

A358 Taunton to Southfields Dualling Scheme

Preliminary Environmental Information Report - Chapter 6 Cultural Heritage

> HE551508-ARP-EHR-ZZ-RP-LH-000002 27/09/21

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6 Cultural heritage

6.1 Introduction

- 6.1.1 This chapter assesses the potential cultural heritage effects of the construction and operation of the A358 Taunton to Southfields Dualling Scheme (the proposed scheme), following the methodology set out in the *Design Manual for Roads and Bridges* (DMRB) *LA 104 Environmental assessment and monitoring* [1] and *LA 106 Cultural heritage assessment* [2].
- 6.1.2 The chapter details the methodology followed for the assessment, summarises the regulatory and policy framework related to cultural heritage and describes the existing environment in the area surrounding the proposed scheme. Following this, the design, mitigation and residual effects of the proposed scheme are discussed, along with the limitations of the assessment. The assessment within this chapter is supported by Appendices 6.1 to 6.5.

6.2 Legislative and policy framework

Legislation

- 6.2.1 The legislation presented below is relevant to the assessment of effects on the cultural heritage resource for the proposed scheme. However, the grant of development consent will obviate the need for these separate consents:
 - Ancient Monuments and Archaeological Areas (AMAA) Act 1979 [3]
 - Planning (Listed Buildings and Conservation Areas) Act 1990 [4]
 - The Hedgerows Regulations 1997 [5]
- 6.2.2 The AMAA Act largely relates to scheduled monuments and section 61(12) defines sites that warrant protection due to their being of public interest as 'ancient monuments'. A monument is defined by the Act as:

"any building, structure or work above or below the surface of the land, any cave or excavation; any site comprising the remains of any such building, structure or work or any cave or excavation; and any site comprising or comprising the remains of any vehicle, vessel or aircraft or other movable structure or part thereof."

National planning policy

National Policy Statement for National Networks

6.2.3 As documented in Chapter 1 the primary basis for deciding whether or not to grant a Development Consent Order (DCO) is the *National Policy Statement for National Networks* (NPSNN), which, sets out policies to guide how DCO applications will be decided and how the effects of national networks infrastructure should be considered [6]. The policies within the NPSNN for the conservation of the historic environment state that:

"Those elements of the historic environment that hold value to this and future generations because of their historic, archaeological, architectural or artistic interest are called 'heritage assets'. Heritage assets may be buildings, monuments, sites, places, areas or landscapes. The sum of the heritage interests that a heritage asset holds, or its value, is referred to as its significance. Significance derives not only from a heritage asset's physical presence, but also from its setting. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets. The absence of designation for such heritage assets does not indicate lower significance."

6.2.4 The NPSNN advises:

"the Secretary of State should also consider the impacts on other non-designated heritage assets (as identified either through the development plan process by local authorities, including 'local listing', or through the nationally significant infrastructure project examination and decision-making process) on the basis of clear evidence that the assets have a significance that merit consideration in that process, even though those assets are of lesser value than designated heritage assets."

6.2.5 Table 6-1 identifies the NPSNN policies relevant to the cultural heritage assessment and then specifies where in the chapter information is provided to address the policy.

Relevant NPSNN paragraph reference	Summary of requirement of the NPSNN	Where in the PEI Chapter is information provided to address this policy
5.124	Non-designated heritage resources of archaeological interest that are demonstrably of equivalent significance to scheduled monuments should be considered subject to the policies for designated heritage assets	Section 6.4 Assessment methodology, Table 6-2
5.126	Where the development is subject to EIA the applicant should undertake an assessment of any likely significant heritage impacts of the proposed project as part of the Environmental Impact Assessment and describe these in the environmental statement.	considered in section 6.10
5.127	The applicant should describe the significance of any heritage resources affected, including any contribution made by their setting. The level of detail should be proportionate to the resource's importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant Historic Environment Record should have been consulted and the heritage resources assessed using appropriate expertise. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation.	Appendices 6.1 to 6.4
5.131	When considering the impact of a proposed development on the significance (or value, according to DMRB terminology) of a designated heritage resource, the Secretary of State should give great weight to the asset's conservation. The more important the resource, the greater the weight should be.	The impact of the proposed scheme on the value of heritage resources is considered in section 6.10 Assessment of likely significant effects

Table 6-1 Relevant NPSNN policies for the cultural heritage assessment

Relevant NPSNN paragraph reference	Summary of requirement of the NPSNN	Where in the PEI Chapter is information provided to address this policy
5.133	Where the proposed development will lead to substantial harm to or total loss of significance (value) of a designated heritage resource, the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm or loss of significance is necessary in order to deliver substantial public benefits which outweigh that loss or harm.	The assessment does not identify any instance of 'substantial harm' or total loss of value to any designated resource.
5.134	Where the proposed development will lead to less than substantial harm to the significance (value) of a designated heritage resource, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.	The impact of the proposed scheme on the value of heritage resources is considered in section 6.10 Assessment of likely significant effects.
5.135	Not all elements of a World Heritage Site or conservation area will necessarily contribute to its significance (value). The Secretary of State should treat the loss of a building (or other element) that makes a positive contribution to the site's significance (value) either as substantial harm or less than substantial harm, as appropriate, taking into account the relative significance (value) of the elements affected and their contribution to the significance of the conservation area or World Heritage Site as a whole.	The assessment does not identify any instance of 'substantial harm' or total loss of value to any designated resource.
5.140	Requirement to record and advance understanding of a heritage resource's significance (value) prior to it being lost if this loss is justified	Section 6.9 Design, mitigation and enhancement measures, sets out the requirement for archaeological fieldwork and recording.
5.142	Consider requirements to ensure that appropriate procedures are in place for the identification and treatment of yet undiscovered heritage assets with archaeological interest discovered during construction.	See section 6.9 and the Detailed Archaeological Mitigation Strategy and Overarching Written Scheme of Investigation (which will be submitted as an Annex to the Environmental Management Plan (EMP) for the DCO submission).
5.144-5.146	The applicant should undertake an assessment of any likely significant landscape and visual impacts in the EIA The applicant's assessment should include significant effects during construction of the project and/or its operation on landscape components and landscape character (including historic landscape characterisation).	The assessment has regard to historic landscape character and the impact of the proposed scheme upon it. See section 6.10 and Historic Landscape Characterisation Assessment (Appendix 6.3 Gazetter of Heritage Resources).

National Planning Policy Framework

6.2.6 National Planning policies on the conservation of the historic environment are set out in the *National Planning Policy Framework* (NPPF) and should be adhered to in conjunction with NPSNN, where the NPSNN does not cover a specific issue.

The NPPF [7] was updated in 2021, replacing all previous Planning Policy Statements. Guidance to help practitioners implement this policy, including the legislative requirements that underpin it, is provided in *National Planning Practice Guidance* (PPG): *Historic Environment* [8].

6.2.7 Non-designated heritage assets as well as those designated under the above legislation are given protection under the NPPF. Policies dealing with the conservation and enhancement of the historic environment is set out principally in Section 16 of the NPPF [7], which states that heritage assets:

"are an irreplaceable resource, and should be conserved in a manner appropriate to their significance" (paragraph 189).

6.2.8 Paragraph 197, states that plans should set out a positive strategy for conservation, taking into account:

"a) the desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation;

b) the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;

c) the desirability of new development making a positive contribution to local character and distinctiveness; and

d) opportunities to draw on the contribution made by the historic environment to the character of a place." (paragraph 190)

6.2.9 Paragraph 199-200, states that:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance. Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;

b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

6.2.10 Paragraph 203, states:

"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset."

6.2.11 Footnote 68, which follows from paragraph 200, states:

"Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets."

Local planning policy

6.2.12 Local planning policy relevant to cultural heritage is found within the South Somerset District Council Local Plan [9] and the Taunton and Deane Core Strategy [10] and Site Allocations and Development Management Plan [11].

