

**The Great Grid Upgrade**

Chesterfield to Willington

# Preliminary Environmental Information Report

Volume 3: Appendix 8A Archaeological and  
Geoarchaeological Baseline

March 2026

nationalgrid

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# 8A. Archaeological and Geoarchaeological Baseline

## 8A.1 Overview

- 8A.1.1 Full detail of assets and find locations can be found in **Appendix 8C Gazetteer of Historic Environment Assets** and are shown on **Figure 8.2 Designated Heritage Assets**, **Figure 8.3 Historic Environment Record** and **Figure 8.4 Remote Sensing Data**. Asset numbers provided throughout this appendix are either numbers from the Historic Environment Record (HER) (e.g. MDR4965 and EDR2999), from WSP analysis of LiDAR (e.g. RSpI\_ID\_150) or from the National Heritage List for England (NHLE) (e.g. NHLE101917).
- 8A.1.2 This baseline information considers the 500 m Study Area around the draft Order Limits for non-designated heritage assets; a further 2 km Study Area was considered for designated heritage assets.

## 8A.2 Cultural Heritage Baseline

### Zone 1: Chesterfield Coalfield

#### Geology and topography

- 8A.2.1 Zone 1 extends from Chesterfield to Oakerthorpe. This forms part of the Nottinghamshire, Derbyshire and Yorkshire Coalfield Natural England (NE) National Character Area (NCA) (Ref 8A.1). The NCA is characterised by generally low-lying topography, with hills and escarpments above wide valleys. The northern extent of the Study Area runs parallel to Calow/Muster Brook which feeds into the River Rother flowing north. To the east of the Study Area, the River Doe Lea flows from near Tibshelf, feeding into the River Rother north of Staveley. To the south of the Zone, the Study Area crosses Westwood Brook, Morton Brook and Alfreton Brook, feeding into each other respectively, and in turn into the River Amber which flows south into the Derwent.
- 8A.2.2 The bedrock in Zone 1 comprises Pennine Middle Coal Measures Formation. This consists of interbedded grey mudstone, siltstone, pale grey sandstone and commonly coal seams. These deposits formed between 318 and 310 million years ago (Mya) in the Carboniferous Period. An area of higher elevation Pennine Lower Coal Measures Formation, with similar lithology to the Middle Coal Measures, is exposed just north of Tibshelf. These earlier deposits date to between 319 and 318 Mya, also in the Carboniferous Period.
- 8A.2.3 British Geological Survey (BGS) Superficial Mapping shows alluvial deposits, generally clay, silt, sand and peat, located along the majority of brooks and rivers within this area. This includes Calow, Muster, Morton and Alfreton Brooks. Small areas of Head (weathered slope deposits, dated broadly to the late Pleistocene) have also been recorded, along and east of the River Doe Lea. These are identified as superficial, but most likely date to the late Pleistocene, around or following the last

glaciation – the Devensian glacial stage (116 to 11.8 thousand years (ka) before present (BP) which is equivalent to Before Common Era (BCE)).

- 8A.2.4 The area is primarily upland, with an average elevation of 139 m Above Ordnance Datum (AOD) and a maximum elevation of 185 m AOD near Hardstoft Road. The topography is characterised by numerous valleys incised into the bedrock by the brooks.

### Geoarchaeological baseline

#### Pleistocene (2.6 to 11.8 ka BP)

- 8A.2.5 During the Last Glacial Maximum (LGM; approximately 23–18 ka BP), this Zone lay outside the ice-covered area (Ref 8A.2) and was subject to periglacial conditions in which cyclical freezing and thawing is typical. These conditions encouraged solifluction (movement of saturated material downslope) creating Head. It is likely that these deposits may be more widespread than is indicated on the BGS Superficial Map, as they can be difficult to detect on gentler slopes (Ref 8A.3). These deposits have the potential to bury Palaeolithic archaeology.
- 8A.2.6 The Palaeolithic and Mesolithic Lithic Artefact (PaMELA) database (Ref 8A.4) includes a concentration of flint artefacts east of the River Doe Lea in Hardwick Park, though a few of these have been more precisely dated to the Mesolithic in the early Holocene. Additional undated flints are also recorded in the PaMELA database at Redbarn Lane, Newton near Church Hill. No other Pleistocene deposits or artefacts are identified in Zone 1.

#### Holocene (11.8 ka BP to present)

- 8A.2.7 Following climatic amelioration at the end of the last glacial period, the rivers and their floodplains developed into their current form. Alluvium formed on river floodplains and within tributaries. It is believed that these deposits are likely to be largely shallow (Ref 8A.3).
- 8A.2.8 The quality of available BGS Borehole Data in Zone 1 is limited due to the age and purpose of investigation. Lithological descriptions do not contain the same degree of detail as modern geotechnical logs and tend to target coal seams, avoiding superficial deposits.
- 8A.2.9 Nonetheless, borehole SK45NW199 coincides with the mapped alluvial deposits along Morton Brook, approximately 100 m north of the intersection of the brook and the Study Area (NGR 441950 and NGR 358790). The lithology of this borehole is recorded from the base upwards in **Table 8A.1**.

**Table 8A.1: Borehole SK45NW199 lithostratigraphy**

Top m below ground level (bgl)	Base m bgl	Top m AOD	Base m AOD	Lithology (Sediment Description)	Stratigraphy (Interpretation)
0.00	0.50	97.62	97.12	Topsoil	Topsoil
0.50	2.65	97.12	94.97	Soft to firm brown and grey mottled silty clay	Alluvium (an oxidised lower energy process as the river system settled with reduced erosion under the warmer Holocene climate)
2.65	3.15	94.97	94.47	Soft grey clayey, very silty sand	Alluvium (an earlier higher energy system with potential for waterlogging)
3.15	6.00	94.47	91.62	Grey weathered sandy siltstone	Bedrock (weathered upper surface of the Pennine Middle Coal Measures)

8A.2.10 Satellite imagery from 2000–2002 (Landsat/Copernicus) shows the area immediately north of borehole SK45NW199 was quarried. The landscape, however, appears to have been reinstated and there is no indication of this in later imagery. Such works, here and potentially elsewhere within Zone 1, are likely to have destroyed alluvial deposits and impacted the potential waterlogging of deposits in their vicinity.

#### Archaeological baseline

8A.2.11 The draft Order Limits intersect with three conservation areas to allow for access along existing tracks and roads, which are Heath Village, Alfreton and Hardstoft, as identified in **Table 8A.2**. There are no other designated heritage assets within the draft Order Limits for Zone 1.

**Table 8A.2: Designated heritage assets within Zone 1 of the draft Order Limits**

Ref	Name	Easting	Northing
-	Heath Village Conservation Area	444623	366910
-	Alfreton Conservation Area	440803	355828
-	Hardstoft Conservation Area	443900	363066

8A.2.12 There are 165 designated heritage assets that have been identified within the Study Area in Zone 1 including 146 listed buildings, two scheduled monuments and 17 conservation areas.

8A.2.13 Further, 20 non-designated heritage assets and finds locations are within the draft Order Limits within Zone 1, as identified in **Table 8A.3**. These represent a diverse range of historic activity from the Roman period through the 19th century industrial era. These include remnants of transport infrastructure such as sections and conjectural routes of Rykniel Street Roman Road (**MDR4965** and **MDR10207**), a 1759 turnpike road (**MDR11649**), and several 19th century railways and tramways (**MDR8651**, **MDR10948**, **MDR11055**, **MDR11105**, **MDR11624**, and **MDR12415**) that illustrate evolving transport networks. Industrial heritage is reflected in the sites of collieries and associated tramways (**MDR9596**, **MDR9597**, and **MDR14100**), a foundry (**MDR11578**), and Bond’s Main Colliery remains, evidencing coal and iron production that shaped local communities. Agricultural and estate landscapes are represented by the medieval or post-medieval deer parks of Alfreton Park (**MDR5876**), Sutton Scarsdale (**MDR12114**), and Shirland Park (**MDR5869**), as well as Park Mill (**MDR11582**), a long-lived watermill site. Other evidence of former extractive industry is marked by Outlane Quarry (**MDR13824**) and a wooden signpost at Ault Hucknall (**MDR15120**). Together these assets chart the transformation of the landscape, from medieval hunting parks and milling, through early modern routeways, to the industrial exploitation of coal, iron, and sandstone, highlighting the role of this area in Derbyshire’s broader historic environment.

**Table 8A.3: HER records within Zone 1 of the draft Order Limits**

Ref	Name	Easting	Northing
MDR11582	Park Mill (site of), Alfreton Brook, Alfreton	440057	356733
MDR9597	Oakerthorpe Colliery, South Wingfield	439380	354958
MDR9596	Highfield Colliery (site of), South Wingfield	439658	354944
MDR5876	Alfreton Park, Alfreton	440376	355982
MDR11578	Iron foundry (site of), Calow	440543	369728
MDR12114	Sutton Scarsdale medieval deer park (possible site of), Sutton Scarsdale Hall, Sutton cum Duckmanton	443299	368569
MDR11624	Tramway (route of), Oakerthorpe, South Wingfield	438996	355277
MDR8651	Lancashire, Derbyshire and East Coast Railway (route of), North East Derbyshire and Bolsover	445114	369866
MDR10948	Great Central Railway, Chesterfield Loop, Chesterfield and North East Derbyshire	440884	371092
MDR5869	Shirland Park (site of), Shirland	440979	357749
MDR11055	Great Central Railway, Derbyshire Main Line (route of), Derbyshire Dales, Bolsover and North East Derbyshire	444029	369345
MDR11105	Midland Railway, Pilsley Extension (route of), North East Derbyshire	441563	364616

Ref	Name	Easting	Northing
MDR12415	Erewash Valley Line, Trent Junction to Tupton (for Chesterfield), North East Derbyshire, Bolsover, Amber Valley and Erewash	444660	349611
MDR13824	Outlane Quarry, Out Lane, Common End, Holmewood	443709	365038
MDR4965	Rykniel Street Roman Road, South Wingfield Parish	438917	355372
MDR10207	Rykniel Street Roman Road (conjectural route of)	438806	354295
MDR14100	Bond's Main Colliery (site of), Postman's Lane, Temple Normanton	442034	367964
MDR15120	Wooden signpost, Ault Hucknall	443773	365036
MDR11649	Chesterfield to Mansfield (via Hasland) Turnpike Road, North East Derbyshire, Chesterfield and Bolsover	444496	367128

8A.2.14 Archaeological investigations undertaken within Zone 1 provide information into the potential for buried heritage assets. Three separate studies, comprising a geophysical survey, a watching brief, and a desk-based assessment, demonstrate a combination of proactive evaluation methods and responsive monitoring to safeguard archaeological remains. These investigations collectively show that although some areas have been affected by previous industrial activity, including extensive areas of 20th century opencast coal mining, there is still potential for prehistoric, Romano-British, medieval, and post-medieval remains to survive within the draft Order Limits.

### Prehistoric

8A.2.15 There is one non-designated heritage asset recorded using LiDAR, and no assets in the Portable Antiquities Scheme (PAS) finds that have been identified within the Study Area from the prehistoric period. The limited archaeological evidence is due to the history of industrial development in the region.

8A.2.16 However, a watching brief on Draycott Rising Main (**EDR2999**), within the draft Order Limits, identified part of a Middle Bronze Age cremation cemetery. This confirms prehistoric ceremonial activity and demonstrates that, despite industrial disturbance elsewhere, significant prehistoric remains can survive beneath undisturbed soils.

8A.2.17 The wider area, including the surrounding valleys and escarpments, has yielded isolated flint tools and scatters, suggesting transient activity by nomadic hunter-gatherers. However, no concentrated site has been identified in the immediate area of Hasland and Tibshelf.

8A.2.18 Evidence from the surrounding Derbyshire region suggests gradual clearance of woodland and the introduction of early agriculture. Although there are no Neolithic settlements firmly known within the draft Order Limits, finds of polished stone axes and field clearance debris from nearby Hardwick, Glapwell, and Alfreton suggest farming communities may have extended activity into this landscape.

- 8A.2.19 Streams such as the Doe Lea and Redlead Brook may have served as natural movement corridors. These watercourses, with their relatively light vegetation cover, would have offered good access to wild game and seasonal resources. The plateau around Tibshelf and Holmewood, with commanding views and light soils in places, would have been viable for cereal cultivation and animal herding. Long-distance routeways may have crossed this area along east–west ridges.
- 8A.2.20 There are no known prehistoric funerary monuments such as barrows from the area between Hasland and Holmewood, but their absence could be due to modern development or land disturbance (coal mining, quarrying, and agriculture).
- 8A.2.21 There is no direct evidence for Iron Age hillforts or enclosed settlements within the draft Order Limits but the elevated land around Tibshelf, Holmewood and Hasland is topographically suited to Iron Age agriculture and small-scale enclosed field systems.
- 8A.2.22 Additional evidence supporting the presence of a bank feature within the Zone 1 Study Area (**RSply\_ID\_534**) is substantiated by LiDAR data.
- 8A.2.23 In the nearby Erewash Valley and further west in the Rother Valley, Iron Age field boundaries, pits, and roundhouse sites have been uncovered during modern development. It is likely that this area was settled by small populations of farming communities, living in timber roundhouses and managing mixed arable-pastoral landscapes.
- 8A.2.24 This area lies on a transitional ridge between the river valleys of the Rother and the Erewash, providing a mix of well-drained slopes and clay plateaus – conditions favourable for both prehistoric and Roman-period activity.
- Roman (Anno Domini (AD) (also equivalent to Common Era (CE)) 43–410)**
- 8A.2.25 There are eight non-designated heritage assets or finds locations dated to the Roman period within the Study Area, which include six assets recorded in the HER, and two assets listed in the PAS.
- 8A.2.26 To the west of the draft Order Limits there is possibly a minor east to west Roman route (**MDR23056**) from Templeborough towards Derby. These pass through the Study Area and intersect the draft Order Limits to the west of Chesterfield Road. No obvious earthwork remains of the Roman road of Ryknield Street (**MDR4965** and **MDR10207**) were noted at this point, during the walkover survey.
- 8A.2.27 Evidence for Roman military activity in the Study Area is provided by Castle Hill Roman Fort (**MDR4950** and **NHLE1007046**) at Pentrich. The site, an almost square earthwork situated on a ridge-top with views across a length of Ryknield Street (**MDR4958**), has good claims to be identified as a small Roman fort. Cropmarks which may represent associated Roman activity have been identified to the north, east (**MDR4972**) and south east (**MDR4971**), and possible earthworks corresponding to this site were noted during the walkover survey, though these are all outside of the draft Order Limits.
- 8A.2.28 To the north west of the Study Area lies the town of Chesterfield, which may have had strategic significance during the Roman period. It is sometimes identified with the name *Castrafeld*, suggesting a possible Roman military or administrative presence, though direct archaeological evidence is limited. Its location between key Roman roads, including Ryknield Street, would have made it a suitable site for logistical support and regional governance.

- 8A.2.29 Fieldwalking and aerial surveys near Tibshelf, Alfreton and Clay Cross have uncovered Roman pottery scatters, tiles, and ironworking slag, pointing to rural farmsteads (village or native homesteads). These sites are likely to have produced grain and livestock for local consumption. Within the Study Area, possible Romano-British pottery sherds (**MDR5929**) were found in the 1920s at an unknown site somewhere in Sutton Spring Wood. Part of what appeared to be a Roman copper alloy brooch or clasp (**MDR15044**) was recovered at this location in 1997.
- 8A.2.30 Across the East Midlands, aerial survey and excavation have revealed extensive rectilinear and coaxial field systems of later prehistoric and Roman date, particularly in fertile valleys and near watercourses. These organised landscapes are interpreted as agricultural units associated with dispersed farmsteads and small settlements, often linked to local routeways and larger Roman roads (Ref 8A.5). Evidence from Nottinghamshire and Derbyshire suggests that such systems were widespread and sometimes remarkably enduring, with alignments continuing to influence medieval and later enclosure patterns (Ref 8A.6). In this context, it is plausible that the medieval open-field arrangements in Hasland and Winsick fossilised elements of earlier Roman or even late prehistoric boundary layouts.
- 8A.2.31 The recovery of Roman building materials, such as roof tiles and stone foundations, has often been used as a proxy for higher-status rural settlement, including villas or substantial masonry farmsteads. Within the Study Area, reports of structural remains near Alfreton Brook (**MDR4886**), though unconfirmed, add weight to this interpretation. Villas in the East Midlands are frequently associated with agricultural surplus and market integration, acting as focal points for production and redistribution within the provincial economy. The presence of these materials therefore suggests not only domestic occupation of status but also possible participation in wider networks of trade and supply.
- 8A.2.32 The watching brief on Draycott Rising Main (**EDR2999**), within the draft Order Limits, recovered some Romano-British pottery, indicating low-level Roman-period activity or settlement presence. These finds suggest that the area was not isolated during the Roman era and may have been linked to local farmsteads or routeways.
- 8A.2.33 Two PAS finds have been identified from Zone 1, belonging to the Roman period. These include two silver Denarius coins (**PAS 6** and **PAS 32**).
- Early medieval (AD 410–1066)**
- 8A.2.34 There are two early medieval heritage assets or finds locations recorded within the Study Area, one listed in the HER and one asset listed in the PAS.
- 8A.2.35 Following the Roman withdrawal from Britain around AD 410, the region underwent considerable social and political transformation. The East Midlands, including what is now Derbyshire, became part of the Kingdom of Mercia, one of the dominant Anglo-Saxon polities between the 7th to 9th centuries. The area was at the eastern edge of the Peak District uplands, offering arable land, woodland, and grazing, which made it suitable for early colonisation by Anglo-Saxon settlers.
- 8A.2.36 Anglo-Saxon material culture is sparse in Derbyshire due to both burial and settlement practices, which are often timber-based and ephemeral.
- 8A.2.37 In the late 9th century, this part of Derbyshire came under Danish control as part of the Danelaw. Derby itself was one of the Five Boroughs of the Danelaw. A small Viking silver ingot (**MDR5948**) was found within the Study Area. The weight, form and

remains of casting pour found on the surface of the find suggest it could be dated to the 10th century.

- 8A.2.38 The region would have been sparsely populated in the early medieval period, characterised by dispersed hamlets and farmsteads rather than nucleated villages. Settlement was often transient and timber-built, associated with small-scale woodland clearances for arable cultivation and grazing, a pattern consistent with wider evidence from the Midlands and southern England (Ref 8A.7).
- 8A.2.39 Streams such as the Redlead and Doe Lea were important for freshwater access, powering small mills by the later period, and possibly marking territory boundaries even earlier.
- 8A.2.40 By the time of the Norman Conquest in 1066, the area was well integrated into the feudal framework. It was divided into manors held by lords under the overlordship of the Crown or religious institutions.
- 8A.2.41 One PAS find, comprising an early medieval lead spindle whorl (**PAS 9**), has been identified from this period in Zone 1.

#### Medieval (AD 1066–1540)

- 8A.2.42 There are 14 non-designated heritage assets or finds locations relating to medieval activity within the Study Area. These include 11 assets recorded in the HER, and three finds listed in the PAS.
- 8A.2.43 The Domesday Book (1086) records Chesterfield and some nearby lands, but places like Holmewood, and Corbriggs were either part of manorial estates or wasteland at that time. The Domesday Book (1086) mentions Tibshelf (as ‘Tibeselva’) as a manor of some importance, held by Ralph FitzHubert, with ploughlands and woodland, indicating established areas of cultivation and natural resource exploitation.
- 8A.2.44 Within the Study Area, Stainsby (which was designated as a conservation area in 1975) is a small historic village notable for its well-preserved medieval layout and rural character. The area includes traditional limestone cottages and farm buildings clustered around the village green and the remains of Stainsby’s medieval manor. The landscape setting, with surrounding open fields and mature trees, contributes strongly to the area’s special architectural and historic interest. The conservation appraisal highlights the importance of retaining traditional building materials and protecting views within and out from the village. The area’s historic significance is linked to its agricultural heritage and medieval origins.
- 8A.2.45 The scheduled defended manorial complex at Stainsby (**NHLE1015890** and **MDR5937**) is located wholly within Stainsby Conservation Area and is situated on the crest of a hill 12.8 km south east of Chesterfield and consists of the below ground remains of a manor house and chapel, the surviving earthworks of the defensive ditch and rampart, the outer circuit bank and fishpond. A hollow way is also evident as an earthwork to the south west of the manor house leading to the chapel. The medieval manor house is thought to have stood on the brow of the hill and underlies the Victorian school building (now the Baden-Powell scout centre) and adjacent School House which occupy the top of the hill today. During the laying of new water pipes to the west of the School House, stone footings of the western wing of the defended manorial complex were revealed. This evidence appears to indicate that the present schoolhouse incorporates fabric of a much earlier building, possibly remains of the defended manorial complex, and that this building had a much larger

footprint. The most visible archaeological features are the earthworks which enclose the northern end of the manorial complex. The site of a medieval chapel (**MDR5926**) is attached to the scheduled defended manorial complex. Manorial centres were important foci of medieval rural life. Local agricultural and village life was normally closely regulated by the lord of the manor and thus the inhabitants of these sites had a central interest in many aspects of medieval life.

