Wessex Archaeology

A303 Stonehenge
Archaeological Surveys

Archaeological Evaluation Report: Areas R and T

Final Issue

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A303 STONEHENGE

ARCHAEOLOGICAL SURVEYS

Archaeological Evaluation Report
Areas R and T

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SUMMARY

Wessex Archaeology as sub-consultants to Mott MacDonald was commissioned by the Highways Agency to undertake the archaeological evaluation of the Preferred Route of the A303 Stonehenge Improvement in Wiltshire. This report presents the results of the evaluation of Areas R and T, which lie south of the A303, between NGR SU 4112 1416 and NGR SU 4138 1419, including Stonehenge Bottom and land as far east as Stonehenge Road.

Areas R and T lie at the core of the WHS. It has been suggested that the area around Stonehenge was reserved from domestic and industrial activity because of the ceremonial status of the focal monument. The long barrow in Area R is the earliest visible monument, probably dating to the early Neolithic. Throughout the Neolithic, King Barrow Ridge was the scene of activity as the discovery of pottery and pits attests. Early Bronze Age round barrows, close to and probably contemporary with the stone circle, were important monuments. Several linear earthworks are likely to date from the later Bronze Age and witness a change in land allotment. Traces of activity during the Iron Age, Roman and Medieval periods are sparse; documentary sources suggest that the area was pasture throughout the Middle Ages. The present line of the A303 was established as a turnpike in 1761/2 and a Listed milestone is associated with this road in Area T. The position and extent of buildings associated with the First World War Stonehenge airfield are known from plans and contemporary photographs.

Evaluation comprised the excavation of 29 trial trenches. Features of archaeological interest were found in only four trenches. In Stonehenge Bottom, a sequence of periglacial and colluvial deposits was recorded. In Area R, a buried linear ditch previously recorded from cropmark evidence as Site 518 was located. Worked flint flakes from this feature are consistent with a Bronze Age date. Other features located consisted of an undated gully and an irregular linear feature thought to be a former hedgeline in Area R, and a former hollow way and associated cart ruts, together with traces of the former Stonehenge airfield, in Area T. The finds assemblage recovered was very small and composed of worked flint and animal bone. No pottery or other ceramic finds were recovered. The paucity of archaeological remains contrasts with evidence for Neolithic and Bronze Age activity on King Barrow Ridge, located during previous evaluation. This includes a square enclosure and Grooved Ware pits.

A preliminary assessment of importance indicates that the undated gully, cart ruts and airfield remains located by the evaluation are of Minor to Moderate Importance, while the linear boundary (part of Site 518) is considered to be of Major Importance, as it is clearly associated with a monument scheduled as of national importance. The evidence of Neolithic and Bronze Age activity on King Barrow Ridge is considered to be of Moderate Importance.

The trenches were variously targeted to examine features predicted by geophysical anomalies or cropmark evidence. Only one trench successfully located the cropmark feature. In only three trenches were the anomalies found to represent buried archaeological remains, while elsewhere they appear to represent natural features or variations in the chalk substrata. None of the trenches positioned to investigate apparently blank areas located any features of archaeological origin. The general spread of features of whatever origin has thus been successfully predicted, and a reasonable reliance may therefore be placed on the geophysical survey as a means of predicting substantial archaeological remains in these areas. Given the relatively high trenched sample (3.3%), the even distribution of the trenches and the generally low level of remains encountered, it is considered unlikely that substantive archaeological remains may have been missed by the evaluation. However, further small features may occur.

In Area R, the Illustrative Design lies in cutting to the south of the existing road. The cut and cover tunnel portal is situated at ch. 7900, and the road is then in tunnel to the eastern tunnel portal at ch. 9900. From here the road rises out of cutting to merge at grade with the existing dual carriageway at about ch. 10550. Construction of the shallow bored tunnel option could require additional landtake to the south of the existing A303 at either portal. It is intended that whatever design is adopted will avoid all Scheduled Monuments in these areas; construction of the tunnel portals will impact on the settings of important monument groups, however. Excavation for the cut and cover tunnel (or possibly the shallow bored tunnel through Stonehenge Bottom, and at its portals) will destroy any other archaeological remains.

The construction of the cut and cover tunnel on-line will impact on the turnpike milestone in Area T. This feature is of Moderate Importance as part of a series and benefits from statutory protection as a Listed structure. It is recommended that the stone should be removed for safekeeping during construction and replaced close to its original position once works are complete: the latter course would require listed building consent.

The undated gully, cart ruts and airfield remains located are all considered to be of only Minor Importance, and the preservation *in situ* of these remains is not merited. The prehistoric features on King Barrow Ridge are considered to be of Moderate Importance. Construction of the eastern tunnel portal may result in the destruction of these remains and preservation *in situ* may not be possible. Given the location of Areas R and T within the core of the WHS, and their proximity to Stonehenge itself, it is recommended that provision should be made for 'strip and record' investigation throughout Areas R and T. This is in order to ensure that any further remains are exposed under archaeological control and to allow opportunity for an appropriate record to be made prior to their destruction.

The unscheduled section of boundary ditch (part of Site 518) excavated in Area R is considered to be of Major Importance. Construction of the western bored tunnel portal here would result in the destruction of this feature and preservation *in situ* will not be feasible. Given that the boundary feature survives as an extant bank further to the south, where it benefits from statutory protection as a scheduled monument, it is

suggested that the impact of the road construction can be adequately mitigated here through preservation by record as part of the 'strip and record' exercise.

The potential impact of the tunnel portals on the settings of nationally important scheduled barrow groups requires further consideration during the design stage. It is recommended that the portal locations be adjusted where possible to maximise visual separation from the monument groups.

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The project was managed for Wessex Archaeology by Chris Moore. The evaluation was directed in the field by Vaughan Birbeck and Mike Trevarthen. This report was prepared by Chris Moore and Mike Trevarthen. The finds were assessed by Rob Court. The soil descriptions are by Michael J. Allen. The illustrations were prepared by Linda Coleman.

A303 STONEHENGE
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Archaeological Evaluation Report
Areas R and T

1 INTRODUCTION

1.1. Project Background

1.1.1. Wessex Archaeology was commissioned by the Highways Agency, through their design consultants, Mott MacDonald, to undertake archaeological evaluation of the Preferred Route of the A303 Stonehenge Improvement in Wiltshire.

1.1.2. An Illustrative Design for the proposed road improvement has been prepared by Mott MacDonald. This broadly follows the published Preferred Route but includes amendments where necessary to comply with highways standards and to reduce environmental impacts. An Illustrative Environmental Design proposes associated areas for environmental improvement, such as landscaping. A programme of archaeological field evaluation has been developed to inform the development of the road design, and to support the assessment of the likely impacts of the road on the cultural heritage.

1.1.3. An overall Field Evaluation Strategy (Wessex Archaeology 2001a) sets out the background and principles for the evaluation programme. Archaeological evaluation was undertaken in accordance with this and a site specific Written Scheme of Investigation (Wessex Archaeology 2001b). Both the Strategy and the WSI were submitted for comment to English Heritage, the National Trust and the County Archaeological Officer.

1.1.4. This document sets out the project background, results and conclusions for the archaeological evaluation of Areas R and T (**Figures 1-4**), to the south and east of Stonehenge. The fieldwork was undertaken between 6 December 2001 and 18 January 2002.

1.2. Site Description

1.2.1. The Areas considered here comprise land immediately south of the A303, east of NGR SU 4112 1416, and west of the junction of the A303 with Stonehenge Road at NGR SU 4138 1419.

1.2.2. **Area R** comprises a single, level, triangular field (scheme field no. 83: 2ha total area) situated immediately south of the A303 and east of NGR SU 4112 1417. The eastern boundary of Area R is formed by Byway 12, a green lane which runs north-north-east to south-south-west from Larkhill across the Stonehenge Bowl to Normanton Down. Local ground levels are *c*. 105m above Ordnance Datum (aOD).

1.2.3. **Area T** comprises four fields immediately south of the A303 and east of Byway 12 (scheme field numbers 90, 91, 95 and 102). The westernmost fields are almost flat over much of their length, dropping slightly to the east to *c.*90m aOD. The central field comprises Stonehenge Bottom, its flanks and eastern shoulder, rising from *c.*85m aOD to in excess of 105m aOD on Kingbarrow Ridge. The easternmost field undulates gently along its length.

1.2.4. Both Areas R and T fall within the World Heritage Site (WHS). The northern part of Area R contains a Scheduled Monument (Long barrow, Site 521, SM 10314), and the remains of a milestone (Listed Grade II, Amesbury 5/7) are situated adjacent to the A303 within Area T.

