FINAL

ARCHAEOLOGICAL
DESK-BASED
ASSESSMENT

Warburton Lane
Partington, Trafford

December 2019
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EXECUTIVE SUMMARY

This assessment draws together the available archaeological, historic, topographic and land-use information in order to assess and clarify the significance and archaeological potential of land at Warburton Lane, Partington. It addresses the information requirements set out in the National Planning Policy Framework (NPPF) and provides the proportionate response sought by the NPPF. Historic buildings are the subject of a separate report. The assessment has been updated to include the results of a geophysical survey undertaken in December 2019.

The assessment site is centred at National Grid Reference SJ 713 903 and covers two parcels of land, each of approximately 12ha, located to the west and east of Warburton Lane. The proposals comprise residential development with associated road, green and drainage infrastructure.

The assessment has established that there are no designated heritage assets within the study site and that the study site does not contribute to the significance of any off-site designated heritage assets of archaeological interest. One non-designated heritage asset of archaeological interest is recorded within the study site; the site of a possible Post-Medieval or Modern kiln, probably used for the production of tile or bricks. The asset is recorded on the basis of field name and other evidence for the presence of a kiln has been identified during this assessment. Any sub-surface archaeological remains associated with a kiln could be of moderate significance due to the potential to contribute to local research agendas. The geophysical survey failed to identify any anomalies that may represent remains of a kiln, although part of the relevant area could not be surveyed due to waterlogging.

The geophysical survey identified a ditch and potential bank feature within the eastern portion of the eastern parcel of the study site. As these features do not correlate with known historic boundaries, they could be Prehistoric or Roman in date and form part of a field system. The lack of other features is perhaps not surprising as much of this area slopes down towards the Red Brook and, even so, is poorly drained, even with the induction of modern agricultural drainage. It is likely that Prehistoric or Roman period settlement, if present in this area, would have been located to the south of Moss Lane, where the land sits at a greater elevation and benefits from better natural drainage.

This assessment has considered the potential for currently unknown archaeological remains to be present within the study site. With the exception of the potential kiln site and the ditch and potential bank feature discussed above, based on the available information there is considered to be low potential for evidence of all periods. Whilst Prehistoric and Roman period settlement is
recorded within Trafford and adjacent areas of Salford, no compelling evidence has been identified for the study site.

In light of the above, and in accordance with NPPF, it is considered that the archaeological implications of the proposed development can be addressed by an appropriately worded planning condition requiring the implementation of a phased programme of archaeological works to be secured prior to development commencing. The condition should also require the archaeological works to be undertaken in accordance with a Written Scheme of Investigation approved by the local planning authority. The programme of archaeological works should commence with evaluation via trial trenching.
1.0 INTRODUCTION AND SCOPE OF STUDY

1.1 This archaeological desk-based assessment has been prepared by Pete Owen of CgMs Heritage (part of the RPS Group) on behalf of Redrow Homes. Historic buildings are the subject of a separate report. The assessment was updated in December 2019 to include the results of a geophysical survey (Appendix B).

1.1 The assessment concerns two adjacent parcels of land, also referred to as the study site, at Warburton Lane, Partington, centred at National Grid Reference SJ 713 903 (Figure 1). The study site is located on the southern fringe of Partington and comprises two parcels of land located to the west and east of Warburton Lane, each of which covers an area of approximately 12ha. The western parcel (Development site 2) is bounded by Warburton Lane to the east, agricultural land to the south and west and the Red Brook to the north. The parcel comprises a single field, currently under arable cultivation. The eastern parcel (Development Site 1) is bounded to the west by Warburton Lane, to the south by Moss Lane, to the east by agricultural land and to the north by the Red Brook. The parcel comprises three fields, currently under pasture.

1.2 This assessment has been prepared in compliance with the National Planning Policy Framework, to identify and provide a description of heritage assets on the site, their significance and the likely effects of the proposed development on that significance. As a result, the assessment enables relevant parties to identify and assess the impact of the proposed development and identify any necessary mitigation measures.

1.3 The assessment comprises an examination of evidence contained in the Greater Manchester Historic Environment Record (HER), Trafford Archives and Local History and online resources. Information regarding Scheduled Monuments, Registered Battlefields, Registered Parks and Gardens and Listed Buildings was obtained from Historic England’s National Heritage List for England. Data on non-designated heritage assets and previous archaeological investigations was obtained from the Greater Manchester HER.

1.4 The assessment incorporates both published and unpublished material, and charts historic land-use through a map regression exercise. A site inspection was undertaken on 20th February 2018.
2.0  PLANNING BACKGROUND AND DEVELOPMENT PLAN FRAMEWORK

2.1 National legislation regarding archaeology, including scheduled monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002, and updated in April 2014.

2.2 In March 2012, the government published the National Planning Policy Framework (NPPF), which was later revised in July 2018. The NPPF is supported by the National Planning Practice Guidance (NPPG), which was published online 6th March 2014 and last updated 28 July 2017 (http://planningguidance.planningportal.gov.uk).

2.3 The NPPF and NPPG are additionally supported by three Good Practice Advice (GPA) documents published by Historic England: GPA 1: The Historic Environment in Local Plans; GPA 2: Managing Significance in Decision-Taking in the Historic Environment (both published March 2015). The second edition of GPA3: The Setting of Heritage Assets was published in December 2017.

National Planning Policy

2.4 Section 16 of the NPPF, entitled Conserving and enhancing the historic environment provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:

- Delivery of sustainable development;
- Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
- Conservation of England's heritage assets in a manner appropriate to their significance; and
- Recognition that heritage makes to our knowledge and understanding of the past.

2.5 Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 189 states that planning decisions should be based on the significance of the heritage asset and that level of detail supplied by an applicant should be proportionate to the
importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.

