HAVERFORDWEST CASTLE GAOL, PEMBROKESHIRE: ARCHAEOLOGICAL MONITORING 2022

DAT Archaeological Services

Prepared by DAT Archaeological Services
For: Pembrokeshire County Council

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HAVERFORDWEST CASTLE GAOL, PEMBROKESHIRE: ARCHAEOLOGICAL MONITORING 2022

By

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EXECUTIVE SUMMARY

In July 2022, DAT Archaeological Services undertook archaeological monitoring of geotechnical test pitting at Haverfordwest Castle Gaol building. The work was commissioned by Pembrokeshire County Council as part of the 'Heart of Pembrokeshire' regeneration project.

Archaeological monitoring of test pits within the former gaol building revealed the remains of both slate and brick flooring below the existing concrete floor. Externally, test pits revealed a number of archaeological features and deposits, including the remains of walling, drains and surfaces. Artefacts, mainly fragments of animal bone and ceramics, relating to the post-medieval use of the site were recovered during the works.

CRYNODEB GWEITHREDOL

Ym mis Gorffennaf 2022, cynhaliodd Gwasanaethau Archeolegol YAD waith monitro archeolegol o dyllau prawf geodechnegol yng Ngharchar Castell Hwlffordd. Comisiynwyd y gwaith gan Gyngor Sir Penfro fel rhan o brosiect adfywio 'Calon Sir Benfro'.

Datgelodd gwaith monitro archeolegol o byllau prawf tu fewn hen adeilad y carchar olion lloriau llechi a brics o dan y llawr concrit presennol. Yn allanol, datgelodd pyllau prawf nifer o nodweddion a dyddodion archeolegol, gan gynnwys olion waliau, draeniau ac arwynebau. Darganfuwyd arteffactau, darnau o asgwrn anifeiliaid a serameg yn bennaf, yn ymwneud â defnydd ôl-ganoloesol o'r safle yn ystod y gwaith.

HAVERFORDWEST CASTLE GAOL, PEMBROKESHIRE:

ARCHAEOLOGICAL MONITORING 2022

1 INTRODUCTION

1.1 Project Background

1.1.1 Dyfed Archaeological Trust - Archaeological Services (DAT-AS) had been commissioned by Pembrokeshire County Council to undertake archaeological monitoring and recording through watching brief during geotechnical investigations at Haverfordwest Castle Gaol (centred on NGR SM 9529 1573, Figures 1 and 2).

1.1.2 The archaeological investigation was necessary to inform improvement works planned for the site as part of the *Pembrokeshire Recovery and Regeneration Strategy 2020-2030*.

1.1.3 DAT-AS produced a Written Scheme of Investigation (WSI) for the archaeological monitoring at the site (Appendix I). This covers the monitoring and recording of test pits for geotechnical investigations.

1.1.4 The work was undertaken during July 2022.

1.1.5 The archaeological monitoring was undertaken in accordance with the Chartered Institute for Archaeologists' *Standard and guidance for archaeological watching brief* (CIfA 2014, updated 2020).

1.1.6 The DAT HER Event Record Number (ERN) for the project is 129716.

Photo 1: Aerial view of the gaol building and castle from the south-west, taken in 1993 (© DAT).

1.2 Scope of the Project

1.2.1 A WSI for archaeological watching brief was prepared by DAT Archaeological Services prior to the commencement of works (Appendix I). This outlined the methodology by which the watching brief was undertaken.

1.2.2 The purpose of a watching brief, as laid down in the CIfA S&G AWB is:

- *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;*
- *to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment.*

1.2.3 The overall scheme of work was summarized as follows:

- *The implementation of a scheme of archaeological watching brief during geotechnical investigations within the area of Haverfordwest Castle Gaol building, Pembrokeshire.*
- *The archaeological watching brief will determine, as far as is reasonably possible, the nature of the archaeological resource within this specified area using appropriate methods and practices. These will satisfy the stated aims on the project and comply with the code of conduct and other relevant regulations of CIfA.*
- *A report shall be prepared on the results of the evaluation and an archive created of all finds, records, photographs and plans created by this mitigation strategy.*
- *Further mitigation is possible where significant remains are identified; the scope of which would be determined following this stage of work.*

1.3 Report Outline

1.3.1 This report provides a summary and discussion of the archaeological monitoring and the results.

1.4 Abbreviations

1.4.1 Sites recorded on the Regional Historic Environment Record (HER) or National Monument Record (NMR) are identified by their Primary Reference Number (PRN) or National Primary Reference Number (NPRN) and located by their National Grid Reference (NGR). SM = Scheduled Monument, LB = Listed Building.

1.5 Illustrations

1.5.1 Printed map extracts are not necessarily produced to their original scale.

1.6 Timeline

1.6.1 The following timeline (Table 1) is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

***Table 1**: Archaeological and Historical Timeline for Wales.*

Period	Approximate date	
Palaeolithic –	*c.*450,000 – 10,000 BC	**Prehistoric**
Mesolithic –	*c.* 10,000 – 4400 BC	
Neolithic –	*c.*4400 – 2300 BC	
Bronze Age –	*c.*2300 – 700 BC	
Iron Age –	*c.*700 BC – AD 43	
Roman (Romano-British)–	AD 43 – *c.* AD 410	**Historic**
Post-Roman / early medieval–	*c.* AD 410 – AD 1086	
Medieval–	1086 – 1536	
Post-medieval[1] –	1536 – 1750	
Industrial–	1750 – 1899	
Modern –	20th century onwards	

[1] The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust

2. SITE LOCATION

2.1 Haverfordwest Castle Gaol (PRN 8630) is located within the outer ward of the castle (Figure 1), itself sited c.23 metres above sea level (AOD) at the eastern end of an isolated east/west ridge, where it terminates as a steep sandstone bluff. The ground falls steeply away on three sides, particularly to the east, where it drops to the river valley. A steep slope to the south descends to a watercourse, 'Castle Lake', now culverted beneath the main car park, which separates the castle from Haverfordwest High Street. A much shallower slope on the north side descends to the oldest part of the town. More level ground separates the site from St Martin's Church to the west.

2.2 The underlying geology consists of the Cethings Sandstone Member – sedimentary bedrock laid down during the Ordovician period, 445.2 – 443.8 million years ago (BGS nd).

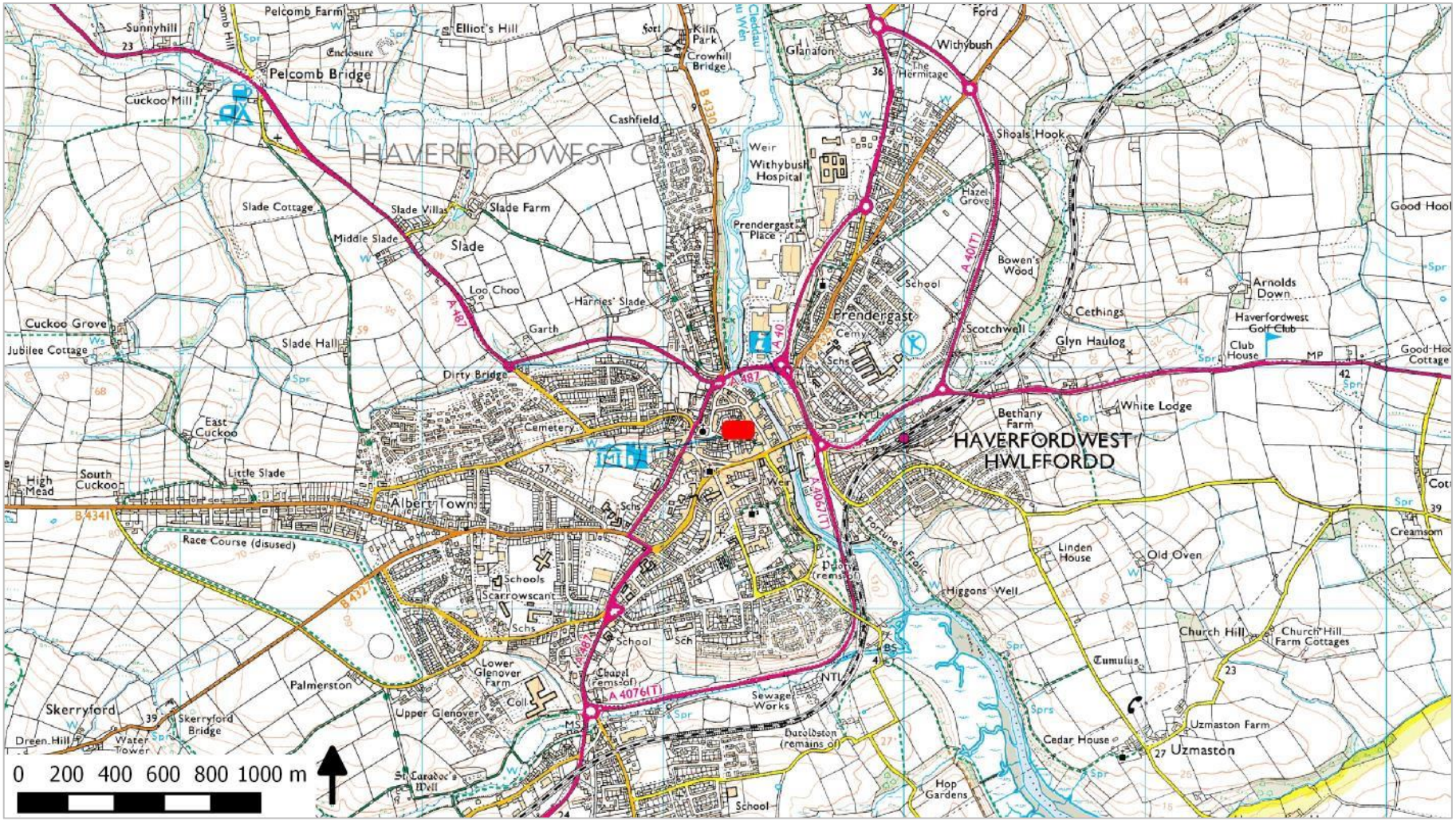

Figure 1: Location map showing the site of Haverfordwest Castle Gaol (red rectangle).

3. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

3.1 The historical, archaeological and architectural background/potential of the site have previously been examined in some detail and a number of assessments and reports produced (see Crane 2008; Poucher 2020; Ludlow, Murphy & Poucher 2021, Shiner 2022). The following is summarised from those and other sources.

