

Unit Superheaters Engineering Swansea



Archaeological Watching Brief Report


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Summary results of an Archaeological Watching Brief

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View SSW

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1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 Between 10th and 12th March 2008 Oxford Archaeology (OA) undertook a watching brief of a series of geotechnical trial trenches on land to the east of New Cut Road, Swansea (site centred on NGR SS 656 937) (Fig. 1). This follows an archaeological evaluation in July 2007 of part of the same site (OA 2008a). The work was commissioned by Waterman CPM (consultants) on behalf of their client (Unit Holdings Ltd).
- 1.1.2 The archaeological work was undertaken in accordance with verbal guidelines agreed through consultation with Neil Maylan (Archaeological Advisor to Swansea City Council) and Christine Cox (Consultant). OA subsequently produced and submitted a Written Scheme of Investigation (WSI) detailing how the specification would be met prior to commencing the fieldwork (OA 2008b).
- 1.1.3 The geotechnical trial trenches were designed to locate and investigate the remains of the former Villier's Dry Dock and the potential presence of other unknown sub surface obstructions between the excavated archaeological evaluation trenches (Trenches 1 and 3) (Fig. 2).
- 1.1.4 This summary report is not intended as an exhaustive description nor detailed record of the remains encountered. However, it does provide a formal record of the observations made by the attending archaeologist that could be relevant to any subsequent locating of evaluation trenches and as guidance to the degree of preservation that may be expected.
- 1.1.5 Due to the nature of ongoing investigation at this site, much of the background information presented here is reproduced from previous associated documents.

2 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

2.1 Location and Topography

- 2.1.1 The site lies to the north east of Swansea city centre, occupying an area between the High Street and the west bank of the River Tawe. It covers 3.4 hectares and is currently occupied by large industrial buildings with areas of hard standing and some scrub-covered waste ground along the bank of the River Tawe. It is bounded to the south west by New Cut Road, to the north west by The Strand, to the north by Corporation Yard, and to the east by the River Tawe. The land within the site ranges between 7.5 m and 9.5 m above OD.

2.2 Soils and Geology (Solid and Drift)

- 2.2.1 The site lies within an area of unclassified urban soils according to the Soil Survey of England and Wales (SSEW) map sheet 1 (1983). The soils and geology in the area immediately to the east and south east of Swansea include Palaeozoic sandstone and drift from Palaeozoic and Mesozoic sandstone and shale, which are overlain by well drained loamy and fine loamy soils (*Ibid.*). It is recorded that the site includes part of the former channel of the River Tawe, which was in-filled in the 1940s, and will therefore include a significant volume of made ground in its eastern sector.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Summary of previous studies

- 3.1.1 An archaeological desktop study of the development area has previously been undertaken by Waterman CPM (Waterman CPM 2007). This section presents the relevant parts of the archaeological and historical background. The original desktop study should be consulted alongside this document for further detail.
- 3.1.2 The Glamorgan-Gwent Archaeological Trust Sites and Monuments Record (GGAT SMR) does not contain any records of human activity within the site, or the 0.25 kilometre radius study area, of earlier than post-medieval origin. However, Taylor (1996) argues for the presence of a medieval watermill within the site, on the site of a mill which was depicted on a map of the town published in 1843.
- 3.1.3 The Pottery Mill is shown within the site on the 1852 plan of Swansea Harbour, close to the south western boundary. The Cambrian Pottery also lay near the centre of the site. It produced high quality earthenware and porcelain. The pottery was closed in 1870. The recent evaluation (OA 2008a) has identified possible structural remains and large quantities of pottery production waste within the southwestern part of the site along the boundary with New Cut Road.
- 3.1.4 An archaeological rescue excavation was undertaken in February 1983, on land to the south west of the site, outside of its boundary (Sell 1983). This identified remains of a large vaulted stone and brick structure, measuring 16 metres by four metres, which had been in-filled to a depth of c. 1.7 metres. This was interpreted as a pottery drying chamber belonging to the Glamorgan Pottery which lay adjacent to, and was partially contemporary with, the Cambrian Pottery. The remains were recorded at a depth of two metres below the existing ground surface.
- 3.1.5 The site of the Pipe Quay is recorded in the north of the site on the 1852 plan of Swansea Harbour, whilst the 'Patent Slip' was recorded in the east of it at the same date. A lock and weir were also recorded near to the centre of the site on this map.

