



# 6.9 Outline Heritage Written Scheme of Investigation

**Planning Act 2008** 

May 2019



#### Infrastructure Planning

Planning Act 2008

## A303 Sparkford to Ilchester Dualling Scheme

Development Consent Order 201[X]

## OUTLINE HERITAGE WRITEN SCHEME OF INVESTIGATION

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#### 1 Introduction

#### 1.1 Purpose of this document

- 1.1.1 This Outline Heritage Written Scheme of Investigation (OHWSI) has been prepared in respect of an application for the proposed A303 Sparkford to Ilchester Dualling Scheme (the "scheme") made by Highways England Company Limited (Highways England) to the Secretary of State for Transport (Secretary of State) for a Development Consent Order (the Order) under section 37 of the *Planning Act 2008* (PA 2008).
- 1.1.2 This OHWSI does not seek to replicate information which is available elsewhere within the Application documents<sup>1</sup>, though in order to provide sufficient background relevant information will be summarised.
- 1.1.3 The OHWSI has been produced to confirm to the Examining Authority where it is considered that further investigation or mitigation in relation to the impact of the scheme upon heritage assets will be necessary, and what form the likely investigation or mitigation will take. A detailed written scheme of investigation is required under Requirement 9 of the DCO and will reflect the mitigation measures contained in this document.

#### 1.2 Overview

- 1.2.1 This OHWSI outlines several elements of archaeological investigation and heritage mitigation and recording that should be undertaken as follows. All areas subject to investigation are within the scheme red line boundary. The overview of the areas specified below are shown in appendix A.1, drawings HE551507-MMSJV-EHR-000-DR-LH-0063 and HE551507-MMSJV-EHR-000-DR-LH-0064, which covers;
  - Archaeological strip, map and record investigation totalling 19.51 hectares targeting archaeological remains identified during the evaluation trenching for this scheme.
  - Archaeological monitoring totalling 1.11 hectares during construction targeting areas within which the evaluation trenches revealed no archaeological remains, but which are considered to have the potential to contain finds or features associated with the Scheduled Monument (Romano-British settlement on Camel Hill MM43).
  - Procedure for the recording, removal, temporary storage and repositioning of a grade II listed milestone.
  - Procedure for the recording, removal and permanent storage of a locally significant historic gully grate.
  - Recording of a surviving stretch of dry stone wall on Howell Hill.
  - Recording and potential relocation of an historic fence and gate in Hazlegrove Park.
  - Recording of historic landscape features within Hazlegrove House Registered Park and Garden (RPG).

<sup>&</sup>lt;sup>1</sup> All documents can be accessed here: https://infrastructure.planninginspectorate.gov.uk/projects/south-west/a303-sparkford-to-ilchester-dualling/

#### 1.3 Roles and responsibilities

- The Applicant: Highways England, the commissioning party.
- Archaeological Contractor (AC): responsible for undertaking the fieldwork and post-excavation assessment, analysis, reporting and archiving.
  - The AC will be a Registered Organisation (RO) with the Chartered Institute for Archaeologists (ClfA) and will provide a project manager to direct the survey work who has ClfA membership (or equivalent experience) to at least Associate level.
  - The AC will adhere to the specification outlined in this document and the detailed WSI approved under Requirement 9 of the DCO, and will be responsible for staffing the project, following suitable standards of recording and reporting.
  - The AC will work in accordance with the guidance documents listed in Section 4.
  - The AC will be responsible for the preparation of a Health and Safety Risk Assessment and Method Statement (RAMS), and following the completion of the works, reporting the results of the investigations.
- Highways England Consultant (HEC): responsible for the management of the AC.
- Principal Contractor (PC): responsible for the construction of the scheme and implementation of all relevant health and safety policies and The Construction (Design and Management) Regulations.
- South Somerset District Council (SSDC): responsible for ensuring adherence to the Development Consent Order (DCO) requirements on behalf of the Planning Inspectorate;
- South West Heritage Trust (SWHT): responsible for monitoring the investigations on behalf of South Somerset District Council (SSDC);
- HBMCE (Historic England): responsible for monitoring the investigations near the Scheduled Monument and within the Registered Park and Garden in an advisory capacity to SSDC.

#### 2 Proposed Investigation

#### 2.1 Introduction

2.1.1 In accordance with Volume 10, Section 6: Archaeology of the Design Manual for Roads and Bridges (DMRB) this section is divided into three parts: Archaeology, Built Heritage and Historical Landscape. The proposed mitigation is presented in appendix A.2, drawings HE551507-MMSJV-EHR-000-DR-LH-0056 to 0062.

#### 2.2 Archaeology

- 2.2.1 Recent archaeological evaluations undertaken to inform the Application have identified several areas containing locally and regionally important archaeological remains. Tables 2.1 and 2.2 summarise the results of the geophysical magnetometer surveys (Lefort 2019 and Wessex Archaeology 2019) and evaluation trenching (LP: Archaeology 2019) in relation to the areas identified for further investigation prior to, and during construction. For a full account of the results of these surveys and a full archaeological and historical background please refer to the following documents:
  - A303 Sparkford to Ilchester Dualling Environmental Statement,
     Volume 6.3 Appendix 6.1 Cultural Heritage Desk Based Assessment (APP-067).
  - A303 Sparkford to Ilchester Dualling Scheme Environmental Statement Addendum (REP2-005).
  - Full Archaeological Evaluation Report for A303 Sparkford to Ilchester Dualling (REP2-005).
  - A303 Sparkford to Ilchester Dualling: Detailed Gradiometer Survey (REP2-005).
  - Full Archaeological Evaluation Report for A303 Main Compound Extension (LP Archaeology 2019).
  - A303 Sparkford to Ilchester Dualling, Main Compound: Gradiometer Survey Report (REP2-005).
- 2.2.2 The references to the investigations proposed within this OHWSI are as follows:
  - SMR 1 Strip, map and record area 1
  - AM 1 Archaeological monitoring area 1
- 2.2.3 References to evaluation trenches follow field letter then trench number, as assigned for the evaluation trenching, for example, Field A, 8.

#### Strip, map and record

2.2.4 Table 2.1 below describes the archaeological potential of each SMR area, its location and size.

2.2.5 The main compound (SMR1) ground preparation would require a topsoil strip prior to laying geotextile matting upon the existing ground surface and then building up with stone. Archaeological remains within this area are present at a depth greater than 0.4m and have the potential to be disturbed by plant movement during the topsoil strip.