- 8A.2.46 The presence of extensive woodland, especially around Holmewood and Doe Lea, led to active assarting – a process of clearing woodland for farmland. Watermills likely existed on streams such as the Redlead Brook by the 13th and 14th century. They were essential for grinding grain and were tied to manorial rights. The site of Park Mill on Alfreton Brook (**MDR11582**) represents a long-lived water-powered corn mill, likely originating in the early 13th century, first referenced in 1225 with a recorded miller in Alfreton, located within the draft Order Limits. These earthworks reflect the persistence of watermill technology and its integration into the rural economy, with the site illustrating the adaptation of the landscape to sustain agricultural processing over several centuries.
- 8A.2.47 Within the draft Order Limits, there are several areas identified as being the possible extent of medieval parks including Alfreton deer park (**MDR5876**) and the site of the former Sutton Scarsdale medieval deer park (**MDR12114**) and the former Shirland Park (**MDR5869**). Parks are significant not only as status symbols of medieval aristocracy but also as landscape features that shaped land use, ecology, and settlement patterns well into the post-medieval period. These parks shaped field patterns, hedgerows, and woodland remnants, some of which may still be visible today as irregular enclosure in these areas may reflect the former bounds of deer parks.
- 8A.2.48 Scattered medieval and post-medieval pottery sherds were found along the Draycott Rising Main route (**EDR2999**), suggesting manuring, cultivation, or low-intensity settlement activity.
- 8A.2.49 A desk-based assessment at Mill Lane (**EDR3481**), within the draft Order Limits, noted vague cropmarks interpreted as possible archaeological features, although many deposits may have been removed by previous opencast works. This underscores the mixed survival potential for medieval and later remains in disturbed areas.
- 8A.2.50 Tibshelf likely developed into a nucleated village by the 12th to 13th centuries, centred around a church, manor house, and open fields. Hasland, though originally scattered as a settlement, began to develop along trackways leading to Chesterfield, though retaining a more dispersed pattern. Corbriggs, Winsick, and Holmewood likely began as assart farms or grange settlements established on the edges of former woodland and later expanded through piecemeal clearance.
- 8A.2.51 Three PAS finds, which include a lead spindle whorl (**PAS 8**), a lead alloy shield weight (**PAS 35**) and a circular lead disc token (**PAS 65**), have also been identified. These date from the medieval to post-medieval period and were found in Zone 1.

## Post-medieval (AD 1540–1900)

- 8A.2.52 The post-medieval period in the Study Area for Zone 1 is represented by 114 heritage assets or finds locations. These include 78 assets recorded in the HER, 10 assets listed in the PAS, and 26 recorded as LiDAR data.
- 8A.2.53 Enclosure transformed the landscape – strip fields and commons were enclosed into more formal hedged fields by the 17th and 18th centuries. Tibshelf and Holmewood saw development of small-scale coal pits and ironstone working by the 1600s. This laid the groundwork for later industrial expansion.
- 8A.2.54 The Grade I listed building (**NHLE1108914**) and scheduled monument (**NHLE1007035**) of Sutton Scarsdale Hall is a Georgian country house begun in 1724 for the 4th Earl of Scarsdale, located 1.8 km north of the draft Order Limits. Although the official list entry contains limited detailed description, the site's status as a scheduled monument indicates its national importance. The monument represents Sutton Scarsdale Hall – an architectural estate feature whose surviving remains and setting contribute to understanding of later historic (post-medieval) aristocratic estates in the region. Its presence points to the prosperity and landownership patterns in this area following the medieval period, and its landscaped grounds would likely have influenced land use and estate boundaries in adjacent zones. The Hall's elevated status and formal gardens may also have mediated the relationship of vernacular settlement with elite architecture, revealing how power, status, and wealth manifested in local topography, building and estate layout.
- 8A.2.55 Several Grade II listed farmhouses (**NHLE1052326**, **NHLE1054747**, **NHLE1087793**, **NHLE1087814**, **NHLE1088307**, **NHLE1108887**, **NHLE1108892**, **NHLE1108893**, **NHLE1108897**, **NHLE1108903**, **NHLE1108904**, **NHLE1108910**, **NHLE1108975**, **NHLE1158007**, **NHLE1158823**, **NHLE1158845**, **NHLE1159029**, **NHLE1159034**, **NHLE1159040**, **NHLE1203463**, **NHLE1311279**, **NHLE1311299**, **NHLE1311399**, **NHLE1311654**, **NHLE1311668**, **NHLE1311716**, **NHLE1334698**, **NHLE1335344**, **NHLE1335459**, **NHLE1335460**, and **NHLE1372029**) are present within the Study Area, representing well-preserved rural domestic architecture dating from the 17th and 18th centuries.
- 8A.2.56 Several coal working and mining sites have been identified within the Study Area (**MDR5867**, **MDR9596**, **MDR9597**, **MDR9633**, **MDR11140**, **MDR12173**, and **MDR14100**). Highfield Colliery (**MDR9596**), within the draft Order Limits, is a mid-19th century colliery site with surviving spoil heaps in scrub woodland, providing evidence of the mining industry's impact on the landscape. Oakerthorpe Colliery (**MDR9597**), within the draft Order Limits, recorded on late-19th century Ordnance Survey maps as disused, retains traces of a tramway that once linked it to wider transport networks, demonstrating industrial-scale coal extraction and movement. Bond's Main Colliery (**MDR14100**), within the draft Order Limits, was a late-19th century colliery north east of Bond's Main, associated with workers' housing and the development of mining communities.
- 8A.2.57 Miners' row and terraced housing were built rapidly defining the townscape of Holmewood, Tibshelf, and parts of Hasland. Associated tramways (**MDR11624** and **MDR12172**) and housing and settlements (**MDR11108** and **MDR11128**) in the Study Area indicate the significance of this industry in the Study Area. The Oakerthorpe Tramway (**MDR11624**), within the draft Order Limits, was a 19th century tramway linking Highfield and South Wingfield collieries to the North Midland Railway, reflecting the integrated transport systems essential to coal distribution.

- 8A.2.58 Sites of iron works (**MDR5905** and **MDR11578**) and sandstone quarries (**MDR13595**, **MDR13824**, and **MDR13826**) have been shown on the 1st edition 25" Ordnance Survey map of approximately 1880 but have since been disused. The Iron Foundry at Calow (**MDR11578**), within the draft Order Limits, an early-19th century industrial site now vanished, highlights the short-lived but significant local iron industry and its contribution to regional manufacturing. Outlane Quarry, Holmewood (**MDR13824**), within the draft Order Limits, is a former sandstone quarry now lost to later opencast works, reflecting the scale of extractive industries and their reshaping of the local landscape.
- 8A.2.59 The draft Order Limits includes a small part of Heath Village Conservation Area, which was designated a conservation area in 1977. The layout of Heath traces back to a 13th century hamlet known as Lunt/Lound, with field patterns and street alignments remarkably consistent since at least 1609.
- 8A.2.60 Hardstoft Conservation Area was designated in 1978, with the conservation area boundary extended in 1990. Hardstoft has a dispersed settlement pattern resulting from an ad hoc development of settlement around Hardstoft Common in the 19th century, with the survival of undeveloped open spaces. This has led to the presence of a network of lanes and road, which contribute to its dispersed character. It has a historic connection to Hardwick Hall due to historic ownership of the surrounding agricultural land as part of the Hardwick estate.
- 8A.2.61 Tibshelf Conservation Area was designated a conservation area in 1979. The village is thought to date from the 8th century and initially developed as an agricultural settlement, then with industrial expansion from the mid-19th century. There is a high survival of 18th and 19th century farmsteads with a legible settlement form retaining a linear arrangement along the High Street and a Back Lane leading on to agricultural fields.
- 8A.2.62 Astwith Conservation Area was designated a conservation area in 1990, recognised for its linear village form and the survival of historic limestone cottages and farm buildings dating from the 17th and 18th centuries. The appraisal highlights the village's strong vernacular character, including traditional stone walls and slate roofs, which create a coherent historic environment. Its rural setting, bordered by open farmland and hedgerows, enhances its distinctive village character. The conservation area aims to protect the quiet, intimate scale and the relationship between buildings and the natural landscape. Historic agricultural practices have shaped much of the village's layout and built environment.
- 8A.2.63 Chesterfield's regional importance grew, drawing in trade from Hasland and Holmewood via improved road connections. Some early coaching roads ran near Winsick and along routes to Alfreton. The development of turnpike roads in North East Derbyshire and the Amber Valley during the 18th and early 19th centuries significantly improved rural and industrial connectivity. Turnpike trusts improved and maintained key roads (**MDR11608**, **MDR11649**, and **MDR11599**) that had become increasingly inadequate for growing trade, especially in coal, lead, textiles, and iron. The Chesterfield to Mansfield Turnpike Road (**MDR11649**) turnpiked in 1759, reflecting significant 18th century improvements to transport and regional connectivity, passes through the draft Order Limits. This reshaping of the road network helped knit together market towns like Chesterfield, Alfreton, Belper, Matlock, and Derby with each other and with wider regional markets.

- 8A.2.64 The wooden signpost at Ault Hucknall (**MDR15120**), within the draft Order Limits, is a surviving wooden fingerpost on Old Holmewood Lane, representing traditional rural wayfinding methods and the persistence of local transport heritage.
- 8A.2.65 The introduction of railways in North East Derbyshire and the Amber Valley (**MDR8651**, **MDR10948**, **MDR11055**, **MDR11105**, and **MDR12415**) during the 19th century marked a transformative phase in the region's industrial and social history, and these assets pass through the draft Order Limits. The Midland Railway and Great Central Railway passed nearby, with Tibshelf having two stations (Tibshelf Town and Tibshelf & Newton). Corbriggs and Winsick were crossed by feeder rail routes and sidings.
- 8A.2.66 Rail transport superseded turnpike roads and canals, allowing for faster movement of people, and of goods including coal, iron, limestone, and textiles. The railway network expanded rapidly in response to the area's coal mining, ironworking, and textile industries, establishing the region as a crucial part of Britain's industrial heartland.
- 8A.2.67 A number of non-designated historic dwellings and cottages (**MDR4887**, **MDR6051**, **MDR10129**, **MDR11109**, **MDR15187**, **MDR15191**, **MDR15191**, **MDR15202**, **MDR15206**, **MDR15207**, **MDR15210**, **MDR15218**, **MDR15219**, **MDR15220**, **MDR15221**, **MDR15224**, and **MDR23871**) are scattered throughout the landscape, reflecting the vernacular housing tradition and gradual residential expansion associated with industrial growth.
- 8A.2.68 Additional evidence of ditches and banks in the form of field boundaries (**RSply\_ID\_241**, **RSply\_ID\_242**, **RSply\_ID\_246**, **RSply\_ID\_247**, **RSply\_ID\_248**, **RSply\_ID\_252**, **RSply\_ID\_255**, **RSply\_ID\_534**, and **RSply\_ID\_548**), and ridge and furrow remains (**RSply\_ID\_249**, **RSply\_ID\_253**, **RSply\_ID\_535**, **RSply\_ID\_536**, **RSply\_ID\_537**, **RSply\_ID\_538**, **RSply\_ID\_539**, **RSply\_ID\_540**, and **RSply\_ID\_550**) are substantiated by LiDAR data.
- 8A.2.69 Primitive Methodist chapels (**MDR13409** and **MDR13412**) and working men's institutes flourished; nonconformism and trade unionism were strong in Tibshelf and Holmewood.
- 8A.2.70 Ten PAS finds have been identified from this period in Zone 1. This includes a lead uniface token, possibly used as a trade weight (**PAS 7**); a lead spindle whorl (**PAS 8**); a worn post-medieval silver halfgroat of Charles I, with a portcullis initial mark (**PAS 11**); a very worn post-medieval silver halfgroat of James I, second issue (**PAS 12**); a pierced and very worn post-medieval silver halfgroat of Elizabeth I, second issue (**PAS 13**); worn post-medieval silver sixpence of Elizabeth I, with a pheon initial mark, second issue (**PAS 14**); a worn post-medieval silver sixpence of Elizabeth I, possibly with an escallop initial mark, third issue (**PAS 15**); a complete lead alloy shield weight (**PAS 35**); an incomplete lead alloy post-medieval button, missing its loop (**PAS 36**); and a circular lead disc (**PAS 65**).
- 8A.2.71 Evidence of extents of features in the form of mounds (**RSply\_ID\_243**, **RSply\_ID\_244**, and **RSply\_ID\_256**), extents of features in the form of old coal pits and a possible extractive pit (**RSply\_ID\_243**, **RSply\_ID\_244**, and **RSply\_ID\_245**), and possible pond (**RSply\_ID\_256**) are substantiated by LiDAR data.

## Modern (AD 1901–present)

- 8A.2.72 There are five non-designated heritage assets, which include four assets recorded in the HER, and one recorded as LiDAR data from the modern period within the Study Area. However, the 20th century brought significant change, particularly linked to the coal industry. Expansion of mining activity continued into the early decades, with settlements like Holmewood and Tibshelf growing around colliery infrastructure. Hasland, by contrast, became increasingly suburbanised due to its proximity to Chesterfield, attracting residential development rather than heavy industry. From the 1950s to the 1980s, the progressive closure of major collieries as part of wider deindustrialisation brought substantial economic and social challenges to Holmewood and Tibshelf, leading to population decline, unemployment, and shifts in land use.
- 8A.2.73 The geophysical survey along the Derwent Valley Aqueduct to Strelley Reservoir Link Main (**EDR3019**), within the draft Order Limits, recorded multiple magnetic anomalies. While some were attributed to modern disturbance, several may correspond to undated but potentially significant archaeological features. This highlights the possibility of buried remains from any period surviving beneath the proposed route alignment.
- 8A.2.74 The opening of the M1 motorway in 1966, which passed just east of Holmewood and Tibshelf, marked a critical shift in regional connectivity. While it initially bypassed some local economies, over time it supported redevelopment and reinvestment opportunities by improving access to national transport networks, laying the groundwork for later regeneration efforts.
- 8A.2.75 Analysis of LiDAR data substantiates the presence of ridge and furrow remains (**RSply\_ID\_257**).

## Undated

- 8A.2.76 There are 28 non-designated heritage assets from the undated period within the Study Area, which includes five assets recorded in the HER, and 23 recorded as LiDAR data.
- 8A.2.77 Additional evidence of extents of features, also in the form of coal pits (**RSply\_ID\_552** and **RSply\_ID\_553**), ridge and furrow remains (**RSply\_ID\_249**, **RSply\_ID\_253**, and **RSply\_ID\_257**), ditches in the form of some possible former field boundaries, and unidentifiable features (**RSply\_ID\_190**, **RSply\_ID\_241**, **RSply\_ID\_242**, **RSply\_ID\_246**, **RSply\_ID\_247**, **RSply\_ID\_248**, **RSply\_ID\_250**, **RSply\_ID\_251**, **RSply\_ID\_252**, **RSply\_ID\_254**, **RSply\_ID\_255**, and **RSply\_ID\_258**), and bank features (**RSply\_ID\_554** and **RSply\_ID\_561**) are substantiated by LiDAR data.

## Zone 2: Lower Derwent

### Geology and topography

- 8A.2.78 Zone 2 extends from Oakerthorpe to Morley Smithy, passing through the eastern border of the Derbyshire Peak Fringe and Lower Derwent NCA (Ref 8A.8). The NCA ranges in altitude from approximately 100 m to 300 m AOD, and has numerous outlying ridges separated by the impressive river valleys of the Derwent and its tributaries. The Study Area follows a ridgeline between one of these tributaries to the

west, the River Amber, and the A38 to its east, before continuing to follow the A38 along a ridge and descending into the valley of Bottle Brook, another tributary of the River Derwent, crossing Bottle Brook near to its confluence with its tributary, Park Brook, and ascending into Zone 3.

- 8A.2.79 The bedrock of Zone 2 comprises consists of a mix of Carboniferous mudstone, siltstone, and sandstone with coal seams.
- 8A.2.80 Varied and discontinuous superficial deposits overlie bedrock. These include patches of glacial Till dated to the Mid Pleistocene (780 to 126 ka BP) described as diamicton (unsorted to poorly sorted sediment with a wide range of particle sizes). Patches of Till cross the Study Area at Pentrich, Upper Hartshay near the A38 east of Boothgate, and flanking the edges of the Study Area east of Kilburn and south west of Holbrook. Patches of Head are identified abutting the Till south west of Kilburn, east of Holbrook along the watercourse through Booth's Wood, and south of Park Brook between Keeper's Covert and Horsley Lodge. Holocene Alluvium (generally clay, silt, sand and peat) is also identified within the superficial geology. In the northern section of Zone 2, alluvium borders the River Amber which flanks the western edge of the Study Area, as well as Hartshay Brook which crosses the Study Area south of Pentrich where it meets the River Amber before feeding into the River Derwent at Ambergate. Alluvium is also mapped along Coppice Brook from the Till deposits south east of Boothgate, as well as further south along Bottle Brook and its tributaries. The Bottle Brook flows through Denby and Kilburn, after which it is joined by the Park Brook from the east before flowing down to Little Eaton where it feeds into the River Derwent.
- 8A.2.81 The topography of Zone 2 is considerably more varied than Zone 1 with peaks of up to 170 m AOD (north of Holbrook) ranging to 62 m AOD in the lowest point of Bottle Brook valley. Rivers and streams have carved deep valleys into the landscape. The Hartshay Brook valley cuts directly across the Study Area north of Ripley in the north of the Zone. Another, wider valley extend south from Ripley along the Study Area, through which Bottle Brook flows. Additional tributaries feeding into Bottle Brook, predominantly from the east, widen this area of lower ground and create further undulations. The ground rises once more at the southern extent of the Zone, south of the confluence of Bottle Brook and Park Brook.

## **Geoarchaeological baseline**

### **Pleistocene (2.6 to 11.8 ka BP)**

- 8A.2.82 No deposits are recorded in the region prior to the Wolstonian glacial stage when ice spanned the area, encroaching from the north west. There are no marginal drainage features in Zone 2, and ice may have melted *in situ* (Ref 8A.9); although outwash deposits are noted during localised advances and retreats). The Till mapped by the BGS is broadly dated to the Mid Pleistocene and is likely to correspond with the Wolstonian glaciation (Ref 8A.9), although the direction of this ice sheet from the north west is associated with an Anglian glaciation in Zones 3 and 4). The deposits originally formed as ground moraine (a blanket of unsorted glacial debris) now substantially eroded, forming a discontinuous patchwork across the region (ibid). The River Derwent was covered by the ice sheet in this period but re-established in the following interglacial (ibid).

- 8A.2.83 Zone 2 lay outside the Devensian LGM ice limits (Ref 8A.2) and Head would have formed under periglacial conditions. The largest area of Head, south of Kilburn, extends from the edge of pre-Devensian glacial Till. The similar lithologies of Till and Head suggests analogous landscape processes and probably reworking by solifluction. Head is also present along the sides of the rivers and brooks where slope processes would have been exacerbated by Devensian drainage.
- 8A.2.84 None of the available BGS boreholes coincide with the mapped Pleistocene deposits and it has therefore not been possible to describe lithologies or corroborate stratigraphy.
- 8A.2.85 No early prehistoric finds have been recorded within the Study Area of Zone 2 or the extents of the associated valleys, and Pleistocene deposits are likely of low or devoid of archaeological potential.

#### Holocene (11.8 ka BP to present)

- 8A.2.86 Holocene Alluvium is the predominant superficial deposit within Zone 2, deposited along the many brooks that form the catchment of the River Amber and the River Derwent. The lithology of this unit is recorded as clay, silt, sand and gravel, and reflects the mixed parent rock carried by the rivers.
- 8A.2.87 While there is substantial coverage of historic BGS boreholes, these focus in areas of development along the A38. Relatively few coincide with the extents of mapped alluvial deposits. Borehole SK34SE19, located at the intersection of the A38 and B6179 (NGR 437162 and NGR 344681), features a sequence through the sediments of the Bottle Brook. These are shown in **Table 8A.4**, with new stratigraphic interpretations produced for the purposes of this assessment.

