

M60/M62/M66 Simister Island Interchange

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ENVIRONMENTAL STATEMENT CHAPTER 6 CULTURAL HERITAGE

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ENVIRONMENTAL STATEMENT CHAPTER 6 CULTURAL HERITAGE

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6 Cultural heritage

6.1 Introduction

- 6.1.1 This chapter presents the information required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 to be provided in the Environmental Statement for the M60/M62/M66 Simister Island Interchange (the 'Scheme') in respect of cultural heritage. The chapter considers the known heritage baseline, alongside a consideration of changes ('impacts') on heritage assets that may occur due to the construction and operation of the Scheme and the resultant potential effects. Consideration of impacts would focus on those assets where potential impacts have been identified.
- 6.1.2 For the purposes of this chapter, cultural heritage comprises three matters, defined as:
- Archaeological remains: the material remains of human activity from the earliest periods of human evolution to the present. These could be buried traces of human activities, sites visible above ground, or moveable artefacts.
 - Historic buildings: architectural, designed or other structures with a significant historical value. These could include structures that have no aesthetic appeal or structures not usually thought of as buildings, such as milestones or bridges. Conservation areas are considered within the historic building subject area.
 - Historic landscapes: the current landscape, whose character is the consequence of the action and interaction of natural and human factors. This includes designed landscapes and parkland. Historically important hedgerows have also been included in this area as they are landscape signatures.
- 6.1.3 This chapter considers the historic evolution of the landscape in a cultural heritage desk-based assessment appended to this chapter (Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3)). The potential changes to the setting of heritage assets is taken into account alongside physical impacts. The likely change to the existing landscape, people's views and visual amenity is addressed within Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1) and has been utilised in this chapter to address changes to asset setting, as has the air quality assessment (Chapter 5: Air Quality of this Environmental Statement (TR010064/APP/6.1)), noise and vibration assessment (Chapter 11: Noise and Vibration of this Environmental Statement (TR010064/APP/6.1)), and road drainage and water environment assessment (Chapter 13: Road Drainage and the Water Environment of this Environmental Statement (TR010064/APP/6.1)).
- 6.1.4 This chapter is supported by the following Environmental Statement Figures (TR010064/APP/6.2):
- Figure 6.1: Archaeological Assets

- Figure 6.2: Built Heritage Assets
- Figure 6.3: Historic Landscapes

6.1.5 This chapter is supported by Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).

6.2 Competent expert evidence

6.2.1 The assessment has been undertaken and reported by a competent expert for cultural heritage. The competent expert responsible for the assessment is a Principal Archaeological Consultant with a degree in Ancient History and Archaeology and is a Member of the Chartered Institute for Archaeologists.

6.2.2 The author has 18 years' experience of undertaking cultural heritage Environmental Impact Assessments (EIA) for major infrastructure and linear schemes, including highways.

6.3 Legislative and policy framework

Legislation

6.3.1 The cultural heritage assessment has been undertaken in accordance with the legislation set out in Table 6.1.

Table 6.1 Legislation relevant to the cultural heritage assessment

Legislation	Relevance to the Scheme	How this legislation is addressed in the assessment
Planning (Listed Buildings and Conservation Areas) Act 1990	The Town and Country Planning Act (1971) as amended by the Planning (Listed Buildings and Conservation Areas) Act 1990 details the statutory protection afforded to Listed Buildings. The relevant legislation in this case extends from Section 66 (1) of the 1990 Act, which states that in considering planning applications the Local Planning Authority (LPA) shall have special regard to the desirability of preserving the Listed Building or its setting, or any features of special architectural or historic interest that it possesses. In addition, Section 72 of the 1990 Act states that, in exercising all planning functions, LPAs must have special regard to the desirability of preserving or enhancing Conservation Areas.	The setting of listed buildings and conservation areas has been accounted for in the cultural heritage assessment, as reported in this chapter and in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).

Legislation	Relevance to the Scheme	How this legislation is addressed in the assessment
Environment Act 1995	Hedgerow Regulations 1997 as amended (made pursuant to Section 97 of the Environment Act) make provision for the identification and protection of hedgerows of importance from a historic environment perspective.	Important historic hedgerows have been identified and assessed in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3). The assets were identified from historic map regression and data interrogation of the Historic Environment Record (HER). The important hedgerows are denoted on Figure 6.3: Historic Landscapes of the Environmental Statement Figures (TR010064/APP/6.2).

Policy

National Policy Statement for National Networks

- 6.3.2 The National Policy Statement for National Networks (NPS NN) (Department for Transport (DfT), 2014) sets out the Government’s policies relating to the development of Nationally Significant Infrastructure Projects (NSIPs) on the national road and rail networks in England. The Secretary of State uses the NPS NN as the primary basis for making decisions on Development Consent Order (DCO) applications.
- 6.3.3 Table 6.2 summarises the policy requirements from the NPS NN relating to the applicant’s assessment and mitigation requirements for historic environment and how these requirements have been addressed in the assessment. See also the NPS NN Accordance Tables (TR010064/APP/7.2) for an assessment of the Scheme’s compliance with the NPS NN.

Table 6.2 NPS NN requirements for cultural heritage

Paragraph reference	Applicant's assessment / mitigation requirement	How this is addressed in the assessment
5.126	<i>'Where the development is subject to Environmental Impact Assessment (EIA) the applicant should undertake an assessment of any likely significant heritage impacts of the proposed project as part of the EIA and describe these in the Environmental Statement.'</i>	The potential significant heritage impacts have been assessed in this chapter and in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).
5.127	<i>'The applicant should describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant Historic Environment Record should have been consulted and the heritage assets assessed using appropriate expertise. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation.'</i>	All heritage assets relevant to the Scheme have been identified from utilisation of the local HER, historic map analysis and a site walkover survey. The determination of asset significance is central to understanding to what degree the historic assets would be affected by the changes arising from the Scheme. Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) goes into detail about the heritage assets affected and has determined their value through a series of processes including the extent to which setting contributes to the assets in question.
5.140	<i>'Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State should require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the importance and the impact. Applicants should be required to deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it.'</i>	Requirement 9 of the draft DCO (TR010064/APP/3.1) states no part of the authorised development is to commence until for that part of the authorised development a written scheme for the investigation of areas of archaeological interest, reflecting the mitigation measures included in the Register of Environmental Actions and Commitments (REAC) (contained within the First Iteration Environmental Management Plan (EMP) (TR010064/APP/6.5)), has been submitted to and approved in writing by the Secretary of State following

Paragraph reference	Applicant's assessment / mitigation requirement	How this is addressed in the assessment
5.141	<i>'The Secretary of State may add requirements to the development consent order to ensure that this is undertaken in a timely manner in accordance with a written scheme of investigation that meets the requirements of this section and has been agreed in writing with the relevant Local Authority (or, where the development is in English waters, with the Marine Management Organisation and English Heritage) and that the completion of the exercise is properly secured.'</i>	consultation with the relevant planning authority. The written scheme of investigation would stipulate the accession of the Scheme reports to the public domain as well as the archiving arrangements.
5.142	<i>'Where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the Secretary of State should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.'</i>	Protocols for the discovery of unexpected archaeological remains have been included in the First Iteration EMP (TR010064/APP/6.5).

6.3.4 The Government published a draft replacement of the NPS NN in March 2023 (DfT, 2023). The consultation closed in June 2023 and the draft NPS NN has not yet been designated. However, it is potentially capable of being an important and relevant consideration in the decision-making process. The Environmental Statement continues to reference the 2014 NPS NN though, as it remains the relevant Government policy. Notwithstanding that position, Table 6.3 summarises the policy requirements from the draft NPS NN relating to the Applicant's assessment and mitigation requirements for historic environment and how these have been addressed in the assessment. See also the NPS NN Accordance Tables (TR010064/APP/7.3) for an assessment of the Scheme's compliance with the draft NPS NN.

Table 6.3 Draft NPS NN requirements for cultural heritage

Paragraph reference	Applicant's assessment / mitigation requirement	How this is addressed in the assessment
5.202	<p><i>'The applicant should undertake an assessment of any significant heritage impacts of the proposed project and should describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the asset's importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant Historic Environment Record should have been consulted and the heritage assets assessed using appropriate expertise. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, the applicant should include an appropriate desk-based assessment and, where necessary, a field evaluation.'</i></p>	<p>All heritage assets relevant to the Scheme have been identified from utilisation of the local HER, historic map analysis and a site walkover survey.</p> <p>The determination of asset significance is central to understanding to what degree the historic assets would be affected by the changes arising from the Scheme. Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) goes into detail about the heritage assets affected and has determined their value through a series of processes including the extent to which setting contributes to the assets in question.</p>
5.203	<p><i>'The discovery of heritage assets has potential to have a significant delay on scheme development, and applicants should ensure that protection of the historic environment is considered early in the development process.'</i></p>	<p>A programme of archaeological investigation has been identified to target known archaeological remains and reduce the risk of unexpected discovery.</p>

Paragraph reference	Applicant's assessment / mitigation requirement	How this is addressed in the assessment
5.205	<p><i>'Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State should require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part). The extent of the requirement should be proportionate to the importance and the impact. Applicants should be required to deposit copies of the reports with the relevant Historic Environment Record. They should also be required to deposit the archive generated in a local museum or other public depository willing to receive it.'</i></p>	<p>Requirement 9 of the draft DCO (TR010064/APP/3.1) states no part of the authorised development is to commence until for that part of the authorised development a written scheme for the investigation of areas of archaeological interest, reflecting the mitigation measures included in the REAC (contained within the First Iteration EMP (TR010064/APP/6.5)), has been submitted to and approved in writing by the Secretary of State following consultation with the relevant planning authority. The written scheme of investigation would stipulate the accession of the Scheme reports to the public domain as well as the archiving arrangements.</p> <p>A programme of archaeological trial trench investigation has been agreed with the Greater Manchester Archaeological Advisory Service (GMAAS) to understand the presence, extent, significance and survival of buried archaeological remains within the Order Limits (see Section 6.4 of this chapter for further details). This would inform the need for and scope of archaeological mitigation.</p>
5.206	<p><i>'The Secretary of State may add requirements to the Development Consent Order to ensure that this is undertaken in a timely manner in accordance with a Written Scheme of Investigation that meets the requirements of this section, and has been agreed in writing with the relevant Local Authority (or, where the development is in English waters, with the Marine Management Organisation, English Heritage and/or Historic England) and that the completion of the exercise is properly secured.'</i></p>	<p>Trial trench investigation would be undertaken for some known archaeological remains prior to construction. This is a commitment (CH1) in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5).</p> <p>Requirement 9 of the draft DCO (TR010064/APP/3.1) states no part of the authorised development is to commence until for that part of the authorised development a written scheme for the investigation of areas of archaeological interest, reflecting the mitigation measures included in the REAC (contained within the First Iteration EMP</p>

Paragraph reference	Applicant's assessment / mitigation requirement	How this is addressed in the assessment
		(TR010064/APP/6.5)), has been submitted to and approved in writing by the Secretary of State following consultation with the relevant planning authority. The written scheme of investigation would stipulate the accession of the Scheme reports to the public domain as well as the archiving arrangements.
5.207	<i>'Where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, the Secretary of State should consider requirements to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.'</i>	Protocols for the discovery of unexpected archaeological remains have been included in the First Iteration EMP (TR010064/APP/6.5).