South Somerset planning policy and strategy

6.2.13 The South Somerset Local Plan comments on the rich industrial heritage of the area, which includes links to the tanning, rope, glove and lace-making industries, as well as on the contribution made by the use of local stone in the area's building. Sustainable development should include the conservation and, where possible, enhancement of heritage assets and their settings. Specific cultural heritage policy is contained within Policy EQ3: Historic Environment:

"Heritage assets will be conserved and where appropriate enhanced for their historic significance and important contribution to local distinctiveness, character and sense of place. Their potential to contribute towards the economy, tourism, education and local identity will be exploited. All new development proposals relating to the historic environment will be expected to:

- Safeguard or where appropriate enhance the significance, character, setting and local distinctiveness of heritage assets.
- Make a positive contribution to its character through high standards of design which reflect and complement it and through the use of appropriate materials and techniques.
- Ensure alterations, including those for energy efficiency and renewable energy, are balanced alongside the need to retain the integrity of the historic environment and to respect the character and performance of buildings, adopting principles of minimum intervention and reversibility."
- 6.2.14 The South Somerset Local Plan is supported by the South Somerset Heritage Strategy [12]. This strategy states that the Council will always seek to be consistent with the national principles and guidance published by Historic England, notably Conservation Principles [13]. Planning decisions made by South Somerset District Council are to be made against a set of objectives:
 - "1. Safeguard or enhance the significance of heritage assets and their settings.
 - 2. Reduce or remove risks to heritage assets.
 - 3. Secure the optimum viable use of heritage assets in support of their long term conservation.
 - 4. Ensure development is appropriate in design and materials for its context and makes a positive contribution to the appearance, character, quality and local distinctiveness of the historic environment.
 - 5. Better reveal the significance of heritage assets wherever possible and
 - 6. Make a positive contribution to economic vitality and sustainable communities" [12].
- 6.2.15 While the whole strategy is relevant to this assessment, it is worth noting that the Council will particularly seek to protect listed buildings and their settings from

developments which would have an adverse effect on their character and significance. In addition, they would expect development proposals affecting locally important archaeological remains to ensure appropriate recording is carried out and that measures are taken to enhance awareness of impacted archaeological remains, and will also expect development proposals to take into account any impacts on the historic landscape. Hedgerows and trees of value are also a particular concern.

Somerset West and Taunton planning policy

6.2.16 The *Taunton and Deane Core Strategy* states that heritage assets are an irreplaceable resource, emphasising that they should be conserved in a manner appropriate to their significance. Strategic Objective 8: Environment, is:

"To maintain and enhance biodiversity, the natural and man-made environment, minimising the need to travel, waste, pollution and the use of non-renewable resources and to promote good design and materials which respect and enhance local distinctiveness."

6.2.17 Specific policy is contained within CP 8: Environment, the relevant portion of which states that:

"The Borough Council will conserve and enhance the natural and historic environment, and will not permit development proposals that would harm these interests or the settings of the towns and rural centres unless other material factors are sufficient to override their importance" [10].

6.2.18 In addition to the Core Strategy, the Taunton and Deane Adopted Site Allocations and Development Management Plan includes Policy ENV4: Archaeology, which states that:

"Where a development proposal affects a site of archaeological importance, Area of High Archaeological Potential, or it is known or suspected that the development could affect archaeological remains, developers must provide for satisfactory evaluation of the archaeological value of the site, and the likely effects on it as part of the planning process. Development affecting sites or the setting of designated archaeological heritage assets, and non-designated archaeological sites or settings which have been demonstrated to have a similar level of importance, will not be permitted unless their archaeological and historic interest, character and setting would be preserved. Designated heritage assets of archaeological importance should be preserved in situ. Proposals which do not provide for this will not be permitted unless:

A. The development would make preservation in situ physically impossible and the remains are not of sufficient importance to outweigh the need for development; and

B. Developers would make adequate provision for excavation and recording of remains affected.

Where evaluation does not justify designation as a site of national or county importance and development is to be allowed, developers must provide for an adequate programme of works" [11].

Standards and guidance

- 6.2.19 In addition to compliance with the NPSNN and NPPF, this assessment has been compiled in accordance with appropriate professional standards and guidance. The standards and guidance which relate to this assessment are:
 - Chartered Institute for Archaeologists (CIfA), Standard and guidance for historic environment desk-based assessment. [14]
 - ClfA, Code of Conduct. [15]
 - Highways England, *DMRB LA 104 Environmental assessment and monitoring.* [1]
 - Highways England, DMRB LA 106 Cultural heritage assessment. [2]
 - Historic England, Good Practice Advice in Planning (GPA2) Managing significance in decision-taking in the historic environment – this advice note provides information to support the NPPF and PPG, such as aiding in assessing the significance/value of heritage resources. [16]
 - Historic England, Good Practice Advice in Planning (GPA3): the setting of heritage assets – this advice note sets out a staged approach for assessing the impact of development on heritage resources due to changes in their setting. Step 1 is to identify which heritage resources and their settings are affected. This, along with Step 2, which considers the contribution made by a resource's setting to its significance, are included in Appendix 6.3 Gazetteer of Heritage Resources. Step 3 is an assessment of the effect of the proposed scheme on that significance or the ability to appreciate it, which is included in both Appendix 6.4 Preliminary Impact Assessment and this chapter (section 6.8-6.10), where effects are significant. Step 4 is to explore ways to maximise enhancement and minimise harm, which is contained in this chapter (section 6.9) and the process for documenting the decision and monitoring the outcome is in section 6.11 [17]. Where heritage resources are unlikely to be impacted (i.e. not identified in step 1), then the stage 2 assessment of the contribution made by the resource's setting has been scoped out.
 - Historic England, Statements of Heritage Significance: Analysing Significance in Heritage Assets, recommends a staged approach to decision making in applications affecting heritage resources. To do this it is important to understand the nature of a heritage resource or archaeological remains - their form, materials and history, and then to understand their significance, the impact of the proposal on that significance and then to look at how to avoid harm and reveal or enhance significance [18]. While this chapter presents a summary of the assessment, the majority of these stages are contained within the appendices. Appendix 6.1 Archaeological and Historic Background gives the overarching narrative assessment which forms the first stage of understanding the nature of the historic environment potentially impacted by the proposed scheme, with the detail of this for individual heritage resources and their significance contained in Appendix 6.3 Gazetteer of Heritage Resources. The assessment of impacts is contained in Appendix 6.4 Preliminary Impact Assessment, with significant effects discussed further in this chapter. Further discussion of mitigation and/or enhancement will be added for the DCO submission.
 - English Heritage (now Historic England), Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment this document sets out the approach to making decisions and offering guidance about all aspects of England historic environment. [13]
 - South Somerset District Council Historic Environment Strategy. [12]

- South West Heritage Trust, *Somerset Archaeological Handbook*, which provides the framework and guidance for archaeological research carried out within Somerset. [19]
- 6.2.20 Further, this assessment will be supported by geophysical survey, trial trenching and building analysis. Specific standards relevant to these will be included in the detailed reports which will be submitted as part of the DCO application.

6.3 Assessment methodology

6.3.1 The assessment methodology is based on DMRB LA 104 Environmental assessment and monitoring [1] and DMRB LA 106 Cultural heritage assessment [2] and other guidance and advice produced by Historic England, ClfA and South West Heritage Trust (see section 6.2 Legislative and Policy Framework). The same approach will be used for both construction and operational effects.

Assessment of value

- 6.3.2 The methodology for assessing effects is based on the principle that the environmental effects of the proposed scheme, in relation to a single heritage resource (asset), should be determined by identifying the resource's value, assessing the magnitude of change the proposed scheme would have on the resource's significance (where significance is defined as the attributes that give the resource its value) and then combining these two elements to identify the significance of effect. While the value of resources and, subsequently, the impact of the proposed scheme upon that value, are reported individually, a holistic approach will be taken to the assessment which considers the setting and, where relevant, group context of heritage resources. The following tables (6-2 to 6-4) provide further detail on the process for assessing effects.
- 6.3.3 The importance or value of each heritage resource within the study area was determined according to the DMRB criteria set out in Table 6-2, which is a factor specific adaptation of DMRB LA 104 *Environmental assessment and monitoring* Table 3.2N [1].

