



## **ARCHAEOLOGICAL TRIAL TRENCHING AT KEDLESTON HALL SAW MILL, DERBYSHIRE**

*EVALUATION REPORT*

Report Number 2011/45    July 2011



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## NON-TECHNICAL SUMMARY

This report presents the results of archaeological evaluation by trial trenching in land adjacent to the Saw Mill at Kedleston Park, Derby. The evaluation comprised five trenches, each 10m by 2m in extent, and was required to inform future management of the site. ArcHeritage were commissioned by the National Trust Midlands Region to undertake the evaluation. The site is within the compound of the 19<sup>th</sup>-century Saw Mill. Three evaluation trenches revealed made ground layers within the northern yard, interpreted as levelling deposits for the yard surface. The presence of blast furnace slag and 19<sup>th</sup>-century pottery within the deposits suggests the levelling was undertaken in the 19<sup>th</sup> century. No archaeological features were encountered in this area, other than a modern linear cut interpreted as a possible service trench. The trench to the east of the Saw Mill revealed part of a large cut feature, sloping downwards towards the building. The function and date of this feature were unclear. A buried concrete beam, apparently relatively modern, was also encountered in this trench. The trench to the south of the building revealed several services, of mid- to late 20<sup>th</sup>-century date. A clay deposit containing fragments of sawn wood was encountered below made ground deposits, suggesting that the made ground in this area post-dated the construction of the Saw Mill. The presence of the services prevented further investigation within this trench, and it is possible that further deposits associated with the operation of the Saw Mill survive in the southern yard area. Apart from this clay deposit and the large cut feature, the deposits encountered are considered to be of low archaeological significance.

## KEY PROJECT INFORMATION

Project Name	Kedleston Hall Saw Mill
ArcHeritage Project No.	5509
Report status	Full report for submission
Type of Project	Archaeological evaluation
Client	National Trust
NGR	SK 3154 4124
OASIS Identifier	archerit1-102649
Author	Rowan May and Glyn Davies
Illustrations	Rowan May
Editor	David Aspden
Report Number and Date	2011/45 July 2011

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## 1 INTRODUCTION

This report presents the results of an archaeological evaluation by trial trenching of land adjacent to Kedleston Hall Saw Mill, Kedleston, Derbyshire. The evaluation was undertaken to identify and characterise any archaeological features and deposits, to inform future management of the site. Fieldwork was undertaken in line with a brief produced by the National Trust (2011), and following the guidance of the Institute for Archaeologists (IfA 2009). ArcHeritage were commissioned by the National Trust to undertake the evaluation.

## 2 LOCATION, GEOLOGY AND TOPOGRAPHY

The Saw Mill is located within Kedleston Park, to the northeast of Kedleston Hall, c.7km northwest of Derby (Figure 1). The mill complex (NGR SK 3154 4124) is within an area known as Hay Wood, a Site of Special Scientific Interest. The site is bounded by a wooden fence and surrounds the early 19<sup>th</sup>-century complex of the Saw Mill buildings. An historic building survey has previously been compiled for the built structures within the Saw Mill complex. The Saw Mill is accessed via a track to the west, which connects to tracks to Ireton Lodge and Kedleston Hall.

The solid geology of the site consists of siltstones and sandstones of the Tarporley Siltstone Formation.

## 3 METHODOLOGY

### 3.1 Aims

The general aim of the evaluation was to determine the presence, location, extent, date, character, condition, significance and quality of any surviving archaeological remains. A specific aim was to assess whether any structural remains of earlier phases of the Saw Mill were located within the current mill compound.

### 3.2 Methodology

The evaluation comprised five trenches, all 10m by 2m in extent. The locations of the trenches are shown on Figure 4. The locations of the trenches were altered slightly from those originally proposed in the brief, to avoid rubbish skips and scrap material, and to facilitate continued access to the skips and Saw Mill. Trench locations and temporary bench marks were surveyed using a Leica Viva Smartpole GPS unit. The trenches were excavated by a JCB with a toothless, 2m wide ditching bucket, under close supervision by an archaeologist. Machine excavation was undertaken in spits of c.10cm, stopping once archaeological features or natural subsoil were encountered, or where the limits of safe working depth were reached.

All trenches were cleaned and recorded by hand. Sample excavation of cut features was undertaken by hand, including of service trenches. Recording comprised context records, drawn plans and sections, and digital photography (at 12 megapixel resolution). Bulk finds were collected by context. No small finds were recovered. A sample of soil containing wood chippings was taken from a deposit in Trench 5, but no other suitable deposits for sampling were identified. The fieldwork was monitored by Rachael Hall, Nation Trust Midlands Archaeologist. Fieldwork was undertaken between the 13<sup>th</sup> and 17<sup>th</sup> June 2011.

## 4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The earliest reference to Kedleston is made in the Domesday Survey of 1086, recording that the manor belonged to Henry de Ferrers, but was held by Wulfbert. The manor was recorded as 'Chetelestune', meaning 'Ketil's Farm', and included a mill and a small underwood (Morgan 1978; Cameron 1959, 580). No church was recorded in the Domesday Survey, with All Saints' Church, adjacent to the hall, first recorded in 1198-9. The Curzon family have held the manor from the 12<sup>th</sup> century, with the present hall constructed between 1758 and 1765 on the site of an earlier hall. A medieval village was formerly located within the park, its exact location unclear but probably in the vicinity of the church. It was moved c.1760 when the park was landscaped by Robert Adam (Marshall 1989). The park is said to have been enclosed c.1760, but Saxton's survey of 1597 shows an enclosure, suggesting an earlier phase of the park (Anthony 1979, 89).

The park is listed as Grade I in the English Heritage Register of Parks and Gardens, and contains a number of listed structures and statues, including an ice house, bridge, boat house and lodges. Kedleston Hall was designed by Matthew Brettingham c.1758, James Paine (central block) c.1761 and Robert Adam (south front) c.1760 (Pevsner 1979, 255-8), and is a Grade I listed building. The current car park occupies the site of a former Royal Signals camp, active during the Second World War. Aerial photographs show the layout of 45 temporary wooden barracks and access roads, the buildings being demolished after the war (Bell 2011, 1).

The Saw Mill and its engine house are Grade II listed buildings. They were constructed in the 19<sup>th</sup> century, and are of red brick construction with plain tile roofs (English Heritage listed building descriptions). It has been suggested that these buildings may stand on the site of an earlier mill, though no mill was shown in this location on Burdett's map of 1791, or on Sanderson's more detailed 1835 map (Figure 2). The Saw Mill was shown on the 1881 and 1900 OS maps (Figure 3), which depicted a similar configuration to the current structures, though the 'old gasometer' to the south of the engine house had been demolished by 1914, and a small structure south of the entrance to the yard was demolished prior to 1955. A further structure was shown to the north of the main mill; no building currently stands on this site, though there is a brick-lined trough in this area which likely relates to this structure.

## 5 RESULTS

The results of the evaluation are discussed by trench. The locations of the trenches are shown on Figure 4. Trenches 1-3 were located within the yard to the north of the Saw Mill, Trench 4 to the east of the building, and Trench 5 to the south. All the trenches were approximately 10m by 2m in extent.

### 5.1 Trench 1

Trench 1 was located along the western boundary of the yard, to the north of the Saw Mill building. The trench was excavated at an angle to the proposed location, due to the presence of scrap material and trees along the edge of the site. The trench was aligned northeast-southwest. The plan and section of Trench 1 are shown in Figure 5.

