           |                           |                    |                    |                           |                           |                      | 2.70                  |
| E11          | 537284.54    | 184002.56    | 5.24                  | 3.74                      | 0.80                      |                           |                           | 2.94               | 0.30               |                           |                           | 2.64                 | 2.70                  |
| E12          | 537283.84    | 184002.56    | 5.00                  | 4.50                      | 0.50                      | 4.00                      | 1.50                      |                    |                    |                           |                           |                      | 2.50                  |
| E13          | info awaited | info awaited | 5.00                  | 4.20                      | 1.20                      | 3.00                      | 0.50                      |                    |                    |                           |                           |                      | 2.50                  |
| F03          | 537300.10    | 184081.67    |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| F04          | 537299.40    | 184071.69    |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| F05          | 537298.70    | 184061.72    |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| F06          | 537298.01    | 184051.74    | 5.25                  | 5.25                      | 1.80                      | 3.40                      | 1.00                      | 2.45               | 1.00               |                           |                           | 1.45                 | 4.00                  |
| F07          | 537297.31    | 184041.77    | 5.70                  |                           |                           | 4.70                      | 1.00                      | 3.70               | 0.50               |                           |                           | 3.20                 | 3.00                  |
| F08          | 537296.61    | 184031.79    | 5.76                  |                           |                           | 4.76                      | 0.70                      |                    |                    |                           |                           | 4.00                 | 4.00                  |
| F09          | 537295.91    | 184021.82    |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| F10          | 537295.21    | 184011.84    |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| F11          | 537294.51    | 184001.87    | 5.27                  | 5.27                      | 2.10                      |                           |                           |                    |                    |                           |                           |                      | 2.50                  |

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| F12          | 537293.82 | 183991.89 | 5.00                  | 4.70                      | 1.00                      | 3.97                      |                           |                    |                    |                           |                           |                      | 2.50                  |
| F13          | 537293.12 | 183981.91 | 4.90                  | 4.10                      |                           |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| G03          | 537310.08 | 184080.97 | 6.05                  | 5.85                      | 3.50                      |                           |                           |                    |                    |                           |                           | 3.00                 | 4.50                  |
| G04          | 537309.38 | 184071.00 | 6.05                  | 5.55                      | 3.05                      |                           |                           |                    |                    |                           |                           | 3.00                 | 4.00                  |
| G05          | 537308.68 | 184061.02 | 6.21                  | 5.71                      | 1.50                      | 4.21                      | 1.50                      |                    |                    |                           |                           | 2.71                 | 4.50                  |
| G06          | 537307.99 | 184051.04 | 6.23                  | 6.23                      | 1.70                      | 4.93                      | 0.50                      |                    |                    | 4.53                      | 1.30                      | 3.23                 | 4.00                  |
| G07          | 537307.29 | 184041.07 | 5.75                  | 4.75                      | 1.40                      | 3.35                      | 0.90                      |                    |                    |                           |                           | 2.40                 | 4.00                  |
| G08          | 537306.59 | 184031.09 | 5.76                  | 5.76                      | 2.50                      | 3.26                      |                           |                    |                    |                           |                           |                      | 4.00                  |
| G09          | 537305.89 | 184021.12 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| G10          | 537305.19 | 184011.14 |                       |                           |                           |                           |                           |                    |                    |                           |                           |                      |                       |
| G11          | 537304.49 | 184001.17 | 5.27                  | 5.27                      | 0.90                      | 4.37                      |                           |                    |                    |                           |                           |                      | 2.00                  |
| G12          | 537303.80 | 183991.19 | 5.07                  | 5.07                      | 2.50                      | 3.07                      |                           |                    |                    |                           |                           |                      | 2.50                  |
| G13          | 537303.10 | 183981.22 | 4.90                  | 4.90                      | 1.00                      | 3.50                      |                           |                    |                    |                           |                           |                      | 2.50                  |