2.6 *Heritage Assets* are defined in Annex 2 of the NPPF as: a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. They include designated heritage assets (as defined in the NPPF) and assets identified by the local planning authority during the process of decision-making or through the plan-making process.

2.7 Annex 2 also defines *Archaeological Interest* as a heritage asset which holds or potentially could hold evidence of past human activity worthy of expert investigation at some point.

2.8 A *Nationally Important Designated Heritage Asset* comprises a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.

2.9 *Significance* is defined as: The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset’s physical presence, but also from its setting.

2.10 *Setting* is defined as: The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.

2.11 In short, government policy provides a framework which:

- Protects nationally important designated Heritage Assets;
- Protects the settings of such designations;
- In appropriate circumstances seeks adequate information (from desk-based assessment and field evaluation where necessary) to enable informed decisions;
- Provides for the excavation and investigation of sites not significant enough to merit *in-situ* preservation.
2.12 The NPPG reiterates that the conservation of heritage assets in a manner appropriate to their significance is a core planning principle, requiring a flexible and thoughtful approach. Furthermore, it highlights that neglect and decay of heritage assets is best addressed through ensuring they remain in active use that is consistent with their conservation. Importantly, the guidance states that if complete, or partial loss of a heritage asset is justified, the aim should then be to capture and record the evidence of the asset’s significance and make the interpretation publicly available. Key elements of the guidance relate to assessing harm. An important consideration should be whether the proposed works adversely affect a key element of the heritage asset’s special architectural or historic interest. Additionally, it is the degree of harm, rather than the scale of development, that is to be assessed. The level of ‘substantial harm’ is considered to be a high bar that may not arise in many cases. Essentially, whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the NPPF. Importantly, harm may arise from works to the asset or from development within its setting. Setting is defined as the surroundings in which an asset is experienced and may be more extensive than the curtilage. A thorough assessment of the impact of proposals upon setting needs to take into account, and be proportionate to, the significance of the heritage asset and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it.

2.13 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

**Local Planning Policy**

2.14 The current development plan policy framework for Trafford is set out within the Trafford Local Plan Core Strategy (2012). Policy R1 (Historic Environment) describes the approach to the treatment of the historic environment within the planning system:

*R1.1 All new development must take account of surrounding building styles, landscapes and historic distinctiveness.*

*R1.2 Developers must demonstrate how the development will complement and enhance the existing features of historic significance including their wider settings, in particular in relation to conservation areas, listed buildings and other identified heritage assets.*
Conservation Areas

R1.3 Trafford’s Conservation Areas will be identified within the Land Allocations’ DPD. Within these areas the Council will:

- Carry out, and update where necessary, Conservation Area Appraisals, to inform the production of new and revised Supplementary Planning Documents;

- Develop Management Plans for existing Conservation Areas;

- Determine applications for demolition, taking account of the contribution made by the building or structure to the character, appearance or special architectural interest of the area as a whole, including the merits of any proposed (re)development. Where development is to follow demolition, it will be a requirement that detailed planning permission for the proposed redevelopment shall be obtained and the implementation of that proposal is secured before the existing building or structure is demolished; and

- Require developers to demonstrate how the proposed development will preserve or enhance the Conservation Area, and its wider setting in the light of relevant Supplementary Planning Documents and area specific guidance notes.

R1.4 As appropriate, the Council will designate additional areas of the Borough for Conservation Area status through the Land Allocations DPD Heritage Assets

R1.5 In addition to preserving or enhancing Conservation Areas, the Council will identify, preserve, protect and enhance the positive features and characteristics of Trafford’s historic environment, through the Land Allocations DPD, the maintenance of the Historic Environment Record, the preparation of local lists, Supplementary Planning Documents and development briefs, as appropriate.

R1.6 Accordingly developers will be required, where appropriate, to demonstrate how their development will protect, preserve and enhance the following heritage assets including their wider settings:

- Listed buildings;

- Buildings and structures identified on a local list which make a significant contribution to the townscape by reason of their architectural or historic interest;
• Listed buildings and locally significant historic buildings and structures, identified on a local list, which are at risk;

• Sites included on the English Heritage Register of Parks and Gardens of Special Historic Interest;

• Scheduled Monuments;

• Sites of archaeological significance;

• Other sites of significant historic designed landscapes identified from the Trafford Urban Historic Landscape Characterisation Report on a local list; and

• The character of prominent skylines, particularly those running from Dunham New Park to Oldfield Road, Altrincham and from the A56 through Bowdon and any other important skylines, identified through the Conservation Appraisals.

R1.7 The Council will encourage development proposals that, where appropriate, seek to re-use or modify an identified heritage asset by improving its environmental performance to mitigate and adapt to the effects of climate change.

R1.8 In areas of archaeological importance developers will be required to:

• Identify the presence or absence of remains of archaeological significance and take into account the potential for new finds; and

• Set out a framework for dealing with investigation, recording and preservation of any remains.

R1.9 The level of information to be supplied by a developer in relation to any of these matters should refer to the significance of the heritage asset and will vary on a site by site basis but will need to be provided to the satisfaction of LPA.

2.15 When considering the historic environment implications of the proposed planning application for development within the study site, the local planning authority will be guided by the policy framework set by government (NPPF) and the relevant parts of Policy R1 of the Trafford Local Plan Core Strategy.

2.16 In line with relevant planning policy and guidance, this desk-based assessment seeks to clarify the site’s archaeological potential and the need or otherwise for additional
mitigation measures.
3.0 GEOLOGY AND TOPOGRAPHY

Geology

3.1 The underlying solid geology the study site is characterised as siltstone, mudstone and sandstone of the Tarporley Siltstone Formation. The superficial deposits consist of sand of the Shirdley Hill Sand Formation, deposited during the Flandrian and Devensian (British Geological Survey 1977).

