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**M6 WIDENING : JUNCTIONS 16 - 20,
CHESHIRE**

CULTURAL HERITAGE

STAGE 3 ASSESSMENT REPORT

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**M6 WIDENING : JUNCTIONS 16 - 20,
CHESHIRE**

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STAGE 3 ASSESSMENT REPORT**

Revision Record

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December 1994	E Dennison	D Johnston	E Sharkey	1st Draft

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APPENDICES

- 1** **Effects and mitigation for known archaeological, architectural and historic sites**

1 SUMMARY

- 1.1 Non-intrusive fieldwork strategies conforming to the Department of Transport's (now the Highways Agency) Design Manual for Roads and Bridges Volume 11 (DMRB) stage 3 archaeological assessment (detailed evaluation works) were prepared for 23 sites or areas lying within the proposed widening corridor of the M6 motorway between junctions 16 and 20 in Cheshire. These strategies utilised different combinations of five techniques, namely fieldwalking, geophysical survey, earthwork survey, environmental sampling and trial trenching. Where appropriate, staged strategies using two or more techniques were used.
- 1.2 The Cultural Heritage (Archaeology) Volume 2 Specialist Report and the Stage 3 fieldwork completed to date shows that the proposals will have a direct impact on 39 known sites or areas of archaeological, architectural and/or historic importance and potential.
- 1.3 This report summarises the methodology and results of the Stage 3 fieldwork completed to date; it is envisaged that this report will be updated as fieldwork continues. The results of this work has, in some cases, allowed the mitigation measures outlined in the Cultural Heritage (Archaeology) Specialist Report to be down-graded. The results so far obtained allow an initial assessment of the effects of the scheme on the identified sites to be produced. Mitigation measures, including the completion of the Stage 3 works and other appropriate investigations to offset these effects, are also outlined.

2 INTRODUCTION

- 2.1 In August 1994, Anthony Walker and Partners (AWP) produced a Cultural Heritage (Archaeology) Volume 2 Specialist Report conforming to the requirements of the Department of Transport's Design Manual for Roads and Bridges, volume 11 "Environmental Assessment" (DMRB)¹ published in June 1993 (revised August 1994). This identified 138 sites of archaeological, architectural and/or historic interest within the study corridor defined for the M6 widening scheme. The report highlighted that the proposals would have an adverse impact on 39 sites (see figures 1.1 to 1.11) and that the potential impact of the scheme on a number of the archaeological sites or areas could not be assessed until further information had been gathered. Accordingly, a programme of DMRB Stage 3 detailed evaluation works was initiated.
- 2.2 On the basis of the results of the Volume 2 Specialist Report and the extent of the proposed construction corridor, fieldwork strategies were prepared for 23 sites or areas (see figures 2.1 to 2.11). These strategies used different combinations of five techniques, namely fieldwalking, geophysical survey, earthwork survey, environmental sampling and trial trenching; where appropriate, staged strategies using two or more techniques were used. Several of the areas were in multiple ownership and so were sub-divided for operational convenience.
- 2.3 By definition, archaeological fieldwalking is a non-intrusive technique which takes place in areas of ploughed or recently planted soil. To date, the various fieldwalking areas identified by the Volume 2 Specialist Report have not been in a suitable state of cultivation and so this element of the Stage 3 fieldwork programme has not yet been carried out. This work will be undertaken, as and when a crop window becomes available.
- 2.4 The methodologies and results of the non-intrusive fieldwork completed to date are summarised in this report. The results obtained so far have, in some cases, allowed the mitigation measures outlined in the Volume 2 Specialist Report to be modified. They have also allowed an initial assessment of the effects of the scheme on the identified sites to be produced. Mitigation measures, including the completion of the Stage 3 works and other appropriate archaeological investigations to offset these effects, are also outlined.
- 2.5 It should be noted that throughout this report, the term "site" refers to those sites identified and numbered in the Volume 2 Specialist Report, whereas the term "area" refers to the 23 areas of archaeological potential in which fieldwork has either taken place or is planned to take place.

3 GEOPHYSICAL SURVEY

3.1 Introduction

3.1.1 Following the recommendations in the Volume 2 Specialist Report, five areas were selected for a programme of geophysical survey (Areas 8, 10, 13, 14 and 18 on figures 2.1 to 2.11). Two of these areas were originally recommended only for trial trenching but it was felt that geophysical survey data had the potential to target the trial trenching and so reduce the amount of future work that might be required. Areas 10, 13 and 18 were sub-divided into their respective land parcels (Areas 10.1 and 10.2, 13.1 to 13.3, and 18.1 to 18.4).

3.1.2 The total area of geophysical survey was 6.19 hectares. Each area was to be surveyed in its entirety. The survey work took place in September 1994.

3.2 Methodology

3.2.1 The geophysical surveys were carried out using magnetometer survey, a technique which measures small differences (anomalies) in the earth's magnetic field caused by buried archaeological features. Unfortunately, the presence of large buried ferrous objects can cause very strong magnetic anomalies, which can obscure the weaker archaeological anomalies detected by this technique. In addition, it should be noted that certain types of small or non-linear archaeological features are very hard to detect by this technique and may therefore be present even where results are negative.

3.2.2 It was known that buried gas and oil pipelines, both live and disused, passed either through or near each of the survey areas. Nevertheless, it was felt that any positive survey results would be beneficial in enhancing the archaeological knowledge and targeting any future work. The extent of the magnetic disturbance was kept under review, and the strength of the response in Area 18.1 led to the abandonment of survey in Area 18.2. The area of survey in Area 18.4 was also substantially reduced for this reason.

3.2.3 The geophysical survey utilised a grid of 20m squares which was established over each of the survey areas. Each grid square was surveyed using traverses at 1m intervals, with a reading taken every 0.5m along each traverse, giving a total of 800 readings in each 20m grid square. The grids were laid out by AWP surveyors and were tied into the Ordnance Survey National Grid and other survey stations.

3.3 Summary of Results

Area 8 (south of Bostock House) (see figure 3)

- 3.3.1 Area 8 lay west of the M6 and south of Bostock House (NGR SJ773567 centred). The area allocated for survey was an irregularly-shaped block of land totalling 0.88 hectares. This area was surveyed in an attempt to determine the presence of any archaeological features associated with brick kiln field names identified by the Volume 2 Specialist Report (site 2/12).
- 3.3.2 The existence of buried pipelines meant that approximately 13% of the surveyed area was obscured. Nevertheless, a linear anomaly was recognised in the extreme north-west corner of the survey area, while two parallel linear anomalies crossed the central area on a north-west to south-east alignment (see figure 3). None of the recorded anomalies appeared to relate to the possible site of a post-medieval brick kiln and the straight linear anomalies are most likely to be old field boundaries, drains or tracks, of unknown date, although no such features are depicted on the various historic maps of the survey area.

Area 10 (north of Bostock House) (see figure 4)

- 3.3.3 Area 10 was divided into two survey areas, 10.1 (NGR SJ774570 centred) and 10.2 (NGR SJ774571 centred). The survey areas lay either side of the northern boundary of a field lying north of Bostock House and adjacent to the west side of the M6. Area 10.1 was an irregularly-shaped block of land totalling 0.26 hectares, while Area 10.2 was a 30m square (0.09 hectares). The Volume 2 Specialist Report had identified a possible course of King Street Roman road (site 2/13) passing through the northern part of Area 10 while to the south the site of a former medieval manorial complex had been recorded (site 2/14).
- 3.3.4 No significant geophysical anomalies were recorded in Area 10.2. In Area 10.1, a single tentative linear anomaly and three pit-like anomalies were recorded (see figure 4). While there is no clear indication that these features are of archaeological significance, the possibility remains that they were associated with one of the sites mentioned above.

Area 13 (south of Bridge 14)

- 3.3.5 Area 13 was divided into three survey areas, 13.1, 13.2 and 13.3. Areas 13.1 (NGR SJ777596 centred) and 13.2 (NGR SJ776597 centred) lay in two fields on the south side of the A533 and east of the M6, opposite Pear Tree Farm, while Area 13.3 lay south of the A533 and west of the M6 (NGR SJ775598 centred). The Volume 2 Specialist Report had identified a possible course of King Street Roman road passing through these areas (site 3/20).

- 3.3.6 The total area allocated for survey was approximately 0.85 hectares. However, access could not be gained into Area 13.3 and, given the distorted results obtained in the other two areas, the survey was abandoned. The total area of survey was therefore approximately 0.4 hectares.
- 3.3.7 Most of the surveyed area was obscured by pipelines, ferrous debris or other disturbance. No significant archaeological anomalies were recorded, but due to the extent of the disturbance their presence cannot be ruled out.

Area 14 (north of Bridge 16)

- 3.3.8 Area 14 lay on the west side of the M6, near Prism Ball Bank (NGR SJ774605 centred). The survey area of approximately 0.41 hectares was positioned to locate any features potentially associated with a post-medieval brick kiln field name identified by the Volume 2 Specialist Report (site 3/23).
- 3.3.9 Part of the surveyed area was obscured by a pipeline. Small ferrous disturbances were observed throughout the rest of the survey area, but no archaeological features were detected.

Area 18 (north and south of Bridge 24)

- 3.3.10 Area 18 was divided into four survey areas, 18.1 to 18.4. Area 18.1 was a long, irregularly-shaped strip adjacent to the east side of the M6 and south of Broad Lane, totalling approximately 1.76 hectares (NGR SJ748660 centred). Area 18.2 was a rectangular block on the east side of the M6 and north of Broad Lane, with an area of 0.8 hectares (NGR SJ746662 centred). Area 18.3 was a long, irregularly-shaped strip totalling 0.8 hectares, lying along to the south side of Broad Lane and west of the M6 (NGR SJ745661 centred). Area 18.4 was a strip along the west side of the M6, north of Broad Lane, and totalled approximately 0.34 hectares (NGR SJ745662 centred).
- 3.3.11 Area 18 was positioned in an attempt to locate any features associated with a group of post-medieval field-names, identified by the Volume 2 Specialist Report, which may indicate the position of an earlier saltworks (site 5/11).
- 3.3.12 The whole of Area 18.1 and large parts of Area 18.3 were obscured by pipelines. For this reason, the survey of Area 18.2 was abandoned and only a small sample of Area 18.4 was surveyed. The only anomaly of potential archaeological origin was a ditch in Area 18.3, which probably represents an old field boundary.

