LAND AT THE PRIORY RUSKIN ACADEMY, GRANTHAM, LINCOLNSHIRE

PHASE II ARCHAEOLOGICAL EVALUATION

Planning Ref.:	n/a
NGR:	SK 91200 37100
PCAS Site code:	PRAE 11
PCAS Job No.:	806
LCNCC accession No.:	2011.207

Report prepared for

Balfour Beatty

by

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October 2011

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Summary

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by Balfour Beatty to undertake an archaeological evaluation on land at The Priory Ruskin Academy, Rushcliffe Road, Grantham, Lincolnshire, prior to redevelopment.

The evaluation has been undertaken partly because in 1977 a number of Anglo-Saxon artefacts were uncovered during the construction of what was originally the Grantham Central Boys' School. These artefacts, which included spearheads and a late 5th-6th AD century urn, were believed to be derived from burials, with the possibility of a more extensive cemetery being indicated. However, two subsequent archaeological evaluations only found small numbers of prehistoric struck flints and no further Saxon remains or other significant archaeological features. More recently, a desk-based assessment and a geophysical survey were carried out on this site, both of which highlighted the uncertainty surrounding the possibility of Saxon remains.

A recent six-trench evaluation, conducted as part of the proposed redevelopment of the site focused on the southern side of the sports field. This identified a concentration of pits, postholes and ditches indicating possible small-scale Romano-British settlement during the 2nd-3rd century AD. Medieval ridge and furrow was also apparent across this part of the site, where the findings of the geophysical survey were demonstrated to be an unreliable indicator of the archaeology on this site due to a large amount of redeposited material covering the eastern part of the sports field.

During the current phase of evaluation, five trenches were excavated along the eastern side of the sports field. Archaeological features were positively identified within each of the trenches: these remains consisted of a possible posthole, pit, gully and ditch, as well as a number of enigmatic stone-filled/constructed features which appear to be heavily truncated structural remains. Pottery fragments recovered from some of these features are consistent with the Romano-British material identified to the south, and charred cereal chaff may indicate that crop processing was taking place at this time. Collectively, small-scale Romano-British settlement activity is indicated.

