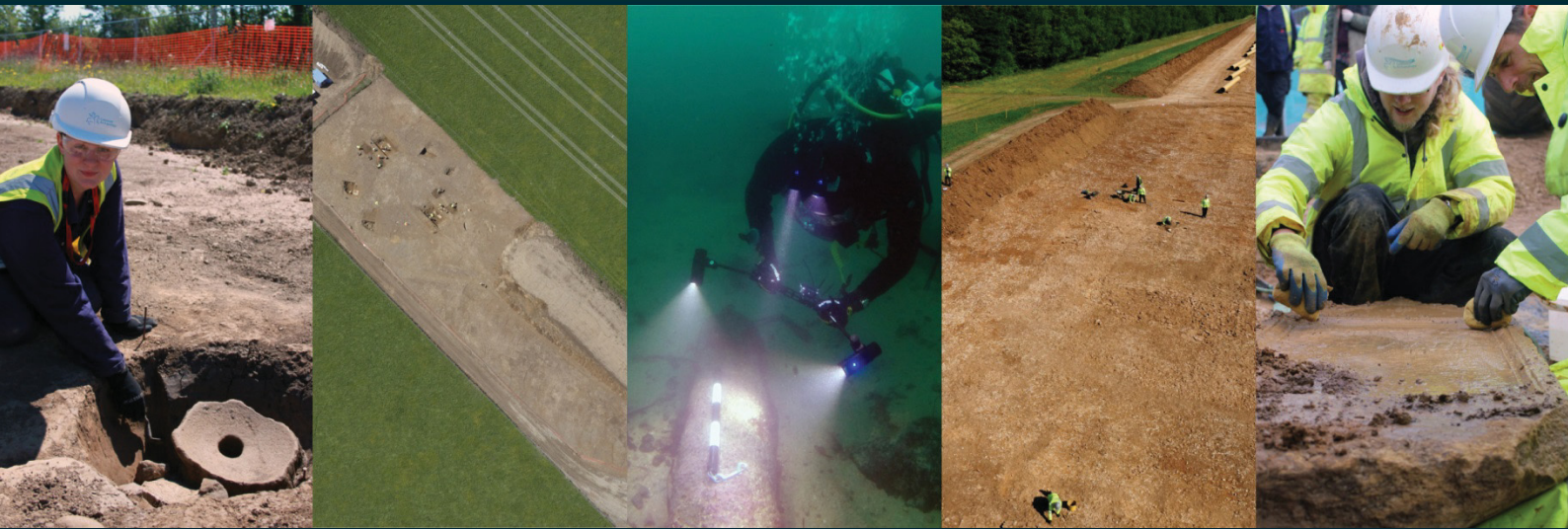


# Former HMP Gloucester Gloucester Gloucestershire: SI Works

*Programme of Archaeological Works*



for  
City & Country

CA Project: 5580  
CA Report: 17021

February 2017



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## SUMMARY

<b>Project Name:</b>	Former HMP Gloucester: SI Works
<b>Location:</b>	Barrack Square, Gloucester, Gloucestershire
<b>NGR:</b>	Centred on SO 8270 1850
<b>Type:</b>	Programme of Archaeological Works
<b>Date:</b>	3-13 January 2017
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A programme of archaeological works was undertaken in January 2017 by Cotswold Archaeology during site investigation works associated with the proposed redevelopment of the site.

The fieldwork identified structures and deposits that are likely to be associated with the medieval Gloucester Castle which once occupied the site, its later use as the County Gaol in the late medieval/early post-medieval period and with the late 18th-century prison and its subsequent development.



## 1. INTRODUCTION

1.1 In January 2017 Cotswold Archaeology (CA) carried out a programme of archaeological works for City & Country during Site Investigation (SI) works at the former HMP Gloucester, Gloucester, Gloucestershire (centred on NGR: NGR: SO 8270 1850; Fig. 1). The archaeological works were undertaken to accompany a forthcoming planning application for the redevelopment of the site.

1.2 The programme of archaeological works was carried out in accordance with a recommendation by Andrew Armstrong, Gloucester City Archaeologist, the archaeological advisor to Gloucester City Council (GCC), and with a subsequent detailed *Written Scheme of Investigation* (WSI) produced by CA (2017) that was approved by Mr Armstrong. The fieldwork also followed *Standard and guidance: Archaeological field evaluation* (ClfA 2014), the *Management of Archaeological Projects* (English Heritage 1991) and the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (English Heritage 2006). It was monitored by Mr Armstrong, including a site visit on 9 January 2017.

### ***The site***

1.3 The site is approximately 1.8 hectares in extent and is located on the western edge of the centre of the City of Gloucester. It is entirely formed by the former prison, the grounds of which are hard-standing and partitioned into small areas by high fences. The prison closed in March 2013, and is currently unused. The site is bound to the north and east by civil buildings, comprising Shire Hall and the Magistrates Court. On the western side of the site, beyond the road which borders this side of the site, lies the River Severn. To the south lies refurbished dockside warehouses associated with Gloucester Docks.

1.4 The site is predominately flat, although the ground level does rise in the eastern extent of the site to 12m AOD. Elsewhere the site is typically situated between 10.2m and 11.3m AOD. The underlying bedrock geology of the area is mapped as Jurassic and Triassic Blue Lias and Charmouth Mudstone formations overlain through all but the very eastern limit of the site by Quaternary superficial tidal flat deposits consisting of clay, sand and silt (BGS 2015). The natural Lias substrate was encountered during the drilling of borehole D in the southern part of the site and Holocene alluvial deposits, represented by sand and gravel, were identified within

boreholes B, C and F. None of the hand-dug test-pits were excavated to a sufficient depth to encounter any of these deposits.

