



***EASTERLY ALTERNATION
INFRASTRUCTURE PROJECT***

***Environmental Impact Assessment
Environmental Statement, Volume II
Chapter 11: Historic Environment***

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11. Historic environment

11.1 Introduction

- 11.1.1 The Scoping Opinion (**Appendix 1.6: Scoping Opinion**) from the London Borough of Hillingdon (LBH) advised that historic environment could be scoped out of the Environmental Statement but assessed outside of the Environmental Impact Assessment (EIA) process. However, the Applicant has included this Chapter within the Environmental Statement voluntarily to assess certain matters with potential for likely significant effects as identified below.
- 11.1.2 In the light of the LBH's scoping response and taking account of views expressed by other stakeholders in response to scoping, this Chapter reports the outcome of the assessment of likely significant effects arising from the Proposed Development upon the historic environment. It assesses the following matters with potential to give rise to likely significant effects:
- Disturbance of archaeological remains as a result of construction of new airfield infrastructure (runway access taxiways) and noise barrier; and
 - Harm to the character of the conservation area and the setting of heritage assets as a result of construction of noise barrier at Longford.
- 11.1.3 This Chapter (and its associated figures and appendices) is intended to be read as part of the wider Environmental Statement, with particular reference to **Chapter 3: Description of the Proposed Development**. Reference is also made to **Chapter 10: Landscape and Visual Impact Assessment**, with particular reference to the Zone of Theoretical Visibility (ZTV) and viewpoints which illustrate the extent of predicted visibility of the noise barrier from Longford Conservation Area and from listed buildings.
- 11.1.4 An archaeological desk-based assessment has been completed and is included as **Appendix 11.1: Archaeology Desk Study**.
- 11.1.5 This Chapter is supported by Figures provided in **Appendix 11.2: Historic Environment Figures**.

11.2 Relevant legislation, policy and technical guidance

- 11.2.1 This Section identifies the relevant legislation, policy and technical guidance that has informed the scope of the historic environment assessment presented in this Chapter.

Legislation

- 11.2.2 A summary of the relevant legislation is provided in **Table 11.1**.

Table 11.1 Relevant legislation

Document / Reference	Summary
Ancient Monuments and Archaeological Areas Act 1979¹	The Ancient Monuments and Archaeological Areas Act 1979 consolidates and amends the law relating to ancient monuments which sets out the procedures to list on, amend, or remove ancient monuments from a register or schedule; gives protection to ancient monuments; and requires any works within the boundaries of the scheduled ancient monuments to be taken under Scheduled Monument Consent granted by the Secretary of State.
Planning (Listed Buildings and Conservation Areas) Act 1990²	The Planning (Listed Buildings and Conservation Areas) Act 1990 provides for a list of buildings of special architectural or historical interest classified as Grades I, II* and II, and accorded statutory protection. Areas of special architectural or historic interest can be designated as conservation areas. Requires decision-makers to have special regard to the desirability of preserving a building or its setting or any features of special architectural or historic interest which it possesses, and to preserving or enhancing the character and appearance of conservation areas.
The Hedgerow Regulations 1997³	The Hedgerow Regulations 1997 restrict the removal of hedgerows of particular interest which are 'important hedgerows'. The criteria for defining important hedgerows include heritage considerations: marking the boundary, or part of the boundary, of at least one historic parish or township; incorporating an archaeological feature (Scheduled Monument or recorded in the Historic Environment Records (HER)); situated wholly or partly within an archaeological site or on land adjacent to and associated with such a site; marks the boundary of a pre-1600 AD estate or manor; or recorded in a document held at the relevant date at a Record Office as an integral part of a field system pre-dating the Inclosure Acts.

Policy

11.2.3 A summary of relevant policy is provided in **Table 11.2**.

¹ HM Government (1979) *Ancient Monuments and Archaeological Areas Act 1979*. [online] Available at: <https://www.legislation.gov.uk/ukpga/1979/46> [Accessed: 03 October 2024].

² HM Government (1990) *Planning (Listed Buildings and Conservation Areas) Act 1990*. [online] Available at: <https://www.legislation.gov.uk/ukpga/1990/9> [Accessed: 03 October 2024].

³ HM Government (1997) *The Hedgerows Regulations 1997*. [online] Available at: <https://www.legislation.gov.uk/uksi/1997/1160/contents> [Accessed: 03 October 2024].

Table 11.2 Relevant policy

Document / Reference	Summary
National Planning Policies	
National Planning Policy Framework⁴	<p>National policy, as set out in the National Planning Policy Framework (NPPF), recognises that heritage assets, including those which have not been designated, are a non-renewable resource and requires a unified approach to the management of the historic environment requiring sufficient evidence of the assessment of significance and appropriate measures to mitigate negative effects on heritage assets and their setting.</p> <p>Relevant paragraphs of the NPPF, concerning the treatment of the historic environment within the development process are set out below.</p>
	<p>Section 16, paragraph 200 states:</p> <p><i>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”.</i></p> <p>Section 16, paragraph 201 states:</p> <p><i>“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”.</i></p> <p>Section 16, paragraph 203 states:</p> <p><i>“In determining applications, local planning authorities should take account of:</i></p>

⁴ Ministry of Housing, Communities and Local Government (2023) *National Planning Policy Framework*. [online] Available at: https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF_December_2023.pdf [Accessed: 03 October 2024].

Document / Reference	Summary
	<p>a) <i>the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;</i></p> <p>b) <i>the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and</i></p> <p>c) <i>the desirability of new development making a positive contribution to local character and distinctiveness”.</i></p> <p>Section 16, paragraph 205 states:</p> <p><i>“When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance”.</i></p> <p>Section 16, paragraph 206 states:</p> <p><i>“Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:</i></p> <p>a) <i>grade II listed buildings, or grade II registered parks or gardens, should be exceptional;</i></p> <p>b) <i>assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage sites, should be wholly exceptional”.</i></p> <p>Section 16, paragraph 207 states:</p> <p><i>“Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:</i></p> <p>a) <i>the nature of the heritage asset prevents all reasonable uses of the site;</i></p> <p>b) <i>no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation;</i></p> <p>c) <i>conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and</i></p>

Document / Reference	Summary
	<p>d) <i>the harm or loss is outweighed by the benefit of bringing the site back into use</i>".</p> <p>Section 16, paragraph 208 states: <i>"Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use"</i>.</p> <p>Section 16, paragraph 209 states: <i>"The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset"</i>.</p> <p>Section 16, paragraph 211 states: <i>"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"</i>.</p>
<p>Airports National Policy Statement: New runway capacity and infrastructure at airports in the southeast of England (June 2018)⁵</p>	<p>The Airports National Policy Statement forms part of the overall framework of national policy and may be a material consideration in making decisions on Town and Country Planning Act 1990⁶ planning applications. Paragraphs 5.187 to 5.212 are most relevant to the historic environment.</p> <p>Paragraph 5.187 states that: <i>"The construction and operation of airports and associated infrastructure has the potential to result in adverse impacts on the historic environment above and below ground. This could be as a result of the scale, form and function of the development, and the wider impacts it can create in terms of associated infrastructure to connect the Airport to existing</i></p>

⁵ Department for Transport (2018) *Airports National Policy Statement: new runway capacity and infrastructure at airports in the South East of England*. [online] Available at: <https://assets.publishing.service.gov.uk/media/5e2054fc40f0b65dbed71467/airports-nps-new-runway-capacity-and-infrastructure-at-airports-in-the-south-east-of-england-web-version.pdf> [Accessed: 03 October 2024].

