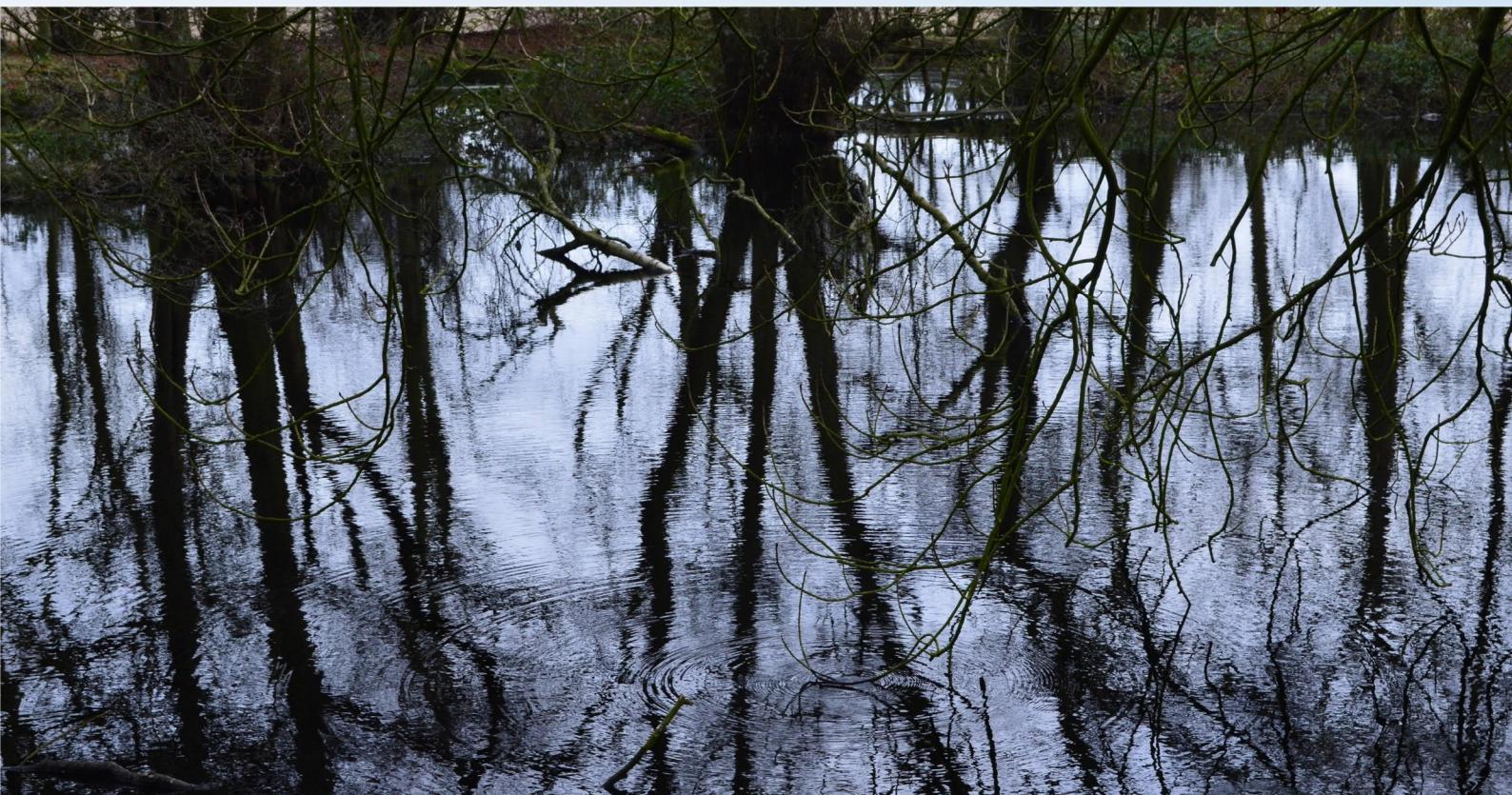




Omega St Helens / T.J. Morris Limited

OMEGA ZONE 8, ST. HELENS

Archaeological Landscape Survey Report





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Archaeological Landscape Survey Report

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CONTENTS

1	INTRODUCTION	1
1.2	SITE LOCATION	1
1.3	GEOLOGY	1
1.4	TOPOGRAPHY	1
1.5	LAND USE	1
1.6	AIMS AND OBJECTIVES	1
2	METHODOLOGY	3
3	SITE BACKGROUND	4
4	RESULTS	6
4.1	INTRODUCTION	6
4.2	DITCH (WSP001) AND POND (WPS002)	6
4.3	DITCH (WSP003)	7
4.4	UNNAMED COPSE (WSP004) AND DITCH (WSP005)	8
4.5	BIG WOOD BELT (WSP006) AND ASSOCIATED FEATURES (WSP007, WSP008, WSP009, WSP010, WSP011)	8
4.6	UNNAMED COPSE (WSP012) AND ASSOCIATED FEATURES (WSP013, WSP014, WSP015, WSP016)	10
4.7	BOOTH'S WOOD (WSP017) AND ASSOCIATED FEATURES (WSP018, WSP019, WSP020, WSP021, WSP022, WSP023, WSP024, WSP025, WSP026)	12
4.8	DUCK WOOD (FORMALLY LOWER PARK PLANTATION) (WSP027) AND ASSOCIATED FEATURES (WSP028, WSP029)	16
4.9	PLAIN PLANTATION (WSP030) AND ASSOCIATED FEATURES (WSP031, WSP032)	17
4.10	DITCH WSP033	19
5	DISCUSSION AND CONCLUSIONS	20

FIGURES

Plate 1 - Ditch WSP001, looking west-north-west	6
Plate 2 - Pond WSP002, looking east-south-east	7
Plate 3 - Ditch WSP003, looking north-north-east	7
Plate 4 - Ditch WSP008, looking south-south-west	9
Plate 5 - Ditch WSP011, looking south-south-west	10
Plate 6 - Possible coppiced tree	11
Plate 7 - Low bank WSP013, looking south-east	11
Plate 8 - Ditch WSP016, looking south-east towards ditch intersection	12
Plate 9 – Drain WSP018, looking south-east	13
Plate 10 - Ditch WSP019, looking north-west	13
Plate 11 - Ditch WSP020 and bank WSP023, looking south-south-west	14
Plate 12 - Stonework WSP026, looking west	15
Plate 13 - Stonework WSP026, looking west-south-west	15
Plate 14 - Duck Wood (WSP027) floor with rhododendron stands to the rear, looking south-west	16
Plate 15 – Pond WSP028 in Duck Wood, looking east-north-east	17
Plate 16 - Drain WSP031, looking north-north-west	18
Plate 17 - Ditch WSP032, looking north	19

APPENDICES

APPENDIX A

REFERENCES

APPENDIX B

FIGURES

APPENDIX C

GAZETTEER

1 INTRODUCTION

- 1.1.1. WSP UK Ltd. (WSP) was instructed by Omega St. Helens / T.J. Morris Limited to undertake a Level 2 Archaeological Landscape Survey to support the proposed westward expansion of the Omega Business Park into Zone 8 (hereafter known as the ‘Proposed Development’).
- 1.1.2. The Proposed Development comprises the following:
 - Full Planning Permission for the erection of a B8 logistics warehouse, with ancillary offices, associate car parking, infrastructure and landscaping; and
 - Outline Planning Permission for Manufacturing (B2) and Logistics (B8) development with ancillary offices and associated access infrastructure works (detailed matters of appearance, landscaping, layout and scale are reserved for subsequent approval).

1.2 SITE LOCATION

- 1.2.1. The Proposed Development is located on agricultural land to the west of the existing Omega Business Park, approximately 2 km west of the M62 Junction 8 at its centre point (hereafter known as the ‘application site’) (**Figure 1**). The application site is approximately 1.5km to the north-east of Bold Heath, Merseyside. The nearest towns are St. Helens, Merseyside (c. 5.5km north-west), and Warrington, Cheshire (c. 5.2km south-east).
- 1.2.2. The application site covers approximately 75 hectares of land and is flanked by open, arable fields and wooded plantations to the south and west, the M62 to the north and Omega Business Park and Lingley Mere Business Park to the east. The Proposed Development is centred at a National Grid Reference (NGR) SJ 55146 90396.

1.3 GEOLOGY

- 1.3.1. Available information derived from the British Geological Society shows that the bedrock underlying the application site comprises Chester Formation (sandstone, pebble and gravel), whilst the overlying superficial deposit comprises Devensian glacial till.

