

WP 29 (B) Historic Environment Works – Drayton Bassett - Enabling Works North Contract

Location Specific Written Scheme of Investigation for Trial Trenching

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1 Executive Summary

1.1 Context

- 1.1.1 This High Speed 2 (HS2) North Section Phase One Location Specific Written Scheme of Investigation (LS-WSI) sets out the detailed method of investigation for trial trenching on the southern part of the HS2 route located west of Drayton Bassett, southern Staffordshire as set out in the Project Plan for Trial Trenching (1EW04-LMJ-EV-PLN-NS05_NL14-029002; see Appendix 1).
- 1.1.2 The trenched area, or “evaluation area” is situated between the Church Lane (HS2 Chainage 171550) in the south-east and Black Brook (HS2 Chainage 177750) in the north (Figure 1, Appendix 2). The overall evaluation area covers approximately 6.3km long, covers approximately 228 ha, approximately centred on National Grid Reference (NGR) 416714 300709.
- 1.1.3 In terms of the 2017 Construction Land Requirements, (CLRs) this programme has been identified within the enabling works and subsequent main works programme for Phase One of HS2 Construction Land Requirement (CLR) parcels; CR02053, CR02054, CR02083, CR02101, CR02183, CR02184, CR02186, CR02187, CR02188, CR02224, CR02260, CR02510, CR02580, CR02582, CR02700, CR02710, CR02711, CR02751, CR02785, CR02786, CR02787, CR02850, CR02854, CR02892, CR02894, CR02909, CR02917, CR02918, CR02942, CR02943, CR02949, CR02957, CR02961, CR02974, CR02975, CR02976 and CR02977. The work will entail ground disturbance with could potentially have an impact on any archaeological remains that may be present.
- 1.1.4 This LS-WSI sets out the aims of the evaluation, defines how the trial trenching programme will be delivered and identifies the timescale and proposed programme for the works. This will include: details of programme management, cost control, resourcing, health and safety and reporting.
- 1.1.5 The evaluation will comprise the excavation, investigation and recording of 422 trenches, 50m long and 2m wide and no more than 1.2m deep, (commencing with an initial 180 in the southern section of the Drayton Bassett evaluation area, Figures 1 - 4, Appendix 2) required to identify the presence, nature, date, extent, survival and significance of known or potential heritage assets which may be affected by the proposed scheme, in order to inform, if required, an appropriate mitigation strategy aimed at reducing or removing any adverse effects where such works would contribute to the HERDS Objectives.
- 1.1.6 The area of the site is part of enabling and main works, such work will entail ground disturbance that would potentially have an impact on any archaeological remains that may be present. The details of the proposed works have been discussed in the Project Plan.

- 1.1.7 The outcome of the archaeological trial trenching will be used to inform decision-making on the requirement for further archaeological investigation at the site.

2 Scope

2.1 Guidance

- 2.1.1 This LS-WSI has been produced in line with guidance outlined in the HS2 Technical Standard - Specifications Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) the HS2 Technical Standard – Specification for Historic Environment Project Plans and Location Specific Written Schemes of Investigation (HS2-HS2-EV-STD-000-000036) and the Drayton Bassett - Project Plan for Trial Trenching (1EW04-LMJ-EV-PLN-NS05_NL14-029002).
- 2.1.2 This LS-WSI has also been prepared with reference to the HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS; HS2-HS2-EV-STR-000-000015).
- 2.1.3 Specific guidance for the trial trenching methodology and reporting strategies are also referenced in text where appropriate
- 2.1.4 The LS-WSI will be submitted to HS2 for approval prior to work commencing.

2.2 Aims

- 2.2.1 The aim of the trial trenching is laid out within the Drayton Bassett Project Plan for Trial Trenching (1EW04-LMJ-EV-PLN-NS05_NL14-029002) and is as follows:
- To determine, as far as reasonably possible, the presence, nature, date, extent, survival and significance of the archaeological resource within the evaluation area, primarily in relation to previously identified GWSI: HERDS research objectives, so that, if necessary, a suitable archaeology mitigation strategy can be put in place to reduce or offset any adverse effects arising from the proposed ground disturbance.

2.3 Contribution to GWSI: HERDS Specific Objectives

- 2.3.1 The trial trenching of the whole Drayton Bassett evaluation area will contribute to the following Specific Objectives as laid out in Table 2 of the Project Plan:
- KC5: Identifying settlement location and developing models for settlement patterns for the Mesolithic, Neolithic and Early Bronze Age;
 - KC6: Understanding the evidence for change in the environment and management of the landscape for the Mesolithic and Early Neolithic Periods.
 - KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area

distinctiveness, or is this due to variation in geology of investigative techniques?

- KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in landscape organisation and enclosure?
- KC19: The Romano- British period saw the beginning of a more established infrastructure network. Can we investigate the development of these routes, trackways and roads and the influence they had on landscape change?
- KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano- British period, with particular regard to the different settlement types along the route;
- KC30: Identify the location and form of Early and Middle Saxon settlement and investigate evidence for land use in the period;
- KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes;
- KC33: Investigate the development of water mills from the Anglo-Saxon through to the modern period. How did the technology of milling change, and what implications has this for farming practice?;
- KC34: Undertake research and investigation into Medieval manorial complexes. What was their origin, development and impact on the landscape?;
- KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter, and their contribution to settlement desertion; and
- KC44: How did rural industries fare, and what was their contribution to society over the period of the urban-centred industrial revolution?

3 Site location, extent and condition

- 3.1.1 The Drayton Bassett evaluation area is approximately centred on National Grid Reference (NGR) 416714, 300709 and including approximately 228 ha of land, mostly comprising large rationalised arable and pasture fields subdivided by hedgerows.
- 3.1.2 The majority of the evaluation area lies within Community Forum Area (CFA) 21: Drayton Bassett, Hints and Weeford, with the southern c 1km within CFA20: Curdworth to Middleton. The southern 0.6km of the evaluation area is situated within the River terrace and tributaries Archaeological Character Area (CFA 20-ACA3), with the central 3km situated within the River

Terraces and Tributaries Archaeological Character Area (ACA6.1) and the northern 3km situated within the Hints Hills and Bourne/Black Brook Archaeological Character Area (ACA6.2).

- 3.1.3 The evaluation area ascends from c. 81.0m above Ordnance Datum (OD) at Middleton in the south, to 111.0m at Cranebrook Hill, then descends to c. 95.0m OD north of Sutton Road. The ground then undulates before descending further to 79.0m OD at the Bourne/Black Brook.
- 3.1.4 According to British Geological Survey (BGS) online mapping the underlying solid geology is mostly Gunthorpe Member Mudstone, with a portion of the northern evaluation area consisting of Enville Member Sandstone, siltstone and mudstone. The superficial geology within the evaluation area is mostly unknown, but there are identified channels of alluvium in the north along the Bourne/Black Brook and along the Gallows Brook in the south, a large area of till deposits in the centre of the evaluation area and river terrace deposits at the south of the evaluation area.

4 Site Background

4.1 Baseline

- 4.1.1 The evaluation area does not contain any nationally designated (protected) heritage assets, such as World Heritage Sites, Scheduled Monuments, Listed Buildings, Registered Battlefields or Registered Parks and Gardens.
- 4.1.2 The closest nationally designated heritage assets is the Grade II Church of St Bartholomew in Hints (National Heritage List/NHL ref. 1188166) 290m east of the central evaluation area, and within the church yard the Floyer memorial (Grade II; NHL ref. 1294878), another memorial (Grade II; NHL ref. 1374261) and a cross (Grade II; NHL ref. 1038854). Positioned adjacent to the north-east of the evaluation area, and extending into it, is the Hints Conservation Area
- 4.1.3 The ES and HER identified 53 non-designated heritage assets within the evaluation area, (the possible extent of these assets as mapped by the ES and HER is shown on Figures 2 and 3 of the Project Plan). The assets are listed in Appendix B of the Project Plan. Those of particular significance comprise:
- ES ref. DHW:148: Middleton Park boundary and parish boundary;
 - ES ref. DHW102: Cropmarks near Gallows Brook, L-shaped linear feature visible on aerial photographs;
 - ES ref. DHW111: Field system at Hill Farm, undated cropmarks with a possible ditched roadway, possible lynchets and linear earthworks;
 - ES ref. DHW193: Hints Hall Park, surrounding Hints Hall an area of parkland containing a farm complex and surviving plantations along the southern boundary;

- ES ref. DHW166: Enclosure at Roundhill, enclosure visible on LiDAR at the southern extend of Roundhill Wood;
 - ES ref. DHW116: Field system at Brock Hurst, seen on aerial photographs, adjacent to Brock Hurst ancient woodland;
 - ES ref. DHW105: Drayton deer park, dating to at least the early 13th century, Hedgerows still define the park boundary;
 - ES ref. DHW106: Shirral Park deer park, mentioned in records in the late 14th, 15th and 16th centuries;
 - ES ref. DHW114: Bangle Park deer park;
 - ES ref. DHW 149: Hedgerow 18 Shirral deer park boundary;
 - ES ref. DHW150: Hedgerow 19 Shirral and Drayton deer park boundary;
 - ES ref. DHW151: Hedgerow 20 Shirral, Drayton and Bangle deer park boundary;
 - ES ref. DHW152: Hedgerow 21 Bangle deer park boundary;
 - ES ref. DHW124: Crow's Castle Mound and Gorsey Hill Mound, bounded by agricultural lynchet. Originally interpreted as barrows, but now reinterpreted as natural geomorphological features;
 - ES ref. DHW126: Medieval forge and mill with ponds, site of post-medieval forge and watermill with ponds, earthworks and a leat;
 - ES ref. DHW132: Ridge and furrow to north west of Hints; and
 - ES ref. DHW134: Slitting Mill and ponds, site of a slitting mill near Bourne House.
- 4.1.4 There have been 51 previous investigations, unassociated with HS2, recorded by the Warwickshire and Staffordshire HER within the evaluation area and wider landscape shown in Figure 4 of the Project Plan, and those within 500m are listed within Appendix C of the Project Plan. Those of particular relevance to the present study include: archaeological assessment (HER refs. EST1438, EST877), and an environmental impact assessment across the north of the evaluation area (HER ref. EST1293), archaeological assessment within the west of the evaluation area focused on the proposed Birmingham Northern Relief Road (HER refs. EST1162, EST1182, EST1183), an archaeological desk-based assessment and field reconnaissance survey (HER ref. EST2216) across the centre of the evaluation area, and the English Heritage National Mapping project of the River Tame within the south of the evaluation area (HER ref. EWA9000).
- 4.1.5 The following sections summarise the archaeological and heritage potential of the evaluation area by period.

Palaeolithic (500,000– 10,000BC)

- 4.1.6 The Lower and Middle Palaeolithic of the West Midlands is poorly understood, but the region is identified (Garwood 2011) as being of particular importance for research into the earlier Palaeolithic, as it is geographically positioned at the northern extreme of global Lower Palaeolithic occupation. The closest known activity relating to this period is a collection of Lower to Middle Palaeolithic handaxes recovered c.2km north-east of the evaluation area at Fazeley (HER Refs MST19863, MST 19868 and MST19871) whilst two possible Lower Palaeolithic implements have been recorded c.2.3km to the east of the evaluation area at Drayton Bassett (HER Ref: MST1415). Further north along the course of the River Tame, c.9km north of the evaluation area, recent excavations at Tuckleshome Quarry have identified an in-situ scatter of Late Upper Palaeolithic flints (Richmond 2017).
- 4.1.7 The scatter of finds within the surrounding landscape suggests potential for similar discoveries in the south and north of the evaluation area where river terrace deposits and narrow bands of alluvial deposits, respectively associated with the Langley Brook, Gallows Brook and the Black Brook/Bourne Brook, could include archaeological and palaeoenvironmental evidence of the period (GDBA: 1D037-EDP-EV-REP-000-000031). Potential for the recovery of organic remains dating to the Palaeolithic within the evaluation area is also suggested by previous recovery of Palaeolithic faunal evidence from gravel quarry sites around Whitemoor Haye, Catholme and Barton-under Needwood c.10-14km to the north.

Mesolithic (8,500– 4,000BC)

- 4.1.8 Mesolithic finds densities are relatively low in the West Midlands when compared to other parts of Britain. The discovery and excavation of Mesolithic sites is extremely rare, few have produced evidence for features or possible structures, although a small number of pits recorded c.19km to the south at Meriden Quarry are attributed to the period.
- 4.1.9 A programme of fieldwalking at Drayton Bassett Park, between c.150m and 1km east of the evaluation area, recovered a collection of possible Mesolithic -Neolithic flints (HERE ref. EST 2263-6). Further fieldwalking and subsequent archaeological investigations during the construction of the M6 Toll near Wishaw Hall Farm, c.3km to the south of the evaluation area, recovered over 1500 Mesolithic flints from areas with clay soils. These finds were located on a south-facing slope in close proximity to tributaries of the River Tame and may indicate a temporary camp.
- 4.1.10 The available evidence, including Geoarchaeological Desk Based Assessment (GDBA: 1D037-EDP-EV-REP-000-000031), suggests the highest potential may be at the alluvium and Pleistocene river terrace deposits situated at the north and south of the evaluation area, respectively associated with the Black Brook/Bourne Brook, Langley Brook and Gallows Brook. The alluvium could mask or include archaeological remains of this and later periods and may contain palaeoenvironmental evidence.

Neolithic (4,000– 2,400BC)

- 4.1.11 Current evidence from the wider region is limited, with little to suggest settlement foci for sites of repeated activities. Neolithic evidence often comprises pit groups, containing artefactual and faunal assemblages, or stone tool scatters. Field walking at Drayton Park, between c150m and 1km to the east of the evaluation area, recovered possible Mesolithic
- 4.1.12 Environmental material from sites in the West Midlands indicate fewer woodland species in the pollen samples and an increase in weed species during the 4th millennium BC, suggesting that some land clearance may have occurred, possibly for agricultural purposes.
- 4.1.13 The GDBA emphasises the potential for river terrace deposits, such as those located at the north and south of the evaluation area, to be a focus of multi-period prehistoric sites. Later Neolithic sites and artefacts are distinctive in the new forms of pottery and flints tools were developed and large funerary and ceremonial monuments began to be constructed. The ceremonial landscape at Catholme/Whitemore Haye, 10lm north northeast of the study area, is the closest example of identified later Neolithic ceremonial activity within the wider landscape.

Bronze Age (2,400 – 700BC)

- 4.1.14 Heritage assets of the period are not recorded in the evaluation area and the wider central West Midlands has a significant gap in evidence dating to this period (HERDS Resource Assessment: Section 11.3.3).
- 4.1.15 Woodland clearance may have been gradual during early part of the Bronze Age and it has been suggested that the major river valleys such as the Trent, did not witness large-scale clearance until the mid-second millennium BC (HERDS Resource Assessment: Section 11.3.9).
- 4.1.16 Settlement evidence of the early part of the period is very rare, suggesting mobile communities, and lithic assemblages are often not closely datable (HERDS Resource Assessment: Section 11.3.12). Settlement evidence of the middle and later parts of the period is also rare, but when found it is often extensive and unenclosed.
- 4.1.17 Burial mounds (barrows) are relatively numerous in the West Midlands and number around 900 if crop mark ring ditches, comprising around half of the identified sites, are included. However, known distribution is clustered around the fringes of the region with concentrations on the Warwickshire Avon; near Wolvey in north-east Warwickshire; and at the Trent-Tame confluence in Staffordshire (HERDS Resource Assessment: Section 11.3.12).
- 4.1.18 Burnt mounds are a common feature of the region (Hurst 2011), and are usually discovered close to watercourses. Possible examples are recorded in the vicinity of the evaluation area at Middleton Hall c.750m to the south-east (CWMo42), c.750m east of the evaluation area off Bourne Brook near Drayton Bassett (HER Ref: MST3781) and 1.5km to the west of the evaluation area at Canwell Hall Park (HER Ref: MST2078). Land associated with the water courses which cross the evaluation area have a high potential to reveal similar sites.

- 4.1.19 In the surrounding area other activity relating to this period is indicated by a Bronze Age cremation excavated at Hints Quarry, c.850m north-east of the evaluation area, a Middle Bronze Age Palstave (HER Ref: MWA112), c.670m south-east of the evaluation area at Middleton Hall; and potential Late Bronze Age field systems recorded c.250m east of the south of the evaluation area (CWMo44), near Middleton Hall and c.2.3km south-east of the evaluation area (CWMo34), at Lower Farm, Kingsbury

Iron Age (700BC – 43AD)

- 4.1.20 The Iron Age landscape of the wider area is characterised by evidence of more intensive farming than in previous periods as well as more visible settlement sites, some identified from aerial photography and some excavated during the construction of the M6 Toll to the west. The settlement sites vary in topographic location and form, comprising enclosed rectilinear and unenclosed examples, with other excavated features including pit alignments.
- 4.1.21 The ES tentatively identifies a number of sites within, or in close proximity to the evaluation area as potentially dating to the Iron Age, comprising:
- Toward the north of the evaluation area; LiDAR survey has defined the presence of a rectilinear enclosure (DHW166) situated immediately to the south of Roundhill Wood.
 - Toward the centre of the evaluation area; an area of cropmarks (DHW111) suggests the presence of a road/trackway and enclosures; and other possible features were identified nearby from geophysical survey results (CH-004-021: CNo38).
 - Toward the south of the evaluation area; an L-shaped recti-linear cropmark (DHW102) is identified near the Gallows Brook.
- 4.1.22 In the wider area potential Iron Age evidence comprises a field system (DHW112) identified from LiDAR survey c 50m west of the centre of the evaluation area. The field systems mentioned in section 2.2.23 at Middleton Park (CWMo44) and near Lower Farm, Kingsbury (CWMo34) may also date to this period.

Romano- British (AD43– 410)

- 4.1.23 The north of the evaluation area is located in the hinterland of the Roman marching camp and later town of Wall, c.7km to the west. The ES states that activity linked to Wall may have been widely distributed across the surrounding landscape; evidence recovered during M6 Toll archaeological investigations indicated declining levels of woodland and an increase in arable agriculture during the Romano-British period. Watling Street Roman road (DHW138) is located c200m to the north of the evaluation area and features identified as part of the A5 Weeford to Fazeley Improvement Scheme, between c. 1km north west to 450m north east, have been interpreted as evidence for Iron Age-Romano-British rural activity (DHW125, DHW139, DHW143, DHW146). The area straddling Watling Street has been examined by EWC North trial trenching

(1EW04-LMJ-EV-REP-NS06_NL16-022002) but did not reveal evidence indicating Romano-British activity.

- 4.1.24 There are no recorded Romano-British heritage assets within the evaluation area although available evidence suggests that it will have seen agricultural use and could contain remains of the dispersed small scale rural settlement which is characteristic of the period.
- 4.1.25 Fieldwalking and metal detecting in the immediate vicinity has produced a quantity of Roman artefacts, although the nature and intensity of activity remains unknown. These included pottery (MST18469 330m east, MST6141 430m east and MST6143 1.2km east), a figurine mount (EWA9221 c.500m south-west), coins (MST16624 900m east and MST16808 1.4km east), and brooches (MST16648 2km east and MST16785 2.2km east). A further 10 findspots (MWA10352, MWA20584, MWA20588, MWA20628, MWA20635, MWA20661, MWA20663, MWA20700, MWA20989, MWA21000) of metal detected artefacts recovered from fields near Middleton are known, seven from between c.200m to 500m to the east, two from between c.200m and 500m to the east and one from c.200m to south west. However, the precise nature and density of the artefacts is not described in HER records available for examination during preparation of the project plan.

Early Medieval/ Anglo- Saxon (AD410– 1066)

- 4.1.26 Archaeological evidence for early medieval activity is generally limited within the region, although a notable exception is the 7th to 9th century settlement overlooking the River Trent at Catholme, Staffordshire, c 10km north-northeast of the evaluation area. The ceramic record is sparse as pottery largely disappears from the archaeological record at the start of the period, only re-appearing in the mid Anglo-Saxon period. The scattered settlement characteristic of the later prehistoric and Roman periods is likely to have continued with nucleation into villages occurring during the latter part of the period, possibly under royal or ecclesiastical influence
- 4.1.27 The ES suggests that the early medieval landscape may have been dominated by regenerated woodland interspersed with dispersed settlement utilising a mixed agricultural economy. The Domesday Survey indicates that settlement had been established within this landscape prior to the Norman Conquest at Hints (DHW360), Drayton Bassett, Weeford (DHW137), Middleton (CWMo48), Wishaw and Curdworth.
- 4.1.28 Watling Street (DHW138) is situated c 200m to the north of the evaluation area. This Roman Road continued in use during the early medieval period and is believed to have formed the boundary of the Danelaw during the latter part of the period.
- 4.1.29 Further afield, Tamworth, c4km east, was an important Mercian royal vill by the 8th century while Lichfield, c7km to the north west, was a diocesan centre by that time.

Medieval (AD1066 – 1540)

- 4.1.30 During the medieval period the evaluation area lay within Sutton Chase, established in 1126 as a hunting reserve of the Earls of Warwick. The landscape is likely to have been one of dispersed settlement and hamlets within a wooded landscape, affected over time by piecemeal assarting with new tracts of land exploited for agricultural purposes.
- 4.1.31 The medieval period is well represented within the evaluation area; it contains parts of four deer parks comprising; Drayton (DHW105), Shirral (DHW106), Middleton (DHW148) and Bangley (DHW114), with associated boundaries marked by extant hedgerows (DHW149, DHW150, DHW151, DHW152). Agricultural activity is evidenced in the form of ridge-and-furrow (DHW118, DHW132, DHW104) and an extant field system (DHW116) at Brock Hurst woodland is located immediately to the west of the evaluation area. The land was probably managed from the surrounding villages of Hints (DHW360), Drayton Bassett, Weeford (DHW137), Middleton (CWM048), Wishaw and Curdworth. Settlement in this landscape was subject to external social and economic forces during the period and at Canwell, c 1.5km to the west there is evidence for a possible deserted settlement (MST2607).
- 4.1.32 The evaluation area contains parts of four deer parks comprising; Drayton (DHW105), Shirral (DHW106), Middleton (DHW148) and Bangley (DHW114), with associated boundaries marked by extant hedgerows (DHW149, DHW150, DHW151, DHW152).
- 4.1.33 The boundary associated with Middleton (DHW148), at the south of the evaluation area, forms both the parish boundary between Middleton and Drayton Basset and the county boundary between Warwickshire and Staffordshire along Gallows Brook. It is first recorded in 13th century documents and at that time was enclosed by a deerleap built by Philip Marmion.
- 4.1.34 Bangley park boundary (DHW152) forms the parish boundary between Hints and Drayton Basset. Bangley Park was first mentioned as a park in a late 15th century account in the roll for the manor of Drayton and disparked in the 18th century.
- 4.1.35 Shirral Park (DHW106) is mentioned in records in the late 14th, 15th and 16th centuries and was disparked in 1756. It was included in a late 15th century account roll for Drayton Manor, and was one of three parks and warrens recorded in the manor of Drayton in 1505.
- 4.1.36 There is documentary evidence for a deer park at Drayton (DHW105) from at least 1203 when the Earl of Warwick agreed Ralph Bassett could retain his enclosure (with a hedge) of the woods of Drayton as long as the deer were given to the earl as rent. It was disparked by the late 18th century
- 4.1.37 Another deer park is situated at Weeford Park (HER ref. MST4007) just to the north of the evaluation area. Documentary evidence suggests it was established by Ralph de Limesey in the late 13th century.

- 4.1.38 High status sites in the surrounding landscape comprise Greasley Hall (DHW120), dated to the late medieval period and demolished between the late 18th and early 19th century; a moated site (DHW136) at Weeford c 600m to the west of the evaluation area; and the site of a medieval hall at Hints (DHW193) just to the east.
- 4.1.39 The site of Hints Mill and Forge (DHW126) extends into the eastern side of the northern part of the evaluation area. The forge is thought to date from the 17th century and the mill from the 16th and was probably situated to the east of the evaluation area close to the Bourne/Black Brook. A series of ponds, associated earthworks and a leat associated with the mill survive just to the east of the evaluation area. The HSLs identifies an associated field name "Mill Field" (HSLs id 1100) immediately north of Hints Mill and Forge (DHW126) and within the evaluation area.
- 4.1.40 A further mill is located to the east of the northern section of the evaluation area near the Bourne/Black Brook (DHW121). This is the site of a water-powered hammer mill and forge with an associated pond dating to at least the early 17th century. Place name evidence recorded as part of the Historic Landscape Settlement DDBA has identified further potential mill sites to the east of the evaluation area along the Bourne/Black Brook (HSLs id 1098, 1099).

Post Medieval (AD1540 –1901)

- 4.1.41 The post-medieval period was characterised by processes of enclosure in rural landscapes and a shift from arable to pastoral agriculture in certain regions. The evaluation area contains a number of extant and former field boundaries (ES refs. COL004, COL021) identified from LiDAR data, which illustrate this process.
- 4.1.42 The wider landscape contains numerous post medieval heritage assets. Hints Hall Park (DHW193) is located c250m east of the northern section of the evaluation area with plantations surviving along its southern boundary. The Birmingham to Watford Gap Turnpike Road (HER ref. MST22405), bisects the centre of the evaluation area and illustrates the development of infrastructure during the later post-medieval period. A number of 19th century farmsteads surround the evaluation area including; Lower Bangley Farmhouse (DHW252), Hints Farm (DHW259), Great Bangley Farm (DHW260) and Drayton Lane End Farm (DHW262). Barn Cottage (DHW263) is located within the centre of the evaluation area.
- 4.1.43 Metalworking has a long history in the area, evidenced by forges to the west (DHW126) and east (DHW121) of Hints both dating to at least the 17th century and both located along the Bourne/Black Brook. The forge site (DHW126) extending into the north-east of the evaluation area survived into the post-Medieval period. The Victoria County History (VCH) records Hints forge as being charcoal-fuelled (although which one is unclear), and rated at 120 tons bar iron capacity per annum in 1592.
- 4.1.44 A slitting mill (DHW134) dating to the 17th and 18th centuries was located to the southeast of Weeford on the Bourne/Black Brook and may extend into the northern end of the evaluation

area. A slitting mill was a watermill for slitting bars of iron into rods. It was extant in the late 18th century and is associated with a pond and line of infilled leat. It has been postured that the slitting mill at Weeford operated in conjunction with the hammer mill and forge downstream at Hints. A smithy is also mapped to the north west of Weeford, indicating the importance of metalworking to the local economy along the Bourne/Black Brook in the post-Medieval period.

- 4.1.45 EWC North Historic Settlement Landscape Study (HSLs: 1EW04-LMJ-EV-REP-N000-029001) has characterised the post-medieval landscape of the evaluation area as enclosed field and woodland, punctuated by dispersed farmsteads and containing areas of localised industry including metalworking and mills.

Modern (1901 – present)

- 4.1.46 The majority of the evaluation area has remained in agricultural use and several early 20th century farmsteads are situated within it. At the west of the central section of the evaluation area lies White Owl Farm (DHW247) and Rookery Farm (DHW248). Within the east of the central part of the evaluation area is Fordway Farm (DHW251), Woodside Farm (DHW253), a farm at Bagley Lane (DHW255), Holt Farm (DHW249) and Mill Farm (DHW256).

4.2 Previous Investigations

- 4.2.1 Table 1 lists the archaeological investigations that have been carried out at the site to date with key outcomes:

Table 1: Previous investigations at the evaluation area

Description	Summary of results
LiDAR and Hyperspectral data carried out as part of the ES (CH-004-010).	The LiDAR survey which took place over the evaluation area identified one small area of remnant ridge-and-furrow (WA.21.25) and several features along the Bourne/Black Brook which may represent ponds and associated leats (WA.21.28).
Geophysical Survey completed as part of the ES (CH-004-021). (C253-ATK-EVREP-030-000580)	<p>The geophysical survey was undertaken over the centre and north of the evaluation area (WSI-CFA21-001). The area contains a linear positive anomaly, as well as a number of circular and sub-oval anomalies representing possible pits; Adjacent to Gallows Brook are further sub-oval anomalies as well as a linear positive anomaly (WSI-CFA21-002).</p> <p>A small number of anomalies of possible archaeological interest were identified, including a series of oval shaped positive anomalies which may be discrete pits (WSI-CFA21-003). Several anomalies of possible archaeological interest were recorded; linear trends (4000) located along the northern boundary of Shirral Park deer park, as well as several linear agricultural ploughing trends. A positive circular anomaly (4001) which may represent a semi-circular ditch, ceramic field drains (4002), areas of possible debris based on magnetic responses (4003, 4004) and two elongated oval shaped anomalies (4006) were also discovered (WSI-CFA21-004). A former field boundary, several linear and curvilinear trends and oval possible pit-type anomalies were also found.</p>
Geophysical Survey completed 2014/2015 after the publication of the ES (C253-ATKEV-REP-030-000581)	The geophysical survey (WSI-CFA20-008) which took place over the south of the evaluation area identified several anomalies of possible archaeological interest, including two circular positive anomalies (4000 & 4001). An irregular shaped area of

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Description	Summary of results
	increased magnetic response possibly debris (4002) and small oval positive anomalies (4003 & 4004) were also recorded. The remaining identified anomalies are positive linear, rectilinear and curvilinear trends (4005-4011, 4016-4017).
Geophysical Survey completed as part of Area 8: Middleton Pool Cutting to Swinfen Cutting (1EW04-LMJ-EV-REPNS05_NL14-029002)	The geophysical survey identified some anomalies of possible archaeological interest, including linear trends, a few field boundary ditches and a small number of isolated pits.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Middleton – Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL14-022008)	Trial trenching was undertaken in June 2017 at a parcel of land located in the south of the evaluation area near Middleton. Eight trenches were excavated but no archaeological features were identified other than field drains and plough marks. The historic use of the site for arable cultivation is likely to have affected any archaeological remains that may have been present.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Hints Cutting - Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL15-022010)	Trial trenching was undertaken between January and February 2018 at a parcel of land located within the north-west of the evaluation area. 21 trenches targeted potential archaeological features tentatively identified from results of geophysical survey while 17 were randomly positioned. No archaeological features were present in any of the trenches.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Drayton Lane, Staffordshire – Report: Trial Trenching (1EW04-LMJ-EV-REPNS05_NL14-022009)	Trial trenching was undertaken in July 2017 at a parcel of land located within the centre of the evaluation area. 14 trenches targeted potential archaeological features tentatively identified from results of geophysical survey while 17 were randomly positioned. No archaeological features other than a field drain were identified. A small assemblage of post-medieval and modern finds was recovered from the topsoil. Due to the historic use of the site for arable cultivation it is likely any archaeological remains have been adversely affected by ploughing.
Historic Settlement Landscape Study carried out as part of the HS2 Phase One Enabling Works based upon the Detailed Desk Based Assessment for Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001)	A route-wide historic settlement study was undertaken to examine the later medieval and post-medieval landscape. Assets identified within the evaluation area comprise; field names referring to barns (id 1087), a field name indicating a Hop Yard (id 1093) and three field names (id 1099, 1089 and 1100) associated with mills.

5 Methodology

5.1 Introduction

- 5.1.1 All works will be undertaken in accordance with detailed methods set out in this LS-WSI.
- 5.1.2 The evaluation will comprise the excavation, investigation and recording of 422 trenches (Figures 1 - 4, Appendix 2), of which an initial 180 trenches; 50m long and 2m wide in the southern section of the Drayton Bassett evaluation area will be opened due to access permissions. The targeted trenches are required to identify the presence, nature, date, extent, survival and significance of

known or potential heritage assets which may be affected by the proposed scheme, in order to inform, if required, an appropriate mitigation strategy aimed at reducing or removing any adverse effects. A 4% contingency by area will enable, if necessary, further investigation of targeted archaeology, characterisation of discoveries of previously unknown archaeology and, with the agreement of HS2, mitigation of archaeology which contributes to HERDS Specific Objectives where initial investigation has shown that it is of limited complexity and extent. All trenching will be assigned a unique ID in accordance with the Employer's Asset Information Management Systems (AIMS).

- 5.1.3 All works will be carried out in accordance with current industry best practice and guidance (ClfA 2014a-c) and in line with the standards set out by HS2 in the HS2 Technical Standard – Specifications for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035).

5.2 Site walkover inspection

- 5.2.1 The site walkover inspection will comprise visual inspection, with associated notes and photography, to identify and provide further information on heritage assets that are visible above ground, as earthworks and structures. The notes will include a description of the nature of possible heritage assets identified, their dimensions and condition, and an interpretation based on background information and professional opinion. The location and extent of any assets would be sketched at an appropriate scale (eg 1:2500 scale), the location noted via a Global Positioning System (generally accurate to around 3.0–5.0m), with adequate photography (at least two images of each asset). The inspection will include general photographs across the site.
- 5.2.2 Site walkover inspection, where feasible will identify finds groups within ploughed fields (depending on site conditions) which in turn could inform the targeting of subsequent (contingency) trial trenching across the site. The finds would not be collected but the location will be recorded.
- 5.2.3 Photograph location view directions will be annotated in the field on Ordnance Survey Master Map. This site visit 'photo map' will note:
- Who has undertaken the visit and date;
 - Areas not accessed and why, and other limitations and constraints (eg fenced off, overgrown vegetation, light and weather conditions;
 - areas of ground disturbance where archaeological survival may be compromised by visible evidence of ground reduction / terracing / quarrying, and where the ground has been likely built up in recent times (potentially burying remains);
 - presence of mature hedgerows that may be protected under the Hedgerow Regulations, and mature woodland; and

- non-archaeological constraints to further investigation (eg overhead powerlines, livestock, fly tipping, restricted site access etc).

5.3 Pre-trenching walkover

- 5.3.1 A pre-trenching walkover has been carried out by appropriately qualified members of the archaeological team to identify preferred compound locations, access points, the suitability of the proposed trench locations, and potential environmental and health and safety issues.
- 5.3.2 During further pre-trenching survey, the proposed trench locations will be verified on the ground in consultation with utilities and service plans provided by HS2. The trench locations will be subject to an initial Cable Avoidance Tool (CAT) scan carried out by a suitably qualified individual in order to verify the presence or absence of any live underground utilities or services in advance of fieldwork commencement.

5.4 Setting out of the trenches

- 5.4.1 The corner points of each trench will be set out to a horizontal accuracy of $\pm 0.05\text{m}$ using a Real Time Kinematic (RTK) Global Navigation Satellite System (GNSS) in accordance with The Ordnance Survey National Grid and Ordnance Survey Newlyn Datum (ODN), as defined by the OS Active GNSS network and the use of a Virtual Reference System.
- 5.4.2 A minimum of three Permanent Ground Markers (PGM) shall be created using this system for each trench or group of geographically related trenches.
- 5.4.3 Surface heights shall be recorded using RTK GNSS and related to PGMs. Ordnance Survey Bench Marks (OSBM) are not to be used.
- 5.4.4 The location of the trial trenches may be adjusted (Figs. 1 and 2) to avoid overhead utilities (visible on Google Earth Map) and below ground utilities (maps supplied by Cadent via Linesearch) and other currently unknown services. However, final location of the trenches will be confirmed in consultation with the utility and service plans provided by the Contractor and HS2.

5.5 Excavation Methods

- 5.5.1 Excavation will be undertaken using a mechanical excavator fitted with a toothless ditching bucket and under the direct supervision of a suitably qualified and experienced archaeologist.
- 5.5.2 Machine excavation will proceed in level spits of approximately 50 to 200mm until either the archaeological horizon or the natural geology is exposed. Where necessary, the base of the trench/surface of archaeological deposits will be cleaned by hand.
- 5.5.3 Machine excavation will comply with the Employer's Technical Standard - Route wide soil resources plan (HS2-HS2-EV-STD-000-000008).