4 EARTHWORK AND TOPOGRAPHIC SURVEY

4.1 Introduction

4.1.1 The Volume 2 Specialist Report recommended that four sites should be the subject of a detailed earthwork or topographic survey (Areas 1, 11, 16 and 20 on figures 2.1 to 2.11). Two additional areas were added to the programme following design changes to the construction and landscaping proposals (Areas 2 and 19) while Area 9 was included following the identification of an earthwork platform during an initial site inspection. The total area finally allocated for earthwork survey was 15.67 hectares.

4.2 Methodology

4.2.1 The survey work was carried out using EDM total station optical equipment with data processed on CivilCad software. The position at ground level of all upstanding earthworks, buildings and other structures considered to be of archaeological, architectural or historic interest were recorded and the survey information was plotted at 1:500 scale. Sufficient background information was also collected to allow the survey area to be readily located through the use of field boundaries, buildings and other topographical features and the survey was integrated into the Ordnance Survey national grid and other survey stations. In all cases, the area of survey was confined to those fields directly within the proposed construction corridor.

4.2.2 The earthwork surveys were carried out in September 1994³. The survey data was plotted at a scale of 1:500 for field checking and interpretation, and hachured and contoured plans have been produced at 1:500. The earthwork plans accompanying this report are reduced reproductions of these.

4.3 Summary of results

Area 1 (adjacent to Junction 16)

4.3.1 The Volume 2 Specialist Report identified an area of ridge and furrow earthworks in a field to the south-west of Brookwood Hill Farm, centred on NGR SJ778526 (site 1/01). These earthworks had been plotted from aerial photographs taken between 1973 and 1990 but they were not visible during a site visit carried out in June 1993, although they may have been hidden by long grass. At the time of the earthwork survey, the field was in pasture and the grass was up to 0.3m in height.

4.3.2 The length of the grass at the time of the survey meant that it was not possible to identify any of the ridge and furrow earthworks. However, when viewed from the A500, the south-eastern part of the field appeared to contain alternate bands of light and dark

vegetation running down the slope; it is likely that these relate to slight ridge and furrow earthworks that were visible on the aerial photographs.

- 4.3.3 The only other feature of significance identified by the survey was a shallow-sided irregularly-shaped depression, approximately 35m long and 1.5m deep and aligned southwest-northeast, in the northern part of the field. This may represent a former sand or marl pit, or a pond.

Area 2 (north-east of New Farm) (see figure 5)

- 4.3.4 The Volume 2 Specialist Report identified an area of ridge and furrow earthworks and other features, possibly representing field boundaries, in a field centred on NGR SJ77155325 to the north-east of New Farm (site 1/05). These were visible both on aerial photographs taken between 1953 and 1990 and during a field visit carried out in October 1992. At the time of the earthwork survey, the field was in pasture with most of the grass being relatively short.
- 4.3.5 The 1838 Barthomley tithe map shows the survey area to have been formed by four separate fields, numbered as 352, 353, 359 and 361 on the apportionment (see figure 5). The north-western part of the present field, in the angle between Radway Green Road and Smithy Lane, was formed a small approximately rectangular field containing two small buildings, numbered as 352 and listed as "House, outbuildings, garden and orchard" on the apportionment. The field to the west, number 353, was named as "House and meadow", although no buildings are depicted. The buildings are not shown on the 1882 Ordnance Survey first edition 6" map (sheet 57). The northern part of the boundary between fields 361 and 353 is depicted as a stream.
- 4.3.6 The survey area is effectively split into two parts by a curvilinear depression running from the north side of the field to the south-east corner ('a' on figure 5). It has a level bottom with banked sides standing up to 1.5m in height. At its northern end, it is approximately 15m wide with both sides clearly visible; however, at the eastern end only the north bank was clearly defined, the south bank being formed by a very slight earthwork. The north bank represents the former field boundary shown on the 1838 tithe map between fields 353, 359 and 361. Another bank runs approximately parallel to the north side of the depression at its north end, but set back up to 10m to the east.
- 4.3.7 At the western end of this depression is a shallow, semi-circular platform approximately 25m across ('b' on figure 5). It has a small drainage channel curving around its west side, which may have deposited the material forming a slight semi-circular spread to the north-east of the platform.

- 4.3.8 To the west of the depression is a sub-rectangular area of ridge and furrow earthworks, orientated approximately east-west and standing to a maximum height of 0.3m ('c' on figure 5). In the north-west part of this area is a sub-rectangular depression approximately 45m long and 1.5m deep. This is probably the remains of a pond ('d' on figure 5) which has been cut through, and so post-dates, the ridge and furrow. The south side of the ridge and furrow is formed by a shallow ditch, approximately 125m long. This represents an old field boundary between fields 361 and 360, the ditch now contains a number of modern drainage features.
- 4.3.9 To the east of the curvilinear depression 'a' is an irregularly shaped area of ridge and furrow earthworks, orientated approximately north-south ('e' on figure 5); these are very slight, standing some 0.25m in height. In the north-east corner of this part of the site are two shallow linear ditches which converge to form a small island of ground approximately 40m across ('f' on figure 5).
- 4.3.10 It is likely that the buried remains of the two buildings depicted on the 1838 tithe map are present in this area. Although two platforms are present ('f' and 'g'), there are no specific earthworks relating to the buildings.

Area 9 (north of Bostock House) (see figure 6)

- 4.3.11 The Volume 2 Specialist Report identified a field to the east of Bostock House as containing the former moated site of Bostock Hall (site 2/14) (NGR SJ77385695 centred). The majority of this area now lies under the M6 motorway but the field immediately to the north is named in the 1841 Hassall tithe map as "Pigeon House Croft", suggesting that it may have been the site of a dovecote. A Roman road known as King Street, linking Sandbach with Warrington, may also have run through the northern end of the field, although its actual course is uncertain (site 2/13). At the time of the earthwork survey, the field was in grass which had just been cut for silage.
- 4.3.12 A low earthwork platform is located in the northern end of the field ('a' on figure 6). It is defined by an east-west 70m long bank which, although spread, stands to a height of 0.5m. The bank has returns to the north at either end; at the west end, the return curves to the west and south, creating a shallow depression.
- 4.3.13 A much smaller wedge-shaped platform was also identified adjacent to the east side of the field ('b' on figure 6). This is approximately 30m across and stands up to 0.5m in height. A shallow sub-circular depression and a slight bank were located immediately to the south of this platform. At the south end of the field are two very slight banks, standing to a height of 0.25m,

which may once have been linked to form an approximately northwest-southeast orientated feature.

- 4.3.14 The earthworks to the east of the small platform on the east side of the field probably represent the remains of a small oval pond and field boundary which is shown on the 1841 Betchton tithe map. The slight banks at the south end of the field may also have been part a field boundary or possibly part of the moat shown to the north of Bostock Hall in 1841. Nothing appears in the position occupied by the large platform on the tithe map or the 1882 Ordnance Survey first edition 6" map (sheet 57); it may represent a building platform. No earthwork evidence for the possible course of King Street Roman road was noted.

Area 11 (south-east of Lower Roughwood Mill)

- 4.3.15 The Volume 2 Specialist Report identified the site of a leat (site 3/03) to the east of Lower Roughwood Mill, which had formerly provided the water supply to this building (NGR SJ77555815 to SJ78025796 linear). Although the leat had been cut into two by the construction of the M6 motorway, it survives in varying conditions on either side.
- 4.3.16 The mill is shown on a 1777 map of Cheshire named as "Betchton Mill". In 1829 it is named as "Roughwood New Mill", suggesting that the older structure may have been demolished. However, there are different phases of brickwork visible in the surviving structure, suggesting that all or part of 18th century mill was incorporated into the new building. The mill and leat are shown on the 1840 Betchton tithe map, where the tail race appears to have emerged from a point to the south-west of the mill to run above ground along one side of field 785 (which is named as "Pingot", meaning "a small piece of land") before entering a stream. A similar arrangement is shown on the 1875 Ordnance Survey first edition 25" map (sheet 50.14), where a "sluice" is marked just outside the south-eastern extent of the survey area. Water was diverted into the leat from the stream which issued from the pond at Higher Roughwood Mill.
- 4.3.17 At the time of the earthwork survey, the steep slope to the west of the M6 motorway through which the leat ran was covered with dense vegetation. The leat was revealed to be aligned approximately northwest-southeast, running approximately 10m above the bottom of the steep slope. It is embanked on its downslope side and survives to a width of 0.9m. It no longer carries a flow of water and is heavily silted up; no brickwork or other lining material could be seen.
- 4.3.18 The leat would have carried water to the north-east side of a brick-built rectangular lean-to positioned on the south-east side of the main building. The exact course of the leat near the wheel-house

was difficult to trace, and it may have been carried part of the way on a wooden trough or launder. A brief examination of the mill showed the overshot wheel to be *in situ* although in a poor state of preservation. The wheel was partly submerged in stagnant water as the tail race had been blocked with breeze blocks, leaving only a small outlet pipe. The course of the tail race between the mill and the stream to the south-west was not visible above ground.