⁶ HM Government (1990) *The Town and Country Planning Act 1990 (as amended)*. [Online] Available at: <https://www.legislation.gov.uk/ukpga/1990/8/contents> [Accessed: 03 October 2024].

Document / Reference	Summary
	<p><i>transport networks, changes in aircraft movement on the ground and in the surrounding airspace, additional noise and light levels, and the need for security and space to ensure the Airport's operation</i>".</p> <p>Paragraphs 5.193 to 5.195 describe the requirements of an applicant's assessment and paragraphs 5.196 to 5.208 guide the decision making process.</p> <p>Paragraphs 5.209 to 5.212 set out requirements for recording works which may be required where a development will result in <i>"the loss of the whole or part of a heritage asset's significance"</i>.</p>
Local Development Policies	
The London Plan 2021⁷ Policy HC1 Heritage conservation and growth	<p>The London Plan 2021 states that development proposals should be sympathetic to the significance of heritage assets and seek to avoid harm in the design process.</p>
London Borough of Hillingdon Local Plan Strategic Objective S01⁸	<p>The LBH's Local Plan Strategic Objective S01 outlines the need to conserve and enhance the Borough's heritage and their settings by ensuring new development, including changes to the public realm, are of high quality design, appropriate to the significance of the heritage asset, and seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.</p>
London Borough of Hillingdon Local Plan Strategic Policy HE1⁸	<p>The LBH's Local Plan Strategic Policy HE1 outlines the LBH's commitment to the conservation and enhancement of heritage of the Borough's historic environment, including historic village cores, designated heritage assets, locally listed buildings and archaeologically significant areas. This includes actively encouraging the regeneration of heritage assets, promoting public awareness and encouraging the re-use and modification of heritage assets where appropriate.</p>
London Borough of Hillingdon Local Plan	<p>The LBH will expect development proposals to avoid harm to heritage assets except where: development sustains an asset and puts it into a viable and appropriate use; the development will result in a public benefit which outweighs any harm.</p>

⁷ Greater London Authority (2021) *The London Plan*. [online] Available at: https://www.london.gov.uk/sites/default/files/the_london_plan_2021.pdf [Accessed: 03 October 2024].

⁸ London Borough of Hillingdon (2012) *Hillingdon Local Plan: Part 1 – Strategic Policies*. [online] Available at: [https://www.hillingdon.gov.uk/media/3080/Local-Plan-Part-1---Strategic-Policies/pdf/npLocal Plan Part 1 Strategic Policies 15 feb 2013 a 1 1.pdf?m=1598370401647](https://www.hillingdon.gov.uk/media/3080/Local-Plan-Part-1---Strategic-Policies/pdf/npLocal%20Plan%20Part%201%20Strategic%20Policies%2015%20feb%202013%20a%201%201.pdf?m=1598370401647) [Accessed: 03 October 2024].

Document / Reference	Summary
Development Management Policy DMHB 1⁹	Developments affecting heritage assets should make a positive contribution to the local character and should respect the character of the asset and its setting.
London Borough of Hillingdon Local Plan Development Management Policy DMHB 2⁹	The LBH's Local Plan Development Management Policy DMHB 2 outlines in relation to Listed Buildings and Listed Building Consent that substantial harm to or total loss of significance of a statutory Listed Building will only be permitted in exceptional circumstances.
London Borough of Hillingdon Local Plan Development Management Policy DMHB 3⁹	The LBH's Local Plan Development Management Policy DMHB 3 outlines a presumption in favour of the retention of Locally Listed Buildings.
London Borough of Hillingdon Local Plan Development Management Policy DMHB 7⁹	<p>The LBH's Local Plan Development Management Policy DMHB 7 outlines Archaeological Priority Areas, Archaeological Priority Zones and requirements for archaeological investigation and recording.</p> <p>The LBH will ensure that archaeological remains within areas designated as Archaeological Priority Areas should not be disturbed. Where this cannot be avoided, satisfactory measures must be taken to ensure the completion of archaeological investigation and recording in advance of development works.</p> <p>The location and extent of Archaeological Priority Areas is shown on the London Borough of Hillingdon Local Plan Part 2 - Policies Map¹⁰. Archaeological Priority Zone 1: Heathrow Area covers the whole of Heathrow Airport as well as land to the north and is identified for its Prehistoric archaeological interest.</p>
London Borough of Hillingdon Local Plan Development Management Policy DMHB 8⁹	The LBH's Local Plan Development Management Policy DMHB 8 Registered Historic Parks, Gardens and Landscapes states that " <i>applications which impact detrimentally on the significance of a registered park or garden will normally be refused</i> ".

Technical guidance

11.2.4 A summary of relevant technical guidance is provided in **Table 11.3**.

⁹ London Borough of Hillingdon (2020) *Hillingdon Local Plan Part 2: Development Management Policies*. [online] Available at: https://www.hillingdon.gov.uk/media/3084/Hillingdon-Local-Plan-Part-2-Development-Management-Policies/pdf/pdLPP2_Development_Management_Policies_-_ADOPTED_VERSION_JAN_2020_1.pdf?m=1598370641570 [Accessed: 03 October 2024].

¹⁰ London Borough of Hillingdon (2020) *Hillingdon Local Plan Part 2: Policies Map*. [online] Available at: https://www.hillingdon.gov.uk/media/3086/View-the-policies-map/pdf/q7LPP2_Policies_Map_-_ADOPTION_VERSION.pdf?m=1598370744580 [Accessed: 03 October 2024].

Table 11.3 Relevant guidance

Document / Reference	Summary
Historic England Guidance	
Historic Environment Advice Note 12: Statements of Significance¹¹	Historic Environment Advice Note 12: Statements of Significance provides guidance on understanding significance and setting out the effects of development on significance.
Good Practice Advice Note 2: Managing Significance in Decision-Making (GPA2)¹²	GPA2 sets out principles for understanding the significance of heritage assets and how this may be changed by development.
Good Practice Advice Note 3: The Setting of Heritage Assets (GPA3)¹³	GPA3 defines setting and sets out how it contributes to significance and offers a methodology for assessing the effects of changing aviation noise in the settings of heritage assets.
Chartered Institute for Archaeologists (CIfA) Standards and Guidance	
Standard and guidance for historic environment desk-based assessment¹⁴	The CIfA Standard and guidance for historic environment desk-based assessment sets out standards for the production of desk-based assessments.

11.3 Technical and public engagement

Introduction

This Section describes relevant engagement undertaken by the Applicant in relation to the historic environment assessment. This is in addition to the submission of a Scoping Report, requesting a Scoping Opinion from the LBH which was submitted on 01 November 2023 (see **Appendix 1.5: Scoping Report**). A Scoping Opinion was provided on 01 February 2024 (see **Appendix 1.6: Scoping Opinion**). Information received in the Scoping Opinion

¹¹ Historic England (2019) *Statements of Heritage Significance: Analysing Significance in Heritage Assets. Historic England Advice Note 12*. [online] Available at: <https://historicengland.org.uk/images-books/publications/statements-heritage-significance-advice-note-12/heag279-statements-heritage-significance/> [Accessed: 03 October 2024].