## 2. ARCHAEOLOGICAL BACKGROUND

- 2.1 The proposed development site has been subject to a preceding Archaeological Desk-Based Assessment (CA 2013), a Conservation and Development Plan (Purcell 2013) and to archaeological evaluation (CA 2016). It is not intended to fully reprise these reports here, but the following is a summary of their conclusions.
- 2.2 The assessment noted that the site comprises the extant prison that includes a complex of buildings of 18th, 19th, and 20th-century date, which includes a Grade II\* Listed core, and several Grade II Listed peripheral buildings (CA 2013).
- 2.3 In the early 12th-century, Gloucester Castle was constructed within the current site. The castle was a large building, with the keep, inner bailey, stables and part of the castle ditch lying within the current site, and the drawbridge and gate lying outwith to the north. From the late 15th-century the castle was used purely as the county gaol. The castle buildings were entirely demolished in 1785 prior to construction of Blackburn's County Gaol. Subsequent expansion and remodelling of the prison took place in the 19th and 20th-centuries until the 1960s. Several areas of the prison are basemented, which is likely to have impacted upon upper levels of archaeology within the site, including levels of potential medieval remains. It is likely that any Roman or putative Saxon remains within the site would occur at depths that later development would not have impacted upon (ibid.).
- 2.4 The three preceding phases of archaeological trenching identified significant deposits and structural remains associated with the medieval Gloucester Castle, including the walls of three sides of the substantial 12th-century keep, an associated forebuilding and part of one of the inner bailey walls. The large inner defensive castle ditch was also identified (CA 2016).
- 2.5 The evaluation also encountered structures and deposits relating to the use of the site as the County Gaol in the later medieval/post-medieval period, including a number of burials. The extensive well-preserved remains of the late 18th-century prison were also identified, as were numerous features and deposits associated with

the later development of the site throughout the 19th and 20th century, including the foundations of an early 19th-century treadmill, structures associated with exercise yards and the early 20th-century execution chamber. Four graves of executed prisoners were also encountered (*ibid.*).

### 3. AIMS AND OBJECTIVES

3.1 The objectives of the archaeological works were:

- to monitor the groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks;
- at the conclusion of the project, to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.

### 4. METHODOLOGY

4.1 The fieldwork followed the methodology set out within the WSI (CA 2017). An archaeologist was present during intrusive SI works, which comprised the drilling of six boreholes (BHA to BHF inclusive) to assess for contamination etc, and also the hand excavation of six test-pits to investigate the footings associated with the Listed buildings that will be retained during any future development (see Fig. 2 for locations).

4.2 The boreholes measured 150mm in diameter and were completed to depths of between 3m and 5m below the present ground level (bpgl). Prior to the drilling of boreholes BHB, BHC, BHE and BHF, a test-pit was excavated at each of their locations by CA to a depth of at least 1.2m bpgl and recorded archaeologically. Two of the boreholes were located within previous archaeological trenches (BHA and BHD, within Trenches 16 and 13 respectively) and therefore did not require archaeological excavation prior to drilling.

4.3 Although it was initially proposed to excavate up to nine test-pits (SI1 to SI9 inclusive), only six pits were excavated (SI1-SI3, SI5, SI8, SI9). The test-pits measured up to 1.85m in length, 1.2m wide and were excavated up to 1.8m in



depth, with the aim of exposing the full depth of the encountered foundations. In the event, it was only possible to identify the base of the foundations in test-pit SI8 adjacent to the north-western elevation of the Debtors Prison.

4.4 The watching brief comprised the observation by a competent archaeologist of all intrusive groundworks associated with these SI works. Modern surface deposits (concrete, tarmac) were generally removed by a mechanical excavator equipped with a toothless bucket under archaeological supervision. Non-archaeologically significant deposits were then removed by the contractors by hand. Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*.

4.5 The archive from the current works is currently held by CA at their offices in Kemble. It will be incorporated within existing archive for the previous phases of evaluation trenching and will therefore be deposited with The Museum of Gloucester under accession number GLRCM 2015.31. A summary of information from this project, set out within Appendix C, will be entered onto the OASIS online database of archaeological projects in Britain.

## 5. RESULTS (FIGS 2-10)

5.1 This section provides an overview of the results of the programme of archaeological works; detailed summaries of the recorded contexts are to be found in Appendix A. Details of the relative heights of the principal deposits and features encountered within the test-pits and of the deposits observed within the borehole cores, expressed as metres Above Ordnance Datum (m AOD), appear in Appendix B.

### ***Boreholes and associated test-pits***

#### ***Borehole A***

5.2 Borehole A was terminated at a depth of 3m bpgl. Between this depth and approximately 2.4m bpgl was a deposit of dark brown silty clay, 2501, which contained frequent small mollusc shells and very occasional charcoal and ceramic building material (not recovered from the borehole core). The drill failed to recover



any material between 2.4m and 2m bpgl and above this was the backfill of the preceding evaluation trench, Trench 16, which was recorded as context 2500.

#### *Borehole B (Figs 3 & 4)*

- 5.3 Borehole B was drilled to a depth of 5m bpgl, where a very loose, wet deposit of mid brown silty sand, 2603, most probably Holocene Elmore Member alluvium, was encountered. This contained gravel and occasional charcoal, as well as an oyster shell, and extended up to a depth of 3.2m bpgl. Overlying this was a band of dark greenish grey, gritty clay, 2602, which was approximately 0.15m thick. This was covered by deposit 2601, comprising mid brown sandy, clayey silt containing frequent charcoal flecks, occasional ceramic building material and within which a small animal (mouse/shrew) skull was identified, however none of the artefactual or ecofactual material was removed from the borehole core. This deposit was approximately 1.1m thick, extending upwards to a depth of 1.95m bpgl. Above this was a deposit of soft, dark greyish brown sandy, clayey silt, 2600, which contained abundant flecks of charcoal, as well as frequent gravel and lumps of lime mortar. This material was at least 0.25m thick, extending up to a depth of 1.7m bpgl. Above this, the drill failed to retrieve a core between a depth of 1.2m and 1.7m bpgl.
- 5.4 Within the associated hand-excavated test-pit, wall 2010 was identified at a depth of 0.8m bpgl. Although little of the wall was visible due to the limited size of the test-pit (see Fig. 3) it could be discerned that it was aligned approximately NE/SW, with part of its south-eastern elevation exposed within the trench. It was constructed from sandstone blocks that were bonded with light grey sandy mortar, and contained a soft orangey mortar core presumably between its two faces. The wall was abutted by dark grey silty clay deposit 2011 which, like wall 2010, extended below the limit of the test-pit.
- 5.5 Overlying wall 2010 and deposit 2011 were three layers of probable make-up or demolition material, 2009, 2008 and 2007, each up to 0.17m in thickness and each containing crushed brick fragments. These layers and underlying deposit 2011 were cut by feature 2006, of uncertain function, which was at least 0.6m wide, 0.45m deep and extended eastwards beyond the limit of excavation.
- 5.6 Modern make-up deposit 2004 was in turn sealed by levelling deposit 2003 for overlying tarmac surface layer 2000. Contexts 2003, 2004, 2007 and 2008 were cut

by the construction pit for concrete structure 2001 which appears to represent the base of a former floodlight pylon.

#### *Borehole C*

5.7 Borehole C was terminated at a depth of 4.2m bpgl. Between this depth and approximately 3.2m bpgl was a deposit of very loose, wet, dark grey silty sand, 2700, again interpreted as a Holocene alluvial deposit. The drill failed to recover any material between 3.2m and the base of the hand-dug test-pit at 1.2m bpgl.

