

# An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester



View looking south towards Trenches 3 and 4

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# An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester

ARS Ltd Report 2020/5



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An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester

Chronology (calendar years BC-AD)	Glacial Eras	British Archaeological Periods	Climatic Phases	Environment		
43 AD	Holocene	Roman Britain	Sub-atlantic (climatic warming)	Open landscapes with forested areas. Mixed farming widespread		
0		Iron Age				
500 BC		Bronze Age	(abrupt climatic deterioration)	Deciduous woodland clearance for agriculture		
700 BC			(climatic warming)			
800 BC			Beaker period			
1800 BC		Neolithic (advent of farming)	Sub-boreal (episodes of abrupt climatic deterioration, colder and wetter)	Last of large North Sea islands submerged		
2400 BC					Elm decline	
3800 BC			(climatic optimum)	Mixed deciduous forest (oak, elm, pine, alder, hazel and full range of trees) Increased amount of alder		
4000 BC			Atlantic			
4200 BC			(Abrupt climatic deterioration, colder and drier)	Storegga Slide tsunami Britain becomes an island		
6175 BC					Boreal	
6400 BC		Mixed forest (hazel, birch, pine, willow, heather)				
7000 BC		Preboreal (very rapid decadal warming)	Temperate forest (birch, pine, willow)			
9700 BC	Pleistocene	Palaeolithic	Arctic	Tundra		
11500 BC					Loch Lomond Stadial (known as Younger Dryas across NW Europe)	Late Upper Palaeolithic Ahrensburgian
15000 BC					Windermere Interstadial or 'Late Glacial Interstadial'	Upper Palaeolithic Creswellian/ Magdalenian
18000 BC	Devensian 'LGM' (Last Glacial Maximum)	Upper Palaeolithic	Arctic	Ice and tundra steppe		

## EXECUTIVE SUMMARY

<b>Project Name:</b>	An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester
<b>Site Code:</b>	HLW19
<b>Planning Authority:</b>	Salford City Council
<b>Planning Reference:</b>	18/72845/FUL
<b>Location:</b>	Hilton Lane, Walkden
<b>Parish:</b>	Walkden
<b>Geology:</b>	Mudstone, siltstone, and sandstone of the Pennine Middle Coal Measures Formation
<b>NGR:</b>	SD 72707 02539
<b>Date of Fieldwork:</b>	16/12/19 – 17/12/19
<b>Date of Report:</b>	December 2019

Archaeological Research Services Ltd (ARS Ltd) was commissioned by Heritage Archaeology on behalf of Bellway Homes (Manchester) to undertake archaeological evaluation trenching on land south of Hilton Lane, Walkden, Greater Manchester. The work was undertaken after consultation with Greater Manchester Archaeological Advisory Service (GMAAS) whom accepted the recommendation of a desk-based assessment prepared by TEP that a programme of targeted evaluation be undertaken within two former colliery workings depicted on historic mapping. It was recommended by GMAAS that a condition be attached to any forthcoming planning consent to secure the programme of archaeological works prior to development taking place in specified areas of the site. The proposed development comprises the erection of up to 209 dwellings, creation of open space and associated infrastructure and works.

The evaluation was undertaken between the 16<sup>th</sup> and 17<sup>th</sup> of December 2019 in accordance with an approved written scheme of works provided by Heritage Archaeology. The evaluation comprised four targeted trenches, placed to provide sufficient coverage of the areas of potential archaeological interest and to enable the assessment of the presence/absence of archaeology therein. Following completion of the trenching an agreement was reached with GMAAS to backfill the trenches, whilst discharge of the planning condition would follow the completion and approval of this report.

The evaluation revealed several areas of industrial activity related to the Burgess Land Coal Pit works. Trench 1 revealed a possible open cast mine (depicted on the 1850 and 1909 OS maps but not labelled) with several fills from the 19<sup>th</sup> century as well as some 20<sup>th</sup> century material that might have entered the backfill during capping of the feature in the 20<sup>th</sup> century. Trenches 2, 3 and 4 contained fragmentary evidence of a trackway that extended to the main pit heads from Hilton Lane to the north and then along the southern edge of the site. Trenches 3 and 4 also revealed the remains of three possible pit shafts, two of which (in Trench 4) were marked on the 1850s historic map, whilst the pit in Trench 3 was not marked on mapping but might represent further mining activity associated with the Burgess Land Coal Pits or later activity.

## 1 Introduction

### 1.1 Background and Scope of Work

1.1.1 A planning application (19/73971/FUL) was submitted to Salford City Council for a residential development comprising the erection of up to 209 dwellings, creation of open space and associated infrastructure and works on land south of Hilton Lane, Walkden, centred at NGR SD 72707 02539 (Figure 1). The application was approved with conditions.

1.1.2 Greater Manchester Archaeological Advisory Service (GMAAS) was consulted on the application and responded to Salford Council in January 2019. Their consultation response accepted the recommendation of a desk-based assessment prepared by The Environment Partnership (TEP) (Grayson 2018) that a programme of targeted evaluation be undertaken within two areas of former colliery workings depicted on historic mapping. GMAAS recommended that a condition be attached to any forthcoming planning consent to secure the archaeological programme of work.

1.1.3 Archaeology is a material consideration in the planning process. The aim of this programme of works is, in line with the *National Planning Policy Framework (NPPF)* paragraph 199 (MHCLG, revised 2019), to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publically accessible.

1.1.4 Archaeological Research Services Ltd (ARS Ltd) was commissioned to undertake the works by Heritage Archaeology in their capacity as archaeological consultants to Bellway Homes. The excavation and recording of four evaluation trenches was undertaken between the 16<sup>th</sup> and 17<sup>th</sup> of December 2019 in compliance with the approved WSI (Kelly 2019, Appendix III). The work was undertaken by Ben Dyson, Senior Projects Officer, and Elizabeth Prosser, Archaeological Officer at ARS Ltd. The project was managed by Reuben Thorpe, Head of Field Archaeology at ARS Ltd. The site was provisionally signed off following a meeting between Helena Kelly of Heritage Archaeology and Norman Redhead of GMAAS, with removal of the planning condition pending completion and approval of this report.

### 1.2 Site Location and Topography

1.2.1 The proposed development area (PDA) is bounded to the north by the railway embankment between Walkden to the east and Atherton to the west. The site is accessed from Hilton Lane in the north-east corner of the PDA whilst the eastern and southern sides are bound by a housing estate. A wooded area to the west marks the boundary between the site and agricultural land associated with Leyland's Farm. The site is centred at NGR SD 72707 02539 (Figure 1).

1.2.2 The topography of the site slopes gently from north to south, with an elevation of 74m above Ordnance Datum (AOD) in the northern part of the site and 62m AOD in the southern part of the site.

### 1.3 Geology and Soils

1.3.1 The underlying solid geology of the area comprises mudstone, siltstone and sandstone of the Pennine Middle Coal Measures Formation. This sedimentary bedrock formed approximately 310 to 318 million years ago in the Carboniferous Period when the local environment was dominated by swamps, estuaries and deltas. This is overlain by superficial deposits of Till, Devensian – Diamicton. These deposits formed up to 2 million years ago when the local environment was dominated by ice age conditions (BGS 2019).

## 2 Archaeological and Historical Background

2.1 An Archaeological Desk-Based Assessment (DBA) was compiled by TEP (Grayson 2018), which provides a detailed archaeological and historical background for the site. A brief synopsis is given below.

### **Prehistoric to Roman Periods**

2.2 There is no evidence of Prehistoric or Roman activity within the site although sites dating to these periods have been found in the wider area.

### **Early Medieval and Medieval**

2.3 Neither Worsley nor Walkden are mentioned in the Domesday Book. The earliest reference to Worsley can be found in the pipe rolls dating to 1195 and there is widespread evidence that the settlement had numerous names 1195 (Werkesleia) and 1581 (Worseley). There are records pertaining to the landholding family in Worsley from the early medieval period, including their rents and use of the land. The village and surrounding land is recorded as being used for farming, likely both pasture and arable as well as localised coal mining. Mining is evidenced in the town from 1376, records make note of tenants paying Geoffrey de Worsley '35p a year' for the right of 'feigning slack', meaning 'to remove topsoil' for open-cast mining.

### **Post-medieval**

2.4 Worsley had a boom period in the 18th century; in 1759 the Bridgewater Canal (1.25 miles south of the development site), was built by Francis Egerton, third Duke of Bridgewater. The canal was built to make it easier and cheaper for the Duke to transport coal. The development was a complex system of underground canals, something which was unparalleled at the time; these had the added advantage of draining the mines at the same time.

2.5 The canals were connected directly to Manchester, and subsequently enhanced Worsley's economy. The barges could carry thirty tons of coal at a time, which is more than ten times the weight which could be pulled by a horse and cart. This drastically reduced the price of coal, and also led to at least three hundred more coal pits being sunk in Worsley. One such pit was the Burgess Land Coal Pit.

2.6 The site of the Burgess Land Coal Pit, located within and just beyond the southern boundary of the PDA, was operating before 1837 and is recorded as having '*two men on the surface and 35 men and boys underground*'. The pit used a 24" steam engine for pumping and winding and ventilation was by furnace. The pit was closed in 1887 as the need for coal declined.



### **Previous archaeological works**

2.7 Prior to proposed residential developments immediately to the east and south of the PDA, a topographical and geophysical survey was undertaken that recorded earthworks and archaeological anomalies likely associated with post medieval mining in the area (Wardell Armstrong 2013a). A watching brief was undertaken (Wardell Armstrong 2013b) that monitored the machine excavation of geotechnical pits to locate mine shafts within the vicinity of Burgess Farm (immediately adjacent to the site boundary to the north-east). Archaeological remains were identified in the form of mine shafts, ventilation shafts and colliery outbuildings. An additional phase of evaluation trenching to the south of the current site boundary (Wardell Armstrong 2014) revealed undated material used to form embankments and heavily truncated brick structures, including the possible site of a former smithy. Previous unrecorded post medieval mining activity was also recorded to the east of the site.

## **3 Aims and Objectives**

3.1 The aim of the evaluation, as stated in the project Written Scheme of Investigation (WSI) (Kelly 2019, Appendix III), was to confirm the presence/ absence of archaeology within the site, characterise the nature and significance of any present archaeology, and propose future mitigation that could be implemented should surviving archaeology of local or regional interest be identified within the site.

## **4 Method Statement**

### **4.1 Introduction**

4.1.1 The methodology for the evaluation is outlined in the WSI (Kelly 2019, Appendix III) and has been summarised here.

### **4.2 Coverage**

4.2.1 Four 30m x 2m trenches were excavated in positions determined by features depicted on the first edition 1:10,560 Ordnance Survey map of 1850 and in consultation with GMAAS (Figure 3).

### **4.3 Standards**

4.3.1 The archaeological evaluation was undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2014a) and *Standards and Guidelines for Archaeological Evaluations* (2014b).

4.3.2 A risk assessment was undertaken before commencement of the work. Health and Safety regulations were adhered to at all times.

### **4.4 The Evaluation**

4.4.1 Trenches were sited in accordance with a pre-agreed trench plan using a Leica Smartrover GPS to a tolerance of 0.025m. The same GPS was later utilised to survey features encountered during the evaluation, giving X (eastings), Y (northings) and Z (elevation) values.

4.4.2 Each trench was opened using a 360° tracked mechanical excavator fitted with a wide toothless ditching bucket under continuous archaeological supervision. Excavation was undertaken in spits to the first archaeological/natural horizon.

4.4.3 Each trench was cleaned by hand to maximise the potential of exposing archaeological features.

4.4.4 All trenches were tied into the National Grid with spot heights calculated in metres above Ordnance Datum (aOD).

## **5 Description and Results**

### **5.1 Introduction**

5.1.1 The results of the evaluation trenching are discussed based on empirical observations made in the field. A site plan showing the monitored areas overlain onto modern mapping can be seen in Figure 2; figures referred to in this report are presented in Appendix I, and a summary table of all encountered contexts is presented in Appendix II.

