

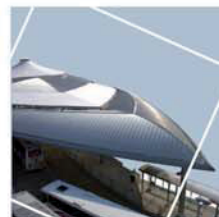
Report 2065



nau archaeology

An Archaeological Evaluation at 2-4 Langer Road, Felixstowe, Suffolk

HER: FEX 279



Prepared for
Lidl UK GmbH



Peter Crawley

April 2009



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Location:	2–4 Langer Road, Felixstowe
District:	Suffolk Coastal
Grid Ref.:	TM 2950 3410
HER No.:	FEX 279
Client:	Lidl UK GmbH
Dates of Fieldwork:	18–20 March 2009

Summary

In March 2009 NAU Archaeology undertook an evaluation on land at 2–4 Langer Road, Felixstowe, prior to a new retail development by Lidl Stores UK. Nine trenches were machine excavated to sample 5% of the plot. The evaluation was undertaken to gain further insights into the historic development of this reclaimed salt-marsh. A Late Bronze Age hoard and a Roman coin had previously been found near to the site and several Second World War features lie close by.

The evaluation provided clear evidence for the reclamation of the area through deliberate dumping. All of these layers contained late 19th-century ceramic and other inclusions, such as machine-made bricks. Despite their relatively recent date the layers were fully recorded and a summary provided by a geo-archaeologist. The bases of the trenches were augured to ascertain the lower naturally deposited layers. The fieldwork suggested that the area of ‘back marsh’ had been largely in-filled during the last two decades of the 19th century, a conclusion supported by the cartographic evidence. In the southern part of the site a large 20th-century dump had been used to level the area.

1.0 INTRODUCTION

The trenches were located in a proposed development plot at 2–4 Langer Road, Felixstowe (Fig. 1). The survey area was 0.804 hectares and was situated on the western side of Langer Road in the southern part of Felixstowe.

The evaluation and this report were funded by Lidl UK GmbH.

This archaeological programme of works was undertaken to fulfil a planning condition set by Suffolk County Council Archaeological Service Conservation Team following the granting of planning permission by Suffolk Coastal District Council (C/08/0949). It was undertaken in accordance with a Project Design and Method Statement prepared by NAU Archaeology (Ref: BAU2065/NP).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance 16: Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority with regard to the treatment of any archaeological remains found.

The site archive is currently held by NAU Archaeology and on completion of the project will be deposited with Suffolk HER or the relevant museum/repository in line with Museum and Galleries Commission requirements.

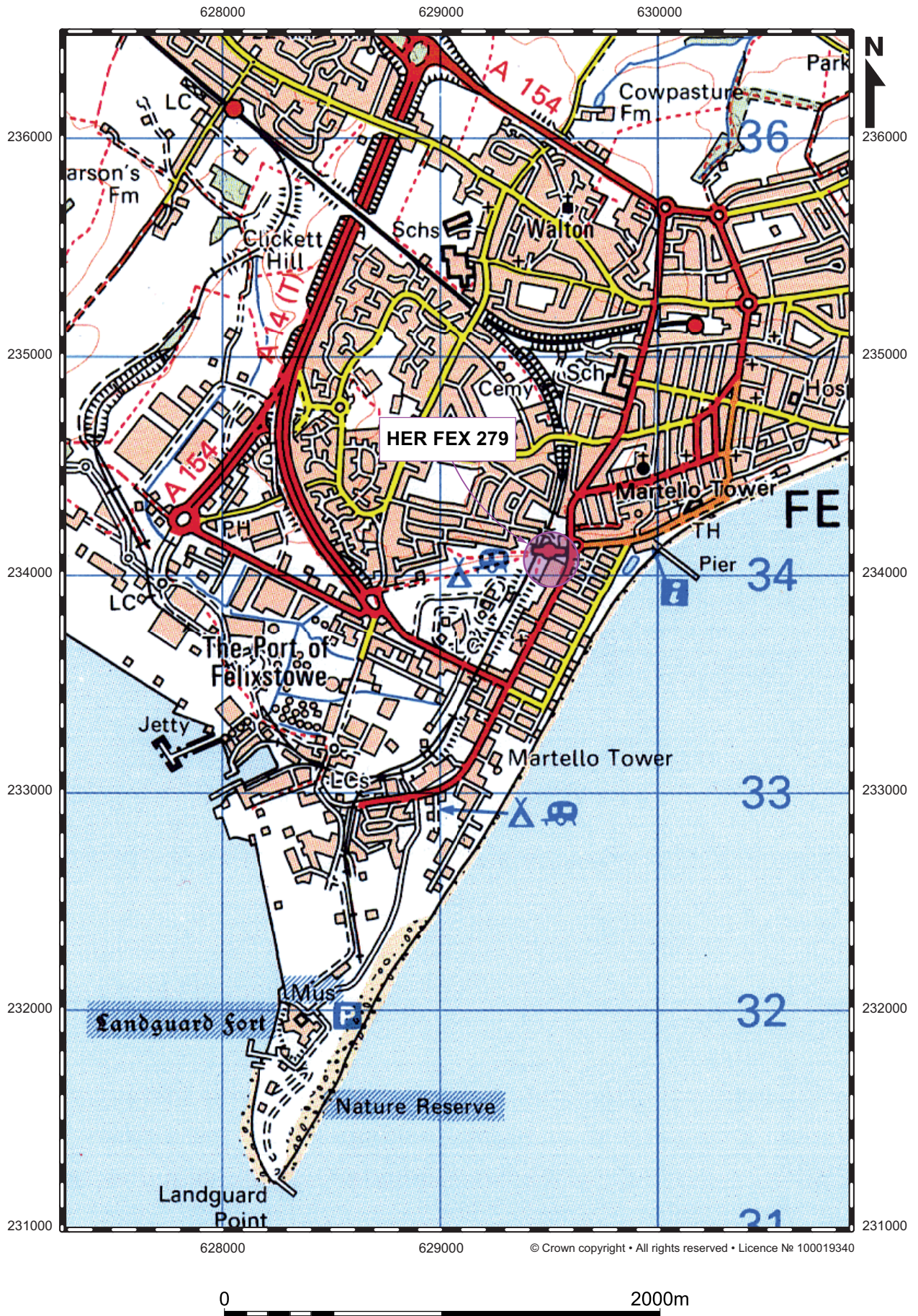


Figure 1 Site location

2.0 GEOLOGY AND TOPOGRAPHY

The underlying solid geology consisted of Tertiary sands and clays overlying, London clay and below that, chalk bedrock (Wymer 1999). The site lies on land below 5.0m OD, on soils derived from marine alluvium. This historically took the form of saltmarsh. As the town of Felixstowe expanded in the 18th and 19th centuries the saltmarsh was reclaimed. The saltmarsh originally formed in an area behind the shingle ridge through natural estuarine and coastal processes. Drainage was generally poor. The weather was good during the project. The underlying natural deposits, observed by auguring, were orange or grey loose and wet 'beach sands'.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

During the Roman period the coast was approximately a mile further out from its present location. Walton Castle was a Roman Fort, similar to Burgh Castle, which occupied 24,000 m² and was one of the Saxon Shore forts (Plouviez 1999). It was positioned on high land near Brackenbury Fort and Bull's Cliff. A church and a handful of houses were all that existed of Old Felixstowe for much of the early medieval period. The original settlement was known as Walton and only received the name of Felixstowe retrospectively.

In 1338, Edward III used the long creek, now known as Kingsfleet, to assemble his fleet before attacking French forces. In 1667, Dutch soldiers landed and attacked Landguard Fort, but they were unable to take it. This susceptibility to attack caused the construction of Martello towers in the early 19th century, to guard against invasion by French forces. They were built along the east coast and one existed in Felixstowe to the north-east of the site.