5.8 Within the test-pit, the earliest deposit encountered was greyish brown silt containing frequent fragments of post-medieval/modern brick and stone, 2103. This deposit was at least 0.6m thick and was covered by a layer of crushed brick demolition material, 2102, which was 0.3m thick. Overlying the brick layer was make-up/levelling deposit 2101, for overlying tarmac surface 2100.

#### *Borehole D*

5.9 Borehole D was drilled to a depth of 5m bpgl, where stiff, blue-grey clay 2805, most probably natural Lias Clays, was encountered. The top of this material was identified at approximately 4.35m bpgl and overlying it was a band of dark brownish grey, sandy silty clay, 2804, which was approximately 0.6m thick and contained occasional charcoal flecks and organic rootlet inclusions. This was covered by deposit 2803, comprising mid brown silty clay with occasional small mollusc shells. This material was 0.35m thick and above it lay deposit 2802, which was 1.1m thick, extending upwards to a depth of 1.5m bpgl. It comprised dark greyish brown silty clay with inclusions of limestone pebbles, charcoal flecks and small mollusc shells. Overlying this was context 2801 which comprised dark brown clayey sandy silt with frequent gravel, mortar, ceramic building material and charcoal. This material was 0.5m thick, extending up to a depth of 1.m bpgl. Above this was the backfill of previous evaluation Trench 13, that was recorded as context 2800.

#### *Borehole E*

5.10 Borehole E was terminated at a depth of 4m bpgl. Between this depth and approximately 3m bpgl was a deposit of mid orangey brown clayey sand, 2901, most probably Late Devensian Power House Member Gravels, which contained frequent gravel and which graduated into light brownish orange clayey sand with occasional dark brown mottles. Above this material was a deposit of mid brown sandy silty clay, 2900, which was approximately 0.7m thick and contained charcoal, ceramic building

material and lime mortar. The ceramic material is presumed post-medieval at the earliest, but was not removed from the recovered core.

- 5.11 The drill failed to recover any material between 2.3m and 1.2m bpgl. Above this level, within the hand-excavated test-pit, the earliest deposit encountered was dark greyish-brown humic silty clay 2307, containing occasional charcoal inclusions. This deposit was at least 0.05m thick and was overlain by context 2306, generally comprising brownish grey silty clay, but which was greenish in places. It contained occasional brick, sandstone and charcoal. Overlying it was a mixed layer of make-up material, 2305, which was 0.3m thick. This and underlying deposits 2306 and 2307 were cut by modern construction cut 2304 for a ceramic drain which was encased within concrete deposit 2303. This service trench was at least 0.6m deep and extended below the limit of excavation. Sealing it were two layers of hardcore, 2302 and 2301 respectively, with a combined thickness of up to 0.4m. Above this was modern tarmac surface 2300.

#### *Borehole F (Fig. 5)*

- 5.12 Borehole F was terminated at a depth of 3.2m bpgl. Between this depth and approximately 3.05m bpgl was a deposit of very loose, wet, brownish orange sand and gravel, 3051, most probably Late Devensian Power House Member Gravels. Above this, to a depth of 1.2m bpgl, was dark brown silty sand 3050 containing pebbles, grit, frequent charcoal and very occasional ceramic building material of presumed later medieval/early post-medieval date, however none of this material was recovered from the borehole core.
- 5.13 Within the test-pit, the earliest deposit encountered was context 2406, which is presumably the same as deposit 3050 recorded within the borehole. Here, the surface of this deposit was identified at 0.9m bpgl. It was cut by trench 2405 for metal pipe 2403 which extended along the western section of the test-pit. The pipe trench also contained a further metal pipe at a slightly higher level, again running approximately north/south through the centre of the test-pit. The pipe trench was backfilled by deposit 2402, comprising mixed light and mid brownish grey silty clay with inclusions of mortar, brick, ash, charcoal and sandstone.
- 5.14 Deposit 2402 was in turn overlain by modern hardcore layer 2401, which was 0.2m thick and above this was the modern tarmac road surface 2400, which measured 0.15m in thickness.

### **Site investigation (SI) test-pits**

#### *Test-pit SI1 (Fig. 6)*

- 5.15 Test-pit SI1 was excavated against the southern wall of the western part of the 'new' gatehouse constructed in 1826. Due to the discovery of unknown shallow services, the test-pit was extended eastwards from its original location and had an overall final length of 1.85m and a maximum width of 0.8m. The test-pit was terminated at a depth of 0.9m following the discovery of a number of further services.
- 5.16 Excavation of test-pit SI1 exposed part of the gatehouse foundations and demonstrates that these comprise both brick and stone courses, punctuated by a number of services running into the gatehouse in this location. From the limit of excavation to a depth of 0.5m bpgl, the foundations are of brick. Above this is a single course of stonework comprising substantial blocks, individually measuring 0.9m deep and at least 1m long. Above this was the brickwork of extant gatehouse wall 3202.
- 5.17 Investigation demonstrated that wall 3202 represents the presumed original construction, against the western side of which wall 3204 has been added. Although similar in construction to the original wall above ground, the foundations of the later structure solely comprised brick.
- 5.18 Abutting the south-western corner of wall 3202, brick structure 3203 extended southwards beyond the limit of excavation. It was at least 0.75m long, 0.46m wide and extended to a depth of at least 0.6m, beyond the base of the test-pit.
- 5.19 Structure 3203 and the various services were sealed by mixed deposit 3201, predominately comprising grey silty clay with abundant inclusions of brick, stone and mortar, which was at least 0.45m thick. Overlying this was modern tarmac surface 3200, which was 0.1m thick.

#### *Test-pit SI2 (Fig. 7)*

- 5.20 Test-pit SI2 was excavated against the southern wall, 3503, of A Wing and measured approximately 1m square. Brick wall 3506 was identified at a depth of 0.65m bpgl and lay on a parallel alignment and 0.5m south of the extant building. Wall 3506 was approximately 0.27m wide and at least 0.75m deep. It was sealed by,

and the gap between it and wall 3503 infilled with, deposit 3502 comprising greyish brown silty clay with mortar flecks.

- 5.21 An attempt to excavate to the base of the foundations of A Wing wall 3503, in the gap between it and wall 3506, was abandoned at a depth of 1.35m bpgl due to physical restrictions.
- 5.22 The construction trench for north/south aligned, stepped brick foundations 3505 cut across wall 3506. These foundations had a combined depth of at least 1.3m and were at least 0.7m wide, extending beyond the eastern limit of the test-pit. They are evidently associated with the western wall of the former execution chamber, which was built in 1912 and removed in 1966. The eastern and southern foundations of this structure were recorded within adjacent Trench 4 during the preceding evaluation. Foundations 3505 were overlain by rough concrete foundations 3504 for the extant flight of external steps constructed against the southern wall of A Wing.
- 5.23 Deposit 3502 and foundations 3504 and 3505 were overlain by gravel bedding layer 3501, 0.2m thick, for modern tarmac surface 3500.