¹² Historic England (2015) *Managing Significance in Decision-Taking in the Historic Environment. Historic Environment Good Practice Advice in Planning: 2*. [online] Available at: <https://historicengland.org.uk/images-books/publications/gpa2-managing-significance-in-decision-taking/gpa2/> [Accessed: 03 October 2024].

¹³ Historic England (2017) *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)*. [online] Available at: <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/> [Accessed: 03 October 2024].

¹⁴ Chartered Institute for Archaeologists (2014) *Standard and guidance for historic environment desk-based assessment*. [online] Available at: https://www.archaeologists.net/sites/default/files/CIfAS&GDBA_2.pdf [Accessed: 03 October 2024].

(**Appendix 1.6: Scoping Opinion**) recognises the low level of likely impact on heritage assets (in paragraphs 11.1 to 11.6) and concluded that:

“27 The impacts on the historic environment should be scoped out of the ES but will be considered as a material planning matter through the conventional application of planning policies”.

- 11.3.1 However, following receipt of LBH’s Scoping Opinion, for completeness, the Applicant has considered it helpful to undertake an assessment of the likely significant historic environment effects of the Proposed Development to help support the determination of the planning application which is provided in this Chapter. The Scoping Opinion is discussed in further detail in **Table 11.9**.
- 11.3.2 In addition to the Scoping Opinion comments from the LBH, the only comments relevant to historic environment were from the Greater London Archaeological Advisory Service, on below ground archaeology only. No response was received from Historic England. This is summarised in **Table 11.10** and no further engagement has been undertaken.
- 11.3.3 Further information on public engagement is provided in the **Statement of Community Involvement** alongside the planning application.

11.4 Baseline conditions

Method of baseline data collection

Desk-based study

- 11.4.1 **Appendix 11.1: Archaeology Desk Study** provides a desk-based study and includes a review of available information to determine the baseline conditions within the Proposed Development boundary and surrounding historic environment Study Area. This desk-based study includes an analysis of existing written, graphic, photographic, and electronic information in order to identify the likely heritage assets and determine their significance. The following data sources were reviewed:
- Historic England, for records on statutory designated assets (National Heritage List for England);
 - The Greater London Archaeological Advisory Service HER for records on statutory designated sites, and for records of known archaeological or historical interest and archaeological events, including investigations for the Heathrow Terminal 5 project;
 - Data collected as part of the previous phases of work as part of the Heathrow Expansion Project (collected between 2017 and 2019);

- Reports on previous archaeological investigations and studies, including those completed for the 2013 application submission (41573/APP/2013/1288¹⁵);
- Primary sources such as maps and documents;
- British Geological Survey data and available geotechnical and topographical survey data; and
- Online sources, such as British History Online and the Archaeological Data Service.

11.4.2 The assessment in this Chapter has also been completed with reference to Local Planning Authority information on conservation areas¹⁶ and locally listed buildings¹⁷.

Study Area

11.4.3 A historic environment Study Area of 500m (**Figure 11.1** of **Appendix 11.2: Historic Environment Figures**) from the Proposed Development site has been adopted to consider likely effects arising from the construction of the infrastructure, either from direct disturbance or from a change in setting. The response from the Greater London Archaeological Advisory Service which was provided alongside the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) confirmed agreement with the approach for the desk study as outlined further in **Table 11.10**.

Overall baseline

Designated Heritage Assets

11.4.4 There are no designated heritage assets within the area of the new airfield infrastructure or the noise barrier (**Figure 11.1** in **Appendix 11.2**). The only designated heritage assets within the 500m historic environment Study Area include the Longford Conservation Area and listed buildings, which are described in **Paragraphs 11.4.9** to **11.4.22**.

Archaeological remains

11.4.5 The Proposed Development areas for the new airfield infrastructure and the noise barrier are located within the LBH's Archaeological Priority Zone 1: Heathrow Area. This covers the whole of Heathrow Airport as well as land to the north and is identified for its Prehistoric

¹⁵ London Borough of Hillingdon (2013) *Planning Application Details - 41573/APP/2013/1288*. [online] Available at : <https://planning.hillingdon.gov.uk/OcellaWeb/planningDetails?reference=41573/APP/2013/1288&from=planningSearch> [Accessed: 03 October 2024].

¹⁶ London Borough of Hillingdon (2007) *Longford Village Conservation Area Appraisal*. [online] Available at: https://www.hillingdon.gov.uk/media/3869/Longford-Village-appraisal/pdf/k9CA_Appraisal_Longford_-_FINAL_March.07.pdf?m=1603208429630 [Accessed: 03 October 2024].

¹⁷ London Borough of Hillingdon (2010) *Locally listed buildings in Longford*. [online] Available at: <https://www.hillingdon.gov.uk/local-list-longford> [Accessed: 03 October 2024].

archaeological interest, largely on the basis of previous investigations completed within Heathrow Airport.

- 11.4.6 An archaeological desk-based assessment has been prepared to describe the known archaeological interests within the Proposed Development site and to assess the potential for the presence and survival of further archaeological remains. This is provided as **Appendix 11.1: Archaeology Desk Study**. The location of previously recorded features of archaeological interest discussed in the desk study are shown on **Figure 11.2** of **Appendix 11.2** and the extent of previous archaeological investigations is shown on **Figure 11.3** and **Figure 11.4** of **Appendix 11.2**. The Site of the new airfield infrastructure is believed to have experienced an overall level of truncation of up to 1m as a result of previous development such as construction of the sections of the existing taxiways (Code D, E and F). This may be expected to have removed any archaeological deposits, mostly within the footprint of the taxiways.
- 11.4.7 The desk study has identified some potential for the presence of archaeological remains within the site of the new airfield infrastructure, though these would have been subject to truncation and fragmentation as a result of previous phases of Airport development.
- 11.4.8 The noise barrier is to be located alongside the re-aligned course of the Duke of Northumberland River and so any archaeological remains within this area are likely to have been disturbed by excavation of the re-aligned river channel in the late 20th century. The area of the Terminal 5 business car park was subject to archaeological survey and investigation in 2006 to 2008 which identified evidence of Bronze Age activity.

Longford Village Conservation Area and listed buildings

Current character

- 11.4.9 Longford Village Conservation Area (**Figure 11.1** in **Appendix 11.2**) was designated in 1988 and comprises the historic core of the village along Bath Road as well as an area of later development on 'The Island'. Along Bath Road, the conservation area boundary is drawn to include the listed buildings around the former green. This includes much of the recent built frontage of the Bath Road where modern housing has infilled the areas where fields would have met the road. Post-war development at Longford has significantly changed the character of the village from one dominated by agriculture to a suburban street lined with relatively uniform buildings.
- 11.4.10 The historic settlement core has managed to maintain its village character and creates a sense of the former historic village. The historic village layout and many historic buildings, remain in the area. The main street is narrow, with listed and unlisted historic buildings set back from the road. The 16th century White Horse Public House (Grade II, listed entry 1192507¹⁸), located adjacent to the former village green (**Figure 11.1** in **Appendix 11.2**), is centrally located within the conservation area and is visible when accessing the area from either end of Bath Road.