1.2.5. The underlying geology in Areas R and T comprises Middle Chalk. Periglacial and colluvial deposits are known to exist in Stonehenge Bottom.

1.2.6. At the time of evaluation Field 83 (Area R) and Field 91 (Area T) were under arable stubble. Field 90 was under a juvenile crop of winter sown wheat. Field 95 (Stonehenge Bottom) was under freshly established pasture, and Field 102 was under a crop of young oilseed rape.

2. ARCHAEOLOGICAL BACKGROUND

2.1. Archaeological Appraisal

2.1.1. The *A303 Stonehenge Archaeological Appraisal* (Wessex Archaeology 2001c) has identified five known sites and four findspots within the northern parts of Areas R and T:

Area R

- Site 518: Buried linear ditch (originally recorded with an accompanying earthwork bank) and two perpendicular ditches seen on air-photographs (**Figure 1**)
- Site 521**:** Long barrow (SM 10314) (**Figure 1**)

Area T

- Site 689: Find-spot of an Early Bronze Age metal axe (**Figure 2**)
- Site 694: A buried linear ditch seen on air-photographs (**Figure 3**)
- Site 729: Curvilinear marks, probably former courses of the A303, seen on air-photographs (**Figure 3**)
- Site 731: The findspot, considered to be erroneous, of a Neolithic flint tool (**Figure 3**)
- Site 802: Small square enclosure, located by geophysical survey (**Figure 4**)
- Site 1618: Find of Neolithic pottery (**Figure 4**)
- Site 1620: Bronze Age pottery found in evaluation excavation (**Figure 4**)

2.1.2. Areas R and T lie at the core of the WHS. The sequence of monument building at Stonehenge itself started in the early Mesolithic (8500-7650 BC) and continued until the Middle Bronze Age (1600BC) (Cleal, Walker and Montague 1995). However, activity throughout this long period is not evident from finds within Areas R and T, and it has been suggested (Richards 1990) that the area around Stonehenge was reserved from domestic and industrial activity because of the ceremonial status of the focal monument.

2.1.3. Within Area R, the long barrow (Site 521, **Figure 1**) west of Stonehenge is the earliest visible monument, probably dating to the early Neolithic. Preliminary evaluation of the monument (Wessex Archaeology 1993a) suggests that it has suffered from considerable interference, although areas of ancient land surface still exist beneath it. Although it may be assumed to have flanking ditches, geophysical survey (Geophysical Surveys of Bradford 1992) was unable to define them.

2.1.4. Throughout the Neolithic, King Barrow Ridge was the scene of activity as the discovery of pottery (Site 1618) and pits (Sites 1618, 817) attest. Some of this information derives from the field evaluation of an area south of the A303 (Visitor Centre Site 12; Wessex Archaeology 1993b). The small square enclosure in Area T (Site 802, **Figure 4**) is undated but might be Neolithic by analogy with similar structures at Windmill Hill (Smith 1965, 31) and in Ireland.

2.1.5. Bronze Age activity is attested by important groups of round barrows, but there is no substantive evidence for settlement activity. Barrows in Area Q (522-5, **Figure 1**) and Area S (669, **Figure 2**) are amongst the closest to the Stones, whilst those on King Barrow Ridge in Area U (811,829; **Figure 3**) are members of the most conspicuous group within the WHS. Several linear earthworks in Area R (518, **Figure 1**) and Area T (694, **Figure 3**) are likely to date from the later Bronze Age and witness a change in land allotment.

2.1.6. Traces of activity during the Iron Age, Roman and Medieval periods are surprisingly sparse in the area and only a few sherds of pottery of these periods have been found during field walking. Documentary sources suggest that the area was pasture, divided by parish and tithing boundaries throughout the Middle Ages (Bond 1991, Chandler 2002).

2.1.7. Although the route may be ancient, the line of the A303 was established as a turnpike in 1761/2. A Grade II Listed milestone is associated with this road (Area T, **Figure 2**).

2.1.8. The most significant alteration to this pastoral landscape was the establishment and subsequent demolition of the First World War Stonehenge airfield. The position and extent of buildings associated with this airfield (in Areas Q, R, S and T) are known from plans and contemporary photographs (Wessex Archaeology 1998), confirmed by both geophysical survey (GSB 2001) and the monitoring of geotechnical pits.

3. AIMS AND OBJECTIVES

3.1. Trenching Strategy

3.1.1. A total of 29 trenches was excavated in Areas R and T, representing an approximately 3.3% sample of the area proposed for trial trenching. Trenches were excavated in locations specified in the WSI; the location of Trench 27 was altered in the field to avoid severing an agricultural access track situated against the northern fence-line of field 102. The specified length of Trench 10 was reduced to avoid damage to a reptile refuge.

3.1.2. The trial trenching strategy here sought to evaluate the areas affected by the construction of the cut and cover tunnel, its portals and approaches, and the possible additional areas required for portal construction and excavation in Stonehenge Bottom for the shallow bored tunnel option, all in Areas R and T. Landtake in Area Q will be minimal and may be refined in detailed design and there will be no landtake in Areas S and U; these Areas were therefore excluded from the evaluation.

3.1.3. Some 2.9 ha within Area T had been evaluated previously in connection with the Stonehenge Visitor Centre Site 12 investigations (Wessex Archaeology 1993b). Subsequent to this evaluation, geophysical survey had suggested the presence of further features. Two additional trenches were therefore targeted to evaluate these during the present phase of work.

3.2. Aims and Objectives

3.2.1. The overall aims and general objectives of the field evaluation survey were set out in the *Field Evaluation Strategy* (Wessex Archaeology 2001a). Site specific objectives were set out in the *WSI* (Wessex Archaeology 2001b). These were (within the limits of the specified techniques and trench disposition):

- To confirm the nature of the geophysical anomalies, where targeted;
- To confirm the nature of the cropmark features, where targeted;
- To confirm the presence or absence of archaeological remains in areas that appear blank; and
- To assess the degree of preservation of remains across the whole road corridor.

3.2.2. In addition to these general aims and objectives, a number of trench specific objectives were identified, relating to the investigation of particular cropmarks or geophysical anomalies identified in previous work. These objectives are reviewed in section 5 below.

4. METHODOLOGY

4.1. Mechanical Excavation

4.1.1. All trenches were marked out on the ground prior to the commencement of work.

4.1.2. Topsoil and overburden were removed using a 360º excavator fitted with a toothless bucket, working under the continuous direct supervision of a suitably experienced archaeologist.

4.1.3. Topsoil and modern overburden were removed in a series of level spits down to the top of the first significant archaeological horizon.

4.2. Hand Excavation

4.2.1. All features of whatever origin requiring clarification were cleaned by hand and recorded in plan at an appropriate scale. Sufficient of the features located were investigated by hand in order to fulfil the aims of the project. Where features were thought to be of natural origin, this was confirmed by the excavation and recording of one or two samples in each trench, as appropriate.

4.2.2. Care was taken not to compromise the integrity of archaeological features or deposits that might be better excavated under the conditions pertaining to full excavation.

4.3. Recording

4.3.1. All archaeological features and deposits encountered during the evaluation were recorded by Wessex Archaeology using *pro forma* recording sheets and a continuous unique numbering system.

4.3.2. A plan at an appropriate scale was prepared, showing the areas investigated and their relation to more permanent topographical features.

4.3.3. A representative section of each trial trench was recorded at an appropriate scale.

4.3.4. Other plans, sections and elevations of archaeological features and deposits were drawn as necessary at 1:10, 1:20 and 1:50 as appropriate. Drawings were made in pencil on permanent drafting film.

4.3.5. The spot height of all principal features and levels were calculated in metres relative to Ordnance Datum, correct to two decimal places.

4.3.6. A full photographic record was created using both monochrome prints and colour transparencies.

4.3.7. An environmental sampling strategy was developed during the course of the project. This broadly followed best practice developed by Wessex Archaeology during the Stonehenge Environs Project and was adopted

throughout the Stage 1 evaluations. The strategy also took into account the draft *Guidelines for Environmental Archaeology* (English Heritage 2001) and the recommendations contained in *Environmental archaeology and archaeological evaluations* (Association for Environmental Archaeology 1995).

4.3.8. The project archive was prepared in accordance with procedures outlined in *Standards in the Museum Care of Archaeological Collections* (Museum and Galleries Commission, 1992) and in accordance with the requirements of Salisbury and South Wiltshire Museum, who were consulted by Wessex Archaeology prior to commencement of the investigation.

5. RESULTS

5.1. Introduction

5.1.1. This section presents a summary of the principal archaeological features and deposits investigated. The objectives of each trench or, where appropriate, group of trenches, are also reviewed.