### **5.2 Trench 1**

5.2.1 Trench 1 was excavated from west to east in the northern part of the site and located to target an elongated, tapering linear feature depicted on the first edition OS map of 1850 (Figure 3).

5.2.2 The trench was excavated through 0.25m of dark brown topsoil consisting of silty clay with numerous coal fragments, ash and clinker inclusions (101) and up to 0.3m of grey-brown silty clay subsoil with occasional brick and coal fragments, revealing the upper horizon of clean, undisturbed till (103) at a depth of c.0.6m to 0.65m from the modern surface.

5.2.3 A distinct, straight-edged cut [104] was encountered 8.87m from the western end of the trench. The other side of this feature was much more diffuse and was encountered 10.65m further east. The width of the feature corresponds with the mapping data (Figure 3) and it probably represents the remains of an open-cast mining pit that extended into the site from the north (Figure 4).

5.2.4 In plan the feature had a number of distinct fills and two bands of clay used as capping material. Fills (105) and (107) were almost black in colour, containing a high proportion of coal fragments, ash, clinker and brick fragments as well as modern plastic and metal waste. It is likely that the modern waste was incorporated into the upper portion of the fill when the pit was capped-off with clay deposit (106) some time in the 20<sup>th</sup> century. Fill (109) against the western cut of the pit did not contain modern waste and was separated from fill (107) by another band of clay capping material (108).

5.2.5 A sondage was excavated through the central portion of the pit in order to determine its depth and to reveal any further fills. Excavation revealed that the modern waste was only spread across the very top of the pit and that fills (105), (107) and (109) were all composed of the same material. The pit had a depth of 1m and the base was formed of natural clay substrate (103), encountered at c.68.4m aOD. Discolouration of the clay at the base of the deposit is either from contact with the waste that was filling the pit but could also derive from remnant coal deposits within the geology.

### **5.3 Trench 2**

5.3.1 Trench 2 was excavated from south-east to north-west in the south-eastern corner of the site, located to target a portion of the trackway that led from Hilton Lane along the northern edge of the site towards the pit heads of the Burgess Land Coal Pits depicted on the first edition OS map of 1850 (Figure 6).

5.2.2 The trench was excavated through 0.25m of dark brown topsoil consisting of silty clay with numerous coal fragments, ash and clinker inclusions (201) and up to 0.3m of grey-brown silty clay subsoil (202) with occasional gravel inclusions. A layer of much darker silty clay (204) was found beneath the subsoil across the length of the trench that contained frequent small fragments of coal, ash and clinker. This deposit had a uniform depth of 0.2m and is likely to represent an intentional deposit of capping or levelling material over the top of the former ground surface (Figure 7).

5.2.3 Removal of deposit (204) revealed the upper horizon of natural clay till (203) which was frequently disturbed by land drains at a depth around c.0.7m below ground level. Drains (205), (212) and (213) consisted of sections of ceramic pipe (3" diameter) laid within narrow slot trenches and backfilled with clay, whilst drain (206) is likely to have been formed of sandstone capping stones laid across two parallel sides of smaller stones, but this had collapsed and was no longer functioning. A much larger drain (211) was observed at the south-east end of the trench that was found at a similar depth below ground level as the other drains but laid within a wide construction cut [210]. It is probable that this is a carrier drain that runs along the southern edge of the field, linking up the smaller feeder-drains.

5.2.4 The only archaeological feature was represented by a very shallow surface formed of compacted brick, slate and stone fragments towards the south-eastern end of the trench. This surface (209) had a maximum depth of 0.14m, pushed into the upper horizon of the natural clay till substrate (Figure 8). At its maximum extent the surface had a width of 6.2m, and this is comparable with the width of the trackway depicted in this area on the 1850s OS map (Figure 6). When overlaid onto the mapping data the surface only partially overlies the very northern edge of the trackway, but it is likely that they are the same feature. An area of compacted and discoloured clay alongside the trackway (207) is likely to be part of the same feature though the surface material had not survived. The surface was cut by ceramic pipe land drain (212).

### **5.4 Trench 3**

5.4.1 Trench 3 was excavated from east-north-east to west-south-west, to the west of Trench 2 along the southern edge of the site. The trench was located to target the western extent of the trackway leading from Hilton Lane in the north to the Burgess Land Coal Pit, which is visible on the historic map (Figure 9).

5.4.2 The trench was excavated through 0.35m of dark brown topsoil consisting of silty clay with numerous coal fragments, ash and clinker inclusions (301) and up to 0.18m of grey-brown silty clay subsoil with occasional brick fragments (302). The subsoil was overlying the natural clay substrate (303), and it was from this level that a number of features were identified, including four ceramic pipe land drains (304), (305), (306) and (311), two parallel-sided, modern agricultural service trenches (310) and (313).

5.4.3 At the west-south-west end of the trench, an area of disturbance (312) was encountered that resembled the compacted clay (207) of the trackway identified in Trench 2. Occasional small stones were identified that were pushed into the underlying clay substrate (303). It is likely that this deposit represents a very fragmented part of the former trackway but only the basal remnants had survived and even these were truncated by the modern agricultural trench (313) (Figure 10).

5.4.4 Towards the centre of the trench, half of a probable circular pit extended into the trench by 1.5m from the south-south-east edge (identified at 61.3m aOD). The pit has a probable diameter of c.3.7m (based on the exposed portion) and had a dark, clay silt fill that was quickly submerged by water that was entering the trench from land drain (306) further east. The pit was also truncated by agricultural service trench (310) (Figure 11). This feature is likely to represent a small pit shaft associated with the Burgess Land Coal Pits, though it is not depicted on the 1850s OS map.

## **5.5 Trench 4**

5.5.1 Trench 4 was excavated from south-east to north-west, to the west of Trench 3 along the southern edge of the site. The trench was located to target two distinct features of the 1850s OS map which are likely to represent pits or shafts of the Burgess Land Coal Pit (Figure 12).

5.5.2 The trench was excavated through 0.3m of dark brown topsoil consisting of silty clay with numerous coal fragments, ash and clinker inclusions (401). Across the southernmost 13.75m of the trench the topsoil was overlying a poorly compacted deposit of silty clay with ubiquitous fragments of mining waste contained within it (420), whilst further north the topsoil directly overlay the upper horizon of the natural clay till substrate (402) or deposits within industrial features. At the south-east end a straight-sided linear feature was observed [403], which was 1.96m wide, filled with a hard compacted deposit of bituminous material that resembled a metalled tarmac surface. In conversation with a representative of Bellway Homes whom visited the site during the evaluation, it was mentioned that a foul drain is known to cross the southern part of the site but the exact location is not marked on service plans. The feature was recorded and surveyed but not further excavated (Figure 13).

5.5.3 Less than 2m further to the north-west a compacted deposit of stony sand and clay (407) was encountered that continued for 3.4m and resembled a curving surface. In places the underlying natural substrate was visible where the deposit had not survived and a land drain (405) cut across the area on a north-east to south-west alignment. The deposit was very similar to the disturbed surface at the south-west end of Trench 3 (312) and might represent a continuation of the former trackway that led to the coal pits from Hilton Lane in the north (Figure 14), but this was not conclusive.

5.5.4 Another possible pit shaft [408] was identified less than a meter to the north-west of deposit (407), cut into the natural clay substrate (402). Unlike the black coal-rich fill of the pit in Trench 3, the fill (409) of this 2.83m wide circular feature was much paler, with a mottled brown/pink/red colour and a gravelly rather than silty consistency (Figure 15). A circular deposit of re-deposited natural (419) was observed in the top of the pit that was likely used as a capping deposit, very similar to one of the pits observed during the evaluation to the south in 2014 (Wardell Armstrong 2014). When viewed in relation to the

1850s map of the site the feature is on the northern edge of the smaller of two pit features marked within the Burgess Land Coal Pit works at the western extent of the access road.

5.5.5 A number of 20<sup>th</sup> century land drains were encountered through the central part of the trench, including a narrow 3" diameter ceramic pipe drain (411), a larger carrier drain (410) that was on the same alignment as, but further north than, the carrier drain identified in Trench 2, and a truncated 19<sup>th</sup> century brick-built culvert ((414), (415), (416)) with sandstone capping (Figure 16). The culvert sat within a construction cut [412] that cut into the natural clay substrate. It is probable that the culvert was associated with drainage around the top of a large pit or open-cast mining area identified at the north-western end of the trench.

5.5.6 The cut [417] and coal rich fill (418) of this mining area were identified just below topsoil level and were investigated by the excavation of a sondage (Figure 17). The fill was found to be 1m deep and was homogenous from below topsoil down to the natural clay base that was revealed at 60.98m aOD. When viewed in relation to the 1850s map of the site the feature is within the larger of two pit features marked within the Burgess Land Coal Pit works at the western extent of the access road.

## **6 Discussion and Conclusions**

6.1 The main aim of this evaluation was to confirm the presence/ absence of archaeology within the site, characterise the nature and significance of any present archaeology, and propose future mitigation that could be implemented should surviving archaeology of local or regional interest be identified within the site.

6.2 The evaluation revealed several areas of industrial action related to the Burgess Land Coal Pit works. Trench 1 revealed a possible open cast mine (depicted on the 1850 and 1909 OS maps but not labelled) with several fills from the 19<sup>th</sup> century as well as some 20<sup>th</sup> century material that might have entered the backfill during capping of the feature in the 20<sup>th</sup> century. Trenches 2, 3 and 4 contained fragmentary evidence of a trackway that extended to the main pit heads from Hilton lane to the north and then along the southern edge of the site. Trenches 3 and 4 also revealed the remains of three possible pit shafts, two of which (Trench 4) were marked on the 1850s historic map, whilst the pit in Trench 3 was not marked on mapping but might represent further mining activity associated with the Burgess Land Coal Pits or later activity.

6.3 The trenching has confirmed the presence of archaeology within the site boundary, but in conversation with Helena Kelly from Heritage Archaeology, Norman Redhead of GMAAS has indicated that a further phase of mitigation is necessary in order for the archaeology to be fully investigated and its significance evaluated.

## **7 Publicity, Confidentiality and Copyright**

7.1 Any publicity will be handled by the client.

7.2 ARS Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

## 8 Statement of Indemnity

8.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

## 9 Archive

9.1 Given that no material culture was recovered from the site it is not necessary to deposit a physical archive with a repository museum.

9.2 A digital and paper archive will be prepared by ARS Ltd, consisting of all primary written documents, photographs and electronic data. The archive will be deposited within two months of the completion of the report.

9.3 A full set of annotated, illustrative pictures of the site will be supplied to the Greater Manchester HER and deposited with the archive as digital images on a CD ROM.

9.4 An OASIS online record <http://ads.ahds.ac.uk/project/oasis/> has been initiated and completed for this work and all parts of the OASIS online form completed for submission to the HER. This will include an uploaded pdf version of the entire report (a paper copy will also be included within the archive).

## 10 Acknowledgements

ARS Ltd would like to thank Heritage Archaeology and Bellway Homes for commissioning the work. In particular we would like to thank Helena Kelly of Heritage Archaeology and Norman Redhead, Heritage Management Director (Archaeology) at GMAAS for their advice and assistance during the project.

