



Northamptonshire Archaeology

Archaeological evaluation of the Concourse at Northampton Castle Station October 2012



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Project title	Archaeological evaluation of the concourse at Northampton Castle Station	
Short description	<p>Northamptonshire Archaeology conducted an archaeological trial trench evaluation of the concourse at Northampton Castle Station, which lies within the outer bailey of the former Northampton Castle. Trial trenching has demonstrated that across at least part of this area pre-19th century ground levels have not been substantially reduced. Late Saxon deposits survive at a depth of 1.05-1.30m below modern ground level. Above this there are features dating to the 12th century, which belong to the early history of the castle. A length of ironstone wall, 0.60m wide, may be part of a building set immediately inside the outer bailey bank, while a length of linear slot may be part of a contemporary timber building. Domestic activity in this area is denoted by the presence of pottery and an animal bone assemblage including cattle, sheep and pig, some displaying butchery marks, along with dog and domestic fowl. The absence of any later features or pottery indicates that activity in this area through the 13th to 15th centuries had caused no significant below ground disturbance, and the overlying soil horizons may derive from the later medieval and the post-medieval periods: the outer bailey was an orchard prior to the building of the railway station. The top of the 12th-century stone wall lies 0.7m below modern ground level but only 0.35m below the base of the concrete foundation for the granite setts of the old station yard.</p>	
Project type	Evaluation	
Previous work	Desk-based assessment	
Future work	Unknown	
Monument type and period	Medieval castle	
Significant finds	Pottery and animal bone	
PROJECT LOCATION		
County	Northamptonshire	
Site address	Northampton Station, Black Lion Hill, Northampton NN1 1SP	
Easting and northing	SP 7477 6043	
Area	20 sq m	
Height OD	60.5-61.5m aOD	
PROJECT CREATORS		
Organisation	Northamptonshire Archaeology	
Project brief originator	Northamptonshire County Council	
Project Design originator	NA	
Director/Supervisor	Andy Chapman	
Project Manager	Andy Chapman	
Sponsor or funding body	West Northamptonshire Development Corporation Northamptonshire County Council	
PROJECT DATE		
Start date/ End date	22-24 October 2012	
ARCHIVES	Location (Accession no.)	Content (eg pottery, animal bone etc)
Physical	Northamptonshire Archaeology	Pottery, animal bone & small finds
Paper	Northamptonshire Archaeology	Context records, drawings,
Digital	Northamptonshire Archaeology	Mapinfo/CorelDraw plans, Word report Photographs
BIBLIOGRAPHY		
Title	Archaeological evaluation of the concourse at Northampton Castle Station, October 2012	
Serial title & volume	Northamptonshire Archaeology report 12/188	
Author(s), date	Andy Chapman, November 2011	

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**ARCHAEOLOGICAL EVALUATION OF THE CONCOURSE AT
NORTHAMPTON CASTLE STATION
OCTOBER 2012**

Abstract

Northamptonshire Archaeology conducted an archaeological trial trench evaluation of the concourse at Northampton Castle Station, which lies within the outer bailey of the former Northampton Castle. Trial trenching has demonstrated that across at least part of this area pre-19th century ground levels have not been substantially reduced. Late Saxon deposits survive at a depth of 1.05-1.30m below modern ground level. Above this there are features dating to the 12th century, which belong to the early history of the castle. A length of ironstone wall, 0.6m wide, may be part of a building set immediately inside the outer bailey bank, while a length of linear slot may be part of a contemporary timber building. Domestic activity in this area is denoted by the presence of pottery and an animal bone assemblage including cattle, sheep and pig, some displaying butchery marks, along with dog and domestic fowl. The absence of any later features or pottery indicates that activity in this area through the 13th to 15th centuries had caused no significant below ground disturbance, and the overlying soil horizons may derive from the later medieval and the post-medieval periods: the outer bailey was an orchard prior to the building of the railway station. The top of the 12th-century stone wall lies 0.7m below modern ground level but only 0.35m below the base of the concrete foundation for the granite setts of the old station yard.

1 INTRODUCTION

1.1 Background

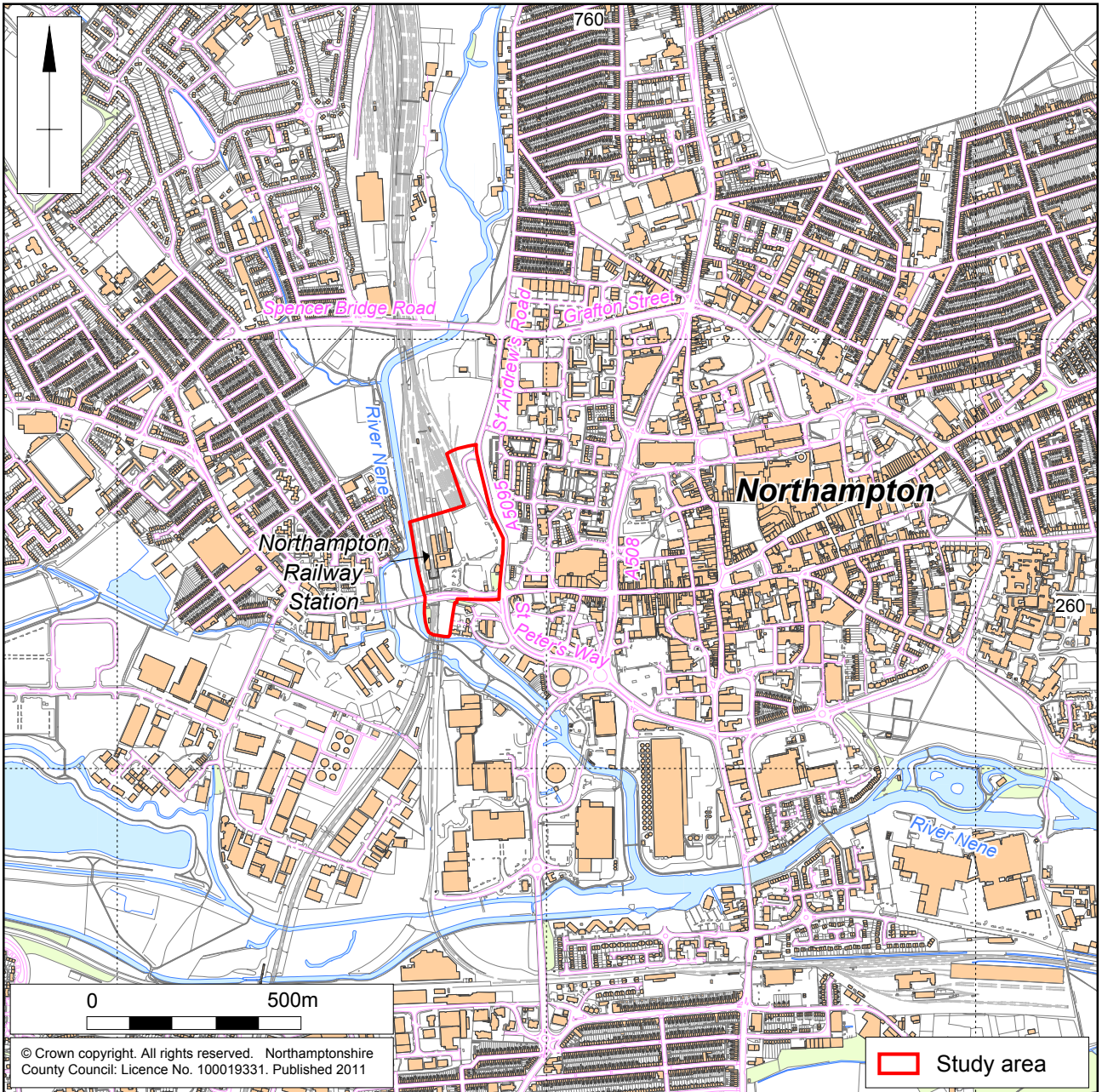
Northamptonshire Archaeology was commissioned by West Northamptonshire Development Corporation (WNDC), on behalf of Network Rail and London Midlands, with funding from Northamptonshire County Council, to excavate a trial trench within the concourse at Northampton Castle Station, currently used by taxis and for short-term parking and the location for a new station to be constructed in 2013-14 (NGR SP 7477 6043; Figs 1 & 2). The evaluation was carried out 22-24 October 2012.

1.2 Location, topography and geology

The proposed development area is located to the west of the town centre of Northampton. Historically, the site lay within St Peter's parish. It is bounded by Black Lion Hill to the south and the railway and current station to the west and north (Fig 2).

The station concourse comprises access roads for taxis, buses and cars, and contains disabled parking bays and bays for short-term car parking. A major sewer lies along the eastern side of the area, with other services, mainly electrical cables and drainage, also present.

The geology of the area is mapped as alluvium at the west of the site with Upper Lias Clay and Northampton Sand and Ironstone to the east, across the main public car park.



