

FABC/07



FURNESS ABBEY CAR PARK

Watching Brief

commissioned by English Heritage

October 2014

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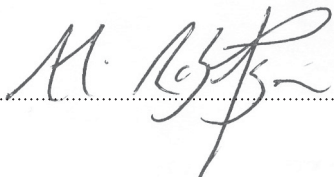
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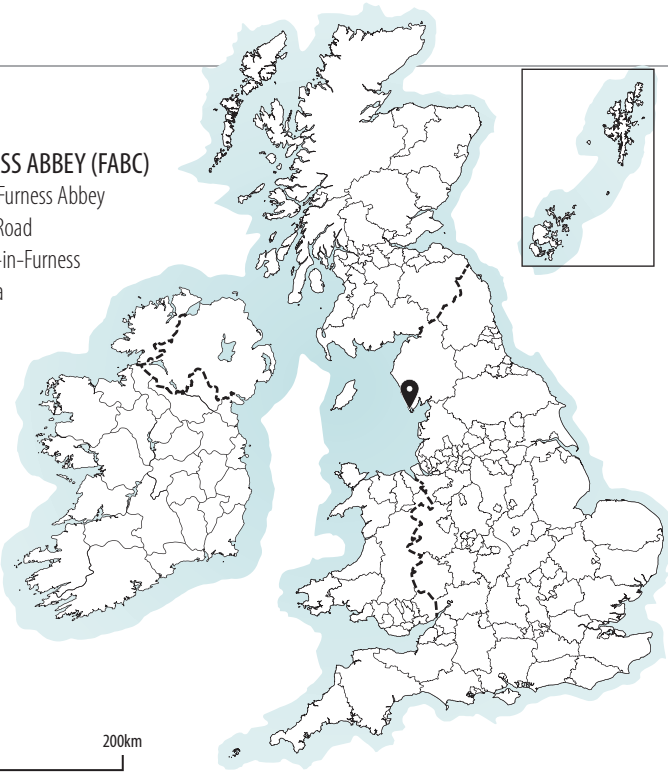
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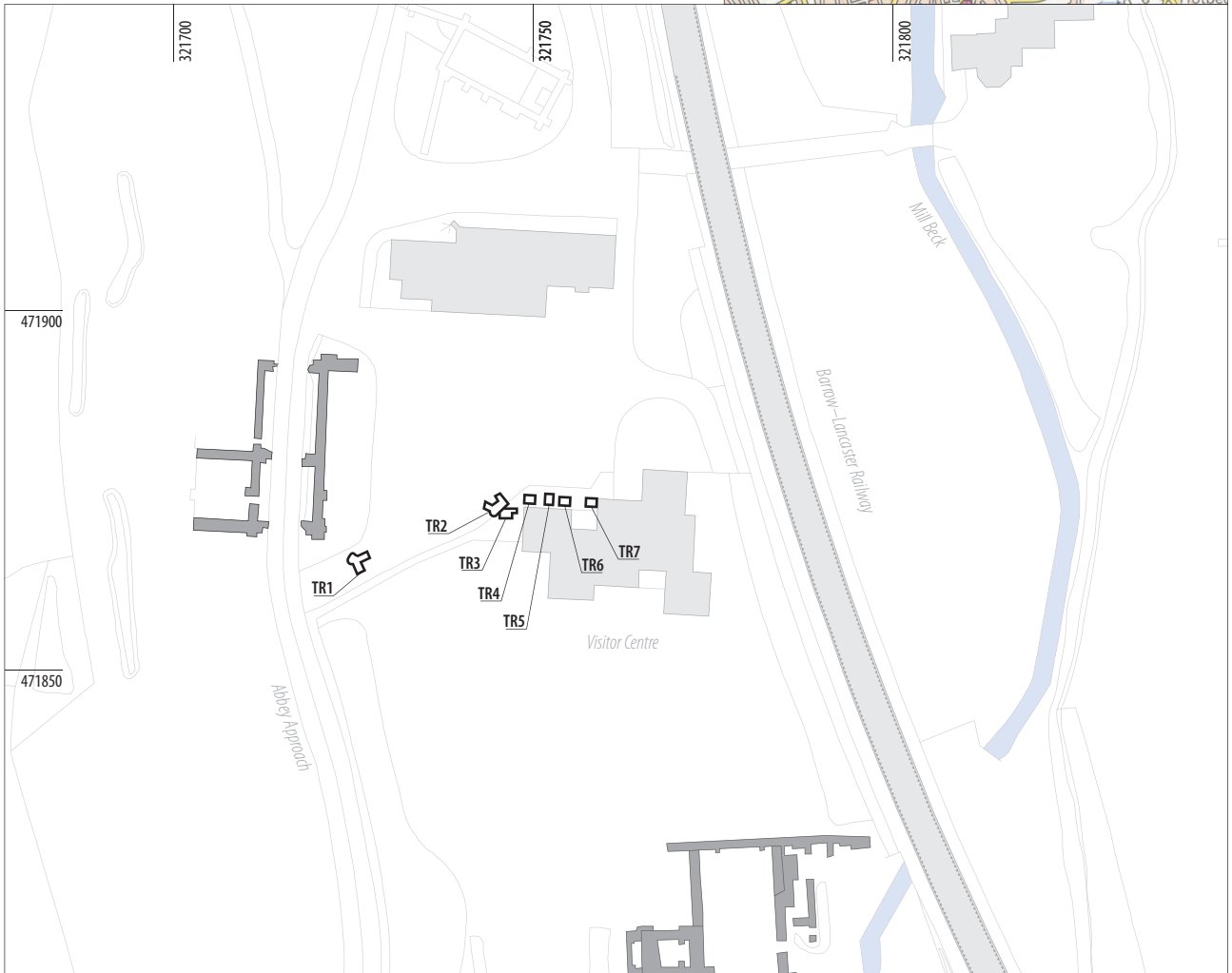
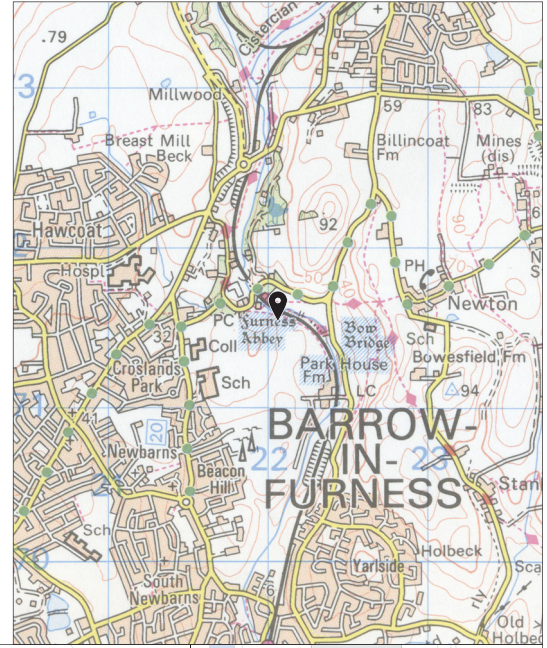
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FURNESS ABBEY (FABC)

