



Cinderford Northern Quarter, Spine Road, Gloucestershire

Archaeological Evaluation Report



Oxford Archaeology North

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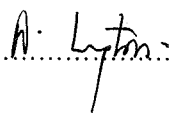
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SUMMARY

The Homes and Communities Agency is currently devising proposals for the redevelopment of land situated on the north-eastern fringe of Cinderford in Gloucestershire (centred on NGR SO 64447 15435). The study area is known to have been a focus for coal-mining activity from the medieval period onwards, the historical importance of which has been highlighted in an archaeological desk-based assessment of the site that was carried out recently. This comprehensive study concluded that the proposal site has a high potential for buried archaeological remains of significance, which may merit preservation by record should they survive *in-situ*.

Following on from the desk-based assessment, the Heritage Team Leader at Gloucestershire County Council recommended that an initial programme of intrusive archaeological evaluation of the site was carried out to determine the extent, depth, chronology and relative significance of any buried archaeological remains, and thereby inform the planning process. In accordance with this recommendation, a scheme of initial evaluation trenching, devised by Parsons Brinckerhoff, allowed for the excavation of 14 trenches, which were targeted on the sites of heritage assets identified in the desk-based study.

In May 2014, Oxford Archaeology North was commissioned by Geotechnical Engineering Limited, acting on behalf of the Homes and Communities Agency, to undertake the specified programme of archaeological evaluation. In total, 12 trenches were excavated across the study area, representing a sample of almost 2% of the viable area, with deposits of archaeological significance being identified in two trenches. Two of the proposed trenches were not excavated due to access issues and stringent ecological considerations.

Whilst few archaeological remains of significance were encountered in the excavated trenches, natural deposits were exposed in all of the trenches at depths varying between 0.35m and 1.9m below the present ground level. This confirmed that these areas of the proposed development site have not been subject to open-cast mining activity, and it is thus likely that buried remains pertaining to historic mining activity will survive *in-situ* across the study area.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank David Owen of Geotechnical Engineering Ltd for commissioning and supporting the project on behalf of the Homes and Communities Agency. OA North is also grateful to Alison Plummer, Principal Archaeologist with Parsons Brinckerhoff, for her advice and consultation, and to Charlotte Valance, also of Parsons Brinckerhoff, for her assistance with logistics. Thanks are also due to Toby Catchpole, the Heritage Team Leader at Gloucestershire County Council, for his support.

The evaluation was directed by Chris Wild with the assistance of Andy Phelps and Aiden Parker. The report was written by Chris Wild and Andy Phelps, and the drawings were produced by Mark Tidmarsh. The report was edited by Ian Miller, who was also responsible for project management.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 The Homes and Communities Agency is currently devising proposals for the redevelopment of land situated on the north-eastern fringe of Cinderford in Gloucestershire. The study area is known to have been an important focus for coal-mining activity from the medieval period onwards, the archaeological significance of which was highlighted in a desk-based assessment of the site that was produced at an early stage of the project (Parsons Brinckerhoff 2014). This comprehensive study concluded that the proposal site has a high potential for buried archaeological remains of significance, which may merit preservation by record should they survive *in-situ*.
- 1.1.2 In the light of the conclusions drawn from the desk-based assessment, the Heritage Team Leader at Gloucestershire County Council recommended that an initial programme of intrusive archaeological evaluation of the site was carried out to support and inform the redevelopment proposals. The archaeological evaluation was intended to determine the extent, depth, chronology and relative significance of any buried archaeological remains, and thereby inform the merit and scope of a mitigation strategy for a final stage of more detailed archaeological investigation in advance of any future development.
- 1.1.3 The scope of the initial programme of archaeological evaluation was defined in a Written Scheme of Investigation, which was devised by the archaeology and heritage team at Parsons Brinckerhoff, in consultation with the Heritage Team Leader at Gloucestershire County Council. This allowed for the excavation of 14 evaluation trenches across the study area.
- 1.1.4 In May 2014, Oxford Archaeology North (OA North) was commissioned by Geotechnical Engineering Limited, acting on behalf of the Homes and Communities Agency, to undertake to specified programme of evaluation trenching. This report sets out the results of the trenching in the form of a short document, outlining the findings and assessing the impact of the proposed development.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The study area occupies former industrial land situated on the north-western fringe of Cinderford, which itself forms part of the Forest of Dean, Gloucestershire (Fig 1). The site lies at the bottom of the Cinderford Valley, adjacent to the village of Steam Mills, and comprises open reclaimed grassland (centred on NGR SO 64447 15435). The land has been subject to extensive modification through intensive industrial activity and subsequent landscaping during the last 150 years, although the precise extent of ground disturbance remains uncertain.

