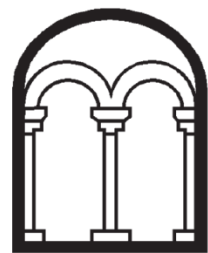

**FORMER DAIRY CREST SITE
FENSTANTON
CAMBRIDGESHIRE**

**ARCHAEOLOGICAL WATCHING BRIEF AND
MONITORING OF GEOTECHNICAL TEST PITS**

Albion
archaeology



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Preface

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Acknowledgements

The project was commissioned by CgMs Heritage (part of RPS) on behalf of Morris Homes Ltd. It was monitored on behalf of the Local Planning Authority by Andy Thomas of Cambridgeshire County Council Historic Environment Team.

The fieldwork was undertaken by David Ingham (Project Officer), who produced this report. Gary Edmondson (Project Manager) managed the work for Albion Archaeology, while all Albion projects are under the overall management of Drew Shotliff (Operations Manager).

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Non-Technical Summary

Morris Homes Ltd has planning permission to redevelop the former Dairy Crest site in Fenstanton, Cambridgeshire. Because of the area's archaeological background, Cambridgeshire County Council's Historic Environment Team recommended that a programme of archaeological work should be put in place prior to development

The first phase of archaeological work was an evaluation to provide more detailed information concerning the survival of archaeological remains within the site. The evaluation began with the monitoring of geotechnical test pits in order to assess the level of disturbance that the site had suffered during construction of the dairy. A periodic watching brief on the demolition of the dairy was undertaken concurrently, and the results of the watching brief and test pits are presented in this report.

Archaeological monitoring of the test pits between October 2017 and March 2018 has indicated that construction of the dairy had relatively little impact on the potential of archaeological deposits to survive within the areas observed. Pre-dairy soils were identified in most of the test pits, while archaeological features were also visible in several. The watching brief confirmed the presence of isolated deep modern intrusions across the site, but also indicated that some of the buildings' foundations were relatively shallow, with the potential for archaeological remains to survive beneath them. A trial-trench evaluation is required to determine the actual presence and survival of archaeological remains across the site.



1. INTRODUCTION

1.1 *Planning Background*

Morris Homes Ltd has planning permission (16/01206/FUL) to redevelop the former Dairy Crest site in Fenstanton, Cambridgeshire (Fig. 1). Because of the area's archaeological background, the Cambridgeshire County Council Historic Environment Team (HET) recommended that planning consent should include a condition requiring a scheme of archaeological work (HET 2017). The first phase of this work was an evaluation to provide more detailed information concerning the survival of archaeological remains within the site and the potential impact of the development on them.

Albion Archaeology was appointed by CgMs Heritage (part of RPS) to carry out the evaluation in accordance with a Written Scheme of Investigation (Albion Archaeology 2017a) that was agreed in advance with the HET. The first phase of this evaluation comprised the monitoring of geotechnical test pits in order to assess the level of truncation that the site had suffered during construction of the dairy. This report presents the results from these test pits, and also from an intermittent watching brief undertaken during demolition of the dairy buildings.

1.2 *Site Location, Topography and Geology*

The village of Fenstanton lies *c.* 15km north-west of Cambridge, on the northern side of the A14. The River Great Ouse runs *c.* 1.5km to the north, and the village lies on River Terrace Deposits 3 (sand and gravel) over Oxford Clay Formation Mudstone Bedrock (British Geological Survey 2016).

The *c.* 3.1ha development area lies on the southern edge of the village, between Cambridge Road to the south, Conington Road to the east and High Street to the north, at grid reference TL3165 6830 (Fig. 1). It comprises a former dairy, with buildings and concrete hardstanding that have been demolished prior to the archaeological mitigation. The topography of the area is roughly level ground at an approximate height of 14–15m OD, rising slightly to the east.

1.3 *Archaeological and Historical Background*

Fenstanton lies within an area known to be rich in archaeological remains of all periods from the Neolithic onwards. This is particularly true for the Roman period: the Great Ouse Valley and the hinterland of Cambridge are rich in Roman archaeological remains, with settlements often spaced no more than several hundred metres apart (Evans 2008; Evans and Newman 2010). Cambridge Road itself follows the approximate course of the *Via Devana*, a Roman road leading out of Cambridge towards Godmanchester and ultimately to Chester. The information below represents a summary of the data contained in the Archaeological Impact Assessment (CgMs Consulting Ltd 2015).