1.4 TOPOGRAPHY

- 1.4.1. The application site lies on a relatively flat plain, sloping gently from 29m above Ordnance Datum (aOD) in the north-west to 22m aOD in the south-east.

1.5 LAND USE

- 1.5.1. The land within the application site is currently arable in nature. The area is subdivided by hedgerows, which are often associated with ditches, and flowing drains are also present. At the time of the landscape survey, the land was generally under stubble following last year’s harvest.

1.6 AIMS AND OBJECTIVES

- 1.6.1. The aim of the Level 2 Archaeological Landscape Survey was to clarify the presence, nature, date and extent of any earthwork remains that might be present within the application site. This is for the purposes of informing an appropriate mitigation strategy for any significant earthworks or associated archaeological remains.



- 1.6.2. The objective of a Level 2 Archaeological Landscape Survey, as defined by Historic England (2017), is that the record '*provides a basic descriptive and interpretive record of an archaeological monument or landscape, as a result of field investigation. It is both metrically accurate and analytical, depicting the real landscape context of the archaeological features. The examination of the site will have produced an analysis of its development and use, and the record will include the conclusions reached, but it will not discuss in detail the evidence on which this analysis is based.*'

2 METHODOLOGY

- 2.1.1. A detailed methodology can be found in the Written Scheme of Investigation, which was produced by WSP in January 2020 (document reference number: 70060349-WSI) and approved by Merseyside Environmental Advisory Service. The WSI identified the areas of the application site to be surveyed and these are shown on **Figure 2**.
- 2.1.2. The Archaeological Landscape Survey was undertaken on 3 February 2020 by two suitably qualified members of the WSP Cultural Heritage and Archaeology team. Merseyside Environmental Advisory Service did not monitor this work but were consulted prior to the survey.
- 2.1.3. The work was undertaken in line with Historic England's Understanding the Archaeology of Landscapes, Historic England's Management of Research Project in the Historic Environment and the Chartered Institute for Archaeologists Code of Conduct. The work was undertaken using GPS equipment and a DSLR camera.

3 SITE BACKGROUND

- 3.1.1. WSP has previously undertaken a Historic Environment Desk-Based Assessment, submitted in support of the planning application. The assessment utilised a 1km study area for the identification of designated and non-designated heritage assets to establish the archaeological context of the Proposed Development. A wider 2km study area was applied for the setting assessment of designated assets.
- 3.1.2. The Historic Environment Desk-Based Assessment identified 57 heritage assets within the 2km study area. Of these, 15 are statutorily designated and comprise five Scheduled Monuments and ten Grade II Listed Buildings and structures, all located outside of the application site. The nearest designated asset to the Proposed Development is the site of Old Bold Hall moated site (Scheduled Monument 1010703), located c.300m to the west.
- 3.1.3. Four non-designated assets lie within the application site and comprise the site of the Medieval and Post-Medieval park at Old Bold Hall and Bold Hall (MME8654), Booth's Wood (possible ancient woodland¹; WSP017), the site of 'Big Dam', shown on the 1849 and successive Ordnance Survey (OS) maps and an area of ridge and furrow identified from the National Mapping Programme (NHL1605040). The assets date from the Medieval to Post-Medieval periods and comprise above and below-ground archaeological remains.
- 3.1.4. The Historic Environment Desk-Based Assessment concluded that activities associated with the construction of the Proposed Development have the potential to adversely impact the setting of the Old Bold Hall moated site, Bold (SM1010703), the Farmhouse at former Bold Hall Estate (LB1031890) and Farm Outbuilding, formerly Stables, at former Bold Hall Estate (LB1031889). The same assets were also considered to be at risk of adverse impacts on their setting during the operation of the Proposed Development.
- 3.1.5. Construction of the Proposed Development has the potential to have an adverse physical impact on the following non-designated assets: the Medieval and Post-Medieval park at Old Bold Hall and Bold Hall (MME8654), Booth's Wood (possible ancient woodland; WSP017), the site of the 'Big Dam' and the area of former ridge and furrow (NHL1605040).
- 3.1.6. Much of the land within the application site previously fell within Bold Park. This was an area of formally laid-out parkland belonging to the Bold Estate. Bold Hall was designed and erected by Italian architect Giacomo Leoni in about 1732 at the behest of Peter Bold (c. 1705-1762), a Tory politician who sat in the House of Commons between 1727 and 1761.

¹ Booth's Wood is interpreted as ancient woodland, based on the definition of ancient woodland contained within Rackham (1990). However, Booth's Wood is not designated as ancient woodland.

- 3.1.7. The First Edition OS Map (published 1849) shows the application site as containing several pockets of woodland and plantations including Plain Plantation towards its northern limit; Johnson's Plantation is located centrally and Lower Park
- 3.1.8. Plantation to the south-west (**Figure 3**). Booth's Wood lies to the immediate west of the application site and two trackway routes run through the application site. The route to the west is labelled as Ladies Walk and it links Bold Hall to the north with Bold Hall moated site and the 'New Stables' to the south. The moated site lies directly to the west of the application site. The second route passes through the application site north/south and links Bold Hall to the north with South Lodge on the A57 to the south. The majority of the application site falls within an area defined as Front Park; a subdivision of the larger Bold Park (the parkland of Bold Hall). A watercourse is shown to the run through the application site to the east of the Lower Park Plantation.
- 3.1.9. The 1908 OS Map shows contraction of some of the patches of woodland and Front Park and Bold Park are no longer defined with the land now enclosed. Plain Plantation and Booth's Wood are still present, whilst Johnson's Plantation has been divided in two with the northern portion labelled Big Wood Belt. Lower Park Plantation has been renamed South Park Plantation. Ladies Walk and the route to the A57 are still recorded.
- 3.1.10. The 1928 OS map indicates South Park Plantation has been renamed Duck Wood. Very little change is recorded on subsequent mapping and modern OS mapping still records Plain Plantation, Booth's Wood, Duck Wood and the two north/south routes, both of which now bridge the M62. Big Wood Belt is no longer labelled.

4 RESULTS

4.1 INTRODUCTION

- 4.1.1. The application site was accessed via an internal road from Skyline Drive. The surveyors took an anticlockwise route around the application site and the assessed boundaries and features were numbered as they were encountered (WSP001 – WSP033). In total, 33 sites were identified comprising ditches, earth banks, ponds and a stone structure (a complete list of the sites identified can be found in **Appendix C**).

4.2 DITCH (WSP001) AND POND (WPS002)

- 4.2.1. WSP001 is a linear east-south-east/west-north-west aligned boundary ditch that incorporates a small pond (WPS002). WSP001 varied in width from approximately 4m at its east-south-east limit to approximately 8m towards its west-north-west end. Standing water was observed in locations in the base of the feature. WSP001 was overgrown with reeds and scrub indicating it had not been maintained for some time (**Plate 1, Figure 4a**). There was no evidence of a flanking bank on either side indicating any upcast material derived from its excavation had likely been incorporated into the ploughed soil.

Plate 1 - Ditch WSP001, looking west-north-west



- 4.2.2. WSP002 is a small pond, one of several such features within the application site (**Plate 2, Figure 4a**). The feature was defined by firm, grassed, steep banks and was surrounded by scrub and some mature trees. There are numerous field ponds in the local landscape and the Landscape Character Assessment for St. Helens (Land Use Consultants 2006; 24) states they were largely created for agricultural practice. Both WSP001 and WSP002 are apparent on the OS First Edition map published in 1849, although WSP002 is illustrated as two discrete bodies of water.

Plate 2 - Pond WSP002, looking east-south-east



Plate 3 - Ditch WSP003, looking north-north-east



4.3 DITCH (WSP003)

- 4.3.1. At its west-north-west limit, WSP001 intersected with boundary ditch WSP003. WSP003 was approximately 2m to 2.5m in width at ground level and had steep, grassed sides. Standing water

was observed in the base of the feature over much of its length. WSP003 was overgrown with scrub indicating it had not been maintained for some time (**Plate 3, Figure 4a**). WSP003 is apparent on the 1849 OS map.