¹⁸ Historic England (n.d.) *The White Horse Public House*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1192507> [Accessed: 03 October 2024].

- 11.4.11 The Island dates from the late 18th century, it appears to have been formed as a result of water channel management of the Colne River to power a mill, presumably a calico mill referenced in 1839¹⁹. Historic maps suggest the southwest corner of The Island was occupied by a substantial late 18th century house, The Island was landscaped and occupied by the mill building and subsidiary structures. The Conservation Area Appraisal¹⁶ shows The Island is presently occupied by two ornate cottages, one characterised by tile hung exteriors, the other in a dramatic blue render with a circular tower surmounted by a conical roof. This building appears to be located on the site of the former mill and may contain earlier fabric. A substantial Edwardian detached house is located to the northwest side of The Island and the remaining area is occupied by modern housing and flat blocks, most probably dating from the 1970s onwards.
- 11.4.12 The Island represents the survival of river engineering to provide for mills within Longford. It also reflects the development of Longford as a picturesque, secluded location for rural housing with easy access to London in the late Victorian or early 20th century period. The development of post-war housing is illustrative of the requirements of wider town planning in London to provide housing within village or settlement envelopes marking the change in Longford from an idyllic rural, agricultural village to a suburban extension to London.
- 11.4.13 Longford Village Conservation Area is surrounded to the south by the Airport and to the northeast, east and southeast by post-war and modern commercial development related to the Airport. Views to the Airport and the Terminal 5 Parking Pods and track are visible to the south between buildings and vegetation. To the west, Longford Village Conservation Area is bounded by a large educational farm centre and Stanwell Moor Road. Noise from aircraft taking off from the northern runway is an audible feature when experiencing the conservation area.
- 11.4.14 The Conservation Area Appraisal¹⁶ identifies a number of key views within Longford Conservation Area, mostly along Bath Road and within The Island. The identified key views are:
- Looking northeast towards 532 Bath Road (identified as an unlisted of historic interest) with the White Horse Public House (Grade II, listed entry 1192507¹⁸) behind;
 - Looking southwest from outside 553 Bath Road towards the Willow Tree and Queen River Cottage (Grade II, listed entry 1358336²⁰);
 - Looking from the corner of The Square to the southwest;
 - From outside Colnebank looking southwest down past The Loft, Colne Cottage, and Billingbear House (within The Island); and

¹⁹ British History Online (1971) *Harmondsworth: Economic and social history*. [online] Available at: <https://www.british-history.ac.uk/vch/middx/vol4/pp10-15> [Accessed: 03 October 2024].

²⁰ Historic England (n.d.) *Queen River Cottage Willow Tree Cottage*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1358336> [Accessed: 03 October 2024].

- View out towards the north of the area with its wooded backdrop and the River Colne is attractive. This can be seen when viewed east from the bridge that leads to The Island.

11.4.15 Other than the identified view to the woodland alongside the River Colne, there are no outward views from within Longford Village Conservation Area which are identified as key views.

Historic development

11.4.16 Longford developed around what was to become the Bath Road, at a fording point across the River Colne. The road through Longford connected London with the west, specifically the royal palaces and government buildings in London to Windsor Castle, Reading, Bath, and Bristol. Longford appears to have retained its agricultural character, and as a subordinate settlement to Harmondsworth makes fewer appearances in historical records. Longford appears to be one likely candidate for the presence of mills recorded in the Domesday Book entry for Harmondsworth.

11.4.17 Longford's role in transport is documented during the medieval period by the construction and repair of bridges within the township, though the exact location and arrangements of bridges within Longford referred to in medieval records is relatively confusing. The names appear to change and references to 'Longford Bridge' probably reflect different locations at different times. By 1337 Longford contained thirty houses, making it the second largest settlement in Harmondsworth Parish.

11.4.18 Rocque's Map of Middlesex shows 18th century Longford as a village dominated by farm complexes and it is likely that many of these farms have origins in the medieval and early post-medieval period. This is a character of the settlement that, broadly, survived until World War 2.

11.4.19 The earliest surviving buildings in Longford date from the 16th century. These consist of buildings built of timber framing and generally two full stories in height. For example, Orchard Cottage (Grade II, listed entry 1358337²¹) includes a 16th century timber-framed bay as well as 17th century works to the building. The distribution of 16th century housing within Longford suggests the pattern of building seen on 19th century and earlier maps reflects the distribution of housing within the village, at least partially during this time.

11.4.20 Longford was involved in the paper industry from at least the 17th century and a reference in 1636, relates to a paper mill in Longford being closed to reduce the spread of the plague. In 1647, there were three paper mills adjoining Longford Mill, so presumably powered by the Colney Stream. References to paper manufacturing in Longford end in around 1762, and there are no other references to mills until later in the 19th century.

²¹ Historic England (n.d.) *Orchard Cottage*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1358337> [Accessed: 03 October 2024].

Listed buildings

11.4.21 Listed and locally listed buildings located within Longford Village Conservation Area are described in **Table 11.4**.

Table 11.4 Listed and locally listed buildings within Longford Village Conservation Area

Building	Reference	Grade	Description
Listed buildings			
White Horse Public House¹⁸	1192507	II	<p>The White Horse Public House has 18th century brick elevations over a 16th century timber-framed building. The external walls are now whitewashed and it has a tiled roof. An information board on the front elevation of the building states that it "<i>was reputed to have been built in 1534 as a smokehouse for curing</i>".</p> <p>The building faces onto Bath Road in the historic core of the village and it is adjacent to a row of white cottages including Queen River Cottage and Willow Tree Cottage (Grade II, listed entry 1358336²⁰), overlooking the village green. It is, visually, a prominent part of what is clearly the historic core of the village, adjacent to the village green, and its setting is defined by this village core location. Views of and from the listed building are restricted to within the village core.</p>
Queen River Cottage and Willow Tree Cottage²⁰	1358336	II	<p>Located within a row of white rendered cottages, these were built in 1739 and are of two storeys and an attic, with a tiled roof with gabled dormers. The cottages face onto the former village green, adjacent to The White Horse Public House.</p> <p>These are part of the village green group and are therefore a key contributor to the historic character of Longford. They are orientated at an angle to Bath Road and are a more prominent part of the streetscape when travelling from west to east than when travelling in the other direction. Their setting is defined by this village core location and views of and from the listed building are restricted to within the village core.</p>
Yeomans²²	1080298	II	<p>Yeomans is a 16th century building with a central range and gabled cross wings with the left cross wing being higher and with an attic. Otherwise, it is of two storeys, with a tiled roof. The walls feature exposed timber framing with brick filling.</p> <p>The building faces onto Bath Road opposite The White Horse Public House and is part of a small group of</p>

²² Historic England (n.d.) *Flats 1-3 (Yeomans)*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1080298> [Accessed: 03 October 2024].

