

**THE MARTLETS, SEA ROAD, EAST PRESTON, WEST SUSSEX:
AN ARCHAEOLOGICAL EVALUATION AND WATCHING BRIEF
REPORT**

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1 NON-TECHNICAL SUMMARY

An archaeological evaluation and watching brief was undertaken by AOC Archaeology Group between the 24th September and 14th November 2007 at the site of The Martlets Care Home, East Preston, on behalf of Warings Contractors. The aim of the evaluation and watching brief was to assess the impact of the proposed residential redevelopment on any surviving archaeological remains, and record any features encountered.

The evaluation comprised four machine excavated trenches, three of which measured 20m by 2m, with the remaining trench measuring 30m by 2m. Only one trench was recognised as containing archaeological material, consisting of a late post-medieval boundary ditch.

The evaluation trenches also indicated that modern horizontal truncation of deposits may occurred across the site, potentially associated with construction and use of the existing Martlets Care Home.

The focus of the archaeological watching brief was the excavation and recording of a World War Two air raid shelter present on site. Further observations made during the watching brief recorded additions elements of the same post-medieval boundary ditch discovered during the evaluation.

Overall, a low density of archaeological significant features was encountered. This indicates the potential for archaeological deposits to be present on the remainder of site is limited.

2 INTRODUCTION

Site Location (Figures 1 & 2)

- 2.1 The site is centred on National Grid Reference (NGR) TQ 07100 02232, and is within land bounded by Fairlands Road to the north, Sea Road to the east, recreational park and residential properties to the south and residential properties to the west. The site is approximately rectangular in shape, measuring 0.55 hectares.

Planning Background

- 2.2 Planning permission to undertake the development has been granted under the Town & Country Planning Act (1990) (Ref No.EP/8/04), subject to conditions. Condition 16 states that:

“No development shall take place on site until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation, which has been submitted by the applicant and approved by the Local Planning Authority.

This condition has been required in accordance with *Planning Policy Guidance: Archaeology and Planning* (PPG 16) issued by the Department of the Environment in 1990 (DoE, 1990), and was recommended by the LPA archaeological advisor.

- 2.3 The application site does not fall within a designated area of archaeological importance or within a Conservation Area.
- 2.4 AOC Archaeology Group Ltd were commissioned by Warings Contractors to carry out the Archaeological Evaluation and Watching Brief. Subsequently a *Written Scheme of Investigation* (WSI) was prepared (AOC 2007) which detailed how the Evaluation, comprising of four trenches, and Watching Brief would be undertaken. The requirement for a WSI was specified in the Archaeological Brief (WSCC 2003).
- 2.5 The Brief (WSCC 2003) also specified the requirement for up to two test pits to be excavated for the purpose of geoarchaeological observations and recording, in order to examine buried ‘raised beach’ deposits. The geoarchaeologist, Chris Pine, was contracted to undertake these observations (Appendix D).
- 2.6 Prior to commencing work a unique code (**MSR07**) was created for the project.

- 2.7 The archaeological investigation was undertaken in two stages. The first stage consisted of an Archaeological Evaluation to assess the archaeological potential of the site, and a Watching Brief to record a World War Two Air Raid Shelter prior to its removal. Due to the results of the Archaeological Evaluation a second stage of Watching Brief was instigated to identify further possible archaeological remains.
- 2.8 On site field work was undertaken between 24th September and 14th November 2007.

Geology and Topography

- 2.9 The British Geological Survey 1:50000 scale map (BGS Sheet 317/332), indicates that the site is situated upon Upper Cretaceous Middle Chalk Formation, overlaid by Quaternary Brickearth.
- 2.10 The site lies on relatively flat ground, at an average level of c.8.3m Above Ordnance Datum (AOD).
- 2.11 Geotechnical investigations carried out on site indicated that a limited quantity of made ground deposits were present in the southern area of site, up to 0.2m in places. This is in addition to c.0.4m of topsoil deposits overlying brickearth across the full area of site (Ashdown Site Investigations 2003).

3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND.

- 3.1 No previous archaeological investigations have occurred on the site and little in the way of archaeological excavation has occurred in the area. There are a number of entries in the West Sussex Historic Environment Records (HER) for archaeological features or chance finds within 1km of the site.
- 3.2 A listed building search was also commissioned for the site, however due to the unavailability of staff at the search institutions this was not available prior to the issuing of this document.

Prehistoric (before c.AD 43)

- 3.3 Flint implements and pottery sherds were recovered from a ploughed field in East Preston in the 1960's (2242-MWS3128). There is no date available for the finds and the location is general to the area surrounding of TQ 06780 01620.

- 3.4 A Late Bronze Age hoard of eight palstaves and a socketed axe was uncovered on The Ridings approximately 500m south-west of the site. The finds have been tentatively dated to 1000-701 BC.

Roman (c. AD 43-410)

- 3.5 Several findspots and excavated cremations uncovered in the local area suggest that East Preston was occupied during the Roman period. Fragments of C1 pottery and domestic tiles (2255-MWS3138) were uncovered during excavations for a bungalow on North Lane, located to the north-east of the site. Further tessellated floor tiles were uncovered along with an undated bronze hammer at the junction of The Street and Sea Lane approximately 230m south-west of the site (6416-MWS5233).
- 3.6 Foundation excavations at 52 Sea Road, south of the proposed development, uncovered a cremation urn with associated samian and fragments of a cream paste flagon (2253-MWS5563). The pottery dates to 43-199 AD. Further cremations were uncovered during the excavation of service trenches on Vermont Drive. Along with the pottery dated to 0-299 AD was a bronze key (MWS5563).
- 3.7 Approximately 550m south of the proposed site, three sherds identified as Roman cooking pots were recorded during the development of the swimming pool at Seafield, Seafield Road (2286-MWS3164).

Anglo-Saxon (c.451-1065)

- 3.8 During the Saxon period, East Preston is thought to have been owned or in the possession of a woman called Wulfeva. The Domesday Book suggests that during her reign of 'prestetune', the land was occupied by 15 village households who had tenancy of the whole land (Standing 2000).
- 3.9 No *in situ* Saxon archaeology has been recorded in the local area however a 7th century mount was uncovered approximately 1080m north-east of the site near Saxon Road (5186-MWS4259).