4.4 UNNAMED COPSE (WSP004) AND DITCH (WSP005)

- 4.4.1. Unnamed copse WSP004 was the remains of a now contracted copse of trees identified on the 1849 OS First Edition map (**Figure 4a**). WSP004 was heavily overgrown with mature trees interspersed with thick scrub and bramble; no extant archaeological remains were observed.
- 4.4.2. A west-north-west/east-south-east aligned ditch ran through copse WSP004 and fed into a pond to the east-south-east. The ditch was heavily overgrown but appeared to have moderately steep sides and be approximately 2m wide at ground level. Several pockets of standing water were observed.

4.5 BIG WOOD BELT (WSP006) AND ASSOCIATED FEATURES (WSP007, WSP008, WSP009, WSP010, WSP011)

- 4.5.1. WSP006 was the remains of a copse much reduced in size from what was identified on the 1849 OS map as Johnson's Plantation and on the later 1894 OS map as Big Wood Belt (**Figure 4b**). Within the copse was a moderately large pond (WSP007) fed by two drainage ditches (WSP008 and WSP009). The eastern flank of the copse was defined by a largely silted up ditch (WSP010).
- 4.5.2. Due to the time of year, there was only low undergrowth within WSP004 and so it was possible to search the copse for extant earthworks and signs of arboreal management. In the event, two drainage ditches (WSP006 and WSP007) were identified feeding into the pond (WSP005) and one tree showed signs of pollarding.

Plate 4 - Ditch WSP008, looking south-south-west



- 4.5.3. Ditch WSP008 ran south-south-west from the northern flank of the copse and fed into the pond (WSP007) (**Plate 4, Figure 4b**). It had shallow sides and was approximately 1.4m in width at ground level. WSP008 was moderately overgrown and contained standing water in places. Ditch WSP009 ran west-north-west from the eastern flank of the copse and also fed into the pond. WSP009 had similar attributes to WSP008.
- 4.5.4. The copse was dominated by beech trees with some silver birch and other unidentified species. The trees appeared quite thinned out, but no stumps were identified although dead, fallen trees were noted. There was no conclusive evidence of arboreal management, however, one beech tree, which can be seen right of centre in **Plate 4**, may potentially have been pollarded.
- 4.5.5. Ditch WSP010 defined the eastern flank of the copse (**Figure 4b**). It survived as a shallow feature that appeared not to have been maintained for some time. At its south-south-eastern limit, WSP010 fed into a more substantial boundary (WSP011). Ditch WSP011 ran southwards from that point and linked Big Wood Belt to an unnamed copse (WSP012) to the south (**Plate 5**).

Plate 5 - Ditch WSP011, looking south-south-west



- 4.5.6. Ditch WSP011 was approximately 4m in width at ground level. It contained standing water in places and was heavily overgrown indicating it had not been maintained for some years. WSP011 is apparent on the 1849 OS First Edition map.

4.6 UNNAMED COPSE (WSP012) AND ASSOCIATED FEATURES (WSP013, WSP014, WSP015, WSP016)

- 4.6.1. The unnamed copse (WSP012) appeared as it does on the 1894 OS map having only contracted superficially from how it appeared on the First Edition of 1849 (**Figure 4b**). As with Big Wood Belt, WSP012 appeared to be thinned out to a degree with beech and silver birch being the dominant species. Tree stumps were noted as were fallen dead trees, but these appeared to be the result of natural causes rather than direct arboreal management. One beech tree was identified that may have been coppiced (**Plate 6, Figure 4c**). A low bank (WSP013) was identified parallel to the south-west boundary of the copse (**Plate 7, Figure 4b**) suggesting this flank of the plantation may have once been defined by a ditch, but no evidence of such a feature was observed.

Plate 6 - Possible coppiced tree



Plate 7 - Low bank WSP013, looking south-east



4.6.2. Copse WSP012 also contained a pond (WSP014); it was fed by ditch WSP011, which ran from Big Wood Belt to the north, and by ditches WSP015 to the north-west and WSP016 to the south-east. Ditch WSP015 was dry at the time of the survey. It was ill-defined, partially overgrown with scrub

and had building rubble dumped within and around it. The bricks were unfrogged and had been there long enough for a thick layer of moss to grow.

- 4.6.3. WSP016 comprised ditches forming the north-eastern and eastern flanks of the copse. The ditches were up to approximately 5m in width at ground level and were largely overgrown. However, the intersection of the ditches was more open and held a small body of water (**Plate 8**).

Plate 8 - Ditch WSP016, looking south-east towards ditch intersection



4.7 BOOTH'S WOOD (WSP017) AND ASSOCIATED FEATURES (WSP018, WSP019, WSP020, WSP021, WSP022, WSP023, WSP024, WSP025, WSP026)

- 4.7.1. The majority of Booth's Wood falls outside the application site to the west; however, a small portion of the eastern corner of the plantation falls within the application site (**Figure 4b**). This section of Booth's Wood (WSP017) borders a free-flowing drainage ditch (WSP018) and contains two smaller ditches (WSP019 and WSP020), a pond (WSP021) and three earthen banks (WSP022 – WSP024). A fourth bank (WSP025) was observed within Booth's Wood to the west.
- 4.7.2. Drain WSP018 serves as the western limit of the application site. It ran south-east/north-west through Booth's Wood and then turned through 90° to the north-west. The direction of flow was north to south. Drain WSP018 was approximately 2m wide at ground level with almost vertical sides. The banks were overgrown with mature trees present, however, the channel was clear with free-flowing water (**Plate 9**). Booth's Wood is apparent on the 1849 OS First Edition with only minimal changes noted up to the present day.
- 4.7.3. Ditch WSP019 was aligned north-west/south-east and fed in to WSP018 close to the apex of the latter's bend. WSP019 was wider towards its south-eastern limit; approximately 3m in width at ground level, where it held standing water (**Plate 10**). It had overgrown moderately steep sides. The

function of WSP019 is unclear but it may be the continuation of the ditch identified as WSP015 in the unnamed copse (WSP012) to the south-east. A no longer extant field boundary feature linking the areas of woodland is apparent on 19th century OS mapping supporting this interpretation.

Plate 9 – Drain WSP018, looking south-east



Plate 10 - Ditch WSP019, looking north-west



- 4.7.4. Ditch WSP020 was curvilinear in plan and fed into WSP018 on its south-eastern flank. It was approximately 3m wide at ground level and had overgrown moderately steep sides. It was dry to the north-east but held standing water to the south-west (**Plate 11**).

Plate 11 - Ditch WSP020 and bank WSP023, looking south-south-west



- 4.7.5. Pond WSP021 is apparent on the 1849 OS First Edition map and on subsequent mapping. On the day of the survey the water level in the pond was very low and it is possible it had been drained into the nearby drain WSP018. The pond had steep sides and almost its entire area was heavily overgrown.
- 4.7.6. Pond WSP021 was almost entirely encompassed by a moderately low earthen bank (WSP022). This would appear to suggest the possibility that the pond has been maintained in the past with silting up material being dug out and deposited around the feature. The bank was heavily overgrown, indicating the pond has not been maintained for some time.
- 4.7.7. A second bank (WSP023) was identified between drain WSP018 to the north-west and the ditch WSP020 to the south-east. The bank was overgrown and supported moderately mature trees. The bank material was probably derived from the maintenance of drain WSP018 and the excavation of ditch WSP020. Ditch WSP020 was also flanked to the south-east by another bank (WSP024), also likely derived from the excavation of the ditch. The south-western limit of the bank can be seen on the left side of **Plate 11**.
- 4.7.8. A fourth earthen bank (WSP025) was identified to the north-west of drain WSP018 within Booth's Wood outside the application site. The full extent of this feature could not be ascertained, but it could be the remains of a medieval/post-medieval wood bank. Equally, it could be constructed of material derived from the maintenance of drain WSP018.
- 4.7.9. Directly to the south-west of its intersection with ditch WSP020, drain WSP018 turned through 90° to the south-east. It followed this alignment for approximately 300m before turning to the south-west

