

Chapter 1: Introduction

INTRODUCTION

Between November 2008 and July 2009 Oxford Archaeology (OA) carried out a programme of archaeological fieldwork in advance of improvements to the A421 between Junction 13 of the M1 and its junction with the A6 on the southern outskirts of Bedford (Fig. 1.1). The improvements comprised the replacement of the existing single carriageway road, which had become subject to much congestion, particularly at Junction 13, with a new dual carriageway. The route of the Improvements partly extended alongside the existing road, although in several locations it was constructed on a new alignment across agricultural land. The Highways Agency awarded the contract for the Improvements to Balfour Beattie Civil Engineering Ltd, who appointed URS (formerly Scott Wilson Ltd) as their designer. A programme of investigations was undertaken in order to identify, characterise and assess the significance of any archaeological remains that would be affected by the scheme and to enact an appropriate mitigation strategy in line with the guidelines provided by the Department of the Environment's *Planning policy guidance note 16: archaeology and planning*.

The archaeological strategy was prepared by Nick Finch, archaeological consultant to URS, in consultation with Martin Oake, the Archaeological Officer of Bedfordshire County Council. A staged approach to the archaeological investigations was adopted, comprising desk-top assessment, non-intrusive survey, evaluation trenching, mitigation in the form of preservation of remains *in situ*, excavation, watching brief and earthwork survey. Balfour Beattie commissioned OA to carry out the field evaluation and mitigation excavation, and to undertake the post-excavation analysis, the results of which are presented in this volume.

Mitigation excavations were carried out at nine locations. These comprised one area of open area excavation complemented by strip, map and sample excavation at Site 2, and a further eight areas of strip, map and sample excavation. Watching briefs were maintained during stripping of topsoil in advance of surfacing at two construction compounds and in advance of carriageway widening at Cowbridge Junction, as well as during stripping of topsoil and subsoil at a borrow pit. Earthwork surveys were carried out at three locations in order to create a record of historic earthworks that would be unavoidably destroyed by the Improvements. These comprised an area of ridge and furrow and earthworks that defined two parish boundaries. This volume also includes a report on geophysical

survey and field evaluation of the site of a proposed borrow pit that was not used. The remains uncovered by this project were almost exclusively Iron Age and Roman in date. They shared similar geological and topographical settings within Marston Vale, and so form a particularly coherent group which provides an opportunity to study the exploitation and evolution of the landscape of the area during this period.

LOCATION, TOPOGRAPHY AND GEOLOGY

The Improvements were located to the south-west of Bedford (Fig. 1.1), where they extended for a total distance of 13km, from Junction 13 of the M1 (NGR SP 955 375) to Cowbridge Junction at the southern edge of the city (NGR TL 045 465). Much of the route of the Improvements extended alongside the existing A421, but it diverged significantly from the existing road at two locations: at the south-western end of the route, between the M1 and Brogborough Hill, the Improvements were to be constructed in a new cutting to the north of Highfield Farm, and between Lidlington Lake and Marston Moretaine the new alignment diverged to the north-west of the existing road for a distance of 3.25km, passing to the north of Moretayne Farm. A more minor divergence was located north-east of the junction with Hoo Lane, where a bend in the existing road was to be straightened.

The Improvements extended through Marston Vale, a south-westerly projection of the drainage basin of the river Great Ouse (Fig. 1.2). The river has its source in Northamptonshire, whence it flows in a generally north-easterly direction. As it enters Bedfordshire it describes a loop to the north followed by a loop to the south, passing through Bedford before continuing to the north-east toward its eventual meeting with the Wash at King's Lynn. It is here, as the southern loop flows westward through Bedford, that the Vale extends to the south-west. The Vale is approximately triangular and encompasses an area of nearly 9000ha, bounded to the north by the river, to the south and east by the Greensand Ridge, and to the west by the clay plateau that characterises this part of the county. It has a slight fall from south-west to north-east, toward the river, but is generally flat, with only minor and localised undulations. The Vale is drained by the Elstow Brook, a minor tributary of the Great Ouse that flows on a course almost parallel to that of the Improvements and is joined along the way by a number of insubstantial streams. At the south-western end, the Improvements climb

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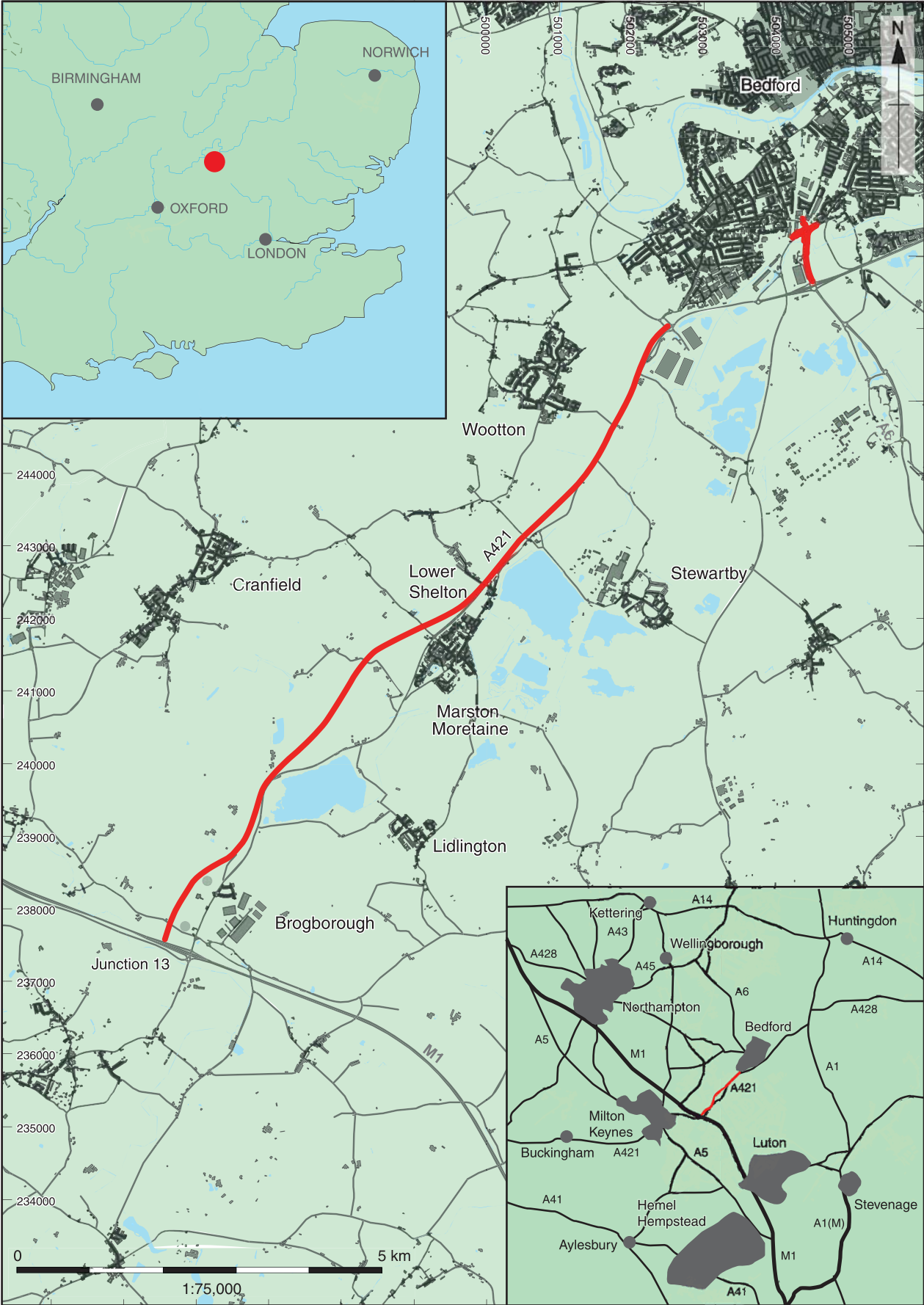


Fig. 1.1 Location of the A421 Improvements

out of Marston Vale and onto the higher ground of the clay plateau. At the top of Brogborough Hill the Improvements briefly attain a height of a little over 100m OD, marking the highest point on the project, before sloping gradually down to c 75-80m OD in the vicinity of the junction with the M1.