Medieval (1066 - 1485)

- 3.8 After the Saxon reign the now manorial East Preston was owned by a succession of lords and old Sussex families. Several owners were based in Arundel, whilst others with multiple manors could pick their residence or choose to live in the family lands such as Angmering. Up until this point there is no evidence that an actual manor house was constructed at East Preston. During the 12th century and after the initial ownership by the Sheriff of Arundel the land passed to the Milliers family. It is believed that during their ownership a manor house was constructed and the Parish Church of East Preston was established (Standing 2000).

- 3.9 Unlike the Saxon period, the ownership of the land in East Preston now belonged to the manorial lord. The local population were now only smallholders who would not only pay rent on their plot of land but were also required to work on the manorial lands (Standing, 2000).
- 3.10 There are no entries in the HER record for the medieval period within 1km of the site suggesting that the site is located outside of the medieval village.

Post-medieval (1485 – modern)

- 3.11 No *in situ* post-medieval archaeological remains have been recorded within 1km of the site however the site lies within the historical settlement of East Preston. The area of the site is thought to have been part of Bakers Croft associated with Baytree Cottage (26 Sea Road) which dates to the 16th century. Activities associated with the croft may remain on site.
- 3.12 Its use as a croft continued until 1871 when Lorne Villa, a private residence, was constructed (Figures 4-6). The lease of the Villa was taken over after 1917 by the Union Workhouse (located directly north) and it was used as the workhouse infirmary. Over the next 50 years the building was demolished, rebuilt as the Workhouse Nurses Home and converted into a residential Care Home (Figures 7-11). During the Second World War an air raid shelter was also constructed on site for the nurses.
- 3.13 The 1943 Ordnance Survey shows the study site occupied by P.A. Institution (i.e. the former Martlets Nursing Home), and it is likely that its construction was contemporary with the development of Lorne Villa in the early 20th century.
- 3.14 The Union Workhouse (i.e. to the north of the study site) was demolished in 1969 and by 1972 a residential estate had been constructed on its site along with the Fairland's Road.

4 STRATEGY

Aims of the Investigation

- 4.1 The aims of the Evaluation were defined as being:
- To establish the presence/absence of archaeological remains within the site.
 - To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered.
 - To record and sample excavate any archaeological remains encountered.
 - To assess the ecofactual and environmental potential of any archaeological features and deposits.

- To determine the extent of previous truncations of the archaeological deposits.
 - To enable the West Sussex County Council archaeological advisor to make an informed decision on the status of the condition on the planning permission, and any possible requirement for further work in order to satisfy that condition.
 - To make available to interested parties the results of the investigation in order to inform the mitigation strategy as part of the planning process.
- 4.2 The specific objectives of the Evaluation were to:
- Determine the presence of any remains of medieval date on the site.
 - Determine the presence of any remains of related to Lorne Villa on the site.
 - Assess the potential of the site to inform on the post-medieval development and chronology of the site.
 - Assess the presence, extent and nature of the buried 'raised beach' deposits on site.
- 4.3 The specific aim of the Watching Brief was to:
- Record and survey the World War Two Air Raid shelter located on site.
 - Determine if further post-medieval features are present on site.
- 4.4 The final aim is to make public the results of the investigation, subject to any confidentiality restrictions.

Research Design

- 4.5 An Archaeological Brief was prepared by West Sussex County Council (2007), with a Written Scheme of Investigation subsequently prepared by AOC Archaeology (2007). This involved the excavation of four evaluation trenches and a Watching Brief focused on the recording of the World War Two Air Raid Shelter, in addition to further archaeological observations (Figure 2).
- 4.6 Site procedures were defined in the Written Scheme of Investigation (AOC 2007). All practices were carried out in accordance with local and national guidelines (English Heritage 1998 & IFA 1994). Provision was made for a report as defined in the Written Scheme of Investigation.

Methodology

- 4.7 During the fieldwork the location of several trenches had to be altered, in agreement with WSCC, to avoid obstructions and aid site logistics (Figure 2). The alterations are as follows:

- Trench 1 - Orientation altered slightly to enable full length to be excavated within the garden area.
 - Trench 2 - Location unaltered.
 - Trench 3 - Relocated further to the east due to obstructions adjacent to the trench.
 - Trench 4 - Relocated further to the north due to obstructions adjacent to the trench.
- 4.8 The initial Watching Brief focused of on the recording of a World War Two Air Raid Shelter (Area 5), with the latter phase of Watching Brief following the foundation trenching programme of work (Trenches 6 & 7).
- 4.9 Levels for each context were established relative to Ordnance Datum, taken from a bench mark on the southern wall of 47 - 49 Sea Road (7.62m Above Ordnance Datum). A Temporary Bench Mark (TBM) was established at the eastern gate to site at 8.34m AOD.
- 4.10 The evaluation and watching brief was conducted by the author and Chris Adams under the overall management of Ron Humphrey. The site was monitored by John Mills, Archaeological Officer for West Sussex County Council.

5 RESULTS

Trench 1 (Figure 3 and Plate 1)

5.1 Surface of Trench = 8.48m AOD (Above Ordnance Datum)

Level (OD)	Depth	Context Number	Description
8.48-8.23m	0.00m	(1/001)	Tarmac and CBM make-up.
8.48-8.28m	0.00m	(1/002)	Topsoil. Soft, mid brown, clayey silt.
8.23-7.95m	0.25m	(1/004)	Soil horizon. Soft, bluish greyish brown, silty clay.
8.23-7.93m (NFE)	0.23m	(1/003)	Natural. Firm, light orangey brown, silty clay.

5.2 The earliest recorded context in Trench 1 was a naturally deposited firm, orangey brown, silty clay Brickearth (1/003). At its highest it was recorded at 8.23m AOD. Lying above the natural deposit (1/003) at the southern end of Trench 1 was a 0.28m thick layer of soft, blueish grey, silty clay (1/004), which was barren of inclusions. The colour and texture and this deposit suggests it may have been deposited under the influence of standing water, but the limited quantity of context (1/004) observed prevented further more detailed interpretation. At the northern end of Trench 1 the natural deposit (1/003) was overlain by up to 0.20m of brown, clayey silt topsoil (1/002). Deposited above context (1/004) was a 0.25m thick layer of modern made ground and tarmac.

5.3 No finds or features of archaeological significance were identified in Trench 1.



Plate 1. Trench 1 Looking Northwest

Trench 2 (Figure 3 and Plate 2)

5.4 Surface of Trench = 8.29m AOD

Level (OD)	Depth	Context Number	Description
8.29-8.09m	0.00m	(2/001)	Topsoil. Soft, mid brownish grey, clayey silt.
8.09-7.69m	0.20m	(2/002)	Made ground. Compacted, mid orangey brown, silty clay, occasional charcoal flecks.
7.69-7.39m (NFE)	0.60m	(2/003)	Natural. Firm, light orangey brown, silty clay.