A field-walking programme to the south of Fenstanton recorded a considerable number of prehistoric flints. Roman and medieval artefacts in the area were recovered by metal-detecting and recorded on the Portable Antiquities Scheme (HET 2018).



Excavations at Church Farm (ECB 2070), at the northern edge of Fenstanton, revealed evidence for Neolithic pits and a late Bronze Age/early Iron Age settlement enclosure, while excavations to the north of Church Farm (ECB 2073) revealed several pits cut by a ditch system of Roman date. Trial trenching in Church Lane (ECB4628) also identified pits and ditches that gave evidence of activity in the Bronze Age and the Roman and Saxon periods. A number of crop-mark complexes with rectangular and curvilinear enclosures, which could represent Iron Age and Roman settlement sites, are recorded to the south and east of Fenstanton (HER 08823, 08824, 08825, 08828, 08829). Aerial photographic assessment (ECB 4353) has also identified ditched features to the north of Cambridge Road.

Roman pottery (HER 03493) was recorded during construction of the bypass (the current A14) to the south of the development area. Medieval and post-medieval remains were found during an evaluation at the moated site at Grove House, west of the development area (HER 11972); Grove House itself (HER 19868) is a listed 18th-century building on the site of a medieval homestead. The grounds around Grove House were landscaped by Capability Brown, who owned the site from the 1760s.

Evaluation of the development area itself has so far revealed numerous late Iron Age and Roman ditches and pits, as well as a human burial (Albion Archaeology 2017c). The results are comparable with those obtained through recent excavation by Albion Archaeology on land south of Cambridge Road, which revealed a Roman settlement and burial ground.

1.4 Methods

Thirty-nine geotechnical test pits were excavated across the site by Hydrock between October 2017 and March 2018, in order to test for contaminated soils (Fig. 2). Each pit measured 0.6–1.5m wide and *c.* 2.5m long, and was excavated by a mechanical excavator fitted with a toothless bucket once the concrete/tarmac on the surface had been broken up. The pits were excavated to depths of up to *c.* 2m and could therefore not safely be entered, meaning that archaeological monitoring and recording of the pits was undertaken from the side, with no cleaning of the sections possible.

Test pits TP22–32 and TP36–39 were excavated in areas where ground levels had been disturbed by demolition work (*cf.* Fig. 4: Photograph 6), and the depth of overburden recorded is likely to have been less than was originally present before demolition began. Machining of TP25 was abandoned due to the presence of excessive groundwater, while TP26 ceased when it reached a modern service. Groundwater also obscured visibility in TP 38, while TP32, TP36 and TP37 were only excavated to a sufficient depth to confirm the absence of any significant contamination, meaning that the full archaeological profile was not visible.

A periodic watching brief was also maintained during demolition works, primarily covering the removal of below-ground tanks, services and foundations whose extraction could not be left until a later date for reasons of safety.

A full methodology is provided in the Written Scheme of Investigation (Albion Archaeology 2018).



2. RESULTS

2.1 Test Pits

The sequence of deposits observed in the thirty-nine test pits is summarised in Table 1.