1.2.2 The archaeological trenches were placed across three discrete locations:

- Trenches 1-10 lay within an area of undulating reclaimed grassland, varying in height from 159m to 166m above Ordnance Datum (aOD). This location is bounded to the north by the ancient Forest of Dean, to the south and west by modern regenerated woodland, and to the east by modern A4151 and the village of Steam Mills;
- Trenches 11 and 12 were located upon a level area of agricultural land, used presently for grazing, and located at a height of 206m aOD. This area is bounded to the north by a residential development, to the west by Old Engine Brook, to the south by a timber yard, and to the east by Newtown Road, with industrial and commercial estates beyond;
- Trenches 13 and 14 lay to the west, within an area of dense woodland, and were positioned along the former line of a railway line, which now serves as a forestry track.

1.2.3 The local geology forms an important economic resource exploited by the inhabitants for centuries for its mineral wealth. The area lies within the Forest of Dean coalfield with sandstone of the supra pennant group upper carboniferous series. Outcrops of shallower coal seams and clay from the Pennant Sandstone are found in the area, with the deeper coal beds found beneath the Supra Pennant Sandstone.

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

1.3.1 A detailed historical and archaeological background has been produced by the archaeology and heritage team at Parsons Brinckerhoff as part of the present development proposal, which identified the heritage assets within the study area (Parsons Brinckerhoff 2014). In addition, a comprehensive heritage and archaeological assessment was completed by Gloucestershire County Council in 2009. The following section is drawn heavily from these previous studies, and is intended to provide a brief overview of the historical and archaeological background to the site.

1.3.2 There is some limited evidence for Prehistoric and Romano-British activity in the form of a Bronze Age palstave axe head, recovered from the Hawkswell Brickworks in the western half of the study area, and a single Roman coin recovered a short distance to the east of the village of Steam Mills (*op cit*, 31). However the archaeology of the area is dominated by its industrial past, which can first be identified during the late medieval and post-medieval periods.

1.3.3 Despite documentary evidence suggesting the mining of coal from at least the thirteenth century (*op cit*, 32), production remained on a very modest scale for the next 500 years, with only the most accessible seams near the surface being exploited. Technological advances in drainage allowed increasingly deep sub-surface deposits to be accessed from the seventeenth century onwards, and a bell pit coal shaft probably of this date has been identified within the western part of the study area.

- 1.3.4 Surface and shallow coal extraction remains of probable post-medieval date have also been identified in the west and east of the proposed development site, and cartographic evidence points to the existence of local coal pits at the turn of the eighteenth century (GCC 2009, 41).
- 1.3.5 There is evidence for a proliferation of deep mines from the eighteenth century to the early twentieth century (*op cit*, 17), with changes in mining rights leading to extraction on a much larger scale. The Winning Colliery was established in 1825 on a site within the southern half of the study area (Parsons Brinckerhoff 2014, 33), and its engine house survived up until at least 1960. The New Bowson Colliery was similarly established in 1863, a short distance to the north, and was operational until 1925 (*op cit*, 34). Structural evidence for the buildings of both Winning and New Bowson Collieries, as well as the locations of their shafts, was identified during archaeological monitoring in the early 1990s, and the remains of several other nineteenth-century collieries are known within and in close proximity to the present study area (*op cit*, 35-36).
- 1.3.6 The expansion of coal mining in the area led to the establishment of other industries, making use of this ready supply of fuel, and the Broadmoor Chemical works was built in 1864 just to the south of the study area on land now occupied by a timber yard (GCC 2009, 33-4). The works produced a number of products, including charcoal, sugar of lead and acetate of lime. The works were closed at the beginning of the twentieth century.
- 1.3.7 The Hawkwell Brick and Tin Works was also in operation from the late nineteenth century within the western half of the site, taking advantage of the natural clay deposits within the coal measures (Parsons Brinckerhoff 2014, 35). It currently exists as Coleford Brick and Tile, producing hand-made bricks for the construction industry.
- 1.3.8 Collieries continued to be established into the twentieth century with open-cast mining in the western half of the site undoubtedly destroying the evidence for earlier mining activity. The partial built remains of the Northern United Colliery, established in 1935, survive to the present day as standing structures within the western half of the study area and are considered amongst the best examples of their type in England (*ibid*). The colliery was the last in the Forest to close in 1965, and the area has since undergone substantial landscaping activity. The extent to which landscaping has damaged or destroyed heritage assets within the areas targeted for archaeological evaluation, however, remains unknown.

