

Chapter 1: Introduction

by Tim Allen

LOCATION AND SCOPE OF WORK

The A2 widening scheme was undertaken along the A2 south of Gravesend, and comprised the construction of a new offline route to the south of the existing A2 between the Pepperhill and Marling Cross Junctions, a distance of nearly 4km, and online widening of the existing A2 (mainly on the south side) between Marling Cross and Cobham (Fig. 1.1). The widening only involved substantive archaeological work either side of the A2 at Cobham Services.

The work was commissioned by the Highways Agency, and was carried out by Skanska Construction (UK) Ltd. Oxford Archaeology (OA) were appointed to provide the archaeological contribution to the Environmental Statement (Highways Agency 2004), to carry out the archaeological fieldwork and to prepare the publication report. The archaeological mitigation strategy was provided by the *A2 Pepperhill to Cobham Widening Scheme Archaeological Design*, written by Tim Allen of OA and approved by Lis Dyson and Simon Mason of Kent County Council Archaeological Services and by Rob Bourn of CgMS, acting for the Highways Agency.

After preliminary works in June 2006, the main stripping and archaeological excavation programme began in September 2006, continuing until early August 2007.

GEOLOGY AND TOPOGRAPHY

The A2 widening scheme is situated between the North Downs to the south, the Thames estuary to the north, the Medway estuary to the east, and the Darent estuary to the west. The route runs from the Pepperhill junction (c TQ 6215 7229) south-east to the Cobham junction (c TQ 6919 6927), a distance of nearly 4km (Fig. 1.1).

The A2 route ran across alternating dry valleys on a NNW alignment and areas of undulating plateau. Beginning within the Downs Road dry valley, the land then rises gently across a chalk plateau to a crest just west of Tollgate, then shelves down towards another steep-sided narrow dry valley at Tollgate Junction. Beyond this the route traverses another area of plateau, rising gently to another slight crest south of Singlewell and then dropping again before rejoining the old A2 at the Marling Cross junction. Beyond this the land levels out, but rises again from the Cobham Services to Thong Lane at the end of the scheme. The ground

rises from c 15m OD within the dry valley on the west to c 75m OD at the east end.

The primary landuse prior to the road scheme was agriculture, although High Speed One (HS1, previously Channel Tunnel Rail Link, CTRL) landscaping visually dominated the local environment, and extended over part of the central section of the route. To the north of the existing A2, the local landscape is composed of housing and commercial development within Gravesend. The soils are predominately heavy and fairly clayey although there are occasional outcrops of chalkier land (eg east of the Tollgate dry valley), where significant quantities of flint were observed in the disturbed soil. These chalkier outcrops tend to lie on the higher ground.

The solid geology of the line of the route consists of Upper Chalk, overlain by a fine-grained silty sand of the Thanet Sand Formation (a member of the Eocene group); and the locally shelly sand and clay of the Lambeth Group (Woolwich and Reading Beds, also of the Eocene group) (Fig. 1.2). Other deposits present in the immediate vicinity include patches of sand with black flint pebbles, locally shelly, of the Harwich Formation, undivided clay and silty sands of the London Clay Formation; and drift deposits of Head consisting of silt, sand and clay with variable gravel. To the south of the site drift deposits of Clay-with-flints are present, while to the east are the Blackheath and Oldhaven Beds, Pebble Beds of the Palaeocene and London Clay of the Eocene (information from British Geological Survey 1:50,000 Series, England and Wales sheets 271 and 272).

ARCHAEOLOGICAL BACKGROUND

A Palaeolithic handaxe and a Levallois flake were found as residual stray finds on the HS1 route east of the Wrotham Road, Tollgate (Bull 2006a, 6). No Mesolithic sites have been found close to the line of the scheme, but work on the High Speed One (hereafter HS1) further west revealed knapping floors preserved beneath colluvial deposits (Andrews et al. 2011).