5.1.2. A catalogue of the features and deposits found in each trench is presented in Appendix 1 and detailed descriptions are available in the project archive.

5.2. Area R (Figure 1)

Trench 1

5.2.1. Trench 1 was excavated to investigate the level, nature and date of activity represented by linear and pit-like anomalies. No archaeological features were observed, and modern ploughsoil directly overlay weathered natural chalk. A single tree-throw was identified at the northern end of the trench.

Trenches 2 and 3

5.2.2. Trenches 2 and 3 were excavated to investigate the level, nature and date of activity represented by pit-like anomalies. No archaeological features were observed in Trench 2, and modern ploughsoil directly overlay weathered natural chalk. A single feature was recorded at the southern end of Trench 3, a butt-ending ditch or gully, 303, coinciding with a pit-like geophysical anomaly. No finds were recovered. Over the remainder of the trench modern ploughsoil directly overlay weathered natural chalk.

Trenches 4 and 5

5.2.3. Trenches 4 and 5 were excavated to investigate the level, nature and date of activity represented by linear and pit-like anomalies. No archaeological features were observed in either Trench, and modern ploughsoil directly overlay weathered natural chalk. However, a tree throw (403) recorded close to the western edge of Trench 4 may correspond to one of the pit-like anomalies.

Trench 6

5.2.4. Trench 6 was excavated to investigate the character, function and date of a series of linear cropmark features comprising part of Site 518 and two intersecting features. A single linear ditch, 601, was identified. This was *c.* 2m wide and 1m deep, with a v-shaped profile, orientated north-north-east to south-south-west and cut into natural chalk. No firm dating was obtained, and finds were limited to a small assemblage of struck flint flakes. A stonier deposit recorded on the south-western side of the ditch might suggest the remnants of a bank.

5.2.5. The position of ditch 601 coincides almost exactly with the cropmark corresponding to Site 518, although no corresponding sub-surface archaeology could be identified to substantiate the remainder of the cropmark evidence. A single tree throw was recorded close to the ditch on the south-west side.

Trench 7

5.2.6. Trench 7 was excavated to investigate the level, nature and date of activity represented by a linear cropmark, identified as part of Site 518. No sub-surface archaeology could be identified to substantiate this cropmark evidence, however. Ploughsoil directly overlay natural weathered chalk.

Trench 8

5.2.7. Trench 8 was excavated to investigate the level, nature and date of activity represented by a linear anomaly. A single north-south aligned ditch-type feature (803) was found to correspond with the anomaly. The feature was notably irregular in profile, and an interpretation as a hedge-line is therefore suggested. No finds were recovered.

5.3. Area T (Figures 2 to 4)

Trench 9

5.3.1. Trench 9 (**Figure 2**) was excavated to investigate the level, nature and date of activity represented by linear anomalies identified as parts of former airfield buildings. Two linear features were identified. A north-east to south-west aligned possible wall footing of breeze block and brick construction (904) was observed at the south-western extremity of the Trench, and a grubbed-out wall trench (902) filled with brick and concrete rubble was observed on a perpendicular axis further to the north-east. The location and orientation of these footings correspond well with the position of one of the airfield buildings shown on the ordnance Survey maps.

Trenches 10-14

5.3.2. Trenches 10-14 were excavated to investigate the nature of any activity in an apparently archaeologically blank area. All trenches were devoid of archaeology, and ploughsoil directly overlay natural chalk. In Trench 10, a

0.50m wide slot with vertical sides was recorded; this was thought to be part of a pipe trench associated with a water trough. The chalk revealed in this trench was extensively plough-scarred and some modern disturbance was also apparent close to the road. In Trench 11, a dump of tarmac road debris was found close to the road at the northern end of the trench, and in Trench 14, a backfilled geotechnical test pit was encountered close to the centre of the trench.

Trench 15

5.3.3. Trench 15 was excavated to investigate the level, nature and date of activity represented by pit-type anomalies. No archaeological features were identified. A single tree throw was noted and may correspond to the anomalies.

Trench 16

5.3.4. Trench 16 was excavated to investigate the level, nature and date of activity represented by a linear anomaly. No archaeological features were identified. Ploughsoil directly overlay natural chalk.

Trench 17

5.3.5. Trench 17 was excavated to investigate the level, nature and date of activity represented by pit-type anomalies. Two shallow scoop-type pits were identified, corresponding with the position of the principal anomaly. Both features contained rusty food tins, bottles and spent .50 calibre cartridges date-stamped [19] 43. Neither pit was excavated or recorded further.

Trench 18

5.3.6. Trench 18 was excavated to investigate the nature of any activity in an apparently blank area. No archaeological features were identified, and ploughsoil directly overlay natural chalk.

Trench 19

5.3.7. Trench 19 was excavated to investigate the level, nature and date of activity represented by pit-type anomalies. No archaeological features were identified. Ploughsoil directly overlay natural chalk.

Trench 20

5.3.8. Trench 20 (**Figure 3**) was excavated on the western slopes of Stonehenge Bottom, to investigate the level, nature and date of activity represented by pit-type anomalies. No archaeological features were identified. Ploughsoil directly overlay natural chalk in the western (upslope) part of the Trench, and a sequence of periglacial deposits and prehistoric buried soils were encountered in the eastern (downslope) areas. These deposits were recorded in detail and are discussed in **Appendix 2**.

Trench 21

5.3.9. Trench 21 was excavated to investigate the nature of any activity in an apparently blank area on the western slope of Stonehenge Bottom. No archaeological features were identified. Ploughsoil directly overlay natural chalk in the western (upslope) part of the Trench, and a sequence of periglacial deposits and prehistoric buried soils were encountered in the eastern (downslope) areas. These deposits were recorded in detail and are discussed in **Appendix 2**.

Trench 22

5.3.10. Trench 22 was excavated to investigate the nature of any activity in an apparently blank area in the base of Stonehenge Bottom. No archaeological features were identified. Several tree throws and solution hollows were investigated but not recorded further. A thin (0.20-0.30m), possibly truncated deposit of periglacial soliflucted chalk was present below ploughsoil. This material directly overlay natural weathered chalk. These soils were recorded in detail and are discussed in Appendix 2.

Trench 23

5.3.11. Trench 23 was excavated to investigate the level, nature and date of activity represented by a linear anomaly. A shallow in-filled hollow-way with two well developed parallel cart-tracks in its base was identified close to the south-western end of the trench, aligned north-north-east to south-south-west and corresponding to the linear anomaly. No dating evidence was recovered.

5.3.12. A backfilled geotechnical test pit was also encountered close to the south-western end of the trench.

Trench 24

5.3.13. Trench 24 was excavated to investigate the level, nature and date of activity represented by linear and pit-type anomalies. No archaeological features were identified. Two tree throws corresponded broadly to the locations of the anticipated anomalies. Ploughsoil directly overlay chalk.

Trench 25

5.3.14. Trench 25 was excavated to investigate the level, nature and date of activity represented by linear and pit-type anomalies. Two parallel narrow scores cutting the chalk on an approximately east-west axis at the eastern end of the trench were interpreted as cart ruts. The location and orientation of these possible ruts may suggest a general correlation with the trackway recorded in Trench 23 to the west. Two tree-throws were also investigated but not recorded further.

Trench 26

5.3.15. Trench 26 was excavated to investigate the level, nature and date of activity represented by linear and pit-type anomalies. No archaeological features were identified. A cluster of tree throws was identified that may account for the anomalies.

Trench 27

5.3.16. Trench 27 was excavated to investigate the character, function and date of a linear anomaly within the area of the Visitor Centre Site 12 evaluation. No archaeological features were identified. A backfilled geotechnical test pit was observed at the north-western end of the Trench, and the base of a previous backfilled evaluation trench was seen in the south-eastern end. Ploughsoil directly overlay weathered chalk.

Trenches 28-29

5.3.17. Trenches 28 and 29 (**Figure 4**) were excavated to investigate the nature of any activity in an apparently blank area within the area of the Visitor Centre Site 12 evaluation. No archaeological features were identified in either trench. Sporadic tree-throws were investigated but not recorded further. Ploughsoil directly overlay weathered natural chalk.

6. FINDS

6.1. Introduction

6.1.1. Evaluation of Areas R and T produced only a very small quantity of finds, all of which were from Trench 6 (Area R). Flint and animal bone were the only material types present.

6.2. Results

6.2.1. Flint was recovered from three contexts in Trench 6 (**606**, **609** and **611**, all fills of ditch **601**). The flint assemblage comprises six flakes, all derived from chalk flint raw material, most of which is fairly heavily patinated. All the flakes have some cortex remaining. The flakes have been struck with a hard hammer and are broad and squat, which would be consistent with a Bronze Age date.