land at Furness Abbey
 Manor Road
 Barrow-in-Furness
 Cumbria



0 200km



KEY
 □ trench locations
 ■ abbey structures

0 50m
 scale 1:1,000 @ A4

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ILLUS 1
 Site location

FURNESS ABBEY CAR PARK

Watching Brief

An archaeological Watching Brief was undertaken in relation to excavations in the Furness Abbey car park which were required in order to investigate and rectify a leak in a 42mm black alkathene water pipe. This report represents the results of the works.

Excavation took place between 26th August and 3rd September. Seven small trenches were excavated under archaeological monitoring conditions and single courses of walls related to the foundations of the Furness Abbey Hotel were observed. The ground level below the tarmac and layer of hard-core exhibited signs of significant disturbance, probably associated with demolition of the hotel and construction of the car park and visitor museum.

1 INTRODUCTION

Headland Archaeology was commissioned to undertake a Watching Brief on the excavation of a number of trenches in the car park of Furness Abbey. The trenches were required in order to locate a water pipe and rectify a leak, and the watching brief sought to observe and record any archaeologically significant features exposed by the excavations.

Furness Abbey is located to the north of Barrow-in-Furness in a narrow steeply sided valley known as the Vale of Nightshade. The site of the abbey is bounded to the west and south by minor roads and to the east by the Barrow–Lancaster railway, with the modern Visitor Centre to the north. The car park itself is located south of the site of the abbey's outer gate (with its post reformation reconstructions) and north of the abbey itself, between the Abbey Approach road to the west and the railway line to the east. It is bounded to the north by the Abbey Tavern, and to the south by the Furness Abbey Visitor Centre, pavement and boundary railings. Two access routes to the car park from the Abbey Approach road on the west are north and south of the above ground remains of the Abbey Gatehouse.

2 ARCHAEOLOGICAL BACKGROUND

Furness Abbey is a Scheduled Ancient Monument and Grade 1 Listed Building, and is currently in the care of the State. Founded in 1127 by monks of the Benedictine Order of Savigny (which merged with the Cistercian Order in 1150) the abbey rose to become one of the richest in the country before its suppression in 1537 during the Dissolution. Its significance and wealth can be seen in the quality of the upstanding remains that survive today. The abbey as a whole is of the highest national importance, and its affiliations with the European Savigniac and Cistercian orders make it of international importance.

The car park is located within the outer precinct of Furness Abbey which would most likely have contained a variety of domestic buildings associated with the abbey, including stables and guest houses. After the dissolution of the abbey and following various changes of ownership a large residential building was constructed in 1671 for Sir Thomas Preston the then owner. By the early nineteenth century the structure was functioning as a farmhouse and was rebuilt in 1847/8 as a hotel to serve visitors to the abbey who arrived via the Furness Railway. In 1866 it was expanded to link with the recently constructed railway station. It was partially demolished in 1951 and



1954 following the closure of the station and the north wing of the hotel survived as the Abbey Tavern (now closed); a fragment of what was once a substantial structure. The current visitor centre dates from the mid-1970s, and the car park from the 1980s.

3 METHOD

The objectives of the watching brief were to record the presence, nature and date of archaeological features or deposits that existed within the accessible areas and to make available information regarding the archaeological resource existing on site.

All excavations were carried out in accordance with the conditions laid out in the specification (Hodgson, D 2014). The tarmac surface was cut using a Stihl saw and breaker and removed and the subsequent layers of hard-core dug using hand-tools by a team from Historic Properties Restoration Ltd. All archaeological features exposed during the excavation were photographed and recorded according to the IfA Standards and Guidelines.

4 RESULTS

Trench 1

Trench 1 was located by the southern entrance to the car park, approximately 7.7m east of the Abbey Approach road (Illus 2). It measured 0.65m by 2.3m and was oriented north-west – south-east with an extension to the north-east measuring 0.65m by 1.32m.

At the southern end of the trench a sandstone block [05] measuring 0.43m by 0.18m deep was observed. It appeared to form a possible wall foundation oriented north-east – south-west with another block to the south-west, joined by mortar containing brick and stone fragments. A 0.03m thin sandstone slab [04] 0.26m below ground level was observed joined by mortar to the first sandstone block [05]. Another similar sized sandstone block [06] was observed to the north-west which appeared to form a wall foundation oriented at right-angles to the first wall. A sandstone block was observed in the section of the trench opposite this block which may have been a continuation of the wall. The gap may have been caused by the excavation of the trench to contain the water pipe (which was observed at 0.5m depth between the two blocks).

In the extension to trench one at 0.5m depth a shaped stone [07] was observed which measured 0.38m wide and 0.21m high. The shape of this decorative masonry indicates that it would have been part of a door / window surround. The location and depth of the stone suggest it was not in situ and had probably been disturbed by the excavation of the water pipe trench. The water pipe was observed at between 0.5m depth to the west and 0.8m to the east of the trench.

The walls were located on a compact layer of red clay and gravel [03], but no foundation cuts for the walls were observed. Above deposit [03] was a layer 0.06m deep of orange sand and gravel [02] which was covered by a layer 0.08m deep of tarmac [01].

Trench 2

Trench 2 was located to the west of the museum building, immediately to the north-west of the pavement kerb, and was irregular in shape, measuring approximately 1.9m by 1.9m. A modern plastic gas pipe was observed in this trench, with the water pipe observed at 0.8m below ground surface. At 0.4m below ground level at the eastern edge of the trench the remains of a brick wall [11] were observed, oriented north-west – south-east. The wall consisted of two courses of brick, (the single measurable brick was 0.22m by 0.1m and 0.08m high) with evidence of pointed mortar on the south-west side (the opposite side was not observable). No sign of a cut for this wall was observed. In the north-west edge of the trench one face of a 0.22m high sandstone block was observed oriented east – west. Above this was a layer of mixed brick and slate fragments and sand and gravel with occasional glass fragments [10]. This was overlaid by a layer 0.28m deep of compact red clay and gravel [09] with some fragments of worked stone. Above this was a layer 0.1m deep of yellowish brown sand and gravel hard-core [08] which was overlaid by a layer 0.1m deep of tarmac.