Just east of the Wrotham Road dry valley, and on the plateau just beyond it, a sub-rectangular enclosure of probable Neolithic date lay just north of the line of the HS1 and just south of the line of the A2 widening scheme. This site was visible as a cropmark, and was evaluated in advance of construction of the HS1 (URS 1995). It had a large

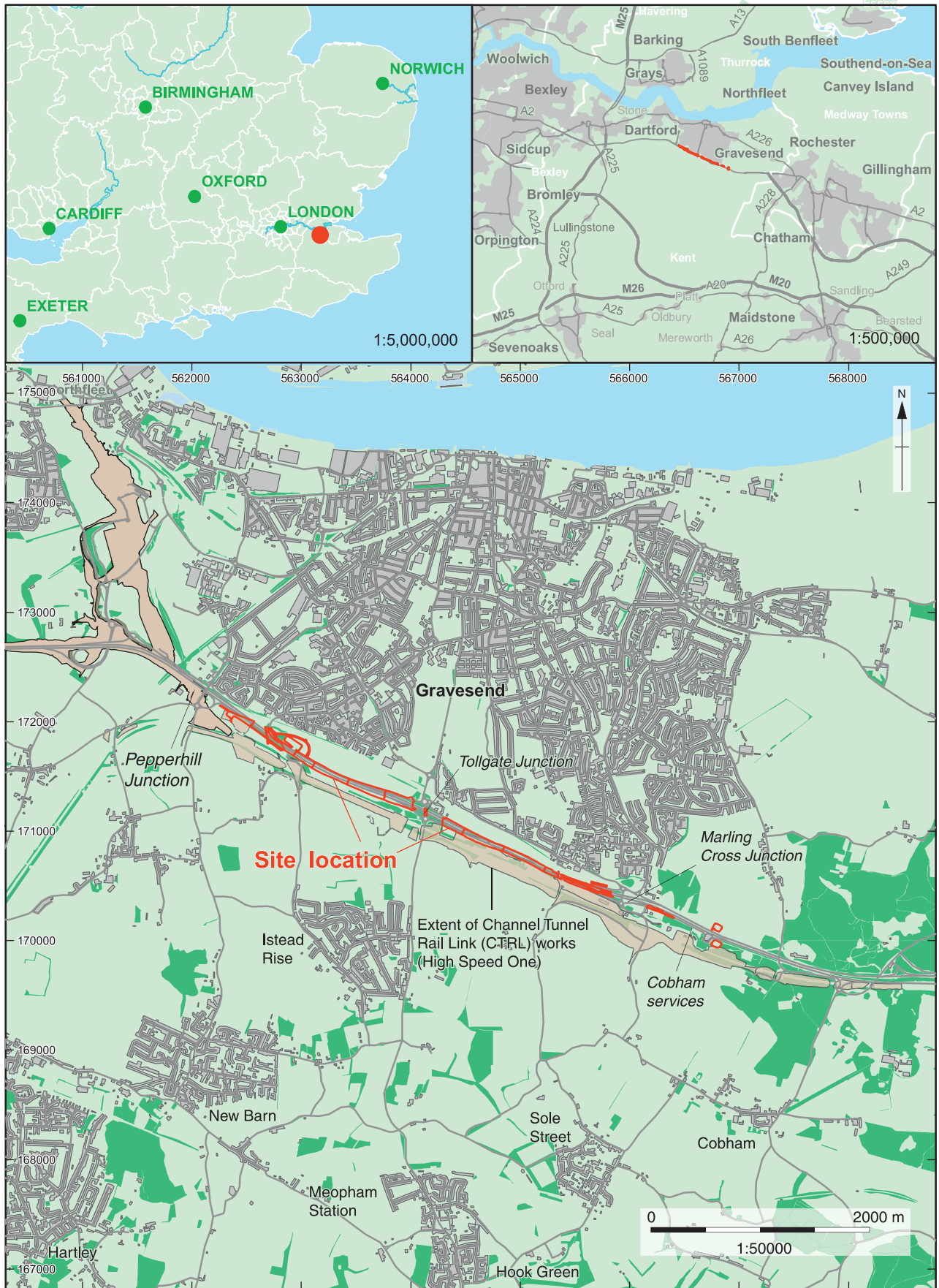


Fig. 1.1 Site location



Fig. 1.2 Geology of the site area (1996/11A-DMC. Derived from digital data at 1:50,000 scale, provided under licence by British Geological Survey. ©NERC. All rights reserved.)