5.5 The earliest context observed in Trench 2 was a naturally deposited firm, orangey brown, silty clay Brickearth (2/003). At its highest it was recorded at 7.69m AOD. Above the natural deposit was a layer of compact, brownish orange, silty clay made ground (2/002), up to 0.40m thick. The made ground contained occasional charcoal flecks and small flints. The sequence was sealed by 0.20m of soft, brownish grey, clayey silt topsoil (2/001).

5.6 No finds or features of archaeological significance were identified in Trench 2.



Plate 2. Trench 2 Looking West

Trench 3 (Figures 3 & 4, and Plate 3)

5.7 Surface of Trench = 8.39m AOD

Level (OD)	Depth	Context Number	Description
8.39-7.99m	0.00m	(3/001)	Tarmac & CBM make-up layer.
8.39-7.97m	0.00m	(3/003)	Made Ground. Loose, CBM and tarmac rubble in sandy mortar matrix.
8.39-8.12m	0.00m	(3/004)	Soil horizon. Soft, mid brownish grey, clayey silt.
8.12-7.70m (NFE)	0.27m	(3/009)	Natural. Firm, orangey brown, silty clay.

- 5.8 The earliest observed context observed in Trench 3 was a naturally deposited firm, orangey brown, silty clay Brickearth (3/009). At its highest it was recorded at 8.12m AOD. Truncating the natural deposit at the southern end of the trench was ditch [3/008], located on an east-west alignment, measuring 2.90m wide at its greatest extent and 0.70m deep. The ditch possessed concave sides and rounded

- base, with a shallower gradient observed on the northern side of the ditch. Ditch [3/008] contained three fills (3/007) (3/006) and (3/005), all similar in nature except for variations in colour, and thought to represent phases of natural soil accumulation. The blueish grey appearance of primary fill (3/007) indicates that the silty clay deposit may have been deposited in a damp environment, and contained both post-medieval CBM and animal bone fragments. Tertiary fill (3/005) accumulated beyond the established limits of the ditch cut, indicating disuse of the ditch. The shape, size, and post-medieval date of ditch [3/008] suggest it was cut to delineate the boundary between two adjacent properties.
- 5.9 Overlying the natural deposit in the central area of Trench 3 was a silty soil horizon (3/004) recognised as topsoil and measuring 0.30m thick, containing fragments of modern CBM. At the northern end of the trench topsoil (3/004) had been impacted by a layer of modern made ground (3/003), while at the southern end of the trench topsoil had been truncated by vertical cut [3/002] to facilitate the construction of the modern car park surfacing (3/001).



Plate 3. Ditch [3/008] Looking Northwest

Trench 4 (Figure 3 and Plate 4)

5.10 Surface of Trench = 8.40m AOD

Level (OD)	Depth	Context Number	Description
8.40-7.70m	0.00m	(4/001)	Tarmac & CBM make-up layer.
8.40-8.00m	0.00m	(4/004)	Topsoil. Soft, dark grey, clayey silt.
8.00-7.50m (NFE)	0.40m	(4/005)	Natural. Firm, orangey brown, silty clay.

5.11 The earliest context observed in Trench 4 was a naturally deposited firm, orangey brown, silty clay Brickearth (4/005). At its highest it was recorded at 8.00m AOD. Sealing the natural deposit in the eastern area of Trench 4 was a dark grey, clayey silt topsoil deposit (4/004), up to 0.40m thick. In the western area of the trench and 0.12m thick concrete slab (4/003) was recorded as overlying the natural deposit at a height of 7.52m AOD. It appears the concrete slab was present prior to cut [4/002] truncating the existing deposits to facilitate the current tarmac car park surface (4/001) in the western area of Trench 4.

5.12 No finds or features of archaeological significance were identified in Trench 4.



Plate 4. Trench 4 Looking North

Area 5 (Figures 5, 6 & 7, and Plates 5, 6 & 7)

5.13

Level (OD)	Context Number	Description
9.60-8.28m	(5/001)	Made ground. Firm, orangey brown, silty clay, occasional small fragments CBM and modern debris.
8.28-7.78m (NFE)	(5/004)	Natural. Firm, orangey brown, silty clay.

5.14 The earliest recorded deposit was a naturally deposited firm, orangey brown, silty clay (5/004). At its highest it was observed at 8.28m AOD.

5.15 The natural deposit had been truncated by a large vertically sided cut [5/003], measuring 1.40m deep. This had been cut to facilitate the construction of a World War Two air raid shelter [5/002].

5.16 Air raid shelter [5/002] was an elongated L-shaped construction, aligned east-west, with approximately half the height of the structure constructed below ground level. The body of the structure measured 15.50m long by 1.60m wide, and was 2.25m in height. The structure was constructed of prefabricated concrete panels and frames. Fifteen concrete frames, 0.15m wide, were located at regular 0.85m intervals along the length of the structure. The frames then acted as support for the insertion of 0.10m thick concrete floor, wall and apex roof panels. The concrete wall panels located at the entrance to the air raid shelter were twice as thick as the standard wall panels. It appeared that the roof panel joins had been sealed using a tar like substance.

5.17 The air raid shelter had one main entrance/exit portal at the eastern end of the structure, consisting of eight concrete steps leading down from ground level. Two emergency roof hatches, measuring 0.70m square, were located to the western end of the structure, sealed by concrete slabs at the time of the fieldwork. The hatch openings were located 0.60m above the roof level of the shelter due to the construction of a vertical brick shaft for each hatch. The brickwork indicated that the shafts were constructed in two phases. The eastern shaft was constructed first using substandard craftsmanship due to an irregular style of bond and poor pointing, with the later shaft constructed to a higher standard abutting its western side. The main entrance and the two hatches are the only openings to the structure.

5.18 The interior was barren of features except for a hand operated water pump on the western wall, adjacent to the main entrance/exit portal. Parallel sets of twin post

- holes were identified in the floor of the structure, indicating that wooden benches were originally present running the full length of the structure on either wall, which had been removed at some point in the past. Rotted timbers present near the base of the stairs also suggest the structure may have had a wooden doorway at this location in the past. No attachment points for wall fittings were observed, indicating the shelter had no fixed internal lighting or climbing rungs associated with the roof hatches. No graffiti was observed within the structure.
- 5.19 Once completed, the walls and roof of air raid shelter [5/002] had been sealed by up to 0.8m of silty clay made ground, thought to have derived from the material excavated from cut [5/003], forming a linear mound. The only elements left exposed were the main entrance/exit portal (which had been sealed using concrete slabs during the late 20th century) and roof hatches.