Area 16 (north of Ward's Lane)

- 4.3.19 The Volume 2 Specialist Report identified an area of ridge and furrow and other earthworks in a field on the north side of Wards Lane (NGR SJ76006450 centred) (site 4/27). At the time of the earthwork survey the field was in pasture and the centre of the field contained an area of woodland and ponds.
- 4.3.20 Well-defined ridge and furrow earthworks, orientated northeast-southwest and standing up to 0.3m in height and 5m wide, lay in the northern two thirds of the field. At the southern end of the field, the ridge and furrow was overlain by a bank and an area of built-up ground, probably resulting from tipped material being spread during the construction of the M6 motorway.
- 4.3.21 The central part of the field, and the ridge and furrow, had been disturbed by a number of other earthworks, now located within a wooded and hedged area, approximately 110m long and 40m wide. At the southern end of this wood are six sub-rectangular depressions approximately 2m deep, paired either side of a central linear ridge that stands to a height of approximately 3m. The depressions were saucer-shaped in profile and the three on either side of the central ridge were linked by narrow channels. No trace of any lining survived in the depressions, although some appeared to have firm edges which may once have been revetted. The northern end of the wood also contained a number of other depressions but these were much less regular in shape or profile and were more overgrown.
- 4.3.22 The 1840 Bradwall tithe map shows that the survey area was divided into four fields, numbered 56, 57, 58 and 349 on the apportionment, with a wooded central area similar in shape to the one present today. Fields 58 and 349 occupied the southern part of the field now covered by the dumped material; field 349 is named as "Marl Field" and field 58 was named as "The Ridings", meaning "cleared land". Fields 56 and 57 ran either side of the wooded area and were known as "Golden Field" and "Higher Wich Field" respectively. In Cheshire, the term "wich" is usually associated with salt manufacture, possibly meaning "land adjoining brine pits or salt boiling houses".

- 4.3.23 The Ordnance Survey 1872 first edition 25" map (sheet 42.14) depicts four of the paired depressions in the southern part of the wood as un-named ponds, with the outline of five other depressions indicated by dashed lines. The depressions are probably associated with the extraction of marl which was used as a sweetener on agricultural land and many similar groups of features can be seen in the surrounding area. The channels that connected the depressions may have been a way of draining water from an active to a disused marl pit. However, given the "wich" field name of an adjacent piece of land, it is also possible that the depressions were linked to salt extraction and manufacture.

Area 19 (south of River Croco)

- 4.3.24 The Volume 2 Specialist Report identified several fields of well-preserved ridge and furrow earthworks in the area around Hill Farm and Primrose Farm (site 5/13) (NGR SJ74606655 and SJ7476635 centred). The earthworks were visible on aerial photographs taken between 1947 and 1990 and were extant during the preliminary walkover survey which was undertaken in October 1992. At the time of the earthwork survey, the large field was in pasture with the grass relatively short. The earthwork survey was confined to the area of proposed disturbance, that is the western half of the field.
- 4.3.25 The ridge and furrow is orientated approximately north-south and stands up to 0.75m in height and 7m wide (average). The earthworks run at right angles to the general slope of the field, which falls away to the south towards the River Croco which formed the northern boundary of the survey area. A slight 'reverse-S' bend could be seen at the south end of the ridge and furrow. This form of ridge and furrow is generally considered to be medieval or early post-medieval in date. An area of ridge and furrow shown on aerial photographs on the east side of the field had been buried beneath a large bank of dumped material, a situation already noted in Area 16.

Area 20 (south of Mill Lane Farm)

- 4.3.26 The Volume 2 Specialist Report identified two fields of ridge and furrow earthworks visible from the M6 motorway to the south of Mill Lane Farm (site 6/03) (NGR SJ73906805 and SJ74056815 centred). The western field, in which the earthwork survey took place, was covered in long grass at the time of the preliminary walkover survey in June 1993 and no features were visible. At the time of the earthwork survey, the field was in pasture with the grass up to 0.3m in height.
- 4.3.27 Apart from a slight north-south bank, the earthwork survey did not reveal any ridge and furrow earthworks, probably due to the fact that they were obscured by long grass rather than a genuine

absence. A tree lined bank, approximately 140m long and standing up to 0.5m in height, ran parallel to the east side of the field and returned at either end; this represents a field boundary shown on the 1844 Cranage tithe map.

5 CONCLUSIONS FROM STAGE 3 FIELDWORK CARRIED OUT TO DATE

5.1 Area 1 (adjacent to Junction 16)

5.1.1 The earthwork survey did not identify any earthworks associated with ridge and furrow recorded in this area by the Volume 2 Specialist Report (site 1/01), although alternate bands of light and dark vegetation running down the slope in the south-western part of the field may relate to them. The only other feature of significance identified by the survey was a shallow-sided irregularly-shaped depression, approximately 35m long and 1.5m deep and aligned southwest-northeast, in the northern part of the field; it may represent a former sand or marl pit, or a pond.

5.2 Area 2 (north-east of New Farm)

5.2.1 The earthwork survey in this area recorded several former field boundaries, an area of well preserved ridge and furrow, and a pond identified by the Volume 2 Specialist Report (site 1/05). More significantly, the north-eastern part of the survey area adjacent to Radway Green Road was found to contain an earthwork platform associated with two former buildings named as "House, outbuildings, garden and orchard" on the 1838 Barthomley tithe map. No earthworks of the actual buildings were noted.

5.3 Area 8 (south of Bostock House)

5.3.1 The geophysical survey revealed two parallel straight linear anomalies crossing the central part of this survey area, on a north-west to south-east alignment. They are most likely to represent old field boundaries, drains or tracks of unknown date although no such features are depicted on cartographic sources. There is no evidence to link the anomalies with the possible site of a post-medieval brick kiln, as suggested by a significant field name identified by the Volume 2 Specialist Report (site 2/12).

5.4 Areas 9 and 10 (north of Bostock House)

5.4.1 A low earthwork platform, probably representing the site of a former building or buildings, was identified in the northern end of Area 9, together with a much smaller wedge-shaped platform adjacent to the east side of the field. Either or both of these features may be associated with the site of a former moated manorial complex recorded by the Volume 2 Specialist Report (site 2/14). No earthwork evidence for the possible course of King Street Roman road was noted (site 2/13).

5.4.2 In Area 10.1, a single tentative linear anomaly and three pit-like anomalies were recorded. While there is no clear indication that these features are of archaeological significance, the possibility remains that they were associated with the possible course of King

Street Roman road (site 2/13) and/or the site of a former moated complex (site 2/14). No significant geophysical anomalies were recorded in Area 10.2.

- 5.4.3 There is no clear relationship between the geophysical anomalies and the earthwork features, although the three pit-like anomalies lie within the area of the smaller earthwork platform.

5.5 Area 11 (south-east of Lower Roughwood Mill)

5.5.1 The earthwork survey established that the leat serving Lower Roughwood Mill, identified on the west side of the M6 motorway by the Volume 2 Specialist Report (site 3/03), was aligned approximately northwest-southeast, running approximately 10m above the bottom of the steep slope. It is embanked on its downslope side and survives to a width of 0.9m. It no longer carried a flow of water and was heavily silted up at the time of the survey; no brickwork or other lining material could be seen.

5.5.2 The exact course of the leat into the mill was difficult to trace, and it may have been carried part of the way on a wooden trough or launder. A brief examination of the mill (site 3/02) showed the overshot wheel to be *in situ* although in a poor state of preservation.

5.6 Area 13 (south of Bridge 14)

5.6.1 Much of the geophysical survey data in Area 13 was obscured by pipelines, ferrous debris or other disturbance. No significant archaeological anomalies were recorded, and no further evidence for the possible course of King Street Roman road, identified by the Volume 2 Specialist Report (site 3/20), was recovered.

5.7 Area 14 (north of Bridge 16)

5.7.1 Some of the geophysical survey data in Area 14 was obscured by a buried pipeline. Small ferrous disturbances were observed throughout the rest of the survey area, but no archaeological features were detected. No further evidence was recovered relating to a post-medieval brick kiln, as suggested by a significant field name identified by the Volume 2 Specialist Report (site 3/23).

5.8 Area 16 (north of Ward's Lane)

5.8.1 Well-defined ridge and furrow earthworks were identified in this area by the Volume 2 Specialist Report (site 4/27). The survey showed that the earthworks were orientated northeast-southwest and survived up to 0.3m high and 5m wide in the northern two thirds of Area 16. In the southern end of the field, the ridge and furrow was seen to be overlain by a bank and an area of built-up ground, probably resulting from excess material being spread

during the construction of the M6 motorway.

- 5.8.2 The central part of the field contains a wooded and hedged area, approximately 110m long and 40m wide. Within this are six sub-rectangular saucer-shaped depressions approximately 2m deep, paired either side of a central linear ridge. These are likely to be associated with former marl or salt extraction.

5.9 Area 18 (north and south of Bridge 24)

- 5.9.1 The geophysical survey data in the whole of Area 18.1 and large parts of Area 18.3 was obscured by buried pipelines. For this reason, the survey of Area 18.2 was abandoned and only a small sample of Area 18.4 was surveyed. The only anomaly of potential archaeological origin was a linear ditch in Area 18.3, which probably represents an old field boundary. No further evidence associated with a group of post-medieval field-names identified by the Volume 2 Specialist Report (site 5/11) was recovered.

5.10 Area 19 (south of River Croco)

- 5.10.1 A further area of well-preserved ridge and furrow earthworks was recorded by the Volume 2 Specialist Report (site 5/13). The earthworks are orientated approximately north-south and stand up to 0.75m in height and 7m wide (average). They run at right angles to the general contours of the field, which falls away to the north towards the River Croco, and a slight 'reverse-S' bend could be seen at their southern end. An area of ridge and furrow shown on earlier aerial photographs on the east side of the field had been buried beneath a large bank of dumped material, a situation already noted in Area 16.

5.11 Area 20 (south of Mill Lane Farm)

- 5.11.1 Apart from a slight north-south bank, the earthwork survey of this area did not reveal the ridge and furrow earthworks identified by the Volume 2 Specialist Report (site 6/03). However, a tree lined bank, approximately 140m long and standing up to 0.5m in height, ran parallel to the east side of the field and returned at either end; this represents a field boundary shown on the 1844 Cranage tithe map.

6 ASSESSMENT OF THE EFFECTS OF THE PROPOSALS

6.1 Introduction

6.1.1 The effects of the construction, landscaping and on-site planting proposals identified on drawings 40142/09/01/201 to 40142/09/01/216 on the sites and areas of archaeological, architectural and/or historic interest identified by the Volume 2 Specialist Report and the non-intrusive archaeological fieldwork undertaken to date have been assessed. It should be noted that the effects resulting from off-site planting, haul routes, construction compounds or temporary construction roads have not been considered.