6.2.2. There is one tool (object **30)** in the assemblage, a scraper/knife. This object was found on the surface of the topsoil some 15-20 m north of Trench 23 (Area T).

6.2.3. Moderate quantities of struck flint were present within the topsoil, although this material was not collected.

6.2.4. Three pieces of animal bone (weighing 12 grammes in total) were recovered from context **606**.

7. PALAEO-ENVIRONMENTAL EVIDENCE

7.1. Summary

7.1.1. No archaeological features containing securely dated contexts, from which bulk or other samples could be usefully taken for palaeo-environemtnal assessment, were encountered during the evaluation in Areas R and T. Colluvial and periglacial deposits encountered in Stonehenge Bottom were recorded in detail in the field and are described in **Appendix 2**.

8. DISCUSSION

8.1. Summary

8.1.1. Evaluation revealed features of archaeological interest in only four trenches, two in Area R and two in Area T. Only one feature produced finds, which were only broadly datable.

8.1.2. In Stonehenge Bottom, a sequence of periglacial and colluvial deposits was recorded in Trenches 20, 21 and 22.

8.1.3. In Area R, the buried linear ditch previously recorded from cropmark evidence as Site 518 was located in Trench 6. This was found to be a substantial ditch, with some tentative evidence for a bank on the south-western side, which was formerly recorded as extant to the south of the road corridor. Worked flint flakes from this feature are consistent with a Bronze Age date. Animal bone was also recovered from the feature. Although cropmark evidence suggests that the ditch extends across Area R into Area Q, to the north of the A303, no trace of it was found in Trench 7: geophysical survey suggests that the feature terminates within Area R, to the east of Trench 6.

8.1.4. A gully located in Trench 3 in Area R was undated. An irregular linear feature recorded in Trench 8 contained modern brick and is thought to be a former hedgeline.

8.1.5. In Area T, a former hollow way and associated cart ruts found in Trenches 23 and 25 were undated and are thought to represent either former alignments of the A303 prior to turnpiking, or local tracks converging on Stonehenge.

8.1.6. Traces of the former Stonehenge airfield, established during the First World War and demolished by the 1930s, were encountered in Trench 9. The layout of the airfield buildings is well documented and the buried remains can only offer evidence of the nature of construction.

8.1.7. The finds assemblage recovered was very small and composed of worked flint and animal bone. No pottery or other ceramic finds were recovered. This pattern of material recovery corresponds with that observed from previous fieldwalking surveys within the area evaluated.

8.1.8. The small number of archaeological features located during the present evaluation corresponded in the majority of cases to linear geophysical anomalies and/or cropmark features. Elsewhere, a number of pit-type anomalies identified by geophysics were located but investigation found the overwhelming majority of these to be tree throws or other natural features and variations in the natural geology. Only in Trench 25 were features encountered (the cart ruts) which the geophysics had failed to identify. Except for the linear boundary Site 518, no features were identified that could be related to anticipated crop marks.

8.1.9. The paucity of archaeological features and material located during the present evaluation in Area T is in contrast to the results of previous archaeological evaluation of some 6.75 ha across King Barrow Ridge (Visitor Centre Site 12, Wessex Archaeology 1993a). Here a combination of fieldwalking, hand-dug test-pits and machine excavated linear and targeted trial trenches (**Figures 3** and **4**) identified three concentrations of artefacts in the topsoil, immediately to the south of the King Barrow Ridge barrow group and at the eastern and western extents of the evaluation area. Twenty-eight archaeological features, including a square enclosure (Site 802), ditches/gullies, pits, postholes and stake holes, were also identified, with the larger features generally found in the west of the evaluated area but a number of isolated pits and postholes in the east. Few of the features were well dated, but associated artefacts indicate activity from the later Neolithic to the Late Bronze Age/Early Iron Age. Artefacts recovered included Grooved Ware pottery from an isolated Neolithic pit in the eastern part of the evaluated area.

8.1.10. A colluvial brown earth sequence was also recorded within a narrow, shallow dry valley, in the west of the evaluation area, a tributary of Stonehenge Bottom. A possible Neolithic or Bronze Age horizon was noted within this sequence.

8.1.11. King Barrow Ridge forms a prominent landscape feature within the WHS landscape, extending from the henge monument at Durrington Walls to the north-east to the henge monument at Coneybury Hill to the south. The significance of the ridge on the fringe of the Stonehenge landscape is indicated by the extensive and well-preserved barrow group aligned along it to the north of the A303. The presence of archaeological remains suggesting Neolithic and Bronze Age activity on the ridge is not, therefore, surprising. The contrast between this activity and the general absence of archaeological remains across the reminder of the area evaluated in Area T would seem to support the suggestion that the area closest to Stonehenge itself was reserved from domestic activity.

8.2. Preservation of Archaeological Remains

8.2.1. The occurrence of archaeological remains was very sparse across Areas R and T, although the correlation of these with geophysical anomalies and cropmarks was generally good.

8.2.2. Modern arable land use has resulted in extensive plough scarring of the chalk throughout Areas R and T. Only in Stonehenge Bottom has the greater depth

of deposits protected the chalk. The effects of this plough damage on the limited number of features identified is difficult to quantify. However, the ploughing is likely to have degraded or removed any less substantial features.

8.3. Assessment of Importance

8.3.1. The WSI reviewed the Monument Interest Value (MIV) previously calculated (Blore *et al* 1995) for the known sites within Areas Q-U (Wessex Archaeology 2001b). The scores for the five known sites (excluding records of individual objects) within Areas R and T are shown in **Table 1**. These suggest that two of the known sites are of Minor Importance and one is of Moderate Importance. The scheduled long barrow and the linear boundary close by, which is scheduled where it is extant to the south, are of Major Importance, however.

Site	Area	Type	Surv.	Poten.	GV (cl.)	GV (Ass.)	Diver.	SAM	Total MIV
518	Q,R	Linear	3	3	2	1	2	Y	45
521	R	Barrow	1	2	1	3	2	Y	45
694	T, U	Linear	1	2	1	3	1	X	16
729	T, U	Tracks	1	2	1	1	1	X	8
802	T	Enclos.	1	2	1	2	1	X	11

Table 1: Review of Monument Interest Values

8.3.2. The evaluation in Areas R and T has located few archaeological remains. A preliminary assessment of the importance of these remains (**Table 2** below) indicates that the linear boundary is of Major Importance, by virtue of its scheduled status elsewhere and its location within the WHS. All the other remains are of Minor, local importance.

Trench	Type	Survival	Potential	GV (cluster)	GV (assoc.)	Diversity	SAM/ MPP	Total
6	Linear boundary, part of Site 518; BA	3	3	2	1	2	Y	45
3	Gully; undated	1	1	1	1	1	X	5
23/25	Hollow way/trackway/cart ruts; undated	1	1	2	2	1	X	11
9	Airfield remains, pre-1930	1	1	1	1	1	X	5

KEY: BA = Bronze Age

Table 2: Preliminary assessment of importance

8.3.3. The results of the evaluation in Area T have highlighted the significance of the archaeological remains located by previous evaluation on King Barrow Ridge (Visitor Centre Site 12). It is suggested, therefore, that the principal remains warrant re-scoring (**Table 3** below).

Trench	Type	Survival	Potential	GV (cluster)	GV (assoc.)	Diversity	SAM/ MPP	Total
SVC 12	Undated encl. (Site 802)	1	2	2	2	1	X	14
SVC 12	Neo. Pits (Site 1618)	3	3	2	2	1	X	27

KEY: Neo. = Neolithic

Table 3: Re-assessment of importance: Visitor Centre Site 12 features

8.3.4. This re-scoring suggests that both the square enclosure (Site 802) and the Noelithic pits and other associated features should be regarded as of Moderate Importance. This reflects their location within the WHS on the fringes of the Stonehenge landscape and the contrasting absence of remains elsewhere in Area T.

8.3.5. The milestone (no. 5/7) is Listed Grade II. Its value derives from its position as part of a prominent series associated with the turnpiking of the A303 and it may be considered to be of Moderate Importance in line with its statutory designation. No re-consideration of the importance implied by its designation is proposed here.

8.4. Confidence Rating

8.4.1. The evaluation has located a very small number of archaeological features in two locations in Areas R and T. The general aims and objectives of the evaluation, as set out in the WSI, have therefore been fulfilled. In particular, the nature of the geophysical anomalies, the presence or absence of archaeological remains in areas that appear blank, and the degree of preservation across Areas R and T have been assessed. Where the predicted features were encountered, the specific objectives set for each trench have also been achieved.