Test Pit	Thickness of Deposit (m)				Geology	Depth to Geology (m)
	Concrete/Tarmac	Made Ground	Buried Topsoil	Subsoil		
1	0.2	0.65	0.3	0.25	Clay	1.2
2	0.2	0.5	0.25	n/a	Clay	1.8
3	0.15	0.35	0.15	0.3	Clay	0.95
4	0.25	0.45	-	0.1	Clay/Gravel	0.8
5	0.2	0.5	0.15	0.25	Clay	0.95
6	0.2	0.4	0.4	0.3	Clay	1.3
7	0.15	0.6	0.3	0.3	Silt/Clay	1.35
8	0.2	0.35	0.35	0.3	Clay	1.2
9	0.15	0.35	-	0.5	Gravel	1.0
10	0.1*	0.3	0.2	0.55	Gravel	1.15
11	0.2	0.45	-	0.25	Clay	0.9
12	0.1	0.45	-	0.25	Clay	0.8
13	0.25	0.45	-	-	Clay	0.7
14	0.25	0.55	-	-	Clay	0.8
15	0.25	0.3	-	0.2	Clay	0.75
16	0.2	0.3	0.3	0.5	Clay	1.3
17	0.2	0.4	-	0.4	Clay	1.0
18	0.15	0.5	0.3	0.5	Silt/Clay	1.45
19	0.15	0.5	0.35	0.4	Clay	1.4
20	0.15	0.45	0.4	0.35	Silt/Clay	1.35
21	0.25	0.45	0.3	0.35	Clay	1.35
22	-	0.3	0.2	0.35	Clay	0.85
23	-	0.5	-	0.1	Gravel	0.6
24	-	0.3	-	-	Sand	0.3
25	-	0.6	-	>0.1	n/a	>0.7
26	-	0.4	0.3	n/a	n/a	>0.7
27	-	0.7	0.3	0.3	Clay	1.3
28	-	0.6	0.35	0.3	Clay	1.25
29	-	0.3	-	0.4	Clay	0.7
30	-	0.6	0.3	0.3	Clay	1.2
31	-	0.5	0.2	0.3	Clay	1.0
32	-	0.7	-	0.3	n/a	-
33	0.5*	-	-	0.35	Clay	0.85
34	0.4*	-	-	0.35	Clay	0.75
35	0.6*	-	-	0.35	Clay	0.95
36	-	0.9	-	-	n/a	>0.9
37	-	1.2	-	-	n/a	>1.2
38	-	n/a	n/a	n/a	n/a	n/a
39	-	0.5	0.2	0.25	Clay	0.95

* Topsoil

Table 1: Sequence of deposits

The concrete slab / tarmac forming the floor of the dairy buildings and the hardstanding around them was 0.1–0.25m thick, overlying a mixture of stone, gravel and hardcore that cumulatively was 0.3–0.7m thick. The pre-dairy topsoil survived beneath this in half of the test pits, and subsoil was observed in the majority.

Photograph 1 on Figure 4 shows a broadly representative profile for most of the test



pits. Deposits associated with the construction of the dairy directly overlay geological deposits in just five test pits (TP13–14, TP24 and TP36–37).

Potential archaeological features were identified in nine of the test pits. A large feature in TP2 accounted for the visible lack of subsoil in this test pit; the feature appeared to have been dug through the subsoil, and fragments of brick and porcelain in its fill indicate a post-medieval or modern date (subsequently confirmed during mitigation). A ditch on a roughly NW–SE alignment in TP11 (Fig. 4: Photograph 3) also contained large fragments of brick and had been dug through the subsoil, indicating a post-medieval or modern date, while a similar feature on a roughly NE–SW alignment in TP10 may be the same ditch. No artefacts were retained.

Two features were observed that appeared to be sealed by the subsoil: one in TP7, which was at least 0.6m deep; and a similar one in TP6 (Fig. 4: Photograph 2). Both contained dark deposits, but no artefacts were recovered from either to suggest their date. Two further features were observed in TP24, one >1.2m deep; no pre-dairy soils survived to give a stratigraphic clue as to their date, but their infill was similar to the deposits seen in TP6 and TP7.

Test pits TP32 (Fig. 4: Photograph 4) and TP36–37 were not excavated deeply enough to reach undisturbed geological deposits, but the dark soils revealed in their lower extents appeared to be the infill of archaeological features rather than layers of overburden.

2.2 *Watching Brief*

A watching brief was undertaken on nine areas of below-ground disturbance that occurred during demolition works, whose approximate location and extent are shown on Figure 3. Tanks and/or drains were removed from areas A, H, I and the southern end of B; concrete pads from areas C, E and the northern end of B; and building footings in areas D, F and G.

The large post-medieval or modern feature first seen in TP2 was revealed more extensively in area A, but no other archaeological features were identified during the watching brief. Machining associated with the removal of the concrete pads and tanks was largely constrained within areas of ground that had already been disturbed during the dairy's construction. Possible features were observed in the edge of the trench in area C, but there was no opportunity to safely investigate these (cf. Fig. 5: Photograph 2). Excessive groundwater obscured visibility in areas A and H (Fig. 5: Photographs 1 and 5), but the depth of modern disturbance makes it unlikely that any pre-modern archaeological features would have survived in these areas.

Observation of the removal of building footings was similarly unrevealing. Excavation of those in areas F and G was confined essentially to ground that had been disturbed during construction, although this disturbance appears not to have extended significantly below the subsoil, while the bungalow footings in area D were only within the topsoil (Fig. 5: Photograph 9).