The geology of Marston Vale predominantly consists of Oxford Clay, with a narrow corridor of alluvium associated with Elstow Brook and areas of terrace gravel in the northern parts, in the vicinity of the Great Ouse, and to the east of Marston Moretaine (Fig. 1.3). The underlying clay gives rise to heavy, poorly drained, non-calcareous gley soils of the Rowsham Association (King 1969, 20-1). The poor drainage of the Vale was amply demonstrated during the fieldwork, when flooding was a frequent inconvenience. The boggy character of the area has led some sources to suggest that it was the inspiration for the 'Slough of Despond' described in John Bunyan's *Pilgrim's Progress*, which was written while Bunyan was imprisoned in Bedford jail

(Countryside Agency 1999, 89). The Oxford Clay is particularly suited to brick making, giving rise to the numerous modern extraction pits and brickworks that characterise the landscape of the Vale. The only variation from the Oxford Clay along the line of the Improvements occurs on Brogborough Hill, where it is overlain by Boulder Clay, and in the vicinity of Junction 13, where terrace gravels and alluvium associated with the nearby Crawley Brook are found.

BACKGROUND TO THE PROJECT

The Museum of London Archaeology Service (MoLAS) was commissioned by Hyder Consulting (UK) Ltd, on behalf of the Highways Agency, to carry out an initial desk-based assessment of the proposed route in 2004 (MoLAS 2004). This assessment demonstrated that the proposed works would impact on archaeological remains at a number of locations.

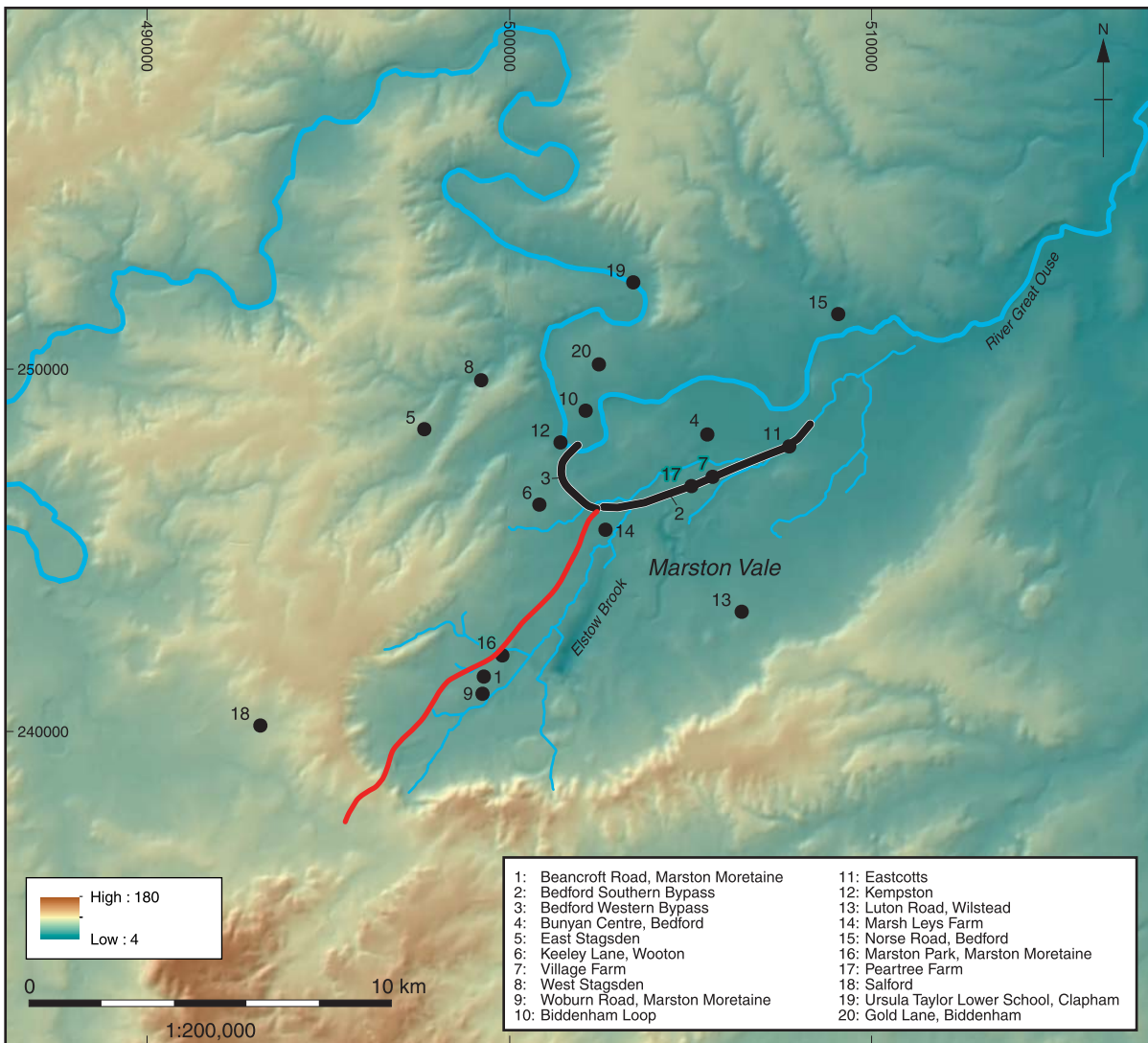


Fig. 1.2 The A421 Improvements and other sites within Marston Vale and its immediate environs in relation to the topography. (© Crown copyright. All rights reserved. Licence no. 100005569)