**Table 8A.4: Borehole SK34SE19 lithostratigraphy**

Top m bgl	Base m bgl	Top m AOD	Base m AOD	Lithology (Sediment Description)	Stratigraphy (Interpretation)
0.00	0.30	64.44	64.14	Topsoil	Topsoil
0.30	1.35	64.14	63.09	Firm brown silty clay	Alluvium
1.35	2.80	63.09	61.64	Soft brown and grey silty clay with some layers and frags of peat	Alluvium (possible organic content)
2.80	4.20	61.64	60.24	Soft to firm brown and grey silty clay with sand, gravel & shaly frags, becoming more shaly	Alluvium
4.20	4.90	60.24	59.54	Dark grey shale gravel	Weathered bedrock/ possible terrace gravels
4.90	6.30	59.54	58.14	Dark grey shale	Pennine Lower Coal Measures Formation

8A.2.88 Borehole SK34SE19 contains a complete sequence from the bedrock through Holocene alluvium. The early, coarser deposits likely reflect the origins of Bottle Brook, with a higher energy river boosted by Wolstonian deglaciation meltwater. In addition, or alternatively, the deposits may represent a weathering of the underlying bedrock by the freeze-thaw under Devensian periglacial conditions, with later transformation following the re-establishment of the watercourse. Upper deposits represent a sequence of Holocene alluvial deposition, becoming finer as the climate ameliorated. The validity of the interpretation of possible peat layers in this borehole is unclear. Peat is not represented by the BGS; however, NE does identify peaty soil up to 0.51 m bgl in Great Farley’s Wood (NGR 435984 and NGR 343865), 1.44 km south west of borehole SK34SE19 and just outside of the Study Area. The NE peat record is in an upland position at 129 m AOD, compared to the valley location of the BGS borehole – an elevation difference of 64 m. However, the NE peat record is positioned along a small stream feeding into Bottle Brook. Farey (Ref 8A.10: pp.308–309) is reported as noting peat near Coxbench, just south of the BGS borehole; however, this cannot be traced today (Ref 8A.3). This borehole and the NE record may indicate small areas of peat formation if drainage along the stream/brook was temporarily impeded; however, given the peat is described within a broader clay layer, it cannot be dismissed that the term ‘peat’ has been misassigned to represent the presence of waterlogged organic remains. Should peat be present within this Zone, it is likely very localised, whether due to its original formation or later erosion. Peat can be of geoarchaeological, palaeoenvironmental potential.

### Archaeological baseline

8A.2.89 Zone 2 contains a varied assemblage of heritage assets reflecting occupation and land use from the prehistoric to the post-medieval and industrial periods. There are 245 designated heritage assets that have been identified within the Study Area in Zone 2, including 230 listed buildings, five scheduled monuments, nine conservation areas and the Derwent Valley Mills World Heritage Site.

8A.2.90 Within the draft Order Limits lies one listed building (**NHLE1382028**); four conservation areas designated by Amber Valley Borough Council: Holbrook, Kilburn, Horsley, and Coxbench, as identified in **Table 8A.5**; and 31 non-designated assets and finds locations. These include prehistoric findspots, Roman transport infrastructure, medieval deer parks and fishponds, early modern industrial works, tramways, railways, and civic monuments. Together they chart the transformation of the landscape from ritual and agrarian use to aristocratic estates, then through industrial exploitation and modern commemorative practices.

**Table 8A.5: Designated heritage assets within Zone 2 of the draft Order Limits**

Ref	Name	Easting	Northing
1382028	War Memorial - Grade II Listed Building	437864	345821
-	Holbrook Conservation Area	436340	344523
-	Kilburn Conservation Area	437687	345776
-	Horsley Conservation Area	437742	344342
-	Coxbench Conservation Area	437350	343440

8A.2.91 HER records within Zone 2 of the draft Order Limits are listed in **Table 8A.6**.

**Table 8A.6: HER records within Zone 2 of the draft Order Limits**

<b>Ref</b>	<b>Name</b>	<b>Easting</b>	<b>Northing</b>
MDR4770	Park Brook, Earthwork, Possible windmill mound.	438200	343700
MDR4783	Mound by Park Brook, Horsley - possible watermill site	437850	343950
MDR4947	Middle or Late Bronze Age bronze spearhead, Heage, Ripley	438380	350250
MDR23696	War Memorial, Bywell Lane, Kilburn	437864	345821
MDR4695	Corn mill (site of), Cinderhill, Kilburn	437323	346534
MDR4694	Flour mill (site of), Kilburn	437313	345586
MDR11312	Marehay Colliery (site of), Ripley	438715	350355
MDR11724	Midland Railway, Ripley branch (route of), Amber Valley and Erewash	438322	345721
MDR4687	Morley Deer Park and possible coal mines, Ripley	437837	349163
MDR12102	Ripley Spelter Works (site of), Bridle Lane, Ripley	438106	351160
MDR4960	Midland Railway, Ambergate & Pye Bridge branch	440085	351856
MDR4744	Horsley Park, Horsley	438226	343453
MDR4781	Fishponds (site of), Parkgate Farm, Horsley	437974	344049
MDR4767	Fishponds (site of), west of Horsley Grange, Horsley	437429	344278
MDR4766	Horsley Grange, Horsley	437656	344280
MDR4677	Morley Park Ironworks (site of), Ripley	437937	349195
MDR8781	The Cromford Canal.	438180	352037
MDR13719	Netherlea, now Holbrook Centre for Autism, and associated gardens, Portway, Holbrook	436538	344476
MDR9671	Kilburn railway station (site of), Rawson Green, Denby Bottles	437736	346324
MDR14250	Hartshay medieval deer park, Ripley	438415	350591
MDR15104	Pond and platform earthworks, Home Farm, Pentrich	438794	352409

Ref	Name	Easting	Northing
MDR15105	Mill earthworks and gritstone pillars, Wood Lane, Pentrich	438478	352102
MDR4785	Ryknield Street Roman Road, Horsley	438981	343558
MDR4818	Ryknield Street within Morley parish	438862	342131
MDR4958	Ryknield Street Roman Road, through Pentrich	438631	352720
MDR4962	Ryknield Street Roman Road, Ripley	438426	349884
MDR4798	Little Eaton Tramway (Gangway or Gangroad), or Derby Canal Tramroad (route of), Little Eaton	436979	344148
MDR4689	The Openwoodgate Branch Lines of the Little Eaton Gangway	437489	347320
MDR13388	Tramway (route of), Morley Ironworks to the Cromford Canal, Ripley	437867	350258

8A.2.92 Previous archaeological investigations within Zone 2 are limited but provide useful insight into the area's archaeological potential. Excavation and non-intrusive survey work demonstrate both the survival of significant Roman infrastructure and areas of low archaeological sensitivity. Notably, a 1948 trench excavation across Ryknield Street at Morley (**EDR2386**) confirmed the Roman road's multi-layered construction, illustrating the engineering quality of this key transport route. In contrast, a 2019 magnetometer survey west of Sandy Lane, east of Horsley Castle (**EDR4948**) reported no anomalies of archaeological origin, suggesting some parts of Zone 2 may have minimal archaeological remains. Together, these results indicate a mix of confirmed Roman features and zones where no evidence of past activity has been detected.

### Prehistoric

8A.2.93 Within the draft Order Limits, **MDR4947** records a Middle or Late Bronze Age bronze spearhead findspot at Heage, Ripley, indicating prehistoric activity or transient use of the area long before settlement development.

8A.2.94 There are four non-designated heritage assets that have been identified within the Study Area from the prehistoric period.

8A.2.95 The prehistoric landscape of Zone 2 offers scattered but striking evidence of early human presence and activity, particularly concentrated along ridge-top zones and transitional uplands between moorland and valley. Neolithic and Bronze Age barrows identified near Alport Heights and Crich, along with cropmarks, suggest ceremonial or funerary activity within the elevated terrain to either side of the Derwent Valley, approximately 3.5–7 km west of the draft Order Limits. These are positions which would likely have been chosen for visibility and symbolic prominence. A Bronze spearhead found at Heage (**MDR4947**), located within the draft Order Limits indicates episodic occupation or seasonal resource use, with the area's ridge-top geography offering natural vantage points and pathways. While much of the prehistoric record lacks formal excavation, the recovery of artefacts such as a barbed and tanged arrowhead at Coxbench and stone tools at Conegrey House (**MDR4760**), reinforces a long-standing pattern of mobile settlement, hunting, and ritual behaviour across this undulating, resource-rich landscape.

8A.2.96 A roughly triangular worked flint flake (**PAS 183**) is listed in the PAS.

#### Roman (AD 43–410)

8A.2.97 There are 21 non-designated heritage assets or finds locations dated to the Roman period within the Study Area, which include 19 assets recorded in the HER, one find recorded in the PAS, and 1 asset recorded as LiDAR data.

8A.2.98 Within the draft Order Limits, Rykniel Street Roman Road appears multiple times: **MDR4785** (Horsley parish), **MDR4818** (Morley parish), **MDR4958** (Pentrich), **MDR4965** (South Wingfield), **MDR4962** (Ripley), and **MDR10207** (a conjectural route). Collectively, these records demonstrate the strategic importance of Rykniel Street as a north to south Roman route crossing Derbyshire. Excavations and mapping confirm surviving fabric in places and hypothesised alignments elsewhere, underscoring its long-term influence on parish boundaries and later routeways. Two of these are close together, to the east of Lower Hartshay and Upper Hartshay, whilst the third is further south, to the west of Morleymoor Farm (Ref 8A.11). Although there are no confirmed Roman settlements within the immediate area, the presence of a major road passing through this area in the Roman period does indicate a likely level of activity.

8A.2.99 The excavation across Rykniel Street at Morley (**EDR2386**), within the draft Order Limits, was undertaken by F. W. Munslow in 1948. A trench cut through the Roman road immediately west of Morley Moor Farm revealed three distinct construction layers: an upper layer of gravel and small stones, beneath which lay a layer of small sandstone fragments, underlain by the road's foundational layer. This confirmed the engineering quality and multi-phase build of Rykniel Street within Zone 2.

8A.2.100 At Pentrich is the site of a Roman fort (**NHLE1007046** and **MDR4950**) visible as a small square earthwork possibly of Roman military origin. Furthermore, cropmarks can be identified to the south west (**MDR4971**), and east (**MDR4972**) of the Roman Fort.

8A.2.101 Several archaeological investigations within the Study Area have revealed Roman activity. The site of a Roman Pottery Kiln at Holbrook (**MDR4737** and **MDR4776**) shows evidence of Roman ceramic industry. Roman and medieval pottery (**MDR4754**, **MDR4772**, **MDR4774**, **MDR4775**, **MDR4784**, **MDR4968**, and **MDR8483**) has also been discovered in the Study Area, from within Booths Wood at Holbrook, Horsley Lodge, Pentrich, and Park Brook.

#### Early medieval (AD 410–1066)

8A.2.102 There are no early medieval heritage assets recorded within the Study Area.

8A.2.103 Although specific known early medieval archaeological remains are absent within the Zone 2 Study Area, the region likely retained significance as a transitional upland between the Derwent Valley lowlands and the southern Pennines. Place name evidence, such as 'Heage' (believed to derive from Old English hedge meaning 'enclosure' or heah meaning 'high'), hints at early Anglo-Saxon occupation and agricultural use of prominent ridge-top locations. The continuity of routeways established during the Roman period, combined with later medieval estate centres at Pentrich, Horsley, and Holbrook, suggest an enduring pattern of dispersed settlement and landholding that may well have originated during the early medieval period, even if its material signature remains elusive in the current archaeological record.

## Medieval (AD 1066–1540)

- 8A.2.104 There are 76 heritage assets or finds locations relating to medieval activity within the Study Area, which include 26 features recorded in the HER, 26 finds listed in the PAS, and 24 features recorded as LiDAR data.
- 8A.2.105 The medieval landscape of the undulating terrain east of the River Derwent, extending from Pentrich in the north to Morley in the south presents a rich and interconnected picture of settlement, defence, industry, and lordship. This landscape was structured around a network of manorial holdings and religious sites, reflecting both local power and wider regional connections.
- 8A.2.106 Several assets, located within the draft Order Limits illustrate medieval estate management and monastic or aristocratic land use. Morley Deer Park and possible coal mines in Ripley (**MDR4687**) indicates a deer park established in the early 14th century and active into the 16th. Horsley Park (**MDR4744**) is another medieval deer park with its extent inferred from place-name and boundary evidence. Hartshay medieval deer park (**MDR14250**) in Ripley reflects deer breeding and hunting traditions. Horsley Grange (**MDR4766**) is suggested to be the site of a medieval grange, although no buildings were shown on 1835 mapping. Two fishpond sites at Parkgate Farm, Horsley (**MDR4781**) and west of Horsley Grange (**MDR4767**), survive as earthworks and represent medieval fish farming for sustenance and status display. Pond and platform earthworks at Home Farm, Pentrich (**MDR15104**) may also date to the medieval period as part of estate water management. The Church of St Matthew in Pentrich (**MDR4942**), which lies 400m from the draft order limits dates from the 12th century, with additions and remodelling undertaken during the 14th and 15th centuries, points to ecclesiastical presence and continuity from the Norman period.
- 8A.2.107 Manorial estates expanded during the high medieval period, reflecting elite control over both land and resources, and this was reflected in the presence of extensive areas of deer parks, defensive sites and manorial farming complexes. The most prominent of these was Wingfield Manor, with the site of the Manor House located outside of the Study Area at approximately 1.35 km to the west but with an associated deer park (**MDR14189**) extending south of the Manor House to within the Study Area. Wingfield Manor overlooks the River Amber, with historical records and maps suggesting the presence of two parks, Great and Little, though their exact boundaries remain uncertain. By the 17th century, Little Park was well established, and its division from Great Park is marked in 18th century surveys, which show the boundary between Great and Little Parks near Catchills Farm. In the 11th century, King John gave the Heriz family hunting rights, and by 1248–1261, they secured permission to enclose a park, with tithes owed to the church.
- 8A.2.108 Located within the draft Order Limits, the Hartshay medieval deer park (**MDR14250**) is in the Upper Hartshay area. Records indicate that Hartshay was once a deer-breeding enclosure, with its western boundary likely tracing a field line before descending along present-day Ripley Road.
- 8A.2.109 At Horsley, a castle was present by 1200 (**NHLE1009293**) but is now in a ruined state and located within woodland south of Coxbench. The castle was located on a locally high point overlooking land to the north and south, though the structure has now largely been lost with the stone robbed for other construction over a long period of time. There was also an extensive deer park (**MDR4744**) associated with Horsley Castle. This is referred to in documentary sources from the 14th and 15th centuries, with Brackley Gate suggested as one of the park entrances. Nineteenth century

sources also refer to stones from Horsley Castle being used in an old boundary wall to the park, though the park itself having long since been turned over to cultivation. (**MDR4744**).

- 8A.2.110 The site of a medieval grange is also suggested at Horsley (**MDR4766**), though any trace of associated buildings were gone by the 19th century. The presence of earthworks representing former fishponds (**MDR4767**) have also been identified to the west and south of the possible grange. The presence of the earthworks may also be associated with documentary references to fishponds at Horsley being in the possession of Horsley Abbey (Ref 8A.12). These indicate a self-sufficient manorial complex designed for sustenance.
- 8A.2.111 At Morley, a deer park is attested by 1323 (**MDR4687**), highlighting aristocratic land use patterns that often combined hunting with resource management. Nearby, documentary and archaeological evidence of coal mining activity from the 14th century (**MDR4686**) suggests that the lords of Morley may have exploited local mineral resources as part of their estate economy, an unusually early example of rural industrial activity integrated into a noble estate in Derbyshire.
- 8A.2.112 Religious life is evident through the Church of St Clement in Horsley (**NHLE1109138**), dating to the early 14th century. Elsewhere, a market cross in Horsley (**MDR4740**) established in the 13th century implies the growth of local commerce under chartered rights.
- 8A.2.113 There are 26 heritage assets listed in the PAS within the Study Area. These include a complete cast lead-alloy token (**PAS 71**), various kinds of coins (**PAS 30**, **PAS 47**, and **PAS 64**), vessels (**PAS 45**, **PAS 73**, **PAS 103**, **PAS 104**, and **PAS 105**), a copper alloy possible home-made hook (**PAS 46**), a cast copper alloy drop-handle from a chafing dish (**PAS 21**), an incomplete copper alloy hollow box chape (**PAS 28**), an incomplete copper alloy zoomorphic fitting (**PAS 29**), a broadly circular lead weight (**PAS 52**), a lead papal bulla of Pope Urbanus V (**PAS 53**), a copper-alloy button with traces of gilding (**PAS 58**), incomplete cast pewter spoons (**PAS 65**, **PAS 66**, **PAS 67**, **PAS 68**, and **PAS 69**), a possible mortuary cross (**PAS 72**), a complete cast lead-alloy ball of shot (**PAS 101**), a cast lead musket ball (**PAS 106**), a cast lead mount, probably from a harness (**PAS 102**), and a complete cast lead-alloy spindle whorl (**PAS 70**).
- 8A.2.114 Additional evidence of extents of features and structures in the form of possible former quarries (**RSply\_ID\_180**, **RSply\_ID\_181**, **RSply\_ID\_182**, and **RSply\_ID\_183**), a structure in the form of possible earthwork remains of a former house or settlement (**RSply\_ID\_272**), ridge and furrow remains (**RSply\_ID\_184**, **RSply\_ID\_259**, **RSply\_ID\_260**, **RSply\_ID\_261**, **RSply\_ID\_262**, **RSply\_ID\_263**, **RSply\_ID\_264**, **RSply\_ID\_265**, **RSply\_ID\_266**, **RSply\_ID\_267**, **RSply\_ID\_268**, **RSply\_ID\_269**, **RSply\_ID\_270**, **RSply\_ID\_271**, **RSply\_ID\_276**, **RSply\_ID\_281**, **RSply\_ID\_283**, **RSply\_ID\_284**, **RSply\_ID\_285**, **RSply\_ID\_287**, **RSply\_ID\_293**, **RSply\_ID\_294**, **RSply\_ID\_295**, **RSply\_ID\_296**, **RSply\_ID\_298**, **RSply\_ID\_299**, **RSply\_ID\_300**, and **RSply\_ID\_301**), and ditches in the form of some possible former field boundaries, possible trackway, and unidentifiable features (**RSply\_ID\_277**, **RSply\_ID\_278**, **RSply\_ID\_279**, **RSply\_ID\_280**, **RSply\_ID\_282**, **RSply\_ID\_286**, and **RSply\_ID\_297**) are substantiated by LiDAR data.
- 8A.2.115 Taken together, these features illustrate a well-developed medieval rural society, with fortified sites, organised agricultural estates, religious institutions, and early extractive industries, all connected through a landscape of manorial power and evolving settlement patterns.