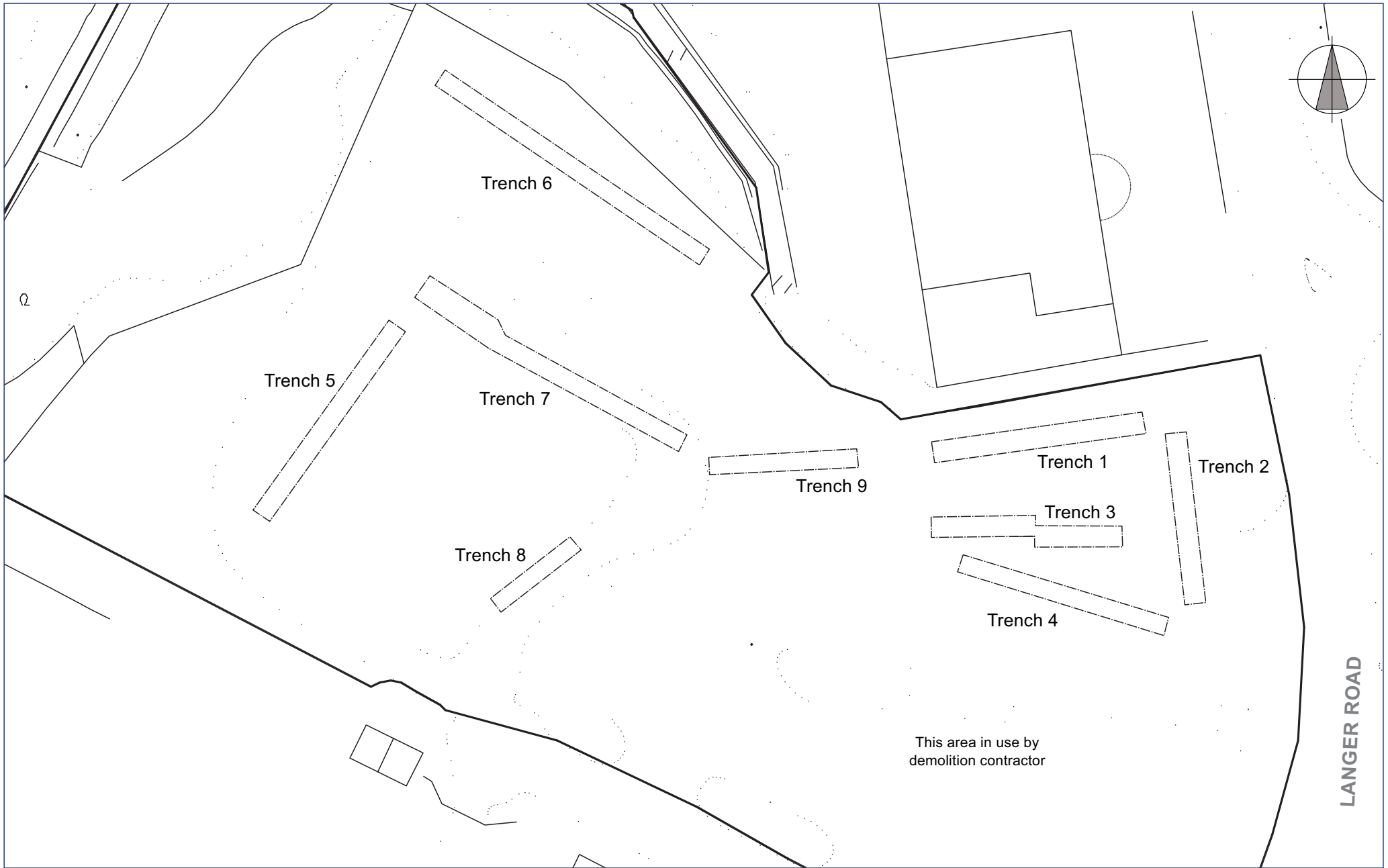
In the second half of the 19th century Felixstowe began its rapid growth. The creation of the port in 1886 and the tourism boom contributed to this growth. In 1891 the Empress of Germany visited the area and the small cliff-top village began its transformation into a fashionable and desirable seaside resort.

A search of the Suffolk HER revealed the following archaeological remains to lie in the vicinity of the site:

A Late Bronze Age hoard comprising a Type 4 barbed spearhead and a south-eastern type socketed axe was found in the first railway cutting to the west of the site in the 19th century (FEX 010). A Roman coin of *Antoninus pius* (AD 157–8) was discovered just to the west of the site (FEX 029).

The majority of the local HER records pertain to the Second World War. Several practice trenches dug in a zigzag were situated just to the south of the site and are visible in aerial photos taken in 1944 (FEX 174). Further Second World War installations lay 500m to the west of the site, including earthworks, a gun emplacement, a Nissen hut and a searchlight battery (FEX 175). Two roadblocks were also visible in aerial photographs situated in Undercliff Road West and Granville Road respectively (FEX 172 and 173).

Several slit trenches observed as earthworks were situated behind buildings on Langer Road, although they were no longer visible by 1944 when aerial photographs were taken (FEX 181).



0 30m

Figure 2 Trench location

4.0 METHODOLOGY

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that 5% of the area (c.400m²) be sample excavated. The initial aim was to open seven trenches measuring 1.80m by 30m, but due to constraints of space and the use of a 2m wide bucket for some of the machining, nine trenches of varying lengths and widths had to be employed (Fig. 2). They were positioned across the area in a pattern likely to give the best chance of encountering archaeological features. The south-eastern quarter of the site was being used by the Chris Jackson Demolition for the stockpiling of concrete prior to crushing and had to be avoided by the evaluation trenches.

Machine excavation was carried out with a hydraulic 360° excavator using a toothless ditching bucket, operated under constant archaeological supervision. The majority of the top 1.20m of all the levelling and dumped deposits contained late 19th-century sherds and these deposits were machined away due to their relatively recent date. Some late 19th century sherds were collected, but were not analysed due to their very recent date. No archaeological features were encountered within these layers. Clean alluvial deposits were left *in situ* at the base of the trench.

Spoil, exposed surfaces and features were scanned with a metal-detector. There were no finds of archaeological value found during the metal-detecting. All archaeological features and deposits were recorded using NAU Archaeology pro forma recording sheets.

A single column sample was taken from Trench 3 and the results are presented in this report.

Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

The temporary benchmark used during the course of this work was transferred from an Ordnance Survey benchmark with a value of 3.20m OD, located on the road opposite Bethesda Baptist church on Langer Road.

Site conditions were good, with the work taking place in fine weather. Access was also excellent.



Plate 1. The site looking east.



Plate 2. Trench 1, looking west.

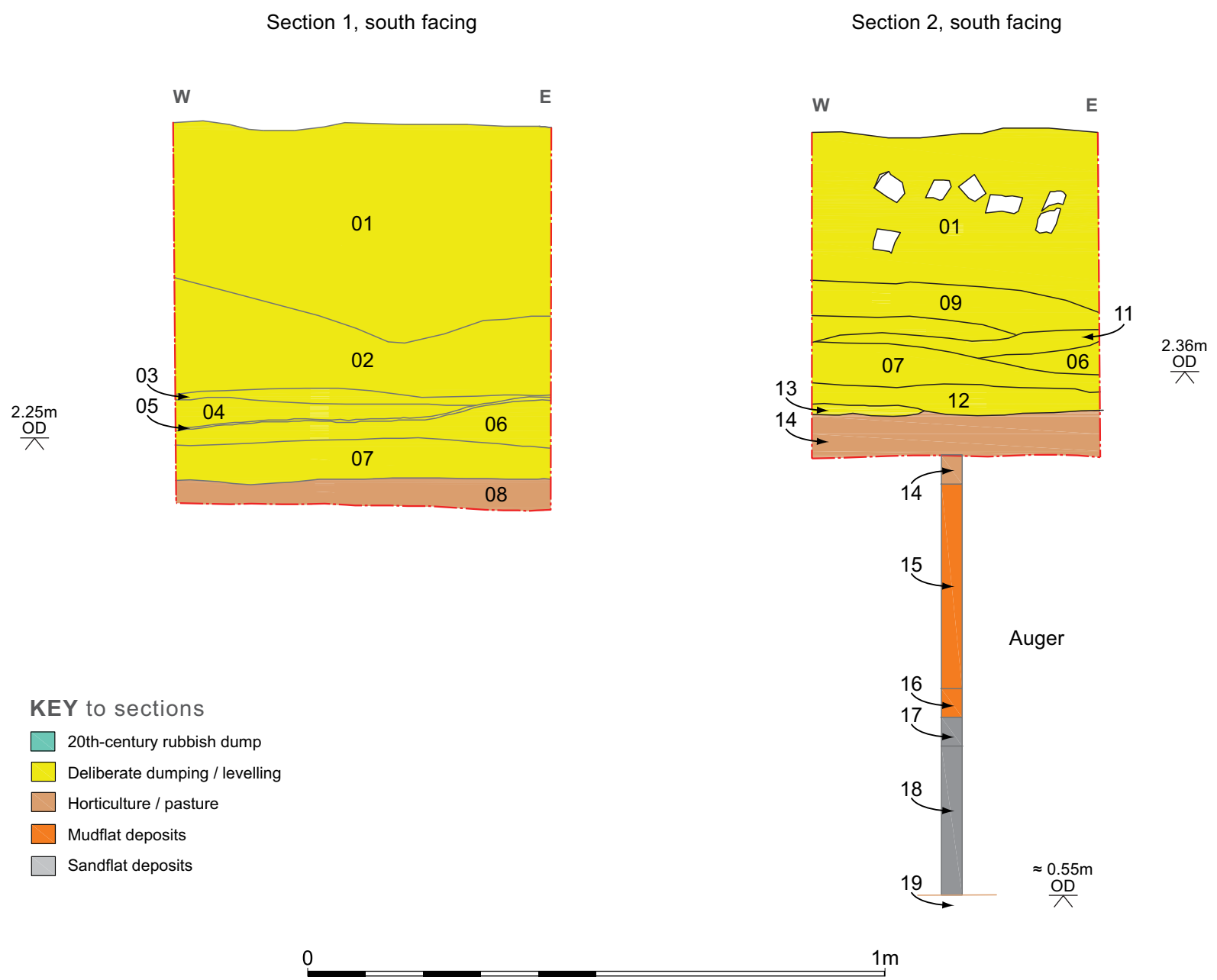
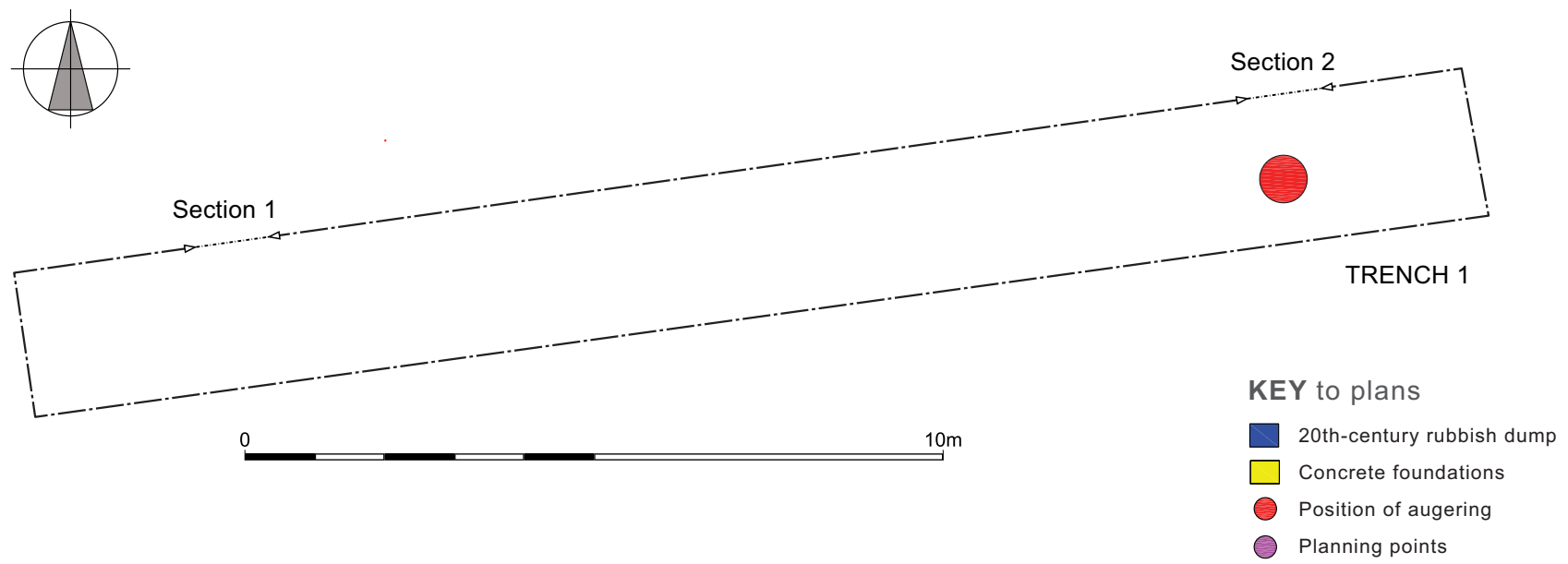