- 5.5.4 Excavated materials will be stored in accordance with the Work Package Environmental Management Plan (1EW04-LMJ-EV-PLN-N000-000022).
- 5.5.5 A sample of the archaeological features and deposits identified will be hand-excavated, sufficient to address the aims of the evaluation. Spoil derived from both machine stripping and hand-excavation will be visually scanned for the purposes of finds retrieval, and where appropriate will also be metal-detected by trained archaeologists. Artefacts and other finds will be collected and bagged by context.
- 5.5.6 Structures, features, or finds that might reasonably be considered to merit preservation in-situ shall not be unduly damaged.
- 5.5.7 Where complex archaeological stratification is encountered, deposits will be left in situ and alternative measures, to be agreed with DJV, the Contractor and the Employer, will be taken to assess, as far as is practicable, their depth, recover suitable stratigraphic information, finds and environmental samples. Where modern features are seen to truncate the archaeological stratification, these may be removed, where practicable, in a manner that does not damage the surrounding deposits in order to enable the depth of stratification to be assessed.
- 5.5.8 If human remains are uncovered, the specific methods outlined below (section 5.9) will be followed.
- 5.5.9 In order to protect any waterlogged remains during the works, there may be a requirement for trial excavations to be allowed to refill with water overnight. In such cases, hazards to staff or 3rd parties will be minimised.

5.6 Recording

- 5.6.1 All exposed archaeological deposits and features will be recorded using a pro forma recording system.
- 5.6.2 A complete drawn record of excavated archaeological features and deposits will be made. This will include plans and sections, drawn to appropriate scales (generally 1:20 or 1:50 for plans, 1:10 for sections) and tied to the OS National Grid. The ODN heights of all principal features will be calculated (as defined by OSGM15 and OSTN15) and the levels added to the drawings.
- 5.6.3 The locations of the PGM bench markers used and any site Temporary Bench Mark (TBM) used for the evaluation shall also be indicated.
- 5.6.4 The stratigraphy of all trial trenches will be recorded (even where no archaeological deposits are identified), by means of a representative section for each trench.
- 5.6.5 A 'Harris matrix' stratification diagram shall be employed to record stratigraphic relationships (Harris et al. 1993), where appropriate. This record shall be compiled and fully checked during the

course of the excavations. Spot dating, where appropriate, shall be incorporated onto this diagram during the course of excavations.

- 5.6.6 Recording of structural evidence revealed below ground level will vary according to the level of special interest of the structure and its relationship to archaeological remains. Structures of little or no significance shall be noted on a site plan. Detailed drawings of important features revealed in investigations may be required in accordance with the aims and objectives of the investigation as defined in the Project Plan.
- 5.6.7 All hand drawn information shall be digitised and final deliverables will be supplied in an Esri format and adhere to standards set out in the Cultural Heritage GIS Standard (HS2-HS2- GISPE-000-000004). Single context planning shall be used where complex stratigraphy is encountered.
- 5.6.8 A full photographic record will be made using digital cameras equipped with an image sensor of not less than 10 megapixels in high resolution TIFF (uncompressed) format. This will record both the detail and the general context of the principal features and the site as a whole. Digital images will be subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set. Photographs will also be taken of all areas, including access routes, to provide a record of conditions prior to and on completion of the evaluation.

5.7 Reinstatement

- 5.7.1 All trenches will be backfilled using excavated materials in reverse order from that in which they were excavated and left level on completion. The trenches shall be pumped dry, if required, following Contractor's 'permit to pump' procedure and Wessex Archaeology Environmental Policy. Any necessary protection measures for archaeological remains (in addition to those for below ground infrastructure, services or utilities) shall be completed prior to backfilling. Generally, all backfill material shall consist of non-toxic, uncontaminated, non- putrescible, natural and inert material which shall be compacted and (if necessary) tested (dynamic compaction test or other).

5.8 Finds

- 5.8.1 All archaeological finds from excavated contexts will be retained, although those from features of modern date (19th century or later) may be recorded on site and not retained, depending on the site-specific objectives. Where appropriate, soil samples may be taken and sieved to aid in finds recovery. Any finds requiring conservation or specific storage conditions will be dealt with immediately in line with First Aid for Finds (Watkinson and Neal 1998).

5.9 Human Remains

- 5.9.1 If unexpected human remains are identified, all work must be undertaken in accordance with the Human remains and monuments procedure (HS2-HS2-EV-PRO-0000-000008) and the Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035).
- 5.9.2 Wessex Archaeology will notify DJV and LM-JV immediately upon discovery of unexpected human remains. DJV shall notify HS2, so that the human remains procedures can be implemented. DJVs notification to HS2 may initially be made personally or by telephone but shall be confirmed in writing (email will suffice) within 24 hours of discovery.
- 5.9.3 After notification to DJV Wessex Archaeology will cease all works on unexpected human remains until further instruction is provided by DJV.
- 5.9.4 Wessex Archaeology will complete any exhumation of human remains in accordance with the requirements of their recognised osteoarchaeologist Jacqueline McKinley. In some circumstances DJV may consult Historic England and other stakeholders for input to exhumation and sampling strategy.
- 5.9.5 Human remains, once recognised, will be metal-detected immediately to determine whether any metallic grave goods are present. If possible grave goods and other obvious artefacts shall be recorded and lifted on the day of discovery to avoid the risk of vandalism and theft. Where this is not feasible or appropriate, Wessex Archaeology shall ensure, on liaison with the Contractor, that adequate site security is provided. As a minimum, this will require a 24-hour comprehensive security regime until sensitive remains have been recorded and lifted. This is a particular issue for rural sites and 'isolated burials'.
- 5.9.6 Human remains will be accorded due dignity, care and respect at all times. Wessex Archaeology may need to screen the remains, dependent on their location.

5.10 Treasure

- 5.10.1 The Contractor will be notified immediately on discovery of any material covered, or potentially covered, by the Treasure Act 1996 (as amended by The Coroners and Justice Act (2009) All information required by the Treasure Act (ie, finder, location, material, date, associated items etc.) will be reported to the Coroner within 14 days.

5.11 Environmental Sampling

- 5.11.1 In line with the HS2 Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) an initial sampling strategy is set out below. This strategy is based on the existing information about the evaluation area, gathered from non-intrusive surveys and the HERDS Objectives listed in Section 3 above.

- 5.11.2 The sampling strategy, along with the HERDS Objectives outlined in Section 3 identify the key elements that should, where present, be sampled during this evaluation. However, the strategy will need to be reviewed throughout the on-site work, and where unexpected features or deposits are identified, revised accordingly to take these into account.
- 5.11.3 The purpose of sampling at the evaluation stage is to identify the range of environmental materials present, their preservation, significance and distribution.
- 5.11.4 Sampling will therefore target the following, where present, as a minimum:
- Archaeological features (buildings, ditches, pits, gullies, postholes) associated with an enclosure (DHW166) of potential Iron Age date, with possible earlier phases of activity, from different features spread across concentrated areas of settlement activity (to assess the concentration, distribution and survival of Iron Age palaeoenvironmental material);
 - Archaeological features (buildings, ditches, pits, gullies, postholes) associated with medieval settlement at Hints and Middleton, medieval deer parks (DHW105, DHW106, DHW114, DHW148), from well-preserved hedgerow boundaries associated with the parks, ditches, potential deer leaps and different features spread across concentrated areas of manorial agricultural activity (to assess the concentration, distribution and survival of medieval palaeoenvironmental material);
 - Archaeological features (buildings, ditches, pits, gullies, postholes) associated with medieval (DHW126) and post-medieval mills (DHW134) with associated leats and ponds (to assess the concentration, distribution and survival of medieval and post-medieval palaeoenvironmental material);
 - All samples will be screened for the presence of hammerscale and other indicators of industrial processes, particularly in the area of possible burning. Where significant concentrations are identified, this information should be fed-back to the field team, so that where necessary, further samples can be taken to help to define any areas of metalworking, or other industrial processes;
 - Floor surfaces where they survive and have not been truncated.;
 - Deposits representing the main phases of activity (to assess whether there are changes in rates of deposition, or material survival over time);
- 5.11.5 Sampling will not only just target charcoal-rich or wet deposits, but be undertaken on those features outlined above, taking into account advice from the Wessex Archaeology's environmental archaeologist. This will ensure that samples are recovered from a representative range of contexts, which adequately characterise past activities on site, and allows an assessment to be made of the extent to which they help address palaeoenvironmental and palaeoeconomic questions.

- 5.11.6 It is possible that unexpected deposits or features will be identified during the evaluation within the areas where non-intrusive survey has not revealed any evidence. As these are not covered in the initial sampling strategy above, the need for sampling will be assessed in terms of the specific objectives (both those in Table 2 of the Project Plan as well as the remaining HERDS objectives), the sampling strategy updated, and the features sampled accordingly.
- 5.11.7 All samples will be taken to address a specific question. The purpose of the sample, and the question it has been taken to address will be recorded on Wessex Archaeology's sample record sheet.
- 5.11.8 Samples will be taken using ten litre plastic buckets (with lids and handles), or strong polythene bags (double bagged) secured at the neck, for the recovery of bulk 'disturbed' environmental samples. Labelling will follow guidance set out in the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035).
- 5.11.9 For non-waterlogged deposits bulk samples will normally be taken in the range of 40-60 litres. Where contexts have a volume of less than that stated above then 100% of the context will be sampled. Each bulk sample will only contain sediment derived from a single context. Where waterlogged deposits are encountered, samples sizes will usually be in the range of 10-20 litres, which is suitable for the recovery of macrofossils from these contexts. Samples shall be protected at all times from temperatures below 5°C and above 25°C and from wetting and drying out due to weather exposure.
- 5.11.10 Where house floors or other buried land-surfaces are encountered and these are sampled, appropriately sized monolith or kubiena boxes will be used for the recovery of 'undisturbed' monolith samples for soil micromorphology and to sub-sample for microfossils (e.g. pollen and spores, diatoms, ostracods). Where longer sequences are sampled, contiguous column samples will be collected for the retrieval of macrofossils (e.g. molluscs, plant remains and insects). Further guidance on specialist samples is provided in the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035 - sections 4.21.22-26).
- 5.11.11 Processing of all bulk soil samples collected for biological assessment should be completed within two weeks of collection. Processing samples at the time of fieldwork will allow this sampling strategy to be updated and refined where necessary. The preservation state, density and significance of material retrieved shall be assessed by the Wessex Archaeology's recognised specialist. Special consideration shall be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the site environment.
- 5.11.12 Wessex Archaeology are responsible for the protection of all samples and finds and for their transport (including loading and unloading) to the processing facilities or other location as agreed with the Employer.

6 Reporting

- 6.1.1 Wessex Archaeology will produce an interim report, very briefly summarising findings of the evaluation, within five working days of the completion of fieldwork.
- 6.1.2 Wessex Archaeology will produce a fully illustrated final report for the field evaluation, within 25 working days of the completion of fieldwork, with the following structure:
- Executive Summary;
 - Introduction, including site location and project background, aims, and project background, aims, and GWSI: HERDS Specific Objectives (as identified in this Project Plan);
 - Baseline summary, including topography and geology, designated assets; archaeological potential and previous work(s) relevant to the archaeology of the site (e.g. DDBA, previous surveys);
 - Detailed Scope and Methodology, to include dates of fieldwork, the areas investigated at each stage and the rationale in relation to the Specific Objectives;
 - Results and observations, along with the following supporting sections:
 - Trial trench evaluations
 - Stratigraphic report
 - Finds report
 - Environmental evidence report
 - Interpretation of results against original expectations and HERDS Specific Objectives
 - Conclusions
 - Statement of findings, and summary of significance
 - Assessment of achievement (or not) of the Specific Objectives
 - Recommendations and research aims for further investigation (if required), publication and dissemination proposals, including archive deposition;
 - References to all primary and secondary sources consulted; and
 - Appendices should include illustrations, contextual summary by trench, finds reports, environmental reports, site matrices (where appropriate) and full definitions of the interpretation terms used in the report.

6.1.3 The following figures will be included in the trial trenching report:

- General plan (mandatory);
- Engineering design (mandatory);
- Site location;
- Survey extents;
- Trial trench locations;
- Survey to include plans and sections of archaeological features, deposits and sequences; and
- Selected photographs or representative and/or significant features and finds.

6.1.4 If Wessex Archaeology foresees a requirement for extension to completion of either stage of reporting they will immediately notify DJV so that extension can be discussed with HS2.

6.1.5 GIS deliverables will be provided in accordance with the Cultural Heritage GIS Specification (HS2-HS2-GI-SPR-000-000004) while all data supplied shall adhere to HS2 Ltd data standards (HS2-HS2-GI-STD-000-00007).

6.1.6 An online access to the index of archaeological investigations (OASIS) form shall be completed for each event. Electronic copies of the form will only be uploaded upon the written instruction of HS2 Ltd.

7 Archive, Storage and Curation

7.1 Museum

7.1.1 It is recommended that the project archive resulting from the evaluation be deposited with the Potteries Museum in Staffordshire and/or Warwick Museum. Provision has been made for the cost of long-term storage in the post- fieldwork costs. The museum will receive notification of the project prior to fieldwork commencing, and an accession number will be obtained.

7.2 Transfer of Title

7.2.1 On completion of the evaluation (or extended fieldwork programme), every effort will be made to persuade the legal owner of any finds recovered (ie, the landowner), with the exception of human remains and any objects covered by the Treasure Act 1996 (as amended by the Coroners and Justice Act 2009), to transfer their ownership to the museum in a written agreement.

7.3 Preparation of Archive

- 7.3.1 The complete project archive, which may include paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the Potteries Museum in Staffordshire and/or Warwick Museum, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011; ADS 2013). The archive will usually be deposited within one year of the completion of the project, with the agreement of the Contractor.

7.4 Selection Policy

- 7.4.1 The complete project archive, which may include paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the Potteries Museum in Staffordshire and/or Warwick Museum, and in general following nationally recommended guidelines (SMA 1995; ClfA 2014c; Brown 2011; ADS 2013). The archive will usually be deposited within one year of the completion of the project, with the agreement of the Contractor.

7.5 Security Copy

- 7.5.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

7.6 Outreach and Social Media

- 7.6.1 Where possible, and in consultation with DJV, the Contractor and the Employer, Wessex Archaeology will seek opportunities to disseminate the results of the evaluation and engage with the local community through social media, press releases, open days and volunteer involvement, while taking into account issues such as Health & Safety, confidentiality and vandalism.

8 Health, Safety and Environment

- 8.1.1 Health and safety consideration will be of paramount importance in conducting all fieldwork. Safe working practices will override archaeological considerations at all times. Wessex Archaeology will supply trained, competent and suitably qualified staff to perform the tasks and operate the equipment used on site.
- 8.1.2 Wessex Archaeology will undertake the work in accordance with the health and Safety at Work Act 1974 and the Management of Health and Safety at Work Regulations 1999 as well as in

accordance with the Employer's health and safety requirements and with any site-specific health and safety requirements.

- 8.1.3 Wessex Archaeology will be responsible for the implementation of, adherence to and reporting of health and safety during the trial trenching.
- 8.1.4 A draft site-specific Risk Assessment and Method Statement (RAMS) for the trial trenching has been produced and is included as Appendix 3.
- 8.1.5 All work on site is to be carried out in accordance with the procedures set out in the RAMS.
- 8.1.6 All staff deployed onto site are to be fully inducted by the Employer and will have read and signed the RAMS before commencing work.
- 8.1.7 Wessex Archaeology have still to be made aware by the Contractor of any ecological constraints on the site.
- 8.1.8 The current land use of the site was assessed during the site walkover survey.
- 8.1.9 There will be no working under extant tree canopies or in the proximity of tree canopies to avoid potentially cutting through roots as this may have safety implications. There will be no tracking over areas of potential tree roots. Trenches will be micro-sited or not excavated accordingly.
- 8.1.10 All attempts will be made to limit damage to crops with the Employer responsible for compensation for any loss incurred.
- 8.1.11 The red line site boundary will be clearly marked so that staff and subcontractors can work within it. No area outside the red line boundary will be surveyed unless specifically authorised by the Employer.

9 Programme

- 9.1.1 The proposed programme of works (422 trenches) is set out below:

Activity	Start Date	End Date
Site walkover inspection	24 th January 2019	24 th January 2019
Pre-trenching walkover	24 th January 2019	24 th January 2019
Trenching	4 th March 2019	21 st June 2019
Post-ex analysis and Reporting	24 th June 2019	TBC
Archiving	TBC	TBC

10 Site specific details

10.1 Access and Welfare

- 10.1.1 Access will be provided by HS2 and the Contractor. Landowner liaison by the Wessex Archaeology is likely to be minimal.
- 10.1.2 However, should negotiation and interaction with the owners of adjacent land parcels be required this will be undertaken by senior and experienced members of the Wessex Archaeology's field team, supported by senior management.
- 10.1.3 Communication and engagement with third parties will use the Employer's communication protocols set out in the Employer's and/or Contractor's Community Relations Strategy.
- 10.1.4 Wessex Archaeology has divided the initial trenching into five parcels for the purpose of access and discussed access points with the Contractor. Compound A will serve the southern section of the site and is located off Church Lane, Middleton, B78 2AJ. Compound B will serve the northern section of the site and is located off Drayton Lane, Drayton Bassett, B78 3EF. Additional compounds will be established as required in liaison with the Contractor.

10.2 Safety and Security

- 10.2.1 Vehicles will be parked in designated locations only.
- 10.2.2 No tools or equipment will be left on site overnight.
- 10.2.3 Procedures to be followed if members of the public are outlined within the RAMS (Appendix 3).
- 10.2.4 No lone working is permitted.
- 10.2.5 Overnight and weekend security patrols will be provided at the site compounds.

10.3 Accommodation

- 10.3.1 Where required, accommodation will be provided as close to the site as possible to reduce environmental impact and driver fatigue.

10.4 Insurance

- 10.4.1 Both public liability (£10,000,000) and professional indemnity insurance (£5,000,000) are held by Wessex Archaeology.

11 Quality Assurance Process

- 11.1.1 The Archaeological Contractor will liaise with DJV regarding the works programme and quality assurance of the archaeological works. In the event of potential delays to programme, the Archaeological Contractor will issue an Early Warning Notice (EWN) via CEMAR following internal approval by the Archaeological Contractor's Project Director.
- 11.1.2 The Archaeological Contractor will have direct communication with LM on contractual matters and non-archaeological quality assurance; DJV will be informed of any EWNs raised in the course of the works.
- 11.1.3 The works will be overseen and internally quality-assessed by the Archaeological Contractor's senior management and will be directed by the Archaeological Contractor's Project Director.
- 11.1.4 All parties will follow HS2 protocols for Intra- and Inter-project communication, which will consist of the following format:
- Weekly progress meetings will be held to discuss the progress of on-site works, forecasting of the works programme and to highlight any potential EWNs; and
 - Matters arising from progress meetings will be discussed and meeting minutes will be forwarded to all parties (Archaeological Contractor, DJV, LM).
- 11.1.5 The following interfaces are anticipated on the basis of current information:
- The Employer (HS2);
 - The Contractor (LM-JV)
 - The Archaeological Consultant (DJV);
 - Third party stakeholders via DJV;
 - HS2 via DJV; and
 - Other contractors working on separate parts of the evaluation area.
- 11.1.6 Following completion of work, parts of the evaluation area will be formally signed off by DJV and HS2. Formal sign off will be through a written process utilising a fieldwork sign-off sheet submitted by the Archaeological Contractor to DJV. DJV will review and, subsequent to any required revision, will submit the sign off sheet to HS2 for final approval.
- 11.1.7 The Archaeological Contractor will submit a draft of all reports to Asite for review. DJV will provide internal feedback and may require that the Archaeological Contractor amends documentation before acceptance. The Archaeological Contractor will upload PDF's of accepted

documents to Asite for issue to HS2. HS2 may provide feedback and require amendment to submitted documents before they are approved.

12 Resourcing requirements and budget

12.1.1 The following resourcing requirements and costs are required to undertake the work on the 422 trenches: More detailed information has been provided in a pricing schedule.

Activity	Cost
LS WSI (WSI), Site Specific RAMS	£1,940
Site Walkovers	£1,990
Welfare units at compounds (x4) for sixteen weeks including haulage	£22,960
Track matting for compound area (x4) for sixteen weeks including installation, hire, dismantling	£27,580
Heras fencing and pedestrian barriers for compound areas (x4) for sixteen weeks, including delivery, hire and collection	£2,992
Site security for two compounds over ten weeks	£35,600
Bog Matting to traverse utilities (x 3 sets) for ten weeks	£9,990
Netlon 50 x 50 m rolls and pins	£2,500
Fieldwork - 422 No. 50 m trenches @ £900 per trench including plant, management and staff supervision	£379,800
Reporting (including weekly updates, Interim and Evaluation reports)	£37,830
Contingency fieldwork (4% Contingency – @ £900 per 50m trench/ £9 per m2) including plant, management, and staff supervision	£900 per 50 m trench/ £9 per m2
Contingency reporting	TBC on fieldwork completion at framework rates
Contingency bog matting for crossing point over buried utilities (including hire/ haulage/ installation and dismantling of x 1 set of bog mats for 8 weeks, including plant and staff time)	£2,995 each

13 References and Glossary

13.1 References

ADS 2013 Caring for Digital Data in Archaeology: a guide to good practice. Archaeology Data Service & Digital Antiquity Guides to Good Practice

Brown, D H 2011 Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (revised edition). Archaeological Archives Forum

Chartered Institute for Archaeologists (CIfA) 2014a Standard and Guidance for Archaeological Field Evaluation. Reading, CIfA

CIfA 2014b Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Reading, CIfA

CIfA 2014c Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives. Reading, CIfA

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

Historic England 2015 Management of Research Projects in the Historic Environment: the MoRPHE project managers' guide. Swindon, Historic England

McKinley, J I 2013 Cremation: excavation, analysis and interpretation of material from cremation related contexts, in S Tarlow and L Nilsson Stutz (eds) The Oxford Handbook of the Archaeology of Death and Burial. Oxford University Press 147–71

McKinley, J I and Roberts, C 1993 CIfA Technical Paper 13 Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains

SMA 1995 Towards an Accessible Archaeological Archive. Society of Museum Archaeologists

Watkinson, D and Neal, V 1998 First Aid for Finds: practical guide for archaeologists. United Kingdom Institute for Conservation of Historic & Artistic Works

Document no.: 1EW04-LMJ-EV-MST-NS05_NL14-029001

Revision: C02

Reference	HS2 document reference no.
HS2 Technical Standard Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)	HS2-HS2-EV-STR-000-000015
HS2 Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
HS2 Geographic Information System Standards	HS2-HS2-GI-STD-000-000002
HS2 Unexploded Ordnance Desk Study	0615-ET-GT-REP-000-000001
HS2 WP 029(B) Historic Environment Works – Drayton Bassett – Project Plan for Trial Trenching – Enabling Works North	1EW04-EV-PLN-NS05_NL14-029002
HS2 CFA20 ES Reports: Curdworth to Middleton	Volume 5 appendix: CH-001-020, ES 3.5.2.20.4; CH-002-020, ES 3.5.2.20.5; CH-003-020, ES 3.5.2.20.6; CH-004-020, ES 3.5.2.20.7
HS2 CFA21 ES Reports: Drayton Bassett, Hints and Weeford	Volume 5 appendix: CH-001-021, ES 3.5.2.21.4; CH-002-021, ES 3.5.2.21.5; CH-003-021, ES 3.5.2.21.6; CH-004-021, ES 3.5.2.21.7
Geoarchaeological Desk Based Assessment (GDBA)	1D037-EDP-EV-REP-000-000031
Geoarchaeological Investigations Stage A: Updated Deposit Model	1EW04-LMJ-EV-REP-N000-029003
Report: Detailed Desk Based Assessment at Hints Cutting	1D037-EDP-EV-REP-N000-000006
Report: Detailed Desk Based Assessment of Middleton Park	1D037-EDP-EV-REP-N000-000008
Report: Trial Trenching Middleton	1EW04-LMJ-EV-REP-NS05_NL14-022008
Report for Trial Trenching Drayton Lane, Staffordshire	1EW04-LMJ-EV-REP-NS05_NL14-022009
Report: Trial Trenching Hints Cutting	1EW04-LMJ-EV-REP-NS05_NL15-022010
Geophysical Survey Results, Warwickshire	(C253-ATK-EV-REP-030-000581)
Project Plan for Detailed Desk-Based Assessment: Historic Settlement Landscape	1EW04-LMJ-EV-PLN-N000-029008
Detailed Desk Based Assessment for Historic Settlement Landscape Study	1EW04-LMJ-EV-REP-N000-029001
Richmond, A. (2017) Barton Quarry Western Extension Environmental Impact Assessment: Archaeology. Phoenix Consulting Archaeology unpublished report.	N/A

Document no.: 1EW04-LMJ-EV-MST-NS05_NL14-029001

Revision: C02

13.2 Acronyms

Acronym	Title
CIfA	Chartered Institute for Archaeologists
EH	English Heritage (now Historic England)
ES	Environmental Statement
GIS	Geographic Information System
GPS	Global Positioning System
HE	Historic England (formerly English Heritage)
HER	Historic Environment Record
HS2	High Speed 2
LPA	Local Planning Authority
OASIS	Online Access to the Index of Archaeological Investigations
RTK	Real Time Kinematic
WSI	Written Scheme of Investigation

14 Appendices

Appendix 1: Project Plan

WP 029(B) Historic Environment Works – Drayton Bassett – Enabling Works North Contract

Project Plan for Trial Trenching

Document Number: 1EW04-EV-PLN-NS05_NL14-029002

Revision	Author	Checked by	Approved by	Date	Reason for revision
Co1	Liam Edge DJV	Klara Spandl DJV	Alastair Hancock DJV	18-12-2018	Issued for acceptance
Co2	Molly Clyne DJV	Debbie Taylor DJV	Alastair Hancock DJV	01-03-2019	Issued for acceptance
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1 Executive Summary

- 1.1.1 This High Speed 2 (HS2) North Section Phase One 'Project Plan' details the methodology and approach for trial trenching at part of the HS2 route located west of Drayton Bassett, southern Staffordshire/northern Warwickshire. The evaluation area is 6.3km long and is situated between Church Lane (HS2 Chainage 171550) in the south-east and the Black Brook (HS2 Chainage 177750) in the north-west. It comprises c.228ha of land required as part of the construction land requirements for the enabling works and subsequent main works. These works will entail ground disturbance, which may have an impact on the historic environment (i.e. known or possible buried heritage assets/archaeological remains and above ground heritage assets/structures of historic interest).
- 1.1.2 Trial trenching is required to examine the presence, nature, date, extent, survival and significance of any heritage assets, which may be affected by the enabling works for HS2 Phase One and by accessible areas of open land. The enabling and mains works will entail ground disturbance which may have an impact on the historic environment (i.e. known or possible buried heritage assets/archaeological remains and above ground heritage assets/structures of historic interest) within the evaluation area. Certain extents of the land required for construction will be subject to limited ground disturbance or have previously been investigated and therefore have not been included within the "evaluation area". This includes the linear 'arms' of the land potentially required during construction, associated with National Grid works and visible to the west, north-east and south of the evaluation area.
- 1.1.3 Works within this Project Plan are permitted by the High Speed Rail (London-West Midlands) Act (the Act), which provides powers for the construction and operation of HS2 Phase One, and the Heritage Memorandum, which sets out how historic environment (including heritage assets and their setting) will be addressed during the design and construction of HS2 Phase One.
- 1.1.4 This Project Plan uses results of previous investigations to define the trial trenching strategy and, where appropriate, the targeting of trial trenches. The previous investigations include research carried out as part of the 2013 Phase One Environmental Statement (ES), including hyperspectral and LiDAR survey and geophysical survey. They also include two Detailed Desk Based Assessments (DDBA) which examined a small portion of the south of the evaluation area at Middleton (1D037-EDP-EV-REP-N000-000008) and a small portion of the north of the evaluation area at Hints (1D037-EDP-EV-REP-N000-000006); three areas of previous EWC North trial trenching and further geophysical survey (detailed in Table 2). Other investigations include studies completed by DJV during EWC North, such as a Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001), and Geoarchaeological Desk Based Assessment (GDBA) (1D037-EDP-EV-REP-000-000031).

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- 1.1.5 The ES concluded that there was little known early prehistoric evidence within the evaluation area, although the GDBA suggested potential for residual Palaeolithic remains to be present within some superficial deposits located around the Gallows Brook and the Bourne/Black Brook. Evidence for later prehistoric activity is sparse although there are potential Iron Age enclosures and field systems within the centre of the evaluation area. Romano-British assets are located within the vicinity, focused around the Watling Street Roman road to the north, but no assets have been found within the evaluation area itself.
- 1.1.6 The early medieval period is poorly understood in this part of Staffordshire and Warwickshire and remains of this period are not recorded in the evaluation area. The evaluation area contains several medieval deer parks and associated boundaries, as well as areas of relict ridge-and-furrow. Most of the area has subsequently remained in agricultural use, with evidence of post-medieval rural metalworking industries and watermills present within the north of the evaluation area, associated with the Bourne/Black Brook. The main modern influence is the construction of the A5 north of the evaluation area.
- 1.1.7 The purpose of this Project Plan is to:
- outline the scope and aims of archaeological field evaluation and how this will contribute to specific research objectives, in accordance with the GWSI: HERDS;
 - outline the approach and methodology to be employed. These details will be covered comprehensively in the Local Specific Written Scheme of Investigation (LS-WSI); and
 - set out the proposed deliverables and reporting mechanisms.
- 1.1.8 The baseline information shows that the trial trenching will contribute to GWSI: HERDS Specific Objectives addressing Iron Age and medieval settlement, landscape and infrastructure, Romano-British transport infrastructure and post-medieval rural industry. The trenching also has the potential to reveal unknown archaeological features of other periods and may therefore contribute to other GWSI: HERDS Specific Objectives, in particular those examining the earlier prehistoric and Romano-British period. The GWSI: HERDS Specific Objectives guiding the Project Plan are listed below:
- KC5: Identifying settlement location and developing models for settlement patterns for the Mesolithic, Neolithic and Early Bronze Age;
 - KC6: Understanding the evidence for change in the environment and management of the landscape for the Mesolithic and Early Neolithic periods;
 - KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area distinctiveness, or is this due to variation in geology or investigative techniques?
 - KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in

landscape organisation and enclosure?

- KC19: The Romano-British period saw the beginning of a more established infrastructure network. Can we investigate the development of these routes, trackways and roads and the influence they had on landscape change?
- KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route
- KC30: Identify the location and form of Early and Middle Saxon settlement and investigate evidence for land use in the period
- KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes
- KC33: Investigate the development of watermills from the Anglo-Saxon through to the modern period. How did the technology of milling change, and what implications has this for farming practice?
- KC34: Undertake research and investigation into medieval manorial complexes. What was their origin, development and impact on the landscape?
- KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter and their contribution to settlement desertion; and
- KC44: How did rural industries fare, and what was their contribution to society over the period of the urban-centred industrial revolution?

2 Location / Evaluation Area Background

2.1 Baseline

- 2.1.1 This Project Plan has been prepared in accordance with guidelines set out in *HS2 Technical Standard – Specification for Historic Environment Recording* and location specific written schemes of investigation (HS2-HS2-EV-STD-000-000036).
- 2.1.2 The evaluation area is split across the North Warwickshire District of Warwickshire in the south, and the Lichfield District of Staffordshire across the remaining evaluation area. It runs for 6.4km between Church Lane (HS2 Chainage 171550) in the south-east and the Black Brook (HS2 Chainage 177750) in the north-west. The closest settlements are the village of Middleton, situated 50m to the west in the south and Hints lying 200m to the east in the north. The evaluation area is approximately centred on National Grid Reference (NGR) 416714 300709

and includes c 228ha of land, mostly comprising large rationalised arable and pasture fields subdivided by hedgerows and interspersed by areas of woodland. The linear 'arms' of the land potentially required during construction, associated with National Grid works and visible to the west, north-east and south of the evaluation area, are scoped out of this evaluation, as are any other linear extensions of the red line boundary visible in Figure 1, but not incorporated into the evaluation area.

2.1.3 The evaluation area will be subject to enabling works and subsequent main works as part of Phase One of HS2, and includes the following Construction Land Requirement (CLR) parcels; CR02053, CR02054, CR02083, CR02101, CR02183, CR02184, CR02186, CR02187, CR02188, CR02224, CR02260, CR02510, CR02580, CR02582, CR02700, CR02710, CR02711, CR02751, CR02785, CR02786, CR02787, CR02850, CR02854, CR02892, CR02894, CR02909, CR02917, CR02918, CR02942, CR02943, CR02949, CR02957, CR02961, CR02974, CR02975, CR02976 and CR02977. The work will entail ground disturbance, which would potentially have an impact on any archaeological remains that may be present.

2.1.4 The majority of the evaluation area lies within Community Forum Area (CFA) 21: Drayton Bassett, Hints and Weeford, with the southern c 1km within CFA20: Curdworth to Middleton. The southern 0.6km of the evaluation area is situated within the River terrace and tributaries Archaeological Character Area (CFA 20-ACA3), with the central 3km situated within the River Terraces and Tributaries Archaeological Character Area (ACA6.1) and the northern 3km situated within the Hints Hills and Bourne/Black Brook Archaeological Character Area (ACA6.2). The ACAs were split further within the ES; the evaluation area is located within the following Archaeological Character Sub-Zones:

- ASZ20-28 Langley Brook Valley: Agricultural land with prehistoric find spots and potential around the Langley Brook, as well as medieval remains associated with settlement of Middleton and Middleton Park;
- ASZ20-29 Middleton nucleated Settlement: Historic core of Middleton, with potential for prehistoric remains and medieval activity associated with settlement;
- ASZ20-30 Arable fields between two brooks: Post-war fieldscapes, with Roman findspots, potential for prehistoric remains and post-medieval ironworks located within general area;
- ASZ20-31 Gallows Brook and Valley: Post-medieval ironworks in general area, and potential for prehistoric remains;
- ASZ21-02 Gallows Brook valley: Post-war fieldscapes, with ridge and furrow recorded south of the brook, Roman artefacts found to the south and potential for buried remains within the valley;

- ASZ21-03 Arable fields on terraces: 18th and 19th century semi-planned enclosure, formerly deer parks and proximity to the Bourne/Black Brook and Gallows Brook indicates potential for buried remains;
- ASZ21-04 Hints Hills: 18th and 19th century planned enclosure, two possible barrows, potential for prehistoric remains and the presence of the medieval Bangley Deer Park;
- ASZ21-05 Bourne/Black Brook valley: Hints medieval settlement with associated medieval and post-medieval remains along the brook including mills, forge and moated site.

2.1.5 The archaeological works detailed in this Project Plan comprise 'Trial Trenching', which is intended to identify, investigate and record known archaeological remains, and where present, unknown archaeological remains, in order to clarify their nature, date, significance and the contribution they can make to HERDS Specific Objectives.

2.1.6 A project plan for sample archaeological test pitting is currently being prepared to enhance the work detailed in this project plan. The test pitting will examine select areas located within the Archaeological Character Sub-Zones for the presence of prehistoric and early medieval evidence, which is often difficult to define with trial trenching.

2.1.7 Table 1 lists the archaeological investigations that have been carried out at the evaluation area to date, with the key outcomes.