## Post-medieval (AD 1540–1900)

- 8A.2.116 The post-medieval period in the Study Area for Zone 2 is represented by 197 non-designated heritage assets or finds locations, which include 66 assets recorded in the HER, 49 assets listed in the PAS, and 82 features identified in LiDAR data.
- 8A.2.117 The post-medieval period in the Morley–Pentrich–Ripley–Holbrook area was marked by gradual transformation from agrarian estate-based activity to early industrial enterprise, culminating in significant contributions to the Derwent Valley’s industrial landscape.
- 8A.2.118 Within the draft Order Limits, multiple entries record the growth of industry and transport infrastructure. Morley Park Ironworks, Ripley (**MDR4677**) retains a pair of coke iron furnaces from the 18th–19th centuries, illustrating early iron production. Ripley Spelter Works on Bridle Lane (**MDR12102**) was a nationally important early-19th century zinc/brass works with an associated slag heap. Colliery sites include Marehay Colliery, later Upper Hartshay (**MDR11312**). Early railway and tramway development is represented by Little Eaton Tramway (**MDR4798**), opened 1793 and closed 1908, the Openwoodgate Branch Lines of the Little Eaton Gangway with its inclined plane (**MDR4689**), the tramway linking Morley Ironworks to the Cromford Canal (late 1830s) (**MDR13388**), the Midland Railway Ambergate & Pye Bridge branch (opened 1875) (**MDR4960**), the Midland Railway Ripley branch (1855/56) (**MDR11724**), the Kilburn railway station site (late 19th century) (**MDR9671**), and the Cromford Canal, opened 1794 and closed 1944, now partly restored (**MDR8781**). Milling heritage includes Corn mill, Cinderhill, Kilburn (**MDR4695**) and Flour mill, Kilburn (**MDR4694**), representing water-powered grain processing. Smaller rural-industrial or commemorative features include Park Brook earthwork, possible windmill mound (**MDR4770**), Mound by Park Brook, possible watermill site (**MDR4783**), Netherlea (Holbrook Centre for Autism) with associated Victorian gardens and grotto by James Pulham (**MDR13719**), and Kilburn War Memorial on Bywell Lane, an early-20th century monument (**MDR23696**). Mill earthworks and gritstone pillars at Wood Lane, Pentrich (**MDR15105**) likely represent remnants of a watermill and associated boundaries from this period.
- 8A.2.119 The draft Order Limit interacts with four conservation areas. The Holbrook Conservation Area developed from a small agricultural hamlet into a more substantial rural settlement during the post-medieval period. The conservation area retains historic farmsteads, stone cottages, and dry-stone boundary walls dating mainly from the 17th to 19th centuries. Its compact linear layout, traditional building materials, and long views over the Derwent Valley reflect a landscape shaped by enclosure and small-scale farming, later augmented by 19th century village growth tied to local industry and transport links.
- 8A.2.120 Kilburn Conservation Area evolved as a mining and industrial settlement in the post-medieval and industrial periods. The conservation area is characterised by 18th and 19th century red brick terraced housing, former nonconformist chapels, and small-scale workshops that developed alongside local coal and ironstone workings. Its street pattern and modest domestic architecture express the area’s strong working-class heritage and links to nearby tramways and collieries.
- 8A.2.121 Horsley Conservation Area’s historic core preserves elements of a medieval estate village but is most clearly defined by its post-medieval development. Traditional stone farm buildings, 18th and 19th century cottages, and remnants of parkland boundaries testify to a community shaped by agricultural change and its proximity to Ryknield Street and Horsley Park. The conservation area’s rural character, mature trees, and historic road alignments embody continuity between medieval manorial influence and later rural-industrial growth.

- 8A.2.122 Coxbench Conservation Area reflects the transition from a rural hamlet to a more substantial settlement during the post-medieval period. The conservation area includes well-preserved 17th and 18th century farmhouses, vernacular stone cottages, and boundary walls. Its layout and surviving agricultural buildings recall an economy rooted in farming and quarrying, later influenced by nearby railway and canal infrastructure. Mature gardens and open spaces preserve the village's distinctive rural setting.
- 8A.2.123 The earliest signs of post-medieval development can be traced to sites like Highfield Farm (**NHLE1158257** and **NHLE1335334**), which dates to the 17th century, and Holbrook Hall (**NHLE1335333**), whose core structure was built in the early 18th century and includes an attached 17th century cottage. These buildings reflect the continuation of gentry and agricultural estates during the transitional phase following the medieval period. The region saw modest domestic expansion, evidenced by Grange Cottage (**NHLE1109140** and **MDR10744**), Coxbench Hall and Stables (**NHLE1109137**), and Amberley Farmhouse in Pentrich (**NHLE1109148**), all dating to the 18th century, and pointing to the growth of prosperous rural dwellings and tenant farms.
- 8A.2.124 Hartsay Hall (**NHLE1108988**) is a Grade II listed finely re-fronted mid-18th century farmhouse whose Classical doorway, canted bays and associated approximately 1790 stone boundary walls with reused estate gates (**NHLE1335425**) proclaim the rising social standing of Upper Hartshay's larger yeoman farmers. Grade II listed Yew Tree Farmhouse (**NHLE1311399**) on Ripley Road is a late-18th century house that preserves a traditional three-bay plan with later lean-to additions, illustrating the incremental development of domestic and working farm structures following enclosure.
- 8A.2.125 Oakdene Cottage (**NHLE1109135**) on Portway in Holbrook is a modest Grade II listed early-19th century sandstone labourer's cottage that evidences continuing estate provision of tied housing. The Grade II listed Coneygrey Farmhouse (**NHLE1109150**) beside the Chesterfield Road near Pentrich, represents the architectural ambitions of 18th century yeomen through its architecture notably its mid-Georgian Gibbs-style doorway and mullioned stair window.
- 8A.2.126 The Grade II listed Amberside Farmhouse (**NHLE1109153**) at Pentrich Lane End, an ashlar three-storey house of approximately 1800, marks the shift toward larger, classically detailed farmsteads in the early industrial era. The Grade II listed two-storey stone range at 147 Over Lane, Belper (**NHLE1109217**) shows how small 18th century farmsteads expanded in a piecemeal manner on the fringes of the Derwent Valley settlements.
- 8A.2.127 The stable and coach-house block (**NHLE1158252**), located north of Holbrook Hall, is part of the wider Holbrook Hall estate, a significant gentry residence in the village of Holbrook. Dating to the early 19th century, the building retains distinctive architectural features such as a traceried fanlight arch and pinnacled windows, reflecting its original function as an integral component of the estate. Together with the Grade II\* listed Holbrook Hall (**NHLE1335333**), these structures form a coherent architectural ensemble characteristic of rural gentry estates of the period. Both the Hall and the stable block still exist and are now likely in private residential use, continuing to contribute to the historic character of the village.
- 8A.2.128 Nether Cottage and its attached outbuildings on Nether Lane (**NHLE1158262**) form a late-18th century Grade II listed farm group that still displays mullioned casements and a latticed porch typical of Holbrook's small mixed farms.

- 8A.2.129 The Croft, 5-6 Brackley Gate (**NHLE1205831**), a Grade II listed pair of 17th century gritstone cottages that were later updated, provides rare evidence of early vernacular settlement on Morley Moor. The Grade II listed Morleymoor Farmhouse (**NHLE1280448**) offers a symmetrical 1823 Georgian frontage with a fluted-pilaster door-case, epitomising the confidence of prosperous dairy farms west of Morley.
- 8A.2.130 Nearby Grade II listed Quarry Farmhouse (**NHLE1280451**) adds a late-18th century brick example whose tidy sash-fronted elevation shows the growing use of brick on better-drained ground. A multi-phase complex of mid-18th century Grade II listed farm buildings south of Highfield Farmhouse (**NHLE1335334**) survives with haylofts, stone troughs and stable ranges, illustrating capital investment during the agricultural 'high farming' boom.
- 8A.2.131 No. 17 Boothgate is a Grade II listed (**NHLE1335397**) coursed-sandstone farmhouse of approximately 1800 and formed part of the ribbon of smallholdings that once lined the historic lane between Ripley and Heage. The two early-19th century Grade II listed stocking-frame workshops on Town Street, Holbrook, behind No. 10 (**NHLE1335335**) and behind Nos 18–20 (**NHLE1158277**) retain their broad three-light windows and external stairs, underlining Holbrook's role in the domestic hosiery trade.
- 8A.2.132 By the mid to late 18th century, industrial activities began to dominate the area. The Morley Park Ironworks (**NHLE1007039** and **MDR4677**) stands out as a key site, with surviving blast furnaces and workers' housing representing a pioneering part of the region's entry into the iron industry. This was part of a larger network of industry, including the nationally important Morley Park Works Scheduled Monument (**NHLE1007039**).
- 8A.2.133 The 19th century saw the addition of layers of infrastructure that supported both industry and community life. With the arrival rail transport in 1856, came the Little Eaton–Ripley Railway Line, historically part of the Midland Railway Ripley Branch, connecting Derby to Ripley via Little Eaton Junction. The Little Eaton–Ripley railway station (**MDR4761**) facilitated coal and goods movement in Derbyshire. Framework knitting – a hallmark of Derbyshire's textile industry – survived in buildings such as those on Town Street (**MDR14327**) and Well Yard (**MDR14938**).
- 8A.2.134 Several mileposts mark improvements in road transport and connectivity, while St Michael's Church in Holbrook (**NHLE1311598**, built 1761) reveals ongoing religious and architectural investment in rural parishes.
- 8A.2.135 There are 49 PAS finds in the Zone 2 Study Area. These include incomplete cast pewter spoons (**PAS 67**, **PAS 68**, **PAS 69**, and **PAS 174**), a complete cast lead-alloy spindle whorl (**PAS 70**), various kinds of tokens (**PAS 71**, **PAS 130**, **PAS 131**, **PAS 132**, **PAS 133**, **PAS 134**, **PAS 135**, and **PAS 136**), a possible mortuary cross (**PAS 72**), vessels (**PAS 73**, **PAS 103**, **PAS 104**, and **PAS 105**), a complete cast lead-alloy ball of shot (**PAS 101**), a cast lead mount, probably from a harness (**PAS 102**), a cast lead musket ball (**PAS 106**, **PAS 107**, **PAS 108**, and **PAS 109**), complete Nuremburg Jettons of the rose-orb type (**PAS 110** and **PAS 111**), various kinds of coins (**PAS 112**, **PAS 137**, **PAS 138**, **PAS 139**, **PAS 140**, **PAS 141**, **PAS 142**, **PAS 143**, and **PAS 144**), an incomplete lead alloy toy in the form of a tablet (**PAS 113**), a probably incomplete cast copper-alloy unidentified object (**PAS 115**), copper alloy buckles (**PAS 125**, **PAS 126**, **PAS 127**, **PAS 128**, and **PAS 129**), an incomplete lead alloy harness fitting (**PAS 146**), an incomplete, copper alloy, goffering iron (**PAS 150**), various kinds of vessels (**PAS 170**, **PAS 171**, **PAS 172**, and **PAS 173**), and a late medieval copper alloy rowel spur (**PAS 175**).

8A.2.136 Additional evidence of extents of features are substantiated by LiDAR data (RSply\_ID\_180, RSply\_ID\_181, RSply\_ID\_182, RSply\_ID\_183, RSply\_ID\_472, RSply\_ID\_473, RSply\_ID\_474, RSply\_ID\_495, RSply\_ID\_497, RSply\_ID\_517, RSply\_ID\_518, RSply\_ID\_519, RSply\_ID\_520, RSply\_ID\_521, RSply\_ID\_522, RSply\_ID\_523, RSply\_ID\_526, RSply\_ID\_530, RSply\_ID\_531, and RSply\_ID\_532), and these also include ridge and furrow remains (RSply\_ID\_184, RSply\_ID\_259, RSply\_ID\_260, RSply\_ID\_261, RSply\_ID\_262, RSply\_ID\_263, RSply\_ID\_264, RSply\_ID\_265, RSply\_ID\_266, RSply\_ID\_267, RSply\_ID\_268, RSply\_ID\_269, RSply\_ID\_270, RSply\_ID\_271, RSply\_ID\_276, RSply\_ID\_281, RSply\_ID\_283, RSply\_ID\_284, RSply\_ID\_285, RSply\_ID\_287, RSply\_ID\_293, RSply\_ID\_294, RSply\_ID\_295, RSply\_ID\_296, RSply\_ID\_298, RSply\_ID\_299, RSply\_ID\_300, RSply\_ID\_301, RSply\_ID\_303, RSply\_ID\_305, RSply\_ID\_307, RSply\_ID\_308, RSply\_ID\_309, RSply\_ID\_310, RSply\_ID\_311, RSply\_ID\_312, RSply\_ID\_313, RSply\_ID\_314, RSply\_ID\_315, RSply\_ID\_317, RSply\_ID\_318, RSply\_ID\_319, RSply\_ID\_320, RSply\_ID\_321, RSply\_ID\_322, RSply\_ID\_323, RSply\_ID\_324, RSply\_ID\_325, RSply\_ID\_326, RSply\_ID\_327, RSply\_ID\_468, RSply\_ID\_469, RSply\_ID\_475, RSply\_ID\_476, RSply\_ID\_477, RSply\_ID\_478, RSply\_ID\_479, RSply\_ID\_481, RSply\_ID\_482, RSply\_ID\_483, RSply\_ID\_489, RSply\_ID\_490, RSply\_ID\_493, RSply\_ID\_496, RSply\_ID\_499, RSply\_ID\_500, RSply\_ID\_501, RSply\_ID\_502, RSply\_ID\_503, RSply\_ID\_504, RSply\_ID\_505, RSply\_ID\_506, RSply\_ID\_509, RSply\_ID\_510, RSply\_ID\_513, RSply\_ID\_514, RSply\_ID\_515, RSply\_ID\_516, RSply\_ID\_524, RSply\_ID\_525, RSply\_ID\_528, and RSply\_ID\_529), structures in the form of possible earthwork remains of a former house or settlement (RSply\_ID\_272 and RSply\_ID\_271), ditches in the form of some possible former field boundaries, unidentifiable features and possible trackway (RSply\_ID\_277, RSply\_ID\_278, RSply\_ID\_279, RSply\_ID\_280, RSply\_ID\_282, RSply\_ID\_286, RSply\_ID\_297, RSply\_ID\_302, RSply\_ID\_304, RSply\_ID\_306, RSply\_ID\_316, and RSply\_ID\_190) and bank features (RSply\_ID\_467, RSply\_ID\_470, RSply\_ID\_471, RSply\_ID\_480, RSply\_ID\_484, RSply\_ID\_485, RSply\_ID\_486, RSply\_ID\_487, RSply\_ID\_488, RSply\_ID\_491, RSply\_ID\_492, RSply\_ID\_494, RSply\_ID\_498, RSply\_ID\_507, RSply\_ID\_508, RSply\_ID\_511, RSply\_ID\_512, RSply\_ID\_527, and RSply\_ID\_533).

8A.2.137 Together, these sites narrate a compelling story of transformation: from agricultural hamlets and manor houses to ironworks, kilns, collieries, and civic infrastructure. The region became an integral part of Britain's early industrial revolution while still retaining elements of its rural and post-medieval past.

#### Modern (AD 1901–present)

8A.2.138 There are four non-designated heritage assets or finds locations, which include three features recorded in the HER, and one find listed in the PAS data from the modern period within the Study Area. The geophysical survey west of Sandy Lane, east of Horsley Castle (**EDR4948**), within the draft Order Limits, was undertaken in 2019 ahead of agricultural development. A magnetometer survey of the accessible area reported no anomalies of archaeological origin, suggesting no detectable buried features in that specific location.

8A.2.139 In the modern era, Zone 2 has witnessed a gradual shift from industrial prominence toward residential and heritage preservation. While 20th century development occurred piecemeal, especially along transport corridors and former colliery zones, the physical landscape retains many markers of earlier economic roles. Sites like the preserved blast furnaces of Morley Park, former railway infrastructure, and surviving frame-knitters' workshops in Holbrook reflect the persistence and reinterpretation of industrial identity. Commemorative and civic features, such as war memorials, post boxes, and public fountains, indicate growing community expression and local pride. Recent listing and conservation of vernacular and estate farm buildings, including Georgian farmhouses and early workers' cottages, signal the role that the area's layered rural-industrial heritage has played in shaping its present character.

#### Undated

- 8A.2.140 There are 37 non-designated heritage assets or finds locations which are undated within the Study Area, which includes eight features recorded in the HER, two finds listed in the PAS, and 27 features recorded as LiDAR data. The undated archaeological assets scattered across this region reflect a long and complex human presence in the landscape, even if their precise chronology remains elusive. Several features, such as rectilinear cropmarks at Church Street and Horsley Road (**MDR23009**), and possible enclosure or field systems north east of Kilburn (**MDR7406**), suggest land division or settlement activity whose function and era are uncertain.
- 8A.2.141 Evidence of historic land management practices survives in the form of ridge and furrow and a trackway near Amberley Farm (**MDR4967**), likely post-medieval in character but without definitive dating. Isolated finds contribute to the area's enigmatic archaeological character. A stone hammer and flint celts discovered in 1848 (**MDR4751**), and a barbed and tanged arrowhead from Coxbench (**MDR4760**), are clearly prehistoric in origin, though they cannot be more precisely dated. Meanwhile, a highly abraded pottery sherd near Coneygrey House (**MDR4968**) and a windmill cross base at Laburnum Farm (**MDR4973**) add further depth to this uncertain picture. Furthermore, industrial features like the Brick Kiln Well at Boothgate, Ripley (**MDR15069**), exist without clear dating, hinting at production and resource use that may span several centuries. Together, these assets form a fragmentary but significant narrative of continuous human interaction with the land, much of it still awaiting fuller interpretation.
- 8A.2.142 Two unidentified PAS finds, two types of coins (**PAS 189** and **PAS 190**), have also been recorded from Zone 2.
- 8A.2.143 Additional evidence of extents of features are substantiated by LiDAR data (**RSply\_ID\_180**, **RSply\_ID\_472**, **RSply\_ID\_473**, **RSply\_ID\_497**, **RSply\_ID\_530**, **RSply\_ID\_531**, and **RSply\_ID\_532**), ridge and furrow remains (**RSply\_ID\_303**), ditches in the form of some possible former field boundaries, unidentifiable features and possible trackway (**RSply\_ID\_190**, **RSply\_ID\_277**, **RSply\_ID\_278**, **RSply\_ID\_279**, **RSply\_ID\_280**, **RSply\_ID\_282**, **RSply\_ID\_297**, and **RSply\_ID\_302**), and bank features (**RSply\_ID\_467**, **RSply\_ID\_484**, **RSply\_ID\_485**, **RSply\_ID\_486**, **RSply\_ID\_487**, **RSply\_ID\_488**, **RSply\_ID\_491**, **RSply\_ID\_492**, **RSply\_ID\_507**, **RSply\_ID\_511**, **RSply\_ID\_512**, and **RSply\_ID\_527**).

## Zone 3: South Derbyshire Coalfield

### Geology and topography

- 8A.2.144 Zone 3 passes south west of Ilkeston, from Morley Smithy near West Hallam to Ockbrook. This stretch passes back into the southern extent of the Nottinghamshire, Derbyshire and Yorkshire Coalfield NCA (the same as Zone 1; Ref 8A.1). The Study Area broadly follows a ridge before finally turning south near Ock Brook where both the brook and Study Area meet the Trent Valley.
- 8A.2.145 The bedrock in Zone 3 is divided between the north and south, just west of Dale Abbey. In the northern half, the bedrock continues from Zone 2: Carboniferous Pennine Lower Coal Measures Formation formed between 319 and 318 Mya. These consist of interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine fossils in the lower part, and more numerous and thicker coal seams in the upper part. In the southern half of Zone 3, the bedrock is predominantly Triassic Tarporley Siltstone Formation, dating to between 246.7 and 241.5 Mya. These consist primarily of mudstone and siltstone lithology with some localised bands of sandstone. In a few other areas, earlier bedrock has also been exposed including the Triassic Chester Formation (249.9 to 246.7 Mya; sandstone and gravel) in bands along the border of the north and south bedrock groups, and Moira Formation (274.4 to 241.5 Mya, Permian to Triassic Periods; subangular conglomerate in sandy mudstone) in a localised area near Morley Smithy.
- 8A.2.146 While a range of superficial geology is mapped by the BGS in and around Zone 3, most deposits are constrained to the lower slopes either side of the ridge and only just encroach into the Study Area. Till (unspecified; generally Mid Pleistocene 780 to 126 ka BP), is identified across a relatively large area from Morley to the Oakwood area of Derby. To the south east, and north of Spondon, diamicton is recorded as the Thrussington Till Member, conventionally assigned to an early Anglian ice advance. Smaller, discrete deposits of both Tills are mapped between Ockbrook and Sandiacre. Some Mid Pleistocene glaciofluvial sands and gravels are mapped around the lower, southern edges of the larger areas of Till. Smaller areas of Head (weathered slope deposits, dated broadly to the late Pleistocene) are associated with the Tills, notably on the eastern edge of the Thrussington Till, west of Ockbrook. Thin bands of Alluvium are also mapped along the brooks in Zone 3 but are currently poorly defined lithologically as either clay, silt, sand or gravel.
- 8A.2.147 The topography of Zone 3 is characterised by the north west to south east ridgeline, reaching 138 m AOD near Morley Smithy. Most of the Study Area lies between 70–125 m AOD, before dropping to 54 m AOD in the Ock Brook valley. The northern edge of the ridge corresponds with the boundary between the distinct bedrock groups. Higher, younger Triassic deposits overlie the older Carboniferous geology to the north. The southern edge of this ridgeline is formed by the erosive conditions of the Trent Valley. A few smaller valleys follow the slope of the ridge, carving narrow valleys into its sides which account for the lower elevations. On its northern side, Stanley Brook begins its journey on this ridgeline, flowing east into the River Erewash which feeds into the River Trent at Long Eaton. On the southern side, Lees Brook and Ock Brook flow from the ridge into the River Derwent and so into the River Trent also.