Table 2.1 Archaeological strip, map and record investigation

Area	Total	National	Description	Figure
Ref	size (ha)	Grid		
SMR 1	11.61	Reference 355995, 124801	This area would be the main compound. Archaeological magnetometer survey revealed c. two small possible enclosures with internal roundhouses and a trackway (Lefort 2019; Appendix B). Archaeological evaluation revealed Late Bronze Age to Early Iron Age remains in the form of a pit, a shallow linear feature and a possible drip gully in Field AI and a number of linear features within Field H. A continuation of the Iron Age / Romano-British settlement recorded in the adjacent field to the east, identified as Field H, was also revealed. The	HE551507- MMSJV-EHR- 000-DR-LH-0056
SMR 2	2.45	356525,	features appear to represent two settlement areas, one in Field H and one in Field AI, probably representing roundhouses, within small enclosures.  The evaluation trenches within this	HE551507-
	2.40	350525, 124920	area (Field I, 29-34 and 194-195) revealed what appears to be a trackway aligned roughly north to south, and an associated field system. The features revealed correspond to those recorded through magnetometer survey (Wessex Archaeology 2018). Dating evidence was recovered from only one of the ditches and comprised two sherds of 12th to 14th century pottery. It is possible that the trackway led to the shrunken medieval village of Downhead (MM44).	MMSJV-EHR- 000-DR-LH-0057
SMR 3	1.55	356913, 125042	The evaluation trenches within this area (Field J, 39-50) revealed Late Iron Age / Romano-British settlement remains, and the majority of features were found to correspond to those features identified through magnetometer survey (Wessex Archaeology 2018). Trench 45 contained what appeared to be an occupation layer dated to this period, although post-medieval finds from this	HE551507- MMSJV-EHR- 000-DR-LH-0058

Area Ref	Total size (ha)	National Grid Reference	Description	Figure
			layer could suggest a considerably later date if proven not to be intrusive within the deposit.	
SMR 4	0.67	357055, 125166	The evaluation trenches within this area (Field K, 52-55 and Field L, 56) revealed a series of ditches which appear to represent a continuation of the field system identified in SMR 3, to the south. The features largely corresponded to those identified through magnetometer survey (Wessex Archaeology 2018).	HE551507- MMSJV-EHR- 000-DR-LH-0058
SMR 5	0.21	358537, 125462	This area is situated to the south of the scheduled monument (MM43). Magnetometer survey within this area indicated that a small number of large features were present and could have been contemporary with the activity within the scheduled monument. Trial trenching revealed two features that could be dated to this period. Due to the high importance of the remains within the scheduled monument, any associated remains could be considered to be equally as important and could indicate the extent of the Romano-British settlement.	HE551507- MMSJV-EHR- 000-DR-LH-0060
SMR 6	2.39	359145, 125642	The evaluation trenches within this area (Field AC, 127-134, and 227) revealed another ditched field system and series of enclosures, one component of which contained Late Iron Age / Romano-British pottery. The features largely corresponded to those identified through magnetometer survey (Wessex Archaeology 2018).	HE551507- MMSJV-EHR- 000-DR-LH-0061
SMR 7	0.43	359679, 125889	Area targeting the Hazlegrove Park Registered Park and Garden (RPG; MM42) driveways and the Hazlegrove Lane within the park and woodland. LiDAR and historic maps show that a series of alterations to the drives and Hazlegrove Lane were carried out.	HE551507- MMSJV-EHR- 000-DR-LH-0062
SMR 8	0.10	359776, 125853	An evaluation trench (Field AE, 170) contained four small pits, one of which contained two flint tools consistent with a Later Neolithic / Early Bronze Age date. The similarities in form and	HE551507- MMSJV-EHR- 000-DR-LH-0062

Area Ref	Total size (ha)	National Grid Reference	Description	Figure
			fill of all four pits indicate that they were contemporary.	
SMR 9	0.04	359807, 126027	Area targeting the line of Hazlegrove Lane and the line of the parish boundary. An evaluation trench (Field AE, 164) revealed a trackway running north-east to south-west and which was noted as a visible, raised earthwork leading from the access road to Hazlegrove House towards a copse of trees on the south-western boundary at the time of the trench evaluation.	HE551507- MMSJV-EHR- 000-DR-LH-0062
SMR 10	0.06	359970, 126162	Area targeting the 19th century realignment of Hazlegrove Lane.	HE551507- MMSJV-EHR- 000-DR-LH-0062

#### **Archaeological monitoring**

- 2.2.6 Table 2.2 below describes the archaeological potential of each AM area, its location and size.
- 2.2.7 It is assumed, for the purposes of this report, that the ground preparation for the haul routes would require a topsoil strip. Geotextile matting would be laid and then build up with stone.

Table 2.2: Areas of proposed archaeological monitoring

Area Ref	Total size (ha)	National Grid Reference	Description	Figure
AM 1	0.98	358381, 125599	Situated to the north of the scheduled monument (MM43), this area was evaluated through trenching in 2018 and no archaeological features were identified. It appeared that, if any archaeological remains had been present, they had been removed by modern quarrying and landscaping activity at Camel Hill Farm. However, given the high importance of the remains within the scheduled monument, this area has the potential to contain archaeological remains and therefore archaeological monitoring will be undertaken during construction in this area.	HE551507- MMSJV- EHR-000- DR-LH- 0060
AM 2	0.13	358473, 125478	Situated 10m to the south of the scheduled monument, MM43, this area is situated within the verge of the A303. As such it is considered likely that this area has been heavily disturbed through the construction and maintenance of the road	HE551507- MMSJV- EHR-000- DR-LH- 0060

Area Ref	Total size (ha)	National Grid Reference	Description	Figure
			and its drainage, as well as through the construction and installation of buried services. However, due to its proximity to the scheduled monument all ground disturbance within this location will be archaeologically monitored during construction.	

#### **Built heritage**

2.2.8 The built heritage assets identified for recording and mitigation due to the impact of the scheme upon these assets are presented in Table 2.3. Each asset has been assigned a mitigation reference prefixed with BH (Built Heritage).