Scale 1:15,000

Site location Fig 1

1.3 Historical and Archaeological context

General

The station lies within the area formerly occupied by Northampton Castle, which was constructed in the 12th century and was a major royal castle until the end of the 13th century. Thereafter it declined in importance, and was largely derelict by the later 17th century following the Civil War and the Fire of Northampton, with the bulk of ruins and earthworks demolished and quarried to make way for a new railway station in the late 19th century. A small area to the south-east of the station is a Scheduled Monument (SM No 89), and the easternmost part of the inner bailey survives to the east of St Andrew's Road.

From the mid-19th century onward parts of the castle earthworks and surviving walls were the subject of antiquarian record, and records were made during the levelling of the site in the late 19th century. More recent excavations have taken place in the 1960s and the 1970s to the east of St Andrew's Road, along with some minor investigations alongside St Andrew's Road carried out more recently. A detailed review of the history, structure and archaeology of Northampton Castle was provided in the desk-based preparatory to the present evaluation (Walker 2011).

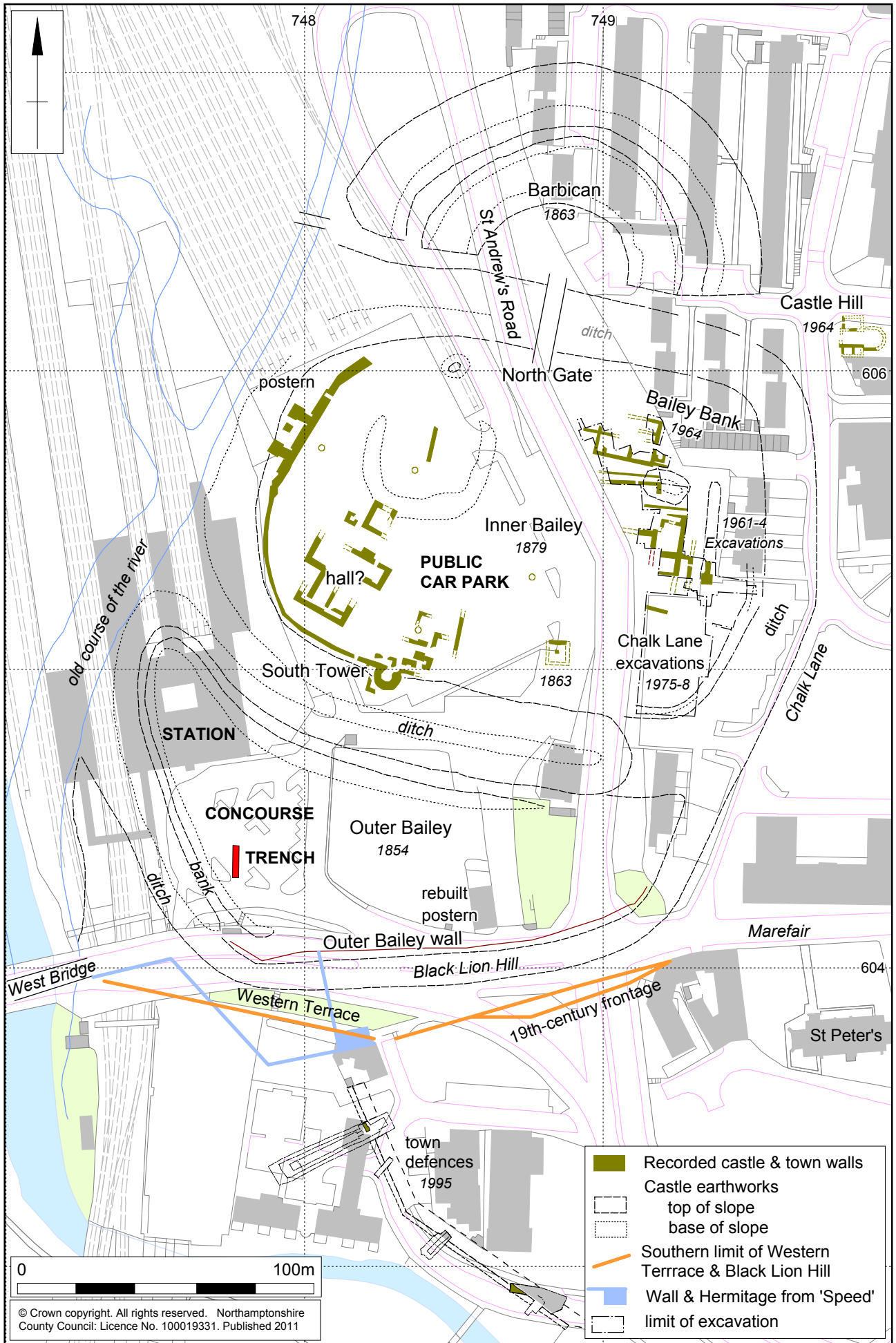
The composite plan of the castle (Fig 2) has been compiled from the various surveys carried out in the 19th century and also incorporates the results of more recent excavations within and in the environs of the castle (as summarised in Walker 2011).

The outer bailey and the approach to West Bridge

The compiled plan of the castle demonstrates that the station concourse falls within the western part of the defences and the interior of the castle's outer bailey. The only record of this area is the survey of the bank and wall defining the western and southern sides of the outer bailey and there are no antiquarian records that any buildings lay within this area.

The southern defences of the outer bailey were surveyed shortly before they were levelled in the mid-19th century. The positioning of these defences had created a severe dog leg between the western end of Marefair and West Bridge, as is shown by the location of the old southern frontages of Black Lion Hill and West Terrace (Fig 2), mapped from a combination of John Speed's map of 1610 and the Ordnance Survey maps predating the construction of St Peters Way, when the line of the Black Lion frontage was lost. This awkward and constricted approach to West Bridge was straightened by removing the southern defences of the outer bailey, so that Black Lion Hill could have a straighter approach to the new West Bridge.

The line of Western Terrace was itself a straightening of the earlier approach to the bridge. The location of the earlier walls and of the hermitage, have been positioned approximately using Speed's map of 1610 (Fig 2).



Scale 1:1750 (A4)

Northampton Station, the medieval castle and town defences Fig 2

2 THE EXCAVATED EVIDENCE

2.1 Objectives

The principal aim of the archaeological evaluation was to identify the presence of any archaeological deposits, and specifically any deposits relating to Northampton Castle, and to quantify the quality, character, date, state of preservation, depth of burial and extent of the archaeological features, structures, deposits, artefacts and ecofacts within the area affected by the proposed development.

Specific aims were to:

- Establish whether any archaeological deposits existed in the area;
- Identify the date, form and function of the archaeological deposit together with its extent, depth and quality of preservation;
- Establish the potential for the survival of environmental evidence.

Specific research objectives will be drawn from national and regional research frameworks documents as relevant (English Heritage 1991, Cooper 2006 and Knight *et al* 2012).

2.2 Methodology

The evaluation trench was positioned in accordance with the WSI (NA 2012) and the trench plan was agreed with Lesley-Ann Mather, the NCC's Archaeological Advisor (NCC 2012 a and b). Given the limitations imposed by the presence of services and the need to retain vehicle access around the station concourse, a single trench was excavated within part of the short-stay car parking bays.

At ground level, the trench was 10.6m long by 2.0m wide. The tarmac was cut by a wheel cutter and pneumatic drill, which was also used to help break up the concrete beneath the granite setts. All works were monitored by an archaeologist. Modern surfaces and underlying soil horizons were removed under archaeological supervision by a JCB-type excavator fitted with a toothless ditching bucket, and were immediately removed off site by lorry. The surfaces of significant archaeological deposits were exposed by machine, and at the northern end of trench, where no features were present, an area was taken down to undisturbed natural.

The site logistics for fencing, machine excavation, traffic control, muck-away and reinstatement were organised by MGWSP and were carried out by PGR Construction. Upon completion of the archaeological evaluation, the exposed floor of the trench was covered with a protective permeable membrane (Terram) and the trench was backfilled with stone and resurfaced with tarmac (see Fig 18).

The trench was hand cleaned sufficiently to enhance the definition of features, and areas of soil cover were excavated to expose a stone wall and related deposits, and to obtain dating evidence for these structures. Discrete cut features were subject to sample excavation to determine their date and character. Excavation did not compromise the integrity of the archaeological record.

All archaeological deposits and artefacts encountered during the course of excavation were fully recorded following standard Northamptonshire Archaeology procedures (NA 2011). The trench was planned at a scale of 1:20, the trench section was drawn at 1:20 and sections through discrete features were drawn at 1:10. Levels were related to the Ordnance Datum.

Artefacts collected from the archaeological deposits were treated according to the standards of the IfA (2008a).

The evaluation conformed to the Institute for Archaeologists *Standard and guidance for archaeological field evaluation* (IfA 2008b). All stages of the project were undertaken in accordance with English Heritage, *Management of Research Projects in the Historic Environment* (MoRPHE) (EH 2006). The evaluation was carried out in accordance with the brief issued by the Northamptonshire County Council (NCC 2012) and the Written Scheme of Investigation (WSI) prepared by Northamptonshire Archaeology (NA 2012).

All works undertaken by Northamptonshire Archaeology are carried out in accordance with the Health and Safety policy of Northamptonshire County Council, and the NCC Customer and Community Services Health and Safety Procedures. Northamptonshire Archaeology also followed the safety plan and procedures introduced by the principal contractor for the site works, which had been agreed with London Midland.