Building	Reference	Grade	Description
			designated heritage assets surrounding the former village green, with a wooded belt to the rear. Its setting is defined by this village core location and views of and from the listed building are restricted to within the village core.
Weekly House²³, Barn to west of Weekly House²⁴ and Wall to northwest of Weekly House²⁵	1192588,1286544, 1358338	II	Weekly House is a late 17th century red brick house of two storeys with a high pitched tiled roof. The barn is a late 17th century or early 18th century weather boarded barn with a tiled roof with queen post truss at the west end. The wall is of red brick and facing on to Bath Road. This is a small group of designated assets comprising a former farm complex south-west of the centre of Longford, set back from Bath Road behind a wall and various degrees of planting. Its setting is defined by its location facing onto Bath Road, and it is enclosed on the south and east side by the Padbury Office complex.
Longford Close (550 Bath Road)²⁶	1080297	II	This is a mid 18th century red brick house of two storeys and tiled roof with end chimneys. It is prominently located on the Bath Road frontage and the building's prominence on the Bath Road frontage makes it stand out as a historic building. Three sides of the building are easily accessible so it and its later extensions can be appreciated. Its setting is defined by this location within the historic core of the village.
Locally listed buildings			
Thatched Cottage, No 532 Bath Road¹⁷	138	None	Cottage orné style house, white rendered with thatched roof and 'eyebrows' over first floor windows.
The Loft, The Island¹⁷	139	None	Late Victorian, two storeys, in red brick with plain tiled roof. Later extension. Gable ends with barge boards.

²³ Historic England (n.d.) *Weekly House*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1192588> [Accessed: 03 October 2024].

²⁴ Historic England (n.d.) *Barn To West Of Weekly House*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1286544> [Accessed: 03 October 2024].

²⁵ Historic England (n.d.) *Wall To North West Of Weekly House*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1358338> [Accessed: 03 October 2024].

²⁶ Historic England (n.d.) *Longford Close*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1080297> [Accessed: 03 October 2024].

Building	Reference	Grade	Description
			Fish scale tile hanging to earlier part. Multipane casement windows to original house. The building is on The Island, a private road of similar scale buildings surrounded by water and trees.
Colne Cottage, The Island¹⁷	140	None	Late Victorian, two storeys, painted render with plain tiled roof. Two prominent part tile hung gables with bargeboards. Ridge detailed with finials. Circular turret with gothic style windows. Cat-slide to the other end. Possibly this building incorporates elements of the former mill on this site. The building is on The Island, a private road of similar scale buildings surrounded by water and trees.

11.4.22 There are four other listed buildings that are not within Longford Village Conservation Area but are within the 500m historic environment Study Area and these are listed in **Table 11.5**.

Table 11.5 Other listed buildings within the 500m historic environment Study Area

Building	Reference	Grade	Description
Orchard Cottage²¹	1358337	II	Small cottage of two storeys with painted brick walls and some weatherboarding on west side and a slate roof.
King's Bridge²⁷	1080299	II	Iron bridge built in 1834 and named King William IV. It has open trellis sides and marks the western entrance into Longford Village.
King Henry Public House The Stables²⁸	1080296	II	16th century building with later alterations, part of which was a Public House.
Longford Cottage²⁹	1286577	II	Timber-framed cottage of 16th century appearance with a gable end to the road and a tiled roof.

²⁷ Historic England (n.d.) *King's Bridge*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1080299> [Accessed: 03 October 2024].

²⁸ Historic England (n.d.) *King Henry Public House The Stables*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1080296> [Accessed: 03 October 2024].

²⁹ Historic England (n.d.) *Longford Cottage*. [online] Available at: <https://historicengland.org.uk/listing/the-list/list-entry/1286577> [Accessed: 03 October 2024].

Future baseline

- 11.4.23 The future baseline in the absence of the Proposed Development is unlikely to be markedly different from the current baseline, as land use/management around the Airport is anticipated to remain largely unchanged.

11.5 Assessment methodology

- 11.5.1 The generic project-wide approach to the assessment methodology is set out in **Chapter 5: Approach to the EIA**, which has informed the approach used in this historic environment assessment. The methodology used for assessing historic environment effects is set out in the remainder of this Section.

Assessment methodology

Significance criteria

- 11.5.2 The determination of the significance of an effect on heritage assets is derived with reference to information about the nature of the Proposed Development, the receptors that could be significantly affected and their sensitivity or value, together with the magnitudes of change that are likely to occur. Section 5.8 of **Chapter 5: Approach to the EIA** provides detail on the standardised approach that this Environmental Statement has taken to determining significance in this historic environment assessment.

Valuation of receptors

- 11.5.3 The NPPF⁴ requires change to the significance of heritage assets (positive or negative) to be considered in developing an understanding of the potential effects of Proposed Development. The significance of a heritage asset is a product of the value which it holds to this and future generations as a result of its historic, archaeological, architectural or artistic interest, and these provide the basis for considering the significance of each heritage asset (including the contribution of its setting to those interests). These interests are set out in NPPF (Annex 2)⁴ and discussed in more detail in Conservation Principles³⁰ (English Heritage 2008) and GPA2¹²:

- Archaeological – the ability of a heritage asset to hold information about the past which can be retrieved through specialist investigation;
- Historical – which can be through association with past events or people, or where a heritage asset is illustrative of a particular asset type, theme or period; and
- Architectural/Artistic – values which derive from a contemporary appreciation of a heritage asset's aesthetics.

³⁰ English Heritage (2008) *Conservation Principles, Policies and Guidance*. [online] Available at: <https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment/conservationprinciplespoliciesandguidanceapril08web/> [Accessed: 03 October 2024].

11.5.4 For the purposes of assessing the significance of effects in EIA terms, heritage significance will also be assigned to one of four classes, with reference to the heritage interests described previously and relying on professional judgement as informed by policy and guidance. The hierarchy given in **Table 11.6** reflects the NPPF distinction between designated and non-designated heritage assets. The NPPF further distinguishes between designated assets of the highest heritage significance (i.e. scheduled monuments, protected wreck sites, battlefields, Grade I and II* listed buildings, Grade I and II* Registered Parks and Gardens, and World Heritage Sites) and other designated heritage assets.

Table 11.6 Definition of heritage significance

Heritage significance	Summary rationale	Example asset class
Very high	Asset has significance for an outstanding level of archaeological, architectural, historic and/or artistic interest	Designated Heritage Assets of ‘the highest significance’ ³¹
High	Asset has significance for a high level of archaeological, architectural, historic and/or artistic interest	Other Designated Heritage Assets ³²
Medium	Asset has significance for elements of archaeological, architectural, historic or artistic interest	Regionally significant non-designated archaeological sites
Low	Asset has limited significance for elements of archaeological, architectural, historic or artistic interest	Locally significant archaeological site Locally listed parks and buildings
Very low	Due to its nature of form/condition/survival, cannot be considered as an asset in its own right	Non-extant HER record

Magnitude of change

11.5.5 The magnitude of change of an effect is based on a number of factors:

- The permanence of the effect (temporary or permanent);
- Physical changes caused by the effect (both positive and negative);

³¹ Defined in NPPF paragraph 200 as “...*scheduled monuments, protected wreck sites, registered battlefields, Grade I and II* listed buildings, Grade I and II* Registered Parks and Gardens, and World Heritage Sites*”.

³² Following NPPF paragraph 200, these designated heritage assets comprise grade II listed buildings, grade II registered parks or gardens and conservation areas.