Table 2.3: Proposed built heritage recording

Mitigation reference	National Grid Reference	Description	Current condition	Figure
BH 1	357890, 125380	Grade II listed, early 19th century milestone. Made of Ham stone with a cast iron plaque that reads 'Castle Cary 6 ½, Ilchester 4". Asset reference is MM30 in the ES.	The milestone is no longer present in its original location. Observed in November 2018, the asset was not visible in January 2019.	HE551507- MMSJV- EHR-000- DR-LH-0059
BH 2	Approx. 357857, 125342 to 357870, 125239	Camel Stone wall on Howell Hill. Sections of this are visible within the hedgeline along the eastern side of Howell Hill, though its full extent is currently unknown.	The wall appears to be in poor condition with only short sections surviving.	HE551507- MMSJV- EHR-000- DR-LH-0059
BH 3	Approx. 359772, 126008	Field gate in Hazlegrove Park marking the use of the historic, former, Hazlegrove Lane.	The gate is in good condition.	HE551507- MMSJV- EHR-000- DR-LH-0062
BH 4	356565, 124804	W Sparrow cast iron gully grate, at Camel Cross	The gully grate is in good condition.	HE551507- MMSJV- EHR-000- DR-LH-0056

#### **Historic landscape**

2.2.9 The following historic landscape features have been identified for recording and mitigation due to the impact of the scheme upon these assets. Each asset has been assigned a mitigation reference prefixed with HL (Historic Landscape).

Table 2.4: Areas of proposed historic landscape

Mitigation reference	National Grid Reference	Description	Current condition	Figure
HL 1	Centred on 359867, 126142	Views south west from Hazlegrove House looking over the RPG.	The views are in good condition.	HE551507- MMSJV-EHR- 000-DR-LH-0064
HL 2		Hazlegrove Park driveways and the Hazlegrove Lane within the park and woodland.	The driveways are in poor condition and are only visible as earthworks.	HE551507- MMSJV-EHR- 000-DR-LH-0064

#### 3 Aims and objectives

#### 3.1 Strip, map and record

- 3.1.1 The aims and objectives of the strip, map and record investigation are based upon those for the trial trench evaluation, though augmented. The aims and objectives are in line with those set out in the *South West Archaeological Research Framework* (Somerset County Council 2011).
  - Establish whether there is continuity of activity within archaeological sites (settlements, industrial or agricultural) across prehistoric and historic periods (identify different phases of activity). It would seem that the majority of the settlement areas recorded through archaeological evaluation are largely confined to one chronological period, though there is generally a dearth of datable evidence and the majority of features were assigned their date through comparative analysis of the form, depth below the surface and characteristic of each feature. The aim is therefore to interrogate the undated features further along these, and other possible, comparatives.
  - Identify whether any of the archaeological settlements and field systems identified through the trench evaluation in SMR areas 1, 3, 4, 5, 6 and 7 are contemporary with the Scheduled Monument at Camel Hill, or whether they represent changing use of the landscape.
  - Identify whether the remains identified within SMR 2 are associated with the Scheduled Monument of the shrunken medieval village at Downhead. Establish whether these remains represent the expected agricultural landscape management or whether there are any other industrial or settlement remains within this area.
  - Implement scientific dating and environmental sampling strategies in order to securely date deposits, especially those of a transitional period date, where appropriate and where samples are not contaminated.
  - Record evidence in order to improve the understanding of non-villa Roman settlement, in particular in the area surrounding the Romano-British roadside settlement at Camel Hill.
  - Establish the date and chronology of the historic driveways and Hazlegrove Lane.
  - Establish the construction of the historic driveways Hazlegrove Lane.

#### 3.2 Archaeological monitoring

3.2.1 The aims and objectives of the archaeological monitoring exercise in line with those set out in the *South West Archaeological Research Framework* (Somerset County Council 2011).

- Identify, sample and record all archaeological remains identified.
- Establish the date, form and function of all features revealed where possible.
- Establish whether any remains associated with the nearby scheduled monument have survived the recorded post-medieval and modern quarrying and landscape management activity.
- Implement scientific dating and environmental sampling strategies in order to securely date deposits, especially those of a transitional period date, where appropriate and where samples are not contaminated.
- Record evidence in order to improve the understanding of non-villa Roman settlement, in particular in the area surrounding the Romano-British roadside settlement at Camel Hill.
- Establish whether there is continuity of activity within archaeological sites (settlements, industrial or agricultural) across prehistoric and historic periods (identify different phases of activity).

#### 3.3 Built heritage recording

- Preserve by record the identified assets and their setting.
- Carefully record, remove, store and relocate the grade II listed milestone in agreement with Historic England and South West Heritage Trust (SWHT).
- Identify whether the dry stone wall can be dated using cartographic sources.
- Arrange for the long-term storage of the gully grate.

#### 3.4 Historic Landscape

- Record the key views from Hazlegrove House and the Registered Park and Garden (RPG) south west across the parkland over the scheme area.
- Record the earthworks and remnants of the historic driveways.
- Record the historic field boundaries within the RPG through fieldwork and cartographic sources.

#### 4 Relevant guidance

- 4.1.1 The AC and HEC will work in accordance with, but will not be limited to using, the following guidance documents when fulfilling the scope of work set out within this OHWSI.
  - DMRB Volume 10, Section 6: Archaeology (DfT 2008).
  - Somerset Archaeological Handbook (SWHT 2017).
  - Standard and guidance for archaeological excavation (ClfA 2014b).
  - Standard and guidance for an archaeological watching brief (ClfA 2014c).
  - Code of Conduct (ClfA 2014a).
  - Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (ClfA 2014d).
  - Standard and guidance for the archaeological investigation and recording of standing buildings or structures (CIfA 2014e).
  - Standard and guidance for commissioning work on, or providing consultancy advice on, archaeology and the built environment (ClfA 2014f).
  - Archaeological Archive: A guide to best practice in creation, compilation, transfer and curation (Archaeological Archives Forum 2011).
  - Guidelines on the X-radiography of Archaeological Metalwork (Historic England 2006a).
  - Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006b).
  - Investigative Conservation (Historic England 2008).
  - Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2nd Ed) (Historic England 2011).
  - Animal Bones and Archaeology: Guidelines for Best Practice (Historic England 2015a)
  - *Digital Image Capture and File Storage*: Guidelines for Best Practice (Historic England 2015b).
  - Metric Survey Specifications for Cultural Heritage (Historic England 2015c).
  - Understanding Historic Buildings, A guide to good recording practice (Historic England 2016).

#### 5 Methodology

## 5.1 Archaeological investigations (strip, map and record and archaeological monitoring)

- 5.1.1 This document has been prepared prior to completion of the construction methodology. As such, the full construction methodology will be considered in the detailed Written Scheme of Investigation (WSI). This is likely to result in alteration to the archaeological methodology, in particular within SMR 1, AM 1 and AM 2, the proposed area for the main compound and haul routes.
- 5.1.2 The AC will adhere to all relevant Health and Safety legislation. The AC will prepare a Risk Assessment and Method Statement (RAMS) detailing the staffing and all relevant Health and Safety legislation.
- 5.1.3 Service plans will be consulted by the PC and AC prior to the commencement of works.
- 5.1.4 The AC will report on progress to the HEC and notify as soon as possible if there are any significant finds. The HEC will arrange a site meeting during the works with the SWHT Archaeologist.
- 5.1.5 The AC will make provision for the deposition of the site archive with the appropriate museum and obtain an accession number for the archive. A unique site code will be assigned to the project.