*Test-pit SI3 (Fig. 8)*

- 5.24 Test-pit SI3, excavated to investigate the foundations of eastern wall 3400 associated with B Wing, measured 1.4m north to south and 1m east to west. Brick wall 3403 was identified at a depth of 0.8m bpgl and lay on a parallel alignment and approximately 0.5m east of the extant building. Wall 3403 was at least 0.3m wide, extending beyond the eastern limit of excavation and it was at least 0.8m deep. It was sealed by, and the gap between it and wall 3400 infilled with, deposit 3402 comprising brown sandy silt with abundant inclusions of mortar, charcoal, ceramic building material, animal bone, pottery and stone, presumably representing backfill associated with the construction of B Wing. It also contained evidently dumped layers of limestone and brick rubble.
- 5.25 The attempt to excavate to the base of the foundations of wall 3400 in the gap between it and wall 3403 was abandoned at a depth of 1.8m bpgl due to physical restrictions and the ingress of water. Although the base of the test-pit was under water, probing identified that the foundations of the eastern wall of B Wing, 3400, were stepped, with narrow offsets of approximately 0.1m at depths of 1.45m and

1.75m bpgl. This exercise also indicated that the foundations extended below the limit of excavation.

- 5.26 Abutting wall 3400, above deposit 3402, was a ceramic glazed drain, with a central channel, laid in sections and presumably originally covered with a grate. This was evidently held in place by concrete laid along its eastern side. Above this was the modern tarmac footpath surface, 3401, which was 0.15m thick.

*Test-pit SI5 (Fig. 9)*

- 5.27 Test-pit SI5 was excavated against the western wall, 3008, of A Wing and measured approximately 1m square. The earliest feature encountered here was truncated brick culvert 3007, which was aligned north/south, running parallel to the A Wing wall, with a gap of 0.6m between the two. The culvert was at least 0.4m wide and extended beyond the western limit of excavation. It survived to a depth of at least 0.25m and was sealed by deposit 3006, comprising brownish grey silty clay with mortar inclusions, measuring at least 0.5m thick and extending below the base of the test-pit. This deposit evidently represents backfill associated with the construction of A Wing.

- 5.28 Deposit 3006 was in turn sealed by a layer of demolition debris, 3005, comprising mainly brick rubble and mortar fragments, which was 0.1m thick. This was overlain by deposit 3004, comprising greyish brown silty clay with frequent stone inclusions. This material was 0.45m thick. North/south aligned trench 3002 cut through contexts 3004, 3005 and 3006, and had evidently removed the top part of culvert 3007. It was at least 0.4m wide and 0.75m deep and contained a large ceramic sewer pipe. It was backfilled by loose gravel, 3501.

- 5.29 Efforts to excavate to the base of the foundations of the western wall of A Wing, in the gap between it and culvert 3007, ceased at a depth of 1.3m bpgl due to physical restrictions.

*Test-pit SI8 (Fig. 10)*

- 5.30 Test-pit SI8, measuring approximately 1.2m square, was excavated to investigate the foundations within the angle at the north-western corner of the Debtors Prison. A stone course was identified at the base of the western wall, 3107, at a depth of 1.1m bpgl. It appeared to comprise Pennant sandstone slabs, protruding 0.35m from the face of the upper wall. This course was at least 0.1m thick and presumably formed

the base of the foundations. Above it were three offsets of stepped brick foundations, with a combined depth of approximately 0.45m.

- 5.31 The foundations of the western wall were abutted by those of the northern wall of the projecting rear, western part of the building, 3105. These comprised a rough concrete containing brick rubble and mortar, 0.6m thick.
- 5.32 The two sets of foundations were abutted by construction backfill deposits 3104 and 3103. Deposit 3104 was the earliest of these and comprised dark grey silty clay, 0.35m thick. Overlying deposit 3103 consisted of brownish grey silty clay with brick, stone and mortar inclusions and was up to 0.55m thick. Above this were two layers of gravel, 3102 and 3101, with a combined thickness of 0.35m, laid as levelling/make-up for the current tarmac surface, 3100.

#### *Test-pit SI9*

- 5.33 Test-pit SI9, measuring approximately 1.1m square, was positioned to investigate the foundations within the angle towards the south-western corner of the Debtors Prison. It was abandoned at a depth of 0.5m upon the discovery of a line of bricks or tiles stamped with 'DANGER ELECTRICITY' within a duct formed between the foundations of the Debtors Prison wall 3304 and concrete wall, 3303.

## **6. THE FINDS**

- 6.1 To ensure the integrity of the cores, no artefacts were recovered during the drilling of the boreholes. No artefacts pre-dating the modern period were recovered during the excavation of the six SI test-pits.

## **7. DISCUSSION**

### *General*

- 7.1 Despite the limited scope of the latest phase of works, a number of structures and deposits of archaeological interest were identified across the site. A number of these correlate well with the results of previous investigations and some also enhance the archaeological understanding of how the site developed from the medieval through to the modern periods.



- 7.2 Previous archaeological work on the site had never penetrated deep enough to identify the level of the natural geological horizon, however the Lias clay substrate was identified during the drilling of borehole D and demonstrates that it lies at 6.18m AOD along at least the central, southern extent of the site. Although not retrieved within a core by the drilling rig, penetration testing within borehole C indicated a firm substrate at 6.78m AOD. It is likely that this represents the top of the Lias in this location. An ongoing geoarchaeological and hydrological study involving the drilling of 13 further boreholes (ARCA, forthcoming) should establish a reliable model of the natural substrate across the site.
- 7.3 The identification of the natural Lias clay in borehole D, the inferred location of it in borehole C, together with the identification of possible Devensian Power House Gravels in boreholes E and F and later Holocene alluvial sand and gravel deposits within Boreholes B and C begins to give an indication of the likely depth of the surviving archaeological resource across the site, a better understanding of which should be enhanced considerably by the forthcoming borehole study.

#### *Medieval*

- 7.5 The construction of wall 2010 within the hand-excavated test-pit associated with borehole B was similar to that of the inner face of the keep wall identified during the previous evaluation. Its location, together with its north-east/south-west alignment, correlates closely with that suggested by Hurst (1984) for the northern wall of the inner enclosure which contained the castle keep. A wall in a similar location and on the same alignment was also identified during a watching brief in 1985 (Garrod 1986). Drilling of the borehole adjacent to wall 2010 indicated that archaeological deposits here may extend to at least 3.2m bpgl (7.84m AOD).

