

**SOUTH QUAY REDEVELOPMENT PHASE I,
PEMBROKE, PEMBROKESHIRE:
ARCHAEOLOGICAL WATCHING BRIEF
PLANNING APPLICATION NO
20/0304/PA**



Prepared by Dyfed Archaeological Trust
For: Lloyd & Gravell Ltd



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REPORT NO. 2022-23
EVENT RECORD NO. 128824

May 2022

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by

Dr Marion Shiner

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Client

Lloyd & Gravell Ltd

Event Record No

128824

Report No

2022-23

Project Code

FS22-003

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Rev Number	Description	Undertaken	Approved	Date
_V1	First draft	MS		
_V2	Additions	MS		
_V3	Final	PP	FM	22/06/23
_V4	Edited final	CK	FM	13/07/23

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EXECUTIVE SUMMARY

Dyfed Archaeological Trust (DAT) Archaeological Services were commissioned to undertake a watching brief during groundworks associated with alterations to Nos. 4, 5 and 6 Castle Terrace and No. 7 Northgate Street, Pembroke, Pembrokeshire (centred on NGR SM 9830 0157). The work was being undertaken as part of enabling works during redevelopment of the South Quay area of Pembroke.

Stratified post-medieval deposits were recorded in test pits and trenches during the watching brief. One test pit also revealed an undated, but potentially medieval, deposit of dumped metalworking waste, while two others revealed sections of buried wall adjacent to upstanding buildings.

CRYNODEB GWEITHREDOL

Comisiynwyd Gwasanaethau Archaeoleg YAD i gynnal briff gwylio archaeoleg yn ystod gwaith dir cysylltiedig a newidiadau i rhifau 4, 5, a 6 Castle Terrace ac rhif 7 Northgate Street, Penfro, Sir Benfro (canoliedig ar NGR SM 9830 0157). Roedd y gwaith yn cael ei gwneud fel rhan o waith galluogi yn ystod y gwaith o ailddatblygu ardal Cei'r De ym Mhenfro.

Cofnodwyd dyddodion ôl-ganoloesol haenog mewn pyllau prawf a ffosydd yn ystod y briff gwylio. Datgelodd un pwll prawf dyddodiad heb ei dyddio, ond o bosibl yn ganoloesol, o wastraff gwaith metel wedi'i ddympio, tra datgelodd dau arall ddarnau o wal gladdedig gerllaw adeiladau sy'n sefyll.

1 INTRODUCTION

1.1 Project Commission

1.1.1 DAT Archaeological Services were commissioned by Lloyd & Gravell Ltd. to undertake an archaeological watching brief during ground investigation works associated with Phase I of the redevelopment of Nos. 4, 5 and 6 Castle Terrace and No. 7 Northgate Street, Pembroke, Pembrokeshire (centred on NGR SM 9830 0157).

1.1.2 The development site is located within Nos. 5 and 6 Castle Terrace, within No.7 Northgate Street, and to the rear of Nos. 4, 5 and 6 Castle Terrace and No. 7 Northgate Street, within the medieval town of Pembroke. The proposed development also lies in close proximity to Pembroke Castle, in an area considered to be one of the earliest established parts of the medieval town.

1.1.3 The planning application (20/0304/PA) is for demolition of No. 6 Castle Terrace and refurbishment and extension of No. 4 and No. 5 Castle Terrace with associated access and landscaping works. The supporting documentation with the planning application included a Historic Environment Desk-Based Assessment prepared by DAT Archaeological Services (report no.2020/30, June 2020) for the South Quay Development. This report concluded (10.2.7) that groundworks associated with the proposed development had the potential to expose, damage and destroy a variety of archaeological remains that have been identified throughout the development area. A watching brief undertaken during pre-planning geotechnical investigational works within the proposed development area (DAT Archaeological Services report no. 2020/18, March 2020) recorded stratified medieval and post-medieval deposits and concluded (5.6) that significant archaeological remains are potentially preserved.

1.1.4 Accordingly, Dyfed Archaeological Trust-Development Management (DAT-DM) in their capacity as archaeological advisors to the LPA recommended that an archaeological condition should be placed on planning consent in line with sections 6.1.23 and 6.1.27 of Planning Policy Wales (ed.10, 2018) and Sections 4.13 and 4.14 of TAN 24: The Historic Environment (2017).

1.1.5 The condition read:

No development shall take place until a qualified and competent archaeologist has submitted a written scheme of investigation (WSI) for approval in writing by the local planning authority. This WSI will describe the different stages of the work and demonstrate that it has been fully resourced and given adequate time. On behalf of the local planning authority, their archaeological advisors (DAT DM) will monitor all aspects of this work through to the final discharging of the condition. This work will not be deemed complete until all aspects of the WSI have been addressed and the final report submitted and approved.

Reason: to protect historic environment interests whilst enabling development

1.2 Scope of the Project

1.2.1 A Written Scheme of Investigation (WSI; Appendix I) for archaeological monitoring and recording through an archaeological watching brief was prepared by DAT Archaeological Services prior to the commencement of the works. The WSI outlined the project objectives as:

- Provision of a Written Scheme of Investigation to outline the methodology for the watching brief which DAT Archaeological Services will undertake;
- To monitor ground works in order to identify the presence/absence of any archaeological deposits;
- To establish the state of preservation, character, extent and date range for any archaeological deposits identified;
- Production of a report and an archive of the results.

1.2.2 The overall work was summarised as:

Archaeological attendance during the Phase I of the proposed redevelopment of the South Quay area of Pembroke. Appropriate investigation and recording of any such remains will be undertaken if revealed. The production of a report and archive of the results of the works will be prepared.

1.2.3 The groundworks are being undertaken as part of construction works, including enabling works, during the redevelopment of the South Quay area of Pembroke.

1.2.4 The archaeological works were undertaken in accordance with the Chartered Institute for Archaeologists *Standard and guidance for an archaeological watching brief* and their codes of conduct (CIfA 2014).

1.3 Report Outline

1.3.1 This report provides a summary and discussion of the archaeological watching brief and its results.

1.4 Abbreviations

1.4.1 Sites recorded on the Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Number (NGR).

1.4.2 Listed buildings (LB) are buildings and structures of national importance given legal protection by being placed on a 'List' of Buildings of Special Architectural or Historic Interest. Buildings on the list are given one of three grades which denote their level of importance (Grade I, II* & II), Grade I being the highest. A listed building may not be demolished, extended or altered without special permission from the local planning authority.

1.5 Illustrations

1.5.1 Printed map extracts are not necessarily reproduced to their original scale. On maps, north is towards the top of the page unless otherwise indicated.

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) Period	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period	c.AD 410 – AD 1086	
Medieval Period	1086 – 1536	
Post-Medieval Period ¹	1536 – 1750	
Industrial Period	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



Figure 1: Location of development site (red boundary).

Map data from OS OpenMap - Local <https://osdatahub.os.uk/downloads/open/OpenMapLocal> 13/07/2023



Figure 2: Detailed location of development site.

2. THE SITE

2.1 Location and Topography

- 2.1.1 The site is located at the junction of Castle Terrace and Northgate Street, within the western part of Pembroke. The Pembroke River is immediately to the north and Pembroke Castle (PRN 4518) c.70m to the west.
- 2.1.2 The watching brief area is located within and to the rear of the properties of Nos 4-6 Castle Terrace and No. 7 Northgate Street, Pembroke (Fig 2). The gardens of each property are enclosed on either side by upstanding stone walls which probably fossilize the boundaries of medieval burgage plots. Nos. 4 and 5 Castle Terrace are Grade II Listed Buildings (LB Ref No. 6313), as is No. 7 Northgate Street (LB Ref No. 6425).
- 2.1.3 The underlying solid geology of the site comprises the Pembroke Limestone Group, which formed between 358.9 and 329 million years ago during the Carboniferous period (BGS nd).

2.2 Previous Archaeological Investigations.

- 2.2.1 An archaeological evaluation, undertaken by the Glamorgan-Gwent Archaeological Trust (GGAT) in 1994 within the watching brief area, revealed deeply stratified deposits dating from the thirteenth to the twentieth centuries (GGAT 1995). This also demonstrated that the present segment of town wall, placed to the rear of the burgage plots, was constructed during the 17th century on a different alignment to that of its medieval predecessor. Finds recovered during the evaluation included pottery fragments that ranged in date from the thirteenth to the twentieth centuries. The finds also included a single sherd of Romano-British Black Burnished Ware, dated to the third century AD.
- 2.2.2 Considerable survey work has also been undertaken on the medieval town walls of Pembroke. During 2000, DAT (formerly Cambria Archaeology) were commissioned by Pembrokeshire County Council to undertake an archaeological assessment of the town walls (Pembroke Design and Cambria Archaeology 2001). This noted that much of the surviving medieval town wall was constructed during the thirteenth and fourteenth centuries, and that stone had been plundered from the wall sometime after the Civil War (1642–1651).
- 2.2.3 In 2002, a watching brief was undertaken at the Drill Hall, immediately west of the current development area (Schlee 2002). The watching brief was recommended due to the close proximity of the properties to the castle and the potential for features relating to the medieval town to survive. However, no features or deposits that could be reliably dated to the medieval period were encountered.
- 2.2.4 A building survey has previously been undertaken on the properties that are the subject of the current development (Ludlow et al. 2019). The resulting report detailed the history and development of the study area and recorded the standing buildings and rear boundary walls of Nos. 4–6 Castle Terrace, and Nos. 7 and 8 Northgate Street (Fig 2). The buildings were derelict and except for No. 6 Castle Terrace, were not fully accessible for safety

reasons. In most cases, thick finishes obscured much of the walling and these constraints hampered full structural analysis and interpretation. Nos. 4 and 6 Castle Terrace retained medieval fabric at basement level and are considered to represent masonry town houses of some quality, potentially late fifteenth to early sixteenth century in origin, with seventeenth century additions. Nos. 4 and 5 are described as early nineteenth century residences, potentially originating as a single merchants dwelling, subsequently subdivided into two units. Northgate Street properties may not have been developed until the seventeenth or early eighteenth century. The garden areas of Nos. 4, 5 and 6 Castle Street are terraced, sloping downwards from Castle Terrace towards South Quay. They contain numerous stone boundary walls, some of considerable height. The boundaries follow those of burgage plots laid out during the medieval period and may potentially contain medieval fabric. The walls themselves are significant historic assets.

2.2.5 A desk-based assessment was undertaken during the pre-planning phase of the development (Poucher 2020) with the aim of identifying any or all of the following:

- known archaeological or historical sites within the site and its environs;
- potential setting impacts on designated archaeological assets in the vicinity;
- any historic landscape areas that might be affected by the proposals;
- the potential for hitherto unknown archaeological remains to be present within the development area.