The upper layer of the trench comprised a grey-brown pebbly hardcore layer (101), 7-14cm thick, which formed the surface of the yard (Plate 3). The underlying deposits were different at

the north and south ends of the trench. Towards the south end of the trench, the hardcore overlay a pale sandy levelling layer, 102, which was 10cm deep (Plate 4). This was underlain by a dark brown silty soil deposit, 103, 5-8cm thick, which appeared to be related to root action or a remnant topsoil layer. This was only visible in the south end of the trench. Below this was a yellow sandy silt layer, 110, which was not continuous but survived in several fragments, up to 8cm thick, and may have been a redeposited natural subsoil. Below 110 was a firm, dark brown pebbly deposit in a sandy-silt matrix, 104, with occasional red brick fragments and relatively small pieces of a vitreous slag that is probably waste material from a blast furnace. The layer was 6-10cm deep. No ceramics or other cultural material were noted in this deposit, which appears to be a levelling layer. The presence of brick and blast furnace slag suggests that the levelling material was brought in from elsewhere in the region, and is probably associated with the creation of the yard and construction of the Saw Mill in the mid-19<sup>th</sup> century. Layer 104 overlay a firm, orange-brown silty clay, 108, which was interpreted as the natural subsoil.

At the northern end of the trench, the hardcore 101 directly overlay a thick made ground deposit, 107, between 10 and 25cm deep. This deposit comprised a black-brown gritty silt with a high rubble content, and was very compacted (Plate 3). The rubble included a high proportion of vitrified slag, sandstone, red and yellow bricks, and cinder/coke. No ceramics were observed. As with that in 104, the slag appeared to be blast furnace waste, and the bricks, many of which were relatively narrow and probably hand-made, may also have been related to industrial structures. The brick and slag fragments were larger than those in deposit 104, up to 20cm in size. It appears likely that the material was imported to the site for use as a levelling layer to form an even yard surface. Blast furnace slag was commonly used as hardcore (Bayley et al 2008, 13). The deposit was directly overlying the natural subsoil 108.

In the central area of the trench was a linear cut feature, 105 (Plate 1). This was cut from just below the hardcore yard surface, and had very straight sides, 30cm wide (Plate 2). It crossed the trench on a northwest-southeast alignment. It was excavated to a depth of 54cm, where a compacted clay layer was reached. No pipe or cable was found in the trench, but it appeared to be characteristic of a relatively modern service trench. The fill, 106, comprised a mid-brown/orange mixture of clay and pebbly sand, with occasional inclusions of brick and wood fragments.

Towards the north end of the trench was a small circular feature, 109, c.10cm in diameter. It was cut into the natural and underlay 107. On excavation, this feature appeared to be an animal burrow, as it proceeded downwards at an angle of c.45 degrees and was relatively uneven. The fill appeared to be a mixture of redeposited natural and material from 107. It was excavated to a depth of 12cm (Plate 3).

## 5.2 Trench 2

Trench 2 was located at the north side of the yard, to the north of the Saw Mill, and was aligned northwest-southeast. The trench was moved c.1m to the northwest of the proposed location to facilitate access to a rubbish skip. The plan and section are shown in Figure 5.

As with Trench 1, the upper layer consisted of a grey-brown pebbly hardcore, 201, 18-20cm thick, forming the yard surface (Plate 6). This overlay a compact, dark blackish gritty sand layer, 203, up to 20cm thick with a high rubble content. The rubble included slag, bricks (whole



and fragmentary), slate and sandstone, suggesting that it had been imported to the site for use as a levelling deposit. There was a lens of more pebbly material at the south end of the trench, which was counted as being part of 203. A fragmentary pale sandy deposit (202) was visible in a small spread towards the south end, up to 5cm deep, lying between 201 and 203. This was interpreted as a bedding layer for the hardcore, and was analogous to 102. Underlying the rubble deposit 203 was a compact layer of reddish brick rubble in a sandy matrix (204). The brick was mainly fragmentary, up to 6cm in size, and there were also mortar fragments. This layer was up to 8cm thick, and was not visible for the full length of the trench, but divided 203 and 205 in the central area. It may represent a lens within a single levelling episode (with 203 and 205), and disappeared towards the north end of the trench, where the natural subsoil was higher (Plate 7). Deposit 205 was a compact dark black rubble layer in a gritty sand matrix, c.10cm thick, similar to 203 and indistinguishable at the south end of the trench where the intervening layer 204 was not present. Inclusions comprised frequent brick fragments, including whole bricks, shards of clear window glass and slag. This again appeared to be a made ground deposit imported to the site for levelling the yard surface. It was not present at the north end of the trench. Layer 205 directly overlay the natural orange-brown silty clay subsoil, 206, with layers 204 and 203 overlying 206 at the north end of the trench. No cut features were found within the trench (Plate 5).

### 5.3 Trench 3

Trench 3 was located to the north of and parallel with the main Saw Mill building, within the yard area. It was aligned east-west. The trench was excavated 1m to the south of the proposed location to enable vehicular access to the yard during the fieldwork. The plan and section of Trench 3 are shown in Figure 6.

The upper layer of the trench comprised the grey-brown pebbly hardcore yard surface, 301, 12-15cm thick in this area. This overlay a pale gritty sand deposit, 302, 8cm thick, interpreted as a bedding layer for the hardcore. It was analogous to 102 and 202, and was present across most of the trench, with some gaps. Underlying 301 and 302 were a series of levelling layers, 303-305. Upper deposit 303 comprised a thin layer of black gritty sand, with frequent clinker and occasional small brick fragments and gravel inclusions. This layer was 3cm thick, and merged with the lower black gritty layer 305 across much of the trench (Plate 9). The two were divided in some areas by a yellow-brown gravelly layer, 304, 2-8cm thick, which survived in several lenses across the trench, the main concentration being at the east end (Plate 10). The fragmentary nature of this layer suggests the three made ground layers may all have been deposited as a single levelling phase. The lower layer 305 was between 4 and 18cm thick and contained frequent brick fragments, including whole bricks and fragments less than 1cm in size, clinker, and occasional ceramic. Three ceramic sherds in a hard white fabric with white glaze were recovered, probably 19<sup>th</sup>- to early 20<sup>th</sup>-century Whiteware. Deposit 305 overlay firm orange-brown silty clay 306. This was excavated to a maximum depth of 0.54m, with no disturbance noted, and was concluded to be the natural subsoil, analogous to 108 and 206.

The levelling deposits in Trench 3 were less compacted and had a lower rubble content than the lower layers in Trenches 1 and 2. The blast furnace slag was not noted in the rubble in Trench 3, suggesting that a number of deposits from different sources were used in the levelling of the yard. No cut features were noted within the trench (Plate 8).

#### 5.4 Trench 4

Trench 4 was located to the east of the Saw Mill buildings, in an area of predominantly waste ground which had been used as a track. The trench was aligned northwest-southeast. The plan and section are shown in Figure 6.

The deposits within this trench were noticeably different at the north and south ends. At the north end, the upper layer comprised a mid-brown silty topsoil with some clay (401), up to 25cm thick. Fragments of broken-up tarmac were found within this layer, and there was a thin pebbly deposit at the interface with the natural subsoil. The topsoil 401 directly overlay the natural silty-clay subsoil, 402 (Plate 14).

At the south end of the trench the upper layer consisted of a pale hardcore layer (406). As with 401, some lumps of broken tarmac had been dumped on and within the hardcore. In the central part of the trench 406 overlay a thin layer of crushed limestone, 413, probably a bedding deposit for the hardcore. 413 and 406 overlay a series of deposits at the south end of the trench which appeared to be infilling a large cut feature, 412. This feature occupied slightly over half of the width of the trench. The cut was visible in the west and south sections (Plates 11 and 12). In the west section, it sloped at a shallow angle downwards from north to south. In the south section a steeper, convex slope was visible, terminating before the east side of the trench. The base of the cut was not reached within the trench, and further excavation was not undertaken due to the depth of the trench. It was not visible in the eastern section.

The upper fill of the feature comprised an orange-brown silty clay, 407, which appeared to represent redeposited natural subsoil. This was present over the northern side of the feature. 407 overlay a series of gritty dark grey to black dump layers, forming thin beds dipping towards the south, where the combined deposits were 0.75m wide. The deposits were given a single context number, 408, and overlay a second layer of redeposited natural, 409, up to 25cm thick. Below 409 was a back ashy grit deposit, 410, from 2cm to 10cm in thickness, the base of which was not reached in the southern end of the trench. 410 overlay another layer of redeposited natural subsoil, 411, up to 30cm thick. There was a lens of yellow-brown sandy clay near the base of this layer, not given a separate context number (Plate 13). Layer 411 appeared to be the basal layer within cut 412, overlying an orange-brown silty-clay which appeared to be natural subsoil 402, though only a small patch of this was seen.