Value of resource	Typical description	Examples within the study area
Very High	Very high importance and rarity, international scale and very limited potential for substitution. Includes World Heritage Sites and nominated sites.	None identified within the study area.
High	High importance and rarity, national scale, and limited potential for substitution. Includes scheduled monuments, listed buildings, Grade I and II* registered parks and gardens, conservation areas containing very important buildings, undesignated structures of clear national importance, undesignated resources of schedulable quality and importance.	There are scheduled monuments, listed buildings and a Grade I registered park and garden identified within the study area.
Medium Medium or high importance and rarity, regional scale, limited potential for substitution. Includes Grade II registered		There are conservation areas, a Grade II registered park and garden and non- designated heritage resources including

Table 6-2Environmental value and descriptions with examples within the study
area

Value of resource	Typical description	Examples within the study area
	parks and gardens, conservation areas not otherwise considered to be high value, and some non-designated archaeological remains.	post-medieval designed landscapes and evidence for below ground archaeological remains of prehistoric and medieval date.
Low	Low or medium importance and rarity, local scale, including non-designated archaeological remains.	A large number of non-designated heritage resources of low value have been identified.
Negligible	Very low importance and rarity, local scale. This includes features which contribute to an understanding of the wider historic landscape but which have little individual interest, such as the remains of former field boundaries and quarries of post-medieval date and isolated findspots where there is no indication of associated buried remains.	A large number of non-designated heritage resources identified, mostly the earthwork and below-ground remains of post-medieval field boundaries and quarry pits. Findspots and other records of buildings or archaeological remains no longer present (either through excavation or demolition) are also included as negligible, although they contribute to the archaeological and historical baseline and assessment of archaeological potential.

Magnitude of impact

6.3.4 The approach used to assess magnitude of impacts on heritage resources considers the change upon the receptor. This takes into account the severity of impact of the proposed scheme, together with the vulnerability of the receptor to change. The approach used is based on professional judgment and experience. It also reflects guidance on 'substantial harm' and 'less than substantial harm' in the NPPF and established methodologies in the DMRB. Table 6-3 summarises the types of impact and magnitude used in the assessment, adapted from DMRB LA 104 *Environmental assessment and monitoring* Table 3.4N [1].

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality or setting.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.

Table 6-3 Magnitude of impact and typical descriptions

Magnitude of impact (change)	Typical description
No change	No loss or alteration of characteristics, features or elements; no
	observable impact in either direction.

Significance of effect

- 6.3.5 By combining the magnitude of impact (or change) and the importance of each heritage resource, an assessment has been made of the significance of effect, taking into account the possibility and nature of mitigation. The resultant effects may be either negative (adverse) or positive (beneficial) or neutral, depending on the nature of the impact.
- 6.3.6 In accordance with DMRB LA 104 *Environmental assessment and monitoring* Table 3.8.1, significance of effect upon the heritage resource is assessed using the matrix in Chapter 4 Environmental Assessment Methodology, Table 4-2.
- 6.3.7 Where the matrix suggests more than one likely outcome, for instance slight or moderate, professional judgement has been used in conjunction with the descriptors in Table 6-4 to arrive at a robust conclusion.
- 6.3.8 Table 6-4 is based upon DMRB LA 104 *Environmental assessment and monitoring* Table 3.7 [1], with factor-specific examples of effect replacing the generic statement contained in DMRB LA 104 *Environmental assessment and monitoring*. Effects are defined on a nine-point scale (very large beneficial, large beneficial, moderate beneficial, slight beneficial, neutral, slight adverse, moderate adverse, large adverse or very large adverse).

Significance of effect	Descriptor			
Very large adverse	Partial or total loss of a resource of Very High Importance. Effects at this level are material in the decision-making process			
Large adverse	Result in the total, or almost total, loss of heritage resources. Be highly intrusive and would seriously damage the setting of the heritage resource such that its significance is totally or almost totally degraded. Be in conflict with national policies for the protection of the heritage resource. Effects at this level are likely to be material in the decision-making process			
Moderate adverse	Be highly intrusive in the setting and as a result adversely affect the significance of the resource. Result in loss of features such that their integrity of the heritage resource is compromised, but not destroyed. Effects at this level can be considered to be material decision-making factors.			
Slight adverse	Have a detrimental impact on the setting of a heritage resource such that its significance is diminished. Be in conflict with local policies for the protection of the local character of the heritage resource. Effects at this level are not material in the decision-making process.			
Neutral	Maintain existing historic features in the townscape. Have no appreciable impacts either beneficial or adverse on any known or potential heritage resources. Result in a balance of beneficial and adverse impacts. Not result in severance or loss of integrity context or understanding within a historic landscape.			

Table 6-4Assessment criteria

Significance of effect	Descriptor			
	Not be in conflict with and do not contribute to policies for the protection or enhancement of the heritage. No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.			
Slight beneficial	Restore or enhance the sense of place of a heritage feature through good design and mitigation. Remove or mitigate visual intrusion (or other indirect impacts) into the setting of heritage features such as that appreciation and understanding of them is improved. Marginally enhance the integrity understanding and sense of place of a site or group of sites. Effects at this level are not material in the decision-making process.			
Moderate beneficial	Provide potential for significant restoration of characteristic features or their setting through the removal, relocation or mitigation of existing damaging or discordant impacts on the heritage resource. Contribute to regional or local policies for the protection or enhancement of the heritage resource. Enhance the integrity, understanding and sense of place of a site or group. Effects at this level can be considered to be material decision-making factors.			
Large beneficial	Result in the removal, relocation or substantial mitigation of very damaging or discordant existing impacts (direct or indirect) on the heritage. Result in extensive restoration or enhancement of characteristic features or their setting. Form a major contribution to government policies for the protection or enhancement of the heritage resource. Remove or successfully mitigate existing visual intrusion such as that the integrity, understanding and sense of place of a site or group of sites is re-established. Effects at this level are likely to be material in the decision-making process.			
Very large beneficial	As 'large beneficial' where the effect would be upon a site of Very High Importance, Effects at this level are material in the decision-making process.			

6.3.9 Adverse effects of moderate significance or above represent a significant effect that require mitigation, and function as means for the decision maker to take account of the likely significant effects of the proposed scheme.

Stakeholder engagement

6.3.10 Consultation is being undertaken with Historic England, South West Heritage Trust and advisors representing South Somerset District and Somerset West and Taunton Councils to inform the proposed scheme design. Engagement is ongoing and will be documented in a Statement of Common Ground which will accompany the DCO application.

6.4 Assessment assumptions and limitations

- 6.4.1 Geophysical surveys are currently being undertaken and will be followed by trial trenching. There will also be a historic buildings assessment of Bath Cottage, a non-designated building which may have heritage interest. The results of the surveys will be included in the Environmental Statement (ES).
- 6.4.2 A number of assumptions have been made regarding the severity and nature of impacts that may change following the completion of further surveys and modelling being undertaken to support other topics. This includes the habitat

surveys which will inform greater discussion around important hedgerows and ground investigations, which will provide greater baseline data to inform discussion about potential impacts from dewatering to buried archaeological remains. There is no detailed construction plan available at this stage which shows haul routes or potential vehicle movements on the surrounding roads. It is possible that construction traffic could have a temporary adverse effect on heritage resources. Noise monitoring and modelling and air quality data will inform revision of the assessment of impacts arising from noise and visual change altering the setting of heritage resources. Further, photomontages will also be produced as part of the landscape assessment (Chapter 7 Landscape).

6.4.3 All assessed effects in this chapter are preliminary and will be revisited within the DCO submission in light of data available at that time.

6.5 Study area

6.5.1 The study area is defined according to the sensitivity of the receiving environment and the potential impacts of the proposed scheme.