Other relevant policy

6.3.5 In addition to the NPS NN, other relevant policy has been considered as part of the cultural heritage assessment. Table 6.4 sets out other policy relevant to this aspect and how the assessment has considered/addressed these policies.

Table 6.4 Other national, regional and local policy relevant to the historic environment

Plan / Policy document	Key requirements and objectives	How this has been considered/addressed in the assessment
National		
<p>National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities (DLUHC), last updated 5 September 2023).</p> <p>The NPPF sets out the Government’s planning policies for England and how these should be applied.</p>	<p><u>Proposals affecting heritage assets</u></p> <p>Paragraph 194. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.</p>	<p>Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) utilised all the publicly available sources to determine the known historic environment baseline and to establish the significance of each relevant asset. The setting of assets was a material consideration in arriving at asset significance and establishing the level of change from the Scheme on each relevant asset.</p>

Plan / Policy document	Key requirements and objectives	How this has been considered/addressed in the assessment
	<p><u>Proposals affecting heritage assets</u></p> <p>Paragraph 195. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.</p> <p>Paragraph 205. Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.</p>	<p>Asset significance has been addressed in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).</p> <p>Assets identified as potentially being removed or damaged by the Scheme have been recommended for archaeological investigation in this assessment. Requirement 9 of the draft DCO (TR010064/APP/3.1) states no part of the authorised development is to commence until for that part of the authorised development a written scheme for the investigation of areas of archaeological interest, reflecting the mitigation measures included in the REAC (contained within the First Iteration EMP (TR010064/APP/6.5)), has been submitted to and approved in writing by the Secretary of State following consultation with the relevant planning authority. The written scheme of investigation would stipulate the accession of the Scheme reports to the public domain as well as the archiving arrangements.</p>
	<p><u>Decision-making: historic environment – what is significance?</u></p> <p>Significance is defined as the value of a heritage asset to this and future generations. Archaeology, architecture, history are all contributing factors to a heritage asset's significance.</p>	<p>Asset significance has been determined in the historic environment studies undertaken as part of the EIA. The significance values have been incorporated into Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).</p>

Plan / Policy document	Key requirements and objectives	How this has been considered/addressed in the assessment
<p>National Planning Practice Guidance (NPPG): Historic Environment (DLUHC and Ministry of Housing, Communities and Local Government (MHCLG), 2014, updated 2019).</p> <p>The NPPG provides guidance on how planning can take into account the consideration of cultural heritage</p>	<p><u>What assessment of the impact of proposals on the significance of affected heritage assets should be included in an application and what is the setting of a heritage asset and how can it be taken into account?</u></p> <p>Applicants need to include analysis of the significance of an asset and its setting. The guidance includes the amount of detail appropriate to the asset and no more '<i>than is sufficient to understand the potential impact of the proposal on its significance</i>'.</p>	<p>Asset significance has incorporated a study of setting, and changes to setting have been part of the impact assessment, as reported in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3). Protocols for the discovery of unexpected archaeological remains have been included in the First Iteration EMP (TR010064/APP/6.5).</p>
	<p><u>How can the possibility of harm to a heritage asset be assessed?</u></p> <p>Guidance on how impacts can cause harm to the significance of a heritage asset is given to establish a category of harm.</p>	<p>The assessment of the level of harm to assets has been arrived at by using professional judgement in this assessment and the supporting appendix (Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3)). Assets which had a pre-mitigation effect of moderate adverse or above were counted as substantial harm and these are summarised in Section 6.12 of this chapter.</p>
	<p><u>What are non-designated heritage assets of archaeological interest and how important are they?</u></p> <p>The NPPG states that there are two levels of non-designated asset; that which is of an equivalent significance to a scheduled monument and that of lesser significance but still worthy of a conservation objective.</p>	<p>Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) assessed the baseline environment to identify the value of historic environment assets. That analysis has been summarised in this chapter.</p>

Plan / Policy document	Key requirements and objectives	How this has been considered/addressed in the assessment
Regional and Local		
<p><u>Greater Manchester Combined Authority Places for Everyone Plan (2021)</u></p> <p>Once adopted, this would form an integral part of Bury Metropolitan Borough Council's (BMBC's) wider development plan</p>	<p><u>Policy JP-P 2 Heritage</u></p> <p>The policy states that development proposals should identify assets of archaeological interest and use this information to avoid harm or minimise it through design and appropriate mitigation. Where applicable, development should make provision for the protection of significant archaeological assets and landscapes. The protection of undesignated heritage assets of archaeological interest equivalent to a scheduled monument should be given equivalent weight to designated heritage assets.</p>	<p>The assessment determines the value of known archaeological remains and makes provision for their investigation to verify their presence, extent and significance.</p>
<p><u>Bury Unitary Development Plan (1997)</u></p> <p>This would be replaced by the Bury Local Plan</p>	<p><u>Policy EN2 (Conservation Areas and listed buildings)</u></p> <p>Preservation of the Borough's built heritage</p> <p><u>Policy EN3 (Archaeology)</u></p> <p>Programme of development to allow investigation of archaeological remains to inform the need for mitigation</p>	<p>This assessment has included the study of historic buildings and designated areas relating to built heritage, including changes to setting that may affect asset value.</p> <p>Archaeological remains have been addressed in this assessment and the appropriate level of treatment in terms of investigation and mitigation have been applied in line with current standards.</p> <p>Consideration of construction methodology and design have driven assessment of impact.</p>
<p><u>Bury Local Plan</u></p> <p>Topic Paper No.9 Built Environment (BMBC, 2018).</p>	<p><u>Topic Paper No.9 Built Environment</u></p> <p>With reference to the NPPF and the Greater Manchester Spatial Framework, the topic paper sets out the heritage assets of the Borough and the importance of good design in enhancing the historic environment.</p>	<p>Addressing the presence and relevance of assets to the Scheme is central to this assessment.</p>

Plan / Policy document	Key requirements and objectives	How this has been considered/addressed in the assessment
The Local Plan is replacing the Unitary Development Plan		

6.4 Assessment methodology

Assessment scope

Scoping Opinion

- 6.4.1 Table 6.5 summarises the key requirements from the Planning Inspectorate’s Scoping Opinion (TR010064/APP/6.7) as relevant to the scope of the cultural heritage assessment, and identifies any matters scoped out of the assessment as agreed with the Planning Inspectorate and other stakeholders. This table also explains any changes to the assessment methodology as a result of this engagement.

Table 6.5 Scoping Opinion feedback for cultural heritage

Stakeholder	Comment	Response
Planning Inspectorate	<p><u>ID 4.2.1</u> – Physical impacts on historic buildings and archaeological remains during operation – <i>‘The Applicant concludes there is limited potential for significant physical impacts on historic buildings and archaeological remains during operation.</i></p> <p><i>Previously unknown archaeological assets that may be present within the footprint of the Proposed Development would be assessed as part of the construction phase assessment. Effects on setting of historic buildings would be assessed as part of the operational assessment.</i></p> <p><i>On this basis, the Inspectorate agrees that physical impacts on historic buildings and archaeological remains during operation can be scoped out’.</i></p>	<p>Assessment of potential physical impacts on cultural heritage assets has been undertaken. The assessment did not identify any physical impacts to built heritage, but known archaeological sites are at risk of removal or damage from enabling works and construction.</p> <p>Assessment of setting was carried out using aerial images, the results of a site walkover survey, and the landscape and visual Zones of Theoretical Visibility (ZTVs) (see Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1) for further discussion regarding the ZTV), as well as other aspect assessments in this Environmental Statement (TR010064/APP/6.1) such as:</p> <ul style="list-style-type: none"> • Noise and vibration (Chapter 11: Noise and Vibration of this Environmental Statement) • Air quality (Chapter 5: Air Quality of this Environmental Statement) • Water environment (Chapter 13: Road Drainage and the Water Environment of this Environmental Statement).