ditch containing struck flint, though no pottery or burials were found, and was interpreted as a Neolithic mortuary enclosure (see Fig. 1.2 and Chapter 3 Site E below). No other Neolithic monuments are known in the vicinity of the scheme, although the eponymous site of Ebbsfleet Neolithic pottery lies only a few km to the north-west, in the valley of the river that rises at Springhead just north of the A2 about 1km west of the scheme.

There is a Bronze Age bowl barrow known as 'The Mount' at Ashenbank Wood (SMR KE 1358) south of the east end of the scheme, and a double-ditched Beaker barrow at Whitehill Road (Bull 2006b) some 3km to the south-west (Fig. 1.2). Fieldwalking on the line of the HS1 south of Singlewell found two scatters of surface flint of late Neolithic or early Bronze Age date, though only one isolated pit was revealed by topsoil stripping, adjacent to Church Road (Harding 2006; Bull 2006b, 9-10 and fig. 14). Just west of the Tollgate dry valley, on the crest of the plateau opposite the Neolithic mortuary enclosure, a double Beaker inhumation burial was found within the line of the HS1 (Askew 2006, 11-15 and figs 3-5). At the very west end of the scheme an early Bronze Age cremation burial was uncovered beneath colluvium in the Downs Road dry valley (*ibid.*, 13 and figs 6 and 8). A few sherds of late Neolithic/early Bronze Age pottery were also recovered from Coldharbour Road just north of the A2, and just west of Tollgate Junction (Mudd 1994, 387-8 and fig. 9).

Coldharbour Road also contained a middle-late Bronze Age trackway, together with a group of cremations and possible pits or tree-throw holes (Mudd 1994). The trackway was running along the line of highest ground, and heading SSE towards the crest of the plateau, where a television aerial is now situated (see Chapter 2, Site C). Some 2km further east at Clay Lane Wood, also north of the A2, spears, human bones and armour were apparently found within an entrenchment in 1825 (SMR KE 1533). These have recently been interpreted as a Bronze Age cult site (Ashbee 2007). The HS1 excavations due south of the new offline route found a single late Bronze Age pit east of Henhurst Road (Bull 2006a, 11 and fig. 11) just south of Cobham Services, but only limited, and residual, middle Bronze Age finds were recovered. A middle Bronze Age settlement was excavated at Cobham Golf Course (Davis 2006) a few km further east. A late Bronze Age pit was also recovered in the valley just south of the Pepperhill Junction at the west end of the scheme (URS 2001b, 6 and fig. 5).

No major later Bronze Age foci have been securely identified in the surrounding area, although a large circular cropmark south of the HS1 just east of the Wrotham Road has provisionally been interpreted as a late Bronze Age enclosure (SMR KE 1748; 9461-4; see Fig. 1.3).

