



REVISED

Didcot Garden Town HIF 1 Scheme

Environmental Statement

Volume I

Chapter 7 – Cultural Heritage

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7. Cultural Heritage

7.1 Introduction

- 7.1.1 This Environmental Statement (ES) chapter has been produced to assess the cultural heritage impacts of the Didcot Garden Town Housing Infrastructure Fund (HIF 1) Scheme (hereafter referred to as the 'Scheme'). This chapter should be read in conjunction with Chapters 1 to 5 of this ES.
- 7.1.2 Using the methodology outlined in Section 7.4, likely significant cultural heritage effects (adverse and beneficial) have been identified and are described in Section 7.10. A summary of these likely significant effects is provided in Section 7.13 and must be read in conjunction with the whole chapter.

Competent expertise

- 7.1.3 This chapter of the ES has been prepared by competent experts with relevant and appropriate experience. The Technical Lead for this cultural heritage chapter has 40 years of relevant experience and has professional qualifications as summarised in Appendix 1.1.

7.2 Legislative and policy framework

- 7.2.1 The following sub-sections provide information on the legislation and policies that are of most relevance to the cultural heritage assessment, namely where these have informed the identification of receptors and resources and their sensitivity; the assessment methodology; the potential for significant environmental effects; and required mitigation.
- 7.2.2 The Cultural Heritage Desk Based Assessment (CHDBA) (refer to Appendix 7.2) provides further detail on legislation and policy relating to cultural heritage.

Legislation

The Ancient Monuments and Archaeological Areas Act 1979 (as amended) (Ref 7.1)

- 7.2.3 The Ancient Monuments and Archaeological Areas Act imposes a requirement for Scheduled Monument Consent for any works of demolition, repair, and alteration that might affect a designated Scheduled Monument (SM).

The Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref 7.2)

- 7.2.4 The Planning (Listed Buildings and Conservation Areas) Act 1990 (the Act) sets out the principal statutory provisions that must be considered in the determination of any application affecting listed buildings and conservation areas.
- 7.2.5 Section 66 of the Act states that in considering whether to grant planning permission for development which affects a listed building or its setting, the local planning authority or, as the case may be, the Secretary of State, shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. By virtue of Section 1(5) of the Act a listed building includes any object or structure within its curtilage.

- 7.2.6 Section 72 of the Act establishes a general duty on a local planning authority or the Secretary of State with respect to any buildings or other land in a Conservation Area to pay special attention to the desirability of preserving or enhancing the character or appearance of a Conservation Area.

National planning policy

National Planning Policy Framework (NPPF) (Ref 7.3)

- 7.2.7 The NPPF (Ministry of Housing, Communities and Local Government (MHCLG), 2021) (Ref 7.3) sets out the Government's planning policies for England and how these should be applied to contribute to the achievement of sustainable development. While the Environmental Impact Assessment (EIA) methodology forms part of a separate planning regime, the planning decision still takes account of national guidance. As such, it is important to understand where the development fits within this.

- 7.2.8 Section 16 of the NPPF deals specifically with the historic environment. Where changes are proposed, the NPPF sets out a clear framework to ensure that heritage assets are conserved, and where appropriate enhanced, in a manner that is consistent with their significance.

Planning Policy Guidance (PPG) (Ref 7.4)

- 7.2.9 The PPG (MHCLG 2019) (Ref 7.4) is an on-line government document that provides further advice and guidance to accompany policies in the NPPF. It expands on terms such as 'significance' and its importance in decision making. In particular, paragraph 008 states that:

"understanding the significance of a heritage asset and its setting from an early stage in the design process can help to inform the development of proposals which avoid or minimise harm. Analysis of relevant information can generate a clear understanding of the affected asset, the heritage interests represented in it, and their relative importance"

(Paragraph 008, Ref. ID: 18a-008-20190723, Revision date: 23 07 2019).

Local planning policy

Vale of White Horse District Council (VoWHDC)

- 7.2.10 Part 1 of the VoWHDC Local Plan (Vale of White Horse Local Plan, 2016) (Ref 7.5), adopted in December 2016, sets out the Council's core policy with regards to the historic environment.
- 7.2.11 Part 2 of the Local Plan 2031 (Detailed Policies and Additional Sites, 2019) (Ref 7.6) was adopted on the 9th October 2019. Development policies within the Local Plan relating to heritage include policy 36 (Heritage Assets), policy 37 (Conservation Areas), policy 38 (Listed Buildings), and policy 39 (Archaeology and Scheduled Monuments).

South Oxfordshire District Council (SODC)

- 7.2.12 Chapter 7 of the South Oxfordshire Local Plan 2035 (Ref 7.7), adopted on 10th December 2020, sets out policies that aim to conserve the natural and historic environment. Development policies within the Local Plan relating to heritage include policy ENV6: (Historic Environment), policy ENV7 (Listed Buildings), policy ENV 8

(Conservation Areas), policy ENV 9 (Archaeology and Scheduled Monuments), policy ENV10 (Historic Battlefields, Registered Parks and Gardens and Historic Landscapes).

The Burcot and Clifton Hampden Neighbourhood Plan 2011-2034 – Pre-Submission Draft (Nov 2020) (Ref 7.8)

- 7.2.13 Draft policies BCH6 ‘Design Principles in Clifton Hampden’ and BCH9 ‘Local Landscape Character’ are of relevance to this cultural heritage assessment.

7.3 Consultation with relevant stakeholders

- 7.3.1 Initial consultation with the Oxfordshire County Council (OCC) Archaeologist was conducted on the 15th November 2019. The OCC Archaeologist requested that the EIA use a study area of 1 km (buffer zone) for designated and non-designated cultural heritage resources.
- 7.3.2 A meeting took place on the 5th March 2020 with OCC Archaeologists, Historic England and OCC as the Scheme promoter. During this consultation a thorough overview and high-level programme review was provided followed by a discussion on locations of most concern in terms of likelihood of archaeological remains surviving and therefore likely impacts. Areas of less concern were also discussed. Historic England also noted concerns regarding the setting of heritage assets, particularly Nuneham Courtenay Grade I Registered Park and Garden.
- 7.3.3 Consultation with the OCC Archaeologist occurred throughout the EIA process, with regards to scope and method of desk-based assessment and archaeological evaluation.
- 7.3.4 An EIA Scoping Opinion Request was submitted by OCC (as the promoter) to OCC in its capacity as the Local Planning Authority (LPA) in April 2020, which sought the opinion of the LPA regarding the approach for the assessment of environmental effects resulting from the construction and operation of the Scheme. In accordance with the EIA Regulations, the LPA consulted statutory stakeholders and non-statutory stakeholders where they considered it applicable. The consultation responses detailed in Table 7.1 were received in relation to cultural heritage.

Table 7.1: Scoping Opinion and responses

Scoping Opinion	Where addressed within the ES
OCC Archaeology Officer	
A programme of archaeological investigation will need to be undertaken ahead of the determination of any planning application for the site. This will need to include a geophysical survey as well as a trenched evaluation. The results of this geophysical survey and evaluation should be incorporated into the Cultural Heritage chapter of the EIA.	Geophysical survey has been carried out to written schemes of investigation agreed with the OCC Archaeology Officer - results obtained have been incorporated into this chapter. The relevant report is presented in Appendix 7.3. Fieldwork for the trial trench evaluation has been completed and the report is pending. The trial trench evaluation report will be submitted early in the determination process. This approach has been agreed with the Archaeology Officer for OCC.
Historic England	
This development could, potentially, have an impact upon a number of designated and undesignated heritage assets and their settings. We will expect the ES to contain a thorough assessment of the likely	The assessment of effects to designated and non-designated heritage assets is presented in this chapter, supported by the

Scoping Opinion	Where addressed within the ES
effects which the proposed development might have upon those elements which contribute to the significance of these assets.	baseline technical appendices (Appendix 7.2); and Figures 2 and 3.
The ES should also identify impacts which the proposals might have upon heritage assets (and their settings) which are not designated, as these are also valued components of the historic environment. In some cases, they may also be of equivalent significance to, and be given equivalent weight to, designated assets, as set out in the NPPF (2019), footnote 63. For example, the area, being on the Thames Gravels, is rich in archaeological remains and has several known concentrations of early activity indicated by cropmarks. Further such sites may exist but have not yet been discovered.	The assessment of effects to designated and non-designated heritage assets is presented in this chapter, supported by the baseline technical appendix (Appendix 7.2); and Figures 2 and 3.
The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area.	These elements are considered as part of the assessment presented in this chapter.
<p>The likely effects which the proposed development might have upon both designated and undesignated historic assets and their settings and those elements which contribute to the significance of these assets should be assessed including:</p> <ul style="list-style-type: none"> • Scheduled monument: Settlement site north of the Thames, HA1006345 • Scheduled Monument: Round barrow cemetery at Fullamoor Plantation, HA1421606 • Scheduled Monument: Settlement site NE of Church, HA1004849 • Grade I Registered Nuneham Courtenay Park • All Listed Buildings • The Conservation Areas at Clifton Hampden and Culham <p>The assessment should also take account of the potential impact which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area.</p>	<p>These assets have been considered as part of the assessment.</p> <p>The baseline technical appendix (Appendix 7.2) sets out the rationale for selection. Two scheduled monuments HA1421606 (Appendix 7.2, 5.2.8-5.2.9) and HA1004849 (Appendix 7.2, 5.2.4-5.2.5) were scoped out of further assessment within this chapter. Likewise, the baseline technical appendix concluded that a number of listed buildings and conservation areas within the study area will not be significantly affected by the Scheme and these were thus scoped out of further assessment. This included Culham Conservation Area (see Table 5.8 in Appendix 7.2).</p> <p>The assessment of the impacts of the Scheme upon Nuneham Courtenay Grade I Registered Park and Garden is presented in Section 7.10.</p> <p>The assessment of the impacts of the Scheme upon Clifton Hampden Conservation Area is presented in Section 7.10.</p>
As the project includes new roads, any traffic impacts on surrounding heritage assets must be carefully assessed. This includes listed buildings and conservation areas in the historic village of Nuneham Courtenay, and in Milton, Appleford, Sutton Courtenay, Clifton Hampden, Culham, and Abingdon.	<p>These elements are considered as part of the assessment presented in this chapter and in the baseline appendix (Appendix 7.2).</p> <p>The settlements of Nuneham Courtenay and Abingdon were outside the formal study area for this assessment and for the study area for detailed transport modelling and assessment in ES Chapter 16: Transport and the Transport Assessment (TA) submitted with the planning application. No significant changes to traffic volumes are anticipated in those settlements and therefore this chapter found no potential for</p>

Scoping Opinion	Where addressed within the ES
	significant effects to the heritage assets contained within them. They are not considered further in this assessment.
The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits and can also lead to subsidence of buildings and monuments.	These elements are considered as part of the assessment presented in this chapter.
Techniques such as additional aerial photography, additional LIDAR survey, and fieldwalking, which are not mentioned in the scoping report, should also be considered.	Geophysical survey and trial trench evaluation has been agreed with the OCC Archaeology Officer. LIDAR data available from the Environment Agency and cropmark evidence provided by the Historic England Archive have been included within the assessment and are presented on Figure 20 of Appendix 7.2.
The EIA Scoping Report assesses value of identified designated heritage assets based on their listing grade. This is set out in Table 7.1. We advise this approach is problematic, for two reasons. Firstly, the values (receptor sensitivity) allocated should be reconsidered. For example, only World Heritage Sites have been listed as 'Very High', when the NPPF (para 194) is quite clear that assets of the 'highest value' include 'scheduled monuments, protected wreck sites, registered battlefields, Grade I and II* listed buildings, Grade I and II* registered parks and gardens'. Also, Grade II buildings may be of national rather than regional value, and some undesignated heritage assets may be of higher value than the medium level that they have been placed in.	<p>The assessed level of value (receptor sensitivity) of all known designated and non-designated assets is provided in Appendix 7.1.</p> <p>The assignment of value has been reviewed between the production of the Scoping Report and the production of the ES, resulting in Grade II listed buildings now being assigned to the High value category based on their national significance.</p> <p>The assignment of value is led by the methodology contained in DMRB (2019) which reserves the 'Very High' category for assets of international importance. In the context of heritage assets, this is interpreted as World Heritage Sites and assets of equivalent value. As such, the ES categorises Grade I and II* listed buildings and scheduled monuments as 'High' value, although in each their potential to hold international importance has been considered using professional judgement.</p>
A number of designated heritage assets, whose value in the Gazetteer has been identified as 'medium', should be reconsidered cumulatively and their value reassessed accordingly.	This has been undertaken as part of the assessment. For example, a number of non-designated buildings around Culham railway station [A262, A263 and A264] have been assigned to the 'medium' value category, rather than low, based on their group value with each other and with the Grade II* listed Culham Station and Ticket Office.
The exceptionally significant designed landscape and highly heritage sensitive site of the Grade-I registered Nuneham Courtenay Park, including the listed structures within its grounds, could be significantly affected by the proposals. In particular, the park, which overlies undulating hills, with a steep slope towards the west boundary, where the land drops down to the Thames, includes important long views	The assessment of the impacts of the Scheme upon Nuneham Courtenay Grade I Registered Park and Garden is presented in Section 7.10.

