

1MCo4 Main Works - Contract Lot S2

Archaeological Desk Based Assessment - Ruislip Golf Course S2

MDL Code:

Document no.: 1MCo4-SCJ-EV-REP-SS05_SL07-000008

Rev	Author	Checked by	Approved by		Date approved	Reason for revision
Co1	Guneet Kalsi / Suzanna Joy	Katie Kerr	Mark Gaby	Richard Patten	30/11/2018	For information
Co2	Guneet Kalsi / Suzanna Joy	Katie Kerr	Mark Gaby	Richard Patten	28/02/2019	For approval
Co3	Suzanna Joy	Nigel Phelps	Martin Hooton	Richard Patten	1/11/2019	For acceptance
						

SECURITY CLASSIFICATION: OFFICIAL

Handling instructions: None

Contents

1	Introduction	3
1.1	Project background	3
1.2	Site location and description	3
1.3	Description of Development	5
1.4	Purpose of this document	6
2	Methodology	7
2.1	Legislation	7
2.2	National Policy	7
2.3	Local Policy	8
2.4	Scoping and consultation	9
3	Geology and Geoarchaeology	11
3.1	Geology	11
3.2	Geoarchaeology	11
4	Archaeological and historical background	14
4.1	Background	14
4.2	Early Prehistoric	14
4.3	Later Prehistoric	15
4.4	Romano-British	16
4.5	Early Medieval	16
4.6	Late Medieval	17
4.7	Post Medieval	18
4.8	Modern	19
4.9	Summary	21
5	Historic Landscape Characterisation	22
6	Statement of significance/factors affecting archaeological survival	27
6.1	Background	27
6.1	Field Surveys	27
6.2	Factors affecting archaeological survival	28
6.3	Archaeological Potential	29
7	Impacts of Proposals	31
8	Conclusions	33
Appendix A- Site Photos		34
Appendix B- Map Regression		37
Appendix C- GLHER Locations Plan		44

Appendix D- Gazetteer	45
Appendix E- Deposit Model	53

1 Introduction

1.1 Project background

1.1.1 This Archaeological Desk-Based Assessment is prepared by Skanska Costain Strabag (SCS JV) on behalf of High Speed Two Ltd. (the applicant), to support the planning application for Ruislip Golf Course, London.

1.1.2 Ruislip Golf Course is a municipal golf course, owned and operated by the London Borough of Hillingdon (LB Hillingdon). It falls partially within the alignment of HS2, and as a result, has recently been closed to facilitate this development. The High-Speed Rail (London-West Midlands) Act 2017 (the HS2 Act), which gained Royal Assent in February 2017, conferred the necessary powers required to construct Phase One of the railway from London Euston to Birmingham Curzon Street. The southern part of Ruislip Golf Course falls within this boundary. The majority of the Golf Course development falls outside the HS2 Act limits and consent for this proposal is sought under the Town and Country Planning Act.

1.1.3 Construction of HS2 will result in land take from Ruislip Golf Course. The applicant has committed to designing and delivering a reconfigured golf course and replacement Rifle Club facility as part of a number of Undertakings and Assurances (U&A) that were agreed with LB Hillingdon (and which eventually formed part of the Hillingdon Agreement) during the passage of the Hybrid Bill through parliament.

1.2 Site location and description

1.2.1 The application site is in west London within LB Hillingdon. The application site comprises the majority of the existing golf course, the area of which is 36 hectares. This area excludes the southern part of Ruislip Golf Course, which will be acquired as part of the HS2 works.

1.2.2 It is located to the north of West Ruislip Station, and is bounded: to the north and north-east by the Glenhurst Avenue allotments and Hill Lane playground and the rear curtilages of residential properties on Field Way and Hill Rise; to the east and south-east by the rear curtilages of residential properties on Sharps Lane, Ickenham Road and Harwell Close; to the south-west and the far south-east by the boundary of the HS2 development; and to the west and north-west by the River Pinn.

1.2.3 Prior to its closure, the existing golf course was 5,049m in length and comprised 18 holes. It encompassed: a 40-bay driving range in the south-east and a surfaced car park in the east. The club house (incorporating the Fairway public house, changing rooms, golf equipment shops and trolley hire) is located outside the application site, as was a rifle range building, prior to its closure and demolition (also to facilitate the HS2 works).

1.2.4 When open, the golf course was characterised by open fairways bounded by rough grassland and mature tree belts, some of which also have understorey vegetation which provided visual separation between the holes. The Ickenham Stream, which connects into the River Pinn to the north, crosses the course on a north/south axis (intersecting what were the 5th, 10th and 15th holes). This, in turn, connects into a series of artificial drainage channels which permeate the course. Where these channels cross what were playable areas, they are either culverted under the fairways or crossed by small wooden bridges.

1.2.5 Clacks Lane forms a vegetated corridor which passes through the northern part of the application site. To the east, this comprises a paved access road, connecting northwards into Hill Lane. Further west, it transitions into an unsurfaced public footpath, crossing the River Pinn and connecting into the wider network of public footpaths that permeate the site. It separates what were the 5th to 9th holes from the southern part of the course. The Hillingdon Trail (footpath U81), an unsurfaced path marked by trail markers, crosses the course in approximately the same alignment as the existing Ickenham Stream (though this right of way will be temporarily diverted away from this alignment during construction of the HS2 development).

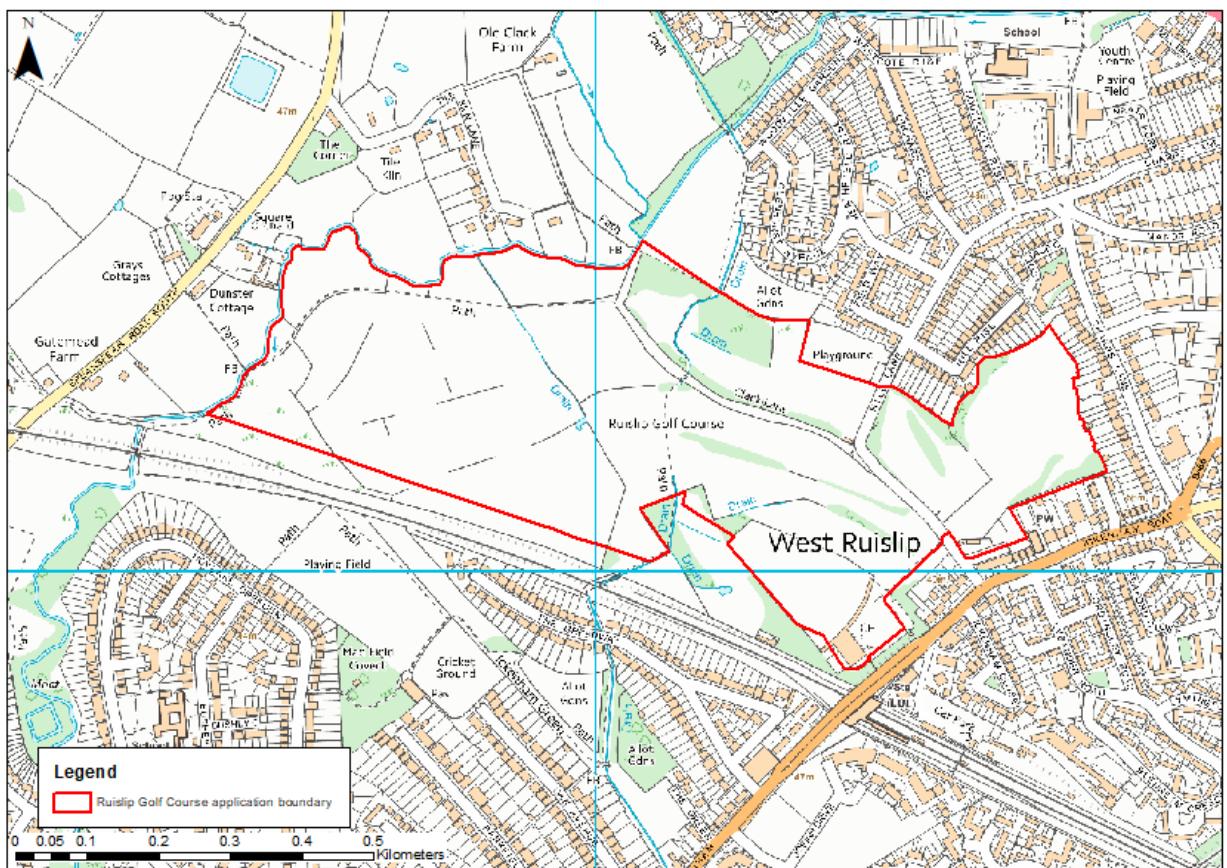


Figure 1 Plan showing red line boundary for the proposed development and blue line boundary for the HS2 development

1.3 Description of Development

1.3.1 This application is for the redevelopment of the existing 18 hole Ruislip Golf Course (now closed) to provide a nine hole golf course and six hole academy course, the creation of a new channel for the Ickenham Stream (canal feeder), and the demolition and replacement of the driving range with a new 20-bay driving range.

1.3.2 The description of development is as follows:

Full application for remodelling of Ruislip Golf Course, incorporating: reconfiguration of 18 existing hole course into a nine hole course, short game practice area, putting green and six hole academy course; construction of a single storey rifle range; demolition of existing covered driving bays and construction of replacement 20 bay driving range, including associated floodlights and safety netting; a new drainage system and associated ponds; ecological and landscaping works; realignment and enhancement of the Hillingdon Trail and creation of a new public footpath; excavation of a new channel for the Ickenham Stream (canal feeder); and other associated works.

1.4 Purpose of this document

1.4.1 The aim of this Archaeological Desk-Based Assessment is to provide an overview of readily available documentary data relating to the history and archaeological potential of the application site. The assessment will also establish the significance of heritage assets within the application site, the potential impact of the proposed development on those heritage assets and provide recommendations for further assessment, where necessary, of the historic assets affected, and/or mitigation aimed at reducing or removing completely any adverse impacts upon buried heritage assets and/or their setting.

1.4.2 This document is structured as follows:

- Chapter 2: sets out the methodology;
- Chapter 3: summarises the geology and topography of the site;
- Chapter 4: sets out the archaeological and historical background;
- Chapter 5: describes the historic landscape characterisation;
- Chapter 6: contains the statement of significance/factors affecting archaeological survival;
- Chapter 7: sets out the impacts of proposals; and
- Chapter 8: presents the conclusions

2 Methodology

2.1 Legislation

2.1.1 Statutory protection for archaeology is principally provided by the Ancient Monuments and Archaeological Areas Act 1979, as amended by the National Heritage Act 2002. The Secretary of State for Digital, Culture, Media and Sport maintains a schedule of Nationally Important sites. The criteria for designation are:

- extent of survival;
- current condition;
- rarity;
- fragility;
- connection to other monuments, or group value;
- potential to contribute to our information, understanding and appreciation; and
- extent of documentation enhancing the monument's significance.

2.2 National Policy

2.2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies. The NPPF replaced all previous Planning Policy Statements, including Planning Policy Statement 5 (PPS 5): Planning for the Historic Environment. The current version of the NPPF was published in July 2018.

2.2.2 The purpose of the planning system is to contribute to the achievement of sustainable development. The NPPF, Section 16: Conserving and enhancing the historic environment, identifies the contribution to protecting and enhancing the built and historic environment that the development process can achieve. Significantly, the NPPF does not distinguish between buildings, archaeology or landscape, but treats them collectively as heritage assets.

2.2.3 Paragraph 189, states:

"In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require

developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation."

2.2.4 Heritage England's guidance¹ on the NPPF notes that total loss of the asset or substantial harm may alternatively be justified if all of the following tests are met:

- there is no viable use of the heritage asset that can be found in the medium term including through marketing to find alternative owners;
- the heritage asset is preventing all reasonable uses of the site;
- public support for or ownership of the asset it demonstrably not possible; and
- the harm or loss is outweighed by the benefits of bringing the site back into use.

2.2.5 The National Networks National Policy Statement (NNNPS) is of relevance when considering the historic environment with regards to road and rail network projects.

2.2.6 Policy 7.8² of The London Plan, which is the statutory Spatial Development Strategy for Greater London, sets out its agenda for heritage assets and archaeology. Policy 7.8 is sub-categorised into Strategic, Planning Decisions and LDF preparation.

2.3 Local Policy

2.3.1 The application site is located within LB Hillingdon. The Hillingdon Local Plan: Part 1- Strategic Policies (adopted November 2012) forms part of the adopted local development plan for the application site. BE3 Policy of the Hillingdon DUP Policy³ ensures that sites of archaeological interest are investigated and recorded before any development starts. The DMHB1: Heritage Assets Development is particularly relevant to this assessment. It states that development which has an effect on heritage assets will only be supported where:

- it sustains and enhances the significance of the heritage asset and supports viable uses which add to the local character of an area and are appropriate to the conservation value of the asset;
- it does not result in harm or loss of significance of the heritage asset;

¹ Historic England, F&I National Planning Policy Framework and Heritage Assets Guidance <https://historicengland.org.uk/advice/hpg/decisionmaking/NPPF/> (Published 2018)

² The London Plan policy 7.8 https://www.london.gov.uk/sites/default/files/the_london_plan_2016_jan_2017_fix.pdf revised January 2018

³ Saved policies of the Hillingdon Unitary Development Plan BE3 THE LOCAL PLANNING AUTHORITY WILL ENSURE WHENEVER PRACTICABLE THAT SITES OF ARCHAEOLOGICAL INTEREST ARE INVESTIGATED AND RECORDED EITHER BEFORE ANY NEW BUILDINGS, REDEVELOPMENT, SITE WORKS, GOLF COURSE OR GRAVEL EXTRACTION ARE STARTED, OR DURING EXCAVATION AND CONSTRUCTION. DEVELOPMENT WHICH WOULD DESTROY IMPORTANT ARCHAEOLOGICAL REMAINS WILL NOT BE PERMITTED. <https://www.hillingdon.gov.uk/article/6418/Unitary-Development-Plan---saved-policies> (Published 2007)

- any extensions or alterations should be designed in sympathy, without detracting from, or competing with, the heritage asset. Proposals should relate appropriately in terms of siting, style, scale, massing, height, design and materials;
- new buildings and structures within the curtilage of a heritage asset, or in close proximity, should not compromise its setting. Opportunities should be taken to preserve or enhance the setting, so that the significance of the asset can be appreciated more readily.