8.4.2. Three trenches (Trenches 6, 7 and 23) were designed to intercept possible linear features visible as cropmarks on aerial photographs. Trench 6 successfully located the linear boundary feature seen as the cropmark, but no subsurface features that might account for the cropmarks were located by the other trenches, however.

8.4.3. A total of 17 of the trenches (Trenches 1-5, 8, 9, 15-17,19, 20, and 23-27) was excavated to examine anomalies detected by geophysical survey. In only three of these trenches (Trenches 3, 8 and 23) were the anomalies found to represent buried archaeological remains, while in the remaining 14 trenches they appear to represent natural features or variations in the chalk substrata. The remaining trenches were positioned to investigate apparently blank areas; none of these trenches located any features of archaeological origin. The general spread of features of whatever origin has been successfully predicted, and a reasonable reliance may therefore be placed on the geophysical survey as a means of predicting substantial archaeological remains in these areas.

8.4.4. The evaluation in Areas R and T has successfully confirmed the nature, date range and character of the very limited archaeological remains predicted from the previous surveys. Given the relatively high trenched sample (3.3%), the even distribution of the trenches and the generally low level of remains encountered, it is considered unlikely that substantive archaeological remains may have been missed by the evaluation. However, the previous discovery of Neolithic pits containing Grooved Ware pottery indicates the potential for further small features to occur.

8.5. Recommendations for Further Work

8.5.1. No datasets capable of supporting useful further analysis were recovered during the evaluation in Areas R and T. However, the detailed sediment descriptions from Stonehenge Bottom can contribute to understanding of the changing environment around Stonehenge, and may be extended by further work (mitigation).

8.6. Recommendations for Mitigation

8.6.1. In Area R, the Illustrative Design lies in cutting to the south of the existing road. No additional landtake for landscaping is proposed within the WHS. The cut and cover tunnel portal is situated at ch. 7900, some 50m west of the pinch-point between the scheduled long barrow (Site 521) to the south of the existing road and the group of round barrows (Site 522 etc.) to the north. The road is then in tunnel to the eastern tunnel portal at ch. 9900. From here the road rises out of cutting to merge at grade with the existing dual carriageway at about ch. 10550. The existing Stonehenge Road on-slip is incorporated more or less at grade to provide tunnel services access. Construction of the shallow bored tunnel option would require, as a minimum, additional landtake to the south of the existing A303 at either portal.

8.6.2. It is intended that the design and construction will avoid all Scheduled Monuments. The construction of the tunnel portals will have a major impact on the settings of important Scheduled Monuments, however. Excavation for the cut and cover tunnel, or the possible shallow bored tunnel through Stonehenge Bottom, and at its portals, will destroy any other archaeological remains.

8.6.3. The construction of the cut and cover tunnel on-line will impact on the turnpike milestone. This feature is of Moderate Importance as part of a series and benefits from statutory protection as a Listed structure. It is recommended that the stone should be removed for safekeeping during construction and replaced close to its original position once works are complete: the latter course would require listed building consent.

8.6.4. The undated gully, cart ruts and airfield remains located are all considered to be of only Minor Importance. The preservation *in situ* of these remains is not, therefore, merited. The square enclosure, Grooved Ware pits and other associated features known on King Barrow Ridge, however, are considered to be of Moderate Importance. Construction of the eastern tunnel portal here may result in the destruction of the square enclosure and other associated

remains. The preservation *in situ* of these remains may not, therefore, be possible.

8.6.5. Given the location of Areas R and T within the core of the WHS, and their proximity to Stonehenge itself, it is recommended that provision should be made for 'strip and record' investigation wherever topsoil will be disturbed throughout Areas R and T. This is in order to ensure that any further remains are exposed under archaeological control and to allow opportunity for an appropriate record to be made prior to their destruction. The nature and extent of the Neolithic and Bronze Age activity on King Barrow Ridge, confirmation of the extent of any features and burials associated with the long barrow in Area R, and the potential for the discovery of further Neolithic Grooved Ware pits, will be of particular interest.

8.6.6. The unscheduled section of boundary ditch (part of Site 518) excavated in Area R is considered to be of Major Importance. Construction of the western tunnel portal here may result in the destruction of this stretch of the feature and preservation *in situ* will not be feasible. Given that the boundary feature survives extant further to the south, where it benefits from statutory protection as a scheduled monument, it is suggested that the impact of the road construction can be adequately mitigated here through preservation by record as part of the 'strip and record' exercise outlined above (8.6.4).

8.6.7. The potential impact of the tunnel portals on the settings of the nationally important scheduled barrow groups situated nearby should be addressed during further development of the Illustrative Design. It is recommended that the location of the tunnel portals should be adjusted where possible to maximise visual separation from the monument groups, subject to other environmental and construction constraints.

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10. APPENDIX 1: TRENCH SUMMARY TABLES

Trench 1		Max Depth: 0.30m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.25m	101	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions		
0.25m+	102	Natural weathered chalk		

Trench 2		Max Depth: 0.28	Length: 50m	Width: 1.8m
Depth	**Context**	**Description**		**Finds**
0-0.28	201	**Topsoil:** Dark brown clay-silt. Small chalk and flint inclusions		
0.28m+		Natural weathered chalk		

Trench 3		Max Depth: 0.29m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.29	301	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions		
0.29m+	301	Natural weathered chalk		
Feature	303	Cut of gully, butt ends in trench after 1.5m. 0.80m wide, 0.25m deep, steep sides, u-shaped profile.		
Fill	304	Fill of 303. Dark brown grey silty clay, occ. Chalk & flint inclusions.		

Trench 4		Max Depth: 0.30m10m	Length:	Width: 10m
Depth	**Context**	**Description**		**Finds**
0-0.25m	401	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions		
0.25m+	402	Natural weathered chalk		
Feature	403	Tree throw, 1.2m long, 0.90m wide, 0.18m deep.		
Layer	404	Fill of 403. Dark brown silty clay loam with common flint & chalk inclusons.		

Trench 5		**Max Depth: 0.30m**	**Length: 10m**	**Width: 10m**
Depth	**Context**	**Description**		**Finds**
0-0.25m	501	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions		
0.25m+	502	Natural weathered chalk		

Trench 6		Max Depth: 0.28m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.28m	600	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions:		
0.28m+	613	Natural weathered chalk		
Feature	**601** Fills 608, 609, 610, 611	Linear ditch aligned ENE-WSW. c. 2m wide, c. 1m deep. Steep sided to a narrow base.		Struck flint
	608	Pale brown sandy silt. 50% inclusions of chalk rubble.		
	609	Firm, white chalk rubble (80%) in matrix of dirty brown-white chalky clay silt (20%).		

	610	Friable dark brown humic silt. 5% pea gravel – animal burrow?	
	611	Mottled pale white chalk rubble and clay silt.	
Layer	607	Dark brown sandy silt with common chalk inclusions <40mm. May be a remnant palaeosol preserved within a slight hollow?	
Layer	606	Loose dark brown sandy silt. Rare chalk and flint inclusions	Struck flint Animal bone
Feature	**602, 612** Fills 603, 604, 605	Tree throw, with 612 possible later animal burrow.	

Trench 7		Max Depth: 0.27	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.27m	701	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions:		
0.27m+	702	Natural weathered chalk		

Trench 8		Max Depth: 0.30m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.30m	801	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions:		
0.30m+	802	Natural weathered chalk		
Feature	**803** Fill 804	N-S aligned linear feature. Very irregular sides and base. Possibly a former hedgeline		

Trench 9		Max Depth: 0.30m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.30m	901	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions:		
0.30m+	906	Natural weathered chalk		
Feature	**902** Fill 903	Possible grubbed-out wall footing trench, filled with brick and mortar rubble		
Feature	**904** Fill 905	Possible wall-footing. Breeze block and brick construction.		

Trench 10		Max Depth: 0.30m	Length: 40m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.27m	1001	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions:		
0.27m+	1004	Natural weathered chalk		
Feature	**1002** Fill 1003	Modern agricultural service gully, filled with topsoil, brick and concrete fragments.		

Trench 11		Max Depth: 0.30m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-o.30m	1101	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions:		
0.30m+	1102	Natural weathered chalk		

Trench 12		Max Depth: 0.30m	Length: 50m	Width: 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.30m	1201	**Topsoil**: Dark brown clay-silt. Small chalk and flint inclusions.		
0.30m+		Natural weathered chalk.		