6.1.2 For archaeological sites and monuments, the main impacts arising from road construction can be summarised as:

- possible disturbance and/or destruction of archaeological deposits from works associated with the scheme, whether from actual construction or works associated with secondary operations such as landscaping, balancing ponds, site compounds and borrow pits;
- increased visual intrusion;
- increases in noise, vibration and disturbance;
- severance from other linked features such as field systems, agricultural complexes and landscapes;
- changes in the original landscape;
- loss of amenity.

6.1.3 For the built environment, the main impacts arising from road construction are likely to be:

- possible demolition, or loss of part of the structure or grounds of a listed building;
- increased visual intrusion;
- increases in noise, vibration and disturbance;
- severance from other linked features such as gardens, outbuildings, lodges etc;
- changes in the original landscape, townscape or garden setting of the house or building;
- loss of amenity.

6.2 Initial Assessment of Value

- 6.2.1 Following the example of the Volume 2 Specialist Report and using the results of the Stage 3 fieldwork carried out to date, an initial assessment of the grade or importance of each archaeological site or area within the widening corridor can be made (see figures 1.1 to 1.11). This assessment has been based on professional judgement, combined with the Secretary of State's criteria for scheduling ancient monuments and the criteria developed by English Heritage in their Monuments Protection Programme.
- 6.2.2 It should be stressed, however, that this can only be an initial assessment as some of the sites identified by the Volume 2 Specialist Report still need to be assessed by trial excavation; it might be better therefore to regard the grade of each area as representing potential rather than importance. In addition, it should be noted that the various non-intrusive survey areas were defined by the proposed widening corridor and the identified sites are likely to extend beyond this.
- 6.2.3 In terms of importance or potential, the archaeological sites and areas within the widening corridor have been assigned the following grades:

High

Site 2/03 Area 5	Oakhanger Moss
Site 2/04 Area 7	White Moss
Site 2/14 Areas 9 & 10	Bostock Hall moated site (site of), east of Bostock House
Site 11/03 Area 23	Sink Moss

Medium

Site 1/01 Area 1	Ridge and furrow earthworks, south-west of Brookwood Hill Farm
Site 1/05 Area 2	Ridge and furrow earthworks, north-east of New Farm
Site 2/01 Area 4	Moss Farm, east of Oakhanger
Site 2/05 Area 6	White Moss Farm, east of Oakhanger Moss
Site 2/12 Area 8	Brick kiln (site of) (field name), south of Bostock House

Site 3/07 Area 12	Row of cottages, east of Sun Cottages, Hassall Green
Site 3/23 Area 14	Brick kiln (site of) (field names), south- east of Prism Ball Bank, Betchton Heath
Site 3/26 Area 21	Ivy Cottage Farm, Reynold's Lane
Site 4/27 Area 16	Ridge and furrow earthworks, north side of Wards Lane
Site 5/03 Area 17	Brick kiln (site of) (field name), east of Mooresbarrow Lodge
Site 5/13 Area 19	Ridge and furrow earthworks around Hill and Primrose Farms
Site 6/03 Area 20	Ridge and furrow earthworks, south of Mill Lane Farm
Site 6/04 Area 21	New Farm, Oak Tree Lane
Site 6/06 Area 22	Building, north of New Farm

Low

Site 1/03	Barn (site of) (field name), south of Scotts Green
Site 1/06	Barn (site of) (field name), east side of Radway Green Road
Site 1/07 Area 3	Road bridge, east of Radway Green Road
Site 1/08	Former course of Radway Green Road, south-west of Radway Green
Site 1/11	Course of old lane, Oakhanger to Radway Green
Site 2/08	Former course of Nursery Road, north of White Moss
Site 2/13 Area 10	Possible course of King Street Roman road, north-west of Alsager
Site 3/01	Barn (site of) (field name), north of Day Green Farm
Site 3/03 Area 11	Mill leat, east of Lower Roughwood mill, Hassall Green
Site 3/20 Area 13	Possible course of King Street Roman road, east of Sandbach

Site 3/25	Former course of Reynolds Lane, Betchton Heath
Site 4/10	Park (field names), north of Park House
Site 4/18	Windmill (site of) (field name), west of Brindley Green
Site 4/26	Former course of Ward's Lane, east of Leahead Farm
Site 5/10	Brickworks (site of) and ridge and furrow, Brereton Lane
Site 5/11 Area 18	Saltworks (site of) (field names), east of Holly Farm
Site 6/01	Bradwall wharf (site of), Cranage
Site 6/09	Former course of King's Lane, Warrington Common
Site 6/14	Presumed course of Roman road, B5081
Site 7/01	Former course of road, north of Washlane Farm
Site 7/06	Former course of Baker's Lane, east of Hulme Farm

6.2.4 It should be noted that there are a number of other buildings and structures within the proposed widening corridor but these are considered not to be of architectural merit and so are not included here.

6.3 Impact grading systems

6.3.1 In order to help to assess the adverse impact of the proposals on the identified sites and areas of archaeological and architectural importance, a simple three tier adverse impact grading system has been devised, based on the scale of impact of the proposals, namely:

Major impact:	Major disturbance (ie. more than 75% of the area of known or estimated archaeological deposits).
Moderate impact:	Significant disturbance (ie. between 25% and 75% of the area of known or estimated archaeological deposits).
Slight impact:	Minor disturbance (ie. less than 25% of the area of known or estimated archaeological deposits).

In drawing up this information, consideration has also been made of the scale, significance, potential and current condition of the site, defined as the grade of the site.

6.4 Impact of development

- 6.4.1 When making an initial assessment of the impact of the proposed scheme on the known sites of archaeological, architectural and/or historic interest, all construction and landscaping works as specified on drawings 40142/09/01/201 to 40142/09/01/216 have been taken into account. All impacts are adverse. It should be noted that off-site planting schemes, haul routes, construction compounds or temporary construction roads have not been considered.
- 6.4.2 Within the proposed widening corridor, a number of identified sites of archaeological and architectural importance will be affected by the proposals (see figures 1.1 to 1.11). A combination of the impact of the proposals and the grade of importance or potential of each site produces an assessment of overall impact, defined as being substantial, moderate or slight.
- 6.4.3 A reassessment of the impact of development has identified an additional 5 medium grade sites and 2 low grade site to those itemised in the Volume 2 Specialist Report which will be affected by the scheme. These are:

Medium

Site 1/05 Area 2	Ridge and furrow earthworks, south-west of Brookwood Hill Farm
Site 3/07 Area 12	Row of cottages, east of Sun Cottages, Hassall Green
Site 5/10	Brickworks (site of) and ridge and furrow, Brereton Lane
Site 5/13 Area 19	Ridge and furrow earthworks around Hill and Primrose Farms

Low

Site 1/06	Barn (site of) (field name), east side of Radway Green Road
Site 1/07 Area 3	Road bridge, east of Radway Green Road

In addition, one medium grade site identified as being affected by the scheme in the Volume 2 Specialist Report (site 4/05 Kiln (site of) (field name), south of Congleton Road) will no longer be affected.

6.4.4 From the following table, it can be seen that the proposals will have an impact on 39 known sites or areas of archaeological importance or potential. Based on current knowledge, the overall adverse impact can be categorised as substantial (5 sites), moderate (9 sites) and slight (25 sites). Given the fact that the Stage 3 assessment work is not yet complete, it is not possible to assign definite overall impact grades to some of these sites.

6.4.5 From south to north, the impacts can be summarised as:

Table 6.4.5.1

Site/ Area	Site Name	Grade of Site	Grade of impact	Overall Adverse Impact
Site 1/01 Area 1	Ridge and furrow earthworks, south-west of Brookwood Hill Farm	Medium	Slight	Slight
Site 1/03	Barn (site of) (field name), south of Scotts Green	Low	Slight	Slight
Site 1/05 Area 2	Ridge and furrow earthworks, north-east of New Farm	Medium	Slight	Slight
Site 1/06	Barn (site of) (field name), east side of Radway Green Road	Low	Slight	Slight
Site 1/07 Area 3	Road bridge, east of Radway Green Road	Low	Moderate	Moderate
Site 1/08	Former course of Radway Green Road, south-west of Radway Green	Low	Major	Slight
Site 1/11	Course of old lane, Oakhanger to Radway Green	Low	Slight	Slight
Site 2/01 Area 4	Moss Farm, east of Oakhanger	Medium	Major	Substantial
Site 2/03 Area 5	Oakhanger Moss	High	Slight	Moderate?
Site 2/04 Area 7	White Moss	High	Slight	Moderate?
Site 2/05 Area 6	White Moss Farm, east of Oakhanger Moss	Medium	Major	Substantial
Site 2/08	Former course of Nursery Road, north of White Moss	Low	Slight	Slight
Site 2/12 Area 8	Brick kiln (site of) (field name), south of Bestock House	Medium	Moderate	Moderate?

Site 2/13 Area 10	Possible course of King Street Roman road, north-west of Alsager	Low	Slight	Slight
Site 2/14 Areas 9 & 10	Bostock Hall moated site (site of), east of Bostock House	High	Moderate	Moderate
Site 3/01	Barn (site of) (field name), north of Day Green Farm	Low	Major	Slight
Site 3/03 Area 11	Mill leat, east of Lower Roughwood Mill	Low	Moderate	Slight
Site 3/07 Area 12	Row of cottages, east of Sun Cottages, Hassall Green	Medium	Major	Substantial
Site 3/20 Area 13	Possible course of King Street Roman road, east of Sandbach	Low	Moderate	Slight
Site 3/23 Area 14	Brick kiln (site of) (field names), south-east of Prism Ball Bank	Medium	Major	Moderate
Site 3/25	Former course of Reynolds Lane, Betchton Heath	Low	Slight	Slight
Site 3/26 Area 15	Ivy Cottage Farm, Reynolds Lane	Medium	Moderate	Moderate
Site 4/10	Park (field names), north of Park House	Low	Slight	Slight
Site 4/18	Windmill (site of) (field name), west of Brindley Green	Low	Moderate	Slight
Site 4/26	Former course of Ward's Lane, east of Leahead Farm	Low	Slight	Slight
Site 4/27 Area 16	Ridge and furrow earthworks, north side of Wards Lane	Medium	Moderate	Slight
Site 5/03 Area 17	Brick kiln (site of) (field name), east of Mooresbarrow Lodge	Medium	Moderate	Moderate
Site 5/10	Brickworks (site of) and ridge and furrow, Brereton Lane	Low	Moderate	Slight
Site 5/11 Area 18	Saltworks (site of) (field names), east of Holly Farm	Low	Moderate	Slight
Site 5/13 Area 19	Ridge and furrow earthworks around Hill and Primrose Farms	Medium	Slight	Slight
Site 6/01	Bradwall Wharf (site of), Cranae	Low	Slight	Slight
Site 6/03 Area 20	Ridge and furrow earthworks, south of Mill Lane Farm	Medium	Slight	Slight
Site 6/04 Area 21	New Farm, Oak Tree Lane	Medium	Major	Substantial

Site 6/06 Area 22	Building, north of New Farm	Medium	Major	Substantial
Site 6/09	Former course of King's Lane, Warrington Common	Low	Slight	Slight
Site 6/14	Presumed course of Roman road, B5081	Low	Slight	Slight
Site 7/01	Former course of road, north of Washlane Farm	Low	Slight	Slight
Site 7/06	Former course of Baker's Lane, east of Hulme Farm	Low	Slight	Slight
Site 11/03 Area 23	Sink Moss	High	Moderate	Moderate?