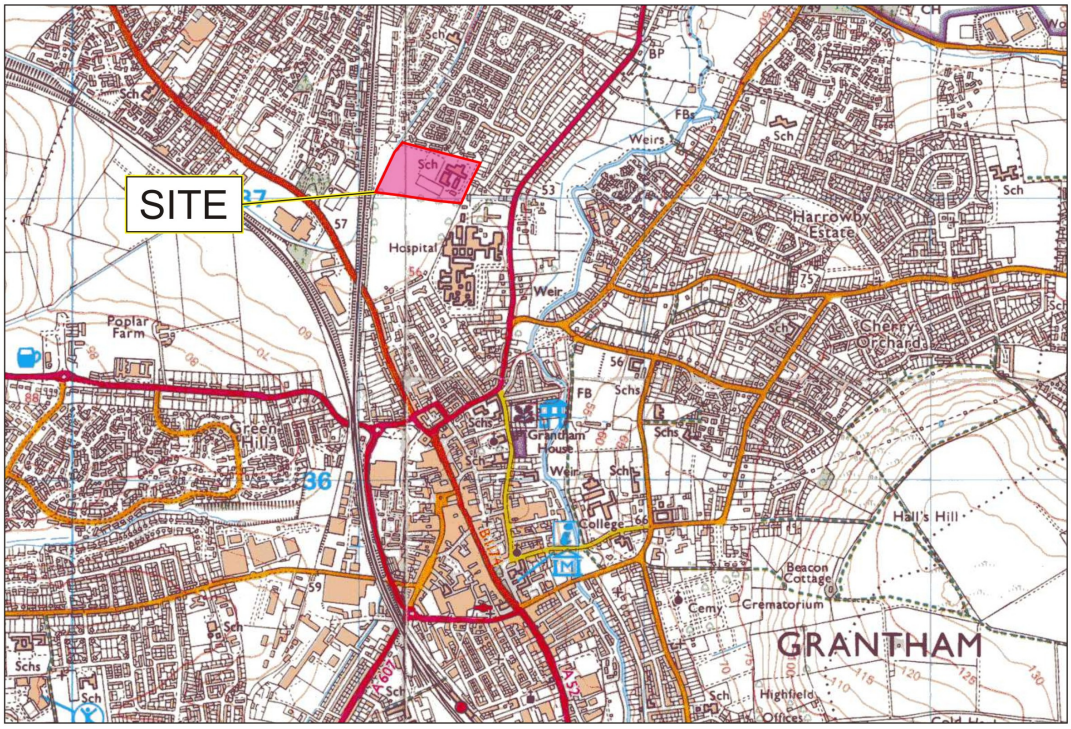

Figure 1: Site location map. Proposed development site highlighted in red. Scale 1:25 000.

1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by Balfour Beatty to undertake an archaeological evaluation on land at The Priory Ruskin Academy, Rushcliffe Road, Grantham, Lincolnshire. Initial work was carried out by S. Savage between 5/9/11 and 7/9/11. The trenches were subsequently recorded by N. Parker, A. Lane and the author on 8/9/11.

The programme of archaeological work was undertaken following consultation with the Archaeological Advisor to Lincolnshire County Council and in accordance with an approved Specification for an Archaeological Scheme of Work (PCAS 2011a), the recommendations of *Planning Policy Statement 5, Policy HE6*; *Code of Conduct* (Institute for Archaeologists, 1994 as revised), *Standards and Guidance for Archaeological Evaluations* (Institute of Field Archaeologists, as revised 2008) and the Lincolnshire County Council Archaeology Handbook (as revised 2010).

2.0 Site location and description (Figs. 1 and 2, Plate 1)

Grantham is a small town, located *c*. 45km northwest of Peterborough and *c*. 32km southwest of Lincoln. The site of the Priory Ruskin Academy (formerly Grantham Central College of Technology and Sports), is located *c*. 800m north of the town centre, and 150m west of the A607 Manthorpe Road. It is accessed via Rushcliffe Road within the Manthorpe housing estate.

The main building, ancillary buildings and new gym are located at the eastern end of the site, separated by paved areas, with car parking to the northeast. To the south of the academy buildings are surfaced ball-courts and an area of former athletics training. The sports field occupies the western half of the site.

The evaluation focused on the eastern end of the sports field. This area is defined to the north by the rear gardens of houses of the Manthorpe housing estate and to the east by an area of hard surfacing, including the tennis courts, with the main academy buildings beyond. The rest of the sports field surrounds the site to the west. The site is centred on NGR: SK 91250 37100.

3.0 Geology and topography

The academy site is located 150m west of the A607 Grantham-Lincoln road that skirts the western edge of the River Witham flood plain, at about 52m OD. The site is situated on slightly higher ground that slopes down to the southeast.

The underlying drift geology of the area is mapped as Belton sands and gravels, above mudstones of the Charmouth Association (BGS 1999).

4.0 Archaeological and historical background

In March 2010, an archaeological desk-based assessment of the current site was undertaken by Pre-Construct Archaeological Services Ltd (Tann 2010). The main results of that assessment are summarised here.

The assessment recorded that Anglo-Saxon artefacts were found on the site in 1977, during the construction of the main building (Block 1). The artefacts, which included two spearheads, a late 5th-6th century urn and a medieval bronze buckle, were

reported to have been found at a depth of 2' to 3' 6" (0.6m – 1.1m). The finds were indicative of the former presence of at least one inhumation or cremation burial, with the possibility of a more extensive cemetery being indicated (*ibid*.).

The 2010 assessment found that the site was part of the Arnold Field open field from the medieval period until the land was enclosed in the early 19th century. The report concluded that areas of the site to be affected by any new development should be evaluated for their archaeological potential and mitigated accordingly (*ibid*.).

The previous phase of evaluation, conducted along the southern side of the site identified a concentration of pits, ditches and postholes within the two trenches located close to the southwest corner of the tennis courts. Pottery dated to the 2nd-3rd century AD was recovered from some of these features and the presence of charred cereal chaff may indicate that crop processing had been undertaken near to this location. Collectively the observed evidence has been interpreted as indicating the presence of a small Romano-British settlement, such as a farmstead, within the immediate vicinity (PCAS 2011b).