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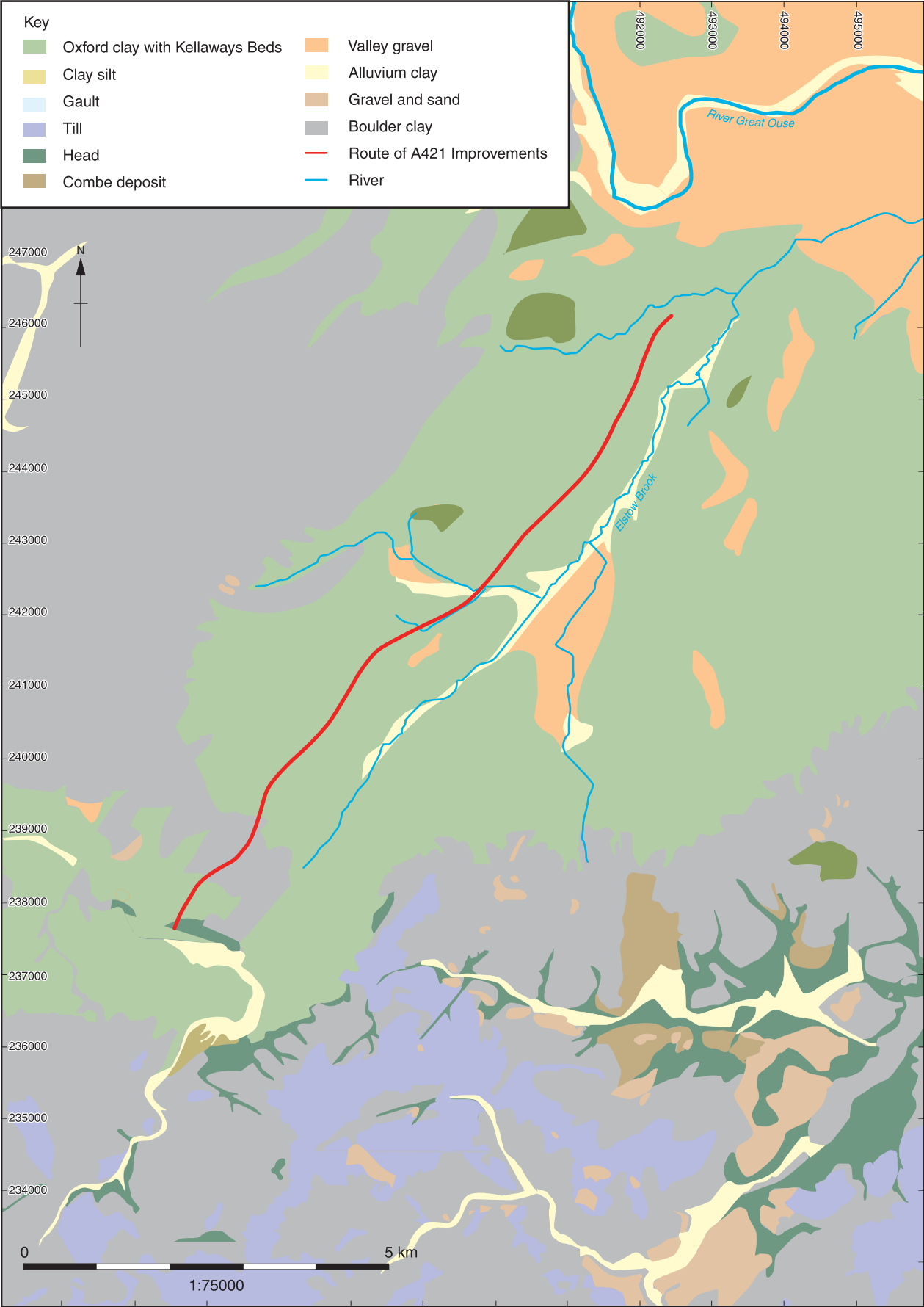


Fig. 1.3 The A421 Improvements in relation to the geology of Marston Vale and environs. (© NEERC, all rights reserved, CP 12/129)

In 2005 MoLAS undertook an archaeological watching brief during the excavation of test pits as part of the preliminary geotechnical site investigation (MoLAS 2006). A number of features were revealed including a quarry pit, a pit whose purpose was undetermined and the remains of a 19th-century outbuilding. No datable artefacts were found within any of the test pits. The report concluded that there was the potential for the survival of undisturbed archaeological remains within the area.

Stratascan was subsequently commissioned to undertake a geophysical survey of ten areas along the route to locate any features of possible archaeological origin (Stratascan 2005). The survey involved a detailed magnetometer survey that encompassed a total area of *c* 72ha. Evidence of possible settlement was identified on Brogborough Hill, as well as concentrations of linear features and pits at Site 3. Features of less certain significance were also identified elsewhere on the route, with particular concentrations located north-east of Beancroft Road, north-east of Hoo Lane on and Site 7. Extensive evidence for ridge and furrow cultivation was also identified throughout most of the survey area.

Albion Archaeology undertook a limited programme of trial trenching to provide further information for the Environmental Statement (Albion Archaeology 2006). A total of six trenches were

excavated. They were positioned to assess the reliability of the geophysical survey results and to provide additional information on the nature, extent and character of the archaeological resource within the area. The results of this investigation confirmed the presence of two farmsteads at Brogborough Hill that were occupied during the Iron Age and Roman period, and of evidence for quarrying dating from the early Roman period at Site 3. The linear anomalies identified by the geophysical survey north-east of Beancroft Road were found to be of geological origin.

URS prepared the cultural heritage chapter of the Environmental Statement for the project, which incorporated the results of the preceding stages of investigation, of a fresh search for data from the Bedfordshire Historic Environment Record (HER) and the Bedfordshire and Luton Archive and Record Service, and of a walkover survey of the proposed route (Highways Agency 2007).

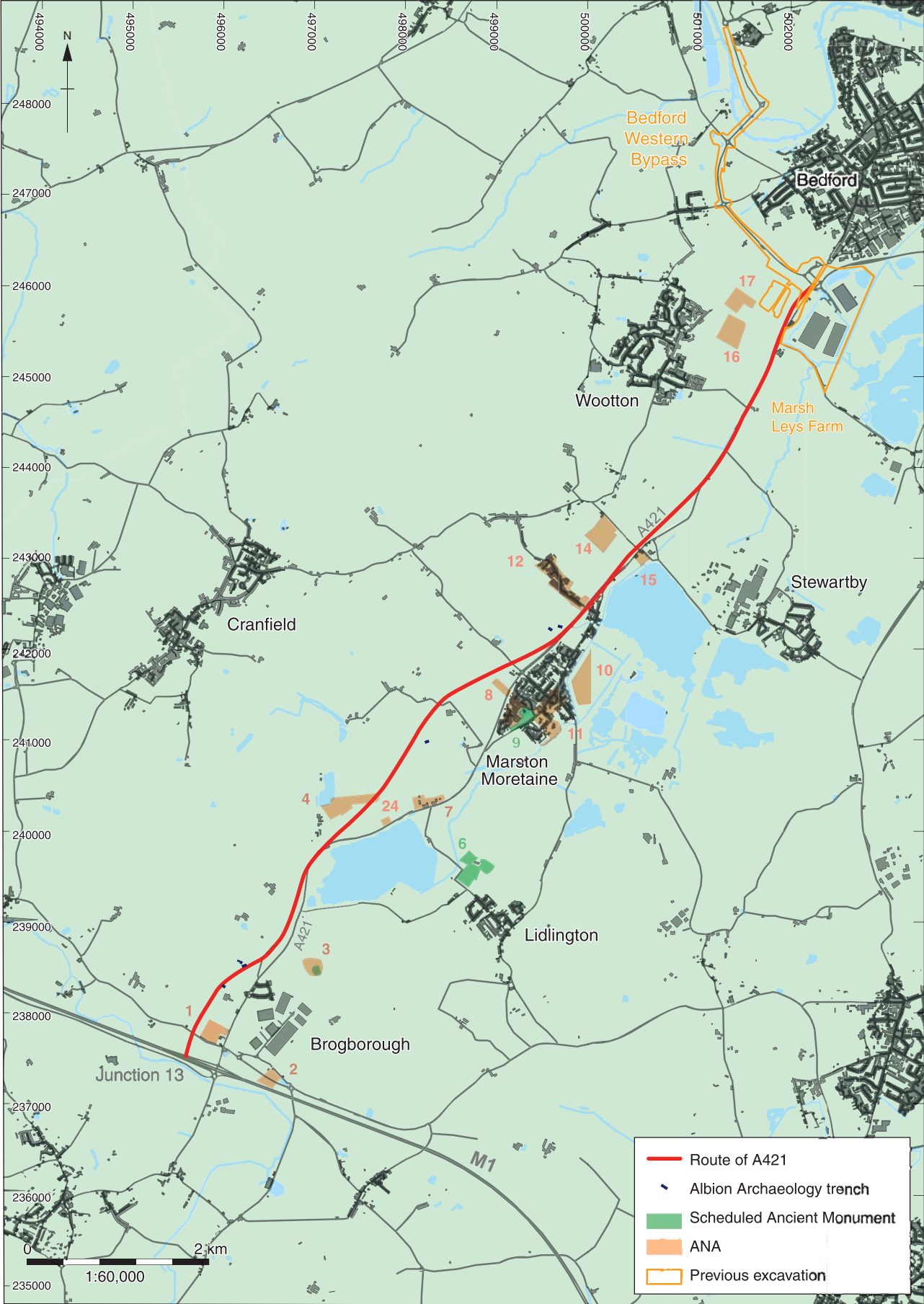
The Environmental Statement identified three Scheduled Ancient Monuments in the vicinity of the Improvements, comprising a medieval ringwork at The Round House, Brogborough Park Farm, a deserted medieval village and moated site at Thrupp End, and a medieval moated site at Moat Farm, Marston Moretaine (Table 1.1; Fig. 1.4). These were all situated at some distance from the route, however, and would not be effected by the Improvements. In addition to this, the route cut