Plate 5. Air Raid Shelter Prior to Removal of Overburden Looking Southeast



Plate 6. Air Raid Shelter with Overburden Removed Looking Southeast



**Plate 7. Internal View of Western End of Air
Raid Shelter**

Trench 6 (Figure ? and Plate ?)

5.20 Surface of Trench = 8.00m AOD

Level (OD)	Depth	Context Number	Description
8.00-7.93m	0.00m	(6/001)	Mixed silty clay/Brickearth. Made ground.
7.93-7.69m	0.06m	(6/002)	Redeposited Brickearth. Soft, orangey brown, sandy silt.
7.69-7.27m	0.31m	(6/003)	Soil horizon. Soft, mid to light brown, sandy silt. Post-medieval.
7.27-6.75m (NFE)	0.73-1.25m	(6/006)	Natural. Soft, orangey brown, sandy silt.

5.21 The earliest context observed in Trench 6 was a naturally deposited soft, orangey brown, sandy silt Brickearth (6/006). At its highest it was recorded at 7.27m AOD. Sealing the natural deposit was a mid brown, sandy silt soil horizon (6/003), up to 0.40m thick, containing occasional fragments of post-medieval CBM and clay pipe. Soil horizon (6/003) also contained irregular groups of charcoal flecks. Lying over contact (6/003) was a soft, orangey brown, sandy silt (6/002), approximately 0.25m thick and barren of any cultural material. Due to its stratigraphic position and sterile character, this context was thought to be a layer of redeposited Brickearth.

5.22 Truncating layer (6/002) was the cut of an east-west orientated boundary ditch [6/005] with a concave profile, measuring approximately 1.80m wide and 0.55m deep. Ditch [6/005] was filled by a soft, bluish grey, silty clay deposit (6/004) containing large fragments of post-medieval CBM. The ditch was sealed by a thin layer of modern mixed silty clay and Brickearth made ground.

Trench 7 (Figure ? and Plate ?)

5.23 Surface of Trench = 8.35m AOD

Level (OD)	Depth	Context Number	Description
8.35-8.30m	0.00m	(7/001)	Mixed silty clay/Brickearth. Made ground.
8.30-7.95m	0.05m	(7/002)	Soil horizon. Soft, mid brownish grey, clayey silt.
7.95-7.35m	0.35-1.00m	(7/003)	Natural. Firm, orangey brown, silty clay.

(NFE)			
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- 5.24 The earliest context observed in Trench 7 was a naturally deposited firm, orangey brown, silty clay Brickearth (7/003). At its highest it was recorded at 7.95m AOD. Sealing the natural deposit was a mid brownish grey, clayey silt soil horizon (7/002), up to 0.30m thick. Soil horizon (7/002) did not contain any observable inclusions, but was truncated in two locations by modern brick built drainage channels. The most recent deposit in the sequence was a 0.05m thick layer of modern mixed made ground material.
- 5.25 No finds or features of archaeological significance were identified in Trench 7.

6 FINDS

- 6.1 Finds retrieved were from deposit (3/007) and (6/004), consisting of several fragments of post-medieval Ceramic Building Material (CBM), clay pipe, and domestic animal bone fragments.

7 CONCLUSIONS

- 7.1 During the course of the archaeological Evaluation on site the nature and extent of the archaeological potential was defined, in addition to the associated disturbance of this potential. The only significant feature encountered was a post-medieval boundary ditch. In addition, the Watching Brief was successful in fully recording the exterior and interior elements to the World War Two air raid shelter present on site.
- 7.2 The evaluation successfully characterised both the stratigraphic sequence and archaeological potential of the site. Natural silty clay deposits were observed in all trenches, between a height of 7.69m and 8.23m AOD. This is consistent with the general level topography of the site.
- 7.3 Trench 4 and Trench 6 were the only two trench in which archaeological features were recorded, with both trenches containing sections of a wide post-medieval boundary ditch on an east west alignment. The positioning of the ditch sections in each trench indicates that the same ditch is represented. The ditch does not appear on any of the ordnance survey maps, indicating the ditch belongs to a previous field boundary pre-dating the mid 19th century.
- 7.4 The sequence in all six trenches was impacted by made ground. In Trenches 1, 3 and 4 the made ground is related to the construction of modern car park or yard surfaces. In Trench 6 & 7 the made ground was representative of the current programme of demolition. Whereas, in Trench 2, the made ground lies between

- the natural deposit and the topsoil, suggesting landscaping had taken place. Horizontal truncation of the existing deposits would have occurred prior to the artificial levelling and compaction of the ground surface and reinstatement of topsoil. This may assist in explaining the limited soil sequence observed in the remaining trenches, with a maximum topsoil thickness of 0.25m directly overlying the natural deposit. This may suggest that landscaping has occurred across the site, potentially associated with the construction and use of the site by either Lorne Villa or the existing Martlets Nursing Home.
- 7.5 The survival of the post-medieval ditch indicates that any previous horizontal truncation was limited to the removal of the upper elements of the sequence. No features associated with Lorne Villa, or activity pre-dating the late post-medieval period was identified on site.
- 7.6 The presence of a World War Two air raid shelter on site had been previously recognised, with the Archaeological Watching Brief designed to record the structure before its removal. At the time of recording the shelter was in good condition, apart from the prior removal of any interior fittings. Even when in use it is likely the shelter would have been minimally furnished, designed to be basic yet adequate in its desired role. The air raid shelter is a good example of a surviving World War Two civil defence structure.
- 7.7 Overall, a low density of archaeological significant features was encountered, represented by a single late post-medieval boundary ditch. This indicates the potential for archaeological deposits to be present on the remainder of site is limited.

8 PUBLICATION

- 8.1 Due to the nature of the project publication is likely to be limited to a summary in the West Sussex Archaeology Round-up and publication via the Archaeological Data Service (ADS) (Appendix C).

9 ARCHIVE DEPOSITION

- 9.1 The archive, consisting of paper records, finds, and digital photographs, will be deposited with the Rustington Heritage Association Museum Services.