Trench 13		Max. Depth – 0.30m	Length – 50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.25m	1301	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.25m+	1302	Natural weathered chalk		

Trench 14		Max. Depth –0.30m	Length –50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.28m	1401	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions.		
0.28m+	1402	Natural weathered chalk		

Trench 15		Max. Depth –0.30m	Length –50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.29m	1501	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.29m+	1502	Natural weathered chalk		

Trench 16		Max. Depth –0.30m	Length –50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.26m	1601	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.26m+	1602	Natural weathered chalk		

Trench 17		Max. Depth –0.32m	Length –50m	Width – 1.80mm
Depth	**Context**	**Description**		**Finds**
0-0.25m	1701	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.25m+	1702	Natural weathered chalk		

Trench 18		Max. Depth –0.33m	Length – 50m	Width –1.8m
Depth	**Context**	**Description**		**Finds**
0-0.28	1801	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.28m+	1802	Natural weathered chalk		

Trench 19		Max. Depth –0.40m	Length –10m	Width –10m
Depth	**Context**	**Description**		**Finds**
0-0.35m	1901	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions		
0.35m+	1902	Natural weathered chalk		

Trench 20		Max. Depth – 0.90m	Length –50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.25m	2001	**Topsoil**: Dark brown clay-silt. Rare small chalk and flint inclusions		
0.25-0.33m	2002	**Subsoil**: Orange brown clay-silt. Firm. Rare chalk and flint inclusions		
0.33-0.36m	2003	Mid-dark orange brown clay-silt matrix with very abundant small (<20mm) angular flint		
0.36-0.57m	2004	Mid-dark orange brown clay-silt. Relatively stoneless. Sharp but irregular interface wirh 2006 below.		
0.57-0.63m	2005	Pale yellowish brown fine 'pellety' chalk. Redeposited soloiflucted material.		
0.63-0.66m	2006	Thin layer of less discoloured redeposited marly chalk.		
0.66-0.89m	2007	Pale yellow-brown 'pellety' chalk. Redeposited soliflucted material. Less well sorted than 2005.		
0.89m+		Natural weathered chalk		

Trench 21		Max. Depth – 0.72m	Length –50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.26m	2101	**Topsoil**: Dark brown clay-silt. Rare small chalk and flint inclusions		
0.26-0.46m	2102	**Subsoil**: Mid-dark orange brown clay silt. Rare small chalk and flint inclusions		
0.46-0.67m	2103	Pale yellowish brown fine 'pellety' chalk. Redeposited soloiflucted material.		
0.67m+		Natural weathered chalk		

Trench 22		Max. Depth –0.30m	Length – 50m	Width – 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.30m	2201	**Topsoil**: Dark greyish brown clay-silt. Abundant flint inclusions including large nodules <0.40m.		
0.30m+	2202	Natural weathered chalk		

Trench 23		Max. Depth – 0.53	Length – 50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.25m	2301	**Topsoil**: Dark brown clay silt. Abundant chalk and flint inclusions.		
0.25+	2302	Natural weathered chalk		
Feature	**2303** Fills: 2304, 2305, 2306	Small linear hollow-way (width 3.30m, depth c.0.25m), aligned approximately SW-NE. Two well scored and defined parallel cart-wheel ruts were observed, with some compacted flint packing in their bases. Wheel ruts filled with light greyish brown silt (2036, 2037), sealed by mid light grey silt (2305), itself o0verlain by a 'gritty' mid-greyish brown clay-silt (2304).		

Trench 24		Max. Depth – 0.31m	Length –50m	Width – 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.28m	2401	**Topsoil**: Dark brown clay-silt. Occasional chalk and flint inclusions.		
0.28m+	2402	Natural weathered chalk		

Feature	2403; fills 2404, 2405	Tree throw	

Trench 25		Max. Depth –0.33m	Length –50m	Width – 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.31	2501	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions.		
0.31m+	2502	Natural weathered chalk.		
Feature	**2503** Fill: 2504	Tree throw		
Feature	**2505** Fill: 2506	Tree throw		
Feature	**2507** Fill: 2508	Narrow, shallow (<50mm) cart-track rut.		
Feature	**2509** Fill: 2510	Narrow, Shallow (<50mm) cart-track rut, parallel to 2507.		

Trench 26		Max. Depth –0.20m	Length –10m	Width –10m
Depth	**Context**	**Description**		**Finds**
0-0.20m	2601	**Topsoil**: Dark brown clay-silt. Abundant chalk and flint inclusions.		
0.20m+	2602	Natural weathered chalk		

Trench 27		Max. Depth – 0.33m	Length – 50m	Width –1.80m
Depth	**Context**	**Description**		**Finds**
0-0.33m	2701	**Topsoil**: Mid-dark greyish brown clay-silt. Abundant chalk and flint inclusions.		
0.33m+	2702	Natural weathered chalk.		

Trench 28		Max. Depth – 0.25m	Length – 50m	Width – 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.25	2800	**Topsoil**: Mid-greyish brown clay-silt. Abundant chalk and flint inclusions.		
0.25m+	2801	Natural weathered chalk		

Trench 29		Max. Depth –0.20m	Length – 50m	Width – 1.80m
Depth	**Context**	**Description**		**Finds**
0-0.20m	2900	Topsoil: Mid-greyish brown clay silt. Abundant chalk and flint inclusions.		
0.20m+	2901	Natural weathered chalk.		

11. APPENDIX 2: PRESERVED PALAEOSOILS AT STONEHENGE BOTTOM

M.J.Allen

Introduction
Three evaluation trenches (20, 21, 22) which exposed soil profiles atypical of the rendzinas of the area were examined.

Topography of Stonehenge Bottom
The valley is distinctly asymmetrical in profile with a pronounced steep 'river cliff' on its east side. In contrast, on the west side the profile has a more gentle slope with minor terrace forms below its convex upper profile.

Within the terrace or bench that runs just above the foot of the slope on the west side are thicker soil profiles over typical graded and sorted periglacial solifluction deposits or Coombe Deposits. Below the minor terrace forms the slope in very gentle into an almost flat valley floor.

The valley floor profile. The longitudinal profile of the broad almost level valley floor has a series of distinct minor undulations reminiscent of relict ridges left by a meandering stream. The cross profile, although almost level, slopes distinctly, but very gently, to the east. There is a perceptible increase in gradient towards the eastern river cliff, perhaps indicating a former channel against the cliff, about 25m wide. The soils here are distinctly more flinty.

Soils of Stonehenge Bottom
On the upper slopes (western side, e.g. Tr 19) the soils are shallow (0.25 to 0.3m thick), grey to brown ploughed rendzinas, containing varying quantities of very small and small rounded chalk pieces, over chalk at the top of the slope, periglacial chalk marl on the upper to mid slope, and pellety loose chalk Coombe Deposits in the footslope zone.

Below the convex apex of the western slope, the soil profile is locally thicker in the minor terrace-forms, and on the valley floor brown and humic rendzinas occur with little chalk inclusions but concentrations of localised flint nodules.

Trench descriptions
Soil descriptions were made following the terminology outline by Hodgson (1976).

Trench 20

Profile description in terrace-form where the periglacial deposits have been exposed in section: northern face described

0-22cm Ap	CONTEXT **2001**	DESCRIPTION	Dark greyish brown (10YR 4/2) humic loam with very rare very small flints – essentially stonefree, with weak crumb structure, common very fine fleshy roots many medium (0.6mm) vertical macropores (earthworm and roots) and earthworm pellets (2mm) present, infilled with same material. Sharp smooth boundary.
		COMMENT/ INTERPRETATION	Ploughsoil; rendzina-form brown earth
22-29cm B – bA/B	**2002**	DESCRIPTION	Brown (7.5YR 5/3) silty clay loam, stonefree no structure noted, some fine fleshy roots and some vertical macropores (worms) mainly filled with this B horizon material, 0.2% fine macropores (hand lens), weakly or non-calcareous
		COMMENT/ INTERPRETATION	Preserved relict brown earth; a buried A horizon now forming the B horizon of the modern rendzina-form ploughsoil

29-33cm stone lens	**2003**	DESCRIPTION	Stone lens in a silty clay loam matrix with slightly hue than that above (brown 7.5YR 5/2) and higher density of fine macropores (hand lens). Stone lens comprised a narrow band of abundant small and few medium sorted flints.
		COMMENT/ INTERPRETATION	This probably presents an erosion event (depositional fan from a small rill), but might just be a relict stony earthworm-worked horizon.
33-48cm bB/Bt	**2004**	DESCRIPTION	Strong silty clay, brown (7.5YR 4/4) to strong brown (7.5YR 4/6) firm stonefree matrix, with 0.2% vertical macropores (0.5mm) – relict worm holes -, no clay linings or coating on weak inter, or intra ped surfaces were noted, weakly or non-calcareous matrix with a sharp smooth and indurated boundary with deep V-shaped intrusions into the periglacial deposits. These are root and solution features.
		COMMENT/ INTERPRETATION	Relict brown earth profile, potentially argillic in nature, preserved on terrace-form which lies just above the flootslope zone.
48-74cm B – bB	**2005** **2006** **2007**	DESCRIPTION	Pale yellow (2.5Y 8/3) chalky marl matrix with abundant very small and small round chalk pellets, some sorted bands evdient, over weakered chalk
		COMMENT/ INTERPRETATION	Periglacial solifluction material, Coombe Deposits, probably relating to the later Devensian cold stage
74+cm C/R	**2008**		Weathered chalk

Trench 21

A similar profile to that described in Trench 20 occurred.