Table 1.1: Summary of Scheduled Ancient Monuments and Archaeological Notification Areas identified in the Environmental Statement

Map ref.	Location	Description	Period	HER ref.
1	SP 9588 3778	Ridge and furrow, visible in 1996	Medieval	3329
2	SP 9651 3727	Ridge and furrow, visible in 1996	Medieval	3329
3	SP 9703 3848	Ringwork at The Round House, Brogborough Park Farm	Medieval	SAM 20436, HER 30
4	SP 9752 4029	Deserted medieval village at Lower End, defined by cropmarks and earthworks	Medieval	16509
5	SP 9773 4008	Moat south-west of Vale Farm, on 1882 and 1951 OS maps. Partially in-filled, now L-shaped	Medieval	56
6	SP 9875 3955	Thrupp End moated site and deserted medieval village	Medieval	SAM 20410, HER 31
7	SP 9815 4034	Moated settlement(s) at Escheat Farm and Vale Farm	Medieval	3399, 3400
8	SP 9902 4155	Ridge and furrow, visible in 2005	Medieval	2791
9	SP 9929 4130	Moated site and earthworks of medieval settlement, Moat Farm, Marston Moretaine	Medieval	SAM 11547
10	SP 9953 4128	Medieval village of Marston Moretaine	Medieval	16939
11	SP 9991 4159	Cropmarks east of Bedford Road, Marston Moretaine, on raised ground west of stream. Trial trenching confirmed Iron Age/Roman occupation	Iron Age/Roman	15321
12	SP 9976 4261	Medieval settlement, Lower Shelton	Medieval	16936
13	SP 9998 4255	Ridge and furrow, visible in 2005	Medieval	2791
14	TL 0017 4324	Ridge and furrow, visible in 1996	Medieval	2791
15	TL 0063 4299	Ridge and furrow, visible in 1996	Medieval	2791
16	TL 0161 4550	Ridge and furrow, visible in 1996	Medieval	5135
17	TL 0166 4586	Ridge and furrow, visible in 1996	Medieval	5135

A number of the ridge and furrow sites have the same HER numbers because the ridge and furrow for each parish was assigned a single HER number and all the surviving blocks given that number even when they were geographically separate.

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through or passed close to fourteen Archaeological Notification Areas. Archaeological Notification Areas (ANAs) were a tool used in the planning process by the now-defunct Bedfordshire County Council to provide an early indication of sites where there was higher than average potential for the discovery of archaeological remains, based on information recorded in the HER from non-intrusive survey data, aerial photographs of cropmarks, fieldwalking or earthwork surveys. They had no formal status and were afforded no statutory protection.

The route of the Improvements passed through two ANAs, clipping the eastern tip of the deserted medieval village at Lower End and cutting across an area of surviving medieval ridge and furrow earthworks on the southern edge of the deserted medieval village of Lower Shelton (Table 1.1; Fig. 1.4). The only ANA that the route passed close to that dated from earlier than the medieval period was a group of cropmark features located beside Bedford Road on the eastern edge of Marston Moretaine, which had been confirmed by trial trenching as representing Iron Age-Roman occupation. In addition to the two scheduled moated sites at Thrupp End and Moat Farm, Marston Moretaine, referred to above, a third, undesignated moated site is situated south-west of Vale Farm. The medieval heart of Marston Moretaine was an ANA, as was the settlement of Escheat Farm and Vale Farm, which were represented by two further moats. The most numerous class of site identified as ANAs in the vicinity of the A421 Improvements was represented by areas of ridge and furrow cultivation that were recorded in surveys carried out in 1996 and 2005, which accounted for a total of eight records.

On the basis of the results recorded in the Environmental Statement, an open area excavation of the main concentration of features at Brogborough Hill was proposed, with strip, map and sample excavation to be undertaken on the rest of this area and at Site 9. A further programme of evaluation was conducted concurrently with this initial phase of mitigation, comprising geophysical surveys of Construction Compounds A and B, proposed borrow areas at Berry Farm and Whitbred Farm, and an area at Area 3 that had not been included in the original survey, as well as field evaluation of the parts of the route that were not included in the earlier evaluation by Albion Archaeology and of the two proposed borrow areas. The purpose of this evaluation was to identify potentially significant archaeological sites in areas that had not previously been surveyed and to clarify the nature and extent of the surviving remains at potentially significant sites that had been identified by the previous surveys.

FIELD EVALUATION

Main alignment

A total of 129 evaluation trenches were excavated along the route of the Improvements (Fig. 1.5). The area of the evaluation comprised most of the route but excluded Brogborough Hill and Site 9, which had been evaluated by Albion Archaeology (2006) at an earlier stage in the project and where mitigation excavation was already underway by the time of the main phase of evaluation work. Two further areas in the north-eastern part of the route were excluded because they had previously been evaluated by Albion Archaeology in relation to other projects (Albion Archaeology 2002).