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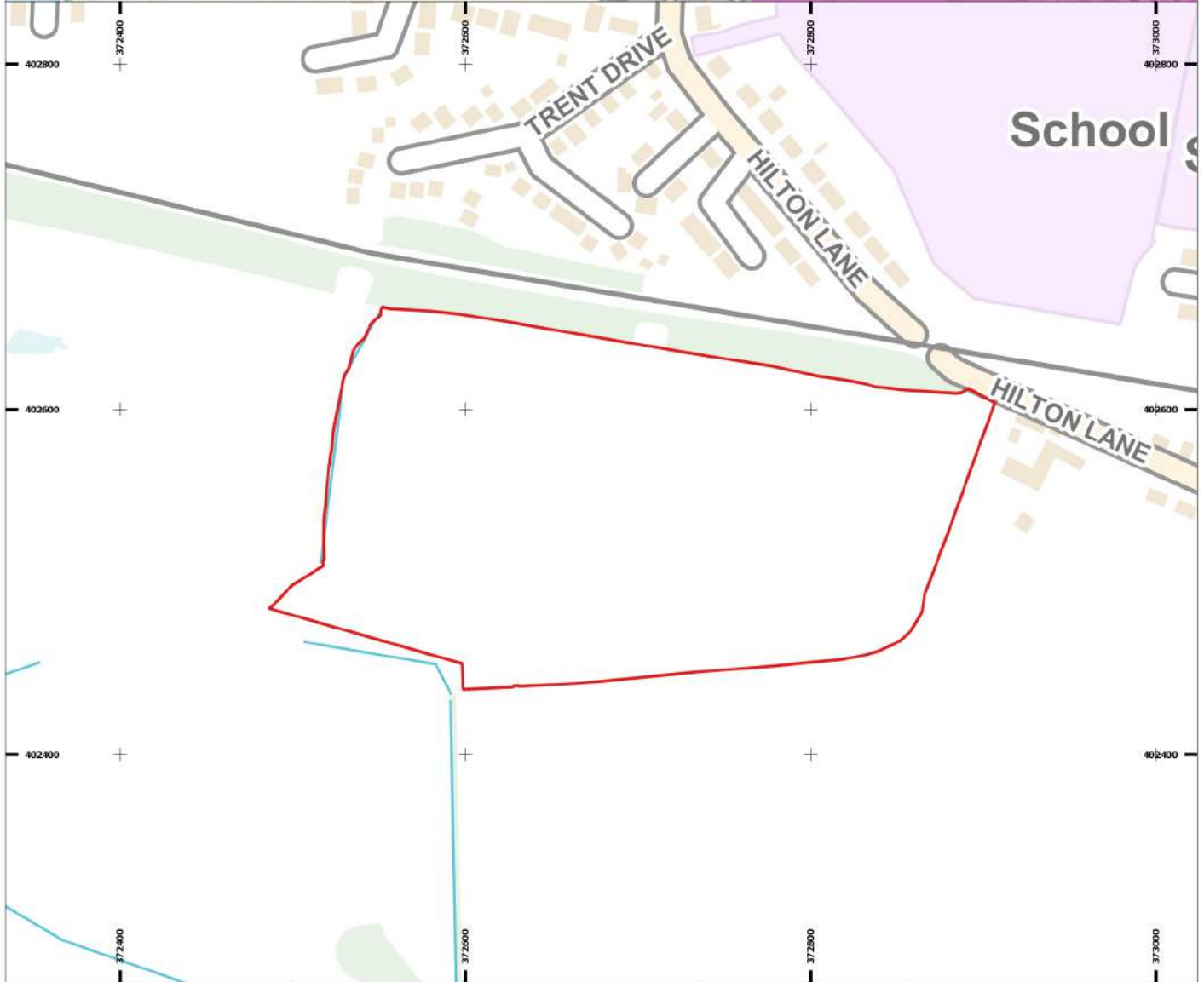
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## **APPENDIX I: Figures**





Site name: Hilton Lane, Walkden  
 Date: December 2019  
 Drawn by: BD  
 Scale: Varies

-  Site Boundary
-  Salford District

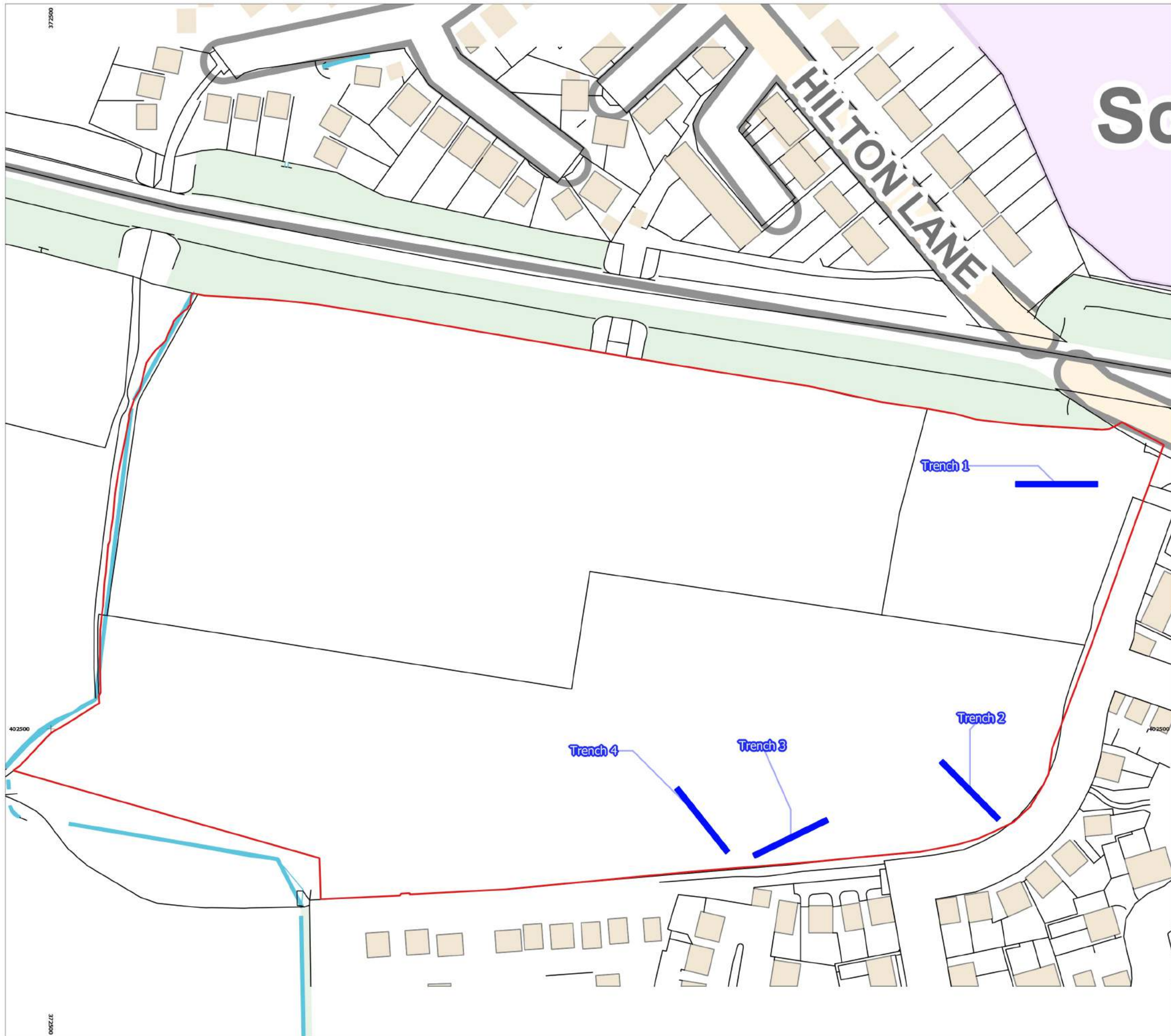


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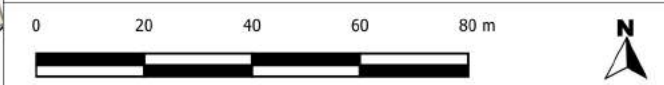
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**Figure 1:**  
**Site location**



**Figure 2: Trench Location Plan**

- Site Boundary
- 30m x 2m Trench



Site name: Hilton Lane, Salford  
 Date: December 2019  
 Drawn by: MB  
 Scale: 1:1400 @ A3

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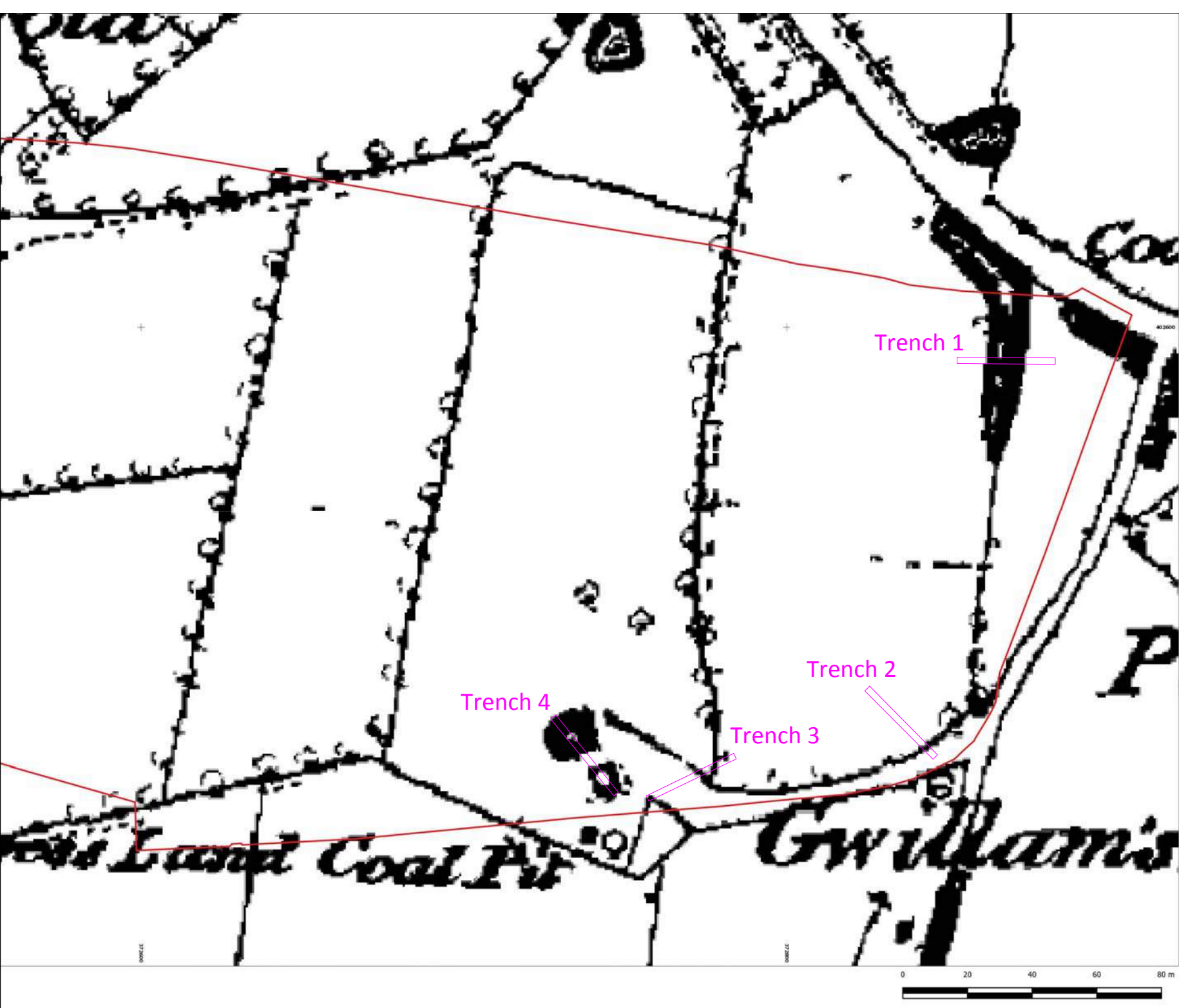


Figure 3.  
Trench location plan overlain onto the  
1st Edition 1:10,560 OS map, 1850  
Scale: As shown.