Table 1: Previous investigations in the evaluation area, undertaken as part of the HS2 surveys

Description	Summary of results
LiDAR and Hyperspectral data carried out as part of the ES (CH-004-021).	The LiDAR survey which took place over the evaluation area identified predominantly post-medieval/modern activity, comprising ponds or possible quarries largely in the south-east and centre of the evaluation area (WA21. 4, 5, 9, 10, 11, 14, 15,17-19, 21, 23, 26 and 28), a northeast to southwest aligned linear earthwork in the southwest of the evaluation area (WA21.13), a former field boundary comprising the remains of a ditch and probable hedge bank (WA21.22), and a possible post-medieval leat or line of a former channel (WA21.29). Other potential activity comprises possible medieval/post-medieval lynchets in the form of low linear earthworks aligned broadly northeast to southwest (WA21.12), and two undated features: a former watercourse, partially remaining as a ditch (WA21.16) and a possible sub-rectangular enclosure (WA21.24).
Geophysical Survey completed as part of the ES (CH-004-021). (C253-ATK-EV-REP-030-000580)	The geophysical survey was undertaken over the centre and north of the evaluation area (WSI-CFA21-001). The area contains a linear positive anomaly, as well as a number of circular and sub-oval anomalies representing possible pits; Adjacent to Gallows Brook are further sub-oval anomalies as well as a linear positive anomaly (WSI-CFA21-002). A small number of anomalies of possible archaeological interest were identified, including a series of oval shaped positive anomalies which may be discrete pits (WSI-CFA21-003). Several anomalies of possible archaeological interest were recorded; linear trends (4000) located along the northern boundary of Shirral Park deer park, as well as several linear agricultural ploughing trends. A positive circular anomaly (4001) which may

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	represent a semi-circular ditch, ceramic field drains (4002), areas of possible debris based on magnetic responses (4003, 4004) and two elongated oval shaped anomalies (4006) were also discovered (WSI-CFA21-004). A former field boundary, several linear and curvilinear trends and oval possible pit-type anomalies were also found.
Geophysical Survey completed 2014/2015 after the publication of the ES (C253-ATKEV-REP-030-000581)	The geophysical survey (WSI-CFA20-008) which took place over the south of the evaluation area identified several anomalies of possible archaeological interest, including two circular positive anomalies (4000 & 4001). An irregular shaped area of increased magnetic response possibly debris (4002) and small oval positive anomalies (4003 & 4004) were also recorded. The remaining identified anomalies are positive linear, rectilinear and curvilinear trends (4005-4011, 4016-4017).
Geophysical Survey completed as part of Area 8: Middleton Pool Cutting to Swinfen Cutting – Interim Report (1EW04-LMJ-EV-REP-NS05_NL14-029002)	The geophysical survey identified some anomalies of possible archaeological interest, including linear trends, a few field boundary ditches and a small number of isolated pits.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Middleton – Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL14-022008)	Trial trenching was undertaken in June 2017 at a parcel of land located in the south of the evaluation area near Middleton. Eight trenches were excavated but no archaeological features were identified other than field drains and plough marks. The historic use of the site for arable cultivation is likely to have affected any archaeological remains that may have been present.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Hints Cutting - Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL15-022010)	Trial trenching was undertaken between January and February 2018 at a parcel of land located within the north-west of the evaluation area. 21 trenches targeted potential archaeological features tentatively identified from results of geophysical survey while 17 were randomly positioned. No archaeological features were present in any of the trenches.
Trial Trenching carried out as part of the HS2 Phase One Enabling Works. Drayton Lane, Staffordshire – Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL14-022009)	Trial trenching was undertaken in July 2017 at a parcel of land located within the centre of the evaluation area. 14 trenches targeted potential archaeological features tentatively identified from results of geophysical survey while 17 were randomly positioned. No archaeological features other than a field drain were identified. A small assemblage of post-medieval and modern finds was recovered from the topsoil. Due to the historic use of the site for arable cultivation it is likely any archaeological remains have been adversely affected by ploughing.
Historic Settlement Landscape Study carried out as part of the HS2 Phase One Enabling Works based upon the Detailed Desk Based Assessment for Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001)	A route-wide historic settlement study was undertaken to examine the later medieval and post-medieval landscape. Assets identified within the evaluation area comprise; field names referring to barns (id 1087), a field name indicating a Hop Yard (id 1093) and three field names (id 1099, 1089 and 1100) associated with mills.

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2.2 Site Conditions

Topography and Geology

- 2.2.1 The evaluation area ascends from c. 81.0m above Ordnance Datum (OD) at Middleton in the south, to 111.0m at Cranebrook Hill, then descends to c. 95.0m OD north of Sutton Road. The ground then undulates before descending further to 79.0m OD at the Bourne/Black Brook.
- 2.2.2 According to British Geological Survey (BGS) online mapping the underlying solid geology is mostly Gunthorpe Member Mudstone, with a portion of the northern evaluation area consisting of Enville Member Sandstone, siltstone and mudstone. The superficial geology within the evaluation area is mostly unknown, but there are identified channels of alluvium in the north along the Bourne/Black Brook and along the Gallows Brook in the south, a large area of till deposits in the centre of the evaluation area and river terrace deposits at the south of the evaluation area.

Summary of Archaeological Potential and Significance

- 2.2.3 The evaluation area does not contain any nationally designated (protected) heritage assets, such as World Heritage Sites, Scheduled Monuments, Listed Buildings, Registered Battlefields or Registered Parks and Gardens.
- 2.2.4 The closest nationally designated heritage assets is the Grade II Church of St Bartholomew in Hints (National Heritage List/NHL ref. 1188166) 290m east of the central evaluation area, and within the church yard the Floyer memorial (Grade II; NHL ref. 1294878), another memorial (Grade II; NHL ref. 1374261) and a cross (Grade II; NHL ref. 1038854). Hints Manor (Grade II; NHL ref. 1294879) is located 420m north-east of the evaluation area. The Hints Conservation Area lies adjacent to the north-east of the evaluation area.
- 2.2.5 The ES and HER identified 53 non-designated heritage assets within the evaluation area, (the possible extent of these assets as mapped by the ES and HER is shown on Figures 2 and 3). The assets are listed in Appendix B. Those of particular significance comprise:
- ES ref. DHW148: Middleton Park boundary and parish boundary;
 - ES ref. DHW102: Cropmarks near Gallows Brook, L-shaped linear feature visible on aerial photographs;
 - ES ref. DHW111: Field system at Hill Farm, undated cropmarks with a possible ditched roadway, possible lynchets and linear earthworks;
 - ES ref. DHW193: Hints Hall Park, surrounding Hints Hall an area of parkland containing a farm complex and surviving plantations along the southern boundary;
 - ES ref. DHW166: Enclosure at Roundhill, enclosure visible on LiDAR at the southern

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extent of Roundhill Wood;

- ES ref. DHW116: Field system at Brock Hurst, seen on aerial photographs, adjacent to Brock Hurst ancient woodland;
- ES ref. DHW105: Drayton deer park, dating to at least the early 13th century, Hedgerows still define the park boundary;
- ES ref. DHW106: Shirral Park deer park, mentioned in records in the late 14th, 15th and 16th centuries;
- ES ref. DHW114: Bangle Park deer park;
- ES ref. DHW149: Hedgerow 18 Shirral deer park boundary;
- ES ref. DHW150: Hedgerow 19 Shirral and Drayton deer park boundary;
- ES ref. DHW151: Hedgerow 20 Shirral, Drayton and Bangle deer park boundary;
- ES ref. DHW152: Hedgerow 21 Bangle deer park boundary;
- ES ref. DHW124: Crow's Castle Mound and Gorsey Hill Mound, bounded by agricultural lynchet. Originally interpreted as barrows, but now reinterpreted as natural geomorphological features;
- ES ref. DHW126: Medieval forge and mill with ponds, site of post-medieval forge and watermill with ponds, earthworks and a leat;
- ES ref. DHW132: Ridge and furrow to north west of Hints; and
- ES ref. DHW134: Slitting Mill and ponds, site of a slitting mill near Bourne House.

2.2.6 There have been 51 previous investigations recorded by the Warwickshire and Staffordshire HER within the evaluation area and wider landscape, as shown in Figure 4, and those within 500m are listed within Appendix C. Those of particular significance include:

- HER ref. EST1293: an environmental impact assessment across the north of the evaluation area;
- HER ref. EST2263-6: Field walking at Drayton Park, c.100m east of the evaluation area near Drayton Bassett, October 1981;
- HER refs. EST1162, EST1182, EST1183: archaeological assessment within the west of the evaluation area focused on the proposed Birmingham Northern Relief Road;
- HER ref. EST2216: an archaeological desk-based assessment and field reconnaissance survey across the centre of the evaluation area; and

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- HER ref. EWA9000: the English Heritage National Mapping project of the River Tame covering the south-east of the evaluation area.

Palaeolithic (500,000 – 10,000BC)

- 2.2.7 The Lower and Middle Palaeolithic of the West Midlands is poorly understood, but the region is identified (Garwood 2011) as being of particular importance for research into the earlier Palaeolithic, as it is geographically positioned at the northern extreme of global Lower Palaeolithic occupation. The closest known activity relating to this period is a collection of Lower to Middle Palaeolithic handaxes recovered c.2km north-east of the evaluation area at Fazeley (HER Refs: MST19862, MST19863, MST19868 and MST19871) whilst two possible Lower Palaeolithic implements have also been recorded c. 2.3km to the east of the evaluation area at Drayton Bassett (HER Ref: MST1415). Further north along the course of the River Tame, c. 9km north of the evaluation area, recent excavations at Tucklesholme Quarry have identified an in-situ scatter of Late Upper Palaeolithic flints (Richmond 2017).
- 2.2.8 The scatter of finds within the surrounding landscape suggests potential for similar discoveries in the south and north of the evaluation area where river terrace deposits and narrow bands of alluvial deposits, respectively associated with the Langley Brook, Gallows Brook and the Black Brook/Bourne Brook, could include archaeological and palaeoenvironmental evidence of the period (GDBA: 1D037-EDP-EV-REP-000-000031). Potential for the recovery of organic remains dating to the Palaeolithic within the evaluation area is also suggested by previous recovery of Palaeolithic faunal evidence from gravel quarry sites around Whitemoor Haye, Catholme and Barton-under Needwood c. 10-14km to the north.

Mesolithic (8,500 – 4,000BC)

- 2.2.9 Mesolithic finds densities are relatively low in the West Midlands when compared to other parts of Britain. The discovery and excavation of Mesolithic sites is extremely rare, few have produced evidence for features or possible structures, although a small number of pits recorded c.25km to the south at Meriden Quarry are attributed to the period.
- 2.2.10 A programme of fieldwalking at Drayton Bassett Park, between c.150m and 1km east of the evaluation area, recovered a collection of possible Mesolithic-Neolithic flints (HER ref. EST2263-6). Further fieldwalking and subsequent archaeological investigations during the construction of the M6 Toll near Wishaw Hall Farm, c3km to the south of the evaluation area, recovered over 1500 Mesolithic flints from areas with clay soils. These finds were located on a south-facing slope in close proximity to tributaries of the River Tame and may indicate a temporary camp.
- 2.2.11 The available evidence, including Geoarchaeological Desk Based Assessment (GDBA: 1D037-EDP-EV-REP-000-000031), suggests the highest potential may be at the alluvium and Pleistocene river terrace deposits situated at the north and south of the evaluation area,

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respectively associated with the Black Brook/Bourne Brook, Langley Brook and Gallows Brook. The alluvium could mask or include archaeological remains of this and later periods and may contain palaeoenvironmental evidence.

Neolithic (4,000 – 2,400BC)

- 2.2.12** Current evidence from the wider region is limited, with little to suggest settlement foci or sites of repeated activities. Neolithic evidence often comprises pit groups, containing artefactual and faunal assemblages, or stone tool scatters. Field walking at Drayton Park, between c 150m and 1km to the east of the evaluation area, recovered possible Mesolithic-Neolithic flints which may indicate activity within this landscape (HER ref. EST2263-6).
- 2.2.13** Environmental material from sites in the West Midlands indicate fewer woodland species in pollen samples and an increase in weed species during the 4th millennium BC, suggesting that some land clearance may have occurred, possibly for agricultural purposes.
- 2.2.14** The GDBA emphasises the potential for river terrace deposits, such as those located at the north and south of the evaluation area, to be a focus of multi-period prehistoric sites. Later Neolithic sites and artefacts are distinctive in that new forms of pottery and flint tools were developed and large funerary and ceremonial monuments began to be constructed. The ceremonial landscape at Catholme/Whitemore Haye, 10km north northeast of the study area, is the closest example of identified later Neolithic ceremonial activity within the wider landscape.

Bronze Age (2,400 – 7,00BC)

- 2.2.15** Heritage assets of the period are not recorded in the evaluation area and the wider central West Midlands has a significant gap in evidence dating to this period (HERDS Resource Assessment: Section 11.3.3).
- 2.2.16** Woodland clearance may have been gradual during the early part of the Bronze Age and it has been suggested that the major river valleys such as the Trent, did not witness large-scale clearance until the mid-second millennium BC (HERDS Resource Assessment: Section 11.3.9).
- 2.2.17** Settlement evidence of the early part of the period is very rare, suggesting mobile communities, and lithic assemblages are often not closely datable (HERDS Resource Assessment: Section 11.3.12). Settlement evidence of the middle and later parts of the period is also rare, but when found it is often extensive and unenclosed.
- 2.2.18** Burial mounds (barrows) are relatively numerous in the West Midlands and number around 900 if crop mark ring ditches, comprising around half of the identified sites, are included. However, known distribution is clustered around the fringes of the region with concentrations on the Warwickshire Avon; near Wolvey in north-east Warwickshire; and at the Trent-Tame confluence in Staffordshire (HERDS Resource Assessment: Section 11.3.12).

2.2.19 Burnt mounds are a more common feature of the region (Hurst 2011), and are usually discovered close to watercourses. Possible examples are recorded in the vicinity of the evaluation area at Middleton Hall c.750m to the south-east (CWM042), c.750m east of the evaluation area off Bourne Brook near Drayton Bassett (HER Ref: MST3781) and 1.5km to the west of the evaluation area at Canwell Hall Park (HER ref. MST2078). Land associated with the watercourses which cross the evaluation area have a high potential to reveal similar sites.

2.2.20 In the surrounding area other activity relating to this period is indicated by a Bronze Age cremation excavated at Hints Quarry, c.850m north-east of the evaluation area; a Middle Bronze Age Palstave (HER ref. MWA112), c.670m south-east of the evaluation area at Middleton Hall; and potential Late Bronze Age field systems recorded c.250m east of the south of the evaluation area (CWM044), near Middleton Hall and c.2.3km south-east of the evaluation area (CWM034), at Lower Farm, Kingsbury.

Iron Age (700BC – 43AD)

2.2.21 The Iron Age landscape of the wider area is characterised by evidence of more intensive farming than in previous periods as well as more visible settlement sites, some identified from aerial photography and some excavated during the construction of the M6 Toll to the west. The settlement sites vary in topographic location and form, comprising enclosed rectilinear and unenclosed examples, with other excavated features including pit alignments.

2.2.22 The ES tentatively identifies a number of sites within, or in close proximity to the evaluation area as potentially dating to the Iron Age, comprising:

- Toward the north of the evaluation area; LiDAR survey has defined the presence of a rectilinear enclosure (DHW166) situated immediately to the south of Roundhill Wood.
- Toward the centre of the evaluation area; an area of cropmarks (DHW111) suggests the presence of a road/trackway and enclosures; and other possible features were identified nearby from geophysical survey results (CH-004-021: CN038).
- Toward the south of the evaluation area; an L-shaped recti-linear cropmark (DHW102) is identified near the Gallows Brook.

2.2.23 In the wider area potential Iron Age evidence comprises a field system (DHW112) identified from LiDAR survey c 50m west of the centre of the evaluation area. The field systems mentioned in section 2.2.23 at Middleton Park (CWM044) and near Lower Farm, Kingsbury (CWM034) may also date to this period.

Romano-British (AD43 – 410)

2.2.24 The north of the evaluation area is located in the hinterland of the Roman marching camp and later town of Wall, c.7km to the west. The ES states that activity linked to Wall may have been widely distributed across the surrounding landscape; evidence recovered during M6 Toll

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archaeological investigations indicated declining levels of woodland and an increase in arable agriculture during the Romano-British period. Watling Street Roman road (DHW138) is located c 200m to the north of the evaluation area and features identified as part of the A5 Weeford to Fazeley Improvement Scheme, between c. 1km north west to 450m north east, have been interpreted as evidence for Iron Age-Romano-British rural activity (DHW125, DHW139, DHW143, DHW146). The area straddling Watling Street has been examined by EWC North trial trenching (1EW04-LMJ-EV-REP-NS06_NL16-022002), but did not reveal evidence indicating Romano-British activity.

- 2.2.25 There are no recorded Romano-British heritage assets within the evaluation area although available evidence suggests that it would have seen agricultural use and could contain remains of the dispersed small scale rural settlement which is characteristic of the period.
- 2.2.26 Fieldwalking and metal detecting in the immediate vicinity has produced a quantity of Roman artefacts, although the nature and intensity of activity remains unknown. These include pottery (MST18469 330m east, MST6141 430m east and MST6143 1.2km east), a figurine mount (EWA9221 c.500m south-west), coins (MST16624 900m east and MST16808 1.4km east), and brooches (MST16648 2km east and MST16785 2.2km east). A further 10 findspots (MWA10352, MWA20584, MWA20588, MWA20628, MWA20635, MWA20661, MWA20663, MWA20700, MWA20989, MWA21000) of metal detected artefacts recovered from fields near Middleton are known, seven from between c.200m to 500m to the east, two from between c. 200m and 500m to the east and one from c. 200m to south west. However, the precise nature and density of the artefacts is not described in HER records available for examination during preparation of the project plan.

Early Medieval / Anglo-Saxon (AD410 – 1066)

- 2.2.27 Archaeological evidence for early medieval activity is generally limited within the region, although a notable exception is the 7th to 9th century settlement overlooking the River Trent at Catholme, Staffordshire, c 10km north-northeast of the evaluation area. The ceramic record is sparse as pottery largely disappears from the archaeological record at the start of the period, only re-appearing in the mid Anglo-Saxon period. The scattered settlement characteristic of the later prehistoric and Roman periods is likely to have continued with nucleation into villages occurring during the latter part of the period, possibly under royal or ecclesiastical influence.
- 2.2.28 The ES suggests that the early medieval landscape may have been dominated by regenerated woodland interspersed with dispersed settlement utilising a mixed agricultural economy. The Domesday Survey indicates that settlement had been established within this landscape prior to the Norman Conquest at Hints (DHW360), Drayton Bassett, Weeford (DHW137), Middleton (CWM048), Wishaw and Curdworth.
- 2.2.29 Watling Street (DHW138) is situated c 200m to the north of the evaluation area. This Roman

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Road continued in use during the early medieval period and is believed to have formed the boundary of the Danelaw during the latter part of the period.

- 2.2.30 Further afield, Tamworth, c4km east, was an important Mercian royal vill by the 8th century while Lichfield, c7km to the north west, was a diocesan centre by that time.

Medieval (AD1066 – 1540)

- 2.2.31 During the medieval period the evaluation area lay within Sutton Chase, established in 1126 as a hunting reserve of the Earls of Warwick. The landscape is likely to have been one of dispersed settlement and hamlets within a wooded landscape, affected over time by piecemeal assarting with new tracts of land exploited for agricultural purposes. Agricultural activity is evidenced in the form of ridge-and-furrow (DHW118, DHW132, DHW104) and an extant field system (DHW116) at Brock Hurst woodland is located immediately to the west of the evaluation area. The land was probably managed from the surrounding villages of Hints (DHW360), Drayton Bassett, Weeford (DHW137), Middleton (CWMo48), Wishaw and Curdworth. Settlement in this landscape was subject to external social and economic forces during the period and at Canwell, c 1.5km to the west there is evidence for a possible deserted settlement (MST2607).
- 2.2.32 The evaluation area contains parts of four deer parks comprising; Drayton (DHW105), Shirral (DHW106), Middleton (DHW148) and Bangley (DHW114), with associated boundaries marked by extant hedgerows (DHW149, DHW150, DHW151, DHW152).
- 2.2.33 The boundary associated with Middleton (DHW148), at the south of the evaluation area, forms both the parish boundary between Middleton and Drayton Basset and the county boundary between Warwickshire and Staffordshire along Gallows Brook. It is first recorded in 13th century documents and at that time was enclosed by a deerleap built by Philip Marmion.
- 2.2.34 Bangley park boundary (DHW152) forms the parish boundary between Hints and Drayton Basset. Bangley Park was first mentioned as a park in a late 15th century account in the roll for the manor of Drayton and disparked in the 18th century.
- 2.2.35 Shirral Park (DHW106) is mentioned in records in the late 14th, 15th and 16th centuries and was disparked in 1756. It was included in a late 15th century account roll for Drayton Manor, and was one of three parks and warrens recorded in the manor of Drayton in 1505.
- 2.2.36 There is documentary evidence for a deer park at Drayton (DHW105) from at least 1203 when the Earl of Warwick agreed Ralph Bassett could retain his enclosure (with a hedge) of the woods of Drayton as long as the deer were given to the earl as rent. It was disparked by the late 18th century.
- 2.2.37 Another deer park is situated at Weeford Park (HER ref. MST4007) just to the north of the evaluation area. Documentary evidence suggests it was established by Ralph de Limesey in the late 13th century.

- 2.2.38 High status sites in the surrounding landscape comprise Greasley Hall (DHW120), dated to the late medieval period and demolished between the late 18th and early 19th century; a moated site (DHW136) at Weeford c 600m to the west of the evaluation area; and the site of a medieval hall at Hints (DHW193) just to the east.
- 2.2.39 The site of Hints Mill and Forge (DHW126) extends into the eastern side of the northern part of the evaluation area. The forge is thought to date from the 17th century and the mill from the 16th and was probably situated to the east of the evaluation area close to the Bourne/Black Brook. A series of ponds, associated earthworks and a leat associated with the mill survive just to the east of the evaluation area. The HSLS identifies an associated field name "Mill Field" (HSLS id 1100) immediately north of Hints Mill and Forge (DHW126) and within the evaluation area.
- 2.2.40 A further mill is located to the east of the northern section of the evaluation area near the Bourne/Black Brook (DHW121). This is the site of a water-powered hammer mill and forge with an associated pond dating to at least the early 17th century. Place name evidence recorded as part of the Historic Landscape Settlement DDBA has identified further potential mill sites to the east of the evaluation area along the Bourne/Black Brook (HSLS id 1098, 1099).

Post Medieval (AD1540 – 1901)

- 2.2.41 The post-medieval period was characterised by processes of enclosure in rural landscapes and a shift from arable to pastoral agriculture in certain regions. The evaluation area contains a number of extant and former field boundaries (ES refs. COL004, COL021) identified from LiDAR data, which illustrate this process.
- 2.2.42 The wider landscape contains numerous post medieval heritage assets. Hints Hall Park (DHW193) is located c250m east of the northern section of the evaluation area with plantations surviving along its southern boundary. The Birmingham to Watford Gap Turnpike Road (HER ref. MST22405), bisects the centre of the evaluation area and illustrates the development of infrastructure during the later post-medieval period. A number of 19th century farmsteads surround the evaluation area including; Lower Bangley Farmhouse (DHW252), Hints Farm (DHW259), Great Bangley Farm (DHW260) and Drayton Lane End Farm (DHW262). Barn Cottage (DHW263) is located within the centre of the evaluation area.
- 2.2.43 Metalworking has a long history in the area, evidenced by forges to the west (DHW126) and east (DHW121) of Hints both dating to at least the 17th century and both located along the Bourne/Black Brook. The forge site (DHW126) extending into the north-east of the evaluation area survived into the post-Medieval period. The Victoria County History (VCH) records Hints forge as being charcoal-fuelled (although which one is unclear), and rated at 120 tons bar iron capacity per annum in 1592.
- 2.2.44 A slitting mill (DHW134) dating to the 17th and 18th centuries was located to the southeast of

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Weeford on the Bourne/Black Brook and may extend into the northern end of the evaluation area. A slitting mill was a watermill for slitting bars of iron into rods. It was extant in the late 18th century and is associated with a pond and line of infilled leat. It has been postured that the slitting mill at Weeford operated in conjunction with the hammer mill and forge downstream at Hints. A smithy is also mapped to the north west of Weeford, indicating the importance of metalworking to the local economy along the Bourne/Black Brook in the post-Medieval period.

- 2.2.45 EWC North Historic Settlement Landscape Study (HSLs: 1EW04-LMJ-EV-REP-N000-029001) has characterised the post-medieval landscape of the evaluation area as enclosed field and woodland, punctuated by dispersed farmsteads and containing areas of localised industry including metalworking and mills.

Modern (1901 – present)

- 2.2.46 The majority of the evaluation area has remained in agricultural use and several early 20th century farmsteads are situated within it. At the west of the central section of the evaluation area lies White Owl Farm (DHW247) and Rookery Farm (DHW248). Within the east of the central part of the evaluation area is Fordway Farm (DHW251), Woodside Farm (DHW253), a farm at Bagley Lane (DHW255), Holt Farm (DHW249) and Mill Farm (DHW256).

Proposals

- 2.2.47 The proposed works across the route are outlined in the HS2 Design Element Statement (DES). The DES specifies the following works within the evaluation area:
- (170-S1) A4091 Tamworth Road Overbridge;
 - (171-L3) Coppice Lane Cutting;
 - (171-S1) Church Lane Overbridge;
 - (171-S2) Drayton Lane ATS;
 - (172-L1) Trickle Coppice Embankment;
 - (172-L2) Marl Pit Cutting;
 - (172-S2) Footpath T15 Accommodation Overbridge;
 - (172-S3) Gallows Brook Culvert;
 - (173-L2) Drayton Lane Embankment;
 - (173-L3) Drayton Lane Cutting;
 - (173-S2) Drayton Bassett Underbridge;

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- (173-S3) Drayton Bassett Culvert;
- (174-S1) Drayton Lane Overbridge;
- (174-S3) A453 Sutton Road Overbridge;
- (175-L3) Hints Embankment;
- (175-S1) Drayton Bassett Footpath 11 Overbridge;
- (175-S2) Waggoner's Lane Drop Inlet Culvert;
- (175-S3) Bangley Lane (Hints Bridleway 20) Accommodation Overbridge;
- (175-S4) Hints Culvert;
- (175-S5) Hints Footpath 9 Underpass;
- (176-L1) Hints Cutting;
- (176-L2) Milditch Wood Embankment;
- (176-L3) Rookery Retained Cut;
- (176-L4) Rookery Cutting;
- (176-S6) Brockhurst Lane Green Overbridge;
- (177-L1) Black Brook Viaduct; and
- (177-S5) Milditch Wood Culvert.

2.2.48 The construction elements of the above works will comprise the following:

- Floodplain Compensation area at the north of the evaluation area which will involve earthworks and a ditch linking it to the River Leam;
- Earthworks across the route;
- Two Main Construction Compounds;
- Five Satellite Construction Compounds;
- Four Attenuation Ponds;
- Areas of Landscape Mitigation Planting across the route;
- An infiltration basin; and
- Two large areas of Temporary Earthworks Stockpile.

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Archaeological Implications

- 2.2.49 Since the evaluation area has not previously been developed, any archaeological finds or features are likely to lie immediately below the ploughsoil as negative features cut into the underlying superficial geology. Due to the longstanding agricultural use of the evaluation area, it is probable that any shallow archaeological remains will have been affected by modern ploughing. This generally reworks the upper 0.3m (0.4m for crops such as potatoes). The bases of cut features such as pits and ditches, and structural footings potentially survive intact.
- 2.2.50 The gravel river terraces and alluvium associated with the small watercourses crossing the evaluation area have the potential to retain evidence for Palaeolithic activity. However, it is unlikely that the presence or absence of Palaeolithic remains will be adequately determined by the shallow trial trenching set out in this document. The Geoarchaeological Investigations Stage A: Updated Deposit Model (1EW04-LMJ-EV-REP-N000-029003) has created a revised deposit model and has informed proposals for further sampling and investigation, including test pit evaluation where appropriate, which will be completed during the Stage B works. The results of Stage A and Stage B will contribute to addressing the specific HERDS Objectives relating to Palaeolithic potential across EWC North.
- 2.2.51 The works listed in sections 2.2.47 and 2.2.48 will damage or remove any potential below ground archaeology. The types of potential impact from construction are summarised below.

Soil Removal

- 2.2.52 It is assumed for the purposes of this report that the soil would be removed across the evaluation area as part of enabling and construction works. This work will occur prior to activities such as ecological mitigation, landscaping and construction, including areas designated for temporary works to establish access routes, compounds and topsoil storage areas. This would potentially truncate or destroy any archaeological remains present through machine excavation and movement of plant.

Earthworks

- 2.2.53 Areas of embankment and areas of cut will be constructed. Embankment may lead to damage or destruction of heritage assets through movement of plant, localised excavation and compaction, whilst areas of cut will remove any heritage assets present.

Pond Excavation

- 2.2.54 The assumed excavation depths for any attenuation ponds and associated drainage ditches is between 1.5–2.0m below ground level (mbgl). These depths would partially or completely remove any archaeological assets from within their footprint.

Planting

- 2.2.55 The works include Landscape Mitigation Planting, which may include introduction of hedgerows, stands of woodland and woodland edge. Ground intrusion from the proposed planting and subsequent root action is assumed to reach a depth of 1.0–1.5mbgl, removing or disturbing archaeological remains at the location of the planting.

Site Fencing

- 2.2.56 There may be localised impacts resulting from the construction of the foundation posts for the hanging posts of fence gates and end struts. The level of impact is assumed to be around 1.0–1.5m deep, potentially disturbing archaeological assets within their footprint.

3 Aims and Specific Objectives

3.1 Aims

- 3.1.1 The aim of this Project Plan is to:

- Define the aims and scope of the programme of field evaluation (trial trenches) and how the work will contribute to Specific Objectives, in accordance with the GWSI: HERDS;
- Outline the overall approach and methodology to be employed; and
- Set out the proposed deliverables and reporting mechanisms.

- 3.1.2 All historic environment work on HS2 is guided by the Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS) (Ref HS2-HS2-EV-STR-000-000015). Its purpose is to establish the objectives and mechanisms for designing and carrying out all historic environment related investigations, so that the work has specific aims, rather than an approach of simply mitigating impacts in order to collect information.

- 3.1.3 The aim of the field evaluation is to determine, as far as reasonably possible, the presence, nature, date, extent, survival and significance of the archaeological resource within the evaluation area, in relation to GWSI: HERDS Specific Objectives, so that, if necessary, a suitable archaeological mitigation strategy can be put in place to avoid, reduce or offset any adverse effects arising from proposed ground disturbance.

3.2 Contribution to GWSI: HERDS Objectives

- 3.2.1 The GWSI: HERDS provides a comprehensive list of Specific Objectives for the historic environment for the whole HS2 Phase One North Section. This Project Plan has identified those Specific Objectives which are relevant for the field evaluation.

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- 3.2.2 The identified Specific Objectives have been selected based on information collated to date (see Section 2). The Specific Objectives may be revised relative to the results of the evaluation. For example, unexpected archaeological remains may be encountered which could contribute to other Specific Objectives. If other Specific Objectives are identified during the evaluation, the scope of works shall be updated to address those Objectives.
- 3.2.3 Table 2 sets out the identified Specific Objectives of the works. Through delivery of these works, and the addressed aims set out in the table, the trial trenching will create knowledge and outputs that will contribute to these Specific Objectives.

Table 2 GWSI: HERDS Specific Objectives and evaluation strategy aims

GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
KC5: Identifying settlement location and developing models for settlement patterns for the Mesolithic, Neolithic and Early Bronze Age	<p>The watercourses passing through the evaluation area, including the Gallows Brook in the south and the Bourne/Black Brook in the north, and possibly two unnamed historic watercourse and former watercourse (DHW122, CWM109), have potential to preserve Palaeolithic and Mesolithic deposits</p> <p>Mesolithic camps are considered to be broadly located on higher ground near water sources, such as river valley terraces. The study area, particularly to the north of Bourne/Black Brook in the north of the study area and north of Gallows Brook in the south of the evaluation area, may therefore have been a suitable location for exploitation by Mesolithic and earlier groups.</p>	Trial trenching has the potential to identify evidence for prehistoric occupation in proximity to watercourses or on higher ground close by and the trenching has been designed to target these areas to contribute to this specific objective.
KC6: Understanding the evidence for change in the environment and management of the landscape for the Mesolithic and Early Neolithic periods	Deposits of alluvium defined in the GDBA (1D037-EDP-EV-REP-000-000031) associated with the Bourne/Black Brook in the north and Gallows Brook in the south, and possibly two unnamed historic watercourse and former watercourse (DHW122, CWM109), have the potential to contain organic palaeoenvironmental material.	<p>Trial trenching has the potential to reveal deposits with palaeoenvironmental potential in proximity to current and former watercourses.</p> <p>If trenches encounter such deposits, results will be used to inform the scope of geoarchaeological work, and may result in preliminary investigation during trenching to investigate, sample and characterise deposits which have the potential to</p>

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GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
		contribute towards this Specific Objective.
KC9: Does a lack of visibility of Neolithic and Bronze Age monuments reflect genuine area distinctiveness, or is this due to variation in geology or investigative techniques?	<p>There is potential for Neolithic and/or Bronze Age monuments to be present in proximity to watercourses. In particular at an area of river terrace gravels located at the southern end of the area.</p> <p>Alluvium associated has potential to include or mask prehistoric remains, which may be preserved within/below the alluvium.</p>	<p>River terrace deposits have potential to have been a focus of prehistoric activity and nearby alluvium may include or mask contemporary archaeological remains.</p> <p>Trial trenching has the potential to identify Neolithic and Bronze Age monuments at the river terrace areas and contribute to this objective.</p>
KC15: Can we identify regional patterns in the form and location of Late Bronze Age and Iron Age settlements across the route, and are there associated differences in landscape organisation and enclosure?	<p>Potential Late Bronze Age/Iron Age features are present such as an enclosure (DHW166) in the north of the evaluation area as well as a potential road/trackway (DHW111) and field system DHW112) within the centre of the evaluation area.</p> <p>L-shaped linear features visible near the Gallows Brook (DHW102) may also indicate a potential for Iron Age activity, and such activity may be present alongside other watercourses within the evaluation area.</p>	<p>Trial trenching has the potential to identify areas of Bronze Age to Iron Age settlement and exploitation of the landscape. It may be possible to examine differences in landscape use and enclosure by period.</p> <p>Trenches have been positioned to determine examine the potential evidence for prehistoric activity within the evaluation area, which would contribute to this objective</p>
<p>KC19: The Romano-British period saw the beginning of a more established infrastructure network. Can we investigate the development of these routes, trackways and roads and the influence they had on landscape change?</p> <p>KC21: Assess the evidence for regional and cultural distinctiveness along the length of the route in the Romano-British period, with particular regard to the different settlement types encountered along the route</p>	<p>The presence of the nearby Watling Street Roman road (DHW138) 550m north of the evaluation area and associated field system (DHW125), indicates there may be evidence for Roman activity in the north of the evaluation area. Whilst the presence of finds such as the Roman figurine mount (EWA9221), c.500m south-west of the evaluation area, may indicate potential for Romano-British activity in the south, where there is a lack of known sites and previous investigation.</p> <p>The ES suggests that activity linked to town of Wall located c 7km to the west could have been widely dispersed</p>	<p>Trial trenching has the potential to identify possible occupation and landscape management associated with Romano-British rural settlement.</p> <p>Results could suggest ways in which nearby roads have influenced the use of the landscape by comparing any remains found in the north of the evaluation area to elsewhere in the area. Analysis of any differences in settlement type found would also inform these objectives.</p>

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GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
	across the landscape, including as far as the evaluation area.	
<p>KC30: Identify the location and form of Early and Middle Saxon settlement and investigate evidence for land use in the period</p> <p>KC31: Identify the location of Middle to Late Saxon settlement, explore processes of settlement nucleation and understand the development of associated field types and agricultural regimes</p>	<p>The villages of Hints (DHW360), c 310m to the east of the evaluation area, Drayton Bassett, c 1.5km to the east and Weeford, c 640m north-west of the evaluation area, are all named in the Domesday Book suggesting settlements pre-dating this date.</p> <p>Whilst no settlements dating to the Saxon period have been located within the evaluation area itself it is likely that evidence associated with the exploitation and management of the landscape by these villages may be present.</p>	Any evidence associated with farming and exploitation of the landscape throughout this period will contribute to these Specific Objectives
KC33: Investigate the development of water mills from the Anglo-Saxon period through to the modern period. How did the technology of milling change, and what are the implications for farming practice?	<p>The north of the evaluation area contains a number of mill sites located along the Bourne/Black Brook, including a mill (DHW126) which dates to the medieval period and a slitting mill (DHW134) dating to the late 18th century.</p> <p>With two mills of varying dates and differing uses, investigation of these sites has the potential to understand how milling has changed over time including any changes in technology. Potential mill sites have also been identified through place name evidence (id 1099, 1098, 1100).</p>	<p>Trial trenching has the potential to identify further mills within proximity of the watercourses especially in Mill Field (id 1100). Any positive results will contribute to this objective.</p> <p>Trenching the sites of the mills may also discover <i>in situ</i> waterlogged deposits, palaeoenvironmental remains and preserved artefacts within any ponds and leats. These deposits may contain evidence of changes in farming practice and provide further information on the changing technologies of the mills.</p>
<p>KC34: Undertake research and investigation into medieval manorial complexes. What was their origin, development and impact on the landscape?</p> <p>KC35: Investigate the impacts on rural communities of social and economic shocks in the mid-14th century and thereafter and their contribution to settlement desertion</p>	<p>The evaluation area contains parts of four medieval deer parks, Drayton (DHW105), Shirral (DHW106) and Bangleby (DHW114) located in the centre of the evaluation area, and Middleton (DHW148) in the south of the evaluation area.</p> <p>Sections of the deer park boundaries survive (DHW148-152). One boundary also forms a parish and county boundary (DHW148).</p> <p>Medieval relict field systems in the form of ridge and furrow can be seen</p>	<p>Whilst there is no known settlement within the evaluation area trial trenching may identify changes in the management of the landscape particularly associated with the establishment of the deer parks, which could in turn be related to wider patterns of settlement change that occurred during this period.</p> <p>Three of the parks were likely to have been under the management of Drayton Manor and therefore any evidence of land management in these parks may show how manorial</p>

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GWSI: HERDS Specific Objective	Comment	Evaluation strategy aim
	in the centre of the evaluation area (DHW118), in the north (DHW132) and on the north bank of the Gallows Brook (DHW104).	control affected the landscape. Such evidence may include for example, evidence of park pales, woodland management features and evidence for the control and breeding of deer. Where evidence for ridge and furrow lies in the parks, attempts will be made to date these features and understand why changes in land use and management were adopted and the wider implications of these changes. Trenches across the boundaries of the parks where conditions allow, may provide dating evidence for the layout of the parks.
KC44: How did rural industries fare, and what was their contribution to society over the period of the urban-centred industrial revolution?	The evaluation area contains, a forge and mill complex (DHW126) and a slitting mill (DHW134). Whilst there is no evidence to date, evidence for charcoal-making may be found, which would have been a key requirement in the development of ironworking in the area. Across the wider landscape, there is possible evidence for charcoal burning at Canwell Hall Park (MST2078) 1.5km to the west.	Trial trenching has the potential to identify other areas of rural industry, especially around the foci of the Bourne/Black Brook and Gallows Brook. Investigation of the slitting mill and forge will provide a greater understanding of what may have been happening at these sites, further informing how they contributed to society over their period of use. Changes and developments can then be linked to the growth of Birmingham and the nearby industrial towns. Any positive results will contribute to this objective.

