



A58 BLACKBROOK DIVERSION St Helens, Merseyside

**Topographic Survey
and Evaluation.**



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SUMMARY

Following a request by Rob Goldup of Colin Buchanan and Partners, Oxford Archaeology North (OA North), undertook a topographic survey and evaluation, in January and March 2004, of the proposed A58 Blackbrook Road Diversion, St Helens, Merseyside (SJ 538 970). This report follows on from an earlier Environmental Impact Assessment completed in 1993 by AC Archaeology, and an Archaeological Assessment in 2002 by OA North that informed an Environmental Statement on the same proposed development route (The Environment Partnership 2002).

A detailed earthwork survey was undertaken of those upstanding features that will be directly affected by the construction of the proposed road. This included the extant remains of the inclines, for the Stanley Copper Works and the Garswood and Pewsfall collieries, extending through the area and the spoil heaps and shaft associated with the Garswood colliery.

In total, 48 evaluation trenches were excavated over a two and a half week period from 15th March to 31st March 2004. The trenches revealed widespread evidence of the industrial past of the proposed route, through the discovery of a number of structures, and also through the widespread dumping of waste material associated with the industrial processes previously undertaken in the area.

A significant number of substantial drains and culverts were revealed during the course of the evaluation, presumably relating to the past industry of the area, and a number of brick structures were also discovered. A substantial circular brick structure, possibly a flue, was uncovered in Trench 42, in close proximity to another brick-built structure, possibly another flue. Two sections were excavated across the Garswood-Pewfall Incline (Trenches 25 and 26), which recorded its manner of construction and a further trench (38), adjacent to the Stanley Bank pond, revealed the incline as a cutting. A substantial wooden platform was revealed in two trenches (22 and 42); this was adjacent to the Garswood-Pewfall incline and there was a possibility that it was related.

Three cropmarks, which had been identified from aerial photographs, were examined by the evaluation, but no evidence linking the cropmarks to any significant archaeology was uncovered; indeed two of them appeared to relate to relatively recent dumps of clay.

It is recommended that the northern part of the site, where formerly the Garswood colliery existed, should be subject to a watching brief during the construction phase of the road. In addition, a number of sites should be investigated in more detail. In particular, the wooden platform (Trenches 22 and 44), a circular brick structure (Trench 42), a rectangular brick foundation (Trench 33), and the area around the surviving section of Stanley Bank incline (Site **07**) in the area of the Garswood Colliery.

The Garswood-Pewfall Incline (Site **08**) has limited upstanding survival, but part of this will be cut by the proposed road. It is recommended that care be taken to minimise the disturbance to the extant earthwork during the construction of the road.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to extend thanks to Rob Goldup of Collin Buchanan and Partners for commissioning the study and for help in the course of the project. OA North would also like to thank Susan Nicholson, the SMR Officer for Merseyside Archaeology Service, and to Sarah-Jane Farr, the Merseyside County Archaeologist, for help in the setting up and design of the programme.

The topographic survey and updating of the archaeological assessment was undertaken by Peter Schofield using the information compiled from the earlier assessment by Vix Hughes. The evaluation trenching was undertaken by Paul Clark, Andy Lane, Christina Robinson, Chris Ridings and Mark Bagwell. The report was compiled by Peter Schofield and Paul Clark and the drawings were produced by Emma Carter. The report was edited by Emily Mercer and Jamie Quartermaine. The project was managed by the Jamie Quartermaine.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Oxford Archaeology North was invited by Rob Goldup of Colin Buchanan and Partners to undertake an archaeological survey and evaluation on the proposed A58 Blackbrook Road Diversion, St Helens, Merseyside (SJ 538 970) (Fig 1). The archaeological work was undertaken in accordance with the requirements of the Merseyside County Council Planning Department and the Government's *Planning Policy Guidance Note 16*. The overall design and aims of the project were defined in accordance with a brief by Sarah-Jane Farr of Merseyside Archaeological Service (*Appendix 1*). This current phase of work follows on from an Archaeological Assessment of the proposed development route compiled by OA North in May 2000 (OA North 2002) that informed part of an Environmental Statement for the development (The Environment Partnership 2002). The Archaeological Assessment had itself augmented and updated a previous Environmental Impact Assessment undertaken by AC Archaeology in 1993 (Cox and Chandler 1993) in the light of more recent discoveries, and changes to the landscape since 1993.

1.2 AIMS AND OBJECTIVES

1.2.1 **Topographic Survey:** the aim of the survey was to produce a mitigative Level 2b survey (OA North 2001) of the sites identified by the archaeological assessment (OA North 2002) that will be affected by the road scheme. All appropriate topographic detail was to be recorded to provide an appropriate context for the archaeological detail. Those sites which were of particular importance and had surface expressions were:

Site **07** Stanley Bank Incline

Site **08/10** Garswood-Pewfall Incline

Site **15** Garswood Colliery

Site **14** Pond associated with Stanley Bank Farm Copper works

1.2.2 **Archaeological Evaluation:** a programme of trial trenching, examining 7% of the construction corridor was undertaken, which was targeted on known sites (Fig 5 and 6) but also provided an investigation of the background areas where archaeological sites have not yet been investigated. The sites targeted were:

Site No	Site Type	No of 20m x 1.8m Trenches
13	Soilmarks – Stanley Bank Farm	3
07	Incline	4
10	Incline	2
12	Area adjacent to pond	4
26	Cropmark Enclosure	4
24	Cropmark	2

1.2.3 The requirement for archaeological field evaluation was in order to assess the possible presence/absence, location, nature, extent, survival, quality, significance and date of any archaeological deposits that may have existed along the route. The work was in accordance with PPG 16 'Archaeology and Planning' (paragraphs 21-30). The purpose of the work is to:

- Gather sufficient evidence to establish, supplement, improve and make available information about the archaeological resource existing within the areas of investigation and,
- To assist the formulation of any strategies for the future treatment of archaeological deposits in relation to development proposals.

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design (*Appendix 2*) was submitted by OA North to Rob Goldup of Colin Buchanan and Partners for a phase of topographic survey and evaluation within the proposed A58 Blackbrook Diversion development area. The project design was in response to a brief (*Appendix 1*) compiled by Sarah-Jane Farr of the Merseyside Archaeology Service. Access was not available for the south-western part of the proposed route, and here no trenches could be excavated. In all other respects the project design was adhered to in full and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 TOPOGRAPHIC SURVEY

2.2.1 A Level 2b survey was undertaken on those features and sites that had a surface expression and were on the line of the proposed road, and included the following sites (Figs 3 and 4):

Site **07** Stanley Bank Incline

Site **08/10** Garswood-Pewfall Incline

Site **15** Garswood Colliery

Site **14** Pond associated with Stanley Bank Farm Copperworks

2.2.2 This provided a detailed hachure record of the archaeological resource within a 45m corridor, centred on the line of the proposed road. All appropriate topographic detail was recorded in order to provide an appropriate context for the archaeological detail. The surface features were surveyed by a combination EDM tacheometry and GPS survey.

2.2.3 **Total Station Survey:** survey control was established over the site by closed traverse and internally was accurate to +/- 15mm; the control network was located onto the Ordnance Survey National Grid by the use of Global Positioning Survey (GPS), which was locate to an accuracy of +/- 0.5m.

2.2.4 The surface features were surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation being appropriate for a 1:500 output. The digital data was transferred onto a portable computer for manipulation and plots were output via a plotter to enable manual survey enhancement. The archaeological detail was drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. Most topographic detail was also surveyed, particularly if it was archaeologically significant or in the vicinity of archaeological features. The survey drawings were generated within a CAD system and were merged with existing topographic data.

2.2.5 **GPS Survey:** in lower order sites detail survey was undertaken using a post-processed differential GPS, which is accurate to 150mm. The data was then plotted

up and was subject to manual enhancement. This data was merged with the total station data in the CAD system

- 2.2.6 **Photographic Record:** in conjunction with the archaeological survey, a photographic archive was generated, which recorded significant features and general landscapes. This was undertaken on archival black and white print film as well as colour transparency and digital formats.
- 2.2.7 **Gazetteer:** the gazetteer compiled during the assessment stage (OA North 2002) was augmented and enhanced in the light of the survey, in order to provide a more detailed description of individual archaeological features. The updated gazetteer is presented as *Appendix 3*.

2.3 EVALUATION TRENCHES

- 2.3.1 The trenches were located in accordance with the locations defined at the outset of the project, as per the requirements of the Merseyside Archaeologist. However, access was not available at the south-western part of the route, and here it was not possible to excavate any trenches (Fig 5). This area will need to be evaluated as access becomes available.
- 2.3.2 The evaluation trenches were excavated by a combination of mechanised and manual techniques; the topsoil was removed by a JCB 3CV excavator, fitted with a 1.8m wide toothless bucket, and archaeological deposits beneath were first manually cleaned and then any features identified were manually excavated. The machine excavation did not intrude into any potential archaeological stratigraphy and all machine excavation was undertaken under careful archaeological supervision. Given the brown field nature of the site, however, in a high proportion of the trenches relatively recent dumping deposits were also removed by machine. Following mechanical excavation, the bottom of the trench was cleaned by hand and manual excavation techniques were used to evaluate any sensitive deposits, which enabled an assessment of the nature, date, survival and depth of deposits and features. The trenches were on the whole not excavated deeper than 1.25m to accommodate health and safety constraints. A few of the trenches were excavated slightly deeper than this to evaluate potential survival of archaeological deposits, but these trenches were only examined from the surface and were backfilled immediately.
- 2.3.3 The trenches were excavated in a stratigraphical manner, whether by machine or by hand. The trenches were located by use of GPS equipment which is accurate to +/- 0.25m, altitude information was established with respect to Ordnance Survey Datum. Archaeological features within the trenches were planned by manual techniques.
- 2.3.4 **Recording:** all information identified in the course of the site works was recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records were available for inspection at all times.
- 2.3.5 Results of the field investigation were recorded using a paper system, adapted from that used by Centre for Archaeology of English Heritage. The archive includes both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts were recorded using the same

system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

2.4 ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited in the Liverpool City Library (Record and Local History Department), and an additional copy will be sent to the Merseyside County SMR, with a summary being sent to the National Monuments Record on completion of the overall project.

3. BACKGROUND

3.1 TOPOGRAPHY AND GEOLOGY

- 3.1.1 **Topography:** the study area is on the north-eastern outskirts of St Helens and lies to the north of Blackbrook and west of Haydock, being accessible from the A58 from Junction 24 of the M6 (Fig 1). The land is part of the very shallow Sankey/Black Brook valley and slopes gently downwards from the north-east to the south-west. The highest point is at the junction of the A58 and A580, at about 50m OD and the lowest is nearer St Helens Canal at approximately 30m OD. The study area extends north-east from south of Stanley House Farm (SJ 35355 49655) to the crossroads of the A58 and A580 (SJ 35440 49750), in an approximate straight line. The general area of the development is defined by the Countryside Agency as the Lancashire Coal Measures (Countryside Commission 1998); this has numerous small streams flowing through it, which eventually flow into the Sankey Brook. These water courses include Clipsley Brook, Stanley Brook, Black Brook and Sankey Brook and for the most part they have been lessened as water features by the construction of the St Helens Canal (Fig 3), which has affected the drainage of the area. The region is also characterised by several reservoirs, including that at Carr Mill, which in the past have provided water sources for transportation and industrial activity.
- 3.1.2 **Geology:** the solid geology of the region comprises predominantly sandstones and coal deposits, and is of particular significance as much of the more recent history of the area relates to the exploitation of the available mineral resources. The overlying drift geology comprises post-glacial deposits, predominantly boulder clay with some areas of sands or gravels (Countryside Commission 1998) and, in the valley areas there are riverine silts. The soils, as mapped by the Ordnance Survey Soil Survey of England and Wales (1983), are predominantly of the Salop Association series, which are typical stagnogleys, deriving from the underlying geology.

3.2 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 3.2.1 **Introduction:** the historical and archaeological background is compiled and summarised from the archaeological assessment carried out as the previous phase of archaeological investigation on the proposed development (OA North 2002), in addition to this any archaeological discoveries or investigations undertaken in the time between the earlier report and this phase of investigation has been included within the assessment here.
- 3.2.2 **Prehistory:** there is some evidence of man's activity in Southern Lancashire during the Mesolithic (c8000-3500 BC) and Neolithic (c3500-2000 BC) periods, comprising mostly lithic finds and evidence from pollen data, which seem to show activity in the lowlands, favouring riverine environments (Middleton 1996). Evidence from near Prescott shows forest clearance, combined with the presence of cereal pollen, dating to 2600-2500 BC (Cowell 1991, 37; Innes and Tomlinson 1991), although the clearance activity was not ubiquitous as the pollen diagrams from Parr Moss and Burtonwood show that, apart from some disturbance at about 2790 BC, the oak woodland remained prevalent (Cowell 1991, 37; Cowell and Innes 1994). A polished stone axehead was found in a ploughed field in the Ashton-

in-Makerfield area; it was of Neolithic date and of a Group VI stone type, which indicates that it originated from the Central Lake District (*op cit*, 26). The Sankey Valley would appear to be a favoured riverine site as it is an area containing significant concentrations of axe finds (*op cit*, 35). No specific sites of general prehistoric date were discovered in the development area by the desk-based assessment or identification survey.

- 3.2.3 Bronze Age sites (*c*2000-800 BC), identified from evidence such as metal finds, also show a lowland and riverine distribution but the more plentiful lithic material from this period has mostly been casual finds, which are generally not well provenanced (Middleton 1996). The upland landscapes of the Pennines contain physical evidence of Bronze Age activity, as demonstrated by cairnfields and burial cairns. Two burial sites have been excavated at Winwick, dating approximately to 1800-1300 BC, both containing a comparative wealth of ceramic and flint finds (Cowell 1991, 41). No specific sites of Bronze Age date were discovered in the development area by the desk-based assessment or identification survey.
- 3.2.4 In the Iron Age (*c*800 BC-AD 43) the area seems to have been within a region under the influences of the tribes of the Setantii in the north, part of the broad Brigantian federation (Cunliffe 1991, 189), and the Cornovii in the south, with a possible boundary being along the Mersey (Strickland 1995). There are no known remains of Iron Age date within the environs of the study area but it is notoriously difficult to identify such sites, in part due to a lack of distinct material culture (Haselgrove 1996, 64). In addition hillforts, which are typically attributed to this period, are a relatively uncommon form of settlement in the North West (Hartley and Fitts 1988, 5-6). Iron Age evidence consists almost exclusively of unreliably dated earthwork settlement sites, identified from aerial photography, and from pollen data from the various wetland areas close by, such as Knowsley, Simonswood and Burtonwood Moss (Cowell and Innes 1994). These show widespread forest clearance between 910 BC and 640 BC, which seems to indicate a possible increase in arable activity during this period, and the expansion of agriculture into wider areas of land, both lowland and upland (Middleton *et al* 1995). No specific sites of Iron Age date were discovered in the development area by the desk-based assessment of identification survey.
- 3.2.5 **Roman** (AD 43-410): a Roman presence in the region as a whole is clearly attested, but in the vicinity of the study area the evidence of any presence is scarce. The Romans advanced into the area in the AD 70s when political unrest required their military presence (Shotter 1997). It would appear that they followed a route leading from Wilderspool, across the Mersey and northwards through Wigan, Walton-le-Dale, Lancaster and onwards; a road was constructed along this route, described by Margary (1957, road 70a-c). Evidence for this survives in Newton-le-Willows (Philpott 1991, 63; Dunlop and Fairclough 1935, 107) and Ashton-in-Makerfield, 3.5km to the east of the study area.
- 3.2.6 The general area has produced a significant number of casual Roman coin finds; several hoards and single find spots are known from the area and there is a distribution in the Wirral and Liverpool areas. This suggests that the artefacts were reaching these areas through commerce from the Roman military sites or possibly from sea routes. Tentative aerial photographic evidence and finds scatters would seem to indicate that rural occupation in the Roman period was possibly quite

extensive in the St Helens area (Philpott 1991, 66). No specific sites of Roman date were discovered in the development area by the desk-based assessment or identification survey.

- 3.2.7 **Early Medieval** (AD 410-1066): as is the case throughout the North West, evidence for early medieval activity is limited. From the early-mid seventh century onwards, Lancashire became part of the kingdom of Northumbria, the southern extent of which was probably the Mersey (Colgrave and Mynors 1940). Place-name evidence gives some indication of areas influenced by Anglian lordship, which appear to be coastal and on the adjacent coastal plain. In the area of St Helens the names are predominantly Anglian in nature, but to the north-east is an area featuring a large number of British names (O'Hanlon 1991, 81); for example Aston, Makerfield, and Billinge all have both Old English and British elements (Kenyon 1991). The area around Ince, Ashton and Newton (all often referred to as in-Makerfield) may, along with the area around Wigan, have been part of a single Anglo-Saxon lordship (*op cit*, 73).
- 3.2.8 By the later ninth and tenth centuries, Scandinavian/Hiberno-Norse cultural and political influences are prevalent in the area, again particularly along the coastal margins (O'Hanlon 1991). There is also some indication of Pre-Conquest Christian activity in the region in the form of stone sculptures, including a cross at Winwick (Kenyon 1991, 102; Edwards 1978). The excavation of 600 east/west aligned graves (overlying a Bronze Age barrow) at Winwick, and the circular nature of the churchyard, is potentially further evidence of an early Christian nucleus here (Kenyon 1991, 63; Freke 1982). Another obviously circular churchyard is seen in Prescott; this shape has been identified as being typical of the early Christian period, while later churchyards were generally more rectangular or squared (Kenyon 1991, 63). No specific sites of early medieval date were discovered in the development area by the desk-based assessment or identification survey
- 3.2.9 **Medieval** (AD 1066-1540): following the Norman Conquest the increase in surviving documentary sources meant that the townships of Ashton-in-Makerfield, Parr, Haydock, Newton-le-Willows (or -in-Makerfield), and Billinge had become evident in the history of the region. By the time of the Domesday Survey in 1086 the lordship of Makerfield had been divided into the Hundreds of West Derby, Newton and Warrington. Much of the land in Lancashire was at that time controlled by Roger de Poitou, given to him by William the Conqueror. Later reorganisation in the twelfth and thirteenth centuries meant that the Hundred of West Derby was enlarged, incorporating both Newton and Warrington; Newton becoming a Barony held by Robert Banastre in the twelfth century (Farrer and Brownbill 1911).
- 3.2.10 The land holdings within the area are complex and change through time. A study of the historical geography of south-west Lancashire has concluded, from analysis of landholdings between 1285-1449, that, during this period, the region developed agriculturally, with a greater concentration on cultivation (Walker 1939). Subsequently, towards the end of the medieval period, it is suggested that waste land was improved for pasture and a mixed farming regime grew up. This was achieved without loss of arable acreages and remained virtually unchanged until the industrial revolution (Cox and Chandler 1993).
- 3.2.11 Medieval townships were often composed of both urban centres, smaller rural centres, and a scatter of hamlets or isolated farmsteads with associated field

systems. The overall pattern in this area was dispersed, although an increased density of occupation was associated with the more desirable land and resources, such as at the lowland to upland interface (Kenyon 1991, 20).

- 3.2.12 During the medieval period, the study area would have comprised hamlets or farmsteads surrounded by small enclosed fields within the valley areas, and there were also moated sites comprising a square or sub-circular building platform edged by a dry or wet moat, which were typically the residence of the lord of the manor (Lewis 1991, 94), the region does have a remarkable number of moated sites (Lewis 2000) and there is one such site allegedly at Stanley Bank Farm (Site 12). The map held by the Merseyside Sites and Monuments Record seems to show the site as being to the north of the Stanley Bank Incline (Site 07) (Plate 2), but other sources (including the 1839 Tithe Map (LCRO/DRL 1/5)) indicate that its location corresponds to the copper works pond (Site 14) (Plate 3). On a visit by the SMR officer in 1992 and during the identification survey, no evidence of surviving remains of such a moat was detected. The SMR report states that, in the light of a conversation with the farmer at the time, the moat may have been obscured by nineteenth century infilling with industrial residues and debris.
- 3.2.13 **Post-Medieval:** numerous sources provide details of the population figures from the sixteenth century onwards, as well as information on economic activities. The majority of the population in the towns of the region, including Ashton-in-Makerfield, Newton-le-Willows (previously -in-Makerfield) and St Helens, was increasingly becoming involved in the processing, manufacture, and distribution of textiles and various minerals, including iron, coal, copper, and other materials such as glass. The distribution of minerals within the Lancashire Coal Measures meant that many of the processing and manufacturing sites were in the vicinity of the extraction sites, since it was more economic and efficient to carry out all the activities at one central place and attract a work force to it. This resulted in the construction of large mills and complexes which were increasingly expanded, and the construction of terraced houses for the workers, resulting in the expansion of urban areas (Walton 1987).
- 3.2.14 Coincidental with the development of the manufacturing base, the transport network developed into a complex system, connecting various modes of transport and serving many locations. Thus it had a significant impact on the landscape of the study area. In the eighteenth and early nineteenth centuries, the canals through Lancashire were developed and linked with suitable river systems (Hadfield 1984). To the immediate west of the study area is the St Helens Canal, which was originally constructed for transporting raw materials, such as coal, and was related to the expansion of heavy and extractive industries. The canals were eventually superseded by the railways, which developed rapidly during the mid-nineteenth century (*ibid*). In recent years the road system has seen major modifications, with the upgrading of roads to A-road levels and the building of the M6. With such a communication system being constructed throughout the county there has been continued development of the economy, moving away from primary industrial processing towards secondary forms of manufacturing, distribution and retailing.
- 3.2.15 The opening of the first modern canal in England, the Sankey Brook Navigation, now the St Helens Canal, revolutionised both the way in which canals were engineered, and the carriage of coal from the Lancashire coalfield (Hadfield 1984).