Scoping Opinion	Where addressed within the ES
towards Abingdon that should be preserved, together with its almost rural setting.	
The Design Manual for Roads and Bridges (DMRB) is now quite an old document and has limitations. We therefore advise the additional use of more up-to-date guidance including that published by Historic England. Paragraphs 189 and 190 of the NPPF also set out the overriding principle of appropriate assessment of significance and impact.	The DMRB methodology followed was updated in 2019. Notwithstanding this, the assessment has also been undertaken utilising NPPF, Historic England and other relevant standards and guidance (Section 7.4).
The cultural heritage section(s) of the ES should be consistent with, and cross-referenced to other sections, particularly the landscape and visual assessment, and sections on hydrology.	Appropriate cross references are provided within this chapter and the baseline technical appendix (Appendix 7.2). The assessment has been carried out in collaboration with other EIA disciplines. It should be noted, however, that where information from other disciplines is used to assess effects upon heritage assets, this is focused on the impacts to the significance of the heritage asset. As such the same assessed level of impact is not automatically repeated across different chapters. For example, an assessed significant effect in the noise chapter will not necessarily result in significant effects to a heritage asset that is not sensitive to changes in noise within its setting. Likewise, a non-significant effect reported in the landscape chapter may in fact result in a significant effect on an individual heritage asset. In this regard the cultural heritage chapter may not therefore be 'consistent' with other sections of the ES.
Cumulative impacts from these proposed schemes and other schemes should be assessed – the proposed mineral extraction allocation at Nuneham Courtenay is a case in point.	Cumulative impacts are assessed in ES Chapter 17.
SODC and VoWHDC – Cultural Heritage	
A4130 - Impact of increased traffic through Milton village could be a secondary impact of development that could have an impact upon significance	This has been considered as part of the ES and presented in Table 5.10 of the baseline technical appendix (Appendix 7.2).
River Crossing - It will be important to weigh up the relative harm arising from Option 1 versus Option 2. Based on a limited understanding of the significance of the heritage assets identified above, Option 2 may pose the least harm overall in heritage terms. It is unclear at this stage whether Appleford Bridge will be directly affected by the proposals and whether there will be any substantial impacts upon significance that will weigh in favour of Option 2.	Only Option 2 has been taken forward to assessment within the ES and has been subject to further changes following the iterative EIA process. These amendments are described in ES Chapter 3: Assessment of Alternatives. When the Scoping Request was submitted to OCC, the alignment for the Didcot to Culham River Crossing was not fixed and therefore, the Scoping Opinion Request focused on two possible alignments. Option 1, which was located closer to Appleford Village, was later discounted and has therefore not been assessed within this ES. Chapter 3: Assessment of Alternatives provides additional rationale for why this option was not taken forward.

Scoping Opinion	Where addressed within the ES
	There are no impacts assessed upon Appleford Bridge (see Table 5.10 of Appendix 7.2).
<p>Clifton Hampden Bypass - This element of the works shown are likely to pose a higher level of potential harm to heritage assets of high significance. It is essential that the significance of Grade II* listed Nuneham House is included in the EIA; the wider parkland which is identified forms an important part of its setting.</p> <p>Secondary impacts to significance such as those arising from lighting and noise will need to be assessed as well as the direct changes to the landscape. If an application is made it should be informed by a Heritage Appraisal and Impact Assessment proportionate to the significance of the building and the proposed works as per Paragraph 189 of the NPPF.</p>	<p>The Nuneham Courtenay Conservation Area and Grade I Registered Park and Garden is assessed in Section 7.10 with further information provided in Appendix 7.2. The listed buildings within the park, including the Grade II* listed Nuneham House, are considered as part of that assessment with particular attention paid to key views. This is considered to be a proportionate assessment of the heritage significance of the asset and the potential effects of the Scheme.</p> <p>Only the very edge of Nuneham Park falls within the detailed operational traffic noise study area and Nuneham House is outside the area considered for detailed noise modelling (ES Chapter 10: Noise). The noise assessment has, however, assessed the element of the park that fall within the detailed study area for noise assessment through taking a representative point at the point where the extent of the park is closest to the Scheme. It has also considered two assets within the park and within the 1 km heritage study area, Venison House and Keepers Cottage as representative of effects on the park, both of those assets are outside the detailed noise modelling study area, so only qualitative comment has been provided. The results of these assessments are discussed in Section 7.10.</p> <p>The asset's sensitivity to changes in lighting levels within its setting has been considered in the design of the Scheme. Sections of the Clifton Hampden Bypass will be lit, however lighting will be kept to a minimum to reduce environmental impacts (see ES Chapter 2: The Scheme).</p>

7.4 Assessment methodology

- 7.4.1 This cultural heritage assessment has been undertaken in accordance with the guidance as detailed in the sections below and overleaf.

Design Manual for Roads and Bridges (DMRB)

- 7.4.2 The following DMRB (Ref 7.9) standards have been applied in the assessment to identify the value and significance of archaeological remains, historic buildings and historic landscapes, and to identify and evaluate the impacts and effects that construction and operation of the Scheme will likely have on these assets:
- LA 104: Environmental assessment and monitoring (Ref 7.10);
 - LA 106: Cultural heritage assessment (Ref 7.11); and
 - LA 116: Cultural heritage assessment management plans (Ref 7.12) has been used in the assessment to guide the development of mitigation measures.

Chartered Institute for Archaeologists standards and guidance

- 7.4.3 The assessment has been undertaken by a competent expert in the discipline of cultural heritage in line with best practice standards and guidance published by the Chartered Institute for Archaeologists (CIfA):
- Code of Conduct (Ref 7.13) – which sets out standards of ethical and responsible behaviour in the conduct of archaeological affairs to which members of the institute are expected to adhere;
 - Standard and guidance for historic environment desk-based assessment (Ref 7.14) – which sets out the appropriate standards for undertaking desk-based cultural heritage assessments; and
 - Principles of Cultural Heritage Impact Assessment in the UK (Ref 7.15) – which provides guidance for cultural heritage practitioners on the principles of cultural heritage impact assessment.

Historic England Guidance

- 7.4.4 The following Historic England good practice advice notes and guidance have been used in the assessment to assist in establishing the significance of cultural heritage assets and their setting:
- Managing Significance in Decision-taking. Historic Environment Good Practice Advice in Planning: 2 (Ref 7.16) – which emphasises the importance of having knowledge and understanding of the significance of heritage assets likely to be affected by the development, and where relevant the contribution of their settings to their significance;
 - The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning: 3 (Ref 7.17) – which advises that elements of a setting can make positive or negative contributions to an asset's significance and the ways in which it is experienced. It acknowledges that settings can overlap due to not having defined boundaries, and that settings can change as an asset and/or its surroundings evolve over time; and
 - Statements of Heritage Significance: Analysing Significance in Heritage Assets. Historic England Advice Note 12 (Ref 7.18) – which explores the assessment of significance of heritage assets as part as a staged approach to decision making.

Establishment of the baseline

- 7.4.5 The cultural heritage baseline was developed through collation of existing data sources, consultation with statutory bodies and fieldwork surveys in line with the standard and guidance for historic environment desk-based assessment; and OCC Archaeological Desk-Based Assessment advisory document (Ref 7.19). The desk-based assessment was undertaken in compliance with a Written Scheme of Investigation (WSI) (Ref 7.20) prepared and agreed with OCC Archaeological Services (OCCAS) prior to the preparation of the desk-based assessment.
- 7.4.6 A geophysical survey and archaeological trial trench evaluation were carried out in compliance with WSIs prepared and agreed with OCCAS.
- 7.4.7 The baseline conditions described below summarise the detailed desk-based information and fieldwork surveys reported in the following appendices of the ES:
- Appendix 7.1 – Gazetteer of Cultural Heritage Assets;
 - Appendix 7.2 – Desk-based Assessment;

- Appendix 7.3 – Geophysical Survey; and
- Appendix 7.4 – Archaeological Evaluation Report.

Value of heritage assets

- 7.4.8 The value of a building, monument, area, site, place or landscape reflects its significance as a historic asset and therefore its sensitivity to change.
- 7.4.9 The requirement to assess the significance of heritage assets is also set out within ClfA guidance (Ref 7-14).
- 7.4.10 The NPPF (Ref 7-3) defines the significance (value) of heritage assets as: “*The value of a heritage asset to this and future generations because of its heritage interest. Significance derives not only from a heritage asset’s physical presence, but also from its setting*”. It also sets out criteria which should be considered when assessing the significance of cultural heritage assets, which include archaeological, architectural, artistic and historic values.
- 7.4.11 Certain types of heritage asset have a level of significance (value) that justify official designation, such as scheduled monuments and listed buildings; however, the absence of designation does not necessarily mean heritage assets are of lower value or significance.
- 7.4.12 Professional judgement has been used to identify the value and significance of assets guided by legislation (Ref 7.1 and Ref 7.2), national planning policy and guidance (Ref 7.3 and Ref 7.16), standards, official designations, and the assessment criteria contained in LA 104 (Ref 7.10) (reproduced in Table 7.2).

Table 7.2: Environmental value (sensitivity) and descriptions

Value (sensitivity) of receptor/ resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.

Magnitude of impact criteria

- 7.4.13 Impacts have been identified by reviewing the identified sites, features and areas (heritage assets) within the defined study areas (see Section 7.6) against the form and extent of the Scheme, in order to establish which assets will be affected by its construction and operation.
- 7.4.14 Impacts identified in the assessment relate to the predicted changes to key elements of an asset and/ or its setting. These can, for example, derive from temporary or permanent actions such as the physical destruction of buried archaeology during construction works, and the introduction of new highway infrastructure into the setting of a historic building.

7.4.15 The identification of impacts takes account the Scheme design, including embedded mitigation measures, as described in ES Chapter 2: The Scheme (and summarised in Section 7.9) and essential mitigation measures described in Section 7.9.

7.4.16 The magnitude of impact has been assessed using the criteria contained in DMRB LA 104 (Ref 7.10) (Table 7.3).

Table 7.3: Magnitude of impact and typical descriptions

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.
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.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

Significance of Effect

7.4.17 The identification of the likely significant effects on cultural heritage assets has relied on reasoned argument, the professional judgement of the competent experts, and consultation with stakeholders. It has also been informed by knowledge and experience gained from assessments of similar highway schemes.

7.4.18 The assignment of effects has involved combining the value of an asset with the predicted magnitude of impact, guided by the significance matrix set out in LA 104 (Ref 7.10) (Table 7.4).

Table 7.4: Significance of effect matrix

		Magnitude of impact (change)				
		No change	Negligible	Minor	Moderate	Major
Environmental value (sensitivity)	Very High	Neutral	Slight	Moderate or Large	Large or Very Large	Very Large
	High	Neutral	Slight	Slight or Moderate	Moderate or Large	Large or Very Large
	Medium	Neutral	Neutral or Slight	Slight	Moderate	Moderate or Large
	Low	Neutral	Neutral or Slight	Neutral or Slight	Slight	Slight or Moderate
	Negligible	Neutral	Neutral	Neutral or Slight	Neutral or Slight	Slight

Assessment of harm to designated heritage assets

- 7.4.19 The NPPF (Ref 7.3) sets out requirements to consider whether the impacts of a development on a designated heritage asset amounts to substantial harm to or total loss of, or less than substantial harm to its significance (value).
- 7.4.20 There is no direct correlation between the significance of effect reported in this chapter and the level of harm on the significance (value) of designated heritage assets resulting from the Scheme. Notwithstanding this:
- A very large or large (significant) effect on a heritage asset (including total loss of significance) will typically form the basis by which to determine that the level of harm to the significance (value) of a designated asset will be substantial. However, substantial harm is considered to be a high test (in other words extensive changes to significance) and a case-by-case assessment should be made;
 - A moderate (significant) effect is unlikely to meet the test of substantial harm and will therefore typically form the basis by which to determine that the level of harm to the significance (value) of a designated asset will be less than substantial;
 - A minor or negligible (not significant) effect will typically amount to less than substantial harm to the significance (value) of a designated asset; and
 - A neutral effect amounts to no harm on the significance (value) of a designated asset.
- 7.4.21 In all cases, the determination of the level of harm to the significance (value) of a designated heritage asset arising from construction or operation of the Scheme has been led by professional judgement.
- 7.4.22 The assessment of harm on designated heritage assets resulting from the Scheme in respect of the policy requirements of the NPPF (Ref 7.3) are detailed in Section 7.12.