7 MITIGATION MEASURES

7.1 Introduction

7.1.1 Archaeological remains survive both as upstanding earthworks or as buried features beneath the ploughsoil. All remains will be susceptible to damage and/or destruction as a result of ground disturbance associated with the construction of these proposals and their associated landscaping works. The removal of topsoil and subsoil is likely to destroy most archaeological deposits and even where embankments and other methods are used to raise the overall ground level, preparation works often result in the destruction of any archaeological deposits which lie at shallow depths. In addition, while the burying of archaeological features beneath a development can sometimes be an accepted form of preservation *in situ*, this is not always the case and care must be taken to ensure that any significant deposits are not subject to undue compaction and shrinkage. Some form of monitoring might be required to ensure that this does not happen.

7.1.2 For archaeological sites, possible mitigation measures have been described in the DMRB volume 11 as:

- locate the route away from archaeological remains and their settings;
- design the scheme's vertical alignment and associated earthworks so that archaeological remains are not disturbed;
- undertake appropriate recording works and other investigations in advance of construction;
- undertake appropriate recording works and other investigations during construction;

In practice, a combination of these measures is often used.

7.1.3 Listed buildings and other elements of the built environment are, by definition, upstanding structures. In addition to demolition, they are particularly susceptible to increased visual intrusion, noise, vibration and disturbance and severance from other linked and associated features. Mitigation measures designed to off-set the adverse visual impacts for the various listed buildings and other elements of the built environment would normally be achieved through appropriate landscaping techniques. These have been considered in the Landscape Report and so are not included here.

7.2 Phases of investigation

7.2.1 It is envisaged that five separate stages or phases of work will be required to ensure that the cultural heritage of the widening corridor has been considered to an appropriate standard. The results of each phase will influence and set the parameters for the next. Phases 1 to 2 deal with the assessment and pre-construction works, phase 3 deals with the recording of archaeological deposits while construction is in progress, and phases 4 and 5 deal with the assimilation, publication and deposition of any results resulting from the previous phases. In detail, these phases comprise:

Phase 1 **Detailed evaluation:** initial and intensive fieldwalking, geophysical survey, earthwork survey, environmental sampling, trial trenching and building survey as appropriate, leading to the detailed assessment of impact and recommendations for mitigation (DMRB Stage 3).

Phase 2 **Pre-construction investigation:** detailed excavation and architectural recording in advance of construction of those sites identified during the previous phase to be of significant archaeological importance and for which no appropriate mitigation measures can be sought.

Phase 3 **Watching brief during construction:** investigation and recording of those sites identified during the DMRB Stages 1 to 3 as not warranting prior investigation, as well as the recording of sites which may be exposed during the course of development.

Phase 4 **Post-excavation assessment:** assessment of the results of the archaeological investigations and the potential of the data for analysis leading to recommendations, timetable and costings for subsequent detailed analysis, publication, storage and deposition.

Phase 5 **Post-excavation analysis and publication:** data analysis, report preparation and publication followed by deposition of the archive and artefacts and all other materials associated with the investigations with the appropriate institution for long term storage and curation.

7.3 Phase 1 detailed evaluation works

7.3.1 This phase of work, comprising detailed evaluation through appropriate combinations of initial and intensive fieldwalking, geophysical survey, earthwork survey, environmental sampling, trial trenching and building survey as appropriate, corresponds to

Stage 3 of the Department of Transport's Stages of Archaeological Assessment as defined in the DMRB volume 11.

- 7.3.2 A large part of the non-intrusive detailed evaluation work has been completed and is summarised above. The results of this work has, in some cases, allowed the mitigation measures outlined in the Volume 2 Specialist Report to be modified. The outstanding elements of this phase are the archaeological fieldwalking and the building assessments, and the intrusive trial excavations and environmental sampling (see figures 2.1 to 2.11).
- 7.3.3 By definition, archaeological fieldwalking is a non-intrusive technique which takes place in areas of ploughed or recently planted soil. To date, the various fieldwalking areas identified by the Volume 2 Specialist Report have not been in a suitable state of cultivation and so this element of the Stage 3 fieldwork programme has not yet been carried out. This work would be undertaken, as and when a crop window becomes available, as two phases of investigation. Initial fieldwalking would involve walking along lines placed 10m apart through a specified survey area with a view to identifying areas worthy of more detailed fieldwalking techniques. These would involve setting out a grid of 10m squares over the area of interest and collecting all archaeological artefacts in each grid square. All survey areas and results would be tied in to established survey stations and the Ordnance Survey national grid to facilitate the drawing up of detailed mitigation strategies at a later stage.
- 7.3.4 As with the fieldwalking, the building recording work would be undertaken in two stages, both in advance of demolition. Initially, an assessment of the buildings using appropriate and basic recording techniques such as photography and sketch surveys would be carried out. From this, more detailed recording would be undertaken as appropriate, utilising full measured surveys and descriptive accounts, following the conventions stipulated by the Royal Commission on Historical Monuments for England (level 3 survey). This might also involve some further site-specific documentary research that would assist in the interpretation of the recorded structures.
- 7.3.5 The appropriate techniques and methodologies for environmental sampling would be discussed and agreed in advance with the relevant authorities but at this stage it is envisaged that the manual collection of a series of cores through the identified areas would be required. The positions of all sampling areas would be tied in to established survey stations and the Ordnance Survey national grid to facilitate the drawing up of detailed mitigation strategies at a later stage.

7.3.6 Following the results obtained from the non-intrusive works carried out to date, the investigation of some sites and/or areas would be undertaken through limited trial trenching and/or small area excavation. This work, which is reliant on appropriate permissions and way-leaves agreements, is conducted during an appropriate crop window, usually during the spring and early summer months when compensations values are low. The scale, nature and methodology of the trial trenching is dependant on the results of the previous non-intrusive survey techniques and the types of sites being investigated; sites containing many ditches and other linear or large features may be evaluated by means of narrow trial trenches, whereas wider areas of excavation are often required for sites which mainly consisting of smaller features which may only be recognised as scatters of artefacts. At some sites it may be appropriate to use a pattern of small test pits.

7.3.7 In brief, the two central aims of the intrusive excavations are to:

- to confirm or refute the presence of archaeological features and/or deposits;
- to obtain further information about identified archaeological sites, enabling the formulation of detailed mitigation strategies.

The information which is sought concerns the date, nature, extent, condition and significance of the buried remains.

7.3.8 The intrusive excavations would be confined to the specific areas of proposed construction and disturbance with a view to providing a detailed assessment of the various archaeological sites and areas likely to be affected. This would enable specific recommendations to be made for appropriate mitigation works that might be required to complete the Phase 2 (pre-construction investigation) and Phase 3 (watching brief during the course of construction) investigations. It is possible that the results of the trial excavations might suggest that some of the potential sites might not be of archaeological importance while others might be of such importance that varying amounts of further detailed excavation are required.

7.3.9 The Phase 1 fieldwork completed to date has allowed some of the mitigation measures recommended in the Volume 2 Specialist Report to be modified. For site 3/23 (Brick kiln (site of) (field names), south-east of Prism Ball Bank), geophysical survey and/or trial trenching was originally recommended but the results of the former means that the Phase 1 trial trenching has been replaced by a Phase 3 watching brief. For site 5/11 (Saltworks (site of) (field names), east of Holly Farm), fieldwalking, geophysical survey and/or trial trenching was originally recommended but the results of the geophysical survey and discussions with the County Archaeologist means that further work has been modified to a

Phase 3 watching brief. Similar discussions have also meant that the fieldwalking element for site 2/13 (Possible course of King Street Roman road, north-west of Alsager) has been dropped.

7.3.10 Appendix 1 gives brief details of those known archaeological and architectural sites affected by the proposals together with an indication of the various mitigation measures which would be undertaken to counteract these effects, based on current archaeological knowledge. Figures 2.1 to 2.11 provide a visual representation of those mitigation measures which fall within the category of Phase 1 (detailed evaluation) works. It should be noted that these works would examine a sufficient corridor of interest to allow any archaeological finds and/or deposits to be placed into their context.

7.3.11 A summary of the proposed mitigation measures for all the identified archaeological sites, from south to north, affected by the proposals is given in the following table. It should be noted that the various phases of work described below correspond to those phases outlined in section 7.2 above.