- The extent of the heritage asset that would be affected (such as the whole or a very small part);
- The nature of the heritage asset that would be affected; and
- The overall effect of changes on the values and significance of the heritage asset (including its setting).

11.5.6 In this context, the effects of change in the setting of a heritage asset may depend on individual aspects of that setting, and assessments must be, by their nature, specific to the individual assets being considered. GPA3¹³ advises that the following aspects of setting should be considered in addition to any identified key attributes:

- The physical surroundings of the asset, including its relationship with other assets;
- The way the asset is appreciated; and
- The asset’s associations and patterns of use.

11.5.7 It should also be noted that not all change necessarily detracts from the heritage significance of the asset. In the assessment of effects on the setting of heritage assets, the nature of the effect, (either positive, negative or neutral) of development is a subjective matter, usually taken to constitute a negative effect where change will constitute new and different elements to the setting of designated features, either to an imagined ‘contemporary’ setting or to their existing setting.

11.5.8 Effects on receptors are assigned to one of five classes of magnitude, defined in **Table 11.7**. Effects can be negative or positive.

Table 11.7 Magnitude of change criteria

Magnitude	Summary rationale (negative)	Summary rationale (positive)
Very high	Loss of significance of an order of magnitude that would result from total or substantial demolition/disturbance of a heritage asset or from the disassociation of an asset from its setting.	Sympathetic restoration of an at-risk or otherwise degraded heritage asset and/or its setting and bringing into sustainable use with robust long-term management secured.
High	Loss of significance of an order of magnitude that would result from partial demolition/disturbance of a heritage asset or from the partial disassociation of an asset from its setting.	Sympathetic restoration of an at-risk or otherwise degraded heritage asset and/or its setting.
Medium	Loss of significance arising from partial disturbance or inappropriate alteration of an asset which will negatively affect its importance. Change to the key characteristics of an asset’s setting, which gives rise to harm to the significance of the asset but which still allows its archaeological, architectural or historic interest to be appreciated.	Appropriate stabilisation and/or enhancement of a heritage asset and/or its setting that better reveal the significance of the asset or contribute to a long-term sustainable use or management regime.

Magnitude	Summary rationale (negative)	Summary rationale (positive)
Low	Minor loss to or alteration of an asset which leave its current significance largely intact. Minor and short term changes to setting which do not affect the key characteristics and in which the historical context remains substantially intact.	Minor enhancements to a heritage asset and/or its setting that that better reveal its significance or contribute to sustainable use and management.
Very low	Minor alteration of an asset which does not affect its significance in any discernible way. Minor and short term or reversible change to setting which does not affect the significance of the asset.	Minor alteration of an asset which does not affect its significance in any discernible way. Minor and short term or reversible change to setting which does not affect the significance of the asset.
None	No negative change to heritage significance	No positive change to heritage significance

11.5.9 The significance of effect on heritage assets has been derived from a consideration of the significance (value) of the receptor (asset) and the magnitude of the change upon it, as illustrated by the matrix in **Table 11.8**.

Table 11.8 Significance of effect

		Magnitude of change					
		Very high	High	Medium	Low	Very low	None
Sensitivity/importance/value	Very high	Major (Significant)	Major (Significant)	Major (Significant)	Major (Significant)	Moderate (Potentially significant)	No effect (Not significant)
	High	Major (Significant)	Major (Significant)	Major (Significant)	Moderate (Potentially significant)	Minor (Not significant)	No effect (Not significant)
	Medium	Major (Significant)	Major (Significant)	Moderate (Potentially significant)	Minor (Not significant)	Negligible (Not significant)	No effect (Not significant)
	Low	Major (Significant)	Moderate (Potentially significant)	Minor (Not significant)	Negligible (Not significant)	Negligible (Not significant)	No effect (Not significant)
	Very low	Moderate (Potentially significant)	Minor (Not significant)	Negligible (Not significant)	Negligible (Not significant)	Negligible (Not significant)	No effect (Not significant)

Note: Significant effects are those identified as ‘Major’, ‘Moderate’ effects have the potential to be significant, and indeed they would normally be deemed to be significant. However, there may be some exceptions, depending on the environmental aspect and the application of professional judgment.

Limitations and assumptions

- 11.5.10 This Chapter forms an assessment based on available information at the time of preparation and represents a reasonable worst case and precautionary approach. The assessment considers likely effects as a result of the construction and operation of the Proposed Development.
- 11.5.11 The following limitations apply to the assessment:
- No intrusive surveys or intrusive palaeoenvironmental assessment have been undertaken to support the Environmental Statement. The assessment undertaken to date is considered to be sufficient to allow likely significant effects to be identified and assessed;
 - Due to the nature of below-ground archaeological remains, buried and not visible from the surface, there is always an element of uncertainty regarding the survival, condition, nature and extent of the known assets identified within the Proposed Development. This will be addressed by further site-based archaeological investigation where appropriate; and
 - The data provided by HERs is not a record of all surviving heritage assets, but a record of the discovery of a wide range of archaeological and historical components of the heritage environment. There is a potential for the presence of further unrecorded heritage assets to be present.

11.6 Scope of the assessment

Introduction

- 11.6.1 The Scoping Report (**Appendix 1.5: Scoping Report**), requesting a Scoping Opinion from the LBH was submitted on 01 November 2023 and a Scoping Opinion (**Appendix 1.6: Scoping Opinion**) was received from the LBH on 01 February 2024 (dated 31 January 2024). Consultee responses received alongside the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) have informed the scope of the historic environment assessment. Further information on EIA scoping can be found in **Chapter 5: Approach to the EIA**.
- 11.6.2 Several scoping responses from consultees were provided alongside the Scoping Opinion (**Appendix 1.6: Scoping Opinion**) (albeit they do not form part of the Scoping Opinion itself). Despite not forming part of the Scoping Opinion, they have also been considered where appropriate in this Environmental Statement. Those relevant to historic environment are Greater London Archaeological Advisory Service (dated 11 December 2023).
- 11.6.3 This Section provides an update to the scope of the historic environment assessment based on the most up-to-date information and the Scoping Opinion. It updates the evidence base for scoping out elements following further iterative assessment and is summarised in **Table 11.9**.

Scoping Opinion

11.6.4 **Table 11.9** sets out the comments in relation to historic environment received in the LBH Scoping Opinion (**Appendix 1.6: Scoping Opinion**) and responses from consultees and how they have been addressed in this Environmental Statement.