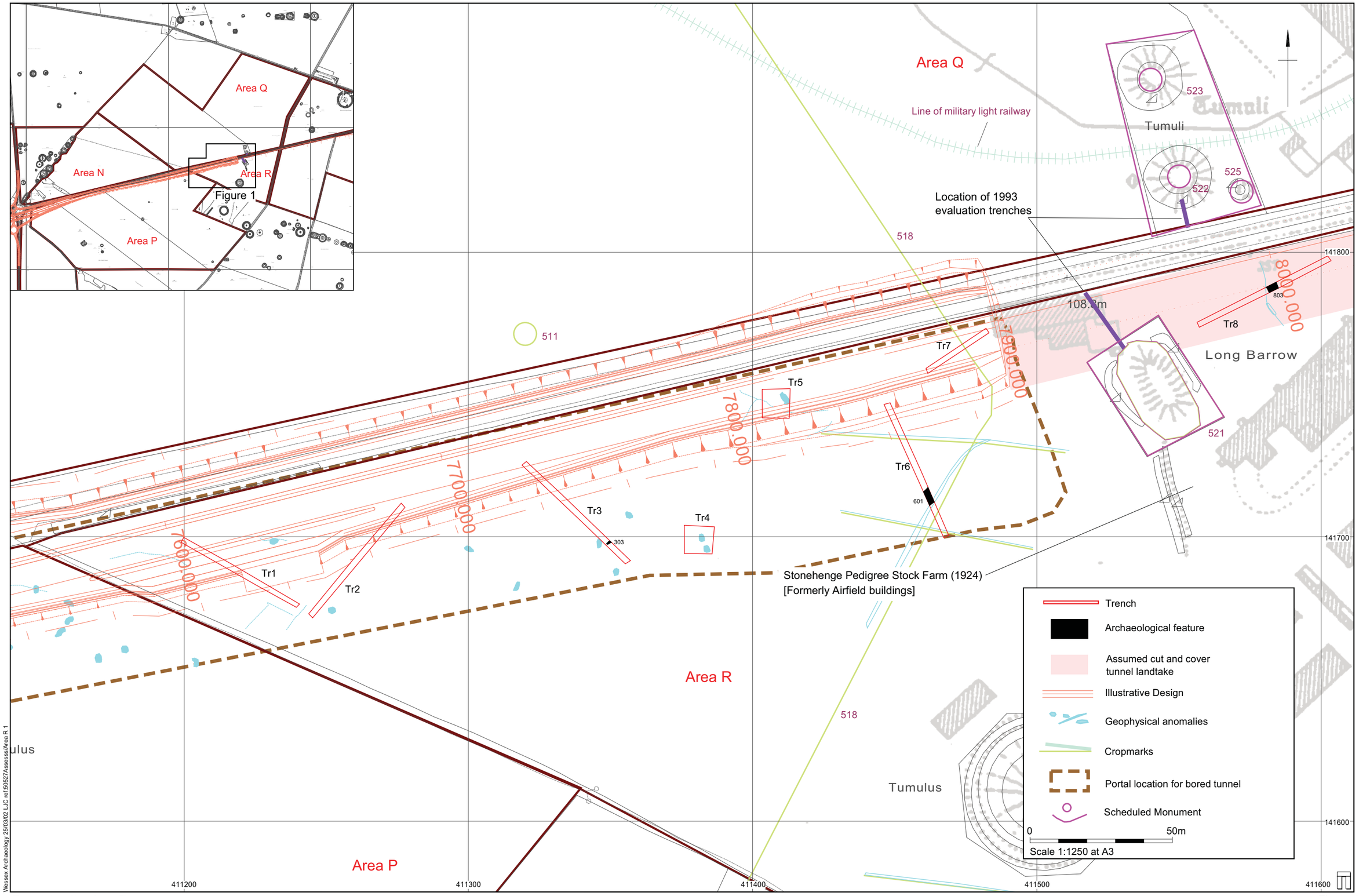
Trench 22 (Valley floor)

0-26/8cm	DESCRIPTION	Very dark greyish brown (10YR 3/2) brown/humic rendzina profile (**2201**), over Coombe Deposits (**2002**), almost stonefree. Toward the east, and the river cliff and possible relict channel at its base, the profiel becomes more stony/flinty. Initially medium then large flints, predominantly observed on the surface rather than in profile.
	COMMENT/ INTERPRETATION	The Coombe Deposit seems to be planed-off by the possible channel, revealing only shallow solifluction deposits of probably about 0.3m surviving on the valley floor

Archaeological significance

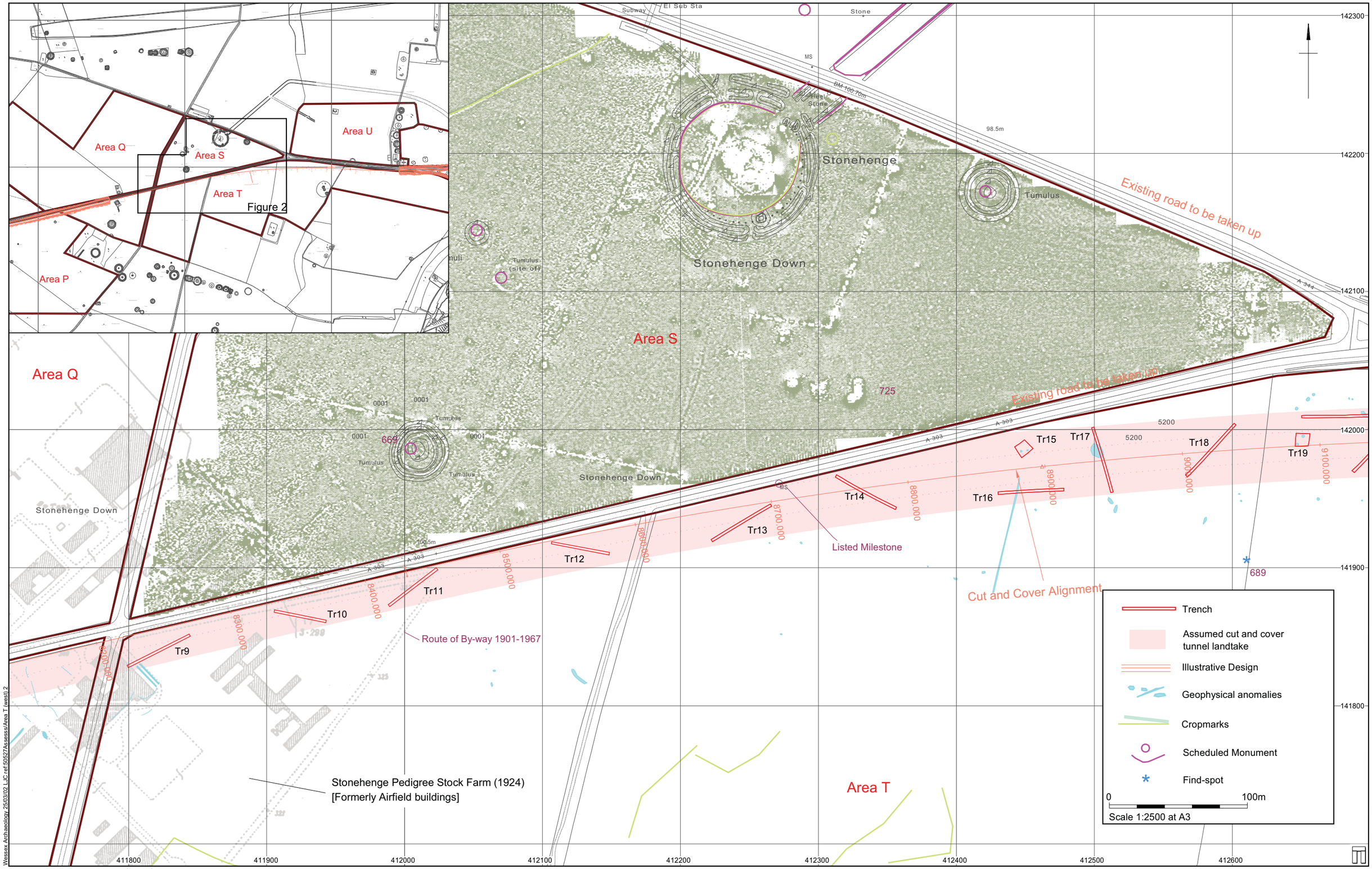
The record of these thicker brown and argillic earths in highly localised topographic locations (i.e. Coneybury Hill (see Allen 1997) and Stonehenge Bottom), indicate the presence of relict profiles that may once have covered much of the Stonehenge landscape.