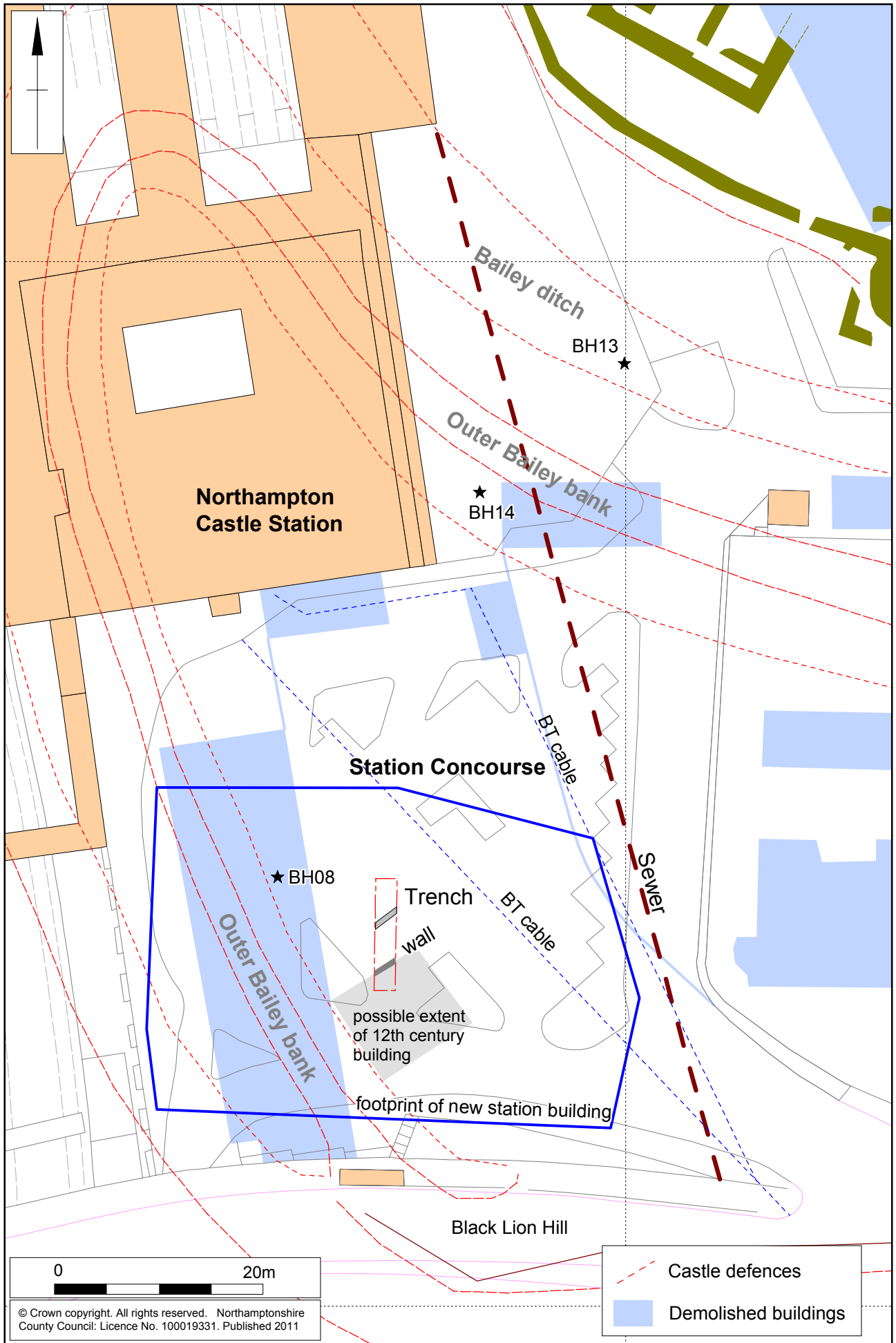
2.3 Summary of chronology

The excavation has produced features and pottery with an origin in the 11th century, when the area was part of the late Saxon town, and the sequence continues through the early life of the castle in the 12th century (Table 1). There are no finds or features dating to the life of the castle through the 13th-15th centuries or in the immediate post-medieval period. In addition, the presence of a considerable depth of developed and undisturbed soil horizons above the 12th-century deposits indicates that there was probably no activity in this area through the 13th-15th centuries that had caused any significant below ground disturbance.

A poorly-defined hollow containing numerous roots, which had disturbed the soil horizons, is a tree hole probably dating to the period through the 18th and 19th centuries when the interior of the inner and outer baileys were orchards. The uppermost deposits all date from the late 19th century onward, following the levelling of the castle earthworks and the construction of the railway station.

Table 1: Summary of chronological sequence

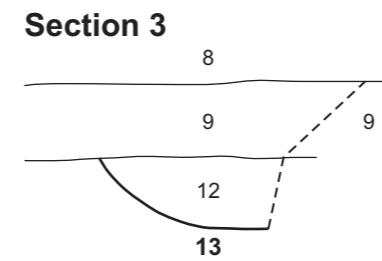
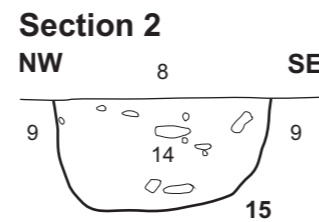
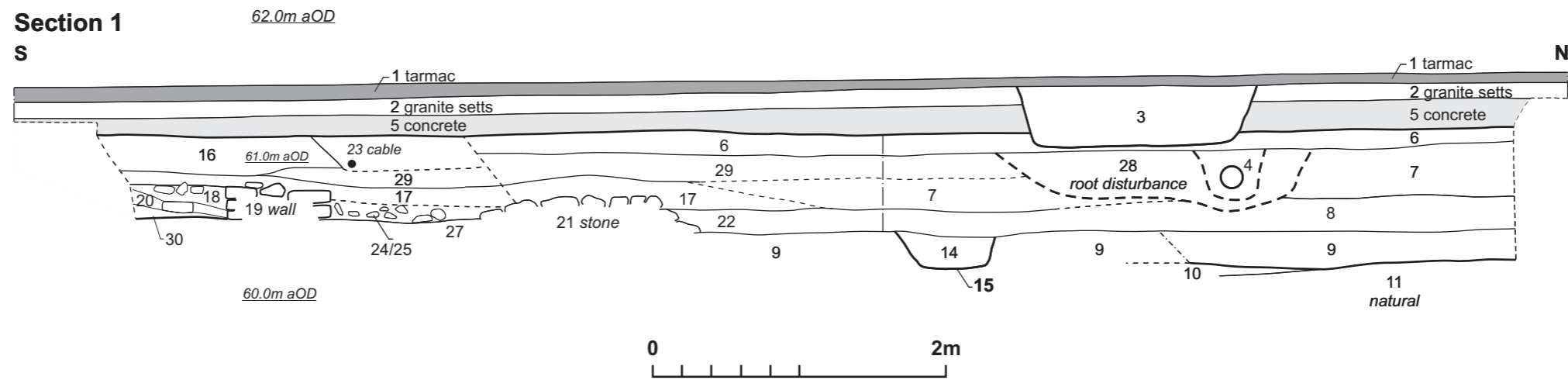
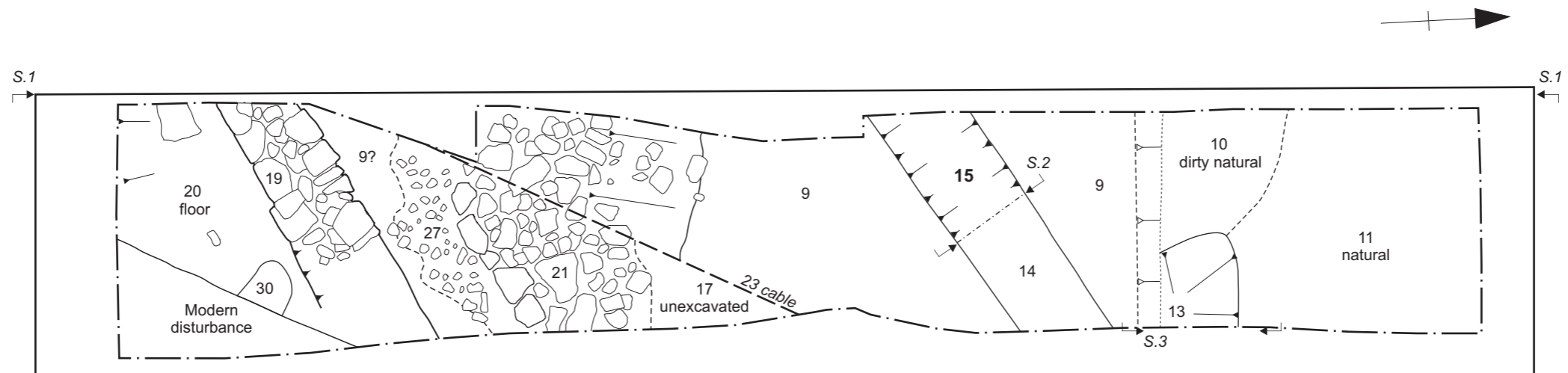
Period/Date	Site evidence	Northampton Castle
Late Saxon (10th -11th centuries)	Shallow pit [13] Soil horizon (9)	Late Saxon town
Norman (12th century)	Linear slot [14] Wall [19] and stone deposit [21] Levelling of wall Overlying soil horizons	Construction of Castle (over part of late Saxon town)
Medieval (13th-15th centuries)	Soil horizons No finds	Castle flourishes and declines
Post-medieval (16th -18th centuries)	Soil horizons disturbed by tree hole	Final use of buildings (17th century) Earthwork remains, some stone robbing. Interior under orchards.
Modern (19th century onward)	Granite setts of station yard Tarmac car park Services	Earthworks levelled to make way for railway station (late 19th century) Tarmac surface laid over setts (1964)