- 3.1.6 Villier's Dry Dock is shown on the 1879 first edition Ordnance Survey Map alongside the Lock Basin and North Dock Basin created at the northern end of the former River Tawe channel.

4 AIMS OF THE INVESTIGATION

4.1 General

- 4.1.1 The archaeological aims of the watching brief were;
- to monitor the geotechnical investigations and record the presence/absence of any archaeological remains that are encountered,
 - to recover any artefacts that may be of use in establishing the date, origin or other useful information on any archaeological deposits encountered,
 - to provide archaeological guidance to the geotechnical field staff on the historical significance of any deposits that are investigated,
 - to provide guidance for the preservation of any structures and/or deposits that are encountered that may require more formal archaeological investigation through subsequent evaluation,
 - to assess the significance of all deposits and structures that are encountered and their relative depths across the site to inform any subsequent evaluation trench layout.

5 METHODOLOGY

5.1 Machine Excavated Trenches

- 5.1.1 All trenches were machine excavated under the direct supervision of the geotechnical investigation team with the archaeologist providing guidance on issues relating to preservation *in situ* where required. Due to the instability of the narrow trenches and depth of excavation, none of these were entered to examine the deposits and structures in detail. All archaeological recording was undertaken at surface level.

5.2 Recording

- 5.2.1 A summary written, drawn and photographic record was made of each geotechnical trial trench.
- 5.2.2 A black and white (35 mm transparency) and digital colour photographic record of each trial trench was taken. Where appropriate detailed photographic records were also made of the features encountered.

5.3 Finds Procedures

- 5.3.1 Artefact assemblages were recovered, where present, to assist in characterising and dating stratigraphic sequences. Bulk finds were collected and bagged by context.

5.4 Archive

- 5.4.1 The site archive will be created in accordance with the guidelines published in Guidelines for the preparation of Excavation Archives for long-term storage (UK Inst. for Conservation 1990) and standards in the Museum care of archaeological collections. This will also be held until a later date when it can be incorporated with the results of any subsequent evaluation.

6 RESULTS

6.1 Villier's Dry Dock

- 6.1.1 Geotechnical Trial Trenches 1, 2, 3, 4 and 8 were positioned to locate and investigate the Villier's Dry Dock walls (Fig. 2). Poor light and weather conditions and unstable trench sides made detailed recording difficult within each of these trial trenches.
- 6.1.2 The Villier's Dry Dock structure was not conclusively encountered or identified in any of these trial trenches although a wall constructed of sandstone blocks found in Trial Trench 8 may represent part of the western angled end of the dock. This was 1.2 m below the modern ground level (BGL). Further recording to clarify the significance of this structure or its relationship to the other deposits present was not possible due to continuing collapsing sides of the trench.
- 6.1.3 The maximum excavated depth of these trenches was 4 m with a consistent sequence of deposits recorded across the area of the former dry dock (see Table 1 for individual dimensions summary). Geological deposits were not encountered within any of these trenches. The earliest deposit was recorded at 4 m BGL in the base of Trial Trench 1 comprising a sandy clay with a high organic content. This is likely to represent part of the primary or basal infilling of the dry dock. Above this and, throughout the full depth of each trench a mixed backfill was recorded comprising rubble, slag and coal with distinct tip lines.
- 6.1.4 The only other structure encountered within the projected location of the dry dock was a large modern concrete foundation/slab. This was revealed to its full extent between Trial Trenches 2 and 3 cut into the backfill rubble with its upper surface 0.2 m BGL and its base 2.4 m BGL. The modern tarmac surface and underlying bedding layer sealed the backfill deposit and concrete structure.
- 6.1.5 The entrance to the dry dock and the river walls were conclusively identified close to their projected locations. Trial Trenches 9 and 10 revealed the southern side of the entrance 2.3 m BGL (Plates 1 and 2). This had been truncated by a modern brick possible cellar that had utilised the wall as a foundation. However, the degree of this truncation was not entirely evident within the trench although the few courses revealed of the Pennant Sandstone dock structure were well preserved. Trial Trench 11 revealed the same construction of the river frontage wall 2.0 m BGL.