Stakeholder	Comment	Response
	<p><u>ID 4.2.2</u> – New land take associated with the project – <i>‘Limited detail is given as to what is sought to be scoped out under a generic reference to “new land take” and the chapter goes on to state that further investigation of previously undeveloped areas would be carried out.</i></p> <p><i>For the avoidance of doubt, the Inspectorate does not agree that effects on archaeological remains due to new land take can be scoped out at this stage and that such matters should be considered as part of the construction phase assessment.’</i></p>	<p>Change to asset setting was measured from the potential operational impacts with the result that none were identified.</p> <p>The presence of archaeology within the footprint of the permanent land take has been assessed. Section 6.7 sets out the known archaeological resource and the potential for unknown archaeology given in paragraph 1.3.10 of the supporting Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3).</p> <p>Trial trench investigation would be undertaken for some known archaeological remains prior to construction. This is a commitment (CH1) in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5).</p> <p>Areas of known historic disturbance where archaeological potential is negligible has been arrived at by examination of ground investigation data (see Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) for further details).</p>
	<p><u>ID 4.2.3</u> – Potential physical impacts - <i>‘Whilst it is noted that there are no designated or non-designated historic buildings within the Proposed Development site boundary, Figure 7.1 indicates that there are a number of non-designated historic buildings immediately adjacent to the boundary, and therefore may be subject to construction works in close proximity.</i></p> <p><i>The ES should consider the effects of vibration or other construction activities on these non-designated assets immediately adjacent to the site boundary, in addition to the dewatering listed within paragraph 7.4.2.’</i></p>	<p>The potential physical impacts of the enabling works and construction phases of the Scheme are included in this assessment. Reference has been made to Chapter 11: Noise and Vibration of this Environmental Statement (TR010064/APP/6.1) and liaison with the relevant competent experts was carried out to understand the potential for the relevant impacts to affect the historic buildings adjacent to the Scheme. This included review of Appendix 13.4: Groundwater Assessment Report of the Environmental Statement Appendices (TR010064/APP/6.3) to understand the potential for dewatering.</p>

Stakeholder	Comment	Response
	<p><i>ID 4.2.4 – Archaeological mitigation - ‘Paragraph 7.5.2 states that additional mitigation is likely to include a programme of archaeological investigation and recording, prior to commencement of construction. Paragraph 7.7.5 states that trial trenching is considered but it is not clear whether this would inform the assessment in the ES or would be undertaken prior to construction.</i></p> <p><i>Where intrusive surveys have not been undertaken, the ES should appraise the limitations in the methodology in the absence of this data and set out how any mitigation measures that are to be agreed post-consent have been relied upon as part of the assessment of significance of effects.</i></p> <p><i>Any outline archaeological scheme of investigation should be agreed with the relevant local authority, and where required Historic England, in advance of works being undertaken.’</i></p>	<p>Areas where trial trenching can shed light on the presence of archaeological features would be investigated prior to construction. However, the results of these investigations were not available for this assessment.</p> <p>For those assets on the HER present within the Order Limits, it has been assumed that some buried remains exist and a value has been given relating to their supposed survival and likely rarity on a local scale.</p> <p>Trial trench investigation would be undertaken for some known archaeological remains prior to construction. This is a commitment (CH1) in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5).</p> <p>Requirement 9 of the draft DCO (TR010064/APP/3.1) states no part of the authorised development is to commence until for that part of the authorised development a written scheme for the investigation of areas of archaeological interest, reflecting the mitigation measures included in the REAC contained within the EMP (TR010064/APP/6.5), has been submitted to and approved in writing by the Secretary of State following consultation with the relevant planning authority. The written scheme of investigation would stipulate the accession of the Scheme reports to the public domain as well as the archiving arrangements.</p>

Stakeholder	Comment	Response
	<p><u>ID 4.2.5</u> – Archaeological mitigation - <i>‘Paragraph 7.5.3 states that enhancement measures could include provision of interpretation boards at key sites. Based on the location of known archaeological remains, consideration should be given as to whether public access is possible in these locations, and therefore the value / benefit of any interpretation boards may be questionable. The ES should also confirm the mitigation measures to be adopted in the event of discovery of archaeological remains of importance, either during pre-construction surveys or during construction.’</i></p>	<p>The need for public information on the archaeological and built heritage resource has been considered in this assessment.</p> <p>The presence of unknown archaeology would be part of the planned interventions during the enabling works phase of construction. Trial trenching would determine the presence or absence of archaeological remains at archaeological assets within the Order Limits identified in the HER. Where required, a watching brief or strip, map and sample approach can be adopted in a way which integrates archaeological mitigation into the development programme, thereby reducing risk.</p> <p>Archaeological mitigation is secured through Requirement 9 of the draft DCO (TR010064/APP/3.1).</p>
<p>Historic England</p>	<p><u>Appendix 2 of the Scoping Opinion</u></p> <p><i>‘It is for the local authority to determine whether an EIA should be prepared for the proposed development. However, from the information given, we consider that there appears to be minimal impact on the historic environment and therefore an EIA may not be required in relation to the historic environment.</i></p> <p><i>We would also recommend that the applicant seeks confirmation from the relevant local authority Historic Environment staff for an informed local opinion of need.</i></p> <p><i>If further information becomes available which might result in a change to this, then we would like to be informed and provided with that information so that we can consider the matter further and respond to you as appropriate.’</i></p>	<p>Engagement has been undertaken with the GMAAS, who are the archaeological advisor for BMBC (see paragraph 6.4.9 for further details).</p>

Statutory consultation

6.4.2 Table 6.6 identifies the key feedback received from statutory bodies during the statutory consultation. All comments raised during the statutory consultation, as well as the Applicant's responses, are included in Annex Q of the Consultation Report Annexes (TR010064/APP/5.2).

Table 6.6 Key statutory consultation feedback for cultural heritage

Stakeholder	Comment	Response
Historic England	The evidence set out in Chapter 7 of the PEIR suggests that the impact of the Scheme upon the historic environment should be limited. To ensure that that is the case, further work is clearly required to identify the full range of assets, particularly the archaeological ones, which could be impacted by the Scheme. The PEIR sets out a framework for limiting further the impact of the Scheme through design and through development of a phased programme of further archaeological fieldwork, leading to preservation by record of any archaeological sites impacted. Historic England would welcome the opportunity to advise further, in partnership with the Greater Manchester Archaeological Advisory Service, as that phased programme is developed.	<p>Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) includes a gazetteer which identifies the full range of assets.</p> <p>Assessment undertaken has established that there would be no significant effects on the historic environment.</p> <p>Engagement has been undertaken with GMAAS, who are the archaeological advisor for BMBC (see paragraph 6.4.9 of this chapter for further details).</p>

General approach

- 6.4.3 Impacts and effects on all the known heritage assets have been covered in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3). Where no adverse effects have been noted to specific assets, these have been excluded from this chapter. Only those assets where a potential adverse effect have been identified are included in this chapter.
- 6.4.4 The methodology for the cultural heritage assessment complies with the requirements set out in the following technical standards:
- Design Manual for Roads and Bridges (DMRB) LA 106 cultural heritage assessment (Highways England, 2020a)
 - DMRB LA 104 Environmental assessment and monitoring (Highways England, 2020b)
- 6.4.5 The following technical guidance has informed the approach taken for the assessment in the supporting Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3):
- Conservation principles, policies and guidance for the sustainable management of the historic environment (Historic England, 2008)
 - The setting of heritage assets: historic environment good practice advice (GPA) in planning note 3 (second edition) (Historic England, 2017)
 - Statements of Heritage Significance: Analysing Significance in Heritage Assets, Historic England Advice Note 12 (Historic England, 2019)
 - Principles of cultural heritage impact assessment in the UK (Institute of Environmental Management and Assessment (IEMA), 2021)
- 6.4.6 Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) has been prepared in accordance with NPS NN (DfT, 2014) paragraph 5.127. The desk-based assessment has been compiled in accordance with the Standard and Guidance provided by the Chartered Institute for Archaeologists (CIfA) (CIfA, 2020).

- 6.4.7 In line with the above guidance and policy the significance of heritage assets has incorporated an assessment of setting as part of the determination of value. To incorporate the potential impacts in visual terms from the Scheme, in addition to considering the setting of statutory and non-statutory designations, a study area was utilised that incorporated the area within the Order Limits and a zone of 1km projecting from the boundary of those limits. This was considered to be adequate given the urban nature of the area in which the Scheme is located. The ZTVs generated for the landscape and visual impact assessment in Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1) was utilised to assess the presence of historic environment assets beyond the 1km study area. Similarly, Chapter 5: Air Quality of this Environmental Statement (TR010064/APP/6.1), Chapter 11: Noise and Vibration of this Environmental Statement (TR010064/APP/6.1) and Chapter 13: Road Drainage and the Water Environment (TR010064/APP/6.1) of this Environmental Statement were studied to ensure all potential setting changes were accounted for.
- 6.4.8 A site walkover survey was carried out on 7 October 2021 to:
- Locate the known archaeological assets to visualise their relationship with enabling works and construction
 - Identify any archaeological remains from above-ground remains
 - Locate the known built heritage assets and understand their setting, including their inter-visibility with the Scheme
 - Understand the relationship of Heaton Park Registered Park and Garden to the Scheme
 - Understand access to the location of the archaeological assets with a view to archaeological trial trenching
- 6.4.9 Engagement with GMAAS, who are the archaeological advisor for BMBC, has been undertaken in September 2021 and March and August 2023. This engagement established an approach to targeted investigation for most of the known assets within the Order Limits. Assets known to have been erased by the construction of the motorway network were agreed to be excluded from the trial trenching. The assets located within the Order Limits were identified from historic map regression and feature in the HER based on those studies. This data is insufficient to prove the presence or absence of buried remains. Targeted trial trench investigation is the only valid method for determining the presence, extent and value of archaeological remains.

- 6.4.10 Submission of a draft version of this document and the desk-based assessment (Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3)) to GMAAS in August 2023 generated feedback regarding a development of the approach to investigation. Areas with the potential to contain archaeological remains and affected by the Scheme regarding land-take and working areas should be subject to trial trenching. In the case of Unsworth Moss, GMAAS suggested hand-auguring could be used to establish the presence and profile of peat deposits, though known ground conditions in this location suggest no peat presence (see Chapter 9: Geology and Soils of this Environmental Statement (TR010064/APP/6.1) for further details).
- 6.4.11 Where needed, this assessment has recommended archaeological investigations to ascertain the presence, extent and significance of known archaeological assets. The investigations would take the form of targeted trial trenching (commitment CH1 in the REAC contained within the First Iteration EMP (TR010064/APP/6.5)) and has been agreed by GMAAS. One recommendation for mitigation of one asset has been agreed with GMAAS (the site of a possible oven - HER 3921.1.0 (see Section 6.7 of this chapter for further details)) (commitment CH2 in the REAC contained within the First Iteration EMP (TR010064/APP/6.5)), with the results of the trial trenching to inform the need for and scope of further mitigation for the remaining relevant archaeological assets. See Section 6.9 of this chapter for further details regarding mitigation.