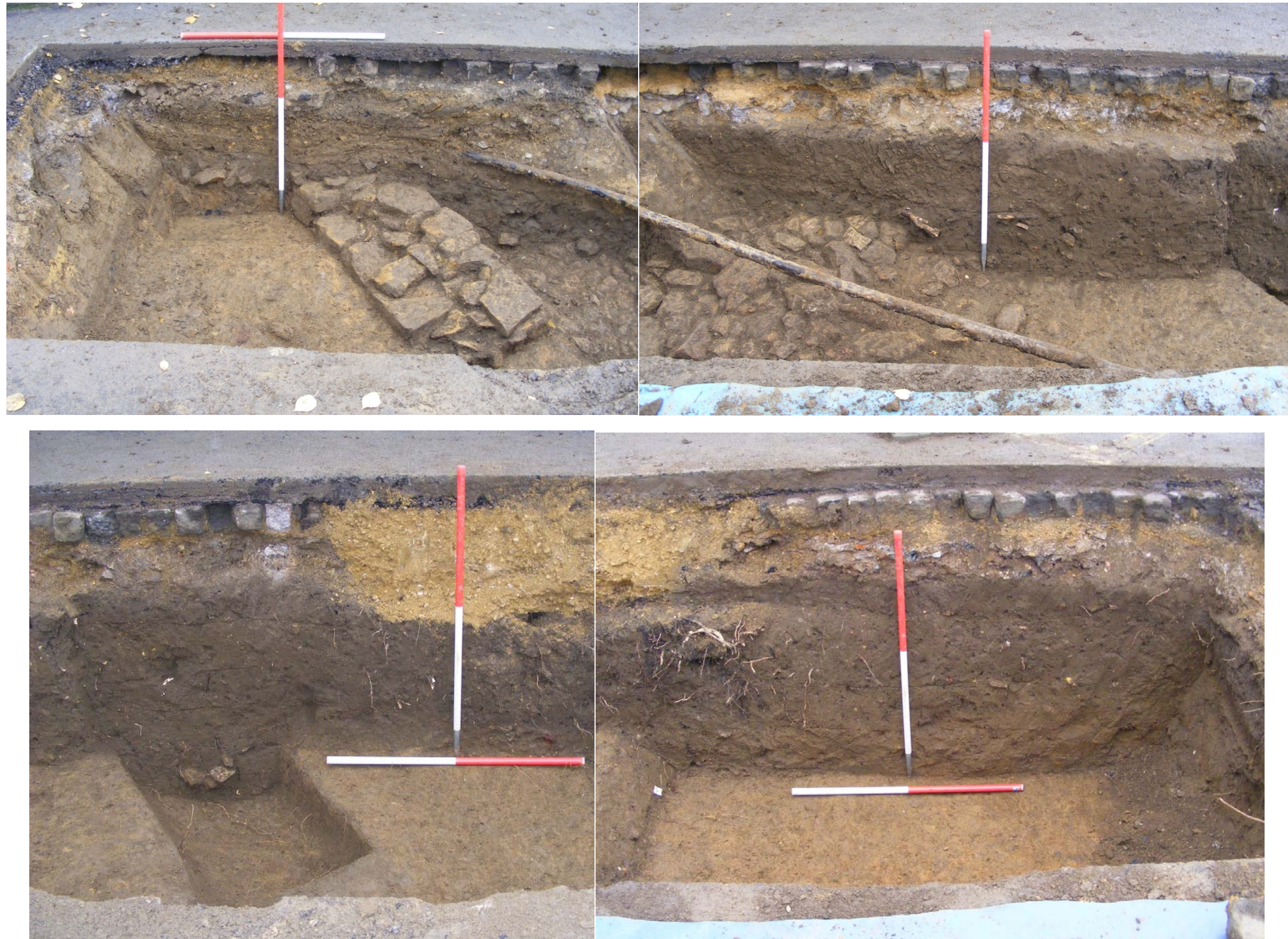


Scale 1:500

The station concourse and the evaluation trench Fig 3

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The west face of the trench, composite images (Scales 1m)

Fig 5



The location of the trench within the station concourse Fig 6

2.4 Pre-castle deposits

At the northern end of the trench, a 2.2m length of undisturbed natural of orange-brown compact sand, containing mottles and pieces of decayed ironstone (11) was uncovered by machine excavation through soil layer (9). The natural was overlain by a thin deposit of dirty natural (10), 10-30mm thick (Figs 4 & 8).

Cut into the natural and sealed by soil horizon (9), there was a shallow bowl-shaped pit [13], up to 0.18m deep, of which perhaps a quarter was available for excavation (Fig 4, S.3 and Fig 7). The fill (12) was of dark grey-brown slightly clayey loam, containing frequent flecks and small pieces of charcoal, and sparse small stones, some of which were burnt. The fill produced two sherds of St Neots ware, dating to the 11th century, and a little animal bone.

Pit [13] was sealed beneath a soil horizon (9), 0.20-0.25m thick, of compact medium brown clayey loam, containing small chips of ironstone (Fig 4, S.1). In straightening the exposed end of the layer where it had been cut through by machine adjacent to pit [13], some animal bone, a single sherd of Northampton ware and a copper alloy brooch, were recovered from the base of the layer, potentially debris from activity contemporary with the pit. Northampton ware is dated to the 10th century and this, together with the presence of St Neots ware in the underlying pit, provides a 10th to 11th century date for the pre-Castle activity in this area.

This soil horizon continued to the south as far as the stone layer (21), and probably underlies the entire trench, although too little of this level was exposed at the southern end of the trench to be certain.



Late Saxon pit [13], looking south-west Fig 7



General view of trench, looking south, showing the late Saxon pit [13] and the linear slot [15] Fig 8



General view of trench, looking north, showing the ironstone wall [19] and the stone layer (21) Fig 9

2.5 Northampton Castle

The linear slot [15]

A linear slot [15], 0.60m wide by 0.30m deep, had a U-shaped profile, with near vertical sides and a rounded break onto a flat bottom (Fig 4, S.1 & S.2 and Figs 10 & 11). It crossed the trench on a similar alignment to wall [19].

The fill (14) was of medium brown loam containing frequent irregular fragments of ironstone and some limestone, including a block of ironstone measuring 200x150x150mm, and some charcoal flecks and fragments. The fill produced the largest pottery assemblage from the trench, with a wide range of sizes from small sherds to large fresh sherds, all dated to the 12th century. There was also an assemblage of animal bone comprising kitchen waste, including bones with cutting marks and an articulated ankle joint from a cow.



Linear slot [15] cutting the late Saxon soil horizon (9), looking west

Fig 10



Section of linear slot [15], looking north-east

Fig 11

The wall [19] and associated floor surfaces

At the southern end of the trench there was a length of ironstone wall [19] running diagonally across the trench on a south-west to north-east alignment. This probably formed the north wall of a building. The wall was 0.60m wide and stood 0.2m high, comprising the bottom two or three courses faced with flat-laid roughly-squared ironstone, and a core of smaller rubble (Fig 4, S1 and Figs 12 & 13). There were some traces of an orange-brown gritty and sandy mortar both between the stones and on the base of the construction trench to the east, where the wall had been totally robbed.



Ironstone wall [19] and floor surface (20) (foreground), looking north Fig 12



The north face of wall [19] Fig 13

To the south of the wall, the three courses of the wall face were abutted by a sequence of probable floor surfaces (Figs 4, 5 & 12). Layer (30) was light grey-brown silty sand, 80mm thick, containing charcoal with particularly large pieces directly beneath a slab of ironstone within the overlying floor surface (20). To the east there were patchy areas of reddened scorching. The overlying layer (20), which abutted the lowest course of the wall, was up to 100mm thick, and comprised clean yellow-brown slightly clayey coarse gritty sand, with the occasional flat fragment of ironstone bedded into the deposit. Above the floor surface, there was a layer of disordered smaller fragments of ironstone (18), in a matrix of light grey sandy loam. This layer contained some charcoal and pottery and bone, and is probably contemporary with the levelling of the wall and the deposition of layer (17).

The stone deposit (21)

To the north, between wall [19] and the stone deposit (21), a small area of the underlying soil horizon (9) was exposed, but across the greater part of this area there was a layer or fill comprising dense small fragments of ironstone (27). This deposit continued under the stone layer (21), and as it was not excavated its true nature is unclear.