Recognition of their occurrence, and definition of their location allows further examination to define the nature of the prehistoric soils within this landscape.



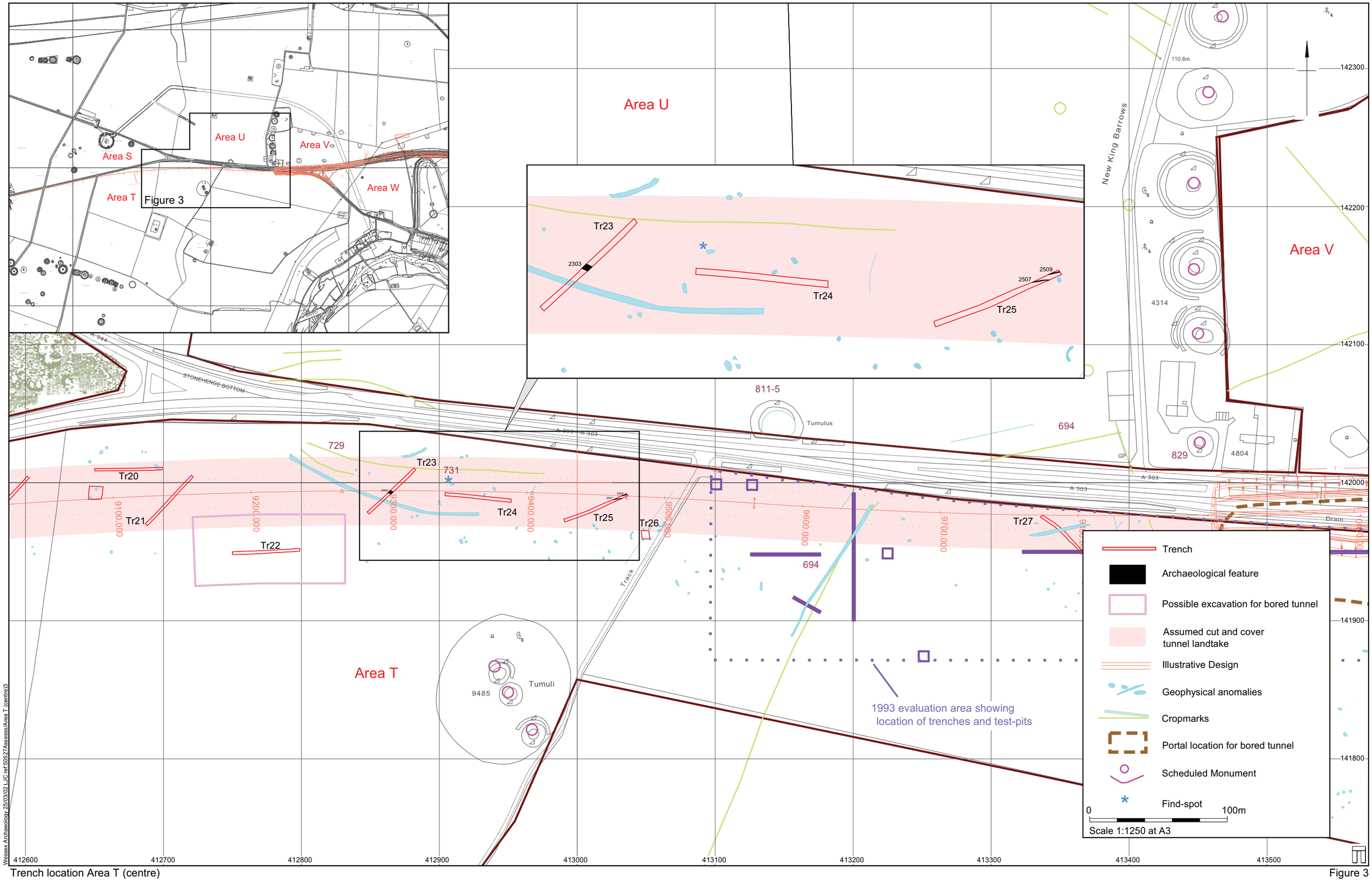
Trench location Area R

Figure 1



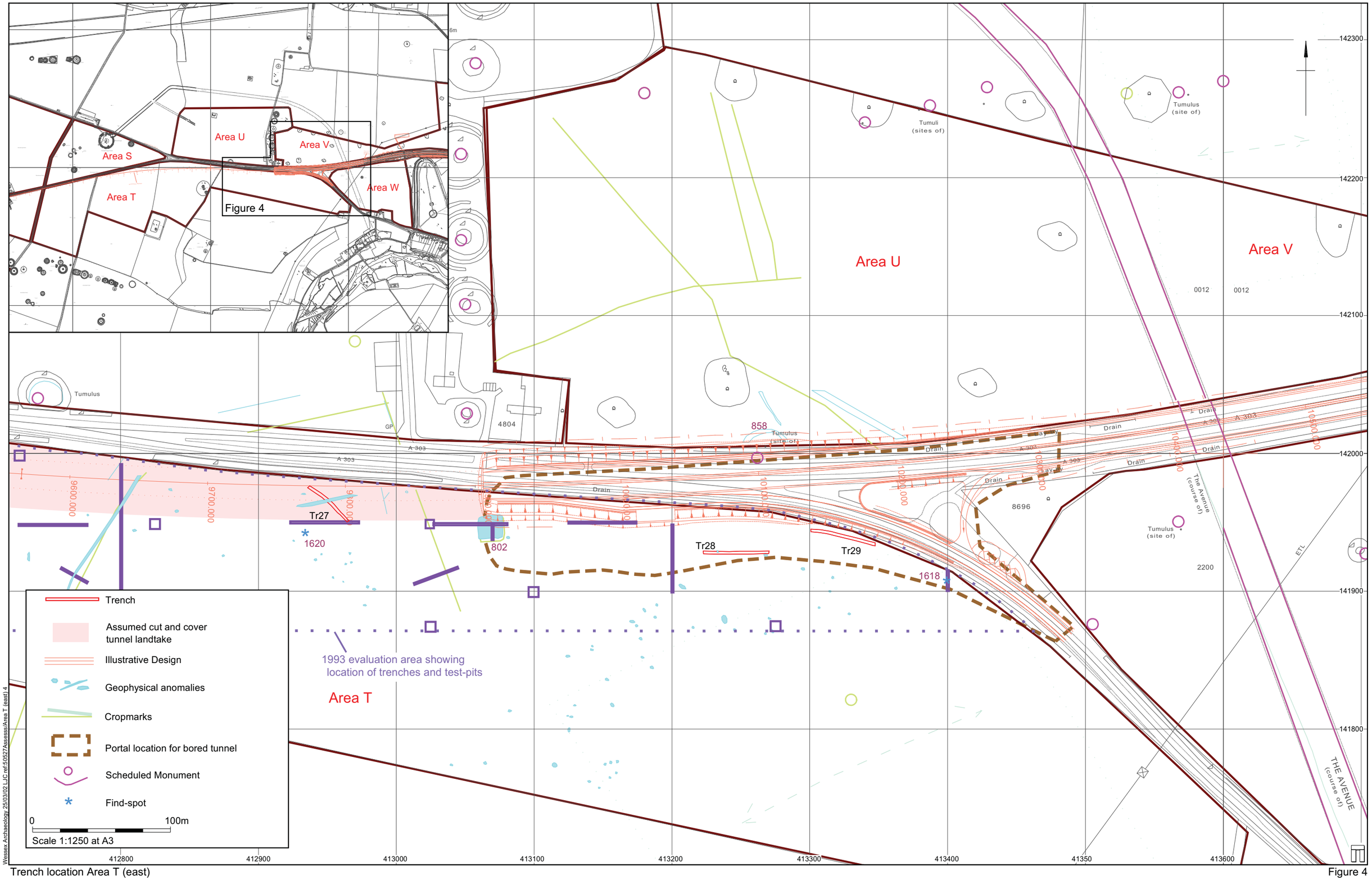
Trench location Area T (west)

Figure 2



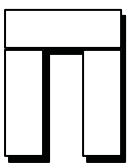
Trench location Area T (centre)

Figure 3



Trench location Area T (east)

Figure 4



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