3.2 Haverfordwest Castle was first established during the early 12th century, occupying a prominent position within the town on a sandstone promontory overlooking the River Cleddau . The present visible castle remains are largely the result of late 13th and early 14th century redevelopments (Figure 2). The castle fell into ruins during the 16th and 17th centuries, a process hastened by its being slighted by Cromwell's forces in 1648.

3.3 Documents held in the Haverfordwest Record Office (HRO) suggest that the Town and County Gaol was constructed at the castle site in 1780, at a cost of £1200 (HDX/588/1). It replaced a gaol below St Mary's Church and apparently comprised three buildings; a gaoler's house (measuring 42 feet by 20 feet, and which also contained kitchen, privy, common room and cells), a debtor's prison (later the women's prison) and a chapel. By the early nineteenth century it appears that the gaoler's house was in a dilapidated state and conditions in the prison so bad that the entire population succumbed to an outbreak of scarlet fever. This led to the construction of a new building shortly after 1810, at a cost of £1500 (Muller 2015), and it is that building which is the subject of the current investigation (Figure 3). Use of the site as a gaol ceased in 1878, after which the buildings housed the town police station until the mid-twentieth century. The debtor's/women's prison was demolished during the mid-1960s, but the men's block and the Governor's House were subsequently occupied by the Haverfordwest Record Office and the Haverfordwest Museum, respectively. The museum still occupies the Governor's House.

3.4 In 2008, an archaeological evaluation was conducted within the inner ward of the castle in advance of a proposed extension to the museum (Crane 2008). The proposed extension was not subsequently built, but the evaluation comprised three trenches, each measuring 5m long by 2m wide, located in the grassed area to the rear (east) of the museum building (Figure 4, Photos 1 – 3). Evidence for features and deposits relating to the gaol that once occupied the inner ward, as well as earlier medieval deposits relating to the castle were recorded in all three trenches. Deposits and features relating to the former gaol were record lying just below the turf, approximately 150mm below current ground surface.

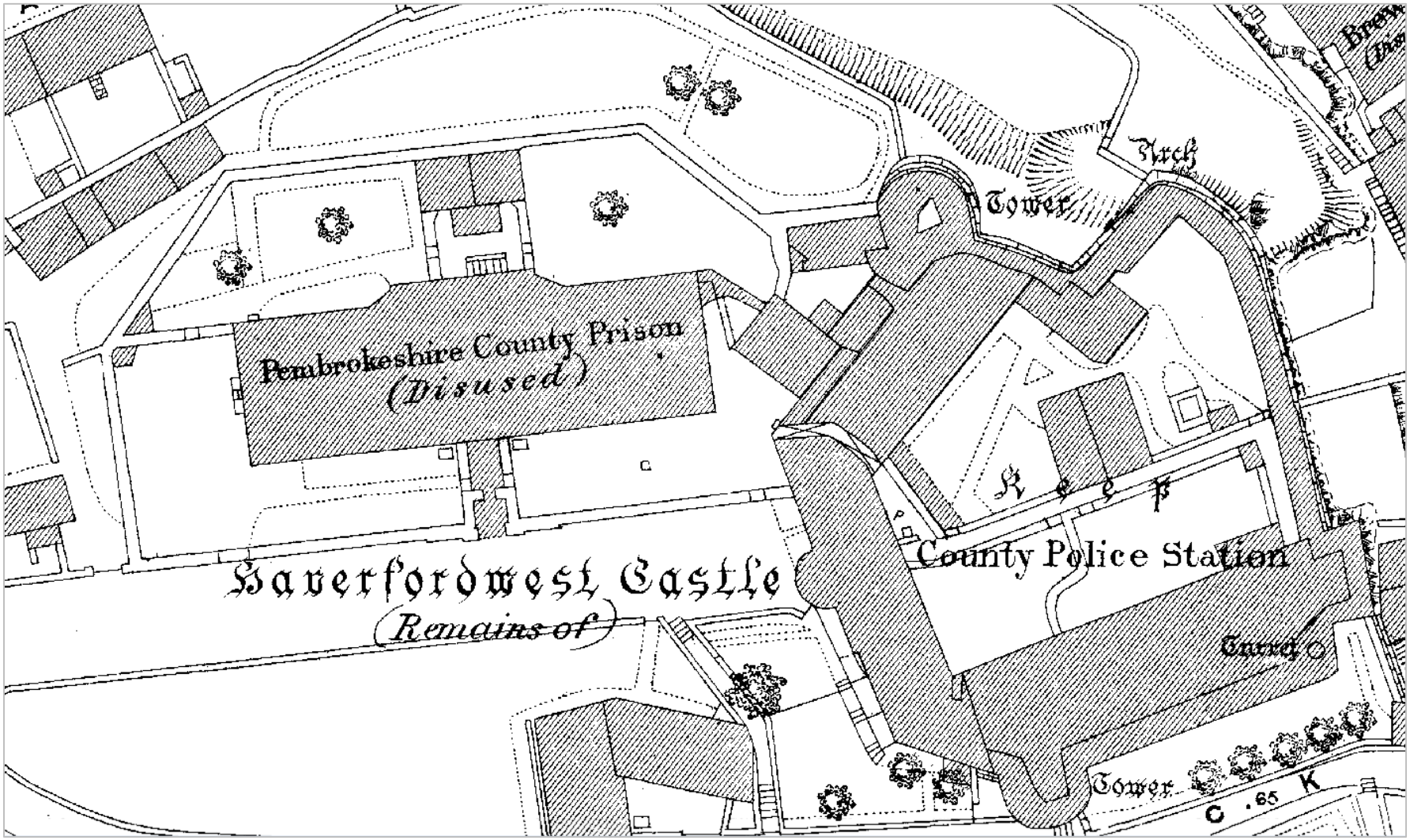

Figure 2: Extract of the 1889, 1:500 Ordnance Survey Town Plan, showing the location of the former gaol building in relation to the castle.

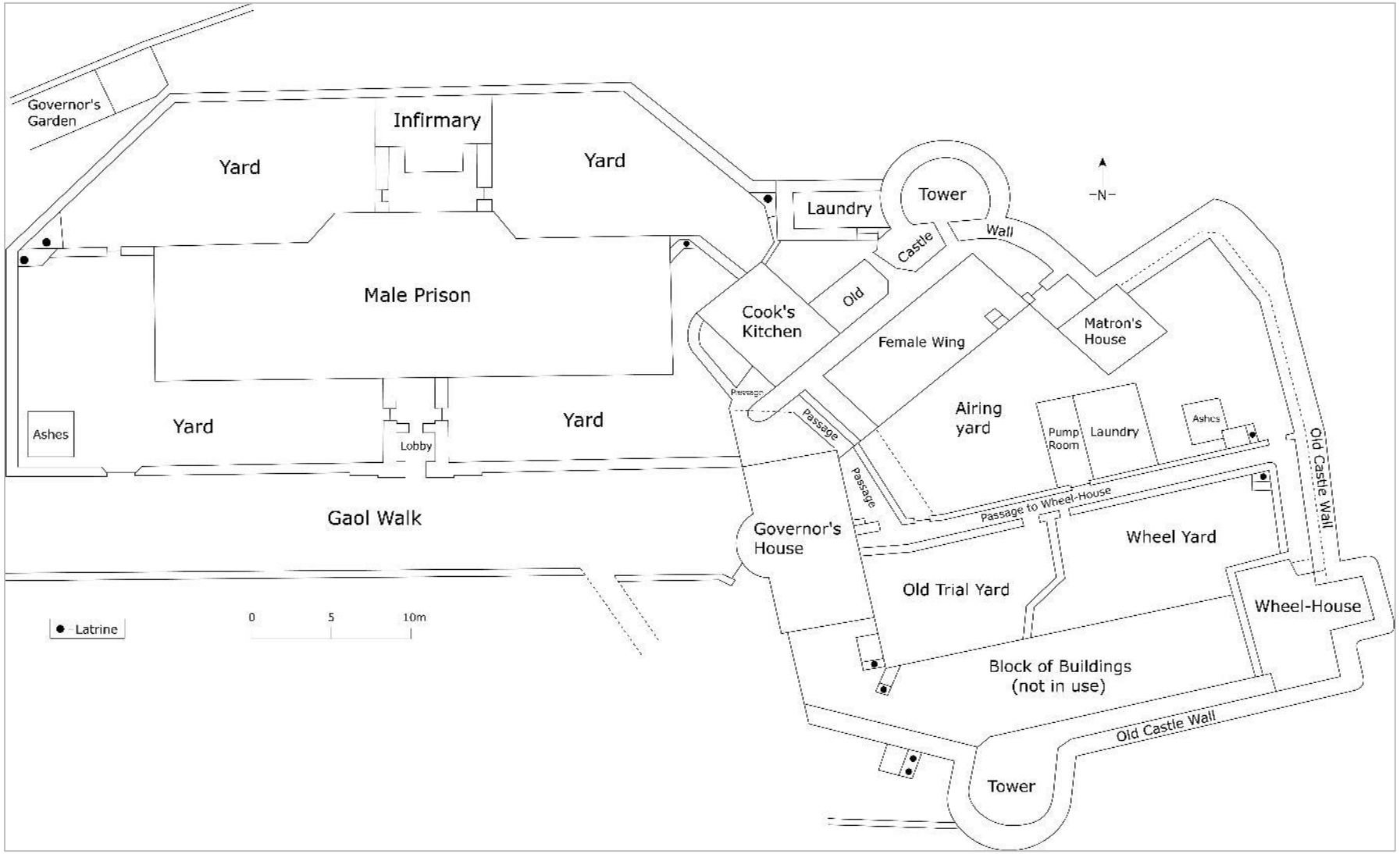

Figure 3: Plan of the mid to late 19th century gaol, redrawn from a map held in Haverfordwest Record Office.

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Photo 2: West facing view of 2008 Evaluation Trench 1 with a masonry block in the foreground, and wall (111) behind the 1m scale, both considered to be medieval in date.

Photo 3: East facing view of 2008 Evaluation Trench 2,the later stone-lined drain visible on the right. 1m scale.

Photo 4: West facing view of Evaluation Trench 3 (Crane 2008), the lead-pipe trench visible along the centre of the trench, and brick wall to the right. Outcropping bedrock was recorded in this trench.