Assessment criteria

- 6.4.12 Chapter 4: Environmental Assessment Methodology of this Environmental Statement (TR010064/APP/6.1) sets out the general approach to assessing the significance of effects and follows DMRB LA 104. Paragraph 3.10 of DMRB LA 107 states that '*assigning value (sensitivity), magnitude of impact and significance of effect and reporting the significant effects of a project on cultural heritage resource and its settings shall follow the requirements in LA 104 [Ref 4.N] Environmental assessment and monitoring*'. The value (sensitivity), magnitude of impact and significance of effect criteria in Chapter 4: Environmental Assessment Methodology of this Environmental Statement (TR010064/APP/6.1) have been used for this assessment.
- 6.4.13 In accordance with the desire for national historic environment stakeholders including Historic England to expand on the standard significance of effect matrixes, this assessment has utilised the principles of cultural heritage assessment (IEMA, 2021) in expanding the narrative around the degree of impact and determining the significance of effect on assets affected by the Scheme.

Value (sensitivity) of receptors

- 6.4.14 Value (sensitivity) has been assigned to receptors according to the criteria outlined in Table 6.7 (adapted from DMRB LA 104, Table 3.2N) and application of professional judgement.

- 6.4.15 Table 6.7 and the relevant scores attributed to each level of sensitivity can also be regarded as the importance of the asset, in terms of the principles of cultural heritage assessment (IEMA, 2021). The importance of the asset is a measure by which its cultural significance (see paragraph 6.4.16) is sought to be protected. This might be through legislation or planning policy. Where an asset is not protected by statute, its level of importance can be calculated using professional judgement from a range of different factors including historic association, architectural merit, setting and rarity.
- 6.4.16 The cultural significance of an asset is not defined by any designation status or planning policy, rather a broad concept encompassing many different potential values. These might include aesthetic, social, scientific or religious considerations. They might also take into account its current status, associations, meanings, local character, setting etc. In this assessment, those assets set within the Order Limits and potentially physically affected have undergone value determination based on cultural significance. Paragraph 5.122 of the NPS NN (DfT, 2014) also gives a definition of cultural significance along these lines.
- 6.4.17 Value of the known assets was estimated based on DMRB requirements and advice, Historic England’s guidance as well as the IEMA guidance for ascribing cultural significance (IEMA, 2021).

Table 6.7 Environmental value (sensitivity) and descriptions (adapted from DMRB LA 104, Table 3.2N)

Value (sensitivity)	Typical description
Very high	<p>Archaeological remains: World Heritage Sites (including nominated sites). Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives.</p> <p>Historic buildings: Structures recognised as of universal importance as World Heritage Sites. Other buildings of recognised international importance.</p> <p>Historic landscapes: World Heritage Sites recognised for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well-preserved historic landscapes with exceptional coherence, time-depth, or other critical factor(s).</p>
High	<p>Archaeological remains: Scheduled monuments (including proposed sites). Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives.</p> <p>Historic buildings: Scheduled monuments with standing remains. Grade I, Grade II* and Grade II listed buildings. Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the listing grade. Conservation areas containing very important buildings. Undesignated structures of clear national importance.</p>

Value (sensitivity)	Typical description
	<p>Historic landscapes: Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).</p>
Medium	<p>Archaeological remains: Designated or undesignated assets that contribute to regional research objectives.</p> <p>Historic buildings: Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations. Conservation areas containing buildings which contribute significantly to their historic character. Historic townscape or built-up areas with important historic integrity in their buildings or built settings (e.g. including street furniture and other structures).</p> <p>Historic landscapes: Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factor(s).</p>
Low	<p>Archaeological remains: Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.</p> <p>Historic buildings: 'Locally listed' buildings. Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic townscape or built-up areas of limited historic integrity in their buildings or built settings (e.g. including street furniture and other structures).</p> <p>Historic landscapes: Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.</p>
Negligible	<p>Archaeological remains: Assets with very little or no surviving archaeological importance.</p> <p>Historic buildings: Buildings of no architectural or historical note; buildings of an intrusive character.</p> <p>Historic landscapes: Landscapes with little or no significant historical interest.</p>

Magnitude of impact (change)

6.4.18 Magnitude of impact (change) on receptors has been assessed according to the magnitude of impact criteria from DMRB LA 104 (replicated in Table 4.6 of Chapter 4: Environmental Assessment Methodology of this Environmental Statement (TR010064/APP/6.1)).

Significance of effect

- 6.4.19 Significance of effect has been derived using the significance matrix from DMRB LA 104 (replicated in Table 4.7 of Chapter 4: Environmental Assessment Methodology of this Environmental Statement (TR010064/APP/6.1)). Significance of effect is derived by combining the value (sensitivity) of a receptor and the magnitude of impact (change) on the receptor.
- 6.4.20 To provide clarity where there are two significance categories within the assessment matrix, evidence for the chosen score has been presented where appropriate. Any adverse effect of moderate or above been considered a significant effect for the purposes of this assessment.

6.5 Assessment assumptions and limitations

- 6.5.1 The assessment conclusions presented in this chapter are contingent on the accuracy of the archaeological records (HER data) supplied by GMAAS.
- 6.5.2 An element of professional judgement has been employed in assessing the significance of heritage assets and the extents to which setting contributes to their value. The assessment of changes to setting brought about by the Scheme has utilised the results of other aspect assessments in this Environmental Statement (TR010064/APP/6.1), including landscape and visual, air quality, noise and vibration, and the water environment, as noted in paragraph 6.1.3 of this chapter.
- 6.5.3 This assessment has been undertaken for the Scheme design (as shown on Figure 2.2: Scheme Design of the Environmental Statement Figures (TR010064/APP/6.2) and assumes a reasonable worst-case basis afforded by the limits of deviation (see Section 2.5 of Chapter 2: The Scheme of the Environmental Statement (TR010064/APP/6.1) for further details). While the limits of deviation (as shown on the Works Plans (TR010064/APP/2.4)) could result in the Scheme being closer to some receptors or resources, it is not considered this would result in a greater level of significance than provided in this assessment.
- 6.5.4 No intrusive investigation has been undertaken to ground-truth the presence or absence of buried archaeological remains in the locations indicated by the Greater Manchester HER. This would be an exercise carried out prior to construction (see Section 6.7 of this chapter for further details). Geotechnical ground investigation has been carried out within the Order Limits (see the Ground Investigation Report ((Appendix 9.3 of the Environmental Statement Appendices (TR010064/APP/6.3) for further details) which has informed a picture of the potential survival of archaeological remains and organic environmental deposits such as peat.

6.6 Study area

6.6.1 The cultural heritage assessment has employed two study areas: one for designated heritage assets and another for the non-designated heritage assets. The study areas are shown on Figures 6.1 to 6.3 of the Environmental Statement Figures (TR010064/APP/6.2). The study areas have been chosen to align with DMRB LA 106 paragraph 3.6, which states that study areas '*shall include the footprint of the scheme plus any land outside that footprint which includes any heritage assets which could be physically affected*' and DMRB LA 106 paragraph 3.6.1 which states that 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*'.

Non-designated historic environment assets study area

6.6.2 For the non-designated historic environment assets, like archaeological sites and non-designated historic buildings, a study area has been employed comprising a buffer of 500m from the Order Limits. This helped to focus on the relevant baseline within the areas most likely affected by physical impacts and to give adequate archaeological context for them. It also allowed sufficient attention to be granted to the assets immediately outside the Scheme and consideration of their setting. This study area was also used to characterise the potential for unknown archaeological remains within the footprint of the Scheme which would also have the potential to be physically affected. A larger study area would capture a wider developed environment and potentially an excessive amount of data that would be surplus to requirements in determining context and potential. A smaller study area might be deficient in this regard.

Designated historic environment assets study area

6.6.3 A second larger study area has been utilised purely for the purpose of assessing the setting of designated heritage assets and the potential changes to that setting from the Scheme. Designated heritage assets comprise Scheduled Monuments, Registered Battlefields, Conservation Areas, Registered Parks and Gardens, and Grade I, II* and II listed buildings, all of which are assessed as high value. The data for such an asset class was collated within a buffer of 1km from the Order Limits. After consultation with the competent expert for the landscape and visual assessment, it was recognised that significant effects on the value of heritage assets arising from changes to setting are unlikely beyond 1km, and this was confirmed by the landscape and visual ZTV, the site walkover survey and the landscape and visual assessment (see Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1)). This indicated that no designated assets outside the 1km study area have any visual relationship with the Scheme. The 1km study area for the Scheme was originally conceived due to the nature of the existing motorway infrastructure, the local topography and the anticipated sensitivity of the receiving environment. The presence of intervening urban areas would also preclude any likely intervisibility with the Scheme by designated heritage assets beyond 1km.

6.7 Baseline conditions

6.7.1 This chapter focusses on the assets within the Order Limits and others where effects have been identified and excludes much of the baseline data and assets assessed in the supporting desk study (Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3)) where no adverse effects were identified.

Baseline sources

6.7.2 The data used to determine the baseline conditions for this chapter was retrieved from the following sources:

- National Heritage List for England (NHLE), accessed January 2023 for the latest datasets for designated heritage assets
- The Greater Manchester HER for information on non-designated cultural heritage assets, previous archaeological interventions and Historic Landscape Character (HLC)
- Archaeological Data Service (ADS). Unpublished archaeological reports (ADS Library, accessed June 2021 and June 2022)
- British History Online (2021). The parish of Prestwich with Oldham: Prestwich.
- Bury Metropolitan Borough Council website (2021). Bury – A brief history.
- Greater Manchester Urban Historic Landscape Characterisation Project for information on HLC
- Historic England Archive (HEA) (2021). Unpublished archaeological reports (HEA, accessed June 2021 and June 2022)
- Historic mapping (Ordnance Survey (OS) and non-OS) and aerial imagery available online and from purchased datasets
- Ground Investigation Report (Appendix 9.3 of the Environmental Statement Appendices (TR010064/APP/6.3))
- Prestwich Heritage Society website. A Short History of Prestwich.