3.2 The lithology within the study site is characterised as freely draining very acid sandy and loamy soils.

Topography

3.3 Both parcels of land are relatively level, lying at approximately 20m AOD, although their northern margins slope downwards towards the Red Brook. The former course of the River Mersey, incorporated into the Manchester Ship Canal during the late 19th century, is located approximately 750m to the northwest of the study site at its closest point. The low-lying nature of the general area and prevalence of former wetlands is reflected in the frequency of ‘Moss’ within place names, such as Carrington Moss and Warburton Moss.
4.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND WITH ASSESSMENT OF SIGNIFICANCE

Timescales used in this report:

Prehistoric

- **Palaeolithic**: 900,000 - 12,000 BC
- **Mesolithic**: 12,000 - 4,000 BC
- **Neolithic**: 4,000 - 1,800 BC
- **Bronze Age**: 1,800 - 600 BC
- **Iron Age**: 600 - AD 43

Historic

- **Roman**: AD 43 - 410
- **Early Medieval**: AD 410 - 1066
- **Medieval**: AD 1066 - 1485
- **Post Medieval**: AD 1486 - 1799
- **Modern**: AD 1800 - Present

Introduction

4.1 This chapter reviews existing historic environment evidence for the study site and the archaeological/historical background of the general area based on a consideration of evidence in the National Heritage List for England, Greater Manchester Historic Environment Record (HER), Trafford Archives and Local History and various on-line sources for the study site and a surrounding search area (the study area) extending a radius of 1km from the study site boundary. The chapter also considers the results of a geophysical survey undertaken in December 2019 (Appendix B).

4.2.1 The locations of designated heritage assets are shown on Figure 2 and the locations of non-designated heritage assets on Figure 3. A gazetteer of heritage assets is contained within Appendix A. Only assets of relevance to this assessment are discussed.

4.2 Chapter 5 subsequently considers the site conditions and whether the proposed development will impact the theoretical archaeological potential identified below.
4.3 It is not the purpose of this document to create a detailed archaeology or history of Partington, noting every sherd of pottery or lithic flake, but to provide an assessment of the area’s history and archaeology, and to document known resources on the study site and predict the potential for currently unknown archaeological evidence, in accordance with the NPPF.

**Designated Heritage Assets**

4.4 There are no Scheduled Monuments, Registered Battlefields, Registered Parks and Gardens, Conservation Areas or Listed Buildings within the study site. Nine Grade II Listed Buildings are recorded within the study area (Figure 2). Historic buildings are the subject of a separate report.

**Non-Designated Heritage Assets**

4.5 A single non-designated heritage asset is recorded, but unconfirmed, within the study site; the site of a possible former kiln identified through field name evidence (16708).

4.6 A further 62 non-designated assets have been identified within the study area. Of these, 24 represent extant Post-Medieval and Modern buildings with the remainder represent archaeological features, sites of former buildings or areas of settlement and locations where artefacts have been recovered.

**Previous Archaeological Investigations**

4.7 A geophysical survey of the study site was undertaken in December 2019, comprising a detailed fluxgate gradiometer survey. Due to waterlogging, 3.6ha of the study site (approximately 15% of the total area) could not be surveyed. The geophysical survey report is presented in Appendix B. The geophysical survey identified Modern agricultural drainage and ploughing features, as well as ephemeral evidence of post-medieval ridge and furrow and former historic field boundaries. Potential significant archaeological was limited to a ditch and possible bank feature within the eastern portion of the eastern parcel.

**Prehistoric**

4.8 No Prehistoric heritage assets are recorded within the study site. The HER records the findspot of a Neolithic stone axe, approximately 800m to the northwest of the study site. The stone axe was recovered circa 1890 during construction of the Manchester [CD-A57-P15]
Ship Canal (509). The findspot of an Iron Age saddle quern is also recorded, approximately 800m to the south of the study site (MGM17844). The quern was recovered in 1997 during the excavation of a drainage ditch.

4.9 In the context of the lowland North West of England, the topography of the study site, consisting of slightly elevated ground overlooking the Red Brook, as well as the vicinity of former wetlands can be taken as an indicator of heightened potential for Prehistoric (and Roman) settlement. Whilst the majority of the geophysical survey did not identify any significant archaeological anomalies, a ditch and potential bank feature that does not relate to known former historic field boundaries was identified at the eastern end of the eastern parcel of the study site and this feature could be Prehistoric (or Roman) in date.

**Roman**

4.10 No Roman heritage assets are recorded within the study site or study area.

4.11 The lack of evidence within the search area argues against the presence of significant Roman remains, which frequently appear on HERs because of the volume of cultural material relative to most other periods and because much of that material is readily identifiable.

4.12 As discussed above, the ditch and potential bank feature could be Roman in date.

**Early Medieval and Medieval**

4.13 No Early Medieval or Medieval non-designated heritage assets are recorded within the study site. The location of a possible Medieval burial mound is recorded approximately 500m to the east of the study site (2244). The HER entry states that this roughly circular mound was traditionally thought to be the burial place of the ‘white canons’ (a Medieval religious order), although the entry goes on to state that there is no archaeological or documentary evidence for this.

4.14 The location of a former ferry crossing point thought to have been in use since the 14th century is recorded in the area of the former bank of the River Mersey located approximately 900m to the west of the study site (2237). The HER also records the locations of two trackways of possible Medieval origin, approximately 600m to 800m to the south of the study site (16711 and 16712). It is likely that the study site comprised agricultural land during the Early Medieval and Medieval periods.
4.15 Given the limited Early Medieval and Medieval evidence within the study area, the study site is considered to have a low potential for significant (i.e. non-agricultural) archaeological evidence of this date.

Post Medieval & Modern (including map regression exercise)

4.16 The HER records the location of one Post-Medieval or Modern non-designated heritage asset within the study site, the location of a possible kiln (16708), identified on the basis of field name evidence ('Kiln Field' on the 1839 Warburton Tithe map). However, as stated in the HER entry, the superficial geology of this field, however, is characterised as sands, rather than the clays required for tile or brick-making. Moreover, the geophysical survey undertaken in December 2019 failed to identify any anomalies in that area that may indicate the presence of a kiln, although it is acknowledged that some of that area was waterlogged and could not be surveyed.