Table 7.3.11.1

Site/Area	Site Name	Grade of Site	Archaeological Impact	Recommendations
Site 1/01 Area 1	Ridge and furrow earthworks, south-west of Brookwood Hill Farm	Medium	Slight	Phase 1 earthwork survey complete. No further action
Site 1/03	Barn (site of) (field name), south of Scotts Green	Low	Slight	No further action
Site 1/05 Area 2	Ridge and furrow earthworks, north-east of New Farm	Medium	Slight	Phase 1 earthwork survey complete. Phase 3 watching brief
Site 1/06	Barn (site of) (field name), east side of Radway Green Road	Low	Slight	Phase 3 watching brief
Site 1/07 Area 3	Road bridge, east of Radway Green Road	Low	Moderate	Phase 1 building survey. Further Phase 2 work if required
Site 1/08	Former course of Radway Green Road, south-west of Radway Green	Low	Major	Phase 3 watching brief
Site 1/11	Course of old lane, Oakhanger to Radway Green	Low	Slight	Phase 3 watching brief

Site 2/01 Area 4	Moss Farm, east of Oakhanger	Medium	Major	Phase 1 building survey. Further Phase 2 work if required
Site 2/03 Area 5	Oakhanger Moss	High	Slight	Phase 1 environmental sampling and trial trenching. Further Phase 2 or 3 work as required
Site 2/04 Area 7	White Moss	High	Slight	Phase 1 environmental sampling and trial trenching. Further Phase 2 or 3 work as required
Site 2/05 Area 6	White Moss Farm, east of Oakhanger Moss	Medium	Major	Phase 1 building survey. Further Phase 2 work if required
Site 2/08	Former course of Nursery Road, north of White Moss	Low	Slight	Phase 3 watching brief
Site 2/12 Area 8	Brick kiln (site of) (field name), south of Bostock House	Medium	Moderate	Phase 1 geophysical survey complete. Fieldwalking and trial trenching. Further Phase 2 or 3 work as required
Site 2/13 Area 10	Possible course of King Street Roman road, north-west of Alsager	Low	Slight	Phase 1 geophysical survey complete. Trial trenching. Further Phase 2 or 3 work as required
Site 2/14 Areas 9 & 10	Bostock Hall moated site (site of), east of Bostock House	High	Moderate	Phase 1 earthwork and geophysical surveys complete. Trial trenching. Further Phase 2 or 3 work as required
Site 3/01	Barn (site of) (field name), north of Day Green Farm	Low	Major	No further action
Site 3/03 Area 11	Mill leat, east of Lower Roughwood Mill	Low	Moderate	Phase 1 earthwork survey complete. No further action
Site 3/07 Area 12	Row of cottages, east of Sun Cottages, Hassall Green	Medium	Major	Phase 1 building survey. Further Phase 2 work if required

Site 3/20 Area 13	Possible course of King Street Roman road, east of Sandbach	Low	Moderate	Phase 1 geophysical survey complete. Trial trenching. Further Phase 2 or 3 work as required
Site 3/23 Area 14	Brick kiln (site of) (field names), south-east of Prism Ball Bank	Medium	Major	Phase 1 geophysical survey complete. Phase 3 watching brief
Site 3/25	Former course of Reynolds Lane, Betchton Heath	Low	Slight	Phase 3 watching brief
Site 3/26 Area 15	Ivy Cottage Farm, Reynolds Lane	Medium	Moderate	Phase 1 building survey. Further Phase 2 work if required
Site 4/10	Park (field names), north of Park House	Low	Slight	No further action
Site 4/18	Windmill (site of) (field name), west of Brindley Green	Low	Moderate	Phase 3 watching brief
Site 4/26	Former course of Ward's Lane, east of Leahead Farm	Low	Slight	Phase 3 watching brief
Site 4/27 Area 16	Ridge and furrow earthworks, north side of Wards Lane	Medium	Moderate	Phase 1 earthwork survey complete. No further action
Site 5/03 Area 17	Brick kiln (site of) (field name), east of Mooresbarrow Lodge	Medium	Moderate	Phase 1 fieldwalking and/or trial trenching. Further Phase 2 or 3 work as required
Site 5/10	Brickworks (site of) and ridge and furrow, Brereton Lane	Low	Moderate	Phase 3 watching brief
Site 5/11 Area 18	Saltworks (site of) (field names), east of Holly Farm	Low	Moderate	Phase 1 geophysical survey complete. Phase 3 watching brief
Site 5/13 Area 19	Ridge and furrow earthworks around Hill and Primrose Farms	Medium	Slight	Phase 1 earthwork survey complete. No further action
Site 6/01	Bradwall Wharf (site of), Cranage	Low	Slight	Phase 3 watching brief
Site 6/03 Area 20	Ridge and furrow earthworks, south of Mill Lane Farm	Medium	Slight	Phase 1 earthwork survey complete. No further action

Site 6/04 Area 21	New Farm, Oak Tree Lane	Medium	Major	Phase 1 building survey. Further Phase 2 work if required
Site 6/06 Area 22	Building, north of New Farm	Medium	Major	Phase 1 building survey. Further Phase 2 work if required
Site 6/09	Former course of King's Lane, Warrington Common	Low	Slight	Phase 3 watching brief
Site 6/14	Presumed course of Roman road, B5081	Low	Slight	Phase 3 watching brief
Site 7/01	Former course of road, north of Washlane Farm	Low	Slight	Phase 3 watching brief
Site 7/06	Former course of Baker's Lane, east of Hulme Farm	Low	Slight	Phase 3 watching brief
Site 11/03 Area 23	Sink Moss area of wetland	High	Moderate	Phase 1 environmental sampling and trial trenching. Further Phase 2 or 3 work as required

7.3.12 It will be noted that some specific sites will be subject to a Phase 3 watching brief. This would take place just in advance of construction and would involve topsoil stripping under archaeological supervision. Although particular attention will be applied to these sites, the whole of the widening corridor will be monitored in this way during the initial phases of construction. This work will ensure that any archaeological sites and deposits that might be uncovered by the works can be recorded to a satisfactory standard.

8 REFERENCES

- 1 Anthony Walker & Partners, August 1994, M6 Widening Junctions 16-20, Environmental Statement, Cultural Heritage (Archaeology) Volume 2 Specialist Report.
- 2 Geophysical Surveys of Bradford, September 1994, Report on Geophysical Survey: M6 Widening, Junctions 16-20. (Report number 94/88).
- 3 Anthony Walker and Partners, November 1994, M6 Widening Junctions 16-20: Report on Earthwork Survey.

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LEEDS November 1994

APPENDIX 1: EFFECTS AND MITIGATION FOR KNOWN ARCHAEOLOGICAL, ARCHITECTURAL AND HISTORIC SITES

The following catalogue contains detailed information on the effects of the proposals and the recommended mitigation measures leading to the preservation of cultural heritage based on the findings of the Cultural Heritage (Archaeology) Volume 2 Specialist Report and the non-intrusive fieldwork carried out to date. The distribution of the identified sites within the proposed widening corridor is shown on figures 1.1 to 1.11.

Each site is allocated a Site Reference Number. This is the reference number of the site as recorded for this survey and which is used throughout the report.

For each site, the following information is provided.

SMR No: the reference number of the site or find if recorded on the Sites and Monuments Record held by the Environment Department of Cheshire County Council (CCC SMR).

NAR No: the reference number of the site or find if recorded on the National Archaeological Record (NAR) held by the Royal Commission on the Historical Monuments of England (RCHME); this record is based on information collected by the Ordnance Survey (OS).

SAM No: the county reference number if the site is scheduled as an Ancient Monument under the Ancient Monuments and Archaeological Areas Act (1979).

LB No: the reference number of the Listed Building as recorded in the various Lists of Buildings of Special Architectural or Historic Interest which cover the search area.

NGR No: the National Grid Reference (NGR) for each site, area or find. This is qualified as to whether the NGR is "accurate", "centred", "approximate", "uncertain" or "linear".
NOTE: for linear features, such as railways, the grid references relate only to the study area and so may not represent their full extent.

Map: the reference number of the 1:10,000 scale map on which each site, area or find is located.

Site name and location: the site name and the name of the place or geographical area where the site or area is located or the find made. In rural locations, this is often the name of the nearest farm or other geographical or topographical feature.

Parish: the modern civil parish within which the site, area or find is located.

Extent of site (OS): the extent of the site, area or find in terms of Ordnance Survey field numbers (where allocated and known). These have been collated from the most recent 1:2,500 maps.

Assessment of the effects of the proposals: an assessment of the effects of the proposals on the identified sites as shown on a set of drawings which detail the landscape and design proposals (drawings 40142/09/01/201 to 40142/09/01/216). The archaeological impact grading system described in section 6.4 of the main report is used, namely

- Major impact: Major disturbance (ie. more than 75% of the area of known or estimated archaeological deposits)
- Significant impact: Significant disturbance (ie. between 25% and 75% of the area of known or estimated archaeological deposits)
- Small-scale impact: Minor disturbance (ie. less than 25% of the area of known or estimated archaeological deposits).

An assessment of overall adverse impact, categorised as substantial, moderate or slight, is also given.

Mitigation: recommendations for appropriate mitigation measures are given, described in terms of the various phases listed in section 7.2 of the main report, namely:

-
- | | |
|---------|--|
| Phase 1 | Detailed evaluation: initial and intensive fieldwalking, geophysical survey, earthwork survey, trial trenching and building survey as appropriate, leading to the detailed assessment of impact and recommendations for mitigation (DMRB Stage 3). |
| Phase 2 | Pre-construction investigation: detailed excavation and architectural recording in advance of construction of those sites identified during the previous phase to be of significant archaeological importance and for which no appropriate mitigation measures can be sought. |
| Phase 3 | Watching brief during construction: investigation and recording of those sites identified during the DMRB Stages 1 to 3 as not warranting prior investigation, as well as the recording of sites which may be exposed during the course of development. |
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Phases 4 and 5 are not appropriate at this time.