#### Machining

- 5.1.6 The SMR areas will be opened by a mechanical excavator and driver provided by the construction contractor using a toothless ditching bucket operating under archaeological supervision and control at all time. Each area will be excavated to the natural geology or the uppermost archaeological horizon (whichever comes first).
- 5.1.7 Care will be taken to avoid damage to archaeological remains and will be limited to removal of overburden or topsoil. Mechanical excavators shall not track over an area once excavated.
- 5.1.8 It is the responsibility of the supervising archaeologist to ensure that the finished surface is machined to a suitably 'clean' state in order to identify, define and investigate any exposed archaeological deposits. If the surface is not sufficiently clean, hand cleaning of the surface will be required.

#### **Planning**

- 5.1.9 Each area will be accurately surveyed using a Total Station or GPS and will be related to the Ordnance Survey Grid and mapped upon (or during) machine excavation.
- 5.1.10 A record of the full extent in plan of all archaeological deposits as revealed in the investigation will be made, either digitally or by hand, and related to the OS grid. Where digital planning is used, the project archaeologists will ensure that a sufficient number of points are taken on each feature to ensure an accurate representation of the site. A plan of each area will be made and included in the report where appropriate.

5.1.11 A sufficient number of levels will be taken across the excavated areas to gain a sub-surface topographical model.

#### Hand investigation

- 5.1.12 If significant archaeological features are encountered during SMR and AM the following sampling strategy will be used. Each sampled context will be excavated in sequence.
- 5.1.13 The following sampling strategy will be adopted where features are sampled to ascertain the nature, depth, date and state of preservation of archaeological features as well as the stratigraphical relationships of these deposits and features to one another:
  - Normally 50% of the fills of pits, post holes and other discrete archaeological features will be excavated.
  - Pits or postholes will be fully excavated if they are particularly rich in environmental or and / or artefactual evidence.
  - The exposed lengths of ditches will be sampled to characterise and date the phase of activity. There is no specified percentage of sampling or excavation segment length since these will be established in the field following stripping. Terminals of linear features and intersections will normally be targeted by excavation. A flexible approach will be adopted to the location of excavation samples such that areas of exposed ditch fill with higher artefact or ecofact content may be targeted, also longer sample segments will be excavated to attempt provide a secure date for the features.
  - At least 50% excavation of ring gullies will include excavation of the terminals and sections at each side to the rear of the gully. Special regard will be given to significant stratigraphical relationships and concentrations of artefactual material.
  - In the event that stone structures are encountered, these will be excavated in sufficient detail to establish their construction sequence and sequence of repairs or extensions. All stratigraphic associations will be recorded. Should floor levels (which are not anticipated) be encountered, these will be fully cleaned, excavated and environmentally sampled.
  - 100% excavation of hearths, furnaces or kilns and ovens in all cases
    where these are identified. They will be fully excavated (and bulk
    sampled) to determine their function and any sequence of repairs or
    replacements. Consideration of dating techniques should be
    undertaken prior to the commencement of archaeological
    investigation of any such features identified. The advice of the Historic
    England Science Advisor (South West) should be sought.
  - 100% excavation of ancient human burials, including cremations and ancient animal burials, in all cases where these are identified. Human

remains will only be excavated after obtaining the relevant Ministry of Justice Licence, as required by the *Burials Act* of 1857 (amended 1981). The discovery of human remains will be reported to the local coroner. Other structured or placed deposits will be recorded and retained as "small finds". Animal bone groups will be recorded following best practice guidance (Historic England 2015a).

5.1.14 Metal detectors will be used to scan for metallic finds on spoil heaps, vacated areas, areas of modern disturbance and during the excavation of key archaeological features or deposits.

#### Recording

- 5.1.15 The following procedures will be followed:
  - All archaeological features will be planned either digitally or hand drawn and located on appropriate scale plans. Plans will show the limits of the areas and will be related to the OS grid.
  - All features will be planned at a scale of 1:20 and either digitally or hand drawn and located on appropriate scale plans. Plans will show the limits of the excavations and will be related to the OS grid.
  - All sectioned and excavated archaeological features will be drawn at a scale of 1:20 or 1:10 and will be levelled to Ordnance Datum.
     Sample sections of the trial trenches will be drawn at 1:20 or 1:50 to provide evidence of the stratigraphy at the sites.
  - All archaeological features, layers or deposits will be allocated unique context numbers prior to any hand excavation. These will be recorded on pro-forma context sheets detailing: character, contextual relationships, a detailed description, associated finds, interpretation and cross referencing to the drawn, photographic and finds records. On-site matrices will be compiled during the excavation such that the results of the written stratigraphical records may be fully analysed and phased.
  - An adequate photographic record of the investigations will be made of all excavated areas and all archaeological features and deposits. The photographic record will consist of digital images and will include photographs and images of all archaeological features (pre- and post-excavation), working shots and photographs for publication purposes. Photographic records will include information detailing: site code; date; context(s); section number; a north arrow and a scale unless they are to be used for publication purposes. All photographs will be listed and indexed on context record sheets. Digital photographs will be taken using a minimum of 11 megapixel camera and photographs will be taken in raw format (.raw or.nef). Photographs will be converted into uncompressed Tagged Image File Format (tiff). Photographs must not be taken in jpeg format.

- All photographs will be listed and indexed on context record sheets.
- A record or index will be maintained of all site drawings and these will form part of the project archive. All site drawings will contain the following information: site name; site number and code; scale; plan or section number; orientation, date and compiler.

#### Finds and environmental sampling

- 5.1.16 All finds will be treated in a proper manner and to standards agreed in advance with the recipient museum (Section 9 for further information regarding archive deposition). They will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with best professional practice.
- 5.1.17 All finds of gold and silver will be recorded, removed to a safe place and reported to the Coroner in accordance with the *Treasure Act 1996* and the *Treasure (Designation) Order* (2002). Where retrieval cannot be effected the same day, appropriate security measures will be put in place to safeguard the finds.
- 5.1.18 Environmental sampling strategies will be developed subject to the requirements of the investigation. If contamination is not an issue, specialist staff will have a role in ensuring that appropriate deposits are sampled to retrieve palaeoenvironmental and economic indicators to fulfil the project aims. Preparation, taking, processing and assessment of environmental samples will be in accordance with guidance provided by Historic England.
- 5.1.19 If necessary, the sampling strategy and methodology will be based on the following (subject to health and safety considerations):
  - All collected samples will be labelled with context and sequential sample numbers.
  - Appropriate contexts will be bulk sampled for the recovery of carbonised plant remains and insects in accordance with the Historic England Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (Second Edition, 2011). Assemblages of charred crop remains are of particular importance and will be used to provide data in addition to the associated weed flora on agricultural activities and the economy of the site. Plant remains should be studied with the following subjects to be addressed:
    - Range of preservation types (charred, mineral-replaced, waterlogged), and their quality.
    - Concentrations of macro-remains, to inform the size of bulk samples on any future excavation.
    - Are there differences in remains from undated and dated features affecting the degree of likely association / disassociation?
    - Variation between different feature types and areas of site.