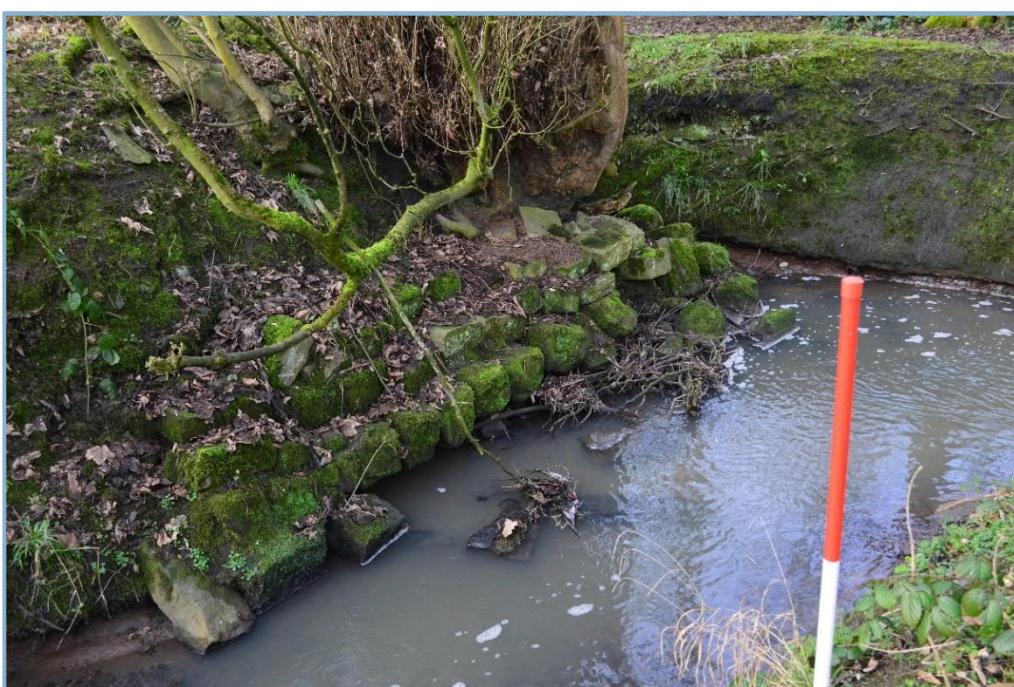
and then taking a meandering route generally southwards for approximately 260m to the southern limit of the application site.

- 4.7.10. At the point of its 90° turn to the south-east, drain WSP018 was joined by a drainage ditch from the south-west. Stonework (WSP026) was identified at this intersection that had likely been placed to reduce the effects of erosion during periods of rapid flow (**Plates 12 and 13**).

Plate 12 - Stonework WSP026, looking west



Plate 13 - Stonework WSP026, looking west-south-west



- 4.7.11. Drain WSP018 exhibited a near vertical sided profile along its full length on its route to the southern limit of the application site. The banks of the drain were overgrown and in places supported mature trees, however, the channel was largely clear. No other obvious modifications were identified.
- 4.7.12. The route of an estate road, which linked Bold Hall with South Lodge on the A57, is still partially in use today as a farm track. The point at which the track crossed WSP018 on a north-south alignment was inspected, but the crossing point consisted of a 1m diameter concrete pipe to channel the water with surrounding concrete blockwork. No elements of an earlier structure were visible.

4.8 DUCK WOOD (FORMALLY LOWER PARK PLANTATION) (WSP027) AND ASSOCIATED FEATURES (WSP028, WSP029)

- 4.8.1. Duck Wood (WSP027) was dominated by beech trees. None of the observed trees displayed any obvious signs of arboreal management, but the wood floor was much freer of dead wood and undergrowth than the previously investigated woods, suggesting some human activity. Approximately 50% of the wood floor was available to survey with the other half covered by impenetrable stands of rhododendron (**Plate 14**). The available ground surface within the wood was surveyed but no internal archaeological features were identified. Duck Wood was, however, defined to the east and south-east by a shallow, almost entirely silted up ditch (WSP029) (**Figure 4c**). Ditch WSP029 was a very slight feature that had obviously not been maintained for some time. No trace of a bank was seen.

Plate 14 - Duck Wood (WSP027) floor with rhododendron stands to the rear, looking south-west



- 4.8.2. Duck Wood contained one of the larger bodies of water within the application site (WSP028). Pond WSP028 had moderately shallow grassed banks (**Plate 15**). It was screened from the arable land to

the north and east by mature trees and contained small islands and a spit of dry land. It is possible that the wood's name is derived from the use of the pond by ducks and it is possible the islands and spit of land were deliberately constructed to provide safer nesting locations to increase hunting stocks. Both Duck Wood (labelled Lower Park Plantation) (WSP027) and the pond (WSP028) are apparent on the 1849 OS First Edition map and no changes of note are recorded on subsequent mapping up to the present day.

Plate 15 – Pond WSP028 in Duck Wood, looking east-north-east



4.9 PLAIN PLANTATION (WSP030) AND ASSOCIATED FEATURES (WSP031, WSP032)

- 4.9.1. Plain Plantation (WSP030) was located at the northern boundary of the application site, against the southern flank of the M62 (**Figure 4d**). The construction of the M62 removed the northern third of the plantation as recorded on the 1849 OS First Edition map, but the southern two-thirds appear to have remained unaltered up to the present day. Plain Plantation was defined by a substantial drain to the west and south-south-west (WSP031) and by a smaller ditch to the east (WSP032).
- 4.9.2. Plain Plantation was much more overgrown with bramble and rhododendron (**Plates 16 and 17**) than the previously surveyed locations and during a chance meeting with the landowner, the surveyors were told this was intentional to provide cover for game birds. Due to the thick undergrowth, it was possible to survey only a small portion of the copse; approximately 20%. No archaeological features internal to the plantation were identified.
- 4.9.3. Drain WSP031, to the west and south-south-west, had steep, overgrown sides and was approximately 4m wide at ground level. The base of the drain was clear and contained south-running water (**Plate 16**). Ditch WSP032, to the east, had moderately steep, heavily overgrown

sides and a wet, overgrown base. It was approximately 2.5m wide at ground level. Both the drain and the ditch had very slight internal banks likely derived from episodes of maintenance in the past.

- 4.9.4. At its east-south-eastern limit, drain WSP031 merged with ditch WSP032 and turned to the south. It then fed into a small stand of trees before becoming subterranean. The stand of trees marks the location of a small pond recorded on the 1849 OS First Edition map and subsequent mapping. Whilst some standing water was noted, the pond is now largely overgrown.

Plate 16 - Drain WSP031, looking north-north-west



Plate 17 - Ditch WSP032, looking north



4.10 DITCH WSP033

- 4.10.1. Boundary ditch WSP033 crossed the north-east corner of the application site on a north-west/south-east alignment (**Figure 4a**). It is labelled as a Municipal boundary on the 1849 OS First Edition map. WSP033 was overgrown with reeds, scrub and mature trees indicating it had not been maintained for some time. There was no evidence of a flanking bank on either side, indicating up cast material had likely been incorporated into the ploughed soil.

5 DISCUSSION AND CONCLUSIONS

- 5.1.1. Much of the land within the application site previously fell within Bold Park. This was an area of formally laid-out parkland belonging to the Bold Estate. Bold Hall was designed and erected by Italian architect Giacomo Leoni in about 1732 at the behest of Peter Bold (c. 1705-1762), a Tory politician who sat in the House of Commons between 1727 and 1761.
 - 5.1.2. The extant patches of woodland within Bold Park were considered to have the potential to have preserved evidence of earlier activity such as former boundaries, areas of ridge and furrow and woodland features such as wood banks.
 - 5.1.3. Several of the named wooded areas within the application site include the term 'Plantation' (Plain Plantation, Johnson's Plantation and Lower Park Plantation) and several others are recorded on the 1849 OS First Edition map within Bold Park as a whole. The use of the term 'Plantation' is often an indication that the wood is of recent origin (Rackham 1990; page 108), although the renaming of ancient woodland cannot be ruled out. However, based on the findings of the survey, it is likely that the wooded areas with the suffix Plantation within the application site were established as landscape features within Bold Park.
 - 5.1.4. With the exception of the low bank (WSP013) identified within the unnamed copse WSP012, no archaeological features other than drainage ditches were noted within wooded areas named as plantations (**Figures 4a – 4d**). The low bank WSP013 ran approximately parallel to the south-western edge of the copse and it is likely the copse was defined by a bank and ditch when it was created. The eastern and south-eastern limits of Duck Wood (formally Lower Park Plantation) were defined by a shallow ditch, as was the eastern limit of Plain Plantation, suggesting the likelihood that the limits of all the plantations within Bold Park were defined in a similar manner.
 - 5.1.5. The largest area of woodland within the locality is Booth's Wood, and a small proportion of it falls within the application site. Within landscapes with numerous areas of woodland, woods were often named after their owner or tenants (Rackham 1990; page 108). It is, therefore, possible that Booth's Wood existed prior to Bold Park being established (**Figure 3**) and represents an area of ancient woodland. The sinuous nature of the wood's boundary further suggests it may be ancient woodland. Booth's Wood is defined to the north-east and south-east by a moderately fast flowing drain (WSP018).
 - 5.1.6. The First Edition OS map shows drain WSP018 originating at Big Dam; a large body of water located in the 'West Park' section of Bold Park outside the application site. Drain WSP018 takes a generally north-west to south-east route through the landscape and in places forms the limit of the application site as well as passing through it. The origin of WSP018 is not clear. Its route contains two sharp 90° turns indicating that, if it is a natural watercourse, it has been redirected. Equally, WSP018 may have been created as a water feature within Bold Park and its staggered route may have been influenced by the presence of Booth's Wood.
 - 5.1.7. A small portion of Booth's Wood to the east of drain WSP018 falls within the application site. The ditches and banks located within this area of the wood are probably the result of works associated with the redirection and/or construction of drain WSP018. Likewise, the bank (WSP025) noted to the west of drain WSP018 is likely the result of such works.
 - 5.1.8. The heavily overgrown pond (WSP021) within this portion of Booth's Wood is one of several ponds in the application site and there are numerous others in the surrounding landscape. Such ponds are
-