In the centre of the trench was a modern linear cut, 403, crossing the trench at a diagonal angle aligned approximately northeast-southwest. This cut held a concrete beam, 405, c.70cm wide and 20cm deep, which may have been cast *in situ* (Plate 11). The concrete beam was at a depth of 0.46m below the ground surface. Cut 403 appeared to cut the topsoil 401 and natural 402 to the north and the fills of 412 to the south (Plate 13). The fill of cut 403 was a mixture of topsoil and redeposited clay derived from the surrounding natural, 404, with occasional rounded pebble inclusions that was observed above 405. 405 was overlain by hardcore 401 and the bedding layer 413. The purpose of the concrete beam was unclear; it may have covered a service pipe, or have been associated with an earlier foundation.

#### 5.5 Trench 5

Trench 5 was located to the south of and parallel with the main Saw Mill building. It was aligned east-west. Natural subsoil was not reached in this trench, and excavation ceased at a

depth of 0.80m due to the presence of services (Plate 15). The plan and section are shown in Figure 7.

The upper layer of the trench comprised a gravelly hardcore deposit, 510, forming the surface of the southern yard. This layer varied in depth between 5 and 10cm. For most of the trench, it overlay a thin layer of reddish angular gravel fragments, 502, possibly a former yard surface (Plate 16). This overlay a levelling deposit of a black-brown ashy grit, 503, up to 25cm thick. Below this was an orange-brown silty clay layer, with inclusions of rounded pebbles and brick fragments, 508, which varied in depth between 6 and 30cm. In the central and western part of the trench this overlay a thin layer of orange-brown silty clay, 514, probably representing redeposited natural, with dark grey silty clay layer 511 below. Layer 511 may have been a disturbed upper part of underlying grey silty clay 501, which contained frequent fragments of sawn wood and wood chips, interpreted as waste from the Saw Mill. The layer contained one handle sherd of brown-glazed earthenware of 18<sup>th</sup>- to mid-19<sup>th</sup>-century date.

In the eastern end of the trench was a linear cut, 505, which held a metal water pipe and ceramic drain pipe, running parallel in a northwest-southeast alignment. The fill of the cut, 504, was blackish-brown silty sand with pebbles and brick fragments in a series of lenses (Plate 16). It underlay levelling layer 503. To the immediate west of the cut were two narrow lenses lying between 503 and 508. The upper lens, 506, comprised red-brown sand containing small brick fragments, and overlay dark brown sandy clay 507. It was unclear if these related to the backfilling of the cut, but they were not visible elsewhere in the trench. To the northeast of the cut, at the base of the trench, was a deposit of brown clay, 515, with occasional patches of reddish staining. This deposit was cut by 505. To the north of the cut was a further shallow linear feature, 517, aligned northeast-southwest. It was unclear if this was cut by the pipe trench 505, connected with it, or cut it. The shallow feature had a rounded base, and was approximately 0.3m wide. No service pipes or cables were found within the feature, though it appeared likely to have been a service trench. It was filled by a mixed gritty black-brown deposit, 509, with rubble inclusions.

At the western end of the trench was a further cut, 512, containing a telephone cable in plastic ducting (Plate 17). The cut and cable were on a northwest-southeast alignment. The fill, 513, comprised a black/brown mixture of grit and silty soils, with fragments of brick and stone rubble. The cut and fill underlay the hardcore 510 and possible surface 502, and cut through all of the levelling deposits at the west end of the trench. To the west of cut 512 was a layer of yellow-brown sandy gravel, 516, which lay between deposits 514 and 501. This was only seen at this end of the trench. The rounded gravel inclusions varied in size between 2 and 10cm. This was interpreted as another levelling layer.

## 6 DISCUSSION

### 6.1 Discussion of evaluation results

The evaluation trenches revealed a series of levelling deposits underlying the current yard surface. These were present in all trenches, though the nature of the deposits varied within and between trenches. The levelling deposits included blast furnace slag, bricks and window glass, and appear to have been imported to the site from elsewhere specifically for use as made ground. The few ceramics recovered and the blast furnace slag suggests the majority of these deposits may be of mid- to late 19<sup>th</sup> century date, and may relate to the creation of the yards at around the time of the Saw Mill's construction. A clay layer in Trench 5 contained a high proportion of sawn wood fragments. This deposit was below some of the made ground layers in Trench 5, suggesting that the yard surface in this area has been modified during the lifetime of the Saw Mill. Trench 5 was heavily disturbed by later services, but the presence of the wood fragments suggests that there is the potential for further deposits associated with the operation of the mill within the southern yard.

A large cut feature, 412, in Trench 4, to the east of the sawmill, is of unknown function and date. The base of the feature was not reached in the trench. It is possible that it may relate to the excavation of foundations or flues for the freestanding chimney stack that stands a short distance to the southwest, at the edge of the Saw Mill. The feature was backfilled with a series of deposits including redeposited natural and made ground similar to that found elsewhere in the yard. This was the only cut feature within the trenches that did not appear to relate to modern activity or services.

Service trenches for water and drainage pipes and a phone cable were found in Trench 5, to the immediate south of the sawmill building. The phone cable appeared to be a more recent insertion than the water and drainage pipes. A third possible service cut was noted in this trench, though no pipe or cable survived within it. A narrow, steep-sided cut in Trench 1 also appeared to be a modern insertion, though no service pipe was located. It is possible that the concrete beam in Trench 4 was covering a service pipe, but it was not possible during the evaluation to establish whether it related to services or a foundation. It appeared to be of relatively modern date, cutting the made ground and fills of the large feature 412, and is unlikely to relate to the early phase of the Saw Mill.

No other features were noted within any of the trenches. It appears that the yard has been relatively undisturbed since the mid-19<sup>th</sup> century, apart from the insertion of services. No evidence for any earlier structures was found within the evaluated area. The archaeological remains of the levelling deposits are considered to be of low archaeological significance. The significance of the cut feature 412 in Trench 4 cannot be established on the basis of the currently available evidence.

Very little artefactual material was recovered from the site. Cultural material included four sherds of post-medieval pottery, and fragments of blast furnace slag, ceramic building material and wood taken as representative samples from made ground layers. All but one of the pottery sherds were also from made ground which appears to have been imported to the site. The fourth, part of a handle in a brown-glazed stoneware, came from a clay deposit containing sawn wood fragments, presumably associated with activity at the Saw Mill. The artefacts are

listed in Table 3, Appendix 3. It is considered that the slag and ceramic building material can be discarded.

## 6.2 Historic impact statement

The results of the evaluation suggest that any below-ground disturbance in the northern yard is unlikely to impact on significant archaeological deposits. This area is characterised by made ground deposits associated with the creation of the yard. The only exception in this area is a brick-lined trough along the northeast boundary of the yard, which appears to be associated with a structure shown on the 1900 OS map of the area. This was not covered by the evaluation trench, but was noted at the site. There was little modern disturbance within this part of the site, with only one possible service trench noted, in Trench 1.

The area to the south of the Saw Mill building had more modern disturbance, with layers apparently associated with the operation of the Saw Mill being below made ground deposits, and a number of service trenches, probably of 20<sup>th</sup>-century date, cutting across Trench 5. It is possible that further buried deposits associated with the Saw Mill survive in the yard to the south of the trench.

To the east of the Saw Mill building, there was a large cut feature of unknown date and function. The fill deposits appeared to be consistent with the made ground layers in the northern yard, suggesting it may be associated with the construction of the Saw Mill. There was a modern intrusion into this trench, associated with a buried concrete beam crossing the trench. The function of this beam was unclear. Any ground disturbance in this area has the potential to impact on deposits associated with the cut feature.