2.3.2 The Hillingdon Local Plan: Part 2 - Strategic Policies and Site Allocations and Designations (Revised Proposed Submission Version) were submitted to the Secretary of State for independent Examination in Public (EiP) in May 2018 and the Examination hearings were held during August 2018. Although this Local Plan document has not yet been adopted as part of the statutory development plan, it will be a material consideration in determining the application for the proposed development.

2.3.3 This also includes an Archaeological Assessment which aims at defining new Archaeological Priority Areas in the Borough, in line with Hillingdon's Policy HE1 and wider Greater London Archaeological Authority Service (GLAAS) review across greater London.

2.3.4 This desk-based assessment assesses the historic environment of Ruislip Golf Course which is adjacent to the proposed HS2 Phase One alignment. This study has taken reference of the HS2 Phase One Environmental Statement Cultural Heritage Chapter⁴ for the area, the HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy⁵ (GS-WSI: HERDS) document, and further documentation including the Project Plan: Geoarchaeological and Landscape-based Investigations in the eastern Colne Valley - The River Pinn, River Brent and the Newyears Bourne⁶ and the Archaeology and Historic Environment Strategy S2 & S4⁷.

2.4 Scoping and consultation

2.4.1 To understand the application site and to appreciate its full historical and archaeological context, information was collected on known historic environment features within a 500m-radius (from this point referred to as the 'study area'), as held by the primary repositories of such information within Greater London. Data on designated assets was collected for a wider 2km area surrounding the application site. The primary sources used

⁴ HS2 Phase 1 2013 London – West Midland ES Vol 5 Technical Appendices CHA6, South Ruislip to Ickenham Baseline report (CH-001-006)

⁵ HS2 Phase 1 Environmental Statement Cultural Heritage Chapter⁵ for the area, the HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy HS2-HS2-EV-STR-000-000015

⁶ HS2 2018 Project Plan: Geoarchaeological and Landscape-based Investigations in the eastern Colne Valley – The River Pinn, River Brent and the Newyears Bourne 1EW02-CSJ-EV-S002-000036

⁷ HS2 2018 Archaeology and Historic Environment Strategy S2 & S4. 1EW02-CSJ-AS-REP-S002-00001

to gather such information comprise of the Greater London Historic Environment Record (GLHER), and the HS2 Heritage Baseline Report⁸.

2.4.2 In addition, the following sources were consulted:

- Historic England (HE) - used to gather information of different designated assets in and around the study area including scheduled monuments and listed buildings;
- magic: Defra - online mapping application used to accurately identify any designations of interest in the study area's wider perimeter;
- British Geological Survey (BGS) - To, online data available on BGS consulted to understand the geology of the study area, including mapping the its solid and drift geology to understand locations of archaeological potential;
- Hillingdon Local Studies Archive - visit to the local studies archive revealed detailed information regarding the surrounding LB Hillingdon; and
- Online resources - information relating to the study area and its historic environment.

2.4.3 The assessment of the study area included a site visit carried out on 9 May 2018. The intention of the site visit was to understand and record the study area's visible historic environment and its potential for further archaeological significance. A photographic record was taken during the visit, with photographs capturing the ridge and furrow as well as the driving range and stratigraphic information (see Appendix A). Further site visits were carried out on: 22 August 2018 to undertake a setting assessment; and 12 September 2018 to survey ridge and furrow.

⁸ 2013 HS2 London-West Midlands Environmental Statement Vol 5 Technical Appendices, CFA6 South Ruislip to Ickenham Baseline Report (CH-001-006) Cultural Heritage.

3 Geology and Geoarchaeology

3.1 Geology

3.1.1 The geology of the region is influenced in part by its relationship to the Colne Valley. The current course of the Colne is thought to date from the end of the Anglian Cold Stage approximately 424, 000 years ago, incising its way through existing Thames terrace gravels. The principal underlying geology is solid geology comprising sand and London Clay, a grey fissured clay that weathers to brown colour in its upper part. The superficial geology varies between brickearth, clay and gravel.

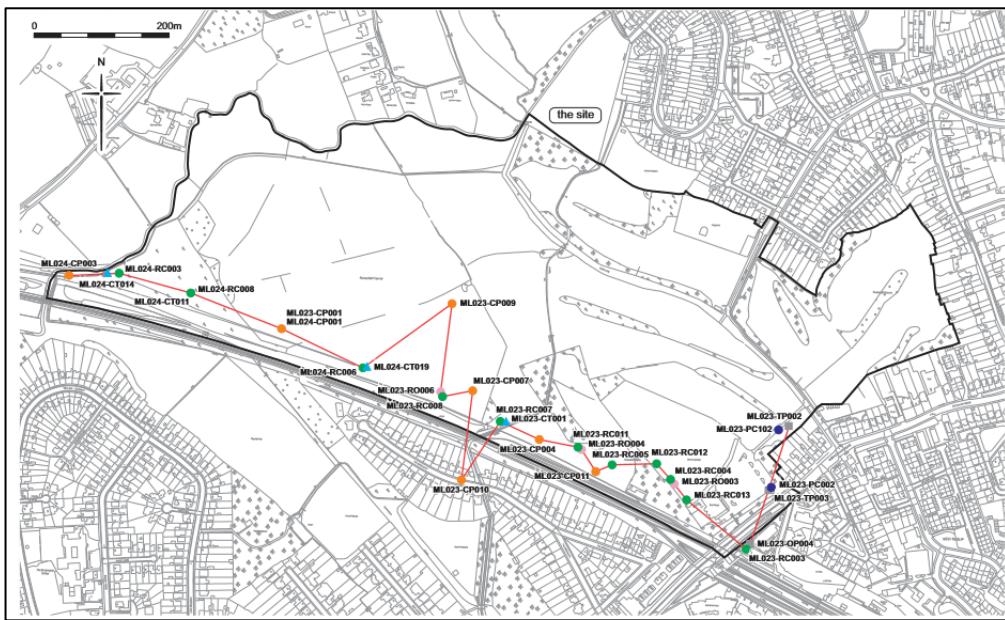
3.1.2 The bedrock geology changes from the extensive Eocene London Clay in the south-east of the study area, to the clay, sand and silt of the Lambeth Group, sedimentary bedrock formed in the Palaeogene Period (65 to 55 million years ago) around the River Pinn. Further London Clay deposits have been identified between Breakspear Road and Harvil Road.

3.1.3 The superficial geology of the Colne valley is recorded in the Colne Valley and around its tributary, the River Pinn. This geology is made up of alluvial deposits which comprise of clay, silt and gravel. The gravels, termed the Colney Street Gravels, are cut by occasional paleochannels containing rich organic material. The alluvial deposits were laid down during the Pleistocene and Holocene. The study area was dominated by rivers in this period and extensive deposits known as the Thames Terrace deposits are common in the area and known to exist at the southern end of the sustainable placement south of Copthall Farm. The sequence is overlain by deposits of fine grained, alluvium deposited during the mid to late Holocene (5-11,000 years ago).

3.1.4 There is the potential that erosion on the valley sides of the River Pinn would have produced alluvial and colluvial deposits which can contain archaeological deposits and also seal in paleoenvironmental deposits. However, the full extent of these deposits is not well understood.

3.2 Geoarchaeology

3.2.1 A geoarchaeological deposit model (see Appendix E) was developed to provide information about the archaeological resource by examining existing geotechnical data relating to the application site. The data used consisted of 31 points across the southern boundary of the application site. The location of the boreholes provides indicative information only and no details are available across the remainder of the application site at present.



Figure

2. Line of transects and boreholes across the application site

3.2.2 The deposit model sets out a plot of the early Holocene surface (see Fig 4 in Appendix E). The surface plot provides an interpretation of the sub-surface contours over which the sediments across the application site have developed and approximates to the landscape topography at the start of the Holocene (the Mesolithic, c 10,000 BP). The sediments have been grouped into facies (or groups of sedimentary units that reflect similar environments of deposition) to facilitate the interpretation of the deposits (see Fig 3 in Appendix E).

3.2.3 The early Holocene topography within the application site adjacent to the Chiltern Mainline indicates the bulk of the application site is dominated by an extant area of geological bedrock (London Clay or Lambeth Group; see Facies 3, Fig 3 in Appendix E) sloping down toward the valley of the River Pinn (a distributary of the River Colne - a tributary to the Thames) in the west. The bedrock dates to 49 and 59 million years ago and therefore predates the evolution of hominins and has no archaeological value, although the topography of the bedrock can be indicative of past geomorphological or geological processes.

3.2.4 In the Mesolithic, this landscape would have been more pronounced than it is today although, in general, the overall slope would have been a gentle one, dropping less than 1m in 100m. The slope and particularly the terrace area would have provided a good vantage point over the valley during the Mesolithic.

3.2.5 Notably, in the southern section, much of the higher ground has been blanketed with up to 2m of made ground (Facies 1, Fig 3, Appendix E) with little to no evidence of surviving layers (e.g. topsoil's, subsoils) indicating surviving land surfaces (whether Mesolithic or

later) beneath the made ground (although this may be just the result of the logging of the data and probable thinness of these deposits if they do exist).

3.2.6 Of greater potential are the alluvial sediments that were logged on floodplain of the River Pinn to the extreme west however (ML024-CP003; Facies 2, Fig 3 in Appendix E). These facies combine the gravels laid down in the late Pleistocene (c 18,000-15,000 BP) and the overlying silty clays, laid down during the Holocene. The gravels of River Pinn, given its proximity to the Colne, must be considered to have low to moderate potential for artefactual recovery.

In contrast, with the overlying alluvium (laid down as flood deposits of the River Pinn), there is moderate to high potential for archaeological recovery whether indirectly as palaeoenvironmental evidence (ecofacts) or directly in terms of artefacts. Alluvial, and in particular peat deposits, have high preservation potential for palaeoenvironmental proxy indicators (i.e. pollen, diatoms, and ostracods) and material for radiocarbon dating that could be used to reconstruct the past environment. Alluvial deposits also have the potential to preserve archaeological material such as timber structures that decay readily if in an oxidised, dry environment.

4 Archaeological and historical background

4.1 Background

4.1.1 The application site lies approximately 1.5km east of the Colne Valley Archaeological Area of Significance (DLO36183), approximately 430m east of Brackenbury Farm Archaeological Priority Area, 600m south-west of the Ruislip Motte and Bailey Archaeological Priority Area and approximately 480m north of Ickenham Pynchester Moat Archaeological Priority Area. The application site does not lie within a conservation area however it does border the Ruislip Village Conservation Area.

4.1.2 There are 14 listed buildings in the 500m buffer area, (see Gazetteer in Appendix D). Within the wider study area, three are grade II* listed (Great Barn to west of Manor Farm Yard DLO20237; Church of St Martin DLO20183; and 9-15 High Street Ruislip, associated with the Church of St Martin DLO20010). There are also three non-listed heritage building, the Church St Giles, and the Hall of St Giles (1080229) and Building at West End Rd, Ruislip (MLO68685).

4.1.3 The HER map and gazetteer are included in this report at Appendix C and D showing distribution of HER entries within a 500m radius of the application site.

4.1.4 The map regression (Appendix B) and (Historic Landscape Characterisation (Section 5) indicates that the application site was located within a predominantly farming landscape until the early 20th century when, in 1922, it was developed into an 18-hole golf course. The pre-enclosure landscapes of the parishes in this area primarily consisted of moor land, heaths and commons separated by small areas of pre-enclosure field systems.

4.2 Early Prehistoric

4.2.1 The earliest evidence for human occupation in Britain first dates to the Lower Palaeolithic period, some 500,000 years ago. The application site is situated on the eastern edge of the Colne Valley. The valley contains some evidence of hominid activity from the later Palaeolithic through to the mid Mesolithic (c.11,000 years ago) although in general very few Palaeolithic artefacts have been recorded in the study area. A large proportion of the early human evidence comprises faunal remains and various typologies such as flint assemblages such as those found at Three Ways Wharf, located approximately four kilometres to the south-west in Uxbridge. The area contains potential for further evidence to be found along the banks of any surviving paleo-channels dating to this time period⁹.

⁹ HS2 2018 Archaeology and the Historic Environment Strategy S2 & S4 2018: 8.

4.2.2 Evidence from the artefact assemblage show that hunter gatherer groups in the Mesolithic began to exploit a wider range of landscapes and localities. Certainly, the terrace gravels of the Colne valley have revealed evidence of human activity from these time periods.