Trench 3

Trench 3 was located to the west of the museum building under the concrete slabs (0.62m square and 0.05m thick) that make up the pavement, immediately south-east of Trench Two. It measured 0.9m by 1.4m (with a 0.9m by 0.4m extension at its north-east corner) and was oriented north – south. The water pipe was observed at 0.9m depth, within a mix of tile, slate, brick, and ceramic sewer pipe fragments with grey sand and gravel [10]. Also included in this layer was a large shaped sandstone block 0.53m by 0.2m by 0.18m which may have been part of the walls of the hotel structure. This was overlaid by a layer 0.2m deep of compact red clay and gravel with large irregular stone fragments [09] which was covered by a layer 0.16m deep of yellow sand and gravel hard-core [08]. Above this was a layer 0.08m deep of yellow sand [12] underneath the paving slabs.

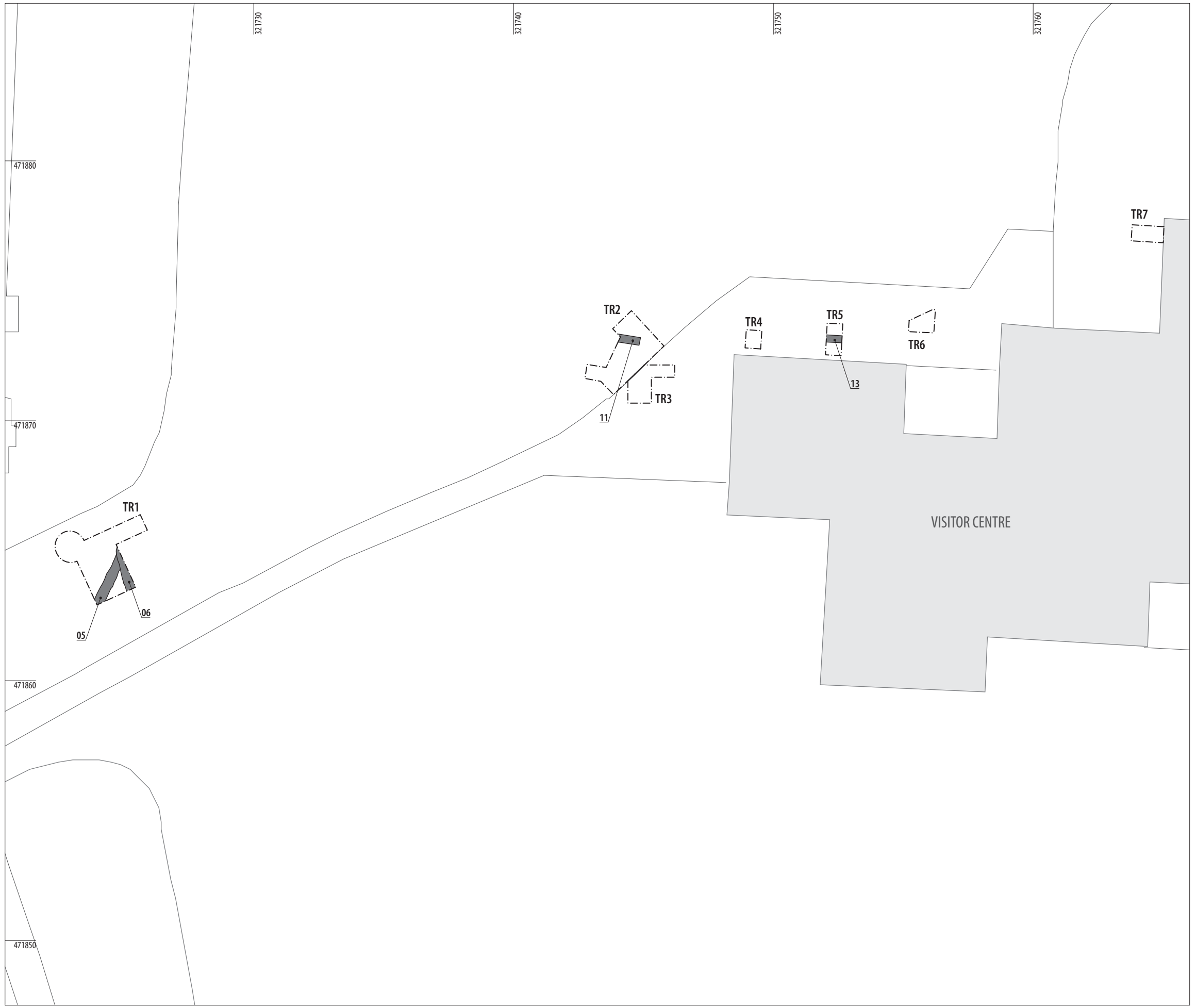
Trench 4

Trench 4 was located to the north of the north-west corner of the museum building, measured 0.6m by 0.7m and was oriented north – south. The water pipe was observed at 0.9m depth within a mix of stone and brick fragments and reddish brown sand [10]. A fragment of door / window surround was observed in this fill. Above deposit [10] was a layer 0.24m deep of compact red clay and gravel [09] which was overlain by a layer 0.18m deep of yellowish grey sand and gravel hard-core [08]. Above this was a layer 0.08m deep of yellow sand [12] underneath the paving slabs.

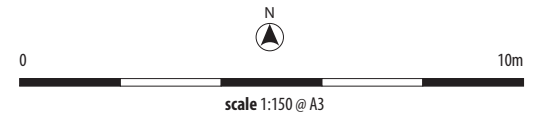
Trench 5

Trench 5 was located north of the museum's northern wall, measured 1.22m by 0.62m and was oriented north – south. The water pipe was located 1.1m below ground level. 0.2m north of the pipe a brick wall [13] was observed at 0.85m below ground level. It consisted of two courses of brick with lime mortar joints above a sandstone block, all oriented east – west. The bricks measured 0.22m by 0.1m and were 0.08m high.

Above the brick wall there was a mixture of brick, tile and stone fragments and reddish brown sandy clay [10] which became more



KEY
 [dashed box] trenches
 [solid grey box] walls



ILLUS 2
 Trench plan

ILLUS 3

W facing view of stone walls in Trench 1



ILLUS 4

E facing view of shaped stone in Trench 1



ILLUS 5

View of Wall [11] in Trench 2





ILLUS 6
W facing section of Trench 3