4.17 The majority of the Post-Medieval and Modern non-designated heritage assets recorded in the HER within the study area relate to extant and former buildings and monuments of a well-defined extent and nature that generally add little to the understanding of the study site’s archaeological potential and are therefore not discussed in any further detail.

4.18 Whilst the area of the study site is depicted on maps from the 18th century onwards, the earliest map to show it in detail is the 1839 Warburton tithe map (Figure 4). The western parcel consists of a single large field (Hob Heath) and a portion of a second field (Hanging North Field). Both fields are recorded as being owned by Rowland Egerton-Warburton and occupied by James Beckett. The eastern parcel consists of 5 fields, all recorded as being owned by Rowland Egerton and occupied by John Dennis, the easternmost being Kiln Field. The Ordnance Survey maps from 1896 onwards show very little change across the study site and surrounding area until the expansion of Partington to the north during the 1970s and 80s (Figures 5 to 9).

4.19 Given the available evidence, there is some potential for the presence of a kiln within the easternmost field of the eastern parcel. Across the remainder of the study site, the potential for non-agricultural Post-Medieval and Modern archaeological evidence to be present within the study site is considered to be low.
4.20 There are also a number of undated non-designated heritage assets recorded within the study area comprising crop marks identified from aerial photography. None are located within the immediate vicinity of the study site.

**Assessment of Significance (Designated Assets)**

4.21 Existing national policy guidance for archaeology (the NPPF as referenced in section 2) enshrines the concept of the ‘significance’ of heritage assets. Significance as defined in the NPPF centres on the value of an archaeological or historic asset for its ‘heritage interest’ to this or future generations.

4.21.1 This assessment has established that there are no designated heritage assets within the study site and the study site does not contribute to the significance of any off-site designated heritage assets of archaeological interest. Three Grade II listed buildings are located within relative proximity to the study site. Historic buildings are the subject of a separate report.

**Assessment of Significance (Non-Designated Assets)**

4.22 One non-designated heritage asset is recorded within the study site; the site of a possible Post-Medieval or Modern kiln, probably used for the production of bricks (16708; Figure 3). Any archaeological remains of a Kiln that do survive within the study site could be of local to regional significance due to their evidential value and potential to contribute to local research agendas with regard to the understanding of the development of tile or brick making within Greater Manchester and wider region during the Post-Medieval and Modern periods.

4.23 The geophysical survey identified a ditch and potential bank feature that may be Prehistoric or Roman in date. Any such archaeological remains could be of local to regional significance due to their evidential value and potential to contribute to local and regional research agendas with regard to the understanding of Prehistoric and Roman settlement and agricultural practices within Greater Manchester and the wider region.

4.24 Any other archaeological remains that may be present within the study site would be of significance if they have potential to contribute to local and regional research agendas.
5.0 SITE CONDITIONS, THE PROPOSED DEVELOPMENT & REVIEW OF POTENTIAL DEVELOPMENT IMPACTS ON HERITAGE ASSETS

Site Conditions

5.1 A site visit was undertaken on 20th February 2018 (Plates 1-5). The study site consists of a western and eastern parcel, located on either side of Warburton Lane (Plate 1). The western parcel consists of a portion of a large open field and is currently under arable cultivation (Plates 2 and 3). The eastern parcel is bordered to the south by Warburton Lane (Plates 4 and 5) and comprises 3 fields, all of which are currently under pasture (Plates 6, 7 and 8). As can be seen, the land slopes gently downward in a northerly direction towards the Red Brook.

5.2 No evidence of potential archaeological remains was observed during the site visit.

Proposed Development

5.3 The proposals comprise of residential development associated highway, green and drainage infrastructure.

Review of Potential Development Impacts on Designated Heritage Assets

5.4 There are no designated heritage assets within the study site and the study site does not contribute to the significance of any off-site designated heritage assets of archaeological interest. Nine Grade II Listed Buildings have been identified within the study area. Historic buildings are the subject of a separate report.

Review of Potential Development Impacts on Non-Designated Assets

5.5 One non-designated heritage asset is recorded within the study site; the site of a possible Post-Medieval or Modern kiln, probably used for the production of tile or bricks. A ditch and potential bank feature of possible Prehistoric or Roman date was identified during the geophysical survey. Any archaeological remains associated with these assets may be truncated or removed during works associated with the proposed development.

5.6 Any currently unknown archaeological remains that are present may be truncated or removed during works associated with the proposed development.
6.0 SUMMARY AND CONCLUSIONS

6.1 This archaeological desk-based assessment draws together the available archaeological, historic, topographic and land-use information in order to clarify the heritage significance and archaeological potential of land at Warburton Lane, Partington. The assessment was updated in December 2019 to incorporate the results of a geophysical survey (Appendix B).

6.2 This assessment addresses the information requirements set out in the National Planning Policy Framework (NPPF) and provides the proportionate response sought by the NPPF.

6.3 The assessment has established that there are no designated heritage assets within the study site. Nine Grade II Listed Buildings have been identified within the study area (Figure 2). Built heritage is the subject of a separate report.

6.4 One non-designated heritage asset of archaeological interest is recorded within the study site; the site of a possible Post-Medieval or Modern kiln, probably used for the production of tile or bricks. The identification of the asset has been made on the basis or field name and other evidence for the presence of a kiln has been noted during this assessment. Any sub-surface archaeological remains associated with a kiln could be of significance with regard to potential to contribute to local research agendas. The geophysical survey failed to identify any anomalies that may represent remains of a kiln, although part of the relevant area could not be surveyed due to waterlogging.