4 Scope and Methodology

4.1 Introduction

- 4.1.1 The investigative fieldwork outlined in this Project Plan comprises Trial Trenching. The work has been designed to meet HS2 GWSI: HERDS Specific Objectives. The Trenches are targeted on features identified by previous surveys, including Geophysical and LiDAR Survey and would also investigate 'blank' areas, where features have not previously been identified. It would

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determine, as far as reasonably possible, the presence, nature, date, extent, survival and significance and contribution to GWSI: HERDS Specific Objectives of archaeological remains discovered within the evaluation area.

4.2 Location Specific Written Scheme of Investigation

- 4.2.1 A Location Specific Written Scheme of Investigation (LS-WSI) will be produced by the Archaeological Contractor. This will provide the detailed method of investigation, including survey area, access arrangements, welfare, accommodation, site safety, RAMS, etc. The LS-WSI will be approved by HS2 prior to starting work.

4.3 Trial Trench Evaluation

- 4.3.1 The aim of the evaluation will be to examine known archaeology and investigate the presence or absence of unknown archaeological features, structures, deposits, artefacts and/or ecofacts. Where present the investigation will define the character, extent, quality and preservation of archaeological remains in order to determine their contribution to Specific Objectives identified in this Project Plan, and to examine whether other Specific Objectives should be added. The results of the evaluation will inform any subsequent archaeological mitigation strategy, including design adjustment, where possible, to avoid significant remains.
- 4.3.2 There will be 422 trenches opened during the evaluation. Their locations are shown on Figures 5 – 10. Trial trenching has previously been undertaken in three parcels of land adjacent to the evaluation area (Figure 4): to the south near Middleton (1EW04-LMJ-EV-REP-NS05_NL14-022008); south of Drayton Lane (1EW04-LMJ-EV-REP-NS05_NL14-022009); and to the north at Hints Cutting (1EW04-LMJ-EV-REP-NS05_NL15).
- 4.3.3 A 4% contingency by evaluation area may be used for further investigation of areas of high potential where results of initial trenching have been negative. The Heritage Risk Model (C253-ATK-EV-REP-000-000002) identifies the Archaeological Sub-Zones with high potential, where use of the contingency should be considered, as ASZ21-03 and ASZ21-05. The contingency may also be used to further define and characterise targeted archaeology or discoveries of previously unknown archaeology. The deployment of the contingency will be agreed between DJV and the Employer and will be determined through review of the weekly progress reporting and site visits. It may also be used for mitigation of archaeology which contributes to HERDS Specific Objectives, where initial investigation has shown that it is of limited complexity and extent. All trenching will be assigned a unique ID in accordance with the Employer's Asset Information Management Systems (AIMS).
- 4.3.4 The evaluation will be carried out by a suitably qualified Archaeological Contractor. The trial trenches will generally be 50.0m long and 2.0m wide, and no more than 1.2m deep. Where

deeper excavation is considered necessary, for example at areas of colluvium or alluvium, trench sides will be shored or stepped.

- 4.3.5 Trenches are positioned to provide coverage across the entirety of the evaluation area with the exception being the two areas which have previously been trenched (Figure 4). Any further areas left blank are due to logistical issues of access (as in the north-west), space, presence of utilities (as in the east, west and south-west), or inappropriate ground conditions for excavation. The area that is accessible for trial trenching is shown on Figures 5-10, it is dictated by the construction land requirements.
- 4.3.6 The distribution of the trenches across the evaluation area will contribute to the Specific HERDS Objectives for the trial trenching (see Section 3 above). This is due to the 'Knowledge Creation' aims (KC5, KC9, KC15, KC19, KC21, KC30, KC31, KC33, KC34, KC35 and KC44) relating to objectives for all periods.
- 4.3.7 In conjunction with HERDS Objectives, the trial trenching will further determine the nature of non-designated heritage assets identified in the ES and HER data (outlined in Section 2.2.5).
- 4.3.8 The trenching strategy targeting Mesolithic and other early-prehistoric remains within and near alluvial deposits will investigate four channels. Trenches 1-5, 13-15, 18-19, 22, 27, 30, 32, 35, 40, 46 and 52 examine the area close to the Bourne/Black Brook (Fig. 5). Trenches 181-183 and 185-187 examine a former watercourse (DHW122) identified through LiDAR (Fig. 7). Trenches 417, 421 and 422 examine the area close to another former watercourse (CWN109) (Fig. 9). Trenches 352-358 and 390-406 examines land associated with two branches of the Gallows Brook (Fig. 9). Discovery of prehistoric evidence will contribute to HERDS Objective KC5, KC9 and KC15.
- 4.3.9 At the centre of the evaluation area trenches 111 to 120 will investigate the presence of an enclosure of potential Iron Age date, which has been interpreted from LiDAR (DHW166) (Fig. 6). Cropmarks identifying potential Iron Age field remains (DHW111) are targeted by trenches 250-259 (Figs. 7 and 8). An L-shaped linear feature potentially dating to the Iron Age, identified from aerial photographs (DHW102) is targeted by trenches 356-362 (Fig. 9). Definitive evidence of the presence of the potential enclosure and field systems will contribute to HERDS Objectives KC15.
- 4.3.10 Although trenches are not targeted on any known Romano-British assets, trenches 1-21 nearest Watling Street Roman road, may identify evidence of occupation and/or landscape exploitation influenced by the vicinity of the Roman road (Fig. 5). Any evidence dating to this period will contribute to HERDS Objectives KC19 and KC21.
- 4.3.11 Although trenches are not targeted on any known Saxon assets the proximity of a number of potential Saxon settlements would suggest that the area was exploited during this period and any evidence for this found would contribute to KC 30 and KC31.

- 4.3.12 Trenches 52, 54, 55, 59, 62, 65 and 66 within the north of the evaluation area examine the site of Hints Mill (DHW126). Trenches 1-12 examine the area just to the east of the slitting mill located on the southern bank of the Bourne/Black Brook (DHW134) and may pick up as yet unidentified buildings, associated structures, ponds and leats (Fig. 5). Definitive evidence of the potential phases and development of the mills in this area will contribute to HERDS Objective KC33.
- 4.3.13 Trenches across the known boundaries of the medieval deer parks, where practical, may help date the parks and provide evidence of use and form. Evidence of the management of the medieval deer parks and changes in this management over time will contribute to HERDS Objectives KC34 and KC35. The trenches at the deer parks comprise:
- Bangley deer park (DHW114) - trenches 168-243 (Fig. 7);
 - Drayton deer park (DHW105) - trenches 244 and 245 (Fig. 7);
 - Shirral deer park (DHW106) - trenches 286-288, 293 and 308-310 (Fig. 8); and
 - Middleton Park (DHW148) – trenches 352-364, 368, 376, 390-394, 396, 398-401 and 404-406 (Fig. 9).
- 4.3.14 Trenches 88-91, 100-112, 189-206, 237-243, 270-275 (Figs. 6 to 8) are situated over, or in close proximity to, denuded ridge and furrow identified by geophysical and LiDAR survey. Trenches 22-32 (Fig. 1) target relict field systems of ridge and furrow. A sample of any well stratified sub-surface remnants of these medieval open field system earthworks (and remnants of earlier or later field systems) will be investigated to characterise and attempt recovery of dating evidence. Where evidence for ridge and furrow lies in the area of the medieval deer parks attempts will be made to date these features and understand why changes in land use were adopted. This will particularly support HERDS Objectives KC 34 and KC35. Extant ridge and furrow may mask and preserve earlier archaeology beneath the ridges, so pre-medieval heritage assets may also be present.
- 4.3.15 Trenches will examine assets identified by the Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001). Trenches 36-53 lie within the field recorded as 'Mill Field' (id 1100) on the tithe map (Fig. 5).
- 4.3.16 Trenches within areas of negative geophysics results are randomly positioned to test for the presence or absence of unknown archaeological remains. Where the trenches extend onto the alluvial floodplain of the Gallows Brook and Bourne/Black Brook, the Archaeological Contractor will review the Geoarchaeological Desk Based Assessment (1D037-EDP-EV-REP-000-000031) and the Geoarchaeological Deposit Model (1EW04-LMJ-EV-REP-N000-029003). Targeted sampling for geoarchaeology will, however, be undertaken as part of Stage B of the Geoarchaeological Investigation across EWC Area North under a project plan currently in preparation.

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- 4.3.17 The locations of all trenches will be subject to confirmation of any utilities and services present in the evaluation area. Trenches may be relocated to avoid existing services and for other reasons, e.g. to avoid ecological or physical constraints. Trenching may be modified or discontinued at areas where initial investigation reveals extensive modern disturbance.
- 4.3.18 Tasks that will be undertaken comprise:
- Set up;
 - Mechanical excavation to remove soils, in order to expose potential archaeological horizons;
 - Archaeological hand-excavation and the identification and recording of any archaeological features exposed;
 - Selective environmental sampling, processing and assessment; and
 - Post-investigation reporting and archiving.

Setting Out

- 4.3.19 All spatial setting out and recording shall be in accordance with The Ordnance Survey National Grid and Ordnance Survey Newlyn Datum (ODN) as defined by the OS Active GNSS network and use of a Virtual reference system. A minimum of three Permanent Ground Markers (PGM) shall be created using this system for each trench or group of geographically related trenches.
- 4.3.20 Trenches shall be set out and recorded to a minimum horizontal accuracy of $\pm 0.05\text{m}$. The corner points of each trench location shall be set out with Real Time Kinematic (RTK) Global Navigation Satellite System (GNSS) equipment or other suitable automated equipment referenced from the PGMs.
- 4.3.21 Surface heights shall be recorded using RTK GNSS and related to PGMs. Ordnance Survey Bench Marks (OSBM) are not to be used. Levelling accuracy shall be within $0.1\text{m} \sqrt{k}$: where 'k' is the total distance levelled in kilometres.
- 4.3.22 The Archaeological Contractor shall ensure that all trench or excavation limits, and significant archaeology detail are surveyed 'as dug' in relation to the project grid before leaving the evaluation area. Ground level height data to Ordnance Datum (OD) shall be recorded for each trench, along with the levels of the top of the superficial drift deposits (where present) and the top of the solid geology. Levels of key archaeological horizons and features will also be recorded.

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Mechanical excavation

- 4.3.23 Trial trenches shall be excavated to the first archaeological level, the top of the natural geology or usually a maximum depth of 1.2m, if no remains of archaeological interest have been identified. Areas of deeper stratigraphy, which may include or cover archaeological remains, such as colluvial or alluvial sequences, may need to be excavated to the base of the stratigraphic sequence and in this instance, trenches shall be shored, or stepped and kept free of water, in order to allow appropriate investigation.
- 4.3.24 Excavation will be undertaken using a mechanical excavator with toothless ditching bucket. Machining shall be carried out under the constant supervision of the Archaeological Contractor to excavate the ground in spits. The Archaeological Contractor shall use their professional judgement to determine the appropriate depth of each spit. The Archaeological Contractor will agree any variations to the excavation methodology with DJV and shall record this in writing for inclusion in the final report. Each spit shall be examined carefully to assist the recovery of any archaeologically significant artefacts and thus to determine when to cease machining. It is the responsibility of the Archaeological Contractor to ensure that the finished surface is machined to a suitably 'clean' state in order to identify, define and investigate any exposed archaeological deposits. If the surface is not sufficiently clean, hand-cleaning of the surface will be required. Machine excavation will comply with the Employer's Technical Standard - Route wide soil resources plan (HS2-HS2-EV-STD-000-000008).
- 4.3.25 The Archaeological Contractor shall ensure that water is discharged and excavated materials from archaeological excavations are stored in accordance with the Contractor's environmental protection requirements (as set out in the package Works Information and their Environmental Management Plan) and any relevant consents for the worksite. The Archaeological Contractor shall monitor discharge rates and, if necessary, conductivity of discharge waters to ensure compliance.
- 4.3.26 Deep stratigraphy, such as colluvial or alluvial sequences, may be encountered, where this is revealed, and where feasible, trenches, or sondages, shall be excavated to the base of the stratigraphic sequence, and shall be appropriately shored and kept free of water to allow 'person entry' to the excavations i.e. to allow the Archaeological Contractor to undertake investigation and recording to fulfil the aims of the work. The Archaeological Contractor will ensure that all works undertaken in deep stratigraphy will comply with the Employer's Technical Standard – Temporary Works (HS2-HS2-CV-STD-000-000005).
- 4.3.27 Within alluvial sequences the Archaeological Contractor shall pay particular attention to establishing the vertical extent of layers of archaeological potential and shall be aware that horizons of cultural activity may be present within horizons of sterile alluvium. The Archaeological Contractor shall supervise the excavation of each trench in such a manner so as to allow a cumulative or continuous trench section face to be recorded.

- 4.3.28 Should any material be excavated that is deemed to be contaminated or potentially contaminated it shall be investigated, controlled (e.g. placed separately from clean material) and removed in accordance with the Contractor's environmental protection requirements (as set out in their Environmental Management Plan).

Fieldwork Recording

- 4.3.29 Archaeological recording shall be undertaken by the Archaeological Contractor to the general requirements as described in the GWSI: HERDS (section 7.6). A sufficient sample of the archaeological features and deposits revealed must be sampled/or fully excavated to allow the resolution of the aims and objectives of the work. Structures, features, or finds which might reasonably be considered to merit preservation in-situ shall not be unduly damaged.
- 4.3.30 Where areas of extensive archaeological stratification are encountered, the horizontal and vertical extent of archaeological stratification shall be assessed by the Archaeological Contractor through implementation of an appropriate strategy including either the excavation of features cut into horizontal stratification, limited test pitting or auguring. The aim shall be to recover suitable stratigraphic, finds and environmental samples from the full, intended depth of the trench, as far as is practicable. The exact methodology may need to be designed by the Archaeological Contractor during the excavation of individual trenches and agreed with DJV and the Contractor.
- 4.3.31 Metal detectors will be used by experienced staff to scan for metallic finds during the excavation of spoil from trenches as well as key archaeological features and deposits.
- 4.3.32 In order to protect any waterlogged remains during the works, the Archaeological Contractor may identify a requirement for trial excavations to be allowed to refill with water overnight. In such cases, the Archaeological Contractor shall ensure that any hazards to staff or third parties are minimised.
- 4.3.33 Archaeological recording is to include, as a minimum:
- At least one representative section at (1:10 or 1:20 scale) of each evaluation trench, from ground level to the base of the excavation;
 - the written record of individual context descriptions on appropriate pro-forma;
 - plans at appropriate scales (1:10, 1:20 or 1:50);
 - single context planning should be used only if appropriate (i.e. where there is a complex sequence);
 - photographs and other appropriate drawn and written records; and
 - other sections, including the half-sections of individual layers of features shall be drawn as appropriate to 1:10 or 1:20 scale.

- 4.3.34 A 'site location plan', indicating site north shall be prepared at 1:1250. Individual 'trench plans' at 1:200 (or 1:100) shall be prepared which show the location of archaeology investigated in relation to the investigation area. The location of site plans will be identified using OSGB co-ordinates.
- 4.3.35 Section drawings shall be located on the relevant plan and OSGB co-ordinates recorded. The locations of the PGM bench markers used and any site Temporary Bench Mark (TBM) used for the evaluation shall also be indicated.
- 4.3.36 A record of the full extent in plan of all archaeological deposits as revealed in the investigation shall be made. These plans will normally be based on digital survey data (digital planning methods shall be agreed in advance with HS2), supplemented where appropriate by hand drawn records on polyester based drawing film (at a scale of 1:10 or 1:20 unless otherwise agreed with the HS2). All hand-drawn information shall be digitised (or preferably generated digitally in the first instance), and final deliverables will be supplied in an Esri format and adhere to standards set out in the *Cultural Heritage GIS Standard* (HS2-HS2-GI-SPE-000-000004). Single context planning shall be used where complex stratigraphy is encountered.
- 4.3.37 A 'Harris matrix' stratification diagram shall be employed to record stratigraphic relationships (Harris *et al.* 1993) where appropriate. This record shall be compiled and fully checked by the Archaeological Contractor during the course of the excavations. Spot-dating shall be incorporated onto this diagram during the course of excavations.
- 4.3.38 Recording of structural evidence revealed below ground level will vary according to the level of special interest of the structure and its relationship to archaeological remains. Structures of little or no significance shall be noted on a site plan. Detailed drawings of important features revealed in investigations may be required in accordance with the aims and objectives of the investigation as defined in the Project Plan.
- 4.3.39 The photographic record will be in digital format, resulting in high resolution TIFF (uncompressed) images. Photographs will illustrate both the detail and context of the principal archaeological features discovered. In addition, the Archaeological Contractor shall take appropriate record photographs to illustrate work in progress. All photographic records will include information detailing: site name and number/code, date, context, scale and orientation.

Human Remains

- 4.3.40 If unexpected human remains are identified, all work must be undertaken in accordance with the *Human remains and monuments procedure* (HS2-HS2-EV-PRO-0000-000008) and the Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035).

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- 4.3.41 The Archaeological Contractor shall notify DJV and LM-JV immediately upon discovery of unexpected human remains. DJV shall notify HS2, so that the human remains procedures can be implemented. DJVs notification to HS2 may initially be made personally or by telephone but shall be confirmed in writing (email will suffice) within 24 hours of discovery.
- 4.3.42 After notification to DJV the Archaeological Contractor will cease all works on unexpected human remains until further instruction is provided by DJV.
- 4.3.43 In accordance with Sections 8.2.23 – 8.2.27 of HS2 *Burial Grounds, Human Remains and Monuments Procedure* (HS2-HS2-EV-PRO-000-000008) the Archaeological Contractor will inform the Coroner or Police Force, and the local authority Environmental Health Officer of the discovery of unexpected human remains to enable them to visit the site, or confirm that the human remains are of no interest. The visit, or notification of no interest must be provided by the Coroner, Police and the EHO within two working days.
- 4.3.44 The Archaeological Contractor will complete any exhumation of human remains in accordance with the requirements of their recognised osteoarchaeologist. In some circumstances DJV may consult Historic England and other stakeholders for input to exhumation and sampling strategy.
- 4.3.45 Human remains, once recognised, will be metal-detected immediately to determine whether any metallic grave goods are present. If possible grave goods and other obvious artefacts shall be recorded and lifted on the day of discovery to avoid the risk of vandalism and theft. Where this is not feasible or appropriate, the Archaeological Contractor shall ensure, on liaison with the Contractor, that adequate site security is provided. As a minimum, this will require a 24-hour comprehensive security regime until sensitive remains have been recorded and lifted. This is a particular issue for rural sites and 'isolated burials'.
- 4.3.46 Human remains will be accorded due dignity, care and respect at all times. The Archaeological Contractor may need to screen the remains, dependent on their location.

Environmental Sampling

- 4.3.47 In line with the HS2 Technical Standard Specification for Historic Environment Investigations (HS2-HS2-EV-STD-000-000035) an initial sampling strategy is set out below (Section 4.3.49). This strategy is based on the existing information about the evaluation area, gathered from non-intrusive surveys and the HERDS Objectives listed in Table 2.
- 4.3.48 The sampling strategy, along with the HERDS Objectives outlined in Table 2 identify the key elements that should, where present, be sampled during this evaluation. However, the strategy will need to be reviewed throughout the on-site work, and where unexpected features or deposits are identified, revised accordingly to take these into account.
- 4.3.49 The purpose of sampling at the evaluation stage is to identify the range of environmental materials present, their preservation, significance and distribution.

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4.3.50 Sampling will therefore target the following, where present, as a minimum:

- Archaeological features (buildings, ditches, pits, gullies, postholes) associated with an enclosure (DHW166) of potential Iron Age date, with possible earlier phases of activity, from different features spread across concentrated areas of settlement activity (to assess the concentration, distribution and survival of Iron Age palaeoenvironmental material);
- Archaeological features (buildings, ditches, pits, gullies, postholes) associated with medieval settlement at Hints and Middleton, medieval deer parks (DHW105, DHW106, DHW114, DHW148), from well-preserved hedgerow boundaries associated with the parks, ditches, potential deer leaps and different features spread across concentrated areas of manorial agricultural activity (to assess the concentration, distribution and survival of medieval palaeoenvironmental material);
- Archaeological features (buildings, ditches, pits, gullies, postholes) associated with medieval (DHW126) and post-medieval mills (DHW134) with associated leats and ponds (to assess the concentration, distribution and survival of medieval and post-medieval palaeoenvironmental material);
- All samples will be screened for the presence of hammerscale and other indicators of industrial processes, particularly in the area of possible burning. Where significant concentrations are identified, this information should be fed-back to the field team, so that where necessary, further samples can be taken to help to define any areas of metalworking, or other industrial processes;
- Floor surfaces where they survive and have not been truncated;
- Deposits representing the main phases of activity (to assess whether there are changes in rates of deposition, or material survival over time);
- Alluvial sequences from deposits adjacent to the Bourne/Black Brook, Gallows Brook and the two unnamed water courses across the evaluation area (to assess the survival of palaeoenvironmental material).

4.3.51 Sampling will not only just target charcoal-rich or wet deposits, but be undertaken on those features outlined above, taking into account advice from the Archaeological Contractor's environmental archaeologist. This will ensure that samples are recovered from a representative range of contexts, which adequately characterise past activities, and allows an assessment to be made of the extent to which they help address palaeo-environmental and palaeo-economic questions.

4.3.52 It is possible that unexpected deposits or features will be identified during the evaluation within the areas where non-intrusive survey has not revealed any evidence. As these are not

covered in the initial sampling strategy above, the need for sampling will be assessed in terms of the Specific Objectives (both those in Table 2 as well as the remaining HERDS Objectives), the sampling strategy updated and the features sampled accordingly.

- 4.3.53 All samples will be taken to address a specific question. The purpose of the sample, and the question it has been taken to address will be recorded on The Archaeological Contractor's sample record sheet.
- 4.3.54 Samples will be taken using ten litre plastic buckets (with lids and handles), or strong polythene bags (double bagged) secured at the neck, for the recovery of bulk 'disturbed' environmental samples. Labelling will follow guidance set out in the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035).
- 4.3.55 For non-waterlogged deposits bulk samples will normally be taken in the range of 40-60 litres. Where contexts have a volume of less than that stated above then 100% of the context will be sampled. Each bulk sample will only contain sediment derived from a single context. Where waterlogged deposits are encountered, samples sizes will usually be in the range of 10-20 litres, which is suitable for the recovery of macrofossils from these contexts. Samples shall be protected at all times from temperatures below 5°C and above 25°C and from wetting and drying out due to weather exposure.
- 4.3.56 Where house floors or other buried land-surfaces are encountered and these are sampled, appropriately sized monolith or kubiena boxes will be used for the recovery of 'undisturbed' monolith samples for soil micromorphology and to sub-sample for microfossils (e.g. pollen and spores, diatoms, ostracods). Where longer sequences are sampled, contiguous column samples will be collected for the retrieval of macrofossils (e.g. molluscs, plant remains and insects). Further guidance on specialist samples is provided in the Technical Standard Specification for historic environment investigations (HS2-HS2-EV-STD-000-000035 - sections 4.21.22-26)
- 4.3.57 Processing of all bulk soil samples collected for biological assessment should be completed within two weeks of collection. Processing samples at the time of fieldwork will allow this sampling strategy to be updated and refined where necessary. The preservation state, density and significance of material retrieved shall be assessed by the Archaeological Contractor's recognised specialist. Special consideration shall be given to any evidence for recent changes in preservation conditions that may have been caused by alterations in the environment.
- 4.3.58 The Archaeological Contractor shall be responsible for the protection of all samples and finds and for their transport (including loading and unloading) to the processing facilities or other location as agreed with the Employer.

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Preservation in situ

- 4.3.59 Where preservation in situ has been identified as an option for areas, or it becomes clear during the evaluation that certain parts of the evaluation area might be retained in situ within the scheme design, The Archaeological Contractor will ensure that suitable samples are taken to assess the state of preservation (as set out in Historic England guidance on Preserving Archaeological Remains).

Backfilling

- 4.3.60 The trenches shall be pumped dry (by the Archaeological Contractor) and any necessary protection measures for archaeological remains (in addition to those for below ground infrastructure, services or utilities) shall be completed prior to backfilling. Generally, all backfill material shall consist of non-toxic, uncontaminated, non-putrescible, natural and inert material which shall be compacted and (if necessary) tested (dynamic compaction test or other) in accordance with a specification provided by the Contractor. Surface conditions shall be reinstated to the required standard.
- 4.3.61 The Archaeological Contractor shall ensure, in liaison with DJV, that adequate protection is provided for any archaeological remains. Any specific archaeological requirements relating to backfilling including use of materials to mark excavated depth, such as geotextiles, shall be specified by the Archaeological Contractor in the LS-WSI.

5 Post-investigation Reporting and Archiving

- 5.1.1 The Archaeological Contractor will produce an interim report, very briefly summarising findings of the evaluation, within five working days of the completion of fieldwork.
- 5.1.2 The Archaeological Contractor will produce a fully illustrated final report for the field evaluation, within 25 working days of the completion of fieldwork, with the following structure:
- Executive Summary;
 - Introduction, including evaluation area location and project background, aims, and GWSI: HERDS Specific Objectives (as identified in this Project Plan);
 - Baseline summary, including topography and geology, designated assets; archaeological potential and previous work(s) relevant to the archaeology of the evaluation area (e.g. DDBA, previous surveys);
 - Detailed Scope and Methodology, to include dates of fieldwork, the areas investigated at each stage and the rationale in relation to the Specific Objectives;

- Results and observations, along with the following supporting sections:
 - Trial trench evaluation
 - Stratigraphic report
 - Finds report
 - Environmental evidence report
 - Interpretation of results against original expectations and Specific Objectives
 - Review of evaluation strategy (i.e. success and confidence rating)
- Conclusions:
 - Statement of findings, and summary of significance
 - Assessment of achievement (or not) of the Specific Objectives
- Recommendations and research aims for further investigation (if required), publication and dissemination proposals, including archive deposition;
- References to all primary and secondary sources consulted;
- Appendices should include illustrations, contextual summary by trench, finds reports, environmental reports, site matrices (where appropriate) and full definitions of the interpretation terms used in the report.

5.1.3 The following figures will be included in the final report:

- General plan (mandatory);
- Engineering design (mandatory);
- Evaluation area location;
- Survey extents;
- Trial trench locations;
- Survey results to include plans and section of archaeological features, deposits and sequences;
- Selected photographs of representative and/or significant features and finds.

5.1.4 If the Archaeological Contractor foresees a requirement for extension to completion of either stage of reporting they will immediately notify DJV so that extension can be discussed with HS2.

6 Dissemination

- 6.1.1 The project archive and finds will be deposited with the appropriate museums archive, as identified in the LS-WSI.
- 6.1.2 Digital and hard copies of the report will be submitted to the relevant Historic Environment Record (HER) and the National Record for the Historic Environment (NRHE) in Swindon.
- 6.1.3 Significant discoveries will be reported in summary in the local archaeological society journal and/or other relevant journal as appropriate.
- 6.1.4 In accordance with professional standard practice the Archaeological Contractor will complete an 'Online Access to the Index of archaeological investigationS' ('OASIS') record.
- 6.1.5 A digital copy of the final report will be submitted to the Archaeological Data Service (ADS).

7 Information Management

- 7.1.1 GIS deliverables will be provided in accordance with the *Cultural Heritage GIS Specification* (HS2-HS2-GI-SPE-000-000004). CAD files will be GIS compatible and follow standards set out in the same Specification. Figures may be produced using CAD but final deliverables must be supplied in GIS format.
- 7.1.2 Mapping and spatial data deliverables will conform to HS2 GIS Standards as set out in HS2-HS2-GI-STD-000-000002 and other associated referenced documents.
- 7.1.3 The standard template for reports (HS2-HS2-PM-TEM-000-000004) will be used.

8 Quality Assurance Processes

- 8.1.1 The Archaeological Contractor will liaise with DJV regarding the works programme and quality assurance of the archaeological works. In the event of potential delays to programme, the Archaeological Contractor will issue an Early Warning Notice (EWN) via CEMAR following internal approval by the Archaeological Contractor's Project Director.
- 8.1.2 The Archaeological Contractor will have direct communication with LM on contractual matters and non-archaeological quality assurance; DJV will be informed of any EWNs raised in the course of the works.
- 8.1.3 The works will be overseen and internally quality-assessed by the Archaeological Contractor's senior management and will be directed by the Archaeological Contractor's Project Director.
- 8.1.4 All parties will follow HS2 protocols for Intra- and Inter-project communication, which will consist of the following format:

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- Weekly progress meetings will be held to discuss the progress of on-site works, forecasting of the works programme and to highlight any potential EWNs;
- Matters arising from progress meetings will be discussed and meeting minutes will be forwarded to all parties (Archaeological Contractor, DJV, LM).

8.1.5 The following interfaces are anticipated on the basis of current information:

- The Employer (HS2);
- The Contractor (LM-JV)
- The Archaeological Consultant (DJV);
- Third party stakeholders via DJV;
- HS2 via DJV;
- Other contractors working on separate parts of the evaluation area.

8.1.6 Following completion of work, parts of the evaluation area will be formally signed off by DJV and HS2. Formal sign off will be through a written process utilising a fieldwork sign-off sheet submitted by the Archaeological Contractor to DJV. DJV will review and, subsequent to any required revision, will submit the sign off sheet to HS2 for final approval.

8.1.7 The Archaeological Contractor will submit a draft of all reports to Asite for review. DJV will provide internal feedback and may require that the Archaeological Contractor amends documentation before acceptance. The Archaeological Contractor will upload PDF's of accepted documents to Asite for issue to HS2. HS2 may provide feedback and require amendment to submitted documents before they are approved.

9 Evidence of Engagement

9.1.1 Evidence of stakeholder engagement in preparing this Project Plan, including DJV responses to stakeholder comments, is set out in Appendix D.

10 References

Reference	HS2 document reference no.
HS2 Technical Standard Specification for historic environment investigations	HS2-HS2-EV-STD-000-000035
HS2 Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)	HS2-HS2-EV-STR-000-000015

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Document no.: 1EW04-LMJ-EV-PLN-NS05_NL14-029002

Revision: C03

HS2 Cultural Heritage GIS Specification	HS2-HS2-GI-SPE-000-000004
HS2 Geographic Information System Standards	HS2-HS2-GI-STD-000-000002
HS2 Unexploded Ordnance Desk Study	0615-ET-GT-REP-000-000001
HS2 CFA20 ES Reports: Curdworth to Middleton	Volume 5 appendix: CH-001-020, ES 3.5.2.20.4 CH-002-020, ES 3.5.2.20.5 CH-003-020, ES 3.5.2.20.6 CH-004-020, ES 3.5.2.20.7
HS2 CFA21 ES Reports: Drayton Bassett, Hints and Weeford	Volume 5 appendix: CH-001-021, ES 3.5.2.21.4 CH-002-021, ES 3.5.2.21.5 CH-003-021, ES 3.5.2.21.6 CH-004-021, ES 3.5.2.21.7
Geoarchaeological Desk Based Assessment (GDBA)	1D037-EDP-EV-REP-000-000031
Geoarchaeological Investigations Stage A: Updated Deposit Model	1EW04-LMJ-EV-REP-N000-029003
Report: Detailed Desk Based Assessment at Hints Cutting	1D037-EDP-EV-REP-N000-000006
Report: Detailed Desk Based Assessment of Middleton Park	1D037-EDP-EV-REP-N000-000008
Report: Trial Trenching Middleton	1EW04-LMJ-EV-REP-NS05_NL14-022008
Report for Trial Trenching Drayton Lane, Staffordshire	1EW04-LMJ-EV-REP-NS05_NL14-022009
Report: Trial Trenching Hints Cutting	1EW04-LMJ-EV-REP-NS05_NL15-022010
Geophysical Survey Results, Warwickshire	(C253-ATK-EV-REP-030-000581)
Project Plan for Detailed Desk-Based Assessment: Historic Settlement Landscape	1EW04-LMJ-EV-PLN-N000-029008

Code 1, Accepted

Detailed Desk Based Assessment for Historic Settlement Landscape Study	1EW04-LMJ-EV-REP-N000-029001
Richmond, A. (2017) Barton Quarry Western Extension Environmental Impact Assessment: Archaeology. Phoenix Consulting Archaeology unpublished report.	NA

11 Figures

11.1.1 The following figures are attached as **Appendix A**:

- Figure 1: Location Plan
- Figure 2: Heritage Assets 1/2
- Figure 3: Heritage Assets 2/2
- Figure 4: Previous Investigations
- Figure 5: Trench Plan 1/6
- Figure 6: Trench Plan 2/6
- Figure 7: Trench Plan 3/6
- Figure 8: Trench Plan 4/6
- Figure 9: Trench Plan 5/6
- Figure 10: Trench Plan 6/6

11.1.2 The detailed proposals drawings have not been included in this Project Plan but where appropriate to informing the evaluation strategy they have been referred to in the text. Trench layout may be subject to change once the final geophysics report has been received and, for example, due to environmental and utility constraints at the evaluation area.

12 Glossary of Terms

12.1.1 The following terms have been used in this report:

- **Archaeological Contractor** - the organisation undertaking the evaluation on behalf of the Contractor.
- **Contractor**- LM JV: the body responsible for the terms and conditions, policies, procedures and payments.
- **Detailed Desk Based Assessment (DDBA)** – analytical document that builds on the

information gathered previously in the Environmental Statement to address particular issues, questions or uncertainties within a given area. It may be developed to provide a more detailed understanding of the resource in an area to inform design development or construction programming.