## Geoarchaeological baseline

### Pleistocene (2.6 to 11.8 ka BP)

- 8A.2.148 The discussion of the superficial geological history of Zone 3 is confused as it lies on the edge of the study area for the separate BGS Memoirs by Frost and Smart (Ref 8A.9) and Carney et al. (Ref 8A.13). The earliest Pleistocene deposit in Zone 3 is identified as the Thrussington Till (Anglian glacial stage) although Frost and Smart (Ref 8A.9) assert that there are no pre-Wolstonian glacial deposits in the area and the Till was deposited by a later ice-sheet expanding from the north west along the Derwent Valley. It is assumed that the Till is sufficiently close to the edge of Frost and Smart's study area (extending to north Derby) that the presence of Thrussington Till south of Derby confirmed by Carney et al. (Ref 8A.13) is correct. A subsequent ice sheet from the east and north east depositing the Oadby Till (Ref 8A.13) was originally also dated to the Anglian glaciation, but more recently it has been suggested that it relates to a later glacial stage (Ref 8A.14, Ref 8A.15) correlated to the Wragby ice advance (Ref 8A.16, Ref 8A.17, Ref 8A.18), a possible substage of the early Wolstonian. The classification of unspecified Mid Pleistocene Till may refer to this second ice advance, or alternatively locations where the Oadby Till overlies early Thrussington Till deposits.
- 8A.2.149 Mapped glaciofluvial deposits are likely an amalgamation of deposits formed at the end of the two glacial episodes, represented by the Tills. None of the available BGS boreholes coincide with the mapped extents of the glaciofluvial deposits or Head.
- 8A.2.150 The Devensian LGM ice sheet did not reach Zone 3 and periglacial conditions would have prevailed. As a result, freeze-thaw processes during this period may have also contributed to the formation of some of the Head deposits mapped by the BGS. Head near Ockbrook may have formed under fluctuating climatic conditions related to the Anglian, Wolstonian or Devensian glacial stages.
- 8A.2.151 A handful of boreholes record the Tills. Borehole SK43NW56 (NGR 441613 and NGR 335422) is located in the mapped Thrussington Till and SK33NE240 (NGR 439330 and NGR 338960) in the mapped Mid Pleistocene Till. Both describe the respective Tills as grey silty clay with gravels. A slight variation may be made in that SK43NW56 describes the gravel as mudstone and siltstone, whereas SK33NE240 describes them as mudstone and sandstone; however, this may equally correspond to variations in the underlying bedrock.
- 8A.2.152 Only one findspot is identified in the PaMELA database. This includes a mesial portion of lame mâchurée (PaMELA 3758), which may indicate Upper Palaeolithic or Mesolithic activity. This findspot is not associated with any superficial deposits and it seems likely that the environment had stabilised by the time of this activity.

### Holocene (11.8 ka BP to present)

- 8A.2.153 Holocene Alluvium is mapped along Stanley Brook, Sow Brook and Golden Brook east of the Study Area, and Boosemoor Brook, Lees Brook and Ock Brook flowing west. Only Stanley Brook, Lees Brook and Ock Brook extend into the Study Area and of these, only Stanley Brook and Ock Brook show mapped alluvium. The span of alluvium either side of the watercourses indicates previous floodplain extents, and probably wider stream channels.

8A.2.154 Borehole SK43NW51 is located within the mapped alluvium on the Ock Brook (NGR 443230 and NGR 336830) but was carried out in 1891 and offers insufficient lithological detail for a geoarchaeological assessment. Similarly, SK33NE215, on a short tributary stream of Lees Brook (NGR 439640 and NGR 337400), affords a similar lack of usable data. No BGS boreholes are recorded on Stanley Brook before it feeds into Nut Brook. As a result, it is not possible to examine the geoarchaeological and palaeoenvironmental properties of these deposits.

### Archaeological baseline

8A.2.155 There are no designated heritage assets within the draft Order Limits for Zone 3 but there are 87 designated heritage assets comprising 76 listed buildings, four scheduled monuments, six conservation areas and one registered park and garden within the Study Area of Zone 3. Further, 152 non-designated heritage assets and finds locations have been identified within the Study Area in Zone 3, including 82 features recorded in the HER, four finds listed in the PAS and 66 LiDAR features.

8A.2.156 Numerous Romano-British pottery scatters, artefact concentrations, and quern finds (e.g. **MDR5487**, **MDR5509**, **MDR5510**, **MDR5511**, **MDR5515**, **MDR5490**, **MDR5491**, **MDR5488**, **MDR7487**, **MDR5483**, **MDR5507**, **MDR5512**, **MDR5508**, and **MDR5484**) indicate widespread Roman-period settlement and agricultural use. Medieval landscape features are represented by Bardolf’s Park (**MDR12679**), Lockhay Deer Park (**MDR14258**), and Morley Park (**MDR14261**), along with possible religious associations such as the Preceptory of the Knights of St. Lazarus at Locko Park (**MDR15032**). Field systems and ridge and furrow earthworks (e.g. **MDR12336** and **MDR15025**) preserve the imprint of medieval agrarian organisation. Post-medieval and industrial heritage is recorded in features like Stanley Footrill Colliery (**MDR5474**), Stanley–Chaddesden Footrill Tramway (**MDR4581**), colliery shafts at Morley (**MDR5797**), and the dismantled Great Northern Railway extension (**MDR10005**). Additional assets such as Locko Grange Farm buildings (**MDR13627**), trackways (**MDR15030**), and rectangular enclosures (**MDR5799**) contribute to the understanding of historic routeways, agricultural boundaries, and settlement development.

8A.2.157 HER records within Zone 3 of the draft Order Limits are listed in **Table 8A.7**.

**Table 8A.7: HER records within Zone 3 of the draft Order Limits**

Ref	Name	Easting	Northing
MDR5487	Romano-British pottery, 400m north west of Moor Lane Farm, Ockbrook	442000	337450
MDR5509	Roman Pottery Scatter, Spondon Wood Farm	441700	337600
MDR5510	Roman Pottery Scatter, 450m North East of Spondon Wood Farm	441900	337600
MDR5511	Roman Pottery Scatter, 550m North East of Spondon Wood Farm	441900	337700
MDR5515	Roman Pottery Scatter, 350m WSW of Duns Hill Cottage	441900	338300

<b>Ref</b>	<b>Name</b>	<b>Easting</b>	<b>Northing</b>
MDR5490	Romano-British pottery, south west of Piggin Wood, Ockbrook	442648	337019
MDR5491	Romano-British sherd, 200m south east of Fields Farm, Ockbrook	442865	336742
MDR5488	Romano-British quern and pottery, 300m north east of Moor Lane Farm, Ockbrook	442147	337331
MDR5474	Stanley Footrill Colliery (site of), Derby Road, Stanley	441035	339661
MDR12336	Ridge and furrow, Far Lane, Ockbrook	443324	336564
MDR5460	Earthworks (site of), Giant's Hill, Ockbrook	443034	335956
MDR4581	Stanley-Chaddesden Footrill Tramway, Derby	438995	338736
MDR5797	Colliery shafts (site of), east of Jesse Farm, Morley	440662	340365
MDR7487	Artefact scatter, west of Hay Grange, Ockbrook	443009	337159
MDR5483	Artefact scatter, 250m east of Moor Lane Farm, Ockbrook	442301	337049
MDR5507	Artefact scatter, 250m north-east of Spondon Wood Farm, Dale Abbey	441767	337439
MDR5512	Artefact scatter, 100m south-east of Spondon Wood Farm, Dale Abbey	441678	337139
MDR5508	Roman pottery scatter, 150m east of Spondon Wood Farm, Dale Abbey	441729	337271
MDR5484	Romano-British pottery scatter, Hopwell Nook, Hopwell and Ockbrook	443217	335912
MDR12679	Bardolf's Park, Dale Road, Ockbrook	442424	337583
MDR10005	Great Northern Railway, Derbyshire & North Staffordshire Extension (route of), Erewash and South Derbyshire	436286	337006
MDR13627	Farm Buildings at Locko Grange Farm, Derby Road, Dale Abbey	441782	338930

Ref	Name	Easting	Northing
MDR14258	Lockhay medieval deer park, Dale Abbey	441466	339101
MDR14261	Morley Park (site of), Morley	440254	341477
MDR15025	Near Thistley Field and Far Thistley Field, Locko Rookery, Dale Abbey	441369	338765
MDR15032	The Preceptory of the Knight's of St. Lazarus (site of), Locko Park, Dale Abbey	441195	338895
MDR5799	Rectangular enclosures, northwest of Hayes Park Farm, Moses Lane, Morley	440340	341459
MDR15030	Trackway heading north to Stanley, Locko Park, Dale Abbey	441076	339006

8A.2.158 Several archaeological investigations have been undertaken within the draft Order Limits in Zone 3, providing insight into its archaeological potential. A 1998 geophysical survey of the Derwent Valley Aqueduct to Strelley Reservoir Link Main (**EDR3019**) covered approximately 8 km of a 10 km pipeline corridor and identified multiple areas of magnetic enhancement, some caused by modern disturbance but others potentially of archaeological significance. In the same year, fieldwalking at Spondonwood Farm (**EDR3703**) by the Ockbrook and Borrowash Historical Society recorded numerous finds and features, reinforcing evidence for Roman-period and later activity. Additionally, an earthwork survey along the proposed pipeline route (**EDR3028**) in 1999 documented surface features using total station mapping to assess survival and character. Collectively, these investigations confirm that Zone 3 retains buried archaeological potential and surface features warranting consideration during future development or groundworks.

### Prehistoric

- 8A.2.159 There are five heritage assets and finds locations that have been identified within the Study Area from the prehistoric period, recorded in the HER.
- 8A.2.160 Evidence for early human activity within the Study Area extends back to the Mesolithic period, as demonstrated by the discovery of a blade fragment (**MDR15035**) at Ockbrook.
- 8A.2.161 Further finds from later prehistoric periods provide insight into a continuing human presence in the area. An Early Neolithic flint arrowhead (**MDR14196**) recovered north of Ockbrook, and a Neolithic artefact scatter comprising flint and pottery (**MDR14184**) from west of Burnwood Farm at Ockbrook, both identified during fieldwalking, indicate continuing activity throughout the Neolithic period. Additionally, a polished stone axehead (**MDR5472**) found at Dale Abbey further supports this evidence.
- 8A.2.162 These artefacts reflect a transition to a more settled, agrarian way of life marked by increased investment in tool production.

8A.2.163 In 1999, a partly ploughed-out prehistoric hearth area was discovered, alongside a ‘saddle’ type quern (**MDR14197**), again during field survey north of Ockbrook. The presence of a hearth and quern suggests food processing activities and may be evidence of a semi-permanent domestic or communal site, supporting the notion of more sustained settlement or repeated seasonal use.

#### Roman (AD 43–410)

8A.2.164 There are 26 heritage assets or finds locations dated to the Roman period within the Study Area, 23 recorded in the HER and three listed in the PAS.

8A.2.165 A Roman settlement called Derventio was established at modern-day Little Chester, just north of Derby city centre to the south west of this zone. The course of the Roman road from Little Chester to Sawley, Erewash (**MDR7855**) has been traced to an approximate route to the south of Spondon and crossing the draft Order Limits where it is projected to follow the line of the modern A6005.

8A.2.166 Numerous Roman period finds demonstrate extensive occupation and agricultural activity within the Study Area. Scatters and individual sherds of Romano-British pottery were recovered at multiple locations around Moor Lane Farm, Ockbrook (**MDR5487** and **MDR5491**), Spondon Wood Farm (**MDR5509**, **MDR5510**, **MDR5511**, **MDR5507**, **MDR5508** and **MDR5512**), Hopwell Nook (**MDR5484**), Piggin Wood (**MDR5490**), Duns Hill Cottage (**MDR5515**), and west of Hay Grange (**MDR7487** and **MDR5483**). Several of these concentrations, particularly those west of Hay Grange and east of Moor Lane Farm, suggest the presence of possible settlement sites rather than casual losses. The recovery of a Romano-British quern fragment alongside pottery at Moor Lane Farm (**MDR5488**) points to domestic grain processing. Collectively, these artefact scatters and enclosures reveal that Zone 3 lay on or near a well-used Roman landscape corridor, probably linked to local farming, processing, and trackways.

8A.2.167 Excavations at Ockbrook have revealed Romano-British farmsteads and a substantial aisled building at Littlehay Grange Farm (Ref 8A.19), suggesting a prosperous agricultural community.

8A.2.168 Programmes of fieldwalking within the southern part of Zone 3, in fields to the north of Spondon and Ockbrook, have revealed the presence of some notable concentrations of Roman artifacts which may be indicative of settlement or other activity in this area. These have included a concentration of over 50 pottery sherds from west of Hay Grange (**MDR7487**), pottery and a quern fragment (**MDR5483**), a concentration of over 100 pottery sherds at Hopwell Nook (**MDR5484**) and other scatters of pottery, tile, iron nails and glass fragments (**MDR5507**, **MDR5512**, **MDR5508** and **MDR5513**) and other smaller assemblages of pottery finds (**MDR5485**, **MDR5486**, **MDR5487**, **MDR5493**, **MDR5494**, **MDR5509**, **MDR5510**, **MDR5511**, **MDR5515**, **MDR5490**, **MDR5489**, **MDR5491**, **MDR5488** and **MDR5503**). These have all been found in the area during various fieldwalking surveys, indicating some level of Roman presence and activity within the area. A site west of Burnwood Farm (**MDR14184**) yielded a range of finds from a range of periods including kiln debris with some broken saggars. This suggests a possible pottery kiln site and whilst the date of this is not known, a Roman date cannot be discounted.

8A.2.169 Three PAS finds, comprising copper alloy dolphin type brooches (**PAS 191**, **PAS 192**, and **PAS 193**) have been identified pertaining to the Roman period in Zone 3.

### Early medieval (AD 410–1066)

- 8A.2.170 There are no early medieval heritage assets recorded within the Study Area.
- 8A.2.171 Following the Roman withdrawal, the area came under Anglo-Saxon control. The name ‘Spondon’ is of Anglo-Saxon origin, meaning a gravelly hill. The village is mentioned in the Domesday Book of 1086, highlighting its continuing occupation during this period.
- 8A.2.172 Ockbrook was part of the Kingdom of Mercia. The name likely derives from ‘Occa's brook’ indicating an Anglo-Saxon origin. By the 9th century, it fell under the Danelaw, with place names like ‘The Ridings’ and ‘Carrhill’ reflecting Danish influence.
- 8A.2.173 The area now known as Dale Abbey was referred to as ‘Depedale’ or ‘Deepdale’ during the early medieval period. The name suggests a deep valley, indicative of the area’s topography. While specific records from this period are scarce, the region was likely characterised by dispersed agricultural settlements and woodland.

### Medieval (AD 1066–1540)

- 8A.2.174 There are 39 non-designated heritage assets or finds locations relating to medieval activity within the Study Area. These include 24 assets or finds locations identified from the HER and 15 LiDAR features.
- 8A.2.175 Following the Norman Conquest, the manor of Spondon was held by the Bishop of Chester and by the 12th century, it was divided among various lords, including the Bardolfs and Dale Abbey. In the 12th century, the rural area east of Derby became part of a growing network of monastic lands. The Premonstratensian Abbey at Dale, to the east of the Study Area, was established in approximately 1200 and quickly became the dominant ecclesiastical institution in the region. To support its spiritual and charitable mission, Dale Abbey acquired lands across the area, including the site that would later become Locko Park. This location – wooded, isolated, and near natural springs – was likely used by the Knights of St. Lazarus, a religious military order known for caring for lepers. A leper hospital or preceptory was established here as the Preceptory of the Knights of St. Lazarus (**MDR15032**), possibly under the Abbey’s patronage or with the Knights’ support, giving rise to the name ‘Locko’ from loques, old French for bandages. There are a number of identified elements of the former preceptory which have been identified from 18th century mapping and as place name evidence. ‘Well Croft’ marked on an 18th century map (**MDR15027**) indicates the presence of a well which likely served the preceptory. An ornamental pond complex and fishpond and possible moat (**MDR15028**) are also shown on mapping, and an area of fields and woodland has also been identified as possibly marking part of the boundary of the Preceptory of the Knights of St. Lazarus (**MDR15025**).
- 8A.2.176 Evidence for medieval elite land use is preserved in Bardolf’s Park, Dale Road, Ockbrook (**MDR12679**), a possible deer park created soon after 1166 within the draft Order Limits and Lockhay Medieval Deer Park, Dale Abbey (**MDR14258**), which also served as a leper enclosure. Morley Park (**MDR14261**) represents another suggested extent of medieval parkland, while the Preceptory of the Knights of St Lazarus at Locko Park (**MDR15032**) is known from documentary sources as a religious and charitable site. Associated agricultural management is reflected in ridge and furrow earthworks at Far Lane, Ockbrook (**MDR12336**) and the field system near Thistley Field and Far Thistley Field (**MDR15025**), both within the draft Order Limits, which preserve the pattern of medieval open-field farming and boundary organisation. Possible defensive or ceremonial features are indicated by the now-ploughed

earthworks at Giant's Hill, Ockbrook (**MDR5460**). Together, these sites demonstrate that the medieval landscape of Zone 3 was a complex mixture of hunting parks, religious estates, village agriculture, and potential fortified places.

- 8A.2.177 Additional evidence supporting the presence of ridge and furrow earthworks is substantiated by LiDAR data (**RSply\_ID\_128, RSply\_ID\_129, RSply\_ID\_130, RSply\_ID\_134, RSply\_ID\_135, RSply\_ID\_136, RSply\_ID\_140, RSply\_ID\_177, RSply\_ID\_448, RSply\_ID\_450, RSply\_ID\_458, RSply\_ID\_459, RSply\_ID\_466, and RSply\_ID\_468**) as well as a ditch (**RSply\_ID\_447**) within the Study Area.
- 8A.2.178 The village of Morley is first definitively mentioned in a 1009 charter as 'Moreleage' with a possible earlier reference in a 1002 document as 'æt Morlege'. The name is of Old English origin, likely meaning 'clearing on the moor'. By the time of the Domesday Book in 1086, Morley was recorded as a small settlement with four households, under the ownership of Henry de Ferrers. The entry notes the presence of woodland pasture measuring four by three furlongs, indicating the area's agricultural use and its woodland resources. A scheduled motte (mound) (**NHLE 1011447**) is located in a small area of woodland approximately 400 m west of the centre of the village and likely represents a post-conquest defensive site which would have featured a timber tower, or keep, on the top of the mound.
- 8A.2.179 The 12th century parish Church of St Matthew (**NHLE1205838**) is located at Morley, within the Study Area. The church is a Grade I listed building, and there is also an associated Grade II\* listed Mausoleum (**NHLE1205888**) and a non-designated Churchyard (**MDR11316**). A probable area of shrunken medieval village (**MDR4819**) is indicated within the Study Area, by earthworks observed in 1988 and interpreted as a possible series of house platforms and possible hollow way.
- 8A.2.180 The original Morley Manor House (**MDR4732**) was established in the 14th century and was closely associated with the prominent Stathum and Sacheverell families. Strategically located adjacent to the north west corner of St Matthew's Church, the manor was connected to the church via a covered passage, remnants of which are still visible on the church's external wall. This proximity underscores the manor's central role in the village's ecclesiastical and social life. In 1405, the manor obtained an episcopal licence to conduct Mass in its private chapel, highlighting its significance during the medieval period. Terraces and lynchets (**MDR4817**) identified on the hillside were interpreted as possible landscaping associated with the manor house. The site of a medieval deer park (**MDR14261**) is suggested to the north of the village of Morley. There appears to be little information on this, though there is a suggestion of a documentary reference from the 13th century.
- 8A.2.181 The high concentration of medieval parks in the area east of Derby, including Bardolf's Park (**MDR12679**), Lockhay deer park (**MDR14258**), Morley Park (**MDR14261**), and Littlehay Park (**MDR14263**), can be attributed to a combination of social, topographical, and historical factors. During the medieval period, this region saw extensive landownership by both monastic institutions, such as Dale Abbey, and powerful secular families like the Curzons, Bardolfs, and later the Drury-Lowes. These landowners, following both royal and Norman traditions, established deer parks and enclosed grounds as visible symbols of power, privilege, and wealth. Topographically, the rolling hills, woodlands, and natural springs of eastern Derbyshire made the area particularly suitable for such uses. Monastic houses like Dale Abbey were also instrumental in shaping the landscape. They established granges, fishponds, and enclosed pastures, sometimes bordering or overlapping with

aristocratic deer parks. In some cases, parks may have originated as monastic lands before being repurposed or acquired by the gentry after the dissolution.