6.5 The geophysical survey identified a ditch and potential bank feature within the eastern portion of the eastern parcel. As these features do not correlate with known historic boundaries, they could be Prehistoric or Roman in date and form part of a field system. The lack of other features is perhaps not surprising as much of this area slopes towards the Red Brook and is very poorly drained, even with the induction of modern agricultural drainage. It is likely that Prehistoric or Roman period settlement, if present in this area, would have been located to the south of Moss Lane, where the land sits at a greater elevation and benefits from better natural drainage.

6.6 This assessment has considered the potential for currently unknown archaeological remains to be present within the study site. With the exception of the potential kiln site and the ditch feature discussed above, based on the available information there is considered to be low potential for evidence of all periods.
6.7 In light of the above, and in accordance with NPPF, it is considered that the archaeological implications of the proposed development can be addressed by an appropriately worded planning condition requiring the implementation of a phased programme of archaeological works to be secured prior to development commencing. The condition should also require the archaeological works to be undertaken in accordance with a Written Scheme of Investigation approved by the local planning authority. The programme of archaeological works should commence with evaluation via trial trenching.
SOURCES CONSULTED

General

Trafford Archives and Local History
Greater Manchester Historic Environment Record

Online

Archaeological Data Service - ads.ahds.ac.uk
Heritage Gateway - heritagegateway.org.uk
Historic England (The National Heritage List for England) - list.historicengland.org.uk
MAGIC - magic.gov.uk
Soilscapes – landis.org.uk/soilscapes

Bibliographic


**Cartographic**

1839 Warburton Tithe Map

**Ordnance Survey 1:2,500**

1873-77, 1898, 1910, 1967, 1992
Ordnance Survey 1:10,000
Figure 3: Non-Designated Heritage Assets Plan
Figure 4: 1839 Warburton Tithe Map

Legend

- Site Boundary
Figure 5: 1896 Ordnance Survey Map

Legend
- Site Boundary

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The map is not to scale and is illustrative only.
Figure 9: 2017 Ordnance Survey Map

Not to Scale: Illustrative Only

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Legend
- Site Boundary
Plate 1: Warburton Lane, looking north

Plate 2: Western parcel, looking west
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Plate 4: Moss Lane, immediately east of junction with Warburton Lane, looking east
Plate 5: Moss Lane, looking east
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Plate 7: Eastern parcel, looking northeast
Plate 8: Kiln Field, looking south east
APPENDIX A: Heritage Asset Data
Warburton Lane, Partington: HER entries within 1km of the site boundary

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<th>Ref</th>
<th>Site Name</th>
<th>Monument Types</th>
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<td>Jack Hey Gate Farm</td>
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**Find Spot**

- MGM17865: Shield-shaped mount (20th Century) (Findspot)  
  Findspot: Warburton, Trafford, Greater Manchester  
  SJ 72 90 (point)

- 509.1.0: Stone Axe (Findspot)  
  Findspot: Partington, Salford, Greater Manchester  
  SJ 703 912 (point)

- MGM17844: Iron Age Saddle Quern (Findspot)  
  Findspot: Warburton, Trafford, Greater Manchester  
  SJ 70 89 (point)

**Listed Building**

- 3775.1.1: Barn North East of Heathlands Farmhouse  
  Farm, Barn: Warburton, Trafford, Greater Manchester  
  SJ 7119 9015 (point)

- 3771.1.0: Barn at Birch Farm  
  Cow House, Farm, Cruck Barn, Timber Framed Barn, Barn, Hayloft: Warburton, Trafford, Greater Manchester  
  SJ 7207 9026 (point)

- 3775.1.0: Heathlands Farm  
  Farm, Farmstead, Farmhouse: Warburton, Trafford, Greater Manchester  
  SJ 7118 9014 (point)

- 3780.1.0: Erlam Farmhouse  
  Farm, Farmhouse: Partington, Trafford, Greater Manchester  
  SJ 7155 9138 (point)

- 3781.1.0: Stocks at Lock Lane  
  Stocks: Partington, Trafford, Greater Manchester  
  SJ 7167 9156 (point)

- 3794.1.0: The Old Farmhouse, 10m W of Villa Farmhouse (Onion Farmhouse)  
  Farm, Stable, Cruck House, Timber Framed Building, Wall Painting, Farmhouse: Warburton, Trafford, Greater Manchester  
  SJ 7094 8942 (point)

- 3797.1.0: The School, Dunham Road  
  House, School: Warburton, Trafford, Greater Manchester  
  SJ 7110 8922 (point)

- 383.1.1: Farm Building at Warburton Park Farmyard  
  Farm, Timber Framed Building, Outbuilding, Barn: Warburton, Trafford, Greater Manchester  
  SJ 7014 9019 (point)
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<td>Tannery, Paint Factory, Industrial Site</td>
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**Place**

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Appendix B: Geophysical Survey Report
Geophysical Survey Report
of
Warburton Lane, Trafford

For
RPS

Magnitude Surveys Ref: MSSJS84
December 2019
Abstract
Magnitude Surveys was commissioned to assess the subsurface archaeological potential of a c. 24.25 ha area of land at Warburton Lane, Trafford. A fluxgate gradiometer survey was successfully completed across most of the survey area; however, due to waterlogging 3.6ha of land could not be surveyed. Possible archaeological activity is limited to a ditch. The geophysical survey has detected drainage features and ploughing regimes. Ephemeral evidence of ridge and furrow agricultural activity and former field boundaries relates to historical agricultural land-use. Other activity identified includes agricultural reclamation of land and location of a modern gas pipe.
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1. Introduction

1.1 Magnitude Surveys Ltd (MS) was commissioned by RPS to undertake a geophysical survey on a c.24.25 ha area of land at the Warburton Lane, Trafford, Greater Manchester (NGR: SJ 7131 9035).