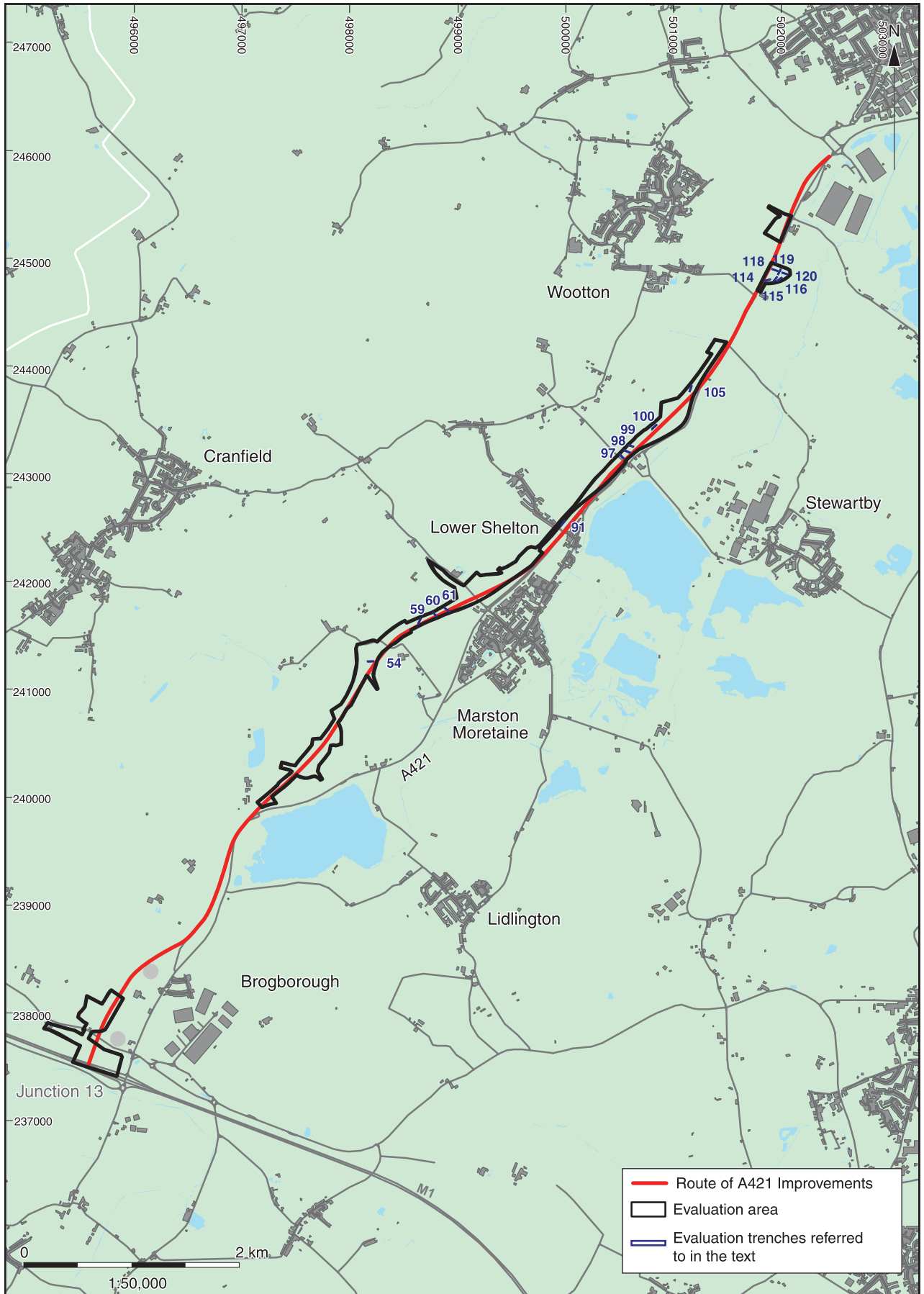
The trenches typically measured 50m x 2m, although six trenches were 4m wide. The topsoil and subsoil were removed using a 360° mechanical excavator with a flat-bladed bucket under close archaeological supervision, to the top of the first archaeological horizon or the natural geology, whichever was encountered first. The exposed archaeological features were excavated by hand and recorded. The work was undertaken during November 2008, in often inclement weather, and flooding was a difficulty in a number of trenches (Fig. 1.6).

Activity dating from periods before the Iron Age was represented only by a small assemblage of eight pieces of worked flint. Two pieces were recovered from the fills of Iron Age/Roman ditches, one from a medieval plough furrow, and the remainder came from the modern topsoil. None was associated with potentially contemporaneous features. The material derived from the utilisation of flakes for expedient tools, characteristic of a later Neolithic or Bronze Age date. The small size of the assemblage indicates only a very low level of activity on the route of the Improvements during this period.

Evidence for activity dating from the Iron Age was more widespread, and was generally associated with evidence for occupation during the Roman period. The only location where the evidence was restricted exclusively to the Iron Age was at Site 4 (Trench 54). A group of four ditches were recorded here in Trench 54, only one of which had been detected during the geophysical survey. Two ditches were excavated, and were found to be quite substantial, each measuring 0.8m in depth. Domestic debris was recovered from their fills, including large sherds of Iron Age pottery as well as the largest assemblage of animal bone from the evaluation, amounting to more than 2kg. A fragment of human femur was also recovered from one of the ditches. In consultation with Nick Finch, archaeological advisor to URS, Kev Beachus,

Fig. 1.4 (opposite) The route of the A421 Improvements, showing Scheduled Ancient Monuments and Archaeological Notification Areas identified in the Environmental Statement, the trenches of the 2006 Albion Archaeology field evaluation and previous excavations by other organisations

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archaeological advisor to Balfour Beattie, and Martin Oake, the Archaeological Officer of Bedfordshire County Council, it was agreed that excavation of the remaining ditches was unnecessary at this stage and should be deferred until the mitigation stage of the project.

The evaluation revealed evidence for activity that spanned the late Iron Age and Roman period at five locations. A range of features including ditches, pits and postholes, all of which appeared to date from the late Iron Age or early Roman period, was identified in Trench 48 at Site 3. These features were likely to be associated with a complex of possible enclosure ditches identified to the east of the trench by the geophysical survey. The range of features recorded suggested that the complex was likely to be domestic in nature, although an evaluation trench previously excavated within the complex by Albion Archaeology (2006) had found evidence only for early Roman quarrying. One particularly significant feature of this site was a cremation burial, comprising the remains of an adult of undetermined sex interred within a grey ware jar and accompanied by a flagon and a poppyhead beaker. A modest group of pits and postholes was exposed in Trenches 59-61. The artefactual assemblage was very small but indicated a date in the late Iron Age and early Roman period, and the presence of postholes suggested the possible presence of buildings. A further possible domestic site of this period was

identified at Site 5, where pits and ditches were recorded in Trenches 91 and 92. Although these features were clearly not extensive – as they did not continue into the adjacent trenches – the presence of animal bone indicated the dumping of domestic refuse. A pit and a ditch each contained a fragment of human femur. The features exposed in Trenches 97-100 confirmed the presence of the ditched enclosures identified by the geophysical survey. Flooding of Trenches 97, 98 and 99 prevented excavation of these features, and so their date could not be conclusively established, although a ditch in Trench 100 contained pottery of late Iron Age or early Roman date. Trench 105 was excavated close to a group of geophysical anomalies that appeared to represent an irregular scatter of pits extending for a distance of 200m alongside the existing carriageway of the A421. The trench exposed three possible pits, although the small quantities of pottery recovered and the absence of other material suggested that the activity here was not domestic in character. The adjacent Trench 106 was targeted on a denser part of the pit scatter, but no archaeological features were identified.

The only site at which the remains were exclusively Roman in date was Site 7, where six of the eight trenches exposed archaeological features (Trenches 114-116 and 118-120). The features included ditches that corresponded with a series of ditched enclosures identified by the geophysical



Fig. 1.6 Flooding in Evaluation Trench 58

Fig. 1.5 (opposite) Route of the A421 Improvements, showing the area of the evaluation and the location of evaluation trenches mentioned in the text

survey. Other features included pits and two large features that were interpreted as quarries or wells/waterholes. A range of artefactual material was recovered that was characteristic of domestic occupation, including pottery, animal bone, slag, shell and an iron nail.