The wall [19], the stone deposit (21), right, and the intervening gap Fig 14

The stone deposit (21) to the north of the wall, was up to 1.3m wide and comprised a low heap of dense tumbled and disordered fragments of ironstone, and occasionally limestone, including pieces measuring up to 300mm long (Figs 4, 14 & 15). Many of the fragments of ironstone had reddened edges, indicating that they had come from stonework perhaps once forming part of an oven. The exposed stones typically had rounded edges and surfaces, indicating that they had been either worn or were exposed to the elements for some time.

To the south, a partially surviving line of larger ironstone slabs may have formed a rough kerb, but these stones were not squared and did not form a straight edge, and only a single course survived. The gap, 0.55m wide, between the wall [19] and stone layer (21) formed a sunken channel that would have acted as a *de facto* drain. It contained a sequence of deposits that abutted the wall face and abutted and overlay the southern edge of the stone layer. A layer of grey loam, containing charcoal flecks and fragments (25) had accumulated, and bedded into the surface (24) there were scattered fragments of small ironstone, 100-200mm, which may have been displaced from layer (21). Stones pitched at a steep angle in the area of later wall robbing show that this deposit had accumulated before the robbing of the wall, and the deposit contained both pottery and animal bone.

To the north the stone deposit thinned out with no clearly defined edge, and displaced stones were present in the soil horizon (22) that overlay the tail of the deposit (Fig 4, S.1). Layer (22) may have been a slow soil accumulation, comprising brown friable loam containing moderate flecks of charcoal and scattered fragments of ironstone, along with pottery and some animal bone. The layer was excavated by hand where it overlay the tail of the stone deposit. Further north, the continuation of this layer (8) had been removed by machine, although it was noted that to the north, away from the stone layer, it contained few stones. It would seem that the accumulation of this layer was broadly contemporary with the wall and the stone layer, suggesting that the linear slot had fallen out of use before these stone-built features.



The heaped stone deposit (21), looking south-west

Fig 15

Wall robbing

To the east, wall [19] had been totally robbed, leaving just a shallow construction trench with patches of the orange sandy mortar on the base. The soils immediately over the robbed end of the wall and along the construction trench (26) were a grey-brown loam, containing some charcoal and scattered small pieces of ironstone, no longer than 120mm. In excavation this material could not be distinguished from the much more extensive layer (17), which overlay the remnant of the wall and the adjacent stone layer (21) (Fig 4, S.1). The bottom part of this layer was excavated by hand both over and around wall [19], the stone deposit [21] and the intervening space. Further north the equivalent levels were removed by machine and in the vicinity of a later tree hole (28) it was difficult to differentiate the layer sequence. Layer (17) may have been just a localised deposit in the vicinity of the wall and the stone deposit, although it may have merged into the lower part of the broader soil horizon (7).

The presence of only 12th-century pottery in association with the wall and the overlying soils would suggest that this building had a short lifetime, being both constructed and levelled within the 12th century.

2.6 The developed soil horizons

The sequence at the northern end of the trench was very clearly defined. The pre-castle soil horizon (9) was overlain by a layer of slightly clayey greyish-brown loam, containing sparse charcoal flecks and some ironstone chips and sparse small pieces of ironstone (8), which was up to 0.15m thick.

Above layer (8) there was a layer (7) of medium grey-brown friable loam, also containing some charcoal and ironstone chips, which was 0.35m thick. This layer was disturbed by a tree hole [28], up to 1.8m long by 0.40m deep, although it had no clear edges, with the dark grey-brown loam fill riddled with roots merging into the surrounding soil horizons. To the south of tree hole [28], the lower part of the soil horizon was the same as layer (7) to the north, but the upper part was a brown loam (29), with the two deposits having a depth of 0.40m.

The accumulated soils, layers (7) and (29), with a total depth of 0.35-0.40m, disturbed by tree hole [28], mark a long period of stability and inactivity.

The absence of any pottery later than the 12th century would suggest that following the robbing the wall, perhaps part of the levelling of a building, at the end of the 12th century, there were no further disturbances of the ground apart from those caused by trees during the post-medieval to modern period, when it is known that the outer bailey was an orchard, recorded as the Old Orchard on the 1743 survey of the Heselrige property and the Cherry Garden on Noble and Butlin's map of 1746 (Walker 2011, figs 12 & 13).

2.7 Modern surfaces and services

Soil horizons (7) and (29) and tree hole [28], were sealed by layer (6), compact grey-brown loam, 0.10-0.18m thick, which may be soil re-deposited and trampled immediately prior to the construction of the station yard (Fig 4, S.1). At the southern end of the trench there was a distinct layer (16) of brown sandy clay, up to 0.26m thick, containing moderate chips of ironstone, which appears to be a localised variation of layer (6).

Layers (6) and (16) were cut by a trench containing an old heavy-duty electric cable (23) that ran diagonally across the trench (Fig 4), and may have supplied the signal box contemporary with the old station (station staff pers comm). To the north, there

was a 6" (150mm) glazed ceramic drainpipe (4), running from a drain within the adjacent car park, although the pipe was totally clogged with debris.

The granite setts (2) of the old station yard were 100mm (4") high, and were set on a bed of yellow sand above a layer of concrete (5), which was 0.16m thick. They were intact across most of the trench (Fig 16), with a small area missing at the southern end of the trench and an area to the north where there was a modern pit related to drainage [3] (Fig 4, S.1).

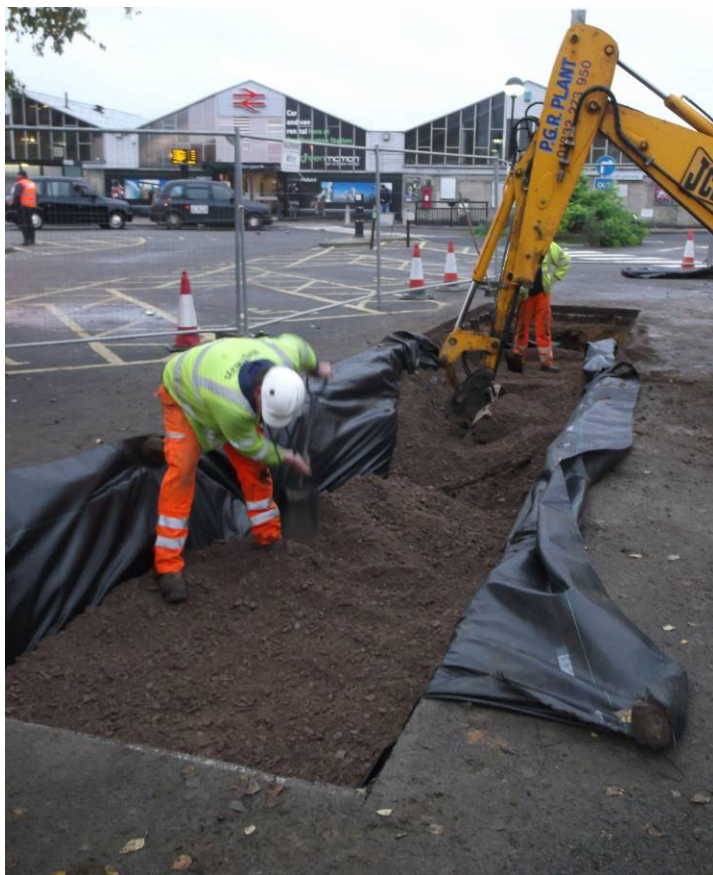
The cobbled station yard had been covered with tarmac in 1964 (station staff pers comm). The tarmac was 90mm thick, with a lower layer 60mm thick and an upper surface 30mm thick.



The granite setts of the old station yard, covered over in 1964 Fig 16



The evaluation created considerable media interest Fig 17



Backfilling the trench Fig 18

3 FINDS AND ENVIRONMENTAL EVIDENCE

3.1 The medieval pottery by Paul Blinkhorn

The pottery assemblage comprises 127 sherds with a total weight of 1,654g. The estimated vessel equivalent (EVE), by summation of surviving rimsherd circumference is 0.81. It was quantified using the chronology and coding system of the Northamptonshire County Ceramic Type-Series (CTS), as follows:

F130: Northampton Ware (AD900-975):	1 sherd,	9g,	EVE=0.0
F200: T1 (2) type St. Neots Ware (AD1000-1200)	6 sherds,	71g,	EVE=0.05
F319: Lyveden/Stanion 'A' ware (AD1150-1400)	1 sherd,	11g,	EVE=0.04
F330: Shelly Coarseware (AD1100-1400)	117 sherds,	1,526g,	EVE=0.63
F360: Miscellaneous Sandy Coarsewares (AD1100-1400)	1 sherd,	9g,	EVE=0.09

The pottery occurrence is shown in Table 2, where each date should be regarded as a *terminus post quem*. All the types are common finds in Northampton, and can be paralleled at a number of sites, such as at nearby St Peter's Gardens and St Peter's Street sites (Denham 1985; McCarthy 1979). The assemblage is generally in good condition, and the sherd size is reasonably large, suggesting that the bulk of the pottery is reliably stratified.