Table 11.9 Scoping Opinion comments received from the LBH

Scoping Opinion comment	How is this addressed?
<p><i>“The impacts on the historic environment are considered likely to be minimal as concluded within the previous assessment:</i></p> <p><i>On balance the effect of construction on the potential buried archaeological resource is not considered to be significant. (8.8.7, 2013 ES)</i></p> <p><i>On balance the operational effect on sensitive heritage assets is not considered to be significant. (8.9.4, 2013 ES).”</i></p>	<p>This opinion is noted; however, the Applicant has voluntarily included this Chapter within the Environmental Statement to assess certain matters with potential for significant effects in relation to buried archaeological remains and heritage assets. The assessment of potential effects in included within Section 11.7.</p>
<p><i>“It is acknowledged that a proposed noise barrier in Longford could have a detrimental impact on the conservation area, but this alone does not reach threshold of achieving a likely significant effect when applying the criterion in the Regulations.</i></p> <p><i>Consequently, the impacts on the conservation area would be akin to normal development and not of an exceptional level that would undermine the designation to a significant extent.”</i></p>	<p>This opinion is noted; however, the Applicant has voluntarily included this Chapter within the Environmental Statement to assess potential for significant effects on the settings of Longford Village Conservation Area and listed buildings arising from construction and operation of the noise barrier. The assessment of potential effects in included within Section 11.7.</p>
<p><i>“The operational impacts of the airport on the use and value of the conservation area assets to the community will be assessed through the ‘people and communities’ section.”</i></p>	<p>In light of the LBH’s Scoping Opinion response, lack of any other response on air noise with respect to the historic environment, no further assessment of effects of change in air noise on heritage assets is required.</p>
<p><i>“The impacts on the historic environment should be scoped out of the ES but will be considered as a material planning matter through the conventional application of planning policies.”</i></p>	<p>This opinion is noted, however, for completeness, the Applicant has presented an historic environment assessment within the Environmental Statement. The historic environment assessment includes assessment of effects outlined in Paragraphs 11.6.7 and 11.6.8.</p>

Table 11.10 Scoping responses received from other consultees

Scoping responses received from consultees	How is this addressed?
<p>Greater London Archaeological Advisory Service</p> <p><i>“I therefore agree with the proposed scoping in of archaeology in respect of the taxiways and other airport infrastructure groundworks.”</i></p> <p>Agree approach of scoping in assessment of effects on archaeology from construction of taxiways and other airport infrastructure groundworks.</p>	<p>The assessment of potential effects in included within Section 11.7.</p>
<p>Greater London Archaeological Advisory Service</p> <p><i>“I am concerned that the Longford acoustic barrier should not be scoped out at this early design stage and would prefer it to be covered by the archaeological assessment albeit that this may simply conclude that there is no impact or mitigation needed.”</i></p> <p>Request that the Longford acoustic barrier be included in the assessment of effects on archaeology, though notes that it may simply conclude that there is no impact.</p>	<p>The Applicant has included an assessment of effects on archaeology in relation to the noise barrier as outlined in Paragraph 11.6.7 and this is provided in Section 11.7.</p>
<p>Greater London Archaeological Advisory Service</p> <p><i>“I note that for a previous scheme of this nature (41573/APP/2013/1288) necessary archaeological mitigation was resisted by Heathrow Airports Ltd until a late stage in the appeal process. I would urge the applicant to reflect on that outcome and bring forward a scheme which allows for appropriate and practical mitigation.”</i></p> <p>Notes that there may be a requirement for ‘<i>appropriate and practical mitigation</i>’ with regard to archaeology.</p>	<p>This is addressed in Paragraph 11.7.10.</p>

Elements scoped out

11.6.5 The elements shown in **Table 11.11** are not considered to give rise to likely significant effects as a result of the Proposed Development and have therefore not been considered within this historic environment assessment.

Table 11.11 Elements scoped out of the historic environment assessment

Element scoped out	Justification
<p>Effects on archaeology due to breaking out of hardstanding to prevent a net increase in the proportion of paved areas in particular to mitigate flood risk.</p>	<p>These works would be in an area where potential survival of archaeological remains is very limited as a result of the previous disturbance and compaction caused by the construction of this hardstanding. Intrusive works would also be limited to the removal of existing hardstanding and make up and it is not considered that any coherent archaeological remains would be affected.</p>
<p>Change to setting, including visibility of operations and construction noise, arising from construction of Runway Access Taxiways and potential breaking out of hardstanding.</p>	<p>This would be experienced in the context of the operational Airport and no negative effect would arise.</p>
<p>Effects on settings of individual listed and locally listed buildings within Longford Conservation Area as a result of construction and operation of the noise barrier.</p>	<p>As described in Table 11.4, the settings of these listed buildings are contained within the historic core of the village and this would not be affected.</p>
<p>Effects on settings of heritage assets due to change in air noise.</p>	<p>The Scoping Opinion from Hillingdon Borough Council that this was not required and there was no other response to state that this needed to be assessed.</p>

Elements scoped in

Construction phase

11.6.6 The following element is considered to have the potential to give rise to likely significant effects during construction of the Proposed Development and have therefore been considered within this assessment:

- Disturbance of archaeological remains as a result of construction of new airfield infrastructure (runway access taxiways) and noise barrier.

Operational phase

11.6.7 The following element is considered to have the potential to give rise to likely significant effects during operation of the Proposed Development and have therefore been considered within this assessment:

- Harm to the character of the Longford Village Conservation Area and the setting of other listed buildings as a result of the presence of noise barrier at Longford.

Sensitive receptors

11.6.8 The following sensitive receptors have been assessed:

- Potential archaeological remains within the footprint of proposed runway access taxiways and noise barrier;
- The following heritage assets have been identified as having a potential to be subject to effects as a result of changes to their settings:
 - Longford Village Conservation Area;
 - Orchard Cottage Grade II listed building (listed entry 1358337)²¹; and
 - King's Bridge Grade II listed building (listed entry 1080299)²⁷.

11.6.9 All key sensitive receptor locations are shown on **Figure 11.1** and **Figure 11.2** of **Appendix 11.2**.

Embedded environmental measures

11.6.10 The Proposed Development incorporates a number of embedded environmental measures to avoid or reduce likely significant effects. This approach is described in **Chapter 5: Approach to the EIA**.

11.6.11 The Proposed Development includes a 5m to 7m high noise barrier to help limit ground noise to the Longford Village Conservation Area and its associated listed and local buildings.

11.7 Assessment of likely significant effects

Construction phase

Introduction

11.7.1 In line with **Paragraph 11.6.7**, the assessment of likely significant effects during the construction phase on any below ground archaeological remains as a result of direct disturbance due to the construction of the new airfield infrastructure and the noise barrier is provided in **Paragraphs 11.7.2 to 11.7.10**.

Archaeological remains

11.7.2 The baseline resource that has the potential to be affected by the new airfield infrastructure and the noise barrier has been considered in the desk study (**Appendix 11.1: Archaeology Desk Study**). This assessment has drawn on information produced as a result of the archaeological excavations in advance of the construction of Terminal 5 and its associated infrastructure and has also been based on desk-based studies undertaken for the 2013 planning application (41573/APP/2013/1288¹⁵) submission.

11.7.3 The desk study (**Appendix 11.1: Archaeology Desk Study**) has identified a low potential for the presence of archaeological remains of palaeolithic or Mesolithic date. If present, these would most likely comprise flint artefacts, which in the case of any palaeolithic finds

would be more likely to have been re-deposited. These would be of **low** heritage significance.