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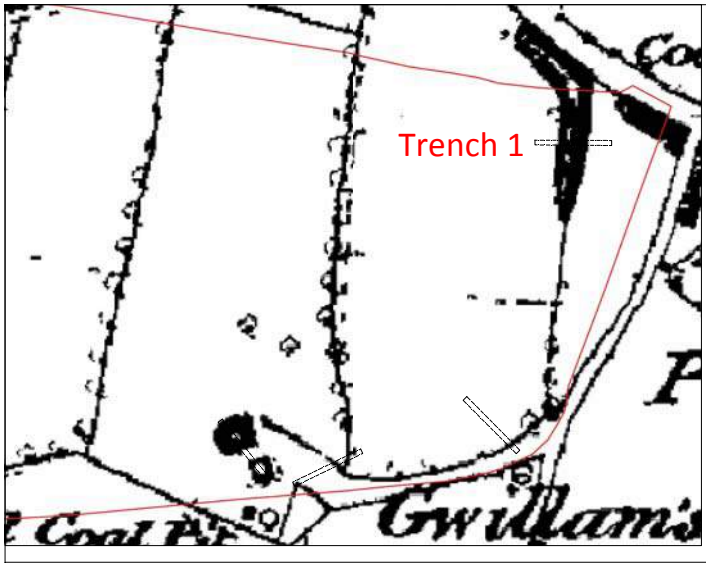



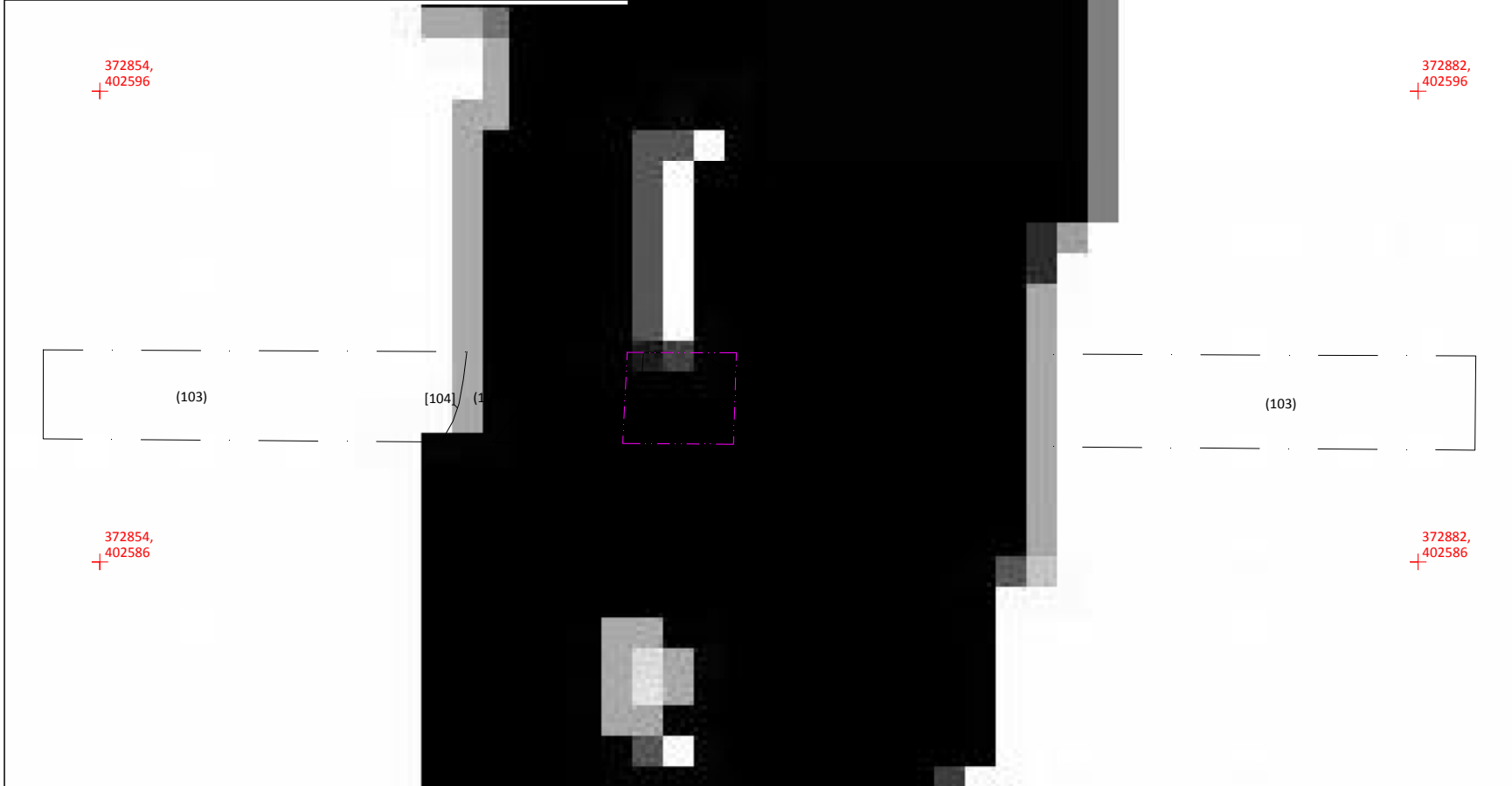
Figure 4.

Trench 1 plan, overlain onto the  
1st Edition 1:10,560 OS map, 1850.

Scale: As shown.

Key:

 Approx. location of investigative  
sondage through industrial  
deposits



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Figure 5. Trench 1 looking E. Edges of the open cast pit [104] are marked in red. Scale 2x2m.



Figure 6. Sondage through open cast pit [104] showing variable depth of capping clay deposit (108) and a natural clay base. Scale: 2m.

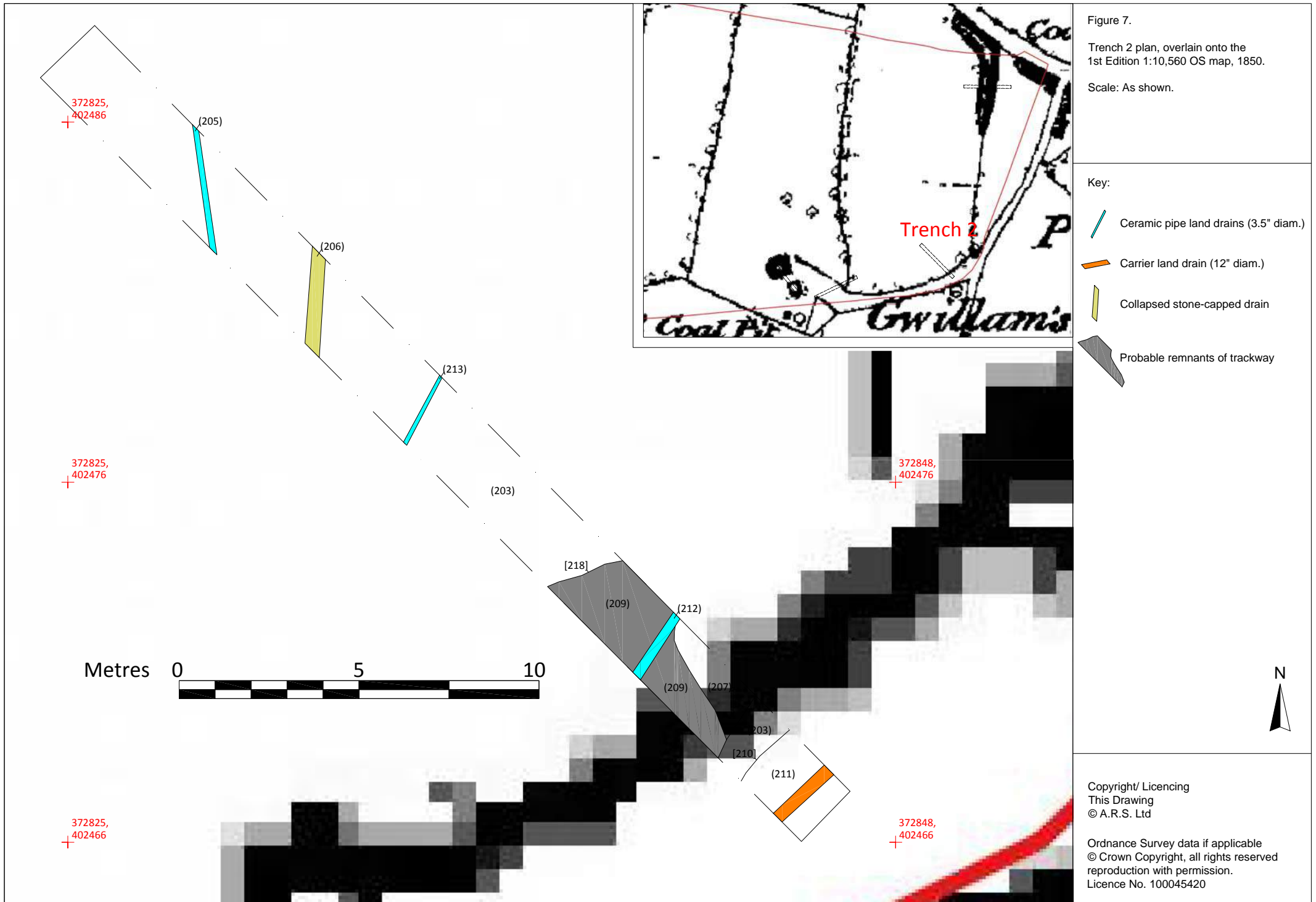






Figure 7.

Trench 2 plan, overlain onto the 1st Edition 1:10,560 OS map, 1850.

Scale: As shown.

Key:

-  Ceramic pipe land drains (3.5" diam.)
-  Carrier land drain (12" diam.)
-  Collapsed stone-capped drain
-  Probable remnants of trackway

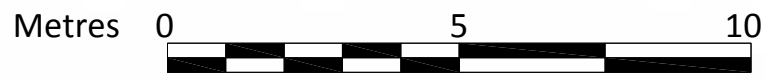




Figure 8. Trench2 looking SE. Land drain (205) visible towards the near end. Capping deposit (204) visible as the lowest band of deposits in each section. Scale: 2x2m.



Figure 9. SE end of Trench 2 showing fill of carrier drain (211) and probable trackway surface (209)/(207). Scale: 2m.