The presence of sherds in Northampton Ware and St Neots Ware (fabrics F130 and F200/T1(2)), particularly the former, indicate that there is evidence of activity at the site before the construction of the castle. St Neots Ware did continue into the 12th century, but it is worthy of note that the features which contained only these fabric types and no Shelly Coarseware, are the stratigraphically earliest. The sherd of Northampton Ware is highly unlikely to date later than the late 10th century (Denham 1985, 55). It is possible that it is redeposited, but appears fresh and reasonably reliably stratified. The two sherds of St Neots ware from the fill (12) of pit [13] are likely to be of 11th century date, given their stratigraphic position and the lack of later pottery from the feature. One of the sherds is from the rim of a fairly large jar, a typical product of the tradition.

The range of pottery present suggests that the bulk of the features date to the 12th century. Shelly Coarseware (fabric F330) is a common find throughout from the 12th-14th centuries in the town, but wares which are usually found in quantities in strata of 13th-14th century date, particularly Brill/Boarstall Ware (CTS fabric F324). Lyveden/Stanion 'B' Ware (CTS fabric F320) and Potterspury Ware (CTS fabric F329), are all entirely absent. Furthermore, Lyveden/Stanion 'A' ware, which is commonly found in deposits of mid 12th – 14th century date in Northampton, is represented by just one sherd.

Some of the Shelly Coarseware assemblage has characteristics which support this 12th century date. The bulk of the assemblage consists of fragments of jars, along with a few bowl and jug sherds. This is reflected by the rimsherd assemblage, of which 91% were from jars, the rest bowls. This is a very typical pattern for the early post-Conquest period. There are two rouletted jug sherds, probably from the same vessel, from deposits (17) and (24) to the north of wall [19], and the latter also produced a handle from another jug. Shelly Coarseware jugs are far more common in the 12th century than in the 13th-14th centuries, when the potters of the tradition appear to have stopped making them in the face of competition from the Lyveden/Stanion, Brill and Potterspury industries, which produced vessels in less porous and thus presumably functionally superior fabrics, and with glazed decoration.

Table 2: Pottery occurrence per context by fabric type

Fabric Layer/fill [feature]	F130		F200		F330		F319		F360		Date
	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)	No	Wt (g)	
Fill12 Pit [13]	--	--	2	12	--	--	--	--	--	--	11th century
Layer 9	1	9	--	--	--	--	--	--	--	--	10th century?
Fill 14 Slot [15]	--	--	1	1	57	688	--	--	--	--	12th century
Layer 24	--	--	1	20	17	270	--	--	1	9	12th century
Layer 22	--	--	1	36	9	119	--	--	--	--	12th century
Layer 8	--	--	--	--	4	57	--	--	--	--	12th century
26 over robbed wall	--	--	--	--	4	67	--	--	--	--	12th century
Layer 17	--	--	1	2	23	305	1	11	--	--	mid12th century
Layer 7	--	--	--	--	3	20	--	--	--	--	12th century
Totals	1	9	6	71	117	152	1	11	1	9	

A single sherd (28g) of Nottingham/Derby Stoneware (Fabric F417), dated 1700-1900, was recovered from the fill of the construction trench for an electricity cable [23]

3.2 Other finds by Tora Hylton

A copper alloy brooch was recovered from the lower part of the late Saxon (11th century) soil horizon (9) and an iron object was recovered from layer (17).

Catalogue

Brooch, copper alloy. Incomplete, rear loop and catch-plate missing (Fig 19). Small cast circular disc with bevelled edge and flat underside. The upper surface of the brooch is decorated with a centrally placed geometric motif comprising a roughly incised circle divided into 6 equal triangles, each with a rectangular horizontal recess/slot at the top and a small triangular recess at the base. The outside edge of the brooch is ornamented with closely-spaced, slightly oblique hatched lines. The underside of the brooch has two small patches of corrosion, presumably vestiges of the loop and catch-plate. Small disc brooches of this type are not uncommon, they are predominantly recovered from the Anglian Region and they date to the 10th/11th centuries. However examples decorated with a geometric design appear to be uncommon, only one example from Thetford has been located (Rogerson and Dallas 1984, fig 109, 6) but further research will need to be undertaken. Diameter: 23mm. Thickness: 2mm.

Object, iron. Amorphous crescent-shaped fragment covered in corrosion products. Nature of object difficult to determine without x-ray. Possibly part of a horseshoe or curved blade. Dimension: 100 x 30 x 30mm



Late Saxon copper alloy brooch (23mm diameter)

Fig 19

3.3 The animal bone by Stephanie Vann

An assemblage of 115 fragments of animal bone was recovered from contexts of late Saxon (11th century) and medieval (12th century) date, and consisted of cattle, sheep/goat, pig, dog and domestic fowl.

Method

The assemblage was subjected to macroscopic examination. Species identification was undertaken at a context level. Fragments of mammal bone that could not be attributed to a taxonomic group equal or lower than genus were categorised as either 'large mammal' or 'medium mammal' (Table 3). Fused and unfused elements were recorded. For the main domestic species; cattle, sheep/goat and pig; tooth wear on mandibles and mandibular teeth was recorded to calculate age where possible. Measurements were taken where appropriate following Von den Driesch (1976).

Table 3: Animal bone: number of fragments per species per context

Context	<i>Bos</i> (Cattle)	<i>Ovicaprid</i> (Sheep/ Goat)	<i>Sus</i> (Pig)	<i>Canis</i> (Dog)	Med. Mam'l	Large Mam'l	Dom. Fowl	Unid Bird	Unid.
Layer 8	--	1	--	--	1	--	1	--	--
Layer 9	1	--	--	1	2	1	--	--	--
Fill 12 Pit [13]	-	2	--	--	1	1	--	--	5
Fill14 Slot [15]	5	5	1	--	26	5	--	--	11
Layer 17	--	3	1	--	5	2	--	1	4
Layer 22	--	1	1	--	6	2	2	--	--
Layer 24	--	1	--	--	--	5	--	--	--
26 wall robbing	--	1	--	--	--	--	1	--	--
Layer 30	1	--	--	1	3	1	--	--	3
Totals	7	14	3	2	44	17	4	1	23

Results

Preservation of the animal bone at this site was moderate to good. Fragmentation was moderate and surface abrasion was moderate with bone exhibiting signs of erosion, weathering and other taphonomic damage in some instances. Fragmentation was the result of both old and fresh breaks. There was evidence of butchery on nine bones and canid gnawing on six bones. There was no evidence of burning or pathology.

Table 4: Animal bone: total number of fragments per species per period

Period	Bos (Cattle)	Ovicaprid (sheep/ Goat)	Sus (Pig)	Canis (Dog)	Med. Mam'l	Large Mam'l	Dom. Fowl	Unid Bird	Unid
Late Saxon	1	2	--	1	3	2	--	--	5
Medieval	6	12	3	1	41	15	4	1	18
Totals	7	14	3	2	44	17	4	1	23

The total number of fragments was 115, of which 92 (80%) were identifiable. The species present were cattle, ovicaprid (sheep/goat), pig, dog, medium mammal (most likely ovicaprid), large mammal (most likely cattle) and domestic fowl. There was no evidence of wild mammals or fish remains.

Tooth wear was recorded for the mandibles and mandibular teeth that were complete enough to permit it following Grant (1982) and the results are shown in Table 5. This is a widely used, published procedure that records the stage of tooth eruption and wear based on a series of defined stages, enabling an age to be assigned to individual animals and thus analysis of age at death patterns to be undertaken.

Table 5: Ageing of species by tooth wear (Grant 1982)

Context	Species	DP4	M1	M2	M3
Layer 9	Cattle	-	g	-	-
Fill 14/slot [15]	Pig	j	c	-	-

Discussion

Whilst it is true that the small size of the assemblage makes it difficult to draw any significant conclusions, there is nothing about it that is in any way extraordinary for a castle assemblage of the medieval period, as can be seen by comparison with the assemblage from Dudley Castle (Thomas 2005), where domestic mammals also dominate in all phases (c 1100-1750 AD). A similar pattern can also be seen at Launceston Castle (Albarella and Davis 1996) and Wigmore Castle (Thomas and Vann in press). The dominance of such remains within the assemblage from Northampton Castle is therefore not unusual. The good survivability of large, strong bones such as those of cattle does also need to be taken into consideration, however, as this dominance may be a reflection of preservation rather than husbandry practices at this site.

Following the York System (Table 6), the mandibular tooth from layer (9) would be considered as immature-adult, whilst the pig mandible from fill 14 would be classified as immature.