2. METHODOLOGY

2.1 INTRODUCTION

2.1.1 A Written Scheme of Investigation (WSI) was submitted by Parsons Brinckerhoff in response to consultation with Gloucestershire County Council. The Written Scheme of Investigation was adhered to in full, and the work was consistent with the relevant IfA and English Heritage guidelines (Institute for Archaeologists 2008a, 2008 b, 2010; English Heritage 2006).

2.2 EVALUATION TRENCHING

2.2.1 The area under investigation has been identified as a habitat for great crested newts and dormice, both of which are recognised as European Protected Species (EPS). As such, stringent ecological constraints were placed upon the location and excavation of all of the evaluation trenches, and an ecologist was present during all machine operations, including plant movement, excavation and back-filling. While reinstatement was not specified within the agreed WSI, care was taken to ensure the separation of topsoil and subsoil during excavation and where possible the turf was re-laid over each trench.

2.2.2 Prior to excavation each location was carefully examined by a team of ecologists and excavators were moved between trenches using track mats to limit any potential damage. Similarly all spoil arising was carefully placed upon hard plastic matting prior to back-filling. No trenches were left open overnight or unattended after excavation.

2.2.3 The topsoil was removed by machine (fitted with a toothless ditching bucket) under archaeological supervision to the surface of the first significant archaeological deposit. This deposit was cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features. All features of archaeological interest were investigated and recorded

2.2.4 All trenches were excavated in a stratigraphical manner. The trench locations were determined by Parsons Brinckerhoff and positioned in areas deemed likely to encounter archaeological deposits. The position of the trenches were located accurately using a differential Global Positioning System (dGPS), with Parsons Brinckerhoff supplying topographical altitude information for each area, established with respect to Ordnance Survey datum.

2.2.5 All information identified in the course of the site works was recorded stratigraphically, using a system adapted from that used by the former Centre for Archaeology of English Heritage, with an accompanying pictorial record (plans, sections, and digital photographs). Primary records were available for inspection at all times.

2.3 ARCHIVE

- 2.3.1 A full professional archive has been compiled in accordance with the Written Scheme of Investigation, and in accordance with current IfA and English Heritage guidelines (English Heritage 2006). The paper and digital archive will be deposited in the Gloucestershire County Council Record Office on completion of the project.

3. FIELDWORK RESULTS

3.1 INTRODUCTION

3.1.1 Of the proposed 14 trenches, 12 were excavated during the course of the investigations, consistent with a 2% sample of the viable development area (Fig 2). Plans to excavate trenches 13 and 14 had to be abandoned due to issues of land access and ecological concerns, whilst Trench 15 was excavated in preference to Trench 10, which had been located within an area deemed ecologically sensitive. Each trench was excavated to a length of 10m, and varied from 1.6-1.8m wide. A summary of the results for each trench is presented below

3.2 TRENCH 1

3.2.1 Trench 1 was placed on an approximately north/south alignment, adjacent to a trackway in the north-western part of the study area (Fig 2). Due to ecological constraints, it was excavated in two halves, in order to manage the spoil within very narrow confines. The trench measured 10 x 1.8m, and was excavated to a maximum depth of 1.50m.