The report identified a relatively large number of heritage assets that might be potentially affected as a result of the development proposals. Primarily the potential impacts, both direct and indirect, would affect the survival or visual layout of surviving medieval or significant later elements of the properties in question. However, the potential for any necessary groundworks to expose, damage and destroy a variety of archaeological remains was also noted.

2.2.6 During the pre-planning phase of the current development, a watching brief was undertaken in the gardens of Nos. 5 and 6 Castle Terrace and on land to the rear of No. 7 Northgate Street (Shobbrook 2020). Stratified deposits were recorded, including potential medieval and post-medieval garden deposits, deposits of post-medieval made-up ground and building debris.

2.3 Archaeological Potential

2.3.1 Pembroke Castle (PRN 4518) is located immediately to the west of the development area. The castle was established as a timber ringwork by Roger Montgomery in 1093 and formed a power base for the Normans in south-west Wales. It was used as a strategic power base to launch the Norman invasion of Ireland. During the late twelfth century, the castle passed to William Marshall, who replaced the timber structure with a stone castle by

the early thirteenth century. During this period, the present keep, and inner ward were constructed and the town would have developed within the outer bailey. Further additions in the form of stone defences to the outer ward are also thought to have been started by William Marshall. During its later history the castle saw action during the Civil War, after which it was slighted and abandoned before being renovated during the nineteenth and early twentieth centuries. Pembroke Castle is a Grade I listed building (after Rees, 1992, 140-143).

- 2.3.2 The existing garden areas located to the rear of the properties fronting Castle Terrace are thought to occupy the footprint of medieval burgage plots. The presence of medieval artefacts, a section of medieval walling and a possible ditch have already been confirmed through excavation (GGAT 1995 and see 2.2.1).
- 2.3.3 Other medieval features within the vicinity of the development site include a nearby bridge (PRN 29534) and the Golden, or Market, Cross (PRN 3291), which stood near the gateway to Pembroke Castle at the west end of Main Street. The cross is mentioned in a charter of 1154, which states: *'I will firmly enjoin that all persons who shall enter their ships into the Port of Milford Haven with merchandise to buy or sell on land, shall come to the Bridge of Pembroke and buy or sell there, or if they choose they may bargain at the Cross'*. The cross was depicted on a French plan of Pembroke dated c.1650 (reproduced in RCAHMW 1925) but no visible trace of it survives today.
- 2.3.4 The development site is likely to have seen continued activity throughout the post-medieval period. Several seventeenth, eighteenth and nineteenth century buildings have been identified along Castle Terrace and Northgate Street (PRNs 6394, 9672, 20036, 60222, 60315, 60577, 60599, 115023, 115024 and 115025). The town walls that enclose the site are also thought to have been built, or rebuilt, during the seventeenth century (PRN 59674).

3. WATCHING BRIEF METHODOLOGY

3.1 Fieldwork

- 3.1.1 The watching brief was undertaken in accordance with the Chartered Institute of Archaeologists' *Standard and guidance for an archaeological watching brief* (CIfA 2014).
- 3.1.2 Recording of all archaeological features or deposits conformed to best current professional practice and was carried out in accordance with the Recording Manual used by DAT Archaeological Services (adopted from the Recording Manual developed by English Heritage Centre for Archaeology, a copy is always available on-site for inspection). A written, drawn and photographic record was maintained throughout this watching brief and all contexts encountered were recorded.
- 3.1.3 The majority of groundworks observed during the watching brief were undertaken by a combination of mechanical and hand excavation. Within the coal cellar of No. 7 Northgate Street only hand excavation was undertaken.

3.2 Timetabling of Fieldwork

- 3.2.1 The watching brief took place on 12 February 2021, 16, 17 and 20 May 2022, 20 and 21 July 2022, 02 and 03 August 2022 and 06 April 2023. The weather conditions were mixed throughout.

3.3 Post-Fieldwork Reporting and Archiving

- 3.3.1 All data recovered during the fieldwork will be collated into a site archive structured in accordance with 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.
- 3.3.2 The results of the fieldwork have been assessed in their local, regional and wider contexts. The report includes a desk-based research element to ensure that the site is placed within its wider archaeological context.
- 3.3.3 A report fully representative of the results of the fieldwork has been prepared (this document).

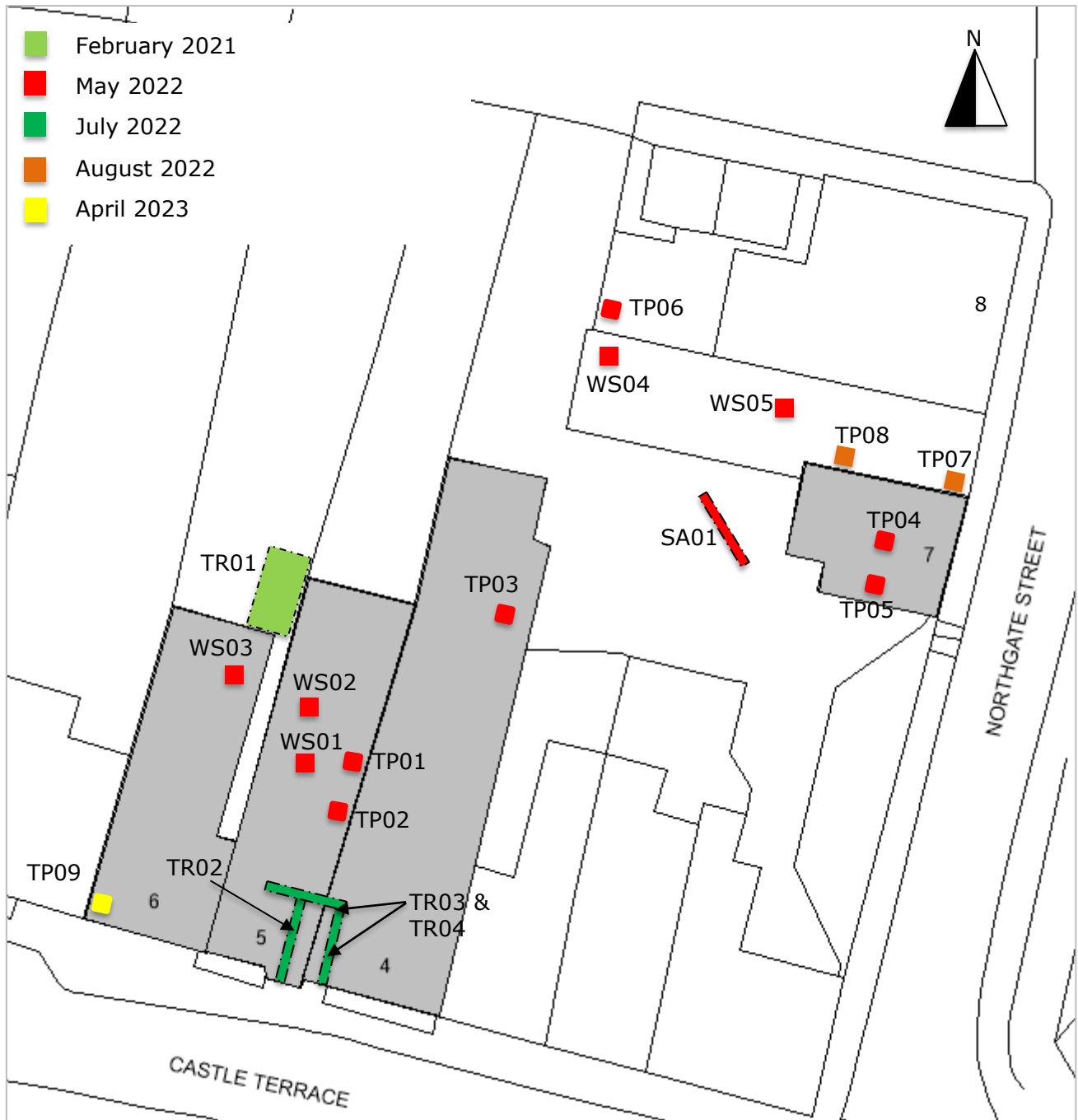


Figure 3: Approximate locations of window spaces, soakaways, trenches, and test pits

4. WATCHING BRIEF RESULTS

- 4.1 The development area was accessed via scaffolding from South Quay car park into the rear garden of No 5 Castle Terrace. From here, all the necessary groundwork locations could be accessed within Nos. 5 and 6 Castle Terrace, No. 7 Northgate Street, and on land adjacent to those properties.
- 4.2 Test Pits 01-06 and 09 and all window spaces were excavated by hand following the initial breaking up of modern concrete surfaces by mechanical picker where necessary. The remaining excavations were carried out mechanically. All groundworks took place under the observation of the attending archaeologist.
- 4.3 Fifteen excavations were undertaken comprised of:
- Window Spaces (WS)
 - Soakaways (SA)
 - Test pits (TP)
- 4.4 Window spaces were excavated through initial levels to create access for a geotechnical drill to test the structural makeup of deeper deposits. A soakaway was excavated to assess the permeability of the ground, with the excavated pit being filled with water to test the speed at which the water permeated. Nine test pits were located adjacent to upstanding buildings or walls to assess their structural stability.
- 4.5 Four larger trenches were excavated. One was located to the rear of No. 6 Castle Terrace where it was necessary to replace a section of broken drainpipe. The remaining three were foundation trenches excavated within Nos 4 and 5 Castle Terrace.
- 4.6 Described below are the results of the watching brief on all groundworks. For individual locations see Figure 3.
- Curly brackets {} denote a structure;
 - Round brackets () represent archaeological fills and layers;
 - Square brackets [] indicate a cut feature.
- 4.7 To avoid confusion, numbering of the window spaces, test pits and trenches is sequential in this report. This does not follow the system used by the Geotechnical Engineers on site in May 2022. Each area was defined by them as a separate phase and numbering restarted with each phase of the works.

4.8 Trench 01 (TR01), February 2021

- 4.8.1 A trench measuring 3m north/south by 1.2m east/west and 0.78m deep was excavated to the rear of No. 6 Castle Terrace, directly below a revetment wall for a raised platform (Fig 3, TR01). The natural geology, a reddish-brown silty clay, was encountered at 0.63m below the turf level, underlying a mid-blackish brown, silty clay garden soil (Photo 1). No archaeological features were observed in the trench.



Photo 1: Trench 01, post-excitation showing broken drainpipe and garden soil above natural geology. View south, 1m scale.

4.9 Geotechnical Pits, May 2022

- 4.9.1 **WS01:** This window space, which was excavated through an existing concrete floor inside No. 5 Castle Terrace, measured 0.48m by 0.36m by 0.38m deep (Photo 2).