a feature of the flat landscape within this locality, longside field ditches and drains that also exist in tandem with field ponds. Moreover, ponds are often highlighted in the landscape by the presence of small woodland copses (Land Use Consultants, 2006, page 22). Rackham (1995; page 347) states that this area of England has some 30 ponds per square mile; five times the national average. The interpretation of these features is problematic, without the presence of associated spoil heaps, which would only arise if the features were the remains of bell pit mines or quarrying.

- 5.1.9. The field ponds are perhaps former marl pits, although generally such features occur in places with alkaline subsurface deposits overlying chalk or limestone. However, marling can mean the practice of using any subsoil, different from the topsoil, as a fertilizer (Rackham 1995; page 371).
- 5.1.10. Many of the ponds illustrated on the 1849 First Edition OS map within Bold Park, particularly the Front Park area, have tree lines running between them (**Figure 3**). This suggests the possibility that post-medieval enclosure boundaries were removed during the creation of the parkland. However, the field ponds associated with the former boundaries have been retained as parkland features and in some cases incorporated into plantations.
- 5.1.11. In conclusion, there was no clear evidence of human activity within the application site prior to post-medieval enclosure and the development of Bold Park. The available OS mapping suggests some post-medieval enclosure boundaries were removed during the creation of Bold Park and it is likely these boundaries survive as archaeological remains within the application site.
- 5.1.12. Although not apparent on the ground, the area of ridge and furrow (NHL1605040) identified at the north-east corner of the application site suggests the possibility of medieval agricultural practice on site and, therefore, some of the field boundaries have the potential to have medieval origins. The wooded areas were searched for evidence of medieval activity (wood banks, ridge and furrow, field boundaries etc.) but none was found. Banks and ditches were identified in the portion of Booth's Wood within the application site, but these were considered to be the result of the construction/rerouting of the drain WSP018 rather than evidence of medieval activity.