Four of the trenches excavated in the area where the Improvements cut through the medieval settlement at Lower End exposed archaeological features (Trenches 31, 34, 37 and 38). The features comprised three ditches, a gully, a pit and a wide, shallow feature that may have been a pond. Most of the features were undated, but two sherds of 13th-14th-century pottery were recovered from the gully, two sherds of 16th-century pottery came from a ditch, and the pond yielded some very small fragments of medieval pottery. The presence throughout the area of the evaluation of furrows resulting from medieval ridge and furrow cultivation indicated that much of the area encompassed by the Improvements had been farmland during this period.

The results of the geophysical survey had indicated the presence of features interpreted as the ring ditches of plough-levelled Bronze Age barrows and a possible ditched enclosure at the south-western end of the Improvements between Salford Road and the M1. No such features were identified in the evaluation, and it is likely that the geophysical anomalies were caused by an area of periglacial patterned ground and a group of tree-throw holes respectively.

Berry Farm and Whitbred Farm Borrow Areas

Programmes of archaeological evaluation were also undertaken at two proposed borrow areas, located at Berry Farm and Whitbred Farm.

The geophysical survey at Berry Farm revealed two apparently discrete complexes of ditched enclosures. A total of ten evaluation trenches were excavated, the results of which confirmed that the features were of late Iron Age-Roman date. The quantity of fill material needed by the development was subsequently found to be less than had originally been estimated, as a result of which the Berry Farm Borrow Area was not used. As this meant that no further investigation took place, the results of the evaluation constitute the only record of this site and so they are presented in some detail with the other site descriptions in Chapter 2.

A total of nine evaluation trenches were excavated at Whitbred Farm, where the geophysical survey had recorded anomalies that indicated widespread disturbance across much of the central part of the site, but no clear evidence for discrete archaeological features. Undisturbed geology, comprising Oxford Clay, was revealed at depths of 0.56-0.76m below the current ground level, overlain in all trenches by a layer of made ground up to 0.6m thick, above which lay the modern ploughsoil. No

archaeological features or artefacts were identified. The position of the layer of made ground directly overlying the London Clay, with no intervening buried ground surface, indicated that the site had previously been stripped of topsoil prior to deposition of this material. While it is not known whether the underlying clay was also truncated at the same time, the absence of any archaeological features suggested that this may have been the case. If this were the case, any archaeological features that were present are likely to have been damaged or destroyed during this process.

EXCAVATION METHODOLOGY

The sites

A total of thirteen areas were identified for archaeological mitigation (Table 1.1; Fig. 1.7). Three distinct levels of investigation were defined: open area excavation, strip, map and sample excavation, and watching brief. An open area excavation was carried out at the main concentration of features at the Iron Age-Roman settlement at Brogborough Hill, where the archaeological potential of the site was clear from the results of the geophysical survey and the evaluation trenching undertaken by Albion Archaeology. Strip, map and sample excavation was undertaken where there was potential for the recovery of significant archaeological remains but where the results of the evaluation were not sufficient to allow close definition of the areas of importance, evidence for occupation activity was limited to fields systems, or where it was anticipated that any archaeological remains would have been disturbed by later activities. Such areas were identified in the parts of the site at Brogborough Hill that surrounded the main concentration of features and on eight further sites. Watching briefs were carried out in four areas where the potential for encountering archaeological remains was low.

Note on the nomenclature of the sites

For the purposes of the Environmental Statement the route was divided into nine areas, numbered consecutively from south-west to north-east, and these designations were used throughout the subsequent stages of the investigations. In each of Areas 2, 3, 5, 7 and 9 only a single site was identified for archaeological mitigation, and so the site was allocated the number of the area in which it was situated; thus the excavation in Area 2 was referred to as Site 2. Areas 4 and 6 each contained two excavation areas, which were distinguished by adding the number(s) of the evaluation trench on which each was targeted, hence, for example, the excavation in Area 4 targeted on evaluation Trench 54 was referred to as Site 4 (Trench 54).