- **DJV**- the body responsible to the Contractor for assurance of historic environment work and all communication with the Employer and other stakeholders regarding the archaeological strategy, scope and method of work.
- **Employer** – Hs2 Ltd.
- **Exhumation** – removal of human burials from an archaeological site.
- **Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy (GWSI: HERDS)** – the framework for delivering all historic environment investigations undertaken as part of the HS2 Phase 1 programme.
- **Health and Safety Compliance Manager** – The manager with responsibility for site inspections, reporting and issuing of recommendations for the Site Supervisor and Project Manager to implement.
- **Location** – a specific HS2 worksite or group of worksites that are being addressed as a combined historic environment investigation programme of assessment, evaluation and further investigation.
- **Project Manager** - acts as administrator of the contract, handling certification, compensation events etc., with an obligation to act fairly and impartially as an agent of the Employer. An office-based manager who is the client's principal point of contact and who has overall responsibility for the project budget and delivery
- **Project Plans** – specification document for each specific package of activity (e.g. a survey, desk-based assessment, excavation, recording project). The plans would respond to the Specific Objectives set out in the GWSI: HERDS and be delivered within an agreed budget and timeframe.
- **Senior Archaeologist** - a site-based manager provided by the Archaeological Contractor who is responsible for the direction of the works and the field team.
- **Works** – the specific historic environment assessment, evaluation or further investigation works at each location.

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Revision: C03

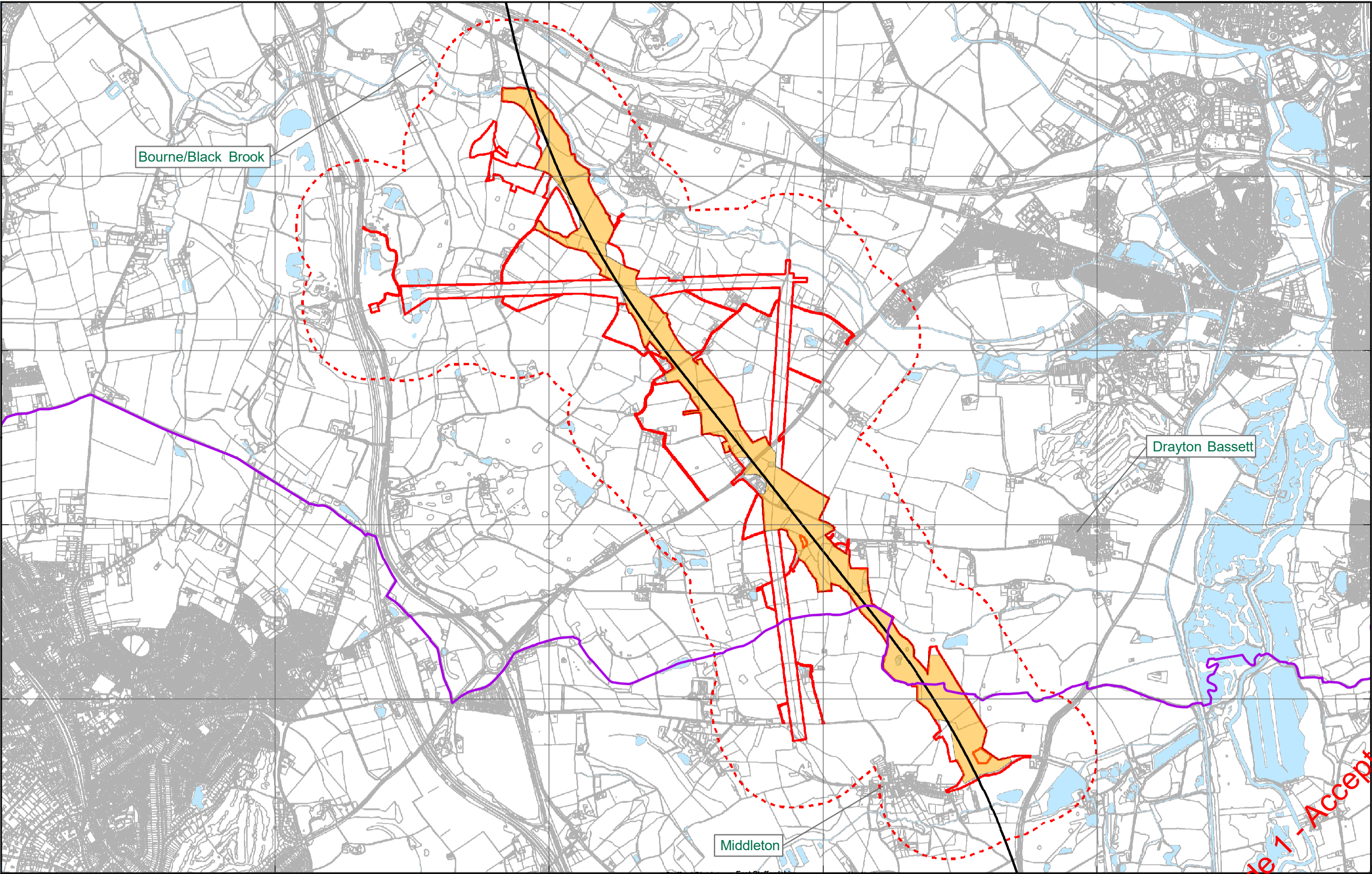
Acronyms

ADS	Archaeology Data Service
CLR	Construction Land Requirement
DDBA	Detailed Desk-Based Assessment
ES	Environmental Statement
ESA	Enhanced Study Area (as part of GDBA)
GCZ	Geoarchaeological Character Zone (as part of GDBA)
GDBA	Geoarchaeological Desk-Based Assessment
GIS	Geographical Information System
GWSI: HERDS	Generic Written Scheme of Investigation: Historic Environment Research and Delivery Strategy
HE	Historic England (Formerly English Heritage)
HER	Historic Environment Record
LLAU	Limits of Land to be Acquired or Used
LS-WSI	Location Specific Written Scheme of Investigation
NRHE	National Record for the Historic Environment
OASIS	Online Access to the Index of archaeological investigations
PDF	Portable Document Format

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Appendix A – Figures

Code 1 - Accepted



Legend

- Route in tunnel
- Route on surface
- Evaluation Area
- Land potentially required during construction
- 500m Boundary
- Community forum boundary
- District/Borough boundary
- Watercourse
- Water Body

Figure 1

Drayton Bassett Location Plan

Community Forum Area CFA20 & CFA21

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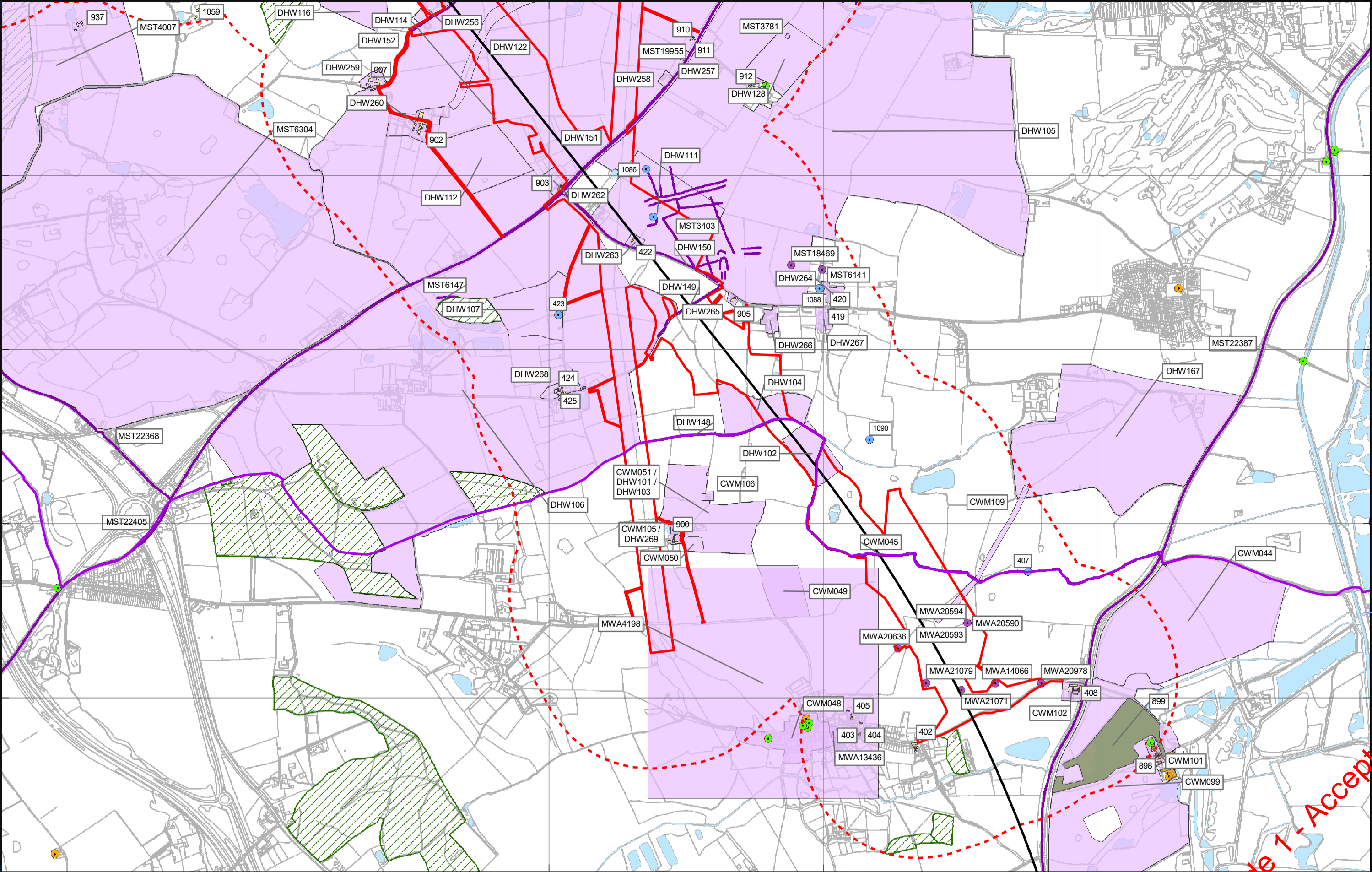
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Legend

- Route in tunnel
- Route on surface
- Land potentially required during construction
- 500m Boundary
- Community forum boundary
- District/Borough boundary

- Watercourse
- Water Body
- Ancient Woodland
- Non-Designated Heritage Site (point)
- Non-Designated Heritage Site (line)
- Non-Designated Heritage Site (polygon)

- Place name
- Building
- Farmstead
- Landscape Feature
- Conservation Area
- Heritage Asset Reference ID (ES 2013)

Listed Building

- Grade I
- Grade II*
- Grade II

Stafford District

Cannock Chase District

South Staffordshire District

Sandwell District (B)

South Derbyshire District

West Leicestershire District

Hilckley and Bosworth District (B)

Nuneaton and Bedworth District (B)

Coventry District

Solihull District

CFA-22

CFA-21

CFA-20

CFA-25

CFA-19

CFA-26

CFA-23

Map Number

Figure 2

Map Name

Drayton Bassett Heritage Assets 1/2

Community Forum Area CFA20 & CFA21

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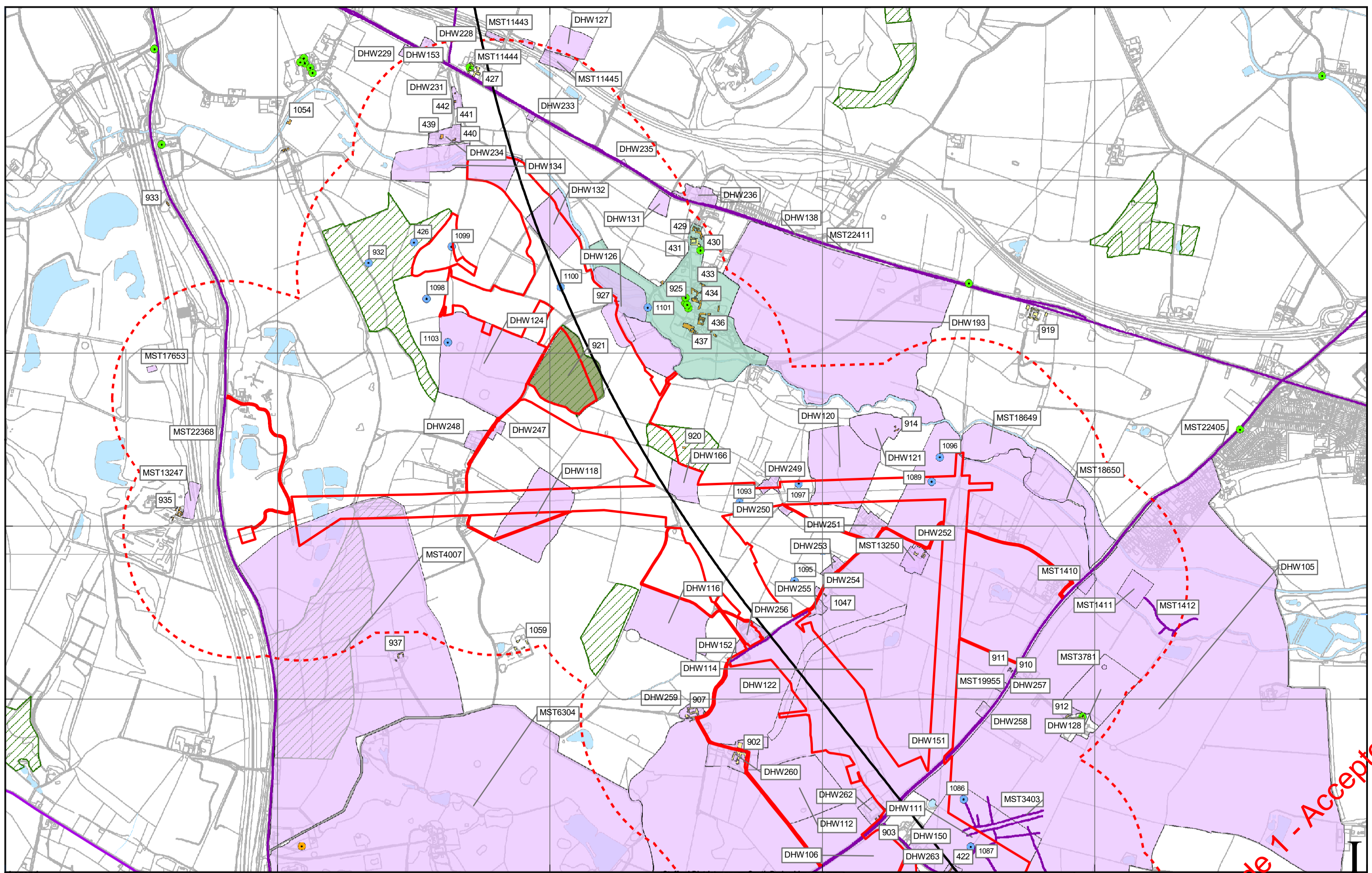
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Date: 09/04/19



Legend

Route in tunnel	Watercourse	Place name	Listed Building
Route on surface	Water Body	Building	Grade I
Land potentially required during construction	Ancient Woodland	Farmstead	Grade II*
500m Boundary	Non-Designated Heritage Site (point)	Landscape Feature	Grade II
Community forum boundary	Non-Designated Heritage Site (line)	Conservation Area	
District/Borough boundary	Non-Designated Heritage Site (polygon)	Heritage Asset Reference ID (ES 2013)	

Figure 3

Drayton Bassett Heritage Assets 2/2

Community Forum Area CFA20 & CFA21

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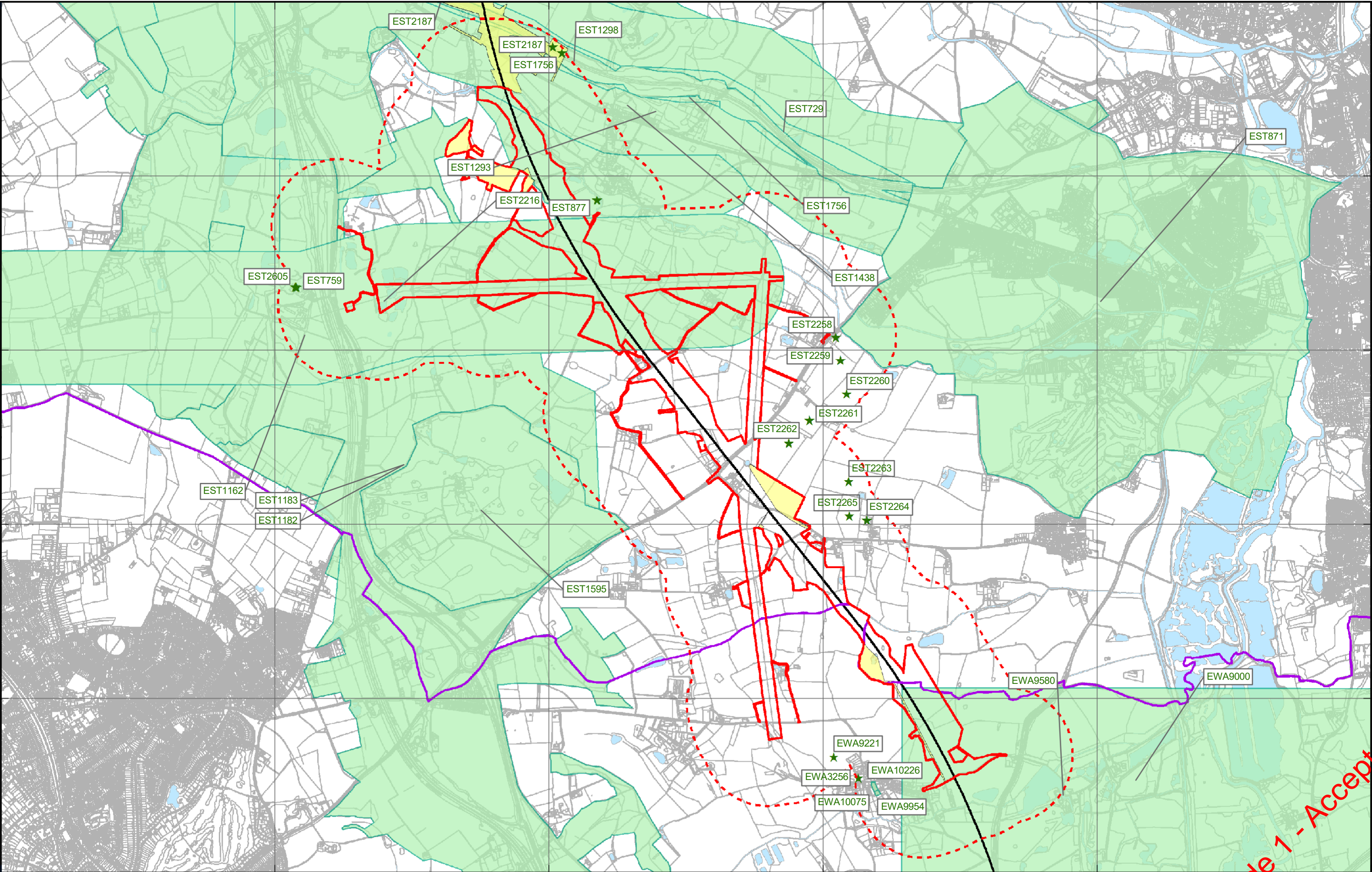
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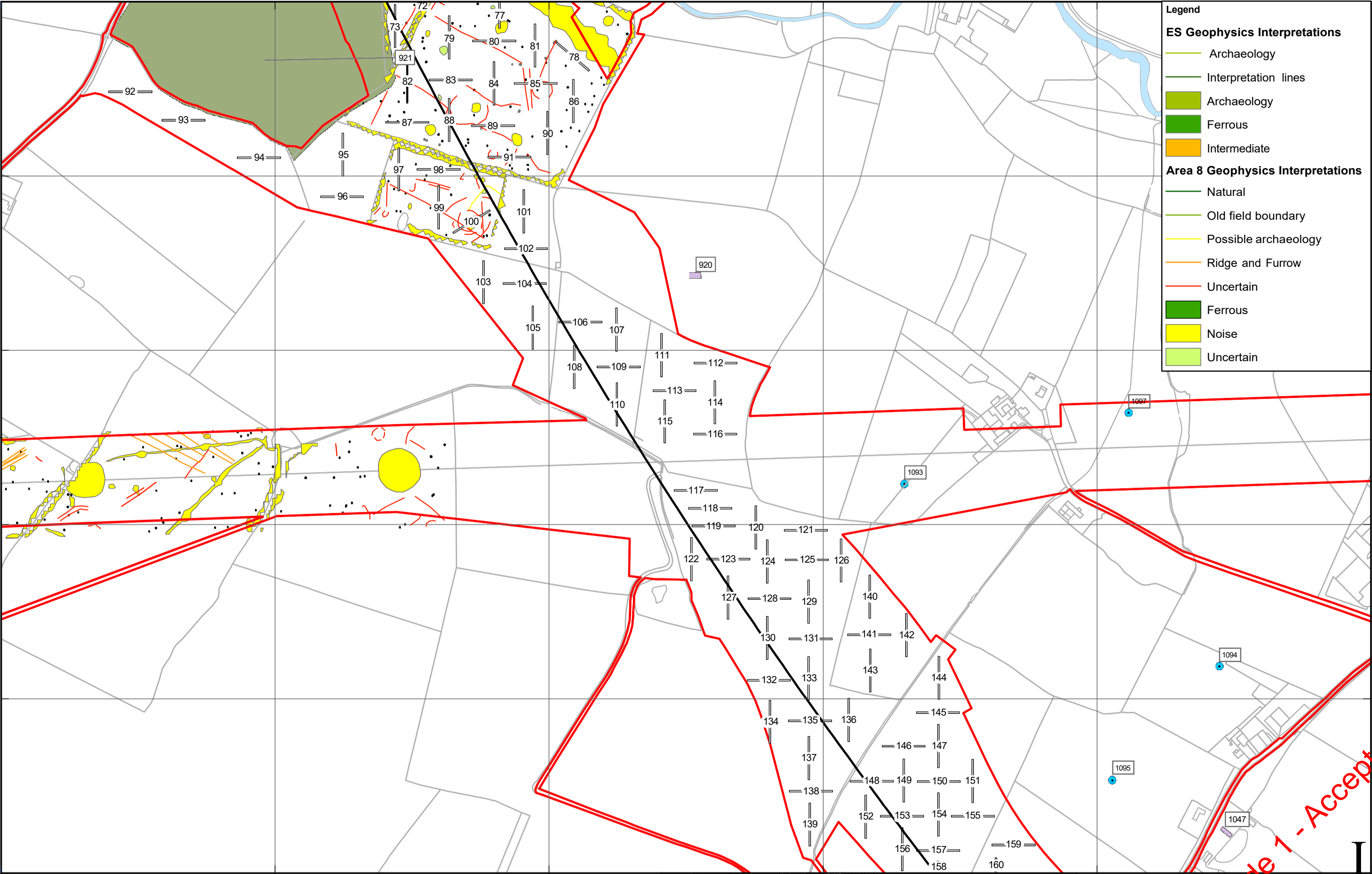
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Legend Route in tunnel Route on surface Land potentially required during construction 500m Boundary Community forum boundary District/Borough boundary Watercourse Water Body HER Event (point) HER Event (polygon) WP22 Trial Trenching HER Event Unique Reference ID (2016)	Figure 4 Drayton Bassett Previous Investigations Community Forum Area CFA21 Drayton Bassett, Hints and Weeford	HS2 HS2 Ltd accept no responsibility in any circumstances, which arise from the reproduction of this map after alteration, amendment or abbreviation of it is issued in part or issued incomplete in any way. Registered in England. Registration number 06791686. Registered office: 2 Snow Hill, Queensway, Birmingham, B4 6GA. © Crown copyright and database rights 2018. Ordnance Survey Licence Number 100049190. Scale at A3: 1:26,000 Date: 09/04/19
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Legend

ES Geophysics Interpretations

- Archaeology
- Interpretation lines
- Archaeology
- Ferrous
- Intermediate

Area 8 Geophysics Interpretations

- Natural
- Old field boundary
- Possible archaeology
- Ridge and Furrow
- Uncertain
- Ferrous
- Noise
- Uncertain

Legend

- Route in tunnel
- Route on surface
- Land potentially required during construction
- Community forum boundary
- District/Borough boundary
- Watercourse
- Water Body
- Trenches
- Place Names
- Building
- Farmstead
- Landscape Feature

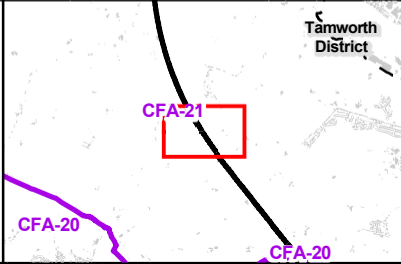


Figure 6

Drayton Bassett Trench Plan 2/6

Community Forum Area CFA20 & CFA21

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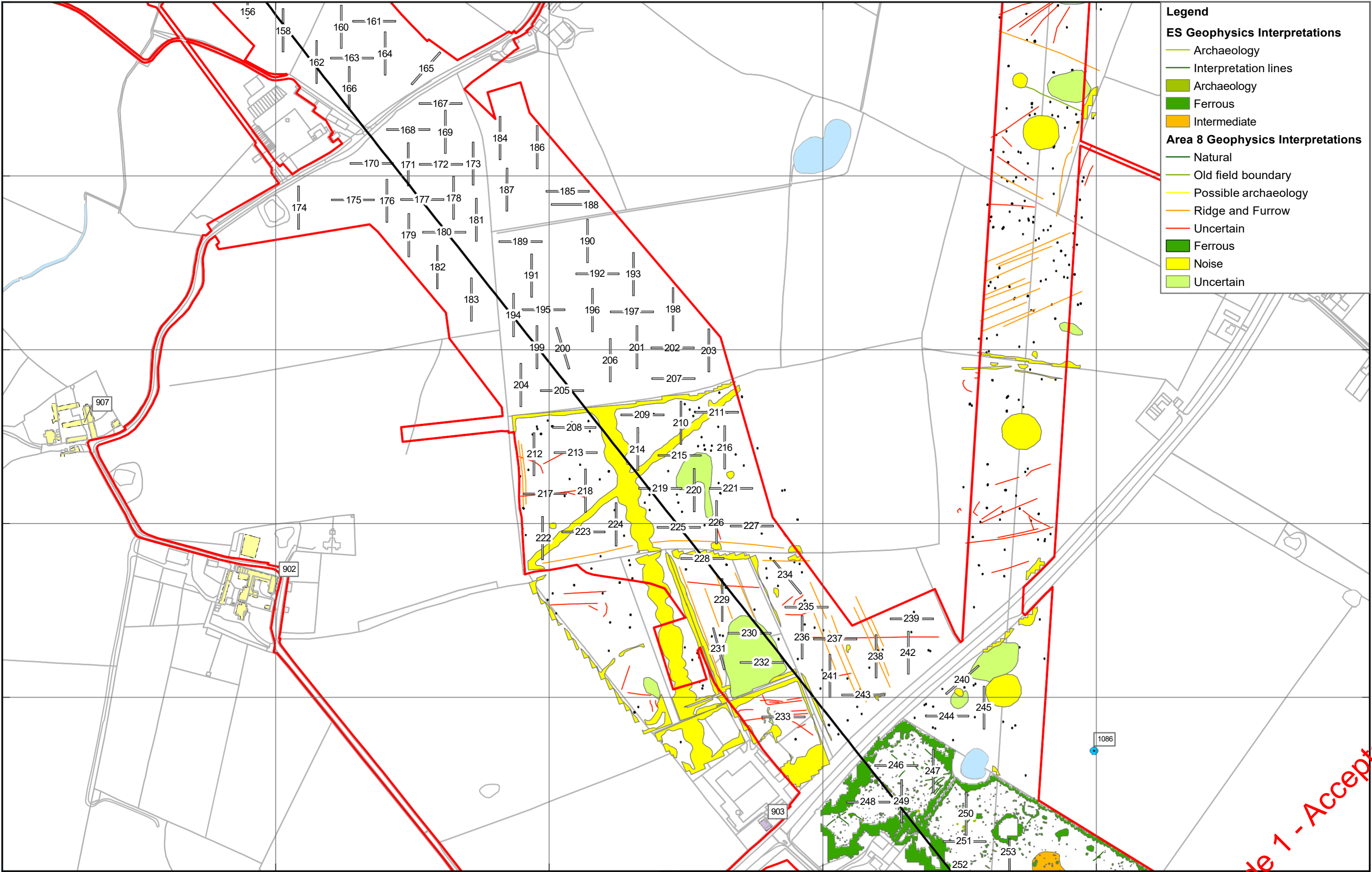
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Legend

ES Geophysics Interpretations

Archaeology

Interpretation lines

Archaeology

Ferrous

Intermediate

Area 8 Geophysics Interpretations

Natural

Old field boundary

Possible archaeology

Ridge and Furrow

Uncertain

Ferrous

Noise

Uncertain

Legend

Route in tunnel

Route on surface

Land potentially required during construction

Community forum boundary

District/Borough boundary

Watercourse

Water Body

Trenches

Place Names

Building

Farmstead

Landscape Feature

Figure 7

Drayton Bassett Trench Plan 3/6

Community Forum Area CFA20 & CFA21

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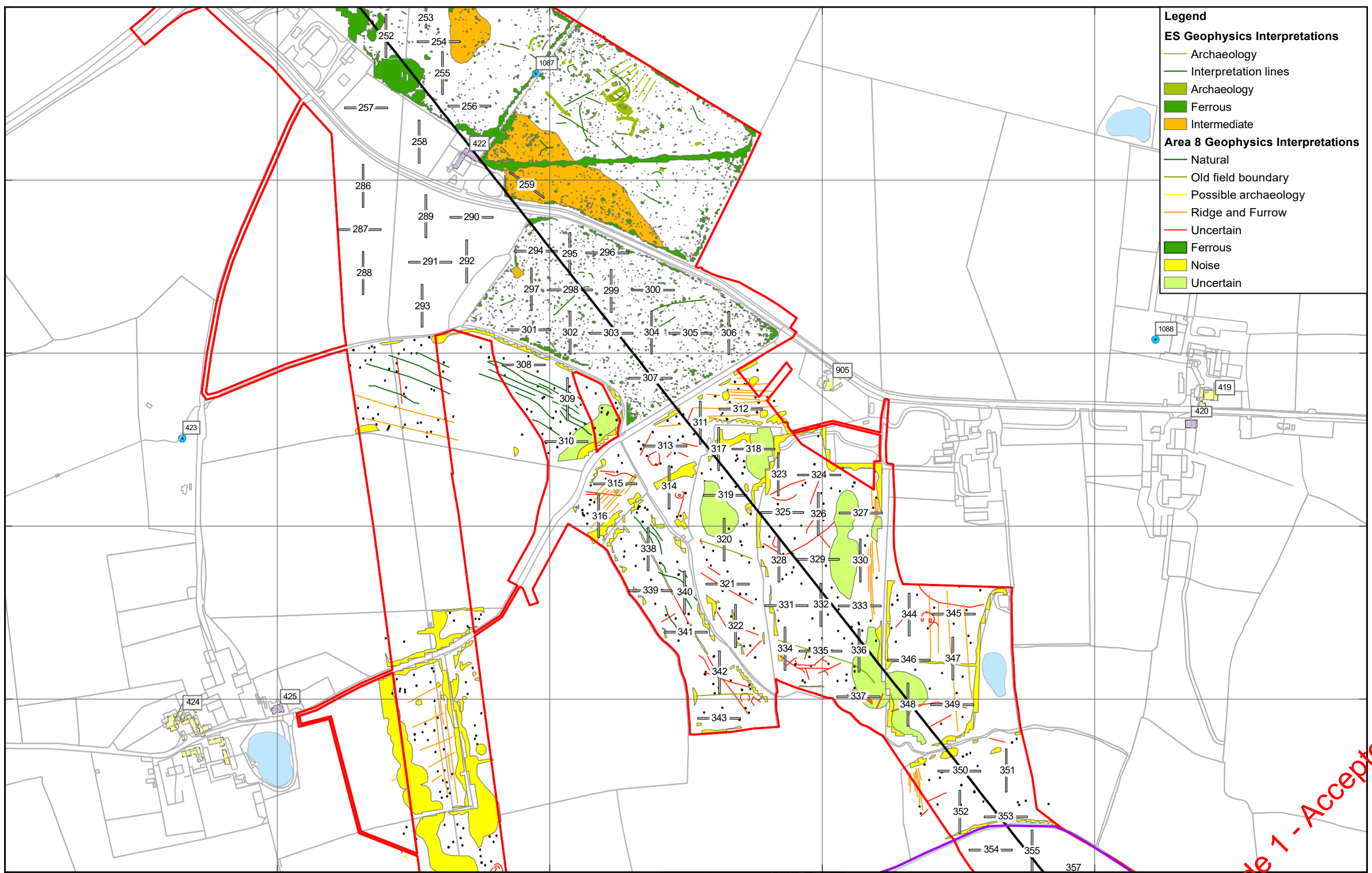
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Legend

ES Geophysics Interpretations

- Archaeology
- Interpretation lines
- Archaeology
- Ferrous
- Intermediate

Area 8 Geophysics Interpretations

- Natural
- Old field boundary
- Possible archaeology
- Ridge and Furrow
- Uncertain

Legend

- Ferrous
- Noise
- Uncertain

Legend

- Route in tunnel
- Route on surface
- Land potentially required during construction
- Community forum boundary

District/Borough boundary

Watercourse

Water Body

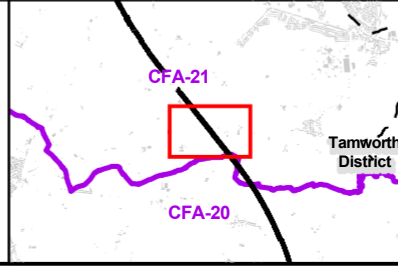
Trenches

Place Names

Building

Farmstead

Landscape Feature



Map Number

Map Name

Figure 8

Drayton Bassett Trench Plan 4/6

Community Forum Area CFA20 & CFA21

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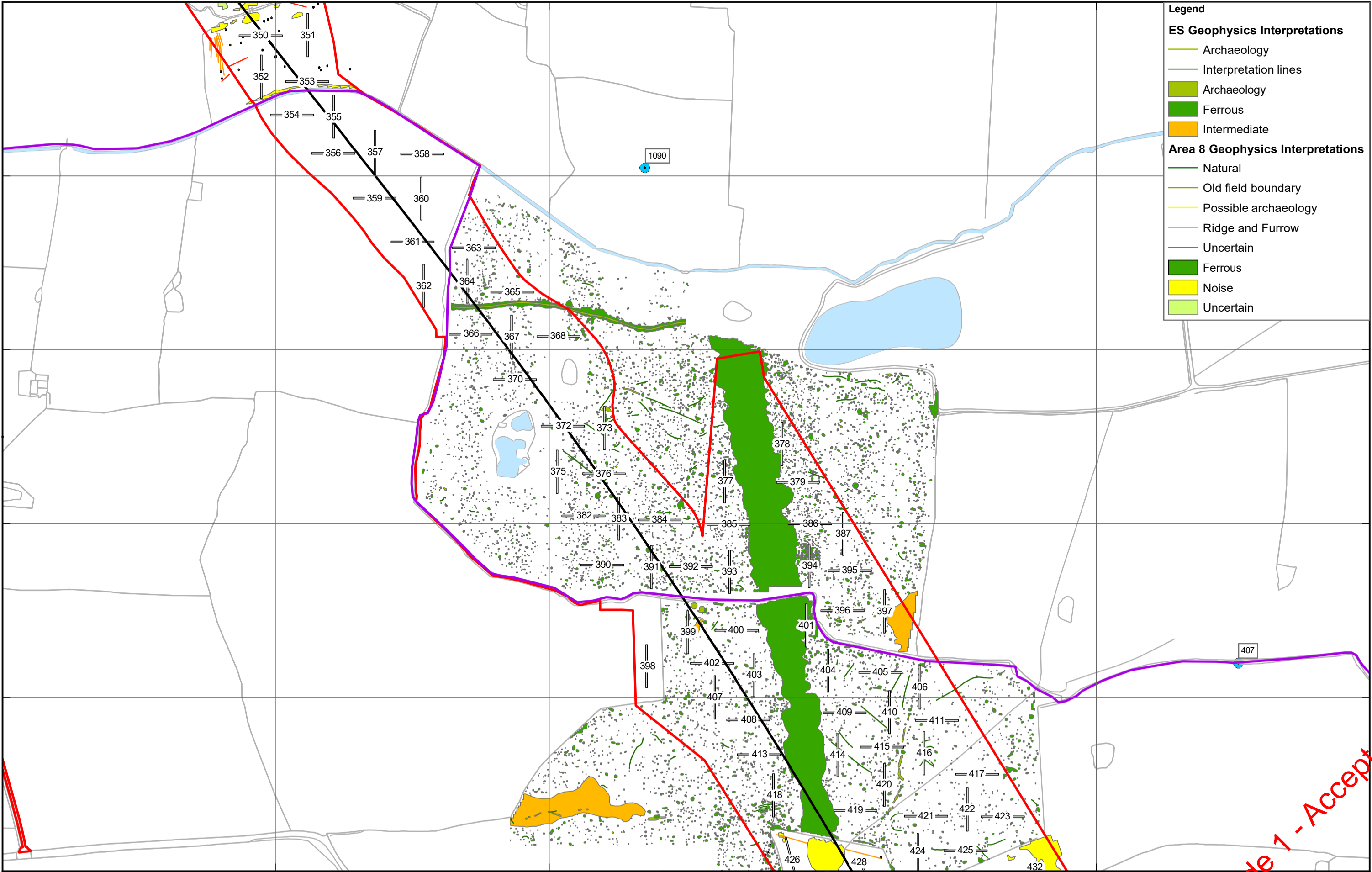
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Legend