Table 6: Definitions of dental eruption and attrition stages used in analysis of age at death, using mandibles with at least one recordable molar or 4th premolar

Cattle and Sheep Mandibles		
N	Neonatal	DP4 Unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
SA	Subadult	M2 in wear, M3 not in wear
SA1	--	M3 forming, to just erupting
SA2	--	M3 erupting
A	Adult	M3 in wear
A1	--	M3 up to minor dental exposure (stages a and b)
A2	--	M3 dentine exposure across central column (stages c and d)
A3	--	M3 dentine exposure on distal column (stages e to h)
E	Elderly	Dentine exposure to or beyond stage j
Pig Mandibles		
N	Neonatal	DP4 Unerupted or just in the process of eruption
J	Juvenile	DP4 in wear, M1 not in wear
I	Immature	M1 in wear, M2 not in wear
I1	--	M2 present in crypt
I2	--	M2 erupting
SA	Subadult	M2 in wear, M3 not in wear
SA1	--	M3 present in crypt
SA2	--	M3 erupting
A	Adult	M3 in wear
A1	--	M3 with enamel attrition only (stage a)
A2	--	M3 with minor dentine exposure (stages b to d)
A3	--	M3 dentine exposure merging on mesial cusps (stages e to h)
E	Elderly	3 main zones of dentine exposure across M3 merging (stage j)

Adult stages are defined by reference to Tooth Wear Stage sensu Grant (1982; also Reitz and Wing 1999, 163-5), after O'Connor (2003, table 31)

Seven elements showed unfused epiphyses. Six of these, from fill (14) of slot [15] and layer (30) adjacent to wall [19], were unfused vertebral centrum. Two were of large mammal size, four of medium mammal size. This would indicate animals of less than 84-108 months (7-9 years) of age for the large mammals (based upon cattle data) and less than 48-60 months (4-5 years) of age for the medium mammals (based upon sheep data) (Reitz and Wing 1999). The final unfused skeletal element was a juvenile domestic fowl third phalange from fill (26) over the robbed wall.

However, sixteen other skeletal elements from contexts (9, 12, 14, 17, 22, 24 and 30) exhibited fused epiphyses. Some of these, such as the fused proximal ovicaprid tibia from the fill (12) of late Saxon pit [13], are of late-fusing elements and this would indicate adult animals; in the case of the ovicaprid tibia, older than 36-42 months (3-3.5 years) of age (Reitz and Wing 1999). This, therefore, suggests an assemblage consisting of a range of age groups.

The skeletal elements represent a variety of parts of the body, including the axial skeleton (cranium, pelvis, scapula and vertebrae), the feet (metapodials, tarsals and phalanges) and the limbs (humerus, radius, and tibia). This distribution pattern and the presence of several cut and chop marks on some elements, may indicate that this is normal butchery waste, rather than the result of some other industrial process. Six elements from contexts (12, 14, 17 and 26) were chopped through midshaft or broken open to extract the marrow. Two large mammal ribs from fill (12) of pit [13] and fill (14)

of slot [15] exhibited deep parallel cut marks across the rib shaft, which may be indicative of dismemberment and filleting. Likewise, the cut marks across the base of the condyle on a cattle mandible also from fill (14) would suggest dismemberment and butchery (Binford 1981).

Dogs were present on the site throughout these periods of activity, as is indicated by both the presence of dog bones from medieval layers (9) and (30) and by the evidence for canid gnawing on bone elements from the fill (12) of late Saxon pit [13] and from medieval contexts (8, 17 and 26).

3.4 Charcoal samples by Andy Chapman

Four contexts contained large enough fragments of wood charcoal to enable samples to be collected by hand during excavation (Table 7). The larger fragments of charcoal that were hand collected during excavation come from the fill (14) of the linear slot [15], from below the floor level within the probable building, layer (30); and from the wall robbing (26) and the layer (17) that overlies both the robbed wall and the stone layer (21). The area particularly rich in charcoal was the interface of (17) with layers (24) and (25) filling the hollow between the wall and the stone deposit

Table 7: Quantification of wood charcoals

Context	Weight (g)
Fill 14, Slot [15]	2
Layer 17 (over wall [19] and stones(21))	3
Layer 26 (wall robbing)	4
Layer 30 (beneath floor (20))	12

The wood charcoal has not been submitted for analysis, but will be retained in archive.

4 THE POSSIBLE IMPACT OF FUTURE DEVELOPMENT

4.1 Current proposals

The current preferred proposals for the station complex are:

- to redevelop the concourse with a new station building fronting onto Black Lion Hill. Once this is completed, the present station will be demolished.
- In a future phase, to build a multi-storey car-park to the north (WNDC 2010) (see Fig 20).
- Once the multi-storey car park has been constructed, the rest of the present public car park would become available for commercial development.
- The south-eastern part of the present station complex, comprising the raised car park fronting onto Black Lion Hill, the postern gate and Scheduled Monument alongside St Andrew's Road have no current plans, and would be the last area to be considered for development.

4.2 The Station concourse

The current station concourse lies within what would have been the western end of the castle's Outer Bailey, with the bank and ditch on the very western side of the concourse (Figs 2 and 20).

The Outer Bailey

The Outer Bailey is depicted on historic maps from 1610 onward, and is always shown as open ground, with no internal buildings. The Outer Bailey was protected by a bank and wall, surveyed by Sir Henry Dryden in 1854, but these were less substantial than the Inner Bailey defences (Fig 2). Around the southern side there was probably a ditch, as suggested by hachuring on the early maps (Fig 2), but this is likely to have been filled in at a relatively early date, to provide easier access to the West Bridge.

The early maps show how the access from Marefair to the West Bridge ran southward due to the presence of the Outer Bailey and then turned abruptly back to the north to reach the bridge itself (Fig 2). Following the levelling of these defences it became possible to provide a more direct approach to the bridge, but the southern limit of the earlier approach has been fossilised in the Victorian and modern street frontages along Black Lion Hill and Western Terrace.

The trial trench

The trial trench has shown that a wall dating to the 12th century, and other contemporary features and deposits have survived beneath the successive surfaces of the station car parks. The absence of any later pottery and deposits indicates that this building had a short lifetime, and had been levelled by the end of the 12th century. There may have been little below ground disturbance of this area during the later life of the castle and similarly little activity through to the building of the station in the late 19th century. The top of the stone wall lies 0.70m below modern ground level but only 0.35m below the base of the concrete foundation for the granite setts of the old station yard.

While the presence of intact archaeological deposits has been demonstrated, it is impossible to predict exactly what still survives beyond the single trial trench. There appears to be at least one stone building set against the bailey bank (Fig 3), and the linear slot might be part of a timber building either pre-dating or contemporary with the stone building, and there may have been other structures nearby. The tight dating of the pottery appears to suggest that domestic activity in this area was relatively short-lived, with no depth of stratified medieval deposits above this.

Sealed beneath the medieval deposits, there is a soil horizon above late Saxon features cut into the natural. These would have lain within the late Saxon town in an area that was cleared at around the end of the 11th century to permit the building of the castle. These deposits lie 1.20m below modern ground level and 0.85m below the base of the concrete foundation for the granite setts. It is particularly difficult to predict the nature of the underlying late Saxon deposits. They might comprise anything from a sparse scatter of features to a dense area of settlement perhaps comprising timber halls, sunken-featured buildings and pits, with associated finds in some quantity, as excavated at Chalk Lane on the east side of the castle in the 1970s (Williams and Shaw 1981).