## 7 CONCLUSIONS

The results of the evaluation trenches indicate that the main archaeological deposits within the yard area relate to 19<sup>th</sup>- and 20<sup>th</sup>-century levelling of the yard surface. No remains of any earlier structures were found in any of the trenches. All but one of the cut features related to modern disturbance and service trenches. One large cut feature in Trench 4 was of unknown date and function. The full extent of the feature was not uncovered within the trench, and the base was not reached as it exceeded a safe working depth. This feature sloped downwards towards the eastern side of the Saw Mill building, and may have been associated with its construction. The significance of this feature is unclear based on the available evidence. One deposit within Trench 5 consisted of a grey clay layer containing a high proportion of small to medium sawn wood fragments. This layer appears to relate to the operation of the mill, and underlies several made ground layers, suggesting that there is the potential for 19<sup>th</sup>-century deposits associated with Saw Mill in the southern yard. All other made ground deposits encountered appeared to have been imported to the site specifically for use as levelling layers. Apart from the clay layer in Trench 5, the made ground deposits and service trenches were considered to be of low archaeological significance.

## 8 LIST OF SOURCES

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Ordnance Survey 1:10,560 map sheet SK 34 SW, 1955 publication.

## 9 ACKNOWLEDGEMENTS

ArcHeritage would like to thank Rachael Hall and James Lee of the National Trust for their advice and assistance during the fieldwork.