The track leading to the pierhead, part of which is now a public right of way, runs close to the proposed road line and continues in a north-easterly direction abutting woodland described on the 1849 OS map as ‘Waggon Road Plantation’ (c1 km north of the study area) (Cox and Chandler 1993). It presumably took the form of a tramway, since the field at the fork of the tracks is called ‘Rail Road Field’ on the Ashton-in-Makerfield Tithe apportionment (LCRO/DRL 1/5, Parcel 30, 1839). The relationship between the tramways and the (presumably later) incline plane which ran parallel to the track has not been established. The latter brought coal from the Pewfall colliery near Ashton-in-Makerfield, and had been constructed by 1839, since it appears on the Tithe award. It is described as an incline plane on the OS map of 1849, and an engine pit, (Site 19) shown at its foot, may be related to its operation; by c1891 (OS 1st edition 25” map) it had gone out of use. In c1900 the Garswood Park Pits were operating and as a result the incline plane had been re-laid as a mineral railway with a northward extension towards Icehouse Plantation, which lies north of the present A580. By 1929 (OS 4th edition map), however, it was out of use again, and only part of the cutting and embankment around Stanley Bank Farm survives to the present day, where it is utilised as a field boundary.

3.2.16 Four industries are recorded as having taken place on or close to the proposed road line: stone quarrying and brickmaking, coal mining, copper smelting, and iron slitting.

3.2.17 **Stone Quarrying and Brickmaking:** the Ashton Tithe Apportionment (LCRO/DRL 1/5, 1839) shows a number of parcels (numbered 4, 5, 24-29) east of Stanley Bank Farm as ‘Stone Delph Field’; ‘Delph’ of ‘Delf’ means a mine or quarry and the use of such a term is limited to the North of England (Jones 1996, 107). The Haydock Tithe Apportionment (LCRO/DRL 1/34) also describes parcel 17 as a stone quarry. These fields lay south-west of the point where the present Vicarage Road crosses Clipsley Brook and the 1849 OS map convincingly shows it as a sandstone quarry and depicts another east of the present A58 / A580 junction. The site of the quarry, beside Vicarage Road, also appears on the later 1909 OS map (Fig 2). ‘Old Brick Field’ appears on the 1894 OS map due west of the site of the later St Mark’s Vicarage (Cox and Chandler 1993); a colliery subsequently occupied the site. (Section 3.2.21). The single undated site is a cropmark feature seen on aerial photographs, Site 13, and located to the east of Stanley Bank Farm is interpreted as a possible quarry (Fig 4).

3.2.18 **Coal Mining and Conveyance:** small-scale opencast coal mining (by quarry-like delfs) was taking place in the Wigan and St Helens region in the sixteenth and seventeenth centuries and there are a few earlier, medieval, references to coal and ‘cannel’ (a locally occurring, highly bituminous coal) working in Lancashire (Knoop 1908). Coal pits are depicted at Blackbrook and Haydock south of the present A58 on a map of 1786 (Yates 1786), but the only map evidence discovered for early coal working on or adjacent to the proposed road line is a field name, ‘Coal Pit Field’, north of the slitting mill site. The 1909 OS revision (OS 2nd edition 1909) depicts colliery buildings, shafts and mineral railways occupying the former brick field (Site 15) (Fig 2; Plate 6); the site is described as ‘Blackbrook Colliery (Garswood Park Pits)’. This colliery is not shown on the previous revision (OS 1st edition 25” to 1 mile map, 1891) and was represented solely by two ‘Old

Shafts' on the revision of 1929. It was presumably a short-lived offshoot of Blackbrook, Garswood or Garswood Park Colliery (Cox and Chandler 1993).

- 3.2.19 **Copper Smelting:** the copper smelting industry of the St Helens area has been the subject of detailed study (Allen 1991; Harris 1964; Barker and Harris 1954; Harris 1950). Its origin was a desire to exploit the Lancashire coalfield in the manufacture of copper brass, originally using copper ore shipped from Cornwall and calamine from Flintshire; copper works existed at Warrington in Cheshire and Cheadle in Staffordshire in the early eighteenth century. Two innovations settled the industry in the St Helens area: the opening of the Sankey Brook Navigation (St Helens Canal), which enabled copper 'flats' (and barges) to penetrate right to the edge of the coalfield; and the discovery of copper ore at Parys Mountain, Anglesey, in 1768. During this period two furnaces were in use near St Helens, those at Ravenhead and Stanley; however, after 1800 the supply of copper ore from Anglesey diminished and both furnaces were abandoned in 1814. The Stanley Copper works (Site **05**) was established in 1771, but had ceased production before 1785 (Barker and Harris 1954); the works appear to have prospered again during the period 1785-c1800, and were certainly still in production between 1800 and 1810 (StHLH/M/BA/7). The date of their demolition remains unclear. Of great interest is the depiction on Yates' map of 1786 of the Copper Works, which, when compared to documentary evidence, modern maps and recent excavation results, confirms the position of the works. The works lay on the eastern bank of the St Helens Canal, at the point where Stanley Brook joins the canal. The copper works' pond at Stanley Bank Farm (Site **14**) (Plate 3) is portrayed on the tithe map of 1839 (LCRO/DRL 1/61), as being more regular than today and there is a slightly different layout of buildings. The squared, regular nature of the pond has been taken to suggest that this represents the fossilised remains of a medieval moated site (Site **12**) but, considering the late date of the map, post-dating most of the industrial re-shaping of the landscape, it is possible that it may reflect more recent alterations relating to local industrial activity.
- 3.2.20 **Iron Slitting:** machinery for converting iron ingots into rods had existed since the sixteenth century and supplied wire-drawers, coopers and especially nailers. Nail making was a widespread domestic industry in eighteenth century Lancashire and was concentrated on several places, including Mossbank and Parr, both near St Helens (Barker and Harris 1954). Four local investors formed a company and established the Iron Slitting Mill at Stanley in about 1773 (Site **05**). Not only was the site adjacent to the Copper Smelting works, and therefore utilised the same resources and transport system, but one of the investors, a certain Alexander Chorley, appears to have been the manager at the copper works as well. The smelted iron was obtained from Carr Mill, transported by canal to the slitting works where it was heated, rolled into sheets, re-heated, and then passed through the slitting machine, producing rods in a variety of thicknesses. During the 1830s, the building was converted to a corn mill, but went out of use and was demolished c1900 (StHLH/A68(P); Operation Groundwork 1986).

4. TOPOGRAPHIC SURVEY RESULTS

4.1 INTRODUCTION

4.1.1 ***The physical Remains:*** prior to the impact of modern motor vehicles and the road system accompanying them, the area had been subject to significant levels of improvement during the post-medieval period. The Sankey Navigation / St Helens Canal and the various rail routes have all left their mark on the landscape but have not been subject to research and recording. The entire study area was part of an extensive industrial landscape, initiated by local entrepreneurs, which, in its heyday, utilised and involved a large proportion of the local workforce. The structures, finds and remains, both above and below ground, clearly demonstrate the importance of this period in the social and economic history of the area, with far reaching aspects, such as the construction and purchase of housing for workers, as well as local public houses. Despite the number of documentary and cartographic sources, there are only limited surface remains of the industrial landscape surviving, limiting our understanding of the industries. However, as has been demonstrated by the excavations at Site **05** (Operation Groundworks 1986), there are potentially significant sub-surface remains, which may hold the key to a full understanding of the development of industries in the region.

4.1.2 ***The Topographic Survey:*** a topographic survey was undertaken of those sites that will be directly affected by the proposed A58 Diversion, and is an enhancement of the site survey undertaken as part of the assessment (OA North 2002) (Figs 3 and 4). To this end, a second localised inspection along the development corridor was undertaken. The survey was undertaken in a period of clear and fine wintry weather, the ground cover for the most part was relatively open and low on the north end of the assessment area where the fields are under grass. Likewise the shrubs and trees had died back in the winter weather, especially upon the Garswood-Pewfall Incline (Site **08**) (Plate 1). Unfortunately, the ground cover to the south and east of the pond at Stanley Bank Farm (Site **14**) made it difficult to discern earthwork features. To the south of the pond was a boggy area with dense rushes and reeds, and to the east the incline was masked by head high bramble bushes. In general, the southern half of the assessment area was under moderately long grass and had evidently been unused waste ground for a considerable amount of time.

4.2 DESCRIPTION OF THE SURFACE REMAINS

4.2.1 The following descriptive account is expanded on that produced for the assessment; it incorporates in part the results from the earlier walk-over survey and has been enhanced in the light of the detail survey. It is ordered from the north end of the route to the southern end (Figs 3 and 4). A full gazetteer of the sites is presented in *Appendix 3*.

4.2.2 ***Spoil Heaps and Capping at Garswood Colliery (Sites 15, 20 and 25):*** in the three north-eastern fields (Fig 4), large amounts of scattered ceramic and stone building materials were identified, albeit in a fragmentary and disturbed state; they were all of nineteenth to twentieth century date. On the south side of the road utilities have been recently laid running towards Stanley Bank Farm, this has also exposed

significant amounts of demolition material which is packed within the backfill. This material was potentially the product of the dismantling of various industrial complexes within the area, particularly the buildings associated with the Garswood Park Pits (Site 15) which were shown on the 1909 OS map (Fig 2). The resulting debris had either been deliberately spread across a wide area or subsequent ploughing has disturbed the material and redistributed it.

- 4.2.3 The extant physical remains of the colliery consist of a concrete capped shaft (Site 15) (Plate 6), measuring approximately 7m square and standing 0.25m high. To the east by the new vicarage is a large linear steep-sided spoil bank (Site 25) within the grounds of the house; the owner of 5 Stanley Bank Road confirmed that this had been there for at least fifty years as he had built the houses on the road. To the south-west of the capped shaft on the north side of Stanley Bank Road are two small spoil heaps (Site 20) that would appear to be demolition material that has been placed against the road but has been partially ploughed away. These surviving features at the colliery consist of features from the final demolition phase of the site.
- 4.2.4 Extending north from the coal mine was a mineral railway (Site 10) shown on the 1909 OS 6" to 1 mile map (Fig 2). Although there are traces of this surviving to the north, beyond the extent of the road corridor, there were no extant remains within the development area.
- 4.2.5 **Garswood-Pewfall Incline (Site 08 and 23):** the alignment of the Garswood-Pewfall Incline (Site 08, Plate 1) survived as a field division but even this is now derelict. The most obvious element of the site is the large surviving incline embankment to the north-east of Stanley Bank Farm (Plate 1). The embankment survives to a substantial size, it runs for approximately 150m, it is steep sided, up to 1.5m high and measures roughly 9m wide at the base and over 2.5m wide at the top where there is a flat levelled surface. The field inspection revealed that in one section, towards the northern end of the feature, the underlying masonry core of the incline was exposed, comprising four or five courses of dry-stone masonry. The embankment is heavily tree covered and is being damaged by root action and rabbit burrowing. To the north end the level of the top of the incline reaches ground level where the ground rises slightly to the north, to the north of this all surface evidence of the incline has been ploughed away. The south end of the embankment (Plate 1) ends abruptly at what is now a gateway, substantial earth moving to construct the banks around the pond to the west (Site 14) has truncated the earthwork (Plate 3). To the south of the embankment the ground cover becomes head high brambles and identification of further features of the incline was impossible. The incline was, however, possibly identified as an earth bank on the south side of the pond (Site 23, Plate 4) that for a short distance follows the line of the incline until it becomes a concrete-lined trackway on the west side of Stanley House Farm (Site 19).
- 4.2.6 **Stanley Bank Incline (Site 07):** the Stanley Bank Incline (Site 07, Plate 2) mainly survives as the extant elements of Stanley Bank Road before it turns away from the course of the road, to the east, at its northern end. The northern end of the incline consists of a banked roadway with narrow ditched sides and small banked hedges upon the outside that runs down to the farm. This half of the incline has been heavily truncated by the construction of the road on top of it, the incline seems to have been graded flat on the north end where the bank of the road is shallow, further south towards the farm the bank of the road is more substantial on the south

side and this is possibly a partial survival of some of the fabric of the incline. One feature of note was a short 2m stretch of brick edging seen just south-west of Stanley Bank Farm. A recent utility trench has been cut along the northern side of Stanley Bank Road, mainly in the ditch between the hedge and the road, but also partially encroaching into the road. The incline could not be seen in the area of the farmyard, but to the south of the farmyard the road is contained within a shallow ditch as it runs down towards the canal. The road has several phases of metalling, although this looks to be later than the original incline surface. The ditch containing the incline is wider than the roadway that is currently running within it, there could potentially be surviving incline structure here. The incline is interpreted to be heavily truncated especially to the north end of the road, although sub-surface elements may still survive in places.

- 4.2.7 **Stanley Bank Road Linear Earthwork (Site 21):** the site consists of a wide shallow linear lynchet running roughly along the alignment of the Stanley Bank Incline (Site 07) (Plate 5). It runs for approximately 240m and measures up to 3m wide by 0.15m high. The bank is interpreted as either a modern agricultural ploughing feature or a modern utility feature.
- 4.2.8 **Stanley Bank Farm:** along the Stanley Bank Incline, and to the north-east of Stanley Bank Farm (Site 16), were the remains of a number of brick structures (Site 17). One was a nearly complete, small brick structure, which was either a shed or an outside toilet. The others comprised a series of walls, which were of differing alignments and had slightly different constructional techniques. They did not appear to be all of one phase, and it is possible that some relate to agricultural use, whilst others were associated with the earlier industrial occupation of the area. At Stanley Bank Farm, the demolition of a later / modern building has recently taken place and some construction work was evident within the remaining building (Site 16). Also visible at Site 16 at the time of the assessment survey were the remains of what appeared to be underlying foundations within the surviving standing structure. This appears to reflect an earlier phase of building, and, though it could not be established if this earlier phase of building was of agricultural or industrial function, the remains of the building in general appear to be consistent with some form of industrial use.
- 4.2.9 **Stanley Bank Pond and Bank (Sites 14 and 22):** the area to the immediate south of Stanley Bank Farm (Site 16) has been subject to several phases of moderately large-scale earth movement in the construction, use and re-modelling of the pond. No features were identified that could definitely be ascribed to elements of the putative moated site (Site 12). The pond itself is in a depression on the south-east side of the recently modified building within the Stanley Bank Farm complex. The pond has a large, wide embankment on the south-west side that is possibly overlying the banked enclosure feature (Site 22) (Plate 4); however, the densely reed-covered boggy area within the enclosure was hard to survey, and physical relationships between this and the wide embankment were not seen. The south-east side of the pond was embanked although this was not as wide as on the south-west side, and may be a different phase of embankment, associated with the cutting for the Garswood-Pewfall Incline (Site 08). The enclosure on the south-west side of the pond consisted of a steep-sided earth bank (Site 22, Plate 4) that demarcates the south-east side of the enclosure where a ditch separates it from possible banked

elements of the incline (Site **23**). The earth bank on this side of the enclosure may have been constructed at the same time as the incline, and its top is covered in large mature trees of some antiquity. The south-west side of the enclosure consists of an earth bank that becomes rapidly less pronounced as the bank extends north-west towards Stanley Bank Road. The enclosure is interpreted as having enclosed a plot of land on the south-west side of the farm. The plot was occupied by a building on the 1839 tithe map (LCRO/DRL 1/5, 1839) and OS 1st Edition (1849) and may be associated with part of the 'copper works' (Site **14**). The pond is interpreted as possibly being associated with water power or water for processing associated with the copper works due to the substantial nature of the earth banks created on the southern half (Plate 3).

4.2.10 **Other Sites:** Copper House Row (Site **06**), is situated on the northern side of the incline (Site **07**), but the vegetation in this area was extremely dense and limited examination of the surface. Sites **01** (Blackbrook Bridge), **02** (Ship Inn), **03** (Haydock House), **05** (Iron Slitting Mill), **09**, **10** and **11** (all part of Boarded Barn) all survived in a similar state to that recorded previously (Cox and Chandler 1993).

4.3 AERIAL PHOTOGRAPHIC SITES

4.3.1 In the intervening period between the archaeological assessment (OA North 2002) and the present phase of work there has been two aerial photographic sites identified within the development corridor (Sites **24** and **26**) by Dr RA Philpott of Liverpool Museum Field Archaeology Unit in July 2003 (MSMR 5497-012 and MSMR 5497-11). Neither site on examination was found to have a surface expression. The cropmarks consist firstly of two faint parallel marks curving from south to north-west and running for approximately 20m (Site **24**), the second mark is a rectangular enclosure measuring approximately 75m long by 50m wide aligned north-east to south-west. The latter was interpreted as possibly relating to a Roman practice camp on the basis of morphology and location.

4.3.2 A small phase of fieldwalking was conducted within the fields containing the cropmarks by Liverpool Museum Field Archaeology Unit and local volunteers in October 2003 (Fig 4). The investigation uncovered no significant archaeological material with only eighteenth to twentieth century ceramics, tobacco pipe and building material being present. This was interpreted as being from dispersal of manuring/midden material from Stanley Bank Farm; however, the dispersal of twentieth century ceramics and building material could equally originate from the demolition of elements of Garswood Colliery (site **15**) immediately to the east.

5. EVALUATION RESULTS

5.1 INTRODUCTION

5.1.1 In total, 48 evaluation trenches were excavated along the length of the scheme, and a variety of features were revealed including pits, ditches, culverts, brick structures and a possible road surface (Figs 5 and 6). The detailed results of the evaluation, on a trench by trench basis, are within *Appendix 4*, and a detailed discussion of only those trenches containing significant archaeology is presented below.

5.2 RESULTS

5.2.1 **Trench 1 (Fig 6):** within this trench a total of four rectangular pits were revealed (**4**, **7**, **9** and **11**). Pit **4** measured 0.87m x 0.71m in plan and had a maximum depth of 0.4m. The fill of this pit consisted of sandy clay, containing both pot and metal artefacts (*Section 6*). Pit **7** was located to the south-west of Pit **4** and ran into the south-western balk of the trench. The pit had a maximum depth of 0.5m and was filled with sandy clay, containing slag. Pit **9** was located c0.5m north of Pit **7** and measured 0.9m x 0.7m in plan, but was only shallow, to a maximum depth of 0.16m. The fill of this pit consisted of silty clay containing coal, pot, glass and metal artefacts. Pit **11** was the northernmost of the pits and was the largest of the four, measuring over 1m in length by 0.75m wide. The pit was 0.3m deep and was filled with a mixture of greyish-black and orange clay, containing metal and Ceramic Building Material (CBM) fragments. These four pits are very similar in size, shape and fill and as such are presumably related. They all appear to relate to the relatively recent industrial usage of this site as a colliery and may have functioned purely as small rubbish pits.

5.2.2 **Trench 8 (Figs 6 and 12):** this trench contained a north-west/south-east aligned ditch (**14**), which was truncated by a shallow gully, **18**, after it had fully silted up. The ditch was exposed for a length of 1.6m within the trench and measured 1.49m wide and 0.49m deep; it contained three fills, varying from silty sands to sandy clays, although no finds were recovered from any of them. The gully, **18**, was substantially smaller than the original ditch, measuring only 0.39m wide and 0.13m deep. The fill of this gully comprised a mixture of dark-brown and orange sandy silts, containing no finds. It is most likely that ditch **14** was a field boundary ditch, with gully **18** possibly representing a shallow recut. No dating material was recovered from either of these features.

5.2.3 **Trench 10 (Fig 6):** this trench revealed a very substantial cut, **37**, which appeared to extend over the north-westernmost half of the trench. The feature was not fully excavated due to its depth, which was greater than 1.8m below the present ground surface. This feature contained numerous fills including bricks, degraded stone, silts, sands, and most interestingly, a highly compacted black surface (**26**). This surface appeared to be on the right alignment to be the continuation of the Stanley Bank Incline (Site **07**).

5.2.4 **Trench 13 (Fig 6):** the most interesting feature uncovered within this trench was an unmortared rectangular brick structure, **40**, measuring 2.2m x 0.55m, and aligned broadly north/south. The brick structure was a single course thick, was topped by

two large stone slabs and was set within a sloping cut, suggesting it was probably used as a drain. An extensive layer of brick rubble, 43, sealed the structure and extended for over 9m along the trench. This and other layers within the trench all seem to relate to a period of dumping of waste material across the site, which was almost certainly associated with the demolition of the colliery.