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| H02          | 537320.73 | 184090.25 | 6.08                  | 6.08                      | 2.50                      |                           |                           |                    |                    | 3.58                      |                           |                      | 3.20                  |
| H03          | 537320.06 | 184080.27 | 6.05                  | 6.05                      | 2.70                      |                           |                           |                    |                    | 3.38                      |                           |                      | 3.00                  |
| H04          | 537319.36 | 184070.30 | 6.09                  | 6.09                      | 1.00                      | 5.09                      | 1.25                      |                    |                    | 3.59                      | 0.50                      | 3.09                 | 4.50                  |
| H05          | 537318.66 | 184060.32 | 6.01                  | 6.01                      | 2.00                      | 4.01                      | 1.50                      |                    |                    |                           |                           | 2.21                 | 4.00                  |
| H06          | 537317.96 | 184050.35 | 6.10                  | 6.10                      | 4.50                      |                           |                           |                    |                    |                           |                           |                      | 4.40                  |
| H07          | 537317.26 | 184040.37 | 6.20                  | 6.20                      | 3.50                      |                           |                           | 2.20               | 0.20               |                           |                           | 2.00                 | 4.50                  |
| H08          | 537316.56 | 184030.39 | 5.67                  | 5.17                      | 2.00                      |                           |                           |                    |                    | 3.17                      | 1.20                      | 1.97                 | 4.00                  |
| H09          | 537315.87 | 184020.42 | 5.70                  | 5.70                      | 1.40                      | 4.30                      | 2.50                      |                    |                    |                           |                           | 1.80                 | 4.00                  |
| H10          | 537315.17 | 184010.44 | 5.30                  | 4.30                      | 1.50                      |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| H11          | 537314.47 | 184000.47 | 5.51                  | 5.51                      | 2.00                      | 3.51                      |                           |                    |                    |                           |                           |                      | 2.40                  |
| H12          | 537313.77 | 183990.49 | 5.30                  | 5.30                      | 3.10                      | 4.10                      | 1.50                      | 2.20               | 0.30               | 2.10                      | 0.60                      | 1.90                 | 4.10                  |
| H13          | 537313.07 | 183980.52 | 5.07                  | 5.07                      | 1.40                      | 3.67                      |                           |                    |                    |                           |                           |                      | 2.50                  |
| I02          | 537330.73 | 184089.55 | 6.09                  | 5.79                      | 2.10                      | 3.99                      | 1.50                      |                    |                    | 3.09                      |                           |                      | 4.20                  |

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| 103          | 537330.03 | 184079.57 | 6.09                  | 4.89                      | 1.20                      | 4.89                      | 1.50                      |                    |                    | 3.09                      |                           |                      | 3.40                  |
| 104          | 537329.33 | 184069.60 | 6.09                  | 4.89                      | 1.20                      | 4.89                      | 1.50                      |                    |                    | 3.09                      |                           |                      | 3.40                  |
| 105          | 537328.64 | 184069.52 | 6.10                  | 6.10                      | 0.50                      | 5.60                      | 3.80                      |                    |                    | 1.80                      |                           |                      | 4.70                  |
| 106          | 537327.94 | 184049.65 | 6.20                  | 6.20                      | 0.50                      | 5.80                      | 2.50                      | 3.20               | 0.50               | 2.70                      | 0.50                      | 2.30                 | 4.10                  |
| 107          | 537327.24 | 184839.67 | 6.15                  | 6.15                      | 3.50                      |                           |                           |                    |                    | 2.65                      |                           |                      | 4.00                  |
| 108          | 537326.54 | 184029.70 | 5.76                  | 5.76                      | 1.60                      | 4.16                      | 2.40                      | 2.16               | 0.30               |                           |                           | 1.96                 | 4.00                  |
| 109          | 537325.84 | 184019.72 | 6.17                  | 6.17                      | 1.30                      | 4.87                      | 1.10                      | 3.57               | 0.20               | 3.87                      | 0.30                      | 3.37                 | 3.80                  |
| 110          | 537325.14 | 184009.75 | 5.70                  | 5.70                      | 1.60                      | 4.17                      | 1.70                      | 2.57               | 0.30               |                           |                           | 2.27                 | 4.00                  |
| 111          | 537324.45 | 183999.77 | 5.58                  | 5.58                      |                           |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| 112          | 537323.75 | 183989.79 | 4.55                  | 4.55                      | 2.20                      |                           |                           | 2.35               |                    |                           |                           |                      | 2.50                  |
| 113          | 537323.05 | 183979.82 | 5.12                  | 5.12                      | 2.00                      | 3.12                      |                           |                    |                    |                           |                           |                      | 2.60                  |
| J02          | 537340.71 | 184088.85 | 6.05                  | 6.05                      | 1.00                      | 5.05                      | 1.50                      |                    |                    | 3.75                      |                           |                      | 2.50                  |
| J03          | 537340.01 | 184078.88 | 6.07                  | 6.07                      | 1.30                      | 4.77                      | 1.00                      |                    |                    | 3.77                      |                           |                      | 2.30                  |