#### *Medieval/post-medieval*

- 7.6 The drilling of borehole A extended to 3m bpgl (7.7m AOD) where deposit 2501 is likely to represent one or more of the fills of the presumed inner castle ditch, as recorded in Trench 16 of the previous evaluation. The borehole did not penetrate any deeper than the limit of excavation reached during the evaluation (3.5m bpgl; 7.4m AOD).
- 7.7 Deposits 2802, 2803 and 2804 identified with borehole D are reminiscent of the fills of the inner ditch seen elsewhere on the site and the presence of significant quantities of mollusc shells within 2802 and 2803, as well as the organic material

within deposit 2804, suggests an open, wet environment such as that which may be expected within a large ditch. It is entirely possible that deposit 2801 may also represent the uppermost fill of the ditch, however the evidence for this is not as compelling as in the underlying deposits. The results from this location, when considered with that in previous evaluation (Trenches 16 to the north-west, Trench 4 to the east and Trenches 1 and 2 to the north-east) provide good evidence for a more accurate alignment of the inner castle ditch around this part of the circuit and which would now appear to take a course further north around the southern perimeter of the castle. This evidence does not however discount the possibility of an outer, ditched barbican on the south-eastern side of the curtain wall, as suggested by Hurst (1984).

- 7.8 As natural Lias clay was identified within borehole D and it was overlain directly by deposit 2804, it can be assumed that the interface between the two represents the base of the ditch in this location, at a depth of 4.35m bpgl (6.18m AOD). Despite the inner ditch being identified and investigated in a number of locations around the southern and eastern parts of the site, this is the first instance when the base may actually have been reached.
- 7.9 The discovery of presumed buried cultivation soils within the test-pits for boreholes E and F correlates well with the results of previous work. Similar material, interpreted as being associated with the use of much of the site as formal gardens and orchards in the later medieval/post-medieval period, has previously been identified throughout a large part of the site. Indeed, in places this deposit has been recorded as being up to 1m thick, sealing the levels associated with the medieval castle (Garrod 1984, 237-8).

#### *19th to 20th-century prison features*

- 7.10 The latest investigation has identified a number of features associated with the development of the prison in the 19th century, previously unseen in earlier phases of work.
- 7.11 In test-pit S11, it was clear that north/south wall 3203 abutted the main rear wall, 3202, of the 'new' gatehouse. Examination of the 1852 Board of Health map indicates that this is likely to represent the remains of the angled eastern wall of the 'Officers Room' associated with a former block that was added to the western side of the gatehouse in the 1840s, containing mostly male reception cells. This block

survived until at least the 1870s but appears to have been demolished by 1927, as it is absent from a block plan of the site from this date.

- 7.12 The excavation of test-pit SI1 also demonstrated that extant wall 3204 also abutted gatehouse wall 3202 and is likely to represent the rebuilding of this corner of the gatehouse following the demolition of the 1840s block.
- 7.13 The evidence from test-pit SI8 shows that north-facing wall 3105, which incidentally contains much graffiti, some dating back to the mid 19th century, abuts original west-facing wall 3106 of the Debtors Prison. It would appear to represent the addition of a 'Lodge', as depicted on the 1852 map and is again likely to have been added during the works in the 1840s.
- 7.14 The remains of partially destroyed brick culvert 3007, identified running parallel to the western wall of A wing in test-pit SI5, are reminiscent of those identified in previous investigations as being associated with Blackburn's original 18th-century prison. However, culvert 3007 was larger than any of the earlier examples revealed on the site and there is no reason to believe that it is not contemporary with the construction of A and B wings in the 1840s.
- 7.15 Walls 3506 and 3403, identified within test-pits SI2 and SI3 respectively, were offset from the main walls of A and B wings by a similar distance of 0.5m and presumably formed a duct or similar type of feature, however further interpretation was not possible due to the restrictive nature of the observed works.
- 7.16 The excavation of test-pit SI2 identified the western wall of the former execution chamber which was situated on the southern wall of A Wing. The remaining east and south walls of this structure were previously recorded in Trench 4 during the preceding evaluation.
- 7.17 The principal aim of the site investigation test-pits was to investigate the foundations associated with the Listed buildings that will be retained during future development and, where possible, to determine their depth. This appears to have been achieved only for the north-western corner of the Debtors Prison (test-pit SI8) where the course of Pennant sandstone slabs appears to form the base of the foundations which extend to a depth of approximately 1.34m bpgl (9.5m AOD). Elsewhere, investigation of the foundations was terminated within test-pits SI1 and SI9 at

relatively shallow depths due to the discovery of buried services, whilst the test-pits against targeting A and B wings (SI2, SI3 and SI5) indicate that the foundations of these structures are at least 1.8m deep below the current ground surface.

## 8. CA PROJECT TEAM

Fieldwork was undertaken by Mark Brett, assisted by Gary Baddeley and Sam Bateman. The report was written by Mark Brett. The illustrations were prepared by Lucy Martin and Tilia Cammegh. The archive has been compiled by Mark Brett and prepared for deposition by Hazel O'Neill. The project was managed for CA by Cliff Bateman.

## 9. REFERENCES

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**APPENDIX A: CONTEXT DESCRIPTIONS****Boreholes:**

Borehole	Context No.	Type	Description	Depth/thickness (m)
A	2500	Deposit	Backfill of evaluation Trench 16.	2
A	2501	Deposit	Dark brown silty clay. Soft, plastic. Contains frequent small mollusc shells, very occasional charcoal and ceramic building material.	>c. 0.6
B	2600	Deposit	Dark greyish brown sandy, clayey silt. Soft, very plastic. Contains abundant charcoal, frequent gravel and mortar.	c. 0.25
B	2601	Deposit	Mid brown sandy, clayey silt. Contains frequent charcoal, occasional ceramic building material and small animal skull.	1.1
B	2602	Deposit	Dark greenish grey gritty clay. Contains occasional charcoal and gravel.	0.15
B	2603	Deposit	Mid brown silty sand. Loose, wet. Contains frequent gravel, occasional charcoal, very occasional ceramic building material and oyster shell.	>c. 1.8
C	2700	Deposit	Dark grey silty sand. Loose, wet.	>c. 1
D	2800	Deposit	Backfill of evaluation Trench 13.	1
D	2801	Deposit	Dark brown clayey, sandy silt. Soft, plastic. Contains frequent gravel, mortar, charcoal and ceramic building material.	0.5
D	2802	Deposit	Dark greyish brown silty clay. Soft, plastic. Contains limestone pebbles, frequent small mollusc shells, occasional charcoal.	1.1
D	2803	Deposit	Mid brown silty clay. Contains occasional small mollusc shells.	0.35
D	2804	Deposit	Dark brownish grey sandy, silty clay. Contains occasional charcoal and organic material.	0.6
D	2805	Deposit	Dark bluish grey Lias clay. Sterile. Firm.	>0.65
E	2900	Deposit	Mid brown sandy, silty clay. Soft, plastic. Contains mortar, charcoal and ceramic building material.	0.2
E	2901	Deposit	Mid orangey brown clayey sand and gravel, graduating into light brownish orange clayey sand with dark brown mottles.	>1.5
F	3050	Deposit	Dark brown silty sand. Contains pebbles, grit, frequent charcoal and very occasional ceramic building material.	>c.1.85
F	3051	Deposit	Light brownish orange sand and gravel. Loose. Sterile.	>0.15