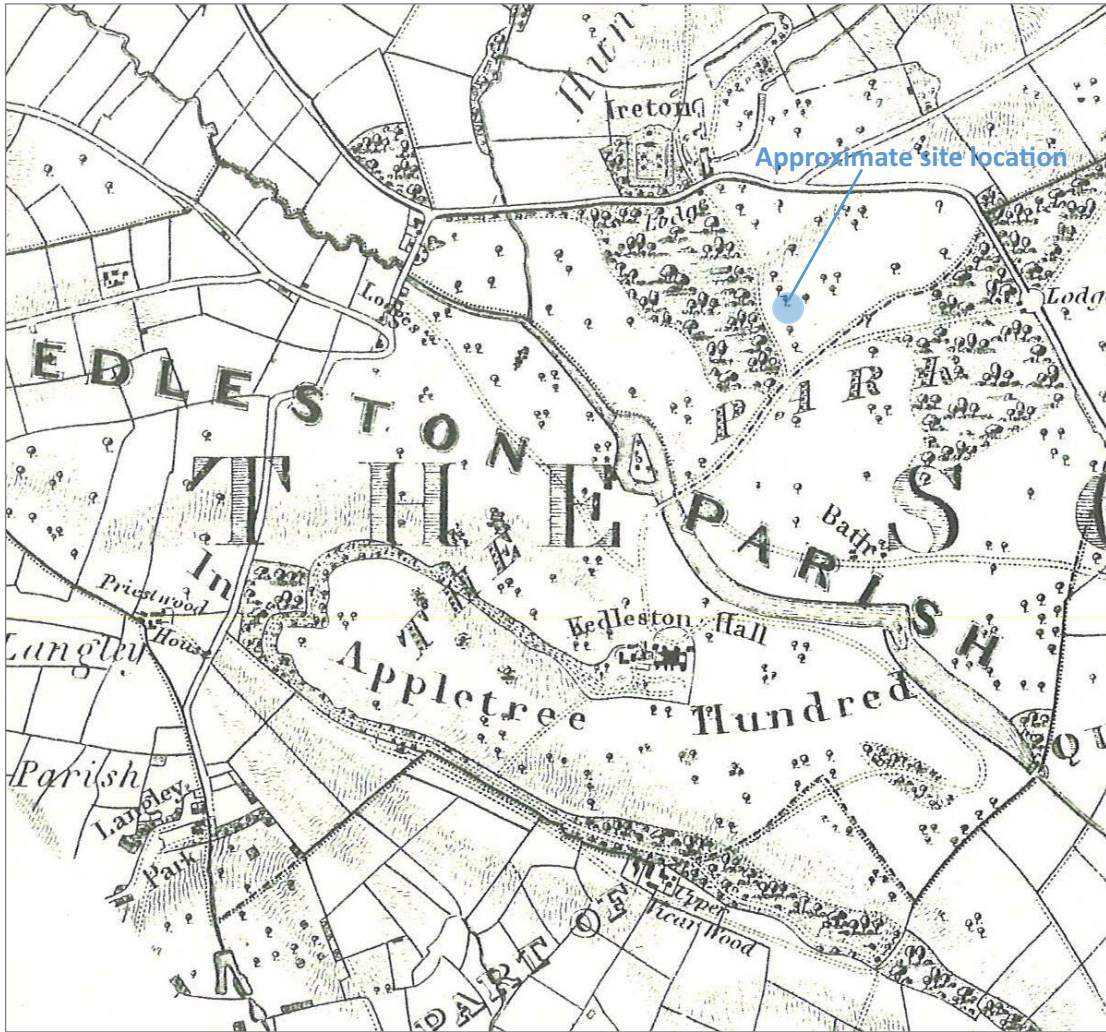
## 10 FIGURES

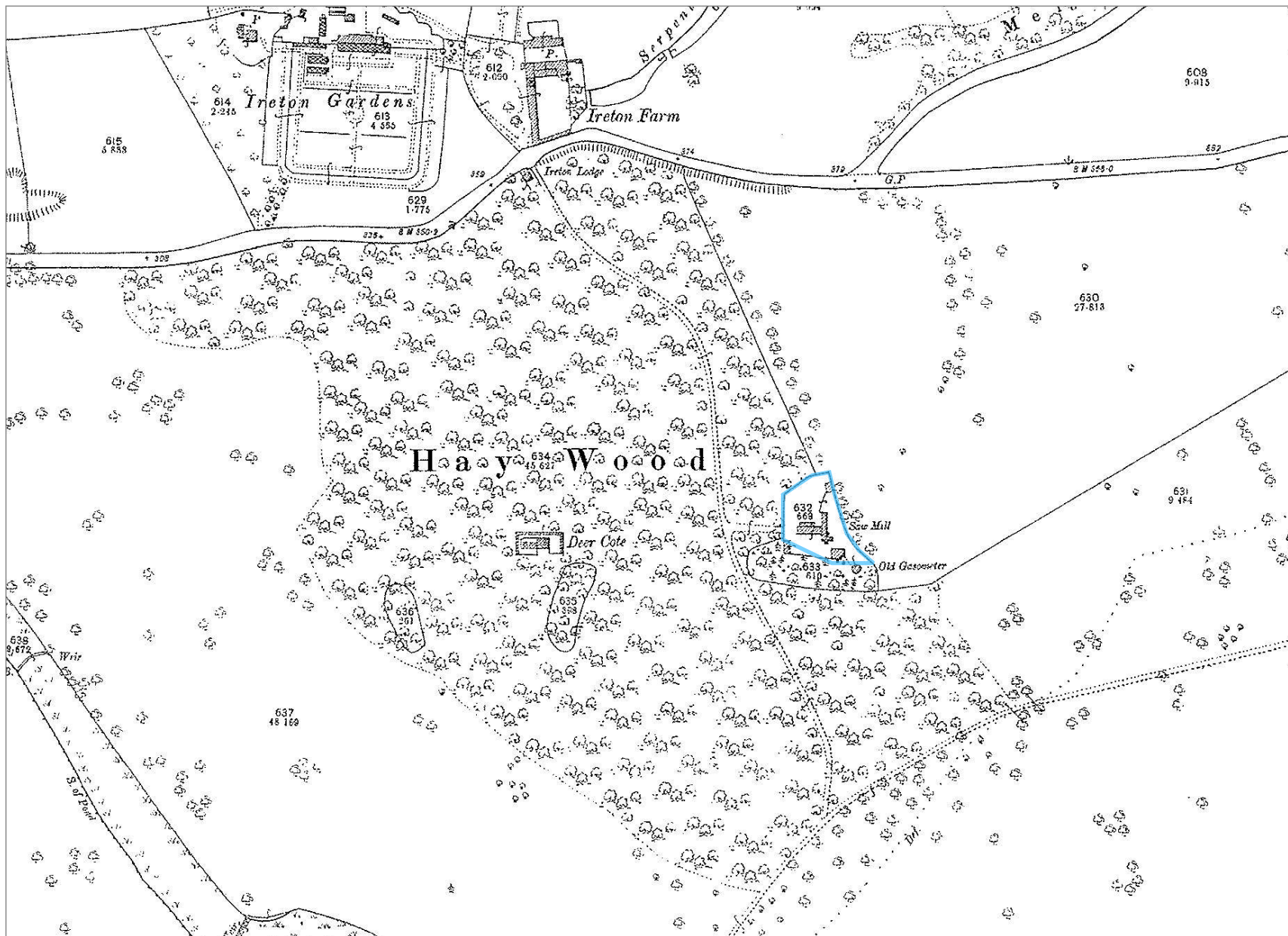


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Figure 1: Site location map

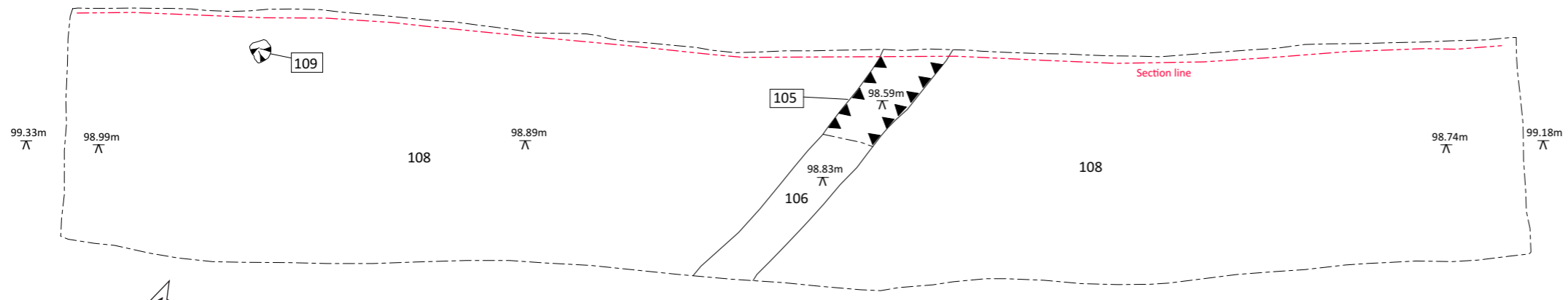




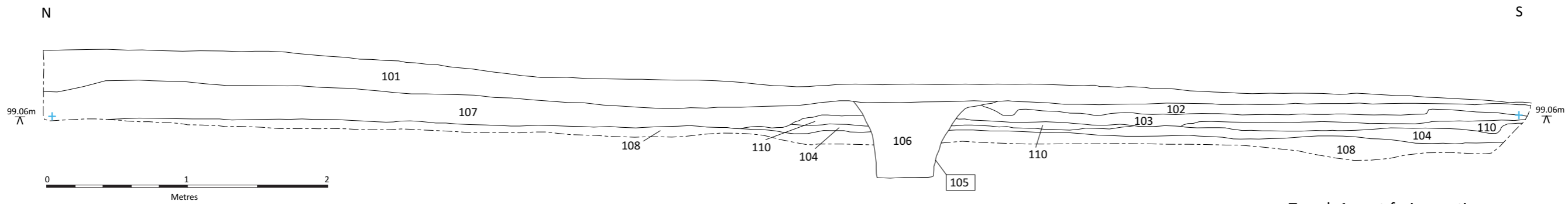


- ▲ Survey point for proposed trench locations
- Revised survey point for altered trench location

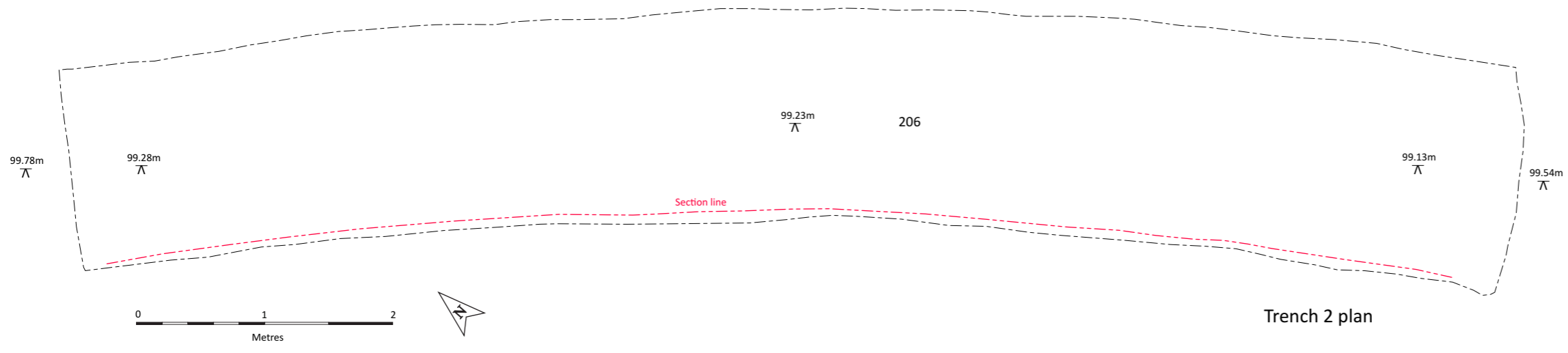




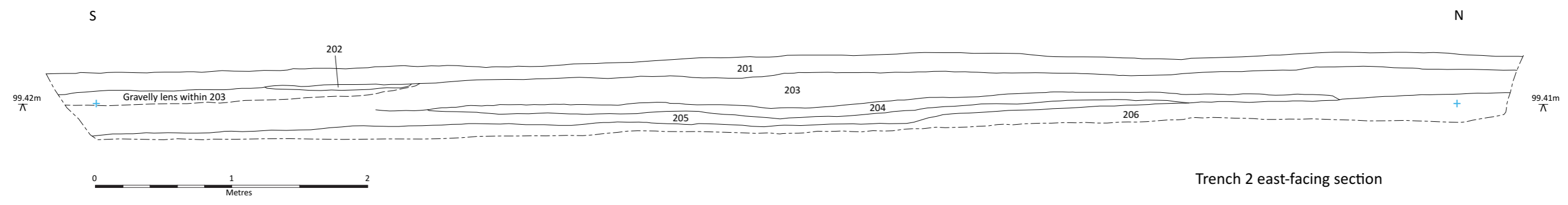
Trench 1 plan



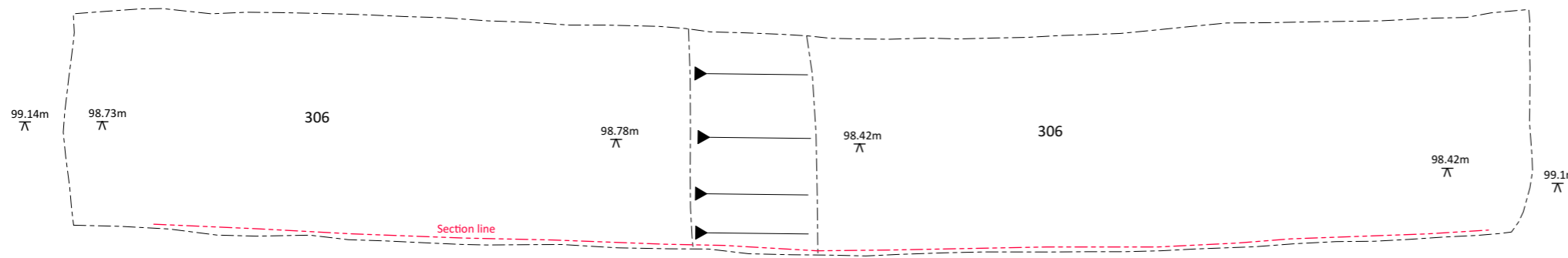
Trench 1 west-facing section



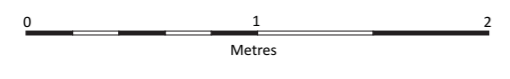
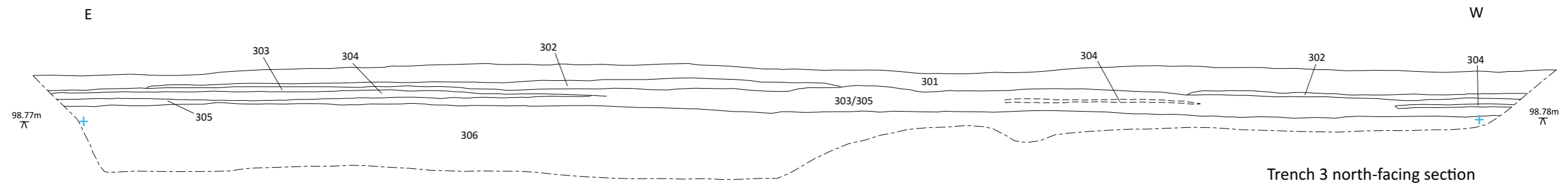
Trench 2 plan