Figure 3 Trench 1 with sections 1 and 2



Figure 4 Trench 2 with sections 3 and 4

5.0 RESULTS

5.1 Trench 1

Trench 1 measured 24m by 2.0m and was oriented east–west (Figs 2 and 3; Plate 2). It was situated in the north-eastern corner of the site and was excavated to a depth of 1.20m to the cleaner alluvial deposits. The machined layers contained late 19th-century material. Two sample sections were drawn at either end of the trench (Fig. 3, sections 1 and 2) and the base of the trench was augured.

The uppermost deposit (01) was composed of a yellow gritty hardcore mixed with a brownish-grey silty clay. It was a relatively recent deliberate dump of material and had a maximum depth of 0.76m. It was visible in both section (Fig. 3). In section 1 a dark brownish-grey clay (02) lay below (01). This in turn lay above a series of thin, probably deliberately dumped layers. A black organic silt (03) lay above a greyish-yellow clay (04) which was in turn above a black organic silt (05). These layers ranged between 0.01m and 0.06m thick (Fig. 3, section 1). Two clay layers were next in the sequence and they were seen in both sections. The upper layer was composed of a blackish-grey clay (06) with a depth of 0.16m. The next was a bluish-yellow clay (07) which had a similar depth of 0.14m.

Section 2 presented a series of other layers at the mid-point of the section. The highest was a layer of yellowish-orange clay (10) 0.07m thick and beneath this was a layer of greyish-black organic silty gravel (11) which had a thickness of 0.10m. A further blackish-grey silty clay (12) lay below this. Towards the base of Section 2 was a grey clay with gravel (13) which was 0.03m thick. The lowest deposit, which had also been machined due to the presence of 19th-century inclusions, was a 0.15m thick layer of greyish-brown silty clay (14). A further layer was seen at the base of the trench in Section 1, which was formed from a blackish-grey silty sand (08).

The base of the trench was augured towards its eastern end and the following layers recorded (Fig. 3). A further 1.40m of deposits were augured from the base of the trench. Below (14) was a mid-grey silty clay (15) which had a depth of 0.70m and no inclusions. In turn it lay upon a black tenacious silty clay (16) which had a thickness of 0.10m. Next in the sequence was a soft grey coarse sand (17) also with no inclusions. This was 0.10m thick. The next layer was a black well-graded loose and wet 'beach sand' (18) with a maximum thickness of 0.50m. At the base of the auguring this same 'beach sand' took on a yellower colour, became wetter and was difficult to augur (19). It was considered to be the underlying natural.

5.2 Trench 2

Trench 2 measured 17m by 2.0m wide, was situated in the north-eastern corner of the site and ran north–south (Figs 2 and 4). The southern end of the trench was contaminated by diesel from a ruptured fuel tank located at that end of the trench. Two sections were drawn (Fig. 4, sections 3 and 4) and the base of the trench was augured. The machined layers all contained late 19th-century material.

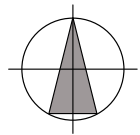
A thick layer of modern dumping lay at the top of the sequence. It was composed of a mid-greyish and orange silty clay (20) and was 0.89m thick. Below it in

Section 3 was a 'bright' brownish-orange sandy clay (21) which had a thickness of 0.16m. The next layer was an orangey-grey clay and gravel mixture (22) 0.18m thick. It lay above a dark greyish silty clay (23). Of these upper layers only (23) was present in Section 4. Below (23) was a greyish-blue clay (24) which had a depth of 0.09m. The next layer in the sequence was a 0.12m thick dark greyish silty clay (25). It lay above a bluish grey clay (26). This deposit had a depth of 0.26m and was the lowest deposit in Section 3. Two deposits could be seen to lie below it in Section 4. The upper of the two comprised an orange-grey clay (27) with a depth of 0.17m. There was a brownish-black organic clay at the base of Section 4 which had a thickness of 0.08m.

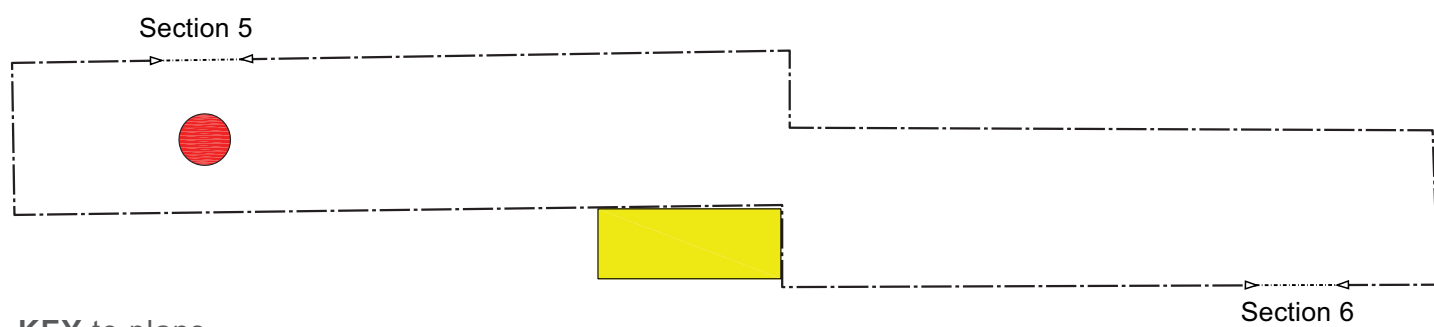
The base of the trench was augured at its northern end (away from the contamination) and the following layers were recorded. A bright yellow sand 0.05m thick lay at the top of the sequence (29). The sand was dry and had a more uniform grain size than the 'beach sands'. Below it lay a stiff brown clay 0.03m thick with some sand inclusions (30). This overlay a further layer of friable mid-grey silty clay (31) which had a maximum depth of 0.40m. It in turn overlay a slightly clayey light grey coarse sand (32) 0.05m thick. The last layer in the sequence was (33), a loose and wet orange 'beach sand'. The nature of the deposit would not allow any further auguring and it was identified as the underlying natural deposit.



Plate 3. Trench 2, looking south.