Baseline information

- 6.7.3 In terms of archaeological remains, historic landscapes and important historic hedgerows, only those assets within or abutting the Order Limits have been summarised in Table 6.8. All the assets are presented in detail in the supporting desk study (Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3)). Assets are referred to in the sections below by their unique NHLE, HER or HGM numbers. The locations of the designated and non-designated assets discussed in the following sections are shown on Figure 6.1: Archaeological Assets, Figure 6.2: Built Heritage Assets and Figure 6.3: Historic Landscapes of the Environmental Statement Figures (TR010064/APP/6.2).

Table 6.8 Cultural heritage baseline conditions

Heritage asset	Baseline conditions	Location
Archaeological remains		
<i>Non-designated archaeological remains</i>		
The site of a possible oven (HER 3921.1.0)	Identified from an historic field name: 'Owen Hill'.	Within Order Limits
The site of structures south of Mode Hill Lane (HER 3919.1.0)	Structures were identified from 19 th century historic mapping. Two are shown on the historic mapping to the north-west of M60 J18. No trace of the buildings was identified during archaeological assessments undertaken in 1993.	Within Order Limits
The site of structures off Corday Lane (HER 3915.1.0)	These were identified from 19 th century historic mapping to the north-west of M60 J18.	Within Order Limits
The site of Gravel Hill House (HER 3914.1.0)	This was identified from 19 th century historic mapping. An irregularly shaped building is shown on the historic mapping to the north-west of M60 J18. No trace of the building was identified during archaeological assessments undertaken in 1993.	Within Order Limits
A medieval field system (HER 3517.2.0)	Located at Heywood Farm, this on the archaeological record as the possible remains of an early strip field, with irregular width caused by "reversed S" pattern resulting from medieval ploughing. The western end has been destroyed by the M60 motorway and it is unlikely any remains exist within the Order Limits.	Within Order Limits
78 further assets	The remainder of non-designated archaeological assets as recorded on the Greater Manchester HER.	In the 500m study area outside the Order Limits

Heritage asset	Baseline conditions	Location
Built heritage		
<i>Designated historic buildings</i>		
Unsworth War Memorial (NHLE 1440257)	Set within the historic village core of Unsworth to the west of the Scheme – no Scheme inter-visibility.	Approximately 300m west of the Order Limits
Brick Farmhouse (NHLE 1067266)	Grade II listed building with inter-visibility with the Scheme to the west of the property.	Approximately 230m east of the Order Limits
11 other listed buildings	A variety of listed buildings (one at Grade I, two at Grade II* and eight at Grade II), mostly residential properties, set within the historic settlements enclosed within the modern urban landscape.	In the 1km study area outside the Order Limits
Conservation Areas		
Poppythorn Conservation Area	The asset encompasses a fine and well-preserved example of mainly residential development in the south of the borough (BMBC), which grew after the construction of the new turnpike roads and the coming of the railway during the 19 th century.	Approximately 350m to the south of the Order Limits
All Saints, Whitefield, Conservation Area	The asset encompasses a fine and well-preserved example of mainly residential development in the south of the borough which, like the Poppythorn Conservation Area above, grew after the construction of the new turnpike roads and the coming of the railway during the 19 th century.	Approximately 760m to the north of the Order Limits
St Mary's, Prestwich, Conservation Area	The asset encompasses part of a pleasant, wooded landscape. The area is dominated by St Mary's Church which dates to the 15 th century, and the mature treescape within Prestwich Clough. The residential parts of the Conservation Area are typified by tree-lined streets with substantial properties in large grounds mostly dating from the mid-19 th century. The combination of large private grounds and public open spaces results in a lush and heavily tree-lined appearance.	Approximately 850m to the south of the Order Limits

Heritage asset	Baseline conditions	Location
<i>Non-designated historic buildings</i>		
Cold Gate Farm (HER 3918.1.0)	Also referred to as Cowl Gate Farm, is a 19 th century two-storey house, with slate roof, ridge stack and rendered exterior located to the immediate west of the Scheme. The asset is shown on historic mapping dating from the early 19 th century and is recorded as a homestead. There is a modern extension on the west side of the asset. The asset is bounded to the north, south and west by undulating pasture fields and to the east by the M66 motorway from which it is screened by a bank of mature trees and vegetation.	Abutting the Order Limits to the north-west of M60 J18
Droughts Farm (HER 3934.1.0)	A 19 th century farm complex. The farmhouse is built of brick in the English garden wall bond. The threshing barn is also made of brick. This asset is shown on the historic mapping dating from the mid-19 th century and is recorded as 'site of buildings and fold'. The asset is bounded to the north and west by M60 J18, to the east by an area of undeveloped land, and to the south by residential dwellings. Aerial images indicate that there is a derelict extension on the east side of the property. The property lies below the level of the road surface of the M62 slip road which lies closest to the property. The property is screened from the road by a wooden fence and mature vegetation.	Property curtilage abuts the Order Limits at M60 J18
Egypt Farm (formerly Higher Egypt) (HER 3931.1.0)	A completely rebuilt (using the original fabric) 19 th century farmhouse.	Approximately 500m to the north-east of M60 J18 and outside the Order Limits
Hills Nook (HER 10101.1.0)	This asset is believed to comprise two conjoining 18 th or 19 th century buildings in a two-storey, rectangular plan with a slate roof. The asset is surrounded by undulating pasture fields. The M66 motorway is located within a cut to the east of the asset and is not visible from the property.	On Pole Lane, approximately 70m to the west of the Order Limits
Coach and Horses Public House (HER 9961.1.0)	The asset comprises three-storey brick-built rectangular plan building with a blue slate roof. The asset is bounded by residential and commercial properties. The M60 motorway is located within a cut to the north of this asset.	On Bury Old Road, approximately 70m to the south of the Order Limits

Heritage asset	Baseline conditions	Location
The Hills (HER 3926.1.0)	An 18th century farmstead located approximately 120m to the east of the Scheme off Hills Lane. The asset is surrounded by the Pike Fold Golf Club. The M66 motorway is located within a cut to the west of the asset and is not visible. The M62 to the south might be visible but is some way distant.	Approximately 120m to the east of the Order Limits off Hills Lane
St George's Church (HER 2931.1.0)	Set within the historic village of Unsworth it has no Scheme inter-visibility given screening by mature vegetation, positioning in relation to the M66 which lies in cutting.	Approximately 130m to the west of the Order Limits
122 Hollins Lane (HER 2927.1.0)	A two-storey 19 th century townhouse.	Approximately 220m to the west of the Order Limits
Pike Fold Golf Club (HER 3925.1.0)	Previously known as Back o'th' Moss Farm, it dates to the 18 th century. The asset has been subject to extensive redevelopment and is currently the club house of the Pike Fold Golf Club. The asset is surrounded by the landscaped golf course. The M66 motorway is located within a cut to the west of the asset and is not visible. There are likely to be very distant views to M60 J18 to the south.	Approximately 260m to the east of the Order Limits
Former General Store at Hollins Lane (HER 2926.1.0)	This asset is possibly an early 18 th century shop building.	Approximately 260m to the west of the Order Limits
Beehive Dyeworks (HER 3889.1.0)	A former 19 th century cotton mill.	Approximately 300m to the west of the Order Limits
Pumping Station (HER 11008.1.0)	A two-storey mid-20 th century utility building.	On the north bank of the Hollins Brook approximately 300m to the north-east of the Order Limits
Cuckoo Nest (HER 9963.1.0)	A modern building on the site of former buildings recorded as 'Cuckoo's Nest'.	Approximately 250m to the south of the Order Limits
22 further assets	The remainder of non-designated historic buildings as recorded on the Greater Manchester HER. No Scheme inter-visibility.	In the 500m study area outside the Order Limits

Heritage asset	Baseline conditions	Location
Historic landscapes		
<i>Designated historic landscapes</i>		
Grade II Heaton Park Registered Park and Garden (NHLE 1000854)	The park and pleasure gardens of the Heaton Estate and was probably designed by Wouldiam Emes and John Webb in 1770-72. It was an area designed within the Heaton Estate which had been consolidated by the early 17 th century. The park covers an area of approximately 240ha and is varied topographically. It is situated on land which rises from the south and west, and there is a valley running through the northern and north-eastern part of the site, which lie closest to the Order Limits. The setting outside of the park is generally urban in character, characterised mostly by modern, post-war residential settlement. There are views over partially open country to the east and south-east and to the Pennines to the north and north-west. There is partial mature vegetation coverage. The site was acquired by the Manchester Corporation in 1902 and subsequently used as a public park.	The designation abuts the Order Limits at its northern extents
<i>Non-designated historic landscapes</i>		
The existing M60 and M62 Junction 18 (Junction with M66) at Whitefield (HGM9115)	Later 20 th century junction between three motorways. Formerly an area of fields, the character area includes the former sites of two farms, Giles Field (later Corday Lane Farm) & Leaches, shown on mapping from the 1890s onwards.	Within the Order Limits
The M66 motorway, Unsworth Moss (HGM7710)	Motorway built between 1973 and 1978.	Within the Order Limits
The M66 motorway, Unsworth (HGM7658)	Motorway built between 1973 and 1978.	Within the Order Limits
Playing Fields off Griffie Lane (HGM7701)	Playing Fields/ Recreation ground.	Within and overlapping the Order Limits