The building programme

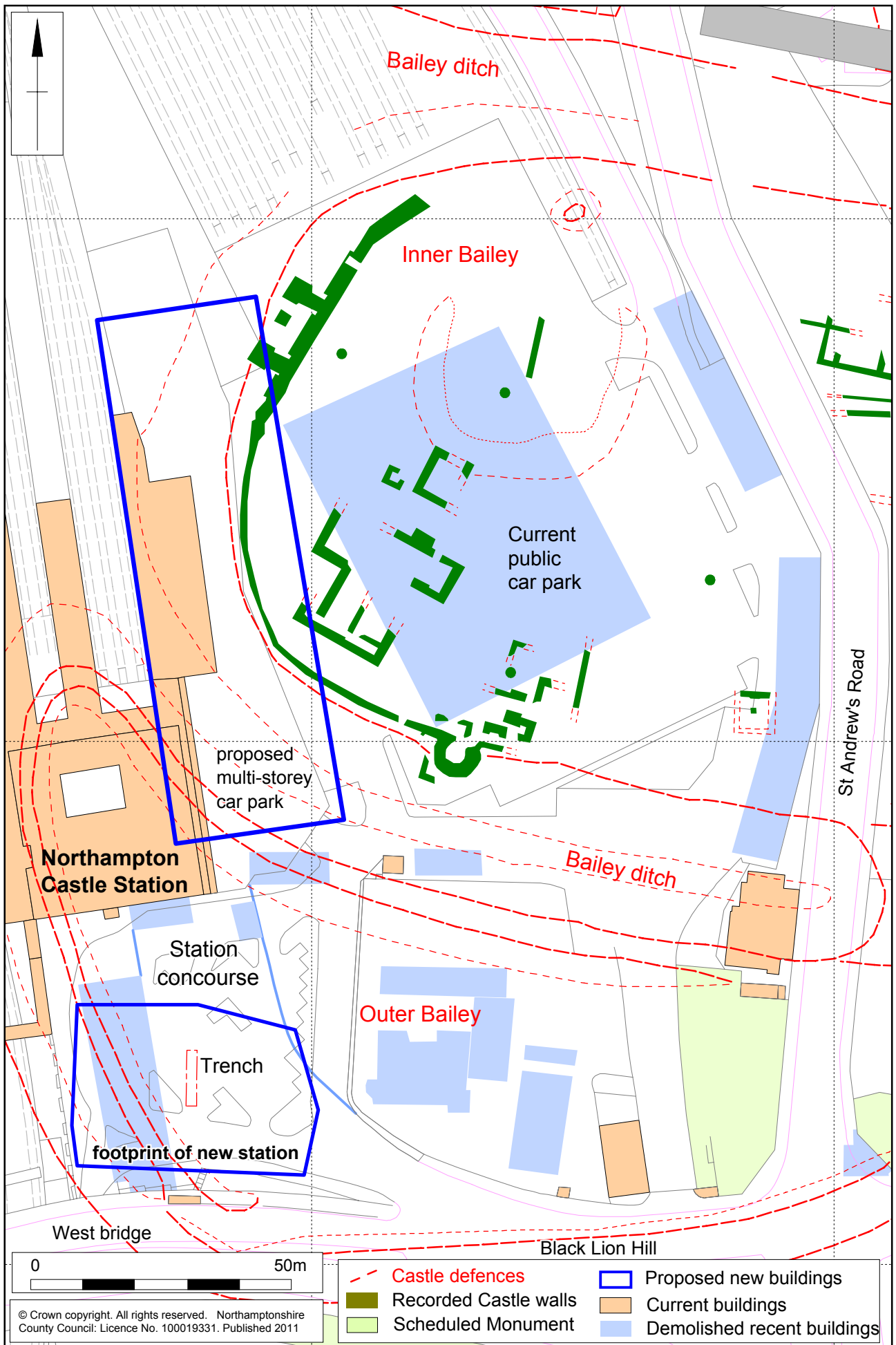
Prior to building the new station it will be necessary to remove the existing surfaces and associated services and any surviving foundations of the old station, which covers much of the western part of the new station footprint. The top of the 12th-century wall lies only 0.35m below the base of the concrete, so the process of clearing existing hard surfaces could pose a threat of disturbance to underlying archaeological deposits. Certainly any digging out of the underlying loam layers would pose a very direct threat to the archaeological deposits. To the west of the trench, an extensive area covering much of the course of the outer bailey bank is likely to have been disturbed by the old station building, which at its closest would be within 4m of the excavated trench, but the depth of disturbance from this building is unknown (Figs 3 & 20). To the west of the station building, within the footprint of the new station and beyond, the former platform was beneath a canopy, not shown on Figures 3 and 20.

The new station will be supported on drilled piles, and the level of the floor slab will be crucial in determining how the building and its construction might impact on the archaeological deposits. The preliminary plan of the new station shows a lift sited to the west, which would fall in the area of the former station where the ground may already be disturbed. A second lift is shown near the centre of the building, quite close to the excavated archaeological trial trench. There are stairs and escalators on the eastern side of the building, which may also have an additional below ground impact (Network Rail/Hyder 2010, Northampton Station proposed plans).

4.3 The public car park

While the area of the public car park will not be subject to development within the current phase of works, there is available borehole data that will be relevant to part of this area. A series of boreholes were excavated across the current concourse and the location of the proposed multi-storey car park (Network Rail 2010, Appendix C: Geological Longitudinal Section). Thirteen of the 14 boreholes show the depth of made ground at around 0.9-1.2m, including BH08, in the station concourse. However in a single instance the depth of made ground is approaching 3.0m (see Fig 3, BH13). This borehole lies over the southern arm of the inner bailey ditch, and the recorded depth of made ground confirms that the ditch with its fills survives beneath the current car park surface.

Boreholes further north do not show any increased depth of made ground, but none were sited exactly on the course of the old river or over the location of the western wall, so they provide no useful information about the possible survival of these features. The southern end of the proposed multi-storey car park overlies the southern arm of the inner bailey ditch, but this is in the same area as the Victorian sewer, which will impose limits on the area accessible for archaeological investigation (Figs 3 and 20). The proposed multi-storey car park also overlies part of the course of the west wall of the castle, and it has been suggested that the foundations of this wall may not have been totally removed in the late 19th century (Friends of Northampton Castle pers comm).



Scale 1:1000 (A4)

The station showing potential future development Fig 20

5 CONCLUSIONS

The evaluation has demonstrated the survival of medieval deposits beneath the station concourse, which belong to the late Saxon town, in the 11th century, and the early history of Northampton Castle, in the 12th century, probably including a stone building set against the outer bailey bank (Figs 3 & 20). These deposits are sealed beneath a depth of brown loams that had accumulated within a lengthy period of relative inactivity through the later use of the castle and continuing up to the later 19th century and the construction of the station.

It is difficult to predict the density of archaeological deposits and structures beyond the evaluation trench, but clearly deposits of a similar nature may extend across much of the central and eastern part of the footprint of the new station, and beyond. To the west of the excavated trench there is likely to have been disturbance from the construction of the old railway station along the line of the outer bailey bank. To the immediate east of the proposed new station, a Victorian sewer will have removed any deposits over a considerable area.

The late Saxon deposits are sealed beneath both a soil horizon and the 12th-century archaeological deposits, at a depth of 1.20m below modern ground level and 0.85m below the base of the concrete foundation for the granite setts of the old station yard.

The top of the 12th-century wall lies 0.70m below modern ground level but only 0.35m below the base of the concrete foundation for the granite setts of the old station yard. Given how close the top of the wall is to the base of the concrete layer, there is a threat of disturbance from the initial process of sites clearance, which would involve removing the existing surfaces and services, apart from the implications of the new building itself. Any foundations of the old station building will also need to be removed, and the depth of disturbance from this building and whether any archaeological deposits survive in this area is unknown.

While the new building will be supported on drilled piles, any digging out below the level of the current surfaces to formation levels either generally or for specific features, such as pile caps, will threaten at least the medieval deposits, if not the underlying late Saxon deposits. Service trenches for the new building, particularly for drainage, are also likely to disturb archaeological deposits.

It must also be remembered that on construction sites the practicalities of actual demolition and construction invariably result in ground disturbance extending further and deeper than the limits specified in the development plans.

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APPENDIX: CONTEXT TABLE

Trench 1	Length, width & alignment 10.6m x 2.0m N-S	NGR SP 7477 6043	Surface height 61.60m aOD	Depth: 1.30m height of natural 60.30m aOD
Context	Context type	Description	Dimensions	Artefacts
1	Surface	Tarmac	90mm thick	--
2	Surface	Granite setts	100mm thick	--
3	Pit and fill	Modern services	0.35m deep	--
4	Drain	Ceramic pipe in trench	6" (150mm) diameter	--
5	Surface	Concrete base for setts	160mm thick	--
6	Layer	Compact grey-brown loam under (5)	0.18m thick	--
7	Layer (Soil horizon)	Grey-brown loam, under (6)	0.31m thick	Pot (12th century)
8	Layer (Soil horizon)	Grey-brown loam, under (7)	0.15m thick	Pot (12th century)
9	Layer (Soil horizon)	Compact brown clayey loam (Pre-Castle)	0.31m thick	Pot (11th century) SF2 (brooch)
10	Layer	Dirty natural	0.03m thick	--
11	Natural	Yellow to orange-brown sand, with decayed ironstone	--	--
12	Fill of [13]	Dark grey-brown clayey loam, frequent small stones and charcoal		Pot (11th century) Animal bone
13	Pit	Shallow bowl-shaped	>0.75m diam 0.18m deep	--
14	Fill of [15]	Medium brown loam, Frequent stones and some charcoal	--	Pot (12th century) Animal bone
15	Linear slot	U-shaped, near vertical side & flat base	0.60m wide 0.30m deep	--
16	Layer	Brown sandy clay, with ironstone chips	0.25m thick	--
17	Layer	Grey-brown loam with small fragments of stone and some charcoal		Pot (12th century) Animal bone SF 1 (Fe object)
18	Layer	Fragments of ironstone in grey sandy loam	0.10m thick	--
19	Wall	Flat laid ironstone with sandy mortar bonding	0.60m wide 0.20m high	--
20	Surface (floor)	Yellow-brown clayey sand	0.10m thick	--
21	Stone spread	Dense tumbled mass of large ironstone	--	--

Trench 1	Length, width & alignment 10.6m x 2.0m N-S	NGR SP 7477 6043	Surface height 61.60m aOD	Depth: 1.30m height of natural 60.30m aOD
Context	Context type	Description	Dimensions	Artefacts
22	Layer	Brown friable loam, with ironstone and charcoal		Pot (12th century) Animal bone
23	Cable	Modern cable in trench		Pot (post-medieval)
24	Layer	Grey loam with frequent ironstone	0.12m thick	Pot (12th century) Animal bone
25	Layer	Grey loam, as (24) but no stone	0.05m thick	--
26	Fill	Grey-brown loam, similar to (17), over robbed wall	0.20m thick	Pot (12th century)
27	Layer	Small fragments of ironstone	--	--
28	Tree hole	Dark grey-brown loam & tree roots	1.8m diam 0.40m deep	--
29	Layer (Soil horizon)	Medium brown loam, Same as (7), above (17)	0.20m	Grey-brown loam, under (7)
30	Layer (sub floor)	Light grey-brown silty sand	0.08m thick	Animal bone



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