Figure 4: Location map of 2008 archaeological evaluation trenches shown in purple.

3.7 Further archaeological evaluation and test pitting was carried out within the inner ward by DAT-AS in 2022 (Shiner 2022, Figure 5). This work revealed that within the inner ward of the castle, archaeological deposits relating to the female block of the former gaol were encountered as little as 10mm below the current turf level (Figure 6, Photo 5)

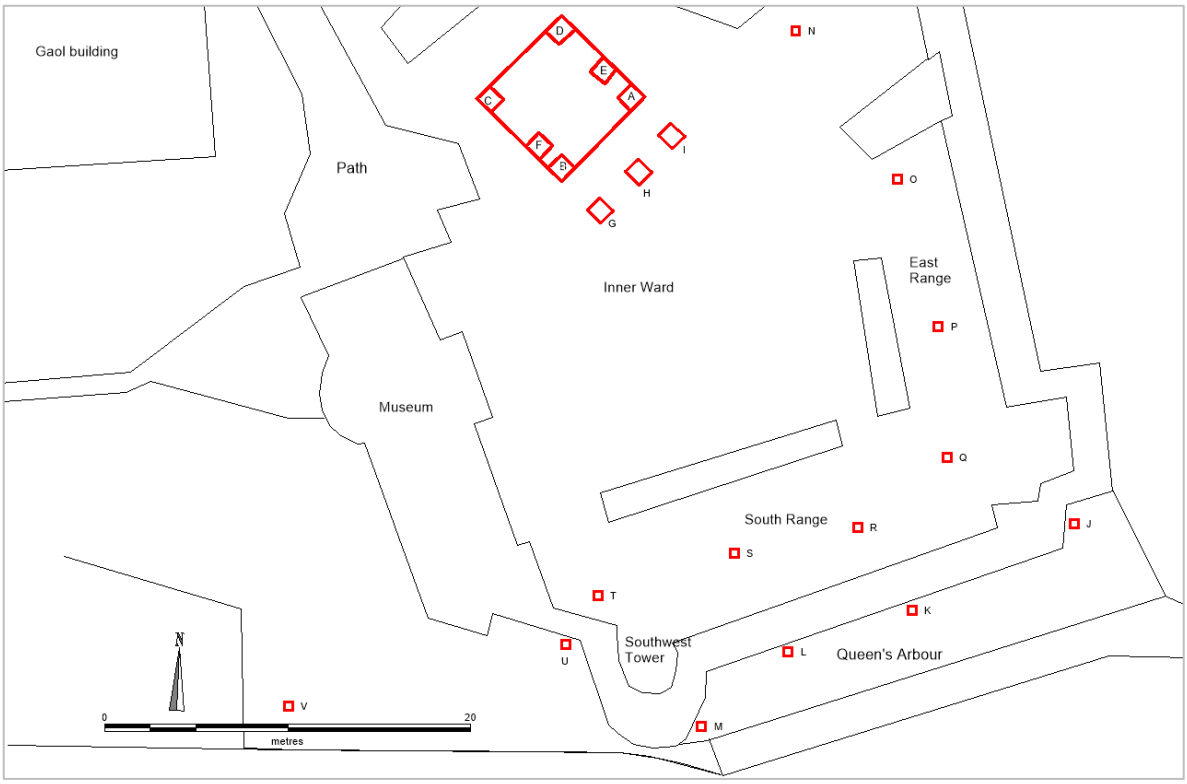

Figure 5: Plan of the 2022 evaluation trench and test pit locations.

Photo 5: View of 2022 evaluation trench showing floors relating to the female block of the former gaol.

Figure 6: Plan of Haverfordwest County Police Station shortly after its establishment within the inner ward, adapted from the Ordnance Survey 1:500 plan of 1889. , showing the approximate location of the 2022 evaluation trench outlined in red.

4. METHODOLOGY

4.1 Archaeological monitoring was undertaken on seventeen roughly 0.6m square test pits; four within the former gaol building and thirteen located externally (Figures 7 & 8).

4.2 All test pits were hand-excavated under archaeological supervision to a maximum depth of 1.2m.

4.3 All archaeological deposits and features were recorded by archaeological context record sheet, measured drawing and photography.

4.4 Most artefacts recovered during the investigation were not retained. They comprised ceramic and animal bone fragments, glass and some iron items, all readily identifiable by DAT-AS staff.

4.5 Environmental sampling was not included as part of the scope of the project as excavations were deemed unlikely to encounter environmental deposits of archaeological significance. This proved to be the case during excavation.

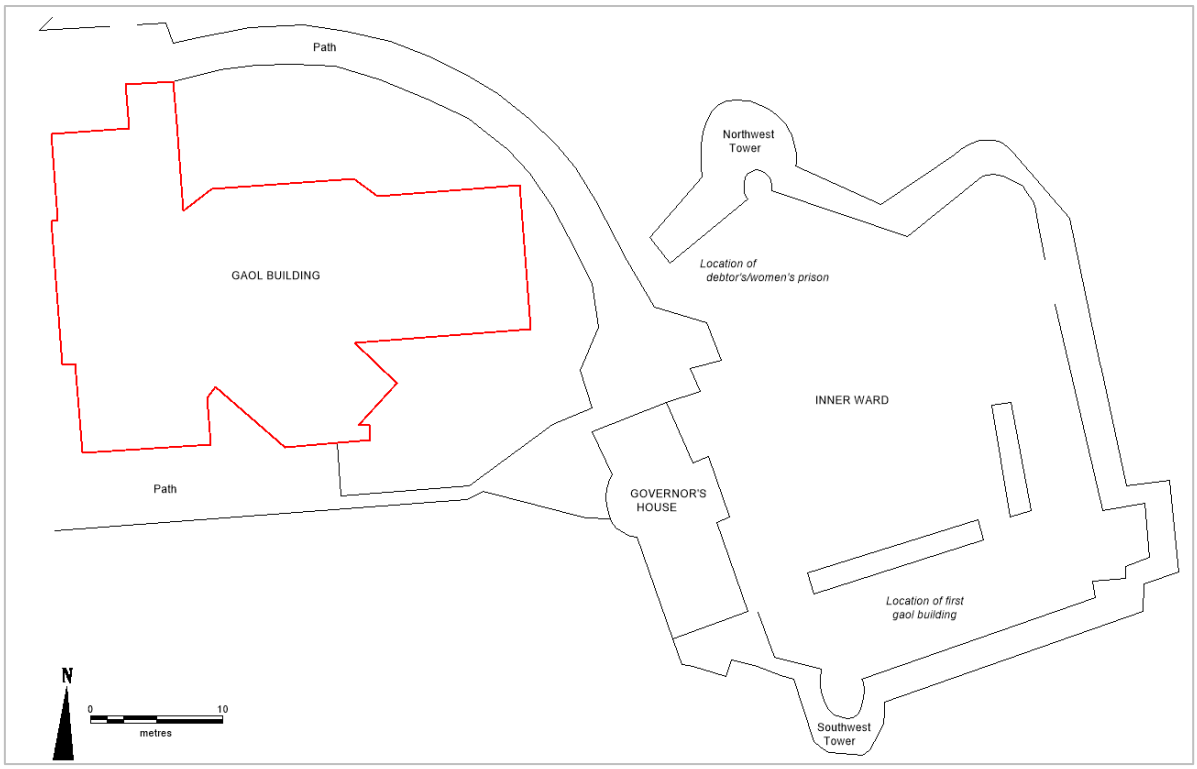

Figure 7: Showing the focus of the current monitoring works (red outline).

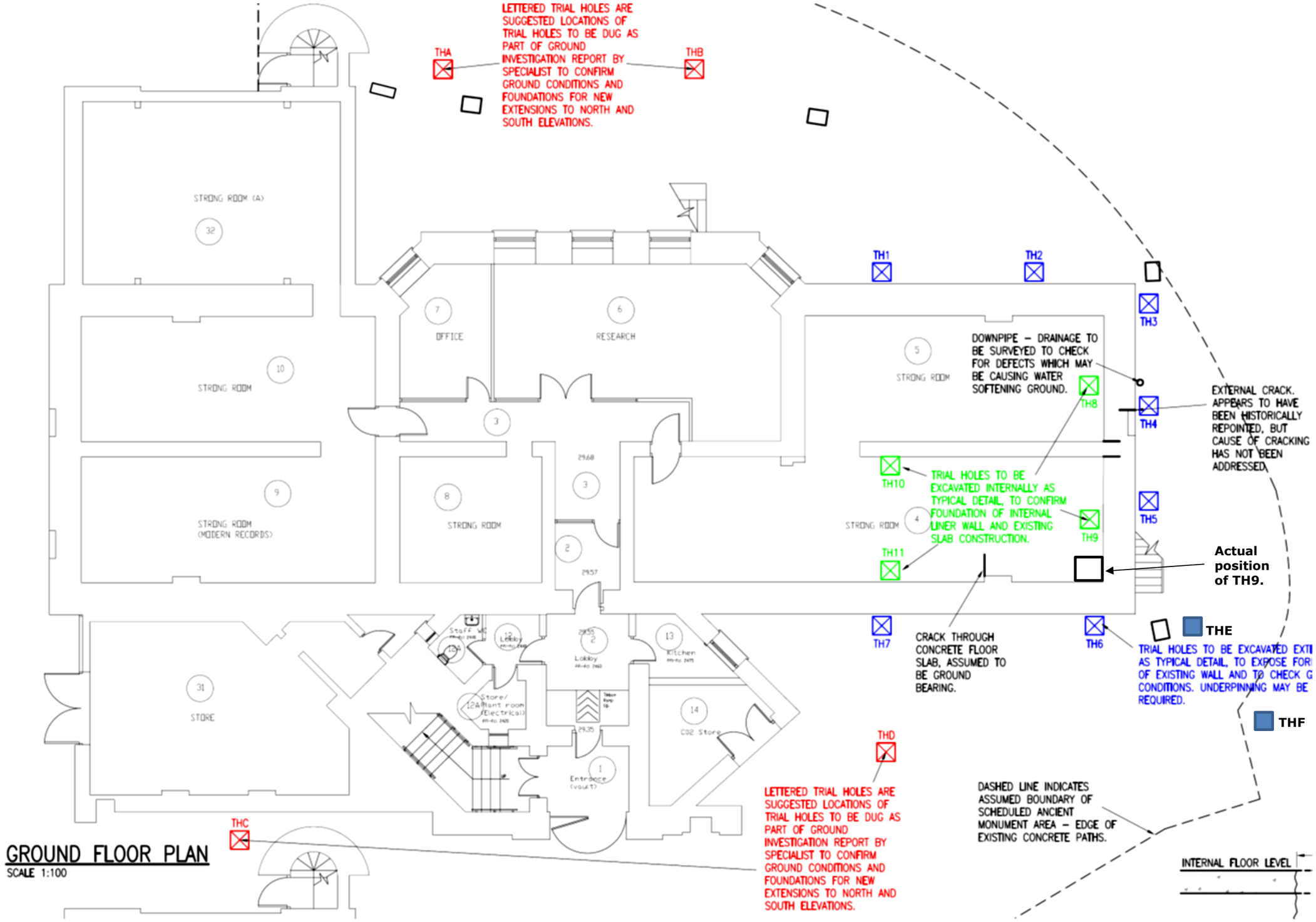

Figure 8: Detailed plan showing locations of test pits (red, green and blue). Supplied by the client (not reproduced to original scale)

5. RESULTS

The excavation was conducted over 8 days from the 27th July to the 5th of August and the 14th of September by Tom Jamieson (Archaeologist).