Photo 2: WS01 within No. 5 Castle Terrace showing stratified deposits. Looking east, 1m scale.

- 4.9.2 Above the red clay natural, of which c.0.09m was exposed in section, was a c.0.07m deep mid-brown soil. This soil was below a thin layer of lime mortar which varied in depth from c.0.01m to c.0.04m. Above the lime mortar was a c.0.07m deep deposit of slate fragments, some of which appeared in section to be of a size approaching that of modern roofing slates, and above them was the 0.08m deep modern concrete floor. No artefacts were present within WS01.
- 4.9.3 **WS02:** This window space measured 0.64m by 0.60m by 0.59m deep and was located within No. 5 Castle Terrace. It was excavated through a layer of demolition debris associated with the recent removal of a tiled floor to create a firm footing for scaffolding (Photo 3). Below the modern floor level, a single layer of made-up ground was revealed to a depth of 0.59m, comprising randomly layered brick fragments, limestone rubble and occasional slate fragments.



Photo 3: Building debris in WS02, within No. 5 Castle Terrace. Looking west, 1m scale

- 4.9.4 **WS03** measured 0.50m by 0.45m by 1.10m deep and was excavated through a 0.08m deep modern concrete floor within a room at the rear of No. 6 Castle Terrace (Photo 4). Above the red clay natural, which was encountered at a depth of c.0.54m, was a c.0.38m deep, dark brown, friable silty soil containing frequent small to large sub-angular stones and occasional medium sized rounded stones. A c.0.16m deep, mid-yellowish-brown, friable silty soil containing a modern clay drainpipe was above this and directly below the modern floor.



Photo 4: Deposits and features in WS03, within No. 6 Castle Terrace.

Looking west, 1m scale

- 4.9.5 **WS04:** This window space measured 0.50m by 0.56m and was 1.2m deep (Photo 5). It was located north-west of the rear of No. 7 Northgate Street and was dug through the same modern concrete floor as WS01 (above), which in this location was c.0.10m deep. Above the red clay natural, which was encountered at c.0.91m, was c.0.22m of a mid- to dark brown, silty soil with frequent medium to large sub-angular stones. Above that was a c.0.12m layer of very light yellowish sand with very frequent medium to large limestones – the sand probably being degraded limestone. Above the limestone layer was a c.0.34m deep, mid-brown, friable sandy silt with very frequent small to medium sub-angular stones and one fragment of ceramic building material, and above that was between 0.10m and 0.13m of pinkish concrete, possibly the same layer as seen in WS01. The modern concrete floor was above this pinkish concrete.



Photo 5: Stratified deposits in WS04 to the rear of No. 7 Northgate Street.

Looking east, 1m scale

- 4.9.6 **WS05:** This window space measured 0.60m by 0.46m and was 1.2m deep. It was excavated through a c.0.08m deep modern concrete surface north-west of the rear of No. 7 Northgate Street (Photo 6). The lowest deposit was a dark, blackish brown, very gritty silty clay containing numerous small pieces of slag. The exposed depth of this deposit was 0.39m but its full depth is not known as the excavation terminated at the required test pit depth of 1.2m. The deposit was below c.0.62m of a dark brown, friable sandy silt with frequent small to medium and occasional large sub-angular stones and slate fragments. One oyster shell and two fragments of glazed, post-medieval pottery were recovered from this layer. Above it was a 0.19m deep layer of pinkish concrete containing frequent small sub-angular stones and above that was the c.0.06m deep, modern, grey concrete yard surface.



Photo 6: Deposits in
WS05 to the rear of
No. 7 Northgate Street.
Looking east, 1m scale

4.9.7 **TP01** was excavated to investigate the footings of the party wall between Nos. 4 and 5 Castle Terrace. TP01 measured c.0.63m by c.0.61m and was 0.50m deep. The west-facing footing of the stone-built party wall was present to a depth of c.0.30m below the modern floor level. The wall had been constructed on top of the limestone bedrock, within which fissures of the red clay natural were observed (Photo 7). Where they were exposed, the wall footings were constructed using small to medium limestones, ranging in size from c.0.05m by 0.06m to 0.10m by 0.12m. The bonding appeared to be lime mortar.



Photo 7: Exposed wall footings within TP01, inside No. 5 Castle Terrace. Looking east, 1m scale

4.9.8 **TP02** measured 0.37m by 0.48m and was 0.50m deep. It was also excavated to investigate the footings of the party wall between Nos. 4 and 5 Castle Terrace. The west-facing footing of the stone-built party wall was present to a depth of between c.0.20m and 0.23m below the modern floor level. The wall had been constructed on top of the limestone bedrock, within which fissures of the red clay natural were observed (Photo 8). Where they were exposed, the wall footings were constructed of small to medium limestones, ranging in size from c.0.05m by 0.06m to 0.08m by 0.12m.



Photo 8: Exposed wall footings within TP02, No. 5 Castle Terrace. Looking east, 1m scale

- 4.9.9 **TP03** measured 0.48m by 0.40m and was 0.32m deep. It was located adjacent to the former rear (north) wall of No. 4 Castle Terrace, with the aim of characterising the wall footings. TP03 was cut through the remains of a tiled floor associated with a modern extension that had been demolished during the current development. The footings of the stone-built rear wall of No. 4 Castle Terrace Wall {001} were present to c.0.62m below the level of the tiled floor (Photo 9). In the western half of the test pit, a second, very low (c.0.22 to 0.25m high) wall was revealed at c.0.37m below floor level Wall {002}. Both walls had been rendered and it was not possible to tell whether Wall {002} abutted Wall {001} or was keyed into it, because the render had been applied in a continuous layer to both and covered the top of Wall {002} (Photo 10). Both walls were constructed directly onto the limestone bedrock.
- 4.9.10 A c.0.13m to c.0.38m deep layer of mixed sand, broken brick and other ceramic building material, including tile fragments overlay the bedrock and Wall {002} in TP03. A relatively modern ceramic planter was recovered from within this layer, which also contained a 1970s Golden Wonder salt and vinegar crisp packet at a depth of 0.032m, c.0.05m above Wall {002} (Photo 11). Above this layer was a c.0.18m to 0.19m deep deposit of slate chippings, presumably bedding for the tiled floor of the demolished extension.



Photo 9 (left): TP03 showing below-ground, rendered footings of the rear (north facing) of No. 4 Castle Terrace (Wall {001}). Wall {002} is visible to the right. Looking south, 1m scale. **Photo 10 (middle):** Close-up of TP03 showing continuity of render on Walls {001} and {002}. **Photo 11 (right):** Modern artefacts recovered from TP03. 0.5m scale.

4.9.11 **TP04 and TP05:** these test pits were excavated to investigate the structural stability of walls in the basement of No. 7 Northgate Street. They were excavated entirely by hand.

4.9.12 **TP04** measured 0.50m by 0.60m and was 0.42m deep (Photo 12). Above the red clay natural was a c.0.20m deep, dark brown, friable silty soil containing frequent small to medium sub-angular stones, brick fragments, occasional marine mollusc shells and one fragment of animal bone. Overlying this was the c.0.05m cobbled floor of the basement, which contained a great deal of coal dust. The north wall of the basement was present to 0.28m below floor level and was sitting on the natural.



Photo 12: Wall footings exposed in TP04, below the basement in No. 7 Northgate Street. Note the visible coal 'scar' at floor level and continuing up the wall.
Looking north, 1m scale

4.9.13 **TP05** measured 0.46m by 0.28m and was 0.48m deep (Photo 13). Above the natural red clay was c.0.30m of mid-brown, friable silty soil containing frequent small to medium stones, brick fragments and two shells. The c.0.11m deep cobbled floor overlay this soil and again contained a great deal of coal dust. The footings of the south wall of the basement were

present to 0.43m below the floor level and were constructed directly onto the red clay natural.



Photo 13: Wall footings exposed in TP05, below the basement in No. 7 Northgate Street. Note the visible coal 'scar' at floor level.

Looking south, 1m scale

- 4.9.14 **TP06** measured 0.62m by 0.36m by 0.63m deep and was excavated adjacent to a stone-built garden wall to the north-west of No. 7 Northgate Street (Photo 14). Above the red clay natural was a dark brown, sandy soil containing frequent small to medium sub-angular stones, occasional coal and brick fragments and a Bobby's Beef Grills Packet with a best before date of 2014. The footings of the garden wall were present to 0.42m below ground level and were constructed directly onto the orangey clay natural.



Photo 14: Garden wall footings in TP06 to the north-west of No. 7 Northgate Street. Looking north-west, 0.5m scale.

4.9.15 **SA01** measured 2.36m by 0.40m and was 1.7m deep. It was located to the rear of No. 7 Northgate Street and was excavated to investigate ground permeability in that area. Below an extremely thin (c.0.01m to c.0.03m) layer of mingled soil and demolition debris, the red clay natural was immediately present (Photo 15). This clay was shown in section to be interspersed with occasional bands of light grey sand that varied in depth from c.0.02 to 0.05m.



Photo 15: Red clay natural interspersed with bands of grey sand in SA01.

Looking north-west. Scale height = 2.25m

4.10 Foundation Trenches, July 2022

4.10.1 **TR02, TR03 & TR04** were three foundation trenches excavated through the modern concrete floor in the basements of Nos. 4 and 5 Castle Street (Fig 3, TR02-04). TR03 and TR04 contained no archaeological deposits, with only red clay natural and bedrock present below the existing floor. Archaeological deposits were encountered in TR02.

4.10.2 **TR02** was excavated in a north-south direction from the south (front) wall of the basement in No. 5 Castle Street. It measured 5.4m long x 0.8m wide x 0.63m deep and was excavated using a mini mechanical excavator fitted with a grading bucket. A 0.08m to 0.09m deep, modern concrete floor formed the top layer and was removed first. Below that, the deposits within the southern two thirds of the trench (Photos 16 and 17) were very different in character to those within the northern third (Photo 18) and it is thus necessary to describe those in each area separately:

4.10.3 **Southern end of TR02** - a 0.04m to 0.12m deep deposit of coal dust and small coal fragments directly overlay the natural, which in this area was an orangey-brown, sticky clay interspersed with outcrops of limestone bedrock. In section, a 0.01m to 0.05m deep and c.0.2m long lens of a pinkish, silty material was observed within the coal deposit.