Route in tunnel

Route on surface

Land potentially required during construction

Community forum boundary

District/Borough boundary

Watercourse

Water Body

Trenches

Place Names

Building

Farmstead

Landscape Feature

Map Number

Figure 9

Map Name

Drayton Bassett Trench Plan 5/6

Community Forum Area CFA20 & CFA21

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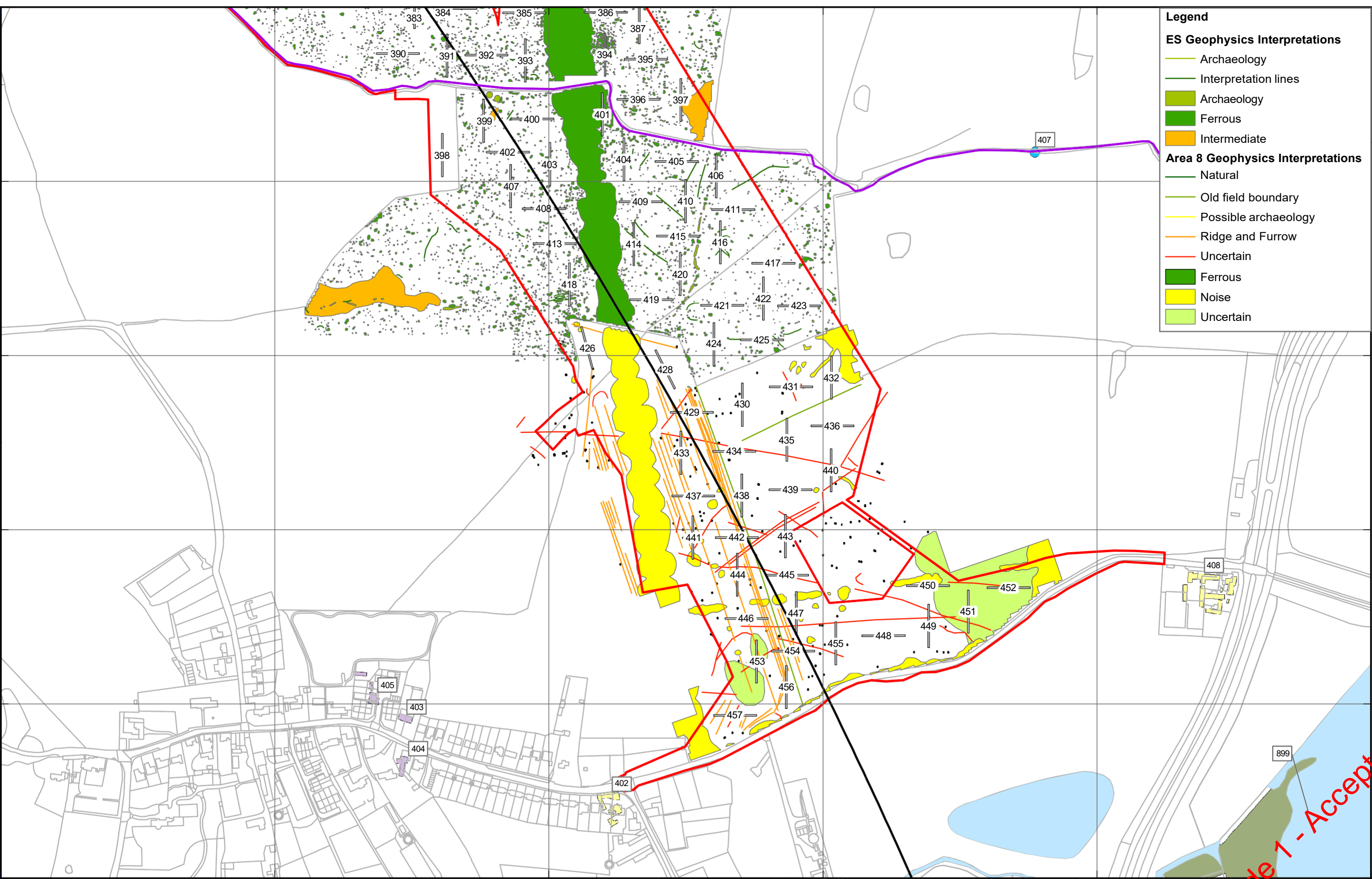
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Legend

Route in tunnel

Route on surface

Land potentially required during construction

Community forum boundary

District/Borough boundary

Watercourse

Water Body

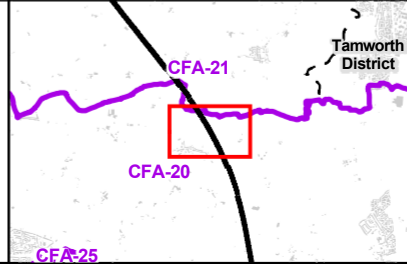
Trenches

Place Names

Building

Farmstead

Landscape Feature



Map Number

Figure 10

Map Name

Drayton Bassett Trench Plan 6/6

Community Forum Area CFA20 & CFA21

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Appendix B – Heritage Assets

Asset ID	Asset Name	Asset Description
ES ref. CWM044	Cropmark enclosures at Middleton Park	Cropmarks including sub-rectangular enclosures, possibly a Late Bronze Age or Iron Age field system at Middleton Park, north of the hall. Identified on HER (MWA315; 10351) Identified on aerial photographs including Cambridge University APs BQV66 and BQV67 as cropmark linear boundaries with rectangular enclosure against one.
ES ref. CWM048	Group of designated buildings and un-designated buildings at Middleton Village	<p>Group of designated and un-designated cottages, School Buildings, farm and small industrial structures, largely arranged along Church Lane, the principal east-west road of Middleton Village. The sandstone church boundary wall dates from the 17th century as does the timber framed Old Smithy. The School House is a 19th century 3 storey building, with the cast iron village pump also dating to the 19th century. The un- designated buildings range in date from the 18th-19th century and are largely cottages arranged along Church Street, along with a former farmstead at Middleton Equestrian centre, Middleton First School, The Old Vicarage and a row of cottages north of the church at Church Row.</p> <p>The village of Middleton is situated within a rural setting, accessed principally from the east with roads entering it characterised by their sinuous alignment and enclosure by hedgerows. The significance of the setting of the asset is principally the sense of seclusion within the settlement.</p> <p>The area marks the probable extent of the medieval settlement of Middleton, based on the first edition OS of 1887. Middleton is recorded in the Domesday book of 1086.</p>
ES ref. CWM049	Ridge and furrow	Ridge and furrow north of Middleton.
ES ref. CWM050	Linear cropmark	L shaped linear south of Upper House Farm Middleton
ES ref. CWM051	Ridge and furrow at Upper House Farm	Ridge and furrow north-east of Upper House Farm
ES ref. CWM099	Middleton Park	The site of a deer park kept in the medieval period and situated north and south of Middleton Hall. Ridge and furrow has been recorded within the park. Enclosed by a deer leap in the 13th century. The Park surrounds Middleton Hall. The HER records it as originally having been a deer park, although there are records and extant remnants of designed features including avenues, lake, plantations and gardens. The park retains reasonable legibility, although woodland and wetland areas are being expanded in relation to its status as a SSSI.

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Asset ID	Asset Name	Asset Description
ES ref. CWM101	Garden wall, gatepiers and pavilion approximately 50 metres north west of Middleton hall	<p>Wall, gatepiers and pavilion at Middleton Hall of 18th century date and constructed of Red brick with sandstone piers and coping. The wall encloses 3 sides of a garden and the south-west side of a stable yard which lies immediately to the south-east. The pavilion is in the north-east corner of the garden. It is square and formerly of 2 storeys with a pyramidal plain tile roof and brick corner stack. There are two gateways on the south-west side, one giving access to the garden and the other to the stable yard.</p> <p>The walled garden lies to the north of Middleton Hall and is bounded to the north and west by mature trees, with no views beyond the surrounding park.</p> <p>The walled garden lies to the north of Middleton Hall and is bounded to the north and west by mature trees, with no views beyond the surrounding park. The seclusion of the walled garden clearly contributes to its significance.</p>
ES ref. CWM102	Park-gate Farm, Church lane	<p>Mid-19th century farmstead comprising a large two storey detached farm with remnant of regular courtyard plan. The farm house is of red brick with slate roof. The remnant of the original farm building comprises an east-west range adjacent to Church Lane containing four of loose boxes. To the south of the complex are several modern sheds that with a high border of tree cover partially screen views to the west and south of the historic buildings.</p> <p>The farm is located at the eastern end of Church Lane east of the village of Middleton, at the junction with the busy A4091 Tamworth Road. The principal elevation of the farm faces east towards Middleton Park. Arable fields are located to the north and south. The setting contributes towards the understanding of the historical context of the asset, opposite the entrance to Middleton Hall park, and contributes to its significance.</p>
ES ref. CWM105	Upper House Farm, Coppice Lane and Barn associated with Upper House Farm, Coppice Lane	<p>A 19th century regular courtyard plan farmstead comprising a detached two storey farmhouse on the southern side of a three-sided range of agricultural buildings comprising barn, cart shed and accommodation for animals. A large modern shed structure has been erected within the courtyard, and there are further modern sheds to the north. The farmstead is situated on a slightly elevated site with views across Gallows Brook. The farm is set within agricultural fields at the end of a private trackway. The isolation of the farm contributes to the significance of the asset.</p>
ES ref. CWM106	Barn associated with Upper House Farm, Coppice Lane	<p>Field barn to the north Upper House Farm. Brick built structure with tiled roof and air slots within exterior walls. Abutted to the south by lean-to asbestos sheet shelter. The barn is situated on a slightly elevated site with views across Gallows Brook. The Barn is set apart from other farm buildings and is within an isolated rural context. The setting of the barn within an isolated rural context contributes to an understanding of its historical context and to its significance.</p>

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Document no.: 1EW04-LMJ-EV-PLN-NS05_NL14-029002

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Asset ID	Asset Name	Asset Description
ES ref. CWM109	Former watercourse	Former watercourse, aligned north-east to south-west. Identified through LiDAR (WA20.50-see appendix CH004-020.
ES ref. DHW102	Cropmarks near Gallows Brook	L shaped linear feature visible in aerial photographs.
ES ref. DHW104	Relict field system north of Gallows Brook	Ridge and furrow earthworks visible in aerial photographs as referenced on the Staffordshire HER.
ES ref. DHW105	Drayton deer park	Park, dating to at least the early 13th century, its extent as shown on mapping of the 16th to 17th century. Hedgerows still define the park boundary, see DHW150.
ES ref. DHW106	Shirral Park deer park	Park, mentioned in records in the late 14th, 15th and 16th centuries. The boundary of the park is traced from tithe map field names and a description of a now lost 16th century map. Shirral Park was disparked in 1756, and no trace of an earthwork boundary has been identified. Hedgerows still define the park boundary; see DHW149, DHW150, DHW151.
ES ref. DHW107	Earthworks around Shirral Coppice	Earthworks of a dam along the western edge of Loddy Wood in the former Shirral Park. A rectangular brick structure survives to the NE corner of the dam. A curving linear feature, evident as a cropmark, probably representing the former south-eastern extent of Shirral Coppice. An earthwork bank and ditch aligned east to west through Shirral Coppice, which appears to be the continuation of a field boundary.
ES ref. DHW111	Field system at Hill Farm	Extensive undated cropmarks forming adjoining enclosures with a possible ditched roadway, evident as cropmarks to the south of Hill Farm on aerial photos. Also, possible lynchets to the north and linear earthworks visible on LiDAR. Features near DHW111 identified in a geophysical survey (Wessex Archaeology 23 May 2013) could relate to this site.
ES ref. DHW112	Field system at Drayton Lane End Farm	Linear features visible in aerial photographs (CUCAP BQV68-70), 1974
ES ref. DHW114	Bangley Park deer park	Park, mentioned in records of the late 15th century, and mapped from documentary sources and archaeological evidence. De-parked in the mid-18th century, the land is now in agricultural use. Hedgerows still define some of the park boundary, see DHW151 and 152.
ES ref. DHW116	Field system at Brock Hurst	Field system seen in aerial photographs south of Hints, adjacent to Brock Hurst ancient woodland.
ES ref. DHW118	Relict field system west of Hints	Ridge and furrow visible in aerial photographs.

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Asset ID	Asset Name	Asset Description
ES ref. DHW120	Site of Greasley Hall	Site of Greasley Hall, Hints, believed to have dated to the late medieval period and demolished between the late 18th and early 19th century. No above ground remains survive.
ES ref. DHW122	Historic brook	Site of a former watercourse visible on hyperspectral and LiDAR plots. High archaeological interest for prehistoric and later features known on the Black Brook and brooks leading to Tent and Tame valleys.
ES ref. DHW124	Crow's Castle Mound and Gorsey Hill Mound	Crow's Castle Mound, planted with trees and bounded by an agriculturally formed lynchet – reputed to have been a barrow but more probably natural. Gorsey Hill Mound also a mound of unknown data and function. Probably a natural mound of Bunter pebbles.
ES ref. DHW126	Medieval forge and mill with ponds	Site of a forge in the post-medieval period, also the site of a watermill dating to at least the early 18th century that was demolished around the mid-19th century. A series of ponds, associated earthworks and a leat are also possibly associated with the mill. An ornamental fishpond, probably created by enlarging an earlier mill pond. Visible on LiDAR (see CH-004-021).
ES ref. DHW127	Prehistoric pit alignment	Pit alignment visible in aerial photographs (CUCAP YK94-96), 1959
ES ref. DHW128	Prehistoric site at Hill Farm	Site identified by a flint scatter and pottery.
ES ref. DHW131	Gold's Clump	Mound, suggested in antiquity to be a barrow but now considered to be a natural rock outcrop (CUCAP AAY30), 1960.
ES ref. DHW132	Relict field system north west of Hints	Ridge and furrow visible in aerial photographs.
ES ref. DHW134	Slitting Mill and ponds	Site of a slitting mill near Bourne House, extant in the late-18th century. Pond associated with slitting mill and line of infilled leat. Visible on LiDAR south east of Bourne House (see CH-004-021).
ES ref. DHW138	Watling Street	Watling Street, the approximate alignment of the Roman Road, this section running between Wall and Fazeley.
ES ref. DHW148	Hedgerow 17 Middleton Estate boundary	Historic parish boundary and historic boundary of Middleton Estate.
ES ref. DHW149	Hedgerow 18 – Shirral deer park boundary	Possible part of Shirral deer Park.
ES ref. DHW150	Hedgerow 19 Shirral and Drayton deer park boundary	Possible part of Shirral Deer Park and/or Drayton deer Park.
ES ref. DHW151	Hedgerow 20 – Shirral, Drayton and Bangley deer park boundary	Possible part of Drayton, Shirral and Bangley deer Parks.

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Asset ID	Asset Name	Asset Description
ES ref. DHW152	Hedgerow 21 – Bangley deer park Boundary	Historic parish boundary; possible part of Bangley deer Park.
ES ref. DHW153	Hedgerow 22 – Weeford parish boundary	Historic parish boundary
ES ref. DHW166	Enclosure at Roundhill	Enclosure visible on LiDAR (see CH-004-021) at the southern extent of Roundhill Wood.
ES ref. DHW193	Hints Hall Park	Park, surrounding Hints Hall, the extent of which is mapped from the second edition Ordnance Survey maps of 1903. The area of the parkland now contains the farm complex and adjacent fields of Manor Farm. There is a very low legibility of historic designed landscape features with the exception of some surviving plantations along the southern boundary and a lodge on Watling Street next to a private lane into Hints. The principal view from the former Hints Hall would have been looking southwest across the brook to Hints Hills.
ES ref. DHW228	House on Roman Road, Weeford	Early 20th century semis with projecting gabled bays at either side of façade. Of limited architectural merit, but of a group forming a consistent aesthetic along Roman Road and Flats Lane. The Proposed Scheme will be visible from the property where it crosses the A5.
ES ref. DHW229	House on Roman Road, Weeford	Early 20th century semis with central bay with hipped gable. Limited architectural merit, but of a dispersed group forming a consistent aesthetic along Watling Street and Flats Lane. The Proposed Scheme will be visible from the property where it crosses the A5.
ES ref. DHW231	Bourne Cottage with adjacent barn	Brick cottage possibly dating to the 18th century. The building is well screened to the west within a semi-wooded lane, but has open views south-east towards the Proposed Scheme.
ES ref. DHW233	The Lodge, Rock Hill, Weeford	Late 19th century detached lodge built for the northern drive to Hints Hall. Very little screening to the south or west of the property with views out over adjacent agricultural land.
ES ref. DHW234	Bourne House and Lodge, Weeford	Multi-period complex of buildings, originally a 19th century rectory. Rendered brick structure of two storeys with south facing principle elevation. Earliest element potentially a north-south aligned range at the western side of the complex, with additional structures added through the 19th and 20th century. The asset is situated in the vicinity of an earlier water powered mill, although no elements appear to have survived. The buildings are well screened to the south and east by dense tree cover. They have a secluded feel and front onto the Bourne Brook.
ES ref. DHW235	Milepost, Rock Hill, north-west of Hints	Milepost on Rock Hill. Labelled 'Hints', with distances to Lichfield and Fazeley.

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Asset ID	Asset Name	Asset Description
ES ref. DHW236	3-7 Rock Hill, Hints	Terrace of early 19th century brick built cottages, possibly originally comprising three dwellings. The property has been substantially altered externally with rendering and ground floor porch added along the western two thirds of the facade and numerous extensions to the rear elevation. The building lies on slightly raised ground above Rock Hill road with views west over to Hints Hill partially obscured by an overgrown hedgerow.
ES ref. DHW247	White Owl Farm, Brockhurst Lane	Mid-20th century planned farmstead comprising large detached brick built two-storey farmhouse with end gable chimneys and modern extension. Associated is a three-sided complex of stable buildings around a courtyard. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views to the south-east of the buildings look over open agricultural land towards Rookery Wood, Roundhill Wood and Brock Hurst Wood.
ES ref. DHW248	Rookery Farm, Brockhurst Lane	Mid-20th century planned farmstead with brick-built farmhouse and three-sided complex of stable buildings around a courtyard. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views to the southeast of the buildings look over open agricultural land towards Rookery Wood, Roundhill Wood and Brock Hurst Wood.
ES ref. DHW249	Holt Farm, Bangley Lane	Mid-20th century planned farmstead comprising large detached brick-built farmhouse with end gable chimneys and associated three-sided complex of stable buildings around a courtyard. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views to the west of the farmstead look over an area of low lying agricultural land towards Brock Hurst Wood.
ES ref. DHW250	The Old Rafters, Bangley Lane	Former tithe barn comprising a long brick built single storey range with two added bays projecting from it. Modern alterations to convert to dwelling, with renaming to Old Rafters indicating possible survival of historic fabric internally. Views to the west across open fields.
ES ref. DHW251	Fordway Farm, Bangley Lane	Mid-20th century planned farmstead with brick-built farmhouse and adjacent L-shaped range of stables and loose boxes. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views from the farmstead west over White House Farm to Brock Hurst Wood are partially obscured by existing tree cover.

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Asset ID	Asset Name	Asset Description
ES ref. DHW252	Lower Bangley Farmhouse	Multi-period loose courtyard plan farm complex, largely mid-19th century. Comprises large T-plan farmhouse of two storeys, connected via a range of smaller buildings to a cart shed with granary over. To the southern side of the courtyard are detached stables with rooms over accessed via an external stair. Views west from the farmstead over open agricultural fields are partially obscured by the canopies of trees within the borders of the adjacent grounds of the farmhouse.
ES ref. DHW253	Woodside Farm, Bangley Lane	Mid-20th century planned farmstead with brick built farmhouse and adjacent L-shaped range of stables and loose boxes. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views from the farmstead west over to White House Farm are partially obscured by existing tree cover. To the south of the farmstead is a small wooded plantation.
ES ref. DHW254	Orchard Farm, Bangley Lane	Mid-20th century planned farmstead comprising an L-shaped range occupied as a dwelling but very similar in dimensions to the stables observed in nearby farmsteads. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views from the farmstead look north and west over open agricultural fields, whilst those to the south are partially obscured by adjacent development.
ES ref. DHW255	Farm, Bangley Lane	Mid-20th century planned farmstead comprising an L-shaped range occupied as a dwelling but very similar in dimensions to the stables observed in nearby farmsteads. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views from the farmstead look west over a national grid site.
ES ref. DHW256	Mill House and White House Farm	Mid-20th century planned farmstead with farmhouse and a three-sided complex of former stable buildings around a courtyard, now converted to a dwelling. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Currently in an open field setting.
ES ref. DHW257	Oakleigh, Sutton Road	Mid-20th century planned farmstead comprising a detached two storey brick built farmhouse and adjacent L-shaped range of stables and loose boxes. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views west of the farmstead are not screened, looking directly over open agricultural land.

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Asset ID	Asset Name	Asset Description
ES ref. DHW258	Farm on Sutton Road	Mid-20th century planned farmstead comprising a detached two storey brick built farmhouse and adjacent L-shaped range of stables and loose boxes. Of limited architectural merit, but of historic value as a closely dated dispersed group of farmsteads along Brockhurst Lane, Bangley Lane, and Bangley Lane. Views west of the farmstead are not screened, looking directly over open agricultural land.
ES ref. DHW259	Hints Farm, Bangley Lane	19th century loose courtyard plan farm comprising a large detached farmhouse with two adjacent ranges one comprising former cow house or stables and one with stables, cart shed with granary over and threshing barn. All the buildings have been converted into dwellings. The principal façade of the farmhouse looks north, with views from the eastern range looking west uphill into the adjacent field.
ES ref. DHW260	Great Bangley Farm and cottages	19th century regular E-plan courtyard farm with a large detached mock half-timbered farmhouse. The agricultural complex has largely been converted to dwellings but retains sufficient architectural details and openings to distinguish the stables, threshing barn, cart shed and granary. Views east from the former farm buildings look to Hints Hills across open agricultural land. Two storey brick-built 19th century workers' semi-detached cottages, associated with Great Bangley Farm. Window dressings, quoins and bands across the elevation are picked out in a blue brick, with half-gabled dormers and decorative ridge tiles. The principle elevation of the cottages looks south; with views to the east partially obscured by tree cover.
ES ref. DHW262	Drayton Lane End Farm, Sutton Road	Farmstead comprising a large detached farmhouse with mid-20th century L-shaped range similar in dimensions to the stables observed in nearby farmsteads, and large modern sheds. Early 19th century buildings were situated within the vicinity of the modern sheds although no elements of them appear to have been retained. Currently in an open field setting.
ES ref. DHW263	Barn cottage	Mid-19th century loose courtyard farmstead comprising detached two-storey cottage, with modern extension to the west and east, and an L-shaped range comprising a threshing barn and shelter shed. Barn appears to possibly predate the farmhouse and could be of 18th century date. Views east and west are to open fields.
ES ref. DHW264	Oak Farm, Drayton Lane	Early 19th century farmstead comprising large brick built two-storey double pile farmhouse with dormer windows at second storey level. To the north is the altered remnant of a regular courtyard plan complex of buildings, now partially in use as a nursery. The farmstead is situated on the northern side of Drayton Lane with views to the southwest to open level agricultural land. The farm is set within open fields, and is the most historically valuable of a cluster of farms on Drayton Lane still with the majority of its historic fabric, associated buildings and original open field setting.

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Asset ID	Asset Name	Asset Description
ES ref. DHW265	Stone House, Drayton Lane	Loose courtyard plan 19th century farmstead comprising a large detached two to three storey brick built farmhouse, and two ranges of buildings including one 18th century stone building forming an attractive multi-period group. The farmstead has open views southwest across agricultural land but is currently screened to the immediate east and west by hedges and trees surrounding the garden. Possibly original views would have been across Drayton Lane towards Oak Farm and west towards Shirrall Hall Farm. The historic character of the house is enhanced by its quiet and secluded setting.
ES ref. DHW266	Oak Dairy Farm, Drayton Lane	Early to mid-20th century farmstead comprising a detached two storey farmhouse and L- shaped range of former stables and loose boxes, now redeveloped as dwellings. West of the farmhouse are a number of modern sheds. The building is of no architectural value but as an associative historic value as a group with Oak Tree Farm and Oak Farm. Views are over agricultural land to south and west.
ES ref. DHW267	Oak Tree Farm, Drayton Lane	Early to mid-20th century farmstead comprising a detached two storey farmhouse and L- shaped range of former stables and loose boxes. South of the farmhouse are a number of modern sheds. The buildings are of no architectural value but as an associative historic value as a group with Oak Dairy Farm and Oak Farm.
ES ref. DHW268	Shirrall Hall Farm	Large 19th century regular courtyard plan farm with large detached farmhouse of two storeys with a rough cross-shaped plan with four chimney stacks. Hall and model farm dating to at least the mid-19th century. East of the house is a substantially altered former stable block with half circular windows. South of Shirrall Drive is a range of former agricultural buildings forming three courtyards, and a detached former cart shed, all which have all been converted into dwellings. Significant elements of the original fixtures and openings have been retained within the structures to identify their original function. The farmstead is situated in a relatively elevated location with views east across open agricultural land along Gallows Brook.
HER ref. MWA4198	Site of Post Medieval Ironworks at Middleton	Post-medieval ironworks. Exact extent and location unknown.
HER ref. MWA14066	Middleton (Field 327/333 boundary) Medieval finds	n/a
HER ref. MWA20590	Middleton (Medieval / Post-Medieval) Field 52	n/a
HER ref. MWA20593	Middleton (Migration) Field 330	n/a
HER ref. MWA20594	Middleton (Early Medieval) Field 330	n/a
HER ref. MWA20636	Middleton (Post Medieval) Field 608	n/a

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Asset ID	Asset Name	Asset Description
HER ref. MWA20978	Middleton (Medieval) Field 336	n/a
HER ref. MWA21071	Middleton (Early Medieval) Field 327	n/a
HER ref. MWA21079	Middleton (Medieval) Field 328	n/a
HER ref. MST1410	Bloomery, Alder Wood, Drayton Bassett	A small enclosure with internal features identified as a cropmark feature in the Alder Wood area and interpreted as the possible remains of a bloomery or forge hearth.
HER ref. MST1411	Charcoal Burning Site, Alder Wood, Fazeley	Three circular cropmarks identified from aerial photography to the north of Alder Wood and interpreted as possible ring ditches. A site visit in the 1970s seems to indicate that these features may actually be them remains of charcoal burning.
HER ref. MST1412	Enclosure, Bourne Brook, Fazeley	Cropmark features of unknown date identified to the north of Bourne Brook, Fazeley. The cropmarks have been suggested to represent the possible remains of an enclosure.
HER ref. MST3781	Burnt Mound, Alder Wood, Drayton Bassett	A spread of heat shattered stone near Alder Wood interpreted as the possible remains of a burnt mound.
HER ref. MST4007	Weeford Park Deer Park	Documentary evidence suggests that a deer park established at Weeford by Ralph de Limesey in the late 13th century. The boundary of the park can still be traced as a low earthwork bank to the west and north, while elsewhere it appears to be marked by field boundaries.
HER ref. MST6141	Roman and Medieval Pottery, Drayton Park, Drayton Bassett	Roman and medieval pottery recovered during field walking in Drayton Park in September 1980.
HER ref. MST6147	Field Boundary, Shirral Coppice, Shirral Park, Drayton Bassett	An earthwork bank and ditch aligned east to west through Shirral Coppice (Shirral Park), which appears to be the continuation of a field boundary.
HER ref. MST6304	Canwell Park	A landscape park around Canwell Hall.
HER ref. MST11443	Pits, post holes and ditch, Buck's Head Farm, Weeford	A number of postholes, pits and a section of curvilinear ditch identified during trial trenching. The date and function of the features was undetermined during the investigation.
HER ref. MST11444	Pits and ditch, Buck's Head Farm, Weeford	Two pits and a section of ditch identified during trial trenching in the vicinity of Buck's Head Farm. Finds recovered indicate a possible Bronze Age date for the features.
HER ref. MST11445	Field System, Watling Street, Weeford	A series of pits and sections of ditches aligned with Watling Street, identified during trial trenching and interpreted as the possible remains of field or plot boundaries.

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Asset ID	Asset Name	Asset Description
HER ref. MST13247	Moneymore Farm, Weeford	A nineteenth century model farm complex that once formed part of the Canfield Estate.
HER ref. MST13250	Lower Bangley Farm, Drayton Bassett	A large, mid-eighteenth century model farm complex that once formed part of the Bangley estate.
HER ref. MST17653	Outfarm, north of Weeford Mill, Weeford	An outfarm comprising of a loose courtyard enclosed on two sides. The outfarm appears to have been established in the mid-19th century, but has since been demolished (probably due to quarrying activity or the construction of the M6 Toll Road).
HER ref. MST18649	Water Meadow, south west of Fazeley	A former water meadow identified during a desk-based survey in 2008.
HER ref. MST18650	Water Meadow, south west of Fazeley	A former water meadow identified during a desk-based survey in 2008. A number of the main drains appear to survive.
HER ref. MST19955	Toll House, Bourne Brook Gate, Drayton Bassett	A toll house and gate on the former Birmingham to Watford Gap turnpike route at Bourne Brook, Drayton Bassett. The toll house is of possible 19th century date.
HER ref. MST22368	Coleshill to Lichfield and Rugeley Turnpike Road	An early 18th century turnpike road connecting Coleshill (in Warwickshire) with Bassetts Pole, Swinfen and Lichfield then on to Longdon and Rugeley.
HER ref. MST22405	Birmingham to Watford Gap Turnpike Road	A toll road established in the early 19th century between Birmingham, Sutton Coldfield and Watford Gap, with an additional spur to Bassetts Pole. The route was abolished as a turnpike in 1872. The Staffordshire section of this route is conjectural.
HER ref. MST22411	Non-Turnpike Road from Muckley Corner to Fazeley (Watling Street)	A 11.8 mile stretch of non-turnpike road linking the towns and villages of Muckley Corner, Wall, Weeford, Hints, Fazeley and later Two Gates and Wilnecote.

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Appendix C – Events

Event ID	Event Description
EWA3256	Archaeological Recording of graffiti on roof of Church of St John the Baptist, Middleton.
EWA9221	Roman Figurine Mound found whilst metal detecting, Middleton.
EWA9000	English Heritage National Mapping Project (ALSF 4681 Block 2 River Tame), covering the south-east of the evaluation area.
EWA9580	Site visit to Middleton Hall park/garden, Middleton by J Lovie c1996, 200m south-east of the evaluation area.
EWA9954, 10075 and 10226	Archaeological evaluation and excavation at Church Lane in 2012-13, 350 m south-west of the evaluation area at Middleton.
EST759	A photographic record of Weeford Mill.
EST871	An evaluation of the industrial landscape of Fazeley, Staffordshire.
EST877	An archaeological survey at Bourne Brook, along the north and north-east of the evaluation area at Hints, Staffordshire.
EST1162, 1182 and 1183	A preliminary archaeological assessment of the proposed route of the Birmingham Northern Relief Road, c.500m along the western edge of the evaluation area.
EST1293, 1298, 1438, 729, 1756	An environmental impact assessment, archaeological evaluation, archaeological assessment, archaeological trial trenching and archaeological excavations of the proposed A5 Weeford to Fazeley road improvement scheme, covering part of the north of the evaluation area.
EST1595	A history of Canwell Priory and Canwell Hall.
EST2187	Excavations on the A5 Weeford to Fazeley Road improvement scheme, 400m north of the evaluation area in Staffordshire.
EST2216	An archaeological desk based assessment and field reconnaissance survey of the Overhead Line between Hams Hall and Oldbury.
EST2261-2	Field walking at Hill Farm, Drayton Park, c.200m east of the evaluation area near Drayton Bassett, October 1981.
EST2258-60	Field walking at Alder Wood, Drayton Park, Drayton Bassett, October 1980 – October 1981.
EST2263-5	Field walking at Drayton Park, c.100m east of the evaluation area near Drayton Bassett, October 1981.

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Event ID	Event Description
EST2605	Historic building recording survey of Weeford flour mill, Weeford in 2014.