5.1 Internal test pits (No 8–11, Figure 8)

Test Pit 8

5.1.1 Test Pit 8 was located in the north-east corner of strong room 5 (Photo 6). This was excavated after Test Pits 9, 10 and 11. Below the existing 0.2m of modern concrete floor, plastic membrane and concrete levelling, a slate slab floor was encountered. As this appeared to be the same as that revealed in Test Pit 9, it was decided not to excavate Test Pit 8 further.

Test Pit 9

5.1.2 Test Pit 9 was located in the south-east corner of strong room 4, with a depth of 0.79m (Photo 7). Below 0.08m of modern concrete floor was a plastic membrane (<0.01m deep) which overlay 0.1m of concreted levelling for the floor above. The concrete levelling overlay a slate slab floor. A 0.3m diameter trial hole through this slate floor revealed that it overlay at least 0.3m of a loose, mid-brown clay silt with frequent small to medium stone fragments.

Test Pit 10

5.1.3 Test Pit 10 was located against the south side of an east/west aligned wall dividing strong rooms 4 and 5 (Photo 8). The diameter of Test Pit 10 was 0.8m by 0.7m, with a depth of 1.14m. Below 0.1m of modern concrete floor and a sheet of plastic membrane was the 0.06m deep remains of a slate slab floor. Below the slate, what at first appeared to be a section of brick wall was revealed. This had a visible width of c.0.2m (two bricks) and was 0.68m high (4 courses). To the south of both the wall and the slate slab above it was a 0.74m deep rubble deposit comprising a loose, light grey, dusty mortar with frequent brick and stone fragments. A brick surface below this deposit was not excavated. Investigation of the area between the brick wall and the dividing wall of the strong room revealed a void, within which the wall of the strong room could be seen continuing behind the bricks. The brick structure was revealed to be a free-standing structure associated with the brick surface.

Test Pit 11

5.1.4 Test Pit 11 was located centrally against the internal (north facing) elevation of the south wall of the strong room (Photo 9). The diameter of test Pit 11 was 0.8m by 0.7m, with a depth of 0.86m. Below 0.12m of modern concrete floor and plastic membrane a 0.07m deep red brick floor was revealed. This was bedded on a 0.34m deep deposit of loose mortar with small to medium stones and brick fragments. Below this bedding was a buried soil comprising a mid- to dark brown slightly clay silt with frequent very small slate fragments, occasional small sub-angular stones and flecks of lime mortar. To the south, the brick floor had been truncated by the foundation cut for the south wall of strong room 4, which in this location was of modern breeze block construction.

Photo 6: Showing a slate slab revealed below the modern floor in Test Pit 8. Looking north, 0.3m scale.

Photo 7: Showing earlier slate floor surface with soil below, revealed below the modern floor in Test Pit 9. Looking east, 1m and 0.3m scales.

Photo 8: Showing brick structure and its association with the brick surface, in Test Pit 10. Looking north, 2x1m scales.

Photo 9: Showing earlier red brick floor and concrete bedding below the modern floor in Test Pit 11. Looking west, 2 x 1m scales.

5.2 External test pits (1–7 and A–F, Figure 8)

5.2.1 Test Pits 1 and 2 were located adjacent to the north-facing elevation of the north wall of strong room 4 (Figure 8).

Test Pit 1

5.2.2 Test Pit 1 measured 0.8m by 0.8m, with a depth of 1.2m. Below the turf in Test Pit 1 (Photos 10-11) c.0.1m of mid- to dark brown topsoil with frequent small angular stones overlay a very compact layer of rab and building rubble with small to medium angular stones, ceramic building material (CBM) and pieces of lime mortar. Directly below this rubble layer, a thin (c.0.01m to c.0.04m) deposit of orangey-red burnt clay with small pieces of coal and cinders overlay a compact, light grey-brown clay silt, approximately c.0.4m to 0.7m deep, with frequent angular and sub-angular stones (average 0.08cm), frequent lime mortar flecks and occasional fragments of roof slate and CBM. At the top of this layer a deposit of possible cobblestones was observed near the wall of the gaol. The stratigraphically lowest deposit to be seen in section in this test pit was a very soft, light grey-brown silty clay with frequent small flecks of lime mortar, small, gritty angular inclusions and occasional bone fragments. However, in the west facing section, a lens of very compact, sandy coloured mortar between c.0.12, and 0.03m deep, with rounded stones was observed, while at the base of the test pit, a yellowy brown sandy clay with oyster shells and probable demolition rubble was seen, but not excavated. Two fragments of animal bone and a small ceramic stick with a bevelled end were recovered from this test pit.

Test Pit 2

5.2.3 Test Pit 2 had a depth of 1.12m, below the turf in Test Pit 2 (Photos 12-13) the topsoil was 0.17m deep with frequent small to medium angular stones and pieces of CBM. This mostly overlay c.0.1m of mid-grey sandy silt with the remains of cobbles. However, a c. 0.05m deep lens of orangey red burnt clay with coal ash inclusions was observed in the east (west-facing) section. Below this were two deposits. A soft, mid- yellow-brown sandy clay had frequent inclusions of small mortar flecks and fairly frequent angular sandstones (average size 0.2m x 0.15m x 0.1m), many with mortar adhering to them. Near to the wall of the gaol this layer, which was not fully excavated but was at least 0.6m deep, had been cut and subsequently backfilled with a c.0.30m to 0.8m deep compact, friable mid-brown sandy silt with frequent small pieces and flecks of mortar, fairly frequent small angular stones and coal fragments. This appeared to be the foundation cut for the wall; the backfilled material mostly overlay the sandy clay deposit but was present between it and the wall in the area of the backfilled cut (Photo 12). Six sheep phalanges and six fragments of unidentified animal bone were present in the sandy clay, and a deposit of oyster shells towards the lowest excavated level. Also towards the base, voids began to appear in section, indicative of larger rubble inclusions at that level.

5.2.4 In in both Test Pits 1 and 2 the gaol wall was observed to be flush from approximately the level of the cobble stones. Below this, the foundation was of rougher construction and in Test Pit 2, the foundation stones appeared weathered, suggesting that they had formerly been exposed to the elements. In Test Pit 1, the foundation appeared to sit atop an earlier wall (Photo 11).

Photo 10: Showing deposits adjacent to the north wall of the gaol in Test Pit 1. Looking west, 1m & 0.5m scales.

Photo 11: Close-up of the relationship between the gaol wall and an earlier wall in Test Pit 1. Looking south, no scale.

Photo 12: Showing the relationship between deposits in the east-facing section in Test Pit 2. Looking west, 1m & 0.5m scales.

Photo 13: Showing the foundation of the north-facing elevation of the gaol in Test Pit 2. Looking south, 1m scale.

5.2.5 Test Pits 3, 4 and 5 were located adjacent to the east-facing elevation of the former gaol building (Photos 14–18).

Test Pit 3

5.2.6 Below the turf in Test Pit 3 the mid-brown topsoil was up to 0.25m deep, with frequent small stones and rare medium stones. Below it was a mid- to light brown silty clay with fairly frequent medium to large angular stones and broken brick. This deposit was not excavated further than c.0.8m below the turf line.

5.2.7 Exposure of the gaol wall in this Test Pit revealed a buttress of rough stone and a friable grey-white lime mortar that extended up to 0.35m from the wall and was c.0.85m high (Photo 14). Although less strongly built than the gaol wall above, it nonetheless appeared integral to it.

Test Pit 4

5.2.8 Test Pit 4 reached an extent of 1.1m. Below the turf in Test Pit 4 was c.0.15m of mid-brown topsoil with frequent small to medium sub-angular stones. This overlay a c.0.5m deep compact, mid-brown sandy silt with frequent small, sub-angular stones which was the backfill of the cut for a modern, black drain pipe on a north/south alignment, which was visible in both the north- and south-facing sections of the Test Pit; the remains of the drain pipe itself being visible in the west-facing section (Photo 15). One large (0.32m x 0.24m x 0.24m) sub-square limestone block was found in the backfill. Below the backfill was c.0.3m of a mid-brown clay silt with occasional to rare small stones overlying c.0.15m of soft, mid-yellow brown sandy clay with frequent small lime mortar flecks and animal phalanges. This deposit was not bottomed. Several animal bones, mostly sheep phalanges, were recovered from this test pit.

5.2.9 At approximately 0.7m below the turf in Test Pit 4 a section of wall on a north-east/south-west alignment was revealed (Photos 15–16). The dimensions of this wall are not known, as it continued under the edges of the test pit. Its relationship with the wall of the gaol is also not known. Where exposed, the wall was of rough stone construction but due to its depth within the confines of the test pit it was not possible to determine the nature (if any) of the bond.

5.2.10 Where the gaol wall was exposed in Test Pit 4 it was revealed to have a rough stone foundation. A foundation cut was visible in the sandy yellow clay deposit at the bottom of the test pit (Photo 15).