- 5.2.5 **Site 26 (Trenches 15, 17 and 43) (Fig 6):** three trenches (15, 17 and 43) were placed across the Site 26 cropmark to attempt to locate and evaluate it. All three of the trenches showed evidence of large-scale dumping of shale and spent coal, presumably from the colliery's spoil heaps and it appeared that these dumps were probably filling fairly major truncations into the natural geology. Bands of clay were observed in Trenches 15 and 43 that may be responsible for the cropmarks, but it still remains unclear as to how bands of clay could be responsible for what appears to be a very well defined sub-rectangular ditched enclosure.
- 5.2.6 **Wooden Platform (Context 53) (Trenches 22, 39 and 44) (Plates 7 and 8) (Figs 5, 6 and 10):** a wooden platform, 53, was initially discovered within Trench 22 and two further trenches (39 and 44) were then placed in an attempt to discover its limits. Trench 39 unfortunately revealed only substantial modern truncation, but Trench 44 was successful in exposing the southern extent of the platform. Overall the wooden platform was exposed for a length of over 7m, although it should be noted its northern extent was not exposed. The platform was 4.5m wide, was aligned north-north-east/south-south-west and was constructed of timber planks of average dimensions 1.6m x 0.3m x 0.2m (Fig 10). On the outer edges of the platform, more substantial timbers had been laid, presumably to hold the structure in place. Towards the southern end of the platform a total of 15 bricks had been incorporated into the platform, possibly as a repair or due to a lack of timber. A small timber-lined 'box' had also been built into the platform. The timbers were placed on top of a 0.15m thick bank constructed from layers of redeposited boulder clay and burnt clinker deposits. This enigmatic structure remains difficult to interpret, although it is possible that it relates to the Garswood-Pewfall Incline which lies to the south of the wooden platform.
- 5.2.7 **Garswood-Pewfall Incline (Site 08) (Trenches 25 and 26) (Figs 5, 6 and 7):** two trenches (25 and 26) were excavated across the extant incline embankment (Plate 9). The trenches showed that the incline had suffered a high degree of bioturbation, both as a result of rabbit action and also due to the trees and other vegetation now growing along it. The north-eastern trench (25) showed greater survival of the incline, to a depth of 0.87m, whilst in the other trench it remained to a height of 0.74m (Fig 7). Similar construction methods were observed in both trenches, with the lowest layer, a mid-brown silty clay, being placed directly upon the previous ground level. Immediately above this layer, a layer of light-yellowish-orange clay was deposited. These two layers were substantial in both trenches and both layers averaged a thickness of about 0.25m. Above these layers, a number of thinner bands of material were laid down, incorporating both layers of clinker/cinder and also layers of redeposited boulder clay; none of these higher layers were any thicker than 0.10m. It should be noted that the uppermost 0.25m was too heavily bioturbated to be able to infer its original material. These trenches have shown a very similar construction along the incline, and one that apparently did not require any kind of stone revetment.

- 5.2.8 **Trench 38 (Figs 5 and 8):** this trench was located across the extrapolated line of the incline to attempt to locate any below ground remains of it and over Site 22 (Plate 4), comprising a bank and ditch. Excavation through the bank showed it to be made up of three distinct layers of redeposited natural boulder clay (Fig 8). The ditch (85) had a maximum depth of 1.2m and was found to be substantially wider than it appears today, with a width of over 6m. The ditch appeared to have been centrally recut, which was then backfilled within the last 30 years, although on either sides of the recut, the original, slowly silted deposits survived. As well as the expected bank and ditch, a further linear feature, with vertical edges was also revealed, that was probably a drainage ditch. A culvert, 83, constructed from brick, was also revealed, which appeared to be truncating the base of the bank. It is most likely that the bank was constructed to contain the area to the north-west of it, although unfortunately no dating evidence was recovered from either within or beneath the bank material. The ditch turned out to be far more substantial than expected; however, it is directly in line with the Garswood-Pewfall incline and to judge by the wide flat bottom was a continuation of the incline. Evidently, because of the slightly raised topography in this area, the continuation of the incline is here a cutting rather than an embankment. It is interesting to note that the gradient between the tops of the incline in Trenches 25 and 26 was 1:56, sloping down towards the south-west. The gradient down from Trench 26 to the bottom of the cutting in Trench 38 was remarkably also 1:56, confirming that this cutting was the base of the incline, and also demonstrating the precision of the design of the incline which provided for a precisely measured and engineered slope.
- 5.2.9 On the surface there was a slight raised bank interpreted by the topographic survey as the embankment, but was revealed by the excavation to be the build up and subsequent slumping along the southern edge of the incline. This earthwork feature was enhanced by the recut along the centre of the ditch which further enhanced the raised profile of what had become by this time a slight bank to the south of the former ditch. The culvert, 83, set into the bank on the northern side of the ditch was almost certainly intended to keep run off out of the incline cutting.
- 5.2.10 **Trench 28 (Fig 5):** this trench was also located over the extrapolated line of the Garswood-Pewfall Incline. Within this trench three separate cuts were observed truncating the natural geology, all of them aligned north-east/south-west. The north-westernmost feature was a small gully, which ran parallel to a more substantial ditch. The larger ditch would appear to correspond in character with the large ditch found in Trench 38 and interpreted as the cutting of the Garswood-Pewfall incline. Both the ditch and this small gully had gradually silted up. To the south-east of the flat bottomed ditch was a further well-constructed culvert, built with unmortared brick sides and capped with stones averaging 0.37m x 0.34m x 0.05m. Significantly, this culvert is on the opposite side of the incline cutting from that in Trench 38.
- 5.2.11 Two further culverts were revealed within Trenches 30 and 34, and were, on the whole, constructed of brick with a central channel and capped with stone flags. Unlike those in Trenches 28 and 38 these trenches were not associated with the incline, but they were more elaborate than would be expected merely for agricultural drainage and were potentially also related to the industrial activity across the site. The two culverts were perpendicular to each other and may perhaps be part of a larger overall system.

- 5.2.12 **Trench 33 (Figs 6 and 11):** within this trench a brick foundation, **93**, was revealed (Plate 10). The foundation formed a right angle, aligned north-east/south-west and north-west/south-east. It was exposed for a length of 1.65m north-west/south-east and a length of 1.15m north-east/south-west. The foundation was 0.3m wide, only a single course deep and was built out of complete and half bricks of two distinct types (Fig 11). Given that only a corner of this structure was revealed it is somewhat difficult to infer a purpose for it, although the lack of depth of foundations would suggest it was probably not a very substantial structure and may have been for a shed.
- 5.2.13 **Site 24 (Fig 6):** two trenches (40 and 45) were located across this putative ditched enclosure cropmark in an attempt to characterise and date it. Both these trenches, however, showed large-scale coal and shale deposits, and it appears that the cropmarks were formed due to clay deposits observed within the trenches which may either be natural in origin or relatively recent. Either way, given the depth of recent shale and coal deposits found in these trenches (over 1m), it is highly unlikely that any earlier archaeology would be showing as cropmarks.
- 5.2.14 **Trench 42 (Figs 6 and 9):** this trench revealed the most complete brick structure found during the course of this evaluation (Plate 12). The structure (**100**) was circular in section, with a diameter of 1.55m and it survived to a maximum height of 0.75m (Fig 9; Plate 11). It was constructed from reddish-orange unfrosted bricks of average dimensions 234 x 110 x 78mm and had been filled with crushed shale colliery waste, suggesting that it had been deliberately in-filled. The construction cut for this feature was less than 0.1m wider than the structure on the southern side, whilst to the north it was approximately 0.5m wider. There was a suggestion of another similar structure, **97**, at the southern end of the trench, which was constructed of identically-sized bricks and bonded with a similar (dark-brown) mortar. This structure appeared to be curving up into the section, but an insufficient amount of it was exposed to know whether it was of similar form to **100** (Plate 11). The function of structure **100** remains somewhat difficult, as there was no evidence of silting or burning, although it would certainly appear to relate to the industrial past of the site.

6. FINDS

6.1 INTRODUCTION

6.1.1 In total, 96 fragments of artefacts were recovered from 15 of the 48 trenches evaluated. The bulk of the assemblage comprised ceramic vessel fragments (27 sherds), but also included glass (21 vessel fragments), ceramic building material (18 fragments, including a small sample of six complete brick types), iron (13 objects), and lesser amounts of industrial residue, clay tobacco pipe and a fragment of textile. Catalogues of the artefacts have been included in *Appendix 6* and all finds were treated in accordance with standard OA North practice.

6.2 FINDS ASSEMBLAGE

- 6.2.1 **Ceramics:** the finds assemblage was dominated by a small collection of post-medieval pottery. In total, 27 sherds of pottery were retrieved from 10 trenches (Trenches; **1**, **5**, **10**, **13**, **25**, **26**, **29**, **35**, **37**, and **38**) deriving from pit fills, rubble layers and clinker layers from the incline associated with the colliery. Analysis of the pottery was based solely on visual inspection of individual sherds, and has been described using the terminology developed by Orton *et al* (1993). In general terms, the material was in fair condition, and some fragments were clearly rolled and water worn. The date ranges suggested for these fabrics are approximate, and are based on parallels from fabrics discovered within the Merseyside region.
- 6.2.2 The bulk of the assemblage broadly dates to the nineteenth century, with smaller proportions dating to the late eighteenth and twentieth centuries. A limited range of fabric types and vessel forms from these periods were represented throughout the trenches comprising common domestic and utilitarian wares.
- 6.2.3 The eighteenth century material comprised an early pattern of blue transfer ware saucer from Trench **37** (unstratified), and a hand-painted blue tea bowl rim from Trench **25** (context **56**). Both vessels were types commonly produced from the late eighteenth century to the early nineteenth century. Other material that derived from the transitional period into the nineteenth century include a grey bodied brown stoneware bottle fragment from Trench **5**. Stoneware of this type was produced over a long period and has a broader date range of between the eighteenth to twentieth centuries.
- 6.2.4 The nineteenth and twentieth century pottery was represented by utilitarian brown and black glazed red earthenware storage jars, white glazed earthenware plates and porcelain cups, two white salt glazed stoneware jam or marmalade jars, and a pearlware plate fragment. Amongst the kitchen and table earthenwares were willow pattern plates, a sponge print vegetable dish lid and a table serving jug decorated with an Asiatic pheasant print. These were recovered from pit fill **8** (Trench **1**) and fill of land drain **68** (Trench **29**).
- 6.2.5 **Sources for the pottery:** the material derives from a range of sources; it is likely that the dark glazed earthenwares were relatively locally made, although little is known of the small-scale producers of red earthenwares in Lancashire during the eighteenth

and nineteenth centuries. The decorative designs and fabrics amongst the tablewares represented are those of the industrial-scale potteries of Liverpool and Staffordshire.

- 6.2.6 **Glass:** in total, 21 fragments derived from three trenches (1, 10 and 13) yielded from pit fills and rubble layers. A large proportion of the fragments (14) were collected from an almost complete clear bottle from rubble layer **44**, in Trench 13. One other vessel was collected from the same context comprising an enamelled fragment from a small ornament. Both vessels probably date from the late nineteenth century. The rest of the fragments comprised broken clear window panes which had been dumped into the upper fills of pits within Trench 1 (pits **9** and **11**).
- 6.2.7 **Ceramic building material:** the 18 fragments of building material derived from seven trenches comprising; glazed roof tile, drain pipe, tile fragments and a sample of seven complete or near complete bricks.
- 6.2.8 All the bricks appeared to be of a mould-thrown construction with slight differentiations in fabric types, but with a similar purpose and function. The colours varied from a light coarse orange, yellow refractory, and dense red. The bricks had similar dimensions of 0.23m by 0.10m and thickness of 0.07m. Although there was a difference in colour, all the bricks had very similar weights varying between 3510g to 3920g. Whilst it can be tentatively suggested to date the bricks in accordance to the lifetime of the colliery, it must be noted that the sample size was too small and that variance in colour was probably a result of the clay source and manufacture. An interesting feature of the bricks was the absence of a frog, as frogged bricks were introduced in the nineteenth century to reduce the weight and use of material (Harley 1974). However, the similarities in weight from the sample collected from the site would imply an industrial or engineering function, rather than a common source of house brick
- 6.2.9 **Iron:** all of the objects had suffered from severe encrusted corrosion products, and approximately 51% of the 13 objects were unidentifiable. The bulk of the identified objects related to debris from machinery such as; plate fittings, bar, binding strips and nails.
- 6.2.10 **Clay Pipe:** a total of three stems were collected from rubble layers in Trenches 10 and 31. The stems were of a type probably used in the nineteenth century. The fragments were of negligible value and add little to aid interpretation of the site.
- 6.2.11 **Industrial Residue:** four lumps of slag with a ferrous content and three small pieces of coal and fuel ash waste were recovered from two trenches (1 and 10). A small group of slag derived from the fill of a cut also yielded a small collection of iron objects (**34** from Trench 10) and was the result of discarded debris that possibly derived from a local blacksmith's workshop.
- 6.2.12 **In conclusion,** the finds assemblage is of limited archaeological significance and adds little to the interpretation of the site. The material has limited value and is of only of local importance.

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

- 7.1.1 The evaluation trenches at the north-eastern end of the route (Trenches 1, 3, 5-7, 9, 42 and 13) demonstrated that the landscape had been subject to extensive truncation, and that where there was localised survival of features cut into the natural, they were filled with modern industrial debris such as cinders, modern bricks and slag. There was very little intact survival of colliery remains, and, interestingly, the trench excavated closest to the shaft (Site **15**) (Plate 6) revealed only natural subsoils. Perhaps the best survival was of the surface within Trench 10 which would appear to mark the continuation of the Stanley Bank Incline. However, it is perhaps significant that while the configuration of the trenches follows the line of this incline as defined on the 2nd edition OS 6" map (1909) (Fig 2), no other trench revealed evidence for remains of the incline. Similarly, Trenches 11, 12 and 41 were located to investigate the Garwood-Pewfall incline to the east of the upstanding earthwork, and while they revealed evidence of colliery waste and slag, there was no evidence for the incline.
- 7.1.2 The evidence would suggest that, on the abandonment of the colliery, the whole area was extensively stripped of overburden and colliery waste in order to return the ground for agriculture. This truncated all the industrial remains and left only isolated survivals within features or undulations in the natural. While there were extant structures revealed within this area, notably the circular brick structure in Trench 42, these reflect isolated survivals rather than an widespread indication of industrial remains. The two crop mark features (Sites **24** and **26**) were revealed as large scale dumping of shale and spent coal from the collieries spoil heaps.
- 7.1.3 Trenches (25 and 26) across the intact section of the Garswood-Pewfall incline confirmed that, where it had a surface expression, this monument survived relatively well despite the degree of bioturbation. Interestingly, there was no evidence for any stone revetment in the trenches, even though some localised stone structure had been revealed in the sides of the earthwork during the survey. The incline was also revealed in Trench 38 where it was here a 6m wide flat-bottomed cutting rather than an embankment. It was also revealed in Trench 28 but the large ditch found in this trench was less deep and had silted up, hence there was no surface expression. A culvert was observed adjacent to the incline cutting in both trenches which may have been intended to keep run off water out of the cutting. Interestingly, in Trench 28 the culvert was on the south side of the cutting but in Trench 38 it was on its north side.
- 7.1.4 **Wooden Platform:** probably the most significant discovery during the evaluation was the large wooden platform revealed in Trenches 22 and 44. This was 4.5m wide and at least 7m long, and had been constructed on top of redposited boulder clay and clinker deposits. The association with the clinker deposits, and its spatial association with the Garswood-Pewfall incline, would suggest that this was a component of the industrial landscape, but it is difficult to infer a function purely on the observed evidence. It is however, a potentially important survival.

7.2 IMPACT

7.2.1 The majority of the archaeological features uncovered during the course of this evaluation will be directly impacted by the road scheme, although there are some exceptions, namely Site **22** (Plate 4), the features within Trench 10, the features within Trench 28 and the brick structures within Trench 42, which lie outside the area of the main scheme. The features that will be directly affected are listed below:

Trenches	Features
1	Four pits (4 , 7 , 9 , and 11)
8	Ditch 14 , gully 18
10	Stanley Bank Incline (Site 07)
13	Drain 40
22, 44	Wooden Platform 53
25, 26, 28	Garswood-Pewfall Incline (Site 08)
30	Culvert
33	Brick Foundation 93
34	Culvert
44	Wooden Platform 53

7.3 RECOMMENDATIONS

- 7.3.1 The northern part of the route has evidently been truncated and there would appear to be relatively little consistent sub-surface survival of the mining landscape. Many of the identified features on the line of the road in this area are of relatively low importance. For the most part it would be appropriate that this area be investigated as a watching brief during the top-soil strip for the development.
- 7.3.2 It is, however, recommended that a number of sites are investigated in more detail. In particular; the wooden platform in Trenches 22 and 44 reflects a significant survival and should be fully recorded prior to its demolition, as should the circular brick structure, **100**, in Trench 42 (Plate 11) and the brick foundation, **93**, in Trench **33** (Plate 10). Similarly the area around the surviving section of Stanley Bank incline in Trench 10 should be investigated. In these cases it would be useful to define the extents of the features, perhaps through small-scale, targeted excavations, which might inform us as to their form and purpose.
- 7.3.3 The Garswood-Pewfall Incline has limited upstanding survival, but part of this will be cut by the proposed road. It is recommended that care be taken to minimise the disturbance to the extant earthwork during the construction of the road.

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APPENDIX 1
PROJECT BRIEF

**BRIEF FOR ARCHAEOLOGICAL INVESTIGATIONS
ON THE ROUTE OF THE
A58 BLACKBROOK DIVERSION,
ST HELENS, MERSEYSIDE**

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on behalf of St Helens Council

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Appendices I-V

- I. *A58 Blackbrook Diversion, St Helens, Merseyside. Archaeological Assessment. Oxford Archaeology North, June 2002. (Client to supply)*
- II. *A58 Blackbrook Diversion- Environmental Statement. September 2002. Prepared for St Helens Council by TEP {The Environment Partnership}. (Client to supply)*
- III. *A58 Blackbrook Road Diversion – highway alignment to scale plans & digital copy. (Client to supply)*
- IV. *Additional archaeological information - new cropmark sites. Merseyside SMR references 5497-011 & 5497-012. NB Draft location plot.*
- V. *Additional archaeological information - sketch plan showing areas fieldwalked, October 18th 2003 (Liverpool Museum Field Archaeology Unit and community volunteers).*

1. Introduction

- 1.1 Information in the Merseyside Sites and Monuments Record (SMR) has identified that the construction of the new A58 Blackbrook Diversion Road, St Helens will affect known, and also some possible, sites of archaeological interest and importance.
- 1.2 Planning permission has been granted for the development of the site subject to an archaeological condition requiring archaeological investigation of the land in advance of development.
- 1.3 This brief has been prepared by the Merseyside Archaeological Officer and is for **initial field evaluation** of the land through trial trenching and also recording of known structures that will be affected or destroyed by construction. This evaluation will inform any additional requirements for further archaeological work such as excavation prior to and/or watching brief during construction works.
- 1.4 This brief is not intended to serve as a full specification of works, which must be provided in a Project Design to be submitted to, and subject to the approval of the Merseyside Archaeological Officer (hereafter AO & on behalf of St Helens Council, who is the Client).

2. Aim of the Work

- 2.1 The proposals affect land which forms part of an important known relict industrial landscape that displays evidence coal extraction, iron and copper working and stone quarrying. Laying on the edge of the Sankey Valley Park the landscape is of proven interest to exploring and presenting the 18th and early 19th century industrial development of St Helens. Industrial and agricultural activity will have affected potential archaeological sites but this level of disturbance has not previously been assessed by intrusive archaeological methods.
- 2.2 The requirement for archaeological field evaluation is in order to assess the possible presence/absence, location, nature, extent, survival, quality, significance and date of any archaeological deposits that may exist along the route. This is in accordance with PPG 16 'Archaeology and Planning' (paragraphs 21-30). The purpose of the work is to:
 - Gather sufficient evidence to establish, supplement, improve and make available information about the archaeological resource existing within the areas of investigation and,
 - To assist the formulation of any strategies for the future treatment of archaeological deposits in relation to development proposals.
- 2.3 An archaeological field evaluation is not intended to reduce the requirement for additional archaeological survey (such as excavation and watching brief). In this instance it may be seen as a guide to any requirement for contingent survey or, where possible, preservation of deposits and features.
- 2.4 Some archaeological features are visible and archaeological recording of these is considered the most appropriate action.

3. Appendices for reference with Brief

- I. *A58 Blackbrook Diversion, St Helens, Merseyside. Archaeological Assessment. Oxford Archaeology North, June 2002. (Client to supply).*
- II. *A58 Blackbrook Diversion- Environmental Statement. September 2002. Prepared for St Helens Council by TEP {The Environment Partnership}. (Client to supply).*
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- V. *Additional archaeological information - sketch plan showing areas fieldwalked, October 18th 2003 (Liverpool Museum Field Archaeology Unit and community volunteers).*

4. Site Location & Description

4.1 See Appendices I, II & III.

4.2 The road will be a 1.3km single carriageway from the Ship Inn (SJ 353 496) on the existing A58, to the A580 (T) East Lancashire Road (SJ 354 497). It will be a total of c12.3m wide with a spur running from its north east side to the existing Vicarage Road.

5. Archaeological Planning Background

5.1 See Appendices I & II.

5.2 In 2002 St Helens Council submitted an application for planning permission for the road development. This was accompanied by an Environmental Impact Assessment, which included consideration of 'cultural heritage.' The full assessment of the historic environment impacts are detailed in the Oxford Archaeology North assessment (Appendix I) and summarised in Environmental Statement (Appendix II).

5.3 A previous planning application for road development was submitted in 1993, but the scheme was not implemented. This was accompanied by an archaeological assessment (Cox, P & Chandler J, 1993. *A58 Blackbrook Diversion: Environment Impact Assessment – Archaeological and Historical Assessment* Diversion. AC Archaeology unpublished report). The OA North assessment (Appendix I) enhances the 1993 assessment in terms of new information and in accordance with current planning requirements.