Appendix A

REFERENCES





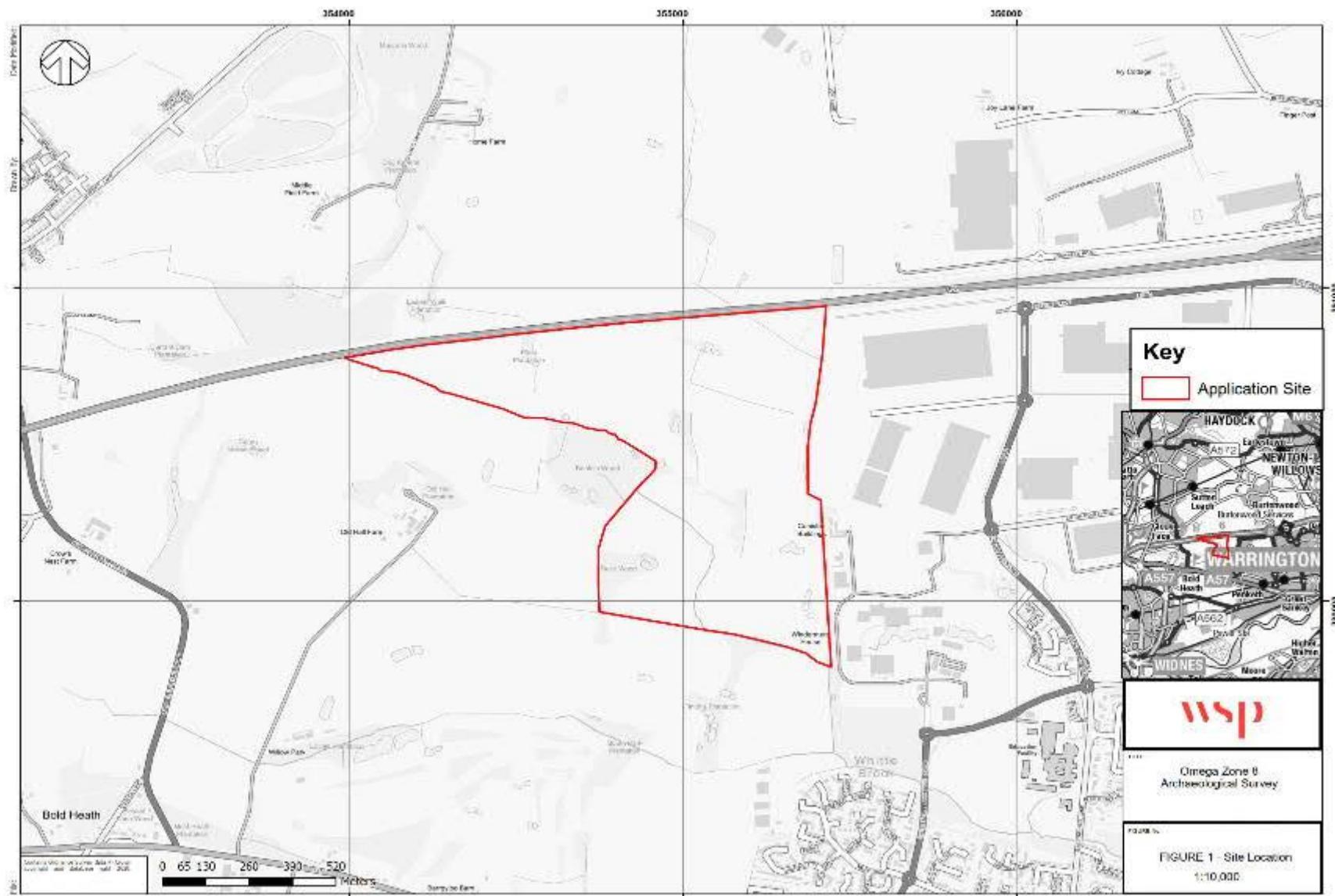
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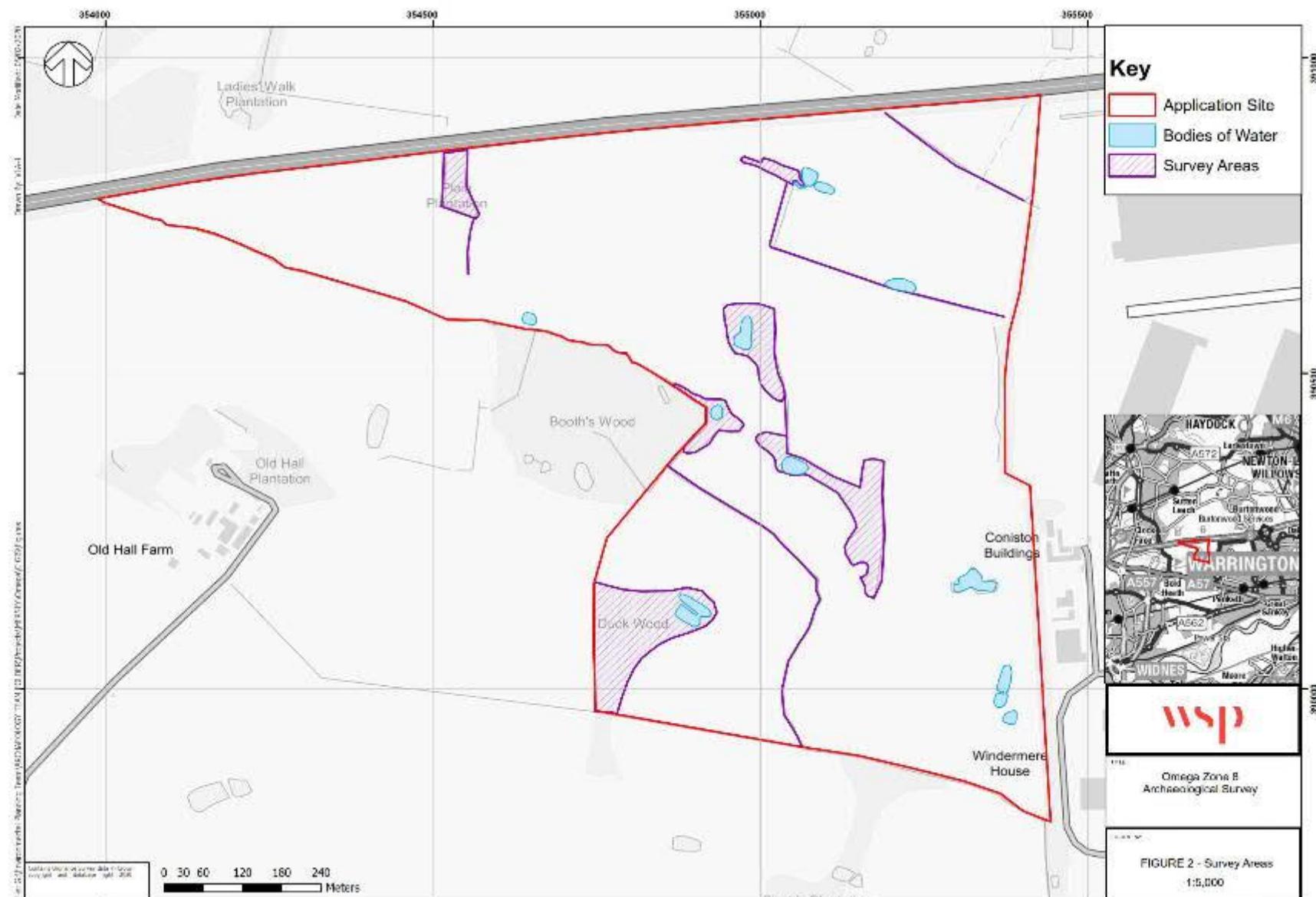