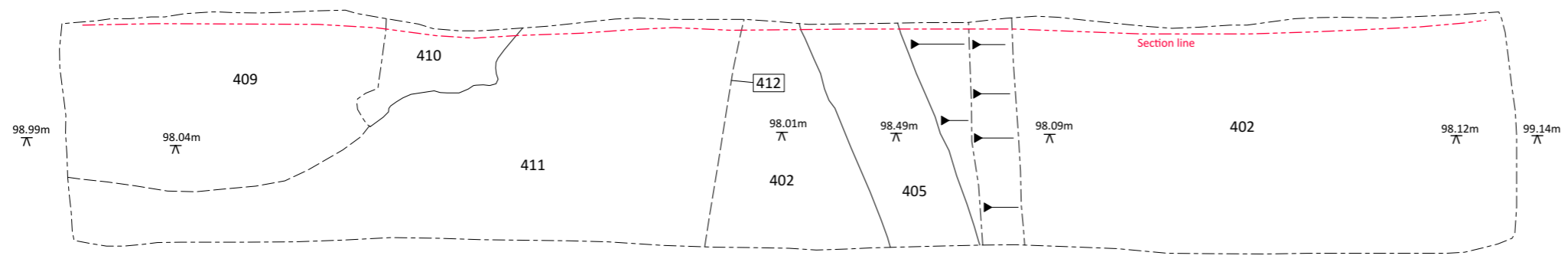
Trench 2 east-facing section



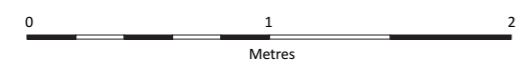
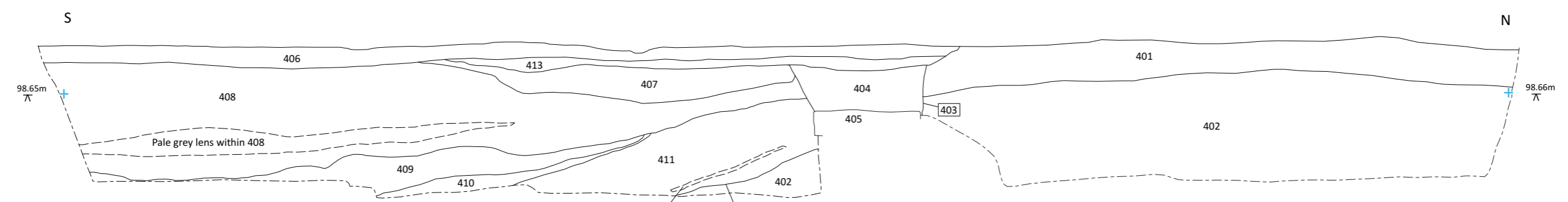
Trench 3 plan



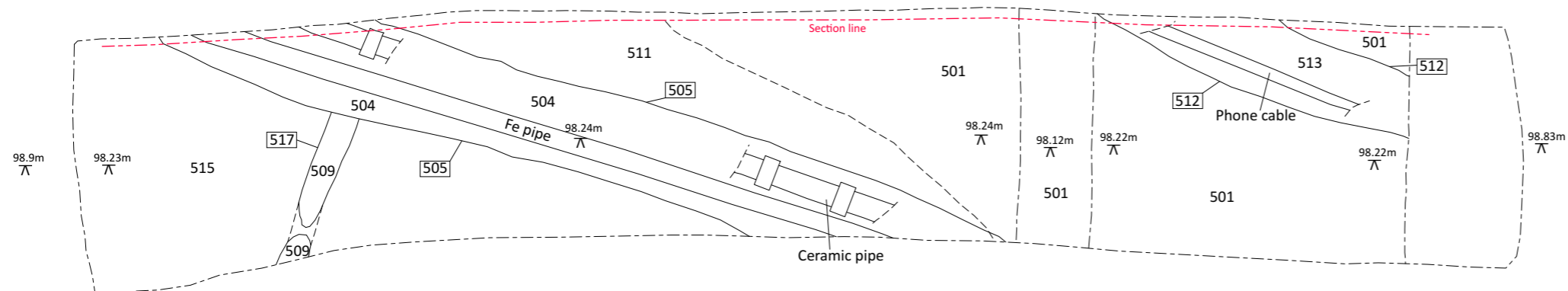
Trench 3 north-facing section



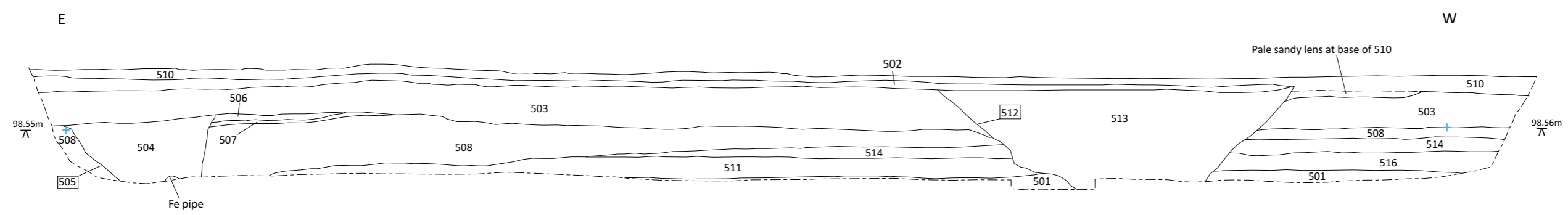
Trench 4 plan



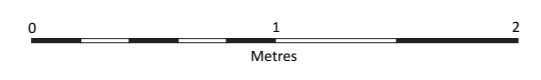
Trench 4 east-facing section



Trench 5 plan



Trench 5 north-facing section



11 PLATES



Plate 1: Plan view of Trench 1, facing southwest



Plate 2: Detail of Trench 1 section showing cut 105, viewed facing southeast



**Plate 3: Section of Trench 1, north end, showing made ground layers, viewed facing southeast**



**Plate 4: Section of Trench 1, south end, viewed facing southeast**





**Plate 5: Plan view of Trench 2, viewed facing northwest**



**Plate 6: Section of Trench 2, south end, showing made ground layers, viewed facing southwest**



**Plate 7: Section of Trench 2, north end, viewed facing southwest**



**Plate 8: Plan view of Trench 3, viewed facing west**



**Plate 9: Section of Trench 3, central area, viewed facing south**



**Plate 10: Section of Trench 3, east end, viewed facing south**



**Plate 11: Plan view of Trench 4, viewed facing northwest**



**Plate 12: Section of Trench 4, south end, showing large feature 412, viewed facing south**



**Plate 13: Section of Trench 4, showing cut for concrete beam 405 and edge of cut 412, viewed facing southwest**



**Plate 14: Section of Trench 4, north end showing cut for 405 and topsoil 401, viewed facing southwest**



**Plate 15: Plan view of Trench 5, viewed facing east**



**Plate 16: Section of Trench 5, east end, showing cut 505 for pipe trench, viewed facing south**



**Plate 17: Section of Trench 5, west end, showing sondage into 501 and cut 512 for phone cable, viewed facing south**

**APPENDIX 1 – INDEX TO ARCHIVE**

Item	Number of items
Context sheets	52
Context register	1
Photographic register	1
Levels register	1
Drawing register	1
Original drawings	10
Digital photographs	49 (1 CD)
Written Scheme of Investigation	1
Report	1