1.2 The geophysical survey comprised hand-carried GNSS-positioned fluxgate gradiometer survey.

1.3 The survey was conducted in line with the current best practice guidelines produced by Historic England (David et al., 2008), the Chartered Institute for Archaeologists (CIfA, 2014) and the European Archaeological Council (Schmidt et al., 2015).

1.4 It was conducted in line with a WSI produced by MS (2019).

1.5 The survey commenced on 21/11/2019 and took five days to complete.

2. Quality Assurance

2.1 Magnitude Surveys is a Registered Organisation of the Chartered Institute for Archaeologists (CIfA), the chartered UK body for archaeologists, and a corporate member of ISAP (International Society of Archaeological Prospection).

2.2 Director Dr. Chrys Harris is a Member of CIfA, has a PhD in archaeological geophysics from the University of Bradford and is the Vice-Chair of ISAP. Director Finnegan Pope-Carter is a Fellow of the London Geological Society, the chartered UK body for geophysicists and geologists, as well as a member of GeoSIG, the CIfA Geophysics Special Interest Group. Reporting Analyst Dr. Kayt Armstrong has a PhD in archaeological geophysics from Bournemouth University, is the Vice Conference Secretary and Editor of ISAP News for ISAP, and is the UK Management Committee representative for the COST Action SAGA.

2.3 All MS managers have relevant degree qualifications to archaeology or geophysics. All MS field and office staff have relevant archaeology or geophysics degrees and/or field experience.

3. Objectives

3.1 The objective of this geophysical survey is to assess the subsurface archaeological potential of the survey area.
4. Geographic Background

4.1 The site is located c.1 Km south of Parrtington (Figure 1). Survey was undertaken across four fields under arable use. The site is bounded by Red Brook and to the north; a field and Birch Farm to the east; Moss Lane, housing, a field and a copse to the south and a field to the west (Figure 2). Due to poor ground conditions it was not possible to survey c. 3.6 ha of land.

4.2 Survey considerations:

<table>
<thead>
<tr>
<th>Survey Area</th>
<th>Ground Conditions</th>
<th>Further Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The area consisted of mostly flat arable land on wet sandy ground.</td>
<td>The area was bound by a low bank with barbed wire fencing to the south and east, no physical boundary to the west, and trees to the north. Small portions in the south-east, centre and centre-north of the field were waterlogged and could not be surveyed.</td>
</tr>
<tr>
<td>2</td>
<td>The area consisted of mostly flat arable land on wet sandy ground.</td>
<td>The area was bound by a brick wall to the south-west, hedges to the south-east, trees to the north and east, and trees and wooden fencing to the west. There was no physical boundary to the south-east. The ground was cracked in a few areas, showing elongated cracks along a north to south alignment.</td>
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<tr>
<td>3</td>
<td>The area consisted of arable ploughed land on wet and partly waterlogged sandy ground. The field gently sloped downwards from south to north, and a depression was present in the north.</td>
<td>The area was bound by a hedge to the west, south and east, and a bank to the north. The northernmost portion and the south-west corner could not be surveyed due to water logging, as was its. Further waterlogged areas were present throughout the field. A stream was located along the northern perimeter.</td>
</tr>
<tr>
<td>4</td>
<td>The area consisted of young arable seeded crop that sloped down to the north. The area was extremely waterlogged, and much was unsurveyable. Small surface run off streams and large areas of standing water were present across the area.</td>
<td>The area was bound to the north by Red Brook and trees, the west by a stream, and the east by hedgerows. The area was separated from Moss Lane to the south by hedgerows and a house. A gas pipeline ran under the northwest of the area.</td>
</tr>
</tbody>
</table>

4.3 The underlying geology comprises Bollin Mudstone through most part of Area 1 and Siltstone, Mudstone and Sandstone from Tarporley Siltstone Formation through areas 2, 3 and 4 and the northern edge of Area 1. Superficial deposits are composed of Shirdley Hill Sand Formation sand across most part of all the survey areas except for a band of Alluvium Clay, Silt and Gravel related to red brook running across the northern edge of the whole survey area. (British Geological Survey, 2019).

4.4 The soils consist of freely draining very acid sandy and loamy soils in Area 1 and the southern part of areas 2, 3 and 4; Naturally wet very acid sandy and loamy soils are located in the northern side of areas 2, 3 and 4 (Soilscapes, 2019).
5. Archaeological Background

5.1 The following is a summary of a Desk Based Assessment produced by CgMs Heritage (Owen, 2018) (Part of RPS).

5.2 Within the survey area, an unconfirmed Post-Medieval kiln has been identified in Area 4 from the toponymy employed on the 1839 Warburton Tithe map ("Kiln Field") (16708).

5.3 A Neolithic stone axe (508) and an Iron Age saddle quern (MGM17844) are the only prehistoric remains recorded in the vicinity, located c. 800m north-west and 800m south of the survey area respectively.

5.4 Medieval activity has been recorded in the wider environs as a possible burial mound (2244), located c. 500m to the east of the survey area. A former ferry crossing used since the 14th century (2237) can be found c. 900m to the west and two trackways of possible medieval origin (16711 and 16712) have been recorded c. 600m and c. 800m to the south of the survey area.

5.5 Map regression shows no major changes in the layout of the survey area, except for a more partitioned array of the fields comprising Areas 2, 3 and 4 until the 1980s.

6. Methodology

6.1 Data Collection

6.1.1 Geophysical prospection comprised the magnetic method as described in the following table.

6.1.2 Table of survey strategies:

<table>
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<th>Method</th>
<th>Instrument</th>
<th>Traverse Interval</th>
<th>Sample Interval</th>
</tr>
</thead>
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<tr>
<td>Magnetic</td>
<td>Bartington Instruments Grad-13 Digital Three-Axis Gradiometer</td>
<td>1m</td>
<td>200Hz reprojected to 0.125m</td>
</tr>
</tbody>
</table>

6.1.3 The magnetic data were collected using MS’ bespoke hand-carried GNSS-positioned system.

6.1.3.1 MS’ hand-carried system was comprised of Bartington Instruments Grad 13 Digital Three-Axis Gradiometers. Positional referencing was through a multi-channel, multi-constellation GNSS Smart Antenna RTK GPS outputting in NMEA mode to ensure high positional accuracy of collected measurements. The RTK GPS is accurate to 0.008m + 1ppm in the horizontal and 0.015m + 1ppm in the vertical.