TRENCH 3

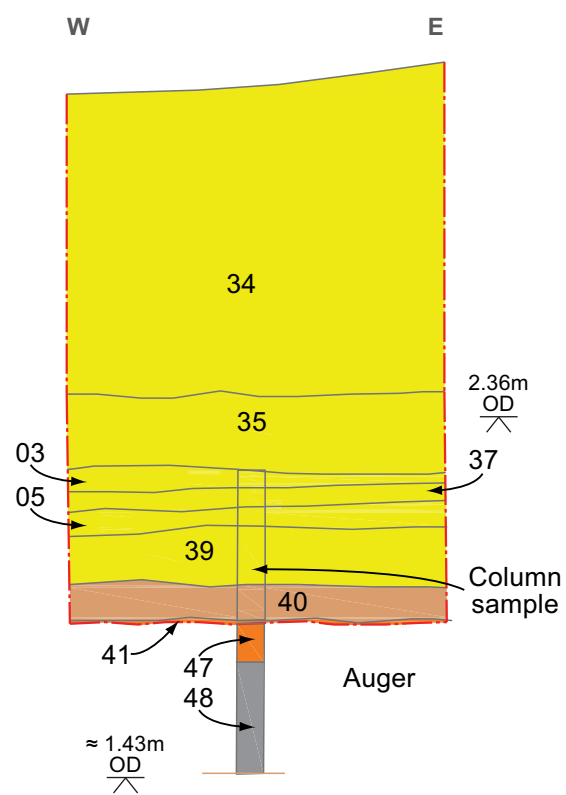


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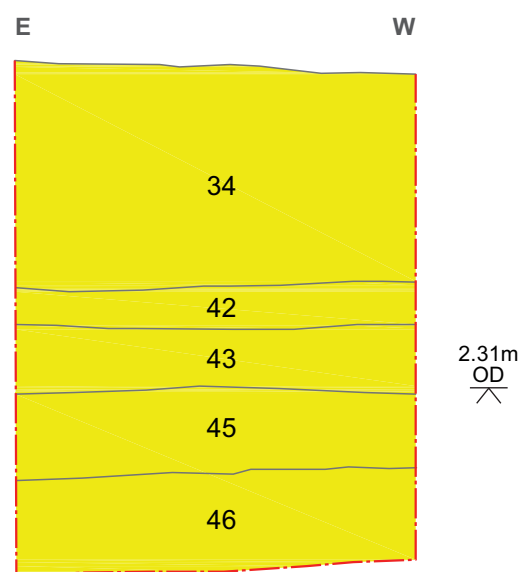
- 20th-century rubbish dump
- Concrete foundations
- Position of augering
- Planning points



Section 5, south-facing



Section 6, north-facing



KEY to sections

- 20th-century rubbish dump
- Deliberate dumping / levelling
- Horticulture / pasture
- Mudflat deposits
- Sandflat deposits



Figure 5 Trench 3 with sections 5 and 6

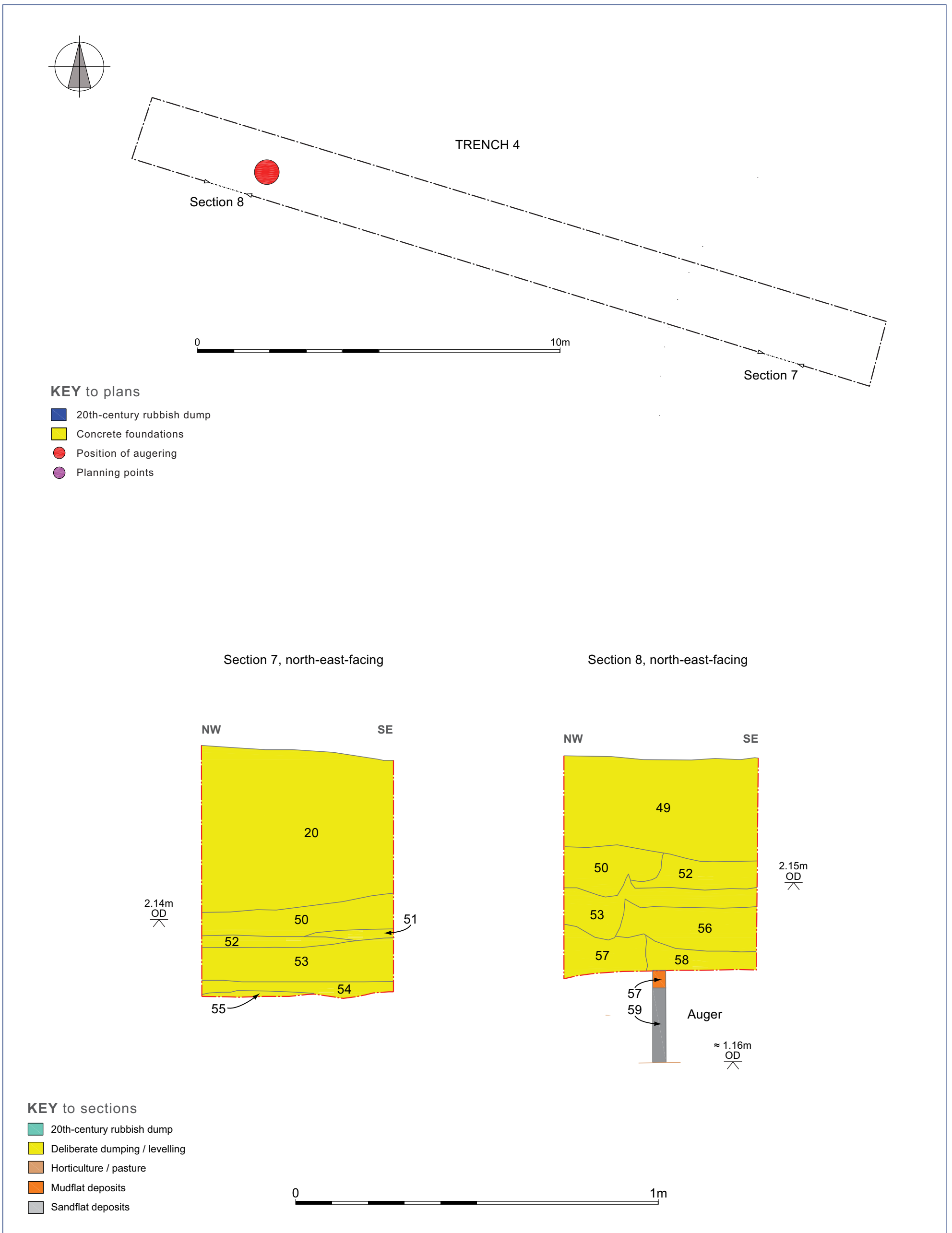


Figure 6 Trench 4 with sections 7 and 8



Plate 4. Trench 3, looking east.

5.3 Trench 3

The trench measured 19m by 2.0m wide, was situated in the north-eastern part of the site and ran east-west (Figs 2 and 5; Plate 4). Half way along the trench a large concrete foundation caused the remainder of the trench to be located further to the north. Two sections were drawn, one at either end of the trench (Fig. 5, sections 5 and 6) and the base was augured.

The upper deposit was 0.87m thick and comprised hardcore and debris (34). The next layer in the sequence was a yellowish-grey and black clayey silt (35) which was 0.22m thick. A thinner dark yellow gritty sand (36) underlay it. The next two layers, (37) and (38), were both of a similar thickness (0.05m and 0.07m respectively) and comprised a black clayey silt (37) and bright orange clay (38). Clay (38) lay above (39), a bluish-yellow clay 0.15m thick. This overlay a 0.10m thick brownish-black clayey silt (40). At the very base of the section was a greyish-blue clay (41). A different sequence was present in Section 6. The highest layer under (34) was a black sandy silt (42) 0.11m thick. This lay on a thin pale yellow sandy silt (43) situated above a bluish-black clay (44). Next was a yellow-orange clay 0.22m thick. The lowest deposit was a dark brownish-purple clay.

Auguring revealed a layer of friable mid-grey sandy and silty clay (47). Below it lay a layer of dark grey alluvial sand (048). The sand was loose and wet and had a mix of grain sizes and small rounded pebbles which indicated that it was of natural origin. At the base it became wetter and more yellow. It was impossible to force the augur through this natural 'beach sand'.

5.4 Trench 4

The trench measured 21m by 1.80m wide and was situated in the north-eastern corner of the site (Figs 2 and 6; Plate 5). Two sample sections were drawn (Fig. 6, sections 7 and 8) and the base of the trench was augured.

The upper deposit was 0.65m thick and formed from modern gravel hardcore and building debris (49). Two layers of dumping lay below it, (50) and (52). Layer (50) was a brownish-orange clay 0.18m thick and (52) was a grey blue clay which had a similar depth. Between the two deposits, and only visible in Section 7, was an orange clay and gravel mix (51) 0.06m thick. Both of these deposits overlay (53), a brownish-grey clay 0.24m thick. In Section 8 it overlay a 0.25m thick mid-bluish-red clayey sand (56). Two deposits lay below it, which due to their angle of deposition appeared to have been deliberate dumps. The first of these was a bright yellowish-orange clay sand (57). The second was blue and yellow clayey sand. Towards the base of Section 7 was an orange-blue clayey silt (54) 0.27m thick. It overlay a light orange-blue sandy silt (55). A blue and yellowish clayey sand was seen at the base of Section 8. The appearance of many of the layers in Section 8 suggests that they were deliberately dumped.

The upper layer observed in the auguring was a continuation of orange clayey sand (57), revealed to be a further 0.10m deep. Below it was a wet and loose black 'beach sand' (59) which contained well graded sand particles and small rounded stones of various sizes. The layer represented the underlying natural sand and it was not possible to push the augur further into this layer.



Plate 5. Trench 4, looking east.