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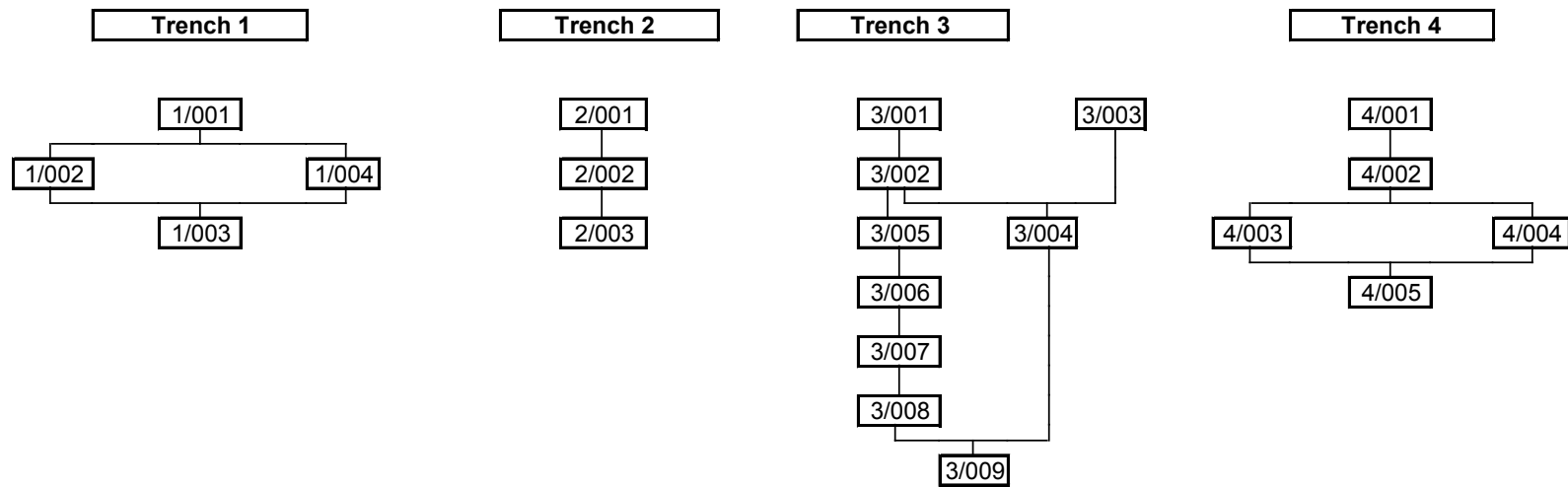
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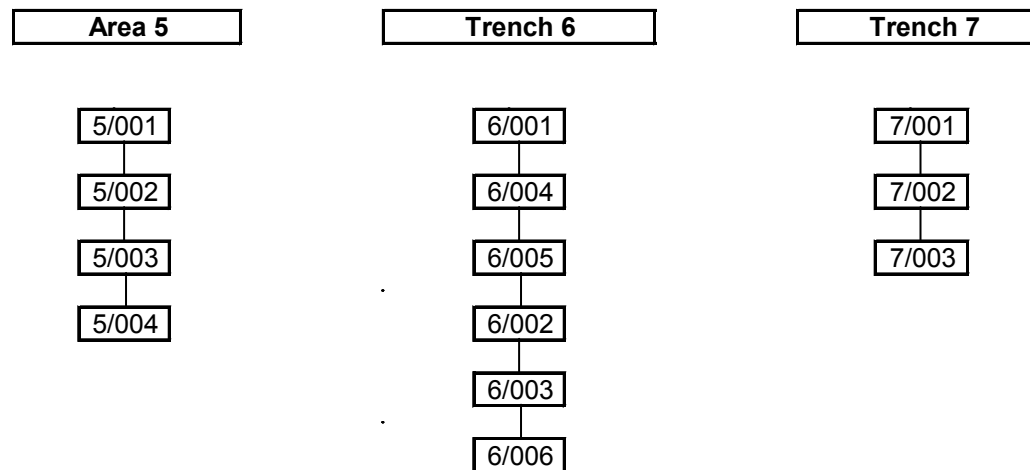
APPENDIX A – Context Register

Context No.	Context Description	Length	Width	Depth
1/001	Tarmac	20.00m	2.00m	0.25m
1/002	Topsoil	5.70m	2.00m	0.20m
1/003	Natural Brickearth	20.00m	2.00m	N.F.E
1/004	Soil Horizon	5.20m	2.00m	0.28m
2/001	Topsoil	20.00m	2.00m	0.20m
2/002	Made Ground	20.00m	2.00m	0.40m
2/003	Natural Brickearth	20.00m	2.00m	N.F.E
3/001	Tarmac	5.70m	2.10m	0.40m
3/002	Driveway Cut	5.70m	2.10m	0.40m
3/003	Made Ground	4.30m	2.10m	0.42m
3/004	Topsoil	9.50m	2.10m	0.27m
3/005	Fill of Ditch	4.44m	2.10m	0.22m
3/006	Fill of Ditch	2.50m	2.10m	0.20m
3/007	Fill of Ditch	1.40m	2.10m	0.42m
3/008	Cut of Ditch	4.44m	2.10m	0.84m
3/009	Natural Brickearth	19.50m	2.10m	N.F.E
4/001	Tarmac	13.50m	2.00m	0.70m
4/002	Car Park Cut	13.50m	2.00m	0.70m
4/003	Concrete	3.00m	2.00m	0.12m
4/004	Topsoil	16.50m	2.00m	0.40m
4/005	Natural Brickearth	20.00m	2.00m	N.F.E
5/001	Made Ground	17.00m	2.50m	1.00m
5/002	Air Raid Shelter	15.50m	1.60m	2.00m
5/003	Cut for Air Raid Shelter	15.50m	1.60m	1.00m
5/004	Natural Brickearth	17.00m	2.50m	N.F.E
6/001	Made Ground			
6/002	Redeposited Brickearth			
6/003	Soil Horizon			
6/004	Fill of Ditch			
6/005	Cut of Ditch			
6/006	Natural			

Context No.	Context Description	Length	Width	Depth
7/001	Made Ground			
7/002	Soil Horizon			
7/003	Natural			