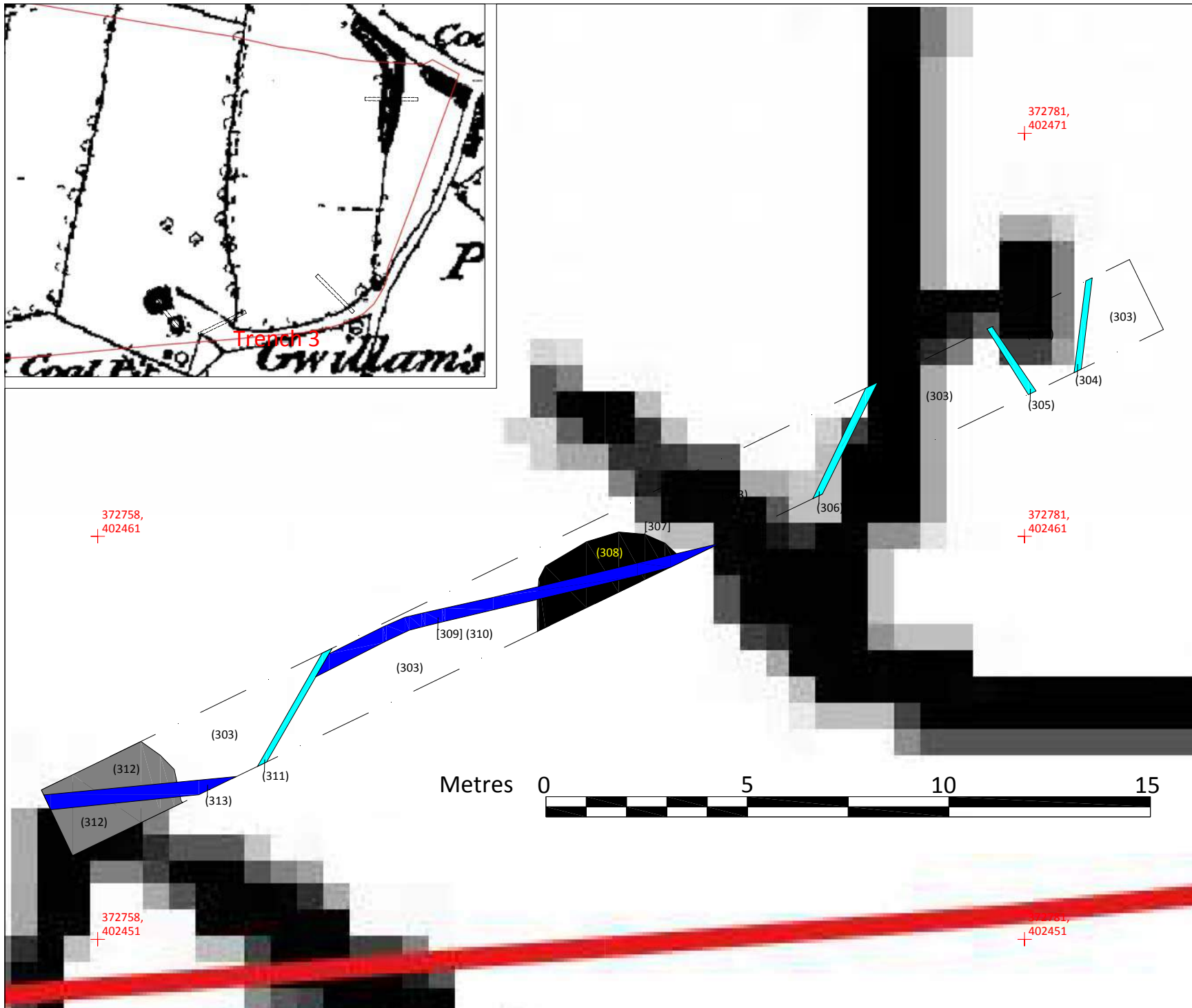






Figure 10.  
Trench 3 plan, overlain onto the  
1st Edition 1:10,560 OS map, 1850.  
Scale: As shown.

- Key:
-  Modern agricultural/service trenches, machine-cut
  -  Ceramic pipe land drains (3.5" diam.)
  -  Possible small coal extraction pit/shaft
  -  Probable remnants of trackway

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Figure 11. Trench 3, looking ENE. Remnants of former trackway (312) visible in the foreground, truncated by agricultural service trench (313). Scale: 2x2m.



Figure 12. Pit/shaft [307], truncated by modern trench (310), looking W. Scale 2x2m.

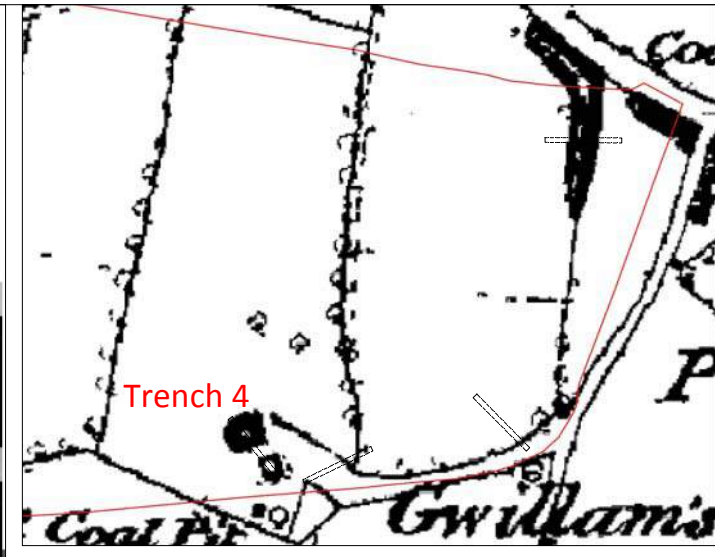
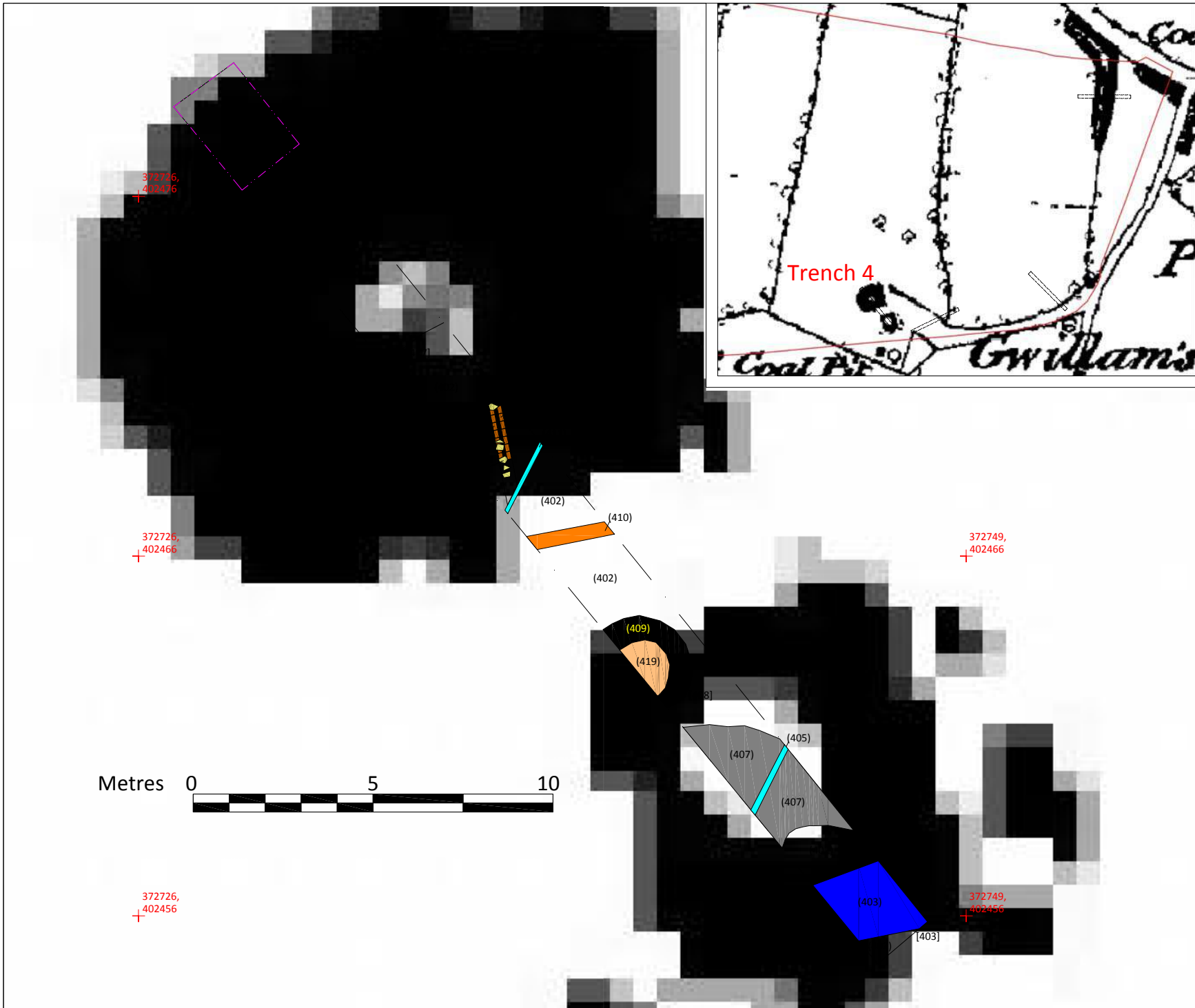









Figure 13.  
Trench 4 plan, overlain onto the  
1st Edition 1:10,560 OS map, 1850.  
Scale: As shown.

- Key:
-  Approx. location of investigative sondage through industrial deposit
  -  Brick-built and stone capped drain
  -  Ceramic pipe land drains (3.5" diam.)
  -  Carrier land drain (12" diam.)
  -  Possible coal extraction pit with clay capping
  -  Probable remnants of trackway
  -  Probable modern service trench, machine-cut



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Figure 14. Trench 4 looking NW. Probable modern backfilled trench [403] in the foreground. Scale: 2m.



Figure 15. Remnants of possible former trackway (407) with a distinct curve on the southernmost edge. Identified beneath waste deposit (420). Scale: 2m.



Figure 16. Possible pit/shaft [408] (outline scored-in for clarity), looking SW. Scale: 2m.



Figure 17. 19<sup>th</sup> century brick-constructed culvert with sandstone capping, laid within construction cut [412], truncated by ceramic land drain (411). Scale: 2m.



Figure 18. Sondage through pit/open cast area [417] showing uniform depth of coal-rich fill (418) and a natural clay base. Scale: 2m.

## **APPENDIX II: Context Summary Table**

Trench	Context	Type	Description / Interpretation	Max. heights in m (aOD)	Max. exposed dimensions: (D) depth, (W) width, (L) length, (H) height, (Diam.) diameter
1	101	Deposit	Dark grey brown, clayey silt. Loose and disturbed where recent sprawling vegetation has developed root systems. Tufty, stubbly outcroppings of turf and weeds distributed across site, large quantities of industrial coal waste / <b>Topsoil</b>	69.7m	(L) 30.41m (W) 2m (D) 0.25m
	102	Deposit	Mid greyish brown, moderately compacted. Clayey silt. Some small stone and brick fragments/ <b>Subsoil</b>	69.45m	(L) 30.41m (W) 2m (D) 0.3m
	103	Geology	Light yellow brown. Compacted over time sandstone inclusions/ <b>Natural substrate</b>	69.15m	(L) 30.41m (W) 2m
	104	Cut	Possible pit head/open cast area, straight edge on eastern edge, western edge is diffuse. Filled by (105, 107, 109) / <b>Opencast mining pit</b>	69.48m	(L) 10.6m (W) >2m
	105	Fill	Fill of [104]. Dark brownish grey, clayey silt. High energy backfill filled with refuse-brick, plastic, metal. Similar to (107)/ <b>Backfill of opencast area</b>	69.48m	(L) 0.26m-1.8m (W) 2m
	106	Deposit	Mid brownish grey, silty clay capping deposit. Small stone inclusions/ Overlies (105) and (106). / <b>Capping deposit</b>	69.49m	(L) 1.3-4.9m (W) 2m
	107	Fill	Fill of [104]. Dark brownish grey, clay silt, high energy backfill filled with refuse-brick, plastic, metal. Similar to (105)/ <b>Backfill of opencast area</b>	69.4m	(L) 1.5m (W) 2m
	108	Deposit	Mid brownish grey, clay capping deposit. Overlies (105) and (105) / <b>Capping deposit</b>	69.52m	(L) 2.7m (W) 2m
	109	Fill	Fill of [104], dark brownish grey, clayey silt, high energy back fill with large amounts of 19 <sup>th</sup> century brick/ <b>Backfill of opencast area</b>	69.51m	(L) 1.3m (W) 2m
2	201	Deposit	Dark grey brown, clayey silt. Loose and disturbed where recent sprawling vegetation has developed root systems. Tufty, stubbly outcroppings of turf and weeds distributed across site, large quantities of industrial coal waste / <b>Topsoil</b>	63m	(L) 29.91m (W) 2m (D) 0.25m
	202	Deposit	Light brownish grey, clayey silt, gravel inclusions / <b>Subsoil</b>	62.75m	(L) 29.91m (W) 2m (D) 0.3m
	203	Geology	Light yellowish grey, clay, compact with small stone inclusions / <b>Natural substrate</b>	62.62m	(L) 29.31m (W) 2m
	204	Deposit	Light yellowish brown, clay with small stone inclusions. Mottled with dark brown. Sat above (208) / <b>Deposit</b>	-	(L) 29.31m (W) 2m (D) 0.2m
	205	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	62.15m	(L) 3.4m (W) 0.15m
	206	Drain	Collapsed and redundant stone capped culvert or drain / <b>Land drain</b>	62.8m	(L) 2.7m (W) 0.4m
	207	Deposit	Light yellowish brown, clay capping deposit/ <b>Deposit</b>	-	(L) 29.31m (W) 2m
	208	Cut	Cut of large depression associated with coal mining activities most likely remains of trackway onto the site. Diffuse edges but roughly linear. Filled by (209)/ <b>Trackway</b>	62.27m	(L) 6.19m (W) 2m
	209	Fill	Fill of [208], dark red/purple brown, it appears	62.36m	(L) 6.19m