6. Archaeological and Historical Background

- 6.1 See Appendices I, II, IV & V.
- 6.2 Two new cropmarks (Appendix IV) were discovered and reported to the Merseyside SMR in July 2003 as a result of an ongoing programme of aerial reconnaissance for archaeological sites in Merseyside and Cheshire by Dr R.A. Philpott (Field Archaeology Unit, Liverpool Museum) and Dr J. Collens (Archaeology Service, Cheshire County Council). Both cropmarks are south of Stanley Bank Wood at the north east length of the route. Interpretation suggests they may relate to Romano-British or late Prehistoric activity.
- 6.3 The first cropmark is identified in the SMR as reference 5497-011. This is a sub-rectangular enclosure measuring c 75m x 50m with its long axis aligned north-east to south-west and the corners defined by sharp right angles. The northwestern side of the enclosure is not clearly visible, but may be defined by the lane running from Stanley Bank Farm to Stanley Bank Road. Alternatively the enclosure may extend into the land north-west of the lane, though it is not visible as a cropmark in that area (personal communication R.A. Philpott.)
- 6.4 The second cropmark (hereafter 5497-012) lies c. 40m to the north of 5497-011 and is composed of two faint, parallel marks curving from south to north-west and running for c.20m (ibid).
- 6.5 Some fieldwalking (Appendix V) of those fields adjacent to Stanley Bank Wood, and covering the aforementioned cropmarks, was carried out in October 2003 by Dr M Adams (Field Archaeology Unit, Liverpool Museum) with volunteers. This work was carried out in liaison with St Helens Countryside Development Officer and formed part of proposals for community archaeology involvement and 'Stanley Bank Triangle' Environmental Framework.

7. Scope and Methods

7.1 Topographic survey

- 7.1.1 A detailed topographic survey will be undertaken of those surface landscape features that will be affected by road construction (i.e. identified as within the construction corridor). Site inspections to date confirm this is particularly relevant to the two inclines, Sites 07 & 08, where topographic survey will contribute to setting the features in their landscape context prior to excavation recording (see sec. 7.3.1).

7.2 Trial Trenching

7.2.1 This brief allows for a total sample of 1,750m². This includes evaluation trial trenching at specific sites (7.2.4), along the road corridor and also recording of an extant section of incline.

1,750m² equates to a 7% sample {i.e. the approx. length of route accessible for sample [c1000m] by the approx. width of 25m as the construction corridor = 25,000m². A 7% sample = 1,750m²}.

7.2.2 The overall trench plan will include a mixture of evaluation required to assess the potential for sub-surface remains along the road corridor as well as targeting specific potential archaeological sites. The position of the key trenches should be agreed with the AO prior to the start of work (see 7.2.4).

7.2.3 The trench plan will allow for a mixture of linear and more 'open area' area evaluation. The reason for the latter is that experience within Merseyside has demonstrated that such 'open area' trenches are more productive in locating and understanding potential archaeological features. I.E. trench plan could be a mixture of 20m x 1.6m, 10m x 1.6 & 10m x 10m, obviously dependent on nature of evidence and reason for investigating.

7.2.4 The trench plan will include specific evaluation targeting of the following known and potential archaeological Sites (numbering from OA North, {June 2002}, unless stated):

- Site 13 – soilmarks, east of Stanley Bank Farm. Need to establish what these are.
- SMR refs 5497-011 & 5497-012 – cropmark sites, potential Prehistoric /Romano British sites.
- Adjacent to Site 12 – area to the east of the pond/moated structure that will fall within likely construction corridor.
- Site 10, the spur of Garswood -Pewfall Incline as it crosses with Site 07 Stanley Bank Incline – approx. at the northeast roundabout and spur of the road route.

7.3 Excavation and recording of section of Garswood -Pewfall Incline (Site 08)

7.3.1 This will consist of at least two trenches along the section of approximately the 50m that will be destroyed by road construction to the south east of Stanley Bank Farm. This will establish and record its construction and make-up, which will assist proposals for the conservation of the remaining section as an integral landscape feature.

7.4 Excavation by Machine

7.4.1 Any machine work must be carried out under the direct supervision of an archaeologist. The person/persons responsible for supervision must be conversant with machine excavation to ensure that building debris material and/or topsoil is removed in level spits to any archaeological horizons, thereafter cleaning/excavation by hand must be employed. Although prevailing site conditions will influence the choice of machine, it ought to have approximately a two metre

wide toothless bucket.

7.5 Excavation by Hand

- 7.5.1 Sufficient of the archaeological deposits/features must be examined to recover evidence of date, condition and function. A minimum sample of 50% of archaeological features must be examined by excavation. Features such as post-holes, pits and slots will be half-sectioned and there will be excavation of segments across linear features such as ditches and gullies covering no less than 25% of the feature.

7.6 Preservation in Situ

- 7.6.1 All excavation by machine and hand must be undertaken with a view to avoid damaging archaeological deposits or features, which appear worthy of preservation in-situ (where this can be negotiated within proposals) or more detailed investigation than for the purposes of evaluation.
- 7.6.2 Where structures, features or finds appear to merit preservation in situ, they must be adequately protected from deterioration and the AO and Client informed.

7.7 Environmental Sampling

- 7.7.1 Contractors are to adhere to the recommendations in the '*Working Papers of the Association for Environmental Archaeology, Number 2. Environmental Archaeology and Archaeological Evaluations, September 1995* (internet version on line a <http://www.envarch.net/publications/papers/evaluations.html>).
- 7.7.2 Environmental sampling and basic analysis (presence/ absence of significant material and potential) of suitable deposits will be carried out to enable their date, nature, extent and condition to be described and analysed. Samples should be taken from the fills of features where organic materials may be preserved, such as pits, ditches and other deposits, especially if waterlogged.

7.8 Treatment of Finds

- 7.8.1 All finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines (see Sec. 9.3).
- 7.8.2 Any finds of human remains will be left in situ, covered and protected and the appropriate authorities informed. If removal is essential it can only take place under appropriate Home Office and environmental health regulations, and if appropriate, in compliance with the 'Disused Burial Grounds (Amendment) Act, 1981.
- 7.8.3 All finds which may constitute 'treasure' under the Treasure Act, 1997 must be removed to a safe place and reported to the local Coroner. Where removal cannot take place on the same working day as discovery, suitable security will be taken to protect the finds from theft.
- 7.8.4 All identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate

sample the recipient museum's archive curator.

7.9 Re-instatement of the Land

7.9.1 Reinstatement of the land is to be the responsibility of the archaeological Contractor, unless the Client has given written instruction to the contrary (see also 10.7.5).

7.10 Post-Excavation Processing

7.10.1 According to standard procedure, excavation ought to be followed by a period of post-excavation processing. This should involve the cataloguing and analysis of any finds, samples and the preparation of the archive for the site report and with the view to final deposition in the event of no further investigation being required (see sec. 9).

8. Evaluation Report

8.1.1 Whilst archaeological work will consist of three elements (trial trenching, topographic survey and recording) the results will need to be integrated into the draft evaluation report.

8.1.2 The report ought to:

Include

- (a) digital trench location plans by CAD tied into the Ordnance Survey data,
- (b) any section drawing(s) {at scale 1:10} showing depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale,
- (c) a summary of artefacts by trench together with their interpretation,
- (d) plans of actual features, deposits and, where appropriate, any which were extrapolated to indicate potential deposits {scale 1:20},
- (e) any specialist assessments,
- (f) a concise non-technical summary of the project results.

8.1.2 Assess

- (a) the archaeological significance of the development site and any archaeological deposits encountered during evaluation,
- (b) the evidence in its setting, regional context and also aim to highlight any research priorities where applicable.

8.1.3 Wherever appropriate, outline the options for achieving the preferred option of preservation in- situ of significant archaeological deposits

8.1.4 There must be provision for circulation of a summary statement and interim report of evaluation results prior to the production of a draft evaluation report. This is in order to facilitate any required early decision on possible mitigation strategies. A draft evaluation report ought to be submitted to the AO, and St Helens Council, within an agreed time-scale.

8.1.5 One copy of the final report will be deposited with the Merseyside SMR **no later than six months** after completion of the project. This will be a **digital and paper**

copy of the report, including its relevant accompanying AutoCAD plans. CAD drawings are to be delivered in DXF; Databases in ASCII delimited text or MS Access; Text in ASCII text.

Contractors are encouraged to consult the **Archaeology Data Service**, in particular *Digital Archives from Excavation and Fieldwork Guide to Good Practice. Second Edition*. Available at <http://ads.ahds.ac.uk/project/goodguides/excavation>

- 8.1.6 Results of the project, even if negative, will be submitted for publication in the appropriate academic journals. Contractors are to provide a summary of findings to the regional Council for British Archaeology group, CBA North West (c/o Dr M Nevell, UMAU, University of Manchester, Oxford Road, Manchester, M13 9PL who will provide a pro-forma sheet).
- 8.1.7 A copy of the final report/s will be deposited in the National Monuments Record, English Heritage, Swindon.

9. Archive

- 9.1 The archive consists of all written records and materials recovered, drawn and photographic records. It will be quantified, ordered, indexed and internally consistent. It should also contain site matrix, site summary and brief written observations on the artefactual and environmental data.
- 9.2 Archive will be prepared in line with UKIC Guidelines for the preparation of excavation archives for long- term storage (1990).

9.3 Deposition

- 9.3.1 The integrity of the site archive should be maintained. All find and records should be properly curated by a single organisation, and be available for public consultation.
- 9.3.2 Arrangements for deposition of the full site archive ought to be made with Liverpool Museum, National Museums & Galleries on Merseyside ('Resource' registered repository).

National Museums Liverpool (NML) '*Guidelines on the Deposition of Archaeological Archives*' will be consulted and followed as part of the archaeological Contractor's Project Design preparation. **(For a copy contact Ms C. Longworth, Archive Curator, Telephone: 0151 478 4311. Antiquities, Liverpool Museum, William Brown Street, Liverpool L3 OHP)**

- 9.3.3 Arrangements for the long-term storage of any artefacts ought to be agreed with the landowner, AO and NML before commencement of works. Where the landowner does not wish to transfer all, or part of the archive to NML, the AO and Archive Curator will advise on an alternative course of action.

9.3.4 The archive will be presented to the Archive Curator within 12 months of completion of the fieldwork, unless alternative arrangements have been agreed in writing with the AO and Archive Curator.

10. Requirements (including responsibilities of Client & Contractor)

10.1 Appointment of Archaeological Contractors

10.1.1 The professional archaeological Contractors invited to tender for the work must be able to demonstrate within a Project Design that they can provide staffing and expertise with the appropriate experience in dealing with archaeology of the type and nature required in this Brief.

10.1.2 Contractors will operate in line with professional guidelines and standards as stated in the Institute of Field Archaeologists (IFA):

- *Standard and Guidance for Archaeological Field Evaluations (1994, revised Sept.2001),*
- *Standard & Guidance for the Archaeological Investigation & Recording of Standing Buildings or Structures, (1996, revised Sept.2001),*
- *IFA Code of Conduct (1985, revised Sept. 2002) and*
- *IFA By-Law Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology (1990, revised Sept. 2002).*

10.2 Pre- tender site visit

10.2.1 The Contractor must visit the site before completing any Project Design as there may be implications for accurately costing the project. This visit must be noted, along with any other relevant site details, within the Project Design.

10.3 Project Design

10.3.1 The Project Design will cater for full post-excavation analysis, reporting and deposition of the site findings and:

- a) be supported by a research design, which sets out the site-specific objectives of the archaeological works,
- b) include details, including name, qualifications and experience of the Site director and all other key project personnel, including any specialist staff and sub-contractors, will be included in the Project Design. The ratio of on-site voluntary assistance must not exceed a ratio of more than 1:2 employed experienced staff,
- c) detail the proposed works as precisely as is reasonably possible, and where appropriate, indicate clearly on plan their location and extent,
- d) provide a timetable for proposed works,
- e) include a detailed cost breakdown of the project elements,
- f) include a contingency (Sec 10.4).

10.4 Contingency

- 10.4.1 A contingency will be allowed to cater for unforeseen circumstances, such as bad weather/ discovery of dangerous deposits/ presence of significantly different deposits than expected etc. that may affect the archaeological resource and/or project objectives.
- 10.4.2 Contingency does not cater for provision of staff where this is the result of non-replacement of staff through dismissal or resignation.
- 10.4.3 The contingency must be shown as a day rate.
- 10.4.4 Contingency is evoked with the agreement of the AO and archaeological Consultant.

10.5 Checking of Project Designs

- 10.5.1 **It is particularly important that all Project Designs, or those which the Client wishes to consider, are forwarded to the AO for approval prior to the appointment of a Contractor.**
- 10.5.2 Any changes the AO recommends to a preferred Project Design/s might have financial implications for the costing of the archaeological project. Subsequent to approval by the AO and appointment of an archaeological Contractor, changes to the Project Design will be discussed and agreed in writing by the AO, archaeological Consultant and the archaeological Contractor (See Sec. 12.3).

10.6 Agreement

- 10.6.1 There must be a written archaeological agreement that satisfactorily implements the approved format and provides sufficient financial support for all aspects of the work including fieldwork, finds processing, conservation, specialist analysis, archiving, cataloguing, report work and long-term storage and curation. The archaeological Contractor must confirm in writing to the AO that this is in place prior to commencement of work.

10.7 Site Access: Health & Safety

- 10.7.1 The archaeological Contractor will be responsible for ensuring that all works are conducted in accordance with a defined Health and Safety Policy. Contractors must observe all current safe working practices, whether required by their own policy or those of the principal development contractor. (See *SCAUM Manual, Health & Safety in Field Archaeology, 1997*).
- 10.7.2 Before commencing work the Contractor **must** carry out a Risk Assessment and liaise with the site owner, archaeological Consultants and the AO in ensuring that all potential risks are minimised. A copy of this must be given to the AO **before** commencement of site works.
- 10.7.3 The Client must provide all information reasonably obtainable on contamination and the location of live services before commencement of Site works.

- 10.7.4 No personnel are to work in deep unsupported excavations. Trench sides will be constantly assessed for stability and will have to be stepped, battered back or shored when there is risk of collapse.
- 10.7.5 All archaeological trenches will be backfilled upon completion. This is to be the responsibility of the archaeological Contractor, unless the Client has given written instruction to the contrary.

11. Monitoring

- 11.1 The work undertaken by the archaeological Contractor, will be monitored under the auspices of the Merseyside AO who is responsible for monitoring all archaeological work in Merseyside on behalf of the Local Planning Authority. Monitoring will not incur charges and includes reviewing site work, the progress of excavation reports, archive preparation and final deposition.
- 11.2 Monitoring of the progress of site works will be programmed into strategic stages of the project, at least at the commencement of the project, mid fieldwork, end of fieldwork and post-excavation stage. Visits will also be made at the discretion of the AO who may also nominate a representative to pay site visits.
- 11.3 Before the commencement of the project the Contractor must inform the AO, in writing, of the time-table of proposed works and ensure that the AO must be kept regularly informed about developments during Site and subsequent post-excavation work.
- 11.4 The AO will be given at least one weeks written notice of commencement of archaeological fieldwork.

12. Alterations to Brief

- 12.1 This brief is valid for three months (from the date below. If not tendered within this period the Client will seek confirmation from the AO of its continued validity to the existing Site conditions. In addition the following apply:-
- 12.2 Prior to the formal appointment (aforementioned Sec. 10.6) of an archaeological Contractor, the Archaeological Officer reserves the right to alter this Brief if additional information comes to light that may have a bearing on the scope and methods of work currently required. (e.g. Site construction constraints, foundation details etc.).
- 12.3 After formal appointment, any alterations recommended by the Archaeological Officer which may affect the archaeological Contractor's agreed Project Design (whether this be before commencement, or during the project), will be made in consultation with the archaeological Contractor, Client and submitted to the Local Planning Authority. (This does not relate to the formal recommendations for further investigation (e.g. open area excavation) as a result of the findings of the project, for which the Archaeological Officer is responsible for advising on behalf of the local Planning Authority).

13. Key Definitions

Archaeological Officer - Responsible for providing an archaeological curatorial planning service to Merseyside districts. Advises on the nature of the work required and monitors projects from implementation to completion.

Client - person/group/developer commissioning the archaeological work.

Contractor - archaeological Contractor tendering to carry out the archaeological work and as appointed by the Client.

Project Design - written document detailing the proposed work and as provided by a Contractor in line with the Written Brief provided by the Archaeological Officer.

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27 November 2003

APPENDIX 2
PROJECT DESIGN

**Oxford
Archaeology
North**

December 2003

A58 BLACKBROOK DIVERSION

ST HELENS

MERSEYSIDE

EVALUATION AND TOPOGRAPHIC SURVEY

Proposals

The following project design is offered in response to a request from Rob Goldup, Colin Buchanan and Partners, for an evaluation of the proposed route of the A58 Blackbrook Diversion, St Helens.

1. INTRODUCTION

1.1 CONTRACT BACKGROUND

- 1.1.1 Oxford Archaeology North has been invited by Rob Goldup, Colin Buchanan and Partners to submit a project design and costs for an evaluation and survey on the line of the proposed A58 Blackbrook Diversion, St Helens. This follows on from an earlier assessment and walk-over survey (OA North 2002) which made recommendations for the evaluation of selected sites.
- 1.1.2 The evaluation is required to examine those sites identified by the assessment and also a pair of aerial photographic sites that have been recently identified. In addition it will examine areas remote from known sites in order to assess these apparently negative areas which have the potential for as yet undiscovered sites.
- 1.1.3 *Archaeological Background:* the earlier study identified a total of 19 sites from documentary, cartographic and field surveys; these for the most part, related to an industrial landscape, incorporating elements of coal extraction, copper working, iron slitting, and stone quarrying, with an associated communication infrastructure of inclines leading to the St Helens Canal. In addition, there are residual elements of a post-medieval agricultural landscape, which appears to have developed following the abandonment of the industrial works. Only one site was potentially earlier date, a putative medieval moated site (Site 12), which appears to have been substantially damaged as a result of the construction of a pond (Site 14) for the copper works.
- 1.1.4 In addition a pair of aerial photographic sites have been reported to the SMR as being to the south of Stanley Bank Wood. The first is a sub-rectangular enclosure (75m x 50m) and the second is a pair of 2m long parallel linear crop marks.

1.2 OXFORD ARCHAEOLOGY NORTH

- 1.2.1 Oxford Archaeology North (OA North) has considerable experience of the archaeological survey and evaluation of sites and monuments of all periods, having undertaken a great number of small and large projects during the past 20 years. Projects have been undertaken to fulfil the different requirements of various clients and planning authorities, and to very rigorous timetables. OA North has considerable experience of the recording of historic buildings together with the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 20 years. Fieldwork has taken place within the planning process and construction programmes, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North undertook the earlier assessment report (OA North 2002) on the site and has considerable familiarity with the site and its archaeology.
- 1.2.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (IFA) registered organisation, registration number 17, and all its members of staff operate subject to the IFA Code of Conduct.

2. OBJECTIVES

- 2.1 The following programme has been designed, in accordance with a brief by the Merseyside Archaeological Officer to provide an evaluation and topographic of the line of the A58 Diversion in advance of the road scheme. The required stages to achieve these ends are as follows:

2.2 TOPOGRAPHIC SURVEY

- 2.2.1 To implement a programme of mitigative topographic survey of a series of earthwork sites.

2.3 EVALUATION TRENCHING

- 2.3.1 To implement a programme of trial trenching examining 7% of the construction corridor. This will be targeted on known sites but which will also provide an investigation of the background areas where archaeological sites have not yet been investigated.

2.4 REPORT

- 2.4.1 A written report will assess the significance of the data generated by this programme within a local and regional context. It will present the evaluation and survey and would make an assessment of the archaeological potential of the area, and would make recommendations for further work.

3. METHOD STATEMENT

3.1 TOPOGRAPHIC SURVEY

- 3.1.1 **Instrument Survey:** it is proposed to undertake a level 2b survey (see OA North survey levels, *Appendix 1*) of the sites identified by the assessment that will be affected by the road scheme (this is equivalent to RCHM(E) level 2). All appropriate topographic detail will be recorded to provide an appropriate context for the archaeological detail. Depending on the character of the site, the survey will either be recorded using a total station or a differential GPS.
- 3.1.2 **Sites for Survey:** the survey will examine all sites with a surface expression that will be affected by the road scheme, and will include the following:
- Site 07 Stanley Bank Incline
 - Site 08/10 Garswood-Pewfall Incline
 - Site 15 Garswood Colliery
 - Site 14 Pond associated with Stanley Bank Farm Copperworks
- 3.1.3 **GPS Survey:** in lower order sites detail survey will be undertaken using a post-processed differential GPS, which is accurate to 150mm. The data will then be plotted up and will be subject to manual enhancement.
- 3.1.4 **Total Station Survey:** survey control will be established over the site by closed traverse and internally will be accurate to +/- 15mm; the control network will be located onto the Ordnance Survey National Grid by the use of Global Positioning Survey (GPS), which will locate to an accuracy of +/- 0.5m.
- 3.1.5 The surface features will be surveyed by EDM tacheometry using a total station linked to a data logger, the accuracy of detail generation being appropriate for a 1:500 output. The digital data will be transferred onto a portable computer for manipulation and later transfer to other digital or hard mediums. Film plots will be output via a plotter. The archaeological detail will be drawn up in the field as a dimensioned drawing on the plots with respect to survey markers. Most topographic detail will also be surveyed, particularly if it is archaeologically significant or is in the vicinity of archaeological features. The survey drawings will be generated within a CAD system and will be merged with existing topographic data, and will also be merged with the results from the earlier survey. The results can be output at any scale.
- 3.1.6 **Site Gazetteer:** the survey would be accompanied by a gazetteer description of individual archaeological features, which will relate directly to the survey mapping.
- 3.1.7 **Photographic Survey:** in conjunction with the archaeological survey a photographic archive will be generated, which will record significant features and general landscapes. It will be undertaken in 35mm black and white and colour slide film. For Sites 01 and 02 it is proposed only to undertake a photographic survey, and will omit any instrument recording.