No major Iron Age centres (such as hillforts) are known in the vicinity of the scheme. Early Iron Age

activity was, however, widespread along the line of the HS1, south of the route. Groups of pits were found at Hazell's Road, on the plateau east of Downs Road, and in three areas east of the Wrotham Road dry valley, Tollgate (Askew 2006, 17-22 and figs 8-10; Bull 2006a, 11-17 and figs 6-10). One of the groups lay some 400m east of the dry valley, and comprised pits of early Iron Age date together with a late Iron Age or Roman larger pit. A little further to the east a natural break of slope was observed. This later proved to be the edge of a dry valley filled with colluvial deposits (see Chapter 2, Site F below). Just east of this, a second group of early Iron Age pits was found where the line of the HS1 overlapped with that of the A2 widening scheme. Some of these contained considerable quantities of briquetage. One or two late Iron Age pits were also found. These pits were re-excavated during the A2 excavations (see Site G east, Chapter 3 below), as most had not been bottomed. A single early Iron Age pit was also found in evaluation at Coldharbour Road just north of the A2 (Mudd 1994). South of the line of the HS1, and just east of the Wrotham Road, a cropmark rectilinear enclosure has tentatively been ascribed to the Roman period, but might instead belong to the early Iron Age (SMR KE 1748; see Fig. 1.3).

On the plateau east of the Downs Road dry valley was an area of early/middle Iron Age activity, including a driveway, linear boundaries, a four-post structure and pits (Askew 2006, fig. 10). Continuing north of this were the cropmarks of ditches and pits, which were interpreted as those of a probable prehistoric settlement (see Chapter 3, Fig. 3.28 and Site B below). Midway between the dry valleys was a holloway of late Iron Age date, which developed into one or more enclosures in the early Roman period (*ibid.*, 22-5 and figs 11-14). Further ditches possibly of Iron Age date were found close to the crest of the plateau just west of the Wrotham Road dry valley (Askew 2006, fig. 3; see also Chapter 3, Site D below).

A small area of middle and late Iron Age settlement, which expanded in the early Roman period, was excavated in advance of housing development just over 500m north-east of the Marling Cross Junction, and 750m north-west of Cobham services (Philp and Chenery 1998). Cropmarks taken before recent housing development to the west of this also indicated another probable later Iron Age site north of Singlewell (SMR KE 1590; see Fig. 1.3).

The widening scheme lay just east of the Roman town of *Vagniacae* (Springhead), and just south of the suspected line of Watling Street beneath the existing line of the A2 (Margary 1973; Hiscock 1968). Recent work in advance of the HS1 has shown that activity began to develop around the spring in the late Iron Age (Andrews *et al.* 2011). The remains at Springhead included a number of stone buildings, some of which were temples, and occupation ran from the 1st to the 4th century AD (Penn 1965; Andrews *et al.* 2011). Two Roman cemeteries have