APPENDIX B- Trench Matrices





APPENDIX C – OASIS Form

2.12 OASIS ID: aocarcha1-32947

Project details

Project name	The Martlets, East Preston
Short description of the project	<p>An archaeological evaluation and watching brief was undertaken by AOC Archaeology Group between the 24th September and 14th November 2007 at the site of The Martlets Care Home, East Preston, on behalf of Warings Contractors. The aim of the evaluation and watching brief was to assess the impact of the proposed residential redevelopment on any surviving archaeological remains, and record any features encountered. The evaluation comprised four machine excavated trenches, three of which measured 20m by 2m, with the remaining trench measuring 30m by 2m. Only one trench was recognised as containing archaeological material, consisting of a late post-medieval boundary ditch. The evaluation trenches also indicated that modern horizontal truncation of deposits may occurred across the site, potentially associated with construction and use of the existing Martlets Care Home. The focus of the archaeological watching brief was the excavation and recording of a World War Two air raid shelter present on site. Further observations made during the watching brief recorded additions elements of the same post-medieval boundary ditch discovered during the evaluation. Overall, a low density of archaeological significant features was encountered. This indicates the potential for archaeological deposits to be present on the remainder of site is limited.</p>
Project dates	Start: 24-09-2007 End: 14-11-2007
Previous/future work	No / No
Any associated project reference codes	7914 - Contracting Unit No.
Any associated project reference codes	MSR07 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Community Service 1 - Community Buildings

Monument type	DITCH Post Medieval
Monument type	AIR RAID SHELTER Modern
Significant Finds	CBM Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	CLAY TABACO PIPE Post Medieval
Methods & techniques	'Sample Trenches'
Development type	Public building (e.g. school, church, hospital, medical centre, law courts etc.)
Prompt	Direction from Local Planning Authority - PPG16
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	WEST SUSSEX ARUN EAST PRESTON The Martlets, East Preston
Postcode	BN16 1JS
Study area	0.55 Hectares
Site coordinates	TQ 07100 02232 50.8091586779 -0.479743240436 50 48 32 N 000 28 47 W Point
Height OD	Min: 7.69m Max: 8.23m

Project creators

Name of Organisation	AOC Archaeology
Project brief	Local Authority Archaeologist and/or Planning Authority/advisory body

originator

Project design
originator AOC Archaeology

Project
director/manager Andy Leonard

Project supervisor Chris Clarke

Type of
sponsor/funding
body Developer

Name of
sponsor/funding
body Warings Contractors

Project archives

Physical Archive
recipient Littlehampton Museum

Physical Archive ID MSR07

Physical Contents 'Animal Bones','Ceramics'

Physical Archive
notes To be held at AOC until ready to archive.

Digital Archive
recipient Littlehampton

Digital Archive ID MSR07

Digital Contents 'Stratigraphic'

Digital Media
available 'Images raster / digital photography'

Digital Archive
notes To be held at AOC until ready to archive.

Paper Archive recipient	Littlehampton Museum
Paper Archive ID	MSR07
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Notebook - Excavation',' Research',' General Notes','Photograph','Plan','Report','Section'
Paper Archive notes	To be held at AOC until ready to archive.

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	THE MARTLETS, SEA ROAD, EAST PRESTON, WEST SUSSEX: AN ARCHAEOLOGICAL EVALUATION AND WATCHING BRIEF REPORT
Author(s)/Editor(s)	Clarke, C.
Date	2008
Issuer or publisher	AOC Archaeology
Place of issue or publication	London
Description	A4 text and illustrations

Entered by	Chris Clarke (chris.clarke@aocarchaeology.com)
Entered on	15 February 2008

APPENDIX D – Specialist Report

Summary Report On The Results Of Geoarchaeological Test Pitting Undertaken As A Component Part Of Archaeological Evaluation At Land At The Martlets, Sea Road, East Preston, West Sussex.

Application: WA/56/06

AUTHORS: C. A. PINE.

Site: The Martlets, Sea Road, East Preston, West Sussex.

Site centred at: approx. [NGR] TQ 0710 0223

Commissioning Agent: AOC Archaeology Group

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Figure 1: Site plan showing locations of Evaluation Test Pit 1 [at east terminal of Trench 4] –and Test Pit 2 [at southern terminal of Trench 1].

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Tables: 1-2. Tests pit logs.

- Introduction:
- Aims and objectives of the survey:
- Summary Review of Regional Palaeogeography

- Methodology:
- Discussion: Recorded stratigraphy
- Recommendations for additional work.
- Bibliography & referenced works

Figure 1

- **INSERT FIGURE 1 [AOC Figure 3]**

Introduction

This summary report presents details of the findings of a programme of Geoarchaeological investigation, by test pit excavation at the study site.

The work was guided by a 'Written Scheme of Investigation' [WSI] for survey works provided by AOC Archaeology

It is understood this Geoarchaeological summary report is to form a component part of the archaeological investigation report to be submitted by AOC Archaeology

Provision was made within the WSI for Geoarchaeological test pit survey [section 7.2]. The specification for work allowed for the excavation and recording of stratigraphic sequences at up to 2 spaced site locations where purposive geo archaeological evaluation might expose key sediment sequences that may correlate with raised beach deposits, specifically correlates of Norton Formation [stratotype Norton Farm SU 92560638] raised beach deposits.

Although no provision / requirement was made for sample analysis selected 'pinch' / 'sub' samples from representative sedimentary units were to be collected for laboratory based description to supplement field based descriptions.

- **Aims and objectives of the survey:**

The primary objectives of the field evaluation were:

- **Provide an initial assessment as to likely mode of deposition for sediment bodies/units at the site.**
- **Assess the Geoarchaeological and palaeogeographic significance / potential of sediment bodies / units present at the site.**
- Determine the presence of, or potential for, undisturbed primary context archaeological remains / artefacts in the sediments encountered.
- **Assess and attempt preliminary integration of the site stratigraphic model with selected key area sites of known Geoarchaeological and palaeogeographic significance.**

- **To establish the distribution and depth across the site of marine derived [raised beach sediment units] sediments that may be present within the site area.**
- To assess the nature and significance of key sediment units at the site that may be under threat of impact from proposed development works.

Summary Review of Regional Palaeogeography

The study site centred at approximately NGR0710 0223 lies at an approximate surface elevation of c. + 8.50 metres OD [Ordnance Datum] within the mid to lower area of the West Sussex Coastal Plain

The plain is widest between Chichester and Selsey where it attains a width of about 17km. To the east it narrows towards Black Rock, Brighton where the South Downs reach the sea. To the west the coastal plain merges into the Solent area between the Isle of Wight and Portsdown, Hampshire.