| Test Pit No. | Eastings  | Northings | Surface Level (m AOD) | PHASE 5                   |                           | PHASE 4                   |                           | PHASE 3            |                    | PHASE 2                   |                           | PHASE 1              | Depth of Hole (m bgl) |
|--------------|-----------|-----------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------|--------------------|---------------------------|---------------------------|----------------------|-----------------------|
|              |           |           |                       | Made Ground Level (m AOD) | Made Ground thickness (m) | Upper Alluv Level (m AOD) | Upper Alluv thickness (m) | Peat Level (m AOD) | Peat thickness (m) | Lower Alluv Level (m AOD) | Lower Alluv thickness (m) | Gravel Level (m AOD) |                       |
| J04          | 537339.31 | 184060.90 | 6.09                  | 5.54                      | 1.50                      | 4.04                      |                           |                    |                    |                           |                           |                      | 2.30                  |
| J05          | 537338.61 | 184058.92 | 6.09                  | 6.09                      |                           | 5.49                      |                           |                    |                    |                           |                           |                      | 2.50                  |
| J06          | 537337.91 | 184048.95 | 6.10                  | 6.10                      | 5.50                      |                           |                           |                    |                    |                           |                           |                      | 2.50                  |
| J07          | 537336.53 | 184041.86 | 6.51                  | 6.51                      | 2.40                      |                           |                           | 4.11               |                    |                           |                           |                      | 2.50                  |

## 12 APPENDIX 2: CONTEXT INDEX

| Site Code | Context No. | Test Pit No.  | Type  | Description  | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|---|-------|--|---------------|---------------|-----------------------|-------|
| BMT 17    | 1           | C08 – J17   | Layer | Loose to stiff deposit of complex structure formed of various material like demo debris, plastic, glass and metal inclusions | 0.00 – 1.50   | 0.00 - 1.50   | 6.30                  | 5     |
| BMT 17    | 2           | E06   | Layer | Disturbed, soft brownish light to bluish grey to dark grey alluvial material   | 2.00          | 0.50          | 2.90                  | 4     |
| BMT 17    | 3           | E06   | Layer | Silty dark softish alluvial material   | 2.10          | 1.00          | 2.10                  | 4     |
| BMT 17    | 4           | E06, F06, F07, H07, I 10, I 08, D12-13, , F08, E07, E11 | Layer | Stiff to slightly compact sandy gravel – natural. Same as 43, 68   | 3.70          | 1.30 +        | 4.00                  | 5     |
| BMT 17    | 5           | F06, F07, I10, I08,                                     | Layer | Deposit of mod. thick brownish dark grey to brown, stiff to soft peat  | 2.00          | App. 0.70     | 2.16                  | 3     |
| BMT 17    | 6           | F06   | Layer | Dark to mid grey stiff clayey alluvial material  | 1.80          | 1             | 3.40                  | 4     |
| BMT 17    | 7           | C09   | Layer | Mid to light brownish loose to stiff sands. Sub soil   | 1.20          | 0.80          | 4.10                  | 5     |
| BMT 17    | 8           | C09   | Layer | Dark grey silty clayey disrupted deposits. Sub soil  | 2.00          | 0.50 +        | 3.30                  | 5     |
| BMT 17    | 9           | F07   | Layer | Interface between bluish grey silts and peat, disturbed  | 2.00          | App. 0.30     | 3.70                  | 2     |
| BMT 17    | 10          | I12, I11  | Layer | Light yellowish brown coarse/friable sandy clay. Sub soil  | 0.30          | 1.50          | 4.25                  | 5     |
| BMT 17    | 11          | I12, I11  | Layer | Mid yellowish brown sandy silts. Made ground   | 1.70          | 0.80          | 2.85                  | 5     |
| BMT 17    | 12          | I12   | Layer | Sandy silts of mid brownish colour, not disrupted.   | 2.20          | 0.30+         | 2.35                  | 4     |
| BMT 17    | 13          | I07   | Layer | Made ground formed of brownish coarse sandy gravels  | 0.00          | 1.5           | 4.60                  | 5     |
| BMT 17    | 14          | I07, J07, I10   | Layer | Loose mid brownish weakly cemented gravels. Made ground  | 1.50          | 1.5           | 3.10                  | 5     |