Designated resources

- 6.5.2 The main study area used for the consideration of designated resources in the assessment comprises a buffer that extends one kilometre (km) from the proposed scheme boundary. This buffer has been selected on the basis of professional judgement and experience. This reflects that, by the nature of the way that linear road schemes sit within a landscape they are likely to be visible for short stretches of their overall length rather than as a whole; and as such they highly unlikely to alter the setting of heritage resources to a degree that would result in either a significant adverse or beneficial effect where those resources lie beyond 1km. The design of the proposed scheme and the surrounding topography was reviewed and it was concluded that it shared these characteristics, and therefore fitted within the expectations of professional judgement. All designated resources within this study area have been considered by the assessment.
- 6.5.3 It is recognised, however, that impacts could potentially occur beyond 1km, either from indirect impacts arising from changing road use beyond the A358 corridor or from changes to the setting of particularly sensitive heritage resources, such as those where distant views are an important contributor to their value. To ensure that both a rigorous and holistic approach has been taken, the noise model and Zone of Theoretical Visibility (ZTV) have been used to scope into the assessment a number of heritage resources located beyond the main study area.
- 6.5.4 The ZTV (refer to Chapter 7 Landscape) which illustrates the theoretical extent of visibility for the proposed scheme. Designated heritage resources with theoretically high visibility have been reviewed and assessed for any potential impacts. Where there are gaps in the ZTV, due to the availability of digital surface model (DSM) data predominantly to the south and south-west of the proposed scheme boundary, heritage resources within the gaps have been individually reviewed. As the southern part of the proposed scheme would be constructed on-line, only the scheduled monument of Castle Neroche has been added to the assessment due to its potential sensitivity to change.
- 6.5.5 The preliminary noise impact assessment (Chapter 11 Noise and vibration) has been used to identify heritage resources where there is a potential significant, in

noise assessment terms, adverse or beneficial effect. Heritage resources located beyond 1km but included within the assessment have been and are detailed within Appendix 6.3 Gazetteer of Heritage Resources and Appendix 6.4 Preliminary Impact Assessment, although some have been grouped in recognition of shared setting and the nature of the potential impact. Further, where designated resources, such as registered parks and gardens (RPG), straddle the limit of the study area, any designated heritage resource that are associated within them, that could experience effects have also been included in the assessment. This applies to two listed buildings located within the Hatch (Beauchamp) Court RPG.

Non-designated heritage resources

6.5.6 The assessment considers non-designated heritage resources within 250m of the proposed scheme boundary. This study area is based upon professional judgement and experience that indicates that that non-designated resources are less likely to experience significant adverse effects as a result of changes to their settings beyond this distance, following the reasoning described in 6.5.2. This does not preclude non-designated resources being of greater than local importance. For further details of how the importance of resources is determined, refer to Table 6-2 in section 6.3Table 6-2.

6.6 **Baseline conditions**

6.6.1 This assessment has considered the known heritage resources within the proposed scheme boundary and study areas (1km for designated heritage resources, 250m for non-designated heritage resources with additional heritage resources included where there is the potential for high visibility or significant noise change). Further detail on the baseline conditions can be found in Appendix 6.1 Archaeological and Historical Background and Appendix 6.2 Historic Landscape Characterisation Assessment. A gazetteer of all heritage resources included in this assessment can be found in Appendix 6.3 Gazetteer of Heritage Resources and are shown on Figure 6.1 Designated Heritage Resources and Figure 6.2 Non-Designated Heritage Resources. Historic landscape character areas are shown on Figure 6.3 Historic Landscape Characterisation.

Designated heritage resources

- 6.6.2 There is one scheduled monument within 1km of the proposed scheme: the Cross in St Aldhelm and St Eadburgha churchyard (NHLE 1017250) which is located approximately 270m to the south-west of the proposed scheme in Broadway at the south-eastern end of the route. This is also a Grade II* listed building (NHLE 1057005).
- 6.6.3 Located approximately 4km from the proposed scheme boundary is a second scheduled monument included within this assessment due to its potential sensitivity to change this is Castle Neroche: a motte and bailey castle and earlier defences above Castle Plantation (NHLE 1008252).
- 6.6.4 196 listed buildings have been considered within this assessment, including one which is also designated as a scheduled monument. This includes 143 listed buildings within 1km of the proposed scheme boundary, two further listed buildings included as they are part of a group within a RPG which spans the edge of the study area boundary, and 51 considered as they are potentially impacted due to high visibility or significant noise change, based on the ZTV and noise

modelling. The additional listed buildings include six individual buildings and four groups – buildings along Stoke Road, Slough Lane and Stathe Road between North Curry and Burrow Bridge, group of listed buildings in Broadway, Staple Fitzpaine group and the South Road group.

- 6.6.5 Of the listed buildings assessed, there are six Grade I listed buildings, 12 Grade II* listed buildings and 178 Grade II listed buildings. The Grade I listed buildings are:
 - The Church of St John the Baptist (NHLE: 1060442), located approximately 970m east of the proposed scheme within the parkland at Hatch Beauchamp.
 - The Church of St George (NHLE 1177015), located approximately 720m east of the proposed scheme at its northern end at Ruishton.
 - The Church of the Holy Cross (NHLE 1177251), located approximately 720m east at Thornfalcon.
 - The Church of St Aldhelm and Eadburgha (NHLE 1248912) which is located north-east of the village of Broadway, approximately 270m west.
 - Hatch Court (NHLE 1060405), located approximately 1035m east of the proposed scheme, but included as it is part of a group of buildings within the Hatch (Beauchamp) Court RPG (NHLE 1001146) which straddles the 1km study area boundary.
 - Church of St Peter (NHLE 1060274), located approximately 2.9km west of the proposed scheme in Staple Fitzpaine, included in the assessment due to potential significant change in noise levels.
- 6.6.6 The Grade II* listed buildings are:
 - The Remains of churchyard cross in churchyard about 7m south of porch Church of St George (NHLE 1060396), approximately 735m east of the proposed scheme at Ruishton.
 - Outbuilding with wall adjoining south-east corner of Haydon House (NHLE 1177118), approximately 460m west at Haydon.
 - Musgrave Farmhouse (NHLE 1177045), approximately 30m south at Henlade.
 - Henlade House (NHLE 1060397), approximately 430m west of the proposed scheme, south of Henlade.
 - The Old Rectory, with boundary wall attached to south-east corner (NHLE 1295733), approximately 215m west of the proposed scheme at Ashill.
 - The Church of the Blessed Virgin Mary (NHLE 1057100), approximately 390m west of the proposed scheme at Ashill.
 - Churchyard Cross, about 5m south of nave, Church of St Aldhelm and Eadburgha, Broadway, (NHLE 1057005), approximately 270m west of the proposed scheme (also a Scheduled Monument).
 - The Grotto at Jordans NGR ST 3388 1601 (NHLE 1057070), approximately 290m east of the proposed scheme, north-east of Horton Cross.
 - Rowland's farm house, and attached outbuildings around the north side of a courtyard, including well (NHLE 1057097), approximately 800m east of the proposed scheme, north-east of Horton Cross.
 - Rowland's Mill (NHLE 1345847), approximately 520m east of the proposed scheme, north-east of Horton Cross.
 - Tudor Cottage (NHLE 1057044), located approximately 1.3km west of the proposed scheme in Broadway, included in the assessment due to potential significant change in noise levels.