Evidence of ridge and furrow agriculture was also observed, consistent with the site having been part of an open field during the medieval period. However, the results of the geophysical survey appeared to be unreliable, as none of the suggested archaeological anomalies had been positively identified. This is almost certainly due to the large amount of redeposited material covering the eastern side of the site and the depth of subsoil covering the archaeology (*ibid*.).

Other relevant finds from the area include Neolithic or Bronze Age flint tools and waste flakes retrieved during an archaeological evaluation 200m southeast of the site in 2002 (Bradley-Lovekin 2002). Mesolithic flints were recovered from a 2004 evaluation at Poplar Farm, *c*. 1km to the southwest of the site (Mellor 2004).

The evaluation conducted on the site of the new gym (Block 11) found no further evidence of Saxon burials, but several prehistoric struck flints were recovered from topsoil (Jordan 2004).

Apart from the recent finds of the previous evaluation, very few Romano-British artefacts have been reported from the immediate area. Individual Romano-British pottery sherds are known from archaeological investigations at the hospital and near Poplar Farm, and a scatter of Romano-British sherds has also been reported from land to the north of the Manthorpe Estate. Several Romano-British sites and finds scatters have been reported from near Belton Lane, to the east of the River Witham (Tann 2010).

Other Saxon remains found in the vicinity include pottery sherds found east of Manthorpe Road, *c*. 200m southeast of the site. A scatter of medieval pottery and a later ditch, pit and other features were also recorded (Bradley-Lovekin 2002).

A late medieval ditch and pottery scatter were recorded at Grantham District Hospital in 2001, during an archaeological watching brief (Cope-Faulkner 2001). Medieval and later pottery found in a garden off Manthorpe Road may indicate a roadside dwelling site (Tann 2010).

Construction of the Grantham Central Boys' School on the present academy site began in 1976. The secondary modern school opened in 1978. In 1980, twelve temporary classrooms were sited on the premises. A new science block was built in 1995. Some subsequent development of the site associated with the former college was preceded by archaeological evaluations. These evaluations, in the vicinity of

Blocks 2, 5 and 10, found no archaeological features or finds (Williams 2000; Jordan 2004).

5.0 Methodology

In consultation with the Archaeological Advisor to Lincolnshire County Council, five trenches were located across the eastern part of the sports field, which had previously been subject to geophysical survey (PCG 2011). Trenches 4 and 5 were positioned to investigate linear anomalies identified by the survey (interpreted as possible ditches). The other trenches were spaced roughly evenly across the remainder of the site.

The trenches were opened using an eight-tonne 360° mechanical excavator fitted with a smooth blade. All machining was carried out under constant supervision, until the first deposit of archaeological significance was recognised. As with the previous phase of evaluation the ground proved to be very compact, possibly as a result of levelling and deliberate compacting at the time of setting out the sports field. As a consequence of this there was some difficulty in achieving a good finish to the trenches as the small machine struggled in the dry, compacted conditions. Modern land drains, which were encountered in most of the trenches, were left *in situ*.

Each trench was hand-cleaned, and features/deposits were investigated and recorded. Context sheets were completed for each feature/deposit, and multi-context drawings were produced in both plan and section. Colour slide and digital photographs were taken to complement these accounts.

6.0 Results

Characteristically, the trenches demonstrated similarities across the evaluated area (and with those that had been excavated during the previous evaluation to the south). A notably deep subsoil was present in all areas, as was a large amount of redeposited material covering the original topsoil. However, only a single furrow, the alignment of which was not clear, was identified in Trench 2. Elsewhere, either furrows were not present or, as seems more likely, their fills were too similar to the subsoil to be distinguished. There had been similar difficulties in identifying furrows during the previous evaluation (PCAS, 2011b).