6.1.3.2 Magnetic and GPS data were stored on an SD card within MS’ bespoke datalogger. The datalogger was continuously synced, via an in-field Wi-Fi unit, to servers within MS’ offices. This allowed for data collection, processing and visualisation to be monitored in real-time as fieldwork was ongoing.
6.1.3.3. A navigation system was integrated with the RTK GPS, which was used to guide the surveyor. Data were collected by traversing the survey area along the longest possible lines, ensuring efficient collection and processing.

### 6.2. Data Processing

6.2.1. Magnetic data were processed in bespoke in-house software produced by MS. Processing steps conform to Historic England's standards for “raw or minimally processed data” (see sect 4.2 in David et al., 2008: 11).

- **Sensor Calibration** – The sensors were calibrated using a bespoke in-house algorithm, which conforms to Olsen et al. (2003).

- **Zero Median Traverse** – The median of each sensor traverse is calculated within a specified range and subtracted from the collected data. This removes striping effects caused by small variations in sensor electronics.

- **Projection to a Regular Grid** – Data collected using RTK GPS positioning requires a uniform grid projection to visualise data. Data are rotated to best fit an orthogonal grid projection and are resampled onto the grid using an inverse distance-weighting algorithm.

- **Interpolation to Square Pixels** – Data are interpolated using a bicubic algorithm to increase the pixel density between sensor traverses. This produces images with square pixels for ease of visualisation.

### 6.3. Data Visualisation and Interpretation

6.3.1. This report presents the gradient of the sensors’ total field data as greyscale images. The gradient of the sensors minimises external interferences and reduces the blown-out responses from ferrous and other high contrast material. However, the contrast of weak or ephemeral anomalies can be reduced through the process of calculating the gradient. Multiple greyscale images at different plotting ranges have been used for data interpretation. Greyscale images should be viewed alongside the XY trace plot (Figures 7, 10 and 13). XY trace plots visualise the magnitude and form of the geophysical response, aiding in anomaly interpretation.

6.3.2. Geophysical results have been interpreted using greyscale images and XY traces in a layered environment, overlaid against open street maps, satellite imagery, historic maps, LiDAR data, and soil and geology maps. Google Earth (2019) was consulted as well, to compare the results with recent land usages.

6.3.3. Geodetic position of results - All vector and raster data have been projected into OSGB36 (EPSG27700) and can be provided upon request in ESRI Shapefile (.SHP) and Geotiff (.TIF) respectively. Figures are provided with raster and vector data projected against mapping provided by the client.
7. Results

7.1. Qualification

7.1.1. Geophysical results are not a map of the ground and are instead a direct measurement of subsurface properties. Detecting and mapping features requires that said features have properties that can be measured by the chosen technique(s) and that these properties have sufficient contrast with the background to be identifiable. The interpretation of any identified anomalies is inherently subjective. While the scrutiny of the results is undertaken by qualified, experienced individuals and rigorously checked for quality and consistency, it is often not possible to classify all anomaly sources. Where possible an anomaly source will be identified along with the certainty of the interpretation. The only way to improve the interpretation of results is through a process of comparing excavated results with the geophysical reports. MS actively seek feedback on their reports as well as reports of further work in order to constantly improve our knowledge and service.

7.2. Discussion

7.2.1. The geophysical results are presented in consideration with satellite imagery and historic maps (Figure 4).

7.2.2. The fluxgate gradiometer survey has responded well to the environment of the surveyed area and anomalies relating to the drainage and the agricultural use of the landscape were identified. Impeded drainage in parts of the survey area has restricted the amount of land that could be surveyed, potentially limiting the context of interpretation of archaeological features. The geophysical data is characterised by a predominantly quiet magnetic background. Modern interference is identifiable by the anomaly produced by a gas pipeline running across most of the survey areas (Figures 3 and 4). Other magnetic disturbance and debris have also been identified along the field boundaries.

7.2.3. Possible archaeological activity has been identified towards the east of the survey area with a linear ditch anomaly that does not relate to features in historic mapping and appears to cross a field boundary (Figures 11-12). Linear anomalies of a ditch and a bank provide further evidence for possible archaeological activity towards the east of the survey area.

7.2.4. Ephemeral anomalies for ridge and furrow provide evidence for historic agricultural activity towards the centre of the survey area (Figure 12). Further evidence of historic agricultural activity is identifiable with several anomalies aligning with former field boundaries on historic maps (Figure 4). Some regions classified as ‘Agricultural (Spread)’ likely highlight the addition of external material to wetter portions of the site to make cultivation possible. Other evidence of agricultural activity has been identified as ploughing.

7.2.5. Drainage features are identifiable throughout the survey area ranging from fired earth pipes in a herringbone formation to ephemeral ditches cut along the slope (Figure 3-4).
7.3. Interpretation

7.3.1. General Statements

7.3.1.1. Geophysical anomalies will be discussed broadly as classification types across the survey area. Only anomalies that are distinctive or unusual will be discussed individually.

7.3.1.2. Magnetic Disturbance – The strong anomalies produced by extant metallic structures along the edges of the field have been classified as ‘Magnetic Disturbance’. These magnetic ‘haloes’ will obscure the response of any weaker underlying features, should they be present, often over a greater footprint than the structure they are being caused by.