Trench	Context	Type	Description / Interpretation	Max. heights in m (aOD)	Max. exposed dimensions: (D) depth, (W) width, (L) length, (H) height, (Diam.) diameter
			to be a mixture of brick and stone crush/ <b>Trackway</b>		(W) 2m (D) 0.14m
	210	Cut	Construction cut for the laying of a large drainpipe/ <b>Drain</b>	61.92m	(L)1.9m (W) 2.3m (D) 0.9m
	211	Drain	<b>Carrier drain</b>	61.92m	(L)1.9m (W) 2.3m (D) 0.9m
	212	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	62.4m	(L) 1.96m (W) 0.27m
<b>3</b>	301	Deposit	Dark grey brown, clayey silt. Loose and disturbed where recent sprawling vegetation has developed root systems. Tufty, stubbly outcroppings of turf and weeds distributed across site, large quantities of industrial coal waste / <b>Topsoil</b>	61.73m	(L) 30m (W) 2m (D) 0.08m
	302	Deposit	Mid greyish brown, moderately compacted. Clayey silt with stone and brick fragments/ <b>Subsoil</b>	61.65m	(L) 30m (W) 2m (D) 0.18m
	303	Geology	Mid brownish grey mottled brown and grey, clay with small to medium stone inclusions/ <b>Natural substrate</b>	61.47m	(L) 30m (W) 2m
	304	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	61.58m	(L) 2.27m (W) 0.15m
	305	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	61.55m	(L) 1.92m (W) 0.17m
	306	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	61.51m	(L) 3.06m (W) 0.18m
	307	Cut	Cut of circular feature partially hidden by LOE. It has diffuse edges, truncated by [309]. Possible pit shaft associated with coal mining activity filled by (308) / <b>Pit shaft</b>	61.29m	(L) 4m (W) 1.48m
	308	Fill	Fill of [307], dark greyish brown, clayey silt. Truncated by [309]. High energy back fill to seal shaft after disuse / <b>Pit shaft</b>	61.29m	(L) 4m (W) 1.48m
	309	Cut	Cut of linear straight edged trench filled by (310). Truncates [307] (308) / <b>Drain</b>	61.36m	(L) 10m (W)0.3m
	310	Fill	Light brownish grey, clay, part of the backfill from [309] / <b>Drain</b>	61.36m	(L) 10m (W)0.3m
	311	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	61.39m	(L) 3.24m (W) 0.14m
	312	Deposit	Mid yellowish brown, clay silt, possible dump of material/ <b>Deposit</b>	61.29m	(L) 2.89m (W) 1.81m
	313	Drain	Ceramic pipe laid in straight sided cut / <b>Land drain</b>	61.28m	(L) 4.24m (W) 0.36m
<b>4</b>	401	Deposit	Dark grey brown, clayey silt. Loose and disturbed where recent sprawling vegetation has developed root systems. Tufty, stubbly outcroppings of turf and weeds distributed across site, large quantities of industrial coal waste/ <b>Topsoil</b>	61.64m	(L) 30 (W) 2m (D) 0.3m
	402	Geology	Mid reddish brown, moderately compacted. Clayey sand, some stone inclusions / <b>Natural substrate</b>	61.34m	(L) 30 (W) 2m
	403	Cut	Cut of linear feature at south end of trench. Very	61.3m	(L) 2.08m



Trench	Context	Type	Description / Interpretation	Max. heights in m (aOD)	Max. exposed dimensions: (D) depth, (W) width, (L) length, (H) height, (Diam.) diameter
			straight edges, filled by (404). Modern trench/ <b>Modern service trench</b>		(W) 1.96m
	404	Fill	Black tarmac-like surface, heavily compacted, fill of [403] / <b>Backfill or surface</b>	61.3m	(L) 2.08m (W) 1.96m
	405	Drain	Land drain which truncates [406] and (407) / <b>Drain</b>	61.23m	(L) 2.04m (W) 0.16m
	406	Cut	Cut of possible trackway related to coal mining activities? Irregular shape and truncated by (405) land drain / <b>Trackway</b>	61.23m	(L) 3.97m (W) >2m
	407	Fill	Mid reddish grey, clayey/sandy silt mottled with grey, red, brown. Some stone inclusions. Fill of [406] / <b>Trackway</b>	61.23m	(L) 3.97m (W) >2m
	408	Cut	Cut of circular pit shaft filled by (409) with a clay capping deposit in the centre (419) / <b>Pit shaft</b>	61.2m	(L) 2.84m (W) NA
	409	Fill	Fill of [408] pit, mottled colour (Brown, red, pink) compacted with gravel inclusions. Capped by deposit (419). High energy back filling event after disuse of shaft/ <b>Pit shaft</b>	61.2m	(L) 2.84m (W) NA
	410	Drain	Large drain/ <b>Carrier drain</b>	61.56m	(L) 2.19m (W) 0.4m
	411	Drain	Land drain/ <b>Land drain</b>	61.53m	(L) 2.11m (W) 0.12m
	412	Cut	Construction cut for brick lined drain. Vertical edges and a flat base, filled by [412]/ <b>Drain</b>	-	(L) 3.2m (W) 0.35m
	413	Fill	Fill of [412], light yellow grey, clay, no inclusions, runs N-E/ <b>Drain</b>	61.5m	(L) 3.2m (W) 0.35m
	414	Structure	E wall of drain, handmade red bricks, 1 course, 1 skin, no mortar. Brick size (L 8 ½ "/W 5 "/ D 2")/ <b>Drain</b>	61.5m	(L) 1.49m (W) 0.12m
	415	Structure	W wall of drain, handmade red bricks, 1 course, 1 skin, no mortar. Brick size (L 8 ½ "/W 5 "/ D 2")/ <b>Drain</b>	61.5m	(L) 1.49m (W) 0.12m
	416	Structure	Sandstone capping for brick lined drain. Stone sizes vary but roughly (L 20" W 10" D 5")/ <b>Drain</b>	61.52m	(L) 1.49m (W) 0.12m
	417	Cut	Cut of potential large pit, only one straight edge is visible. Possibly associated with coal mining activities. Filled by (418)/ <b>Pit</b>	61.52m	(L) 9.2m (W) 2m
	418	Fill	Fill of [417]. Dark brownish grey, clay silt, little inclusions. Possible waste material deposited in high energy event related to mining activity/ <b>Pit</b>	61.52m	(L) 9.2m (W) 2m
	419	Deposit	Light yellow brown, clay capping deposit. Sat over (409) pit/ <b>Pit shaft</b>	61.14m	(L) 1.6m (W) 0.93m
	420	Deposit	Mixed grey, black, white, yellow, brown deposit formed predominantly of silty clay but with ubiquitous mining waste inclusions. Found directly beneath topsoil across the southern half of the trench/ <b>Contaminated subsoil</b>	61.34m	(L) 13.75m (W) 2m (D) 0.25m

## **APPENDIX III: Written Scheme of Investigation**

**Written Scheme of Investigation for a  
Programme of Archaeological Work**

**Land at Hilton Lane, Walkden,  
Salford, Greater Manchester**



**March 2019**

Client	Bellway Homes Limited (Manchester)	
Site name	Land at Hilton Lane, Walkden, Greater Manchester	
Report type	Written Scheme of Investigation	
Report reference	P100021.01.1	
Report date	26 March 2019	
Prepared by	Helena Kelly, BSc, MIFA	
	Heritage Archaeology Harborough Innovation Centre Airfield Business Park, Leicester Rd, Market Harborough LE16 7WB	
Revision history	V2.0	Updated to include protection of area of potential archaeological interest
	V1.0	Client draft



### Summary

Heritage Archaeology was commissioned by Bellway Homes Limited (Manchester) to provide a written scheme of investigation for a programme of archaeological work for a proposed housing development site at Hilton Lane, Walkden, Worsley. Consultation with Greater Manchester Archaeological Advisory Service has confirmed that a trenched evaluation is required to investigate and characterise potential archaeology at the site. Known heritage assets within the development site relate to former 19<sup>th</sup> coal pits. The programme of work outlined below aims to confirm the presence/ absence of archaeology within the site, characterise the nature and significance of any present archaeology, and proposes future mitigation that could be implemented should surviving archaeology of local or regional interest be identified within the site.

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# 1 Introduction

- 1.1. Bellway Homes Limited (Manchester) has an interest in land at Hilton Lane, Walkden for the purpose of a proposed housing development. Heritage Archaeology has been commissioned to provide a written scheme of investigation for a programme of archaeological works in relation to their proposed development.

## Site location

- 1.2. The site is located at Hilton Lane, Walkden, M28 0TQ, national grid reference (NGR) SD7272,0257. The relevant HER is held by Greater Manchester Archaeological Advisory Service (GMAAS).

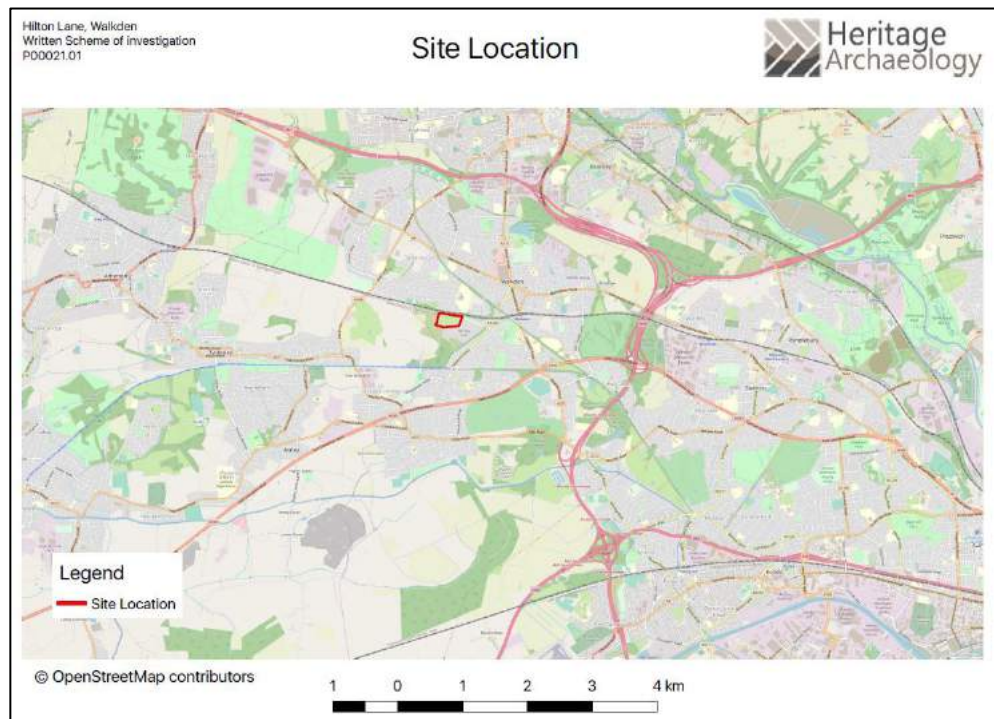


Figure 1: Site location

## Planning background

- 1.3. A full planning application (reference 18/72845/FUL) was submitted to Salford City Council in 2018. The application has not yet been determined.
- 1.4. Greater Manchester Archaeological Advisory Service (GMAAS) has been consulted on the application and responded to Salford Council in January 2019. Their consultation response accepted the recommendation of a desk-based assessment prepared by TEP (TEP, 2018) that a programme of targeted evaluation be undertaken within two areas of former colliery workings depicted on historic mapping. GMAAS recommended that a condition be attached to any forthcoming planning consent to secure the archaeological programme of work.