3.2 EVALUATION TRENCHING

- 3.2.1 **Methods:** the programme of trenching will establish the presence or absence of any previously unsuspected archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation. The evaluation will be undertaken within the construction corridor and the trenches will be of varying length subject to the size and character of the site to be examined. The evaluation will examine 7% of the corridor and will entail the excavation of 1750m² of trenching. This is equivalent to 48 20m x 1.8m trenches; however, the size of the trenches will be varied according to the site to be investigated and the initial results. For the most part it is proposed to excavate 20m x 1.8m trenches; however, if any of these produces significant archaeological features they will be expanded selectively to up to 10m in width in order to properly evaluate the area.
- 3.2.2 The trenches will target specific sites but will also be located so as to examine areas without previously identified archaeology in order to investigate the potential for new site. The following sites will be targeted

Site No	Site Type	No of 20 x 1.8m Trenches
13	Soilmarks – Stanley Bank Farm	3
07	Incline	4
10	Incline	3
12	Area adjacent to pond	4
5497-011	Cropmark Enclosure	4
5497-012	Cropmark	4

- 3.2.3 The layout of the trenches will be configured with predominant trenches along the line of the corridor in conjunction with a series of trenches across the line of the corridor. The arrangement will be adjusted so as to target surface features of particular significance.
- 3.2.4 In addition it is proposed to examine those areas where archaeological features have yet to be discovered, in between the areas of more intensive evaluation. Excluding those sections of pipeline which have previously been examined, this comprises an investigation of 26 trenches 20m x 2m. These would be uniformly scattered along the line, but targeting any sites or surface features of archaeological potential as identified by the walk-over survey and the proposed topographic survey would be further targeted by the evaluation trenches.
- 3.2.5 The initial layout of the trenches will be agreed with the Merseyside Archaeological Officer following the topographic survey. This layout of trenches will then be subject to the initial results of the evaluation and may be adjusted to provide an appropriate investigation of sites which have a confirmed potential. In particular if an individual trench reveals a resource of particular significance, then it will be expanded up to a width of 10m and this will entail a corresponding reduction in the number or length of proposed trenches elsewhere on the route. For the most part the additional trenching will be gained by reducing other trenches from 20m length to 10m length.
- 3.2.6 The trenches will be excavated by a combination of mechanised and manual techniques; the topsoil will be removed by mechanical excavator, fitted with a 1.8m wide toothless bucket, and archaeological deposits beneath will be first manually cleaned and then any features identified will be manually excavated. The machine excavation will not intrude into any potential archaeological stratigraphy and all machine excavation will be undertaken under careful archaeological supervision. Following mechanical excavation the floor of the trench will be cleaned by hoe and Manual excavation techniques will be used to evaluate any sensitive deposits, and will enable an assessment of the nature, date, survival and depth of deposits and features. The trenches will not be excavated deeper than 1.25m to accommodate

health and safety constraints; any requirements to excavate below this depth will involve recosting.

- 3.2.6 The trench will be excavated in a stratigraphical manner, whether by machine or by hand. The trench will be located by use of GPS equipment which is accurate to +/- 0.25m, altitude information will be established with respect to Ordnance Survey Datum. Archaeological features within the trenches will be planned by manual techniques.
- 3.2.7 **Environmental Sampling:** environmental samples (bulk samples of 30 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). Subject to the results of the excavation an assessment of any environmental samples will be undertaken by the in-house palaeoecological specialist, who will examine the potential for further analysis. The assessment would examine the potential for macrofossil, arthropod, palynological and general biological analysis. The costs for the palaeoecological assessment are defined as a contingency and will only be called into effect if good waterlogged deposits are identified and will be subject to the agreement of the Merseyside Archaeological Officer and the client.
- 3.2.8 Samples will also be collected for technological, pedological and chronological analysis as appropriate. If necessary, access to conservation advice and facilities can be made available. OA North maintains close relationships with Ancient Monuments Laboratory staff at the Universities of Durham and York and, in addition, employs artefact and palaeozoological specialists with considerable expertise in the investigation, excavation and finds management of sites of all periods and types, who are readily available for consultation.
- 3.2.9 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 3.2.10 Results of the field investigation will be recorded using a paper system, adapted from that used by Centre for Archaeology of English Heritage. The archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20, and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

3.3 REPORT

- 3.3.1 **Archive:** the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects*, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context. This archive can be provided in the English Heritage Centre for Archaeology format and a synthesis will be included in the Merseyside Sites and Monuments Record. A copy of the archive can also be made available for deposition with the National Archaeological Record. OA North practice is to deposit the original record archive of projects (paper, magnetic and plastic media) with the appropriate County Record Office, and a full copy of the record archive (microform or microfiche) together with the material archive (artefacts, ecofacts, and samples) with an appropriate museum.
- 3.3.2 **Report:** one bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further two copies will be submitted to the Merseyside SMR. The report will include a copy of this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and present an assessment of the sites history; the report will include photographs of any significant features. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The report will include a description of the methodology and the results. A list of the finds, and a description of the collective assemblage.

- 3.3.3 The report will have a summary and a methodological statement, and it will define any variations to the defined programme. It will include recommendations for further work.
- 3.3.4 Illustrative material will include a location map, site map, a trench location map, trench plans, survey maps, and also pertinent photographs. It can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion.

3.4 OTHER MATTERS

- 3.4.1 **Health and Safety:** OA North conforms to all health and safety guidelines as contained in the Lancaster University Manual of Health and Safety and the safety manual compiled by the Standing Conference of Archaeological Unit Managers. The work will be in accordance with Health and Safety at Work Act (1974), the Council for British Archaeology Handbook No. 6, *Safety in Archaeological Fieldwork* (1989).
- 3.4.2 Full regard will, of course, be given to all constraints (services etc) during the watching brief and fabric survey, as well as to all Health and Safety considerations. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. A risk assessment will be completed in advance of the project's commencement. If there is a requirement to excavate trenches deeper than 1.25m the trenches will be stepped out to minimise section collapse. As a matter of course the Unit uses a U-Scan device prior to any excavation to test for services. It is assumed that the client will provide any available information regarding services within the study area, if available.
- 3.4.4 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with the unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North, in respect of personal injury or damage to property by negligence of OA North or any of its employees, there applies the insurance cover of £2m for any one occurrence or series of occurrences arising out of one event.
- 3.4.5 **Confidentiality:** the report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.
- 3.4.6 **Project Monitoring:** OA North will consult with the client regarding access to the site. Whilst the work is undertaken for the client, the County Archaeologist will be kept fully informed of the work and its results. Any proposed changes to the project design will be agreed with The Merseyside Archaeological Officer in consultation with the Client.
- 3.4.7 **Contingency:** costs are defined for the provision of a palaeoenvironmental assessment, and faunal remains analysis. The palaeoenvironmental analysis would be subject to an assessment by the OA North palaeoenvironmental specialist (E Huckerby).

4. WORK PROGRAMME

- 4.1 The following programme is proposed:

Topographic Survey

3 days will be required to complete this element

Evaluation Trenching

14 days will be required to complete this element

Report

A 15 day period would be to complete this element

- 4.2 OA North can execute projects at short notice once an agreement has been signed with the client.

- 4.3 The project will be managed by **Jamie Quartermaine BA Surv Dip MIFA** (Unit Project Manager) to whom all correspondence should be addressed. OA North adheres by the IFA's Code of Conduct and the Code of Approved Practice for the regulation of Contractual Arrangements in Field Archaeology.

APPENDIX 3 GAZETTEER OF SITES

Site number 01
Site name A58 Bridge
NGR SJ 5346 9656
Site type Structure / Bridge
Period Post-medieval
SMR No 5396/17
Sources Plan of Sankey Navigation of 1759/63; Parr Tithe map of 1843 (LCRO DRL 1/61); 1st ed OS 1:10 560 (1849), 1st ed OS 1: 25 000 (1892)
Description A bridge over the canal in Parr township.

Site number 02
Site name Blackbrook Inn, now known as the Ship Inn
NGR SJ 5351 9660
Site type Structure / Roofed Building / Inn
Period 1790s
SMR No 5396/26
Sources Parr Tithe map of 1843 (LCRO DRL 1/61); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1892); Identification Survey
Description Constructed in the 1790s along the side of the main road, the building was bought in 1798 by the Mona Mine Co for use by the employees from the Stanley Works, close by. The building is currently covered in render and painted white which obscures the architectural details, but it is clearly of two storeys with a variety of window styles and probable wing extensions on either side of the main building.

Site number 03
Site name Haydock House / Black Brooks Tenement
NGR SJ 5370 9659
Site type Structure / Roofed Building / Farm
Period Post-Medieval
SMR No 5396/25 and /2
Sources Haydock Tithe map (LCRO/DRL 1/5 1839); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1892)
Description Several buildings are shown surrounding a small yard on the plan of 1743. By the time of the OS 1st edition (1849) the buildings appear to have been enlarged and a pump is visible in the yard. Ten years earlier the buildings and land are known, from the Tithe, to have been owned by Thomas Hegh Esq.

Site number 04
Site name Stanley House and Farm
NGR SJ 5360 9672
Site type Structure / Roofed Building / Farm
Period Eighteenth century
SMR No 5396/42
Sources Yates' map of 1786; Ashton-in-Makerfield Tithe of 1836; 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1894); Identification Survey
Description A small complex of red brick buildings, for both occupation and general farm usage, has a typical eighteenth century rural style and is currently secluded behind vegetation.

Site number	05
Site name	Stanley Bank
NGR	SJ 5346 9688
Site type	Iron Slitting Mill; Copper Works; Corn Mill
Period	Late eighteenth century
SMR No	5396/28
Sources	1st ed OS 1:10 560 of 1849; 1st ed OS 25" map 1894; Operation Groundwork 1986; StHLH/M/BA/7
Description	<p>The site was constructed shortly after the Stanley Mill Company was formed in 1773. It is suggested that the complex of buildings included not only the slitting mill and the forges but also several which housed small-scale manufacture, including nail production. A water wheel provided the power, derived from the Stanley Brook, and the St Helens Canal provided transport for both raw materials and the finished products. By 1845 the mill had been converted into a corn mill, which remained in use until sometime between 1890 and 1909 when the site was dismantled and cleared.</p> <p>In the immediate vicinity of the slitting mill, and operating from a similar period, was the site of the Stanley Copper Works which was established as a result of an agreement between the Warrington Company (of copper manufacturers) and the Gerard family trustees (coalmasters) in 1771. The works appear to have prospered again during the period 1785-c1800, and were certainly still in production between 1800 and 1810 (StHLH/M/BA/7). The date of their demolition remains unclear. The location of the Copper Works can not be precisely established but it was depicted on the Yates' Map (1786) and was evidently in the immediate vicinity of the Iron Slitting Mill.</p>

Site number	06
Site name	Copper House Row
NGR	SJ 5361 9684
Site type	Site of Cottages
Period	Nineteenth Century
SMR No	5396/22
Sources	Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1894); Identification Survey
Description	A row of workers' houses was constructed for the employees at Stanley Copper Works. There appears to have been 17 terraced houses with adjoining plots at their rear and outbuildings further back. They were in existence in 1894 but by 1909 there is no sign of them on the OS map, implying they were dismantled and the land cleared. The site is an open green field at present.

Site number	07
Site name	Stanley Bank Incline
NGR	SJ 5367 9689
Site type	Site of Rail Road
Period	1773
SMR No	5396/32 and 33
Sources	Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1894); Identification Survey
Description	As part of the construction of the Stanley Copper Works, the incline was built to transport materials. It was over 400m long and was constructed in 1773; it was topped with iron rails and wooden sleepers, which had been dismantled by 1845. Much of the route, from Gerard's Quay north-east towards and beyond the A58, still exists as a gravel-packed trackway over 3m wide.

Site number	08
Site name	Garswood-Pewfall Incline
NGR	SJ 5374 9689

Site type Incline
Period Eighteenth century
SMR No 5396/34
Sources Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); 1st ed OS 1:10 560 (1849), 1st ed OS 1: 25 000 (1894); Identification Survey
Description The incline runs north-east from Gerard's Quay to the collieries at Garswood and Pewfall. It runs on a similar alignment to the Stanley Bank Incline but lies to the south of it. This was an embanked rail line and was topped with iron rails and sleepers. Much of it has been destroyed but to the south-east of Stanley Bank Farm a 150m section of the incline does survive. Here it appears to have been at least partially constructed from laid stonework, which was 1m high.

Site number 09
Site name Boarded Barn
NGR SJ 5397 9679
Site type Structure / Roofed Building / Cottages
Period Nineteenth century
SMR No 5396/3 and 5396/4
Sources Haydock Tithe map of 1839 (LCRO DRL 1/34); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1892)
Description Three cottages have been constructed, one behind the other, with one fronting onto the main road. These formed the western side of an open yard. A further four cottages were parallel to the main road, forming the northern side of the open yard. At the time of the Tithe Map in 1839, the cottages were all owned by Thomas Hegh Esq.

Site number 10
Site name Garswood-Pewfall Incline
NGR SJ 5412 9725, 5407 9740
Site type Incline / Mineral railway
Period Nineteenth century
SMR No -
Sources OS 3rd edn 25" to 1 mile map (1909); Identification Survey
Description An extension on the mineral railway runs out from Site 08 into Garswood Park Pits. A further line extends north-west from the colliery. The remains of the embanked railway survives to the north of colliery.

Site number 11
Site name Haydock Colliery Housing
NGR SJ 539 967
Site type Structure / Roofed Building / Cottages
Period Nineteenth century
SMR No 5396/12
Sources OS 1st edn 1: 25 000 (1894)
Description A series of coal miners cottages and houses was built over 10 years by Richard Evans and Sons Co. They are typical Victorian terraces adjacent to the A58, which, in 1894, had a tram running along it. These mark the beginning of building on the open space south of the A58.

Site number 12
Site name Stanley Bank Farm
NGR SJ 5375 9704
Site type Site of Moated Structure
Period Medieval
SMR No 5397/3

Sources Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); Identification Survey
Description The possible site of a medieval moated structure is now occupied by a pond (Site 14). On a visit by the SMR officer in 1992, and on several since, no certain surviving remains of any moat have been identified although no definitive work has been undertaken. The original squared shape has altered, perhaps as a result of nineteenth century infilling of the pond with industrial residues and debris.

Site number 13
Site name Stanley Bank Farm
NGR SJ 5388 9704
Site type Aerial Photographs
Period Unknown
SMR No 5397/11
Sources Haydock Tithe map of 1839 (LCRO/DRL 1/5 1839); Identification Survey
Description Several linear soil marks have been seen in aerial photographs, which correspond to the position of previous field boundaries known from the 1839 Tithe Map. A sub-rectangular mark east of Stanley Bank Farm, adjacent to the Garswood-Pewfall Incline (Site 08), may represent a site of below ground extraction.

Site number 14
Site name Stanley Bank Farm 'Copperworks'
NGR SJ 5379 9702
Site type Structure / Building Remains, and Pond
Period 1773
SMR No 5397/10
Sources Yates' map of 1786; Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1894); LCRO DDGe(E) 100-102; Identification Survey
Description The Copper works complex was originally built in 1773 by Thomas Patten and was the first copper smelting works in the St Helens area. In 1785 the business was taken over by the Mona Mine Co. The business ceased in 1814 and by 1849 the site was in use as a farm. It is unclear how the copper works to the west, on the eastern side of the St Helens canal, relates to the premises at Stanley Bank Farm. The pond has somewhat irregular edges and is approximately 82m long east/west by 55m wide. On the north side the pond is not embanked. To the south-west the pond has a large shallow sided bank measuring up to 20m wide maximum with the top measuring 4.5m wide. To the south-east the bank is steep-sided and measures 9.5m wide by 5.5m wide on top. The pond is overgrown with mature trees and undergrowth. It may have provided water power or water for processing applications. The remaining standing roofless, brick building (Site 16) may either be a remnant of structures involved in the copper works (rather than simply a farm building) or be located over an earlier structure. There are numerous remains of brick structures in the vicinity but it is unclear whether they relate to agricultural or industrial use.

Site number 15
Site name Garswood Colliery
NGR SJ 5413 9731
Site type Subterranean site and site of structures
Period Eighteenth / nineteenth centuries
SMR No 5497/10
Sources OS 3rd edn 1:10 560 (1909), OS 4th ed 1:10 560 (1929); Identification Survey
Description Small structures and various shafts appear on the 1909 OS map but on the later 1929 edition the same site is referred to simply as 'old shafts'. An exposed shaft is visible in the fields today. The 1909 OS map shows an extensive colliery in this area, called the

Garswood Colliery, the extant remains which were connected by the offshoots of the Garswood-Pewfall Incline.

Site number 16
Site name Stanley Bank Farm
NGR SJ 5379 9700
Site type Structure / Roofless Building
Period Post-Medieval
SMR No -
Sources Ashton-in-Makerfield Tithe of 1836 (LCRO DRL 1/5); 1st ed OS 1:10 560 (1849); 1st ed OS 1: 25 000 (1894); Identification Survey
Description The standing shell of a brick building with visible below ground, earlier foundations. The structure is currently undergoing extensive renovation to form a new house. It stands north of the Copperworks pond (Site 14) and south of the Stanley Bank Incline (Site 07). The earlier foundations may relate to industrial use of the site.

Site number 17
Site name Stanley Bank Farm
NGR SJ 5380 9705
Site type Structure
Period Post Medieval
SMR No -
Sources OS 1st ed 1: 25 000 (1894); Identification Survey
Description A number of brick structures, of varying degrees of survival, are situated approximately 200m north-east of Stanley Bank Farm. They are almost certainly outbuildings but it is unclear whether they all relate to the use of the land for agriculture or whether any were remnants of the earlier industrial activity on the site.

Site number 18
Site name Vicarage Road
NGR SJ 5431 9716
Site type Site of Sandstone Quarry
Period Post-Medieval
SMR No -
Sources OS 1st ed 6" to 1 mile map (1849)
Description A sandstone quarry is shown on the OS 1st edition map (1849), to the south of Clipsley Brook. The site has subsequently been developed and no remains of the quarry survive.

Site number 19
Site name Stanley House
NGR SJ 5362 9716
Site type Engine Pit
Period Post Medieval
SMR No -
Sources OS 1st ed 6" to 1 mile map (1849)
Description An engine pit is shown on the OS 1st edition map (1849) at Stanley House Farm. The site has subsequently been developed for Stanley House Farm and no remains of the pit survive.

Site number 20
Site name Stanley Bank Road
NGR SJ 54098 97275
Site type Spoil Heaps

Period Modern
SMR No -
Sources Field Survey
Description Two small spoil heaps located on the grass verge to the north of the trackway, just to the south of the capped shaft (Site 15) (Plate 6). These were possibly associated with the demolition event at this part of Garswood Colliery. In total the spoil measures 22m long east/west by 3m wide and up to 0.7m high.

Site number 21
Site name Stanley Bank Road
NGR SJ 54020 397256 – SJ 53850 97070
Site type Earth Bank
Period Unknown
SMR No -
Sources Field Survey
Description A shallow, wide earthen banked lynchet located in the field to the south of Stanley Bank Incline. It was almost definitely a modern cultivation feature. It measured 240m long by 3m wide by only 0.15m high.

Site number 22
Site name Stanley Bank Farm
NGR SJ 53770 96937
Site type Earth Bank
Period Post-Medieval?
SMR No -
Sources Field Survey
Description A substantial earthen bank located to the south-west of the pond at Stanley Bank Farm (Site 14). The bank is L-shaped and it survives as a large bank on the east side, measuring 25m long north-east to south-west by 8m wide and up to 1m high. The bank turns a corner and runs north-west, it rapidly becomes denuded and survives as a 25m long by 1m wide bank. It descends from 1m high to only 0.2m high. The bank is lined with mature trees and undergrowth. The bank demarcates a rectangular area, possibly a garden or plot, to the south of the farm. There is a building shown in the plot as late as the 3rd edn mapping (1929), however the plot is densely overgrown with brambles and reeds.

Site number 23
Site name Garswood-Pewfall Incline
NGR SJ 53790 96940 – SJ 53760 96920
Site type Incline
Period Eighteenth Century
SMR No 5396/34
Sources Field Survey
Description A putative section of the incline located to the south of Stanley Bank Farm. It is along the same alignment as the incline and on the surface appears to survive as an earthen embanked linear earthwork. It is not as substantial as the section identified on the current OS mapping to the north-east, however the incline at this point is descending to Stanley House Farm where the incline survives but with no embankment. The earth bank measures 36m long by 6m wide and up to 0.7m high. The top measures 3.5m wide. The bank was examined by evaluation Trench 38, which revealed that the incline was in this section a cutting and that the surface bank was in fact a slight mound overlying the southern edge of the cut.