4.2.3 Figure 8, found in section 6.2, is a LiDAR Survey Mosaic which helps to identify the watercourse, low lying areas and waterbodies in and around the study area. Based on an understanding of Mesolithic activity in the Colne Valley, the dry land next to these ancient water courses would be a likely location for Mesolithic sites. To the west of the study area, a site at Dewes Farm was excavated and has revealed a late Mesolithic site containing artefact assemblages of adzes, blades and flakes and animal bone. The geological horizon on which Mesolithic activity is usually identified is found on fine grained alluvium which also contains environmental evidence of environmental and climatic change.

4.3 Later Prehistoric

4.3.1 Evidence for the Neolithic period is characterised by more permanent settlement and the establishment of farming, although hunting, gathering and fishing remained important. Settlement evidence for the Early Neolithic commonly comprises flint and stone scatters, limited pottery remains, and occasional cut features such as pits. Settlement enclosures and funerary monuments begin to be recorded in the landscape in the later Neolithic, but are scarce, and none are recorded within the study area though this may be due the extensive suburban sprawl having masked these sites.

4.3.2 Later prehistoric (approximately 1,500 BC - AD 43) settlement features may typically be found on higher ground overlooking valleys and adjacent to well drained soils, however it is also possible that they could be present buried under more recent alluvium in valley bottoms or colluvium on shallower valley slopes, though archaeological evidence for settlement in the area remains focused in the Colne Valley and its tributary, the River Pinn.

4.3.3 The Bronze Age (approximately 2,400 - 700 BC) is defined by the first use of copper and bronze working in Britain, as well as the introduction of Beaker pottery. Bronze Age cremations have been recovered during a watching brief at Cophall Covert on the edge of the Colne Valley, to the west of the application site. Evidence from the Bronze Age period through to the early Iron Age was identified during archaeological investigations into the installation of the Harefield to Southall Gas Pipeline, several kilometres to the north-west of the application site. Also to the west of the application site at Dewes Farm, oval cropmarks have been identified which may indicate a ring ditch or enclosure dating to this later prehistoric period.

4.3.4 Settlement patterns in the Early Iron Age (700 – 400 BC) differ little from that of the Bronze Age. Some of the Bronze Age sites show continuity of settlement through to the

Iron Age, as evidenced at sites found at Runway 1, Heathrow Airport. An undated prehistoric flint was located at Fine Bush Lane (MLO59314).

4.4 Romano-British

4.4.1 The study area sits upon North London Clayland which has been scarcely researched in the south and east of England, therefore evidence of settlement of the region during the Roman period is limited in the region of the study area. The establishment of the Roman road network had a major effect on the landscape, leading to the establishment of new settlements of and the growth of existing. Settlement of Romano-British date is usually more extensive in scale than that of later prehistory, with a greater variety of material culture (including new pottery typologies, metalwork and glass); there is also widespread use of stone, brick and tile for building.

4.4.2 Roman brick and pottery, interspersed within a flint wall at Manor Farm was identified close to the study area (DLO19968). These artefacts appear to be re-used from an unidentified site located elsewhere, possibly a settlement or villa. There are no known villas in the study area and the greater area between Roman Londinium and the River Colne. Romano-British Pottery (MLO59316) was found at Fine Bush Lane approximately 930m to the north of the site.

4.4.3 However, works associated with the Harefield to Southall Gas Pipeline identified Romano-British activity, in the form of several field systems and pits. This indicates the possibility that further unknown Roman sites in similar locations could be present. Additional unstratified finds dating to this period have been identified adjacent to Harvil Road.

4.5 Early Medieval

4.5.1 Middlesex was part of the Middle Saxon territory of the Kingdom of Essex, which included parts of the early London settlement. Place names such as Hillingdon and Ickenham include personal names, suggesting preoccupation with land ownership. The incorporation of Saxon personal names in the place names and the probable association of Uxbridge with the 7th century Wixan tribe indicate Saxon settlement. However, evidence for the post-Roman transition period in the study area is rare. It is suggested that settlement originated in Ruislip in the early Medieval period, though there is currently no archaeological evidence to support this.

4.5.2 Ruislip (Rislepe) and Ickenham (Ticheham) are mentioned in the Domesday Book. These are old English formations and so evidently originated well before 1086, indicating these areas were settled pre-conquest.

4.6 Late Medieval

4.6.1 The broad pattern of landscape and settlement around Ruislip and Ickenham originated during the early medieval and medieval period. There are two medieval manorial moated sites located to the west of the study area, Pynchester Farm (NHL 1002001) and at Brackenbury Farm (NHL 1005555), both now scheduled monuments. The Grade II listed Brackenbury Farmhouse (NHL 1080265) dates from the 16th century and contains the original earlier moat. The whole complex is set in semi-rural landscape west of the golf course. The landscape west of Breakspear Road, immediately west of the golf course, is largely one of post medieval enclosures and roads which generally follow the alignment of medieval lanes, though Harvil Road has been straightened, and the landscape impacted by the Chiltern Mainline and embankment.

4.6.2 There was a brick and tile industry in Ruislip in the 14th century and the end of the 16th century (MLO68693) and evidence of this is located approximately 113m north of the application site boundary and another tile kiln is located approximately 800m north of this boundary (MLO98521). The woods around Ruislip also provided timber during the 14th century for the Tower, Westminster Palace and Windsor Castle. A medieval watermill was located on the bank of the River Pinn, north of the application site (MLO68689).

4.6.3 The study area has evidence of medieval activity including that of permanent settlement. A white pottery sherd (MLO7831) most probably belonging to a Trimmed jug was found in 1965 and dates to the medieval period. To the far east of the site at 9 The Oaks (MLO10639), three more sherds of pottery were found indicating medieval settlement in the study area.

4.6.4 A small priory had been established at Ruislip circa 1149 by the Benedictine Priory of Ogbourne, Wilshire, and referred to as an alien priory. This is a religious establishment in England under the control of another religious house outside of England. It was dissolved in 1414, and the land passed to Kings College Cambridge in 1461. The priory would have managed the land around it at Ruislip.

4.6.5 Remnants of the medieval open field management remain as ridge and furrow still extant within the landscape of the application site east of the site of Beetonswood Farm (MLO20378). Away from this open field area the landscape was likely to have been at least partially wooded as suggested by the name Beetonswood, this is supported by Figure 4 which shows a 1780 enclosure map of Ickenham superimposed onto a site map. The figure shows the site as partially wooded in 1780. A site visit identified surviving ridge and furrow currently located along greens 4, 12 and 14, and fainter remnants located along green 1, 2 8, 6 and 13.

4.7 Post Medieval

4.7.1 The character of settlement evidence from the post-medieval period is one which it is still visibly embedded in the suburban landscape. The buildings in the historic cores of Ruislip and Ickenham date from this period, whilst the main roads between them and other settlements have fossilised the alignments of medieval lanes.

4.7.2 This pattern of medieval settlement most probably continued through the post medieval (AD1540 - 1900) period, as evidenced by extant post-medieval dwellings in the study area. Cartographic evidence suggests a number of farmhouses and associated farm buildings had been established by this period, mainly at the locations of existing farms. Many of the listed built heritage dates from this period such as Woodbine Cottage (MLO84952, DLO19935), and Old Clack Farmhouse (MLO84953, DLO19936). These likely had their origin on later medieval farmsteads and numerous trackways between them indicate that small estates were once the predominant development typology in the area.

4.7.3 The parish is described in Victoria County Histories (VCH) as deriving from the name Ticheham and that the name Tickenham survived until the 9th century, describing an area lying in the north-east corner of Hillingdon. VCH notes that much of the ground appears to be London Clay with a narrow strip of alluvium following the course of the Pinn Stream. The Pinn formed the northern and western boundaries of the old parish. VCH further notes the presence of Beetons Wood, located on the south bank of the Pinn and visible on the Enclosure Maps. The Inclosure of 1780 demonstrated that the open fields amounted to 683 acres, with one of the two meadows for the parish lying on the Ickenham Bank of Pinn near Beetons Wood. Ickenham Green Common is noted as being a long narrow strip extending north-westward from the present Ickenham High Road. The civil parish of Ickenham was incorporated into Uxbridge U.D. in 1929, when its boundaries were extended¹⁰.

4.7.4 Ruislip formed part of Uxbridge R.D until 1904 when Ruislip-Northwood U.D was constituted. In 1965 Ruislip-Northwood U.D was merged with surrounding urban districts to form the new LB Hillingdon. Similar to Ickenham's geology, VCH describe the area as being predominantly based on London clay, with narrow alluvium associated with the Pinn stream, which bisects the parish from west to east, and running south, north through Ickenham parish. VCH notes that the responsibility of maintaining Clacks Bridge across the Pinn at the west end of Clacks Lane was divided equally between King's

¹⁰ Diane K Bolton, H P F King, Gillian Wyld and D C Yaxley, 'Ickenham: Introduction', in *A History of the County of Middlesex: Volume 4, Harmondsworth, Hayes, Norwood With Southall, Hillingdon With Uxbridge, Ickenham, Northolt, Perivale, Ruislip, Edgware, Harrow With Pinner*, ed. T F T Baker, J S Cockburn and R B Pugh (London, 1971), pp. 100-102. *British History Online* <http://www.british-history.ac.uk/vch/middx/vol4/pp100-102> [accessed 18 October 2018].

College, Cambridge, and the Lord of Southcote manor, as local landowners. this was due to the parish only being responsible for footbridges and not cart bridges¹¹.

4.7.5 Beetonswood Farm was formerly located within the south-western part of the study area. The Farmhouse was demolished in 1946 but had been identified as dating to the 17th century. At the time of the enclosures the farm was owned by Mr Pitt, who owned a large area of land in the Ickenham Parish and also covered parts of the south-western area of Ruislip Parish. His land comprised Beetons Wood and the northern area of Ickenham Green. Some of the land attached to it lay to the north across from the River Pinn in Harefield Parish, and some to the west in Ruislip Parish near Clacks Lane. Robert Crook Walford of Hillingdon bought Beetonswood from the younger Thomas Pitt in 1838 and it remained in the Walford family and later their trustees until 1920 when it was sold to William Harris of Glebe Farm, Ickenham. This was then sold to three people in 1931, who together sold it to Middlesex County Council in 1936, whereby it came, via Greater London Council to the Borough of Hillingdon¹².

4.7.6 The Ickenham Stream, originally known as the 'Canal Feeder' because it fed the Grand Junction Canal runs on a North South transect across Ruislip Golf Course. Its diverted course was completed in 1816 and fed the reservoir to the north, Park Hearn. The feeder connected the Ruislip Reservoir and Grand Junction Canal.

4.7.7 The scale and pace of landscape alteration gained pace in the modern period. The Great Western, London and North Eastern and Great Central Joint Railways were constructed between 1899 and 1906, with West Ruislip station opening in 1906. This improved railway communications and opened the parish for residential development.

4.8 Modern

4.8.1 Ruislip Golf Course was originally designed by Sandy Herd (British Open Champion 1902) and opened in 1922.

4.8.2 Airfields were established at Royal Air Force (RAF) at West Ruislip during World War I. By 1935, suburban development had reached the eastern fringe of the application site and certain areas west of this were beginning to be developed, however, large areas were still farmland.

4.8.3 There is substantial evidence within the study area of settlement in Ruislip of the post-medieval period. Listed buildings in the area such as Hill Farmhouse (MLO85306, DLO20302), are testament to the fact that the post medieval to modern period marked

¹¹ Diane K Bolton, H P F King, Gillian Wyld and D C Yaxley, 'Ruislip: Introduction', in *A History of the County of Middlesex: Volume 4, Harmondsworth, Hayes, Norwood With Southall, Hillingdon With Uxbridge, Ickenham, Northolt, Perivale, Ruislip, Edgware, Harrow With Pinner*, ed. T F T Baker, J S Cockburn and R B Pugh (London, 1971), pp. 127-134. *British History Online* <http://www.british-history.ac.uk/vch/middx/vol4/pp127-134> [accessed 18 October 2018].

¹² Eileen M Boult N.D Beetonswood and Ickenham Stream, Hillingdon Local Studies Library

an era of substantial and significant development and expansion in terms of both infrastructure and buildings. One of the largest developments in the study area was the RAF Ruislip's stores south east of the site boundary.

4.8.4 By 1935 suburban development had reached the eastern fringe of the study area. By 1960 the study area looked largely as it does at present with the medieval/post-medieval core of the villages east of Breakspear Road being engulfed by suburban development and the areas between the local roads full of the residential streets becoming a metropolis. A former parish boundary separating Ruislip to the east from Ickenham to the west runs through the golf course (See Appendix B).

4.8.5 The Ruislip Rifle Club, whose rifle range was until recently located within the golf course (prior to demolition recently to facilitate HS2) was originally founded as a Home Guard Rifle Club in 1944, shooting across many military ranges. The Club was formerly housed in the old 4MU depot adjacent to West Ruislip Station. The Club received permission to build a range within the Ruislip Golf Course in 1957, with the new rifle range opening in 1959. This first building was destroyed by fire in 1966, and the current brick building was erected and opened in 1969.

4.8.6 It was later extended in 1988 into the area of Beetonswood Farm, where construction started to uncover buried elements of the farmhouse, prompting an archaeological investigation.