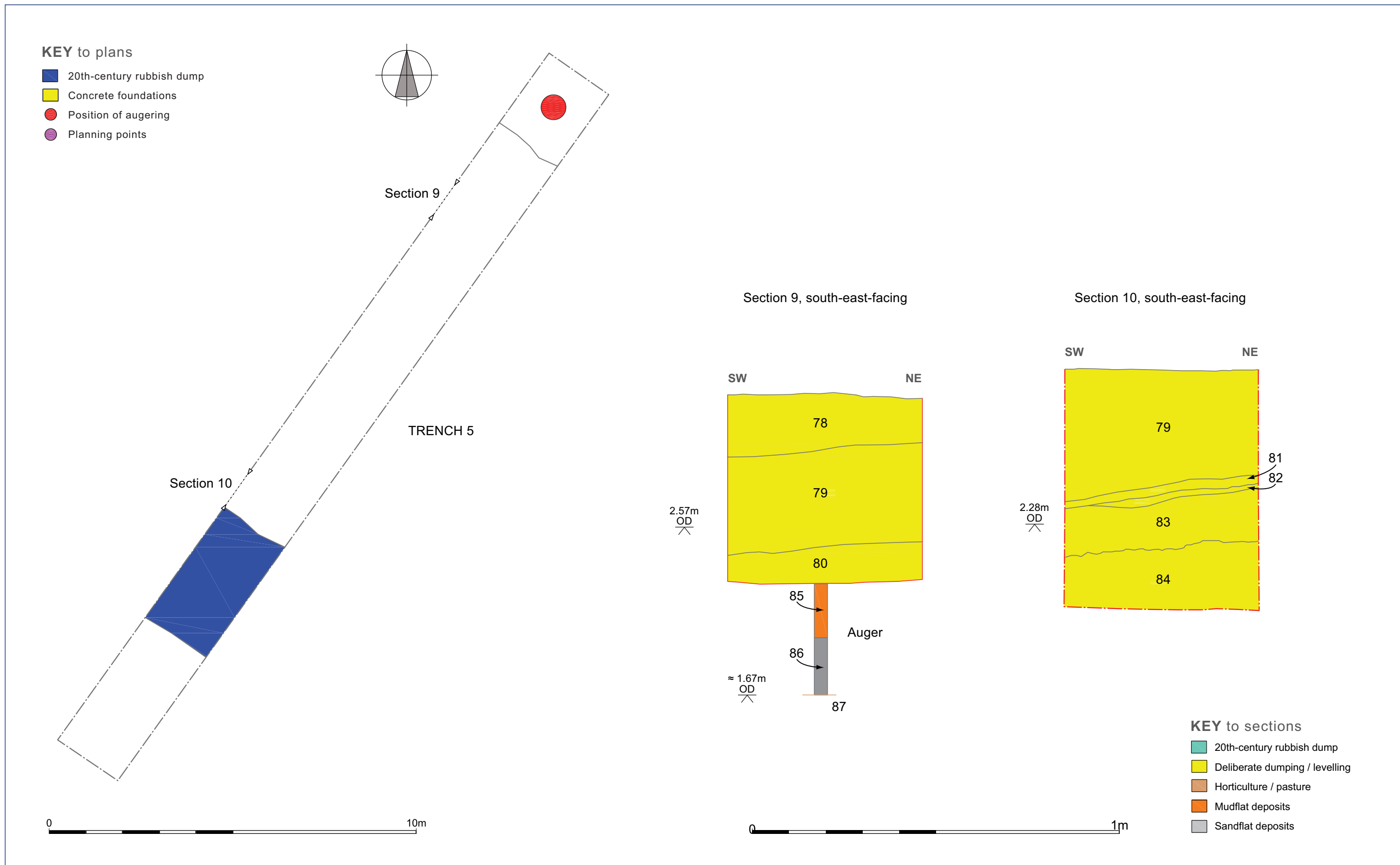


Figure 7 Trench 5 with sections 9 and 10

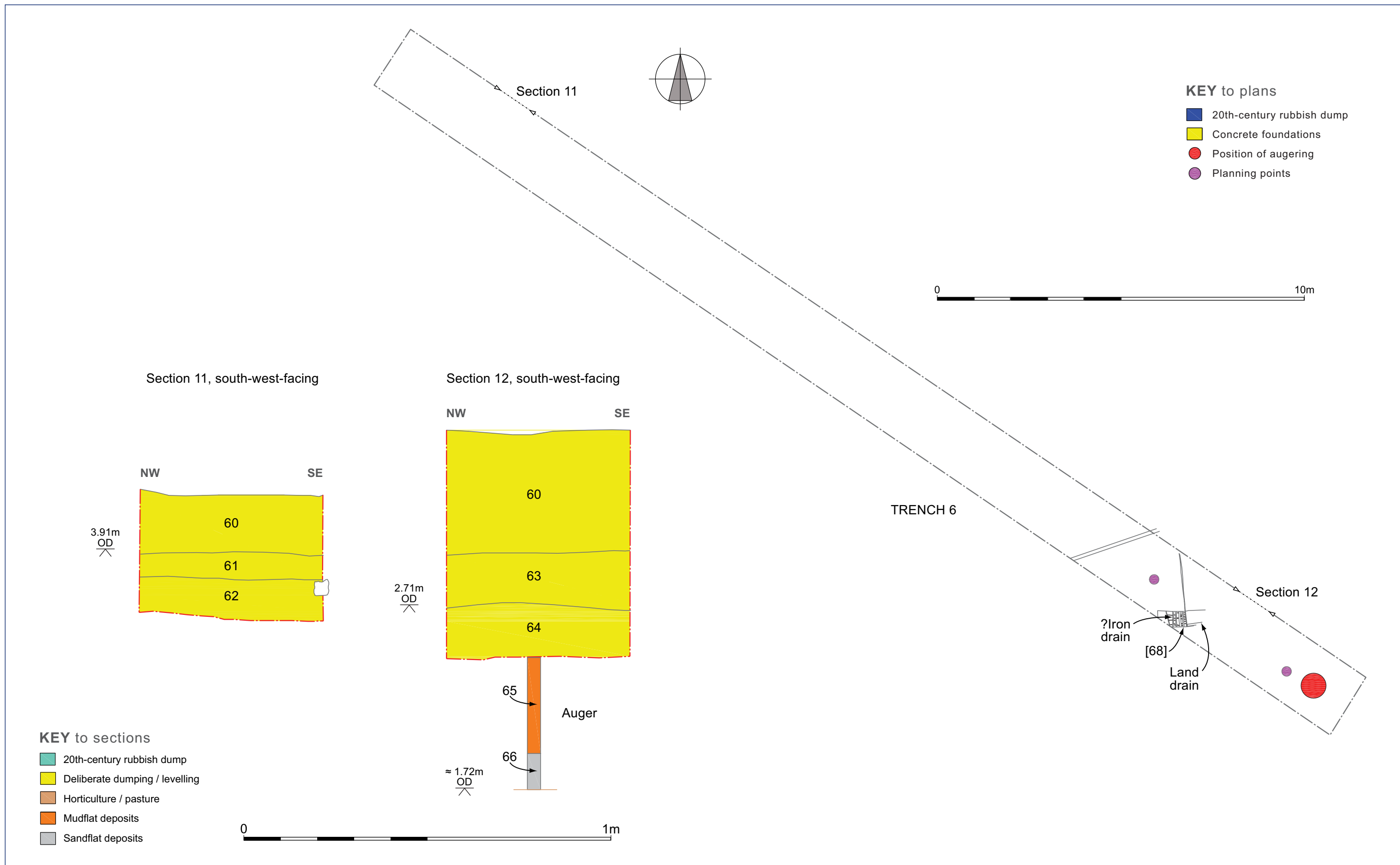


Figure 8 Trench 6 with sections 11 and 12



Plate 6. Trench 5, looking north.

5.5 Trench 5

The trench measured 22.50m by 1.80m wide, was located in the south-western part of the site and was oriented north-east–south-west (Figs 2 and 7). Two sections were drawn within the trench (Fig. 7, sections 9 and 10) and the base was augured.

A very recent dump of mixed material lay at the top of the sequence (78). It overlay a greyish-blue clay (79) which was 0.50m thick. Below (79) in Section 9 was a pale yellow mixed sand (80). It was less than 0.20m thick. Section 10 presented a different sequence: below (79) were two very thin layers each 0.05m thick. The first of these was an orange yellow silty sand (81) and the second was a brownish-orange clay gravel (82). Below it was a 0.28m thick reddish-brown silty sand (83) and at the base of the section was a yellow gritty sand.

The upper layer observed in the auguring was a friable dark greyish silty clay (85) which had a depth of 0.30m. The same thickness of slightly clayey pure grey sand (86) lay beneath it. The lowest deposit (87) seen in the auguring was a loose and wet greyish 'beach/estuarine' sand which contained well graded sand particles and small rounded stones of various sizes. The layer represented the underlying natural sand and it was not possible to push the augur further into this layer.



Plate 7. Trench 6, looking east.

5.6 Trench 6

The trench measured 31m by 1.80m wide, was situated in the north-western corner of the site and ran east-west (Figs 2 and 8; Plate 7). Two sections were drawn in the trench (Fig. 8, sections 11 and 12) and the base was augured.