ILLUS 7
N facing view of Trench 3

ILLUS 8
View of soot stained stone fragments from Trench 5





ILLUS 9
E facing view of Wall [13] in Trench 5



ILLUS 10
SW view of Trenches 5 and 6

sterile approximately 0.8m below ground level. Within this layer two large stone fragments were observed which appeared to have charcoal dust deposits on one side indicating they were once part of a chimney (Illus 8). A fragment of tile with a cracked green glaze, identified as a Victorian hearth tile (see Finds Assessment below), was also observed. This layer was overlain by a deposit 0.38m deep of yellowish grey sand and gravel hard-core [08], which was overlain in turn by a layer 0.08m deep of yellow sand [12] underneath the paving slabs.

Trench 6

Trench 6 was located north of the museum's northern wall, to the west of the building entrance. It measured 0.9m and 1.1m and was oriented east – west. The earliest deposit identified was a mixture of red sand and gravel and fragments of brick and stone [10] which was overlaid by a layer 0.4m deep of compact red clay and gravel [09]. This was cut by water pipe trench [14] with the pipe itself located at 1m below ground level. The pipe trench was backfilled with deposit [10]. Above this was a layer 0.28m deep of yellowish grey sand and gravel hard-core [08] which was overlain by a layer 0.06m deep of yellow sand [12] underneath the paving slabs.

Trench 7

Trench 7 was located north of the entrance to the museum, abutting the museum wall to the east. It measured 0.62m by 1.22m and was

oriented east – west. The water pipe was observed 0.5m below the ground level; cut into compact red clay and gravel deposit [09]. The pipe was overlain by a layer 0.24m deep of yellowish grey sand and gravel hard-core which was overlain in turn by a layer 0.16m deep of yellow sand [12] underneath the paving slabs. The only find observed in deposit [09] was a fragment of floor tile identified from the partial inscription as originating from a pottery in Burslem, Staffordshire and dated to the 19th century. The tile would have measured 0.16m square and 0.023m thick. No archaeology was observed although the trench was not excavated to a sufficient depth to encounter the layer of mixed sand and brick fragments [10]. It was in this trench that the section of leaking water pipe was identified and repaired.