4.10.4 Above the coal deposit was a 0.04 to 0.08m deep deposit of medium to large river-worn pebbles within a mid-brown, dry, silty clay matrix. A fragment of post-medieval, white glazed ceramic with two thin, parallel bands of red glaze decoration was found within this deposit, probably a fragment of an egg cup or a small teacup. An earlier, pinkish, mortar/cement floor, c.0.04m deep had been laid on the river cobbles. Above that floor was a 0.11m to 0.14m deep deposit of coal dust containing occasional larger coal fragments. A complete glass bottle that had formerly contained Nujol mineral oil was found within this deposit, which extended for approximately 3.78m from the south wall of the building. A thin (max. 2cm deep) layer of sand overlay the coal deposit, above which was the modern concrete floor.



Photo 16: Showing deposits in TR02 overlying the natural in the southern two thirds of the trench. Looking south-east, 1m scale.

4.10.5 **Northern end of TR02** - Above the natural was a 0.08m to 0.22m deep, mixed deposit comprising a dry, silty, mid-brown clay at the northern end and a pinkish mortar at the southern end, medium to large sub-angular stones and occasional fragments of brick (Photo 17). A tiled floor had been laid on this deposit. Being stratigraphically higher, at 0.08m below the modern floor level, the tiled floor was clearly not associated with the mortar/cement floor encountered 0.2m below modern floor level in the southernmost end of the trench.

- 4.10.6 At the very northern end of the trench (the last 0.5m) the tiled floor had been replaced by a slate flagged surface (Photo 17). It appeared that the tiled floor had been truncated by the cut for a ceramic drainpipe that was encountered on a north-east/south-west alignment across the trench at this end. The fill around the drainpipe was a c.0.3m deep deposit of small to medium, river-worn stones, brick fragments and slate fragments in a silty, mid-brown clay. The slate flags that replaced the tiled floor sealed this fill. Their full dimensions were not visible, but they were 0.07m thick. The modern concrete floor, which was 0.06m to 0.1m thick, directly overlay both the tiled and flagged surfaces. No artefacts were recovered from the deposits at this end of the trench.



Photo 17: Showing deposits and features in TR02 at the northern 1.6m of the trench, including the cut for a drainpipe beneath a slate flag floor. Note the change from tiles to flags either side of the upright scale. Looking east, 0.5 and 1m scales.

- 4.10.7 The interface between the deposits in the northernmost and southernmost ends of the trench was a very clearly defined change from the coal deposit in the southern end to the pinkish mortar below the tiled floor in the northern end. This change occurred directly adjacent to one of two projections in the party wall (Photo 18).
- 4.10.8 Throughout the trench the natural was encountered between 0.19m and 0.34m below the modern concrete floor level.



Photo 18: Showing the change in the character of deposits in TR02 either side of a projection in the party wall (far left of shot). Looking north-east, 1m scale.

4.11 Geotechnical Pits, August 2022

4.11.1 Two geotechnical pits were excavated immediately adjacent to the external elevation of the north wall of No. 7 Northgate Street (Fig 3, TP07 and TP08).

4.11.2 **TP07** measured 1.3m east/west by 0.55m north/south and was 2.1m deep (Photo 19). Above the natural red clay geology in the western half of the test pit was a c.0.4m deep layer of greyish-yellow silty clay with a few flecks of mortar. Above that was a lighter coloured yellowish-brown layer of silty clay that contained more frequent flecks of mortar, occasional small fragments of slate, occasional small stones and occasional larger, dressed stones with mortar adhering to them. This layer was a maximum of 0.25m deep. However, within this layer was a c.0.32m wide by c.0.06m deep lens of dark brown, humic material that contained numerous shards of broken glass, several of which had a distinct raised edge (Photo 20). Above these deposits was a c.0.11m deep layer of grey-black, gritty material, possibly coal dust. This was overlain by c.0.2m of made-up ground comprising a sandy matrix containing very frequent slate fragments, presumably bedding for a c.0.05m deep layer of pinkish concrete above, which was below the modern concrete.

4.11.3 The eastern half of TP07 was markedly different in character. A north-south aligned section of rough stone wall was revealed sitting directly on the natural in this area (Photo 21). The wall continued beyond the edge of the test pit to the north; to the south it appeared to continue under the front (east) wall of No. 7 Northgate Street, which may have been

constructed on top of it. The wall was 0.4m wide by c.0.4m deep and was first encountered 0.5m down, below layers of light yellowish silty clay, pinkish concrete, made-up ground and the modern concrete.



Photo 19: Deposits in the western half of TP07. The arrows indicate a lens of humic material and glass fragments. View south-west, 1m scale.

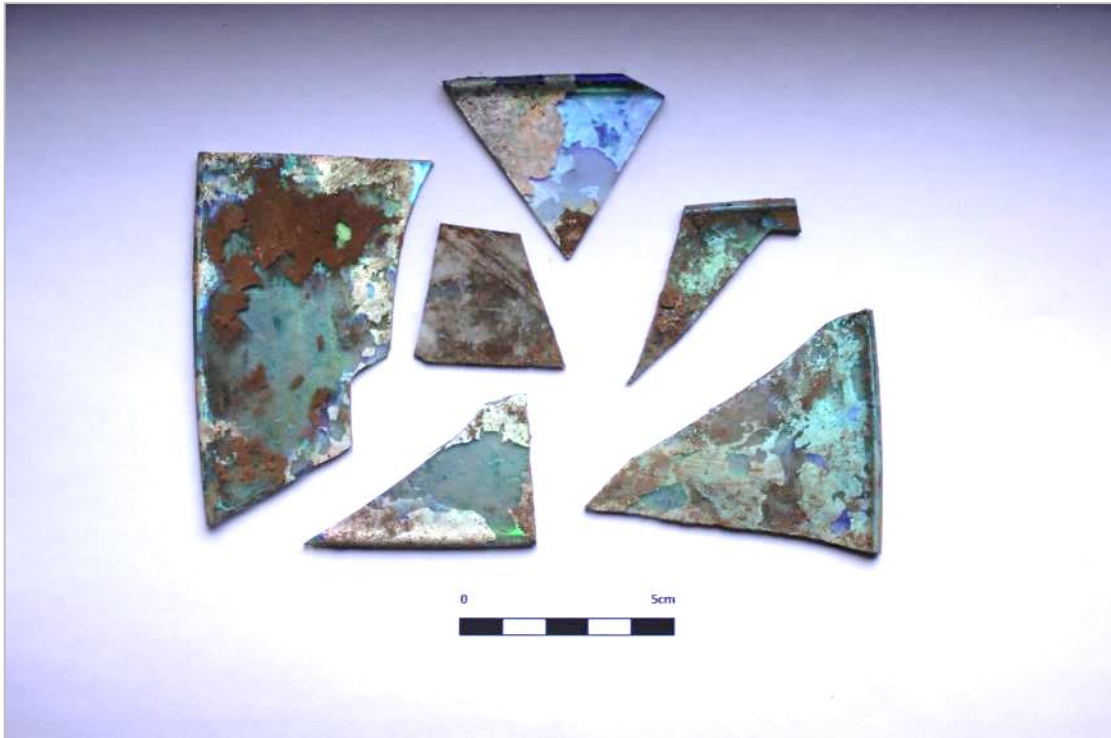


Photo 20: A selection of glass recovered from TP07. Note the distinct raised edge on most shards.



Photo 21: Showing deposits overlying a section of wall in the eastern half of TP07. View north-east, 1m scale.

4.11.4 **TP08** measured 1.2m east/west by 0.76m north/south and was 2.1m deep (Photo 22). Above the red clay natural was a 0.1m deep layer of dark, humic material. Above that was a 0.82m deep layer of extremely dry and dusty, light-brown, silty clay with frequent angular stones, occasional brick and mortar fragments, frequent slate fragments, occasional fragments of red-glazed floor tile, fragments of animal bone and oyster shells, sherds of glazed post-medieval ceramics and miscellaneous pieces of iron. A 0.14m

deep layer of pinkish concrete was above this, overlain by a 0.04m deep layer of sandy screed and the modern concrete floor.

- 4.11.5 Footings of the north wall of No. 7 Northgate Street continued to c.0.75m below the modern floor level and were sat directly on the natural. A large stone observed towards the base of the footings in the west-facing section of the test pit may represent buttressing, but this could not be determined due to the restrictions imposed by the confines and depth of the excavation.



Photo 22: Showing deposits above the natural in TP08. Note the possible buttressing represented by a stone in the south-east corner of the pit. View east, 0.5m scale.

4.12 Geotechnical Pit, April 2023

- 4.12.1 A final geotechnical test pit was excavated within No.6 Castle Terrace, in the southwest corner of the front room (Fig 3, TP09).
- 4.12.2 **TP09** was excavated through the modern concrete floor at the junction of the western side wall and southern front wall to examine the wall foundations. The modern internal render had also been stripped from the west wall. TP09 measured 1.4m by 1m, reaching a maximum depth of 1.3m below the current concrete floor.
- 4.12.4 Fragmenting limestone bedrock was encountered at a depth of 1.28m (Photo 23). This was overlaid by a 0.2m thick deposit of firm mid orange-brown sandy clay with abundant fragments of large to very-large limestone bedrock. There were no artefacts or inclusions of an

archaeological nature and this deposit appeared to be a natural subsoil overlying the bedrock.

4.12.5 The test pit was stepped away (by 0.3m) from the southern wall, therefore the lower levels of this wall were not revealed. On the west side however a 0.06m thick deposit of dark reddish-brown clayey-sand, with abundant coal, mortar and small stone fragments, had been laid over the natural subsoil. This appeared to be a bedding deposit both for the foundations of an earlier west wall and an overlying mortar floor. The base of this earlier west wall was revealed at a depth of 1.04m below the current concrete floor surface. This was a random rubble wall held in lime mortar with coal fragment inclusions, with an internal lime-mortar render, stepping out 0.25m from the line of the current west wall above. There was a short return at the south end for 0.2m before it the headed back towards the front south wall at an angle, possibly representing the splayed edge of an earlier door opening below the current front wall window (Photo 24). This wall survived for a height of around 0.4m, with a further 0.35m of disturbed walling above that before it stepped back to act as the foundation base for the current wall (0.25m below the current concrete floor surface). The exposed mortar floor appeared to be partly tied into, and therefore contemporary with, this earlier wall. The floor comprised a 0.06m thick layer of compacted lime-mortar with coal fragment inclusions, initially encountered at a depth of 0.9m below the current concrete floor surface (Photo 25).

4.12.6 The current west wall has evidence of rebuild, insertions and patching, but all following the same line set 0.25m back from the exposed section of earlier wall, and apparently 0.5m thick (site contractor, pers.com.). There is an initial return from the front south wall, in regularly coursed masonry and brick inclusions with a mix of dressed and roughly shaped masonry (Photos 26 & 27). This only extends for around 0.4m from the wall and is then seemingly rebuilt in random rubble with a central, brick-arched, fireplace opening infilled with brickwork. This wall has been repointed in cement mortar, presumably prior to the application of the modern internal render.