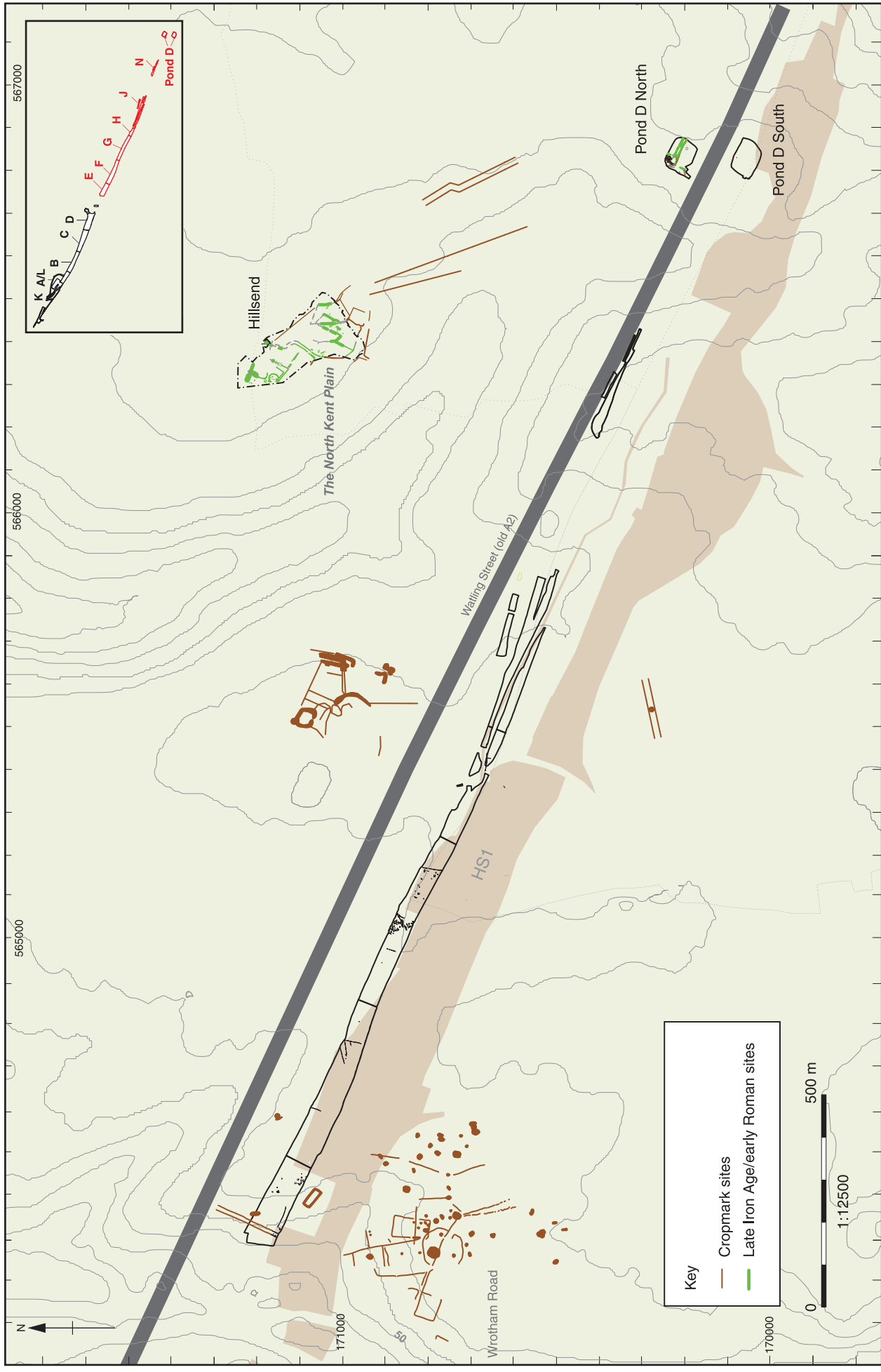


Fig. 1.3 Site in relation to local cropmarks

been found and excavated immediately east of the town at Pepperhill, a walled cemetery first found in 1801 (Davies 2001), and a large lower status cemetery in 1997–8 during the HS1 works (Biddulph 2006).

Excavations along the line of the HS1 between the Downs Road and Tollgate dry valleys uncovered two early Roman settlements (Askew 2006, 26–32). On the plateau midway between the dry valleys was a figure-of-eight enclosure, originating as a holloway in the late Iron Age, and developing into one or more enclosures in the early Roman period (*ibid.*, figs 11–12). The enclosure included ovens, pits and one or more human cremation burials and a horse burial (*ibid.*, figs 13–14; see also Chapter 4, Site B).

The ditches of a set of rectilinear enclosures or fields were visible as cropmarks on the plateau just west of the Wrotham Road, and the south end of this system was excavated on the line of the HS1, proving to be Roman and dating from the 1st–3rd centuries AD (Askew 2006, 30–3 and figs 15–20). The site consisted of at least two substantial enclosures approached by tracks or roads from the south and east. The settlement appeared to be of low status, including slots from possible timber buildings, a few graves, pits and ovens, and was occupied in the early and middle Roman period (see also Chapter 4, Site D). Study of the archive suggests that the south-west part of this site was not investigated in any detail. Just south of the line of Watling Street, and on the east side of the Wrotham Road, a tile cist was found during widening of the old A2.