The uppermost deposit was a dark brownish-black clayey silt (60). It was 0.68m thick and contained machine-made brick and ironwork. The next layer in Section 9 was (61), an orangey-grey hardcore, and in Section 10 a pale orange sand (63) was next. The layers were 0.14m and 0.32m thick respectively. At the base of Section 9 was a bluish-grey clay (62) and at the base of Section 10 was a greyish-blue clay silt (64). The layers were 0.23m and 0.30m thick respectively.

The base of the trench was augured. The uppermost augured deposit was a continuation of (64). The layer was very thick and continued for a further 0.50m. Underneath it lay a light grey slightly clayey sand (65) which was well graded and contained the occasional small round pebble. The next layer was (66), a soft grey pure sand which had a uniform grain size and was 0.10m thick. Below it was a loose and wet slightly greyish-yellow 'beach sand' which included well graded grains of different sizes and occasional small rounded stones. It was impossible to augur any further into this deposit.

Towards the eastern end of the trench a feature [68] was recorded. It was formed from a single sheet of slightly corrugated iron which sat in alluvial deposits and which had been bent to form the base and two sides of a container. Its eastern edge was vertical and this had originally shown as a corroded line in the alluvial silt. The opposite side was lower and obscured by alluvial silt. The base of the metal was roughly flat. A ceramic land drain was incorporated into the feature, it was oriented north-east to south-west and ended where it met the eastern edge of the structure. The structure appeared to have lain within a cut, as the deposit on the eastern side of the upright section was firmer and different in character. The alluvium on the western side (44) was softer and appeared to have silted up naturally. There were no finds within this fill of the metal drain.

A further section of ceramic land drain lay just to the west of the structure and angled in from a different direction. It was possible that the structure had been deliberately located within a lower lying area (a possible natural creek or sump) to aid with drainage. The higher metal side of the drain may also have acted as a reinforced edge or revetment to a creek. There was no dating associated with the drain, although it was fully recorded due to the possibility that it may have been connected with Second World War activity which is known to lie around the site.



Plate 8. Trench 7, looking east.

5.7 Trench 7

The trench measured 31m by 1.80m wide, was situated centrally in the western half of the site and ran in a roughly east–west (Figs 2 and 9). Two sections were drawn (Fig. 9, sections 13 and 14) and the base was augured.

The uppermost relatively recent dump (69) was formed from a generally dirty cream coloured gritty silt with frequent inclusions. It was observed in both sections. Section 13 presented a different sequence to that of Section 14 (Fig. 9). The next deposit observed in Section 13 was a pale yellowish-blue clay (70) which had a depth of 0.13m. Below it lay a 0.15m thick brownish-orange sandy clay and at the base of the section there was a greenish-blue clay (72). This deposit had a similar depth of 0.17m. Section 14 had a different sequence. A brownish-orange clay (73) lay underneath the recent dump (69). It appeared to have formed within a natural hollow. At the base of the section was a tenacious light grey clay (74) which was 0.45m thick. A recent feature (76) was examined in the trench. It was almost certainly a rudimentary dump of material deposited in the last 50 years. At first there appeared to be some structure to the feature, but this could not be resolved. A rubber-soled shoe was found with the remains which indicated its recent age.

The base of the trench was augured. The upper augured deposit was a continuation of the greenish-blue clay (72), except that it seemed to be more friable with a higher quantity of silt. The next deposit (74) was a tenacious light grey clay. The deposit had a mottled appearance and contained brown and darker grey silty clay patches. At the base of this deposit was a loose and wet slightly greyish-yellow 'beach sand' which included well graded grains of different sizes and occasional small stones. It was not possible to augur further into this deposit.

5.8 Trench 8

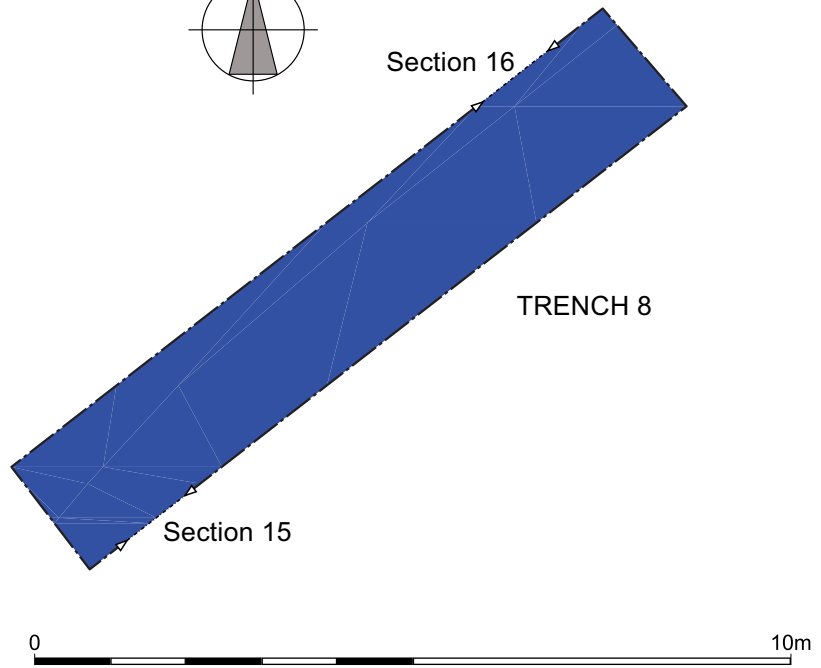
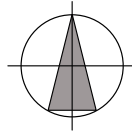
Trench 8 was situated in the south-western corner of the site in an area wholly of recent 20th-century dumping (Fig. 2). It was oriented north-east to south-west and measured 10.0m by 1.80m wide (Fig. 10). As such there were no remains of archaeological value, although two sample sections were drawn within the trench to categorise the dumping (Fig. 10, sections 15 and 16). The trench was initially excavated to a depth of 1.20m, although at the end of the work a bucket scoop was used to check the depth of the dumping and this total was added to the section. The various layers of dumping were numbered as (77). There were frequent metal, glass, brick, plastic, tiles, asphalt and many other types of rubbish held in a matrix of mid-grey silty clay. The layer also contained frequent amounts of gravel.



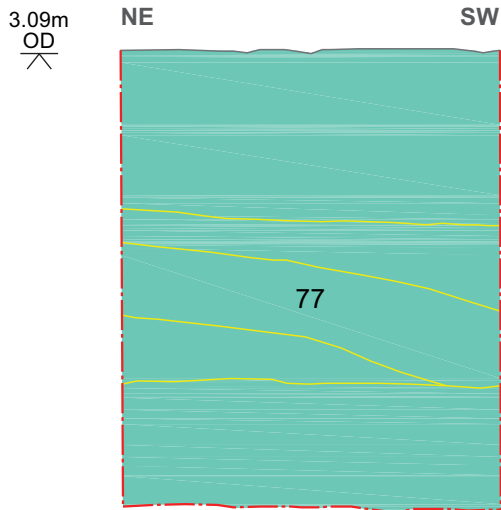
Figure 9 Trench 7 with sections 13 and 14

KEY to plans

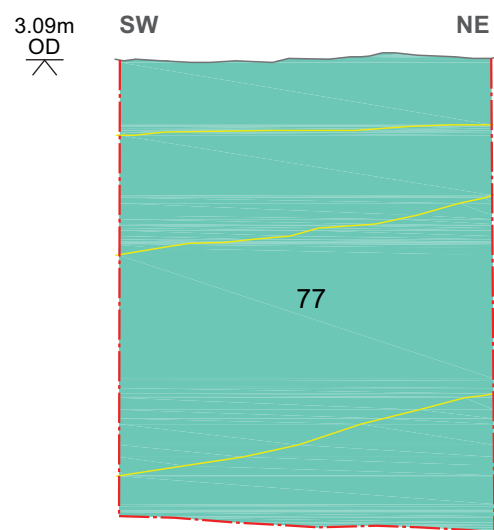
- 20th-century rubbish dump
- Concrete foundations
- Position of augering
- Planning points



Section 15, north-west-facing



Section 16, south-east-facing



KEY to sections

- 20th-century rubbish dump
- Deliberate dumping / levelling
- Horticulture / pasture
- Mudflat deposits
- Sandflat deposits



Figure 10 Trench 6 with sections 15 and 16



Plate 9. Trench 8, looking east.

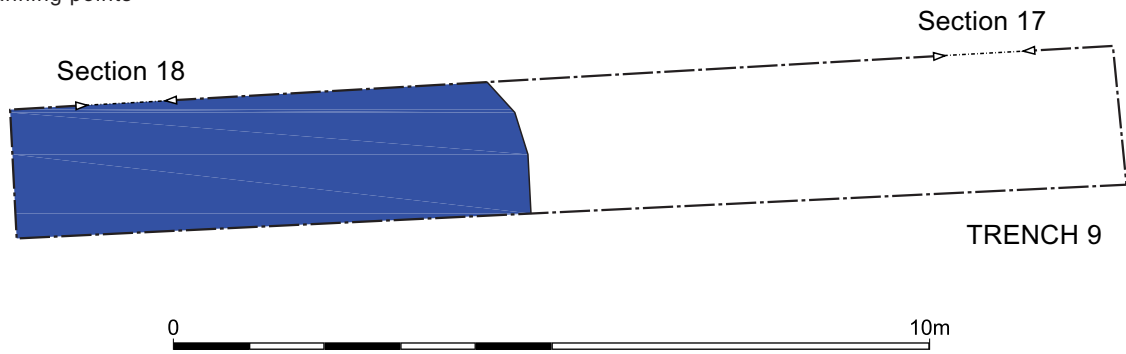
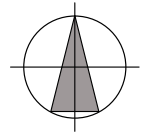
5.9 Trench 9

Trench 9 was located in the centre of the site (Fig. 2). It was 14.80m long by 1.80m wide and was oriented roughly east–west (Fig. 11). Two sample sections were drawn in the trench (Fig. 11, sections 17 and 18).