- 6.1.6 There also appeared to be some evidence of a blocking structure to the entrance within Trenches 9 and 10 although this was not clearly defined. Within the dry dock the rubble, slag and coal deposit was recorded at the entrance whilst mixed rubble, with larger blocks of concrete and modern bricks was present to the east of the entrance. This is consistent with the known reclamation of the river bend area to the east of the factories in the 1968 (OA 2008a).

6.2 The Cambrian Pottery

- 6.2.1 Geotechnical Trial Trenches 5, 6 and 7 were located between the previous evaluation Trenches 1 and 3 (Fig. 2). These revealed a high concentration of structures encountered at shallow depths. Within Trial Trench 5/5a a substantial wall constructed of sandstone blocks with occasional reddish orange bricks was followed for 13 m along its east to west alignment (Plate 3). Only its south face was exposed to a depth of 1.7 m BGL with its upper courses encountered 0.3 m BGL. At the SE end of the trench two other walls appear to have formed a right angle. One was of a similar construction to that described above with the other built entirely of brick. This could suggest a difference in either the date of construction or function/use. Where possible each of these walls was preserved *in situ* although the brick structure did suffer some damage during excavation.
- 6.2.2 Accompanying the stone and brick built walls was a deposit (50) that contained fragments of kiln furniture and pottery sherds consistent with the mid to late 19th century material recovered within the previous evaluation Trench 1. This assemblage was recovered from 1.7m BGL although it was not possible to record further detail due to flooding within the trench. Excavation was stopped at this level due to the significance of the deposits encountered.
- 6.2.3 Trial Trench 6 partially exposed two substantial brick structures 0.3m BGL (Plate 4). These appear to be free standing within the trench with faces to three sides with the structures extending to the WNW. A wall constructed of sandstone with faces to either side was also located at the northeastern end of the trench. This was partly disturbed by the excavation of the trench although it was roughly aligned NW-SE and was similarly encountered 0.3 m BGL. Rubble deposits surrounded these structures.
- 6.2.4 Trial Trench 7 was positioned adjacent to Trench 3 to avoid the known walls encountered within the evaluation although a similar large wall was encountered at 0.5m BGL and preserved *in situ*. Collapsing trench sides prevented further characterisation of the wall. This trench was excavated to a full depth of 3.5 m BGL encountering similar rubble/made ground deposits as recorded in the evaluation.

Table 1: Summary results of the watching brief carried out under geotechnical conditions, March 2008.

Trial Trench No.	Length (m)	Width (m)	Max. Depth (m)	Archaeology present		Depth of walls BGL (m)	Height of wall exposed	
				Y/N	No. of structures		Full height (Y/N)	Height (m) (exposed)
1	18	1.9	4	Y	1	1	N	0.3
2	11	1.5	4	N	0			
3	13	1.5	3.5	Y	1	0.2	Yes	2.2
4	7	1.5	3.5	Y	1	0.15	N	-
5/5a	23	1.5-2	1.7	Y	3	0.3	N	1.7
6	17	1	2.5	Y	5	0.3	N	2.2
7	12	1	3.5	Y	2	0.5	N	-
8	5	0.5	3	Y	1	1.2	N	1
9	5	3	3.5	Y	2	0.3 (to modern) 2.3 to dock	N	0.5
10	6.5	3.5	3	Y	2	0.3 (to modern) 2.3 to dock	N	0.5
11	6	3	3	Y	2	0.3 (to modern) 2.3 to dock	N	0.5

7 DISCUSSION

7.1 Villier's Dry Dock

7.1.1 Trial Trenches 1, 2, 3, 4 and 8 were inconclusive. Trench 8 appears likely to have identified the western end of the dry dock although the quality of its remains could not be recorded in detail. Considerable modern disturbance was recorded in these trenches and it is possible that the upper levels of the structure have experienced a degree of truncation or removal. Alternatively this may be buried at a greater depth than investigated.

7.1.2 Trial Trenches 9, 10 and 11 did provide conclusive remains that precisely locate the river wall and dry dock entrance. These were encountered at 2.3 m BGL and constructed with pecked-faced Pennant Sandstone blocks.