4.12.7 Overlying the mortar floor was a 0.3m thick deposit of friable mid orange-brown clayey-silt and rubble, with a further 0.4m of loose light grey sandy-rubble with abundant mortar fragments above that. These deposits appear to act as levelling deposits for a raised floor level. Above the deposits sits the 0.2m thick modern concrete floor.



Photo 23: West facing shot of TP09 showing the exposed bedrock at the base and earlier side wall section. 1m (vertical) and 0.5m (horizontal) scales.



Photo 24: Detailed shot of the section of earlier side wall within TP09. Note the slightly splayed opening to the front wall on the left, which extends down to the removed mortar floor level. 1m (vertical) and 0.5m (horizontal) scales.



Photo 25: TP09 in plan, west to the top of the shot, showing the earlier mortar floor. 0.5m scales.



Photo 26: Oblique shot of the exposed west wall in the front of No.6 Castle Terrace. 1m scales.



Photo 27: West facing shot showing the current wall above TP09 (visible bottom left). Note the segment of regularly coursed walling on the left and brick-headed fireplace to the right. 1m scales.

5. DISCUSSION

- 5.1 The watching brief on groundworks within and to the rear of Castle Terrace and Northgate Street, Pembroke has produced interesting evidence related to the history of the development site and the properties affected.
- 5.2 The groundworks produced evidence for the undulating nature of deposits at the site, especially in the area to the rear of No. 7 Northgate Street. Here, undisturbed natural clay was encountered immediately below the present ground surface in Soakaway SA01. Within Window Space WS04, which was dug from the same level c.10m to the north-west, natural clay was overlain by c.0.91m of anthropogenic deposits, while in WS05 (dug from the same level c.4m to the north of SA01) these deposits were at least 1.2m deep and undisturbed natural was not reached. Undated metalworking waste found within the stratigraphically earliest deposit encountered in WS05, to the rear of No. 7 Northgate Street, has the potential to be of late medieval origin, as does the soil containing marine molluscs and animal bone beneath the basement floor in that property.
- 5.3 The undulating nature of the geology, identified by earlier auger and borehole surveys, was clearly evident through the groundworks. For example, limestone bedrock was encountered directly below the floor level inside No. 5 Castle Terrace in TR03 and TR04 but was 1.28m down in TP09 at the front of No.6 Castle Terrace and was at 0.62m in TP03, at the rear of No. 4 Castle Terrace. Red clay natural was also present inside No. 5 Castle Terrace and was the only natural revealed in the soakaway trench to the rear of No. 7 Northgate Street and the test pits adjacent to that building.
- 5.4 Accumulations of made-up ground/building debris encountered within and to the rear of Nos. 4 and 5 Castle Terrace are evidence of post-medieval or modern landscaping associated with past alterations to the building.
- 5.5 The test pitting has revealed that all the properties whose external wall footings were revealed do not rest on buried foundations, but directly on undisturbed red clay or bedrock. This is not unusual in buildings of this date; late-nineteenth century building regulations (which could not be applied outside London) were still recommending that foundations should 'rest on the solid ground or on concrete or other solid substructure' (Fletcher 1882, 38).
- 5.6 Internally, evidence for past use within the properties was revealed during the works. In No.7 Northgate Street it was evident that the basement had formerly been a coal cellar. Similarly, considerable deposits of coal dust in the southern end of TR02, within No. 5 Castle Terrace, revealed the location of a former coal cellar in the basement. However, the presence of an empty Nujol oil bottle along with evidence for an inserted drainpipe suggest that a toilet could have occupied another room in that basement; Nujol oil being a 'curative' oil that was taken as a laxative during the early twentieth century (ANTIQUÉ-BOTTLES 2021). Although no evidence of surviving internal partitions within the basement area was recorded during the watching brief, a plan of the buildings reveals that a beam once spanned the space between the wall and the opposite (western) party wall (Fig 4). This beam would have been directly above the location of the change in deposits recorded in TR02 and suggests that an internal partition once existed.

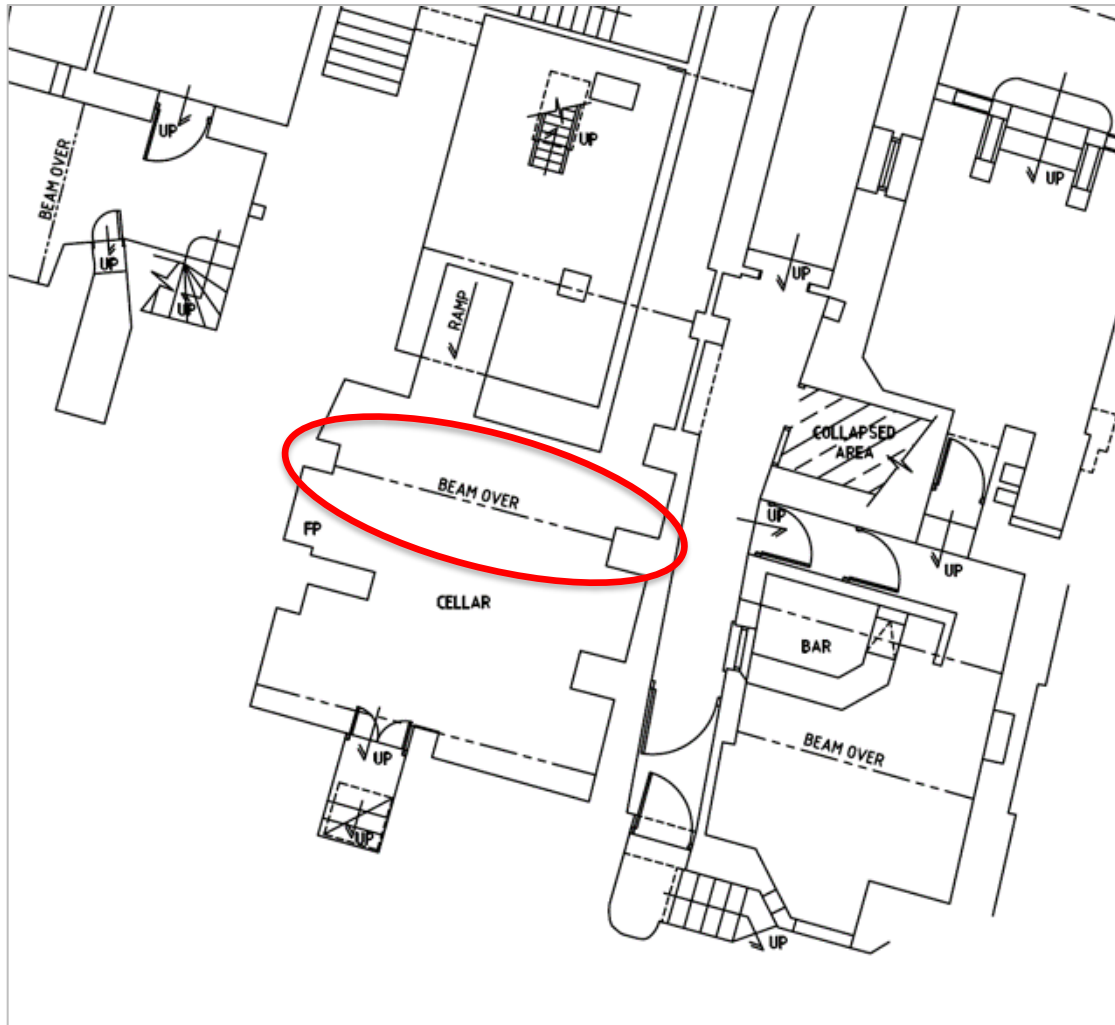


Figure 4: Extract from a plan of the basement area of No. 5 Castle Terrace, showing the location of a former beam between wall projections (plan supplied by Pembrokeshire County Council).

- 5.7 Within No.6 Castle Terrace, TP09 revealed an earlier side wall and mortar floor, 0.9m below the current concrete floor at the front of the property. There was also the suggestion of an earlier doorway in the front (south) wall with a splayed return in the wall that extended down to floor level. The exterior face of the wall however has three areas of thin walling recessed between thicker pilasters and it is likely this return represents the edge of one of these pilasters, which may originally have formed an arcade or series of large, glazed windows (Ludlow et al 2019, p55). It was suggested (ibid; pp56-62) that the front unit of No.6 Castle Terrace was a late-medieval two-storey unit, the rear wall of which retained late-medieval features. No artefacts were recovered from TP09 but the presence of coal fragments in the mortar and the relatively simple sequence and loose nature of overlying deposits, would suggest the revealed mortar floor and west wall are post-medieval features, and possibly later post-medieval (18th/19th century) in date. The current west wall also appears to have been substantially rebuilt on these post-medieval foundations. The building may therefore have been partly rebuilt and refaced during the later post-medieval period, retaining some late-medieval structural elements to the rear.

- 5.8 Evidence for construction, demolition, or renovation of buildings, mostly in the form of slate fragments but also evidenced by fragments of mortared stone, glass, brick and other ceramic building material was found within a number of pits (WS02, WS04, WS05, TP03, TP07, TP08). Such deposits are commonly found in towns with a long period of occupation (Shobbrook 2020, 21). The 1:500 Ordnance Survey (OS) map of Pembroke, published during the 1860s, appears to show several former structures in the locations of most of these geotechnical investigations, and it is likely that some of the occupation layers and demolition debris recorded during the watching brief relate to these structures (Fig 5). A greenhouse, a probable cold frame and what appears to be a formal garden are shown to the rear of No. 4 Castle Terrace. Two additional greenhouses are shown to the rear of Nos. 5 and 6.
- 5.9 The section of wall revealed on a north/south alignment below ground in TP07 may be evidence for a demolished structure that formerly occupied the land between Nos. 7 and 8 Northgate Street. The discovery of a deposit containing broken glass fragments may support this. The fragments are of late-eighteenth or early nineteenth century cylinder window glass – the distinct raised edge being created by the cutting of the cylinder – and are probably waste from on-site glazing (pers. comm. Hugh Wilmott 2022). There are no windows in either the north wall of No. 7 or the south wall of No. 8 Northgate Street, therefore the fragments may be further evidence that a structure with windows on the street frontage formerly stood where the opening between the buildings is today.
- 5.10 Rather surprisingly, the row of buildings on the west side of Northgate Street, including No. 7, is not depicted on the 1:500 OS map, but this is probably a cartographic error (Fig 5). Northgate Street (then known as Dark Lane) is roughly parallel with the borders of two sheets of the map that may not have been surveyed at the same time and were published three years apart (XL.9.8, 1861 and XL.9.9, 1864); it may be that the second cartographer thought that the other had included the row. There is no doubt that the buildings existed at this date; the rear walls of some properties (including No.7) appear on the 1861 edition and the buildings are depicted on the larger scale (1:2500) map of 1866.
- 5.11 An interesting feature was observed within TP03, adjacent to the original rear (north) wall of No. 4 Castle Terrace. A very low wall abutting or, potentially, keyed-in to the rear wall was present below ground at a level well below that of the medieval cellar within the adjacent building. Due to the small size of the test pit, it was not possible to determine the extent of this feature, or to characterise it, but its stratigraphic depth and clear association with the original rear wall of the building are of interest.
- 5.12 No other archaeological features or structural remains were uncovered during the works.