Heritage asset	Baseline conditions	Location
Pike Fold Golf Club (HGM7700)	Created in the 1990s from a historic farm.	Within and overlapping the Order Limits
Unsworth Moss (HGM7712)	Former mossland probably enclosed in the late medieval or post-medieval period.	Within and overlapping the Order Limits
Fields Around Sandfield Farm and Lower Drouhts Farm, Simister (HGM9804)	Area of fields, largely retaining the pattern shown on 1890s mapping. Almost half of the field boundaries in this area were lost between the mid-19 th century and the 1890s.	Within and overlapping the Order Limits
Area North of 91-139 (odd) Simister Lane, Simister (HGM9813)	Area of very small enclosures, subdivided from small fields in the second half of the 20 th century.	Within and overlapping the Order Limits
Nos. 73-99 (odd) Simister Lane, Simister (HGM8557)	Detached houses set in fairly large gardens, built after the 1950s. Includes a pair of earlier houses shown with current footprint on 1920s mapping and previously as a possibly different building.	Within and overlapping the Order Limits
Nos. 70-88 (even) Simister Lane and 2 & 4 Nutt Lane, Simister (HGM9764)	Small area of semi-detached housing with one row of four, built in the mid-20 th century as ribbon development at the edge of the historic settlement of Simister.	Within and overlapping the Order Limits
Nutt Farm and Wild Goose Farm, Nutt Lane, Simister (HGM9778)	Two farms shown on mapping from at least the mid-19 th century onwards, with extant 19 th century buildings. Wild Goose Farm was named Nut Lane Farm until at least the 1950s.	Within and overlapping the Order Limits
Fields to East and West of Nutt Lane, Simister (HGM8593)	Some field boundaries have been lost and others added since the mid-19 th century, but the general pattern in this area is still of small irregular fields.	Within and overlapping the Order Limits

Heritage asset	Baseline conditions	Location
M60 Between Junctions 18 and 19, North of Heaton Park (HGM8605)	Short stretch of motorway forming part of Manchester's outer ring road. Probably 1990s - the stretch beyond Junction 19 to the east can be seen under construction on a 1990s aerial photo. Includes former site of Heaton Old Hall.	Within the Order Limits
Fields off Heywood Road and Corday Lane, West of Simister (HGM8108)	Area of medium-sized fields with straight boundaries. Boundaries have been added, removed and changed during the 19 th and 20 th centuries. Corday Farm, formerly Parrenthorn Farm, originated early 20 th century.	Within and overlapping the Order Limits
Parrenthorn High School, Heywood Road, Prestwich (HGM8100)	Later 20 th century high school with playing field and tennis courts.	Within and overlapping the Order Limits
Playing Fields, Sandgate Road, Prestwich (HGM8075)	Playing fields created in the later 20 th century. Includes a football pitch and tennis courts.	Within and overlapping the Order Limits
M60 Between Junctions 17 and 18, Prestwich (HGM9116)	Stretch of motorway built in the second half of the 20 th century on former fields.	Within the Order Limits
Conisborough Place and Glendevon Place, off Thatch Leach Lane, Whitefield (HGM9101)	Two later 20 th century cul-de-sacs of short rows and semi-detached houses. In the early 20 th century part of the site was used for extraction relating to an adjacent brickworks.	Within and overlapping the Order Limits

Heritage asset	Baseline conditions	Location
Streets Between Sandgate Road, Warwick Avenue and Cuckoo Lane, Kirkhams, Prestwich (HGM8062)	Housing estate dating to the second half of the 20 th century, mainly comprising semi-detached houses but with some areas of detached dwellings. Extraction relating to nearby brickworks occurred in the north part of the area in the 19 th and early 20 th centuries.	Within and overlapping the Order Limits
M60 Junction 17, Prestwich/Whitefield (HGM9496)	Motorway junction built in the later 20 th century. A small settlement named Hardman's Green was present here by the mid-19 th century, at a crossroads. Suburban housing was built in the area in the mid-20 th century.	Within the Order Limits
Lower Droughts Farm, off Simister Lane, Simister (HGM9758)	First shown on early 20 th century mapping and includes some post-1950's buildings.	Within and overlapping the Order Limits
Streets Around Thatch Leach Lane and Stanley Road, Whitefield (HGM9100)	Mid-20 th century semi-detached housing, probably private rather than social. Most houses were built by the end of the 1950s, with some slightly later. The development includes former site of brickworks and The Frigate public house.	Within and overlapping the Order Limits
Derwent Avenue, Oak Lane and Hindburn Close, Whitefield (HGM9097)	A later 20 th century estate comprising short rows, groups of low rise flats and a small number of semi-detached houses. It includes the former site of a settlement along Hillock Lane shown on mid-19 th century to 1950s mapping, and the former site of Oak Lane Farm.	Abutting the Order Limits
Nos. 62-92 (even) Bury Old Road, Kirkhams (HGM10010)	These comprise two terraces of shops, including a post office. The terraces are shown on maps dating from the early 20 th century onwards, but originally had small front gardens and were probably in residential use. Most of the gardens had been lost by the 1950s.	Within and overlapping the Order Limits
Streets Between Beeston Grove, Ludlow Avenue and Kenilworth (HGM8055)	These comprise an estate of almost all semi-detached houses built in the mid-20 th century on former agricultural land.	Within and overlapping the Order Limits

Heritage asset	Baseline conditions	Location
Fields to East and West of Pole Lane, Unsworth (HGM9174)	An agglomeration of earlier piecemeal enclosures which took place in this area in the second half of the 19 th century. Some further changes were made in the 20 th century. This area includes Hills Nook cottages and the former sites of Limbrick and Limbrick Farm.	Within and overlapping the Order Limits
Important hedgerows		
<i>Non-designated important hedgerows</i>		
Hedgerow HG_21	Identified from mid-19 th century Ordnance Survey map and still present, giving it 'important' status under the Hedgerow Regulations 1997.	Within and overlapping the Order Limits
Hedgerow HG_22	Identified from mid-19 th century Ordnance Survey map and still present, giving it 'important' status under the Hedgerow Regulations 1997.	Adjacent to the Order Limits
Hedgerow HG_23	Identified from mid-19 th century Ordnance Survey map and still present, giving it 'important' status under the Hedgerow Regulations 1997.	Within and abutting the Order Limits
Hedgerow HG_39	Identified from mid-19 th century Ordnance Survey map and still present, giving it 'important' status under the Hedgerow Regulations 1997.	Within the Order Limits
Hedgerow HG_80	Identified from mid-19 th century Ordnance Survey map and still present, giving it 'important' status under the Hedgerow Regulations 1997.	Within and overlapping the Order Limits

Future baseline

- 6.7.4 The future baseline for cultural heritage is very much dependent on the actions of local and national stakeholders, such as the local planning authorities and Historic England, to conserve and manage heritage assets (both designated and non-designated) in future years.
- 6.7.5 The future baseline might also change given natural occurrences which might constitute '*force majeure*'. Minor earthquakes are one such example; whilst rare in the United Kingdom, some have been known to occur and these might result in superficial damage to built heritage assets.
- 6.7.6 Many historic assets benefit from regular maintenance. This is particularly true for historic buildings, including civic architecture such as statues and war memorials. In the event of changes in maintenance regimes such assets might well be neglected, leading to terminal decline.
- 6.7.7 Future development is the most likely source of changing baseline. Development within the Order Limits or in the immediate vicinity of it has the potential to remove or damage heritage assets, together with permanently changing the setting of heritage assets. There are several planning applications and development allocations in a 2km study area around the Order Limits. Collectively, these schemes are likely to involve some impacts to the historic environment. The extent of these changes to archaeology and built heritage would be determined through environmental assessment. In general, there might be removal of some historic assets and changes to the setting of others, which would affect their significance.
- 6.7.8 A changing climate might have a bearing on the survival of historic assets, particularly buried remains susceptible to changes in groundwater.

Value (sensitivity) of receptors

- 6.7.9 All receptors within the baseline have been assigned a value following the criteria in Table 6.7 and using professional judgement. Table 6.9 summarises the value of receptors identified within the study area.

Table 6.9 Value (sensitivity) of receptors in the study area for cultural heritage

Receptor	Value (sensitivity)
Archaeological assets	
The site of a possible oven (HER 3921.1.0)	Negligible
The site of structures south of Mode Hill Lane (HER 3919.1.0)	Low
The site of structures off Corday Lane (HER 3915.1.0)	Low
The site of Gravel Hill House (HER 3914.1.0)	Low
A medieval field system at Heywood Farm (HER 3517.2.0)	Negligible
78 further assets within the 500m study area	Negligible or Low

Receptor	Value (sensitivity)
Built heritage assets	
Unsworth War Memorial (NHLE 1440257)	High
Brick Farmhouse (NHLE 1067266)	High
11 other listed buildings within the study area – One at Grade I, two at Grade II* and eight at Grade II	High
Poppythorn Conservation Area	Medium
All Saints, Whitefield, Conservation Area	Medium
St Mary's, Prestwich, Conservation Area	Medium
Cold Gate Farm (HER 3918.1.0)	Low
Droughts Farm (HER 3934.1.0)	Low
Egypt Farm (formerly Higher Egypt) (HER 3931.1.0)	Low
Hills Nook (HER 10101.1.0)	Low
Coach and Horses Public House (HER 9961.1.0)	Low
The Hills (HER 3926.1.0)	Low
St George's Church (HER 2931.1.0)	Low
122 Hollins Lane (HER 2927.1.0)	Low
Pike Fold Golf Club (HER 3925.1.0)	Low
Former General Store at Hollins Lane (HER 2926.1.0)	Low
Beehive Dyeworks (HER 3889.1.0)	Low
Pumping Station (HER 11008.1.0)	Low
Cuckoo Nest (HER 9963.1.0)	Low
22 further non-designated assets within the study area	Low
Historic landscapes	
Grade II Heaton Park Registered Park and Garden (NHLE 1000854)	Medium
The existing M60 and M62 Junction 18 (Junction with M66) at Whitefield (HGM9115)	Negligible
The M66 motorway, Unsworth Moss (HGM7710)	Negligible
The M66 motorway, Unsworth (HGM7658)	Negligible
Playing Fields off Griffe Lane (HGM7701)	Low
Pike Fold Golf Club (HGM7700)	Low