## **Aims of the assessment**

- 1.5. The following programme has been designed to address the consultation advice provided by GMAAS by setting out a method for archaeological evaluation, a programme of investigation (archaeological excavation) and a programme of post excavation assessment, analysis and publication commensurate to any findings on site.
- 1.6. The programme of work specifically aims to identify any archaeological deposits or features that may be present within the area of the proposed ground disturbance, where the potential for the survival of archaeological evidence is predicted to be high.
- 1.7. The programme of work is designed to then allow for the scope of any necessary further archaeological mitigation to be designed and undertaken. This approach is in accordance with paragraph 199 of the National Planning Policy Framework (NPPF).
- 1.8. The research objectives of the programme of work will be determined by what, if any, archaeological remains are present within the development footprint. However, subsequent assessment and analysis will be in accordance with the research outlined in the Archaeological Research Framework of the North-West of England.

## 2 Operational matters

### Regulatory requirements

#### *The National Planning Policy Framework (NPPF), 2018*

- 2.1. Paragraph 199 states that "*local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible*". The condition attached to planning consent, and this corresponding WSI, conform with this policy provision of the NPPF.

### Best practice and guidance

- 2.2. The guidance most relevant to this WSI is provided in:
- Chartered Institute for Archaeologists 2014, Standard and Guidance for; Archaeological Field Evaluation, Archaeological Excavation, Archaeological Watching Brief and the Collection, Documentation and Research of Archaeological Materials and for commissioning work on, or providing consultancy advice on, archaeology and the historic environment,
  - Historic England, 2015 Management of Research Projects in the Historic Environment (MoRPHE).
  - English Heritage, 2011, Environmental Archaeology, A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)
  - Historic Environment Good Practice Advice in Planning 2, Managing significance in decision-taking in the historic environment, Historic England, 2015
- 2.3. Historic England, in GPA2 (pages 11-13), provides advice on the content of Written Schemes of Investigation, archaeological conditions, reporting, publication and archiving, and unexpected discoveries during work.

### Monitoring

- 2.4. The implementation of the works outlined in this WSI will be monitored by the Senior Planning Archaeologist at GMAAS, adviser to the local planning authority (LPA). GMAAS will be kept up to date with progress during all phases of the archaeological works.
- 2.5. All archaeological fieldwork will be undertaken by a suitably qualified organisation, working under the direction of a full Member of the Chartered Institute for Archaeologists, or equivalently qualified project director.



## Programme

2.6. It is anticipated that the works will happen in accordance with the following programme:

- February/ March 2019 - submit WSI for approval by GMAAS
- Archaeological trial trenching (up to 5 days allowance on site)
- Interim reporting/ consultation with GMAAS
- Archaeological excavation (if required)
- +8 -12 weeks - report
- +6 months - deposition of archive

### *Timing/ Phasing of Implementation Works*

2.7. The timing/ phasing of the archaeological work is as follows:

- June 2019 – pre-determination trial trenching
- July 2019 – interim report to GMAAS and updated WSI, if required
- July 2019 – determination of planning application
- Prior to commencement of any main or early works construction programme – implementation of any archaeological recording identified as necessary by the archaeological trial trenching

## Organisation and Key Personnel

2.8. The archaeological works will be undertaken by a suitably qualified archaeological contractor and will be managed by Helena Kelly, MCIfA.

## Health and Safety

2.9. All work on site would be undertaken strictly in accordance with the project health and safety plan and task specific risk assessments. All companies working on the project will adhere to the client's required quality, health, safety and environment controls.

2.10. Access routes to working areas would be specified by the client and access would only be permitted to those routes and the area of the fieldwork.

2.11. All site staff, including subcontractors and visitors, will prove that they have attended a site induction and have the necessary competencies (e.g. CITB training for machine operators) and any other necessary health and safety qualifications.

### 3 Archaeological and historic context

- 3.1. A desk-based assessment was undertaken for the outline planning application area by TEP, *TEP, 2017 (revised 2018) Historic Environment Desk-based Assessment, Hilton Lane, Worsley, unpublished report.*
- 3.2. The TEP report concluded that "*the development site was located on agricultural land to the south of the settlement of Worsley until the post medieval period when it was subjected to intense industrial activity in the form of the sinking of mining shafts for the extraction of coal and its associated infrastructure. This activity highly disturbed the landscape therefore there is negligible potential for the survival of archaeology from the prehistoric, Roman and medieval periods. There is high potential for the survival of as yet unknown assets relating to the post medieval period.*"
- 3.3. The post medieval activity referred to relates to the remains of former coal pits. Two non-designated heritage assets associated with this activity are recorded within the site; an area of three coal shafts and cropmark evidence probably associated with the storage of materials from the mining operations. Historic mapping records an area close to the southern boundary of the development site as 'Burgess Land Coal Pits', the pit head could include part of the development site. An area to the north immediately west of Burgess Farm includes a small enclosure that could also be related to the coal mining activity.
- 3.4. The first edition Ordnance Survey six-inch mapping (1:10,560, published 1850) shows Burgess Land Coal Pit to the south of the development site, with a track or tramroad from Hilton Lane to the pit head. The absence of the Pit on the first edition Ordnance Survey 1:2,500 mapping (1893) both confirms that the pit was closed by this point but also implies that it had been infilled and any above ground structures removed.
- 3.5. Burgess Land Coal Pits were in use in the early to mid-19th century and closed in 1887. The pit had a steam engine for pumping and winding and a furnace for ventilation (WA, 2013).
- 3.6. A watching brief undertaken by Wardell Armstrong in 2013 (WA, 2013) included two trenches immediately to the south of the southern boundary of the development site. A track and two backfilled mineshafts were recorded in these trenches, interpreted as being associated with Burgess Land Coal Pit.

## 4 The programme of archaeological work

### Trenched evaluation

- 4.1. The trenching will target the area of potential archaeological interest relating to Burgess Land Coal Pit located to the south of the site, and a possibly associated feature to the north of the site shown on historic mapping.

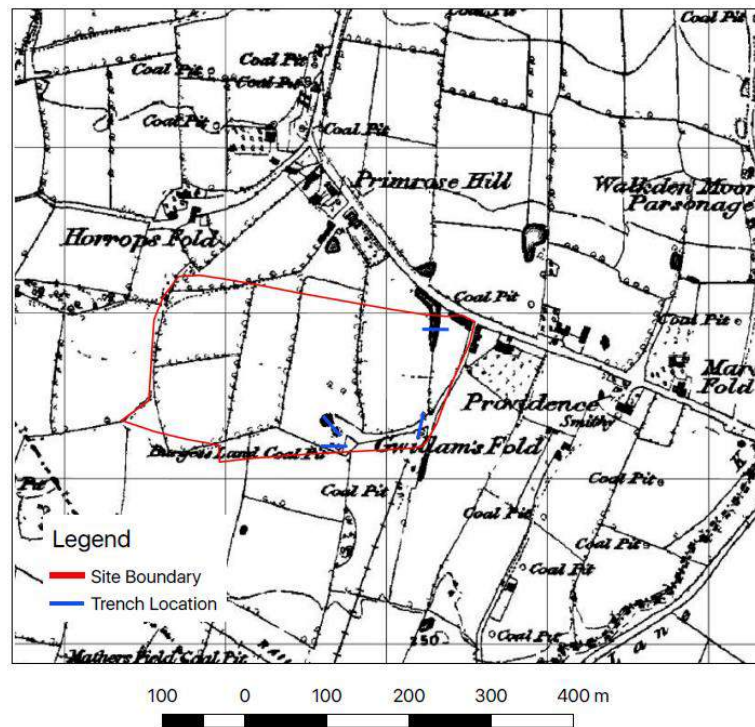


Figure 2: Trench locations shown on Ordnance Survey 1:10,560 map dated 1850

- 4.2. The trench evaluation will comprise the excavation and recording of four trenches, each measuring 30m by 2m.



Figure 3: Indicative trench locations (not to scale)

- 4.3. The four 30m x 2m trenches have been designed to adequately sample the archaeological potential of the site in order to define a sampling strategy for future mitigation in relation to the Burgess Land Coal Pit. The precise dimension and location of the proposed trenches will be confirmed on site and in consultation with GMAAS and will be located with reference to the first edition 1:10,560 Ordnance Survey map to include the annotated location of the Burgess Land Coal Pit.
- 4.4. The trenches will be mechanically excavated using a machine fitted with a toothless ditching bucket. Under instruction from the designated supervising archaeologist, the machine will operate in 'spits', removing only an appropriate amount of overburden with each action. The supervising archaeologist will give the command to stop should archaeological deposits or structures become visible. At each soil horizon change, the supervising archaeologist will indicate to the machine driver that each stratum should be stored separately.
- 4.5. Upon reaching the archaeological horizon or the natural horizon, whichever is encountered first, machine excavation will stop. Should the trenches require excavation to depths in excess of approximately 1.5m to reach archaeological horizons, the trench may require stepping or shoring, or investigation by machine sondage, rather than features being cleaned by hand. This would be confirmed in consultation with the client and GMAAS.
- 4.6. The archaeological evaluation will provide an accurate record of any archaeological and palaeo-environmental finds, features, artefacts or ecofacts identified.
- 4.7. If any such finds or features are identified, subsequent excavations will be undertaken by hand.
- 4.8. Sampling strategies will be in accordance with the archaeological sub-contractor fieldwork manual and the requirements of GMAAS.
- 4.9. A pre-excavation photo will be taken of the clean trenches. The archaeological contractor will make appropriate pre-and post-excavation site records. All finds and features will be accurately located and planned accurately at appropriate scales.

### **Defining and protecting the area of archaeological interest**

- 4.10. The total site area is approximately 6.49 hectares, of which an area of approximately 2 hectares has been identified as being of potential archaeological interest (the area identified from historic mapping described above and where the trenched evaluation is proposed). This area could be defined and identified on site to enable development preparatory works to commence elsewhere on the site, while ensuring that the area of potential archaeological interest is adequately protected until the programme of archaeological work has been implemented.

- 4.11. To ensure that the area of potential archaeological interest is protected, an area (as indicated by figure 4 below) would be agreed with GMAAS. Within that area, no development works would be undertaken until the archaeological trenching, and any subsequent excavation, has been completed and it has been agreed, in writing, by GMAAS that the area of potential archaeological interest can be released for development ground works.
- 4.12. Bellway Homes Limited (Manchester) would ensure that all contractors working on the site receive a tool-box talk identifying the area of potential archaeological interest, and provide demarcation of the area of archaeological interest, either on the ground or through accurate site plans agreed with GMAAs. The area of potential archaeological interest is shown on figure 4, below.

### **Excavation**

- 4.13. Following completion of the trenched evaluation described above, the results will be discussed with GMAAS and a programme of archaeological recording through excavation agreed, that is proportionate to the significance of any heritage assets identified, and the predicted impact on them.
- 4.14. The area to be excavated and sampling strategies will be agreed in consultation and confirmed through the provision of an updated WSI.