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Appendix D – Stakeholder Engagement

Consultee and date	Comment	How this has been addressed in the Project Plan
Co1 Project Plan sent to Anna Stocks (Warwickshire County Archaeologist) on 18/12/2018	There are some areas within the red line boundary which are not being examined. Please provide further information on why those areas are being excluded (I note that the text does make reference to some areas being inaccessible, or not being disturbed, but it is difficult to judge which these areas based on the information available to me). I would recommend that any areas that are not be subject to any construction works be highlighted on the plans - this will help highlight where further archaeological work might be necessary in future should the construction plans change.	Updated see sections 1.1.2, 4.3.2 and 4.3.4 and Figure 4.
	There are a number of places, which I have marked on the fig. included with this table, where there are gaps in the trenching. In addition to additional trenching be included across the wider area (see comment below) I would recommend that you ensure (by adding additional trenches) that these gaps are filled in.	Trench plan amended to fill gaps and avoid utilities.
	Has the PAS data been considered when undertaking this (and other) study? There a number of PAS reports of Roman finds from the vicinity of the evaluation area but these have not been referred to in this document, and it does not appear that their presence has been taken into account in the assessment.	Updated to take account of the PAS finds from around Middleton.
	<p>As we have previously discussed, we would normally recommend that a minimum of a 4% sample of a site be examined across areas where there are no specific potential archaeological features to target (e.g. geophysical anomalies), as, in our experience across this county, this is the minimum quantity of trenching necessary to provide sufficient information to enable adequately informed assessments of the archaeological potential of a site to be made. Of particular concern is that, in our experience, a lower percentage sample may not be sufficient to establish the presence of significant archaeology, let alone characterise it.</p> <p>This recommendation is supported by the results of an assessment (the 'Archaeological Resource Assessment of the Aggregates Producing Areas of Warwickshire and Solihull' project) that was funded by the Aggregates Levy Sustainability Fund, administered by English Heritage. This project assessed the results of previous evaluative strategies undertaken across Warwickshire and Solihull, concluding that 'trial trenching at a 2% sample rate is too low to give a reliable indication of the presence of significant archaeology' (pg.141). It further recommended that sampling strategies greater than 4% be undertaken (section 6.2.2).</p>	Greater density of trenching is employed where the ES risk model and previous HS2 studies suggest high potential for archaeological remains and lower trenching density may be used where the risk model and other HS2 studies show lower potential, or where utilities and other constraints are present, or where current development design shows limited impact. The aggregates study and Hey and Lacey's study show that 2% trenching identifies archaeology, but is usually insufficient to

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	<p>A copy of the project report can be found at: http://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-849-1/dissemination/pdf/Final_Report_mainreport_pp001-165.pdf</p> <p>The conclusions of this assessment have also been supported by the results of fieldwork recently undertaken elsewhere in Warwickshire, such as the fieldwork recently completed at the Rugby Gateway site.</p> <p>The trenching proposed across the Warwickshire portion of this PP is significantly lower than the 4% sample we would normally recommend where there are not specific features (e.g. geophysical, earthworks etc anomalies) to target.</p> <p>The assessment of potential across the evaluation area appears, for the pre-early medieval period, to be primarily based on highlighting where there are previously identified sites. For example, a potential for Roman features is identified in the north of the evaluation area due to the presence of the nearby Watling Street Roman road and associated field system.</p> <p>There are relatively few known pre-medieval sites in the wider vicinity of the Warwickshire portion of the evaluation area, however, this does not mean that there are no features present. In our experience, the absence of known sites across areas such as this can often just reflect a lack of previous investigations which could have identified such sites. In addition, geophysical survey is often not very effective at adequately identifying archaeological features across this part of the county, and Staffordshire, as has been demonstrated by recent HS2 work in the wider area.</p> <p>The assessment of potential does not appear to have taken this into account, primarily focussing on the 'known' sites, and highlighting areas of 'higher' potential. It does not identify any areas where it is considered there is a lower potential for archaeological features, with supporting evidence - for example, if there is a clearly understood pattern of occupation/activity across an area which can lead to us identifying areas where we would expect activity (higher potential) or otherwise (area of lower potential, for that specific period). It also does not identify any areas where there is insufficient archaeological information (due to a lack of historic records and/or known sites) to enable a satisfactory assessment to be undertaken across the archaeological potential (particularly relevant for the pre-early medieval periods, where records are limited).</p> <p>There no information provided to justify the lower (less than is considered adequate to confidently identify the presence of archaeological features, as set out above) quantities of trenching that is proposed across large portions of the evaluation area.</p> <p>Whilst I note that the project does include provision for contingency trenching, this does not address my concerns. It is described as being used for 'further investigation of areas of high potential where results of initial trenching have been negative, and to further define and</p>	<p>adequately determine its extent and character. As the aggregates document and Hey and Lacey's study suggest, a subsequent phase of contingency trenching to determine extent and character will be reviewed and agreed with HS2 where archaeology is identified, and may be used to further examine high potential areas where initial results have been negative. However, as Hey and Lacey acknowledge (p55), even at very high trenching percentages, chance plays a significant part in discovery of Neolithic, Bronze Age and early Anglo-Saxon archaeology.</p>
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	<p>characterise targeted archaeology or discoveries of previously unknown archaeology'.</p> <p>As set out above, the trenching of a lower than 4% sample of areas where the archaeological potential is unknown (or at least a specific potential has not been identified, see comment above in relation to the limitations of the assessment undertaken to date), has a significant risk of not identifying (let alone characterising) the presence of significant archaeology. If the archaeology is not identified during that initial trenching, then the use of the contingency will not be triggered.</p> <p>The unjustified use of a lower quantity of trenching than past assessment and experience has demonstrated is necessary to identify archaeological features, even with the use of contingency trenching to be implemented as proposed in the PP, therefore has a high risk of missing significant archaeological features which will be impacted by the HS2 scheme.</p>	
	<p>The GWSI: HERDS Specific Objectives set out in table 2 seems to primarily highlight archaeological potential in areas where features have been previously found - for example a potential is identified in the north of the evaluation due to the presence of the nearby Watling Street Roman road and associated field system. As set out in my comment above, in our experience, the absence of known sites across areas such as this can often just reflect a lack of previous investigations which could have identified such sites - I do not see any consideration of that in this document, or any evidence as to why there is a lower potential for Roman activity away from the previously identified features - for example, is there a clearly understood pattern of Roman occupation/activity across this area which can lead to us identifying areas where we would expect activity (high potential) or otherwise - I do not see any evidence of this in this document. Given that lack of detailed understanding of the Roman occupation of this area (which may not be possible, given the limited base line data (previously recorded sites) available for this area), and based on past experience, I would consider that there is a potential for Roman features which are not linked to the town of Wall, or other known sites, to survive across the site (see also comment above re. PAS data suggesting wider presence of Roman activity than acknowledged in this PP). I consider that this table, and elsewhere in this report, should better reflect the potential for features of Roman, or other pre-medieval features, to survive away from the areas of 'known' activity.</p>	<p>The Roman figurine mount (EWA9221 c.500m south-west of the evaluation area) identified in the PAS data, has been mentioned in section 2.2.26 and 3.2. It has also been noted that this find (identified through metal detecting) may be evidence of previously unidentified activity in the south of the evaluation area (an immediate vicinity), where there has been a lack of previous investigation and a lack of known sites. Table 2 has also been updated.</p>
	<p>I do not have access to the Detailed Desk-Based Assessment for Historic Landscape Settlement Study (1EW04-LMJ-EV-REP-N000-029001) which significantly hinders my ability to assess this Project Plan, especially in relation to the medieval and periods.</p>	<p>Sent 11/02/2019</p>
	<p>Para. 1.1.2 of the Executive Summary states that the trial trenching will 'focus on examining known heritage assets...'. The trenching is also examining the areas where few previous archaeological features have been identified (possibly due to lack of previous investigations, rather than a lack of sites); this should be acknowledged here (the reference to</p>	<p>Paragraph amended.</p>

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	examining the character of the medieval and post-medieval landscape does not cover this).	
	A historic watercourse is referred to in different places as CWM019 and CWN109 - which should it be?	CWM019 removed
	DHW148, which is elsewhere referred to as Middleton Park boundary and parish boundary does not appear to be labelling a particular feature.	Clarified
	I do not have access to the Detailed Desk-Based Assessment for Historic Landscape Settlement Study (1EW04-LMJ-EV-REP-N000-029001) which significantly hinders my ability to assess this Project Plan, especially in relation to the medieval and periods.	Sent 11/02/2019
Co1 Project Plan sent to Shane Kelleher and Suzy Blake (Staffordshire County Council) on 18/12/2018	1.1.8: What about the Palaeolithic, especially as paragraph 1.1.5 states that the GDBA suggested 'potential for residual Palaeolithic remains to be present within some superficial deposits located around the Gallows Brook and the Bourne/Black Brook'? Should any such remains be encountered will they not help to answer any Specific Objectives?	A strategy for the geoarchaeology is in preparation as a separate Project Plan, which will address the Palaeolithic potential in line with the specific HERDS Objectives across EWC North.
	Table 1: LiDAR and Hyperspectral Section – What about everything else identified by the survey (e.g. the Enclosure at Roundhill Wood (WA21.24) or the pond and leat east of Bourne House (WA21.29 / WA21.30) etc?	All features identified during the LiDAR and Hyperspectral survey within the evaluation area are now noted in Table 1.
	We do not appear to have received the following reports referred to in the previous investigations table, nor do they appear to be available through HS2s Sharepoint site: Area 8: Middleton Pool Cutting to Swinfen Cutting (1EW04-LMJ-EV-REP-NS05_NL14-029002) Hints Cutting - Report: Trial Trenching (1EW04-LMJ-EV-REP-NS05_NL15-022010) Historic Settlement Landscape Study (1EW04-LMJ-EV-REP-N000-029001)	Documents sent to Suzy Blake (cc Shane Kelleher) 23/01/2019.
	2.1.6 It would be useful to have access to the project plan for sample test pitting to see how this fits in with the proposed evaluation strategy set out in this project plan.	The scope of work is still under discussion with HS2
	2.2.4: Would it also be worth mentioning Hints Manor (NHLE Ref: 1294879) here as it lies only just north of the Church? Also, does the Hints Conservation Area actually extend into the evaluation area? There is no clear mapping to show this and from	Text amended to include asset and clarify location of Hints Conservation area.

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	comparison with the available data in the HER it does not actually appear to do so?	
	2.2.5: ES Ref DHW166 – should this read 'extent' not 'extend'	Text amended
	2.2.7: As mentioned in comments on previous reports there has been recent evidence for possible Late Upper Palaeolithic activity at Tuckleshorne Quarry in the Trent Valley which may be worthy of mention here.	Information on Tuckleshorne quarry included in text.
	2.2.8: Two possible Lower Palaeolithic implements have also been recorded from the Bullocks End Farm area of Drayton Bassett to the east of the route corridor (see HER Ref: MST1415) and another Lower to Middle Palaeolithic handaxe has been recovered from the Fazeley area to the north-east (HER Refs: MST19862, MST19863, MST19868 and MST19871). Although these finds may fall just outside the 500m study area, given the limited number of such finds in the area they are relevant when looking at context and potential.	These finds have been included in the text and their significance noted.
	2.2.11 / 2.2.15: The Project Plan does not appear to reference the collections of possible Mesolithic-Neolithic flints collected during field walking in the Drayton Park area, immediately to the west of the route corridor. While these flints are not all closely dated they are indicative of possible Mesolithic / Neolithic activity in the area. (See HER Event Records EST292 and EST2260 to EST2266 (inclusive)).	These finds have been included in the text and their significance noted, however, no record of EST292.
	2.2.22: As mentioned in comments on previous Project Plans there are concentrations of burnt mounds on water courses in Staffordshire (along the Rising Brook near Rugeley and elsewhere in the Cannock Chase area, at Lount Farm, Colton plus some more recently excavated examples in the Uttoxeter area). Two possible examples have been recorded in the general area which this project plan covers, one to the east of the route at Alder Wood, Drayton Bassett, off the Bourne Brook (HER Ref: MST3781), the second to the west at Canwell Hall Park. Although both sites fall slightly outside the 500m study area they are again relevant when looking at context and potential, in particular to the northern part of the evaluation area along the Bourne Brook.	Additional sites of possible burnt mounds added and significance noted in text.
	2.2.30: Fieldwalking and metal detecting, particularly in the Drayton Bassett area, has produced a quantity of Roman artefacts including pottery, coins, and brooches which may also indicate activity of Roman date in the area.	Details of finds added to text and significance noted.
	2.2.34: As mentioned in comments on previous project plans, what about the significant Anglo-Saxon settlement at Catholme and other settlement evidence of this period further north along the Trent?	Text amended to detail this reference.
	2.2.42: What about Canwell Priory (MST1109) / Deserted Settlement (MST2607) to the west of the route?	Added references and detail possible significance to the evaluation area.

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	2.2.51: The M42 does not intersect with the evaluation area covered by this Project Plan.	Text amended, A453 is intersecting road.
	Table 2: As mentioned under 1.1.8 above, given the introduction to the project plan and the GDBA suggest potential for residual Palaeolithic remains to be present within some superficial deposits located around the Gallows Brook and the Bourne/Black Brook' and the evidence for finds of Palaeolithic date from the wider landscape around Drayton Bassett should there be a Specific Objective for the Palaeolithic period included here?	See comment addressing section 1.1.18.
	Table 2: KC34 (Comment) – Is it worth considering what, if any, influence might Canwell Priory have had on the landscape here too?	Added.
	Table 2: KC44 (Comment) – Across the wider landscape there is possible evidence for charcoal burning at Canwell Hall Park (MST2078).	Added.
	4.3.5: What about the pre-Iron Age period? There are Specific Objectives listed for the Mesolithic, Neolithic and Bronze Age, plus potential for additional Specific Objective relating to the earlier prehistoric (Palaeolithic) period.	Text amended to broaden the scope.
	4.3: The evaluation area highlighted in Figure 1 does not match the full extent of the red line boundary for land required during construction. What is the reason for the omission of this land from the evaluation area?	Areas which relate to utilities works such as the two arms have been excluded from the evaluation area and this has been clarified in paragraphs 1.1.2 and 2.1.2.
	4.3: Do you think there is sufficient trenching in the areas of unknown potential to adequately identify any previously unrecorded archaeological remains, particularly more ephemeral earlier prehistoric activity (with reference to comments relating to the test-pitting in 2.1.6 above)?	Greater density of trenching is employed where the ES risk model and previous HS2 studies suggest high potential for archaeological remains and lower trenching density may be used where the risk model and other HS2 studies show lower potential, or where utilities and other constraints are present, or where current development design shows limited impact.
	4.3: There appears to be a lack of trenching targeting anomalies of uncertain origin in the area to the south of Trench 50 (Figure 5).	Trenching in this area has been amended to target anomalies of uncertain origin.

Code 1 - Accepted

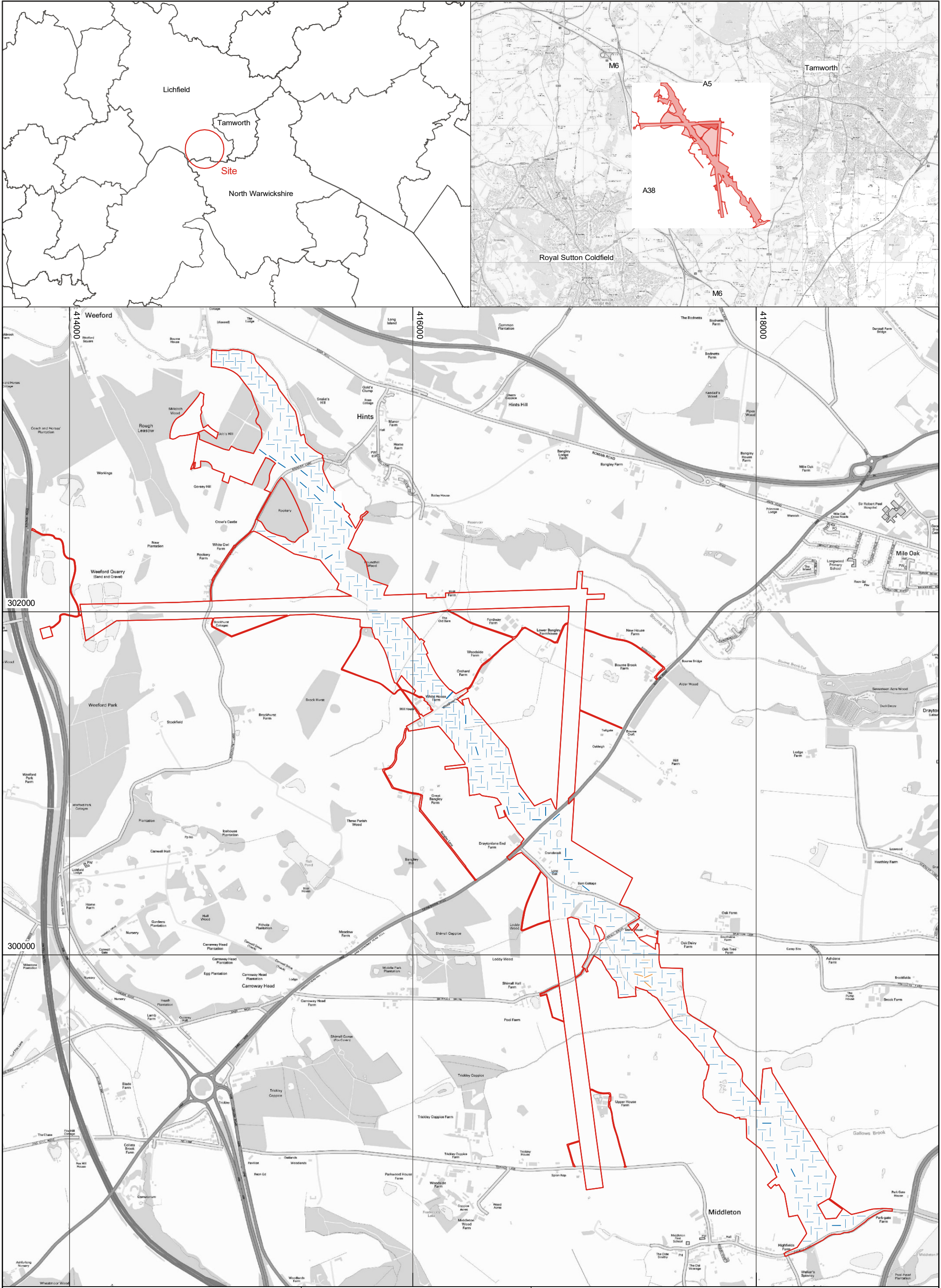
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	4.3: There is only one evaluation trench (Trench 275) within the eastern of two fields where the remains of a possible prehistoric field system have been identified at Hill Farm (DHW111). Geophysical survey interpretation shown on Figure 8 clearly show archaeological features and therefore has it already been determined that this area will go forward for excavation? If not, then further trenches should be included here to ensure the nature and survival of any below ground archaeological remains is fully understood in determining any further mitigation, as set out in Table 2 (HERDS Specific Objectives and Evaluation Strategy Aims).	This area has already undergone intrusive archaeological investigation at part of WP22 (Drayton Lane).
	4.3: Trench 174 seems to be located across an extant, waterfilled pond; is this really feasible?	Trench revised.
	4.3.23: Any relevant consents for the...? The sentence is incomplete.	Text amended.
	4.3.48: What about sampling of features associated with the possible later prehistoric field system at Hill Farm (DHW111)?	This area has already undergone intrusive archaeological investigation at part of WP22.

Code 1 - Accepted

Appendix 2: Location Plan and Trench Plan



- Legend**
- Site
 - Evaluation trench
 - Additional trench

Map Number
Figure 1

Map Name
**Drayton Bassett
Location plan**

Community Forum Areas
CFA20 & CFA21

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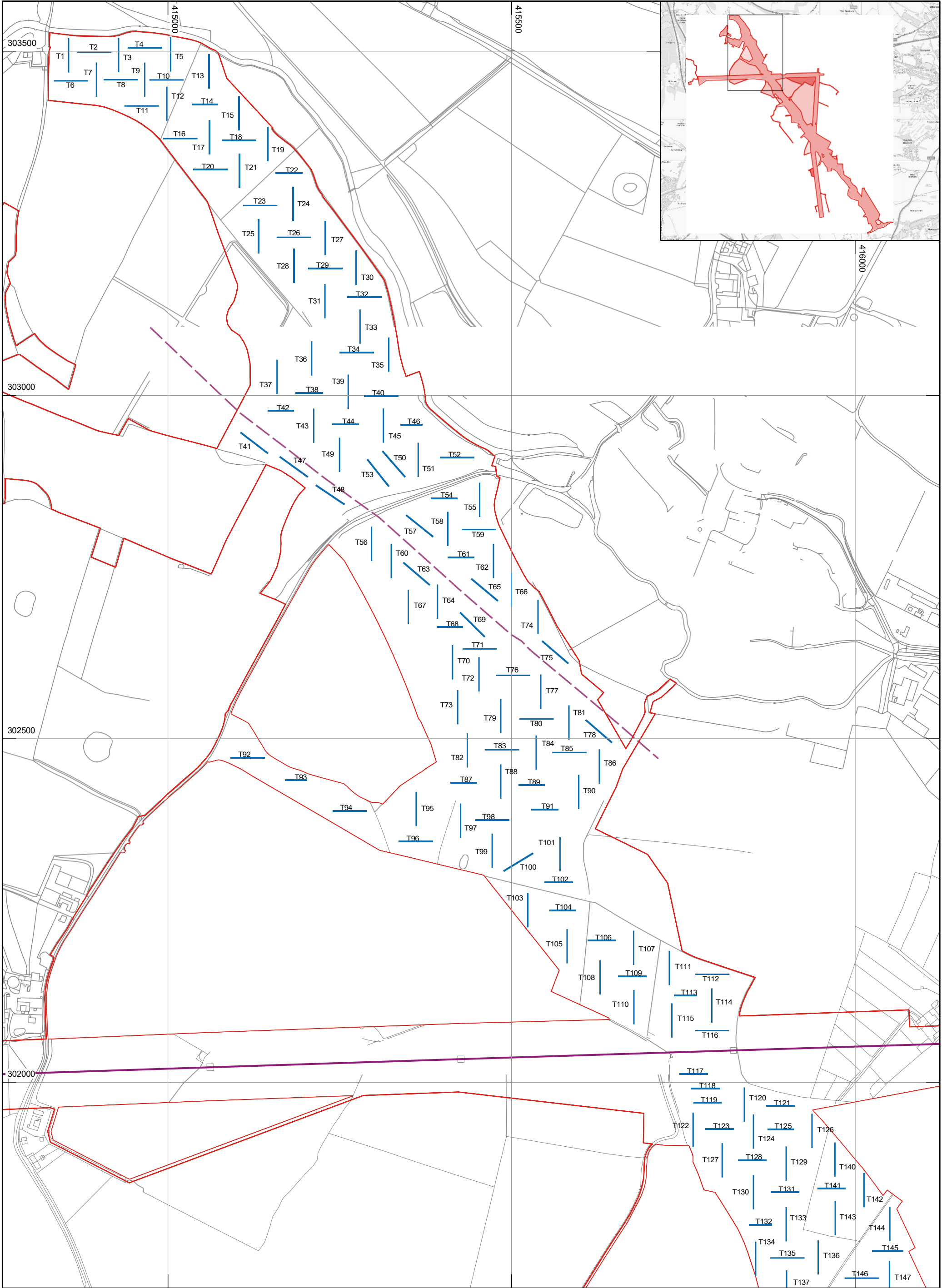
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Scale At A3: 1:20,000

0 1000 m

Date: 25/03/19



- Legend**
- Site
 - Evaluation trench
 - Overhead HV
 - Gas

Map Number	Figure 2
Map Name	Drayton Bassett Trench plan 1/3
Community Forum Areas CFA20 & CFA21	

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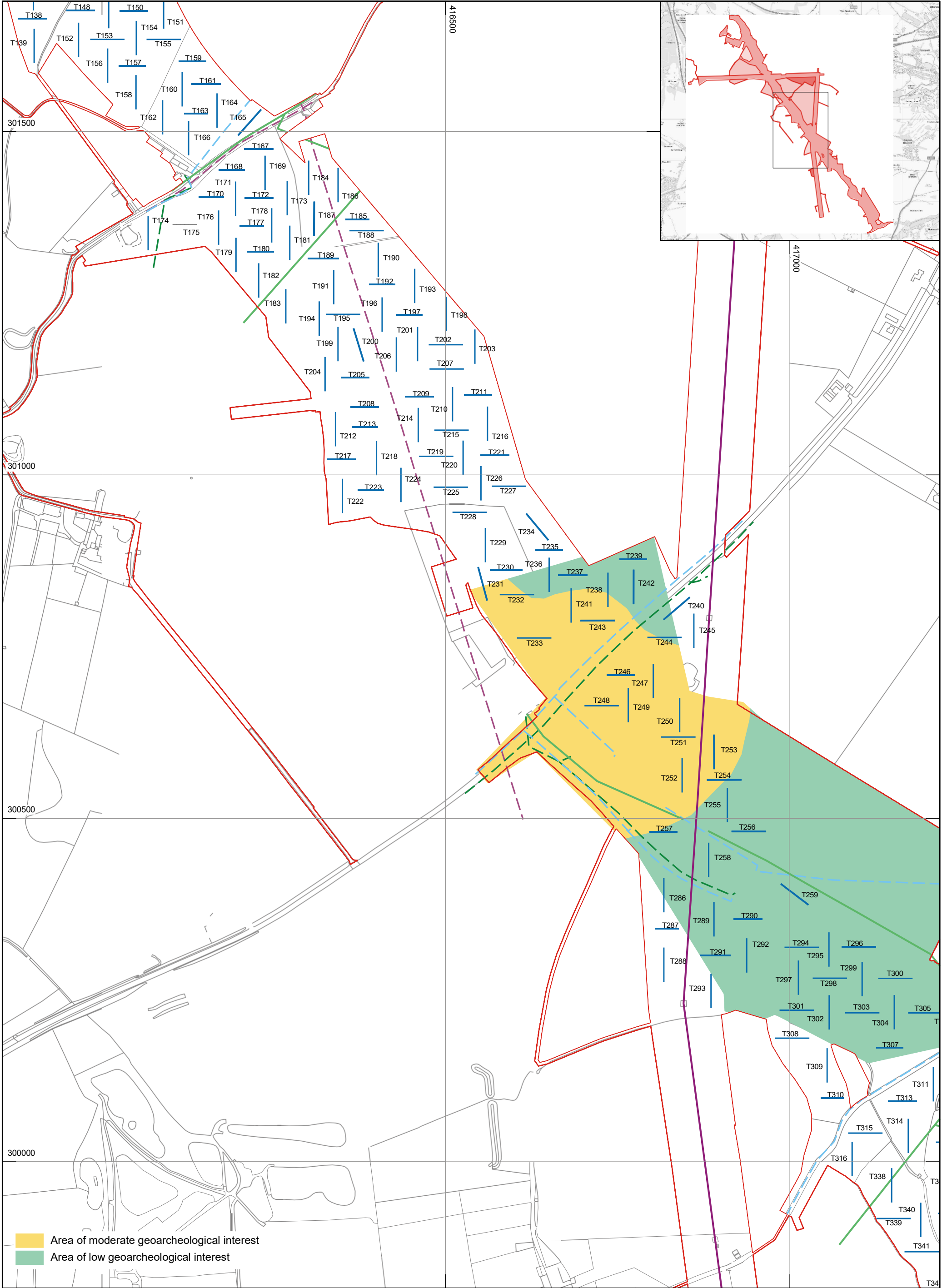
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Scale At A3: 1:5000

0 200 m

Date: 11/06/19



Legend

Site

Evaluation trench

Overhead HV

Overhead LV

Gas

Telecom

Water

Map Number

Figure 3

Map Name

Drayton Bassett
Trench plan 2/3

Community Forum Areas
CFA20 & CFA21

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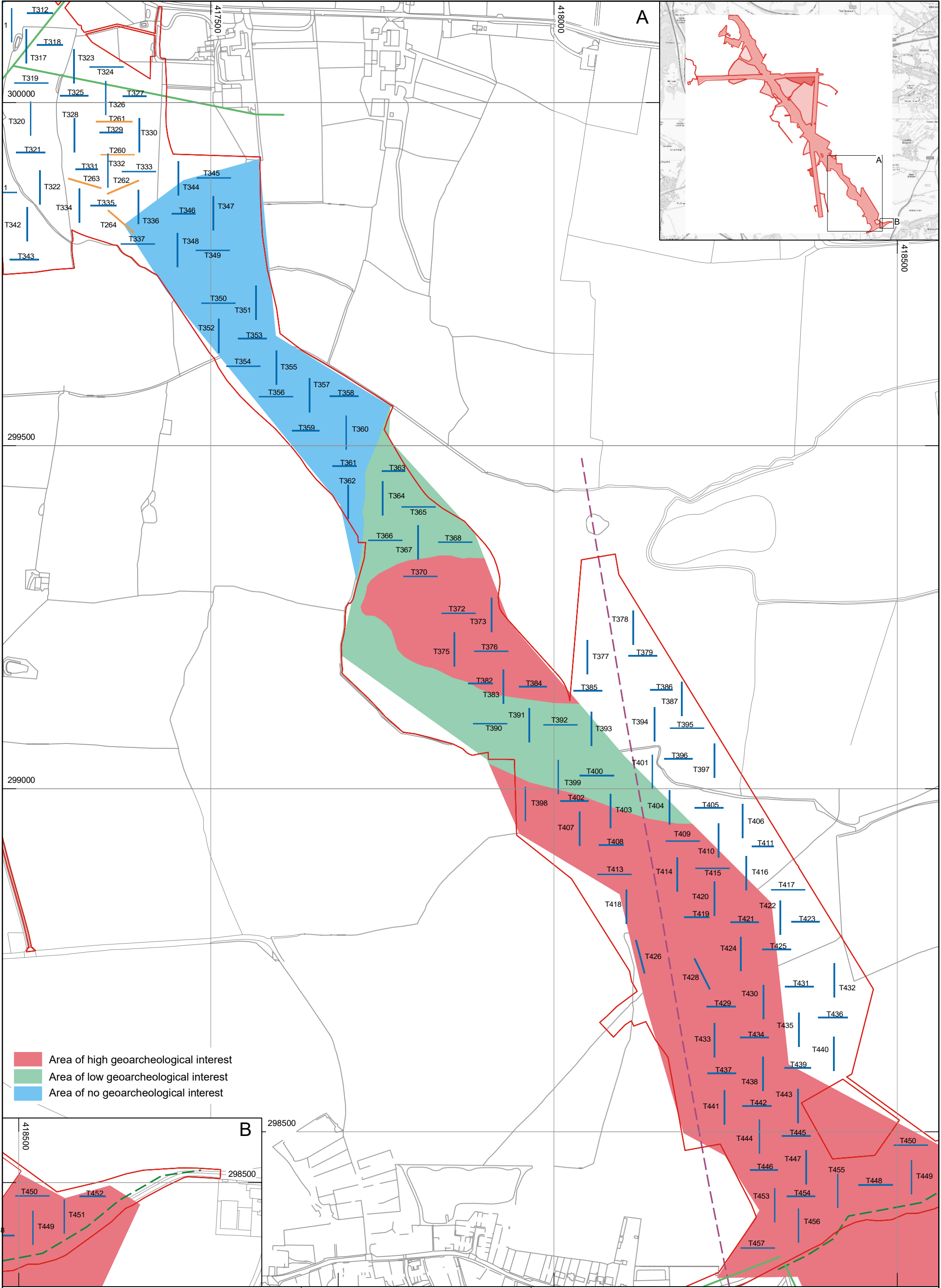
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200 m

Date: 11/06/19



Area of high georarcheological interest
Area of low georarcheological interest
Area of no georarcheological interest

Legend

- Site
- Evaluation trench
- Additional trench
- Overhead LV
- Telecom
- Gas

Map Number
Figure 4

Map Name
**Drayton Bassett
Trench plan 3/3**

Community Forum Areas
CFA20 & CFA21

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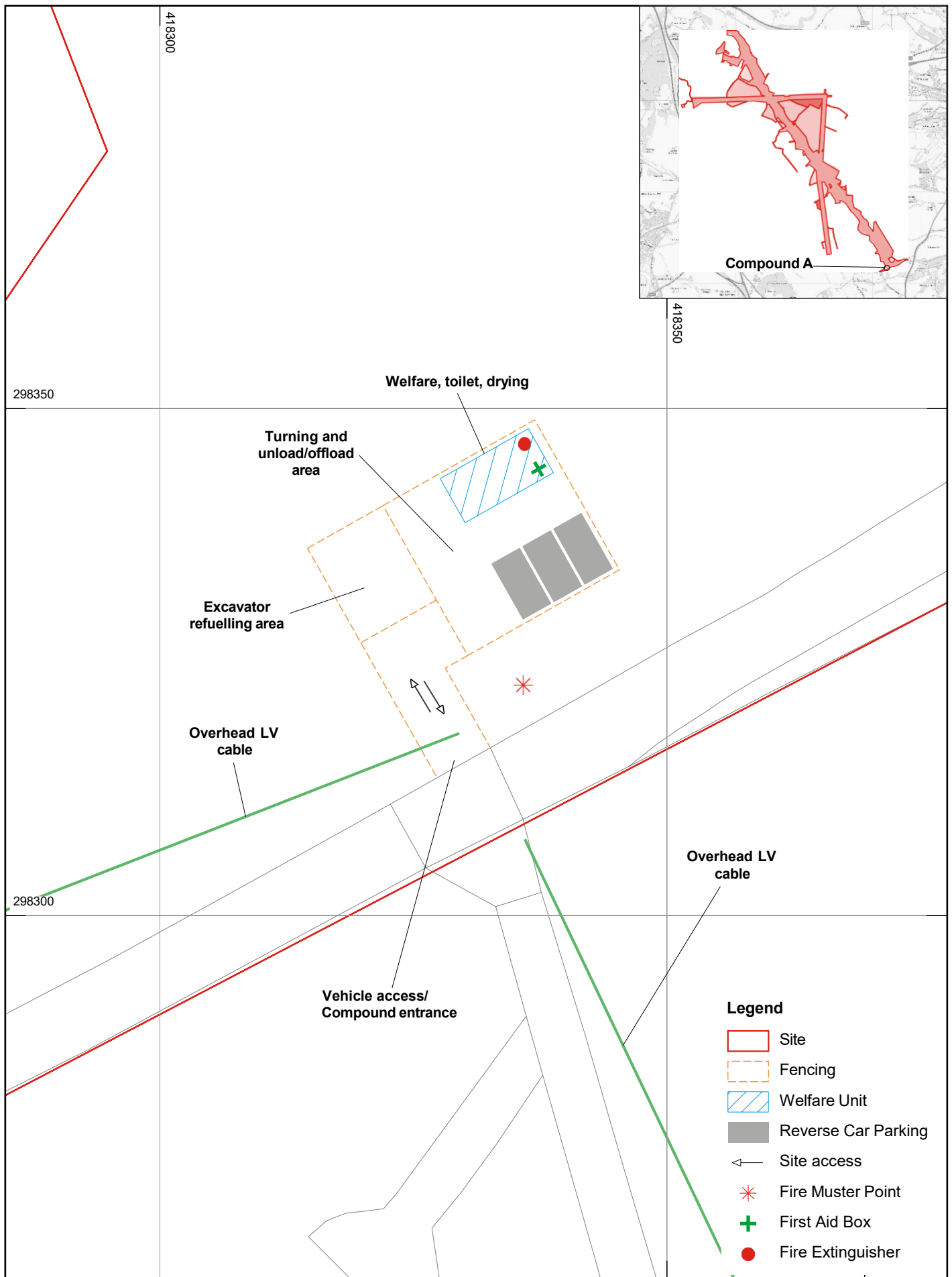
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0 200 m

Date: 11/06/19



Legend

- Site
- Fencing
- Welfare Unit
- Reverse Car Parking
- Site access
- ✱ Fire Muster Point
- + First Aid Box
- Fire Extinguisher