Test Pit 5

5.2.11 The extent of Test Pit 5 reached to 0.7m deep. The first deposit encountered below the c.0.2m deep topsoil in Test Pit 5 was similar in character to that below the topsoil in test pit 4, and is as described in section 5.2.8. It represented the backfill of a still extant modern, black drainpipe on a north/south alignment (Photo 17), presumably the continuation of the pipe visible in Test Pit 4. However, in Test Pit 5, the cut for the drainpipe had truncated the cut and backfill of an earlier, ceramic, drainpipe on a north-east/south-west alignment. Finds from the backfill of these drains included the base of a wine glass, two sherds of blue and white glazed post-medieval pottery, three fragments of animal bone (including one probable cut phalange) and one bovine incisor. Fragments of the ceramic drainpipe were present in the backfill surrounding the later drainpipe. It

was apparent that the ceramic pipe had exited the gaol through an irregular hole at least 0.5m in diameter cut below ground level through the eastern gable wall (Photo 18). This hole had been poorly blocked with broken brick.

5.2.12 The cut for the ceramic drainpipe had truncated the deepest deposit encountered in Test Pit 5, which was a firm, pale yellowy clay that had a very compact thin (0.05m) layer of small angular stones with occasional mortar and coal fragments overlying it. This was not bottomed.

Photo 14: Showing the buttress revealed in Test Pit 3. Looking north-west, 1m & 0.5m scales.

Photo 15: Showing deposits in the south facing section of Test Pit 4, along with the section of earlier wall. Looking north, 1m & 0.5m scales.

Photo 16: Showing a section of earlier wall revealed in Test Pit 4. Plan view, 0.5m scale.

Photo 17: Showing deposits, foundation cut and drainpipe cut revealed in Test Pit 5: Looking north, 1m scale.

Photo 18: Test Pit 5, showing a poorly bricked up hole in the eastern gable wall of the gaol. Looking west, 1m scale.

5.2.13 Test Pits 6 and 7 were located adjacent to the south-facing elevation of strong room 4 (Photos 17–18).

Test Pit 6

5.2.14 The extent of Test Pit 6 was 0.6m deep. Below the turf in Test Pit 6 was c.0.12m of mid-brown topsoil with frequent small stones. This overlay the c.0.6m deep backfill of a modern, black drainpipe which is as described in section 5.2.8.The cut for the drainpipe was visible in the east-facing section of the Test Pit (Photo 19). It had truncated two deposits; firstly a light brown, silty clay with occasional small stones and evidence for tip lines and, secondly, a light yellowy brown, sandy silt with frequent small pieces of lime mortar. In section it was clear that the former, which abutted the wall of the gaol, was within the backfill of a cut in the latter, and was presumably backfill within a foundation cut. An outcrop of the natural, a yellow-brown blocky sandstone was revealed in the base of the Test Pit, approximately 1m below the turf line. Two fragments of oyster shell, one proximal end of a sheep/goat femur and two sheep/goat phalanges were recovered from this Test Pit.

Test Pit 7

5.2.15 Test Pit 7 was 1.2m deep. Below the turf was c.0.13m of mid-brown topsoil with frequent small stones (Photo 20). This overlay the c. 0.6m deep backfill for a drain pipe which is as described in section 5.2.8. Below that, a deposit of light yellowish brown, sandy clay, with lime mortar flecks and with frequent oyster shells overlay demolition layers comprising a layer of medieval roof slates over a layer of mortar fragments. This deposit was not bottomed at 1.2m.

Photo 19: Showing deposits and drainpipe in Test Pit 6. Looking west, 1m & 0.5m scales.

Photo 20: Showing deposits and drainpipe in Test Pit 7. Looking west, 1m & 0.5m scales.

Test Pit A

5.2.16 Test Pit A measured 1.04m deep. Test Pit A was located 6.7m north of the north wall of office 7 (Photos 21–22). The topsoil here comprised 0.3m deep compact and friable mid-brown clay silt, with frequent specks of burnt clay, coal flecks and small, grey mortar flecks in the lower 0.15m. Below the topsoil was an extremely compact, 0.27m deep layer of dark brown, sandy silt with very frequent (c.70%) inclusions of red brick, stone, grey mortar and coal. That in turn overlay a 0.17m deep compact, mid-brown clay silt with frequent, mostly small, angular and sub-angular stones. Below that was a 0.08m deep, very compact, homogenous band of light yellow-brown, sandy clay with small angular stones (Photo 22). The lowest deposit, which was not bottomed, was a mid-brown clay silt, at least 0.3m deep, with occasional slate fragments, coal flecks and some white mortar flecks. Three sherds of coarse, post-medieval glazed pottery, one fragment of clay pipe stem and one perforated iron disc were recovered from this test pit,

Photo 21: Showing the location of Test Pit A. Looking south-west, 1m scale.

Photo 22: Close up of west-facing section in Test pit A, showing possible former surface (band of yellow clay). Looking east, no scale.

Test Pit B

5.2.17 Test Pit B measured roughly 0.9m deep. Test Pit B was located 6.7m north of the north wall of Research room 6 (Photo 23). Below 0.2m of friable, mid-brown clay silt topsoil was a 0.12m deep, extremely compact but friable layer comprising a mixture of ash, mortar fragments, coal fragments, CBM and small, angular stones. This overlay a 0.5m deep compact layer almost entirely comprising small angular stones in a light brown, sandy clay matrix with occasional flecks of mortar and rare pieces of CBM. Below that was a 0.08m deep, very hard band of off-white lime mortar, with small angular stones. The lowest deposit, which was not bottomed, was a light brown, gritty silt clay with occasional mortar flecks and rare distinct pieces of mortar. One sherd of post-medieval glazed pottery and one sheep/goat phalange were recovered from this test pit.

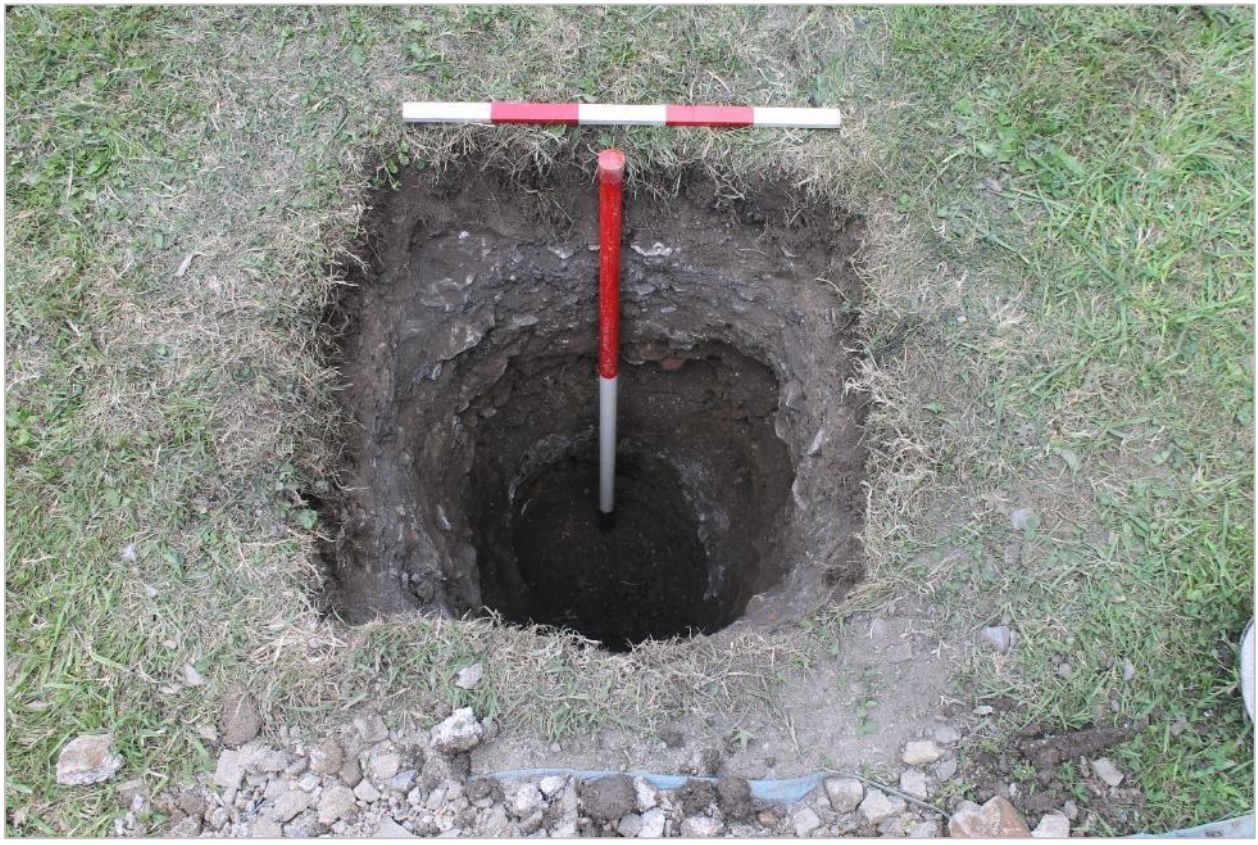

Photo 23: Showing deposits in Test Pit B. Looking west, 0.5m & 1m scales.

Test Pit C

5.2.18 Test Pit C measured 1.2m deep. Test Pit C was located c.0.5m from the south wall of Store 31 (Photo 24). Below the turf 0.1m of loose, dark brown sandy silt overlay a maximum 0.3m of pale, greyish yellow compact stone, with almost no soil matrix. This layer contained clear tip lines and varied, due to tipping, in both depth and make-up. One bovine talus (ankle bone) was recovered from this layer. Below it, the lowest excavated layer, which was not bottomed, was a mid- to dark brown silty clay with frequent small angular stone inclusions, occasional larger angular inclusions, rare flecks of coal, small discrete pieces of lime mortar and occasional oyster shells.

Photo 24: Showing deposits in Test Pit C. Looking south, 0.5m & 1m scales.

Test Pit D

5.2.19 Test Pit D measured approximately 0.9m deep. Test Pit D was located 9.2m south-west of the south-east corner of strong room 4 (Photo 25). Below 0.2m of dark brown sandy silt topsoil was a 0.04m deep band of grey-white concrete with angular aggregate. The concrete overlay 0.08m of very compact, dark grey-brown sandy silt with frequent small flecks of CBM and mortar. Below that was a 0.2m deep, very hard and compact lime mortar rubble with broken brick, CBM and angular sandstone. A loose rubble with voids was below this layer. The rubble had been piled up and capped by modern tiles on a concrete bedding.