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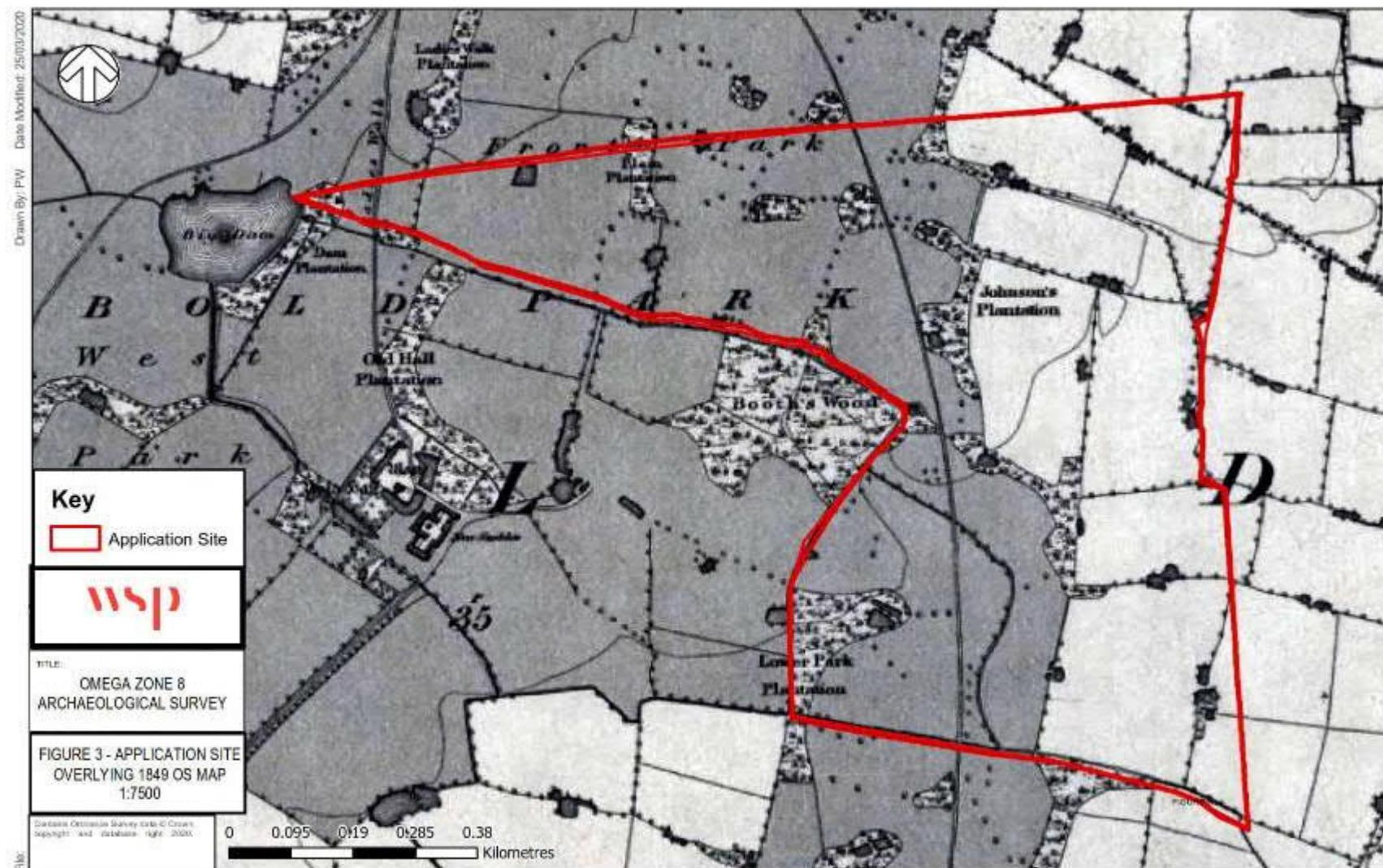
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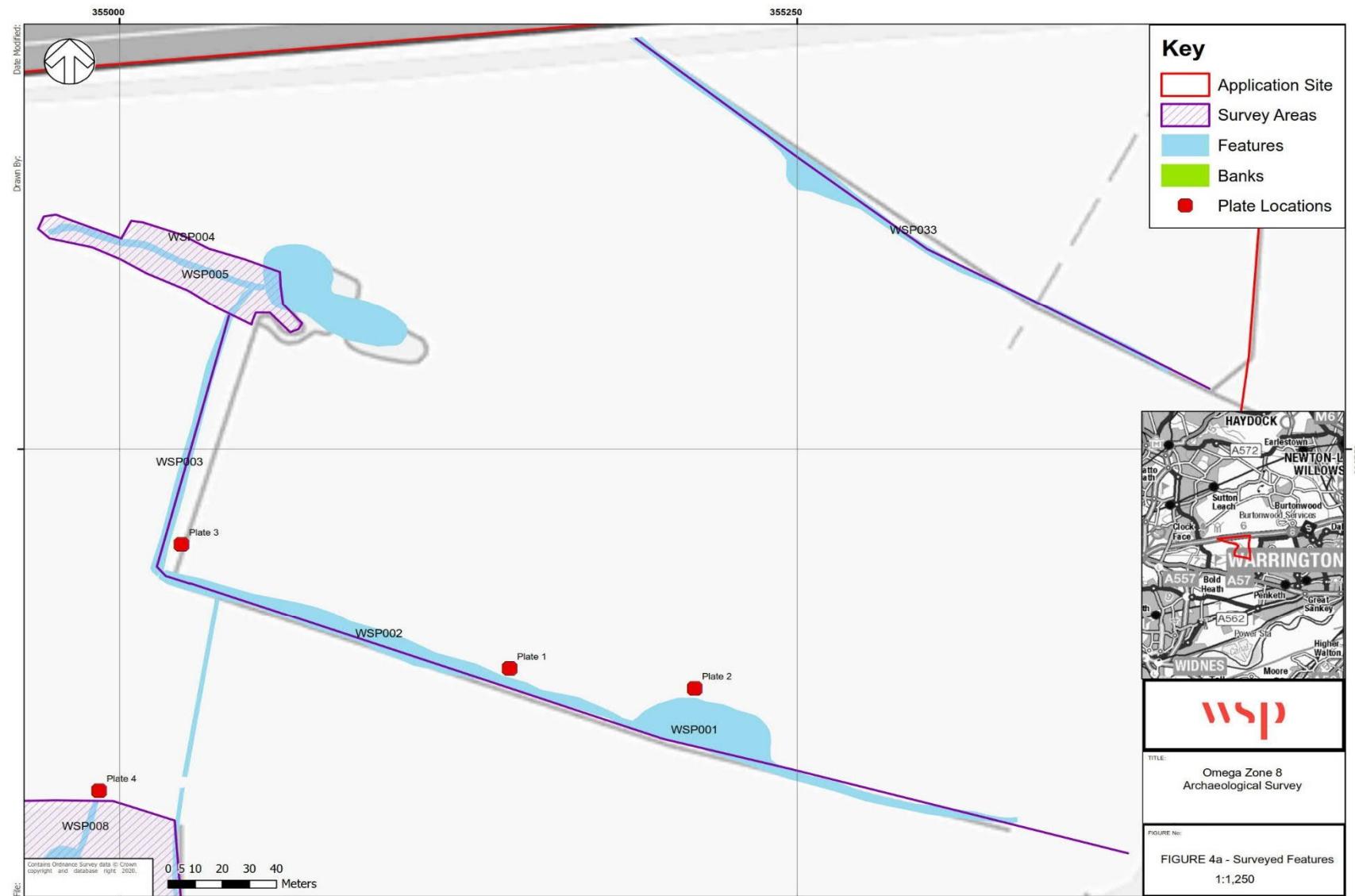
FIGURES