Just west of Downs road in the dry valley, and approximately 220m to the south of the offline route, HS1 excavation uncovered a focus of Roman activity comprising a malting oven, a metalled road, ditches, various pits and a hearth (Askew 2006, 33–6 and figs 21–5). It was interpreted as an agricultural processing area in use between the 2nd and 4th centuries AD, and possibly part of a large farm or villa estate. The road was running north-west on a line very similar to that of Downs Road, and may have linked in to Watling Street further north. East of Singlewell at Henhurst Road, Tollgate a possible Roman road running east-west was found along the line of the HS1 route (Bull 2006a, 17–21 and figs 11–13).

In the wider landscape, a Roman villa at Cobham a few km to the east developed from a 1st century farmhouse and continued until the mid 4th century (Tester 1961), and another lay at Northfleet east of the river Ebbsfleet and north of Springhead (see Fig. 1.2). This has seen recent further excavation as part of the HS1 works (Andrews *et al.* 2011). A number of Roman villas, including the extensive villa at Darent, are known in the Darent valley a few km further west (Philp 1984; Millett 2007, 153 and fig. 5.9).

No Saxon activity was known in the immediate vicinity of the scheme prior to excavation, although

sunken-featured buildings were found during the HS1 excavations at Springhead and at Northfleet (Andrews *et al.* 2011). The Kent SMR records the discoveries made at Clay Lane Wood as the site of a Saxon cemetery, rather than a prehistoric site (SMR KE 1533).

A medieval settlement of the 11th/12th centuries AD was part-excavated at Wingfield Bank just north of the west end of the scheme, in advance of the construction of an electricity substation at Pepperhill Lane (Hardy and Bell 2001).

A late Saxon/medieval settlement was found just east of Downs Road on the HS1 route only 100m south of the scheme (Askew 2006, 37–40 and figs 26–7). It consisted of one or more posthole buildings on a terraced hillside, with associated pits and boundary ditch (see also Chapter 5, Site A). Some 70m to the south-west, on the other side of Downs Road, were discovered enclosures or field boundaries of 12th and 13th century date, associated with two ovens or malting kilns. These may have been parts of a single settlement.

A medieval enclosure with later annexes was found on the plateau 1km further east, and just west of Northumberland Bottom Army Camp (Askew 2006, 39–42 and figs 28–9). This was dated to the late 12th to mid 14th centuries, and included within it a sunken-floored building with an oven, and one other possible building. To the east was a holloway that only filled in during the post-medieval period. This site clearly continued northwards beyond the line of the HS1 towards the proposed offline route of the A2 (see Chapter 5, Site C).

East of the Tollgate dry valley, medieval activity was much more limited, though pits and ditches were found close to Church Road south of Singlewell (see also Chapter 5, Site H) and Henhurst Road towards the east end of the scheme (Bull 2006a, 21–2 and figs 2, 5, 11 and 14). A post-medieval brick kiln was found just south-east of the Cobham Service Area (*ibid.*, fig. 2).

In the wider landscape, the scheme lies close to several parish boundaries, and runs north of the villages of Istead and Cobham, and south of Singlewell and Shorne. It forms part of the hinterland of Gravesend to the north.

A full list of the archaeological discoveries within a 500m corridor of the line of the proposed route can be found in the Environmental Statement (Highways Agency 2004, Section 8).

Archaeological investigations prior to excavation

To assist in characterising the archaeology, geophysical survey was carried out by Bartlett-Clark Consultancy along the line of the offline route from Pepperhill to Tollgate Junction. The results were not very distinct, and consisted largely of intermittent lengths of anomalies interpreted as ditches. Subsequently, in advance of topsoil stripping, a fieldwalking and metal detector survey was carried out over the arable fields west of Tollgate. This did

not reveal any concentrations of prehistoric flint-work or other artefacts, although several Roman coins were retrieved from the area of the cropmark enclosure just west of Tollgate.