- Environmental samples will be taken in well-stratified, datable deposits and selected undated deposits, and will be fully processed. Bulk samples (40 litres or the whole context dependent upon size) will be taken for wet sieving and flotation where there is clear indication of good analytical potential and dating evidence for such material (subject to excavation requirements). Where there is potential for spatial variation in the distribution of such remains, the sampling strategy will include a percentage sample of each feature / deposit type, distributed throughout the excavation area bulk samples may be taken, if appropriate, from significant datable waterlogged deposits for insects and macroscopic plant remains sub-samples or monolith samples of waterlogged deposits and sealed buried soils with potential for pollen preservation will be taken for assessment if appropriate and columns of such samples will be taken through deposits where there is clear potential for recovering a datable sequence of environmental information.
- Recovery of small animal bones, bird bones and large molluscs will normally be achieved through processing other bulk samples or 40 litre samples may be taken specifically to sample particularly rich deposits.
- Assemblages of charred crop remains are of particular importance and will be used to provide data in addition to the associated weed flora on agricultural activities and the economy of the site.
- Appropriate specialist staff will be used on this project depending on the type of artefacts and soil samples recovered during the course of the fieldwork. Details of specialists will be provided in the archaeological contractor's method statement.

#### Scientific dating

5.1.20 If hearths, ovens, kilns and / or burials are discovered it will be necessary to scientifically date the features by either radiocarbon dating or archaeomagnetic dating, whichever is most appropriate.

#### 5.2 Built heritage recording

- 5.2.1 The historic asset recording will conform to a Level 2 report based upon the Historic England 2016 guidance document but will be proportionate to the heritage asset and the level of impact the construction and operation of the scheme would have upon that asset.
- 5.2.2 Each asset will be individually recorded using geo-rectified, digital photography (Section 5.1.15). The Camel Stone wall on Howell Hill might be suitable for laser scanning or photogrammetry, this will be determined based upon an assessment of the condition of the asset and will be carried out once agreement between the Applicant, the HEC and SWHT is in place.
- 5.2.3 The location of each asset will be recorded by GPS or Total Station

(Section 5.1.15). It is not anticipated that any elevations will be hand drawn.

5.2.4 Details on the reporting process are presented in Section 8 of this report.

#### BH 1

- 5.2.5 The milestone's current position is unknown. It was observed in the location described within its listing schedule in November 2018, however by January 2019 the asset was no longer present.
- 5.2.6 The area around the milestone will require inspection and possible vegetation clearance in order to ascertain its current location and condition, and its original position through identification of a post hole or other fixing method. Vegetation clearance must be undertaken by hand to ensure that the asset is not damaged prior to recording.
- 5.2.7 If the asset is present a photographic record will be carried out prior to, and after, vegetation clearance. A photographic record including geolocation of the original position of the milestone will also be undertaken.
- 5.2.8 Once recorded the asset will be removed and stored in a secure location. The asset will be stored inside a suitable container, such as a sturdy wooden or metal crate, and will be fenced off to ensure that it is protected from harm during construction.
- 5.2.9 A suitable location for the milestone will be scouted once the new stretch of road is in operation. This location will be agreed with the Applicant, Historic England and SWHT. The distance from each identified location described on the milestone must be respected. It must also be positioned along a public route. These two factors are crucial in mitigating to the impact to the setting of the milestone.
- 5.2.10 Once the asset is in its final agreed position, its location will be recorded by photograph.

#### BH 2

- 5.2.11 The area around the Camel Stone wall is overgrown. In order to fully establish the length of the wall affected by the construction of the scheme, it will be necessary to remove the surrounding undergrowth. This must be undertaken by hand to ensure that the asset is not damaged prior to recording.
- 5.2.12 A photographic record will be carried out prior to, and after, vegetation clearance.
- 5.2.13 Any indication of phasing, or maintenance activity, within the construction of the Camel Stone wall will be recorded and described.
- 5.2.14 The northern 50 metres of the wall will be permanently removed. It will be carefully dismantled and the stone will, in the first instance, be used to repair the remaining lengths of the asset that will not require demolition to facilitate the construction of the scheme.
- 5.2.15 The next 35 metres will be temporarily dismantled. The stone will be stored in a similar manner to that described for the temporary storage of the milestone. Once construction is complete the wall will be reinstated in the

- same, or a repaired state, using the stone from the first 50 metres.
- 5.2.16 A final photographic record of any repairs will be carried out and presented within the final report.

#### **BH 3**

- 5.2.17 The location of the field gate will be recorded in the same manner as BH 1 and BH 2, by geo-rectified photograph.
- 5.2.18 If a suitable location along the length of the former Hazlegrove Lane can be agreed between the landowner, the Applicant, the Gardens Trust and SWHT, the fence could be relocated. This will be determined upon inspection.

#### **BH 4**

- 5.2.19 A photographic record including geolocation, as described above, of the asset will be undertaken.
- 5.2.20 The asset will be removed and a suitable repository, possibly the local archive, will be approached to allow for its long-term preservation.

#### 5.3 Historic Landscape

#### HL<sub>1</sub>

5.3.1 Historic views within and from the RPG will be recorded. Consultation with the local planning authority and Historic England will be necessary to establish the key views and to develop a tailored methodology. This might include the use of drones and video recordings to capture kinetic and dynamic views, as well as traditional photography. All photography will be carried out to the standard described in section 5.1.15.

#### HL 2

5.3.2 The field boundaries and their development within the RPG will be recorded. This will comprise a compilation of the existing research; the Statement of Significance, LIDAR assessment and the results of the recent geophysical survey and archaeological trench evaluation. This information will be augmented with further documentary and archive research. Detailed mapping will be produced. The results will be presented within an individual report which will follow the reporting requirements set out in section 8.