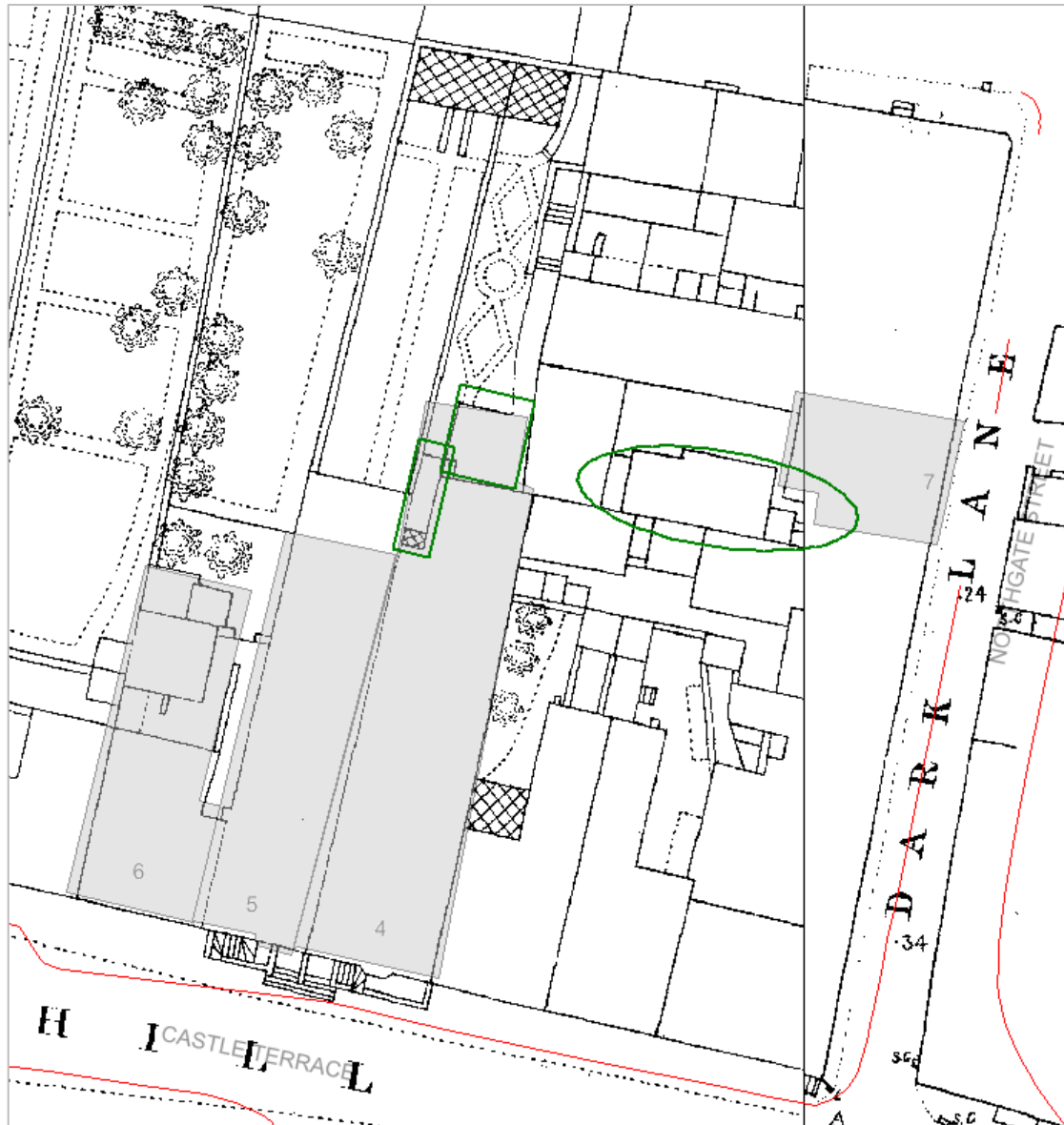


Figure 5: Extract from the 1861, 1:500 Ordnance Survey map of Pembroke, showing structures and garden features to the rear of No.7 Northgate Street (circled, with the location of the building shaded) and within the current footprint of No. 4 Castle Terrace. Note that while the westernmost sheet depicts the rear of No.7, the adjoining sheet shows no buildings on the western side of the street.

6. CONCLUSION

- 6.1 An archaeological watching brief was undertaken during the excavation of geotechnical pits and trenches situated within and to the rear of Nos. 4-6 Castle Terrace and No. 7 Northgate Street, Pembroke.
- 6.2 The development area lies within the former medieval town of Pembroke and just east of the medieval castle. Therefore, it was considered highly likely that features or deposits relating to the medieval period might be present within the area, with the potential that they might be damaged or destroyed by intrusive activity. As a result, Pembrokeshire County Council requested that an archaeological watching brief be undertaken during any groundworks.
- 6.3 The watching brief revealed evidence for past construction, demolition and renovation of buildings and other structures in the area, and for the history of use of the extant buildings that are now subject to regeneration. Evidence for past land use, in the form of garden soils, was also recorded.
- 6.4 The test pits and window spaces were of limited size but despite this, walls were revealed below ground in TP03 and TP07, earlier wall and floor levels within TP09, and metalworking waste in WS05. It is therefore likely that significant archaeological remains remain within the development area. Any further works undertaken in the area are thus likely to require archaeological mitigation.

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APPENDIX I:

SOUTH QUAY REGENERATION PROJECT, PEMBROKE – PHASE 1 ARCHAEOLOGICAL MONITORING 2020 WRITTEN SCHEME OF INVESTIGATION

- **Full Planning Application No: 20/0304/PA**
- **Listed Building Consent Application No 20/0306/LB**
- **Conservation Area Consent Application No: 20/0305/CA**

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 all phases of construction work, including enabling works, during the redevelopment of the South Quay area of Pembroke (Figure 1).
- 1.2 The redevelopment intends to transform a number of derelict buildings in the centre of Pembroke into a heritage and visitor centre, café, library with associated landscaping (Figure 2).
- 1.3 The development area encompasses five surviving properties that are in various states of disrepair (Figure 3), including rear yard burgage plots and garden walls.
- 1.4 In brief the properties comprise:
- 1.5 **Castle Gate Surgery – No 6 Castle Terrace (Photo 1):** The façade of the building has been significantly altered. It appears to be a single pile building erected on the main medieval street frontage. It survives as thick stone walls built upon bedrock, and has an early cellar or sunken building to the rear, again cut into the bedrock. The original walls of the building have been altered with insertions of new windows, especially at ground floor level, but much original fabric likely survives. There are a few timbers in the roof that may be quite early, which are retained but have been made redundant by more recent trusses. The rear part of the building is a late 20th century brick built extension.
- 1.6 Within the cellar there are a few original features including a small alcove, candle light recess in the wall and a fireplace. Beyond this are modern cellars presumably partly adapted from the earlier cellar and then terraced into the hill slope and extended to ground level beyond. There is a very modern rear extension over much of the later cellar area.
- 1.7 It lies close to the castle in one of the earliest parts of the town and it is easily conceivable that some of the early fabric of the building is medieval, including the cellar, with later alterations.
- 1.8 **Nos 4 and 5 Castle Terrace (Photo 2):** These are designated together as a Grade II Listed Building (LB 6313). The upper parts of the building above cellar level are in a dangerous state of repair. Both sides of the building do have internal architectural features of likely Georgian date, including its southern façade on Castle Terrace. The above ground walls all seem to be of a similar phase, unlike Castle Gate Surgery and it is probable that it was a complete rebuild above ground when constructed. It is a very long building.
- 1.9 Evidently it was constructed on top of earlier cellars cut into the limestone bedrock. The cellars within number 4 are vaulted, with a number of early features – as well as some 20th century mock medieval additions. It is

likely that these cellars are medieval and are described as such in the listing description for the building lying below No 4 (Photo 3). There is also a passageway that leads directly up from the South Quay car park through the town wall which seems to line up with the passageway between the cellars for No 5 and No 4. These may be remains of medieval storerooms associated with merchants on the street frontage, bringing goods up from South Quay. There are no vaulted ceilings in the cellars of No 5, but enough stone walls and additional features such as stone corbels are present indicating they are also probably medieval. There are a few interesting outbuildings in the rear yards of these too.

- 1.10 **No 7 Northgate Street:** This former dwelling has indications of a post-medieval brick cellar with vaulted roof (Photo 4) and light in the stairwell. There may be some early timbers in the roof also. This is a Grade II Listed Building (LB 6425).
- 1.11 **No. 8 Northgate Street:** This former warehouse has been considerably altered. It is not listed. It does not have a basement as far as is known.
- 1.12 **Burgage Plots:** The garden areas of all of the properties are terraced down from Castle Terrace towards South Quay. They contain numerous stone boundary walls, some of considerable height. The boundaries follow the burgage plots laid out in the medieval period and potentially they contain some medieval fabric. The walls themselves, especially the town wall running along the southern edge of the gardens, are significant historic assets.
- 1.13 All of the above buildings are shown on early maps of Pembroke from 1787 onwards, although detail is only really shown on the Ordnance Survey maps from the later 19th century (Figure 4). They all lie within medieval burgage plot boundaries and close to the earliest occupied area of the town next to the castle and so a medieval origin is unsurprising for the buildings.
- 1.14 The buildings have previously been subjected to a comprehensive scheme of building recording (Ludlow et al 2019). The development has been subjected to a Historic Environment Desk-Based Assessment (Poucher 2020) and geotechnical works within the burgage plot area have been monitored (Shobbrook 2020).
- 1.15 A Heritage Impact Assessment has been prepared by Darnton B3 Architecture, and this document should be read in conjunction with this written scheme to inform the work.
- 1.16 The enabling works precede the first phase of construction works and fall outside of planning. The enabling works will include:
 - Removal of all debris and collapsed material within the buildings
 - Structural stabilisation and creation of safe access routes.
- 1.17 The first phase of construction works will comprise the refurbishment of the three derelict properties at 4, 5 and 6 Castle Terrace and the creation of the new heritage centre, which will include a library and café.
- 1.18 At the time of preparing this document these works are subject to the following planning applications that are awaiting imminent decision:
 - **Full planning permission (Ref No 20/0304/PA):** Demolition of No. 6 Castle Terrace and refurbishment of No. 4 and No. 5 Castle Terrace to provide new visitor centre, community hub, library and café with associated access and landscaping works.