- Almshouses (NHLE 1060273) located approximately 2.9km west of the proposed scheme in Staple Fitzpaine, included in the assessment due to potential significant change in noise levels.
- 6.6.7 There are 178 Grade II listed buildings within 1km of the proposed scheme or within a wider area but potentially impacted by high visibility of the proposed scheme or potential change to noise levels. The full list can be found in Appendix 6.3 Gazetteer of Heritage Resources, but particularly worthy of note due to their proximity to the proposed scheme are:
 - Potmans (NHLE 1060398), located approximately 15m south of the proposed scheme boundary at Henlade.
 - Battlements (NHLE 1307513), located approximately 75m east of the proposed scheme boundary west of Thornfalcon.
 - The Thatch (NHLE 1060368), located on the proposed scheme boundary north of Ashe Farm.
 - Road Bridge at NGR ST 2815 2249 (NHLE 1177245), located approximately 30m south of the proposed scheme boundary north of Ashe Farm.
 - Park Farmhouse (NHLE 1253346), located on the proposed scheme boundary east of West Hatch.
 - Capland Farmhouse (NHLE 1344540), located on the proposed scheme boundary north of Capland Lane.
 - Thickthorn House with north boundary wall and gateway (NHLE 1057073), approximately 55m west of the proposed scheme boundary south of Hastings Cross.
 - Bow Bridge (NHLE 1345848), located on the proposed scheme boundary south of White House Farm.
 - Jordans Bridge (NHLE 1057081), located on the proposed scheme boundary, north of Horton Cross.
 - Greenings (NHLE: 1177358), located on the proposed scheme boundary east of West Hatch.
 - Ruishton House (NHLE: 1176921) located approximately 180m north of the proposed scheme boundary, but with views across the proposed scheme.
- 6.6.8 There is one Grade II RPG: Hatch (Beauchamp) Court within the 1km study area, located approximately 490m east (NHLE: 1001146) near Hatch Beauchamp. A second RPG, the Grade I Hestercombe, is located approximately 3.2km north of the proposed scheme and has been included due to theoretical visibility.
- 6.6.9 There are two conservation areas located within 1km: those at Hatch Beauchamp and Thornfalcon. Additionally, Staple Fitzpaine and South Road conservation areas are included as there is the potential for impacts relating to changing traffic noise levels.
- 6.6.10 There are no World Heritage Sites or registered battlefields within the study area.
- 6.6.11 A full description, including an assessment of value, for each designated resource within the study area can be found within Appendix 6.3 Gazetteer of Heritage Resources. This also includes an assessment of setting for all designated resources where there is the potential for an impact from visual change or noise. Designated heritage resources are shown on Figure 6.1 Designated Heritage Resources.

Non-designated heritage resources

- 6.6.12 An assessment of the archaeological and historical background (Appendix 6.1 Archaeological and Historic Background) has identified 189 non-designated heritage resources and one possible building of historic or architectural interest requiring further research prior to the submission of the DCO. These are shown on Figure 6.2 Non-Designated Heritage Resources. It should be noted that the summary of archaeological resources by period totals slightly more than the overall number of non-designated heritage resources as some reflect multi-period records.
- 6.6.13 There are eight non-designated heritage resources of prehistoric date within the study area. The earliest archaeological evidence from the study area dates to the Neolithic, obtained from small quantities of worked flint found during archaeological investigations at the Taunton Park & Ride site and during the construction of the Ashill bypass. There is evidence of Bronze Age settlement at both the western and eastern ends of the proposed scheme, with several roundhouses excavated at the Taunton Park & Ride site and Bronze Age burnt mounds identified near Hort Bridge, approximately 270m south of the proposed scheme boundary, north of Ilminster. Additional evidence comes from use of the area during the Iron Age, again from the excavations at the Park & Ride site and at the neighbouring Nexus 25 development site. This includes several further round houses alongside evidence of a more extensive agricultural field system.
- 6.6.14 There are nine heritage resources of Roman date within the study area, with several records relating to the remains of a small Romano-British settlement just south of J25 of the M5. While limited structural evidence has been found of the core of the settlement, there is extensive evidence of field enclosures, small-scale industry being present. Of more significance, an inhumation cemetery of 30 burials was discovered. Elsewhere, evidence of the Romans is limited to finds of pottery sherds.
- 6.6.15 Evidence from the early medieval period is very limited, with one heritage resource of this date, although there is place name and documentary evidence of settlement in the study area at this time. The single record is of a rectangular building found at the Taunton Park & Ride site, tentatively dated from a single sherd of early medieval pottery.
- 6.6.16 From the medieval period there is substantially more archaeological evidence of settlement and agriculture in the study area, and it is from this period that here are marked traces of past land use in the historic landscape character of the study area. There are 47 non-designated heritage resources of medieval date within the study area, including traces of former field boundaries, earthworks potentially indicating areas of shrunken or deserted settlement, finds of medieval pottery and a small number of non-designated buildings thought to have medieval origin.
- 6.6.17 The majority of non-designated heritage resources within the study area date to the post-medieval period, from which there are 145 heritage resources. These include traces of former field boundaries, planting ridges from former orchards, depressions and cropmarks from small-scale quarrying, estate parklands and the remains of the bold transformations brought about by 18th and 19th century infrastructure, including canal, railway and turnpike road networks.

- 6.6.18 There are a small number of modern heritage resources, mostly dating from the Second World War. There are 14 in total, and include features from the Taunton Stop Line, part of the defences of Britain in the 1940s, as well as the site of a large military camp, possibly used during the staging for D-Day. There are also several early reinforced concrete bridges.
- 6.6.19 Finally, there are seven heritage resources of unknown date, including cropmarks, earthworks and documentary records which suggest the presence of archaeological remains, yet to be further examined.
- 6.6.20 Potential archaeological survival within the proposed scheme boundary is broadly likely to be high across all areas south of the Nexus 25 development and outside of the footprint of existing roads. Further investigation into the archaeological potential within the proposed scheme boundary will be undertaken prior to the DCO submission, including geophysical survey and trial trenching. From the desk-based study undertaken to date, however, it is likely that there will be remains of prehistoric, Roman, medieval and post-medieval date, with a lower potential for early medieval remains or modern features of archaeological interest. There may also be paleoenvironmental remains if survival conditions in the soil are right.

Historic landscape character

- 6.6.21 The proposed scheme crosses an area of gently rolling fields with a historic landscape character dominated by a mixture of anciently and recently enclosed land, interspersed with historic settlements and ancient woodland. Eight Historic Landscape Character Areas (HLCA) have been created to inform the assessment of impacts on the historic landscape (Appendix 6.2 Historic Landscape Characterisation). The HLCA are shown on Figure 6.3 Historic Landscape Characterisation. They are:
 - HLCA_001: Taunton and Bathpool
 - HLCA_002: Post-medieval fields around Ruishton
 - HLCA_003: Ancient and post-medieval fields north of Ashill
 - HLCA_004: Post-medieval fields north of Ashill
 - HLCA_005: Ancient and post-medieval fields north of Ilminster
 - HLCA_006: Ilminster
 - HLCA_007: Ancient fields north of Creech St Michael
 - HLCA_008: Military airfield

Value

- 6.6.22 In line with the methodology laid out in section 6.3 Assessment methodology, all heritage resources identified within the baseline have been assessed for their value. This allows the assessment of potential impacts to be weighed against their value relative to each other and the historic environment in the UK generally. The value of a heritage resource is derived from its heritage interest, which may be archaeological, architectural, artistic or historic. A full assessment of the detail of each resource's value can be found in Appendix 6.2 Historic Landscape Characterisation and Appendix 6.3 Gazetteer of Heritage Resources.
- 6.6.23 In summary, with the exception of the conservation areas and RPGs, all designated heritage resources are considered to be of high value. Hestercombe, a Grade I RPG, is assessed as being of high value, while Hatch (Beauchamp)

Court, which is Grade II, is considered to be of medium value. The conservation areas are assessed as being of medium value.