#### 6 Health and safety

- 6.1.1 The AC will abide by the terms of the Principal Contractor's (PC) risk assessments.
- 6.1.2 In addition to the PC's risk assessments, a Health and Safety Risk Assessment Method Statement (RAMS) will be produced by the AC. The RAMS will confirm appropriate levels of Personal Protective Equipment (PPE) to be worn by workers on site and all other pertinent risk avoidance procedures.

#### 7 Programme

#### 7.1 Fieldwork

7.1.1 The AC shall provide a programme to the HEC, for distribution to the project team, HBMCE and South West Heritage Trust (SWHT), at least 2 weeks before commencing works on site and this will be based upon the Principal Contractor's construction programme.

#### 7.2 Post-excavation

7.2.1 Post-excavation work will commence immediately after completion of the fieldwork. See section 8 below for details.

#### 7.3 Monitoring

7.3.1 Provision should be made to allow for weekly site visits by the SWHT archaeologist during the archaeological work. This shall take the form of a site meeting attended by the archaeological contractor, the SHWT archaeologist and the HEC on behalf of the Applicant. This shall discuss the provisional results of the archaeological investigation, establish if any further archaeological work will be necessary and the nature of further work. Should no further archaeological work be required this will be agreed at this meeting.

#### 8 Reporting requirements and post-excavation analysis

#### 8.1 General

8.1.1 The level of post-excavation work shall be commensurate with the findings of the archaeological investigations and will comply with guidance within *Management of Research Projects in the Historic Environment* (MoRPHE) (Historic England 2006), *Investigative Conservation* (Historic England 2008) and CIfA *Standards and Guidance for Archaeological Excavation* (2014b).

#### 8.2 Analysis

- 8.2.1 Expert analysis of any finds and environmental evidence shall be carried out by specialists. These specialists must be able to document and demonstrate levels of professional competence and technical expertise and access to comparative material, names and details of which should be included in the archaeological contractor's method statement.
- 8.2.2 The report should consider the results of the investigation in the context of local, regional, and national research agendas and frameworks.
- 8.2.3 The report will be written in accordance with the Somerset Archaeology Handbook, Chapter 9: *The Report* (SWHT 2017).
- 8.2.4 Four report types are likely to be required and these will comprise:
  - A mitigation or post-excavation assessment report (a basic description of the investigation results with appropriately scaled drawings).
  - A brief academic report.
  - A full academic publication.
  - Popular publication report.
- 8.2.5 The reporting requirement will be discussed and agreed with SWHT, Historic England, the AC and the HEC during fieldwork, once a fuller understanding of the archaeological remains is appreciated.

#### 8.3 Mitigation or post-excavation assessment report

- 8.3.1 As a minimum, it is considered the post-excavation report should contain the following elements:
  - A QA sheet detailing as a minimum title, author, version, date, checked by, approved by.
  - A non-technical summary; summary summarising the scope and results of the investigation.

- Introduction including:
  - A centred site location with 12-digit National Grid Reference.
  - Background to the project.
  - Description of development proposals and planning history.
  - o Potential impacts of the development.
  - Scope and date of fieldwork, Archaeological Contractor's personnel and commissioning body.
  - a site location drawing;
- The archaeological and historical background (including geological and topographical background and an assessment of the results of previous phases of fieldwork).
- The methodology employed for the evaluation.
- The aims and objectives of the investigations.
- The results of the investigation including.
  - Individual feature descriptions (dimensions, depth of deposits, description of features, description of geological deposit, OD heights, and Harris Matrix if complex stratigraphy is present.
  - Finds assessment by artefact type including quantification. Potential for further analysis and research for each finds category. Detailed method of processing, sub-sampling, conservation and assessment undertaken. Local reference collections referred to. Set out implications for future archive, conservation or discard policy using the CIfA Selection Toolkit (CIfA 2019). Finds concordance table referencing finds against their trench, context, class and quantity, date and interpretation.
  - Environmental potential assessment. Details of environmental sampling and results of processing and assessment of samples. Potential for further analysis and research for each finds category. Set out implications for future archive, conservation or discard policy using the CIfA Selection Toolkit (CIfA 2019). Tables summarising samples with results of processing and assessment.
  - o Results of scientific analysis.
- Where human remains are encountered the report will include a statement that addresses the future retention of the material, including if appropriate, options for reburial.
- An appendix containing specialist artefact reports.
- An appendix illustrating specific finds and general working shots or portraits of specific features or structures as appropriate.
- A list of all finds that fall within the scope of the *Treasure Act* and associated legislation.
- A stratigraphic matrix (as appropriate).
- Assessment / conclusion and a statement of potential with recommendations for further work and analysis.

- A statement of the significance of the results in their local, regional and national context cross-referenced to the *South West Archaeological Research Framework* (2011).
- Synopsis of the full report and publication report.
- The current and proposed arrangements for long term conservation and archive storage (including details of the accredited repository).
- General and detailed plans showing the location of the fieldwork accurately positioned on an Ordnance Survey base map (at an appropriate and recognised scale).
- Detailed plans and sections illustrating archaeological features and / relationships between features (at an appropriate and recognised scale).
- Colour photographic plates illustrating the site setting, work in progress and archaeological discoveries.
- A cross-referenced index of the project archive.
- 8.3.2 The full proposed structure of the report will be included in the AC's method statement.
- 8.3.3 In the first instance a digital copy of the report will be submitted to the HEC for review by the project team. Any alterations required will be carried out by the AC and a revised digital document submitted. The HEC will submit this to the SWHT for review in paper and digital .pdf/a format.
- 8.3.4 Once the report is approved, the AC will submit a completed version of the report to the Archaeology Data Service's (ADS) online database OASIS and a copy of the completed OASIS forms will be appended to the back of the report. A copy of this version of the report which includes the OASIS form should be submitted to SWHT by the AC. The full report will be submitted within six months of completion of the fieldwork; numbers of copies and format are to be agreed with SWHT.

#### 8.4 Brief academic publication and full academic publication

- 8.4.1 In accordance with the *Somerset Archaeology Handbook* (2017) 2 types of publication might be necessary. The scope of the full report and publication will be discussed between the HEC and the SWHT.
- 8.4.2 In addition, provision will be made for publicising the results of the work locally, if considered appropriate, by presenting a summary of the results to *Proceedings of the Somerset Archaeological and Natural History Society*. This must be submitted by the AC to the Somerset Historic Environment Record before the end of January following the calendar year in which the work ended.