3.2.2 The natural subsoils were encountered at a depth of between 1.4 and 1.5m below the modern ground surface, and comprised orangey-brown broken angular bedrock brash, presumably a form of local sandstone, with lenses of gravels.

3.2.3 The natural geology was overlain by a thicker deposit of up to 0.70m of sub-angular gravels, within a loose orangey clay matrix, probably representing a colluvial natural deposit (Plate 1). This was sealed by a 0.30m thickness of dark brown / black silty clay, which contained brick fragments and residues of industrial waste, primarily fine fragments of compacted boiler clinker, or similar furnace waste. It was sealed by a 0.26m thick layer of relatively modern hardcore (Type II) rubble, used as a levelling layer below a thin layer of scrub vegetation, comprising rough turf.

3.2.4 No features of archaeological significance were cut into any of these deposits, which were also devoid of artefacts.



Plate 1: West-facing section of Trench 1

3.3 TRENCH 2

- 3.3.1 Trench 2 was placed to the south of Trench 1, adjacent to the same trackway (Fig 2), and was similarly excavated in two portions to enable spoil management. It measured 10 x 2.0m, and was excavated to a maximum depth of 1.4m below the modern ground surface.
- 3.3.2 The natural geology was exposed at a depth of 1.35m below ground level, and comprised a reddish-orange silty sand, presumably forming a significant colluvial lens above plastic clays.
- 3.3.3 The natural geology was sealed by a thick deposit of up to 0.60m of compacted dark brown / black dumped material. This was similar to that within Trench 1, and contained large fragments of broken brick, and other industrial residues. Its depth and highly compacted nature suggest that it was used to form made ground to provide a levelled area. It was overlain by a further deposit of apparently dumped material, comprising a similar thickness of broken sandstone fragments and angular gravels within a loose sandy clay matrix. This appears to represent a re-deposition of natural stratigraphy, sealing the earlier made ground, and probably forming a level bed for the extant trackway to the immediate west.



Plate 2: West-facing representative section of Trench 2

3.4 TRENCH 3

- 3.4.1 Trench 3 was placed in the south-western part of the study area, on an approximately north/south alignment, and was excavated for a length of 10.0m, and to a width of 1.8m (Fig 2).
- 3.4.2 Natural gravels and fractured sandstone brash were encountered within an orangey-brown sand/ clay matrix at a depth of only 0.90m below the modern ground surface, with a sondage excavated at the northern end of the trench establishing that the deposit was at least 0.6m thick.
- 3.4.3 A single feature was cut into these natural deposits, situated 1.9m from the southern end of the trench (Fig 3). It comprised a sub-circular feature (**301**), of approximately 0.90m diameter, which continued beneath the eastern section of the trench (Fig 3). A section was placed across the feature, and was excavated to a depth of 0.4m, at which point its base had not been determined, but further investigation would have been beyond permissible depth of the trench. The pit had steep sides and was filled with greyish-brown sandy silt (**302**).
- 3.4.4 Feature **301** seemingly represented a small pit, which was sealed with a thin lens of black silty clay that appeared to represent an industrial residue, below a further lens of similar, but greyer deposit. These were sealed with a 0.12m deposit of red sandy clay with angular sandstone fragments, again below a slightly thicker layer of similar material, but of a greyer hue. Both represent re-deposited natural soils, used to raise the ground surface, and were sealed with a thin (0.1m) deposit of fine orange gravels, which formed the upper levelling layer beneath the topsoil.



Plate 3: West-facing representative section of Trench 3, showing feature 301

3.5 TRENCH 4

- 3.5.1 Trench 4 was located in the south-western corner of the main area of trenching, on the edge of a terrace above the open-cast coal extraction site to the south (Fig 2). It was placed on an approximately north-east/south-west alignment for a length of 10m, and was excavated to a maximum depth of 2.2m.
- 3.5.2 Natural orangey gravel and sands were encountered within a sondage at the northern end of the trench (Plate 4), at a depth of 1.9m, below a modern make-up layer, containing fragments of twentieth-century plastics. This was sealed in the central 4.4m of the trench with a concrete slab (Plate 5), which appears to have represented a building platform, or possibly hard-standing yard surface, and appeared to be of mid-/late twentieth-century date, continuing beyond the limit of excavation to both the east and west. It was placed only 0.5m below ground level, and was sealed by a modern dumped material with asphalt fragments and red chippings mixed within a matrix of reddish-brown silty subsoil.