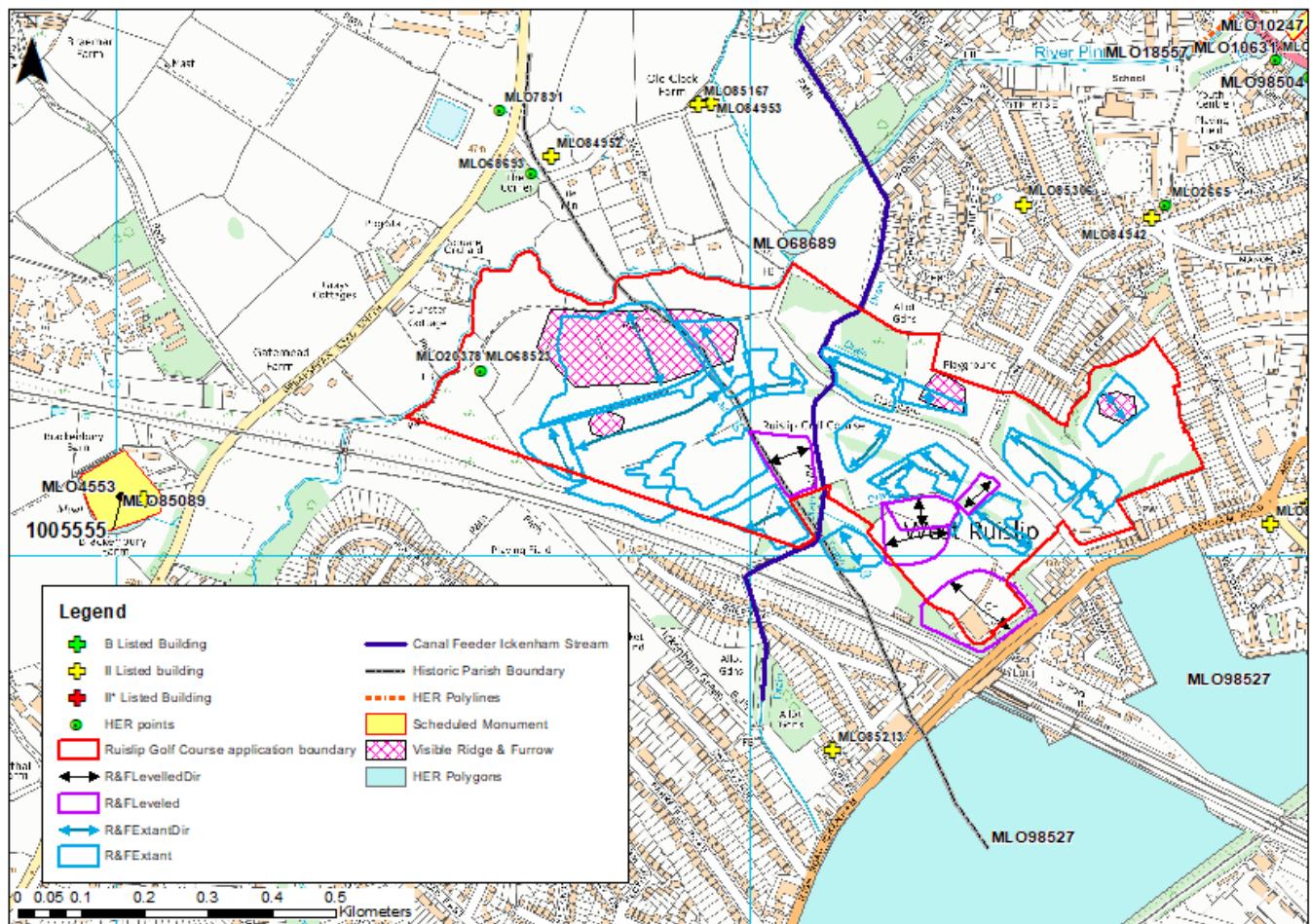


Figure 3. Showing the locations of ridge and furrow identified during survey and Ickenham Stream

4.9 Summary

4.9.1 The application site and wider area were formed during the medieval period, with underlying older geological features. The application site has undergone a series of changes from the siting of the current railway removing older features, through to the canal formation of the Ickenham Stream, creation of the golf course, and further extension of the golf course in the 1980s.

5 Historic Landscape Characterisation

5.1.1 The application site is located on the edge of two very distinct landscapes. To the west is the very eastern edge of the Newyears Green and Breakspear House zone, as set out in the Colne Valley Park, Historic Landscape Characterisation Project¹³. This zone consists of some of the best preserved 18th and 19th century field systems in the Colne Valley system. The Bayhurst Country Park which forms part of the wider Ruislip Nature Reserve contains pockets of ancient woodland within the Newyears Green and Breakspear House Zone. To the east, and comprising the study area, is the 20th century urban sprawl characterised by urban expansion of Greater London.

5.1.2 Breakspear Road is located to the immediate west of the application site. This feature forms the boundary by which the two landscape characters are divided. East of Breakspear Road the growth of urban Greater London is interspersed with, smaller, older historic cores such as Ruislip and recreation areas such as the golf course. The west is a semi-rural landscape retaining many post-medieval enclosure boundaries and fossilised alignment of medieval to post-medieval trackway alignments. It is thought that the widespread enclosure of the landscape, creating the current arrangement of hedged fields and winding tracks which survive to the west of the golf course, may have begun with the dissolution of the monasteries in the 16th centuries and was accelerated with the introduction of new farming techniques during the 17th century.

5.1.3 The enclosure process was a legal process carried out across England with the intended purpose of consolidating small landholdings into larger farms. The enclosure process restricted the land to the rights of the owner whereby they ceased to be used for communal use. The enclosures were further exaggerated with the implementation of hedgerows which were used as a natural boundary between different enclosures. It is suspected that some of these hedgerows survive within the application site, where they are being retained as part of the proposed scheme. Figure 4 shows the old parish boundary with neighbouring enclosures. The boundary meets numerous criteria for a Schedule 1 of the Hedgerow Regulations 1997. The 1780 inclosure plan for Ickenham and the Ruislip 1806 inclosure map illustrate the field boundaries laid out at this time.

5.1.4 Clacks Lane, which is situated in the eastern part of the application site, is a well-defined undesignated heritage asset. It is an ancient highway flanked by hedges and irrigation ditches with branching pathways leading to locations such as Old Clack Farm. A small footbridge crossing the lane towards its western end dates to 1923, evidenced by a carving dating to this period.

¹³ Beckley, R 2007 *Colne Valley Park: Historic Landscape Characterisation Project*. English Heritage

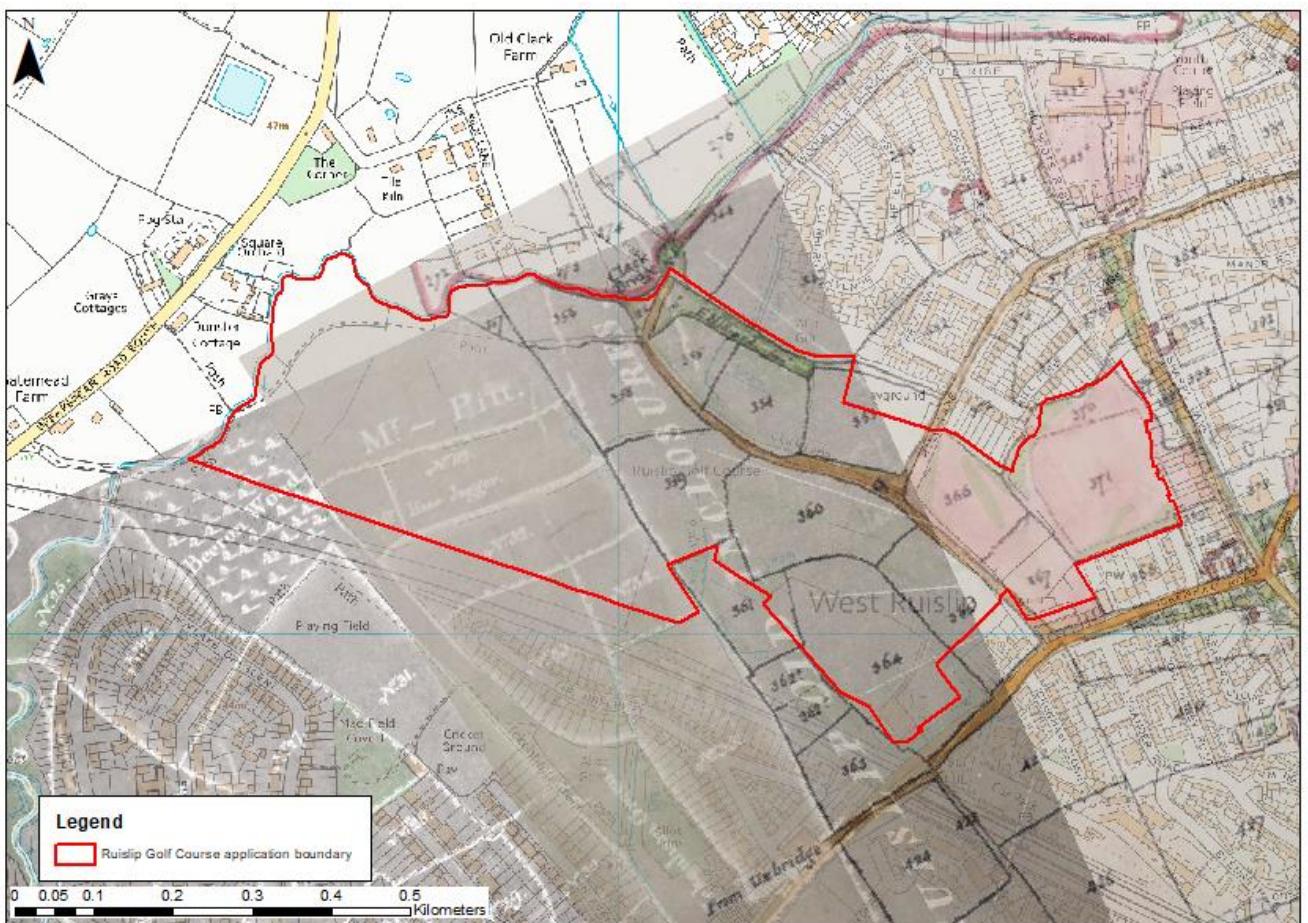


Figure 4 Combined Ickenham 1780 and Ruislip 1806 enclosure plans

5.1.5 The HS2 Early Works Contractors (EWC) have taken a historic landscapes approach to understanding the historic environment and have identified a number of regions to be of archaeological interest based on an understanding of the historic landscape. These include:

- Ruislip Golf Course;
- parish boundary and historic field boundaries;
- the Pinn Valley; and
- the Manorial landscape associated with the Pynchester Moated site.

5.1.6 The application site includes evidence of surviving medieval ridge and furrow, a rare feature associated with former landscapes prior to the growth of urban Greater London. The application site also contains the former site of Beetonswood Farm, the former feeder canal (Ickenham Stream) and former parish boundary with historic field systems

evidenced as surviving hedgerows. This parish boundary is also associated with relic field boundary features. Figure 4 clearly shows the linear alignment of the historic maps which represent both the Ickenham and Ruislip Parish Boundary as defined on south-west to north-east angle. As shown in Figure 5 below, this angle is an indicator for how the field boundaries have been aligned and, as illustrated in Figure 6, are retained today.

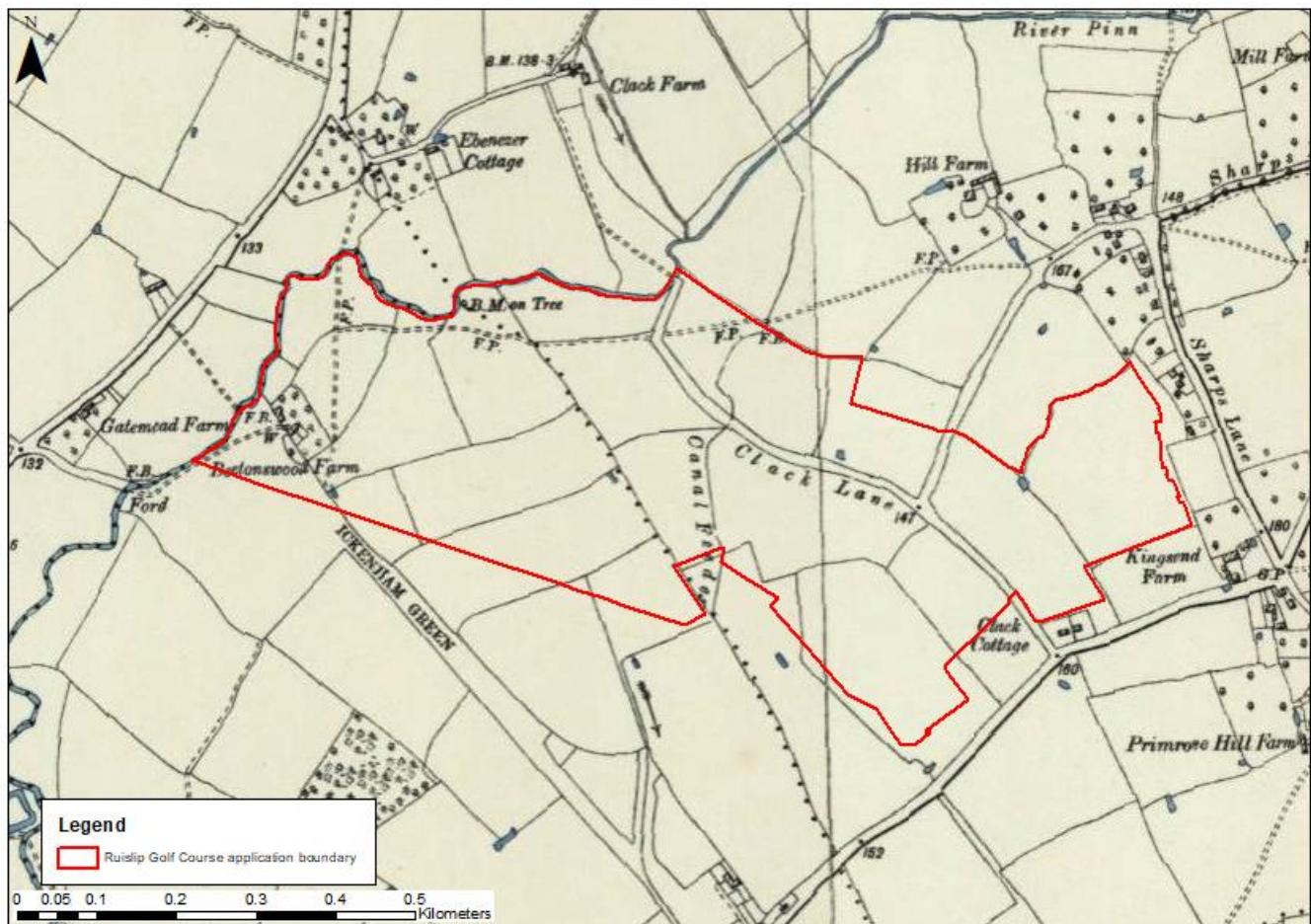


Figure 5. 6-inch Historic OS map 1888-1913 showing the red line of the application site.