Sources of Information/Data

- 7.4.23 The following sources of information have been reviewed and form the basis of the assessment of likely significant effects on cultural heritage:
- Oxfordshire County Historic Environment Record (HER);
 - National Heritage List for England held by Historic England;

- Designated assets such as Scheduled Monuments, Battlefields and Listed Buildings;
- Ordnance Survey maps (19th and 20th century) at 1:10000, 1:10560, 1:2500 and 1:1250 scales;
- Tithe maps (and apportionments), estate maps and any other relevant historical maps within the relevant County Record Office (parts of Oxfordshire were formerly part of Berkshire and may still be covered by the Berkshire Record Office), or readily available elsewhere;
- English Place Name Society volumes or similar authoritative works covering place names of the study area;
- Geological maps of the study area;
- Geotechnical reports where such evidence is not being separately assessed;
- Previous archaeological evaluation and excavation records relating to sites in and immediately adjacent to the study area;
- Other published works, reports and information relevant to the desk-based assessment;
- Aerial photographic collections by Historic England Swindon and such other collections as are held by OCC within the HER for the area of study (beyond the specific development area);
- An assessment of any Lidar data held by the Environment Agency for the study area (beyond the specific development area);
- The Oxfordshire Historic Landscape Characterisation data (provided as part of the HER consultation);
- National Mapping Programme Data, where available;
- Portable Antiquities Scheme (PAS) data, available from the PAS website; and
- Regional research frameworks.

7.4.24 The designated and non-designated heritage assets within this assessment are identified with a unique identifier (e.g. [A1]). Assets referred to that are outside the formal study area will be referenced using their National Heritage List for England (NHLE) numbers (e.g. [NHLE: 1354687]). All assets are identified within the text and can be cross-reference to the gazetteer in Appendix 7.1 (where their HER or NHLE number, type, and short description are also listed). Cultural heritage assets are shown on Figures 2 and 3 in Appendix 7.2.

7.4.25 A site visit and setting assessment was undertaken on the 19th March 2020.

7.5 Assessment assumptions and limitations

Scheme design

7.5.1 The assessment has been based on the Scheme description presented in ES Chapter 2: The Scheme.

Baseline data and non-intrusive surveys

7.5.2 The assessment has been undertaken with reference to the baseline data, information and records pertaining to the historic environment derived from desk-based sources. These were subsequently validated and enhanced through field surveys where land access was obtained from landowners.

- 7.5.3 In areas where land access was unavailable as part of the walkover survey, site-based observations were made from public rights of way and other accessible areas.
- 7.5.4 Geophysical survey was carried out in areas not previously subject to archaeological investigation or disturbance that precludes the presence of archaeological remains. The results of the trial trench evaluation work are pending. It has been agreed with OCCAS on 2nd July 2021, that the archaeological evaluation report will be submitted as soon as possible. In the absence of the information from the archaeological trenching, for the purposes of this assessment a worst case scenario has been assumed that the Site has a high potential for as yet unknown archaeological remains to be present in areas not affected by modern activity (Figure 7.21 in Appendix 7.2).
- 7.5.5 Trial trench evaluation has been completed and reported upon. The report on the trial trench evaluation is provided at Appendix 7.4.
- 7.5.6 The baseline data and records obtained are considered to be representative of the conditions that will exist at the point of commencing Scheme construction and the year of operation, as described in Section 7.7.
- 7.5.7 Where the assessment references a Zone of Theoretical Visibility (ZTV), the assessment is based on the ZTV defined in ES Chapter 8: Landscape and Visual, Figure 8.3 which includes details of the parameters used to define the ZTV.
- 7.5.8 All work was carried out during varying COVID 19 restrictions and full access to all sources were not available during the research for the baseline.

Construction Traffic Volumes and Routeing

- 7.5.9 During the Scheme construction phase, additional traffic will be directly generated by the construction works. The Early Contractor Involvement (ECI) appointed to provide reasonable assumptions on the likely works has provided an estimate of the numbers of HDVs and cars/ vans accessing the works at various points along the Scheme, on a monthly basis over the duration of the Scheme construction works. The distribution of the construction traffic across the surrounding road network has then been determined in the traffic assessment, focusing on 41 key links used in the transport assessment (ES Chapter 16: Transport, Figure 16.3) - these links have been also used to inform the noise assessment (ES Chapter 10: Noise and Vibration). The assessment of impacts of construction traffic on cultural heritage assets is based on this reasonable assumption and the results of the traffic and noise assessments as reported in this ES.

7.6 Study area

- 7.6.1 DMRB defines a study area “according to the sensitivity of the receiving environment and the potential impacts of the project”. The guidance continues:

“Where a new road is proposed the study area shall include the footprint of the scheme plus any land outside that footprint which includes any heritage assets which could be physically affected.

The study area should include the settings of any designated or other cultural heritage resource in the footprint of the scheme or within the zone of visual influence or potentially affected by noise.

The study area used in the assessment shall be agreed with the Overseeing Organisation”

(DMRB, LA 106, 3.5 – 3.7).

- 7.6.2 Following consultation with OCCAS, the study area is confirmed as comprising the footprint of the Scheme and extends to 1km surrounding the Scheme for designated and non-designated cultural heritage resources in order to assess the potential effects of the Scheme on the assets and their setting. The assessment of assets where there may be changes to their setting as a result of Scheme beyond the 1km area has been considered. For this reason, the baseline technical appendix (Appendix 7.2) provides a baseline assessment and description of the full extent of Sutton Courtenay Conservation Area, and the full extent of the Nuneham Courtenay Grade I Registered Park and Garden and Conservation Area. In response to Historic England's Scoping Opinion, consideration has also been given to historic settlements outside the formal study area in relation to potential impacts caused through changes in traffic levels, for example at Abingdon and Nuneham Courtenay village. This flexible approach to defining the study area for assessment allows for the proportionate assessment of effects due to the Scheme.

7.7 Baseline conditions

Site description

- 7.7.1 The Scheme crosses a wide and varied landscape that encompasses agricultural fields, former industrial lands, quarries, landfill, the River Thames and its floodplain. The Site is located around the outskirts of several towns and villages, including Milton, Didcot, Appleford, Culham and Clifton Hampden. The following paragraphs describe the baseline within the defined study areas.

Overview of the historic environment

- 7.7.2 A total of 314 heritage assets were identified on the Oxfordshire HER, in the NHLE, and by the project team during preparation of this assessment. In addition, a total of 10 previous archaeological investigations have also been identified.
- 7.7.3 These assets are illustrated on Figure 2, 3 and 4 in Appendix 7.2 and comprise designated heritage assets, non-designated heritage assets, find spots and the sites of buildings which are not extant, dating from the Palaeolithic to the 20th century.
- 7.7.4 The assets have been collated and tabulated in Appendix 7.1. Where reference is made to individual assets within the chapter, a reference number in brackets has been added after the asset name which represents the reference number contained in Appendix 7.1 and attributed in the Desk-based Assessment Appendix 7.2 and on Figures 2 and 3.
- 7.7.5 For details of all cultural heritage assets the reader is referred to the Gazetteer of Cultural Heritage assets and Desk-based Assessment (Appendix 7.1 and Appendix 7.2 respectively). The cultural heritage assets described in this chapter are those with the potential to be impacted by the Scheme.

Designated assets

- 7.7.6 There are no designated assets within the Site. Impacts to designated assets are therefore assessed only in terms of impacts caused through change to their settings and how this affects their significance.
- 7.7.7 There are five Scheduled Monuments (SMs), one Registered Park and Garden, six conservation areas and 92 listed buildings within the study area.

- 7.7.8 There are no World Heritage Sites, Registered Battlefields or Protected Wrecks in the study area.

Scheduled Monuments

- 7.7.9 There is the potential for change to the setting of Scheduled Monument settlement site SM1006345 [A117] which contains around twelve overlapping rectangular enclosures and ditches with scattered pits, due to its proximity to the Scheme.

Registered Park and Garden

- 7.7.10 Part of one Registered Park and Garden lies within the study area; namely the Grade I Registered Nuneham Courtenay [A207]. It comprises an 18th century landscaped park and pleasure ground associated with the Grade II* listed Nuneham House and including Nuneham Courtenay Arboretum.

Conservation Areas

- 7.7.11 There are six conservation areas in the study area: at Milton, Sutton Courtenay, Culham, Didcot (Old) Town, Clifton Hampden and Nuneham Courtenay. These conservation areas represent several of the main settlement foci in the study area and each contain several listed buildings.

Listed Buildings

- 7.7.12 There are 92 listed buildings, including one listed at Grade I and six listed at Grade II* in the study area. Listed Buildings are generally clustered in the settlement foci, such as at Milton, Sutton Courtenay, Appleford, Culham, Didcot and Clifton Hampden, and within parkland at Nuneham Courtenay. Apart from Appleford, these areas are all designated as conservation areas, and Nuneham Courtenay has an additional designation as a Registered Park and Garden which covers a larger area than the conservation area. There are a small number of assets located outside these areas, generally these are associated with the Great Western Railway, such as the Grade II listed Railway Transfer Shed and Engine Shed [A65 and A66], south of Didcot railway station, and the Grade II* listed Culham Station, Ticket Office and Waiting Room [A209] and its associated Grade II listed Overbridge and Thame Lane Bridge [A160; A212], located east of Culham. Further isolated buildings include the Grade II listed Fullamoor Farmhouse [A161] and the Grade II listed Schola Europea [A155] and the former Diocesan training college north-east of Culham.
- 7.7.13 Apart from the Grade II* listed Culham Station, Ticket Office and Waiting Room [A209], the Grade I and II* listed buildings are located in the settlements of Milton, Didcot and Clifton Hampden. Milton contains the Grade I listed Milton Manor Cottage and Milton Manor House [A3], and the Grade II* listed Church of St Blaise [A4] and 42a and 42b High Street [A8]. Didcot contains the Grade II* listed Church of All Saints [A235]. Clifton Hampden contains the Grade II* listed Clifton Hampden Bridge [A178] and Church of St Michael and All Angels, High Street [A185].

Non-designated assets

- 7.7.14 Non-designated archaeological assets that will be impacted by the Scheme are detailed in Table 7.5.

Table 7.5: Non-designated archaeological assets within the Site

Asset No.	HER reference	Name/ Description	Type	Period	Significance (Heritage Value)
A54	PRN28911	Prehistoric activity and Iron Age/ Roman and Saxon settlements. 292 trench evaluation identified activity from Palaeolithic to post-medieval periods, including: 3 Iron Age and Roman settlement foci; probably early medieval sunken feature building; and medieval and/ or post-medieval/modern ridge and furrow cultivation, field drains and ditches	Ditch, double-ditched enclosure, field system, pit, posthole, ring ditch, grubenhaus, ridge and furrow	Iron Age, Roman, early medieval, medieval, post-medieval, modern	Medium
A60	PRN27496	Middle Iron Age and Roman settlement at Great Western Park. Middle Iron Age settlement covers an area c.10 hectare and includes roundhouses, enclosures, c.600 pits and large driveway. The majority of this asset has been removed through recent development.	Pit, Post built structure, roundhouse, settlement, trackway	Iron Age, Roman (400BC to 409AD)	Low
A36	PRN2838	Undated farmstead complex (probable Later Prehistoric to Roman date). Possible cropmark evidence of a farmstead complex of features, although there are indications that they are geological in origin.	Ditch, pit, rectangular enclosure, trackway	Unknown date (?later Prehistoric to Roman)	Medium
A142	PRN15315	Possible undated enclosure	Cropmark of possible undated enclosure	Unknown	Medium
A163	PRN5641	Undated enclosures and pits. Cropmark evidence of enclosures and pits, indicating possible settlement.	Enclosure, pit	Unknown date	Medium

7.7.15 An analysis of historic maps pertaining to the Site and study area, combined with the site walkover and setting assessment, identified one non-designated building within the Site and 13 non-designated buildings within the study area that are of historic interest. In contrast to the designated listed buildings, the non-designated buildings identified are generally isolated buildings beyond the area's settlement foci. Several isolated farms are recorded, and this is an asset type that does not feature as strongly in the area's designated assets. Only the non-designated building within the Site is considered further due to the inherent low sensitivity (heritage value) of this type of asset, resulting in only very limited potential for significant effects to arise to them.