Cropmarks were noted on aerial photographs in three areas along the line of the scheme between Pepperhill and Tollgate Junctions. The results of the aerial photographic survey were included in the Environmental Statement (Highways Agency 2004). To the west a broad linear feature ran NW-SE into Site L, and was interpreted as either a trackway, a very broad ditch or a palaeochannel (see Chapters 3 and 4, Site L). There was a narrow ditch parallel to this on the south-west side (see Chapter 5, Site L). At the north-western limit of this feature, outside the area of Site L, there appears to be a rectangular cropmark, possibly part of an enclosed settlement.

East of Wrotham Road there was less arable along the line of the scheme, although a large cropmark complex of several phases, but uncertain date, was plotted just to the south-east of the junction (SMR KE 1748 and 9461-4; see Fig. 1.3). A pair of parallel north-south ditches, provisionally interpreted as a trackway, was seen along the edge of the plateau just east of the Tollgate dry valley, and one or two large circular features east of that were interpreted as deneholes (see Chapter 5 Site E). Further north-south ditches were seen some way to the east (see Chapter 3 Site H), but the date of these boundaries, which did not match those on historic maps, was unclear.

Northumberland Bottom contained an army camp during the Second World War, and this lay along the line of the HS1 south of and over part of the Roman enclosure.

To the east of Wrotham Road (Tollgate Junction), evaluation and topsoil stripping for the HS1 overlapped with the line of the A2 widening scheme in places, before diverging south of the Marling Cross Junction (see inside back cover). Over much of this length of the HS1, however, only topsoil stripping took place, so did not always reveal any underlying archaeological features. Archaeological discoveries were more scattered here (Bull 2006a).

EXCAVATION METHODOLOGY

The general approach to archaeological investigation was set out in the Detailed Archaeological Design prepared and approved in advance of the archaeological works (Skanska document No. 30008).

The proximity of High Speed One to the south, along which archaeological excavations had been carried out, and north of which evaluations had taken place, was thought to be sufficient to anticipate the quantity and types of archaeology along the line of the new offline route. In the light of the frequent archaeological sites found along the line of the HS1 west of Tollgate, the entire length of the route was stripped by machine under archaeological supervision in advance of construction. For ease of management, the route was divided into

chainage lengths from 300–400 m long, which were labelled A, B etc, and all potential archaeological features were planned and a proportion excavated to characterise the archaeology.

Following characterisation, an Archaeological Works report was prepared for each chainage length outlining the chronological range and character of the revealed archaeological features. Where archaeological features were numerous or particularly significant, proposals were made for further archaeological works in a Further Archaeological Works Design. The aims of the further work were related to the research aims and objectives set out in the Detailed Archaeological Design, and new aims were added where necessary to address archaeological questions raised by the characterisation. The approximate scale of these works was indicated on plans accompanying the design report.

Interventions were generally excavated by hand, and as a minimum at least 10% of all linear features, and half of every pit and posthole, was excavated. By agreement with Rob Bourn of CgMS acting for the Highways Agency and Simon Mason of Kent County Council, some additional lengths of large boundary ditches and many of the dene holes were investigated using machine-dug slots under archaeological supervision. All features and deposits were issued with unique context numbers, and context recording was in accordance with OA practice set out in the OA Fieldwork Manual.

A substantial proportion of the finds and environmental processing, context data entry and digitising of plans and sections was carried out on site. In addition, a pottery specialist visited periodically to carry out spot-dating, to ensure that the revealed features were being attributed to the right periods, and that significant discoveries were not being missed. The archaeological investigations, and the reports arising from them, were monitored regularly by Rob Bourn and Simon Mason.

More detailed excavations (Further Archaeological Works) were carried out in accordance with the proposals set out in the Further Archaeological Designs, but were modified as required to deal with complexities or unexpected discoveries revealed during the excavation of the planned features, and to address any further archaeological questions arising from them.