3. CONCLUSIONS

Archaeological monitoring of the test pits has indicated that construction of the dairy has had relatively little impact on the potential of archaeological deposits to survive within the areas observed. Pre-dairy soils were identified in all but five of the thirty-nine test pits, while archaeological features were also visible in several.

The watching brief carried out on selected areas of below-ground disturbance during the demolition works confirmed the presence of isolated deep modern intrusions across the site, but also indicated that some of the buildings' foundations were relatively shallow. No pre-modern archaeological features were conclusively identified during the watching brief, but the actual survival of archaeological remains within the site can be better assessed by the scheduled programme of trial-trench evaluation.



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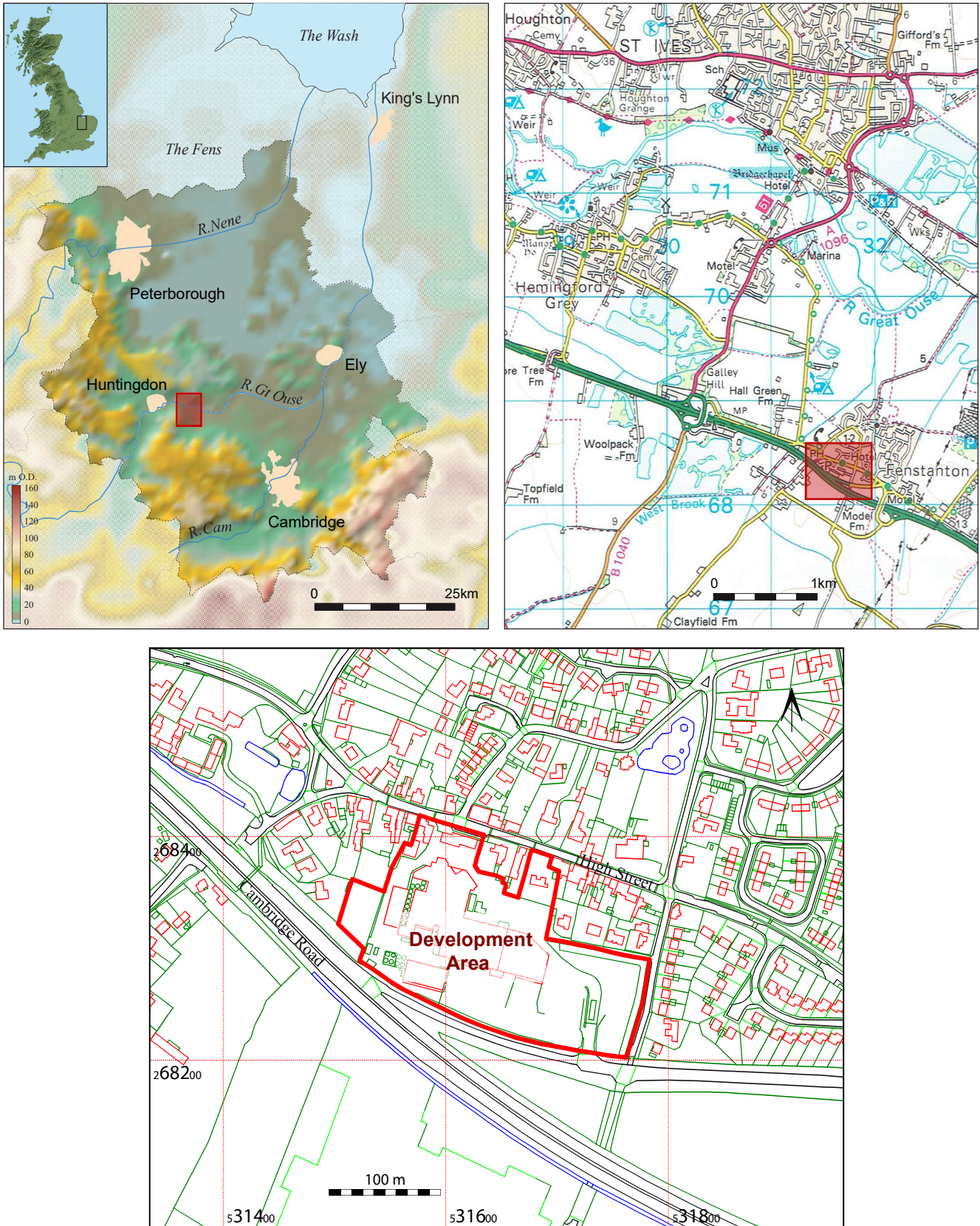