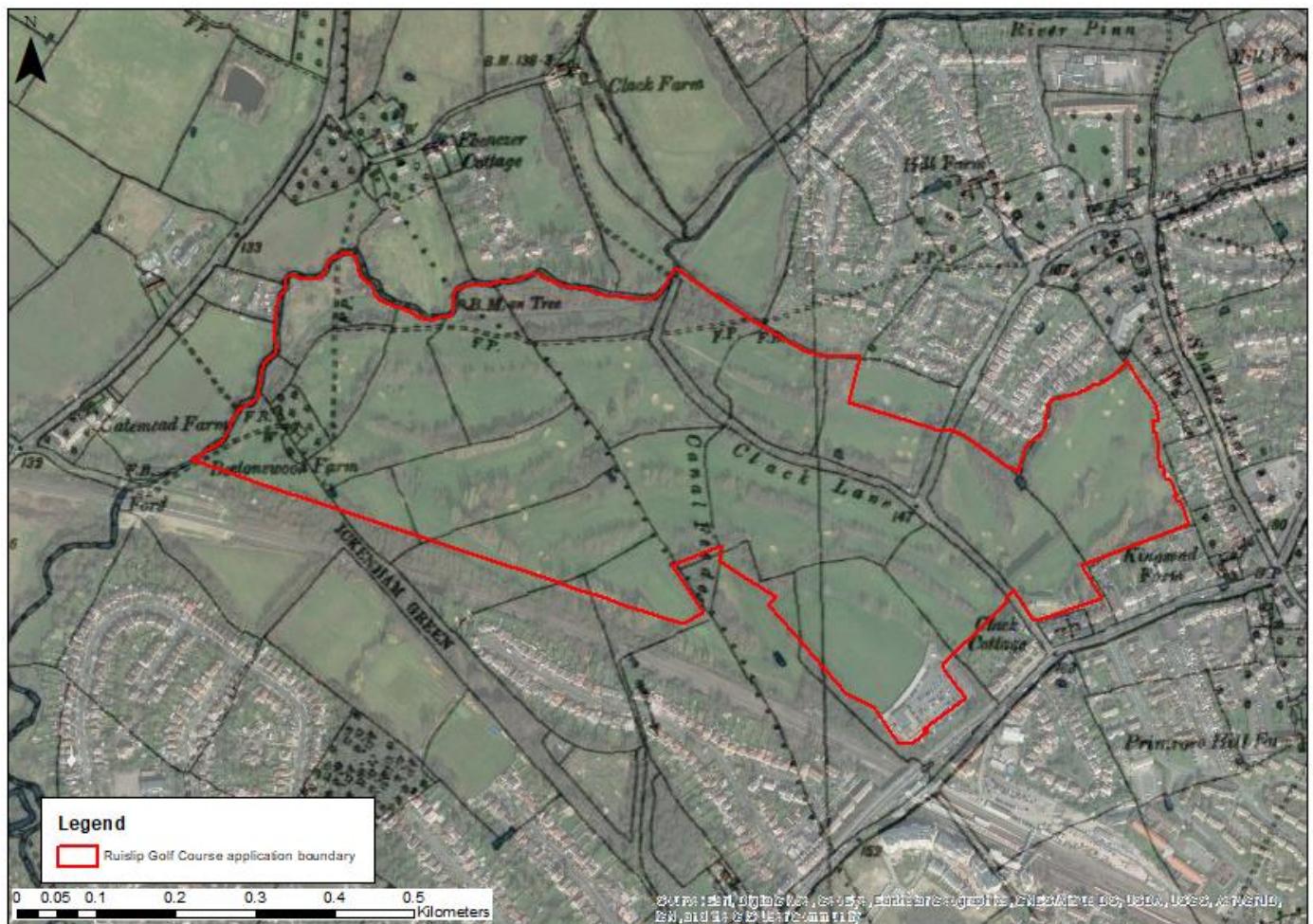


Figure 6. Aerial view showing historic fields and hedgerow tree lines of the 6-inch OS map above retained as part of the golf course 'rough'. These features have helped order the layout of the Proposed Scheme.

5.1.7 The historic ridge and furrow identified at Ruislip Golf Course is visible on historic aerial photographs¹⁴, although several of the areas have now been eroded by levelling, and further erosion at the golf course. The previous extents of the medieval era ridge and furrows are mapped, with the direction of their plough furrows. The visible ridge and furrows are identified to the north west of the site whilst the others seen in Figure 7 below are not prominent enough to be visible.

¹⁴ HS2 2013 London-West Midlands Environment Statement Vol 5 Technical appendices CFA6, South Ruislip to Ickenham Survey Reports (CH-004-006) Cultural Heritage

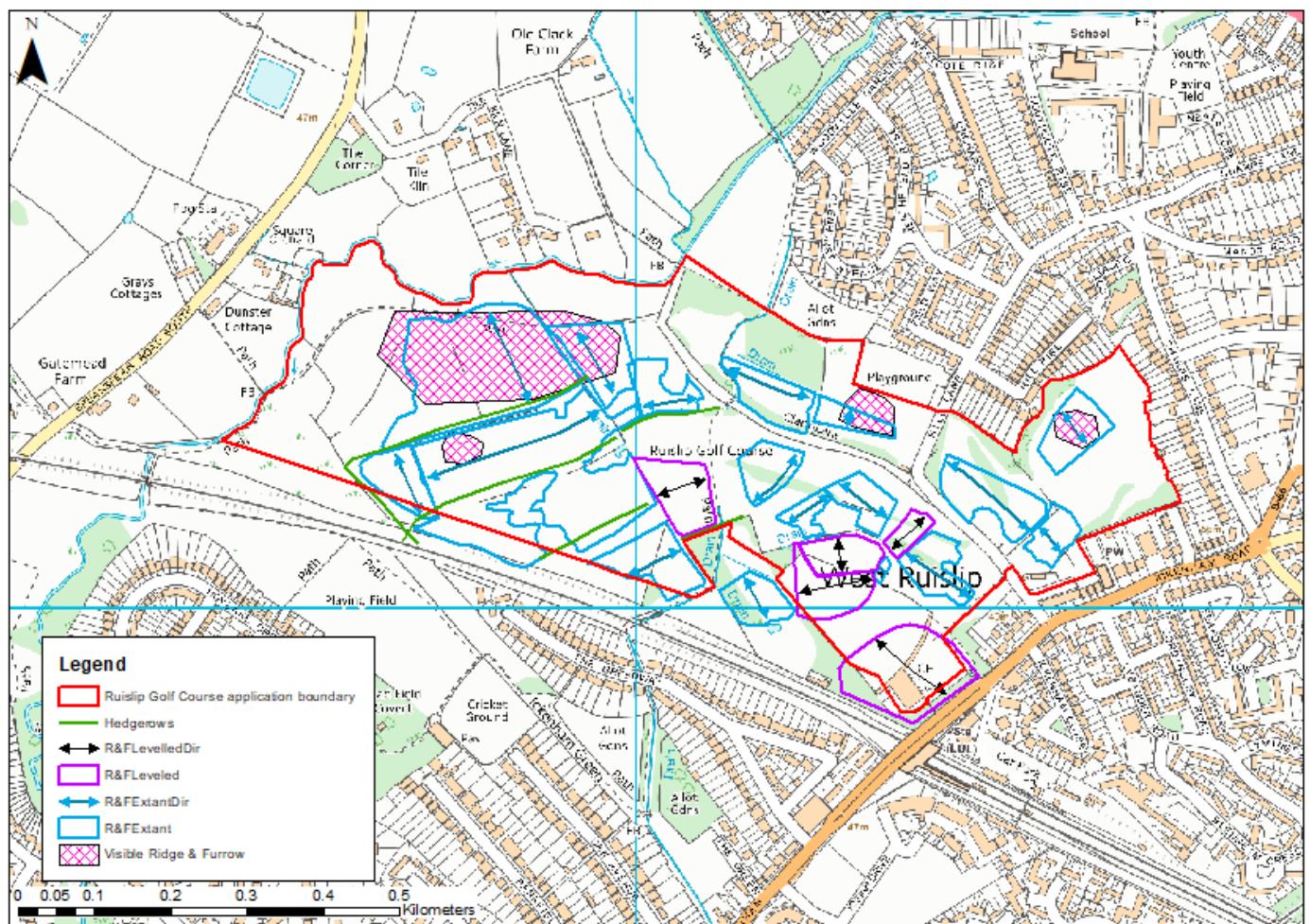


Figure 7. Location of extant and levelled Ridge and Furrow

6 Statement of significance/factors affecting archaeological survival

6.1 Background

6.1.1 The following section discusses instances where archaeological survival from earlier deposits in the application may have been compromised, primarily as identified from historic maps and information on likely truncation of deposits. This is followed by a statement on the likely potential and significance of buried heritage assets within the application site, derived from current understanding of the baseline conditions, past impacts and professional judgement.

6.1 Field Surveys

6.1.1 Field visits within the study area comprised field inspection to identify heritage assets and their setting, to examine the character and form of the historic landscape and to assess the ground integrity across the application site. The purpose of these surveys was to verify the baseline research, assess the setting, nature and condition of known heritage assets and identify previously unidentified assets which may be affected by the proposed development. These activities provided an understanding of the characteristics of the landscape and the assets that are contained within it, as well as their contribution to the overall historic landscape within the study area.

6.1.2 Four separate visits were undertaken:

- a site survey of the golf course was undertaken on 9 May 2018. This visit set the site in context and also identified the medieval ridge and furrow across the northern greens;
- a second visit was undertaken on 22 August 2018 to assess the topography of the surrounding landscape and setting of listed trees;
- a third visit was undertaken on 12 September 2018 to further identify the extents of the ridge and furrow; and
- a fourth visit was undertaken on the 31 October 2018 to assess the heritage assets that lie within the application site, with the presence of a representative of the Greater London Archaeological Advisory Services. The site visit involved the understanding of the Ridge and Furrows, some of which are clearly visible, as well as historic hedgerows and the site of Beetonswood Farm.

6.2 Factors affecting archaeological survival

Natural geology

6.2.1 The application site is predominantly landscape designed, however it retains a great deal of remnant landscape which has not been affected by the construction of the existing golf course.

6.2.2 The geoarchaeological deposit model has concluded that the majority of the bedrock geology (London Clay and Lambeth Group deposits) is directly overlaid by made ground deposits, which have most likely truncated down into the bedrock itself. However, the extreme western edge of the application site, which is associated with the River Pinn floodplain valley, will most likely have riverine deposits (gravel terraces and alluvial layers) and as such may be unaffected by later truncations noted elsewhere on application site.

Past Impacts

6.2.3 The golf course itself has had the greatest impact upon the landscape, whilst at the same time preserving historic environment features from surrounding urban development. Impacts include the expansion into the site over the former Beetonswood Farmhouse and the creation of drainage channels. The application site has also been subject to some excavation and resurfacing, however historic features still survive in this area. The proposed development will not impact upon the Beetsonwood Farmhouse area.

6.2.4 The landscape around the existing club house and driving range appears to have been truncated by establishment of these features. The deposit model which applies for this area indicates that the area is comprised of a thin layer of made ground going directly onto London Clay (See Appendix 4 - Figure 3: ML_023-RCo12, ML_023-RCo13).