#### 8.5 Built heritage

- 8.5.1 As a minimum the historic recording report will contain the following elements:
  - A QA sheet detailing as a minimum title, author, version, date, checked by, approved by;
  - A non-technical summary; summary of the scope and results of the exercise;
  - Introduction including:
    - A centred site location with 12-digit National Grid Reference;
    - Background to the project.
    - Description of development proposals and planning history;
    - Potential impacts of the development.
    - Scope and date of fieldwork, personnel and commissioning body.
    - A site location figure.
  - the historical background (including geological and topographical background and brief history of each asset within its context).
  - the methodology employed for the recording exercise.
  - the aims and objectives of the recording exercise.
  - results of historic research.
  - presentation of selected photographs.
  - Conclusion.
  - Appendices including mapping and models if available and permissible to include, and photographs of any structures identified during the survey.

#### 8.6 Historic Landscape

- 8.6.1 The historic landscape reporting will include the same sections as the built heritage report.
- 8.6.2 If video footage is undertaken the most appropriate format for record and dissemination will be agreed with Historic England and the local planning authority prior to capturing any data.

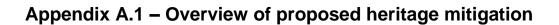
#### 9 Archive

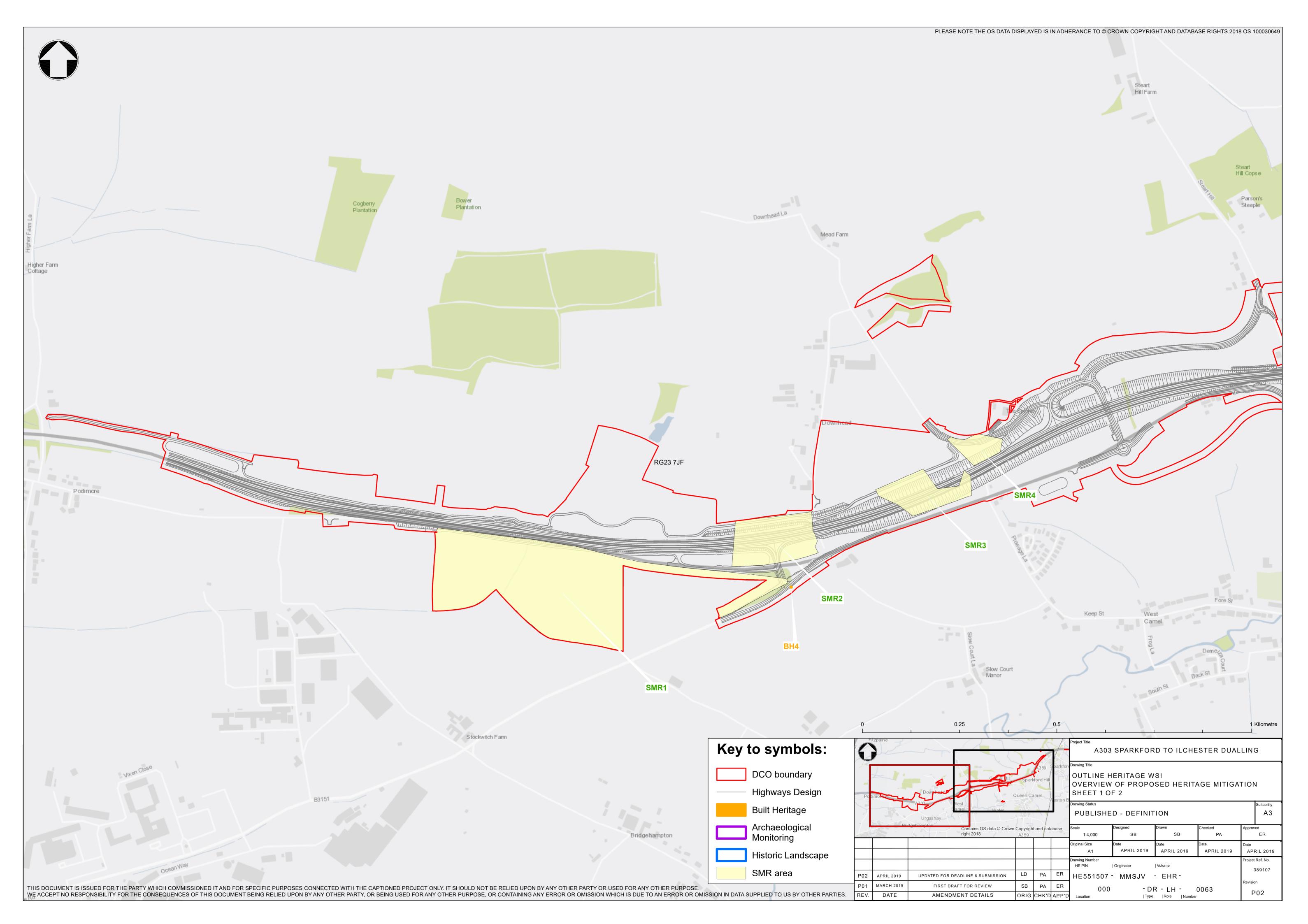
- 9.1.1 A full archive shall be prepared to standards outlined in *Management of Research Projects in the Historic Environment* (MoRPHE) (Historic England 2006) ClfA's *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (2014d). Proposals and arrangement for the deposition of the site archive shall be presented to the relevant depository, in accordance with their requirements for conservation and storage as soon as practicable, in advance of the fieldwork. This information shall be presented within the AC's method statement.
- 9.1.2 At this stage there should also be confirmation of budget to cover the museum's deposition charge, which will need to be agreed with the HEC.
- 9.1.3 All recovered artefacts shall be fully catalogued, shall constitute 1 single deposit and shall be deposited when an archive facility is available.
- 9.1.4 All finds' packaging, including boxes and bags shall be clearly marked with the assigned accession number. There may be a case for non-retention of certain artefacts of low academic value; in which case discussion should be undertaken with the depository before any action is taken. The selection of these will also accord with the guidance set out in the ClfA Selection Toolkit (2019) and Archaeological Archives: A Guide to best practice in creation, compilation, transfer and curation (AAF 2011).
- 9.1.5 The archive comprising written, drawn, photographic and electronic media, shall be fully catalogued, indexed, cross-referenced and checked for archival consistency. The digital archive shall follow the standards set out by the Archaeology Data Service (http://ads.ahds.ac.uk/project/policy.html) and should be deposited with the Archaeology Data Service within 6 months of completion of the project. A data management plan will be created at the start of the project and updated throughout in accordance with the guidance set out in the CIfA Selection Toolkit (2019).