- **Listed building consent (Ref No 20/0306/LB):** Demolition of No. 6 Castle Terrace and refurbishment of No. 4 and No. 5 Castle Terrace to provide new visitor centre, community hub, library and café with associated access and landscaping works (Nos. 4 & 5 Castle Terrace are Grade II listed buildings).

- **Conservation Area Consent (Ref No 20/0305/CA):** Proposed demolition of No. 6 Castle Terrace.

1.19 This first phase of works will include:

- renovation to the Grade II Listed Buildings 4 and 5 Castle Terrace that will involve removal of all debris and collapsed material within the buildings, substantial structural stabilisation, alteration and replacement. The medieval basement within this building will be retained and only modified locally to enable the functioning of the building.
- Demolition of 6 Castle Terrace, which is an unlisted building of generally low value apart from the medieval basement that will be retained.
- The proposals also include partial demolition of some medieval fabric in 6 Castle Terrace
- Minor alterations are proposed to the listed south quay wall to provide a sustainable rainwater drainage system from the site and these are considered acceptable.
- Minor alterations are required under the footings of the listed south quay retaining wall to provide a sustainable rainwater drainage system from the site and these are considered acceptable.
- Works are proposed in the burgage plots behind the buildings that face onto the quay, these include landscaping, creation of a Tudor garden and works to the burgage walls to repair and stabilise them. Some minor changes to sections of the burgage walls are proposed whilst the walls are being repaired. These do not alter the line of the walls and will be carried out under archaeological supervision,
- Only works to the garden to the rear of listed building 7 Northgate Street are proposed; no works to no.7 Northgate street are proposed in this application

1.20 A future phase of works will include the renovation and rebuilding of 7 and 8 Northgate Street.

1.21 The aim of the monitoring through an archaeological watching brief or targeted recording during works is to provide information on the character and significance of any below ground archaeological remains that may be revealed during the enabling 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.

1.22 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 Archaeological Watching Briefs (CIfA 2014). A copy will be sent to the archaeological advisors to the local planning authority for their approval.

1.23 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.

- 1.24 Dyfed Archaeological Trust is a CIFA Registered Archaeological Organisation.
- 1.25 All permanent DAT Archaeological Services staff are CSCS certified to work on construction sites.
- 1.26 **Dyfed Archaeological Trust is a CIFA Registered Organisation and all permanent staff are CSCS registered.**

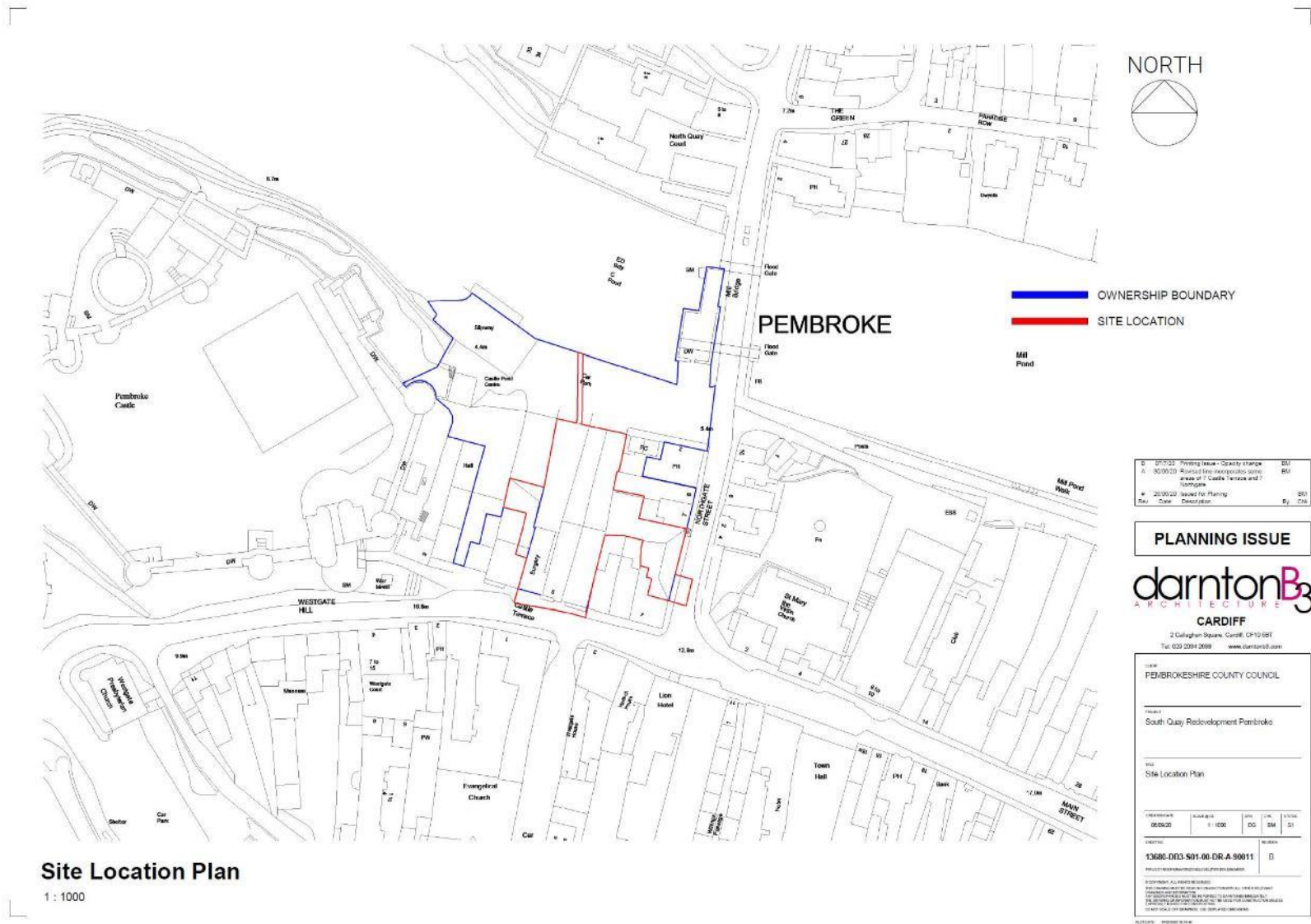


Figure 1: Plan of the development area outlined in red (Darnton B3 Architecture).

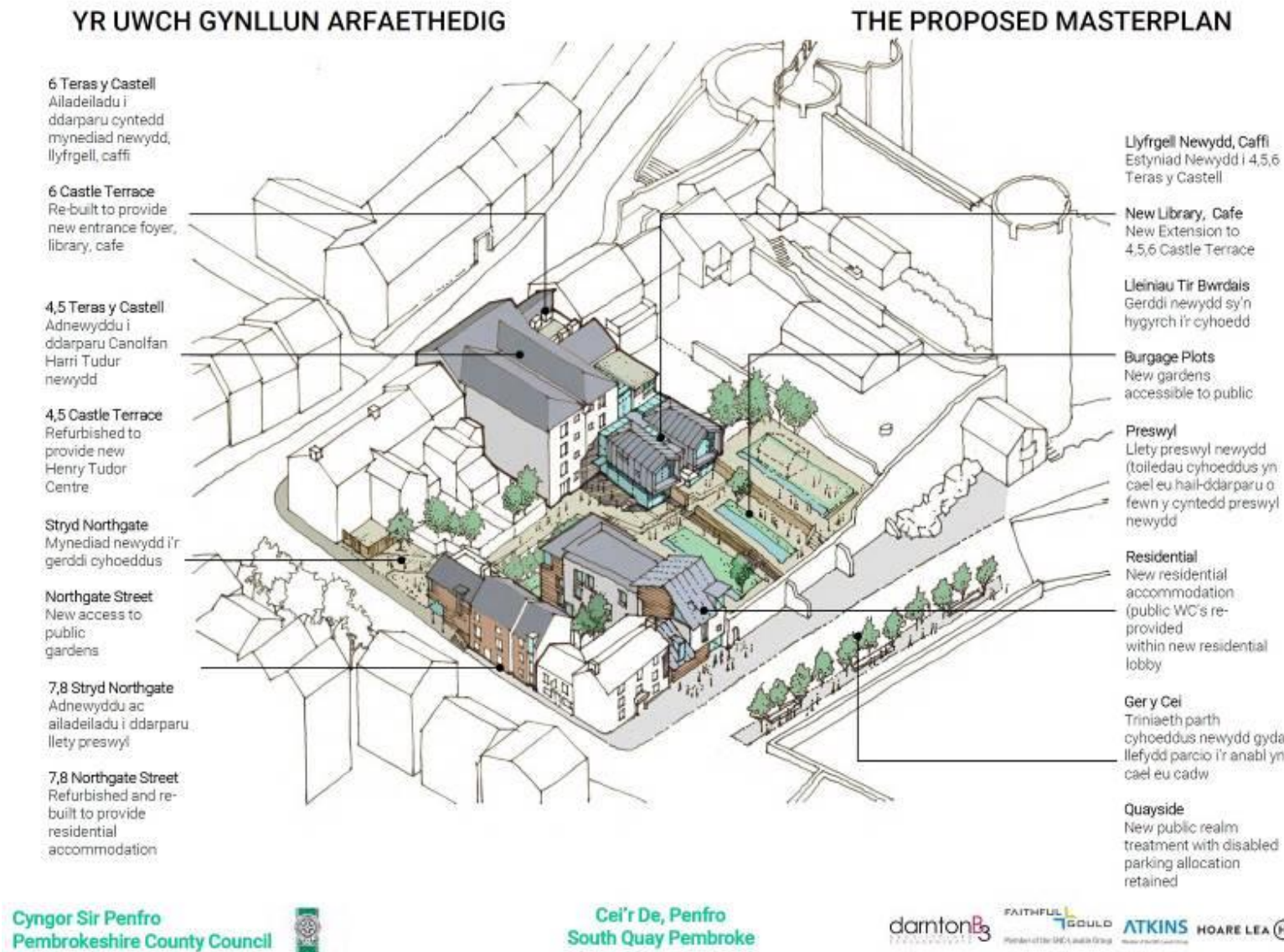


Figure 2: Outline development proposal masterplan, taken from the public consultation document (February 2020)



Figure 3: Plan showing current condition of 5 and 6 Castle Terrace and 6 and 7 Northgate Street, taken from the public consultation document (February 2020)