Likely depth/thickness of archaeological remains

6.2.5 Contextual research has highlighted the potential for Palaeo deposits containing evidence of past environment and possible past human activity associated with the bank of the River Pinn. Prehistoric remains, if present, would be at the base of the alluvium, at the interface with the gravels. Remains may also present themselves in the alluvium or potentially near the historic water course. Historic ridge and furrow has already been shown to exist within the application site, forming part of the remnant medieval landscape. The historic feeder canal (Ickenham Stream) and the alignment of a former parish boundary run through the application site and provide information about late post-medieval activity.

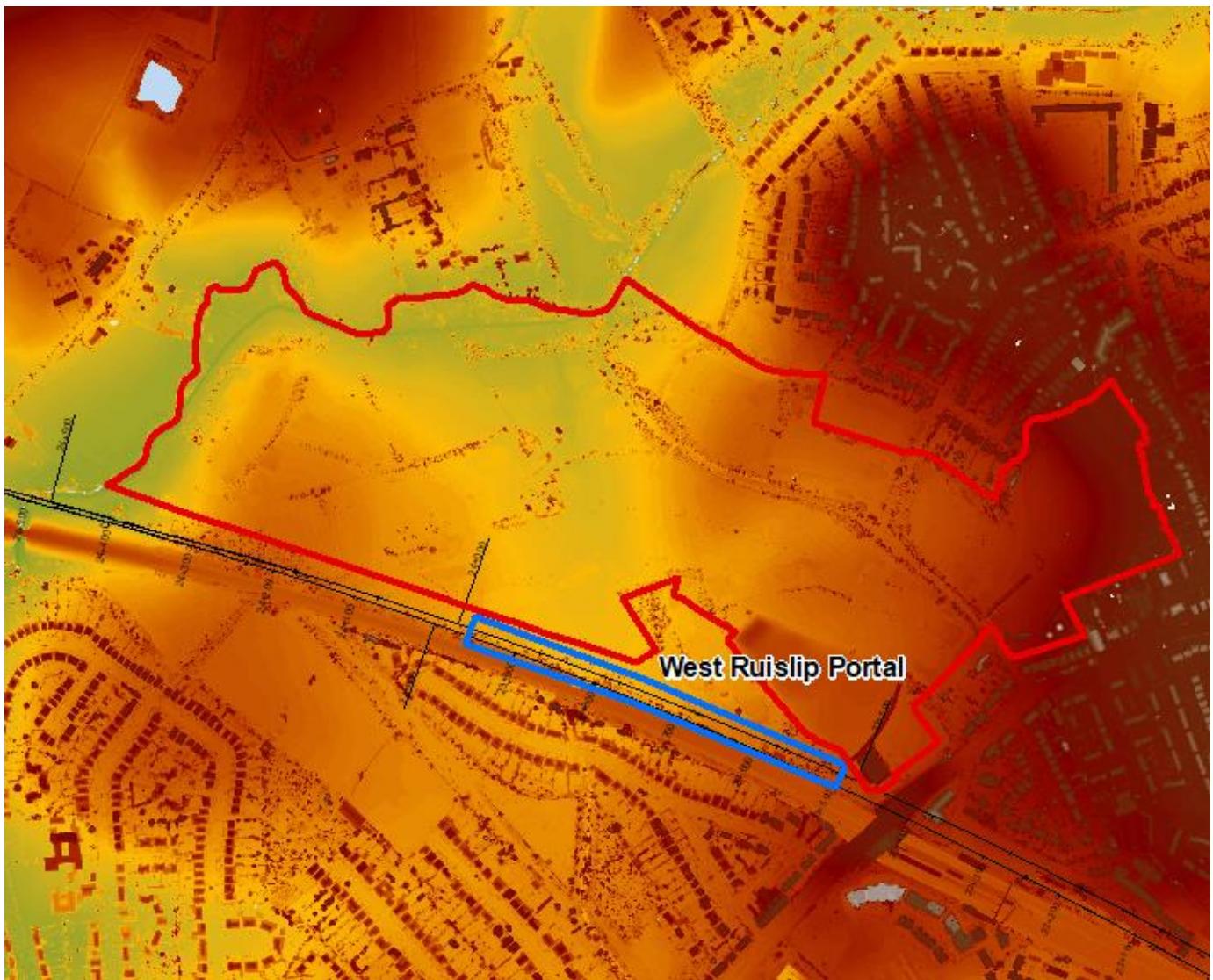


Figure 8 Surface mosaic showing landscape elevations.

6.2.6 Low-lying landscape is visible in the green area visible in Figure 8 along the course of the River Pinn, and along the alignments of the Ickenham Stream and other manmade water bodies such as drainage channels.

6.3 Archaeological Potential

6.3.1 The nature of possible archaeological survival in the golf course is summarised here, taking into account the levels of natural geology and the level and nature of later disturbance and truncation discussed above.

6.3.2 The majority of the application site has a low potential to contain palaeoenvironmental remains, with the exception of the application site's extreme western point where the bedrock dips down into the valley of the River Pinn. This area has the highest levels of

archaeological and palaeoenvironmental potential. If in situ these deposits would be of high value.

- 6.3.3 The application site has low to moderate potential to contain prehistoric remains, however if deposits of archaeological interest (floodplain gravels and alluvium) associated with the River Pinn were found in situ, these deposits would be of high value.
- 6.3.4 The application site has low potential to contain Roman remains. If in situ, these would be of low to moderate value.
- 6.3.5 The ridge and furrow in the application site has potentially high value due to the poor survival of ridge and furrows across Greater London, however in pre-submission consultations with the Greater London Archaeological Advisory Service officer, it was agreed that due to its limited visibility in the setting, the asset is deemed of limited archaeological value. It has moderate potential to contain remains of historic field boundaries of low value and has low potential for other forms of medieval remains which may be of low to moderate value.
- 6.3.6 The application site has high potential to contain post medieval remains. These include evidence of Beetonswood House, ephemeral remains associated with the parish boundary, field boundaries, and the Ickenham Stream, all of which would be of low to moderate value. Any surviving, previously not recorded features associated with Beetonswood House would be of moderate value.

7 Impacts of Proposals

7.1.1 The proposed development would reconfigure the existing (now closed) 18 hole golf course into a nine hole golf course, practice area outfield, short game practice area and putting green. It would also create a new six hole academy course in the north-eastern part of the application site. The existing driving range would be demolished and replaced with a driving range of minimum 20 bays, including associated floodlights and safety netting.

7.1.2 A new single storey rifle range building will be constructed within the application boundary to replace the previous, now demolished facility. The foundations of this proposed building are yet to be defined.

7.1.3 The Ickenham Stream would be diverted into a newly excavated channel, and new irrigation channels and water features would be excavated, including ponds and lagoons. Water tanks servicing the irrigation will be buried at defined locations. This would create new wetland habitats within the application site, introduce new water hazards to the golf course, and improve the geomorphology of the channel through re-profiling and installing in-channel features. Wetland habitats would include a mixture of running and standing water with and lowland fen / reed beds. This requires reduction and/or reprofiling of topsoil across much of the application site.

7.1.4 The Proposed Development does not include works relating to:

- the existing club house building, including the club shop and Fairway public house;
- the previous (now demolished) rifle range building; or
- the existing access in from Clacks Lane.

7.1.5 Where ridge and furrow has been identified, design changes have been introduced to preserve as many of these features as feasible within the proposed new layout. Approximately half of existing mapped ridge and furrow will be retained in the proposed development. Figure 9 below shows the layout of cut and fill across the site, including proposed pond locations.

7.1.6 The current scheme does not introduce any changes to the area of the former Beetonswood Farmhouse. The proposed scheme also seeks to retain the existing layout of the hedgerows. However, based on an understanding of proposed Thames Water sewer diversion works, separate to this application, several hedgerows will be severed to construct the new sewer. Figure 10 shows the proposed tree and hedgerow area overlain on the existing aerial. The green lines indicate the visible area of hedgerow identified on the enclosure plans. The treelines and hedgerows in this area are retained in the revised Golf Course layout.

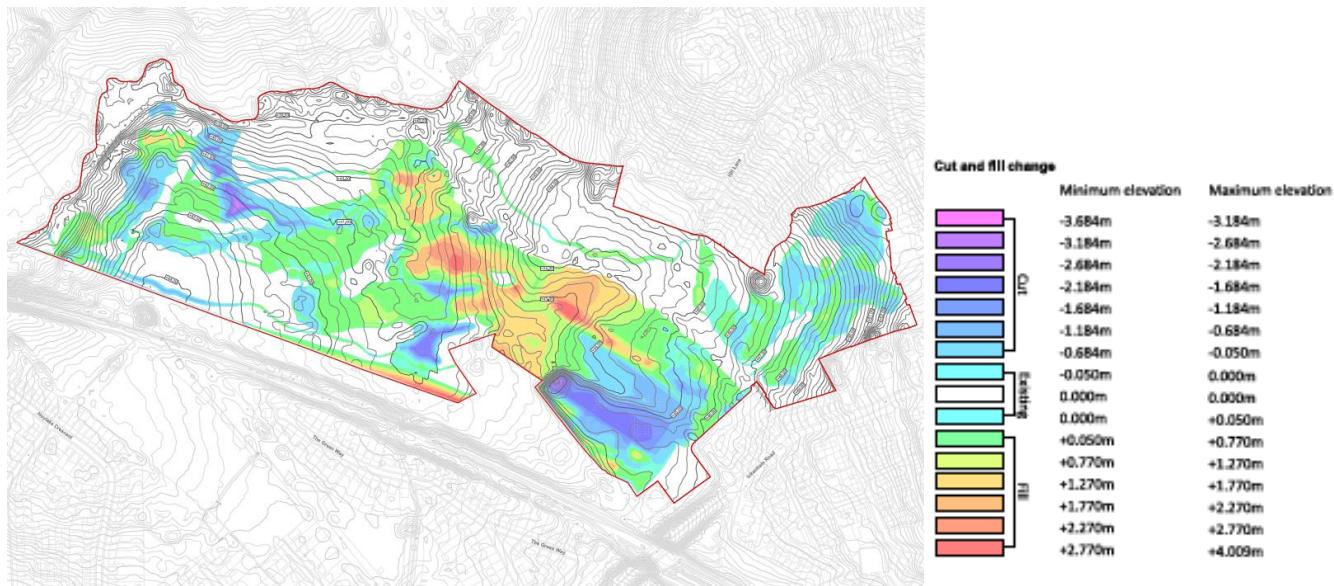


Figure 9 Proposed cut and fill across the site.



Figure 10 Overlay of proposed scheme tree canopy and surviving hedgerows with historic hedgerow boundaries identified off the Ickenham and Ruislip enclosure maps.

8 Conclusions

- 8.1.1 The application site does not contain any nationally designated (protected) heritage assets, such as scheduled monuments, listed buildings or registered parks and gardens.
- 8.1.2 The application site has a high potential for historic medieval landscape remains of ridge and furrow, as evidenced in surviving ridge and furrow currently located along greens and fairways 4, 12 and 14, and other archaeological remnants located along greens and fairways 1, 2 8, 6 and 13. Medieval ridge and furrow are poorly represented within greater London and are of moderate value. It contains historic environmental features relating to earlier field boundaries, hedgerows and pathways such as Clacks Lane. Design changes have been introduced to ensure that the most visible historic landscape features such as those ridge and furrow visible on green and fairways 4, 12 and 14, and the extant hedgerows survive within the re-designed golf course layout.
- 8.1.3 Landscaping, creation of new channels and ponds, and re-profiling of soil surfaces will impact any surviving below-ground archaeology and historic landscape features. In response to the evidence presented in this assessment, design changes have been introduced, where feasible, to retain the most valuable historic landscape features. Opportunities to enhance the legibility of these assets may be considered at detailed design stage.
- 8.1.4 It is recommended that a programme of trial trenching of the application site be carried out as part of the proposed development to mitigate any landscaping impacts to potential buried prehistoric archaeological features. Further trial trenching should target the parish boundary and, where possible, field boundaries to identify evidence surviving below-ground. Potential evidence gained through targeted trial trenching would hope to establish historic landscape features, and if possible secure dating evidence to help date these features. Due to the nature of this type of investigation, this work should be secured by a suitably worded condition attached to the planning permission.

Appendix A- Site Photos



Picture 1, Ruislip Golf Course at hole 1, looking west.



Picture 2, Evidence of in-situ ridge and furrow at Ruislip Golf Course, hole 9, looking northeast.



Picture 3, View of Driving Range at Ruislip Golf Course, looking south



Picture 4, Visible stratigraphy along bank of small stream at Ruislip Golf Course, looking west.