| Site Code | Context No. | Test Pit No.                              | Type      | Description  | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|---|-----------|--|---------------|---------------|-----------------------|-------|
| BMT 17    | 15          | I07,I10                                   | Layer     | Mid brownish grey silty gravels with incl. of 19 <sup>th</sup> cent gravels                        | 3.00          | 0.50          | 3.10                  | 5     |
| BMT 17    | 16          | I07                                       | Layer     | Soft mid grey silty sands with occasional inclusions of gravel and sweet water snails shells       | 3.50          | 0.50+         | 2.65                  | 2     |
| BMT 17    | 17          | H07                                       | Layer     | Thick alluvial deposit with presence of coal and CBM   | 1.40          | App.2.30      | 4.80                  | 5     |
| BMT 17    | 18          | H07,I10,I08,                              | Layer     | Dark brownish to mid grey with substantial presence of disrupted peat and occ. coal                | 2.40          | App. 0.50     | 2.70                  | 5     |
| BMT 17    | 19          | H06                                       | Layer     | Fairly loose greyish loose disrupted sandy gravels. Made ground                                    | 3.00          | 1.50          | 3.10                  | 5     |
| BMT 17    | 20          | H06                                       | Layer     | Mid greyish brown deposit of over mixed alluvial material with incl. of demo debris, coal, pottery | 1.50          | 1.50          | 4.60                  | 5     |
| BMT 17    | 21          | J05, J06,J07                              | Layer     | Greyish loose silty sandy gravels  | 0.40          | App.020       | 5.69                  | 5     |
| BMT 17    | 22          | J05, J06                                  | Layer     | Undisturbed silty clayey materials of alluvial origin. Same as 28                                  | 0.60          | 1.90+         | 5.49                  | 4     |
| BMT 17    | 23          | E06                                       | fill      | Fill of 24, formed of coal and ebonite screw stoppers  | 0.30          | 1.50          | 6.00                  | 5     |
| BMT 17    | 24          | E06                                       | structure | Late 19 <sup>th</sup> early 20 <sup>th</sup> metal tank/boiler                                     | 0.30          | 2.00          | 6.00                  | 5     |
| BMT 17    | 25          | J07                                       | Layer     | Dark greyish stiff disturbed alluvial  | 2.00          | 0.40          | 4.51                  | 5     |
| BMT 17    | 26          | J07                                       | Layer     | Record of peat layer   | 2.40          | 0.10+         | 4.11                  | 3     |
| BMT 17    | 27          | J03, J04                                  | Layer     | Brownish sandy gravel – made ground  | 0.30          | 1.00          | 5.77                  | 5     |
| BMT 17    | 28          | J03, I02,J04,I09, I06,I05,I04,I03,H03 H02 | Layer     | Mid greyish to light bluish silty clay – no finds. Same as 22                                      | 2.00 – 4.50   | 0.10 – 0.50   | 4.04                  | 2     |
| BMT 17    | 29          | J03                                       | Layer     | Dark greyish to mid bluish silty clays. Natural intact deposit                                     | 1.55          | App.1.30      | 4.47                  | 2/4   |
| BMT 17    | 30          | J02                                       | Layer     | Mid greyish dark sandy silty gravel. Made ground   | 0.20          | 0.80          | 5.85                  | 5     |