- 7.7.16 The non-designated building within the Site is Hill Farm [A253] located to the south of Appleford. The farm is not mapped on the Appleford Tithe map of 1839, but a farm labelled as Hill Farm appears on the first edition 6" OS map dated 1883. The present buildings, however, relate to the farmstead as shown on the OS map of 1900 which captured the farm after redevelopment. The OS map of 1900 shows a loose courtyard farm with the farmhouse located across the lane to the west of the farmstead. The buildings that survive of this farmstead are two parallel linear ranges arranged east-west, with a short north-south aligned range between. The farmhouse and other parts of the farmstead have been demolished.

Trial Trench Evaluation

- 7.7.17 In addition to the known assets identified in table 7.5 the trial trench evaluation recorded areas of archaeological activity described below. In some cases these relate to assets already presented in table 7.5. The results are described by Wessex Archaeology plot number. The Wessex Archaeology plot numbers are illustrated on figures 7.1 and 7.2. Figure 7.1 illustrates the trial trench results in relation to cropmark evidence and the results of geophysical surveys. Figure 7.2 illustrates the trial trench results in relation to known heritage assets. The Wessex Archaeology report on the trial trenching is provided at Appendix 7.4.

Plot BK90497: Trenches 1-2 (Figure 7.1 and 7.2 sheet 1)

- 7.7.18 No archaeological features or deposits were observed within Plot BK90497, nor were any finds recovered from the topsoil. Modern land drains were uncovered in both trenches.

Plot ON31674: Trenches 36-45 (Figure 7.1 and 7.2 sheet 2)

- 7.7.19 Seven of the ten trenches excavated within plot ON31674 contained archaeological features or deposits, indicating archaeological remains present across the area (Trenches 36 - 39, 41, 42 and 44). The features comprised 1 prehistoric ditch, one possible ditch, a single posthole, and eight linear features that may represent agricultural activity, such as ridge and furrow cultivation and its ordering. The latter are of uncertain date. The prehistoric ditch contained 28 sherds of prehistoric pottery and a single worked flint. The post-hole contained a dumped deposit with animal bone at its base.

- 7.7.20 Despite the Romano-British activity evident in the vicinity (A36), most of the features identified during the DSB package evaluation appear likely to relate to the Bronze Age or Medieval to Post-Medieval periods. The activity revealed by trial trenching in plot ON31674 is therefore considered to be in addition to those assets identified in table 7.5. It is assigned a medium sensitivity (heritage value).

Plots ON198020.1, ON198020.2, ON198020.3, ON198020.4: Trenches 46-62 (Figure 7.1 and 7.2 sheet 2)

- 7.7.21 Thirty-four of the thirty-eight trenches excavated contained archaeological features or deposits, indicating archaeological remains present across the area, particular concentrations of archaeology were found within Trenches 48 – 62. The features comprise ditches, gullies, furrows and pits likely representing several periods of activity, although some features remain of uncertain date. Many of the features can be correlated with the Historic England Cropmark Data. A small sherd of probable Iron Age pottery was recovered from a ditch fill in trench 49, and small amounts of residual probable Iron Age pottery were found in a pit with trench 48. This residual material and the probably Iron Age ditch indicate late prehistoric antecedence for the Romano British activity found within this area in trenches 48, 49, 50 and 51.

7.7.22 Undated linear features aligned north-south and east-west were predominantly found within the northern area of these plots and in plots ON198020.1, ON198020.2. Some of which were interpreted as forming part of a Romano-British field system. Probable ridge and furrow was also encountered within these plots.

7.7.23 The dating, interpretation and spatial relationship of the features within plots ON198020.1, ON198020.2, ON198020.3, ON198020.4 confirm the presence of archaeological features shown as cropmarks and assigned asset number A36. They extend this activity spatially to the east of the area known from cropmarks and indicate that some evidence for an earlier phase of Iron Age activity is present in relation to the asset A36.

7.7.24 The archaeological evidence revealed by the evaluation in plots ON198020.1, ON198020.2, ON198020.3, ON198020.4 is therefore considered to be assessed by incorporation within asset A36. It confirms the assessed sensitivity (heritage value) of the asset as medium.

Plot ON237285: Trenches 63-83 (Figure 7.1 and 7.2 sheet 3)

7.7.25 A single sherd of prehistoric pottery was recovered from a north-south aligned linear feature in Trench 68. A further two small, abraded sherds of prehistoric pottery were recovered from east-west orientated ditch in Trench 81. Romano-British pottery was recovered from a ditch in Trench 64. The remaining features were of uncertain date, including ditches and gullies; and evidence in trench 63 for a trackway indicated in cropmark data relating to asset 101. Some of which may be related to Romano-British activity.

7.7.26 The archaeological evidence revealed by the evaluation in plot ON237285 has confirmed the presence of archaeology relating to cropmarks represented by asset 101 and demonstrate it continues north from the current mapped extent of the cropmarks. The assessed sensitivity (heritage value) of this archaeology is medium and is in addition to that listed in table 7.5.

Plot ON288848: Trenches 84-112 (Figure 7.1 and 7.2 sheet 3 and sheet 4)

7.7.27 A single pit was excavated in Trench 110 containing late prehistoric (possibly Neolithic) flint tools and worked flint and animal bone. Trenches 91, 94, 95, 96, 97, 98, 99, 103 and 107 contained linear features all of which produced no archaeological material.

7.7.28 The activity revealed by trial trenching in plot ON288848 is therefore considered to be in addition to those assets identified in table 7.5. It is assigned a low sensitivity (heritage value) as only a single dated feature was identified with the remainder being relatively limited and undated.

Plot ON192891: Trenches 113-129 (Figure 7.1 and 7.2 sheet 4)

7.7.29 Trenches 114, 123, 125 and 129 revealed three ditches and a posthole within this plot. No dating evidence was recovered from any of these features.

7.7.30 The archaeology revealed by trial trenching in plot ON192891 is therefore considered to be in addition to those assets identified in table 7.5. It is assigned a low sensitivity (heritage value) as it is relatively sparse, undated and not clearly related to any known assets.

Plot ON335593: Trenches 130-138 (Figure 7.1 and 7.2 sheet 4)

7.7.31 No archaeological features were found within this plot.

Plot ON288906: Trenches 139-146 (Figure 7.1 and 7.2 sheet 4)

7.7.32 Romano-British pottery was recovered from parallel north-south orientated ditches in Trench 145. These ditches measured 1.62 m and 1.14 m wide and 0.55 m and 0.43 m deep respectively and are approximately 5 m apart possibly suggesting they represent trackside ditches. Trenches 141, 144 and 145 contained undated linear features.

7.7.33 The archaeology revealed by trial trenching in plot ON288906 is therefore considered to be in addition to those assets identified in table 7.5. It is assigned a low sensitivity (heritage value) as it is relatively sparse, representing a possible Roman trackway and undated linear features. It may be peripheral activity relating to asset 151.

Plot ON196259: Trenches 148-155 (Figure 7.1 and 7.2 sheet 5)

7.7.34 No archaeological features were found within this plot.

Plot ON216210: Trenches 147, 156-164, 166, 167, 177-179, 181 (Figure 7.1 and 7.2 sheet 5)

7.7.35 A single sherd of prehistoric pottery was recovered from north-south orientated ditch 16306 (Trench 163; Plate 14, 74). Trench 166 (Figure 76) contained a high concentration of linear features, which possibly corresponds broadly with the cropmark data (Figure 15). three (16607, 16616 and 16618); (Plate 15) of the five east-west aligned ditches within Trench 166 contained Late Iron Age to Romano-British pottery, the remaining two (16604 and 16613) did not contain any dateable material. However, these undated ditches were cut by the ditches containing Late Iron Age/Romano-British pottery, suggesting they are older.

7.7.36 The archaeological evidence revealed by the evaluation in plots ON216210 is considered to be assessed by incorporation within asset A163. It confirms the assessed sensitivity (heritage value) of the asset as medium.

Plot ON182569: Trenches 174-176, 183-193, 272-274 (Figure 7.1 and 7.2 sheet 5)

7.7.37 Very few archaeological features were found within this plot, those found were mostly concentrated in the south-west portion of the plot and likely relate to asset 163. It is possible that modern disturbance has truncated and destroyed any archaeological remains in the north-east of the plot.

7.7.38 Trench 189 contained a single small pit containing a small group of prehistoric pottery sherds. A single ditch was uncovered within Trench 193 from the surface of which Romano-British pottery was retrieved. A single undated pit was found in Trench 187. A single undated ditch in trench 183 could be a continuation of that found in Trench 177 (plot ON216210).

7.7.39 Made ground deposits were found across the plot, along with associated modern debris such as pits, foundations, tarmac surfaces and modern water or sewage pipes. These most likely derive from Royal Naval Air Station, HMS Hornbill.

7.7.40 The archaeological evidence revealed by the evaluation in plots ON182569 is considered to be assessed by incorporation within asset A163. It confirms the assessed sensitivity (heritage value) of the asset as medium.

Plot ON191344: Trench 198 (Figure 7.1 and 7.2 sheet 5)

- 7.7.41 No archaeological features were revealed within Trench 198. Made ground deposits of concrete, limestone and brick rubble, which most likely derive from the Royal Naval Air Station, were revealed beneath the topsoil.

Plot ON72722: Trenches 201, 202, 204 (Figure 7.1 and 7.2 sheet 5)

- 7.7.42 No archaeological features were found within this plot. Made ground deposits found within Trench 201 most likely derive from Royal Naval Air Station, HMS Hornbill.

Plot ON225257: Trenches 205, 212-214, 224-242 (Figure 7.1 and 7.2 sheet 6)

- 7.7.43 A single ditch was found in Trench 226 contained probable Late Bronze Age pottery along with a piece of flint debitage. It is considered to be in addition to those assets identified in table 7.5. It is assigned a low sensitivity (heritage value) being a single feature being unrelated to any known assets.

Plot ON182468.1: Trenches 207-211, 215-223, 243-257 (Figure 7.1 and 7.2 sheet 6)

- 7.7.44 The small amount of archaeology found within ON182468.1 was concentrated in the southern half of the plot. Undated archaeological features were found within Trench 207. It is considered to be in addition to those assets identified in table 7.5. It is assigned a low sensitivity (heritage value) being undated, limited to a single trench and unrelated to any known assets.

Plot ON182568.2: Trenches 255, 262, 269-271 (Figure 7.1 and 7.2 sheet 6)

- 7.7.45 No archaeological features were uncovered within this plot.

Plot ON182568.3: Trenches 258-261, 263-268 (Figure 7.1 and 7.2 sheet 6)

- 7.7.46 No archaeological features were uncovered within this plot.