**Table 1: List of archive contents**



**APPENDIX 2 – CONTEXT LIST**

Trench	Context no	Description
1	101	Hardcore surface
1	102	White hardcore levelling deposit
1	103	Dark levelling deposit
1	104	Pebbly levelling deposit
1	105	Cut of pipe trench
1	106	Fill of pipe trench 105
1	107	Compact rubble made ground layer
1	108	Natural clay subsoil
1	109	Possible animal burrow
1	110	Sandy soil layer
2	201	Hardcore surface
2	202	White hardcore levelling deposit
2	203	Dark rubble levelling layer
2	204	Brick rubble levelling layer
2	205	Dark rubble levelling layer
2	206	Natural clay subsoil
3	301	Hardcore surface
3	302	Levelling deposit
3	303	Levelling deposit
3	304	Levelling deposit
3	305	Levelling deposit
3	306	Natural clay subsoil
4	401	Topsoil
4	402	Natural clay subsoil
4	403	Cut for concrete beam
4	404	Deposit - fill of cut 403
4	405	Structure - concrete beam
4	406	Hardcore surface
4	407	Redeposited natural, fill of 412
4	408	Gritty ash deposit, fill of 412
4	409	Lower redeposited natural deposit, fill of 412
4	410	Lower gritty ash deposit, fill of 412
4	411	Redeposited natural base fill of 412
4	412	Cut of large feature at S end of trench
4	413	Upper fill of cut 403
5	501	Deposit - clay with wood
5	502	Red gravel levelling deposit – possible former yard surface
5	503	Black ashy grit levelling deposit

Trench	Context no	Description
5	504	Fill of pipe trench 505
5	505	Cut for water pipe and drain
5	506	Mixed levelling deposit
5	507	Black/brown levelling deposit
5	508	Thick levelling layer
5	509	Rubble fill of shallow feature 517
5	510	Gravel hardcore yard surface
5	511	Dirty silty clay deposit
5	512	Cut for phone cable
5	513	Fill of cut 512
5	514	Orange-brown silty clay deposit
5	515	Brown clay deposit
5	516	Yellow-brown gravel deposit
5	517	Cut for possible service trench

**Table 2: Context list**

**APPENDIX 3: CATALOGUE OF ARTEFACTS**

Context no	Material	No of items	Description
104	Slag	5	Small fragments (representative sample) of vitreous dark green slag, probably blast furnace slag.
106	CBM	1	Small fragment of red brick.
106	Wood	1	Fragment of wood, appears to be sawn and partially burnt.
107	CBM	2	Representative sample of the narrow bricks present in rubble.
107	Slag	3	Representative sample of large partially vitrified slag fragments present in rubble. One may be fused to stone, possibly part of furnace structure. The slag appears to be blast furnace waste.
305	Ceramic	3	One rim, two body sherds, all Whiteware, 19 <sup>th</sup> -20 <sup>th</sup> century.
501	Ceramic	1	Part of a handle, brown-glazed earthenware in a buff fabric, 18 <sup>th</sup> to mid-19 <sup>th</sup> century.
501	Wood	Lots	Sample of large and small wood chips and offcuts from dump layer in Trench 5.

**Table 3: Artefact catalogue**

## **APPENDIX 4 – PROJECT BRIEF**

### **BRIEF FOR ARCHAEOLOGICAL EVALUATION OF LAND AT THE SAW MILL, KEDLESTON HALL, DERBY**

**Prepared by National Trust Midlands Region**

#### **1.0 Introduction**

1.1 The National Trust requires the undertaking of archaeological investigations in the form of trial trenching at The Saw Mill, Kedleston Hall, Derby. The purpose of the archaeological works is to help inform the future management. The archaeological investigations will seek to determine the presence, type and nature of any archaeological features and deposits in order to best inform, any future works at the site.

#### **2.0 Site Description**

2.1 The Saw Mill is located within Kedleston Park, near Derby. The Saw Mill complex is situated to the north-east of Kedleston Hall in an area known as Hay Wood. The site is centred on National Grid Reference SK 315 412 (43154 34124). The site is bounded by a wooden fence and surrounds the early 19th century complex of Saw Mill Buildings. The Saw Mill, is reached by track from the west which connects with tracks to Ireton Lodge and Kedleston Hall. The local geology comprises a solid geology of Hoptonwood and Matlock Limestone (BGS 1972).

2.2 An Historic Building Survey and Report has previously been compiled for the built structures within the Saw Mill Complex. The report details the development of the Saw Mill, Joiners' Shop and the Creosote Shed.

#### **3.0 Requirements**

##### **3.1 Archaeological Evaluation by Trial Trenching Fieldwork**

3.1.1 The aim of the archaeological investigation is to determine the presence, location, extent, date, character, condition, significance and quality of any surviving archaeological remains.

3.1.2 To evaluate the area it is proposed that five trenches (2m x 10m) are excavated. The location of the proposed trenches is shown on the accompanying drawing, Figure 1. It should however be noted that the position of these trenches is not fixed and should the need arise to relocate the trenches to avoid hazards then practicality should ensue.

3.1.3 The fieldwork must be carried out by a professional archaeological contractor, and the site team must possess the necessary levels of professional experience and technical expertise.

3.1.4 Prior to the works commencing, the contractor will be expected to arrange site access with the Outdoors Manager for Kedleston Hall. Also, reinstatement will require the backfilling of all trenches, without mixing topsoil and subsoil horizons, and leaving the ground surface free of debris that could constitute a hazard (for example large stones).As the yard is a working area the backfilling will require compacting, this may be undertaken using the JCB.

3.1.5 A JCB (or similar machine) fitted with a smooth ditching bucket should be used to excavate the trenches. The topsoil, subsoil and underlying non-archaeological deposits within

each trench will be removed by the excavator in spits no greater than 10cm in depth, under close archaeological supervision. The process would be repeated until the first archaeologically significant or natural horizon was exposed, or until a safe working depth was reached.

3.1.6 The contractor will be responsible for securing the site.

3.1.7 The contractor will be responsible for the locating of and avoidance of any services during the excavations.

3.1.8 All archaeological features and deposits exposed within the trenches must be investigated and recorded unless otherwise agreed with the National Trust Midlands Archaeologist. The extent of the sampling will be determined by the size and nature of the feature, and will comprise:

- 1m wide slots across the full profile of all ditches, gullies and other linear features
- A 100% sample of all stake-holes
- A 50% sample of discrete features such as pits and postholes of up to 1m diameter
- A 25% sample of discrete features such as pits and postholes in excess of 1m diameter

3.1.9 It is not anticipated that the complete excavation of features other than any stake-holes will be necessary at this stage.

3.1.10 A full written, drawn and photographic record will be maintained throughout the evaluation fieldwork. Plans should be completed at a scale of 1:50 or 1:20 and sections should be at 1:10 or 1:20 (as appropriate). Photography may be in digital format (8 megapixel photographs in jpeg format minimum). Copies of all recording forms and manuals should be submitted to the National Trust Midlands Archaeologist in advance of the fieldwork, unless these have been supplied previously.

3.1.11 A strategy for the recovery and sampling of environmental remains must be agreed in advance of the commencement of the project, and should refer to the English Heritage guidance (*Environmental Archaeology A guide to the theory and practice of methods, from sampling and recovery to post-excavation* Centre for Archaeology Guidelines 2002/01).

3.1.12 All artefacts exposed during the trenching must be collected and processed unless agreed with the National Trust Midlands Archaeologist.