6.1 Trench 1 (Figs. 3 and 4, Plates 2 and 3)

This trench was located close to the southwestern extent of the proposed development area. Ground level was 52.98m (NNE) – 53.10m (SSW). The purpose of this trench was to investigate whether or not a concentration of features observed in the previous evaluation extended to the north.

The natural substrate, consisting of orange-brown sand with lenses of flint gravels (104), was encountered *c.* 0.85m below ground level. Towards the southern end of the trench, a narrow gully [109], aligned *c.* NNW-SSE, was observed cut into the top of the natural substrate. This was 0.3m wide and 0.12m deep and extended beyond both sides of the trench. It was in-filled with grey-brown sandy silt (110), probably the product of natural silting.

At the north end of the trench, a rubble spread or possible footing (107) was recorded. Unfortunately, this had been removed during machining of the trench and was only apparent in the three sections around the north end of the trench. It appeared to have been constructed within a foundation trench [108] which had been excavated into the

natural substrate (alternatively the weight of the stone may simply have settled into the soft sand and the original construction was laid on top of the natural substrate). The natural (unworked) limestone fragments of (107) all appeared to have been laid horizontally and survived up to four courses high. This feature was over 1.6m wide and over 2m long, and was roughly constructed, without any mortar. It appeared to be footings, perhaps for a broad structure such as a corn dryer or kiln rather than a linear wall or part of a building. No dating evidence was recovered from the surviving remains. This feature, gully [109], and the natural substrate were all sealed by up to 0.52m of mid orange-brown subsoil (103).

To the north of gully [109], the subsoil was truncated by a poorly defined narrow, *c*. NW-SE aligned trench [106] which contained numerous small natural stone fragments (105). The most likely explanation for this feature seems to be a post-medieval 'French' drain, possibly partially truncated by modern ploughing as the stones appeared to be far too thinly spread to function properly as a drain. It was, however, distinct from the other identified features as it appeared to have been cut through the subsoil, rather than being sealed by it, and thus must be later in date, possibly constructed after the medieval open field had been enclosed.

However, the presence of other stone-filled features sealed by the subsoil, such as the possible footings (107) (see also Trench 3 below), may suggest other interpretations; these stones may be residual within an unidentified furrow, perhaps part of a demolition spread and not actually contained within a trench (furrows have been identified both to the south and to the north and therefore this trench is likely to have also been subject to ploughing, even if no actual furrow cut was observed). Alternatively this material may have been left behind after robbing another feature. In both cases, rather than being deliberately imported and constructed at a later date, these explanations may rather indicate displaced material from an earlier feature. As with footings (107), insufficient of this feature was exposed/survived to be interpreted in a convincing manner and it remains enigmatic.

The subsoil was sealed by 0.2m of buried topsoil (102), which in turn was sealed by redeposited soil (101) containing stone chippings and brick fragments, which was up to 0.44m thick.

6.2 Trench 2 (Fig. 5, Plate 4)

This trench was located to the north of the tennis courts.

The natural substrate (205) was encountered at *c*. 1m below the current ground level, 53.13m (NW) – 53.21m (SE). At the western end of the trench, a single small pit or posthole [206] was observed cut into the top of the natural substrate. This extended beyond the southern side of the trench and was over 0.4m wide and up to 0.18m deep. No dating evidence was recovered from the excavated section through its homogeneous fill (207).

This feature was truncated by a furrow [208]. This was only positively identified within the space between the baulk left in to preserve the land drain and the west end of the trench and its alignment could not be discerned. The former furrow soil (204) was up to 0.32m thick. This was sealed by redeposited/levelling material (203) which was up to 0.2m thick, which in turn was sealed by the buried topsoil, redeposited material and modern topsoil (202), (201) and (200) respectively, which were up to 0.58m thick in total.

6.3 Trench 3 (Fig. 6, Plate 5)

This trench was located the furthest to the east, near to the hard surfacing west of the academy buildings.