7.3.1.3. Ferrous (Spike) – Discrete ferrous-like, dipolar anomalies are likely to be the result of isolated modern metallic debris on or near the ground surface.

7.3.1.4. Ferrous/Debris (Spread) – A ferrous/debris spread refers to a concentrated deposition of discrete, dipolar ferrous anomalies and other highly magnetic material.

7.3.1.5. Undetermined – Anomalies are classified as Undetermined when the anomaly origin is ambiguous through the geophysical results and there is no supporting or correlative evidence to warrant a more certain classification. These anomalies are likely to be the result of geological, pedological or agricultural processes, although an archaeological origin cannot be entirely ruled out. Undetermined anomalies are generally not ferrous in nature.

7.3.2. Magnetic Results - Specific Anomalies

7.3.2.1. Archaeology (Possible) – Located towards the west of Area 3 is a weak linear ditch anomaly, with stronger segments along its length, running north-west to south-east, and into Area 4 [3a and 4a] (Figures 11 and 12). The southern extent of the anomaly appears to be masked by a magnetic disturbance anomaly. The ditch anomaly does not follow any agricultural features identifiable in historic mapping and potentially transects the field boundary between Areas 3 and 4. Running c.40m west-southwest from [3a] is a linear anomaly with a negative magnetic signal [3b], possibly resulting from the build-up of weakly magnetic material in a bank. Located to the west of these two anomalies, is a weak anomaly identified as a ditch [3c], running northwards apparently beyond the northern perimeter of the survey area. Neither [3b] nor [3c] follow features identified on historic maps suggesting the anomalies relate to features predating the 1839 Warburton Tithe map. However, [3c] runs approximately parallel to the field boundary between Areas 3 and 4, and [3b] has a distinct magnetic signal and alignment compared to [3a]: these factors mean that agricultural origins cannot be completely discarded for [3b] and [3c].

7.3.2.2. Agricultural – Running east to west across Areas 2 and 3, weak ephemeral anomalies have been identified as possible ridge and furrow with a spacing of c.10m between furrow anomalies (Figures 11 and 12).
7.3.2.3. **Agricultural** - Towards the south-west corner of Area 1 a linear feature denotes the line of a former field boundary on 2nd edition OS map [1a] (Figures 4, 5 and 6). Another anomaly running north-south though the centre of Area 2 aligns with a field boundary on the older 1839 Warburton Tithe map [2a] (Figures 4, 8 and 9). Another boundary present in 2nd edition OS map is identifiable in the data in the western half of Area 3 [3d]. Just to the south-west of [3d] is a negative magnetic anomaly orientated approximately east-west [3e] (Figures 4, 11 and 12). The negative anomaly likely indicates a wall or banked boundary, with a weaker magnetic enhancement than the soils of the former garden to the south.

7.3.2.4. **Agricultural (Spread)** – Located along the north of Areas 2 and 4 two zones of strong variable magnetic responses likely to be indicative of ‘made ground’ have been detected. The possible addition of material to these wetter areas of the landscape would have had the purpose to make the ground drier for cultivation (Figures 9 and 12).

7.3.2.5. **Drainage Features** – In the western end of Area 1 linear anomalies are identified lying in a herringbone formation (Figure 5). The spacing of the features coupled with the dipolar response, is indicative of fired earth drainage features; further field drains are located in the centre of Area 1 running predominantly in a north-south alignment along the slope of the land. Several drains were identified in the centre of Area 2, running along the sloped land contours and again identifiable by their dipolar magnetic response (Figure 9). A drainage feature runs diagonally from the old field boundary [3d] in the western part of Area 3 (Figure 12). Additional drains have been identified in the easternmost part of Area 3.

8. **Conclusions**

8.1 A fluxgate gradiometer survey has successfully been carried out over most of the land within the site boundary; however, it was not possible to survey c.3.6 ha because waterlogged ground conditions made survey impossible. The geophysical survey has detected a range of different types of anomalies of possible archaeological, agricultural and modern origin. The natural variation has contributed to the quiet magnetic background. Modern interference is identifiable with an anomaly produced by a gas pipeline running approximately east to west across the survey area. Other modern interference is identifiable and restricted to magnetic disturbance and debris along field boundaries.

8.2 Possible archaeological activity has been identified as a ditch anomaly. Two other anomalies in the vicinity of this ditch suggest the presence of another ditch anomaly and bank of possible archaeological origins.

8.3 Historic agriculture has been detected as ephemeral ridge and furrow anomalies towards the centre of the survey area, and anomalies denoting the line of former field boundaries. Other agricultural activity identified includes the likely addition of external material to make wetter areas cultivatable, and ploughing regimes. Drainage features have been identified across the survey area.
9. Archiving

9.1 MS maintains an in-house digital archive, which is based on Schmidt and Ernenwein (2013). This stores the collected measurements, minimally processed data, georeferenced and un-georeferenced images, XY traces and a copy of the final report.

9.2 MS contributes reports to the ADS Grey Literature Library upon permission from the client, subject to the any dictated time embargoes.

10. Copyright

10.1 Copyright and the intellectual property pertaining to all reports, figures, and datasets produced by Magnitude Services Ltd. is retained by MS. The client is given full licence to use such material for their own purposes. Permission must be sought by any third party wishing to use or reproduce any IP owned by MS.

11. References


Chartered Institute for Archaeologists, 2014. Standards and guidance for archaeological geophysical survey. CIfA.


Magnitude Surveys, 2019. Written Scheme of Investigation for Geophysical Survey of Warburton Lane, Partington, Greater Manchester.


Owen, P., 2018. Archaeological Desk-based Assessment of Warburton Lane, Trafford. CgMs Heritage (Part of RPS)


12. Project Metadata

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<td>Kayt Armstrong BA MSc PhD MCIfA</td>
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<td>Project Officer</td>
<td>Julia Cantarano Ingénieur PCIfA</td>
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13. Document History

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