Photo 25: Showing a void revealed below concrete in Test Pit D. Looking north, 0.5m & 1m scales.

Test Pit E

5.2.20 Test Pit E was an additionally excavated pit to those planned. It measured roughly 0.25m deep. Test Pit E was located 2m east of the south-east corner of strong room 4 (Photo 26). Below 0.15m of mid- to dark brown clay silt topsoil was a 0.1m deep, extremely compact deposit of light grey ash which broke to dust when impacted. A sherd of post-medieval blue and white glazed pottery was recovered from the upper level. Beneath the ash deposit was solid stone and lime mortar masonry that could not be damaged by the wrecking bar, thus preventing further excavation. Due to the limited size of the test pit it was not possible to characterize the masonry feature.

Photo 26: Showing masonry revealed in Test Pit E. Looking east, 0.5m scale.

Test Pit F

5.2.21 Test Pit F was an additionally excavated pit to those planned. It was located 4.9m south-east of the south-east corner of strong room 4 (Photo 27). Below c. 0.25m of mid- to dark brown clay silt topsoil was a compact mixture of dark brown clay silt soil, CBM, small stone chips and mortar. Below this, in the north- and west-facing sections was either the corner of a masonry feature comprising tightly jointed sandstone blocks, or a cut in the sandstone bedrock. In the north-facing section this feature was encountered 0.4m below the turf and was 0.6m deep.

Photo 27: Showing a possible wall revealed in Test Pit F. Looking south, 0.5m scale.

6. DISCUSSION

6.1 Internal Test Pits (8–11)

6.1.1 The test pits which were excavated inside the former gaol building revealed earlier floor surfaces below the modern concrete floor. In Test Pits 8, 9 and 10, these were slate slab floors, but the floor revealed in Test Pit 11 was of red brick. A late eighteenth century specification for prison buildings at the site states that cell floors were to be of red brick, but this is concerned with the earlier gaol buildings within the footprint of the inner ward of the castle, not the early nineteenth century building that was subject to test pitting(HRO MS HDX/588/1). Existing and proposed plans of that building, held in the County Record Office and apparently dating to its conversion to a police station, show that not all rooms on the ground floor had been cells, raising the possibility that they too had been floored using differing materials (PCC/PL/1/5; Figures 9–10).

6.1.2 However, Figure 10 also shows that seven inch diameter pipes formerly stood in the south-west corner of each of the cells occupying the area of the later strong room where Test Pit 11 was excavated. The function of these pipes is not given on the plan, but they might have been associated with the heating system that is depicted. That system appears to date from the use of the site by the Haverfordwest Police, as it is not shown on the 'existing' ground floor plan. The pipes connected the upper and ground floors and, presumably, the basement where the 'Firing Place' was situated. The brick surface below the modern floor in Test Pit 11 might therefore represent a bricked up hole in the floor following the removal of the pipes when the building was being converted for use as the County Record Office.

6.1.3 The freestanding brick structure revealed in Test Pit 10 was one of a pair of heating flues shown in Figure 10. Comparison with the pre police station plan (Figure 9) reveals that this heating system was not original but inserted to heat the police station. This explains why it was freestanding in Test Pit 10, and not keyed into the wall between strong rooms 4 and 5.

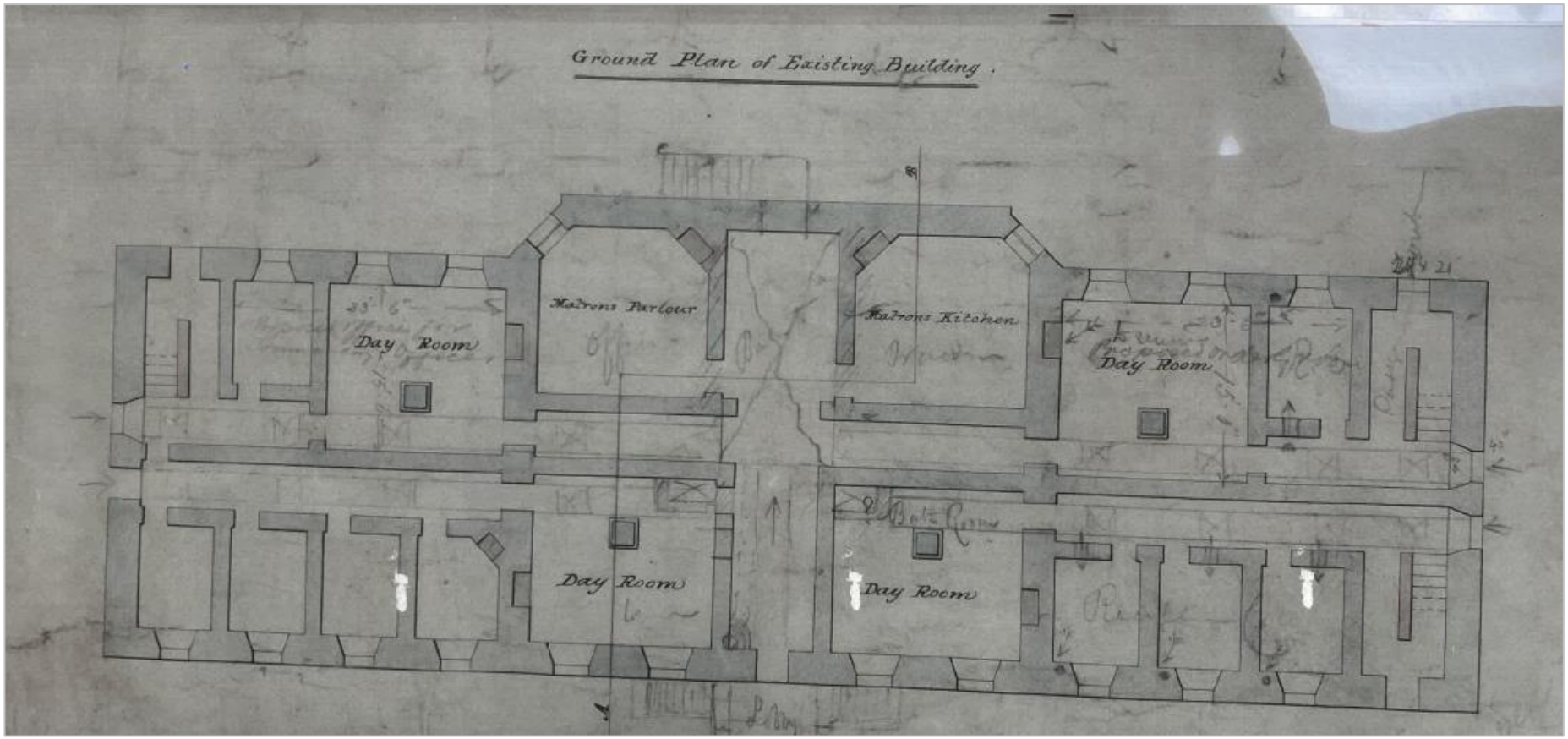

Figure 9: Plan showing the layout of the existing gaol building prior to its conversion for the Haverfordwest Police. This shows that not all rooms on the ground floor had been cells. Proposed use has been added to the plan in pencil. Plan ©County Record Office

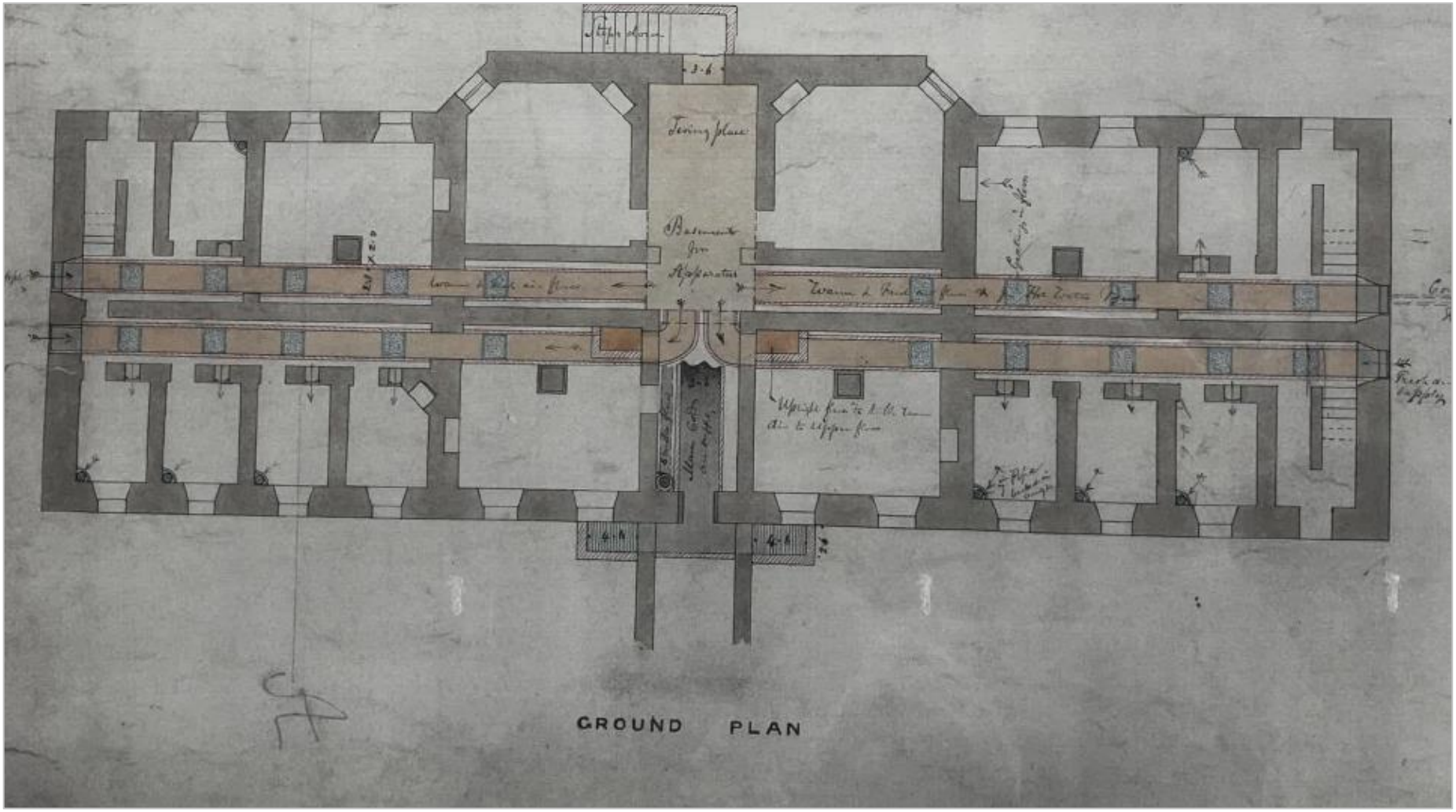

Figure 10: Plan showing the proposed alterations to the gaol building for the Haverfordwest Police. Pipes are depicted in the south-west corners of several former cells on the south side of the building. Heating flues are shown along the centre of the building, along with a firing place in the basement (centre north). Plan ©County Record Office.