**SI test-pits:**

Test-pit	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	Depth/thickness (m)	Spot-date
SI1	3200	Layer		Surface	Tarmac surface			0.1	
SI1	3201	Deposit		Backfill	Mixed deposits, predominately mid grey silty clay. Contains frequent brick, stone and mortar.			>0.45	
SI1	3202	Structure		Foundations of 'new' gatehouse.	Stone and brick courses of foundation. E/W aligned.	>1		>0.9	
SI1	3203	Structure		Foundations of 'Officers Room'.	Brick foundations. N/S aligned	>0.75	0.45	>0.6	
SI1	3204	Structure		Extension to gatehouse.	Brick foundations. E/W aligned.			>0.45	
SI1	3205	Deposit		Backfill of drain.	Mid grey gritty, clayey silt. Contains occasional charcoal/ash and brick.			>0.3	
SI2	3500	Layer		Surface	Tarmac surface			0.12	
SI2	3501	Layer		Make-up/levelling	Gravel. Loose.			<0.22	
SI2	3502	Deposit		Backfill	Greyish brown silty clay. Contains occasional mortar.			>1	
SI2	3503	Structure		Foundations of S wall of A Wing	Brick foundations. E/W aligned.			>1.35	
SI2	3504	Structure		Foundations of modern steps.	Rough concrete foundations.	>1.15	>0.3	0.25	

Test-pit	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	Depth /thickness (m)	Spot-date
SI2	3505	Structure		Foundations of W wall of former execution chamber	Brick foundations. N/S aligned.	>1.15	>0.35	0.55	
SI2	3506	Structure		Foundations	Brick wall foundations. E/W aligned.	>0.5	0.26	>0.75	
SI3	3400	Structure		Foundations of E wall of B Wing	Brick foundations overlain by two courses of rusticated limestone blocks. Wall above continues in brick.			>1.8	
SI3	3401	Layer		Surface	Tarmac surface			0.15	
SI3	3402	Deposit		Backfill	Mid brown sandy silt. Contains abundant inclusions of charcoal, ceramic building material, animal bone, mortar, pottery, limestone.			>1.35	
SI5	3000	Layer		Surface	Tarmac surface			0.06	
SI5	3001	Layer		Make-up/levelling	Gravel. Loose.			0.12	
SI5	3002	Cut		Service trench.	Only E side visible. Steep, almost vertical edge, rounded base. N/S aligned.	>0.9	>0.4	>0.7	
SI5	3003	Deposit	3002	Backfill	Gravel. Loose. Backfilled over ceramic pipe.			>0.7	
SI5	3004	Deposit		Make-up/levelling	Greyish brown silty clay. Contains frequent stones.			0.45	
SI5	3005	Layer		Demolition material.	Mixed brick rubble and mortar. Loose.			0.12	
SI5	3006	Deposit		Backfill	Brownish grey silty clay. Contains occasional mortar.			>0.6	
SI5	3007	Structure		Culvert.	Arched brickwork. N/S aligned. Partially removed by later service trench	>0.9	>0.5	>0.25	
SI8	3100	Layer		Surface	Tarmac surface			0.15	
SI8	3101	Layer		Make-up/levelling	Gravel. Loose.			0.1	
SI8	3102	Layer		Make-up/levelling	Gravel. Loose.			0.25	
SI8	3103	Deposit		Backfill	Brownish grey silty clay. Contains occasional brick, stone and mortar.			>0.6	
SI8	3104	Deposit		Backfill	Dark grey silty clay.			>0.6	
SI8	3105	Deposit		Foundation of N-facing wall of W part of Debtors Prison.	Rough brick rubble and concrete foundations.	>0.5	>0.3	0.6	
SI8	3106	Structure		Foundation of W-facing wall of N part of Debtors Prison.	Stepped brick wall foundations. N/S aligned.	>0.5	0.26	>0.75	
SI9	3300	Layer		Surface	Tarmac surface			0.1	
SI9	3301	Layer		Make-up/levelling	Sandy gravel. Loose.			0.25	
SI9	3302	Deposit		Backfill of service duct.	Predominately brick rubble and mortar.	>1.1	0.3	0.35	
SI9	3303	Structure		Duct wall.	Concrete wall.	>0.9	>0.1	>0.4	
SI9	3304	Structure		Foundation of W-facing wall of S part of Debtors Prison.	Brick wall foundations. N/S aligned.			>0.4	

## APPENDIX B: LEVELS OF PRINCIPAL DEPOSITS AND STRUCTURES

Levels are expressed as metres below current ground level and as metres Above Ordnance Datum (AOD)