The coastal plain can be sub-divided into two geographical regions, comprising of an upper and lower area. The upper coastal plain consists of land above c. +15.0m O.D. [Ordnance Datum] and is restricted to a narrow strip of ground at the foot of the South Downs. Across much of the coastal plain the southern limit of the Upper Coastal Plain follows the east west orientated line of the A27 road. The lower coastal plain comprises the majority of the area and consists of all land below +15.0m O.D. and extends to the present day coastline. This sub-division, based on altitude, is clear between Chichester and Arundel, but to the east and west of this area the distinction between the upper and lower coastal plain is less clear.

The Pleistocene geological deposits of the West Sussex Coastal Plain fall into four discrete groups of sediments:

- Marine sands/gravels/silts associated with sea level high stands [interglacial, temperate stages] and the fine-grained sediments capping the marine sequence associated with the sea level regression phase.

- Coarse, poorly sorted angular flint gravels and silts associated with sea level low stands [periglacial, cold climate stages]. Typically these overlie and bury the interglacial marine deposits.
- Flint gravels deposited by fluvial [river] action in valleys such as the Arun and Adur.
- Sediments preserved in abandoned/buried channels such as those between Selsey and West Wittering.

These groups of sediments formed as a directly result of the changes in climate regime throughout the Quaternary. As a consequence of these temperature changes the Quaternary is marked by growth and decay of ice sheets resulting in changes in sea level of up to 150m.

The area of the coastal plain has therefore seen phases of sea-level attaining, or exceeding, modern datums during interglacial periods [leading to the deposition of marine sediments ultimately becoming raised beaches] and phases when sea-level fall resulted in the retreat of the sea and exposure of the floor of the English Channel [leading to deposition of coarse river gravels and solifluction deposits [Bellamy, 1995].

In addition to sea-level changes the area of the coastal plain appears to have been subjected to uplift as a result of tectonic processes [Preece *et al.*, 1990; Roberts and Parfitt, 1999]. The uplift is responsible for elevating the marine deposits above tidal envelopes for subsequent high sea-level events thereby preserving the deposits as raised beaches within the area [Bates *et al.*, 1997].

The unconsolidated Pleistocene deposits of the coastal plain overlie bedrock geologies consisting of Cretaceous Chalk or Tertiary clays and silts. The distribution of these bedrock geologies has important implications for the nature of the overlying Pleistocene deposits and, in particular, the ranges of the contained biological material.

In an early report describing the Pleistocene deposits of the West Sussex Coastal Plain, Prestwich [1859] attributed sands and gravels at Waterbeach [SU 895985], on the upper coastal plain, to marine deposition. By the early 20th century it was recognised that more

than one high sea-level event had occurred in the area and attempts to subdivide the coastal plain marine sediments were made by Palmer and Cooke [1923], Fowler [1932] and Calkin [1934]. Fowler [1932] recognised that at least two, altitudinally [and, by implication, chronologically] discrete beaches were present in the area. The series of sands and gravels at heights above 30m [100 feet] O.D. [Ordnance Datum] [forming the upper coastal plain] were comparable with the sequences reported by Prestwich from Waterbeach and more recently those discovered at Amey's Eartham Pit, Boxgrove [Roberts and Parfitt, 1999]. These have often collectively been referred to as the Goodwood-Slindon or '100 foot' Raised Beach [Bates *et al.*, 1997]. Conventionally a Hoxnian age was ascribed to the highest 30m raised beach [Shephard-Thorn and Kellaway, 1978]. However, the recent excavations at Amey's Eartham Pit, Boxgrove have suggested an age late within the Cromerian Complex for the raised beach that occurs between 30m and 43m O.D. [Roberts and Parfitt, 1999; but see Bowen and Sykes, 1994; Bates, 1996].

Within the area of the lower coastal plain, sediments were described in the Chichester area by Hodgson [1964] and [re]mapping of the area has been undertaken by the BGS [Berry and Shephard-Thorn, 1982; Shephard-Thorn *et al.*, 1982; Bristow and Wyatt, 1983; Lovell & Nancarrow, 1983]. To the east, deposits at comparable elevations include the sands and gravels at Black Rock, Brighton [Mantell, 1822; Martin, 1929; Shephard-Thorn and Wymer, 1977; Young and Lake, 1988]. Hodgson [1964] concluded that these low-lying aggradations were deposited during a single high sea-level stand during the Ipswichian interglacial and the sequence at Black Rock was identified as the 'type sequence'. The beach/cliff-line is commonly known, therefore, as the Brighton Raised Beach.

Recent work in the area suggests that this sequence of events is too simplistic and that as many as five altitudinally and lithostratigraphically distinct high sea-level aggradations can now be recognised [Bates *et al.*, 1997]. However, the precise number and relationship between beaches remains to be determined. For a full discussion of these deposits see Bates *et al.* [1997].

The altitude range and geographic location of the study site suggests that sequences at the study site may have the potential to correlate with lower [sand] elements of the of the 'Intermediate level' beach deposits [Aldingbourne / Brighton Norton]

Site specific: The study site boundary [area approximately 0.55ha in area] lies at an elevation of c. +8.00-8.50 metres AOD. At time of survey the site was utilised as a garden / open area to the main residential care home that occupies the west of the site.

The site is mapped by the British Geological Survey 1:50000 scale [Sheet 317/332] as lying on upper Cretaceous Chalk that is overlain by Brickearth silt [Quaternary]

Methodology:

Two purposive test pits were excavated using a JCB [or similar] excavator fitted with an approximately 1.80m wide toothless grading bucket. Test Pits for Test Pit 1-3 locations see Plan at Figure 1]. The use of a toothed bucket was considered satisfactory as the absence of archaeological features at location of test pits had been confirmed by ASE. Machining was in less than 5cm spits.

At all test pit locations selected sections were hand trowelled to section heights of less than c.1.50metres below ground level. All observations below c. 1.50metres were made from observations from the side of test pits and from arisings. Recording was undertaken using standard sedimentological terminology and colours recorded using a standard Munsell colour chart.

Whilst no provision was made at this assessment phase for controlled sample recovery selected pinch samples [c. 1ltr] were retained for off site examination and possibly preliminary analysis.

Selected section faces at each test pit location were photographed using digital camera.

The results of the survey are presented below:

RESULTS:

Table 1: Test pit: 1 [located at east terminal of evaluation Trench 4] Ground Level at: + 8.17m metres AOD.