Area stripping under archaeological supervision was carried out wherever possible, and this included the areas of balancing ponds along both the offline and online lengths of the route. Archaeological Watching Brief was therefore limited to small areas of the online length of the scheme, and on works reducing the existing A2 to a single carriageway.

POST-EXCAVATION METHODOLOGY

Major fieldwork ended in August 2007, and Watching Brief in May 2008. Following the completion of fieldwork, and a review of the Research

Aims in the light of the fieldwork discoveries, a Post-Excavation Assessment and Updated Project Design was prepared and submitted in January 2009. Because of the rural nature of the site (ie very little vertical stratigraphy and limited quantities of finds) and the fact that much of the activity of different periods was spatially separate, it was decided that problems of residuality and intrusiveness would be fairly limited. As a result, rather than follow a strict MAP2 assessment approach, it was decided to record all of certain categories of finds such as the pottery, the fired clay and ceramic building material, the struck flint, worked stone, worked bone and the metalwork straight away. For the same reasons, all of the animal bone was recorded rather than a sample percentage, and full recording and reporting of the human bones was carried out at this stage. Other categories of environmental material, such as the charred plant remains, charcoal, the molluscs and the pollen, were assessed in the usual way, full recording being left to further analysis.

A first group of samples was also sent for radiocarbon dating during the assessment phase, in order to answer some key questions that either could not be addressed by artefactual dating, or where the artefactual dating needed to be confirmed or refined.

The investigation of the high status graves, which involved the gradual excavation of large blocks of soil in the conservator's laboratory, and considerable time before grave goods could be fully excavated, investigated and conserved, meant that a continuous programme of work had to be agreed at the outset, and the scope and aims of this investigation agreed in advance. To this end a separate Updated Project Design for the high status graves was produced and approved (Skanska document 30051).

STRUCTURE AND CONVENTIONS OF THE REPORT

The report is presented chronologically, and following the Introduction and Background to the excavations, is divided into four: Chapter 2—earlier prehistory (Mesolithic to late Bronze Age); Chapter 3—later prehistory (Iron Age); Chapter 4—Roman; and Chapter 5—post-Roman (Saxon, medieval and post-medieval). Within each chapter the finds and environmental evidence relevant to

each of these periods is presented after the archaeological description, together with any absolute dating. The convention followed on the general site plans is to show the unexcavated parts of the features in the phase colour, and the excavated parts in white, except for fully excavated features which are coloured in. Detailed plans do not include phase colours. The archaeological narrative includes a detailed summary of sites and findspots along the scheme for the relevant period, and at the end of the chapter the evidence is discussed. In those periods that include high status burials (Chapter 3 the late Iron Age and Chapter 4 the early Roman period), the burials are dealt with as separate sub-sections following the same pattern. The archaeological description of the graves is followed by reports on the accompanying finds and scientific evidence, and the graves are then discussed. Aspects of the evidence dealing with the setting of the graves, and their relationship with surrounding or adjacent features, are dealt with in the discussion of the period in general at the end of the chapter.

Following the period chapters, there is a further postscript dealing with points that cross period boundaries, and themes that deal with temporal change. Key issues raised by the period chapters are also touched upon and developed in terms of their wider significance.

In addition to this present volume, a more detailed archive report is available digitally via the Oxford Archaeology website (www.thehuman-journey.net). This contains comprehensive stratigraphic descriptions of the whole site, in addition to full unedited finds and environmental reports.

The calibration of the radiocarbon results, relating the measurements directly to calendar dates, have been calculated for this report using the computer programme OxCal (v3.10) (Bronk Ramsey 1995; 1998; 2001) and are cited at 95.4% confidence unless otherwise stated.

LOCATION OF THE ARCHIVE

The finds and paper archive are currently held at the OA office in Oxford. These will be transferred to Kent County Council once they have identified a suitable repository for long-term storage in accordance with the guidelines of the Museums and Galleries Commission.