- 6.6.24 The majority of non-designated heritage resources have been assessed as being of either low or negligible value, based on their likely local or more limited importance. Features including the earthwork remains of former post-medieval field boundaries and the traces of orchard planting banks have been given a negligible value, although they may contribute to a wider historic landscape character of greater value. Findspots and records of archaeological excavations, where all traces of the archaeological features or artefacts are understood to have been removed, are also assessed as negligible, as there is no physical feature which the proposed scheme could potentially impact. Features where there is the potential for archaeological remains of regional or greater interest, such as deserted medieval villages and churchyards, have been given a medium or high value. Further, non-designated but historic landscape features such as post-medieval parkland, have also been given a medium value.
- 6.6.25 Historic Landscape Character Areas are not, themselves, heritage resources, but they reflect legible areas where time depth and historic land use is visible and this character has heritage value and can be impacted by development. As a proxy for this, the HLCAs have been assessed as having value on the same scale as the other heritage resources. The majority have low value, reflecting fairy commonly preserved patterns of development and post-medieval agriculture but, where extensive traces of medieval activity survives, an assessment of medium value has been made.

Future baseline

6.6.26 As set out in Chapter 4, the 'Do-Minimum' and 'Do-Something' scenarios have been set out, with the 'Do-Minimum' scenario representing the future baseline with minimal interventions and without new infrastructure. Potential changes to heritage resources in the future would not be noticeable as it is a 'fixed' resource (being the material remains of past human activity), and with the exception of new discoveries that may come to light, no 'new' receptors would be expected to enter the baseline. Therefore, the future baseline would remain the same as set out in above.

6.7 **Potential impacts**

- 6.7.1 Mitigation measures incorporated in the design and construction of the proposed scheme are set out in section 6.8 Design, mitigation and enhancement measures. Prior to implementation of the mitigation, the proposed scheme has the potential to impact cultural heritage resources either beneficially or adversely, both during construction and once in operation.
- 6.7.2 For the purposes of the cultural heritage assessment, the construction phase is defined as the temporary activities involved in building the proposed scheme, and the subsequent permanent presence of the proposed scheme once constructed. This includes the permanent impact of the proposed scheme on buried archaeological remains, including changes arising from altered hydrological conditions affecting preservation.
- 6.7.3 The operational phase comprises the situation when the proposed scheme is being used by traffic, including the impact arising from changes to the setting of heritage resources from the sight of moving traffic and changes to noise levels.

Operational vibration has been scoped out of the noise topic assessment and so is not anticipated to have any significant adverse effects on cultural heritage.

- 6.7.4 As listed below, physical impacts upon resources would only occur during the construction phase; impacts upon resources' setting would arise during both the construction and operation phases. Impacts upon setting may be either beneficial or adverse.
- 6.7.5 All preliminary effects are reported after an assessment of the effectiveness of the design and mitigation measures (the residual effect).

Construction impacts

- 6.7.6 Where the proposed scheme is contained within the existing A358 corridor and alongside areas of prior disturbance, the potential for the presence of as-yet unknown archaeological remains is low as buried features would have been previously removed. However, where the proposed scheme requires excavation below existing ground surface within areas of fields, including compound areas, possible remains may exist.
- 6.7.7 Construction of the proposed scheme has the potential for adverse impacts upon cultural heritage resources, including:
 - Partial or total removal of heritage resources, including archaeological remains, within the proposed scheme footprint (a 'worst-case' approach has been taken for the preliminary impact assessments, and will be updated for the DCO application).
 - Compaction of archaeological deposits by construction traffic and structures.
 - Temporary impacts upon the settings of heritage resources during construction.
 - Permanent impacts upon the setting of heritage resources from the completed scheme.
 - Change to the historic landscape, including loss of attributes which contribute to the historic landscape character.
 - Changes to key views and sight lines to/from heritage resources, particularly churches and secular properties with designed landscapes.
 - Impacts to paleoenvironmental deposits, buried archaeological remains and buildings as a result of hydrological changes which could lead to changing below-ground preservation conditions or subsidence.
- 6.7.8 Construction activity, including movements of plant, temporary lighting and temporary compounds, would take place within the wider setting of listed buildings and upstanding non-designated heritage resources within the study area. Temporary works may also bring traffic into closer proximity to heritage resources. These works would be temporary, of limited duration and reversible. Consequently, such activities are not typically considered to result in a significant effect on any designated resource, but this will be considered for each individual case.
- 6.7.9 Views from heritage resources towards permanent works such as new road, cuttings, embankments and other structures are considered to be permanent construction impacts for the purposes of the assessment. Likewise, removal of elements of the existing A358, such as lighting of junctions, are considered to be construction effects.

Operational impacts

- 6.7.10 The operational phase of the proposed scheme has the potential to result in both beneficial and adverse impacts on the setting of cultural heritage resources due to traffic noise and the visibility of moving vehicles on the road. Impacts could include:
 - changes to the settings of heritage resources
 - changes to key views and sight lines
 - changes to the perception of traffic noise
- 6.7.11 There would be no physical impacts on below-ground archaeology during operation, as these would have occurred during the construction phase and are, therefore, considered as construction impacts.

6.8 Design, mitigation and enhancement measures

Construction mitigation

6.8.1 Mitigation of construction impacts would take the form of measures to reduce direct impacts (physical damage), and indirect impacts (changes to setting that affect the significance of the resources).

Archaeological remains

- 6.8.2 In the majority of cases, mitigation of direct impacts on archaeological remains would be essential mitigation and would take the form of 'preservation by record', that is, the investigation of archaeological remains prior to construction, and the analysis of artefacts and publication of results following the construction of the proposed scheme.
- 6.8.3 Preservation by record can involve a number of levels of detail, commensurate with the significance of the resources being impacted directly by the proposed scheme. These may include detailed archaeological excavation of high value buried archaeological remains, strip-map-sample where archaeological remains are expected to be present dispersed over a wide area, or archaeological watching brief in areas of lower archaeological potential. The type and location of mitigation required will be agreed with stakeholders by means of a Detailed Archaeological Mitigation Strategy and Overarching Written Scheme of Investigation, to be submitted as an Annex to the EMP to be submitted with the DCO application.
- 6.8.4 Depending on the extent and survival of remains it may be possible to reduce this to less than significant levels through excavation and recording. This will be reviewed and further assessed in the ES.
- 6.8.5 Where remains are located beyond the engineering footprint of the proposed scheme, such as within areas of environmental mitigation, it may be possible to preserve archaeological remains, if present, within the development (often referred to as 'preservation in situ'). This would be embedded mitigation and would be considered in detail following the completion of geophysics and trial trenching and will be incorporated within the Overarching Written Scheme of Investigation.

Historic landscape features

6.8.6 Where likely significant adverse effects to historic landscape features, including estate parkland, have been identified, mitigation measures will be considered and where possible incorporated into the ES.

Milestones and mileposts

6.8.7 There are three historic milestones which are likely to need to be removed during construction of the proposed scheme, although it has not been possible to confirm that all three are still extant at this stage. Where present, these will be removed under archaeological supervision, stored, and replaced as close as possible to its original location at the end of the construction phase.

Designated resources

6.8.8 Where likely significant effects have been identified on listed buildings as a result of permanent changes to their settings during construction, mitigation measures to potentially reduce the significance of these effects will be considered and reported in the ES.

Operational mitigation

- 6.8.9 At this stage there is outstanding data required to understand the changes to noise levels, which is likely to be the primary source of significant operational effects. Operational mitigation will be discussed in the ES.
- 6.8.10 It is not currently understood that any designated heritage resources would be situated within Highways England owned land, therefore there is no requirement for Cultural Heritage Resource Management Plans to be produced. This will be reviewed for the ES.

Enhancement

6.8.11 There is potential for enhancement. This will be fully discussed within the ES submitted alongside the DCO submission.

6.9 Assessment of likely significant effects

Construction effects

6.9.1 The likely significant construction impacts on heritage resources are presented in Table 6-5. These assessments are based on the best understanding of the baseline and the potential impacts for this stage. All assessments will be reviewed and, where necessary, revised prior to the submission of the DCO. While only significant effects are presented in this chapter, a preliminary assessment of all impacts and effects on heritage resources can be found in Appendix 6.4 Preliminary Impact Assessment.