| Site Code | Context No. | Test Pit No.      | Type  | Description  | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|-------------------|-------|--|---------------|---------------|-----------------------|-------|
| BMT 17    | 31          | J02               | Layer | Dark grey to mid bluish green silty clays – intact. Same as 33.  | 0.80 – 1.00   | 1.30 – 1.50   | 4.89                  | 4     |
| BMT 17    | 32          | J02               | Layer | Dark alluvial deposit with peat incl. – interface layer  | 2.30          | 0.20+         | 3.75                  | 4/3   |
| BMT 17    | 33          | I02               | Layer | Same as 31   | 1.20          | 1.20          | 4.89                  | 4     |
| BMT 17    | 34          | I02               | Layer | Dark greyish sandy silts   | 2.10          | 0.30          | 3.99                  | 4     |
| BMT 17    | 35          | I02               | Layer | Silty sands with low amount of gravel and organic matter. Intact   | 2.30          | App.1.80      | 3.59                  | 4/2   |
| BMT 17    | 36          | H02               | Layer | Mid brownish clayey stiff material, with incl. Of CBM, crashed concrete – Made ground                                | 0.00-0.80     | 0.80          | 6.05                  | 5     |
| BMT 17    | 37          | H02               | Layer | Deposit beneath 36. Dark grey to mid blackish blue silts   | 0.80          | 1.50          | 5.25                  | 5     |
| BMT 17    | 38          | H02,H03,I04,I03,  | Layer | Dark grey to blackish blue silts with incl of gravel, coal, string. Made ground                                      | 2.00          | 0.50          | 4.05                  | 5     |
| BMT 17    | 39          | I01               | Layer | Mid darkish grey silty clayey alluvial material. W and E foundation test pit in N of the site                        | 0.50          | 0.50+         | 4.60                  | 5     |
| BMT 17    | 40          | I05,I06           | Layer | Blackish silty layer partly over mixed with gravel from 41   | 0.50          | App.1.50      | 5.60                  | 5     |
| BMT 17    | 41          | I05,I06,          | Layer | Blackish intensive darkish grey loose small to mid sandy gravel with slate frags, fabric,oyster shell, - made ground | 2.00          | 0.50 – 1.00   | 5.10                  | 5     |
| BMT 17    | 42          | I05, I09,H12,I06, | Layer | Silts below 41 with sights of truncation. Approx. End of 18 <sup>th</sup> cent                                       | 1.00 – 2.00   | 0.50 – 1.00   | 4.87                  | 5     |
| BMT 17    | 43          | I06,I09,H12       | Layer | Mid greyish light compacted gravel. Same as 4  | 3.80 – 4.20   | 0.30+         | 3.37                  | 1     |
| BMT 17    | 44          | I09,H12           | Layer | Brown yellowish firm to friable clayey gravels   | App.0.40      | 0.50-0.80     | 5.87                  | 5     |
| BMT 17    | 45          | H12               | Layer | Mid greyish light silts with inc. of CBM, redeposit of 28 and 31   | 2.70          | 0.60          | 2.10                  | 5     |
| BMT 17    | 46          | C10               | layer | Dark brown to mid grey silty material with at least 30% of gravel  | 0.50          | 0.70          | 4.51                  | 5     |