Site number 24

Site name Ditched Enclosure
NGR SJ 53990 97320
Site type Aerial Photo
Period Unknown
SMR No 5497-012
Sources SMR
Description A rectangular enclosure, c40m to the north of a second (Site 26), situated to the east of Stanley Bank Farm. The site comprises two faint parallel marks curving from south to north-west and running for c20m. It was interpreted as a possible Roman practice camp because of its regular rectangular shape and location below the brow of a shallow rise in topography (SMR Philpott pers comm). Fieldwalking in the field containing the cropmark was undertaken in October 2003 by Liverpool Museum Field Archaeology Unit, no significant archaeological artefacts were found, only eighteenth to twentieth century ceramics.

Site number 25
Site name Vicarage House
NGR SJ 54166 97305
Site type Spoil Heap
Period Modern
SMR No -
Sources Field Survey
Description A large linear spoil heap located in the grounds of Vicarage House to the east of the capped shaft (Site 15), and which was clearly associated with the adjacent Garswood Colliery. It measured 42.7m long north/south by 17m wide and is over 2.5m high.

Site number 26
Site name Ditched Enclosure
NGR SJ 54031 97205
Site type Aerial Photo
Period Unknown
SMR No 5497-011
Sources SMR
Description A cropmark was identified as a sub-rectangular enclosure measuring c75m x 50m with its long axis aligned north-east to south-west and the corners defined by sharp right angles. The north-western side of the enclosure was not clearly visible, but may have been defined by the lane running from Stanley Bank Farm to Stanley Bank Road. Alternatively the enclosure may extend into the land north-west of the lane, though it is not visible as a cropmark in that area (SMR Philpott pers comm). Fieldwalking in the field containing the cropmark was undertaken in October 2003 by Liverpool Museum Field Archaeology Unit, no significant archaeological artefacts were found, only eighteenth to twentieth century ceramics.

APPENDIX 4

TRENCH DESCRIPTIONS

Trench Number	Size (m)	Alignment	Brief Description
1	20 x 1.8	north-west/south-east	This trench revealed four rectangular pits (4 , 7 , 9 and 11), all probably relating to the industrial activity in this area.
2	20 x 1.8	north-east/south-west	This trench had a maximum depth of 0.46m and revealed only the underlying natural geology.
3	20 x 1.8	north-west/south-east	This trench revealed evidence for a high degree of modern truncation (deposits of modern bricks and tarmac) and the natural geology was only observed for 8m at the south-eastern end of the trench. No archaeology was observed.
4	20 x 1.8	north-east/south-west	This trench revealed two land drains and a fairly irregular pit (12). The pit measured 0.6m x 0.63m in plan and contained no finds, leaving it undated, with no real clues as to its function.
5	20 x 1.8	north-west/south-east	At the north-western end of this trench a modern intrusion was observed, truncating the natural geology, and filled with slag, brick and modern pot. It seems likely that this cut was related to the former colliery. This was the only feature observed truncating the natural geology within this trench.
6	20 x 1.8	north-east/south-west	There were substantial cuts at either end of this trench, truncating the natural, both of which contained a large amount of cinder and demolition debris. The cut at the south-western end of the trench was the deeper of the two, to a maximum of 1.4m. Both the cuts probably relate to the former colliery.
7	20 x 1.8	north-west/south-east	This trench also showed substantial evidence of widespread truncation, with at least 0.7m truncation along the length of the trench. The material removed from the fills of the truncations included cinder and modern CBM as well as some large rocks, concentrated at the base of the trench.
8	20 x 1.8	north-east/south-west	This trench contained a north-west/south-east aligned ditch (14), itself truncated by a shallow recut (18). No finds were recovered from either of these features, leaving them undated. It seems most likely that ditch 14 represents a field boundary ditch. No further features were observed within this trench.
9	20 x 1.8	north-west/south-east	This trench revealed nothing beyond natural geology.
10	20 x 1.8	north-west/south-	The south-eastern half of this trench revealed the natural geology, whilst the rest of the trench revealed a substantial cut (37), which

		east	extended to a depth of more than 1.8m as well as a probable road surface, 26 .
11	20 x 1.8	north-east/south-west	This trench revealed two land drains truncating the natural geology and a small patch of burnt natural. No archaeology was observed.
12	20 x 1.8	west-south-west/east-north-east	This trench revealed a small rectangular pit, measuring 0.57m by 0.48m in plan, which contained relatively modern CBM and slag. Given its isolated position within the trench it is difficult to infer a usage for this feature. The only further features observed within this trench were two land drains.
13	20 x 1.8	north-west/south-east	This trench contained an unmortared brick structure (40) and an extensive layer of brick rubble, 43 , that extended for over 9 m. Other layers encountered within this trench, comprising further brick rubble and clinker, also point to a relatively recent date for their deposition.
14	20 x 1.8	north/south	A single linear feature, 39 , was the only archaeology encountered within this trench. This feature was aligned north/south and was 1.1m long, with a length of 1.5m exposed. The fill consisted entirely of loosely packed bricks, with the feature probably representing a drain.
15	20 x 1.8	north-east/south-west	This trench was located over a cropmark, although unfortunately the trench revealed only large-scale dumping of shale, presumably relating to the former colliery on the site. A band of redeposited natural clay was observed four metres from the north-eastern end of the trench, possibly accounting for the cropmark.
16	20 x 1.8	north-west/south-east	This trench was also located in an attempt to identify the cropmark, but again exposed nothing beyond large-scale dumping of shale, presumably relating to the colliery. This dumping was exposed for a depth of 1.2m, at which point the edges of the trench were becoming unstable, and so digging was stopped.
17	20 x 1.8	north-east/south-west	This trench was again attempting to locate the cropmark and again exposed only a large-scale shale dump. This trench was taken to a maximum depth of 1.2m, with no natural geology exposed.
18	20 x 1.8	north-west/south-east	This trench was excavated to a maximum depth of 1.2m, and revealed topsoil sealing a large dump of shale and rubble, with the rubble being noticeably more concentrated towards the south-eastern end of the trench.
19	20 x 1.8	north-east/south-west	Within this trench, three land drains and two shale dumps were exposed truncating the natural geology. The two shale dumps were each exposed for a length of approximately 5m, and ran under the edge of the trench.
20	20 x 1.8	north-west/south-east	A large, relatively shallow, cut was exposed along most of the length of this trench, containing cinder, bricks and redeposited natural clay. Beyond this large dump, the only other feature truncating the natural geology in this trench was a land drain
21	20 x 1.8	north-east/south-	The north-eastern end of this trench, for a length of 1m, was the only area of untruncated natural geology seen. For the remainder of

		west	the trench, a large pit, 45 , (greater than 19m long) was observed, filled with cinder and redeposited clay and so probably relating to previous industrial activity within this area. Two land drains were also observed, in the base of pit 45 .
22	20 x 1.8	north-west/south-east	A substantial wooden platform was the only archaeological feature uncovered within this trench. This platform consisted of thin wooden planks set on top of a bank of clay and clinker and bounded on either side by more substantial wooden 'sleepers'.
23	20 x 1.8	north-east/south-west	This trench was located across the cropmarks of Site 13 but revealed only evidence of large-scale dumping of waste industrial materials including degraded bricks and clinker. The trench was excavated to a depth of 1.3m, with no sign of the natural geology observed, illustrating that this trench must have fallen within a large backfilled truncation.
24	20 x 1.8	north-west/south-east	This trench was also located across the cropmarks of Site 13 , but the only cuts observed within this trench were for two land drains, with undisturbed natural geology exposed along the remainder of the base of the trench and unless one of the land drains caused the cropmarks, no evidence of the cropmark features was uncovered.
25	20 x 1.8	north-west/south-east	This trench was the first of two through the Garswood-Pewfall Incline. The trench revealed that much of the incline was heavily root and animal disturbed, although the evidence recovered showed that the incline had originally been constructed of layers of clinker and clay. Apart from the incline, an undated posthole (62) and a land drain were also revealed within this trench.
26	20 x 1.8	north-west/south-east	This was the second trench excavated across the Garswood-Pewfall Incline and again showed evidence of large amounts of bioturbation. This trench too showed that the incline had been constructed from clay and clinker. No further archaeological features were observed.
27	20 x 1.8	north-west/south-east	This trench revealed two land drains and a further cut truncating the natural geology. The cut was aligned north-east/south-west, was over 2m wide and had a maximum depth of 0.93m. The cut was filled with clinker and brick fragments and contained small pieces of recent post-medieval pot.
28	20 x 1.8	north-west/south-east	Within this trench three separate cuts were observed truncating the natural geology, all of them aligned north-east/south-west. The north-westernmost feature was a small gully, which ran parallel to a more substantial ditch (cutting for the incline). Both these features seem to have gradually silted up, but remained undated. The south-easternmost feature was a well-constructed culvert, built with unmortared brick sides and capped with stones averaging 0.37m x 0.34m x 0.05m.
29	20 x 1.8	north-north-east/south-south-west	This trench revealed a brick land drain and a dump of industrial residue. The land drain, 70 , was three courses high and constructed within a 1.5m wide cut. The dump of industrial waste was about 5m long, was highly indurated.
30	20 x 1.8	north-east/south-	This trench revealed only a single linear feature truncating the natural geology. This feature was a robustly built, stone-lined

		west	culvert, aligned north-west/south-east and measuring 1.15m in width.
31	20 x 1.8	west-north-west/east-south-east	Within this trench two land drains and a more substantial cut were the only features seen truncating the natural geology. The larger feature was over 2.4m long, 0.7m wide and 0.17m deep. The fill of this feature consisted of bricks and stones, and as such it probably represents a soakaway.
32	20 x 1.8	north-east/south-west	A single modern linear was the only feature observed truncating the natural geology within this trench.
33	20 x 1.8	west-north-west/east-south-east	Two land drains and a brick foundation, 93 , were the only features revealed within this trench. The foundation formed a right angle, was two courses wide and was built out of both full and half bricks of two distinct types.
34	20 x 1.8	north-east/south-west	A field drain and a larger drain were the only features revealed within this trench. The larger drain was constructed out of bricks, three courses high, and was over 1.8m long. It measured 0.57m wide by 0.62m deep.
35	20 x 1.8	north-west/south-east	This trench revealed a substantial dump of industrial waste material and two land drains. The dump of industrial material was over 7.4m long, was indurated and consisted of clinker and iron ore as well as some small pieces of copper residue.
36	20 x 1.8	north-east/south-west	Within this trench, the only features revealed were two land drains and a shallow modern linear feature.
37	20 x 1.8	east/west	This trench contained only a single land drain truncating the natural geology.
38	20 x 1.8	north-west/south-east	This trench was located over Sites 22 and 23 , comprising a bank and ditch. Excavation through the bank showed it to be made predominantly from redeposited natural boulder clay. The ditch was found to be substantially wider than it appears today, with a width of c6m (cutting for the incline). Beyond the expected bank and ditch a further linear feature, with vertical edges was also revealed, that seems most likely to represent a drain.
39	20 x 1.8	east/west	This trench was located in an attempt to find the continuation of the timber platform seen in Trench 22. However all this trench revealed was massive truncations filled with cinder and crushed brick rubble, probably relating to the relatively recent industrial usage of this site.
40	20 x 1.8	north/south	This trench was located to evaluate a cropmark (Site 24). The trench, however, appeared to reveal little beyond natural deposits, although there was a substantial band of clay in the trench which could well have accounted for the cropmarks.
41	20 x 1.8	north-east/south-west	Indurated industrial waste was located along the first 15m of this trench, at the south-western end. This was evaluated by two sondages and was shown to be up to 0.9m thick, containing a number of different layers of dumped industrial waste, probably all relating to the relatively recent industrial usage of this site.

42	20 x 1.8	north-west/south-east	Within this trench, a large circular brick-built structure (100) was observed, as well as the further remains of another brick structure. Both of these structures had been truncated by a large cut, and there was a further deep truncation (over 1.8m) at the northern end of the trench.
43	20 x 1.8	north-west/south-east	This trench was again located over Site 26 in an attempt to find the cropmarks. The trench again revealed widespread dumping of shale and spent coal deposits, with a single clay-filled linear feature observed which may have been responsible for the cropmarks. This feature was vertically sided and was probably a drainage ditch.
44	7.7 x 3.5	north-west/south-east	This trench was located immediately to the south-west of Trench 22 and located the southern extent of the timber platform observed in that trench.
45	20 x 1.8	north-west/south-east	This trench was again located to find the cropmarks of Site 24 . The trench, however, revealed little beyond shale and spent coal to a substantial depth (between 1.5m and 1.7m), although a modern clay-filled linear deposit may well account for the cropmarks.
46	20 x 1.8	north-north-east/south-south-west	Excavation of this trench revealed extensive deposits of crushed coal and bricks along the trench, although a land drain and a tree bole were also visible.
47	20 x 1.8	north-west/south-east	This trench revealed a single truncation, at the north-western end of the trench, dug to a depth of 1.2m below the top of the natural geology. The fill of this feature contained a large amount of spent coal and shale as well as some nineteenth century material.
48	20 x 1.8	east-west	This trench revealed only a land drain and a modern feature truncating the natural geology.

APPENDIX 5 CONTEXT LIST

Context	Trench	Description
<i>1</i>	All	Topsoil
<i>2</i>	All	Subsoil
<i>3</i>	1	Fill of Pit <i>4</i>
<i>4</i>	1	Rectangular Pit
<i>5</i>	1	Fill of Pit <i>7</i>
<i>7</i>	1	Rectangular Pit
<i>8</i>	1	Fill of Pit <i>9</i>
<i>9</i>	1	Rectangular Pit
<i>10</i>	1	Fill of Pit <i>11</i>
<i>11</i>	1	Rectangular Pit
<i>12</i>	4	Irregularly-shaped Pit
<i>13</i>	4	Fill of Pit <i>12</i>
<i>14</i>	8	Ditch
<i>15</i>	8	Fill of Ditch <i>14</i>
<i>16</i>	8	Fill of Ditch <i>14</i>
<i>17</i>	8	Fill of Ditch <i>14</i>
<i>18</i>	8	Gully
<i>19</i>	8	Fill of Gully <i>18</i>
<i>20</i>	12	Fill of Pit <i>21</i>
<i>21</i>	12	Pit
<i>22</i>	10	Backfill sealing layer <i>26</i>
<i>23</i>	10	Layer of stone above <i>22</i>
<i>24</i>	10	Layer of clay above <i>25</i>
<i>25</i>	10	Layer of degraded stones
<i>26</i>	10	Possible road surface
<i>27</i>	10	Thin layer of stone
<i>28</i>	10	Possible levelling deposit
<i>29</i>	10	Layer of bricks
<i>30</i>	10	Black silty layer
<i>31</i>	10	Silty clay layer
<i>32</i>	10	Fill of cut <i>37</i>
<i>33</i>	10	Fill of cut <i>37</i>
<i>34</i>	10	Fill of cut <i>37</i>

35	10	Fill of cut 37
36	10	Fill of cut 37
37	10	Substantial cut of uncertain function
38	14	Fill of cut 39
39	14	Linear Feature
40	13	Foundation cut for brick structure 41
41	13	Brick structure
42	13	Clinker Layer
43	13	Red brick rubble layer
44	13	Brick rubble layer
45	21	Cut of large industrial feature
46	21	Fill of 45
47	22	Clinker layer
48	22	Mid orangey brown levelling layer
49	22	Thin spread sealing built-up area
50	22	Material building up bank
51	22	Mixed redeposited material
52	22	Clinker used to build up bank
53	22	Timber Platform
54	25	Uppermost deposit of incline
55	25	Uppermost compacted layer of incline
56	25	Compacted clinker layer within incline
57	25	Redeposited clay within incline
58	25	Buried topsoil/subsoil
59	25	Fill of 60
60	25	Land Drain
61	25	Fill of 62
62	25	Posthole
63	26	Uppermost incline deposit
64	26	Redeposited natural within incline
65	26	Clinker layer within incline
66	26	Redeposited natural layer within incline
67	26	Buried soil
68	29	Fill of Land Drain 70
69	29	Brick Land Drain
70	29	Cut of Land Drain
71	29	Dump of Industrial Material
72	30	Cut for Stone Culvert 73

73	30	Stone Culvert
74	30	Fill of Culvert 73
75	38	Topsoil
76	38	Heavily disturbed layer
77	38	Black silty clay layer
78	38	Redeposited natural
79	38	Dark grey sandy clay
80	38	Tree bole
81	38	Dark Grey sandy clay
82	38	Drain Cut
83	38	Drain
84	38	Topsoil
85	38	Ditch Cut
86	38	Brown clay fill of 85
87	38	Dark orange sandy clay
88	38	Dark grey sandy silt fill of 85
89	38	Boulder clay/grey sandy silt fill of 85
90	38	Grey sandy silt fill of 85
91	38	Dark grey sandy silt
92	38	Natural geology
93	33	Corner foundations of brick building
94	42	Topsoil
95	42	Dark grey silty sand industrial waste layer
96	42	Industrial waste layer
97	42	Brick structure
98	42	Crushed shale deposit; colliery waste
99	42	Black silt and crushed brick layer
100	42	Brick structure
101	42	Clayey sand layer
102	42	Coke layer
103	42	Red crushed brick layer
104	42	Backfill of construction cut for 100
105	42	Fill of 108
106	42	Foundation cut for 100
107	42	Cut truncating structures 97 and 100
108	42	Cut of uncertain purpose
109	42	mid to dark grey sandy silt
110	42	Cinder fill of 111

<i>111</i>	42	Very large relatively modern truncation
<i>112</i>	44	Wooden platform; timbers
<i>113</i>	44	Wooden platform; bricks

APPENDIX 6 FINDS CATALOGUE

Context	Trench	Object	No	Material	Description	Date
<i>Unstrat</i>	37	1000	4	Pottery	Marmalade/jam jar, blue transfer ware, glazed white earthenware	Late 18th century/mid 19th century
56	25	1001	1	Pottery	Hand painted blue tea bowl	Late 18th century/mid 19th century
3	1	1002	1	Pottery	Glazed white earthenware footring	19th/20th century
44	13	1003	3	Pottery	Jam jar rim, glazed white earthenware footring	19th century
<i>Unstrat</i>	35	1004	1	Pottery	English porcelain tea cup	19th/20th century
<i>Unstrat</i>	5	1005	1	Pottery	Brown glazed grey bodied stoneware	18th/20th century
8	1	1006	2	Pottery	Asiatic Pheasant and transfer print style glazed earthenware	19th century
34	10	1007	3	Pottery	Glazed white earthenware bowl, pearlware plate	19th/20th century
58	25	1008	1	Pottery	Glazed white earthenware	19th/20th century
57	25	1009	5	Pottery	Dark glazed red earthenware storage jar	18th/20th century
65	26	1010	1	Pottery	Brown glazed red earthenware	18th/20th century
91	38	1011	1	Pottery	Glazed white earthenware	19th/20th century
68	29	1012	3	Pottery	Willow pattern serving dish, black glazed red earthenware, red earthenware	18th/20th century
8	1	1013	2	Iron	Objects; unidentifiable	Not dated
10	1	1014	5	Iron	Plate fitting, 4 objects unidentifiable	Not dated
34	10	1015	5	Iron	Bar, strip, nail, unidentifiable object	19th/20th century

3	1	1016	1	Iron	Lump	Not dated
34	10	1017	3	Industrial debris	Iron slag	Not dated
5	1	1018	3	Industrial debris	Fuel ash waste	Not dated
34	10	1019	1	Industrial debris	Slag	Not dated
10	1	1020	2	Industrial debris	Fuel ash waste	Not dated
3	1	1021	1	Industrial debris	Fuel ash waste	Not dated
22	10	1022	1	Clay pipe	Stem with spur	?19th century
<i>Unstrat</i>	31	1023	2	Clay pipe	Stems	Not dated
44	13	1024	14	Glass	Clear mineral water bottle	20th century
10	1	1025	1	Mortar		Not dated
3	1	1026	1	Ceramic	Building material fragments	?19th/20th century
34	10	1027	1	Glass	Clear window pane	20th century
8	1	1028	2	Glass	Frosted glass	20th century
10	1	1029	1	Glass	Window fragment	19th/20th century
25	10	1030	1	Glass	Window fragment	19th/20th century
<i>Unstrat</i>	31	1031	1	Ceramic	Glazed roof tile	19th/20th century
44	13	1032	1	Glass	Enamelled vessel	20th century
5	1	1033	3	Ceramic	Small tile frags	19th/20th century
26	10	1034	1	Ceramic	Drain pipe	20th century
10	1	1035	4	Textile	Rubber binding	20th century
<i>Unstrat</i>	34	1036	2	Ceramic	Complete coarse orange brick	19th/20th century
<i>Unstrat</i>	22	1037	2	Ceramic	Complete red moulded brick	19th/20th

						century
93	33	1038	13	Ceramic	Incomplete red moulded brick	19th/20th century
25	10	1039	3	Ceramic	Brick fragments; coarse orange with large inclusions	19th/20th century
93	33	1040	1	Ceramic	Incomplete light orange brick	19th/20th century
Unstrat	22	1041	4	Ceramic	Yellow refractory brick	19th/20th century
Unstrat	22	1042	1	Ceramic	Complete red brick	19th/20th century
100	42	1043	2	Ceramic	Complete red brick (heavy)	19th/20th century

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Plate 6: Site **15**, shaft at Garswood Colliery, looking west