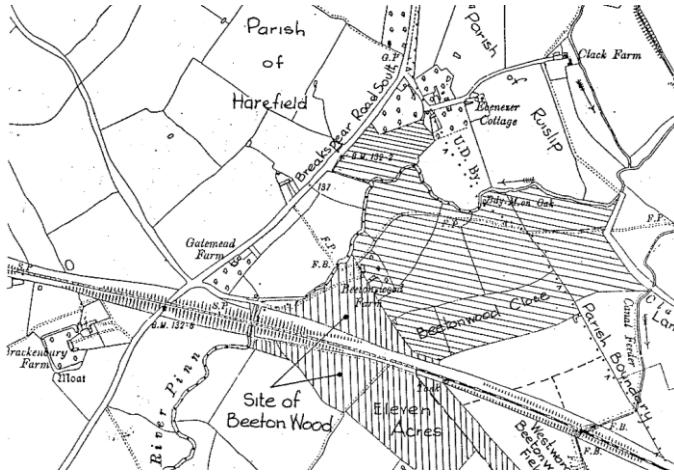


Picture 5, Ridge and Furrow evidence at grid reference TQ0780087102 (CSJV)



Picture 6, Ridge and Furrow at grid reference TQ07726 87135 (CSJV)

Appendix B- Map Regression

Date	Map extract	Description
Copy of 1730s Enclosure map		The copy of the 1730s enclosure map, which has been overlaid onto a modern OS map of the site. Shows that the southwest corner with the site formed part of Beeton's Wood. The rest of the site appears to be dedicated farmland.
John Rocque's Map, 1754 ¹⁵		John Rocque's 1754 map of the Middlesex depicts an area consisting of open fields, with areas of woodland located to the northeast. Shading to the west of the site, and of would later become Blackenbury Farm, is indicative of a natural 'S' shaped escarpment, with some of the field boundaries seemingly following this line. At this point the area mainly consisted of isolated farmsteads surrounded by yard areas or small buildings located along main roads or major intersections. Ruislip (Ruislip) and Kings End (Kingsend) appear at this point to be the main

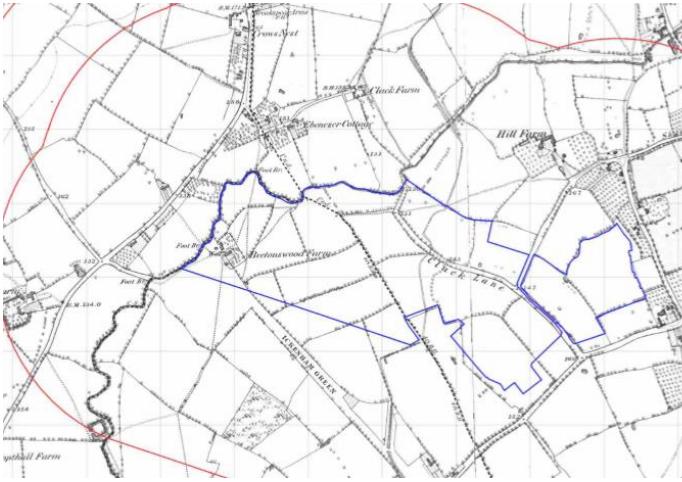
¹⁵ http://biblio.unibe.ch/web-apps/maps/zoomify.php?pic=Ryh_1807_9.jpg&col=ryh Carte topographique de le comte de Middlesex 1, John Rocque, 1754

Date	Map extract	Description
		concentration for urban development.
Stanford's Map of Middlesex, 1862 ¹⁶		Stanford's 1862 map, shows that most of the area consisted of open fields, with areas of woodland. Development at that point in time was concentrated eastwards towards Ruislip, with most of the area consisting of small farmsteads facing onto the main roads.
W. H Smith, 1890 ¹⁷		As with previous maps, the 1890s map of the site, shows that most of the area still consisted of open fields interspersed by areas of woodland. The shading noted on the earlier Roque's map appears in a more defined way although the finer detailing of individual fields has been lost, whether this is an oversight on the cartographers' part or a result of the early enclosures is unclear. There does not seem to be a significant increase in the buildings within the area, and as before the majority of the housing consisted of

¹⁶ <https://www.oldmapsonline.org/map/rumsey/5075.024> Edward Stanford, outer London 1901 1:106065

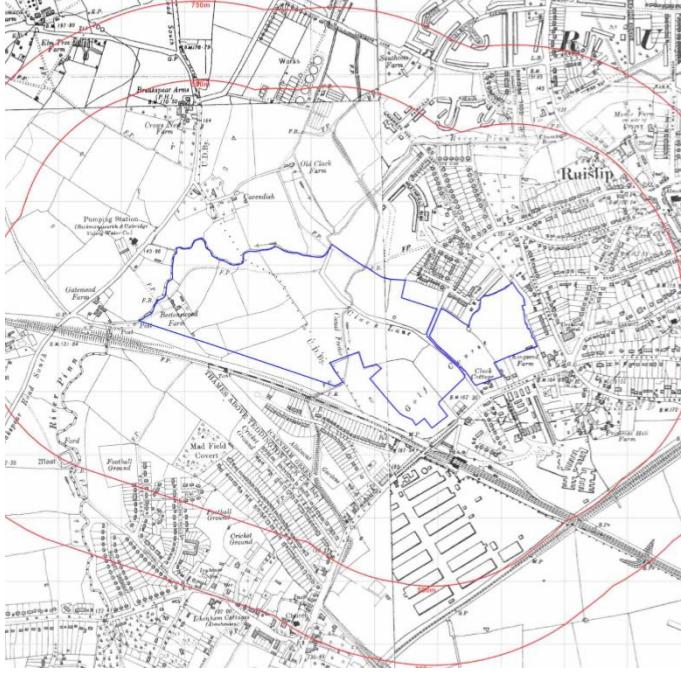
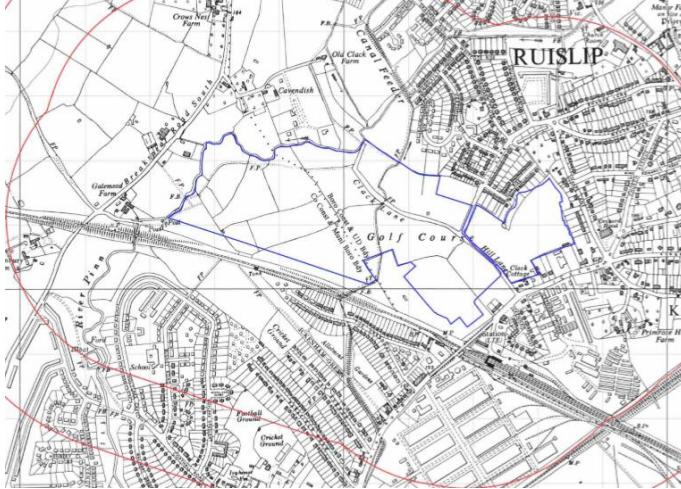
¹⁷ <https://iiif.lib.harvard.edu/manifests/view/ids:7271044> Environs of London, Harvard University, Harvard Map Collection,

G5754_L7_1890_S6_8800973668 W.H Smith 1890.

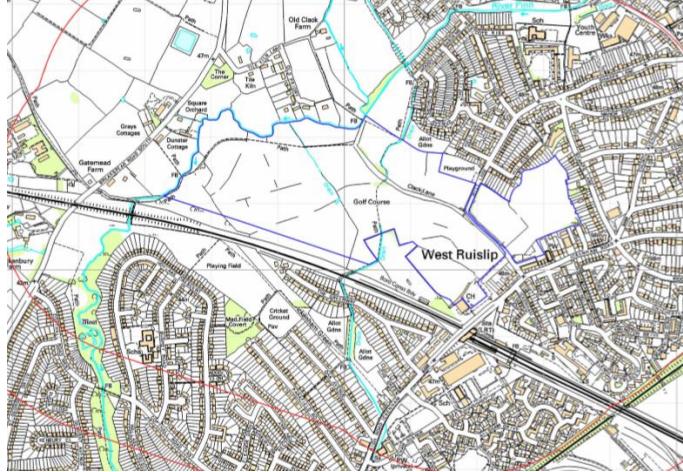
Date	Map extract	Description
Beaconsfield map 1896 ¹⁸		small farmsteads facing onto the main roads. The 1896 map of the site, shows that most of the area consisted of open fields, with areas of woodland. Development at that point in time was concentrated eastwards towards Ruislip. The area consisted of small farmsteads facing onto the main roads.
Ordnance Survey 1:10,560 1864-1865		Key features include the Ickenham Stream canal feeder, Ickenham Stream, Clacks Lane and Beetsonwood Farm
1870s to 1910	There is little change to the landscape during the latter part of the 19 th century. The orchards /market gardens which are visible	

¹⁸ <https://maps.nls.uk/view/101168603> Sheet 255 - Beaconsfield (Outline) Publication date: 1896

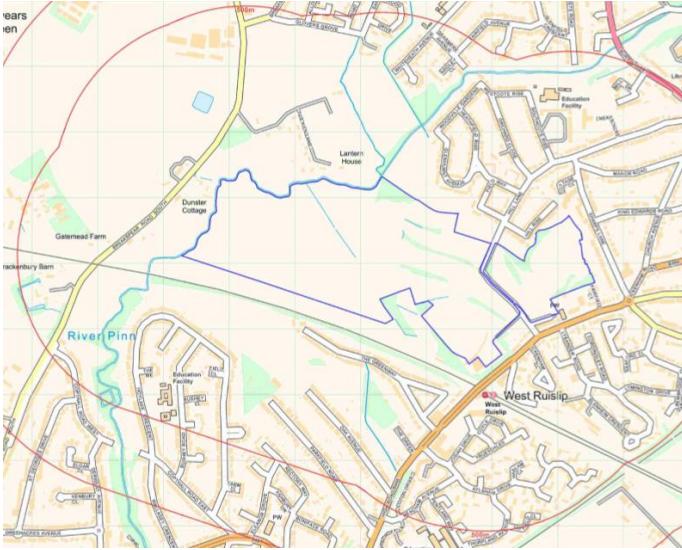
Date	Map extract	Description
1911-1912		The train line has been introduced at this stage, intersecting Ickenham Green. The Parish Boundary line is clearly visible
WWII Bomb Site map		Bomb damage maps provide further evidence of bomb damage on site. A high explosive bomb was recorded (Aggregate Night Time Bomb Census 7th Oct 1940 to 6 June 1941) as falling on the greenway at Ruislip. A second was recorded near the River Pinn and Breakspear Road (Aggregate Night Time Bomb Census 7th Oct 1940 to 6th June) http://bombsight.org/#15/51.5678/-0.4220

Date	Map extract	Description
Ordnance Survey Aerial Photo 1:10, 560 1935-1938 ¹⁹		By this stage the golf course has been developed and urban development is shown as increasing to the south and east
Ordnance survey map 1960 1:10,560		The area south-west of the site has seen further building activity with the construction of a school, the area northwest of the site is largely rural. Beetonswood Farm House is no longer recorded

¹⁹ https://www.viamichelin.co.uk/web/Maps/Map-Ruislip-HA4-Greater_London-United_Kingdom HA4 Ruislip, Greater London. Via Michelin features 2018

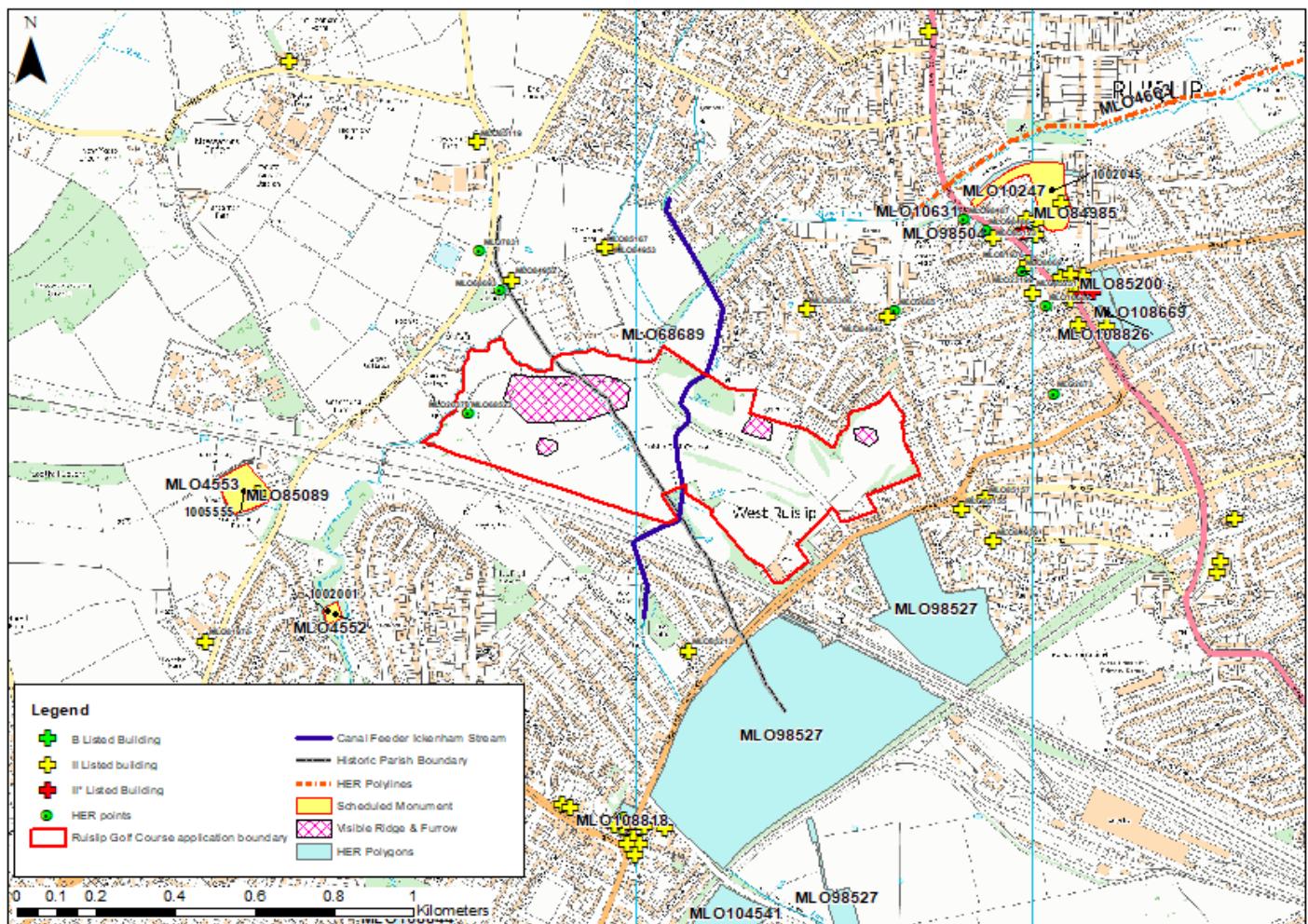
Date	Map extract	Description
Ordnance survey map 2002 1:10,560 ²⁰		<p>The golf course itself has seen some changes. The field boundaries still visible in the 1960 map, have for the most part disappeared, although there are still some disjointed boundaries present.</p> <p>The majority of the area surrounding site has remained the same with some slight changes to the small residential road located west of the Old Chalk Farm. In the previous 1960s map the road was largely composed of large houses located within large plots of land. By 2002, this has been replaced with smaller plots, which in turn increased the density of housing. The industrial park, located to the south-east of the site has changed significantly in both layout and size. Instead the area now accommodates residential housing which surrounds a much smaller Industrial area. The area north-west of the site is largely rural.</p>