7.2 The Cambrian Pottery

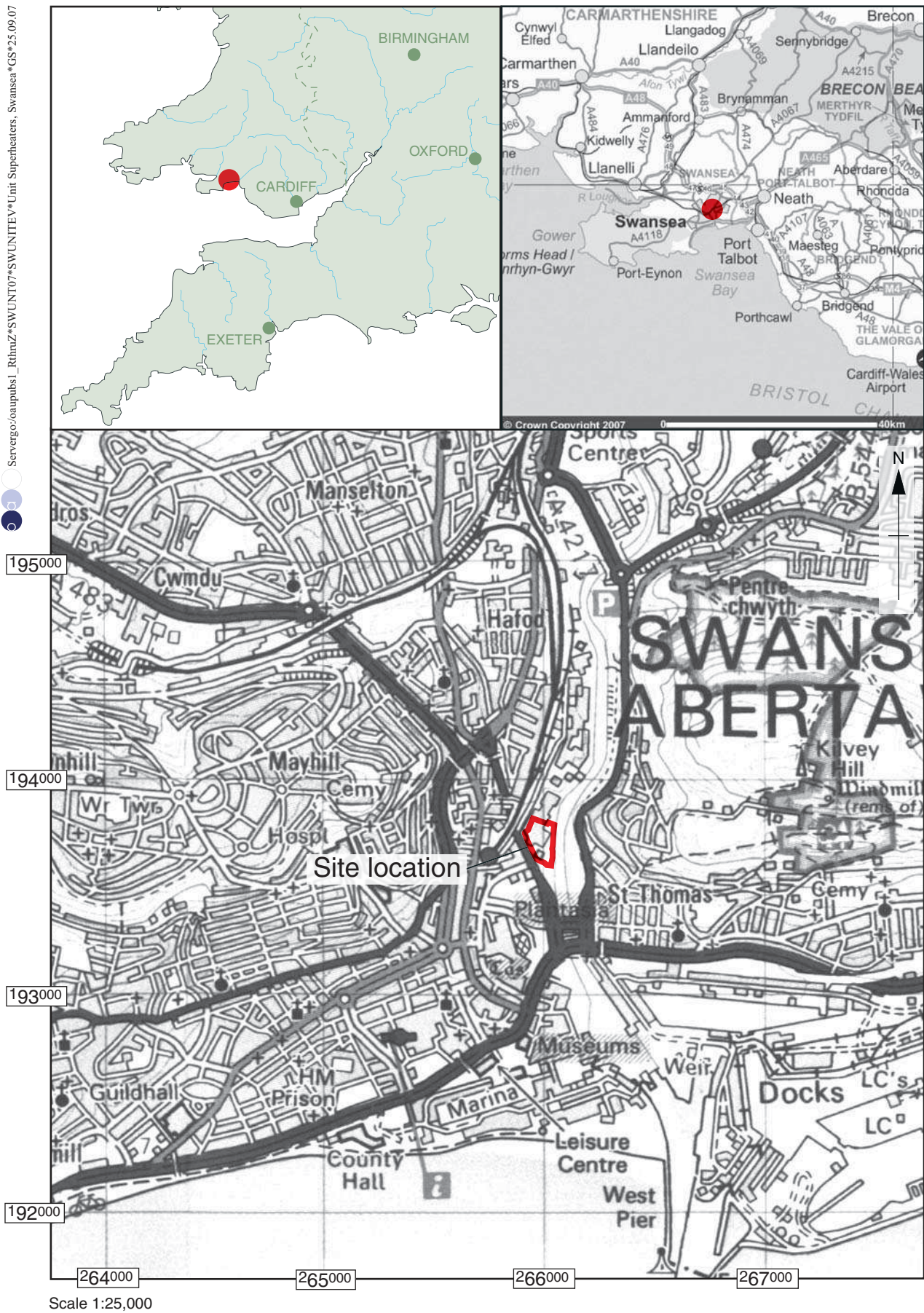
7.2.1 This title is not intended to mislead and should only be used to refer to the area where potential remains of the pottery works were previously recorded within the evaluation (OA 2008a). Trial Trenches 5, 6 and 7 each produced positive results with well preserved walls constructed of brick and sandstone present. Trenches 5 and 6 were excavated in the area not previously available to evaluation which lies c. 1 m below the surrounding level of Evaluation Trenches 1 and 3. Significant structures were encountered here immediately below the existing surface and associated with a small assemblage of 19th century pottery production waste. This is consistent with the evidence from the evaluation and clearly points to the high potential for significant well preserved remains across this area.