Table 6-5Significant construction effects

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	-	significance of fect
					Construction (temporary)	Construction (permanent)
1060397	Henlade House	High	The proposed scheme would be constructed approximately 530m north-east of Henlade House, although the proposed scheme boundary extends as close as Granary Lane for access, approximately 270m north-east of the building. At this point, the proposed scheme would be constructed off-line, introducing a major new infrastructure corridor into the main views from Henlade House's front façade. Although over 500m away and views would be partially screened by the existing scattered trees present in views north and east of the house, this would be a notable change, constituting a moderate adverse magnitude of change during construction and the initial years of operation resulting in a temporary construction effect of moderate adverse significance. This is because, although there would be no alteration to the former parkland around Henlade House, the road would be visible within views directly from the front of the building and its setting contributes to its value as part of its architectural interest. The proposed environmental mitigation would include new hedgerows, hedgerows with trees, woodland and environmental earthworks along the new road corridor, which will soften its visual impact within the landscape reducing it to a minor adverse magnitude of impact, resulting in a slight adverse significance.	The proposed environmental mitigation, once established, will reduce the permanent construction effect to slight adverse.	Moderate adverse	Slight adverse

NHLE/ HER ID		Value	Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
117704	Musgrave Farmhouse	High	The mainline of the proposed scheme would be constructed in cutting approximately 95m north of Musgrave Farmhouse, but with an associated realignment of Stoke Road to the east of the building which would bring the road approximately 15m away from the building and would require construction within the existing farmyard of the property. Musgrave Farmhouse faces the narrow country lane to its south. Its setting is formed by the lane, by the more recent farm buildings which surround it to the north and by the farmland beyond to the north-west. Construction activity will alter the setting of the farmhouse through the movement of vehicles, noise, and lighting. This would be a minor adverse magnitude of impact, experienced throughout the construction period, resulting in a temporary construction effect of moderate adverse significance. The proposed scheme would be constructed in a cutting, with the top of the cutting approximately 95m north of the listed building. This would not result in an adverse impact through visual change, as the use cutting and proposed environmental mitigation woodland and hedgerow planting would mean that the road would not be visible from the farm. The proposed alterations to Stoke Road, north of Musgrave Farm would elevate it slightly on an embankment to allow it to cross the new off-line section of the A358 on an overbridge. As the road		Moderate adverse	Moderate adverse
			section of the A358 on an overbridge. As the road is in cutting, the overbridge would not be a visually			

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
			dominant structure from Musgrave Farmhouse and views towards it would be screened by the (non- listed) farm buildings to the north of the building. However, the loss of part of the farmyard complex to the realignment of Stoke Road, while only altering the more recent hardstanding and walls of the farmyard, would be at least a permanent construction magnitude of minor adverse due to the clearly measurable change of its farmyard setting, resulting in a moderate adverse significance of effect.			
1060367	Ashe Farmhouse	High	The building is located less than 5m from the proposed scheme boundary although the closest permanent earthwork would be approximately 50m north. From the farmhouse there would be a notable change in the alignment of the existing narrow, treelined lane, which would instead veer to the south on a new embankment. During construction there is the potential for noise to exceed 75db (Chapter 11 Noise and vibration). Given the current rural lane setting of the farmhouse, the increase in noise levels during construction is likely to constitute a moderate adverse magnitude of impact as a temporary construction effect of moderate adverse. The visual change to the setting is more limited as, although the road layout would be altered and modernised on the approach to the Mattock's Tree junction, the majority of the farmhouse's rural setting would be unaltered. This would be a potential permanent construction magnitude of	Further assessment of Ashe Farmhouse is proposed prior to the submission of the ES. This will be used to inform more detailed discussion of potential mitigation and residual effect.	Moderate adverse	Moderate adverse

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	Likely residual significance effect	
					Construction (temporary)	Construction (permanent)
			impact of minor adverse, resulting in a permanent significance of effect of moderate adverse.			
1060368	The Thatch	High	The Thatch is located immediately west of the proposed scheme boundary although the area within the boundary closest to the listed building is proposed as an area of environmental mitigation with species rich grassland and hedgerows. The new alignment of Ash Road would be constructed approximately 50m south-east of the Thatch. There are currently very limited views towards the new road due to the height of the existing hedgerow along Ash Lane so this, despite proximity, would be no worse than a minor adverse permanent construction impact, resulting in a permanent significance of effect of slight adverse. However, it is likely that there would be construction noise of over 75db experienced at the Thatch (Chapter 11: Noise). Given the scale of difference this would create in what is currently a quiet, rural setting, this would be a moderate adverse temporary construction magnitude of change, resulting in a moderate adverse significance of effect.		Moderate adverse	Slight adverse
1176921	Ruishton House	High	The proposed scheme would be constructed approximately 225m south of Ruishton House. While there is some screening through existing tree planting along the boundary of the property and along the Black Brook and further wet woodland and grassland mosaic is proposed as part of the environmental mitigation plan, it is likely that the proposed scheme would be visible from at least the upper storey of the house when looking south. The views over the surrounding countryside do contribute to the value of the building, which	Further assessment of Ruishton House is proposed prior to the submission of the ES. This will be used to inform more detailed discussion of potential mitigation and residual effect.		Moderate adverse

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
			was built at the end of the 19 th century as a grand home for a local industrial family. The architectural interest of the house would not be impacted, and its immediate garden setting and the fields to the south would not be altered by the proposed scheme. As a result, there would be a temporary and permanent minor adverse construction impact. The temporary effect would be slight adverse significance, while the permanent effect would be moderate adverse significance.			
1177245	Road bridge at NGR ST 2815 2249	High	The bridge is located within the proposed scheme boundary and the current version of the design would involve constructing the embankment for the new alignment of Ash Road into the bridge arch. This would, at the minimum, result in a complete alteration of the way that the bridge is appreciated, with a loss of views of the bridge from the current roadway. There are also potential physical impacts that will require further survey to assess prior to the submission of the ES. Due to the nature of the impact, there is no temporary effect as depending on the extent of the physical impact this would be permanent construction magnitude of impact of moderate to major adverse, likely to result in a large adverse significance of effect.	minimised. Mitigation and residual effect will be reported on within the ES.	No change	Large adverse
	Prehistoric finds, High Bridge, Hatch Beauchamp	Medium	The estimated location for the finds is within the proposed scheme boundary and it is possible that associated surviving remains would, if present, be removed by construction. It is likely that this would result in a permanent major adverse magnitude of impact, resulting in a moderate to large adverse significance of effect.	Further archaeological investigation is needed to inform this, but a programme of archaeological excavation and recording would be put in place, potentially reducing the residual effect to a less than significant	Neutral	Moderate to large adverse

NHLE/ HER ID	Name	Value	lue Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
				effect. This will be reported on in the ES.		
55322	Medieval village, Jordans, N of Horton Cross	Medium	The majority of the resource lies within the proposed scheme boundary and would be removed by construction. While further investigation through geophysical survey and trial trenching will be undertaken for inclusion within the DCO, this is likely to be a permanent major adverse magnitude of impact resulting in a moderate to large adverse significance of effect.	Further archaeological investigation is needed to inform this, but a programme of archaeological excavation and recording would be put in place, potentially reducing the residual effect to a less than significant effect. This will be reported on in the ES.		Moderate to large adverse
13929	Hatch Park, Hatch Beauchamp	Medium	Construction activity in the western part of the park and visible in views to the north and south would alter the setting of the parkland, although the presence of the current A358 in these views means that this is not a substantial change, and would likely only be a temporary minor adverse magnitude of impact, resulting in a slight adverse significance of effect.	It is unlikely that direct mitigation will be possible, as a part of the historic parkland would be permanently lost. Wider enhancement may be possible, which will be considered and reported on within the ES.	Slight adverse	Moderate adverse
			The north-west corner of the park, and a small area in the south-west are within the proposed scheme boundary and it is likely that some areas of historic planting would be removed. While the majority of the park's area would not be physically impacted, there would also be a change to its setting with the widening of the existing course of the A358. In combination with the physical impacts, construction would likely have a permanent moderate adverse impact, resulting in a moderate adverse significance of effect.			
19872	Milestone, Capland	Low	It has not yet been possible to confirm if this milestone is extant – it is not visible from the road	Relocation of the milestone (as described in section 6.8.7) would	Neutral	Slight adverse