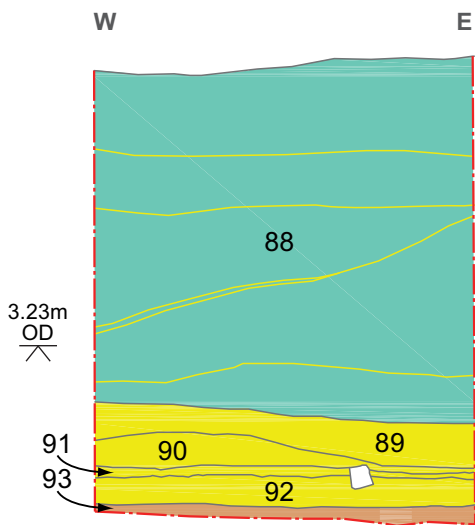
The western half of the trench was probably subject to the same modern dumping as that in Trench 8. The eastern half contained some *in situ* layers, but only towards the base of the section. The majority of the upper layers were of very recent dumping. Layer (88) was composed of a dark brownish-grey clay hardcore and gravel mix. The layer contained frequent amounts of broken tarmac, probably derived from the recent demolition carried out on the site. The first of the *in situ* layers was an orange sandy clay (89) 0.12m thick. Next in the sequence was a 0.09m-thick greenish-grey clay which also contained no major inclusions. It lay above a further layer formed from a black silty clay (91) which had a depth of 0.03m. Below this lay a greenish clay (92) 0.08m thick. At the very base of the section was a reddish-black organic clayey silt, which had a depth of 0.05m. The trench was initially excavated to a depth of 1.20m at the western end of the trench, though at the end of the work a bucket scoop was used to check on the depth of the dumping and this total depth was added to the trench section.

KEY to plans

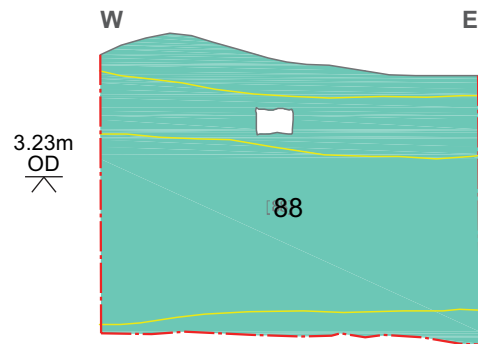
- 20th-century rubbish dump
- Concrete foundations
- Position of augering
- Planning points



Section 17, south-facing



Section 18, south-facing



KEY to sections

- 20th-century rubbish dump
- Deliberate dumping / levelling
- Horticulture / pasture
- Mudflat deposits
- Sandflat deposits



Figure 11 Trench 9 with sections 17 and 18



Plate 10. Trench 9, looking north-west.

6.0 THE FINDS

A few sherds of late 19th-century pottery were observed during the excavation. Their presence was recorded, though due to their relatively recent date they were not kept or analysed. All the other finds, such as bottles, iron fragments, etc., seen within the machined deposits were similarly recent and were discarded on site.

7.0 THE ENVIRONMENTAL EVIDENCE

By Fran Green

7.1 Monolith Sample

A single monolith sample from was collected from Section 5 of Trench 3 (Fig. 5). The rationale for selection and methodology employed for study are based on *Environmental Archaeology* (EH 2002). A detailed sedimentological log and diatom analyses were carried out on this monolith to assist in the understanding of the sediments recorded. The results of these analyses are described here. Sedimentary description follows Troels-Smith (1955) and depths are from the top of the monolith.

Top (cm)	Bottom (cm)	Ctxt	Description and components
0	3	36	Yellow, orange medium coarse sand with a trace of silt and rare large rounded quartzite pebbles (2cm). Very sharp contact with below. Gmin 4, Ag+, Gmaj+

Top (cm)	Bottom (cm)	Ctxt	Description and components
3	9	36?	Grey to grey brown gritty sand with some silt and small discontinuous patches of greyish silt up to 2mm thick. Frequent small rounded pebbles up to 5mm long, rare small broken shell. This deposit has a very sharp but sloping contact with the underlying sediments indicating it is within a channel or a dump. Gmin 3, Ag1, Gmag++, test(moll)+
9	22	38/39	Pale brown clay with silt, mottled with Fe orange staining, particularly towards the base where there is also a concentration of dark brown/black mottle when first cleaned. Indicating an earlier organic content to the sediments. Evidence of highly humified and dispersed plant remains. Occasional rounded pebbles. In upper 5cm of the unit were fragments of angular well fired hard brick with flint inclusions- post-medieval brick. Small mortar inclusions also found in the upper part of the deposit. No laminations or structure within this deposit. Some pebbles highly polished and smooth. A very sharp contact with the lower deposit. As3, Ag1, Gmin+, Sh+
22	32	40	Dark grey brown, massive organic sandy mud. No coarse inclusions, no structure and no modern inclusions. Gmin2, Ag1, Sh1.

7.2 Diatom analysis

7.2.1 Method

A sub-sample of 2–3cm³ of sediment from each sample was heated for 1–2 hours in a beaker containing a dilute solution of Hydrogen peroxide to remove the organic material from the sediment. The solution was swirled and allowed to settle for 1–2 seconds to allow the heavier sand grains to drop out of solution and a few drops of the supernatant pipetted onto a coverslip and allowed to air dry. The coverslips were then mounted on slides using the mountant Naphrax. The slides were then examined under x1000 magnification with the use of immersion oil.

Diatom identification was assisted by reference to Hartley (1996) and Lund (1946). Reference to Denys (1991) and De Wolf (1993) determined ecological preferences of certain taxa.

7.2.2 Results

Sample 1: (7–8cm) (from a silty lens with the gritty sand (cf. (36))

No diatoms were identified. The slide was full of amorphous unidentifiable organic debris together with opaque fragments which were probably charcoal.

A brackish origin for at least some of this deposit is indicated by the presence of several brackish species of Foraminifera. A marine origin of some of the sand within the sediments is indicated by the presence of occasional green glauconitic sand grains.

The absence of diatoms is probably caused by the chemistry of the sediments being unsuitable for the preservation of the silica diatoms.

8.0 CONCLUSIONS

The evaluation confirmed the suspected history of the site as being subject to relatively recent reclamation. It provided a very useful opportunity to see those layers and compare them to historic maps of the area.

The site occupies a naturally low lying area which was historically part of a drained marsh lying inland of a shingle ridge protecting the site from the sea. The shingle ridge had developed through the process of long shore drift through the middle ages. The earlier sandy deposits of a 'beach sand' or sandflat have been identified in all of the evaluation trenches through auguring and are most clearly illustrated in the Sections 2 and 4 in Trenches 1 and 2 (for example contexts (17), (18), (19), (32) and (33)). This deposit was likely to have accumulated when the site was connected to the sea prior to the development of the shingle ridge which now separates this area from the sea. Overlying these sandflat or beach deposits were grey silty clays, for example (15), (30) and (31). These grey silty clays probably accumulated in a saltmarsh, mud flat or even brackish lagoon environment which developed on the landward side of the shingle ridge. Traditionally this marshy area was known as the 'backmarsh'. It is likely as accretion of the saltmarsh or infilling of the lagoon occurred an area of upper marsh supporting emergent vegetation would have developed on the site. However, there is no evidence of an undisturbed peat in any of the sections recorded suggesting any organic accumulation on the surface of the marsh was altered following subsequent land drainage and the possible creation of marsh grazing in this area.

When the levels of natural 'beach sand' are examined across the site it is encountered far lower in Trenches 1, 2 and 4, particularly for Trench 1. The respective depths are 0.55m OD, 1.22m OD and 1.16m OD. This uneven depth for the natural sand suggests that there may be earlier channels within the area, possibly caused by streams running off the higher land to the west. There may be a deeper channel at the position of Trench 1 and a further channel at the position of Trench 4. The three Trenches 5, 6 and 7 all have consistent depths around 1.66m OD to 1.72m OD. Trench 3 has a depth of 1.43m OD.