Receptor	Value (sensitivity)
Unsworth Moss (HGM7712)	Low
Fields Around Sandfield Farm and Lower Droughts Farm, Simister (HGM9804)	Low
Area North of Nos. 91-139 (odd) Simister Lane, Simister (HGM9813)	Low
Nos. 73-99 (odd) Simister Lane, Simister (HGM8557)	Low
Nos. 70-88 (even) Simister Lane and 2 & 4 Nutt Lane, Simister (HGM9764)	Low
Nutt Farm and Wild Goose Farm, Nutt Lane, Simister (HGM9778)	Low
Fields to East and West of Nutt Lane, Simister (HGM8593)	Low
M60 Between Junctions 18 and 19, North of Heaton Park (HGM8605)	Negligible
Fields off Heywood Road and Corday Lane, West of Simister (HGM8108)	Low
Parrenthorn High School, Heywood Road, Prestwich (HGM8100)	Low
Playing Fields, Sandgate Road, Prestwich (HGM8075)	Low
M60 Between Junctions 17 and 18, Prestwich (HGM9116)	Negligible
Conisborough Place and Glendevon Place, off Thatch Leach Lane, Whitefield (HGM9101)	Low
Streets Between Sandgate Road, Warwick Avenue and Cuckoo Lane, Kirkhams, Prestwich (HGM8062)	Low
M60 Junction 17, Prestwich/Whitefield (HGM9496)	Negligible
Non-designated important historic hedgerows HG_21, HG_22, HG_23, HG_39 and HG_80	Low

6.8 Potential impacts

Construction

6.8.1 Potential impacts on heritage assets during construction can be divided into physical impacts and impacts arising from changes in an asset's setting (if the setting is relevant to understanding and appreciating the heritage value of the asset and contributes to its value).

Physical impacts on heritage assets

6.8.2 Potential physical impacts on heritage assets which may occur during construction of the Scheme comprise:

- Partial or complete removal of archaeological remains or historic landscape elements (such as hedgerows) within the footprint of the Scheme through groundworks associated with construction. Groundworks could include widening of the existing highway boundary or the creation of new offline sections, in addition to any service trenches and drainage features, topsoil stripping for compounds and attenuation ponds and landscaping features.
- Impacts on archaeological remains within the footprint of the Scheme through their disturbance, compression and vibration during construction, through the movement of machinery or within site compound or spoil storage areas.
- Impacts on archaeological remains through changes to groundwater levels caused by engineering activities associated with the Scheme.
- Impacts to historic buildings through vibration impacts from construction activity nearby and through dewatering of buried soils, leading to subsidence.

Changes to the setting of heritage assets

6.8.3 Potential impacts where the Scheme may affect the contribution made by setting to an asset's value (if the setting is relevant to understanding and appreciating the heritage value of the asset) which may occur during construction comprise:

- The physical removal of, damage to, or severance of associated archaeological remains which form the setting of a heritage asset.
- The alteration to the setting of archaeological remains and historic buildings through the removal of vegetation or associated above-ground elements during construction.
- Temporary changes in the way in which sound and noise currently contribute to the heritage value of assets and changes to the setting of archaeological remains, historic buildings, where that setting is relevant to understanding and appreciating its heritage value, during construction activities such as site clearance, earthworks (including landscaping), pavement and white lining, placement of site compounds, drainage, surface water channelling, utility diversions and work to structures such as gantries, retaining walls and barriers.

Potential impacts identified

6.8.4 This assessment has identified the following:

- No physical impacts are predicted on any designated heritage assets.
- Some changes would occur to the setting of the designated historic landscape of the Grade II listed Heaton Park Registered Park and Garden.

- There is the potential for construction activities to have a temporary impact on the value of historic buildings, both designated and non-designated, (where the setting is relevant to understanding and appreciating the heritage value of the asset) due to increases in the way in which sound and noise currently contribute to the heritage value of assets, and from dust.
- There is a low potential for previously unknown archaeological assets to be present within the footprint of the Scheme that may be physically affected/removed during construction activities. Nevertheless, areas of previously undisturbed (by modern activity) historic soils, as identified by the Ground Investigation Report (Appendix 9.3 of the Environmental Statement Appendices (TR010064/APP/6.3)) might be areas where surviving archaeological remains exist.

6.8.5 Based on the above, impacts on archaeological remains, historic buildings, and historic landscapes during construction are included in the assessment of likely significant effects in Section 6.10 of this chapter.

Operation

6.8.6 Potential impacts on heritage assets during operation can be divided into physical impacts and where the Scheme may affect the contribution made by setting to an asset's value (if the setting is relevant to understanding and appreciating its heritage value).

Physical impacts on heritage assets

6.8.7 Potential physical impacts on heritage assets which may occur during operation of the Scheme comprise:

- Removal of, or damage to, archaeological remains during maintenance works.
- Damage to archaeological remains, historic buildings, or HLC areas through pollutants.

Changes to the setting of heritage assets

6.8.8 Potential impacts on the value of heritage assets can occur where the Scheme would alter the setting and its contribution to an asset's value (if the setting is relevant to understanding and appreciating its heritage value) during operation, comprise:

- Alterations to the setting of historic buildings where new infrastructure is present in key views towards, through and across an asset.
- Alterations to an asset's setting due to increases in the way in which sound and noise currently contribute to the heritage value of assets and light currently contribute to the heritage value of assets caused by the Scheme.
- Severance of identifiable interrelationships due to a new length of road causing physical divisions between previously related heritage assets.

Potential impacts identified

6.8.9 This assessment has identified the following:

- The low potential for significant physical impacts on historic buildings and archaeological remains during operation.
- The value of historic buildings (where setting is relevant to the appreciation and understanding of that heritage value) has the potential to be impacted due to alteration to setting through increases in the way sound, noise and light currently contribute to the heritage value of assets during operation.
- While archaeological remains have the potential for their setting to be changed, the initial assessment of the archaeological remains within the study area is that their value is primarily derived from their physical remains, if present, and any intrusion on their setting during operation would be limited to no impact on our understanding and appreciation of these heritage assets. This is determined by considering the current local environment of motorway and modern settlement adjacent to it along much of the Scheme.

6.9 Design, mitigation and enhancement measures

Embedded mitigation

6.9.1 Embedded mitigation (that is, mitigation through engineering design) is described in detail in Chapter 2: The Scheme of the Environmental Statement (TR010064/APP/6.1) and includes the following measures relevant to cultural heritage:

- Landscape design, including planting, to screen views and integrate the Scheme into the local context (more detail below).
- Use of low noise surface to reduce noise impacts.
- Limiting land take from current and proposed residential and employment land uses, community land and assets, and agricultural landholdings as far as practicable.
- Designing lighting to best practice to reduce light spill and impacts on bats.
- Limiting the amount of offline highways design to reduce material requirements and waste.

- 6.9.2 The landscape design listed above is described in detail in Chapter 7: Landscape and Visual of this Environmental Statement (TR010064/APP/6.1) and includes design measures to minimise the impact of the Scheme on the local landscape. The reduction of visual impact would include the easing of engineered slopes to provide a more 'natural' looking profile and the retention of some areas of vegetation. The use of the existing high earth mound for part of the Northern Loop has reduced the requirement of a new purpose-built structure and provides greater opportunity for landscape integration and screening by locating mitigation planting on embankments.
- 6.9.3 The design solutions outlined above reduce the visual intrusions of the Scheme on historic buildings, where visual setting contributes to the value of the assets. Setting can also be affected by artificial light, additional noise, vibration and dust. The design solutions limiting the impacts of operational noise, surface water and groundwater conditions and artificial lighting would reduce the potential impacts arising from these sources to the setting of the historic buildings. The change to the historic setting of buildings would also be limited by the Scheme design, given that it is incorporated into land which has to a large extent been subject to development for the existing motorway network. The impact on the historic setting of buildings has therefore been greatly limited.
- 6.9.4 The measures above may not eliminate environmental impacts altogether but would make a contribution to reducing or offsetting them.
- 6.9.5 Chapter 3: Assessment of Alternatives of this Environmental Statement (TR010064/APP/6.1) details the design alternatives that have been considered to date, including the environmental factors which have influenced the decision making.

Essential mitigation

- 6.9.6 Impacts to buried archaeological remains arise from the permanent and temporary land-take of the Scheme i.e. the removal and compression of soil horizons.
- 6.9.7 Archaeological investigation and recording, prior to commencement of construction, would determine the presence, extents, and significance of buried archaeological assets. These are commitments made within commitments CH1, CH2 and CH3 within the REAC contained within the First Iteration EMP (TR10064/APP/6.5). The First Iteration EMP would be developed into the Second Iteration EMP to be implemented during construction and secured through Requirement 4 of the draft DCO (TR010064/APP/3.1).
- 6.9.8 Where archaeological investigation is warranted, this would inform a mitigation strategy to be implemented prior to construction. Where significant archaeological remains are located through investigation, this would inform the need for, and scope of mitigation. The information derived from such mitigation would ultimately be transferred to the public domain in the form of interpretive reports, as per the requirements of DMRB LA 106 (Section 3.12).
- 6.9.9 No essential mitigation to historic buildings has been identified owing to the embedded mitigation measures described above.

Enhancement

- 6.9.10 No enhancement measures have been identified for the cultural heritage aspect.

6.10 Assessment of likely significant effects

- 6.10.1 Tables 6.10 and 6.11 summarise the likely significant residual effects of the Scheme on cultural heritage during construction and operation. All effects have been qualitatively and quantitatively assessed based on the application of professional judgement to the DMRB LA 104 and DMRB LA 106 significance criteria.
- 6.10.2 Where effects have been identified, these would be reduced where practicable by implementing the mitigation measures outlined in Section 6.9 and by ensuring that the construction of the Scheme responds to the national regulatory or policy standards and local policy requirements relevant to this aspect. The residual effects detailed in Tables 6.10 and 6.11 assume the implementation of this mitigation.