Map Number

Figure 5

Map Name

Drayton Bassett
Compound A location plan

Community Forum Areas
CFA20 & CFA21



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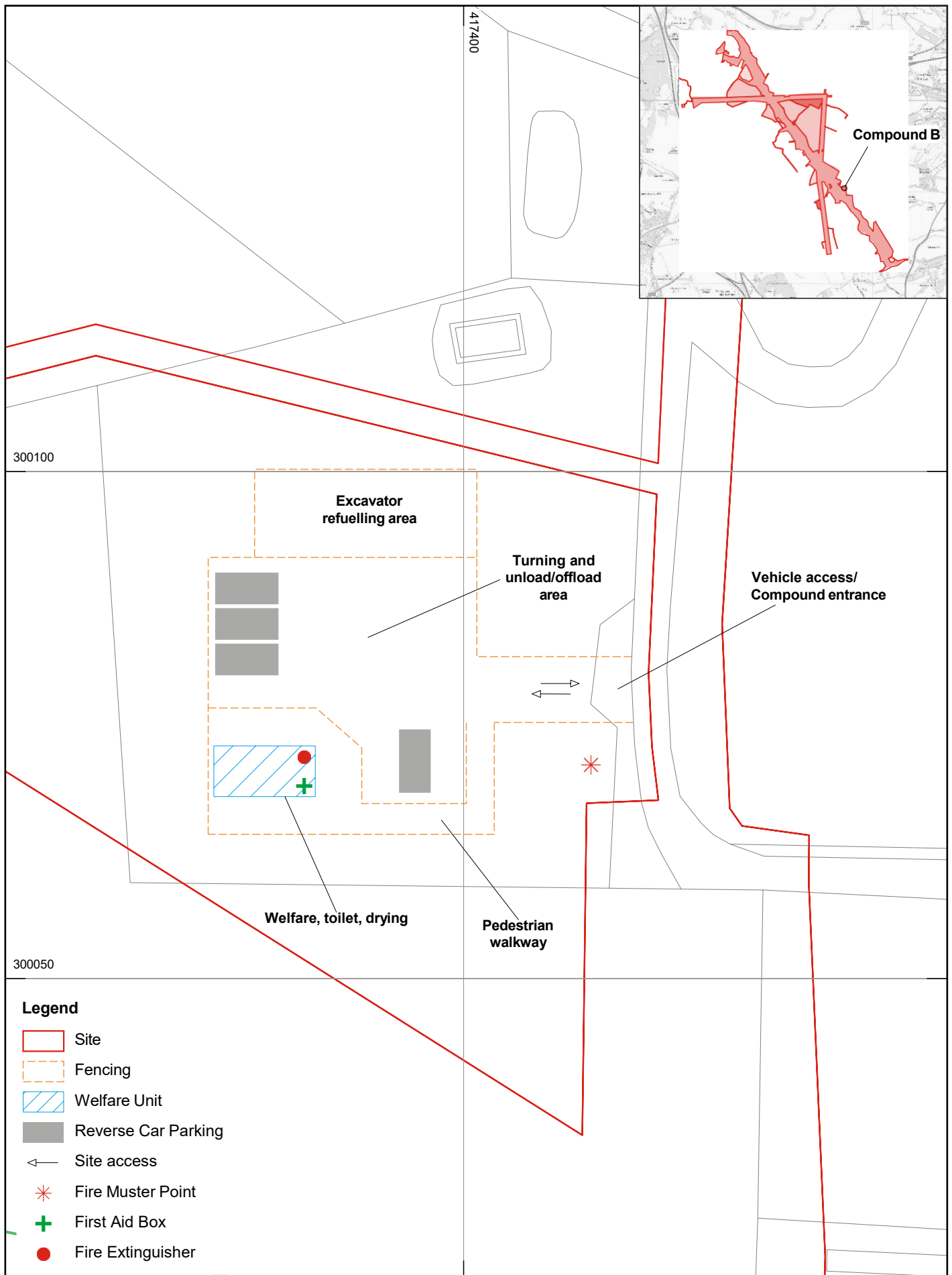
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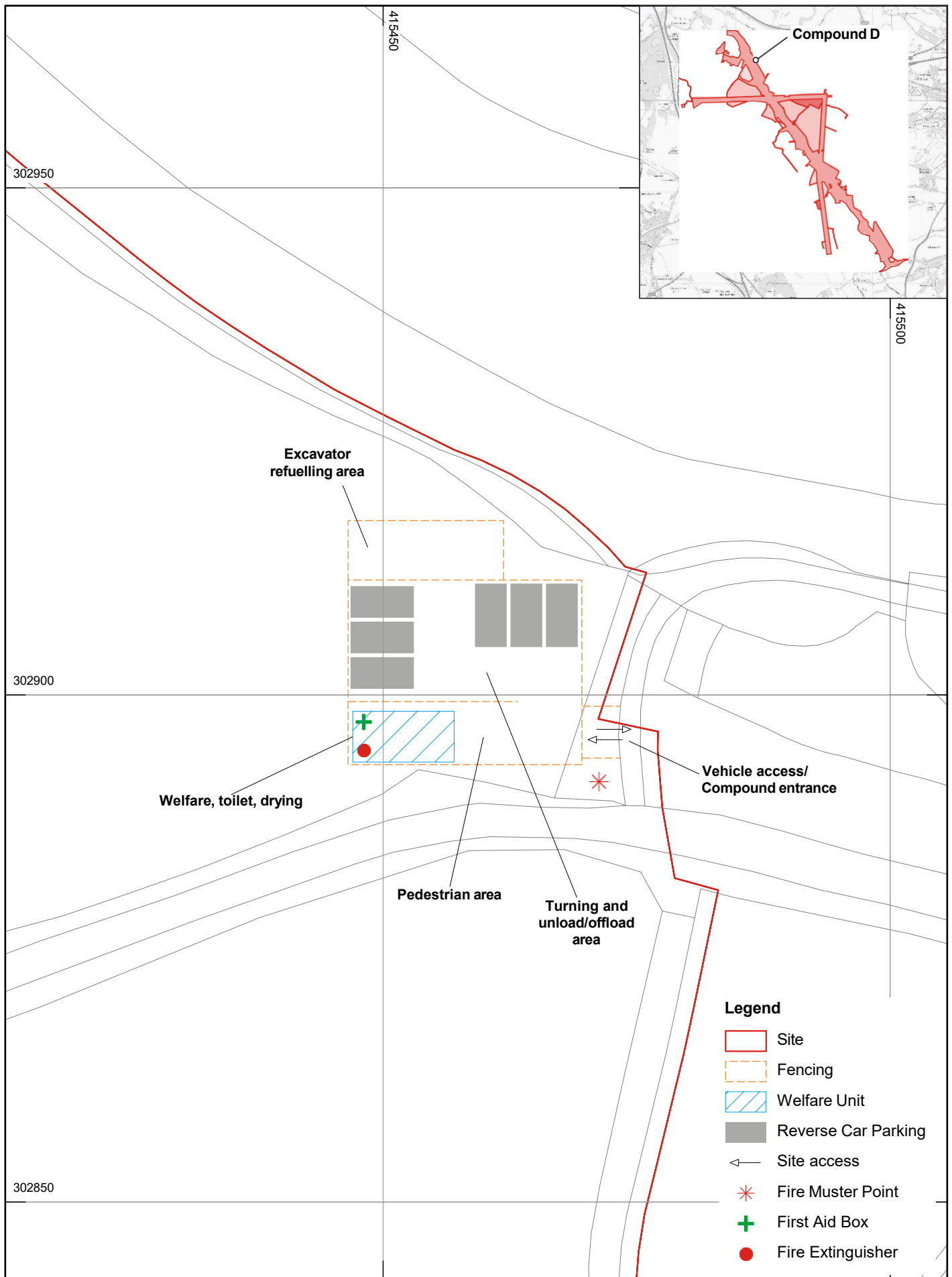


Scale At A4: 1:500 (main graphic)

0 20 m

Date: 25/03/19





Appendix 3: Risk Assessment and Method Statement - Drayton Bassett

Project Risk Assessment

Site address	Drayon Bassett, Warwickshire/Staffordshire Compound A: Church Lane, Middleton, North Warwickshire, B78 2AJ Compound B: Drayton Lane, Drayton Bassett, Staffs, B78 3EF			Start Date:	04/03/2019	Doc. Ref. 01	215950.02	
				Completion Date:	16 weeks			
Scope of Works	Archaeological Evaluation trenching comprising initial 422 x 50 m x 2 m trial trenches, 360° and 180° mechanical excavators, x 8 archaeologists			Client/ Principal Contractor		Laing O'Rourke Murphy Joint Venture (LMJV)/ HS2		
Significant Hazard / Risk associated with the work	Working with plant Hand Excavation Deep Excavation Buried and overhead services Contamination Driving	Responsible Persons		PM: Richard O'Neill Supervisors: Catherine Douglas/ Emma Carter Asst Supervisor: John Whitmore First Aid: Emma Carter				
		Emergency Procedures		Nearest A&E Hospital: Good Hope Hospital Rectory Road Sutton Coldfield West Midlands B75 7RR 0121 424 2000				
Additional Information / Documentation	In the event of work ceasing due to health and safety reasons, the client is to be informed within 24 hours (client detail provided in contacts in red). This notification should be undertaken by the Project Manager in the first instance. In the absence of the Project Manager the Emergency Response Team (ERT) as detailed on the Emergency Response Procedure (attached) should be informed.							
Risk Assessment Completed by:	Print	Emma Carter	Signed		Position	Archaeological Supervisor	Date	01/03/2019
Risk Assessment Approved by:	Print	Richard O'Neill	Signed		Position	Senior Project Manager	Date	01/03/2019

Site Specific Risk Assessment

Completed before starting on site

Hazard	Consequence	Affected S/C/P	Initial Risk Rating			Control Measures	Residual Risk Rating			Monitor
			L	S	R		L	S	RR	
Site setup	Injury to WA staff, visitors, other contractors or other plant during mobilisation of site	S/C/P	2	3	6	<ul style="list-style-type: none"> Welfare units will be towed into the approved location via tow system fitted within the unit by a qualified installation operative provided by the supplier. Heras type fencing will be erected by hand by qualified site staff wearing suitable PPE. The panels will be secured by rubber footings and connecting clips Metal trackway will be installed in accordance with the suppliers lifting plan. Excavators will arrive by low loaders driven by a competent and trained person into the designated safe zones. All securing chains will be removed by a qualified person prior to moving plant off the low loader. All site set up will be monitored and supervised by a qualified and trained site Supervisor. 	1	2	2	WA/Client
General plant operations	Injury to WA staff, visitors, other contractors or other plant during machine excavation, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> A permit to dig will be produced and issued by Wessex Archaeology prior to excavation. Hi-vis vests, safety boots and safety helmet will be worn by all persons on site at all times. All plant operators will be CITB certificated. All plant operators must have CPCS and valid driving license. All plant operators will be made aware of WA working practices. 	1	2	2	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

						<ul style="list-style-type: none"> WA will netlon fence off all open trenches All plant movement will be monitored. All staff will be made aware of plant movement in their area. Exclusion zone will be maintained and managed by the banksman during all plant movements and mechanical excavation. No staff, vehicles or unused plant will be within the working radius of plant. 				
	Noise, Vibration and Air Pollution	S/C/P	2	2	4	<ul style="list-style-type: none"> WA standard working hours are 0800 – 1600 hrs, weekdays only. Weekend working or extended hours to be avoided. All plant to be maintained in good working order at all times, and switched off whenever not required. 	1	2	2	WA/Client
	Fire	S/C/P	2	2	4	<ul style="list-style-type: none"> All plant to be equipped with on-board fire extinguishers, or site accommodation fire extinguishers to be kept near to hand during plant operations. Staff/ subcontractors to vigorously tackle fire only if considered safe to do so – if in doubt call the emergency services immediately and ensure all personnel, visitors, members of the public etc. are kept well back. 	1	2	2	WA/Client
	Theft and/or damage (potentially impacting on local environment)	S/C/P	2	2	4	<ul style="list-style-type: none"> Care will be taken to store plant away from the main road and site entrance, in a place not clearly visible from public rights of way. Plant will be fenced off with Heras type fencing. Plant will also be secured by the Plant Contractor. 	1	2	2	WA/Client
Fuel oil management	Injury to WA staff, visitors and other contractors, and damage to the local environment through contamination	S/C/P	2	2	4	<ul style="list-style-type: none"> All plant will be fuelled off-site or in areas designated by the Client. Spill kits to be retained for plant and vehicles. 	1	2	2	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
	1= Low			
	2 = Med			
	3 = High			

Hand-excavation	Injury to WA staff, visitors and other contractors whilst using hand tools	S/C/P	2	2	4	<ul style="list-style-type: none"> All tools will be inspected prior to removal from Sheffield. All damaged, broken or otherwise unusable hand tools to be marked as such and put to one side, either at Sheffield or on site. Sustained (i.e. in excess of one working day) repetitive manual activity will be avoided where possible. All on-site grid pegs will be fitted with safety caps Heavy lifting to be avoided where possible. If unavoidable then all staff to receive appropriate training. All tools will be used for the purpose for which they were intended. At all times WA staff shall be made aware of other persons working in the vicinity. 	1	2	2	WA/Client
Deep excavation	Injury to WA staff, visitors or other contractors due to trench collapse	S/C/P	2	3	6	<ul style="list-style-type: none"> Excavation area sides will be stepped or battered as ground conditions demand, regardless of depth. Access to areas on site will be agreed prior to starting works. Access points to trenches will be identified and battered in order to facilitate safe access into the excavation area. No persons other than WA, Client or curatorial staff will enter deep excavations at any time. If required, groundwater will be pumped out following the LM 'permit to pump' procedure and WA Environmental policy 	1	3	3	WA/Client
	Injury to WA staff, visitors or other contractors due to fall into excavations	S/C/P	2	3	6	<ul style="list-style-type: none"> Excavation areas and deep excavated features will be demarcated by netlon fencing. Appropriate hazard signs (i.e. "Danger Deep Excavation") to be erected at all reasonable access points to the site if necessary. Excavated spoil will be neatly piled at least 1m away from the edge of a trench. 	1	3	3	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

						<ul style="list-style-type: none"> All visitors to the site will be made aware of the location of any deep excavations. 				
Farm environment	Physical injury from livestock	S/C/P	2	2	4	<ul style="list-style-type: none"> Do not enter areas where you will potentially be in direct contact with livestock, unless approval is given by the farmer. No excavation to take place within areas of livestock. WA will liaise with the Client regarding land owner requirements prior to works commencing to ensure access and appropriate places to track plant are agreed. 	1	2	2	WA/Client
	Transfer of animal to animal infections (FMD, SVD, anthrax, fowl pest, etc) or zoonoses (transfer of animal diseases to humans).	S/C/P	2	2	4	<ul style="list-style-type: none"> Do not attempt to touch animals. Wash off all animal faeces or other forms of contamination before leaving site and/or moving between different areas of landholding. Do not work in the vicinity of animals if suspected or known to be pregnant, recovering from respiratory illness, undergoing chemo-therapy or similar forms or medication, or have other health concerns that may be exacerbated by exposure to farm animals. Appropriate PPE (overalls, gloves, respirators etc.) to be worn at all times where direct contact with or working in very close proximity to livestock, or where they have been housed in the recent past, is unavoidable. Washing facilities to be provided in accordance with H&S requirements. All staff to use such prior to eating. 	1	2	2	WA/Client
	Injury to agricultural equipment, livestock etc.	P	2	2	4	<ul style="list-style-type: none"> Ensure all equipment, and particularly grid pegs and nails, are collected on completion of fieldwork. 	1	2	2	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

Utilities buried hazards	Injury to WA staff, other contractors and plant (including utilities) due to rupturing of or contact with utilities (buried or overhead).	S/C	2	3	6	<ul style="list-style-type: none"> The Client has provided Wessex Archaeology with the full results of utility searches prior to the commencement of fieldwork. Wessex Archaeology has carried out its own search via Linesearch and will consult with geophysical survey results and online aerial imagery via Google Earth. Trench locations will be adjusted to avoid the anticipated position of existing services. The trial trenches will be designed to avoid the utilities with a minimum 10m wayleave easement between trenches and utilities. Crossing points with bog mats will likely be required for traversing over buried utilities. Goal posts will be required for overhead lines. Wessex Archaeology will mark out the position of the trenches with GPS. The Client (LM) or WA will arrange for Cadent to mark out the gas pipelines to ensure there will be no clash prior to any excavation in the area. Where a fuel line is present then the Client (LM) or WA will arrange for the relevant Lands Technician to mark out the wayleave easement to confirm there will be no clash prior to any excavation in the area. There will be no excavation over gas or fuel services at any time, therefore the services will never be exposed. Site and surrounding area will be visually inspected in detail for any clues to indicate buried services in the area. The excavation area will be with a proprietary cable detector (i.e. a CAT). Machine stripping to be carried out in discrete 0.1 m spits under constant supervision, and periodically re-checked using the CAT. If buried services are suspected or anticipated then hand-excavation may be required to initially establish 	1	3	3	WA/Client
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		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

						<ul style="list-style-type: none"> the location and alignment of such services. Work will be carried out in line with HSG47. Any cable or pipe encountered will be considered live at all times, and will be protected from any subsequent damage. Trenches will be relocated and/ or adjusted in dimensions to avoid existing utilities. Plant will not operate beneath overhead utilities. Goalposts will be erected in accordance with GS6 for plant travelling beneath overhead power lines lower than 10m. Power lines higher than 10m and away from main access routes will be demarked by orange netlon fencing and appropriate signage. 				
Contamination	Injury to WA staff, visitors and other contractors, and damage to the local environment through contamination	S/C/P	2	3	6	<ul style="list-style-type: none"> The Client or their Contractor will advise of any known contaminants. The Wessex Archaeology Project Archaeologist has UKATA approved asbestos awareness training. If any asbestos is observed, work will immediately stop and the Client or their Contractor will be informed. Work will only commence after the safe removal of any asbestos and the Client or their Contractor has deemed the area to be safe. Health & Safety procedures outlined by the Principal Contractor at induction will be followed and appropriate levels of PPE utilised where necessary. SHOULD CONTAMINATION BE ENCOUNTERED THIS RAMS WILL NEED TO BE FULLY REVIEWED AND REVISED. Smoking will not be allowed on site or in site welfare facilities 	1	3	3	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

Unexploded Ordnance (UXO)		S/C/P	2	3	6	<ul style="list-style-type: none"> There is no anticipated UXO risk. Staff will retain a copy of WA UXO guidelines on site at all times and will familiarise themselves with the guidelines prior to fieldwork commencement. On finding UXO the procedure to be followed is: <ul style="list-style-type: none"> Do not touch or move the UXO; Remove all personnel to a safe distance – minimum 100 metres; Mark the site so it is easily identifiable (Picket and tape is recommended); Telephone 999 and inform the police of the emergency. Inform the Client of the emergency so that emergency plans can be implemented 	1	3	3	WA/Client
Unexploded Ordnance (UXO)		S/C/P	2	3	6	<ul style="list-style-type: none"> There is no anticipated UXO risk. Staff will retain a copy of WA UXO guidelines on site at all times and will familiarise themselves with the guidelines prior to fieldwork commencement. On finding UXO the procedure to be followed is: <ul style="list-style-type: none"> Do not touch or move the UXO; Remove all personnel to a safe distance – minimum 100 metres; Mark the site so it is easily identifiable (Picket and tape is recommended); Telephone 999 and inform the police of the emergency. Inform the Client of the emergency so that emergency plans can be implemented 	1	3	3	WA/Client
Extreme weather conditions	Hot weather working (i.e. dehydration, sun burn, sun stroke etc.)	S/C/P	2	2	4	<ul style="list-style-type: none"> Sun cream, min. SPF15 (though SPF30+ recommended) with good UVA and UVB protection to be applied regularly to exposed skin. Regular breaks to be taken in shade to limit exposure to sun. 	1	2	2	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

						<ul style="list-style-type: none"> Appropriate clothing to be worn - Full PPE including Hi Vis tops, steel toe-capped boots and hard hats to be worn at all times. Drinking water to be available on site, and consumed at regular intervals – do not wait until thirsty, thirst is a symptom of dehydration. If necessary, wear sunglasses that offer good UV protection, particularly where glare may be a factor (e.g. investigations on chalk, sites on or near large bodies of water etc.). 				
Driving	Injury to WA staff, WA equipment, plant and members of the public resulting from road traffic accidents.	S/C/P	2	3	6	<ul style="list-style-type: none"> Nominated drivers must familiarise themselves in advance with routes for all journeys, as well as routes to local A&E services and any other destinations considered likely/ necessary as part of project work. If roadmaps are unavailable, or the nominated driver does not have access to internet-based route-planners (e.g. http://maps.google.co.uk/) then the project manager must obtain route details and attach below. All equipment will be securely stowed during transit, with a fixed bulkhead separating equipment and passengers. All vehicle manoeuvring will only occur with the assistance of appropriately located 'banksman'. Tyres, water, oil and petrol will be checked daily. Extreme caution will be exercised when entering or leaving public highways. Mobile phones will be turned off before commencing any journey, and will not be used at all whilst driving. Access to site will via local roads and designated routes only. Access to areas on site needs to be agreed prior to starting works. Gas bottles will not be carried, hot drinks will either be bought locally, or provided in vacuum flasks. 	1	2	2	WA/Client

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

						<ul style="list-style-type: none"> All drivers are to be fully aware of the Gross Vehicle Weight (GVW) of all vehicles driven. If in any doubt a public weighbridge is to be used to confirm weight of the vehicle. 				
General Measures	General measures for implementation to maximise any reduction in risk rating.					<ul style="list-style-type: none"> A mobile phone contact will be available at all times for use in emergencies. Where feasible, all WA personnel will be CSCS card-holders, or in the case of visitors, be accompanied by CSCS card-holders at all times. Anything that is or seems to be unsafe will be reported to the WA project officer/supervisor immediately A first aid kit will be available to WA staff and others at all times (i.e. in the messing area and vehicles). Directions to the first aid kit, a copy of WA Health & Safety policy, a HSE guidance poster, a valid insurance certificate and a copy of this Risk Assessment will be on display within the messing area. A fire extinguisher will be located in each welfare unit deployed on site. The WA Site Supervisors will provide a site induction to all members of staff prior to the commencement of work and ensure that they have read and signed this risk assessment. Any visitors to site must be made aware of and sign the risk assessment prior to entering site, and any potential health and safety issues highlighted e.g. deep excavation areas 				

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
		1= Low		
		2 = Med		
		3 = High		

Completed after work has started

[illegible]Project Risk Assessment N° 215950.02

RISK ASSESSMENT BRIEFING LOG

[illegible]

CONTACTS

Name	Role	Telephone	Address
Richard O'Neill	Senior Project Manager		C/o Wessex Archaeology
Ian Phillips	SH&E Manager		C/o Wessex Archaeology
Catherine Douglas	Project Officer		C/o Wessex Archaeology
Emma Carter	Site Supervisor		C/o Wessex Archaeology
John Whitmore	Asst. Supervisor		C/o Wessex Archaeology
Paul Hunt	Assistant Project Manager		Laing O'Rourke Murphy Joint Venture
Rob Early	Heritage Manger		DJV
Alastair Hancock	HS2 EWC North, Technical Lead – Archaeology and Heritage.		DJV
Glenn Rose	Heritage Consultant		Laing O'Rourke Murphy Joint Venture
Hollie Ridley	H & S Manager		Laing O'Rourke Murphy Joint Venture
Good Hope Hospital	Accident and Emergency	0121 424 2000	Rectory Road Sutton Coldfield West Midlands B75 7RR

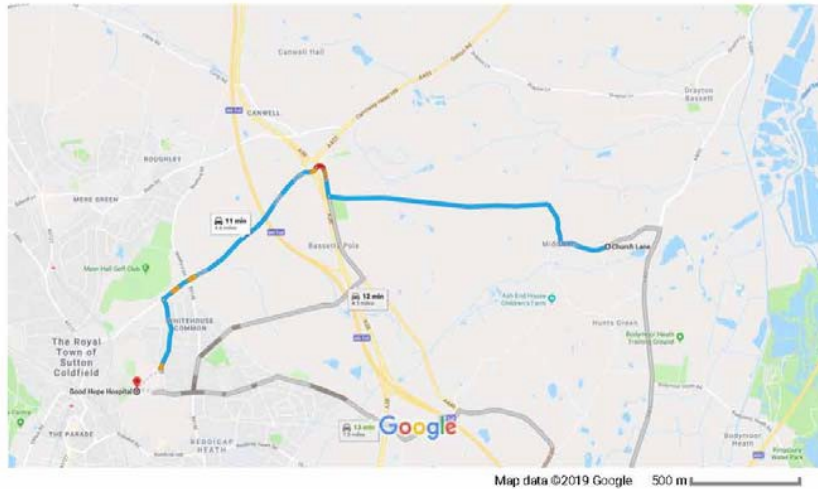
		Likelihood		
Severity		1	2	3
	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
	1 = Low			
	2 = Med			
	3 = High			

A&E Directions: from Compound A: Church Lane, Middleton, North Warwickshire, B78 2AJ

Google Maps

Church Ln, Tamworth to good hope
hospital sutton coldfield

Drive 4.6 miles, 11 min



Church Ln

Tamworth

- ↑ 1. Head west on Church Ln towards Crowberry Ln 0.4 mi
- ➔ 2. Turn right onto Coppice Ln 1.9 mi
- ➔ 3. Turn right onto London Rd/A446 0.3 mi
- 📍 4. At the roundabout, take the 2nd exit onto A453 1.5 mi
- ➔ 5. Turn left onto Bedford Rd 0.6 mi

Good Hope Hospital

Sutton Coldfield B75 7RS

These directions are for planning purposes only.
You may find that construction projects, traffic,
weather, or other events may cause conditions to
differ from the map results, and you should plan
your route accordingly. You must obey all signs or
notices regarding your route.

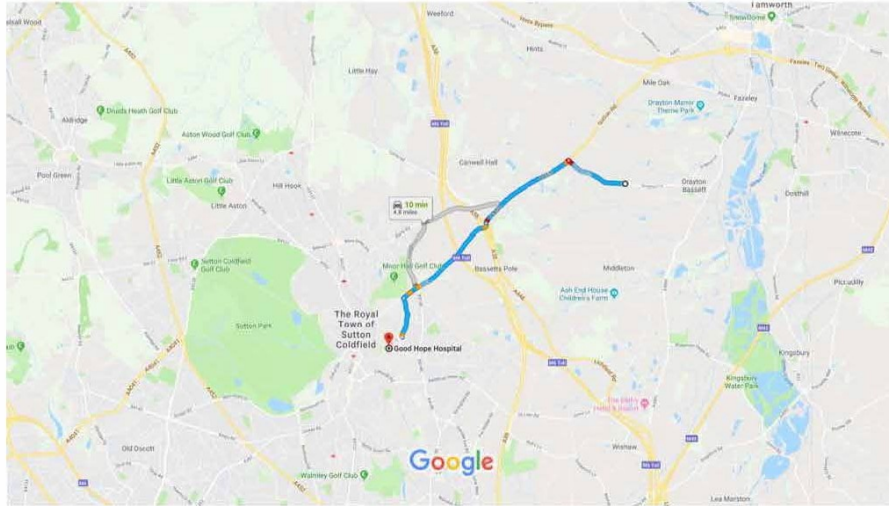
		Likelihood		
Severity		1	2	3
	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
	1 = Low			
	2 = Med			
	3 = High			

A&E Directions: from Compound B: Drayton Lane, Drayton Bassett, Staffs, B78 3EF

Google Maps

Drayton Lane to good hope hospital
sutton coldfield

Drive 4.4 miles, 9 min



Map data ©2019 Google 1 km

Drayton Ln

Drayton Bassett, Tamworth B78 3EF

- ↑ 1. Head west on Drayton Ln towards Shirral Dr
0.9 mi
- ↙ 2. Turn left onto Sutton Rd/A453
Continue to follow A453
1.4 mi
- 📍 3. At the roundabout, take the 3rd exit and stay on A453
1.5 mi
- ↙ 4. Turn left onto Bedford Rd
0.6 mi

Good Hope Hospital

Sutton Coldfield B75 7RS

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

		Likelihood		
		1	2	3
Severity	3	3	6	9
	2	2	4	6
	1	1	2	3
		Good		
		Acceptable		
		Needs further controls		
	1 = Low			
	2 = Med			
	3 = High			



Project Risk Assessment

Site address	Drayton Bassett, Warwickshire/Staffordshire Compound A: Church Lane, Middleton, North Warwickshire, B78 2AJ Compound B: Drayton Lane, Drayton Bassett, Staffs, B78 3EF Compound D: Rookery Lane, Hints, Tamworth, B78 3DW			Start Date:	04/03/2019	Doc. Ref. 01	215950.02	
				Completion Date:	16 weeks			
Scope of Works	Archaeological Evaluation. There is a requirement to use suitable plant to lift big mats into position in order for excavators to be able to cross below ground services.			Client/ Principal Contractor		HS2/ Laing O'Rourke Murphy Joint Venture (LMJV)		
Significant Hazard / Risk associated with the work	Working with plant Lifting operations Overhead services Dropped/slipped loads	Responsible Persons		PM: Richard O'Neill Supervisors: Catherine Douglas First Aid: Catherine Douglas, Rob Jones Slinger Signaller: Rob Jones, Luke Roberts, Stuart Pierson, Max Higgins				
		Emergency Procedures		Nearest A&E Hospital: Good Hope Hospital Rectory Road, Sutton Coldfield, West Midlands B75 7RR				
Additional Information / Documentation	In the event of work ceasing due to health and safety reasons, the contractor and/or client is to be informed within 24 hours (contractor detail provided in contacts in red). This notification should be undertaken by the Project Manager in the first instance. In the absence of the Project Manager the Emergency Response Team (ERT) as detailed on the Emergency Response Procedure (attached) should be informed.							
Risk Assessment Completed by:	Print	Max Higgins	Signed		Position	Assistant Supervisor	Date	13/05/2019
Risk Assessment Approved by:	Print	Richard O'Neill	Signed		Position	Senior Project Manager	Date	13/05/2019

Site Specific Risk Assessment

Completed before starting on site

Hazard	Consequence	Affected S/C/P	Initial Risk Rating			Control Measures	Residual Risk Rating			Monitor
			L	S	R		L	S	RR	
Overloading of lifting equipment	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Lifting capacity to be identified on the equipment Weights of loads to be established Ground conditions to be confirmed Radius of lift to be ascertained for load Operator and slinger signaller competency checks Equipment must be fitted with an in-cab audible over load indicator, or an acoustic/visual safe load indicator Current certificate of thorough examination as required by the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) 	1	2	2	WA/ Contractor/ Client
Overloading of lifting accessories	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Lifting accessories Safe Working Limits (SWL) requirements to be confirmed. Lifting accessories to be attached and used as intended Pre use inspections to be undertaken to check for damage Non-standard or modified lifting accessories shall not be used Operator/User instructions shall be briefed to those involved in the lifting operation. Operators shall be competent in the use of the lifting accessories provided 	1	2	2	WA/ Contractor/ Client
Slipped/Dropped Load	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Only competent and qualified staff should carry out lifting operations Manufacturer or supplier recommended lifting points to be used at all times 	1	2	2	WA/ Contractor/ Client

						<ul style="list-style-type: none"> A competent person shall ensure that all personnel are clear of loads prior to lifting Only those essential to the lifting operation shall be present and at no time shall the load be above personnel 				
Collision with obstructions on site	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Allow adequate clearances to avoid conflict with other plant or adjacent structures and to prevent over sail Slung load movements to be supervised by a qualified slinger signaller at all times 	1	2	2	WA/ Contractor/ Client
Weather conditions	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Lifting operations will cease when ground conditions deteriorate following heavy rain, snow, ice etc Lifting operations will cease when wind speeds exceed the manufacturers stated limit for the lifting equipment Lifting operations to cease during thunder storms. 	1	2	2	WA/ Contractor/ Client
Overhead services	Injury to WA staff, visitors, other contractors during lifting, including crushing and entrapment	S/C/P	2	3	6	<ul style="list-style-type: none"> Any movement of slung loads under overhead cables must be carried out in between goalposts and under the control of a banksman/slinger signaller A constant check should be made to ensure that loads or lifting equipment do not exceed the safe working heights indicated by goalposts 	1	2	2	WA/ Contractor/ Client

Dynamic Risk Assessment

Completed after work has started

Hazard	Consequence	Affected S/C/P	Risk Rating			Control Measures	Residual Risk Rating			Monitor	Staff informed
			L	S	RR		L	S	RR		

RISK ASSESSMENT BRIEFING LOG

[illegible]

CONTACTS

Name	Role	Telephone	Address
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Ian Phillips	SH&E Manager		C/o Wessex Archaeology
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Rob Arnold	Construction Manager		Laing O'Rourke Murphy Joint Venture
Alastair Hancock	Technical Lead – Archaeology and Heritage.		DJV
Glenn Rose	Senior Consultant		Laing O'Rourke Murphy Joint Venture
Hollie Ridley	H & S Manager		Laing O'Rourke Murphy Joint Venture
Good Hope Hospital	Accident and Emergency	0121 424 2000	Rectory Road Sutton Coldfield West Midlands B75 7RR

Compound A: Church Lane, Middleton, North Warwickshire, B78 2AJ

Church Ln, Tamworth to Good Hope Hospital

10 min (4.6 miles)
via Coppice Ln and A453
Fastest route

Church Ln
Tamworth

- ↑ Head west on Church Ln towards Crowberry Ln
0.3 mi
- ↘ Turn right onto Coppice Ln
1.9 mi
- ↘ Turn right onto London Rd/A446
0.3 mi
- ⦿ At the roundabout, take the 2nd exit onto A453
1.5 mi
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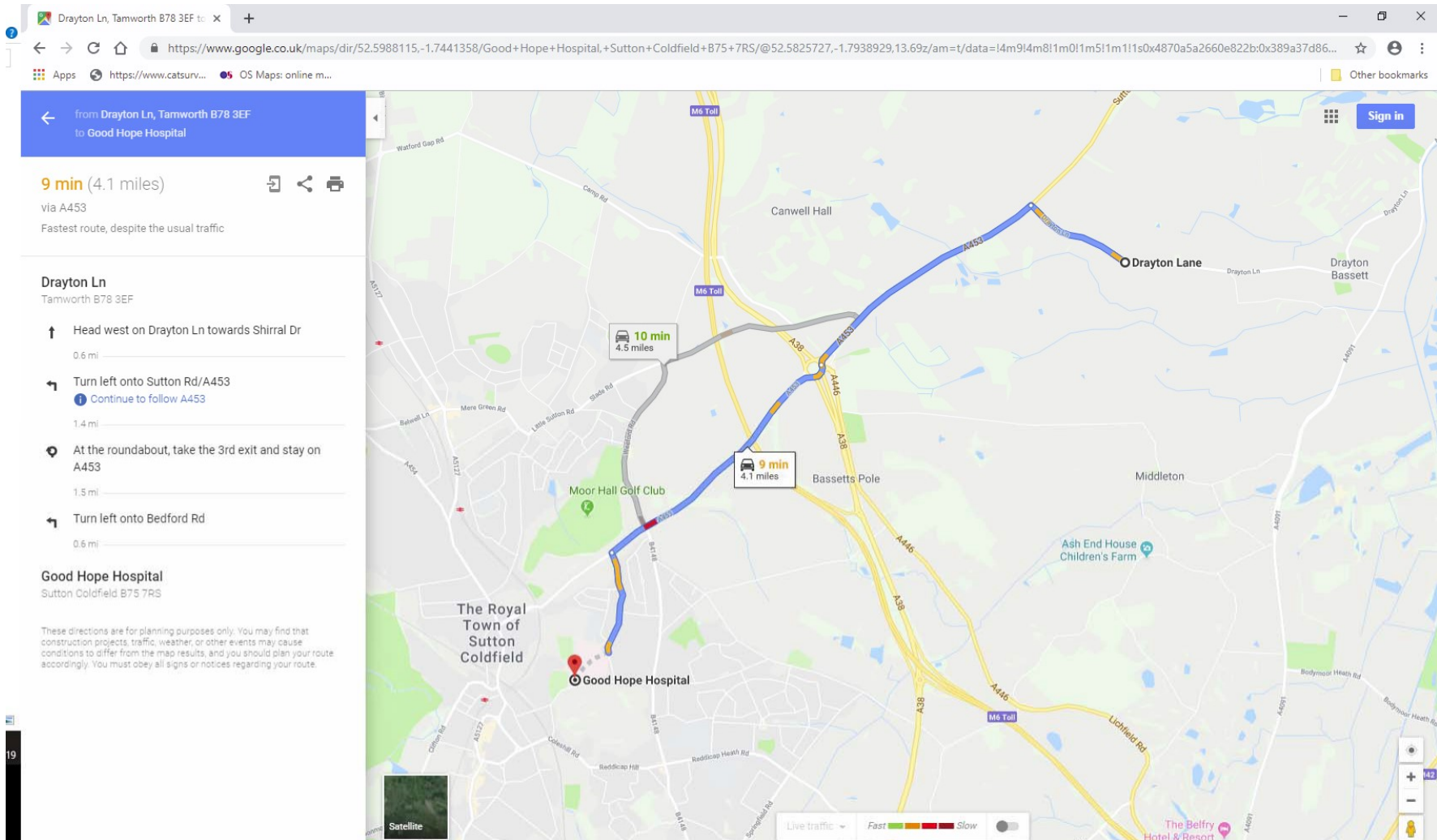
Good Hope Hospital
Sutton Coldfield B75 7RS

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Map data ©2019 Google, United Kingdom, Terms, Send feedback, 500 m

11:47
13/05/2019

Compound B: Drayton Lane, Drayton Bassett, Staffs, B78 3EF



Compound D: Rookery Lane, Hints, Tamworth B78 3DW