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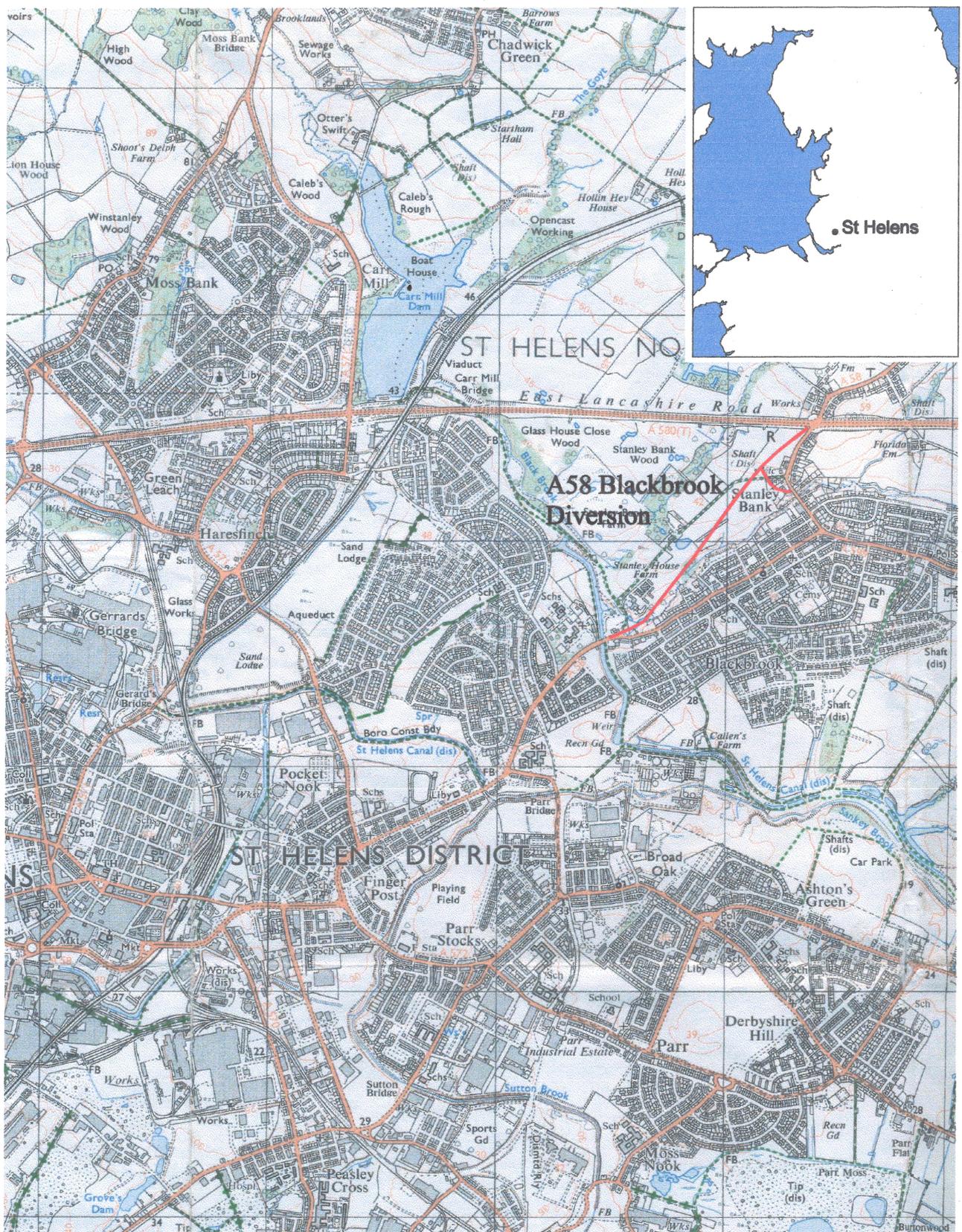
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Plate 10: Brick Foundation **93**, within Trench 33

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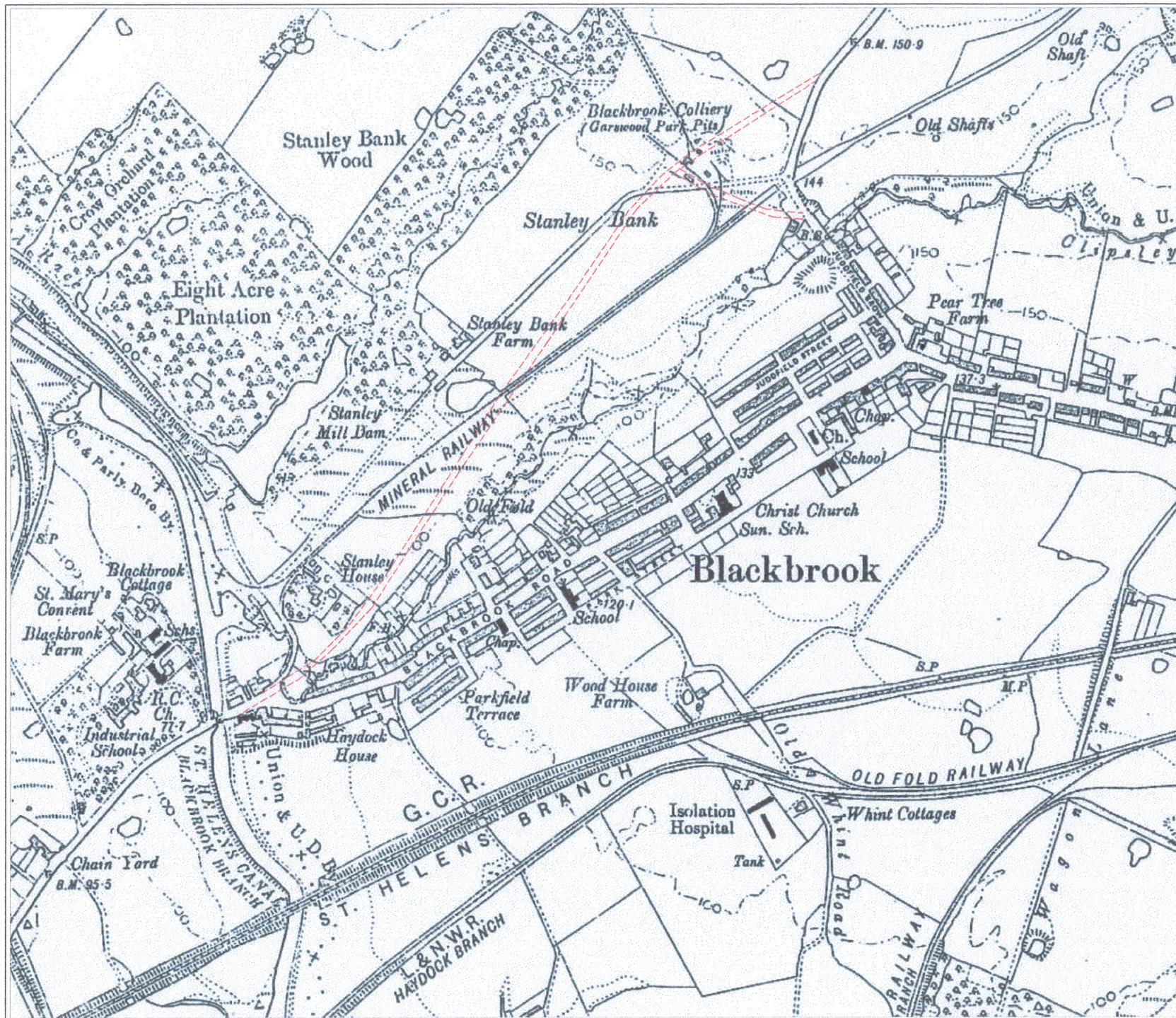


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0 250 500
 metres

Figure 1: A58 Blackbrook Diversion: Location Map



 <p>Oxford Archaeology North Storey Institute Meeting House Lane Lancaster LA1 1TF Tel 01524 848666 Fax 01524 848606</p>	
PROJECT:	Blackbrook A58 Diversion St Helens
DRAWING No:	2
 <p>Scale 1:10000</p>	
DRAWN BY:	Kat
DATE:	June 2002
LOCATION:	
KEY	 Proposed A58 Diversion route
TITLE:	2nd edition OS Map (1909)
COMMISSIONED BY:	The Environment Partnership

Figure 2: OS 2nd edition 6" to 1 mile map (1909)

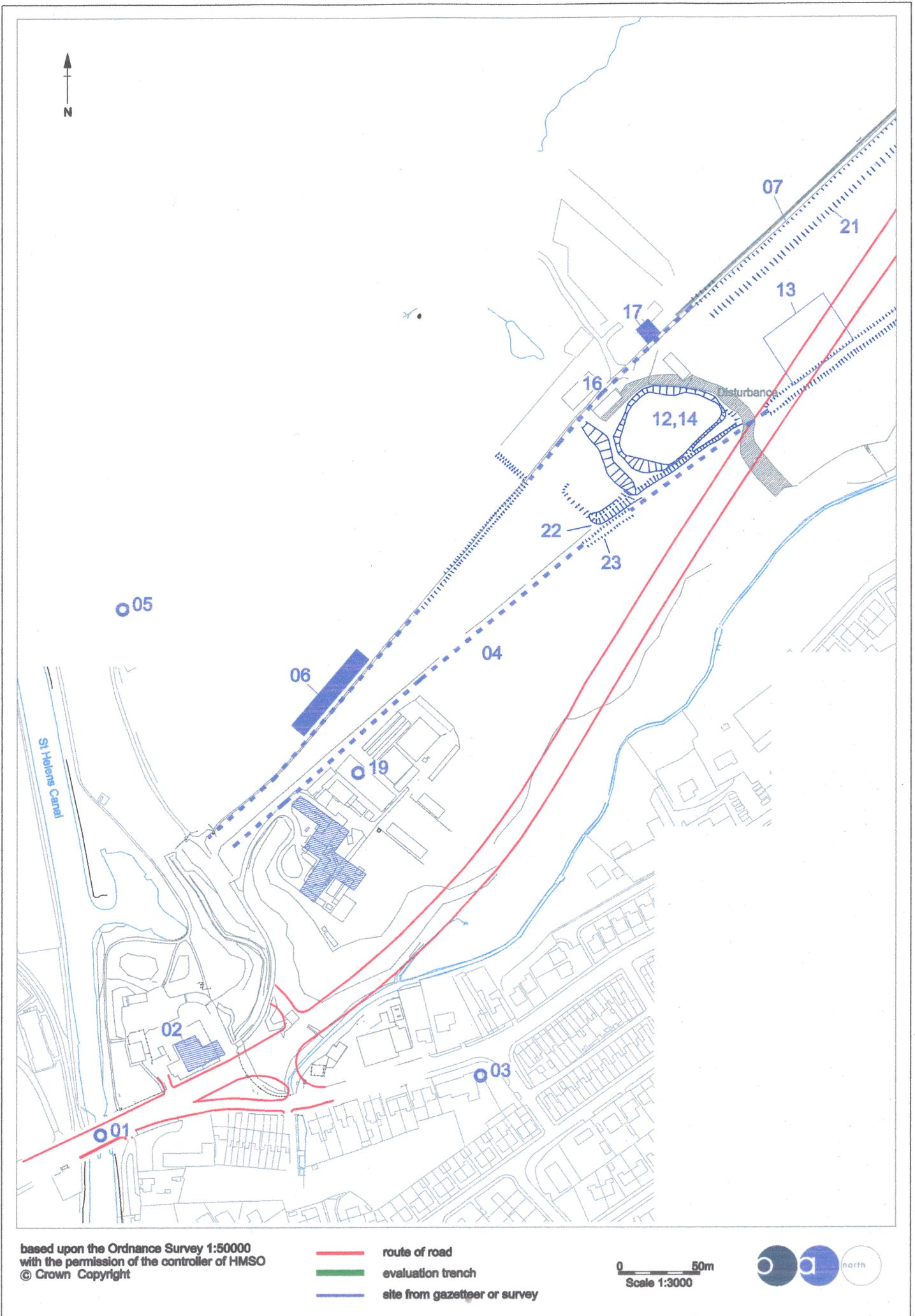
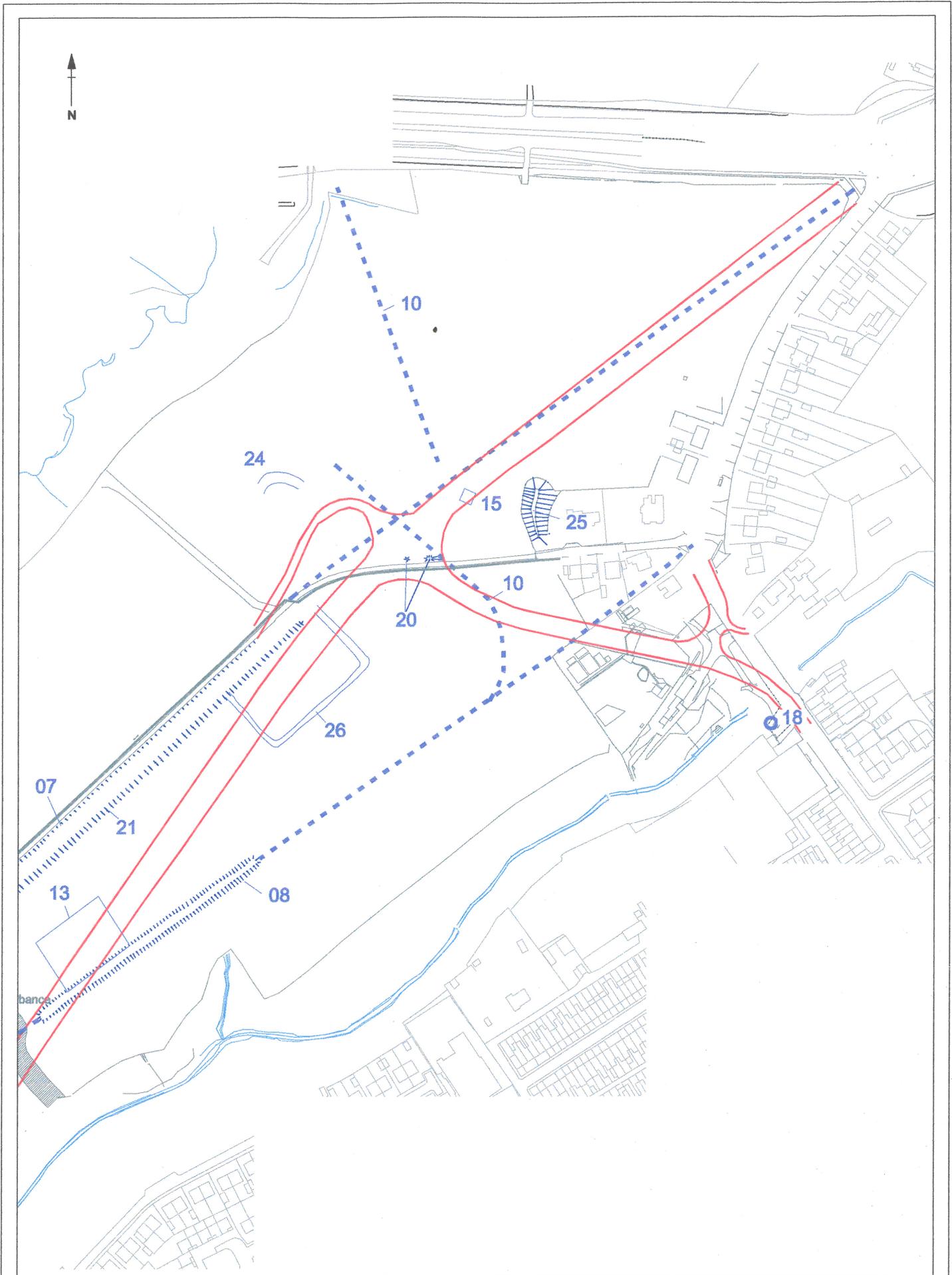


Figure 3: Topographic survey - South



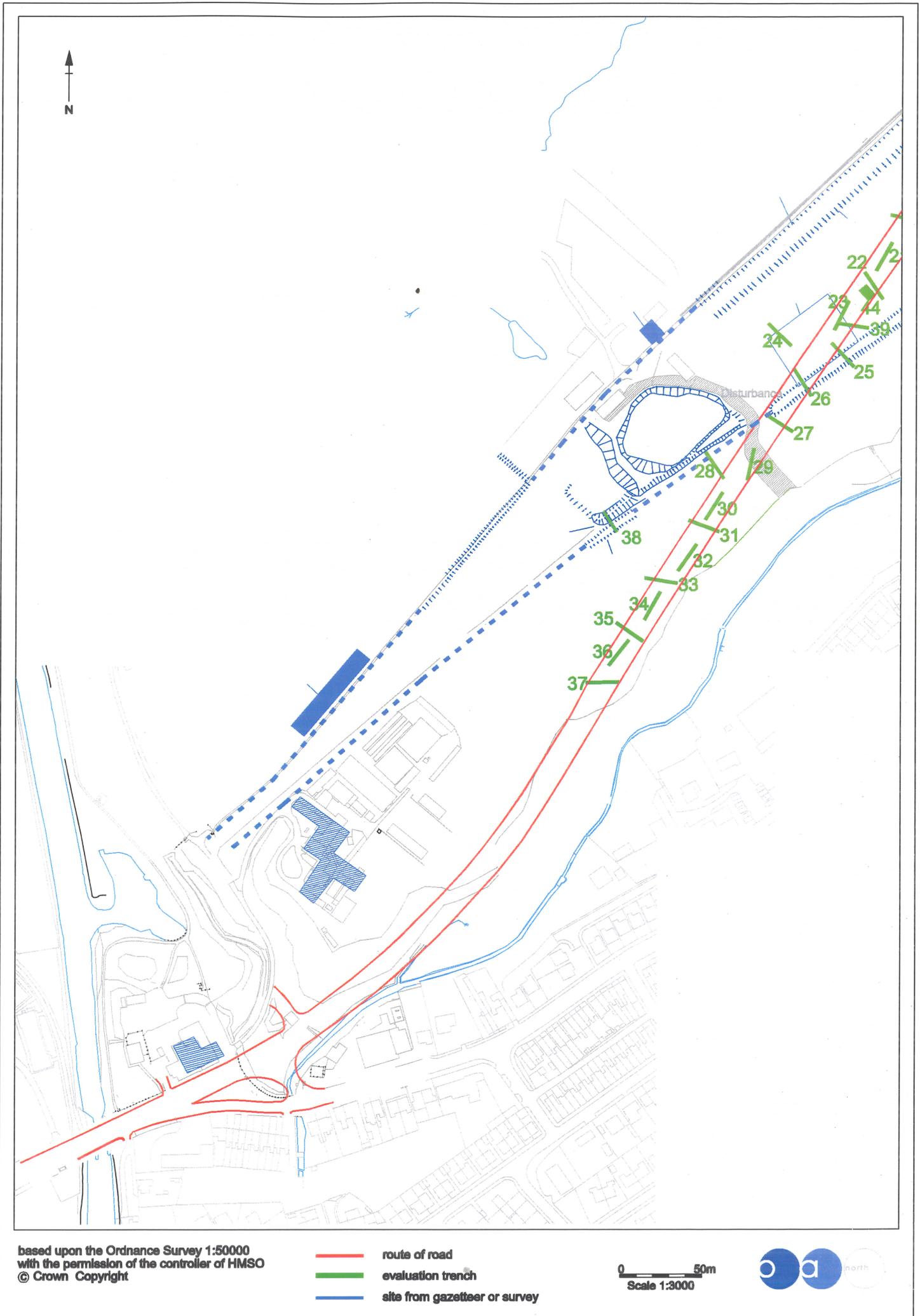
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- route of road
- evaluation trench
- - - site from gazetteer or survey

0 50m
Scale 1:3000



Figure 4: Topographic survey - North



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- route of road
- evaluation trench
- site from gazetteer or survey