6.2 External test pits

6.2.1 The deposits recorded below topsoil in Test Pits 1–7, abutting the east end of the gaol building at various points, probably represent made-up ground relating to the construction of the building in the early nineteenth century. In Test Pits 1, 4 and 6, backfilled foundations cuts were also observed.

6.2.2 Test Pits 1–7 also revealed the foundation of the gaol building. Of interest was a poorly blocked up hole for a drainpipe that had exited the building below-ground in Test Pit 5, and a small buttress seen in Test Pit 3. Presumably, the wall foundation needed additional support at this point, though the reason for this was unclear.

6.2.3 In Test Pits 1 and 2, it appeared that the gaol wall sat atop the remains of an earlier wall on the same north/south alignment, while in Test Pit 4, a section of earlier wall on a north-east/south-west alignment was recorded. Within such small test pits these features are difficult to interpret but, as Photo 28 shows, the gaol building stood within the outer ward of the castle and therefore they may represent medieval buildings that formerly stood there. Similarly, the presence of sandstones with mortar adhering, recorded in Test Pit 2, adds weight to the interpretation of sandstone blocks, recorded in Test Pit F, as an *in-situ* wall.

Photo 28: 1993 aerial photograph showing the location of the former gaol building within the outer ward of the castle. Looking west-south-west. © DAT

6.2.4 Most of the external test pits revealed a sequence of deposits below the topsoil. As already stated, the uppermost deposits likely represent made-up ground. However, a thin layer of orange/red burnt clay with small pieces of coal and cinders recorded below the topsoil in Test Pits 1 and 2 suggests that hot ashes from fires/ovens within the gaol were deposited outside the building in this area, while a compact stony layer in Test Pit C probably represents a yard surface outside the prison. The pale to mid-yellow clay, recorded in Test Pits 1, 4, 5 and A, may represent a former ground surface. However, due to the small size of the test pits, this cannot be

confirmed. The void revealed in Test Pit 10 corresponds with the location of toilets in the now demolished external wing of the police station. The void is thus likely to be an associated cess pit.

6.2.5 Ceramic and glass artefacts recovered during the watching brief were all of a domestic nature. It is doubtful that the fragment of wine glass and the blue and white glazed ceramic represent items used by prisoners. Coarser sherds of ceramic probably represent kitchen wares used in the storage and preparation of food.

6.2.6 The presence of oyster shells is not surprising. Between the eighteenth and the early twentieth centuries there was a thriving oyster fishing industry at Llangwm, six miles south of Haverfordwest, and oysters were considered a cheap and plentiful source of food (Smallfield 2012; Skyrme 2016). The small animal bone assemblage is of slight interest because it is dominated by ankle and foot bones. However, this should not be interpreted as representative of faunal remains from the site since the watching brief was focused on small areas and other parts of the animals may very well survive elsewhere.

7. CONCLUSIONS

7.1 Pembrokeshire County Council commissioned DAT-AS to undertake an archaeological watching brief at Haverfordwest Castle Gaol, Pembrokeshire, during geotechnical investigations.

7.2 The site represents a former nineteenth century gaol building located within the outer ward of a castle that was founded during the early twelfth century. Upstanding remains dating to both these phases of use survive above ground.

7.3 The watching brief has revealed that remains dating from both medieval and post-medieval use of the site survive below ground within the investigated area. Within the internal area of the gaol, archaeological features were present immediately below the current floor surface; externally, archaeological deposits were present as little as 0.08m below current ground level. Deposits in the test pits were not bottomed, and natural undisturbed ground appeared only to be encountered in one test pit. The sections of walling revealed in Test Pits 4 and F indicate that further significant archaeological features and deposits are very likely to survive below ground in the area proposed for development.

8. ACKNOWLEDGEMENTS

8.1 Dyfed Archaeological Trust would like to thank the staff of Haverfordwest Museum for providing information relating to the gaol.

9. SOURCES

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APPENDIX I:

WRITTEN SCHEME OF INVESTIGATION

HAVERFORDWEST CASTLE GAOL, PEMBROKESHIRE
ARCHAEOLOGICAL MONITORING 2022
WRITTEN SCHEME OF INVESTIGATION

1. Introduction

1.1 This Written Scheme of Investigation (WSI or specification) has been prepared by DAT Archaeological Services (the contracting arm of Dyfed Archaeological Trust) to provide a methodology for archaeological monitoring and recording through an archaeological watching brief during geotechnical works associated with redevelopment of the former gaol building at Haverfordwest Castle, Haverfordwest, Pembrokeshire (centred on NGR SM 9529 1573) (Figures 1 and 2).

1.2 The redevelopment is associated with ongoing improvement works at the Haverfordwest Castle site as part of Pembrokeshire County Council's *Pembrokeshire Recovery and Regeneration Strategy 2020-2030*.

1.3 The development area encompasses the former gaol building within the area enclosed by the curtain wall at Haverfordwest Castle. The area of the gaol building is not scheduled although it sits within the scheduled area of the castle (PE366), so the area is still archaeologically sensitive

1.4 The geotechnical works precede the first phase of construction works and fall outside of planning. The works will include:

- Clearance of the areas to be investigated
- Hand excavation of four internal, and eleven external, trial holes each measuring 600mm x 600mm and excavated to a depth of 300mm below existing wall foundations
- Should the required depth of any trial hole exceed 1.2m, sides of pit to be chamfered to a safe angle of repose. To be agreed on site with the structural engineer
- Post-inspection, each trial hole to be back-filled

1.5 Since there is a high potential for archaeological remains relating to Haverfordwest Castle to be exposed by the groundworks, an archaeological watching brief is considered necessary.

1.6 The aim of monitoring through an archaeological watching brief is to provide information on the character and significance of any below ground archaeological remains that may be revealed during the works. Should any significant archaeological deposits be revealed, then a programme of further mitigation can be formulated and potentially implemented prior to or during development.

1.7 This written scheme of investigation (WSI) details the methodology of the watching brief which will be undertaken by DAT Archaeological Services and has been prepared in accordance with the Chartered Institute for Archaeologists' (CIfA) *Standard and guidance for an archaeological watching brief* (CIfA 2014). A copy will be sent to the archaeological advisors to the local planning authority for their approval.

1.8 DAT Archaeological Services has considerable experience of this type of project and always operates to best professional practice. DAT Archaeological Services has its own Health and Safety Policy, and all works are covered by appropriate Employer's Liability and Public Liability Insurances. Copies of all are available on request.

1.9 All permanent DAT Archaeological Services staff are CSCS certified to work on construction sites.

1.10 **Dyfed Archaeological Trust is a CIfA Registered Organisation and all permanent staff are CSCS registered.**

Figure 1: Map extract showing the location of development area (red dot).

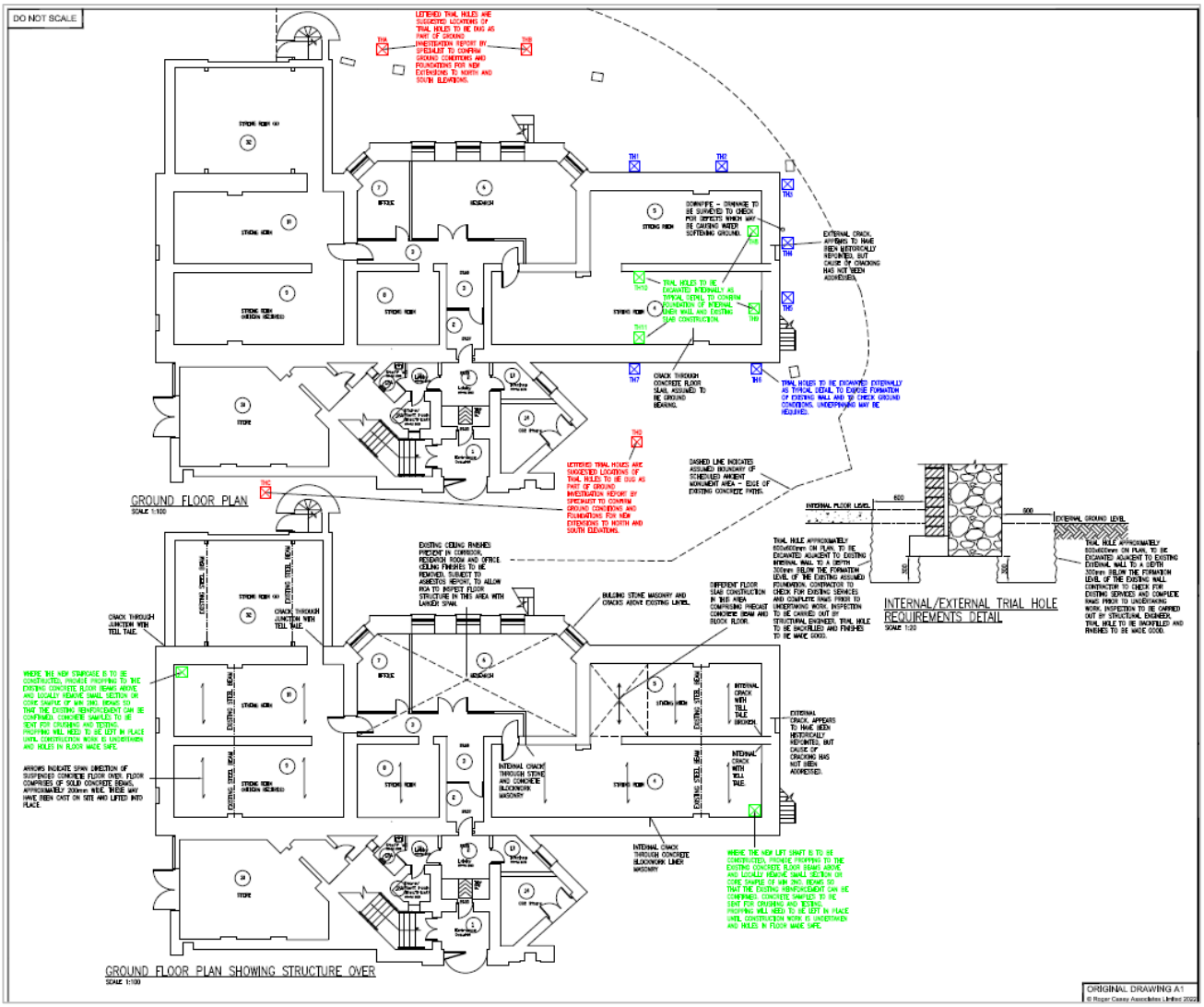

Figure 2: Detailed plan showing suggested locations of trial holes (red, green and blue).Supplied by the client (not reproduced to original scale)