8A.2.182 All Saints' Church is a Grade II\* listed building (**NHLE1087941**) that features a late 12th-century tower and a 14th-century spire, with major rebuilding between 1800 and 1835. Its architecture blends ashlar stone, red brick, and Gothic tracery, with notable stained glass and memorials spanning the 19th and 20th centuries. Interior highlights include a 12th-century font, a timber pulpit, and a restored 16th-century screen from Wigston Hospital.

### Post-medieval (AD 1540–1900)

8A.2.183 The post-medieval period in the Study Area for Zone 3 is represented by 88 non-designated heritage assets or finds locations. These include 35 features listed in the HER, one record of a find listed in the PAS and 52 LiDAR features.

8A.2.184 The Preceptory of the Knights of St. Lazarus (**MDR15032**) appears to have gone by the early 16th century, with the area it had occupied broken up into a number of farmsteads (Ref 8A.20) which may have occupied buildings of the former preceptory. These have been identified as Hornbuckle's House (**MDR15026**) and Hambleton Farmstead (**MDR15029**), though the buildings were no longer present by the 19th century.

8A.2.185 From the post-medieval period onwards, the region experienced steady transformation, retaining its agricultural foundations while gradually integrating industry and infrastructure. By the 16th century, key structures such as the Tithe Barn – now known as The Recreation Room and Dovecote (Grade II\*, **NHLE1140415**), located in Morley 450 m west of the draft Order Limits, stood as enduring symbols of agrarian life, later adapted for domestic and communal use.

8A.2.186 The establishment of a Moravian settlement in Ockbrook in 1750 marked a significant cultural milestone – as one of only three such settlements in the UK, it introduced elegant Georgian red-brick buildings, many of which are now Grade II\* and Grade II listed, reinforcing the village's distinct historic character. The Moravian church was established in 13th century Bohemia and its principles were based on simplicity in worship and daily living. Many followers of the church spread to other countries in the first half of the 18th century and established new settlements, with Ockbrook the centre of the Moravian Church (**NHLE1204382**) in England. The settlement includes a chapel, house for single brethren, other houses and schools. In addition to the listed buildings, the settlement is also designated as a conservation area.

8A.2.187 Industrial growth gathered pace in the late 18th century with the Sandiacre branch of the Derby Canal (**MDR9103**) opening to the south of Spondon in 1796, with the route of the canal crossing the draft Order Limits in the area of the A6005. The canal was built to facilitate trade for the town of Derby, and particularly for the shipping of coal. The fortunes of the canal declined following the arrival of the railway in the 1840s, and commercial traffic ceased in 1945, and the canal was ultimately abandoned and infilled.

8A.2.188 The line of the Midland Counties Railway (**MDR12289**) also crosses the draft Order Limits to the south of the A6005. The Midland Counties Railway was the first of three initial railway lines to be opened in Derby around 1840 and was built to run from Derby to Nottingham, opening in 1839 and carrying passengers and freight. The improvements in transport infrastructure from the 18th century onwards helped catalyse housing expansion and population growth in the area. During this period,

cottage industries such as silk glove making, basket weaving, and brickmaking became prominent, while increasing diversification saw villagers employed in shoemaking and straw bonnet production. Middle-class families from urban centres like Derby and Long Eaton constructed villas in the area, signalling a socio-economic shift.

- 8A.2.189 The post-medieval and industrial assets illustrate Derbyshire's transformation through mining, transport, and improved agriculture. The Stanley Footrill Colliery (**MDR5474**) on Derby Road was a late-19th-century coal mining site, linked to earlier colliery shafts east of Jesse Farm, Morley (**MDR5797**) and served by the Stanley–Chaddesden Footrill Tramway (**MDR4581**), which operated by continuous-rope haulage between 1894 and 1918. Regional transport development is further represented by the Great Northern Railway extension (**MDR10005**), opened in 1878 and later dismantled, sections of which now form the Great Northern Greenway. Agricultural improvement from the same period is seen in the granary and animal houses at Locko Grange Farm (**MDR13627**). In addition, an ancient trackway heading north to Stanley (**MDR15030**) survives within the draft Order Limits, demonstrating the persistence of older routeways into the post-medieval period and their influence on later field and transport systems. Together, these assets highlight the industrial growth, evolving infrastructure, and continued agricultural investment that reshaped the Zone 3 landscape in the 18th and 19th centuries.
- 8A.2.190 The architectural legacy of Ockbrook and Morley reflects a rich rural and estate heritage shaped by religious, agricultural, and gentry influences. In Ockbrook, the Grade II listed Ockbrook House and its attached outbuilding (**NHLE1087943**) represent the village's early 18th century prosperity, with its formal brick façade and ancillary buildings marking the emergence of affluent freeholding families. Nearby, the Grade II listed No. 38 The Ridings (**NHLE1087944**) and the Grade II listed Nos. 61–63 Church Street (**NHLE1204357**) showcase red-brick Georgian domestic styles aligned with the Moravian village plan, distinguished by pantile roofs and refined Flemish-bond brickwork. These properties, along with the lychgate, gate-piers, and perimeter railings around the Grade II listed All Saints' Church (**NHLE1281270**), reinforce the village's orderly and religiously rooted architectural character. The village's nonconformist religious heritage is further reflected by the now-lost Primitive Methodist Chapel that once stood on Green Lane (**MDR12971**), built to replace an earlier chapel on the same site.
- 8A.2.191 To the north, Morley preserves elements of its medieval and agricultural past. The Grade II listed Churchyard Cross on Church Lane (**NHLE1140414**) stands as a rare survival of 14th century devotional life, while the Grade II listed Retreat House (**NHLE1140416**) reflects 18th century gentry and ecclesiastical use. The Grade II listed Morley House Farm (**NHLE1280445**) typifies the area's dairy-farming expansion during the 1830s, expressed in its five-bay Georgian front. Further afield, the Grade II listed Little London Farmhouse (**NHLE1334826**), with its concealed 17th century timber core, suggests the adaptive reuse of former grange buildings associated with Dale Abbey, highlighting long-term continuity in agricultural occupancy.
- 8A.2.192 The Grade II listed Locko Park (**NHLE1000681**) stands in the Study Area. The Locko Park estate forms the nucleus of elite landscaping and estate management in the region. The Grade II listed West Lodge (**NHLE1140432**) marks the estate entrance with its Picturesque design and cast-iron railings, while the subterranean Grade II listed Ice House (**NHLE1140433**) and the Grade II listed stable block north of the main house (**NHLE1236773**) speak to technological and equestrian investments

made during the 19th century high-farming era. The Grade II listed brick barn north of the former Tithe Barn (**NHLE1205898**) reflects continued agrarian development, and the Grade II listed cast-iron mile-post on Church Street (**NHLE1140417**) hints at the increasing connectivity of the area through turnpike improvements. North west of the estate, the Grade II listed Italianate terraces, glasshouses, and garden walls (**NHLE1380206**) trace a century of horticultural evolution, from functional kitchen gardens to ornamental Victorian displays, encapsulating the layered ambitions of the Drury-Lowe family.

- 8A.2.193 Later 19th century transport infrastructure also evolved in the area with the Great Northern Railway's Derbyshire and North Staffordshire Extension opened in 1878 (**MDR10005**), later repurposed as part of the Great Northern Greenway. Industrial activity peaked in the late 19th century with the dominance of the coal industry. Stanley Footrill Colliery (**MDR5474**) and its associated tramways, including the Stanley–Chaddesden Footrill Tramway (**MDR4581**), connected the area to wider industrial networks. Colliery shafts near Jesse Farm (**MDR5797**) predate this and reflect the longer legacy of mineral extraction in the region. The opening of Stanley Railway Station in 1876 further enhanced connectivity, supporting both local industries and the movement of people, thus anchoring the village more firmly within the broader narrative of Derbyshire's industrial development.
- 8A.2.194 LiDAR data provides evidence supporting the presence of earthworks in the form of banks (**RSply\_ID\_110**, **RSply\_ID\_111**, **RSply\_ID\_112**, and **RSply\_ID\_113**), ditches (**RSply\_ID\_118**, **RSply\_ID\_120**, **RSply\_ID\_121**, **RSply\_ID\_122**, **RSply\_ID\_123**, **RSply\_ID\_124**, **RSply\_ID\_125**, **RSply\_ID\_127**, **RSply\_ID\_142**, **RSply\_ID\_151**, and **RSply\_ID\_190**), and ridge and furrow earthworks (**RSply\_ID\_126**, **RSply\_ID\_137**, **RSply\_ID\_138**, **RSply\_ID\_139**, **RSply\_ID\_141**, **RSply\_ID\_143**, **RSply\_ID\_144**, **RSply\_ID\_145**, **RSply\_ID\_146**, **RSply\_ID\_147**, **RSply\_ID\_148**, **RSply\_ID\_149**, **RSply\_ID\_150**, **RSply\_ID\_157**, **RSply\_ID\_158**, **RSply\_ID\_159**, **RSply\_ID\_163**, **RSply\_ID\_166**, **RSply\_ID\_171**, **RSply\_ID\_172**, **RSply\_ID\_173**, **RSply\_ID\_174**, **RSply\_ID\_175**, **RSply\_ID\_178**, **RSply\_ID\_179**, and **RSply\_ID\_454**), dated to the post-medieval period within the Zone 3 Study Area.
- 8A.2.195 Further, LiDAR data supports the evidence of possible features, including two historic wells, a pond, a colliery, a tramway and a viaduct pier (**RSply\_ID\_160**, **RSply\_ID\_164**, **RSply\_ID\_165**, **RSply\_ID\_167**, **RSply\_ID\_168**, **RSply\_ID\_169**, **RSply\_ID\_176**, and **RSply\_ID\_460**).
- 8A.2.196 There is only one PAS find that has been identified in Zone 3 from this period. This is a circular hinged copper alloy lid (**PAS 39**).

#### Modern (AD 1901–present)

- 8A.2.197 There are no heritage assets from the modern period within the Study Area.
- 8A.2.198 Spondon became heavily industrialised in the early 20th century, with companies such as British Celanese establishing large-scale operations. The area was incorporated into the city of Derby in 1968. Extensive housing developments transformed Ockbrook into a commuter village for Derby, though the historic Moravian settlement remains a distinctive feature, preserving its planned layout and architectural character.

8A.2.199 Stanley Pit, part of the larger Stanley Colliery complex, ceased deep seam mining in 1959 and closed entirely in 1961. Since then, the village of Stanley has transitioned into a residential area, with historic landmarks such as St Andrew's Church, which dates from the 12th century, still in active use.

#### Undated

8A.2.200 To the north west of Hayes Park Farm on Moses Lane in Morley, two rectangular enclosures, visible only as cropmarks on aerial photographs taken in 1996, suggest earlier, possibly agricultural or domestic activity (**MDR5799**). Near Locko in Stanley, shallow earthworks identified in aerial imagery around 1988 point to a possible moated site, which may have connections to a medieval leper hospital once located in the area (**MDR12316**). Further east, at Upper Locko in Dale Abbey, a deserted settlement is recorded on an 18th century map, featuring buildings, a well, and a fishpond (**MDR12317**). At least one of these structures, along with the well, may also have links to the same leper hospital, indicating the possible continuity or spread of medieval healthcare related institutions in the landscape.

## Zone 4: Trent Valley Washlands

### Geology and topography

8A.2.201 Zone 4 extends from Ockbrook, west along the northern edge of the Trent Valley to Willington. This passes along the NE Trent Valley Washlands NCA, characterised as a linear, low-lying landscape, defined at its edges by higher ground, and comprising largely flat floodplains and Trent gravel terraces (Ref 8A.21). From Ockbrook, the Study Area crosses the River Derwent just before the confluence with the River Trent, and then broadly follows the route of the A50.

8A.2.202 The bedrock in Zone 4 consists of multiple components of mudstone, siltstone and sandstone units. The earliest of these, Gunthorpe Member, is mapped at the northern end of Zone 4, between Ockbrook and Draycott, and at the western end of the Zone, between Barrow upon Trent and Willington. This deposit is dated to between 246.7 and 237 Mya. The lithology is a mudstone with subordinate dolomitic siltstone and sandstone. A thin band of Cotgrave Sandstone Member is also present as a narrow band between Draycott and Borrowash, dated to between 237 and 227.3 Mya, consisting of sandstone interbedded with mudstone and siltstone. This is succeeded by a second narrow band, south of this, identified as Edwalton Member. This unit, comprising mudstone and siltstone is dated to within the same period, 237 to 227.3 Mya. This band extends to the north eastern extent of the River Derwent. The upper boundary of the Edwalton Member is delineated by the Arden Sandstone Formation (formerly Hollygate Member), within the same period 237 to 227.3 Mya. The Arden Formation is only mapped as a narrow band along Cuttle Brook on the western edge of Chellaston. From the Derwent to Barrow upon Trent, underlying the central bulk of the Study Area in Zone 4, is Branscombe Mudstone Formation (formerly Cropwell Bishop Formation). This is a mudstone and siltstone, dated to 227.3 to 201.4 Mya.

8A.2.203 In contrast to the previous zones, the Trent Valley exhibits a complex array of superficial deposits formed in a dynamic river environment spanning the Pleistocene and Holocene. The earliest superficial deposits are glacial deposits: the Thrussington and Oadby Tills (unsorted to poorly sorted sediment with a wide range of particle sizes). These are mapped in the area south of Derby, between the Rivers Derwent and Trent.

- 8A.2.204 Distinctly localised glaciolacustrine deposits overly the Till between Chellaston and Weston-on-Trent, near Sunny Hill and west of Findern. Glaciolacustrine deposits are broadly dated to the Early to Mid-Pleistocene (860 and 116 ka BP). The glaciolacustrine deposits at Sunny Hill and Findern, however, are distinguished as Findern Clay and dated to the Anglian Stage. Both Findern Clay and the broader glaciolacustrine deposits are composed of clay, silt and sand, with some laminations.
- 8A.2.205 Glaciofluvial deposits are also mapped as localised deposits between the Rivers Derwent and Trent. These are predominantly between the Derby ring road and Rose Hill, south east of Chellaston and west of Findern. Glaciofluvial deposits are also loosely dated to the Mid Pleistocene but are likely associated with the end of the Anglian deglaciation.
- 8A.2.206 Head is found broadly spread in patches across the land between the two rivers and north of the confluence at Borrowash.
- 8A.2.207 Several River Terrace Deposits (RTDs) are mapped along the two rivers. Etwall Sand and Gravel Member is mapped as small discrete areas around Weston-on-Trent, Barrow Hill Stenson and Findern. Its successive, Eggington Common Sand and Gravel Member, is also shown near Stenson. The Allenton Sand and Gravel extends as a broad band along the south west of the River Derwent, with the correlative Beeston Sand and Gravel along the north of River Trent. Holme Pierrepont Sand and Gravel (HPSG), dated to the Late Devensian, is also mapped along the northern edge of the River Trent, south of the earlier terraces. The Holocene Hemmington Terraces and Alluvium are mapped intermingled along the base of both river valleys and around the current course of the rivers.
- 8A.2.208 Lacustrine (lake) deposits of clay and silt dating from the Late Pleistocene to the Iron Age (Ref 8A.37) are mapped around Sinfin Moor and extending westwards to the A38.
- 8A.2.209 The topography through Zone 4 comprises relatively flat to gently sloped terrain with a minimum elevation of 34 m AOD west of River Derwent near Ambaston Lane, average elevation of 45 m AOD and a maximum elevation of 66 m AOD between Chellaston Lane and the trunk road A50. An isolated area of higher ground up to 75 m AOD is located between Chellaston and Aston-on-Trent, corresponding with Till deposits.

## **Geoarchaeological baseline**

### **Pleistocene (2.6 to 11.8 ka BP)**

- 8A.2.210 The earliest evidence for glacial activity in Zone 4 dates to the Anglian glacial stage when an ice sheet originating from the north west covered the area and deposited the Thrussington Till. The Anglian glaciation completely overran the major river systems and reshaped the landscape (Ref 8A.16). Following the end of the Anglian glaciation, meltwater from the retreating glaciers formed new river systems and deposited glaciofluvial material. Glaciofluvial deposits are patchy along the upper edges of the two river valleys, and it is likely that more extensive deposits have been eroded by later river action.
- 8A.2.211 A second ice sheet extended from the east and north east and deposited the Oadby Till (Ref 8A.13). This is attributed to the Wragby substage of the Wolstonian glacial (303 to 245 ka BP; paragraph 8.2.148 in contrast to BGS memoirs that date both Tills to the Anglian. The BGS maps both Tills, and there is potential for the Thrussington Till to be present beneath the subsequent Oadby Till deposits.

- 8A.2.212 Glaciolacustrine deposits that are typically associated with localised ponding of glacial meltwater often within deep channels or tunnel valleys (Ref 8A.13), are not securely attributed to any one climatic stage (Ref 8A.22).
- 8A.2.213 The glacial temperatures in the Trent Valley are estimated between -10 and -30 °C, but despite the inhospitable conditions for human occupation (Ref 8A.23) lithic assemblages have been found in deposits dating to the Anglian and Wolstonian glacial stages (Ref 8A.24). Although subsequently reinterpreted as residual (*ex situ*), derived from material formed during the Lower Palaeolithic (Ref 8A.22), finds suggest human activity pre-dates the Wolstonian glaciation. Undisturbed deposits may exist in isolated pockets, such as within the Elvaston Channel where Oadby Till is unbottomed and may overlay earlier sediments with Lower Palaeolithic potential (Ref 8A.22, Ref 8A.25). Lower Palaeolithic finds, however, are rare (Ref 8A.26) and archaeological potential is low.
- 8A.2.214 The downcutting and aggradation of the River Trent formed a series of gravel terraces. Within the Study Area, the earliest is the Etwall Sand and Gravel Member, dated to the early Wolstonian Stage (303 to 245 ka BP) (Ref 8A.16, Ref 8A.27) and concurrent with the deposition of Oadby Till. During this cold period, the Trent was depositing gravel against the backdrop of crustal uplift causing the terrace to aggrade. At the beginning of the succeeding temperate phase, low base levels and the influx of glacial meltwater caused the Trent to incise into the terrace. The Etwall Terrace is followed by the Eggington Common Sand and Gravel Member, dated to a late Wolstonian phase (186 to 126 ka BP) (Ref 8A.16, Ref 8A.28). Both RTDs are mapped sporadically along the northern edge of the River Trent and have been eroded by later processes. This glaciation is marked by limited hominins presence in the UK (Ref 8A.22).
- 8A.2.215 The climate substantially ameliorated in the last interglacial phase (the Ipswichian, 126 to 116 ka BP). Animal bones recovered from unnamed gravels in Allenton and Boulton include the remains of hippopotamus (Ref 8A.29). Despite this improvement, hominins remained absent from Britain during this interglacial and did not reappear until the Devensian glacial stage (Ref 8A.22).
- 8A.2.216 The Allenton Terrace and Beeston Terrace Sand and Gravels deposits are mapped extensively along the River Derwent and Trent, respectively and formed in the early to mid-Devensian (between 116 and 13.9 ka BP). Knight and Howard (Ref 8A.30) suggest a more precise date of c.80 ka BP). Several palaeochannels have been mapped through the Beeston Terrace (Ref 8A.31).
- 8A.2.217 Head deposits are broadly dated to all periglacial periods between the Anglian and Devensian, though it has been suggested the majority dates to the Late Devensian. Head is largely focused on the higher ground and slopes of the Till plateaux and also accumulated on top of river terraces as old as the Allenton and Beeston Terraces (Ref 8A.13).
- 8A.2.218 The HPSG is the Devensian River Terrace (24 to 11.8 ka BP) deposited in a wide, multi-threaded (braided) river setting. Analysis of deposits suggests that the HPSG was laid down in two phases either side of the LGM (Ref 8A.32).
- 8A.2.219 Several find spots have been identified in the PaMELA database (PaMELA 669, 7640, 7641, 7642, 7643 and 7644) but lack precise dating to confirm whether they are either Palaeolithic or Mesolithic. The Trent Valley Palaeolithic Project noted that there has been a relative lack of stone tools found in the Trent Valley system but suggested this may be due to various factors creating a bias rather than a reflection

of an absence of Palaeolithic activity. As flint is not local to the area, tools may have been made of alternative material (e.g. andesite and quartzite) that are more susceptible to weathering, and also with flint the most widely used material for stone tools, early collectors may have overlooked these alternative materials (Ref 8A.23).