The one inch Ordnance Survey map of 1889 indicates the surface of this marsh had been substantially drained by the late Victorian period. A large, largely artificial dyke called 'The Creek' is indicated immediately to the south of this site and extends in a large loop around several miles of the Languard Marshes to the west. This Creek is crossed by the railway with the station a short distance to the south of the site under investigation. The coming of railway in the latter half of the 19th century would have provided an impetus for development in this part of Felixstowe. The Languard marshes would have been pasture at this time and it is probable the area under excavation was also pasture in the late 19th century. Despite this drainage there were still some small natural creeks on the surface of the marsh in 1889 and the land must have been rough pasture and relatively unimproved. A back organic sand soil corresponding to this marsh land pasture has been identified in the monolith sampled from Trench 3 and is also found in Trenches 1 and 2. This soil was completely structureless and homogenous and it is possible in the area of the excavation it may have been a horticultural soil since allotments were set out immediately to the south of the site in 1928. Although the lack of finds or any modern inclusions in this deposit strongly suggests it was a pasture soil developed on the surface of the drained marsh land peat. The iron

drain (68) observed in Trench 6 was probably created at this time of pasture or horticulture.

The one inch Ordnance Survey maps of the area show that between 1889 and 1905 the land to the south and east of Langer Road was laid out in a grid street plan and was infilled with housing by 1928. To the west of Langer Road there was very little building at this time and no street pattern was laid out on this piece of land sandwiched between the railway and the road. In 1905 there is no building recorded at 2–4 Langer Road with only an east–west footpath or track marked on the northern boundary of the plot which probably crossed the adjacent rough pasture. In 1928 a little way to the south of the present site allotments were established on the western side of the road.

The most significant change is the building of what appears to be a Baptist Church on this site sometime between 1905 and 1928. It stands alone at this time on the western side of Langer Road with only small developments in isolation to the south. As there is a Baptist Church today on the eastern side of the road (built 1916) the label on the map may refer to that church or originally there may have been two buildings. Therefore the large-scale dumping of clay – some of which appeared to be *in situ* when recorded on site – and subsequent dumps of sand and other layers of make up were initiated to raise the land level between 1905 and 1928 for the construction of the Baptist church. The source of the orange and grey mottled slightly organic clay found across the site (e.g. in Trench 3 contexts (38) and (39)) was from an inland, possibly pre-Holocene source since there were no marine indicators in the sediment. Some of the sands were from a marine source, for example (36) in Trench 3. The rest of the make up was from a mixture of sources including the probable demolition of the Baptist church itself late in the 20th century. The late 19th-century pottery and inclusions seen throughout most of the upper layers of the trenches supports the suggestion that the layers were deliberately dumped. There is often a very sharp horizon between one layer and the next which also suggests that they were deliberately dumped as levelling layers.

The area of recent dumping in the south west of the site was probably done to deliberately fill in a last low lying area prior to the creation of the road which until recently had run through the middle of the site.

Recommendations for future work based upon this report will be made by Suffolk County Council Archaeological Service Conservation Team.

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Appendix 1a: Context Summary

Context	Category	Description	Period
1	Deposit	Modern topsoil	Late 19th Century–Modern
2	Deposit	Modern make-up	Late 19th Century–Modern
3	Deposit	Black organic silt	Late 19th Century–Modern
4	Deposit	Greyish yellow clay	Late 19th Century–Modern
5	Deposit	Black organic silt	Late 19th Century–Modern
6	Deposit	Bluish yellow clay	Late 19th Century–Modern
7	Deposit	Dark grey silty clay	Late 19th Century–Modern
8	Deposit	Grey silty sand	Late 19th Century–Modern
9	Deposit	Orange grey gravel hardcore	Late 19th Century–Modern
10	Deposit	Yellow orange clay	Late 19th Century–Modern
11	Deposit	Black organic silty gravel	Late 19th Century–Modern
12	Deposit	Grey silty clay	Late 19th Century–Modern
13	Deposit	Grey clay and gravel	Late 19th Century–Modern
14	Deposit	Greyish brown silty clay	Late 19th Century–Modern
15	Deposit	Mid-grey silty clay	Naturally Occurring
16	Deposit	Black tenacious sandy clay	Naturally Occurring
17	Deposit	Soft grey sand	Naturally Occurring
18	Deposit	'beach sand'	Naturally Occurring
19	Deposit	Orange brown sand	Naturally Occurring
20	Deposit	Modern backfill	Late 19th Century–Modern
21	Deposit	Modern make-up	Late 19th Century–Modern
22	Deposit	Orange grey clay gravel	Late 19th Century–Modern
23	Deposit	Dark grey silty clay	Late 19th Century–Modern
24	Deposit	Grey blue clay	Late 19th Century–Modern
25	Deposit	Dark grey silty clay	Late 19th Century–Modern
26	Deposit	Bluish grey clay	Late 19th Century–Modern
27	Deposit	Orange grey clay	Late 19th Century–Modern
28	Deposit	Brownish black organic clay	Late 19th Century–Modern
29	Deposit	'Beach sand'	Naturally Occurring
30	Deposit	Brown clay	Naturally Occurring
31	Deposit	Mid-grey silty clay	Naturally Occurring
32	Deposit	Light grey coarse sand	Naturally Occurring
33	Deposit	Orange mottled beach sand	Naturally Occurring
34	Deposit	Modern topsoil	Late 19th Century–Modern
35	Deposit	Yellowish grey and black clay silt	Late 19th Century–Modern
36	Deposit	Dark yellow gritty sand	Late 19th Century–Modern
37	Deposit	Dark grey clayey silt	Late 19th Century–Modern
38	Deposit	Bright orange clay	Late 19th Century–Modern
39	Deposit	Bluish yellow clay	Late 19th Century–Modern
40	Deposit	Brownish black clayey silt	Late 19th Century–Modern
41	Deposit	Greyish blue clay	Late 19th Century–Modern
42	Deposit	Black sandy silt	Late 19th Century–Modern
43	Deposit	Pale yellow sandy silt	Late 19th Century–Modern
44	Deposit	Bluish black clay	Late 19th Century–Modern

Context	Category	Description	Period
45	Deposit	Yellow orange clay	Late 19th Century–Modern
46	Deposit	Dark brownish purple clay	Late 19th Century–Modern
47	Deposit	Mid-grey sandy clay	Naturally Occurring
48	Deposit	Dark grey alluvial sand	Naturally Occurring
49	Deposit	Modern dumping	Late 19th Century–Modern
50	Deposit	Brownish orange clay	Late 19th Century–Modern
51	Deposit	Orange clay gravel	Late 19th Century–Modern
52	Deposit	Grey blue clay	Late 19th Century–Modern
53	Deposit	Brownish grey clay	Late 19th Century–Modern
54	Deposit	Orange blue clay	Late 19th Century–Modern
55	Deposit	Light orange blue sandy silt	Late 19th Century–Modern
56	Deposit	Mid-bluish red clayey sand	Late 19th Century–Modern
57	Deposit	Bright yellow orange clay sand	Late 19th Century–Modern
58	Deposit	Blue and yellow clayey sand	Late 19th Century–Modern
59	Deposit	Black 'beach sand'	Naturally Occurring
60	Deposit	Recent dumping	Late 19th Century–Modern
61	Deposit	Orange grey hardcore	Late 19th Century–Modern
62	Deposit	Bluish grey clay	Late 19th Century–Modern
63	Deposit	Pale orange sand	Late 19th Century–Modern
64	Deposit	Grey blue clay	Late 19th Century–Modern
65	Deposit	Grey clayey sand	Naturally Occurring
66	Deposit	Soft grey pure sand	Naturally Occurring
67	Deposit	Yellow 'beach sand'	Naturally Occurring
68	Structure	Iron drain	Late 19th Century–Modern
69	Deposit	Recent dumping	Late 19th Century–Modern
70	Deposit	Pale yellowish blue clay	Late 19th Century–Modern
71	Deposit	Brownish orange sandy clay	Late 19th Century–Modern
72	Deposit	Greenish blue clay	Late 19th Century–Modern
73	Deposit	Brownish orange sandy clay	Late 19th Century–Modern
74	Deposit	Greenish blue clay	Naturally Occurring
75	Deposit	Grey 'beach sand'	Naturally Occurring
76	Structure	Modern possible structure	Naturally Occurring
77	Deposit	Dumped deposit	Late 19th Century–Modern
78	Deposit	Recent dumping	Late 19th Century–Modern
79	Deposit	Greyish blue clay	Late 19th Century–Modern
80	Deposit	Pale yellow sand mixed	Late 19th Century–Modern
81	Deposit	Orange yellow silty sand	Late 19th Century–Modern
82	Deposit	Brownish orange clayey gravel	Late 19th Century–Modern
83	Deposit	Reddish brown silty sand	Late 19th Century–Modern
84	Deposit	Yellow gritty sand	Late 19th Century–Modern
85	Deposit	Dark grey silty sand	Late 19th Century–Modern
86	Deposit	Pure grey sand	Late 19th Century–Modern
87	Deposit	Pure grey 'beach sand'	Late 19th Century–Modern
88	Deposit	Recent dumping	Late 19th Century–Modern
89	Deposit	Orange sandy clay	Late 19th Century–Modern
90	Deposit	Greenish grey clay	Late 19th Century–Modern

Context	Category	Description	Period
91		Black silty clay	Late 19th Century–Modern
92		Greenish clay	Late 19th Century–Modern
93		Reddish black organic clayey silt	Late 19th Century–Modern

Appendix 1b: OASIS feature summary table

Period	Feature type	Quantity
Modern (1900 to 2050 AD)	Iron drain	1
	Unidentified Structure/feature	1