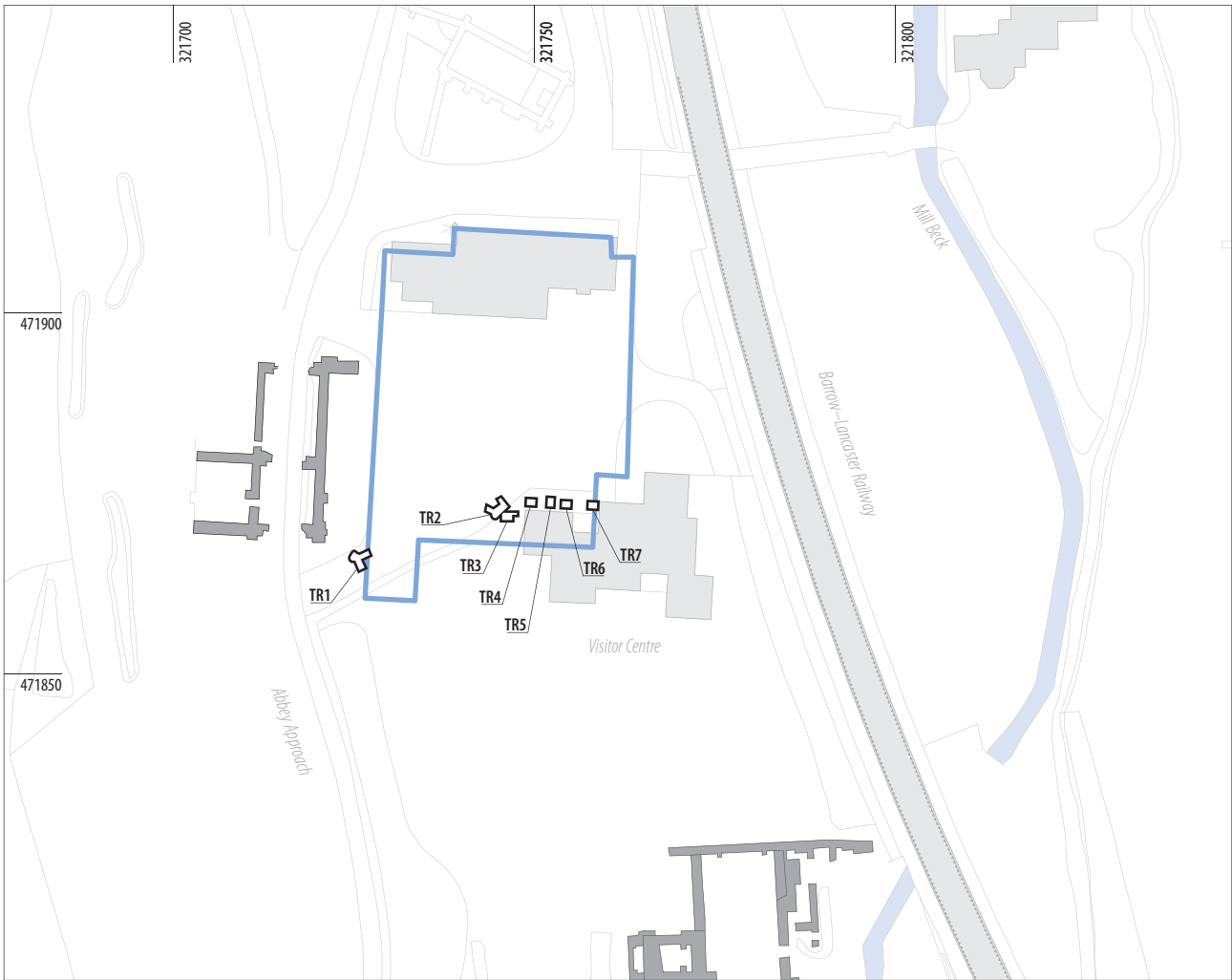
5 FINDS ASSESSMENT

JULIE FRANKLIN

Eight sherds of ceramic building material were recovered. All are likely to date to the later 19th or earlier 20th century. They include earthenware floor tiles, green glazed hearth tiles and stoneware drain pipe. A complete catalogue is given below.