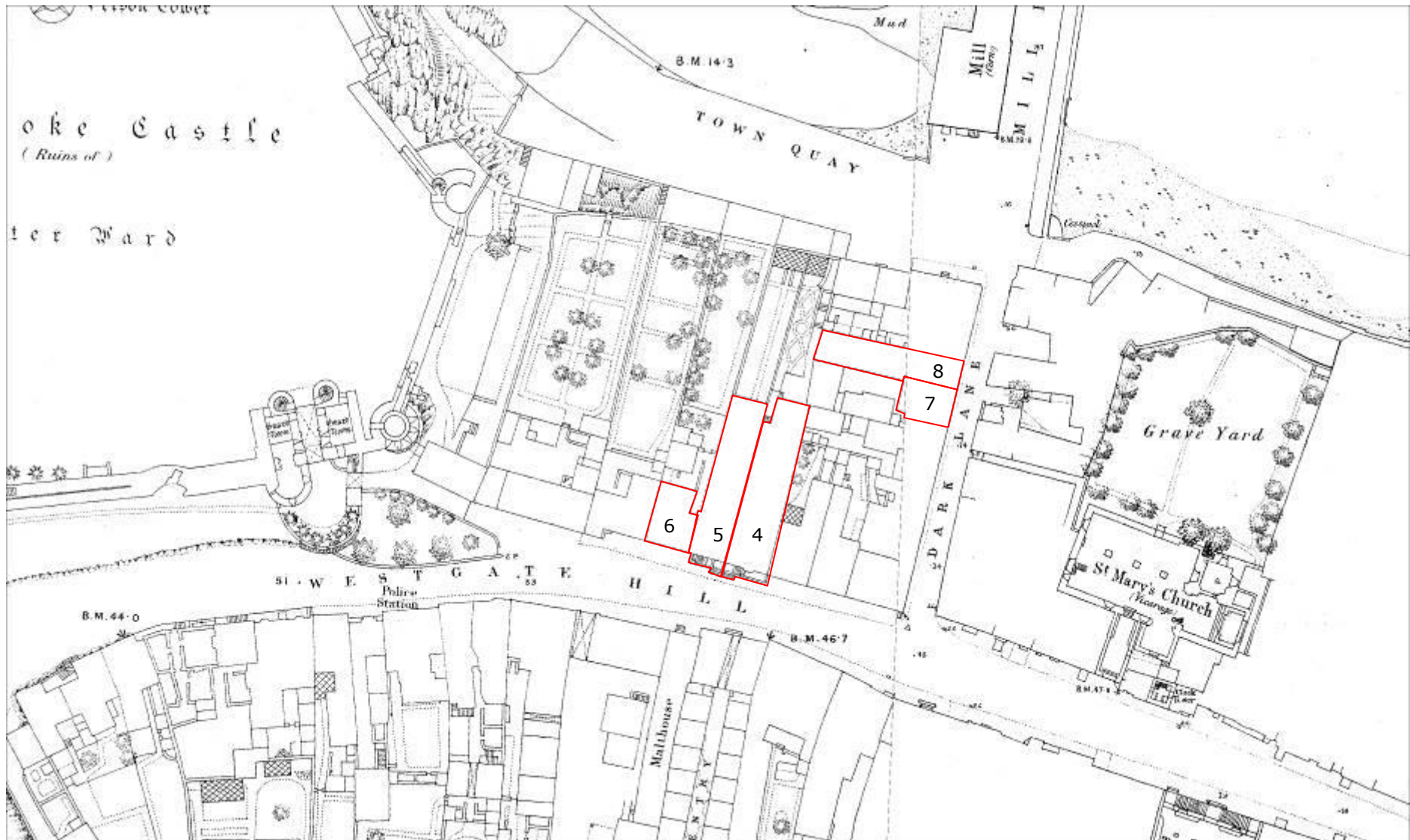


Figure 4: Ordnance Survey 1st Edition 1:500 OS map published in 1862 of Pembroke showing the South Quay area with buildings highlighted in red



Photo 1: View of the northern façade of the Castle Gate Surgery, Pembroke, with part of No 4 Castle terrace to the right



Photo 2: Northern façade of Nos 4 & 5 Castle Terrace, Pembroke



Photo 3: Vaulted cellar beneath No 4 Castle Terrace (with 20th century embellishments)



Photo 4: The medieval wall at first floor level identified in No 6 Castle Terrace, with small original opening (now a cupboard) to the right (see Photo 5).

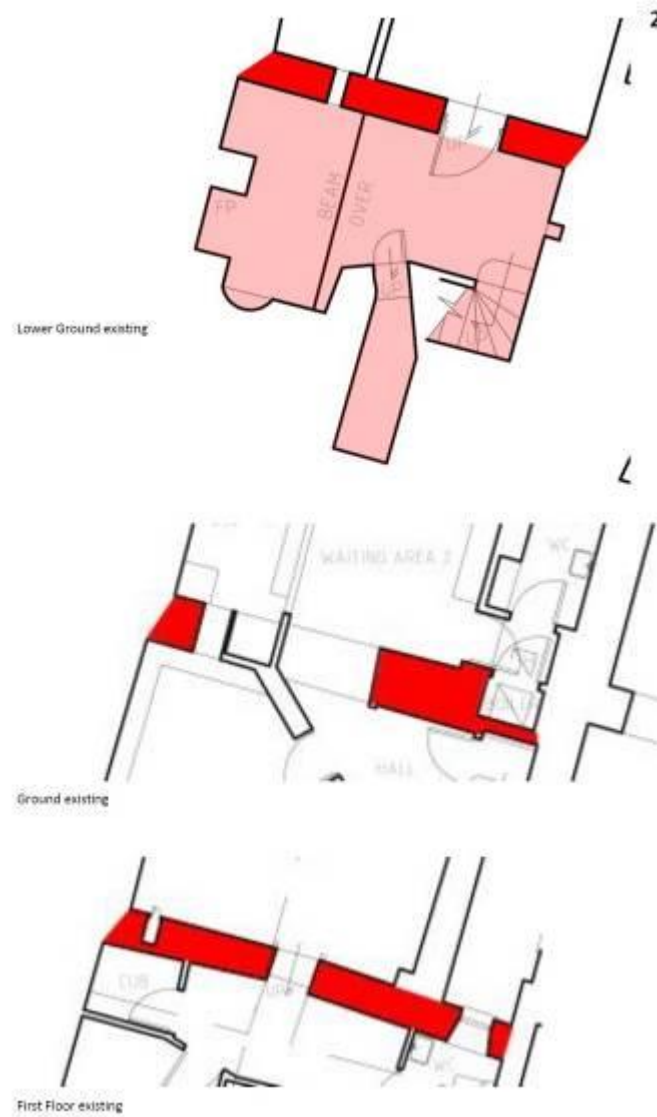


Figure 5: Plans of medieval wall at No 6 Castle Terrace



Photo 5: Detail of original opening in medieval wall at first floor level.

2. WATCHING BRIEF

2.1 The definition of archaeological watching brief, taken from the Chartered Institute for Archaeologists Standards and Guidance: for Archaeological Watching Briefs (CIfA S&G: AWB 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 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.

2.3 This document provides a scheme of works for:

Archaeological attendance, monitoring and recording during the first phase of the proposed redevelopment of the South Quay area of Pembroke. This phase of works will be undertaken in three stages:

- ***enabling works,***
- ***structural refurbishment and demolition of 4 & 5 Castle Terrace***
- ***re-build of 6 Castle Terrace.***

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.

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 and foundation removal, ground reduction and levelling works, excavation of foundation or service trenches.

4.2 The watching brief applies to all areas including Nos 4, 5, and 6 Castle Terrace, the gardens (burgage plots) to the rear of all the properties, and wherever 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 coordination between the site contractor's and archaeologist 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 Manual¹ 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 later 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.

6 Castle Terrace

- 4.9 The Level 3 building recording report (Ludlow et al 2019) identified that although much of the building was not of particular interest, the thick rear wall (now a dividing wall) and the cellar level were of probable later medieval date (Figure 5, Photos 4 and 5). The development proposals include demolition of the majority of the superstructure of 6 Castle Terrace whilst retaining the cellar level and sections of the medieval wall.
- 4.10 The medieval wall would have formed the rear wall of the medieval property and runs parallel with the road. It is proposed that above ground floor level the medieval wall will have to be modified to allow access for construction and demolition; necessitating a large opening being made through what survives of the wall.
- 4.11 In mitigation, it is proposed that before any part of the wall is disturbed or destroyed, the modern plaster that covers the wall at ground and first-floor level should be removed to reveal the original stonework. This will allow the monitoring archaeologist to record the stonework and any surviving architectural features obscured by modern plaster.
- 4.12 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 curatorial officer, and prepare a written statement with plan detailing the archaeological evidence. Following assessment of the archaeological

¹ 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.

remains by the curatorial officer, 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.

- 4.13 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 Following completion of all stages of archaeological works a detailed full report on the results will be prepared. This may start with an initial assessment of the results put together for discussion with the client and Development Management - Dyfed Archaeological Trust, to determine the appropriate way forward for full post-excavation analysis. This will include the level of detail required for specialist analysis of all artefacts or ecofacts recovered from the site. Radiocarbon dating may be required. The extent of conservation of any recovered artefacts will also be determined at this stage.
- 5.2 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 RCAHMS. The Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) shall be followed.
- 5.3 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.
- 5.4 The report will include a brief research element to place the site into its wider context within the area.
- 5.5 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).
- 5.6 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.
- 5.7 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).
- 5.8 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).

5.9 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.

5.10 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 CSCS² registered.

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

² Construction Skills Certification Scheme (Health and Safety Tested)

- 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 PPE³ 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.

11. 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.

12. REFERENCES

- Ludlow, N, Meek J, Murphy F and Wilson, H, 2019, *South Quay, Pembroke Nos. 4, 5 & 6 Castle Terrace, Nos. 7 & 8 Northgate Street: Level 3 Historic Building Recording*, Unpublished DAT Report No 2019/45
- Massie, B, 2020, *Proposed South Quay Redevelopment Heritage Impact Assessment*, Darnton B3 Architecture, Doc No. 12645-DB3-B03-XX-RP-A-00-003
- Poucher, P, 2020, *South Quay Development, Pembroke: Historic Environment Desk-Based Assessment*, DAT Unpublished Report No 2020/30
- Shobbrook, A, 2020, *Plots 4, 5, 6 & 7 Castle Terrace & Plot 7 Northgate Street, Pembroke, Pembrokeshire: Archaeological Watching Brief*, Unpublished DAR Report No 2020/18

³ *Personal Protection Equipment*