### **General**

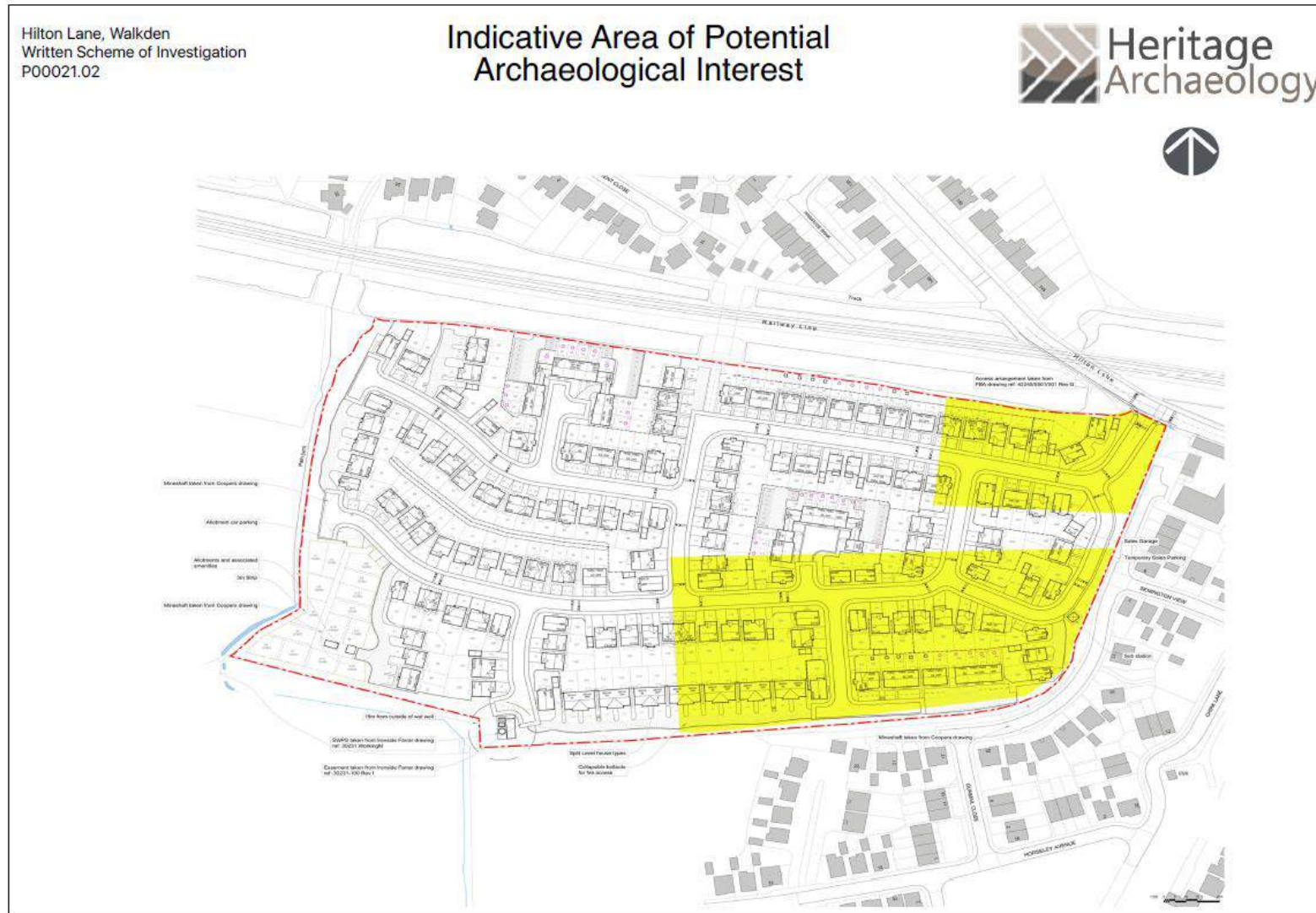
#### ***Finds***

- 4.15. All finds or environmental samples recovered during the archaeological works will be assessed and reported on by external specialists. A list of specialists for the project will be provided by the archaeological contractor when required.
- 4.16. All finds will be treated in accordance with current best practice as set out in Chartered Institute for Archaeologists and Historic England guidance.

#### ***Human Remains***

- 4.17. If human remains are encountered during the evaluation, they will be left in situ and the coroner notified. If it is deemed appropriate to excavate human remains, this will be done in accordance with appropriate Historic England and Chartered Institute for Archaeologists guidance (e.g. CIfA Technical Paper 13 Excavation and Post-excavation Treatment of Cremated and Inhumed remains). Excavation, removal from site, analysis and final placing will all be subject to the requirements of the appropriate Ministry of Justice licence.

**Figure 4; Area of potential archaeological interest** (overlying Bellway Homes Limited (Manchester) Planning Layout Revision S)



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### *Treasure*

- 4.18. If any artefacts are encountered that would constitute 'treasure' as defined by The Treasure Act, 1996, they will be reported to the local Coroner and relevant Finds Liaison Officer. Any artefacts deemed to be Treasure should be excavated on the day they are discovered and removed to a secure site. If this is impractical then appropriate security would be provided until full excavation and removal can occur.

### *Paleo-environmental sampling and analysis*

- 4.19. Paleo-environmental assessment aims to identify areas suitable for the survival of evidence of past environments. These most commonly occur in the form of subsurface peat layers but can also include all waterlogged deposits. The identification of any suitable areas will take place during the archaeological works. Should any such deposits exist within the area of impact, samples will be taken by a suitably qualified specialist sub-contractor.
- 4.20. Having assessed the potential for analysis a project design would be produced to provide a detailed proposal for analysis (including, for example, C14 dating, loss-on-ignition to measure organic carbon content, humification and mass specific magnetic susceptibility) of any present selected samples. If necessary and appropriate the advice of the Historic England Science Advisor for the North West will be sought.

## 5 Reporting

- 5.1. A programme of reporting will be undertaken, to commence on completion of each phase of fieldwork. It will be proportionate to the findings of the fieldwork, and it may be that a single phase of assessment, analysis and reporting is enough in the event of non-complex findings. In the event of complex findings requiring specialist input, the 'MAP2' assessment and analysis approach would be adopted, with a post-excavation assessment report produced within six months of the completion of fieldwork, and a post excavation analysis report, a publication report, and site archive prepared within two years of the completion of fieldwork.
- 5.2. In the event of negative, or non-complex findings, separate reports will be produced detailing the results of each phase of fieldwork within eight weeks of the end of the fieldwork and archived within six months. The reports will include;
  - a front cover to include the NGR, and HER reference number
  - a concise, non-technical summary of the results,
  - the circumstances of the project and the dates on which the fieldwork was undertaken,
  - description of the methodology, including the sources consulted,
  - the historical background of the development area,
  - results of the fieldwork
  - a statement, where appropriate, of the archaeological implications of the impact,
  - a copy of this project design, and indications of any agreed departure from that design,
  - the report will also include a complete bibliography of sources from which data has been derived, and a list of any further sources identified but not consulted,
  - a site location plan related to the national grid,
  - appropriate plans showing the location and position of features or sites located,
  - plans and sections showing the positions of deposits and finds,
  - illustrative photographs as appropriate,
  - plan showing the positions of where the survey photographs were taken,
  - coordinates (latitude/longitude) of relevant sites if archaeological remains have been discovered.

## 6 Archive

- 6.1. The report will be submitted to the client, and to Greater Manchester Historic Environment Record within six months of the completion of the trenching.



- 6.2. An archive of the results of the archaeological work will be produced, in accordance with CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA 2014). The archive will contain all site records and materials recovered.
- 6.3. Details of the work will be entered on the OASIS database within 12 months of the completion of the project.

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## 7 Glossary and abbreviations

*Time periods used are as follows:*

- Palaeolithic: 1,000,000 -10,000 BC
- Mesolithic: 10,000 – 4,000 BC
- Neolithic: 4,000 – 2,200 BC
- Bronze Age: 2,600 - 700 BC
- Iron Age: 800 BC – AD 43
- Roman: 43 – 410
- Medieval: 1066 – 1540
- Post Medieval: 1540 - 1901
- Modern: 1901 - present

*Abbreviations used are as follows:*

- HER – Historic Environment Record
- GMAAS – Greater Manchester Archaeological Advisory Service
- NDHA – Non-designated heritage asset
- NGR – National Grid Reference
- NPPF – National Planning Policy Framework

## 8 References

*CIfA, 2017, Code of Conduct. Chartered Institute for Archaeologists*

*CIfA, 2014, Standard and Guidance for Archaeological Field Evaluation Chartered Institute for Archaeologists*

*CIfA, 2014, Guidelines for data collection and compilation. Chartered Institute of Field Archaeologists*

*CIfA, 2014, Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives. Chartered Institute for Archaeologists*

*English Heritage, 1991, The Management of Archaeological Projects, 2nd edn, London*

*English Heritage, 2011, Environmental Archaeology, A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)*

*Greater Manchester Archaeological Unit (GMAU) 2009. Greater Manchester Urban Historic Landscape Characterisation: Manchester District Report*

*Historic England, 2015, Management of Research Projects in the Historic Environment (MoRPHE)*

*TEP, Hilton Lane, Worsley Historic Environment Desk Based Assessment, 2017, (updated 2018) Unpublished report*

*National Planning Policy Framework, 2019*

*Wardell Armstrong, 2013, Burgess Farm Walkden, Salford, Archaeological Watching Brief Report, November (unpublished report)*

### **Websites**

*[www.pastscape.co.uk](http://www.pastscape.co.uk)*

*[Old-maps.co.uk](http://old-maps.co.uk)*

*<http://www.british-history.ac.uk>*

## **APPENDIX IV: OASIS Form**

# OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

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**OASIS ID: archaeol5-379977**

## Project details

Project name	An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester
Short description of the project	Archaeological Research Services Ltd (ARS Ltd) was commissioned by Heritage Archaeology on behalf of Bellway Homes (Manchester) to undertake archaeological evaluation trenching on land south of Hilton Lane, Walkden, Greater Manchester. The evaluation was undertaken between the 16th and 17th of December 2019 in accordance with an approved Written Scheme of Investigation provided by Heritage Archaeology. The evaluation comprised four targeted trenches, placed to provide sufficient coverage of the areas of potential archaeological interest and to enable the assessment of the presence/absence of archaeology therein. The evaluation revealed several areas of industrial activity related to the Burgess Land Coal Pit works. Trench 1 revealed a possible open cast mine (depicted on the 1850 and 1909 OS maps but not labelled) with several fills from the 19th century as well as some 20th century material that might have entered the backfill during capping of the feature in the 20th century. Trenches 2, 3 and 4 contained fragmentary evidence of a trackway that extended to the main pit heads from Hilton Lane to the north and then along the southern edge of the site. Trenches 3 and 4 also revealed the remains of three possible pit shafts, two of which (in Trench 4) were marked on the 1850s historic map, whilst the pit in Trench 3 was not marked on mapping but might represent further mining activity associated with the Burgess Land Coal Pits or later activity
Project dates	Start: 16-12-2019 End: 17-12-2019
Previous/future work	Yes / Not known
Any associated project reference codes	HLW19 - Sitecode
Any associated project reference codes	18/72845/FUL - Planning Application No.
Type of project	Field evaluation
Monument type	OPEN CAST MINE Post Medieval
Monument type	MINE SHAFT Post Medieval
Significant Finds	N/A None
Methods & techniques	"Targeted Trenches"

Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Between deposition of an application and determination

### Project location

Country	England
Site location	GREATER MANCHESTER SALFORD SALFORD Hilton Lane, Walkden
Study area	6.6 Hectares
Site coordinates	SD 72707 02539 53.518567430909 -2.411677961535 53 31 06 N 002 24 42 W Point

### Project creators

Name of Organisation	Archaeological Research Services Ltd
Project brief originator	Heritage Archaeology
Project design originator	Archaeological Research Services Ltd
Project director/manager	Reuben Thorpe
Project supervisor	Ben Dyson

### Project archives

Physical Archive Exists?	No
Digital Archive recipient	Salford Museum and Art Gallery
Digital Contents	"none"
Digital Media available	"Database","Images raster / digital photography","Survey"
Paper Archive recipient	Salford Museum and Art Gallery
Paper Contents	"none"
Paper Media available	"Map","Matrices","Photograph","Plan","Report","Section"
Paper Archive notes	Copy of the final report will also be deposited with the Greater Manchester HER

### Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Evaluation on land at Hilton Lane, Walkden, Greater Manchester
Author(s)/Editor(s)	Dyson, B.
Other bibliographic details	ARS Ltd Report No. 2020/5

Date 2020  
Issuer or publisher Archaeological Research Services Ltd  
Place of issue or publication Sale, Greater Manchester  
  
Entered by Ben Dyson (archives@archaeologicalresearchservices.com)  
Entered on 9 January 2020

## OASIS:

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