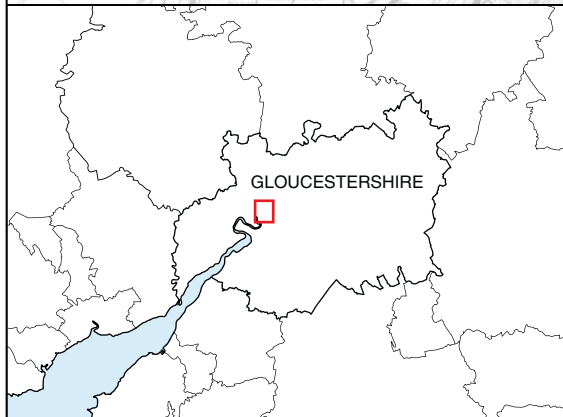
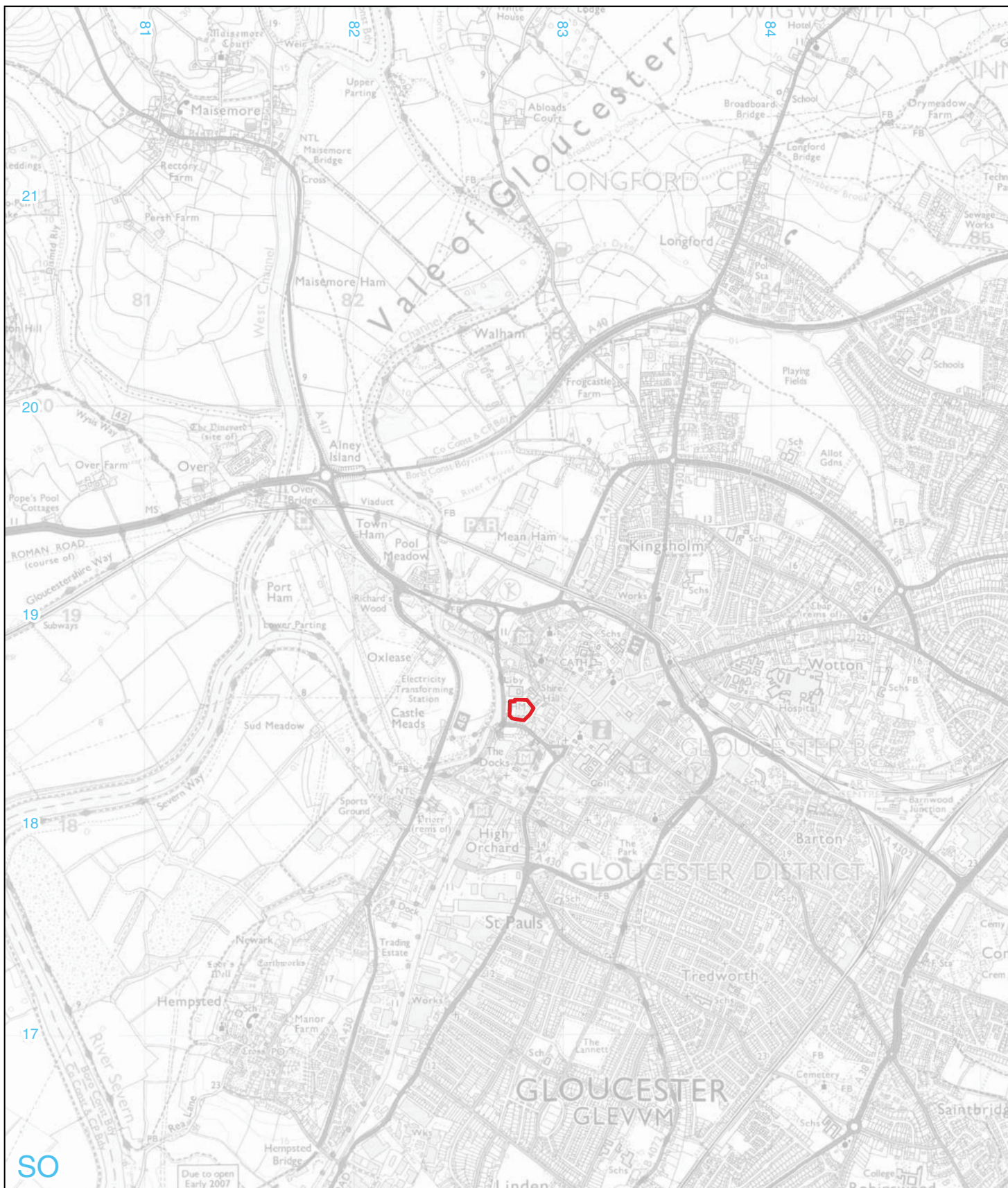
	Borehole A	Borehole B	Borehole C	Borehole D	Borehole E	Borehole F	Test-pit S11	Test-pit S12	Test-pit S13	Test-pit S15	Test-pit S18	Test-pit S19
Current ground level	0.00 (10.7)	0.00 (11.04)	0.00 (11.28)	0.00 (10.53)	0.00 (11.64)	0.00 (10.65)	0.00 (10.84)	0.00 (10.66)	0.00 (10.68)	0.00 (10.98)	0.00 (10.84)	0.00 (11.23)
Top of 19th-century prison structures							0.25 (10.59) <b>wall 3203</b>	0.44 (10.22) <b>wall 3506</b>	0.78 (9.9) <b>wall 3403</b>	0.93 (10.05) <b>culvert 3007</b>		
Top of medieval/early post-medieval deposits	2.4 (8.3) <b>deposit 2501</b>			1.5 (9.03) <b>deposit 2802</b>	0.62 (11.02) <b>deposit 2306</b>	0.8 (9.85) <b>deposit 2406</b>						
Top of medieval structures/deposits		0.8 (10.24) <b>wall 2010</b>										
Holocene alluvium		3.2 (7.84) <b>deposit 2603</b>	?3.2 ?(8.08) <b>deposit 2700</b>									
Devensian gravels					3.00 (8.64) <b>deposit 2901</b>	3.05 (7.6) <b>deposit 3051</b>						
Natural Lias substrate			?4.5 (?6.78)	4.35 (6.18) <b>deposit 2805</b>								
Limit of excavation/drilling	3 (7.7)	5 (6.04)	4.2 (7.08)	5 (5.53)	4 (7.64)	3.2 (7.45)	0.9 (9.94)	1.34 (9.32)	1.8 (8.88)	1.32 (9.66)	1.34 (9.5)	0.5 (10.73)

Upper figures are depth below modern ground level; lower figures in parentheses are metres AOD.



**APPENDIX C: OASIS REPORT FORM**

<b>PROJECT DETAILS</b>		
Project Name	Former HMP Gloucester: SI Works	
Short description	<p>A programme of archaeological works was undertaken by Cotswold Archaeology during borehole and ground investigation works associated with the development of the site.</p> <p>The fieldwork identified structures and deposits that are likely to be associated with the medieval Gloucester Castle which once occupied the site, its later use as the County Gaol in the late medieval/early post-medieval period and with the late 18th-century prison and its subsequent development.</p>	
Project dates	3-13 January 2017	
Project type	Programme of Archaeological Works	
Previous work	Evaluation (CA 2016) DBA (CA 2013) Heritage Assessment (Dieffenthaler, I. and Gujba, A. 2015) Watching Brief (Garrod, A.P. 1986)	
Future work	Unknown	
<b>PROJECT LOCATION</b>		
Site Location	Barrack Square, Gloucester, Gloucestershire	
Study area (M <sup>2</sup> /ha)	1.8ha	
Site co-ordinates (8 Fig Grid Reference)	SO 8270 1850	
<b>PROJECT CREATORS</b>		
Name of organisation	Cotswold Archaeology	
Project Brief originator	None	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Cliff Bateman	
Project Supervisor	Mark Brett	
<b>MONUMENT TYPE</b>	Medieval castle, post-medieval prison	
<b>SIGNIFICANT FINDS</b>		
<b>PROJECT ARCHIVES</b>		
	Intended final location of archive	Content
Paper	The Museum of Gloucester GLRCM 2015.31	Context sheets, trench recording forms, levels registers, photographic registers
Digital	The Museum of Gloucester GLRCM 2015.31	Database, digital photos
<b>BIBLIOGRAPHY</b>		
CA (Cotswold Archaeology) 2017 <i>HMP Gloucester, Gloucester, SI Works: Programme of Archaeological Works</i> . CA typescript report <b>17021</b>		