Plate 4: South-west-facing representative section of Trench 4



Plate 5: Concrete platform in Trench 4, facing south-west

3.6 TRENCH 5

- 3.6.1 Trench 5 was placed in the south-east corner of the main trenching area, to the west of a narrow track. It was placed on an approximately east/west alignment for a length of 10m, and was excavated to a maximum depth of 1.6m.
- 3.6.2 Plastic natural clay subsoils were established at a depth of only 0.74m below the modern ground surface, and was sealed in the western 3.2m of the trench by a 0.12m thickness of angular sandstone brash, which appeared to represent a colluvial wash, and was encountered at a similar position on the hill slope within Trench 6 to the north. This, and the natural clay to the east, was sealed with a 0.22m thickness of dark brown/black deposit of industrial backfill, which was relatively loose, as it contained a high percentage of clinker, as well as ceramic and glass fragments and what appeared to be automotive parts, suggesting that it was of mid-/late twentieth-century date.
- 3.6.3 The backfilled material was sealed below a 0.4m thickness of pale grey shaley clay, which had the appearance of having originally been a relatively deep natural deposit, possibly relating to the open-cast extraction to the south, prior to having been used as a backfill material containing twentieth century detritus, below a thin, 0.12m layer of turf.



Plate 6: North-facing representative section of Trench 5

3.7 TRENCH 6

- 3.7.1 Trench 6 was placed on a slightly raised level area to the north of Trench 5, and was excavated on a perpendicular alignment for a length of 10m (Fig 2). It was excavated to a maximum depth of 0.97m below the modern ground surface, where natural yellowish plastic clays were established, similar to those in Trench 5.
- 3.7.2 The natural geological deposits were sealed with a 50mm lens of reddish silty sand, below a 0.12m compacted layer of angular sandstone brash, similar to that within the western end of Trench 5 (Plate 7). This was overlain by 0.25m of black industrial material, which unlike that in Trench 5, was highly compacted, but of similar material. It was sealed with a thin, 0.15m thickness of re-deposited yellow plastic clay, with frequent small grits within its matrix, below a 0.25m depth of mid-brown silty clay subsoil and 0.15m of turf and black topsoil.



Plate 7: West-facing representative section of Trench 6

3.8 TRENCH 7

3.8.1 Trench 7 was placed in the north-eastern part of the main trenching area, perpendicular to the main road which forms the boundary of the site (Fig 2). It was excavated for a length of 10m, and to a maximum depth of 1.2m, within a sondage cut into the natural yellowish clay at the southern end of the trench. This was established at a depth of only 0.7m below the modern ground surface (Plate 8), and was sealed by a mixed deposit of dark blackish-grey mixed clay, with frequent angular stone inclusions and some brick fragments, below 0.1m of turf and topsoil.



Plate 8: East-facing representative section of Trench 7

3.9 TRENCH 8

3.9.1 Trench 8 was placed to the west of Trench 7, in a hollow to the south-east of the apparent pit-head. Natural yellowish plastic clay subsoils were established at a depth of 1.2m, above a deep deposit of mixed dark blue-grey clay overburden, representing a dumped backfill material below the topsoil and turf (Plate 9).

3.10 TRENCH 9

3.10.1 Trench 9 was placed to the north of Trench 8, and to the north-east of a capped mine shaft. Excavation of the 10m trench revealed mottled orange/yellow plastic clay at a depth of 0.90m. This was sealed with a 0.6m thickness of dark grey silty colluvium, which was less mixed than deposits elsewhere, suggesting that this part of the site had been less disturbed by recent mining activities. It was sealed with a 0.3m thickness of loose silt topsoil, creating a thicker deposit than observed in the other excavated trenches (Plate 10).