8 **BIBLIOGRAPHY**

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Figure 1: Site location

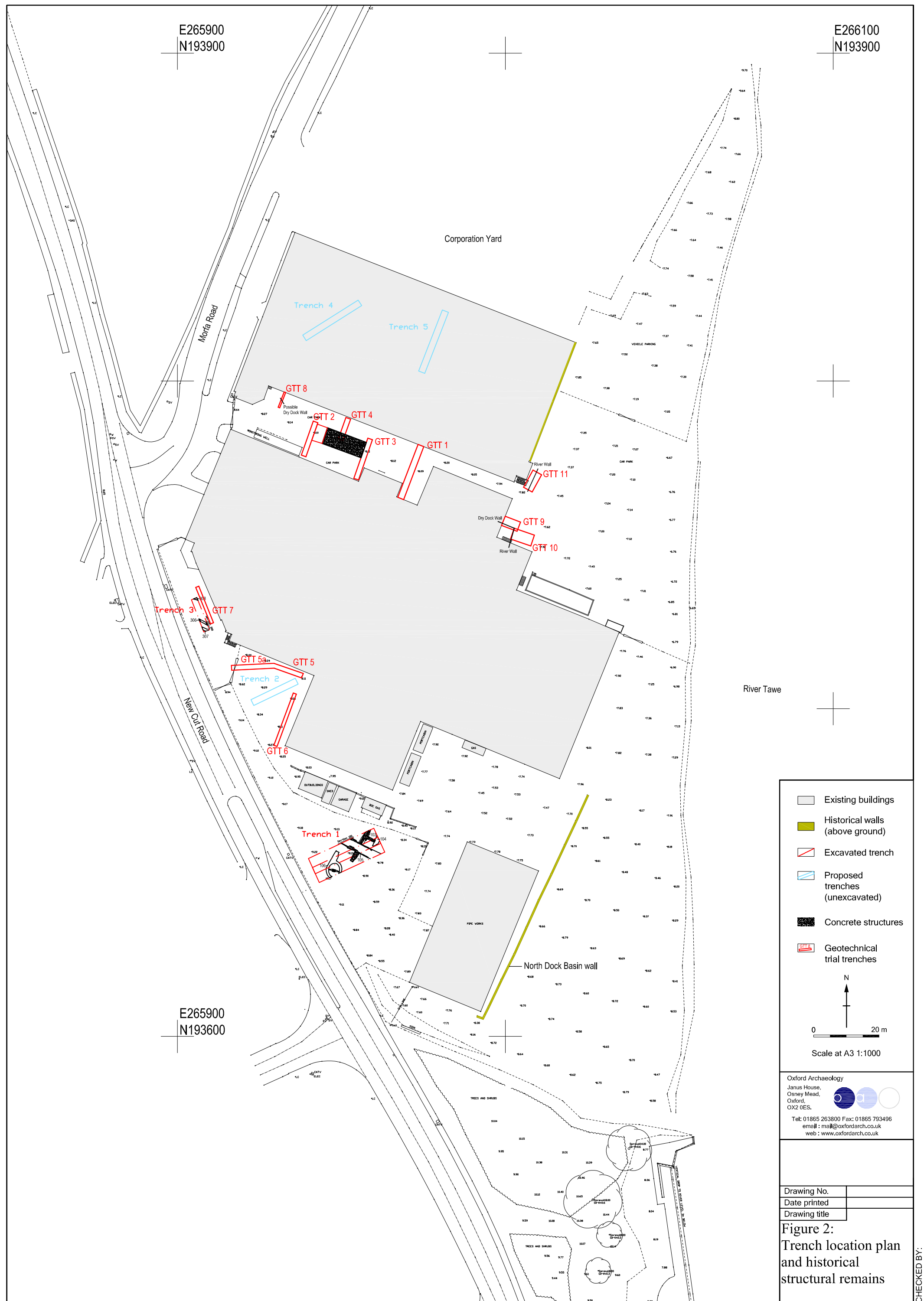




Plate 1. Trial Trench 9/10 showing the dry dock wall beneath a modern brick and block wall.
View SSW



Plate 2. Trial Trench 9/10 showing detail of the dry dock wall beneath a modern brick wall



Plate 3. Trial Trench 5/5a wall. View east



Plate 4. Trial Trench 6 brick structure in the centre of the trench. View north



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