Historic Landscape

- 7.7.47 The Scheme crosses two Oxfordshire districts: the VoWHDC and SODC, which are predominantly rural, characterised by Enclosures, Woodland, and Rural Settlement. Within SODC enclosures are the most common broad type, at 71%, of which reorganised enclosures and prairie/ amalgamated enclosures are the most frequent (276). Within the district, industrial sites cluster around the towns and the River Thames. Within the VoWHDC enclosures are also the most common broad type, at 75%, of which reorganised enclosures cover more than a third of the District (280).
- 7.7.48 To the south of the River Thames, the Scheme crosses the following broad types: 'Enclosure', 'Civic Amenities', 'Industry' and 'Rural Settlement'. Within these, the following historic landscape character (HLC) types, the following are represented:
- Rural Settlement - Rural Farmstead (1811-1881);
 - Enclosure - Re-organised Enclosure (1921 – 1999);
 - Enclosure - Planned Enclosure (1811 – 1881);
 - Civic Amenities – Utilities;
 - Civic amenities – Waste Disposal;
 - Industry – Flooded Extractive Pits; and

- Industry – Extractive Works.
- 7.7.49 Of these, the enclosures and rural settlement are located south of the A4130 and in a small land parcel north of Didcot. These are primarily reorganised enclosures created through the construction of the A4130, but also includes Rural Farmstead (HOX4964), which relates to the farmhouse and surrounding gardens of New Farm.
- 7.7.50 Elsewhere south of the River Thames, ‘Civic Amenities’ and ‘Industry’ dominate and are characterised by the former power station and landscapes created by gravel quarrying, which has resulted in areas of landfill and flooded extractive pits. These features now extend as far as the southern bank of the River Thames.
- 7.7.51 To the north of the River Thames, the Scheme crosses the following broad types: Enclosure, Industry, Woodland and Civic Amenities. Within these, the following HLC types, the following are represented:
- Enclosure - Re-organised Enclosure (1921 – 1999);
 - Enclosure - Re-organised Enclosure (1798 - 1810);
 - Enclosure - Planned Enclosure (1811 – 1881);
 - Industry – Industrial Estate (1960 – 1999);
 - Industry – Industrial Estate (1921-1999);
 - Woodland – Secondary (1921 – 1999);
 - Woodland – Secondary (1700 – 1797); and
 - Civic Amenities – Sewerage Treatment (1921 – 1999).
- 7.7.52 Of these, reorganised enclosures (1921-1999) and industrial estate dominate. At the northern end of the Scheme, the Site borders secondary woodland (1700 – 1797) (HOX 1085).

Construction Year Baseline (2023) and Opening Year Baseline (2024/25)

- 7.7.53 As detailed in ES Chapter 4: Assessment Methodology, a review has been undertaken to determine whether the existing baseline conditions might change between the time of undertaking the assessment and the future years in which the Scheme is planned to be constructed and become operational, as a result of future planned development.
- 7.7.54 Consideration was given to the following development-related changes that could potentially alter the historic environment in the future:
- The partial or total loss of known or potential buried archaeological resources within the Site or known above-ground assets within the study area as a consequence of land being disturbed or developed; and
 - Changes to the sensitivity (value) and significance of assets within the study area through the introduction of new development in their setting.
- 7.7.55 The review evaluated the planned development projects summarised in ES Chapter 17: Cumulative Effects and involved:
- The identification of any permitted (i.e. consented) projects within the assessment study area that have yet to be implemented;
 - Analysis of the likely environmental effects and planned timescales for each identified project; and

- An assessment of the potential for each identified project to change the existing baseline conditions in the Construction Year (2023) and Opening Year (2024/25), in the manner described above.

7.7.56 Although a small number of the development projects are expected to form part of, and influence, the future baseline conditions of the study area, the review concluded that there will be no material change to the form, character and appearance of the historic environment in year 2023 or the Scheme opening year 2024/25.

7.8 Potential impacts

7.8.1 The scoping exercise identified that the introduction and/ or modification of road infrastructure associated with the Scheme will potentially result in different types and durations of impact on cultural heritage, during both the construction and operational phases.

Construction

7.8.2 Temporary construction impacts lasting for all or part of the Scheme construction phase potentially include the following:

- The presence and movement of construction plant and equipment, which may impact on the significance of heritage assets caused by changes to their setting;
- The siting of construction compounds and activities within working areas, including associated construction noise and lighting, which may impact on the significance of heritage assets caused by changes to their setting; and
- The use of traffic management and increased volumes of traffic travelling on the local road network, which may impact on the significance of heritage assets caused by changes to their setting.

7.8.3 Permanent construction impacts lasting beyond the Scheme construction phase potentially include the following:

- Physical impacts on known heritage assets arising from construction activities such as earthworks excavation, the formation of construction compounds and the installation of drainage infrastructure;
- Physical impacts from essential mitigation such as landscaping and tree planting for screening;
- Physical impacts on landscapes of historical, cultural or archaeological significance as a consequence of construction, such as the loss of important elements of the landscape as a result of site clearance;
- Impacts caused by the presence of the Scheme within the settings of heritage assets;
- The disturbance, compaction or removal of previously unrecorded sub-surface archaeological deposits through construction activities; and
- Impacts on archaeological remains, historic buildings and the historic landscape associated with the introduction of the physical form and appearance of the Scheme in their setting.

Operation

7.8.4 Operational impacts of the Scheme potentially include the following:

- Changes to traffic movements (and associated vehicle lighting), which could affect the significance of heritage assets caused by changes to their setting;
- Changes in road noise from vehicle movements, which may affect the setting of heritage assets; and
- The operation of road lighting introduced as part of the Scheme, which may affect the setting of heritage assets.

7.9 Design, mitigation and enhancement measures

Embedded mitigation

- 7.9.1 Through the design-development process, the Scheme has been designed, as far as possible, to avoid effects on cultural heritage through option identification, appraisal, selection and refinement, as described in ES Chapter 3: Assessment of Alternatives.

Essential mitigation

- 7.9.2 Measures have been identified which will be implemented by the Principal Contractor (PC) to reduce the impacts and effects that construction of the Scheme has the potential to have on cultural heritage.
- 7.9.3 In relation to buried archaeological remains, the scope of mitigation required to record and evaluate known archaeological assets or preserve in situ of archaeological deposits of high significance where possible during construction will be informed by the results of the desk-based research the geophysical survey, and trial trench evaluation.
- 7.9.4 The Outline Environmental Management Plan (OEMP) contains the recommendation for an Archaeological Management Strategy (AMS) that details the mitigation measures that will be undertaken prior to, and during construction of the Scheme. The measures detailed in the AMS will set out the required mitigation in a design brief following the submission of detailed drawings and the acceptance of the archaeological evaluation report with OCCAS and could include:
- Preservation of archaeological remains in situ;
 - Protection of archaeological remains using fencing;
 - Trial trench evaluation;
 - A programme of archaeological investigation, recording and publication; and
 - A programme of public archaeology and community engagement.
- 7.9.5 Construction of the Scheme will be subject to measures and procedures defined within the Construction Environmental Management Plan (CEMP), which will be produced prior to the commencement of construction by the PC and will be based on, and incorporate, the content and requirements of the OEMP and include the AMS.
- 7.9.6 The landscape design for the Scheme includes mitigation in the form of planting and placemaking throughout the Scheme extents aimed at reducing the visual impact of the Scheme in sensitive locations and creating enhanced access and a sense of place, where appropriate. Of relevance to this chapter is the proposed landscape strategy to the north of Clifton Hampden conservation area which aims to reduce the Scheme's impact on landscape amenity and the setting of the conservation area and the heritage assets it contains.

Enhancement measures

- 7.9.7 No opportunities for enhancement measures relating to cultural heritage were presented during the design of the Scheme.

7.10 Assessment of likely significant effects

- 7.10.1 In accordance with LA 104, assessment of impacts and effects (and their significance) on cultural heritage associated with construction and operation of the Scheme has taken account of the effectiveness of both the embedded and essential mitigation measures summarised in Section 7.9.
- 7.10.2 The assessment reports the temporary and permanent impacts and effects on those heritage assets that have the potential to be directly or indirectly affected by the Scheme by virtue of their proximity to the works, or through a shared relationship or setting.

Construction

- 7.10.3 The Scheme will physically impact five non-designated archaeological sites [assets A54, A60, A36, A142 and A163] (see Appendix 7.2) and a further seven archaeological sites [plots ON31674, ON237285, ON288848, ON192891, ON288906, ON225257 and ON182468.1] identified by trial trenching (see Appendix 7.4 and Figures 7.1 and 7.2) within the Site through the removal of archaeological remains during Scheme construction.
- 7.10.4 Asset A54 (Figure 4, Sheet 2) is a large archaeological site encompassing prehistoric activity, Iron Age/ Roman and Saxon settlement identified through trial trench evaluation as part of the Valley Park Project, including: 3 Iron Age and Roman settlement foci; a probable early medieval sunken feature building indicating Anglo-Saxon settlement activity; and medieval and/ or post-medieval/ modern ridge and furrow cultivation, field drains and ditches. The archaeological evidence present within the asset as a whole is considered to be of medium value. The Scheme will remove the northern end of the asset where trial trench evaluation has revealed limited archaeological remains comprising undated linear features and occasional ditches and pits dated to the various periods. No evidence of settlement was identified in the area that will be impacted by the Scheme. As such the Scheme will remove archaeological evidence that forms a minor part of asset A54 and will not substantially affect the archaeological value of the asset. The Scheme is therefore considered to have a minor impact on asset A54. The value of the asset is medium, the magnitude of impact is minor and the significance of effect on Asset 54 will therefore be slight adverse and permanent, and not significant. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.
- 7.10.5 Asset A60 (Figure 4, Sheet 3) represents middle Iron Age and Roman settlement evidence at Great Western Park. The Middle Iron Age settlement covers an area c.10 hectare and includes roundhouses, enclosures, c.600 pits and large driveway. Asset A60 partially overlaps that of asset A54 assessed above and the area of A60 affected by the Scheme lies entirely within this overlap. Furthermore, the majority of A60 has been removed through past development. The archaeological evidence that remains attributed to asset A60 is considered to be of low value, the magnitude of effect is considered to be major as all of the remainder of A60 will be removed by the Scheme. The resultant significance of effect on asset A60 will therefore be slight adverse. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

- 7.10.6 Asset A36 (Figure 2, Sheet 3) comprises a possible undated farmstead complex (probable Later Prehistoric to Roman date) indicated by cropmark evidence, although there are indications that they are geological in origin. Trial trench evaluation in plots ON198020.1, ON198020.2, ON198020.3, ON198020.4 (Figure 7.1 and 7.2 sheet 2) has confirmed the cropmarks are archaeological in origin, and extend to the east of the currently mapped area. They are assigned a sensitivity (heritage value) of medium. The Scheme will impact on the southern end of this cropmark complex and likely related evidence to the east resulting in the partial removal of the archaeological evidence represented by A36. This is assessed as a minor magnitude of impact. The resultant significance of effect will be slight adverse and permanent effect, and not significant. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.
- 7.10.7 Asset A142 (Figure 4, Sheet 4) is a cropmark representing a possible undated enclosure of medium sensitivity (heritage value). The Scheme will impact the very southern end of this asset resulting in the partial removal of the archaeological evidence represented by A142. This is assessed as a minor magnitude of impact. The resultant significance of effect will be slight adverse and permanent effect, and not significant. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.
- 7.10.8 Asset A163 (Figure 4, Sheet 7) comprises cropmark evidence of enclosures and pits, indicating possible settlement. Trial trench evaluation in plots ON216210 and ON182569 (Figure 7.1 and 7.2 sheet 5) has confirmed these cropmarks as archaeological in origin with dating evidence from the Iron Age and Roman periods. Stratigraphic relationships indicate some undated features may be earlier. The trenching also confirmed activity relating to asset 163 extends slightly to the northeast of the mapped cropmarks. The asset has been assigned a sensitivity (heritage value) of medium. The Scheme bypasses the dense area of cropmark activity that lies to the south of the A415 Abingdon Road relating to this asset. The Scheme will therefore result in partial removal of the asset, assessed as a minor magnitude of impact on the archaeological value of the asset. The resultant significance of effect will be slight adverse and permanent, and not significant. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.
- 7.10.9 Plot ON31674 (Figure 7.1 and 7.2 sheet 2): Seven of the ten trenches excavated within plot ON31674 contained archaeological features or deposits. The features comprised 1 prehistoric ditch, one possible ditch, a single posthole, and eight linear features that may represent agricultural activity, such as ridge and furrow cultivation and its ordering. The activity revealed by trial trenching in plot ON31674 is considered to be of medium sensitivity (heritage value). The Scheme would have a major impact on the archaeological remains resulting in a moderate adverse and permanent significance of effect. A moderate significance of effect has been selected due to the relatively limited nature of the archaeological evidence present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to minor.
- 7.10.10 Plot ON237285 (Figure 7.1 and 7.2 sheet 3): A single sherd of prehistoric pottery was recovered from a north–south aligned linear feature in Trench 68. A further two small, abraded sherds of prehistoric pottery were recovered from east – west orientated ditch in Trench 81. Romano-British pottery was recovered from a ditch in Trench 64. The remaining features were of uncertain date, including ditches and gullies; and evidence in trench 63 for a trackway indicated in cropmark data relating to asset 101. Some of which may be related to Romano-British activity.
- 7.10.11 The archaeological evidence revealed by the evaluation in plot ON237285 confirmed the presence of archaeology relating to cropmarks represented by asset 101 and