Plate 9: West-facing representative section of Trench 8



Plate 10: South-west-facing representative section of Trench 9

3.11 TRENCH 10

3.11.1 Trench 10 was not excavated, being replaced with Trench 15

3.12 TRENCH 11

3.12.1 Trench 11 comprised the first of two trenches targeted on a chemical works to the south of the main trenching area (Fig 2). It was placed on an approximately east/west alignment, and was excavated for a length of 10m, and to a maximum depth of 0.5m, where orangey-brown natural sandy clay subsoils were exposed (Plate 11). These were overlain by up to 0.35m of clean mid-brown subsoils, below a well-established 0.15m thickness of turf and topsoil.



Plate 11: North-facing representative section of Trench 11

3.13 TRENCH 12

3.13.1 Trench 12 was placed to the east of Trench 11, and was moved 6m to the west of its intended location to avoid a recent geotechnical borehole. It was placed on an approximately east/west alignment, for a length of 10m, and was excavated to a maximum depth of 1.15m, to establish the nature of the natural pale yellowish-brown silty clay subsoil. All deposits within the trench dipped gradually from west to east, towards a shallow pond to the north-east of the trench.

3.13.2 The natural clay was sealed with a 0.16m thickness of greyish-brown silty clay, which contained frequent plant roots, representing an earlier soil horizon (Plate 12). The colour of the deposit leached through grey and pale brown into that of the natural clays below. The layer was sealed with a 0.2m thickness of reddish-brown silty clay subsoil which contained a large percentage of grits and frequent fragments of twentieth-century debris, including machine-made bricks and plastics, below 0.1m of loamy clay topsoil and turf.



Plate 12: South-facing representative section of Trench 12

3.14 TRENCHES 13 AND 14

3.14.1 Trenches 13 and 14 were targeted on the course of a former railway line, which has been used subsequently as a forestry track. Excavation of the trenches was not possible, as the track was still in use at the time of the fieldwork.

3.15 TRENCH 15

3.15.1 Trench 15 was placed between Trenches 2 and 3, on an east/west alignment, and to the east of a track that formed the western boundary of the main trenching area (Fig 2). It measured 10m long, and was excavated to a maximum depth of 1.5m at its eastern end to prove the nature of the natural orangey sandy gravels established at a depth of 0.90m throughout the trench. These were sealed with a 0.15m deposit of dark brown/black silty clay, with brick fragments, representing an industrial levelling layer, below a 0.35m deposit of re-deposited plastic blue-grey plastic clay. This was sealed with a further recent levelling layer of 0.2m of compacted rubble hardcore beneath 0.2m of mixed topsoil and turf.



Plate 13: South-facing representative section of Trench 15



Plate 14: Trench 15, facing west

4. CONCLUSION

4.1 CONCLUSION

- 4.1.1 Whilst only two of the excavated trenches revealed any features of archaeological interest, the stratigraphy within the remaining trenches revealed that the area of archaeological investigation has not been subject to major ground-level changes during the latter part of coal extraction working of the site. This suggests that there is some potential for buried remains pertaining to historic coal-mining activity to survive *in-situ* across the study area. It should be noted that the precise location of the evaluation trenches was dictated to a degree by stringent ecological considerations and, in some instances, the trenches could not be targeted accurately on the footprint of heritage assets depicted on the sequence of historical mapping.
- 4.1.2 The concrete platform within Trench 4 appeared to be of a late date, and is likely to represent the final phase of coal-mining activity in the study area, but elsewhere ground level appears to have been made-up, rather than reduced. Modern topsoils and mixed re-deposited subsoils typically overlay dark, blackish deposits, characteristic of nineteenth-century industrial sites, and generally encountered as make-up layers, generally established immediately below floors, yards or open ground. It would therefore appear that the ground level associated with earlier coal-mining activity survives intact below more recent deposits, and that features relating to early coal mining may survive elsewhere within the site. Indeed, the feature identified within Trench 3 perhaps derived from this earlier phase of activity, but given its position within the trench, and its depth below present ground level, detailed investigation to establish its precise nature was not possible, and it remains uncertain whether it represented a pit or the terminus of a linear feature.
- 4.1.3 The deposits encountered within trenches 11 and 12 were characteristic of largely undisturbed agricultural land, although there was evidence within Trench 12 to suggest the ground level had been raised slightly by a dump of late twentieth-century material, rather than the area having been subject to ground-reduction works. It is likely, moreover, that these trenches were located to the north of the nineteenth-century chemical works, explaining the paucity of buried structural remains.