UNIT	DEPTH BGL	DESCRIPTION
UNIT 7	0.00-0.20/25	10YR 3/2 very dark greyish brown silt. Matrix supports sparse sub angular flint clasts to 3cm diameter. The unit is moderately well rooted [Modern topsoil] 0.22/25 Moderately sharp horizontal contact [+7.92m OD]
UNIT 6	0.20/25-0.40	10YR 5/4 yellowish brown to 10YR 5/3 brown silts that dense firm and compact. No discernable structure. [subsoil] 0.40 diffuse horizontal contact [+7.77m OD]
UNIT 5	0.40-0.70	10YR 4/4 dark yellowish brown silt. Matrix is moderately firm and compact. No inclusions recorded [though weak modern cbm flecking through out] . Lack of discernable structure. [Weathered brick earth silt] 0.70 diffuse contact / gradual transition [+ 7.47m OD]
UNIT 4 [Sample 1]	0.70-1.70	10YR 4/6 dark yellowish brown silt to weak sandy silt with moderately dense firm and compact matrix supporting sparse sub angular flint clasts with 50% cortex cover with max. diameter to 3 cms. [Brickearth silt] 1.70 diffuse horizontal contact [+6.47m m OD]
UNIT 3 [Sample 2]	1.70-2.10	10YR 5/4 yellowish brown with weak 10YR 6/3 pale brown mottling of clay silt. The matrix is moderately firm and compact and supports sparse sub angular flint clasts with, 15% cortex cover. Very weak discontinuous laminations towards the base of the unit. [Brickearth silt]
UNIT 2 [Sample 3]	1.70-2.10 [channel fill]	Within the centre of the east and west facing sections: 10YR 5/8 yellowish brown medium sand with slight silt content. No discernable structure. Matrix is moderately firm and compact. [Sample 3] As channel fill Unit contained within in and seen as fill of ‘channel feature’ appears orientated north west / south east orientation].

		[Channel cut possibly due to drainage water migration through Brickearth silts] 2.10 Diffuse horizontal contact [+6.06m OD]
UNIT 1 [sample 5]	2.10-2.50 2.10-2.35	10YR 5/8 yellowish brown clay silt /silt clay. Matrix is moderately dense firm and compact. Matrix supports sparse sub angular sub angular flint clasts to 4cm diameter with up to 30% cortex cover. At 2.10-2.35 localised within the centre of the west facing section only there is a discreet area of 2.5Y 6/6 Olive yellow fine well sorted sand that supports infrequent sub rounded flint clasts to 3cm diameter. [Sample 4] Brickearth silt. [pocket of possible derived marine sand]
	2.50m NFE	+5.67m OD

Table 2: Test pit: 2

Table 1: Test pit: 2 [located at southern terminal of evaluation Trench 1] Ground Level at: + 8.48m metres AOD.

UNIT	DEPTH BGL	DESCRIPTION
UNIT 3	0.00- 0.70/1.00	10YR 4/2 very dark greyish brown to 10YR 3/2 very dark grayish brown coarse silt. Matrix supports pockets of ash / clinker and sparse cbm fragments s [modern] coarse silt. Matrix supports sparse sub angular flint clasts to 3cm diameter. The unit is moderately poorly rooted [Modern topsoil made ground] 0.70-1.00 Moderately sharp horizontal contact [+7.48m OD]
UNIT 2	0.70/1.00- 2.00/2.20	10YR 5/4 yellowish brown silt to weak sandy silt with moderately dense firm and compact matrix supporting sparse sub angular flint clasts with <30% cortex cover with max. diameter to 3 cms. and sparse brick [modern fragments and bitumen flecking] No discernable structure. The unit is moderately well rooted throughout. [Weakly disturbed sub soil [upper unit only developed on to Brickearth silt]

		2.00/2.20 Diffuse transition [+6.28m OD]
UNIT 1	2.00-2.70m	Becoming 10YR 4/4 dark yellowish brown clay silt with weak partings of 10YR 4/2 dark grayish brown clay silt. Matrix is moderately firm and compact becoming more firm with depth. [Brickearth silt]
	2.70m NFE	+5.78m OD

Discussion: Recorded Stratigraphy

At both test pit locations the upper most unit is recorded as a brown to greyish brown silt and is interpreted as modern topsoil. Increase in depth [c. +0.70m to 1.00m] of topsoil at TP 2 and the presence of ash / clinker inclusions suggest a moderate level of disturbance has occurred in this site area with imported fill material being represented.

At both survey locations topsoil sits on relatively uniform brick earth silt. In TP 2 this the upper brickearth silt between c +7.77m +6.75m OD is interpreted as a weakly disturbed 'sub-soil' developed onto Brickearth silt [Devensian] .

Within Test Pit 2, beneath Unit 3, [the disturbed / made ground upper unit] the recorded sediments within Test Pit 2 shows only slight variation from c. +7.46m OD to base of excavation at +5.78m OD. The diffuse transition recorded at c. 2.00 to 2.20 m. bgl [approx. +6.28m OD] is evidenced predominantly slight colour change and weak increase in clay silt fraction seen in the lower Unit 1. This subtle change may well be due to post depositional transform processes relating to fluctuating ground water levels within the immediate site area.

The palaeogeographic significance of the sediments recorded within TP 2 is considered as moderate to low. No sediments indicative of a fossil beach [Pleistocene] are recorded at this location.

Within Test Pit 1 the Brick earth silts contain [Unit 2 / Sample 3] yellowish brown sand that appears to be contained within an approximately north east south east orientated channel approximately 340cm wide with V form base profile. . It is considered possible that this channel has been formed by drainage water migrating through Brickearth silts and sorting finer sediment fractions. Sands contained within the channel fill are not considered to be derived from a marine facies.

Of potentially more significance is the discrete are of olive yellow fine sand [Sample 4] recorded in the western facing section of TP1. Whilst this sand is not considered to be in a primary depositional context if marine it suggest that marine sediment may lie within the general site area.

Base on height correlation it is provisionally suggested that marine sediments, if present in the general site area would have the potential to correlate with Brighton Norton Raised Beach or possibly Pagham Raised Beach.

Recommendations for further work

Based on the results of the survey undertaken it may be confirmed that the potential for *in situ* raised beach sediments to be present within the immediate development area at depths to which traditional foundations may impact is moderate to low. However the presence of sands [sample 4 recovered from TP 1] tends to suggest a moderate potential for the presence of marine deposits within the general site area.

It is recommended that selected samples [Sample 4 as noted at Table 1] be rapidly assessed for the presence absence of key indicator micro fossils to allow confirmation that they are derived form a marine facies. . Whilst it is considered the potential for impact on significant *in situ* fossil beach deposits within the site area is considered low confirmation of presence of marine derived deposits at this location would confirm potential for key sediments to be present proximal to the study site area.

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