Trench	Context	Qty	Weight (g)	Material	Object	Description	Spot date	Period
4	U/S	1	116	CBM	Brick	corner sherd of red brick	–	PM/Mod
3	U/S	2	90	CBM	Drain pipe	stoneware drain pipe sherds with stamped makers mark 'CLA-'	19th/e.20th	Mod
3	U/S	1	91	CBM	Floor tile	unglazed red earthenware floor tile, moulded back for key	19th/20th	Mod
5	U/S	2	790	CBM	Floor tile	unglazed black earthenware floor tiles, one square corner, one nearly complete triangular tile. Both with impressed makers mark on back 'CARR- / BRO- / BURSL (EM) / STAFFORDSHI (RE)'	19th/20th	Mod
3	U/S	1	43	CBM	Hearth tile	green glazed Victorian hearth tile	L.19th/e.20th	Mod
4	U/S	1	21	CBM	Hearth tile	green glazed Victorian hearth tile	L.19th/e.20th	Mod

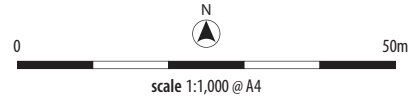
TABLE 1
Finds catalogue



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KEY

- trench locations
- abbey structures
- Furness Abbey Hotel (traced from 1st edition OS map)



ILLUS 11

Trench plan with Furness Abbey Hotel footprint from 1st edition Ordnance Survey

6 DISCUSSION

The earliest deposit observed in the trenches was mixed sand and gravel with building fragments of eg stone, brick and tile; [10]. The dating of the building fragments suggests the deposit derives from the 19th century farmhouse or subsequent Furness Abbey Hotel (demolished in the 1950s). The finds recovered from Trench Five provide some structural detail and indicate that a chimney and fireplace from the hotel were located in the vicinity.

The sandstone block identified in Trench 1 is interpreted as a door / window jamb or sill. Its abraded state and location within the compact red clay deposit is indicative of it having been considerably disturbed. It is most likely part of the fabric of the hotel structure but may have been reused from an earlier building or even from the remains of Furness Abbey. The wall remains are more difficult to interpret. According to the 1st Edition Ordnance Survey (**Illus 11**), Trench One is located on the approximate footprint of the hotel building, however the exposed walls are not on the same

orientation as the hotel. The fragments of brick within the mortar joining the sandstone blocks indicate a modern date. This points to a post-demolition phase of construction; possibly a boundary wall foundation.

The brick wall in Trench 2 is clearly built on top of the demolition rubble layer which would indicate it is a disturbed fragment or part of a later conduit, culvert or inspection chamber associated with the visitor centre. The shaped sandstone blocks observed in the section of Trench Two and recovered from the demolition layer of Trench Three are most likely the remains of the walls of the Hotel.

The brick wall observed in Trench 5 is interpreted as part of the subsurface remains of the Hotel, possibly a conduit or culvert. Its east-west orientation matches the orientation of the walls of the hotel, although so little of the feature was exposed that definitive conclusions are problematical.

7 CONCLUSION

The excavation of the seven trenches to locate the water pipe revealed archaeological deposits predominantly associated with the demolition of the Furness Abbey Hotel in the 1950s. Surviving structural features within the trenches are part of the foundation course of the Hotel, while a probable boundary wall is associated with a post-demolition phase of construction. The retrieved artefacts date to the 19th century onwards and therefore also correlate with the lifespan of the Hotel; but may also derive from the earlier farmhouse building on the site.

The trenches were not excavated below the layer of rubble associated with the demolition of the Hotel and therefore precluded the identification of structural remains associated with the outer precinct of the Abbey that may survive in the area.

8 REFERENCES

Hodgson, D 2014 'Furness Abbey – Investigation to detect water leak' Specification English Heritage.

National Heritage List for England, List entry number 1010014: Furness Abbey.

National Heritage List for England, List entry number 1025255: The Abbey Tavern.