SITE 1/01 AREA 1

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77805260 centred	Map: SJ75SE
Site name & location: Ridge and furrow earthworks, south-west of Brookwood Hill Farm	
Parish: Barthomley	Extent of site (OS): 8260

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would involve widening the existing embankment on the east side of the slip road by approximately 10m in the area of this site. A Phase 1 earthwork survey recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report has been carried out, revealing only minor landscape features, including a pond.</p>		
Grade of site: Medium	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation:</p> <p>It is considered that these earthwork features have been recorded to a satisfactory standard (preservation by record) and that no further action is required.</p>		

SITE 1/03

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77755300 centred	Map: SJ75SE
Site name & location: Barn (site of) (field name), south of Scotts Green	
Parish: Barthomley	Extent of site (OS): 6600 (part)

Effects and mitigation

<p><i>Effects of the proposals:</i> The construction and landscaping proposals, which would involve the re-location of the road bridge over the motorway and extending its southern embankment by 30m, as well as the re-alignment of a minor road, would have a slight impact on this low grade site. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p><i>Mitigation:</i> No further action.</p>		

SITE 1/05 AREA 2

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77155315 centred	Map: SJ75SE
Site name & location: Ridge and furrow and field boundaries, north-east of New Farm	
Parish: Barthomley	Extent of site (OS): 2226

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would involve the re-alignment and widening of Radway Green Road by approximately 20m in the area of this site. A Phase 1 earthwork survey, as recommended by the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out revealing field boundaries, ridge and furrow and the sites of two former buildings. Only the latter will be affected by the scheme.</p>		
<p>Grade of site: Medium</p>	<p>Archaeological impact: Slight</p>	<p>Overall adverse impact: Slight</p>
<p>Mitigation: Phase 1 earthwork survey complete. This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 1/06

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77305330 centred	Map: SJ75SE
Site name & location: Barn (site of) (field name), east side of Radway Green Road	
Parish: Barthomley	Extent of site (OS): 3336 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would involve the construction of a large mound over the site of this building.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 1/07 AREA 3

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77265355 accurate	Map: SJ75SE
Site name & location: Road bridge, east of Radway Green Road	
Parish: Barthomley	Extent of site (OS):

Effects and mitigation

Effects of the proposals: The construction and landscaping proposals may involve disturbance to or demolition of this structure during the construction of an adjacent balancing pond, the re-alignment of Radway Green Road and associated planting and landscaping works.		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Moderate
Mitigation: This structure would require further analysis and/or detailed recording in advance of destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 work if required.		

SITE 1/08

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77255350-SJ77375395 linear	Map: SJ75SE
Site name & location: Former course of Radway Green Road, south-west of Radway Green	
Parish: Barthomley	Extent of site (OS): 5783 (part), 2961 (part), 3336 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals, which would involve the creation of a false cutting for the motorway, would have a major impact on the southern section of this site. However, no significant archaeological deposits are associated with this site.</p>		
<p>Grade of site: Low</p>	<p>Archaeological impact: Major</p>	<p>Overall adverse impact: Slight</p>
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 1/11

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ76955425-SJ77175417-SJ77355418 linear	Map: SJ75SE
Site name & location: Course of old lane, Oakhanger to Radway Green	
Parish: Barthomley	Extent of site (OS): 0925 (part), 2828 (part)

Effects and mitigation

Effects of the proposals: The construction and landscaping proposals would have a slight impact on this site, widening the existing western corridor of the M6 by approximately 30m. However, no significant archaeological deposits are associated with this site.		
Grade of site:	Archaeological impact:	Overall adverse impact:
Low	Slight	Slight
Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.		

SITE 2/01 AREA 4

Concordance details

SMR No:	NAR No:	SAM No:	LD No:
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Location information

NGR: SJ77055453 centred	Map: SJ75SE
Site name & location: Moss Farm, east of Oakhanger	
Parish: Haslington	Extent of site (OS): 0652

Effects and mitigation

Effects of the proposals: The construction and landscaping proposals would involve widening the existing western corridor of the M6 by approximately 40m, and the creation of a false cutting, resulting in the demolition of the farmhouse and the outbuildings.		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Substantial
Mitigation: These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 work if required.		

SITE 2/03 AREA 5

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGH: SJ768 549 centred	Map: SJ75NE, SJ75SE
Site name & location: Oakhanger Moss	
Parish: Haslington	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals, which would involve the re-location of the Nursery Road bridge and the regrading of the existing embankments by 40m to the west, will have a slight impact on this high grade site. However, the nature of the archaeological evidence means that the spatial extent and significance of this high grade site has not yet been determined.</p>		
Grade of site: High	Archaeological impact: Slight	Overall adverse impact: Moderate?
<p>Mitigation: Environmental sampling and trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 2/04 AREA 7

Concordance details

SMR No: 213	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ775 550 centred	Map: SJ75NE, SJ75SE
Site name & location: White Moss	
Parish: Haslington	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals, which would involve the re-location of the Nursery Road bridge and the regrading of the existing embankments by 20m, will have a slight impact on this high grade site. However, the nature of the archaeological evidence means that the spatial extent and significance of this high grade site has not yet been determined.</p>		
Grade of site: High	Archaeological impact: Slight	Overall adverse impact: Moderate?
<p>Mitigation: Environmental sampling and trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 2/05 AREA 6

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77075497 accurate	Map: SJ75SE
Site name & location: White Moss Farm, east of Oakhanger Moss	
Parish: Haslington	Extent of site (OS):

Effects and mitigation

Effects of the proposals: The proposals, which would involve widening the existing western corridor of the M6 by approximately 30m, would result in the demolition of the house and outbuildings.		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Substantial
Mitigation: These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 work if required.		

SITE 2/08

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ770655 10-SJ77205528 linear	Map: SJ75NE
Site name & location: Former course of Nursery Road, north of White Moss	
Parish: Haslington	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a slight impact on this low grade site, widening the existing western corridor of the M6 by approximately 20m. However, no significant archaeological deposits are associated with this site.</p>		
<p>Grade of site: Low</p>	<p>Archaeological impact: Slight</p>	<p>Overall adverse impact: Slight</p>
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 2/12 AREA 8

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77355675 centred	Map: SJ75NE
Site name & location: Brick kiln (site of) (field name), south of Bostock House	
Parish: Hassall	Extent of site (OS): 3074

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would involve widening the existing western corridor of the M6 by approximately 40m in this area. A Phase 1 geophysical survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out. This produced inconclusive results; three linear and one non-linear anomaly were identified, but their significance is unclear and parts of the survey data were obscured by ferrous or other disturbance.</p>		
Grade of site: Medium	Archaeological impact: Moderate	Overall adverse impact: Moderate?
<p>Mitigation:</p> <p>Phase 1 geophysical survey complete. Further fieldwalking and trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 2/13 AREA 10

Concordance details

SMR No:	NAR No: RR70a	SAM No:	LB No:
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Location information

NGR: SJ77055755-SJ77855650 linear	Map: SJ75NE
Site name & location: Possible course of King Street Roman road, north-west of Alsager	
Parish: Hassall	Extent of site (OS): 2626 (part), 5900 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would involve widening the existing western corridor of the M6 by approximately 40m in this area. A new embankment leading to a new bridge over the M6 would also be constructed over this site. A Phase 1 geophysical survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out. This revealed one linear and three non-linear anomalies whose significance is unclear.</p>		
<p>Grade of site: Low</p>	<p>Archaeological impact: Slight</p>	<p>Overall adverse impact: Slight</p>
<p>Mitigation: Phase 1 geophysical survey complete. Further trial trenching work would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 2/14 AREAS 9 & 10

Concordance details

SMR No: 1133	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77385695 centred	Map: SJ75NE
Site name & location: Bostock Hall moated site (site of), east of Bostock House	
Parish: Hassall	Extent of site (OS): 3800

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would involve widening the existing western corridor and extending the existing embankment of the M6 by approximately 40m in this area. A new embankment leading to a bridge across the M6 will also be constructed in the northern part of the field. Phase 1 earthwork and geophysical surveys, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, have been carried out, revealing two possible building platforms, other earthworks possibly associated with a former pond, and one linear and three non-linear geophysical anomalies of unclear significance.</p>		
<p>Grade of site: High</p>	<p>Archaeological impact: Moderate</p>	<p>Overall adverse impact: Moderate</p>
<p>Mitigation:</p> <p>Phase 1 earthwork and geophysical surveys complete. Further Phase 1 trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 3/01

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77565793 centred	Map: SJ75NE
Site name & location: Barn (site of) (field name), north of Day Green Farm	
Parish: Hassall	Extent of site (OS): 4700 (part)

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would involve widening the existing western corridor and regrading the existing embankment of the M6 by approximately 80m in this area. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Major	Overall adverse impact: Slight
<p>Mitigation: No further action.</p>		

SITE 3/03 AREA 11

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77555815-SJ78025796 linear	Map: SJ75NE
Site name & location: Mill leat, east of Lower Roughwood Mill	
Parish: Betchton	Extent of site (OS):

Effects and mitigation

Effects of the proposals: The proposals would have a moderate impact on this low grade site, widening the existing western corridor of the M6 by approximately 60m. A Phase 1 earthwork survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report has been carried out.		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Slight
Mitigation: It is considered that this earthwork feature has been recorded to a satisfactory standard (preservation by record) and that no further action is required.		

SITE 3/07 AREA 12

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77635830 accurate	Map: SJ75NE
Site name & location: Row of cottages, east of Sun Cottages, Hassall Green	
Parish: Betchton	Extent of site (OS):

Effects and mitigation

Effects of the proposals: The construction and landscaping proposals would involve widening the existing corridor of the M6 by approximately 30m, resulting in the demolition of these buildings.		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Substantial
Mitigation: These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 works if required.		