Fig. 1.7 (opposite) Location of excavation areas

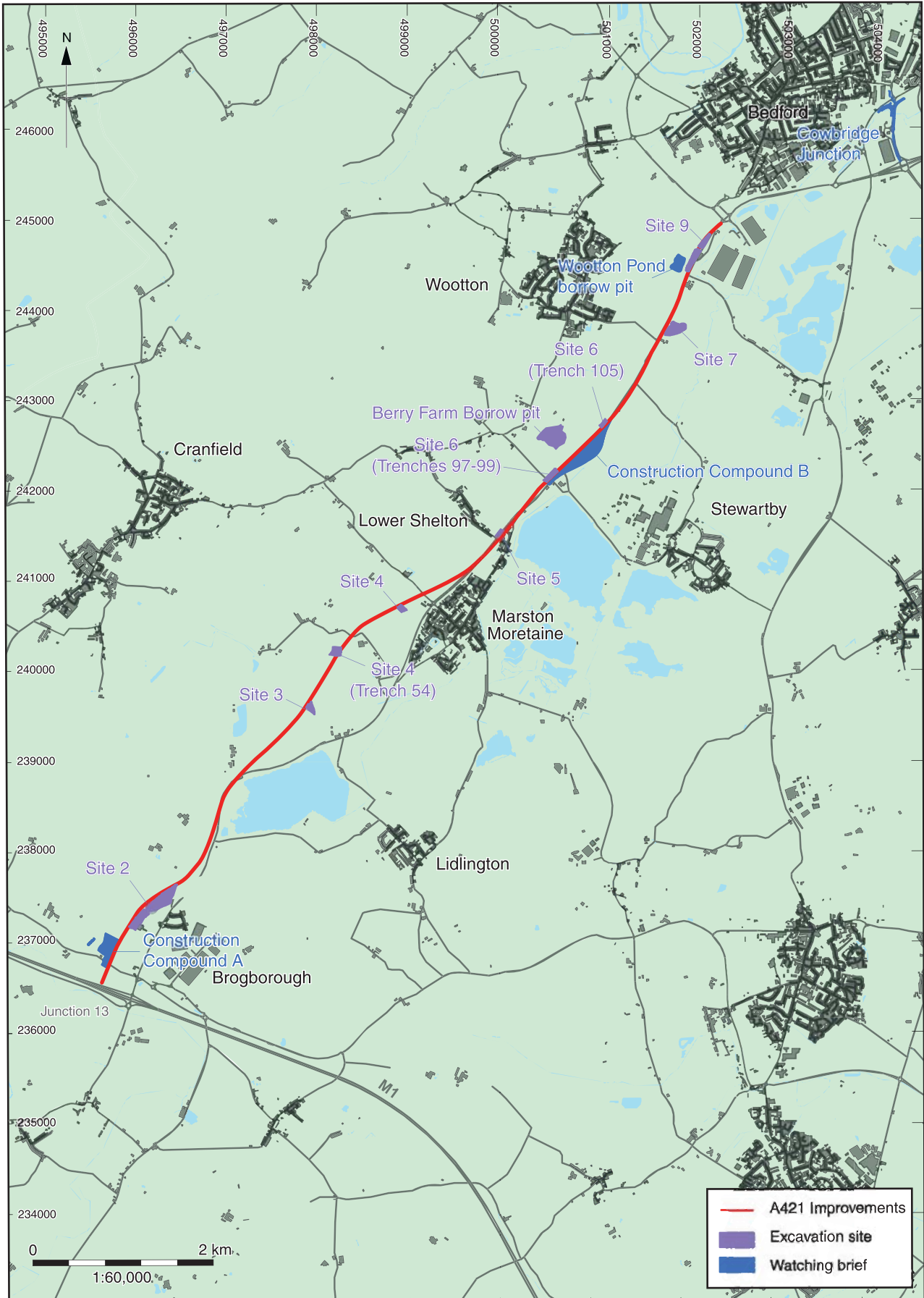


Table 1.2: Archaeological mitigation areas at the A421 Improvements

Site	Name	NGR	Nature of investigation	Area of site (m ²)
Site 2	Brogborough Hill	SP 962 384	Open area, SMS	13,200 39,336
Site 3	Vale Farm	SP 979 406	SMS	6020
Site 4 (Trench 54)	Moreteyne Farm	SP 982 412	SMS	9440
Site 4 (Trench 61)	West of Marston Moretaine	SP 989 417	SMS	4253
Site 5	Lower Shelton	TL 000 426	SMS	1867
Site 6 (Trenches 97-99)	Hoo Lane	TL 006 432	SMS	7478
Site 6 (Trench 105)	East of Berry Farm	TL 012 438	SMS	3048
Site 7	Fields Road Junction	TL 020 448	SMS	21,356
Site 9	West of Marsh Leys Farm	TL 022 457	SMS	19,688
Construction Compound A		SP 957 380	WB	82,247
Construction Compound B		TL 010 435	WB	38,967
Wootton Pond Borrow Area		TL 020 455	WB	17,467
Cowbridge Junction		TL 044 470	WB	



Fig. 1.8 Hand-excavation of archaeological features underway on Site 9, while stripping of modern topsoil continues in the background

Open area excavation

The area of the excavation was positioned in accordance with the WSI using a Total Station. The excavation area was stripped of topsoil and subsoil using a 360° mechanical excavator with a flat-bladed bucket under close archaeological supervision, to the top of the first archaeological horizon or the natural geology, whichever was encountered first. The exposed archaeological features were cleaned by hand where necessary and digitally

mapped using a Total Station. Hand excavation then followed (Fig. 1.8).

All archaeological features were investigated and recorded in order to establish their character, date and morphology and to investigate stratigraphic relationships between features. All pits and postholes were half-sectioned. Where such features formed part of a clearly defined structure or contained significant artefactual assemblages they were fully excavated. Hand excavated segments, each measuring at least 1m long, were spaced

regularly along the visible length of each linear feature. A minimum sample of 20% of linear features associated with settlement was excavated, and a minimum sample of 5% for other linear features, such as field boundary ditches. The urns from cremation burials 3031 and 3050 at Site 3 were block-lifted on site for excavation in the laboratory, where they were excavated in spits of 20 mm in order to identify any vertical patterning. Cremation burial 3030 had been substantially truncated by medieval and modern ploughing and the urn was too damaged to be lifted in this way, and so the cremation deposit was excavated as a single deposit. Artefacts were recovered by context. This was supplemented by a targeted programme of palaeoenvironmental sampling. Priority was given to the basal fills of features and to those contexts showing visible charred plant remains. Monoliths for pollen and phytolith analysis and series samples for mollusc analysis were taken from key selected features. All recording followed procedures laid down in the *Oxford Archaeology fieldwork manual* (Wilkinson 1992). Individual and intersecting features were planned by hand and sections were drawn, both at a scale of 1:20. Features were photographed using colour slide and black and white print film. Digital images were also recorded.

Strip, map and sample excavation

In the case of strip, map and sample excavation, the excavation area was stripped of topsoil and subsoil in the same manner as the areas subject to open area excavation. The exposed archaeological features were mapped using a Total Station, and the resultant plan served as the basis for discussions to inform the strategy for the detailed excavation of the remains. Hand excavation and recording then proceeded in accordance with the methodology outlined for open area excavation.

Watching briefs

In the case of the watching briefs, an archaeologist was present during all stripping in order to avoid disturbance to the subsoil and any archaeological deposits. The archaeologist monitored the areas as they were stripped and inspected the stripped areas after stripping was completed. The archaeological features thus exposed at Wootton Pond Borrow Area and Construction Compound B were hand excavated and recorded in accordance with the methodology outlined for open area excavation.

RESEARCH OBJECTIVES

The original research aims of the fieldwork, as specified in the written scheme of investigation (Highways Agency 2008a), related largely to aspects of rural settlement during the Iron Age and Roman period. Research questions for the Iron Age concerned, in particular, the development of later

prehistoric settlement patterns and the exploitation of the claylands. It was hoped that the Improvements would provide an opportunity to investigate the relationship between settlement and enclosure in both the Iron Age and later periods. Key research questions for the Roman period concerned the character of farmsteads, the nature of site economies and communication in the hinterland of the Roman town of *Magiovinium*, near Milton Keynes, and changes in the Roman economy. The changing pattern and character of medieval field systems and the different patterns of historic land-use were also highlighted as being of interest. Characterisation of the Iron Age/Roman settlement on Brogborough Hill was identified as a specific objective.

Following completion of the fieldwork programme, assessment of the results enabled more specific research questions to be framed (OA 2010). With the exception of a very small assemblage of prehistoric worked flint and a handful of post-Roman features, the archaeological remains identified on all nine sites dated from the later Iron Age and Roman periods, and consisted of the remains of agricultural complexes. Due to the location of the sites within the similar geological and topographical setting of Marston Vale they formed a particularly coherent group, both chronologically and geographically. Thus, although individually the sites were neither of particularly rare types nor exhibited exceptional levels of preservation, they had a potential to make an important contribution to our understanding of the development of the occupation of this particular topographical area during the later prehistoric and Roman periods.

A number of period and regional research frameworks were relevant to the project. Period-based national research agendas have been published for the Iron Age (Haselgrove *et al.* 2001) and Roman period (James and Millett 2001) and were valuable in providing a context in which to frame research questions. Themes for research identified in these documents included settlement patterns and development, material culture, agricultural practices, regionality, processes of change and chronological issues. A county-wide research agenda is in place for Bedfordshire (Oake *et al.* 2007), and regional research frameworks were also relevant to the project. Bedfordshire falls within the remit of the East of England framework (Glazebrook 1997; Brown and Glazebrook 2000; Medlycott 2011), and due to the location of the project at the western edge of the county the framework for the neighbouring East Midlands region (Cooper 2006) was also relevant.

The project also benefited from being located in an area where numerous previous excavations had taken place (Figs 1.2 and 1.9). The majority of these investigations had taken place on the gravel terraces beside the river Ouse, but excavations had recently been conducted within the clay vale adjacent to the north-eastern end of the project at Marsh Leys, where two long-lived late Iron Age/Roman

farmsteads were recorded (Luke and Preece 2011), and at Bedford Western Bypass (Albion Archaeology 2008) and Bedford Southern Bypass (Albion Archaeology 1995; Shepherd 1995), at each of which a multiperiod landscape was uncovered. A little further to the east, though still within the Vale,

another Iron Age and Roman settlement had been investigated at Wilstead (Luke and Preece 2010), and a prehistoric and Roman landscape had been excavated on the north bank of the Great Ouse at Biddenham Loop (Luke 2008).