3.1.13 The terms of the Treasure Act 1996 must be followed if relevant finds are exposed. Any such finds must be removed to a safe place and reported to the local coroner on the day of discovery, following notification to the National Trust Midlands Archaeologist and Kedleston's Outdoors Manager. If it is not possible to remove the item(s) on the same day, then suitable security measures must be taken to guard against theft.

3.1.14 Should human remains be exposed, then these must be left in-situ, covered and protected. Where removal is deemed unavoidable, the contractor is required to contact the Ministry of Justice to receive the appropriate Exhumation License under the Burial Act of 1857.

3.1.15 During the archaeological investigations, the fieldwork and subsequent post-excavation analysis will be monitored by the National Trust Midlands Archaeologist.

3.1.16 All aspects of the evaluation should be undertaken in accordance with the Institute of Field Archaeologist's *Code of Conduct*, the *Standard and Guidance for Archaeological Field Evaluations* (revised 1999).

### **3.2 Archaeological Evaluation by Trial Trenching Post-excavation**

3.2.1 The subsequent post-excavation analysis reporting should include:

- A brief non-technical summary of the investigations
- A description of the site location, topography and geology
- A brief account of the archaeological and historical background of the site and locality
- Description and analysis of the fieldwork results
- Full discussion and conclusions of the results. This should include consideration of the importance of the findings on a local, regional and national basis with a critical review of the effectiveness of methodology
- Historic Impact Statement for the site
- Specialist reports where applicable
- Table summarising all identified features and deposits, including their interpretation.
- Location plans of the area of investigation, the trenches and the spatial distribution of the archaeological deposits. All plans should be geo-referenced and be reproduced at an appropriate scale.
- Trench plans showing the detail of archaeological features, marking on section locations and spot heights Above Ordnance Datum.
- Section drawings to scale of all archaeological features and deposits, to include height Above Ordnance Datum.
- Plan indicating the depth of the archaeological deposits.
- Colour photographs of archaeological features including general views of feature groups, trenches and the site.
- Bibliography of all sources used.

### **4.0 General Requirements of the Archaeological Contractor**

4.1 The Contractor will be fully responsible for developing and operating a safe system of working. A full site specific Risk Assessment must be in place and approved by the National Trust prior to commencement of any work.

4.2 The Contractor will observe National Trust bye-laws at all times when on site. A full copy of this document will be sent to the appointed Contractor, and should be signed and returned by them prior to the commencement of work on site.

4.3 The Contractor will liaise fully with the Project Manager and Kedleston's Outdoor Manager regarding access and agreed times of work on time.

4.4 The Contractor will note that the National Trust will retain copyright over all products from this investigation, while fully acknowledging the originators rights of recognition.

#### **5.0 Monitoring arrangements and Publication**

5.1 The project will be initiated in consultation with the National Trust Archaeologist for the East Midlands, who may be contacted for guidance during the course of site works. Any problems or unexpected discoveries should be reported immediately to the National Trust Archaeologist for the East Midlands Region.

5.2 A draft version of the project report should be supplied for detailed comment by the National Trust Archaeologist for the East Midlands Region within four weeks of completion of the fieldwork as part of the closure process.

5.3 Upon approval the Contractor will supply the National Trust with eight hard and four digital copies of the report,. A copy of the invoice should also be submitted at this time to the Midlands Archaeologist and the Transaction Processing Unit upon completion of the fieldwork.

#### **6.0 Archive deposition**

6.1 All materials arising from this survey will be supplied to the National Trust in standard archiving boxes upon completion of the project. The National Trust will assume responsibility for the archiving of this material, either in regional or central filing systems. A copy of the submitted report will be deposited with the Derbyshire Sites and Monuments Record. The National Trust Sites and Monuments Record is also publicly indexed (through ADS) and accessible.

#### **9.0 Insurance coverage**

9.1 The Contractor will carry public liability insurance to the value of not less than £2 million. Proof of this is required prior to the commencement of any works on site, unless this has previously been supplied.

**Proposed Evaluates  
Trench Location  
Kedleston,  
The Saw Mill**

  
**NATIONAL TRUST**  
MIDLANDS

Scale 1:500


Produced by: leon.rieley

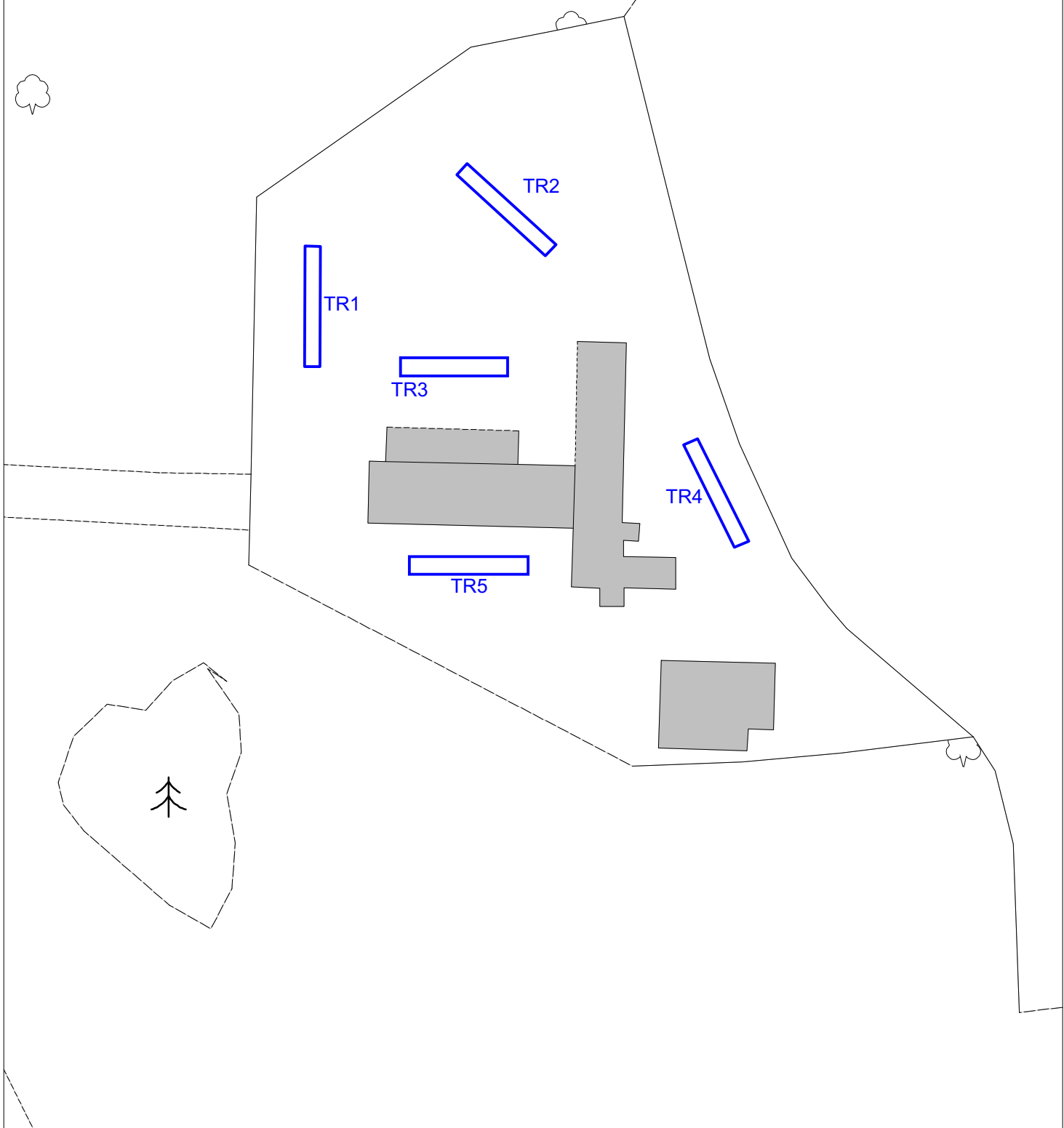
Date 14/04/2011



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KEY:

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