#### Holocene (11.8 ka BP to present)

- 8A.2.220 During the Holocene, river channels incised into the HPSG RTDs, causing them to form dissected low terraces and eyots (small islands) as seen in the superficial mapping and the Palaeochannels of the Trent Catchment (PTC) survey (Ref 8A.31). Organic material and silts accumulated in these channels beginning the formation of the early Holocene Hemington Terrace. Pollen assemblages and radiocarbon dates place this transition in the Late Upper Palaeolithic to Early Mesolithic (12.5 to 10.3 ka BP) (Ref 8A.13). Deposits comprise a lower layer of coarse gravels up to 5 m thick, and an upper unit of overbank clayey silt with stones (up to 2 m thick). The raised terrace formed by these deposits is generally above the level of annual floods, but chute channels are present across the terrace, carrying water when rivers are in spate.
- 8A.2.221 Archaeological and palaeoenvironmental remains can provide a picture of landscape change and human activity during the transition into the Holocene. As well as the potential Mesolithic date of finds in the PaMELA database discussed in paragraph 8.2.220, two other Mesolithic assemblages are recorded in the Trent Valley gravels within the Wymer database (Wymer 598 and 635). Contemporary environmental evidence (pollen analysis) from Shardlow Quarry, just east of Aston-on-Trent, indicates a wooded landscape with scots pine, birch and fern (radiocarbon dated to 8,540–8,230 cal BC; Ref 8A.33). Despite the implication that increasing vegetation may have stabilised the landscape and reduced the impact of geomorphological processes, there is still evidence for reworking of the valley floor during the Mesolithic (Ref 8A.30, Ref 8A.34).
- 8A.2.222 Hemington Terrace gravel deposition eventually gave way to widespread alluviation as the climate stabilised. The present-day floodplain is 0.5 to 1.0 m lower than the Hemington Terrace, demonstrating channel incision. Elsewhere, along the minor streams of the Trent catchment, the Hemington Terrace is more difficult to distinguish and has not been differentiated from alluvial deposits (Ref 8A.13). Within these areas, the extent of mapped alluvium may be inaccurate (less extensive).
- 8A.2.223 The PTC survey shows that palaeochannels are concentrated within the Hemington Terrace and Alluvium mapped south of the site (Ref 8A.31). A hand-auger survey conducted as part of investigations into the Aston Cursus Complex identified the site as being at the floodplain edge, overlooking a series of channels in which organics were preserved within a deep sedimentary sequence (Ref 8A.35). Elsewhere organic deposits were recovered with good survival of palaeoenvironmental remains and were assessed following identification of pollen and samples for radiocarbon dating (Ref 8A.36). The energy of flood events along the rivers varies and results in a variety of deposits with different palaeoenvironmental potential. It is likely that the northern/eastern section of Zone 4 features a complex stratigraphic sequence due to its proximity to the confluence of the Rivers Trent and Derwent.

- 8A.2.224 Lacustrine deposits identified at Sinfin Moor indicate the presence of a prehistoric lake in this area (Ref 8A.37). The deposits represent the gradual infilling of the lake between the Upper Palaeolithic to the Iron Age and contain significant palaeoenvironmental remains. The deposits are primarily clays but include a layer of peat representing an episode of stagnation, stabilisation or terrestrialisation before waterborne clays cap basin infill.
- 8A.2.225 The stabilisation of the landscape from the Bronze Age onwards, resulted in an increase in the number of primary archaeological sites preserved beneath alluvium on the valley floor (Ref 8A.34). Despite this, flood events are recognised that reworked earlier deposits and damaged settlements (e.g. three failed attempts to construct the Hemington Bridges are recognised) (Ref 8A.34). Counterintuitively, the sudden flooding and abandonment of sites may increase the potential for archaeological remains, with material from buried structures left *in situ* and not reclaimed for use elsewhere. Many preserved timber artefacts, including fish weirs, log boats and medieval bridges have been discovered during archaeological monitoring of gravel extraction (Ref 8A.36). The main part of Zone 4 runs along the upper terraces and most of these discoveries lie in the more recent deposits found in quarries south of the Study Area. However, the Zone does coincide with Hemington Terrace deposits and Alluvium in the valley bottom at either end where it crosses the River Derwent and towards Willington.

### Archaeological baseline

- 8A.2.226 Zone 4 traverses a richly layered historic landscape in the Trent Valley area, reflecting activity from the Upper Palaeolithic through to the post-medieval and modern periods. Six scheduled monuments (**NHLE1007024**, **NHLE1007028**, **NHLE1007076**, **NHLE1019060**, **NHLE1019871**, and **NHLE1011436**), 253 listed buildings, 11 conservation areas and two Grade II\* registered park and gardens underline the national importance of heritage assets in the Study Area. In addition, 60 non-designated heritage assets or finds locations have been identified within the draft Order Limits, representing a diverse range of archaeological and historic features.
- 8A.2.227 Designated heritage assets within Zone 4 of the draft Order Limits are listed in **Table 8A.8**.

**Table 8A.8: Designated heritage assets within Zone 4 of the draft Order Limits**

Ref	Name	Easting	Northing
1096882	Trent And Mersey Canal Deep Dale Bridge Number 17 At SK 3485 2923 - Grade II Listed Building	434893	329248
1203884	Milepost At SK 414 315 South Of Thulston Grange - Grade II Listed Building	441401	331506
1417622	Nooning Lane Bridge (SPC6 12) - Grade II Listed Building	443190	333699
6052	Trent and Mersey Canal Conservation Area	432208	330016
5719	Twyford Conservation Area	432704	328645

Ref	Name	Easting	Northing
1007028	Cursus and mini henges, of Neolithic date, round barrows of Neolithic/Early Bronze Age date, and settlements, enclosures and fields of late Iron Age/Romano-British date, immediately East of Willington either side of the A5132 – scheduled monument	431259	328737
1019060	Swarkestone Lows Round Barrow Cemetery And Part Of An Aggregate Field System 300m North West Of The Lowes Farm – scheduled monument	436710	329503

8A.2.228 Evidence of prehistoric and Romano-British settlement is extensive, with cursus monuments, round barrows, Iron Age ditches, pit alignments, trackways, enclosures, and scatter sites (e.g. **MDR4303**, **MDR4371**, **MDR4354**, **MDR12144**, and **MDR14497**) suggesting ritual, domestic, and agricultural activity. The medieval period is represented by widespread ridge and furrow earthworks (e.g. **MDR8048**, **MDR8090**, **MDR14634**) and associated field systems, alongside fishponds (**MDR14446**) and possible medieval boundaries (**MDR14500**) that illustrate continued agrarian use of the landscape. Post-medieval and industrial heritage is embodied in transport and infrastructure assets such as the Trent and Mersey Canal (**MDR7892**), its Deep Dale Bridge (NHLE1096882), the Derby Canal branches (**MDR9103**, **MDR10003**), multiple railway routes (**MDR4623**, **MDR11690**, and **MDR12289**), and Willington Power Station cooling towers (**MDR14200**), highlighting the transformation of the area during the 18th–20th centuries.

8A.2.229 Together, these assets demonstrate that Zone 4 is a palimpsest of human activity, with prehistoric ceremonial and settlement features overlain by medieval agriculture and later industrial transport networks. The variety and density of features indicate that careful consideration of archaeological potential and historic character will be essential for any development affecting this corridor.

8A.2.230 HER records within Zone 4 of the draft Order Limits are listed in **Table 8A.9**.

**Table 8A.9: HER records within Zone 4 of the draft Order Limits**

Ref	Name	Easting	Northing
MDR4401	Cropmark enclosure, Barrow upon Trent	435900	329600
MDR23228	Upper Palaeolithic flint	431716	329056
MDR11156	Milepost, B5010, Elvaston	441401	331505
MDR4344	Cropmarks, west of Frizams Lane, Willington	431657	329019
MDR4328	Linear cropmarks south-east of Stenson	432906	329430
MDR5618	Ridge and furrow (site of), north east of Ambaston Grange, Elvaston	443301	331979
MDR5620	Ridge and furrow (site of), south east of Ambaston, Elvaston	443228	332295
MDR5573	Cropmark site, Draycott	443768	333077

<b>Ref</b>	<b>Name</b>	<b>Easting</b>	<b>Northing</b>
MDR7329	Ridge and furrow field system, at Weston Fields Farm, Weston upon Trent	439469	329257
MDR4321	Cropmarks, East of Merry Bower Farm, Barrow upon Trent	433875	329228
MDR4363	Cropmarks, north-east of Old Hall Farm, Barrow upon Trent	433313	329073
MDR4310	Cropmark Complex East of Frizam's Lane, Twyford and Stenson	431643	328827
MDR4311	Pit alignments, northeast of Power Station	431169	329240
MDR8114	Ridge and furrow to the south-west of Swarkestone Lowes.	436381	329159
MDR8114	Ridge and furrow to the south-west of Swarkestone Lowes.	436606	329036.9
MDR4371	Iron Age/Romano-British settlement, west of Lowes Lane, Barrow upon Trent	436155	329483
MDR8115	Ridge and furrow, Barrow upon Trent	436301	329388
MDR4378	Swarkestone Lowes Barrow Cemetery and Field System	436843	329578
MDR7359	Earthwork features, Swarkestone Stop, Swarkestone	436967	329273
MDR7328	Clay mine shafts, near Chellaston Hill, Aston upon Trent	439006	329776
MDR5578	Railway bridge near Melbourne House, Draycott	443189	333699
MDR11715	Former horse training track, Swarkestone Lowes	436718	329388
MDR12143	Cropmarks north of Twyford Road, Willington	430171	328575
MDR12144	Iron Age ditch, Willington Power Station site, Willington	430217	328976
MDR7892	The Trent and Mersey Canal, South Derbyshire	436456	328917
MDR12289	Midland Counties Railway, Derby to Nottingham route, Derby and Erewash	442972	334211
MDR12557	White Lodge (site of), south of Thulston, Elvaston	441176	331550
MDR4623	Midland Railway, Derby & Melbourne branch (mostly dismantled)	437964	329061
MDR10462	California Gypsum Mine, Aston Lane, Chellaston, Derby	438948	330007
MDR9103	Derby Canal, Sandiacre branch (route of), Erewash	441726	335093
MDR11690	Birmingham to Derby Junction Railway, South Derbyshire and Derby	432102	331033
MDR14200	Cooling towers, Willington Power Station, Willington	431087	328908
MDR14446	Fish pond (site of), north of the B5010, Thulston	441313	331541
MDR14497	Round barrow (site of), Twyford Road, Willington	431536	328627

<b>Ref</b>	<b>Name</b>	<b>Easting</b>	<b>Northing</b>
MDR14498	Late prehistoric or Roman field boundary, south-east of Potlocks House Farm, Willington	431497	328624
MDR8088	Ridge and furrow (site of), north of Twyford Road, Willington	430105	328761
MDR4327	Cropmarks 200m NNE of Ivy Cottage, Twyford	432989	328788
MDR14500	Cropmark features, south-west of Potlocks House Farm, Willington	431151	328390
MDR4368	Cropmark features, south-west of Potlocks House Farm, Willington	430948	328514
MDR8048	Ridge and Furrow, North of Aston on Trent	440649	330932
MDR14645	Ridge and furrow, west of the A6, Elvaston	440136	331222
MDR14650	Extensive Ridge and Furrow, Elvaston	442092	332744
MDR14651	Ridge and furrow, south of Ambaston Lane, Elvaston	441535	331755
MDR5592	Ridge and furrow or linear cropmark feature, Ambaston Lane, Elvaston	443412	331696
MDR14653	Small Group of Medieval Ridge and Furrow, Elvaston	443229	332293
MDR5628	Ridge and furrow south west of Hall Farm, Draycott	443763	333213
MDR10003	Derby Canal, Swarkestone branch (route of), Derby and South Derbyshire	436814	332802
MDR4303	Prehistoric landscape, Frizams Lane, Twyford and Stenson	432209	329047
MDR14630	Ridge and furrow, south of Stenson Farm West, Twyford	431966	329262
MDR8090	Ridge and furrow, south of Stenson West Farm	432203	329546
MDR4313	Cropmarks, north of Old Hall Farm, Twyford and Stenson	432930	329251
MDR14481	Cropmarks, south of Stenson	432552	329354
MDR8091	Ridge and furrow, south of Twyford Road, Twyford	432019	328665
MDR14463	Site of Weston Camp (Camp 634), Northwest of St Mary's Church, Weston upon Trent	439623	328158
MDR4322	Cropmarks 300m north of Poplars Farm, Barrow upon Trent	433766	328943
MDR16521	Ridge and furrow, near Parsonage House, Twyford	434162	328850
MDR4366	Cropmark 100m west of Merry Bower Farm, Twyford and Stenson	433407	329354
MDR4354	Cursus, Potlock's House Farm	431653	328840
MDR7855	Roman Road (route of), Little Chester to Sawley, Erewash	441943	334407
MDR14634	Ridge and furrow, west of Deep Dale Lane, Barrow Upon Trent	434377	329133

## Prehistoric

- 8A.2.231 There are 66 heritage assets or finds locations that have been identified within the Study Area from the prehistoric period, including 61 assets or finds locations identified from the HER and five finds listed in the PAS.
- 8A.2.232 Upper Palaeolithic activity is evidenced by flint scatters recovered during fieldwalking (**MDR23228**) within the draft Order Limits, suggesting early human presence. Scattered flint tools and blade fragments have also been recovered from the gravel terraces around the River Trent, indicating seasonal or migratory occupation by hunter-gatherers.
- 8A.2.233 Extensive cropmark complexes including Potlock Cursus, ring ditches, rectilinear enclosures, and pit alignments (**MDR4303**, **MDR4310**, **MDR4321**, **MDR4322**, **MDR4354**, **MDR4363**, **MDR4366**, **MDR4378**, **MDR5573**, **MDR14497**, and **MDR14498**) indicate ritual, settlement, and agricultural landscapes spanning the Neolithic to Bronze Age. The Iron Age ditch at Willington Power Station (**MDR12144**) and the Iron Age/Romano-British settlement with enclosures and round houses at Barrow upon Trent (**MDR4371**) provide further evidence for later prehistoric occupation within the draft Order Limits. Together, these assets reflect ceremonial, domestic, and agricultural use of the Trent Valley landscape over millennia.
- 8A.2.234 The Neolithic period marks a transition to settled farming. Possible causewayed enclosures and early farming plots have been identified through cropmarks near Aston and Weston. Axes and pottery sherds discovered in local pits and field surveys provide further evidence of early occupation. A scheduled multi-period site (**NHLE1007028**) is located within the Study Area. This includes a late Neolithic cursus, mini-henges, Early Bronze Age round barrows, and associated prehistoric field systems, enclosures, and settlements situated on level ground to the north of the River Trent. The remains survive as a series of buried archaeological features including ditches, pits, gullies and slots with associated deposits, visible on aerial photographs as cropmarks. The Potlock/Findern Cursus is one of only two cursus monuments known in Derbyshire, the other being the Aston Cursus. The scheduled Potlock Cursus and associated prehistoric landscape features forms part of an extensive Neolithic ceremonial complex. This elongated cursus monument, together with associated enclosures and ring ditches, demonstrates ritual activity and organised land use during the Late Neolithic, providing significant evidence for early ceremonial practices along the Trent Valley. The remains surrounding and related to the cursus indicate extensive ritual and domestic activity spanning several phases, including the Neolithic, Early Bronze Age, and Iron Age/Romano-British periods. These reflect the development of field systems, enclosures, settlement sites, and funerary monuments, demonstrating the area's multi-phased occupation and use.

- 8A.2.235 The use of this area in the Bronze Age can be evidenced by the presence of round barrows recorded on higher ground near Chellaston and Alvaston. The Trent Valley functioned as a routeway between the Derbyshire uplands and the Lincolnshire Fen Edge cultures. In particular, the scheduled Swarkestone Lowes Barrow Cemetery and Field System (**NHLE1019060**) comprise a Bronze Age barrow cemetery and associated settlement evidence. The grouping of burial mounds alongside field systems reflects Bronze Age social organisation, funerary practice, and landscape management. This is the only known example of a Bronze Age barrow cemetery to survive in the Trent Valley.
- 8A.2.236 Several circular features (**MDR4312**) identified within the Study Area, from aerial photographs might represent Bronze Age burials, although one might be a Neolithic enclosure.
- 8A.2.237 The Iron Age is represented in the Study Area by evidence of dispersed farmsteads, enclosures, and trackways, reflecting a largely agrarian and pastoral landscape. The Corieltauvi tribe occupied the broader region, with possible tribal centres located near modern-day Leicester and Nottingham. It is also possible that Little Chester had a pre-Roman core, potentially serving as a local hub for pastoralists and traders. Archaeological investigations have revealed several Iron Age features within the Study Area, including a rectangular enclosure of possible Iron Age date (**MDR22836**), a pit alignment identified in 2015 (**MDR22956**), a ditch and gully interpreted as Iron Age in origin (**MDR22987**), and the site of a farmstead excavated in 2018 (**MDR23287**).
- 8A.2.238 Other assets of prehistoric date include a linear feature and a rectangular enclosure (**MDR4392**), pit alignments visible as cropmarks (**MDR14484**, **MDR14478**, **MDR14504**, and **MDR22986**) and round barrow cropmarks (**MDR14483** and **MDR14497**).
- 8A.2.239 Further, several cropmarks have also been dated to the prehistoric period, although their function is unclear (**MDR2584**, **MDR4303**, **MDR4313**, **MDR4330**, **MDR4333**, **MDR4367**, **MDR4404**, **MDR7691**, **MDR8089**, **MDR14481**, and **MDR14498**).
- 8A.2.240 A cropmark complex (**MDR4371**) has been partially excavated to produce evidence of Iron Age and Romano-British settlement within the Study Area.
- 8A.2.241 Five assets or finds locations, one worked flint (**PAS 269**) dating to the Neolithic period, flint knapping debitage (**PAS 270**) dating from the Palaeolithic to the Neolithic period, two glass beads dating from late Iron Age to modern date (**PAS 210** and **PAS 211**) and one gold stater coin (**PAS 146**) dating to the Late Iron Age period, are listed in the PAS.

### Roman (AD 43–410)

- 8A.2.242 There are 24 heritage assets or finds locations dated to the Roman period within the Study Area, including six recorded in the HER, five listed in the PAS and 13 LiDAR features.
- 8A.2.243 Derventio (modern-day Little Chester in Derby) was a small but strategically important Roman fort and vicus, located on the regional road network, possibly connecting with Rykniel Street. Although settlements like Aston-on-Trent and Weston were not urbanised in the Roman period, their proximity to Derventio suggests they may have supported the fort through agricultural production. The discovery of Roman coins, roof tiles, and pottery fragments in local fields and during modern development points to the presence of villa estates or rural farmsteads in the area, forming part of Derventio's agrarian hinterland.

- 8A.2.244 The Roman road from Little Chester to Sawley (**MDR7855**) runs within the draft Order Limits, marking a significant transport route across Derbyshire. The proposed route alignment within the Study Area largely coincides with modern roads and this is likely to adversely affect the survival of any below ground archaeological deposits. Cropmarks of boundary ditches, enclosures, and settlement evidence, including ring ditches and field boundaries (**MDR4313**, **MDR4368**, and **MDR14481**), indicate continued use and development of the prehistoric landscape during the Roman period. The Milepost on B5010, Elvaston (**MDR11156**), while early 19th century in date, stands along historic routeways influenced by Roman alignments, underscoring the long-term continuity of transport corridors through this area.
- 8A.2.245 During the Roman period, the River Trent functioned as a major transport artery, facilitating the movement of goods and people across the region. The local economy within the Study Area likely centred on arable farming, livestock rearing, and supplying produce to nearby military and administrative centres such as the garrison at Derventio (modern-day Little Chester, Derby). This relationship would have supported rural settlements and farmsteads in maintaining economic relevance within the broader provincial system. The Roman Road from Little Chester to Sawley (**MDR7855**), which passes through the draft Order Limits, further enhanced connectivity by linking riverside trade with inland Roman infrastructure, reinforcing the area's strategic and economic role in the wider landscape.
- 8A.2.246 Roman field systems and boundary ditches have been identified near Elvaston and Weston, pointing to intensive land management. Roman farmsteads (**MDR14702** and **MDR23288**) are located within the Study Area. Ditch and features of possible Roman date, west of Derby Road (**MDR22837**) have also been identified within the Study Area.
- 8A.2.247 There are five PAS finds in Zone 4. These include a Roman silver denarius (**PAS 5**), an incomplete cast copper alloy Roman trumpet brooch (**PAS 47**), a lead and iron steelyard weight (**PAS 150**), a fragment of a copper alloy Roman hinged brooch (**PAS 159**) and a copper alloy Roman dolphin brooch (**PAS 423**).