demonstrate it continues north from the current mapped extent of the cropmarks. The assessed sensitivity (heritage value) of this archaeology is medium. The Scheme would remove the northern edge of archaeological remains related to asset 101 resulting in a slight adverse and permanent effect. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.12 Plot ON288848 (Figure 7.1 and 7.2 sheet 3): A single pit was excavated in Trench 110 containing late prehistoric (possibly Neolithic) flint tools and worked flint and animal bone. Trenches 91, 94, 95, 96, 97, 98, 99, 103 and 107 contained linear features all of which produced no archaeological material. This archaeological evidence is considered to be of low sensitivity (heritage value). The Scheme would remove the archaeological evidence identified in plot ON288848 resulting in a major impact. The resultant effect would be slight adverse and permanent. Slight adverse has been selected due to the very limited nature of the archaeological remains present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.13 Plot ON192891 (Figure 7.1 and 7.2 sheet 4): Three ditches and a posthole were found within this plot. No dating evidence was recovered from any of these features. The archaeology revealed by trial trenching in plot ON192891 is of low sensitivity (heritage value). The Scheme would remove the archaeological evidence identified in plot ON192891 resulting in a major impact. The resultant effect would be slight adverse and permanent. Slight adverse has been selected due to the very limited nature of the archaeological remains present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.14 Plot ON288906 (Figure 7.1 and 7.2 sheet 4): Romano-British pottery was recovered from parallel north-south orientated ditches in Trench 145, interpreted as trackside ditches. Trenches 141, 144 and 145 contained undated linear features. The archaeology revealed by trial trenching in plot ON288906 is of low sensitivity (heritage value) as it is relatively sparse, representing a possible Roman trackway and undated linear features. The Scheme would remove the archaeological evidence identified in plot ON288906 resulting in a major impact. The resultant effect would be slight adverse and permanent. Slight adverse has been selected due to the very limited nature of the archaeological remains present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.15 Plot ON225257 (Figure 7.1 and 7.2 sheet 6): A single ditch was found in this plot, which contained probable Late Bronze Age pottery along with a piece of flint debitage. It is assigned a low sensitivity (heritage value) being a single feature unrelated to any known assets. The Scheme would remove the archaeological feature resulting in a major impact. The resultant effect would be slight adverse and permanent. Slight adverse has been selected due to the very limited nature of the archaeological remains present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.16 Plot ON182468.1 (Figure 7.1 and Figure 7.2 sheet 6): The small amount of archaeology found within ON182468.1 was concentrated in the southern half of the plot. Undated archaeological features were found within Trench 207. They are of low sensitivity (heritage value). The Scheme would remove the archaeological feature resulting in a major impact. The resultant effect would be slight adverse and permanent. Slight adverse has been selected due to the very limited nature of the archaeological remains present. Essential mitigation in the form of archaeological investigation will reduce the significance of effect to neutral.

7.10.17 The potential for impacts to designated and non-designated assets within the study area as a result of change to their settings during construction have been identified

(see Appendix 7.2). These impacts may derive from temporary construction-related activities such as noise, lighting and vehicle movements, together with the permanent presence of the Scheme within the setting of the asset.

- 7.10.18 Several assets were scoped out of further assessment due to the lack of potential for significant effects resulting from the Scheme (see Table 5.10 in Appendix 7.2). The following 10 designated and non-designated assets are those where it is considered that there is the potential for an impact.

Asset A117 – Settlement site SM1006345 (Figure 4, Sheet 4)

- 7.10.19 Comprising around twelve overlapping rectangular enclosures and ditches with scattered pits. The monument's heritage interest lies primarily in its archaeological value in providing evidence of prehistoric land-use. The monument's location adjacent to the River Thames indicates that it was intrinsically linked to the river. The river provides a natural boundary to the southern limit of the archaeological remains that the monument encompasses and will have provided communication and possible trading links up and down stream for the enclosures that the monument encompasses. The River Thames provides a path of connectivity both upstream and downstream to other monuments, therefore, forming a key part of the setting of A117, together with contemporary monuments in the surrounding landscape. The links downstream have been severed by the existing railway embankment to the immediate east, as has its relationship with other monuments to the east. Looking west and south the landscape has been affected by relatively recent activity by quarrying and other modern development (Figure 21).
- 7.10.20 The Scheme will maintain the monument's relationship with the River Thames, whilst further enclosing and isolating the monument on the west. As the monument's heritage interest (sensitivity) lies primarily in its archaeological value, the change to its setting from the Scheme is considered to be a minor impact and permanent. The sensitivity of A117 is high. The resultant effect will be slight adverse and permanent, and not significant.

Nuneham Courtenay Registered Park and Garden [A207] (Grade I) and the listed buildings therein (see Appendix 7.2 Table 5.1)

- 7.10.21 Nuneham Courtenay Registered Park and Garden [A207] is a Grade I designated asset of high value. The value of the asset lies in its historic, architectural and artistic interests as an 18th century designed landscape with a high degree of survival and which has notable associations with key national figures in architecture and landscape architecture of the 18th and 19th centuries, including Lancelot 'Capability' Brown. To a lesser degree it also has archaeological interest in the buried remains of Nuneham village, within the park as well as any parts of the park that may have been lost, altered or overgrown in the course of the last two centuries. The view from the asset towards the Scheme is represented by Viewpoint 40 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figure 8.55).
- 7.10.22 The setting of the garden includes its siting, approaches and carriage drives, as well as its designed key views. The setting assessment provided in Section 5.2.17 of Appendix 7.2 highlights that the designed views within the garden looking outward were focused to the west and north of the garden over the Thames towards Abingdon and over the countryside towards Oxford, respectively. Nuneham House [NHLE 1286179], the Grade II* listed residence within the parkland, likewise faces westward, with Grade II listed terraces present on the west and north, as well as the south side of the building overlooking the parkland [NHLE 1048045]. Within the garden, views were inward looking along its drives and footpaths. Thick woodland was noted along the south and south-east side of the garden, screening views inward and outward on

this side. Outside the garden the landscape comprises generally open countryside, except at CSC.

7.10.23 Within the setting of the asset, the Scheme includes the Clifton Hampden Bypass which will be constructed to the south-east of the park between it and Clifton Hampden. This includes the bypass, adjacent cycle and footway, and grass verges, as well as landscaping to the north and north-west of Clifton Hampden (see Preliminary Landscape Masterplan ES Chapter 8: Landscape and Visual Figures 8.72r and 8.72s). The proposed bypass at Clifton Hampden crosses a lane that runs parallel to Thame Lane at the perimeter of CSC. Realignment of part of this lane is proposed with the creation of a crossroads with priority given to traffic on the bypass. This lane was created after the establishment of the former airfield and is not associated with the designed park.

7.10.24 The impacts of the construction of the bypass and its presence in the landscape to the south-east of the park will change the character of the setting of the park and garden and impact on the character of the approach to the park. Views of this area are represented by Viewpoints 35 and 38 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.50 and 8.53). There will be no direct views of the Scheme from within the park, or from listed buildings within the park, although there is the possibility of glimpsed views in traveling through the park. The Zone of Theoretical Visibility (ZTV) (see ES Chapter 8: Landscape and Visual, Figure 8.3) demonstrates the degree of screening provided by the woodland along the park's south and south-eastern boundaries. The Scheme will not feature in key designed views, and it will not feature in key views towards the park, or in the original approaches to the park. The south-eastern side of the park is heavily wooded and the link between the park and the surrounding landscape on this side is a minor element of its setting, which has already been altered with the establishment of CSC. The construction and presence of the bypass in the setting of the park will continue the urbanising effect of the presence of CSC this side, building on and reflecting this character, and therefore altering the current agricultural setting of the park that is present to the east of CSC. Whilst this change will be perceptible, it is considered that the change will alter one minor aspect of the setting of the asset, which is focused in an area that is not a key part of the setting and which has already experienced a degree of change. The impact of the Scheme on Nuneham Courtenay Registered Park and Garden is therefore assessed as negligible, resulting in a slight adverse effect and permanent, which is not significant.

Nuneham Courtenay Conservation Area [A225] and the listed buildings therein (see Appendix 7.2 Tables 5.1 and 5.7)

7.10.25 Nuneham Courtenay Conservation Area [A225] is a designated asset of high value. It covers much of the same area as the Registered Park and Garden [A207], although the conservation area excludes the land parcel west of Furze Brake which is included within the boundary of the park and garden, and includes Nuneham Courtenay village to the north-east of the park, which is excluded from the park and garden.

7.10.26 With regards to the heritage value of the conservation area, the value is considered to be high and derived from the same historic, architectural and artistic interests, together with archaeological interest in the buried remains of the original Nuneham Courtenay settlement within the park. The conservation area has additional historic and architectural interest including the extent of the re-established planned village of Nuneham Courtenay on approach to the park, containing 25 Grade II listed buildings. The setting of the conservation area is the same as the Registered Park and Garden and includes its siting, approaches and carriage drives, as well as its designed key views.

- 7.10.27 The setting assessment provided in Section 5.2.17 of Appendix 7.2 highlights that the designed views within the garden looking outward were focused to the west and north of the garden over the River Thames towards Abingdon and over the countryside towards Oxford, respectively. Nuneham House [NHLE 1286179], the Grade II* listed residence within the parkland, likewise faces westward, with Grade II listed terraces present on the west and north, as well as the south side of the building overlooking the parkland [NHLE 1048045]. Within the garden, views were inward looking along its drives and footpaths. Thick woodland was noted along the south and south-east side of the garden, screening views inward and outward on this side. Outside the garden the landscape comprises generally open countryside, except at CSC. One area where the setting of the conservation area differs from the setting of the Registered Park and Garden is in the area west of Furze Brake. This area falls within the park, but forms part of the setting of the conservation area as it falls outside its boundary. It provides a larger buffer area in the landscape between the designated area and CSC.
- 7.10.28 The view from the asset towards the Scheme is represented by Viewpoint 40 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figure 8.55). The Clifton Hampden Bypass is within the landscape setting of the conservation area. The features of this section of the Scheme within the setting of the conservation area also includes a cycle and footway, grass verges, and landscaping to the north and north-west of Clifton Hampden - see Preliminary Landscape Masterplan ES Chapter 8: Landscape and Visual Figures 8.72r and 8.72s.
- 7.10.29 As with the assessment of the park, the impacts arising from the Scheme are linked to the construction and presence of the Scheme within the agricultural setting of the area and change to the character of this part of the setting and the approach to the park. Views of this area are represented by Viewpoints 35 and 38 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.50 and 8.53). The construction and presence of the bypass within the setting of this side of the park will continue the urbanising effect resulting from the presence of CSC, building on and reflecting this character, and therefore altering the current agricultural setting of this side of the park. Whilst this change will be perceptible, it is considered that the change will alter one minor aspect of the setting of the asset, focused in an area that is not a key part of the setting and which has already experienced a degree of change. The village of Nuneham Courtenay, within the conservation area, is outside the formal study area for this assessment and outside the area for detailed traffic assessment. No significant changes to traffic volumes are predicted for this settlement (see ES Chapter 16: Transport) and no impact to the value of listed buildings in this settlement are predicted. The impact of the Scheme is therefore assessed as negligible, resulting in a slight adverse effect and permanent, which is not significant.

Clifton Hampden Conservation Area [A224] and the listed buildings therein (see Appendix 7.2 Table 5.1)

- 7.10.30 Clifton Hampden Conservation Area [A224] is a designated asset of medium value. The value of the asset lies in its architectural and historical interest as an early-medieval settlement centred on a rise overlooking the River Thames, with a linear plan form demonstrating how the village grew along two routeways leading from the river crossing. Architectural and historic interest is provided by individual buildings and their group value with each other. Some have an important association with Sir George Gilbert Scott, and the area also featured in the classic work *Three Men in a Boat (To Say Nothing of the Dog)*, written by Jerome K. Jerome in 1889.
- 7.10.31 The setting assessment noted that the boundary of the conservation area includes the built form of the settlement together with fields to the rear of buildings defining it as rural settlement. The river and the rural character of the approaches to the

conservation area contribute to its value. The approaches feature tree-lined and hedge-lined roads, where open-aspect views are also a strong feature, across farmland that emphasises the rural setting of the conservation area. The assessment noted that views from outside the settlement seldom feature any of its buildings, however, from higher ground to the north of the settlement, a view of the steeple of the Grade II* listed Church of St Michael and All Angels [A185] can be achieved where it is nestled in the mature trees along the river valley (see Photo19 in Appendix 7.2).