| Site Code | Context No. | Test Pit No.    | Type  | Description   | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|-----------------|-------|---|---------------|---------------|-----------------------|-------|
| BMT 17    | 47          | C10             | Layer | Mid brownish yellow layer of clayey loose gravels   | 1.20          | 0.40          | 5.31                  | 5     |
| BMT 17    | 48          | C10             | Layer | Mid bluish dark grey alluvial deposits. Lower made ground/upper alluvial  | 1.50          | 1.00          | 3.51                  | 4/5   |
| BMT 17    | 49          | C10             | Layer | Light greyish stiff silts no peat. Lower alluvial   | 2.60          | 0.40          | 2.61                  | 3     |
| BMT 17    | 50          | I13, H12,H13    | Layer | Dark brown , mid brownish grey loose coarse silty sands. Damp layer   | 0.00          | 0.80 – 1.20   | 5.51                  | 5     |
| BMT 17    | 51          | I13, H12,H13    | Layer | Bluish grey stiff to firm silty clays   | 1.40 – 2.00   | 1.20+         | 3.67                  | 5     |
| BMT 17    | 52          | H11             | Layer | Distinguish ashy loose material   | 1.40          | 0.20          | 4.31                  | 5     |
| BMT 17    | 53          | H11             | Layer | Brownish brick earthy gravels   | 1.40          | 0.30          | 4.11                  | 5     |
| BMT 17    | 54          | H11,E12,E13,F12 | Layer | Brownish mid grey silty deposits – CTP, pot, CBM  | 1.50          | 1.00          | 3.91                  | 5     |
| BMT 17    | 55          | H11             | Layer | Dark grey silty alluvial deposits   | 2.50          | 0.25+         | 3.51                  | 4     |
| BMT 17    | 56          | E13,F12         | Layer | Mid bluish to light bluish grey alluvial clays – intact?  | 1.00          | 1.50+         | 4.00                  | 4?    |
| BMT 17    | 57          | D12,D13         | Layer | Dark blue, grey blue silty clays with shell inclusions  | 0.40          | 0.60          | 4.12                  | 4?    |
| BMT 17    | 58          | D12,D13         | Layer | Organic stiff peat like interface   | 1.60          | 0.25          | 3.05                  | 2/3   |
| BMT 17    | 59          | D13             | Layer | Mid grey silt. Upper alluvial   | 1.85          | 0.25          | 2.75                  | 4     |
| BMT 17    | 60          | D13             | Layer | Gravelly formation, same as 4, 43   | 2.30          | 0.25+         | 2.68                  | 1     |
| BMT 17    | 61          | D11, E11, F11   | Layer | Dark blue/blue grey stiff silt clay of moist conditions with inclusions residual remains, leather, glass, CTP, CBM, | 2.00          | 0.30          | 2.32                  | 5     |
| BMT 17    | 62          | D11             | Layer | Light bluish grey stiff clayey silts  | 2.30          | 0.50          | 2.00                  | 5     |

| Site Code | Context No. | Test Pit No.                    | Type  | Description   | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|---------------------------------|-------|---|---------------|---------------|-----------------------|-------|
| BMT 17    | 63          | F08                             | Layer | Mid grey light brown stiff silty clay                           | 1.00          | 0.70          | 4.76                  | 4?    |
| BMT 17    | 64          | E07                             | Layer | Stiff dark bluish grey alluvial silty clay                      | 0.60          | 1.20 – 2.00   | 5.18                  | 4?    |
| BMT 17    | 65          | GO3                             | Layer | Very dark grey brown sandy silts                                | 0.20          | 0.50          | 5.85                  | 5     |
| BMT 17    | 66          | GO3                             | Layer | Mod brown silty clay  | 0.70          | 1.30          | 5.10                  | 5     |
| BMT 17    | 67          | GO3,G08                         | Layer | Dark grey clayey silts  | 2.00          | 1.50          | 2.95                  | 5     |
| BMT 17    | 68          | GO3,G06,G07,G08,<br>H08,<br>H09 | Layer | Mid sandy gravel. Partly contaminated by hydrocarbons (G03)     | 2.5-4.00      | 1.00          | 1.20                  | 1     |
| BMT 17    | 69          | D12                             | Layer | Brown alluvial deposit  | 2.70          | 0.30          | 2.98                  | 4     |
| BMT 17    | 70          | F11                             | Layer | Friable mid pale yellow silty sand – screed?                    | 0.40          | 0.60          | 3.87                  | 5     |
| BMT 17    | 71          | F11                             | Layer | Pale mid brown silty clay                                       | 0.15          | 1.00          | 3.60                  | 4     |
| BMT 17    | 72          | G07                             | Layer | Loose brown pink sand with rubble inclusions                    | 1.00          | 1.40          | 4.75                  | 5     |
| BMT 17    | 73          | G06                             | Layer | Firm mid yellow gravelly sandy deposit.                         | 1.30          | 0.50          | 4.93                  | 5     |
| BMT 17    | 74          | H04                             | Layer | Dark red grey gritty friable sand with yellow stock brick incl. | 0.50          | 0.50          | 5.59                  | 5     |
| BMT 17    | 75          | C08, D08,E08                    | Layer | Grey brown sandy silt   | 0.30          | 1.10          | 5.48                  | 5     |
| BMT 17    | 76          | C08, D08                        | Layer | Dark brown sandy silts  | 0.50          | 0.80          | 4.08                  | 5     |
| BMT 17    | 77          | C08, D08,E08                    | Layer | Mid blue grey gravelly clay                                     | 2.00          | 2.00+         | 3.28                  | 4     |
| BMT 17    | 78          | E08                             | Layer | Darkish black blue clay   | 1.20          | 1.00          | 4.58                  | 5     |