²⁰ <http://www.bl.uk/onlinegallery/onlineex/maps/uk/zoomify134623.html> Ordnance Survey of Great Britain, England, NW London & Watford

Date	Map extract	Description
OS 2014 ²¹		<p>The modern OS map shows significant changes to both the golf course itself and the area located to the south-east of the site. The field boundaries depicted in previous maps have all disappeared, and the small industrial park has been replaced by further residential housing while the north-west is still largely rural.</p>

²¹ <http://www.bl.uk/onlinegallery/onlineex/maps/uk/zoomify134623.html> Ordnance Survey of Great Britain, England, NW London & Watford

Appendix C- GLHER Locations Plan



22

²² Greater London Historic Environment Record Reports, Monuments, Listed Buildings and events Data PDF. 2018.

Appendix D- Gazetteer

HER NO.	Site Name	Type	Form	Date	Description
MLO20378	Beetonswood Farm	Farmhouse	Mon	Medieval-Post Medieval	Ground plan of Tudor timber framed farmhouse, documented from c15th, recovered March 1989 by West London archaeological field group & RNHS. Ruin demolished 1988, used by ARP for fire practice in ww2.
MLO68693	Tile Kiln Ruislip	Settlement	Mon	Medieval-Post Medieval	Hamlet of Tile Kilns, recorded from 1448. In 1699, the Widow Weedon lived in one of two cottages on the Harefield side of the borough border.
MLO7831	Breakspears Site On	Find spot	FS	Medieval	Large fragments of surrey white ware from "t" rimmed jug & bowl found BYI Davenport in 1965. md Surrey white ware sherds (artefact). Slo11882.
MLO84952	Woodbine Cottage Grade II	Timber Framed House	LB	Medieval - Modern	Woodbine Cottage TQ 08 NE 41/419 II 2. House of 3 periods. Central part of early C18 appearance, red brick with 1st floor band. High pitched tiled roof. 2 storeys, 2 windows. C19 casements; and on both floors at either side a blocked circular window. Running behind the house and projecting from the left return is a 16th century building of 1 storey and attic with irregular fenestration.
MLO85089 DLO20072	Brackenbury Farmhouse/ House Grade II	Wind Brace in Farmhouse	LB	Medieval-Modern	Brackenbury Farm is a 16th century brick building, which has been added to in early-mid 17th century a substantial timber framed house, now Brackenbury House. The building is two storeys and attic, with four irregular bays. The walls are now

HER NO.	Site Name	Type	Form	Date	Description
					pebble-dashed, and there is a half hipped tiled roof with two original ridge stacks; tall, square and with segment headed panels. The windows are mullioned with transomed casements, and there is a modillioned eaves cornice. A later lean-to has been added to the right.
MLO85119 DLO20102	Crow's Nest Farmhouse	Timber Framed House Grade II	LB	Medieval- Post Medieval	Crow's Nest Farmhouse TQ 08 NE 41/38 II 2. Mid-16th century house of 2 storeys, 2 bays with left rear wing forming an L-shape. Timber framed with C18 brick skin on front, having brick dentil cornice. Old tiled roof with central compound stack, 1st floor windows early C19 sashes, ground floor windows early 20th century square bays.
MLO85167 DLO20150	Barn west of Old Clack Farmhouse	Barn Grade II	LB	Medieval- Post Medieval	Probably 16th century small 3-bay barn. Old tiled roof. Weatherboarded on top of brick foundation. Side purlin roof with wind braces, tile purlins very high up. Load braces to wall plate reach down almost to foundation. Later door inserted in west end. Old door in north centre bay.
MLO84953 DLO19936	Old Clack Farmhouse	Farmhouse Grade II	LB	Medieval- Post Medieval	16th century or earlier timber framed house of 2 storeys, 4 windows, the 2 right ones under a returned gable end. High pitched tiled roof. Square framing partly exposed with plastered filling. Small paned modern casements, and modern door in old frame.

HER NO.	Site Name	Type	Form	Date	Description
MLO85306 DLO20302	Hill Farmhouse	Farmhouse Grade II	LB	Post Medieval	Late timber-framed building, refaced with brick, now painted, in the early C18. Tiled roof. Sash windows with glazing bars missing. 2 storeys and attic. 4 windows. 2 hipped dormers. The interior retains the original staircase with turned balusters leading to the attic storey, panelling in several rooms and 4 fireplaces with stone surrounds.
MLO84942 DLO19914	The Old Orchard	House/ Conservatory Grade II	LB	Post Medieval	Probably C17. 2-storey, 3 bay timber framed house with extensive C19 additions to the front and rear with dormer windows on the front elevation. Slated roof and white painted brick facing to rear and gable end walls, single storey conservatory along front elevation with rendered parapet and base. The timber framing is visible throughout the first floor internally, with a Queen strut truss and bracing.
MLO2665	Sharps LA	Find spot	FS	Prehistoric	Lithic implement found by West London Archaeological Group
MLO98487	Bury St Medieval Post Holes	Post Hole	Mon	Medieval	Medieval pits and postholes were located during an archaeological evaluation by AOC Archaeology in 2008 at Bury Street, Ruislip. The features uncovered were an oval pit and a series of postholes and stake holes. The pit contained 69 medieval cooking pot sherds, a fragment of Roman brick, a fragment of 19th or 20th century tile, fifteen fragments of animal bone and over 400 very small

HER NO.	Site Name	Type	Form	Date	Description
					fragments of daub, probably from a timber and daub structure.
MLO98486	Bury St Brick Building	Building/ Foundation	Mon	Post Medieval	The brick foundations of a 17th century building's exterior wall were uncovered at Bury Street, Ruislip during an evaluation by AOC Archaeology in 2008. The building was orientated north-west/south-east. The surviving remnant of the building suggests that it once continued further to the north-west, where a large storage tank now lies, and may have projected and returned to the north-east, where Bury Street, footpath and bank are now. It is therefore unlikely that much more survives
MLO85123 DLO20106	Mill House	Timber Framed House Grade II	LB	Post Medieval	C17 L-shaped timber framed building. Stuccoed left part of 2 storeys, 2 windows has weather boarded end. C19 casements and 4-panel door under modern hood. Right wing projects towards road, its outer part probably once a barn. This is weather boarded above and thinly timbered, with brick filling, below
MLO81976 DLO20239	The Old House	House Grade II	LB	Medieval- Post Medieval	16th century and C17 building now stuccoed. 2 storeys, 4 windows. Old tiled roof, hipped at left, with coved cornice. C19 casements on 1st floor, C18 sash windows with glazing bars on ground floor, all in moulded architraves. Door of 6 fielded panels, with radial fanlight, in moulded architrave. Side pilasters and cornice hood on carved brackets

HER NO.	Site Name	Type	Form	Date	Description
MLO23199	6 Sharps LA	Find Spot	FS	Medieval	Medieval pottery, also Roman glass & 19 th century dump deposit excavated by RNHS in 1977
MLO85251 DLO20247	2-6 High St	House Grade II	LB	Medieval - Modern	16th century building with early C19 front. From the street 2 storeys, 2 windows. Painted brick with brick dentil cornice. Old tiled roof. 1st floor windows sashes with glazing bars under stuccoed lintels with key blocks. Ground floor modern but seemly shop front. Back range at right angles, 1 storey and attic, 2 windows. Rendered. 2 gabled dormers breaking eaves of old tiled roof upon which rests a large compound chimney stack of old bricks.
MLO10639	9 The Oaks	Find spot	FS	Medieval	3 sherds of pottery from the rear of No 9, The Oaks.
MLO85028 DLO20011	The British Legion Hall	House/ Shop Grade II	LB	Post Medieval- Modern	19 th Century large square house of 3 storeys, 3 windows. Stucco with incised lines, cornice band and parapet. Original recessed sash windows, although bars lost, in moulded architraves with bracketed sills. 3 projecting modern shops on ground floor. The house may well conceal an older timber framed structure as a high pitched hipped roof of old tile may be seen over the parapet.
MLO2673	305 King Edward RD Buildings Site	Find spot	FS	Prehistoric	1 large retouched flake found by West London Archaeological Group, SLO4121.

HER NO.	Site Name	Type	Form	Date	Description
MLO85157 DLO20140	Orchard Cottage	House Grade II	LB	Post Medieval	Late C17 or early C18 2-storey, 2-window cottage. Weather boarded with old tiled roof. Modern small-paned casements and modern central gabled porch. Lean-to rear extension.
MLO85155 DLO20138	The White Bear Public House	Public House Grade II	LB	Post Medieval- Modern	Late C18 building of 2 storeys, 3 windows. Fairly high pitched tiled roof with end chimneys. Brick, now painted, with brick dentil cornice. Rendered lintels, with vermiculate key blocks to 1st floor recessed sash windows, lost glazing bars.
MLO84939 DLO19911	Laurel, Primrose and Tudor Cottage	Timber Framed House Grade II	LB	Post Medieval- Modern	Southern building is C17 timber framed with plaster filling and old brick chimney on end. Queen post roof structure visible in gable. C18 L-shaped addition of painted brick with dentil cornice. Old tiled roofs. Sash windows with glazing bars. Modern south-east extensions in keeping.
MLO85213 DLO20196	3 The Green, Ickenham	Shop/ House Grade II	LB	Post Medieval- Modern	Early-mid C19 fronts some possibly concealing earlier timber framed construction. 2 storeys, 10 windows in all. Some of brick with dentil cornice, others rendered, all now painted white. Old tiled roofs hipped at left over No 1.
MLO98527	RAF Ruislip stores, High Road	Depot/ House	Mon	Post Medieval- Modern	The site of RAF West Ruislip, High Street Ickenham was surveyed in 2007, prior to redevelopment. The site had its origins in 1917 when it was chosen

HER NO.	Site Name	Type	Form	Date	Description
					to be the primary Aircraft Stores Depot, owing to its ideal position on both the Great Central Railway and the Metropolitan Railway, allowing stores to feed to any part of the UK.
MLO98527	RAF Ruislip store 4, High Road	Depot/House	Mon	Post Medieval-Modern	The site of RAF West Ruislip, High Street Ickenham was surveyed in 2007, prior to redevelopment. The site had its origins in 1917 when it was chosen to be the primary Aircraft Stores Depot, owing to its ideal position on both the Great Central Railway and the Metropolitan Railway, allowing stores to feed to any part of the UK.
MLO4552	Copthill Hill Medieval Moated site	Moated Site	Mon	Medieval	Small rectangular moat. Internal enclosure wooded as are banks. Very close to River Pinn on its east side. Ditches are dug but not infilled, good condition. Moat approximately 2.5m - 4m wide encloses interior platform some 35m square which rises to 2m above ditch. Ditch wet in a few places especially to West. Interior supports mature oak and elder and hawthorn scrub. The whole area is derelict with evidence of motorbike scrambling causing erosion, this particularly severe to north. Moat blocked with fallen trees, and rubbish tipped from adjoining houses (1984).
MLO4553	Breakspear Road South Moated House	Moated Site	Mon	Medieval	Brackenbury House Farm is the site of a scheduled quadrangular moat, which has been much altered by landscape gardening. Within the moated area is a house. This farmhouse, much of which is of some antiquity, is still occupied.

HER NO.	Site Name	Type	Form	Date	Description
					Three of the four arms of the rectangular moat survive, with some water in. The moat has steep and high sides, with some计erscarp bank, much of the area is wooded
MLO68689	Clack Lane Water Mill	Watermill	Mon	Medieval	The site of Clack Mill, probably a mill recorded in 1294. No references are known after the 15th century. In 1381, the mill lay in Southcote Manor on the northern side of the River Pinn. This can be an empty triangle on the 1806 enclosure map. The millpond, called <i>Sitteclack</i> , lay on the south side of the Pinn in Ruislip Manor.

Appendix E- Deposit Model

MOLA, Ruislip Golf Course Geoarchaeological Deposit Model October 2018²³

²³ MOLA, October 2018 Geoarchaeological Deposit Model for Ruislip Golf Course, Ickenham Road, Ruislip, London HA4, LB of Hillingdon (unpublished grey literature report).