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**PROJECT TITLE**

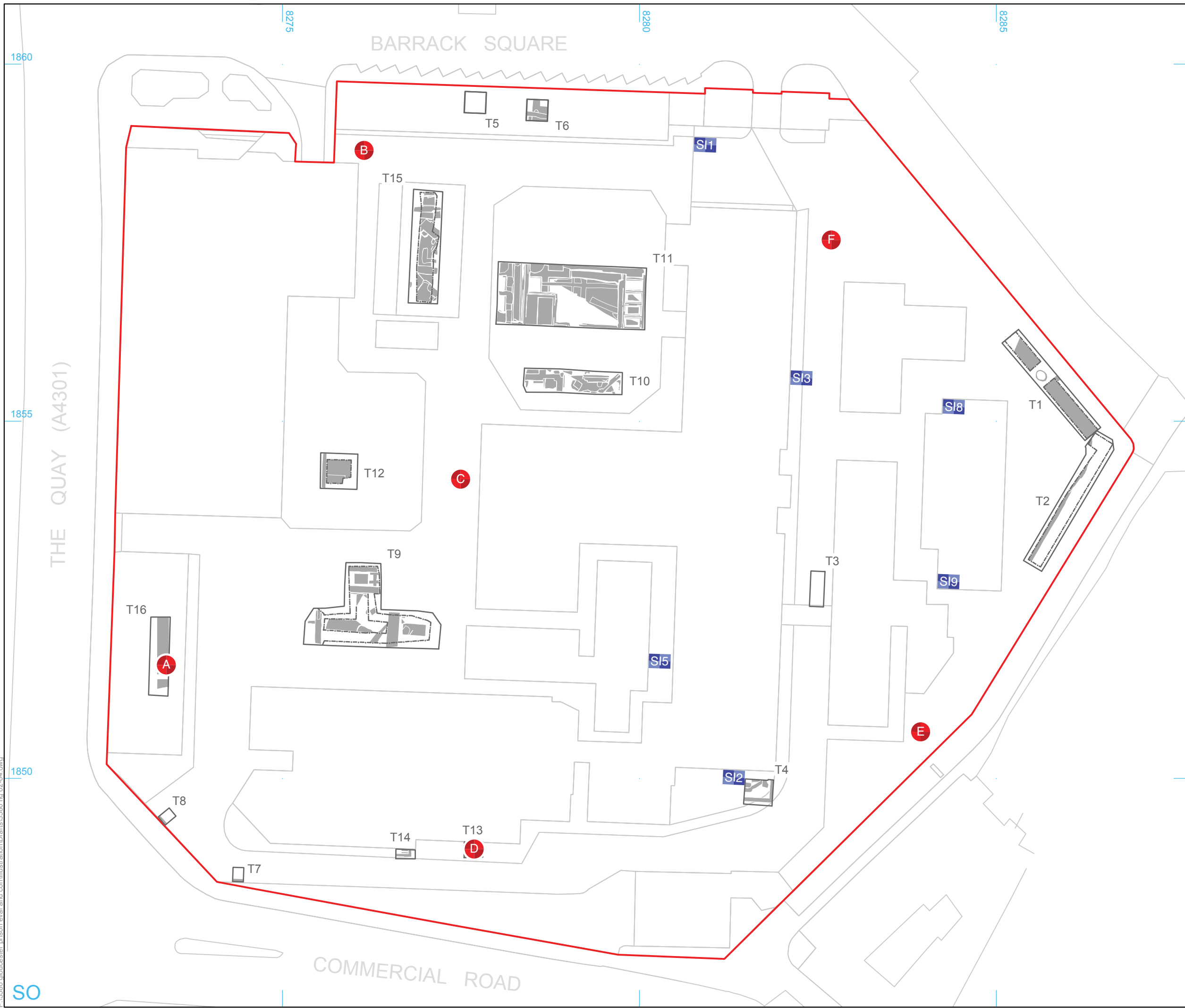
Former HMP Gloucester, Gloucester  
 Gloucestershire

**FIGURE TITLE**

Site location plan

<b>DRAWN BY</b>	SO	<b>PROJECT NO.</b>	5580	<b>FIGURE NO.</b>
<b>CHECKED BY</b>	LM	<b>DATE</b>	09/06/2016	
<b>APPROVED BY</b>	CMB	<b>SCALE@A4</b>	1:25,000	<b>1</b>





- site boundary
- evaluation trench
- archaeological feature
- A location of borehole
- SI location of test-pit



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**Former HMP Gloucester, Gloucester, Gloucestershire: SI works**

**Trench Location Plan, showing key archaeological features**

DRAWN BY	SO	PROJECT NO.	5580	FIGURE NO.
CHECKED BY	LM	DATE	09/06/2016	
APPROVED BY	CMB	SCALE@A3	1:500	<b>2</b>

P:\5580 Gloucester Prison Eval and Consultation\Drawings\5580\_16\_02-04.dwg

SO



Figure 3: Wall 2010 in base of test-pit for borehole B, looking south (0.4m scale)



Figure 4: Drilling borehole B adjacent to wall 2010, looking east



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FIGURE TITLE

Photographs

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Figure 5: Test-pit for borehole F, looking west (1m scale)



Figure 6: Test pit SI1, looking north (1m scale)



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FIGURE NO.

5 & 6





Figure 7: Test-pit SI2, looking north (1m scale)



Figure 8: Test-pit SI3, looking west (2m scale)



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FIGURE TITLE

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Figure 9: Test-pit SI5, looking north (1m scale)



Figure 10: Test-pit SI8, looking north (1m scale)



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PROJECT TITLE

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FIGURE TITLE

Photographs

DRAWN BY	TC	PROJECT NO.	5580	FIGURE NO.
CHECKED BY	DB	DATE	28/02/17	<b>9 &amp; 10</b>
APPROVED BY	CMB	SCALE@A4	N/A	



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