The natural substrate (309) was encountered *c.* 0.76m below the current ground level: 53.24m (NNE) – 53.26m (SSW). At the south end of the trench, a stone-filled possible footing (305), similar to feature (107), was observed. This appeared to have been constructed in a vertical-sided, flat based construction cut [307] excavated into the top of the natural substrate. A thin layer of disturbed/redeposited natural sand/subsoil (308) was observed at the base of [307], possibly representing the disturbance caused during the construction of this feature. Overlying (308), a single course of quite large natural limestone blocks had been laid within the defined cut. None of the stones appeared to have been worked or dressed in any way. Small patches of light yellow-brown lime mortar were recorded adhering to some of the stones. It appears that some stones may have been robbed out and replaced with a mix of redeposited subsoil containing small patches of lime mortar (306), and as such the surviving level of this feature is not complete. It extended beyond the three sides of the southern end of the trench and was over 1.6m wide and over 2.4m long. As with the possible stone footing (107) in Trench 1, an industrial structure may have been sited here as the footing appears to be too large for a wall.

This feature was sealed by subsoil (304) which was up to 0.28m thick, which in turn was sealed by buried topsoil, redeposited material and modern topsoil; (303), (302) and (301) respectively, which were up to 0.46m thick in total.

6.4 Trench 4 (Fig. 7, Plates 6 and 7)

This trench was located towards the north of the site and was located to intersect a linear feature aligned *c.* NNE-SSW, identified by geophysical survey.

The natural substrate (405) was encountered 0.9m below the current ground surface: 53.09m (NW) – 53.18m (SE). In the middle of the trench a heavily truncated sub-rectangular feature was observed [410]. This had barely cut into the top of the natural substrate and consisted of little more than a defined smudge of mixed redeposited soil/subsoil with occasional charcoal flecks and some limestone fragments (411). Survival was insufficient for any convincing interpretation, although it had many similar characteristic to a nearby footing (409) and may therefore have been a related feature.

To the southeast of [410] a *c.* E-W aligned feature [408] was observed cut into the top of the natural substrate. This could be traced in section extending up into the base of the subsoil, although there was no evidence that it cut all the way through the subsoil. Within the construction cut, the remains of what appeared to be a rough limestone built wall or footing (409) was observed. This survived to four courses outside the trench. Unfortunately, only the lowest course had survived machining within the trench. As with the other stone used on this site, it all appeared to be natural, unworked limestone blocks and fragments. There was no sign of mortar. The construction trench [408] was backfilled with a mixed deposit (412) consisting of redeposited soil and subsoil with occasional charcoal flecks and limestone fragments, infilling around wall/footing (409). The flat base was identical to the nearby sub-rectangular feature [410] and it may be speculated that the two were related, even though they displayed different sizes and slightly different alignments.

To the south of wall/footing (409) was a large pit or ditch terminal [406]. This extended beyond the western side of the trench and was over 1.6m long by 2.2m wide, up to 0.47m deep, and had a rounded, concave profile. A single fragment of

Romano-British flat roof tile (*tegula*) and a fragment of pig tooth were recovered from its homogeneous fill (407). An environmental sample from this fill produced a small amount of unburnt bone and a further tooth fragment, with two fragments of pottery and a small fragment of possible glass. Charred plant material in this sample was identified as spelt wheat chaff (Appendix 3).

The base of the subsoil (404) was present along the south-western edge of the trench through which all of these features were cut. Initially it was considered that this was possibly the base of a furrow, although a test sondage could not identify an associated cut.

The subsoil (404) was sealed by the same sequence of buried topsoil (403), redeposited material (402) and modern topsoil (401); collectively up to 0.52m thick. Cut into the top of the redeposited material was a broad stone scalping-filled feature. This was clearly modern and was not further investigated or recorded. Its location, however, did correspond with one of the linear features identified by geophysical survey.

6.5 Trench 5 (Fig. 8, Plate 8)

This trench was located towards the north of the site. It was positioned to investigate a *c.* NW-SE linear anomaly identified by geophysical survey.