1851 Ordnance Survey *England & Wales, Lancashire, Sheet XXI*.



9 APPENDICES

APPENDIX 1 SITE REGISTERS

Context register

Context	Area	Description
01	Trench 1 & 2	Layer of tarmac
02	trench 1	Orange sand and gravel - hard core for tarmac
03	Trench 1	Compact red sand and gravel
04	Trench 1	Thin sandstone slab
05	Trench 1	Wall of sandstone blocks north-east - south-west
06	Trench 1	Wall of sandstone blocks north-west - south-east
07	Trench 1	Shaped door / window jamb / sill
08	Trench 2	Yellowish grey / brown sand and gravel hard-core
09	Trench 2 et al	Compact red sandy clay and gravel
10	Trench 2 et al	Mixed sand and gravel with frequent tile, slate, brick, stone fragments
11	Trench 2	Two courses high brick wall
12	Trenches 3, 4, 5, 6, 7	Yellow sand underlying pavement slabs
13	Trench 5	Two courses high brick wall over sandstone block
14	Trench 6	Cut for water pipe

Photo register

Photo	Facing	Description
001	W	Trench 1, working shot
002	—	Photo taken of trench 1 for photogrammetry
003	—	Photo taken of trench 1 for photogrammetry
004	—	Photo taken of trench 1 for photogrammetry
005	—	Photo taken of trench 1 for photogrammetry
006	—	Photo taken of trench 1 for photogrammetry
007	—	Photo taken of trench 1 for photogrammetry
008	—	Photo taken of trench 1 for photogrammetry
009	—	Photo taken of trench 1 for photogrammetry
010	—	Photo taken of trench 1 for photogrammetry
011	—	Photo taken of trench 1 for photogrammetry
012	—	Photo taken of trench 1 for photogrammetry
013	—	Photo taken of trench 1 for photogrammetry

Photo	Facing	Description
014	—	Photo taken of trench 1 for photogrammetry
015	—	Photo taken of trench 1 for photogrammetry
016	S	View of wall 1, trench 1
017	S	Close-up of wall 1, trench 1
018	E	View of wall 2 trench 1
019	E	View of wall 1 with slabs overlapping
020	SE	View of wall 1 with slabs overlapping
021	SE	As before without scale
022	W	View of trench 1 fenced off at end of day one
023	S	Close-up of stone block next to pipe
024	S	General view of water pipe in trench 1 extension
025	N	Water pipe and possible door / window jamb / sill

Photo	Facing	Description
026	E	Close up of door / window jamb / sill
027	E	Trench 1 extension
028	E	Trench 1 extension
029	W	Trench 1 extension
030	N	Trench two opened
031	NE	Working shot, trench two, with brick wall exposed
032	N	Trench 2 with brick wall exposed
033	N	Trench 2 with scale
034	W	Trench 2 gas pipe exposed
035	N	Trench 2, gas pipe exposed
036	N	Working shot of trench 2
037	N	Trench 2 extension, gas pipe exposed
038	N	Trench 2 extension, sandstone block exposed
039	N	Trench 2 extension with gas pipe and water pipe exposed
040	W	Trench three with sandstone block
041	—	Sandstone block removed and cleaned
042	E	Trench three - west facing section
043	N	Trench three with water pipe exposed
044	N	Trench three - working shot
045	—	Pipe fragment with lettering
046	—	Pipe and tile fragments
047	E	Trench three extended
048	E	West facing section of trench three extension
049	E	Close-up of clamp on water pipe
050	—	View of stone fragment from trench four
051	—	View of stone fragment from trench four
052	E	View of trench four
053	W	View of trench four
054	—	View of bricks from fill of trench five
055	—	View of stone fragments with soot
056	—	Close-up of brick wall in trench five.
057	N	Close-up of brick wall in trench five.
058	E	Trench five
059	E	Trench five
060	N	Trench five
061	S	Trench five and museum wall
062	—	Brick wall in trench five
063	W	Trench six

Photo	Facing	Description
064	SW	Trenches five and six opened
065	E	Trench six - water pipe clamped
066	E	Trench six with clamped pipe showing trench cut
067	W	Trench six
068	S	Trench six
069	S	Trench seven opened
070	S	Trench seven
071	SE	Trench seven
072	E	Trench seven - close-up of leak
073	—	View of tile fragment from trench seven
074	—	Close-up of tile fragment
075	S	General view of museum entrance
076	SW	General view of museum entrance



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