Construction

- 6.10.3 Assets where adverse effects have been identified in Appendix 6.1: Cultural Heritage Desk-Based Assessment of the Environmental Statement Appendices (TR010064/APP/6.3) are included in Table 6.10 below.
- 6.10.4 **No significant effects** have been identified during construction on cultural heritage assets.

Table 6.10 Assessment of likely significant effects on heritage assets during construction

Receptor	Value / sensitivity	Description of potential impact	Summary of mitigation / enhancement	Magnitude of impact	Scale of impact	Significance of residual effect
The site of a possible oven (HER 3921.1.0)	Negligible	Removal.	Archaeological watching brief to mitigate the impacts of construction on possible buried remains (measure CH2 in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5))	Major adverse	Permanent	Slight adverse
The site of two structures south of Mode Hill Lane (HER 3919.1.0)	Low	Damage through compression and topsoil removal prior to temporary working area preparation.	Trial trench investigation to determine the presence, and value of buried archaeological remains and to inform the need for, and scope of, mitigation (measure CH1 in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5))	Moderate adverse	Permanent	Slight adverse

Receptor	Value / sensitivity	Description of potential impact	Summary of mitigation / enhancement	Magnitude of impact	Scale of impact	Significance of residual effect
The site of former structures off Corday Lane (HER 3915.1.0)	Low	Removal or truncation through topsoil removal and compression.	Trial trench investigation to determine the presence, and value of buried archaeological remains and to inform the need for, and scope of, mitigation (measure CH1 in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5))	Major adverse	Permanent	Slight adverse
Cold Gate Farm (HER 3918.1.0)	Low	Change to asset setting from contractor's compound.	No mitigation identified	Moderate adverse	Temporary short term	Slight adverse
Droughts Farm (HER 3934.1.0)	Low	Some additional noise, dust and lighting relating to construction activity, plus the effects of construction-related vibration and settlement. Embedded measures have ensured that these effects are minimised.	No mitigation identified	Minor adverse	Temporary short term	Slight adverse
Brick Farmhouse (NHLE 1067266)	High	Additional noise, dust and lighting relating to construction activity associated with Pond 2.	No mitigation identified	Minor adverse	Temporary short term	Slight adverse

Receptor	Value / sensitivity	Description of potential impact	Summary of mitigation / enhancement	Magnitude of impact	Scale of impact	Significance of residual effect
Heaton Park Registered Park and Garden (NHLE 1000854)	Medium	There are some visual relationships between some locations in the northern half of the registered area and the Scheme, particularly those parts of the park immediately to the east of Heaton Park Reservoir. The construction impacts would temporarily change the visual and historic setting of one part of the park, with the addition of unsightly working areas. This would also result in unoccupied land being occupied for construction compounds, laydown and working areas, which would temporarily change the park's visual setting. It must be noted that this part of Heaton Park has already undergone large-scale setting change from the 1920's golf club to the south-east, Heaton Park Reservoir and the M66 corridor to the north.	No mitigation identified	Negligible adverse	Temporary short term	Slight adverse

Operation

- 6.10.5 **No significant effects** have been identified during operation on cultural heritage assets.
- 6.10.6 The archaeological resource would not suffer any adverse effects during operation, as any negative effects have been identified during construction only.
- 6.10.7 The non-designated historic building Cold Gate Farm (HER 3918.1.0) would be adversely affected during operation with the encroachment of the highways estate closer to the property changing its setting and value. This slight adverse effect would be **not significant** given the existing setting of the property.
- 6.10.8 Heaton Park Registered Historic Park and Garden (NHLE 1000854) would undergo some change to its visual setting at the northern end of the designation, in an area that has already seen much change historically. This slight adverse effect would be **not significant** given the minimal additional change over the existing setting brought by the Scheme.
- 6.10.9 Table 6.11 summarises the operational effects of the Scheme on the historic environment assets identified in Table 6.10. In terms of archaeological remains, operational impacts are not relevant, though they are for historic buildings and historic landscapes.

Table 6.11 Assessment of likely significant effects during operation

Receptor	Value/ sensitivity	Description of potential impact	Summary of mitigation / enhancement	Magnitude of impact	Scale of impact	Significance of residual effect
The site of a possible oven (HER 3921.1.0)	Negligible	If still existing, this asset would be erased during construction, so no operational impacts identified.	No mitigation identified	No change	N/A	Neutral
The site of two structures south of Mode Hill Lane (HER 3919.1.0)	Low	No operational impacts identified.	No mitigation identified	No change	N/A	Neutral
The site of former structures off Corday Lane (HER 3915.1.0)	Low	No operational impacts identified.	No mitigation identified	No change	N/A	Neutral
The site of Gravel Hill House (HER 3914.1.0)	Negligible	No operational impacts identified.	No mitigation identified	No change	N/A	Neutral
Cold Gate Farm (HER 3918.1.0)	Low	The permanent land take for the Scheme brings new roads nearer this house, resulting in a change in setting that could have a negative effect on the visual and historic setting.	No mitigation identified	Minor adverse	Permanent	Slight adverse
Droughts Farm (HER 3934.1.0)	Low	The permanent land take for the Scheme would see the highways estate brought closer to the property, but although the historic setting of the property would change, no additional visual intrusion would occur.	No mitigation identified	Minor adverse	Permanent	Neutral

Receptor	Value/ sensitivity	Description of potential impact	Summary of mitigation / enhancement	Magnitude of impact	Scale of impact	Significance of residual effect
Brick Farmhouse (NHLE 1067266)	High	The permanent land take for the Scheme would see the highways estate brought closer to the property, but there would be no visually intrusive elements detracting from the property's setting.	No mitigation identified	No change	Permanent	Neutral
Heaton Park Registered Park and Garden (NHLE 1000854)	Medium	There are some limited views from the Registered Park and Garden to the Scheme from some viewpoints within the northern half of the designation. There would be minor visual and historic changes to the park's setting in both visual and historic terms from Scheme, given the enlarged road layout. The additional road infrastructure would comprise additional visual intrusion and changes to historic setting, though this would be in the context of historic parkland that has undergone marked changes including the insertion of a golf course within it in the 1920's, the creation of Heaton Park Reservoir and the existing motorway network.	No mitigation identified	Minor adverse	Permanent	Slight adverse

6.11 Monitoring

- 6.11.1 The recommended approach to mitigating the effects on known archaeological remains (measures CH1, CH2 and CH3 in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5)) requires monitoring to ensure implementation.
- 6.11.2 The archaeological trial trench investigation (measure CH1 in the REAC, contained within the First Iteration EMP (TR010064/APP/6.5)) on two historic settlements (HER 3919.1.0 and HER 3915.1.0) would take place prior to construction and would be monitored by an agent to be appointed by National Highways.
- 6.11.3 The archaeological monitoring and recording (formerly watching brief) (measures CH2 and CH3 in the REAC) are contained within the First Iteration EMP (TR010064/APP/6.5). These are on the possible remains of an oven (HER 3921.1.0) (commitment CH2) and an area of historic soils surviving within the footprint of Pond 7 (commitment CH3). These archaeological interventions would be carried out by archaeological contractors on behalf of the Principal Contractor during early-stage construction.

6.12 Summary

- 6.12.1 The Scheme would have a minimal impact on cultural heritage during construction, with slight adverse effects occurring on seven assets:
- Two designated heritage assets: Heaton Park Registered Park and Garden (NHLE 1000854) and the listed Brick Farmhouse (NHLE 1067266).
 - Three archaeological assets: the site of a possible oven (HER 3921.1.0) the site of two structures south of Mode Hill Lane (HER 3919.1.0) and the site of former structures off Corday Lane (HER 3915.1.0).
 - Two non-designated historic buildings: Cold Gate Farm (HER 3918.1.0) and Droughts Farm (HER 3934.1.0).
- 6.12.2 The Scheme would have minimal impact on cultural heritage during operation, with only two assets undergoing a slight adverse residual effect: Heaton Park Registered Park and Garden (NHLE 1000854) and the non-designated historic building Cold Gate Farm (HER 3918.1.0).
- 6.12.3 The assessment supporting this chapter is Appendix 6.1: Cultural Heritage Desk-Based Assessment in the Environmental Statement Appendices (TR010064/APP/6.3) and the results of the assessment have been distilled into this chapter. The combined appendix and chapter have satisfied the criteria by which decision-making can be made in line with the NPS NN (DfT, 2014) and the draft NPS NN (DfT, 2023). The loss of assets of low significance can be mitigated. The less than substantial harm as per paragraph 5.132 of the NPS NN (DfT, 2014) and paragraph 5.214 of the draft NPS NN (DfT, 2023) is justified given the public interest of the Scheme in achieving local transportation improvements.

6.12.4 Table 6.12 summarises residual significant effects identified for cultural heritage.

Table 6.12 Summary of residual significant effects for cultural heritage

Summary of residual significant effects	
Construction	Operation
No significant effects identified	No significant effects identified

Acronyms and initialisms

Acronym or initialism	Term
ADS	Archaeological Data Service
DCO	Development Consent Order
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
GMCA	Greater Manchester Combined Authority
HEA	Historic England Archive
HER	Historic Environment Record
HLC	Historic Landscape Character
MHCLG	Ministry of Housing, Communities and Local Government (now called the Department for Levelling Up, Housing and Communities)
NHLE	National Heritage List for England
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPS NN	National Policy Statement for National Networks
NSIP	Nationally Significant Infrastructure Project
OS	Ordnance Survey
REAC	Register of Environmental Actions and Commitments

Glossary

Term	Definition
Harm	Where potential harm to a designated historic environment asset is identified it needs to be classified as less than substantial harm or substantial harm, which substantial harm equating to a significant affect in the context of this assessment
Historic England	A public body responsible for ensuring the statutorily-protected historic environment designations are protected
Historic environment	All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora

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