The natural substrate (507) was encountered *c.* 0.9m below the current ground level: 53.15m (NE) – (SW). In the middle of the trench a *c.* NW-SE aligned ditch [505] was recorded, corresponding with a linear identified by geophysical survey. This was up to 1.66m wide and 0.6m deep. Its profile was steepest to the southwest and gentler to the northeast. A perceptible slot was observed at the base of the ditch, and two sherds of Romano-British pottery were recovered from its homogenous silty fill (506). An environmental sample produced small amounts of charcoal, clinker/cinder and coal/coal shale, with a small assemblage of charred plant material; chiefly remnants of spelt wheat chaff. This assemblage was smaller and in poorer condition than that retrieved from fill (407) in Trench 4.

The ditch was sealed by 0.26m of subsoil (504), which was sealed by buried topsoil (503), mixed redeposited and building waste material (502) and modern topsoil (501), which combined were 0.64m thick.

7.0 Discussion and conclusion

The observed depositional sequence within the five trenches was consistent with that revealed by the previous nearby evaluation. The natural substrate was encountered *c.* 0.8m - 1m below current ground level, sealed by relatively deep subsoil and buried topsoil deposits. Redeposited material, sealing the original topsoil, was identified in every trench. This was clearly modern, probably contemporary with the construction of the original school buildings and levelling of the sports field.

Medieval ridge and furrow was only positively identified in Trench 2, truncating the small pit or posthole [206]. This was consistent with the truncation of archaeological levels observed in the previous evaluation. However, the alignment of the ridge and furrow could not be discerned.

An archaeological horizon was encountered in all of the trenches, and features appeared to be thinly spread across this part of the site. The two largest cut features, a pit or ditch terminal [406] and a ditch [505], both produced dating evidence consistent with the Romano-British features identified in the previous evaluation, and

may indicate that activity of this period extended across this part of the site and that the features identified by this and the previous evaluation are broadly contemporary. Environmental sampling of both features produced charred remains of chaff from spelt wheat, which was one of the major field crops grown during the Iron Age and Romano-British periods, indicating that it was cultivated nearby and processed on or near the site.

Although the stone-built features remain undated, limestone fragments were identified in a number of dated features during the previous evaluation, indicating that stone had been imported and was in use by this time and thus implying that at least some of the stone-built structures encountered during the second phase may be contemporary. Footings (107) and (305) were both clearly sealed by deep subsoil, indicating that they must be of some antiquity.

Despite the number and size of features identified during this evaluation, relatively few artefacts were recovered. This may in part be a result of truncation and displacement by medieval ridge and furrow agriculture, although this would not account for the lack of finds within the larger cut features. There was also very little animal bone, with the only piece large enough to be retrieved during hand excavation being a fragment of the lower incisor of a pig. It is possible that local ground conditions did not favour the preservation of bone – teeth are more durable and will survive where bone will deteriorate (L. Keal, *pers. comm.*) – and it may be relevant that a significant part of the small faunal assemblage retrieved from the previous phase of evaluation consisted of teeth (PCAS 2011b). As such, it may be speculated that, if the site had been occupied, then waste disposal was either highly concentrated, or that the site was used only for a short period of time. Alternatively, the stone footings and evidence for crop processing identified in both phases of evaluation (coupled with the paucity of animal bone and domestic refuse) may indicate a dedicated activity area within a wider agricultural context, where exclusively cereal crops were threshed, dried and stored. This area may therefore have been a specialised part of a large estate, rather than a small self-contained settlement.

8.0 Effectiveness of methodology

The methodology employed has proved entirely sufficient to allow the investigation of some features identified by geophysical survey, and it has been largely effective in characterising the depositional sequence within the site and the nature of the archaeology contained therein.

It has been noted in the previous evaluation that the geophysical survey has not provided a reliable indication of the archaeology on this particular site. This has again been confirmed by the current evaluation: specifically, the stone-built features were not identified by the survey. It may also be noted that, whilst ditch [505] was identified as a geophysical anomaly, so too was the gravel-filled trench at the north end of Trench 4, and they produced very similar geophysical signatures: thus even where features have been identified, differentiating between ancient and modern remains has proved difficult on this site.

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10.0 Site Archive

The documentary and physical archive for this scheme is currently in the possession of Pre-Construct Archaeological Services Ltd. This will be deposited at The Collection, Lincoln under Accession No 2011.207 by December 2012.