#### Early medieval (AD 410–1066)

- 8A.2.248 One heritage asset dating to the early medieval period has been found within the Study Area.
- 8A.2.249 A fragment of a cast copper alloy (**PAS 50**) is listed in the PAS.
- 8A.2.250 As Roman administration collapsed, local society reoriented into rural estates and kinship-based communities. The names Aston (*East tūn*) and Chellaston (*Ceolwulf's farm/estate*) are of Old English origin, indicating foundation during the early Saxon period (6th–7th centuries). From the 9th century, Derby and its hinterland came under the Danelaw, with Derby serving as one of the Five Boroughs. Scandinavian placenames such as nearby Thulston, Swarkestone, and Barrow-upon-Trent suggest Norse influence, perhaps through settlement or military control. Derby became a military and administrative centre, and surrounding villages supported this hub through tribute, food rents, and manpower.

## Medieval (AD 1066–1540)

- 8A.2.251 There are 164 non-designated heritage assets or finds locations relating to medieval activity within the Study Area. These include 76 features recorded within the HER, 23 finds listed in the PAS and 65 LiDAR features.
- 8A.2.252 The Domesday Book of 1086 records Aston as a substantial village, featuring a church, ploughlands, and meadows, indicative of a well-established agricultural economy. Chellaston, though a smaller settlement at the time, is described as having arable land and resources such as meadows and woodland, suggesting it was already supporting farming and possibly small-scale resource exploitation. Weston and Shardlow are also listed, each with manorial lords and assets including woodland and fisheries along the River Trent, highlighting the economic value of riparian resources in the region.
- 8A.2.253 Evidence of medieval manorial and settlement patterns within the Study Area is reflected in sites such as Arleston and Aston. The probable site of a medieval manor house associated with the Tokes family (**MDR4304**) in Aston was later replaced by a farmhouse constructed around 1800, which has since been demolished. Similarly, the site of the deserted medieval village (DMV) of Arleston (**MDR4296**), now reduced to a farmstead, illustrates broader patterns of rural contraction. Prior to the Norman Conquest, Arleston consisted of two manors held by Colgrim and Ravenkel; by 1086, recorded in the Domesday Book as '*Erlestune*' it formed part of the estates of Henry de Ferrers and included seven recorded villagers. Surviving ridge and furrow earthworks to the south of the DMV site, extending towards the Trent and Mersey Canal, offer further physical evidence of the village's former extent and agricultural economy.
- 8A.2.254 Medieval agrarian practices dominate the landscape within the draft Order Limits. Extensive ridge and furrow earthworks and associated field systems (**MDR5592, MDR5618, MDR5620, MDR5628, MDR7329, MDR7359, MDR8048, MDR8088, MDR8090, MDR8091, MDR8114, MDR8115, MDR14634, MDR14645, MDR14650, MDR14651, MDR14653, and MDR16521**) are visible on aerial photographs and in some surviving earthworks. Additional features include medieval fishponds (**MDR14446**) and boundary earthworks and banks (**MDR14500**), which illustrate the organisation of farmland and estate boundaries. These widespread features demonstrate the sustained importance of agriculture and land management in shaping the medieval Trent Valley landscape.
- 8A.2.255 The economic landscape was dominated by open-field agriculture, with extensive evidence of medieval ridge and furrow which survives in fields surrounding Aston and Chellaston. Medieval ridge and furrow has been recorded at multiple locations within the Study Area (**MDR4424, MDR4425, MDR5624, MDR8048, MDR8049, MDR8085, MDR8087, MDR8090, MDR8091, MDR8092, MDR8098, MDR12087, MDR14482, MDR14615, MDR14629, MDR14630, MDR14631, MDR14634, MDR14637, MDR14645, MDR14646, MDR14653, MDR14725, MDR14725, MDR14726, MDR16498, MDR16499, MDR16519, MDR16521, and MDR24014**). Field boundaries dated to the medieval period have also been identified within the Study Area (**MDR4332, MDR14445, MDR14500, and MDR16501**).
- 8A.2.256 As focal points of medieval community life, parish churches provide valuable insight into settlement continuity, local identity, and architectural development in the Study Area. Churches such as St. Mary and St. Hardulph in Aston and St. Peter's in Chellaston were originally constructed in the Norman period and later expanded during the 13th and 15th centuries, reflecting both population growth and evolving liturgical practices. Within the Study Area itself, two notable examples survive: the

Grade I listed Church of St Andrew (**NHLE1039117**) and the Grade II\* listed Parish Church of St James (**NHLE1088344**), both of which originated in the 12th century and underwent significant alterations and repairs in later centuries. These churches not only embody architectural continuity but also mark the enduring presence of religious and social structures across the medieval and post-medieval periods.

- 8A.2.257 The draft Order Limit extends to a small part of Twyford Conservation Area. This small rural village retains its historic core and street pattern, with traditional buildings and mature trees contributing to its character. Twyford reflects the persistence of medieval and post-medieval settlement patterns along the Trent Valley, demonstrating continuity from early agriculture through to the canal and railway periods.
- 8A.2.258 River crossings at Swarkestone and other nearby bridges played a key role in shaping the historical character and economy of the area, facilitating not only local trade and communication but also long-distance travel and pilgrimage routes. Swarkestone Bridge (**NHLE1007076**), one of the most significant surviving medieval bridges in England, is located just south east of the Study Area. First mentioned in 1204, it served as a vital crossing over the River Trent, linking settlements such as Aston and Weston with markets and religious centres further afield. The bridge was continually maintained and adapted through the medieval and post-medieval periods, reflecting its strategic and economic importance to the region. Its enduring presence also underscores the role of riverine infrastructure in supporting the development of the medieval landscape surrounding Aston, Chellaston, and the wider Trent Valley.
- 8A.2.259 There are 23 heritage assets or find locations dating to the medieval period, that have been identified in Zone 4. These include multiple coins (**PAS 3, PAS 4, PAS 6, PAS 51, PAS 64, PAS 152, and PAS 352**), three spindle whorls (**PAS 128, PAS 129 and PAS 130**), two tokens (**PAS 51 and PAS 149**), two buckles (**PAS 135 and PAS 136**), two late medieval jews harps (**PAS 138 and PAS 139**), one die (**PAS 144**), two weights (**PAS 153 and PAS 154**) and multiple body sherds from different vessels (**PAS 174, PAS 175, PAS 276 and PAS 277**).
- 8A.2.260 Additionally, evidence supporting the presence of ridge and furrow earthworks (**RSply\_ID\_001, RSply\_ID\_002, RSply\_ID\_004, RSply\_ID\_005, RSply\_ID\_007, RSply\_ID\_009, RSply\_ID\_010, RSply\_ID\_043, RSply\_ID\_044, RSply\_ID\_045, RSply\_ID\_051, RSply\_ID\_053, RSply\_ID\_083, RSply\_ID\_091, RSply\_ID\_092, RSply\_ID\_093, RSply\_ID\_094, RSply\_ID\_190, RSply\_ID\_192, RSply\_ID\_213, RSply\_ID\_235, RSply\_ID\_236, RSply\_ID\_238, RSply\_ID\_328, RSply\_ID\_341, RSply\_ID\_342, RSply\_ID\_343, RSply\_ID\_344, RSply\_ID\_366, RSply\_ID\_378, RSply\_ID\_379, RSply\_ID\_380, RSply\_ID\_382, RSply\_ID\_395, RSply\_ID\_399, RSply\_ID\_574, RSply\_ID\_577, and RSply\_ID\_584**) as well as a ditch (**RSply\_ID\_598**) dating to the medieval period within the Zone 4 Study Area is substantiated by LiDAR data.

## Post-medieval (AD 1540–1900)

- 8A.2.261 The post-medieval period in the Study Area for Zone 4 is represented by 230 non-designated heritage assets or find locations including 63 assets recorded in the HER and 32 listed in the PAS and 135 LiDAR features.
- 8A.2.262 This period saw increasing enclosure of common lands, especially around Chellaston and Weston, which reshaped both landscape and tenancy. Aston-on-Trent and Weston-on-Trent remained agrarian but developed gentrified landscapes, with villas and parks.
- 8A.2.263 The Grade I listed Grandstand, Cuttle and Gate, located 200 m north of Swarkestone Hall, Derby Road (**NHLE1088345**) comprises a bowling green, pavilion and enclosure, built in 1630. The Grandstand is part of a broader historical landscape that includes the ruins of Grade II\* listed Swarkestone Old Hall (**NHLE1096517**), remnants of 17th century gate piers, and the Swarkestone Bridge (**NHLE1007076**, a medieval structure dating back to the 13th century).
- 8A.2.264 The Grade II\* listed Old Hall Cottage (**NHLE1096517**) is a 16th century house located within the Study Area.
- 8A.2.265 Chellaston became nationally known for alabaster mining: the white gypsum used for ecclesiastical monuments across England. Several sites of gypsum mining and quarrying (**MDR10462**, **MDR10463**, and **MDR13192**) are in the Study Area.
- 8A.2.266 The River Trent, flowing through the Study Area, remained a navigable waterway, allowing barge traffic to continue supporting trade and transport. Although the Chellaston and Aston areas were not directly canalised until the late 18th century, they nonetheless benefited from their proximity to emerging transport infrastructure. The development of turnpike roads and canal systems, particularly the Trent and Mersey Canal, greatly improved regional connectivity and facilitated economic growth. Sections of canal within the Study Area (**MDR7892**, **MDR9103**, and **MDR10003**) were opened between 1777 and 1796. Although these were abandoned by 1964, their routes have since been repurposed as public bridleways, cycle paths, and footpaths, preserving their legacy within the landscape.
- 8A.2.267 The draft Order Limit crosses the Trent and Mersey Canal Conservation Area. Centred on the canal completed in 1777, this area preserves the historic character of one of England's key waterways. The canal, associated bridges, towpaths, and adjacent landscapes retain features of Georgian engineering and later industrial modifications, representing the transformative impact of the canal age on trade and settlement patterns.
- 8A.2.268 Within the draft Order Limits, Deep Dale Bridge, Trent and Mersey Canal (**NHLE1096882**) is an 18th century canal bridge; its ashlar stone construction and rounded arch exemplify Georgian engineering associated with the development of the canal network.
- 8A.2.269 Within the draft Order Limits, Milepost on B5010, Elvaston (**MDR11156**) is an early 19th century cast-iron milepost that marks the route of historic transport corridors, reflecting the expansion of turnpike and road systems influenced by earlier alignments.
- 8A.2.270 The area saw major transformation in the early 19th century with the rise of industry and infrastructure. The Nooning Lane Bridge (**NHLE1417622**), built between 1837 and 1839 by engineer Charles Vignoles for the Midland Counties Railway, is a rare surviving example of an early skew-arch stone railway bridge. It reflects the

ambitious transport expansion of the period, facilitating the flow of coal, goods, and people across the Midlands. In Draycott, the textile industry flourished, particularly at Draycott Mills, where a series of interconnected buildings including the Cotton Spinning Mill, Office Block, and remains of the Engine House (**NHLE1250046**) and the Cotton Processing and Storage Buildings (**NHLE1329376**) were constructed in the mid-19th century. These structures are built in red brick with fireproof floors and cast-iron framing, reflecting the industrial scale and innovation of the cotton and lace trades. The Draycott Mills Front Range (**NHLE1334835**) and related infrastructure supported a thriving textile economy during Derbyshire's transition into a major industrial landscape.

- 8A.2.271 The post-medieval and industrial periods are represented by significant transport and industrial infrastructure within the draft Order Limits. The Trent and Mersey Canal (**MDR7892**), completed in 1777, and its Deep Dale Bridge (**NHLE1096882**), alongside the Derby Canal branches (**MDR9103** and **MDR10003**), were critical for trade and passenger transport into the 20th century. Midland Counties Railway (**MDR12289**), the Midland Railway Derby–Melbourne branch (**MDR4623**), and the Birmingham–Derby Junction Railway (**MDR11690**) mark the railway expansion of the 19th century, while railway bridges (**MDR5578**) and clay and gypsum mines (**MDR7328** and **MDR10462**) demonstrate the industrial exploitation of local resources. The site of White Lodge (**MDR12557**), possibly a toll house, further emphasises 18th-century transport improvements. Together, these assets record the shift from an agrarian to an industrial economy within the draft Order Limits.
- 8A.2.272 Formal gardens and pleasure grounds, Grade II\* listed Elvaston Castle (**NHLE1000404**), laid out 1830-51 by William Barron for the 4th Earl of Harrington, is located within the Study Area.
- 8A.2.273 Alongside industrial development, the surrounding rural and canal-side areas experienced a boom in agricultural infrastructure and domestic architecture. Structures such as Cedars Farmhouse (**NHLE1087964**), Ambaston Grange Farmhouse (**NHLE1281577**), and Arleston House Farmhouse (**NHLE1096557**) showcase the Victorian adaptation of older vernacular forms of houses with modest architectural embellishments. These homes were often the centre of productive farms that benefited from improved transport links. The Trent and Mersey Canal, an older transport corridor, remained crucial throughout the century, with heritage features like Lowes Bridge (**NHLE1205689**), the Canal Toll House at Swarkestone Stop (**NHLE1334666**), and various mileposts (**NHLE1205708**) and canal-side outbuildings (**NHLE1205726**) still in place. These structures mark Derbyshire's continued reliance on waterways even as railways gained dominance. Small civic and ecclesiastical structures like the Churchyard Cross south of St. James' Church (**NHLE1205556**) and Kiosk Cottage (**NHLE1096403**) also illustrate the Victorian aesthetic applied to public and semi-public spaces.
- 8A.2.274 The Midland Railway, initially surveyed by George Stephenson in 1835 and opened in 1839 (**MDR4623**, **MDR11690**, and **MDR12289**), attracted a growing labour force to Derby through the establishment of its headquarters and extensive workshops. It later merged with the North Midland Railway in 1844 to form the Midland Railway Company, which played a central role in the region's industrial and transport development.
- 8A.2.275 Gothic Revival churches, Nonconformist chapels, and board schools were constructed throughout the 19th century as part of broader religious and educational reforms. Within the Study Area, examples include Draycott Methodist Church

(**MDR11815**) and the site of the former Wesleyan Methodist Chapel (**MDR11816**), along with other 19th century structures that reflect the social and architectural character of the period.

- 8A.2.276 There are 26AS finds that have been identified in Zone 4 from the post-medieval period. These include coins (**PAS 2**, **PAS 55**, **PAS 177**, and **PAS 350**), two medallions (**PAS 48** and **PAS 132**), various kinds of tokens (**PAS 49**, **PAS 51**, **PAS 131**, **PAS 149**, and **PAS 378**), two copper-alloy buttons (**PAS 133** and **PAS 134**), two copper alloy buckles, one complete and another comprising a frame (**PAS 135** and **PAS 137**), one lead-alloy spinning top toy (**PAS 143**), one complete copper-alloy spherical bell (**PAS 148**), one incomplete lead-alloy commemorative medal (**PAS 254**), one copper-alloy strap end (**PAS 351**), one copper-alloy die (**PAS 144**) and various kinds of vessel sherds (**PAS 271**, **PAS 272**, **PAS 273**, **PAS 274**, **PAS 275**, and **PAS 276**).
- 8A.2.277 Additionally, evidence supporting the presence of ridge and furrow earthworks (**RSply\_ID\_006**, **RSply\_ID\_017**, **RSply\_ID\_021**, **RSply\_ID\_046**, **RSply\_ID\_050**, **RSply\_ID\_078**, **RSply\_ID\_079**, **RSply\_ID\_080**, **RSply\_ID\_081**, **RSply\_ID\_082**, **RSply\_ID\_084**, **RSply\_ID\_086**, **RSply\_ID\_087**, **RSply\_ID\_088**, **RSply\_ID\_089**, **RSply\_ID\_091**, **RSply\_ID\_095**, **RSply\_ID\_096**, **RSply\_ID\_097**, and **RSply\_ID\_098**), ditches (**RSply\_ID\_008**, **RSply\_ID\_015**, **RSply\_ID\_016**, **RSply\_ID\_022**, **RSply\_ID\_023**, **RSply\_ID\_024**, **RSply\_ID\_025**, **RSply\_ID\_052**, **RSply\_ID\_055**, **RSply\_ID\_101**, **RSply\_ID\_200**, **RSply\_ID\_224**, and **RSply\_ID\_234**) and banks (**RSply\_ID\_013**, **RSply\_ID\_014**, **RSply\_ID\_018**, **RSply\_ID\_019**, **RSply\_ID\_020**, **RSply\_ID\_054**, **RSply\_ID\_099**, **RSply\_ID\_100**, **RSply\_ID\_102**, **RSply\_ID\_103**, **RSply\_ID\_104**, **RSply\_ID\_109**, **RSply\_ID\_110**, and **RSply\_ID\_114**) among others substantiated by LiDAR data.

#### Modern (AD 1901–present)

- 8A.2.278 There are 22 non-designated heritage assets from the modern period within the Study Area including 17 assets recorded in the HER, four assets or find locations listed in the PAS and one LiDAR feature.
- 8A.2.279 Modern heritage within the draft Order Limits includes Willington Power Station's cooling towers (**MDR14200**), a striking mid-20th century industrial landmark, and Weston Camp (Camp 634) prisoner of war camp (**MDR14463**), a World War II facility near St Mary's Church, Weston upon Trent. These features represent the 20th-century military and industrial heritage that reshaped the post-war landscape of Zone 4.
- 8A.2.280 During the Second World War, the rural landscapes south of Derby, including areas around Stenson Junction and the Trent Valley, became integral to Britain's home-front defence network. A World War II bombing decoy site (**MDR14439**), identified from 1943 aerial photography, used simulated fires and lights to divert German bombers from strategic targets like the Rolls-Royce aero-engine works and railway lines in Derby.
- 8A.2.281 East of Stenson Junction, the remains of a concrete pillbox (**MDR13322**) still stand as a relic of the anti-invasion defences designed to protect transport corridors. Nearby, a searchlight battery (**MDR14440**) formed part of the Derby Gun Defended Area, working to illuminate enemy aircraft for anti-aircraft fire. Though many of these structures were abandoned or dismantled after the war, their traces in the landscape offer a powerful reminder of the region's hidden wartime role and its transformation from peaceful farmland into a frontline of national defence.

8A.2.282 By the 20th century, many of the larger industrial buildings underwent significant changes in function. The Draycott Mills complex, for instance, transitioned from cotton-spinning to lace production and eventually light engineering, a testament to the region's ability to adapt industrial heritage for changing economic needs. Despite this, architectural integrity was often preserved. The Nooning Lane Bridge (**NHLE1417622**) remains almost untouched, with the exception of a parapet extension in the 1990s, symbolising the value placed on historical continuity. In surrounding villages, former farm buildings like the Stable Block at Crewe and Harpur Arms (**NHLE1088347**) and houses such as The Green Man (**NHLE1096519**) and The Grange (**1096520**) have been retained and listed for their historical and architectural merit. The Old School House (**NHLE1096518**) and various walls, gates, and outbuildings contribute to a sense of continuity and preserved rural character. Today, these structures serve not only as markers of their time but as integral elements of a landscape consciously protecting its layered past.

#### Undated

8A.2.283 A scheduled settlement site (**NHLE1007024**) is shown as cropmarks on aerial photographs but remains undated. Other undated assets are of ridge and furrow (**MDR5592, MDR5616, MDR5617, MDR5623, MDR5625, MDR5628, MDR7359, MDR8072, MDR8072, MDR8115, MDR8269, MDR8292, MDR10666, MDR14650, MDR14651, and MDR14652**).

8A.2.284 One undated lead-alloy gaming die (**PAS 349**) has been recorded from Zone 4.

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National Grid plc  
National Grid House,  
Warwick Technology Park,  
Gallows Hill, Warwick.  
CV34 6DA United Kingdom

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