- 7.10.32 Views of this area are represented by Viewpoints 31-34, and 36-38 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.46-8.49 and 8.51-8.53) that include views from the conservation area towards the Scheme and from within the setting to the north and west of the conservation area. A night-time view is also presented for Viewpoint 36 within the conservation area in ES Chapter 8: Landscape and Visual (see Figure 8.70) which notes the dark character of the both the conservation area and its setting to the north.
- 7.10.33 The Scheme in the vicinity of the conservation area comprises Clifton Hampden Bypass which begins on Abingdon Road at the south of CSC and travels north-easterly to the west and north sides of the conservation area, and onto the B4015 Oxford Road heading westward. The bypass will tie-in with the current alignment of the B4015 Oxford Road (east) and a T-junction with a ghost island right turn will be included, to provide access to the current alignment of the B4015 Oxford Road (south-west). The Preliminary Landscape Masterplan (see ES Chapter 8: Landscape and Visual Figures 8.72r and 8.72s) outlines screening and placemaking features in this area. The proposed tree planting to the north and west of the conservation area boundary reflects the outline of areas of woodland shown on 19th century OS maps, except moved further north and westward than their historic extent, as those formerly wooded areas have since been built upon. The re-establishment of this woodland setting on the north and west of the conservation area is therefore in keeping with its historic appearance, whilst also providing necessary screening of the Scheme in views within the setting of the conservation area. The newly realigned section of Oxford Road is proposed to have a relatively open aspect to both sides providing views across fields and amenity areas and up to existing hedgerows. This reflects the current rural character of the approaches to the conservation area.
- 7.10.34 The impacts of the construction and presence of the Scheme in the setting of the conservation area are related to changes to the northern approach, and changes to the character of the rural setting of the conservation area on the north and west sides. The Scheme will continue the urbanising effect of the presence of CSC to the west of the conservation area, building on and reflecting this character, and therefore altering the current agricultural setting that is present to the east of CSC. The Preliminary Landscape Masterplan reflects the historic character of the conservation area, which has been historically researched. The bypass and the screening planting will also not interfere with the view towards the steeple of the Grade II* listed Church of St Michael and All Angels [A185] from the north, due to the local topography in this area, whereby the bypass will sit within a dip in the foreground with the view oversailing the bypass and screening planting, towards the steeple. This is a daytime view, so night-time lighting/ glow will not affect appreciation of it. No impacts are predicted in relation to other individual buildings within the conservation area, as their settings are inward looking and unaffected by changes outside the northern and western boundary of the conservation area. The construction and presence of the Scheme within the setting of the conservation area is assessed as having a minor impact, resulting in a slight adverse effect, which is not significant. This effect will be of temporary duration, until the planting for screening proposed in the Preliminary Landscape Masterplan has matured (ES Chapter 8: Landscape and Visual Figures 8.72r and 8.72s). After this point the impact will reduce to negligible, resulting in a neutral effect, which is not significant.

Culham Station and Ticket Office [A209] (Grade II) and Culham Station Overbridge [A160] (Grade II)*

- 7.10.35 The Grade II* listed Culham Station and Ticket Office [A209] and the Grade II listed Culham Station Overbridge [A160] are assets of high value. They are discussed together here due to their functional association and shared setting. The value of the assets is derived from their architectural and historical value as part of the Great Western Railway and their association with Brunel. The station is a rare survival of a Brunel designed station and it is the only surviving example of a station built to this particular design. The setting of the station and overbridge is informed by their relationship with each other and their relationship with the railway line and other non-designated buildings found in combination with them, namely; the Railway Hotel [A262], Railway Cottages [A263] Semi-detached houses [A264]. The assets are in an enclosed area, with mature planting, generally screened from view of Abingdon Road to the south, and CSC to the west. This enclosed character contributes to understanding of the assets as a collection of buildings forming a rural station. Views in this area are represented by Viewpoint 26 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.41). Near the assets, the Scheme includes a new roundabout, to the east, to facilitate access to CSC and a series of attenuation ponds. The Preliminary Landscape Masterplan (see ES Chapter 8: Landscape and Visual Figure 8.72p) includes landscaping at the new junction where the strategy proposes retention of the existing mature planting west of the listed buildings that presently screens it from view. The retention of this existing planting will continue to effectively screen the construction and presence of the Scheme from the assets. This, combined with the Scheme taking place within an area already significantly changed by the presence of CSC, means that there are no impacts predicted to the station and overbridge. This results in a neutral effect, which is not significant.

Fullamoor Farmhouse [A161] (Grade II)

- 7.10.36 The Grade II listed Fullamoor Farmhouse [A161] is an asset of high value. The value of the farmhouse is derived from its architectural and historical value as a good example of 17th and 18th vernacular domestic architecture. The setting of the farmhouse comprises its courtyard and garden and the surrounding agricultural landscape to the south, west and east that contributes to understanding of its former function as a farmhouse. This understanding is eroded somewhat through the loss of the historic farmstead ranges that were previously located in the courtyard to the north of the farmhouse. Beyond the former farmstead, the farmhouse is accessed via Abingdon Road. Historically the farm's landholding extended beyond Abingdon to the north, although there was not a visual connection between that land and the farmhouse due to the intervening farmstead buildings. The land to the north of Abingdon Road is no longer farmland, having first been adapted for use as part of the airfield, and subsequently developed as CSC. The land now reads as amenity landscaping associated with CSC. There are mature trees within the land to the north and on the northern boundary of the farmhouse's plot that screen views between the farmhouse and the Site. Views in this area are represented by Viewpoints 27 and 28 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.42 and 8.43). The area provides a historic route of approach to the farmhouse with an overall green character formed by the amenity landscaping to CSC, making a very limited contribution to the heritage value of the asset as a rural farmhouse. Near the asset, the construction and presence of the Scheme includes a new roundabout, to the north-west, to facilitate access to CSC and the realigned A415 on embankment. There will also be a series of attenuation ponds and the existing A415 will become a cycleway and access lane to Fullamoor Farmhouse. The Landscape Masterplan (see ES Chapter 8: Landscape and Visual Figure 8.72p) proposes that the existing hedge to the north side of Abingdon Road will be replanted with native species hedgerow with trees, and the surrounding area will be species rich grass interspersed with trees

and ornamental shrub and bulb planting, some of which are retained existing planting. The area currently reads as amenity landscaping associated with CSC and this overall character will be unchanged as a result of the Scheme, with the new landscaping scheme also reading as amenity landscaping associated with CSC and the road and roundabout. Summer and winter photomontages of the Scheme from Viewpoint 27 of the LVIA are presented in ES Chapter 8: Landscape and Visual (see Figure 8.87). The construction and presence of the Scheme in the setting of the asset will have a slightly urbanising effect due to the scale and type of the Scheme, but this takes place within an area of the asset's setting that is already significantly changed. The construction of the Scheme is therefore viewed as having a negligible impact, resulting in a slight adverse and permanent effect, which is not significant.

Hill Farm [A253] (non-designated)

- 7.10.37 Hill Farm [A253] is a non-designated asset of low value. The buildings derive their heritage value from their historic and architectural interest as examples of late-19th vernacular farm buildings. Their value is lessened by later alterations to the buildings and the loss of parts of the farmstead and the farmhouse. The setting of the buildings is dominated by the current use of the farmyard for aggregate storage and transportation; farmland to the west and north of the building has been subject to abstraction. The setting of the asset does not therefore make a significant contribution to its value. To the immediate west of the asset the Scheme will include the introduction of footpath and cycleway, improvements to the road, and the introduction of a signalised crossing. To the south of the asset a new road link section will be created to link to a future development area east of the asset. The construction and presence of the Scheme in the setting of the asset will have an urbanising effect, changing the character of the road from a rural lane to a signalised road flanked by footpaths and cycleways. The road has already undergone some change, with a bunded abstraction area present along its western side. The change is therefore viewed as having a negligible impact, resulting in a slight adverse and permanent effect, which is not significant.

New Hill Farm [A252] (non-designated)

- 7.10.38 New Farm [A252] is a non-designated asset of low value. The farmstead derives its heritage value from its historical and architectural interests as a largely complete example of a mid- to late-19th century planned farmstead. The setting of the farmstead has always featured the Great Western Railway running east-west a short distance to the north of the buildings, and it is now flanked by the A4130. The farmland was therefore most likely focused on the land to the east, south and west of the farm. Except for the A34 within its former farmland, the surroundings have remained largely undeveloped and the agricultural character of the setting contributes to the understanding of the asset. The road and railway to the north of the asset form the limit of its setting on that side. Near the asset, the Scheme includes the introduction of Backhill Roundabout to the west and the widening of the A4130 to the north, including a low embankment on its south side. Views in this area are represented by Viewpoints 2 and 3 of the LVIA presented in Chapter 8: Landscape and Visual (see Figure 8.17-8.18). The proposed Backhill Roundabout will occupy part of the agricultural setting of the farmstead, and the road widening to the north will bring the road slightly closer to the asset on that side. The construction and presence of the Scheme within the asset's setting is therefore assessed as having a minor impact, resulting in a slight adverse and permanent effect, which is not significant.

Appleford Crossing Cottage [A255] (non-designated)

- 7.10.39 Appleford Crossing Cottage [A255] is a non-designated asset of low value. The value of the building is derived from its architectural and historic interest as part of the

infrastructure of the Great Western Railway. Its designer and construction date are not known, however, so a link with Brunel as a possible designer cannot be established. The architectural interest is severely diminished by alterations that have taken place in recent years, however the historic interest as part of the railway remains. This interest is informed by the setting of the asset adjacent to the Appleford level crossing. Near to the asset, the Scheme includes widening of the road to the west. Views from this area are represented by Viewpoints 10 and 11 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.25 and 8.26). Despite their proximity, these alterations will cause no impact to the heritage value of the asset, and the effect therefore neutral.

Zouch Farm [A260] (non-designated)

- 7.10.40 Zouch Farm [A260] is a non-designated asset of medium value. The farmhouse and remaining farm buildings have heritage value derived from their architectural and historic interest as an example of a large planned late-Georgian and early Victorian farm and separate farmhouse. The setting of the farm is its garden to the south of the farmhouse and the agricultural land that surrounds it on all sides. The railway is a feature within the setting of the asset, forming a boundary to its farmland on the east side, with the railway bridge over the River Thames to the south and visible from within its grounds. To the north, Abingdon Road is the main access point into the farm and has always been a feature of the setting. In the vicinity of the asset the Scheme will include alterations to Abingdon Road to the north, with the addition of a footway and cycleway to the south side of the road and the creation of a splayed access and raised crossing at the access into the asset. Views in this area are represented by Viewpoint 24 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figure 8.39). Whilst these features will change the setting of the asset on approach, they will not result in any change to the heritage value of the asset and therefore no impact is predicted. This results in a neutral effect.

Coppice House [A265] (non-designated)

- 7.10.41 Coppice House [A265] is a non-designated asset of low value. The farmhouse and farmstead have heritage value derived from their historic and architectural interests as a 19th century farm, although this is diminished by the conversion of the farm buildings. The boundaries of the property, to the east and south comprise a dense screening of mature trees, whilst there is a more open aspect to the west. Still, the buildings are not visible in views from within the wider landscape due to the screening effects of vegetation and the local topography. To the north, the property boundary meets the dense woodland on the southern boundary of Nuneham Courtenay Park. The landscape outside the property boundary therefore makes little contribution to its significance. In the vicinity of the asset, the Scheme will include the introduction of the Clifton Hampden Bypass and alterations to Oxford Road to the south of the asset, including the realignment of the access road leading into Clifton Hampden and associated attenuation ponds and landscaping. The view from this asset towards the Scheme is represented by Viewpoint 38 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figure 8.53). Whilst these features will change the setting of the asset on approach, they will not result in any change to the heritage value of the asset and therefore no impact is predicted. This results in a neutral effect.

Historic Landscape Character

- 7.10.42 The Scheme traverses several historic landscape character types, and the majority of these are the result of recent landscape change (see Appendix 7.2). A key feature of the landscape through which the Scheme passes is change. The sensitivity to change of the historic landscape character types, through which the Scheme passes,

is therefore considered to be low. The impact on historic landscape character is assessed as negligible adverse and the resultant significance of effect is neutral.