Figure 1: Site location

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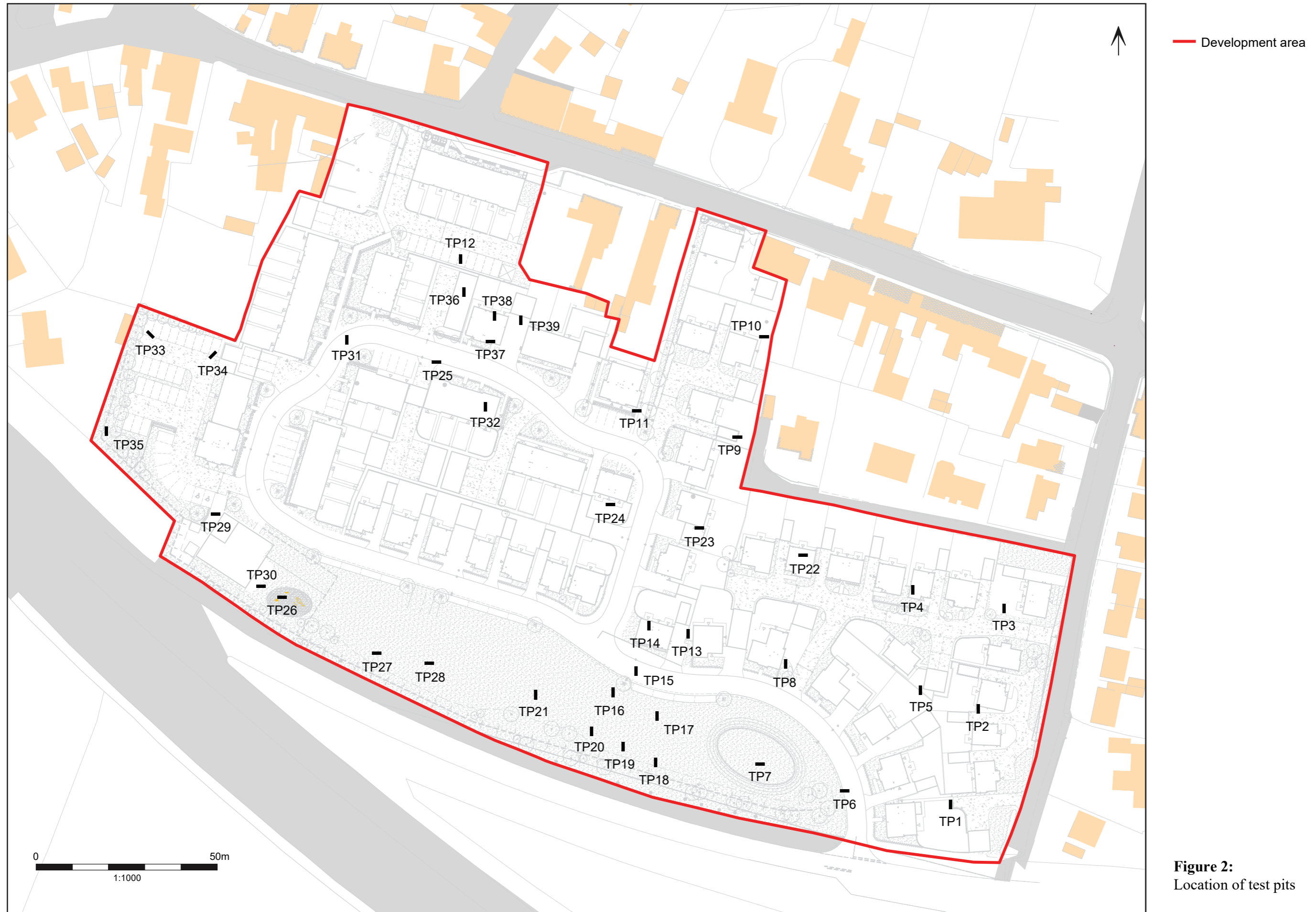
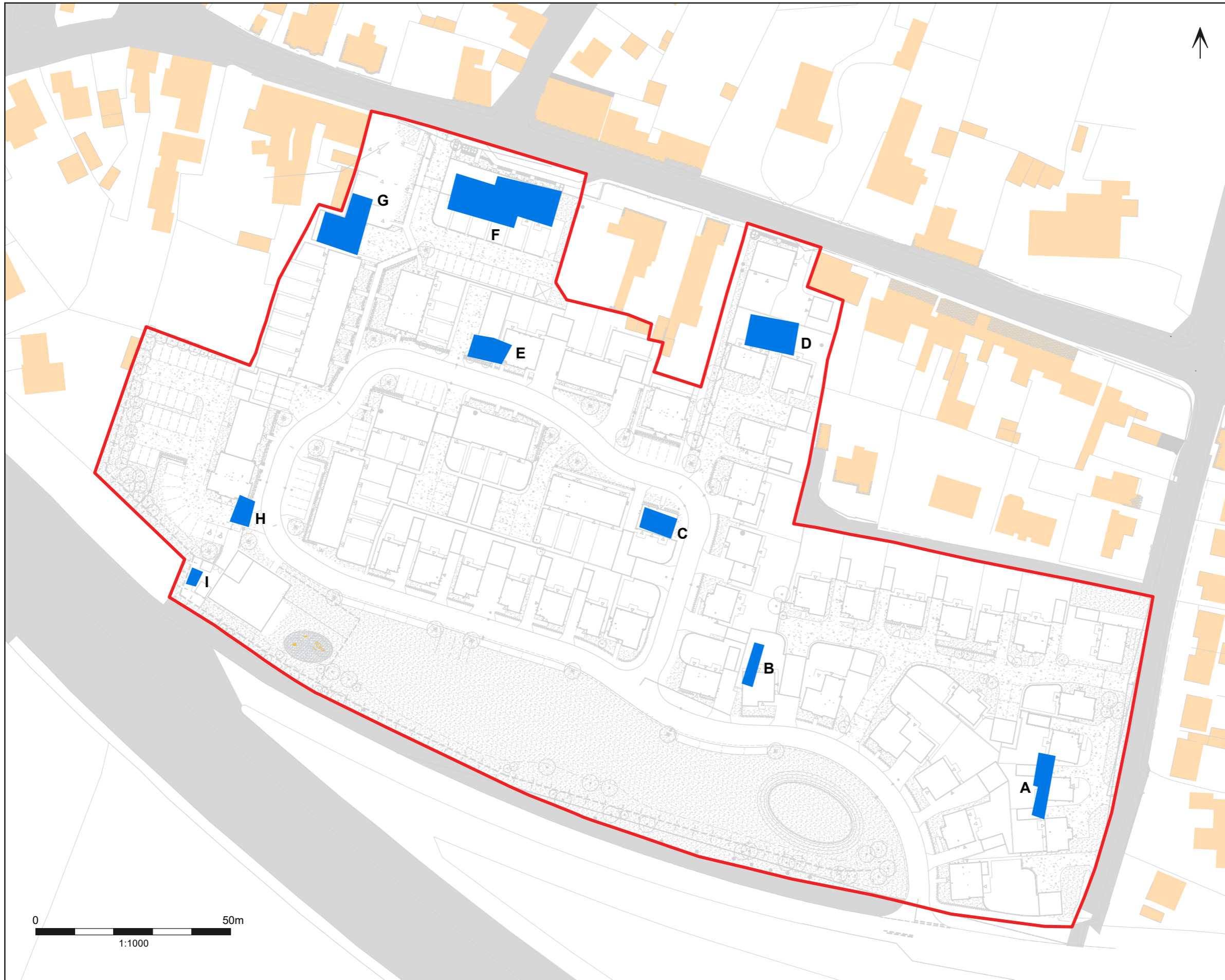


Figure 2:
Location of test pits



— Development area

Figure 3:
Areas covered by watching brief



Photograph 1: TP1, looking east



Photograph 2: TP6, looking south-west



Photograph 3: TP11, looking north



Photograph 4: TP32, looking north-east



Photograph 5: General photo, looking east from TP17



Photograph 6: General photo, looking south-west across TP23

Figure 4: Selected test-pitting photographs



Photograph 1: Removal of drainage tanks (area A)



Photograph 2: Removal of concrete pads (area C)



Photograph 3: Removal of concrete pads (area E)



Photograph 4: Removal of tanks (area H)



Photograph 5: Removal of tanks (area H)



Photograph 6: Removal of building footings (area G)



Photograph 7: Removal of concrete pads (area B)



Photograph 8: Removal of drains (area B)



Photograph 9: Removal of building footings (area D)

Figure 5: Selected watching-brief photographs

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