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ILLUSTRATIONS

FIGURES

Figure 1: Site Location Map

Figure 2: Trench Locations Map

Figure 3: Plans of Trench 3 and 4, with section through Trench 3



Figure 1: Site location

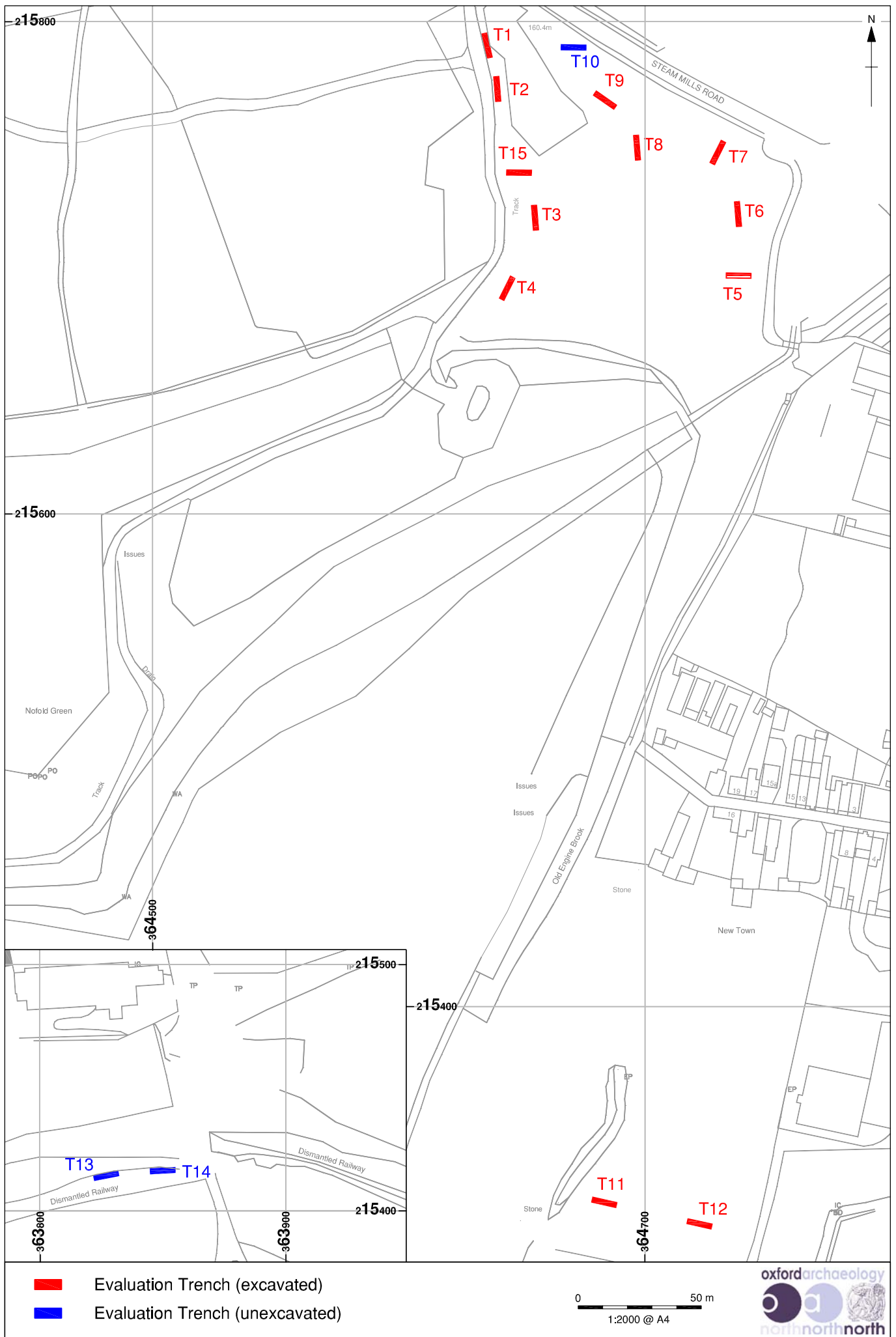


Figure 2: Evaluation trench location plan

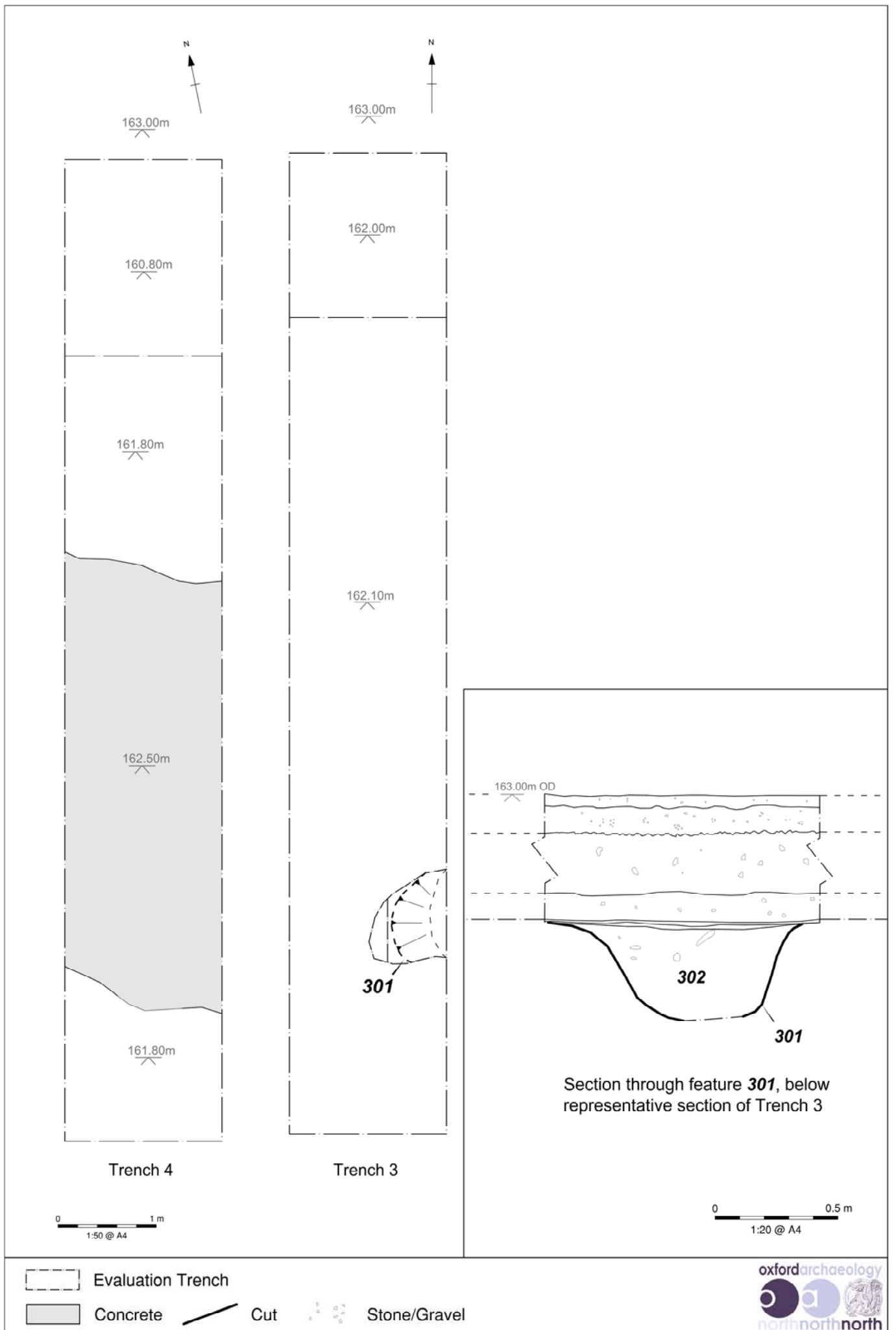


Figure 3: Plans of Trenches 3 and 4, with section through Trench 3

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