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
	Spa, Hatch Beauchamp		but may be obscured within the hedgerow. For the preliminary assessment it is assumed that it does remain extant. It is possible that it would be removed during construction, although this is dependent on the further development of the proposed scheme design. This will be further assessed prior to the ES but it is assumed that, at a worst case, it would be removed which would be a major adverse construction magnitude of impact, resulting in a moderate adverse significance of effect.	reduce the residual significance of effect to slight adverse.		
19936	Milepost, Ash Cross, Thornfalcon	Low	It has not yet been possible to confirm if this milestone is extant – it is located on a high-speed section of road and survey was not possible. For the preliminary assessment it is assumed that it does remain extant. The milepost would be removed by the construction of the connection from the existing A358 and Henlade to the Mattock's Tree Green Junction roundabout (north). This would likely be a major adverse construction magnitude of impact, resulting in a moderate adverse significance of effect.	Relocation of the milestone (as described in section 6.8.7) would reduce the residual significance of effect to slight adverse	Neutral	Slight adverse
29068	Milestone, Three Oaks Cross, Ashill	Low	This milestone is located in the hedgerow on the western side of the road. It would be removed by the construction of the Ashill Junction Westbound off slip, which would likely be a major adverse magnitude of impact, resulting in a moderate adverse significance of effect.	Relocation of the milestone (as described in section 6.8.7) would reduce the residual significance of effect to slight adverse	Neutral	Slight adverse
38976	Jordans park, Ashill	Medium	Construction activity in the southern part of the park and visible in views to the north and south would alter the setting of the parkland, although the presence of the current A358 in these views means that this is not a substantial change, and	It is not likely that direct mitigation will be possible as a part of the historic parkland would be permanently lost. Wider enhancement may be	Slight adverse	Moderate adverse

NHLE/ HER ID	Name	Value	Preliminary description of effect	Mitigation	Likely residual significance of effect	
					Construction (temporary)	Construction (permanent)
			would likely be a temporary minor adverse magnitude of impact, which would result in a slight adverse significance of effect. The south-western part of the park lies within the proposed scheme boundary and features banks of planting and an ornamental gateway, which includes stone gate posts and decorative wrought iron gates. While the majority of the park's area would not be physically impacted, there would be a change to the park's setting with the widening of the existing course of the A358. The combination of permanent physical impacts and permanent impacts arising from changes to the setting would likely be a moderate adverse significance of effect.	possible, which will be examined and reported on within the ES.		
03	Ancient and post- medieval fields, Somerset Hills	Medium	The proposed scheme would predominantly be constructed on-line through approximately 3.3 miles (5.25km) of this HLCA. Although there would be some localised impacts along the on-line sections this would not have an impact on the historic landscape character of the wider HLCA. There would, however, be impacts from the construction of the Mattock's Tree Green and Hatch Beauchamp Junction Overbridge junctions, which would collectively lead to the loss of seven fields or parts of fields from areas of anciently enclosed land within the HLCA. The anciently enclosed land is of particular importance to the landscape within the HLCA's heritage value, and the loss of these fields would likely be a moderate adverse magnitude of impact.	Further assessment will be carried out for the ES to provide greater understanding of the nature of the hedgerows and to explore potential landscape mitigation which may reduce the impact to less than significant.	Neutral	Moderate adverse

Operational effects

- 6.9.2 At this stage there is outstanding data required to understand the changes to noise, which is likely to be the primary source of significant operational effects. A preliminary impact assessment has been carried out, reported in full in Appendix 6.4, but this will be fully reviewed for the ES with more detailed consideration of the way in which changing noise levels might impact the significance of heritage resources. Based on the initial assessment, two potential operational effects have been identified:
 - Ashe Farmhouse (NHLE: 1060367), a Grade II listed building of high value, is located immediately north of the proposed scheme boundary. There would be an increase in operational noise, which has been assessed by the noise topic (Chapter 11: Noise) as major adverse in both the short- and long-term. Given the current rural setting of the farmhouse, the increase in noise levels during operation is likely to constitute a moderate adverse operational significance of effect.
 - The Thatch (NHLE: 10603668), a Grade II listed building of high value, is located immediately west of the proposed scheme boundary. There would be an increased operational traffic noise, which has been assessed by the noise topic (Chapter 11: Noise) as being major adverse in the short-term, decreasing to moderate in the long-term. Given the scale of difference this would create in what is currently a quiet, rural setting, this would be a moderate adverse operational magnitude of change, resulting in a moderate adverse significance of effect.
- 6.9.3 In both cases, this assessment is based on a provisional assessment of potential changing noise levels. The assessment will be revised for the ES and a discussion of potential mitigation will be included at that time.

6.10 Monitoring

- 6.10.1 The archaeological mitigation works would be undertaken during the preliminary works (the majority of the archaeological fieldwork and recording) and construction works stages. The archaeological mitigation works would be monitored to ensure compliance with the Detailed Archaeological Mitigation Strategy and Overarching Written Scheme of Investigation, as part of the EMP, to ensure the works are undertaken to the appropriate standards. This will be produced to support the DCO following the completion of additional archaeological surveys (geophysics and trial trenching).
- 6.10.2 The Detailed Archaeological Mitigation Strategy and Overarching Written Scheme of Investigation will set out appropriate measures to be undertaken during the preliminary works and construction stages to ensure that the mitigation measures embedded in the proposed scheme design are appropriately implemented.
- 6.10.3 Mitigation measures will be monitored in the field and also during the postexcavation analysis and publication stages, to ensure that the mitigation is achieving the aims of reducing the significant effects identified on heritage resources.

6.11 Summary

Preliminary construction assessment

- 6.11.1 The assessment of impacts of the proposed scheme on the historic environment has identified 14 significant adverse effects upon heritage resources during construction.
- 6.11.2 Direct impacts would occur on both known and unknown buried archaeological deposits resulting in a likely permanent moderate adverse significance of effect; this effect would be significant. Depending on the extent and survival of remains it may be possible to reduce this to less than significant levels through excavation and recording.
- 6.11.3 There would be significant adverse effects arising as a result of the change of the setting of five listed buildings: Henlade House, Musgrave Farmhouse, Ashe Farmhouse, The Thatch and Ruishton House.
- 6.11.4 There is likely to be a direct impact on the listed Road Bridge at NGR ST 2815 2449 through the construction of an embankment under its arch. The design of the embankment will be developed to consider how harm to the bridge can be minimised. Mitigation and residual effect will be reported on within the ES.
- 6.11.5 There would be direct impacts to parts of the non-designated historic parkland at Hatch Park and Jordans, as well as on the historic landscape character of the central part of the proposed scheme, where there would be the loss of several anciently enclosed fields.
- 6.11.6 Three non-designated historic milestones would be removed. It may be possible to reduce the significance of effect through relocation as close to their original location as possible.

Preliminary operational assessment

6.11.7 Two potential significant operational effects have been identified, both resulting from changes to operational noise levels. Further assessment of this will be carried out for the ES once the noise modelling and assessment is refined.

Further work

- 6.11.8 Archaeological geophysical survey, trial trenching and building assessment are being undertaken to inform the ES.
- 6.11.9 Further assessments are also being carried out to support other topics which will inform this chapter, including habitats assessment which will add insight into discussion of important hedgerows and historic landscape, ground investigation which will provide better context on ground conditions and noise surveys which will provide clearer input into assessment of change from the baseline. Photomontages will also be produced for the landscape topic which will provide more insight into the assessment of impacts arising from changes to setting.

Abbreviations List

Please refer to PEI Report Chapter 17 Abbreviations.

Glossary

Please refer to PEI Report Chapter 18 Glossary.

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