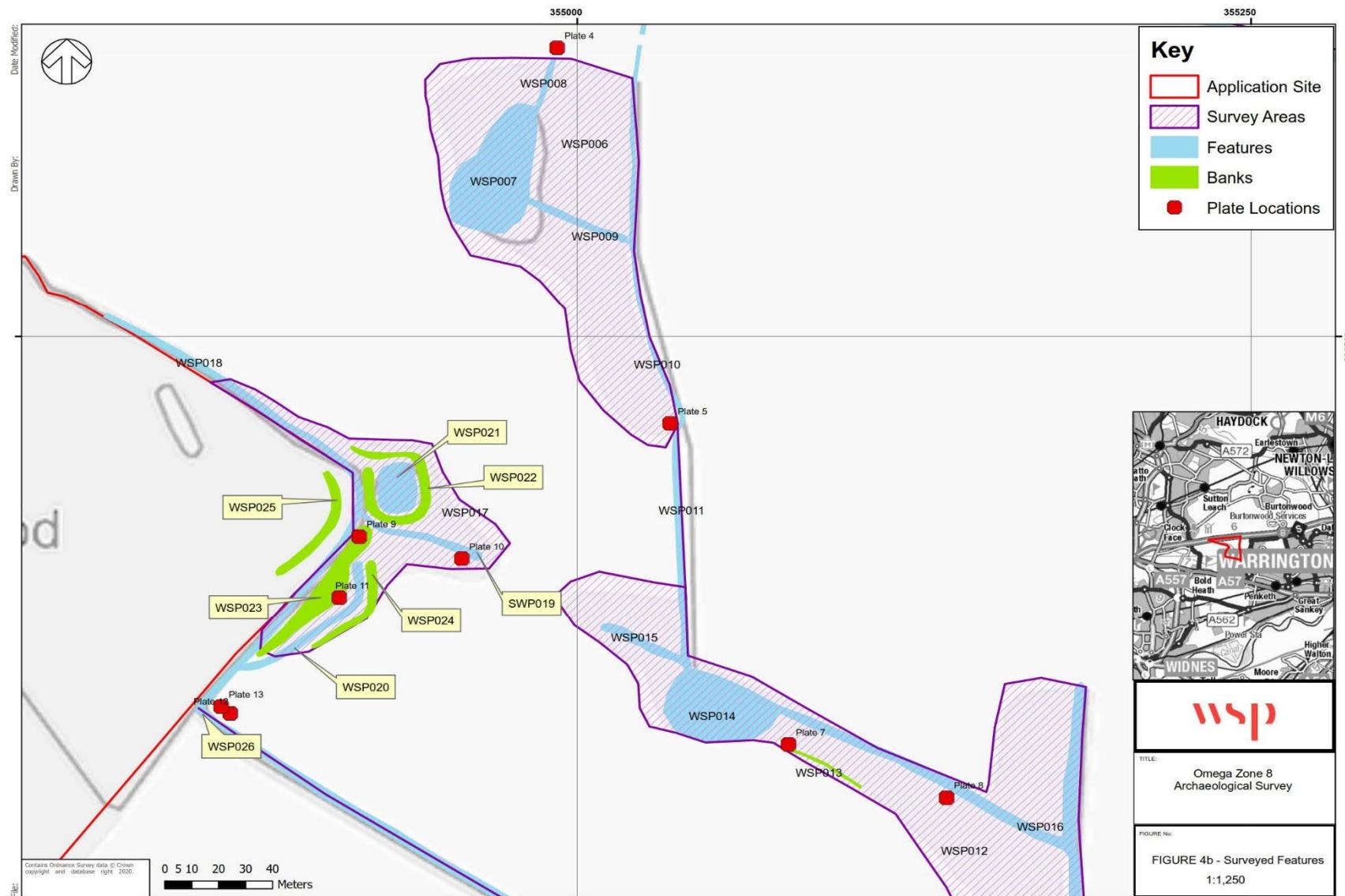


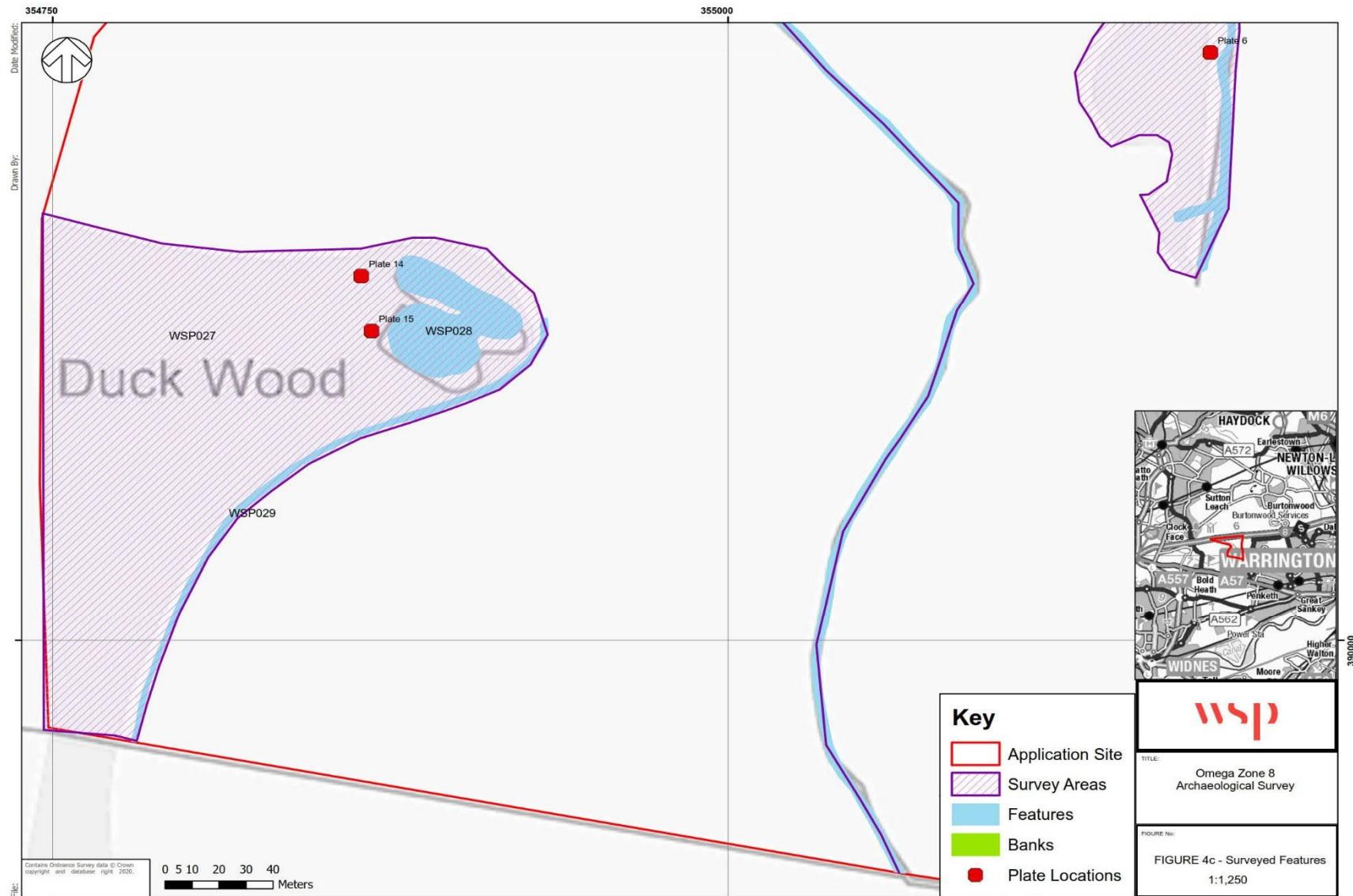


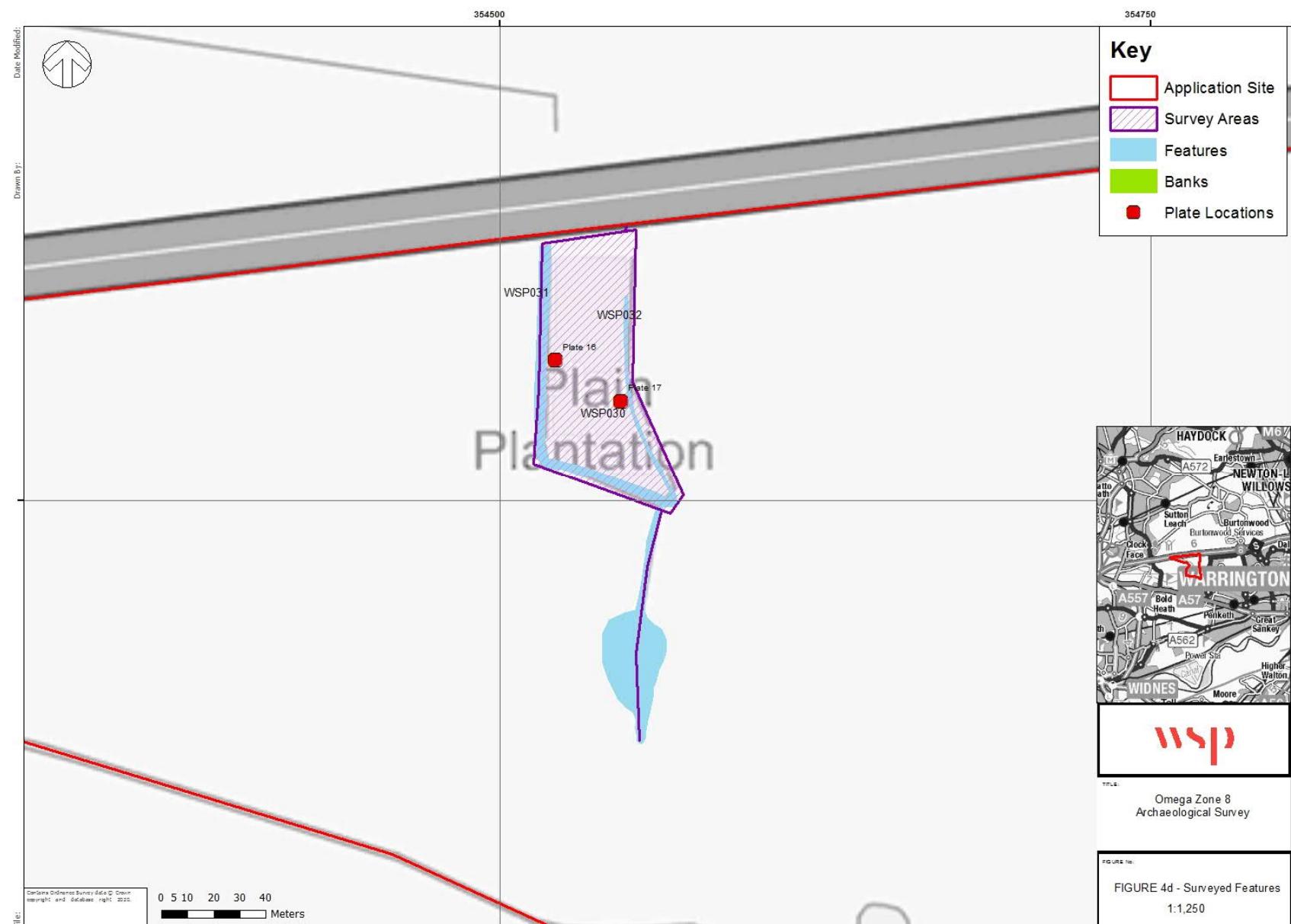












Appendix C

GAZETTEER





Asset	Description
WSP001	Figure 4a. Field boundary ditch. Apparent on 1849 First Edition OS map
WSP002	Figure 4a. Field pond. Apparent on 1849 OS map
WSP003	Figure 4a. Field boundary ditch. Apparent on 1849 OS map
WSP004	Figure 4a. Copse. Apparent on 1849 OS map but reduced
WSP005	Figure 4a. Ditch within copse WSP004. Not apparent on 1849 OS map
WSP006	Figure 4b. Copse. Apparent on 1849 OS map as Johnson's Plantation but reduced
WSP007	Figure 4b. Pond within copse WSP006. Apparent on 1849 OS map
WSP008	Figure 4b. Ditch feeding into pond WSP007. Not apparent on 1849 OS map
WSP009	Figure 4b. Ditch feeding into pond WSP007. Not apparent on 1849 OS map
WSP010	Figure 4b. Eastern boundary ditch of copse WSP006. Not apparent on 1849 OS map
WSP011	Figure 4b. Field boundary ditch linking copses WSP006 and WSP012. Not apparent on 1849 OS map
WSP012	Figure 4b. Copse. Apparent on 1849 OS map but unnamed. Slightly reduced
WSP013	Figure 4b. Short section of bank within copse WSP012. Not apparent on 1849 OS map
WSP014	Figure 4b. Pond within copse WSP012. Apparent on 1849 OS map
WSP015	Figure 4b. Ditch within copse WSP012. Not apparent on 1849 OS map
WSP016	Figures 4b. Ditch within copse WSP012. Not apparent on 1849 OS map
WSP017	Figure 4b. Copse. Eastern tip pf Booth's Wood. Apparent on 1849 OS map
WSP018	Figures 4b. Drain. Apparent on 1849 OS map. Likely canalised natural watercourse
WSP019	Figure 4b. Ditch within copse WSP017. Not apparent of 1849 OS map
WSP020	Figure 4b. Ditch within copse WSP017. Not apparent of 1849 OS map
WSP021	Figure 4b. Pond within copse WSP017. Apparent on 1849 OS map but now very overgrown
WSP022	Figure 4b. Bank around pond WSP021. Not apparent on 1849 OS map
WSP023	Figure 4b. Bank within copse WSP017. Not apparent on 1849 OS map
WSP024	Figure 4b. Bank within copse WSP017. Not apparent on 1849 OS map
WSP025	Figure 4b. Bank within Booth's Wood, outside Proposed Development. Not apparent on 1849 OS map



Asset	Description
WSP026	Figure 4b. Dry stone masonry on the bank of drain WSP018
WSP027	Figure 4c. Copse. Apparent as Lower Park Plantation on 1849 OS map. Now named Duck Wood
WSP028	Figure 4c. Pond within copse WSP027. Apparent on 1849 OS map
WSP029	Figure 4c. Shallow ditch defining eastern edge of copse WSP027. Not apparent on 1849 OS map
WSP030	Figure 4d. Plain plantation. Apparent on 1849 OS map. Now reduced by a third by the M62
WSP031	Figure 4d. Copse. Apparent on 1849 OS map as Plain Planation. Now reduced by over 50% by the M62
WSP032	Figure 4d. Shallow ditch defining eastern edge of copse WSP031. Not apparent on 1849 OS map
WSP033	Figure 4a. Large drain defining western and south-western edges of copse WSP031. Not apparent on 1849 OS map



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