0 50m
Scale 1:3000



Figure 5: Evaluation trench location plan - South

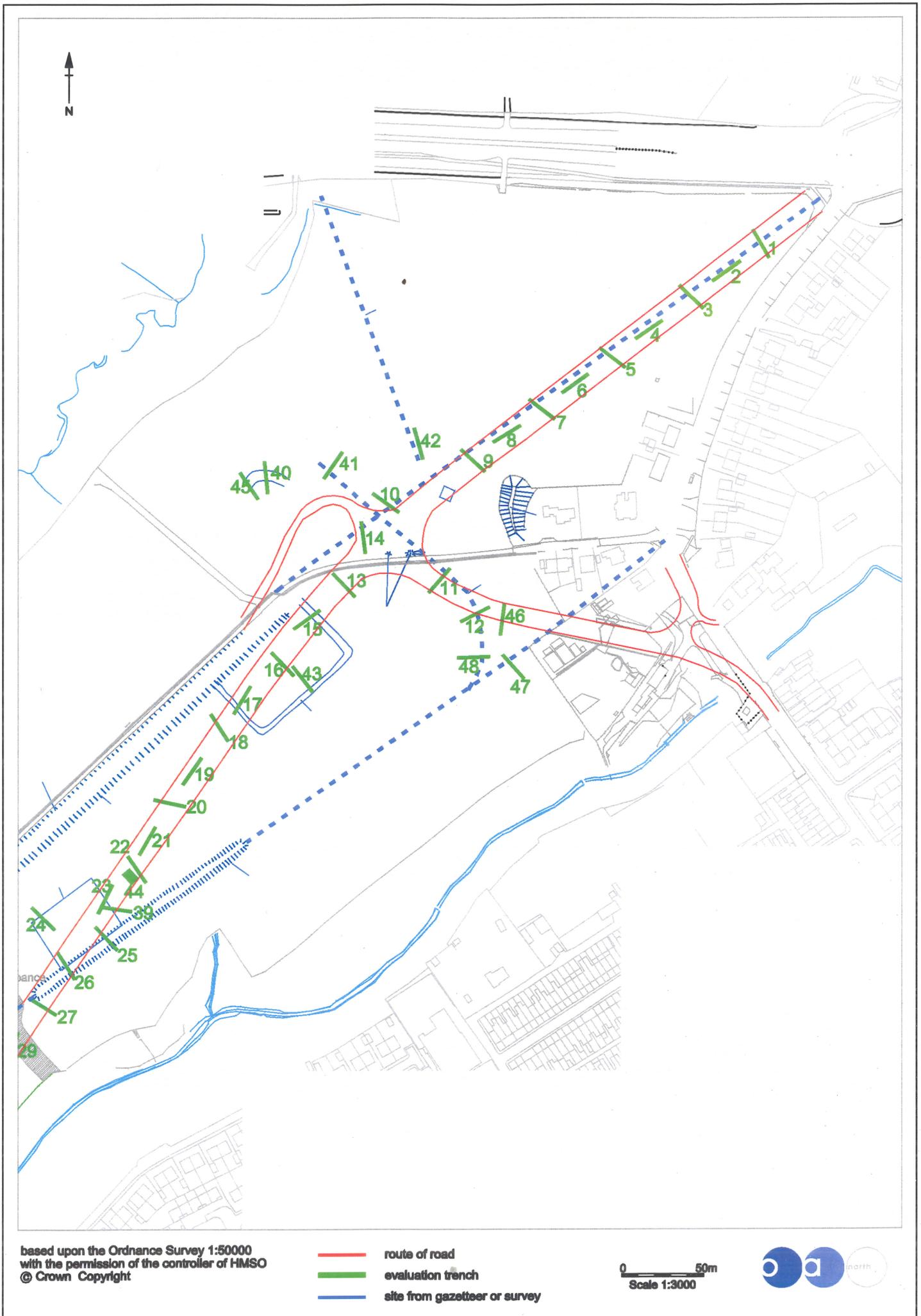
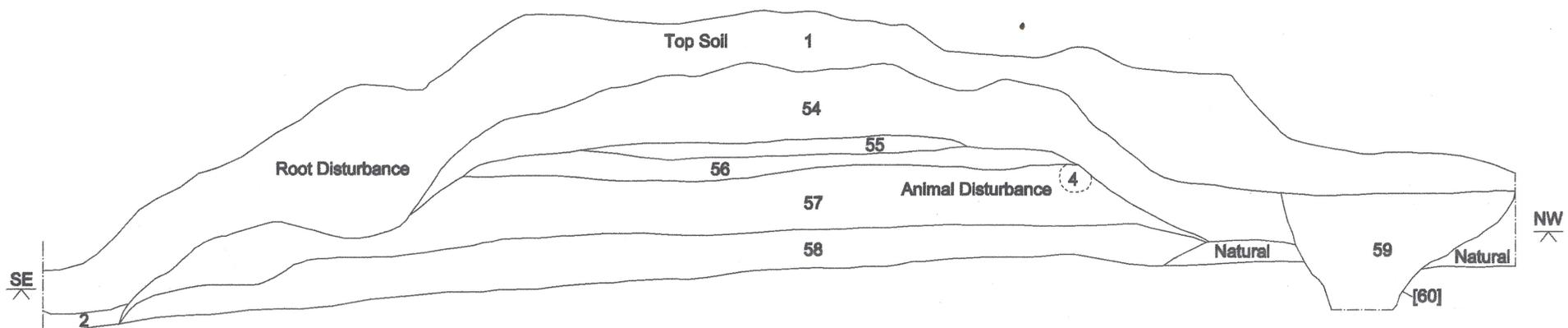


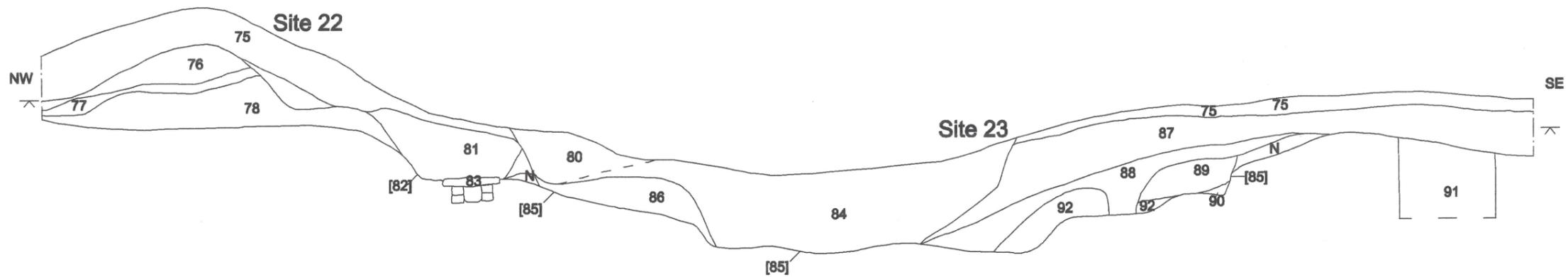
Figure 6: Evaluation trench location plan - North



0 0.8m
Scale 1:40 @ A4



Figure 7: Section through Garswood-Pewfall Incline in Trench 25, looking south-west

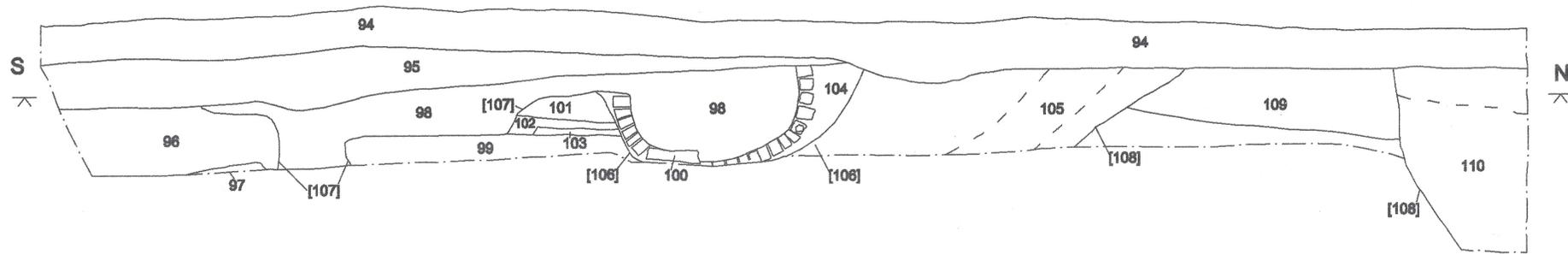


Key
 N Natural

0 3m
 Scale 1:50 @ A3



Figure 8: Section through Sites 22 and 23 in Trench 38, looking north-east



0 1m
Scale 1:50 @ A4



Figure 9: Section along Trench 42, showing brick structure 100, looking west

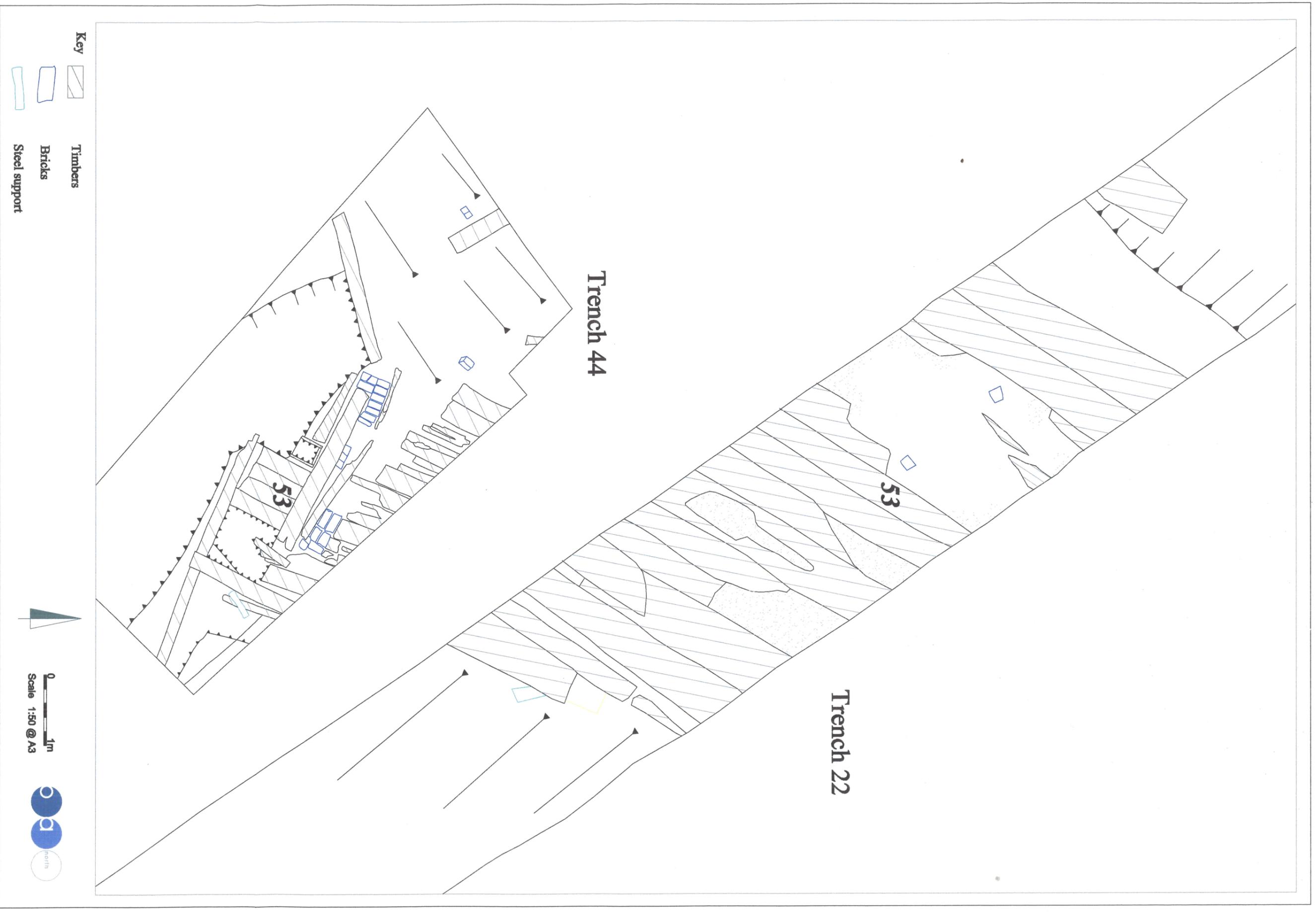
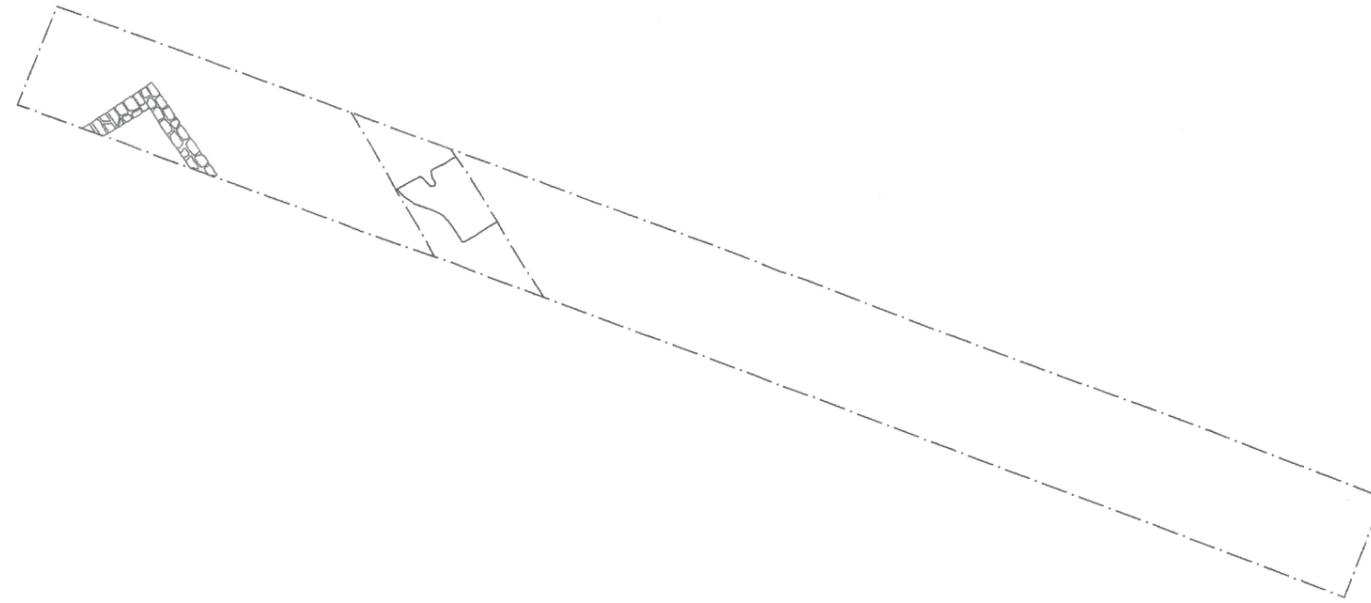
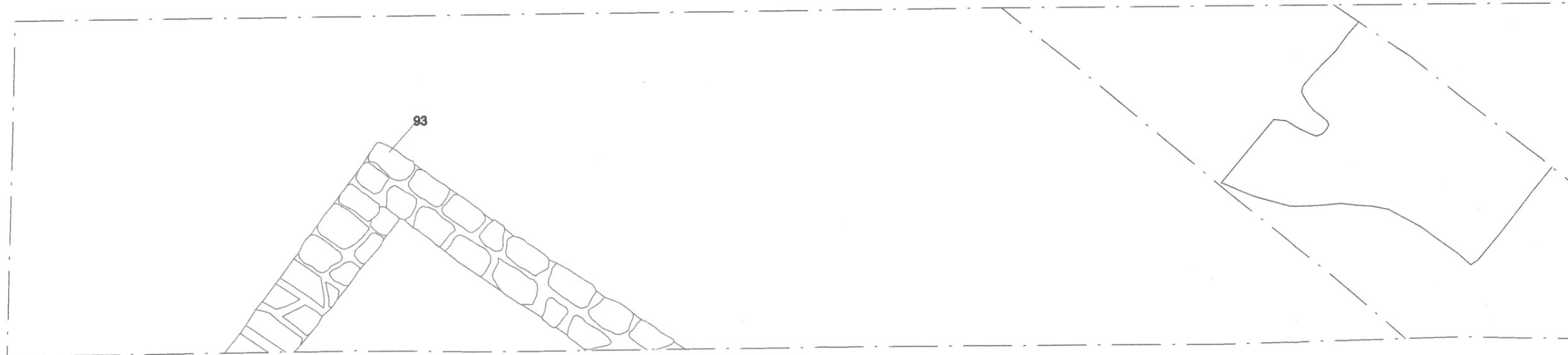
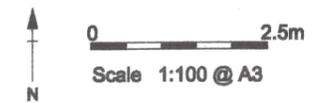


Figure 10: Plan of wooden platform 53, in Trenches 22 and 44



Extent of Trench 33 showing true north alignment



Detail of features at north-west end of Trench 33

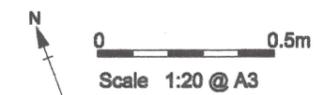
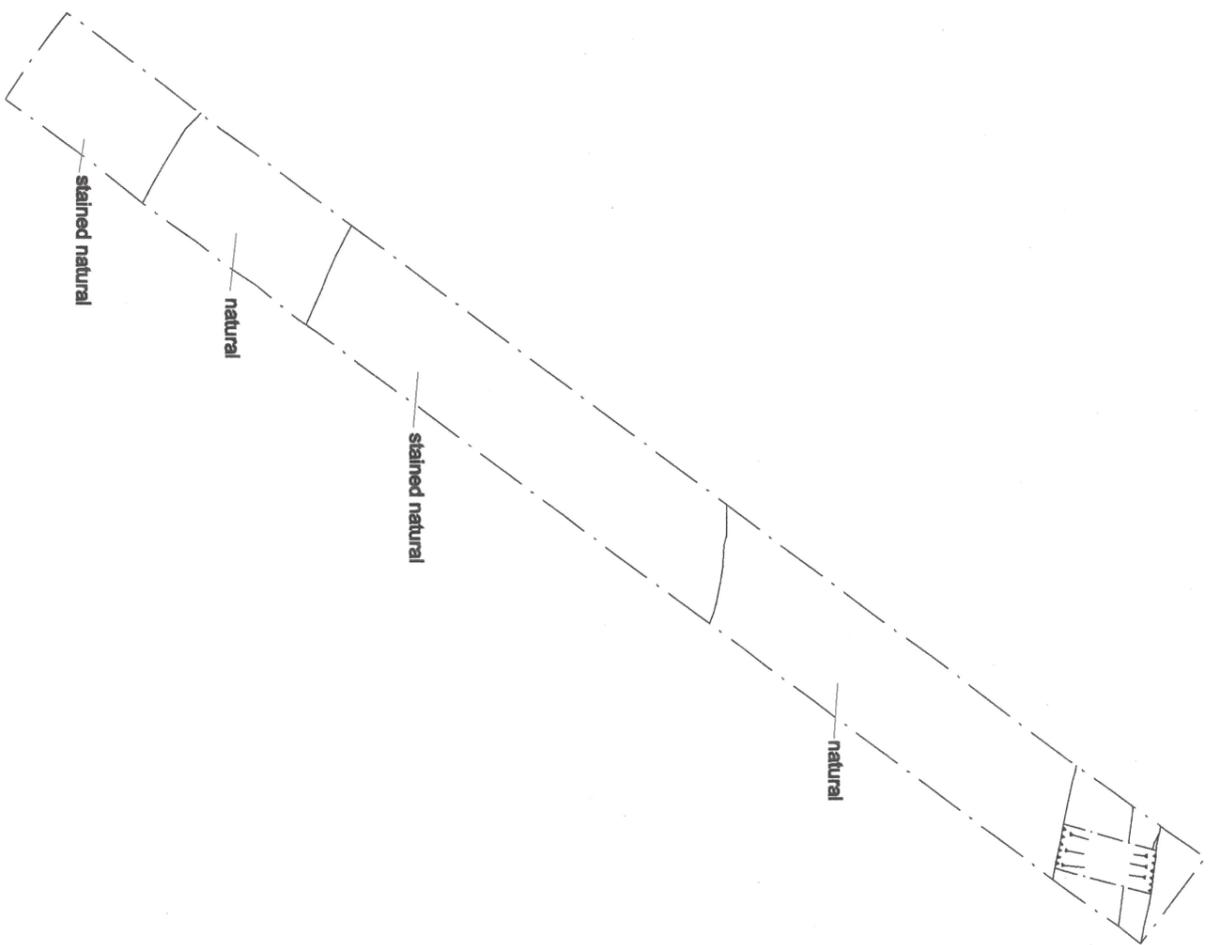
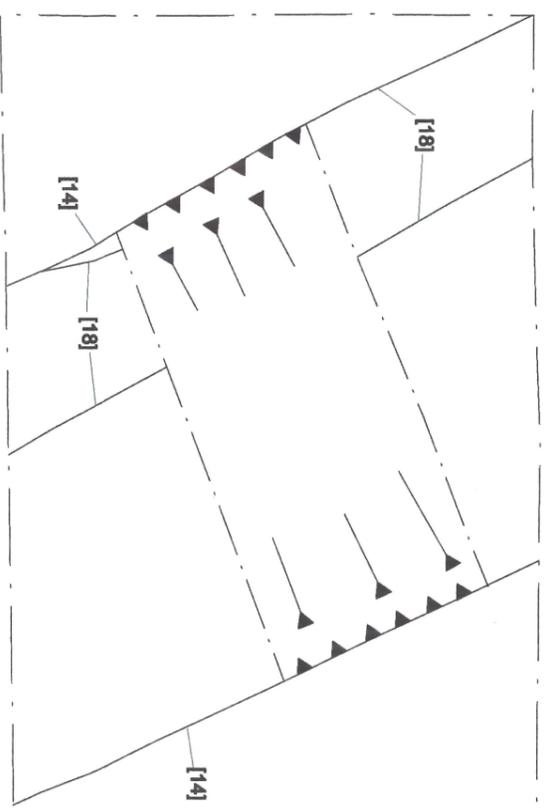


Figure 11: Plan of Trench 33 showing building foundation 93



Extent of Trench 8 showing true north alignment



Detail of features at north-east end of Trench 8



Figure 12: Plan of Trench 8



Plate 1: Site **08**, Garswood-Pewfall Incline, looking south-west



Plate 2: Site **07**, Stanley Bank Incline, looking south-west



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Plate 7: Wooden Platform 53, exposed in Trench 22



Plate 8: Wooden Platform 53, exposed in Trench 44



Plate 9: Section through Garswood-Pewfall Incline



Plate 10: Brick Foundation 93, within Trench 33



Plate 11: Brick Structure *100*, within Trench 42



Plate 12: Trench 42 looking north