SITE 3/20 AREA 13

Concordance details

SMR No:	NAR No: RR70a	SAM No:	LD No:
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Location information

NGR: SJ77106015-SJ78125942 linear	Map: SJ76SE, SJ75NE
Site name & location: Possible course of King Street Roman road, east of Sandbach	
Parish: Betchton	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would involve the construction of a new bridge over the motorway and the extension of the existing structure to the south by approximately 30m on either side of the M6 in this area. A Phase 1 geophysical survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out. However, approximately half of the survey area was disturbed or obscured by the magnetic effect of modern services or ferrous objects in the soil. No significant anomalies were recorded, but their presence cannot be ruled out.</p>		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Slight
<p>Mitigation:</p> <p>Phase 1 geophysical survey complete. Further trial trenching work would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 3/23 AREA 14

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77456055 centred	Map: SJ76SE
Site name & location: Brick kiln (site of) (field names), south-east of Prism Ball Bank, Betchton Heath	
Parish: Betchton	Extent of site (OS): 4358

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals, which would involve a new bridge over the motorway and the extension of the existing structure by approximately 30m to the north, will have a major impact on this site. The landscaping works will also involve the grading out of the embankment over all of the site. A Phase 1 geophysical survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out, revealing no significant features. However, approximately one third of the survey area was obscured by the magnetic effect of modern services and ferrous objects in the soil.</p>		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Moderate
<p>Mitigation:</p> <p>Phase 1 geophysical survey complete. This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 3/25

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77506040-SJ77556072 linear	Map: SJ76SE
Site name & location: Former course of Reynolds Lane, Betchton Heath	
Parish: Sandbach, Betchton	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The proposals would have a slight impact on this low grade site, widening the existing eastern corridor of the M6 by approximately 30m. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 3/26 AREA 15

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ77536085 centred	Map: SJ76SE
Site name & location: Ivy Cottage Farm, Reynolds Lane	
Parish: Sandbach	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals:</p> <p>The proposals, which would involve widening the existing eastern corridor of the M6 by approximately 40m, will have a moderate impact on this medium grade site, resulting in the demolition of some of the outbuildings.</p>		
Grade of site: Medium	Archaeological impact: Moderate	Overall adverse impact: Moderate
<p>Mitigation:</p> <p>These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 works if required.</p>		

SITE 4/10

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ76706200 centred	Map:
Site name & location: Park (field names), north of Park House	
Parish: Sandbach	Extent of site (OS): 7000

Effects and mitigation

<p>Effects of the proposals: The proposals, which would involve the creation of slip roads, roundabouts and associated landscaping works through this area, will have a slight impact on this low grade site. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: No further action.</p>		

SITE 4/18

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ76556285 centred	Map: SJ76SE
Site name & location: Windmill (site of) (field name), west of Brindley Green	
Parish: Brereton	Extent of site (OS): 6279 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a moderate impact on this low grade site, widening the existing eastern corridor of the M6 by approximately 40m. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 4/26

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ75886395-SJ76046430 linear	Map: SJ76SE
Site name & location: Former course of Ward's Lane, east of Leahead Farm	
Parish: Bradwall	Extent of site (OS): 9400 (part), 0013 (part)

Effects and mitigation

<p>Effects of the proposals:</p> <p>The construction and landscaping proposals would have a slight impact on this low grade site, widening the existing eastern corridor of the M6 by approximately 40m. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site:	Archaeological impact:	Overall adverse impact:
Low	Slight	Slight
<p>Mitigation:</p> <p>This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 4/27 AREA 16

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ76006450 centred	Map: SJ76SE
Site name & location: Ridge and furrow earthworks, north side of Wards Lane	
Parish: Bradwall	Extent of site (OS): 0034

Effects and mitigation

Effects of the proposals: The construction proposals, which would involve the creation of a new road bridge for Ward's Lane over the M6, will have a moderate impact on this medium grade site. However, the landscaping proposals also involve the creation of a wooded link from the new bridged road to the wood. A Phase 1 earthwork survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report has been carried out, revealing well-preserved ridge and furrow.		
Grade of site: Medium	Archaeological impact: Moderate	Overall adverse impact: Slight
Mitigation: It is considered that these earthwork features have been recorded to a satisfactory standard (preservation by record) and that no further action is required.		

SITE 5/03 AREA 17

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ75556505 centred	Map: SJ76SE, SJ76NE
Site name & location: Brick kiln (site of) (field name), east of Mooresbarrow Lodge	
Parish: Bradwall	Extent of site (OS): 5800 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a slight impact on this medium grade site, widening the existing eastern corridor of the M6 by approximately 60m.</p>		
Grade of site: Medium	Archaeological impact: Moderate	Overall adverse impact: Moderate
<p>Mitigation: Further Phase 1 fieldwalking and trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		

SITE 5/10

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ75256550 centred	Map: SJ76NE
Site name & location: Brickworks (site of) and ridge and furrow, Brereton Lane	
Parish: Brereton	Extent of site (OS): 2250 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a moderate effect on this low grade site, widening the existing eastern corridor of the M6 by approximately 30m.</p>		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 5/11 AREA 18

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ743 665 centred	Map: SJ76NE
Site name & location: Saltworks (site of) (field names), east of Holly Farm	
Parish: Sproston	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The construction proposals would have a moderate impact on this low grade site, including the widening of the existing eastern corridor of the M6 by approximately 30m and the creation of a balancing pond at the south end of the site. The landscaping works also involve the grading out the southern side of the existing bridge embankment by 30m. A Phase 1 geophysical survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out but most of the surveyed area was obscured by the magnetic effects of modern services and parts of the survey were consequently abandoned.</p>		
Grade of site: Low	Archaeological impact: Moderate	Overall adverse impact: Slight
<p>Mitigation: Phase 1 geophysical survey complete. This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 5/13 AREA 19

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ74606655, SJ74756635 centred	Map: SJ76NW
Site name & location: Ridge and furrow earthworks around Hill and Primrose Farms	
Parish: Sproston	Extent of site (OS): 7231, 6056

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would involve widening the existing eastern corridor of the M6 and association land landscaping works by approximately 20m. A Phase 1 earthwork survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out. This revealed ridge and furrow, which had been disturbed by previous activity in proposed widening corridor.</p>		
Grade of site: Medium	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: Phase 1 earthwork survey complete. It is considered that these earthwork features have been recorded to a satisfactory standard (preservation by record) and that no further action is required.</p>		

SITE 6/01

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ74006780 centred	Map: SJ76NE
Site name & location: Bradwall wharf (site of), Cranage	
Parish: Cranage	Extent of site (OS): 1000 (part)

Effects and mitigation

<p>Effects of the proposals: The proposals, which might involve reinforcing the present course of the River Dane to prevent further erosion, will have a slight impact on this low grade site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 6/03 AREA 20

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ73906805, SJ74056815 centred	Map: SJ76NW
Site name & location: Ridge and furrow earthworks, south of Mill Lane Farm	
Parish: Cranage	Extent of site (OS): 9100, 0013, 1128

Effects and mitigation

Effects of the proposals: The construction and landscaping proposals would involve widening the existing western side of the M6 by approximately 40m. A Phase 1 earthwork survey, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, has been carried out, revealing a former field boundary.		
Grade of site: Medium	Archaeological impact: Slight	Overall adverse impact: Slight
Mitigation: Phase 1 earthwork survey complete. It is considered that these earthwork features have been recorded to a satisfactory standard (preservation by record) and that no further action is required.		

SITE 6/04 AREA 21

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ74006910 centred	Map: SJ76NW
Site name & location: New Farm, Oak Tree Lane	
Parish: Cranage	Extent of site (OS):

Effects and mitigation

Effects of the proposals: The proposals, which would involve widening the existing western corridor of the M6 by approximately 30m, will have a major impact on this site, resulting in the demolition of the farmhouse and some of the outbuildings.		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Substantial
Mitigation: These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 works if required.		

SITE 6/06 AREA 22

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ73926945 accurate	Map: SJ76NW
Site name & location: Building, north of New Farm	
Parish: Cranage	Extent of site (OS): 9245 (part)

Effects and mitigation

Effects of the proposals: The proposals, which would involve widening the existing western corridor of the M6 by approximately 30m, will have a major impact on this site, resulting in its demolition.		
Grade of site: Medium	Archaeological impact: Major	Overall adverse impact: Substantial
Mitigation: These structures would require further analysis and/or detailed recording in advance of their destruction. This work would be undertaken as part of the programme of Phase 1 works, with further Phase 2 works if required.		

SITE 6/09

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ73906950-SJ73617010 linear		Map: SJ77SW, SJ76NW
Site name & location: Former course of King's Lane, Warrington Common		
Parish: Cranage	Extent of site (OS):	

Effects and mitigation

<p>Effects of the proposals:</p> <p>The proposals would have a slight impact on this low grade site, widening the existing western corridor of the M6 by approximately 30m. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation:</p> <p>This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 6/14

Concordance details

SMR No:	NAR No: RR700	SAM No:	LB No:
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Location information

NGR: SJ73007095-SJ73907250 linear	Map: SJ77SW
Site name & location: Presumed course of Roman road, B5081	
Parish: Allostock	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The proposals would have a slight impact on this low grade site, widening the existing western corridor of the M6 by approximately 30m.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 7/01

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ73207193-SJ73627201 linear		Map: SJ77SW
Site name & location: Former course of road, north of Washlane Farm		
Parish: Allostock	Extent of site (OS): 5800 (part), 3900 (part), 2100 (part)	

Effects and mitigation

<p>Effects of the proposals: The proposals would have a slight impact on this low grade site, widening the existing western corridor of the M6 by approximately 30m. However, no significant archaeological deposits are associated with this site.</p>		
Grade of site: Low	Archaeological impact: Slight	Overall adverse impact: Slight
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 7/06

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ73287310-SJ73427295 linear	Map: SJ77SW
Site name & location: Former course of Baker's Lane, east of Hulme Farm	
Parish: Nether Peover	Extent of site (OS): 3300 (part), 1900 (part)

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a slight impact on this low grade site, widening the existing western corridor of the M6 by approximately 50m. However, no significant archaeological deposits are associated with this site.</p>		
<p>Grade of site: Low</p>	<p>Archaeological impact: Slight</p>	<p>Overall adverse impact: Slight</p>
<p>Mitigation: This site would be subject to a Phase 3 watching brief, undertaken in advance of construction works, to record any items of archaeological interest that might be revealed.</p>		

SITE 11/03 AREA 23

Concordance details

SMR No:	NAR No:	SAM No:	LB No:
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Location information

NGR: SJ675 830 centred	Map: SJ68SE
Site name & location: Sink Moss area of wetland	
Parish: High Legh, Antrobus	Extent of site (OS):

Effects and mitigation

<p>Effects of the proposals: The construction and landscaping proposals would have a moderate impact on this high grade site, widening the existing western corridor of the M6 by approximately 40m. However, the nature of the archaeological evidence means that the spatial extent and significance of this high grade site has not been determined.</p>		
Grade of site: High	Archaeological impact: Moderate	Overall adverse impact: Moderate?
<p>Mitigation: Further Phase 1 environmental sampling and trial trenching work, as recommended in the Cultural Heritage (Archaeology) Volume 2 Specialist Report, would be carried out within the proposed construction and landscaping corridor in advance of any disturbance of this site to assess its extent and importance. This work would be undertaken as part of the programme of Phase 1 archaeological works. Further Phase 2 or 3 works would follow as appropriate.</p>		