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| Site Code | Context No. | Test Pit No. | Type  | Description            | Depth BGL (m) | Thickness (m) | Highest Level (m AOD) | Phase |
|-----------|-------------|--------------|-------|------------------------|---------------|---------------|-----------------------|-------|
| BMT 17    | 79          | H08, H09     | Layer | Grey orange silty clay | 0.50 - 1.00   | 1.00          | 5.17                  | 5     |

## 13 APPENDIX 3: OASIS DATA FORM

### OASIS ID: preconst1-289032

| Project details                        |   |
|--|---|
| Project name                           | Land at Bream Street at the junction of Stour Road and Dace Road, Fish Island, London   |
| Short description of the project       | An archaeological watching brief was carried out on a geotechnical site investigation carried out at Bream Street, Fish Island in April and May 2017. Sixty six test pits were monitored. The test pit sequence revealed that natural gravel survived at varying depths below the ground, perhaps indicating scouring of the gravel by the River Lea, or small eyots within the Lea. Above the gravel was a sequence of lower alluvium, peat and upper alluvium. All interventions were sealed by post-medieval and modern made ground, mostly created by ground raising episodes to allow development on the site in the post-medieval and modern periods. |
| Project dates                          | Start: 01-04-2017 End: 31-05-2017   |
| Previous/future work                   | No / Yes  |
| Any associated project reference codes | BMT17 - Sitecode  |
| Any associated project reference codes | 15/00278/FUL - Planning Application No.   |
| Type of project                        | Recording project   |
| Site status                            | Local Authority Designated Archaeological Area  |
| Current Land use                       | Industry and Commerce 1 - Industrial  |
| Monument type                          | NONE None   |
| Significant Finds                      | NONE None   |
| Investigation type                     | 'Test-Pit Survey'   |
| Prompt                                 | Planning condition  |
| Project location                       |   |
| Country                                | England   |
| Site location                          | GREATER LONDON TOWER HAMLETS BOW Bream Street, Fish Island  |
| Postcode                               | E3 2NP  |
| Study area                             | 0.85 Hectares   |
| Site coordinates                       | TQ 37300 84305 51.540424646125 -0.019944619431 51 32 25 N 000 01 11 W Point   |
| Lat/Long Datum                         | Unknown   |
| Height OD / Depth                      | Min: 1.1m Max: 4m   |
| Project creators                       |   |
| Name of Organisation                   | Pre-Construct Archaeology Limited   |
| Project brief originator               | Local Planning Authority (with/without advice from County/District Archaeologist)   |
| Project design originator              | Pre-Construct Archaeology Limited   |
| Project director/manager               | Chris Mayo  |
| Project supervisor                     | Przemek Polakiewicz   |
| Project supervisor                     | Stacey Harris   |
| Type of sponsor/funding body           | Developer   |
| Name of sponsor/funding body           | Quadrant Construction   |
| Project archives                       |   |
| Physical Archive Exists?               | No  |
| Digital Archive recipient              | LAARC   |
| Digital Archive ID                     | BMT17   |
| Digital Contents                       | 'Stratigraphic'   |
| Digital Media available                | 'Images raster / digital photography', 'Images vector', 'Spreadsheets', 'Text'  |
| Paper Archive recipient                | LAARC   |

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|                               |   |
|-------------------------------|---|
| Paper Archive ID              | BMT17   |
| Paper Contents                | 'Stratigraphic"   |
| Paper Media available         | 'Context<br>sheet", "Photograph", "Plan", "Report", "Section", "Unpublished<br>Text"          |
| <b>Project bibliography 1</b> |   |
| Publication type              | Grey literature (unpublished document/manuscript)   |
| Title                         | Bream Street, Fish Island: An Archaeological Watching Brief<br>and Deposit Modelling Exercise |
| Author(s)/Editor(s)           | Polakiewicz, P.   |
| Other bibliographic details   | PCA R12931  |
| Date                          | 2017  |
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| Entered by                    | Chris Mayo (cmayo@pre-construct.com)  |
| Entered on                    | 19-Jul-17   |

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