Operation

- 7.10.43 The impacts to designated and non-designated assets during the operation of the Scheme are as a result of change to their settings. These impacts may be derived from changes to traffic volumes and patterns of movement, operational noise and operational lighting.
- 7.10.44 The assessment has determined that there will be no operational impacts to archaeological assets or historic landscape character.
- 7.10.45 Operation of the Clifton Hampden Bypass will take traffic away from the centre of the Clifton Hampden Conservation Area [A224], with a projected 50-60% reduction of traffic through the area (see ES Chapter 16: Transport). This is assessed as a beneficial impact of the Scheme which will improve understanding of the conservation area as a rural settlement and allow for greater appreciation of its architectural and historic interests, including those of its individual designated and non-designated buildings (see Tables 5.2 and 5.3 of Appendix 7.2). Operational lighting is not considered to result in any impact to the significance of the conservation area since the proposed lighting at the Clifton Hampden Bypass includes all non-motorised user (NMU) facilities and the southern roundabout. The lighting is also proposed to be dimmed to 75% between 0.00 and 06.00 (see ES Chapter 2: The Scheme). This will maintain the dark character of the asset's setting which contributes to understanding of it as a rural settlement. The impact on the Scheme upon the conservation area is therefore assessed as negligible, which results in a slight beneficial effect to the conservation area and the designated and non-designated assets it contains. This is not significant.
- 7.10.46 Further operational beneficial effects are also anticipated at Sutton Courtenay Conservation Area and Culham Conservation Area, both of which are assets of medium value, that contain listed buildings of high value, and at Elm Hayes Grade II listed building [A78], in Appleford, which is an asset of high value. In these locations the Scheme will result in a 30-40% reduction in traffic (see ES Chapter 16: Transport) with associated reductions in noise levels (see ES Chapter 10: Noise and Vibration, Figure 10.5). This will improve understanding of the conservation areas as rural settlements and allow for greater appreciation of their architectural and historic interests, including those of their individual designated buildings. At Elm Hayes the reduction in traffic volume will also improve understanding of the asset as a rural vernacular cottage. These benefits are assessed as negligible, resulting in slight beneficial effects to Elm Hayes, the conservation areas and the designated assets they contain. This is not significant.
- 7.10.47 Nuneham Courtenay Grade I Registered Park and Garden [A207] and conservation area [A225] are assets of high value. Operational lighting is not considered to result in any impact to the significance of the park since the proposed lighting at the Clifton Hampden Bypass includes all NMU facilities and the southern roundabout. The lighting is also proposed to be dimmed to 75% between 0.00 and 06.00 (see ES Chapter 2: The Scheme). The operational noise assessment carried out in ES Chapter 10: Noise and Vibration, assessed a representative point where the boundary of the park is at its closest to the Scheme, as a worst-case assessment. It also provided qualitative commentary on the likely noise impacts at the Grade II listed Venison House [A206] and Gamekeeper's Cottage [A205] within the park as the closest parkland buildings to the Scheme, noting that the Grade II* listed Nuneham House [NHLE: 1286179], within the park, is outside the formal area for assessment and further from the Scheme than the Venison House and Gamekeeper's Cottage. This

concluded that at the point where the park is closest to the Scheme there will be a minor increase in noise in the short and long term. Further east Nuneham Park extends up to the B4015 where moderate increases in noise levels are predicted in the long term only in a very small area (minor in short term), this is due to anticipated traffic growth on the B4015 in the long term, which connects onto the north-east end of the Scheme, from other developments in the area. The vast majority of Nuneham Park, including the Venison House and Gamekeeper's Cottage, is much more remote from the Scheme and therefore the impact is considered to be negligible. As a parkland and Registered Park and Garden [A207] and conservation area [A225] are considered to be sensitive to aural intrusion in terms of their heritage value. This negligible increase in noise levels within the parkland is therefore assessed as a negligible impact on this asset, resulting in a slight adverse effect and permanent, which is not significant. This impact will be felt in combination with the permanent slight adverse effect resulting from the presence of the Scheme within the asset's setting, this is not considered to increase the level of impact or the significance of effect beyond slight adverse. No operational impacts to the heritage value of individual listed buildings within the parkland are anticipated.

7.10.48 The Grade II listed Fullamoor Farmhouse [A161] is an asset of high value. Night-time views in this area are represented by Night Viewpoint 27 of the LVIA presented in ES Chapter 8: Landscape and Visual (see Figures 8.69a and 8.69b). This demonstrates that there is lighting along the existing A415, and at the entrance of the CSC. The latter is filtered by existing vegetation, with some sky glow evident. Car headlights and taillights are visible along the existing A415, which is a fairly busy route. The addition of the operational lighting to this existing lighting will increase the urbanising influence of the existing lighting in the land to the north of the farmhouse (see Figure 7.3, which shows lux levels from Scheme lighting in relation to Fullamoor Farmhouse). This will, however, be dimmed to 75% between 0.00 and 06.00 (see ES Chapter 2: The Scheme). The urbanising effect of the operational lighting will be felt in combination with the permanent slight adverse effect resulting from the presence of the Scheme within the asset's setting. Given the existing lighting in this area, this is not considered to increase the level of impact or the significance of effect beyond slight adverse. The operational noise assessment (ES Chapter 10 Noise and Figure 10.5) concludes that the farmhouse is located to south of the A415 which is a major road that is bypassed by the scheme in this location. Therefore, in the opening year there will be a beneficial impact ranging from minor to major decrease in noise levels depending on the façade/floor. In the long term this impact ranges from negligible change to moderate decrease in noise levels. Whilst this is not considered to affect the heritage value of the asset, it demonstrates that the Scheme will not worsen noise levels within the asset's setting.

7.11 Monitoring

Construction effects

- 7.11.1 Monitoring of the measures identified to mitigate effects from construction will be undertaken to ensure their successful delivery.
- 7.11.2 The archaeological mitigation works (including protection measures for heritage assets and preservation in situ of archaeological remains) will be undertaken during the advanced works (most of the archaeological fieldwork and recording) and construction works stages.
- 7.11.3 Details of the monitoring required during the construction phase will be provided in the AMS, the parameters and duration of which will be proportionate to the nature, location and size of the Scheme and the significance of its effects on identified

heritage assets. The AMS will be developed in consultation and agreed with the OCCAS. Essential mitigation measures included in the AMS could include:

- Preservation of archaeological remains in situ;
- Protection of archaeological remains using fencing;
- Trial trench evaluation;
- A programme of archaeological investigation, recording and publication; and
- A programme of public archaeology and community engagement.

7.11.4 An Archaeological Clerk of Works (ACoW) (to be employed by the PC) will be responsible for monitoring the implementation of the AMS in consultation with the OCCAS who monitor the archaeological works on behalf of the planning authority to ensure compliance with planning conditions and in line with the standards and guidance of the ClfA (Ref 7.21). This will include:

- Monitoring of fencing to ensure its condition and signage;
- Monitoring of preservation in situ measures; and
- Monitoring of the archaeological mitigation works to ensure they are in line with the requirements of the AMS provided in a Site-Specific Written Scheme of Investigation (SSWSI) to be prepared by the PC's archaeological contractor.

7.11.5 As there are no significant effects related to the setting of heritage assets, no monitoring is proposed.

7.12 Assessment of harm

7.12.1 Within the NPPF, impacts affecting the value of designated heritage assets are considered in terms of harm. Paragraph 199-202 introduce the requirement to determine whether the level of harm amounts to 'substantial harm' or 'less than substantial harm'. There is no direct correlation between the significance of effects identified through the EIA process as reported herein and the level of harm caused to heritage significance. Therefore, the following statement of harm is provided to align the results of this assessment with the requirements of NPPF. The assessment of harm arising from the impacts of the Scheme has been determined in accordance with relevant Historic England and ClfA guidance and using professional judgement.

7.12.2 The Scheme will impact the setting of the Scheduled Monument (A117, SM1006345) and cause less than substantial harm.

7.12.3 The Scheme will cause less than substantial harm to the Grade I Registered Park and Garden at Nuneham Courtenay [A207] and the Nuneham Courtenay Conservation Area [A225] through change to their settings. This harm is at the low end of less than substantial, due to it being focused in areas that are not within key designed views towards or from the parkland, or on its approaches. No harm will be caused to the individual listed buildings within these areas.

7.12.4 Paragraph 203 of the NPPF deals with impacts to non-designated heritage assets, stating that the determination of an application should take into account the scale of any harm or loss and the significance of the asset. The impact assessment provided in Section 7.10 above provides information on the scale of impact and the significance of effects on non-designated assets and this correlates directly with the requirements of Paragraph 197.

7.13 Summary

- 7.13.1 The assessment has determined that there will be no significant effects on archaeological assets within the study area as a result of the Scheme.
- 7.13.2 There will be no significant effects on the historic landscape character of the study area as a result of the Scheme.
- 7.13.3 There will be no significant effects on designated and non-designated built heritage assets as a result of the Scheme.

7.14 References

- Ref 7.1 Ancient Monuments and Archaeological Areas Act 1979. HMSO (1979).
<https://www.legislation.gov.uk/ukpga/1979/46>
- Ref 7.2 Planning (Listed Buildings and Conservation Areas) Act 1990. The Stationery Office (1990). <https://www.legislation.gov.uk/ukpga/1990/9/contents>
- Ref 7.3 National Planning Policy Framework. Ministry of Housing, Communities and Local Government (2021).
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf
- Ref 7.4 Planning Practice Guidance: Historic environment. Ministry of Housing, Communities and Local Government (2019).
<https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>
- Ref 7.5 Vale of White Horse District Council. 2016. Local Plan 2031, Part 1 Strategic Sites and Policies (adopted December 2016).
- Ref 7.6 Vale of White Horse District Council. 2019. Local Plan 2031, Part 2 Detailed Policies and Additional Sites (adopted October 2019).
- Ref 7.7 South Oxfordshire Local Plan 2035. Adopted December 2020. South Oxfordshire District Council.
- Ref 7.8 The Burcot and Clifton Hampden Neighbourhood Plan 2011-2034 – Pre-Submission Draft (Nov 2020).
- Ref 7.9 Design Manual for Roads and Bridges. Highways England (2019 – 2020).
<http://www.standardsforhighways.co.uk/dmrb>
- Ref 7.10 Design Manual for Roads and Bridges: LA 104 Environmental assessment and monitoring (Revision 1). Highways England (2020).
<https://www.standardsforhighways.co.uk/prod/attachments/0f6e0b6a-d08e-4673-8691-cab564d4a60a>
- Ref 7.11 Design Manual for Roads and Bridges: LA 106 Cultural heritage assessment (Revision 1). Highways England (2020).
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- Ref 7.13 Code of Conduct. Chartered Institute for Archaeologists (2019).
<https://www.archaeologists.net/sites/default/files/Code%20of%20conduct%20revOct2019.pdf>

- Ref 7.14 Standard and guidance for Historic Environment Desk-Based Assessment. Chartered Institute for Archaeologists (2017).
https://www.archaeologists.net/sites/default/files/CIfAS%26GDBA_3.pdf
- Ref 7.15 Principles of Cultural Heritage Impact Assessment in the UK. Chartered Institute for Archaeologists (2021).
- Ref 7.16 Managing Significance in Decision-taking. Historic Environment Good Practice Advice in Planning: 2. Historic England (2015).
<https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/gpa2/>
- Ref 7.17 The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning: 3. Historic England (2017). <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/>
- Ref 7.18 Statements of Heritage Significance: Analysing Significance in Heritage Assets. Historic England Advice Note 12. Historic England (2019).
<https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/heag279-statements-heritage-significance/>
- Ref 7.19 Archaeological Desk-Based Assessment: Advisory Document Oxfordshire County Council.
- Ref 7.20 Didcot Garden Town Written Scheme of Investigation for Archaeological Desk Based Assessment. AECOM (2020).
- Ref 7.21 Standard and guidance for stewardship for the historic environment

Figure 7.1: Trial trench results with geophysics and cropmark data

Figure 7.2: Trail trench results with known archaeological assets

Figure 7.3: Fullamoor Farmhouse Lighting Contour

Appendix 7.1: Gazetteer of Cultural Heritage Assets

Appendix 7.2: Desk Based Assessment

Appendix 7.3: Geophysical Survey

Appendix 7.4: Archaeological Evaluation Report