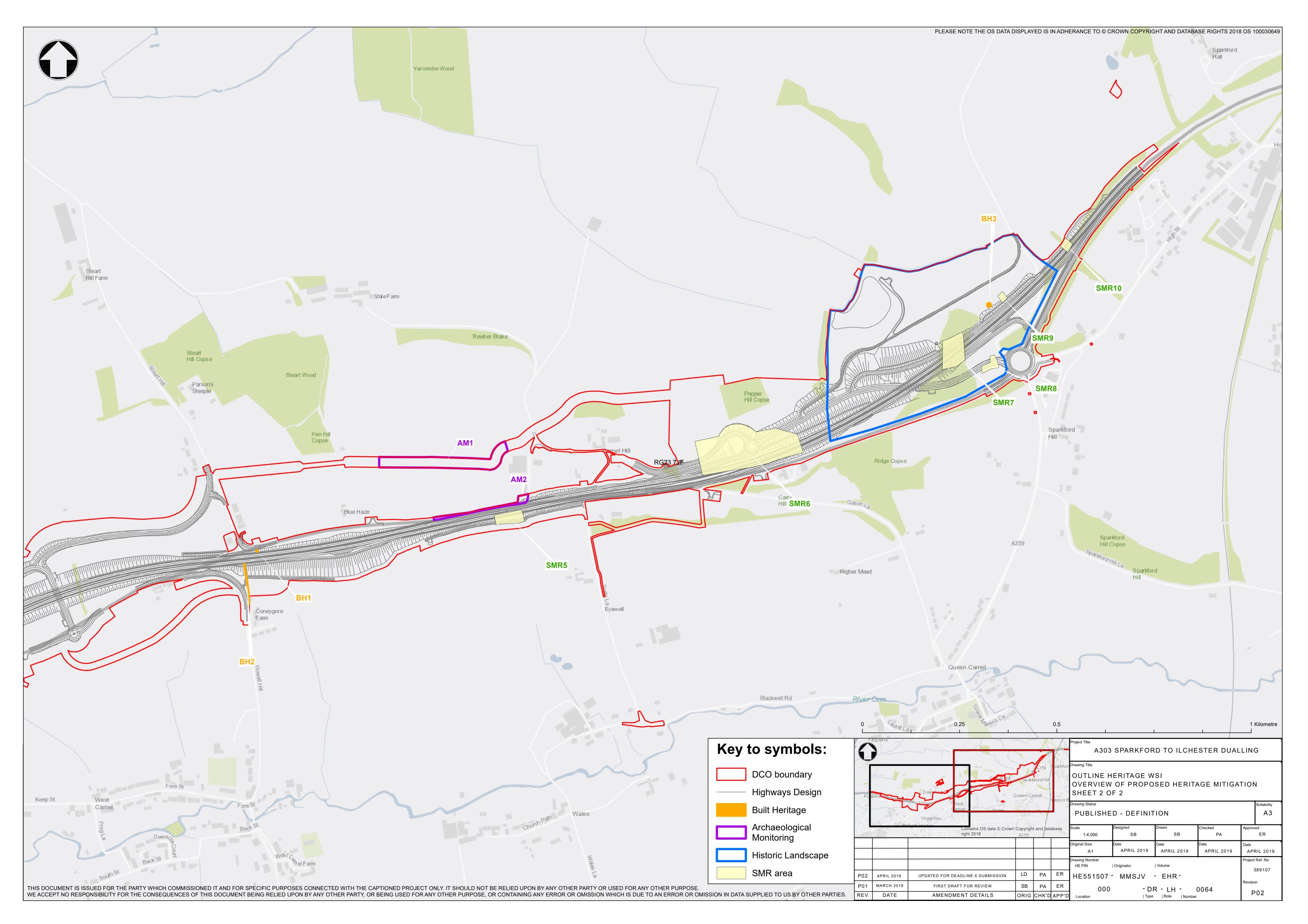
#### 10 References

- 10.1.1 Archaeological Archives Forum (2011) Archaeological Archive: A guide to best practice in creation, compilation, transfer and curation
- 10.1.2 Archaeology Data Service (2017) *Advice*. http://ads.ahds.ac.uk/project/policy.html [accessed 28 November 2017].
- 10.1.3 Chartered Institute for Archaeologists (2014a) Code of Conduct
- 10.1.4 Chartered Institute for Archaeologists (2014b) Standard and guidance for archaeological excavation
- 10.1.5 Chartered Institute for Archaeologists (2014c) Standard and guidance for an archaeological watching brief
- 10.1.6 Chartered Institute for Archaeologists 2014e Standard and guidance for the archaeological investigation and recording of standing buildings or structures
- 10.1.7 Chartered Institute for Archaeologists (2014d) Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives
- 10.1.8 Chartered Institute for Archaeologists (2019) Toolkit for Selecting Archaeological Archives <a href="http://cifa.heritech.net/selection-toolkit">http://cifa.heritech.net/selection-toolkit</a> [accessed 23/04/19]
- 10.1.9 Department for Transport (2008) *Design Manual for Road and Bridges, Environmental Design and Management: Archaeology* [online] available at: http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol10/section6/h a7501.pdf [accessed February 2018].
- 10.1.10 Highways England 2018 A303 Sparkford to Ilchester Dualling
  Environmental Statement, Volume 6.3 Appendix 6.1 Cultural Heritage Desk
  Based Assessment HE551507-MMSJV-000-RP-LH-0014
- 10.1.11 Highways England 2019 A303 Sparkford to Ilchester Dualling Scheme TR010036 6.8 Environmental Statement Addendum
- 10.1.12 Historic England (2006a) Guidelines on the X-radiography of Archaeological Metalwork
- 10.1.13 Historic England (2006b) Management of Research Projects in the Historic Environment (MoRPHE)
- 10.1.14 Historic England (2008) Investigative Conservation
- 10.1.15 Historic England (2011) Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2nd Ed)
- 10.1.16 Historic England (2115a) Animal Bones and Archaeology: Guidelines for Best Practice
- 10.1.17 Historic England (2015b) *Digital Image Capture and File Storage:*Guidelines for Best Practice
- 10.1.18 Historic England (2016) *Understanding Historic Buildings. A guide to good recording practice*

- 10.1.19 Lefort Geophysics 2019 A303 Sparkford to Ilchester Dualling, Main Compound: Gradiometer Survey Report
- 10.1.20 LP: Archaeology 2019 Full Archaeological Evaluation Report for A303 Sparkford to Ilchester Dualling
- 10.1.21 Somerset County Council 2011 The Archaeology of South West England, South West Archaeological Research Framework Research Strategy 2012-2017
- 10.1.22 Wessex Archaeology 2019 A303 Sparkford to Ilchester Dualling: Detailed Gradiometer







#### **Appendix A.2 Proposed Mitigation**