2. WATCHING BRIEF

2.1 The definition of archaeological watching brief, taken from the Chartered Institute for Archaeologists' *Standard and guidance: for an archaeological watching brief* (CIfA 2014) is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

2.2 The purpose of a watching brief, as laid down in the CIfA Standard is:

to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;

to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment (CIfA 2014).

2.3 This document provides a scheme of works for:

Archaeological attendance, monitoring and recording during groundworks associated with geotechnical test pitting at Haverfordwest Castle, Haverfordwest, Pembrokeshire.

3. PROJECT OBJECTIVES

3.1 Provision of a written scheme of investigation to outline the methodology by which DAT Archaeological Services will undertake the archaeological watching brief (this document).

3.2 To monitor groundworks in order to identify the presence/absence of any archaeological deposits.

3.3 To establish the character, extent and date range for any archaeological deposits to be affected by the proposed groundworks.

3.4 To appropriately investigate and record any archaeological deposits to be affected by the groundworks.

3.5 To produce an archive and report of any results.

4. FIELDWORK

4.1 A 'watching brief' is to be undertaken at the commencement of groundworks at the site that have the potential to expose, damage or destroy underlying archaeological remains. This will be carried out during any groundbreaking works, including floor slab/turf removal, hardcore removal and subsoil removal.

4.2 The watching brief applies to all areas where any groundbreaking works are undertaken as part of this development. The whole development area is archaeologically sensitive and groundworks could destroy or damage archaeological deposits and features; particularly of medieval and post-medieval date.

4.3 It is essential that coordination between the site contractors and the archaeologist(s) is established at the outset to avoid any potential disturbance to archaeology without an archaeologist being present, or unnecessary visits to the site when works are being carried out that do not require the presence of an archaeologist.

4.4 Adequate time must be made available to the visiting archaeologist to ensure that appropriate recording can be undertaken of any archaeological features or deposits exposed during ground works.

4.5 Any archaeological features or deposits revealed during the groundworks will be examined and recorded to an appropriate level.

4.6 Recording of all archaeological features or deposits will conform to best current professional practice and be carried out in accordance with the Recording Manual[2] used by DAT Archaeological Services. Significant archaeological features or deposits will be drawn at a suitable scale (no less than 1:20) and photographed in an appropriate format.

4.7 All archaeologically significant finds will be retained and, where possible, related to the contexts from which they derived. Finds will be temporarily stored by DAT Archaeological Services in stable conditions. All finds, except those deemed to be Treasure, will remain the property of the landowner. It is assumed that permission will be granted for any finds recovered to be stored within the site archive for the project for the purposes of reporting and at a later date deposited within a local museum or other suitable repository.

4.8 Features containing deposits of environmental significance will be sampled, if present. The samples will be retained in stable conditions until analysis can be arranged.

4.9 In the event that unforeseen archaeological discoveries are made during the development, or that archaeological remains of high significance are exposed, DAT Archaeological Services shall have the power to halt any ground works and shall inform the site agent/project manager and the archaeological advisor to the planning authority (DAT-DM), and prepare a written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by DAT-DM, DAT Archaeological Services shall, if required, implement on behalf of the Client a contingency scheme for salvage excavation of affected archaeological features. In these instances it would be necessary to employ extra resources to record such features to an appropriate standard.

4.10 In the event that human remains are encountered, the District Coroner's Office and the Police will be notified immediately. All human remains will, where possible, be left in situ. If preservation in situ is not possible all statutory permissions will be obtained in writing before removal begins.

5 POST-FIELDWORK REPORTING AND ARCHIVING

5.1 An archive will be prepared if it meets the requirements of the Dyfed Archaeological Trust archive retention policy (2018). If it does, then data recovered during the watching brief will be collated into a site archive structured in accordance with the specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth. The *National Standards for Wales for Collecting and Depositing Archaeological Archives* produced by the Federation of Museums and Art Galleries of Wales will also be adhered to. Digital archives will be collated using the Royal Commission on the Ancient and Historical Monuments of Wales systems (2015) and deposited with the RCAHMW. The Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) shall be followed.

5.2 A single report will be produced covering the results of all the archaeological monitoring and recording during the watching brief. The results of the fieldwork will be assessed in local, regional and wider contexts.

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[2] ***DAT Archaeological Services has adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.***

5.3 The report will include a brief research element to place the site into its wider context within the area.

5.4 The project archive, including all significant artefacts and ecofacts (excepting those which may be deemed to be Treasure) will be deposited with an appropriate body following agreement with the landowner (if retained and containing more than just digital information).

5.5 DAT Archaeological Services will arrange for the deposition of finds, and ascertain the costs of storage and deposition, with an approved body before the project commences and inform the curator of the arrangement which has been made.

5.6 A summary of the project results, excluding any confidential information, may be prepared for wider dissemination (e.g. Archaeology in Wales and special interest and period-specific journals).

5.7 The report will be prepared to follow the appropriate Standard and Guidance for Historic Building Surveys and Archaeological Watching Briefs (CIfA S&G: AWB 2014).

5.8 Digital copies of the report will be provided to the client, as well as the Dyfed Archaeological Trust - Development Management and the regional Historic Environment Record.

5.9 Appropriate specialists to be used by DAT Archaeological Services include:

- **Industrial Archaeology** –Jennifer Protheroe-Jones, Principal Curator – Industry, National Waterfront Museum, Swansea
- **Post-medieval / medieval pottery** – Dee Brennan (local independent specialist)
- **Prehistoric Pottery** – Dr Alex Gibson (formerly of University of Bradford / now Independent pottery specialist)
- **Prehistoric Flint** – Dr Andrew David (formerly of Historic England, now independent lithics specialist)
- **Radiocarbon dating** – Beta Analytic
- **Animal Bones** – Worcester Archaeology
- **Fish bones –** Jennifer Browning (University of Leicester Archaeological Services
- **Environmental / Pollen analysis** – Worcester Archaeology

6. STAFF

6.1 This project will be managed by Fran Murphy, Head of DAT Archaeological Services.

6.2 Archaeological attendance during the watching brief will be undertaken by staff drawn from the team of archaeologists employed by DAT Archaeological Services.

7. QUALITY ASSURANCE

7.1 DAT Archaeological Services has considerable experience of undertaking all categories of archaeological fieldwork and always operates to best professional practice; adhering to CIfA guidelines where appropriate. The Trust is a Registered Organisation with CIfA and all staff abide by their code of conduct and adhere to their relevant standards and guidance.

7.2 DAT Archaeological Services operate robust internal monitoring procedures that ensure that the standard of each project is maintained from commencement to completion.

8. MONITORING

8.1 The fieldwork may need to be monitored by Dyfed Archaeological Trust Development Management in their capacity as archaeological advisors to the planning authority, who should be provided access to the site at any time during the evaluation works. However, during the current Covid-19 pandemic a different method of monitoring may be used via regular photographic updates of the work and by telephone. The Head of DAT Archaeological Services may also monitor the on-site works intermittently.

9. HEALTH AND SAFETY

9.1 All DAT Archaeological Services staff are CSCS[3] registered.

9.2 DAT Archaeological Services will carry out a health and safety risk assessment to ensure that all potential risks are minimised.

9.3 All known health and safety risk and the presence of any services etc must be made known to the attending archaeologist at the start of any groundworks by the client/site contractor.

9.4 All relevant health and safety regulations must be followed, including compliance with Welsh Government guidelines on working practices during the current Covid-19 Pandemic, and guidance issued by CIfA.

9.5 CIfA advise that Registered Organisations should ensure they are familiar with the latest *Site Operating Procedures*, published by the Construction Leadership Council (Version 4, updated 18th May 2020) and the latest *Covid-19 Working Advice Ver.1.1*, published by Prospect (5th May 2020), which addresses potential issues relating to archaeological site work. These procedures will be attached to the project risk assessment. If the site cannot operate in line with this guidance, then the project archaeologist will not be allowed to attend.

9.6 The project risk assessment details the precautions put in place to reduce the spread of Covid-19 Coronavirus during fieldwork.

9.7 All site inductions, H&S procedures and site rules of the site contractor will be made known to DAT Archaeological Services staff prior to them commencing work on-site.

9.8 Safety helmets, high visibility vests and boots are to be used by all site personnel as necessary. The site contractors will make all archaeological staff aware of any other PPE[4] that may be required and provide them. Archaeological staff must not enter any area where there is a considered to be a health and safety risk that has not or is not being appropriately mitigated against.

9.9 DAT Archaeological Services staff must ensure that their presence on site is communicated to all relevant site staff, especially machine operators.

10. ARBITRATION

11.1 Any dispute or disagreement arising out of a contract in relation to this work shall be referred for a decision to the Chartered Institute of Archaeologist's arbitration scheme.

11. REFERENCES

Brown, D.H. 2011, *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation,* Archaeological Archive Forum

CIfA. 2014, *Standard and guidance for an archaeological watching brief*, Reading, Chartered Institute for Archaeologists

[3] ***Construction Skills Certification Scheme (Health and Safety Tested)***

[4] ***Personal Protection Equipment***

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