Assessment of the data collected in the course of

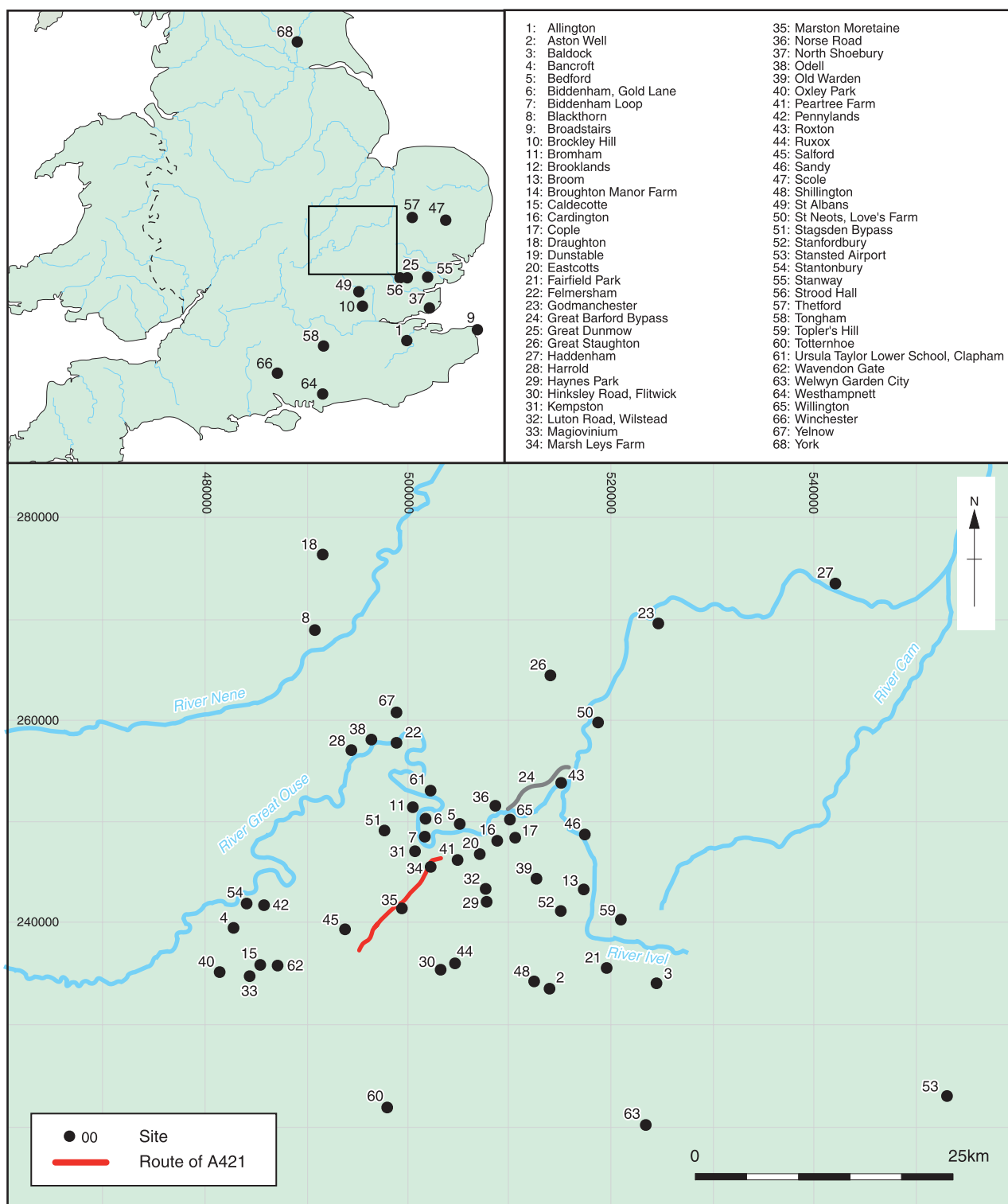


Fig. 1.9 Location of sites mentioned in the text

the investigations identified a number of broad research themes that this evidence had the potential to address:

- chronology
- settlement forms
- landscape
- economy and agriculture
- social practices
- historical trajectories

This volume presents the results of a programme of analysis that was undertaken within the framework provided by these themes.

STRUCTURE OF THE REPORT

Following this introductory chapter, which describes the background to the project and the methodology adopted in the investigations, the volume is divided between a description of the data recovered during the investigations, in Chapters 2–7, and a synthetic discussion, in Chapter 8.

Key to all drawings	
418	Context number
418	Structure number
↙ 418	Cut number
Site Plans	
↔	Section line
□	Archaeological feature
□	Possible archaeological feature
□	Archaeological intervention
□	Limit of excavation
↘	Hachures indicate inclination of slope inside excavated feature
Sections	
---	Limit of excavation
---	Indicates the section changes direction
—	Cut line
—	Division between layers
*	Charcoal
□	Stone
All sections are at 1:25 unless indicated	

Fig. 1.10 Key to conventions used in plans and sections in this volume

In Chapter 2, the stratigraphic sequence at each site is described. The sites are presented in geographical order, progressing from south-west to north-east, beginning with Site 2 and ending with Site 9. The report on the evaluation at Berry Farm is located at the end of this chapter, as are those of the watching briefs undertaken at Construction Compounds A and B, Wootton Pond Borrow Pit and Cowbridge Junction. Each site description proceeds chronologically. No upstanding structures or substantial layers survived as all the sites had been subjected to ploughing during the medieval and modern periods, and consequently the understanding of each site sequence is based on the stratigraphic relationships recorded between cut features and on spatial associations between features. The resulting sequence was correlated with dating evidence provided principally by the pottery and, at Site 3, Site 4 (Trench 54) and Site 5, by radiocarbon determinations, which enabled the phasing to be established, and approximate date ranges attributed. The site descriptions are illustrated by phase plans, as well as more detailed plans and sections, and photographs. The drawing conventions used in the illustrations are provided in Fig. 1.10.

The subsequent chapters present the artefactual evidence (Chapter 4), human remains (Chapter 5), palaeoenvironmental evidence (Chapter 6) and radiocarbon dating (Chapter 7). Within the report on each category of evidence a consistent structure has been adopted, with the material being described by site, in the order in which the sites appear in Chapter 2, followed by a combined discussion in those instances where inter-site comparison or consideration of the assemblage as a whole helps to elucidate the material. The various strands of stratigraphic, artefactual, environmental and dating evidence are brought together in an overall discussion in Chapter 8 that considers the sites individually and as a group in relation to the research objectives outlined above.

ARCHIVE

The finds, paper record and digital archive are to be deposited with Bedford Museum under accession code BEDFM:2008.313. Owing to the increasing inaccessibility of microfilm services the basic digital archive will take the form of a pdfA scan of the hard copy records. These pdfA scans will be preserved on the OA South archive server and a copy on disc will accompany the hard copy with the archive. Digital data such as jpeg digital images and databases or geomatics data, which are not suitable for hard copy, will also be stored in this way. In time it is hoped that these digital archives will be made publicly available through the internet but in the interim anyone unable to access the hard copy or museum disc copy may approach OA South for access.