- 11.7.4 The desk study (**Appendix 11.1: Archaeology Desk Study**) has identified a **medium to high** potential for the presence of archaeological remains of Neolithic, Bronze Age, Iron Age and Romano-British date to present within the area of the new airfield infrastructure. Whilst there is evidence of settlement within this area, any remains present are more likely to represent areas of associated field systems and are also likely to have been subject to truncation and fragmentation due to previous development of Airport infrastructure. It is therefore considered that any remains present would be of **low** heritage significance.
- 11.7.5 The desk study (**Appendix 11.1: Archaeology Desk Study**) has identified a low potential for the presence of archaeological remains of medieval or post-medieval date. These would be most likely to represent agricultural activity and would be of **low** heritage significance.
- 11.7.6 Construction of the new airfield infrastructure would include the creation of new taxiways and pavement, entailing excavations and earth movements with excavation to a depth of approximately 1m for the hard-surfaced areas and approximately 2m for drainage connections. These works would have the potential to disturb in situ archaeological remains (where present) (see **Section 6.1** of **Appendix 11.1: Archaeology Desk Study**). Where archaeological features have been previously recorded within the Airport, they have been recorded at the junction of the topsoil and the subsoil (natural gravel deposits). Consequently, excavations associated with the new airfield infrastructure construction may affect archaeological features where they survive in situ.
- 11.7.7 Due to the extent of previous development and archaeological investigations, the area of the noise barrier is not anticipated to contain any surviving archaeological remains.

Predicted effects and their significance

- 11.7.8 Archaeological remains within the site of the new airfield infrastructure are anticipated to be of **low** heritage significance. Where present, any remains would form part of the wider archaeological landscape, such as forming part of a wider field system, and would be anticipated to survive as fragmentary remains only. Given the anticipated fragmentary nature of any surviving remains and the relatively limited extent of excavations would result in a **low** magnitude of change. Therefore, there is likely to be a direct, permanent, **negligible effect** on archaeology (**Not Significant**).
- 11.7.9 There would be **no effect** on archaeology as a result on construction of the noise barrier as the footprint of the noise barrier is not anticipated to contain any archaeological remains as a result of previous development and archaeological investigations.
- 11.7.10 As stated in **Section 3.5** of **Chapter 3: Description of the Proposed Development**, the location of the site of the new airfield infrastructure ensures that in order to manage construction activities whilst maintaining safe Airport operations and avoiding disruption, the required construction activities would be undertaken at night, specifically between 23:00 and 05:30. Artificial lighting required during night-time working would not provide suitable conditions for archaeological monitoring of excavation (i.e. watching brief) as it would not allow for deposits of archaeological interest to be effectively identified. As previously noted, any surviving archaeological remains would be likely to comprise fragmentary remains of

former field systems. Any archaeological information recovered on such remains through an watching brief would therefore make only a negligible contribution to an understanding of the past use of the site. For these reasons, it is not considered that a watching brief would represent appropriate mitigation in this case.

Operational phase

Introduction

- 11.7.11 In line with **Paragraph 11.6.8**, the assessment of likely significant effects during the operational phase on the setting of identified designated heritage assets within Longford as a result of the presence of the noise barrier is provided in **Paragraphs 11.7.12 to 11.7.23**.

Longford Village Conservation Area

Current character and setting

- 11.7.12 The historic character and development of Longford Village Conservation Area are described in **Section 11.4**. The settlement developed next to a fording point on the River Colne and the linear pattern of the village along the Bath Road is a key characteristic of the conservation area. The village centre would have been defined by a village green, now built upon. However, the sense of the village centre is still identifiable in the group of buildings, including 532 Bath Road, White Horse Public House (Grade II listed building, listed entry 1192507¹⁸) and a row of white cottages including Queen River Cottage and Willow Tree Cottage (Grade II listed building, listed entry 1358336²⁰).
- 11.7.13 Several key views have been defined within the Longford Village Conservation Area Appraisal¹⁶. These views centre on the historic buildings along the High Street and take in some key properties on 'The Island'. All the views are considered to be inward looking and informed by the immediate context of important historic buildings within the settlement core, with the possible exception of the view looking north across the Colne from the bridge to The Island. Therefore, all key views identified within the Conservation Area Appraisal are either internal or are away from the Airport and the site of the proposed noise barrier. Despite the proximity of the Airport and a degree of suburbanisation, Longford Conservation Area maintains its village character and is generally inward looking, enclosed by woodland alongside the watercourses which flow to either side of the village.

Predicted effects and their significance

- 11.7.14 As illustrated in the ZTV, which is included as **Figure 10.1** of **Appendix 10.3: LVIA Figures**, the noise barrier would be theoretically visible from limited parts of Longford Conservation Area, with most visibility from along the south-eastern edge of the conservation area. Viewpoint 4 from the Padbury Office Complex (**Figure 10.5a** and **Figure 10.5b** of **Appendix 10.3: LVIA Figures**) shows the clearest view of the noise barrier from within the conservation area, and this shows it in the context of existing Airport fencing and the elevated rails of the Pod transport system which connects Terminal 5 to the Terminal 5 Pod Car Park. The noise barrier would not be seen in the internal key views within Longford

Village Conservation Area that are identified in the conservation area appraisal, or from any of the listed buildings within it.

- 11.7.15 Longford Village Conservation Area is of **high** heritage significance (**Table 11.6**), but as a result of the lack of outward visibility of the noise barrier from within the historic core of the conservation area, there would be **no effect** on its heritage significance. The historic 'village' character of the conservation area aligned along Bath Road and The Island would be maintained.

Orchard Cottage Grade II listed building (listed entry 1358337)

Current character and setting

- 11.7.16 Orchard Cottage is a small cottage located on Bath Road with a gable end to the road. It is of two storeys with walls painted brick with some weatherboarding on west side and a slate roof. The appearance from the outside is early-mid 19th century though the interior shows a timber-framed building with a 16th century front bay and 17th century rear bay. It is probably part of what was once a larger building, the rest of which would have been demolished.
- 11.7.17 Orchard Cottage is at the far east of the central part of Longford, forward from the building line established by other, later buildings nearby. The building is small and fairly unassuming, not necessarily standing out as an important historic building. However, it does stand out as a structure, being forward of the building line in this part of Longford.

Predicted effects and their significance

- 11.7.18 The ZTV in **Figure 10.1** (see **Appendix 10.3: LVIA Figures**) illustrates that the noise barrier would be theoretically visible from the area of Orchard Cottage, particularly from land to the rear of the cottage. However, Orchard Cottage is positioned facing directly on to Bath Road, with the area to the immediate rear of the cottage enclosed by other buildings and by mature trees. VP3 from Longford Pocket Park west (**Figure 10.4a** and **Figure 10.4b** of **Appendix 10.3: LVIA Figures**) is from land to the rear of Orchard Cottage, with the noise barrier visible in the context of existing Airport fencing and buildings beyond. Therefore, the presence of the noise barrier would not affect an appreciation of Orchard Cottage within its setting defined by its location on Bath Road, within Longford village.
- 11.7.19 Orchard Cottage is of **high** heritage significance, but as a result of the lack of outward visibility of the noise barrier from the asset itself or as it is seen on Bath Road, there would be **no effect** on its heritage significance.

King's Bridge Grade II listed building (1080299)

Current character and setting

- 11.7.20 The King's Bridge crosses a canalised section of the Duke of Northumberland River and dates to 1834. It is an iron bridge built by the Turnpike Trust and is elaborated with plaques showing a crown and 'WR IV 1834', naming King William IV. It has open trellis sides and marks the western entrance into Longford Village.

- 11.7.21 It contributes to the historic character of the village by providing this marker of its western boundary and the road narrows to a single lane as it crosses the bridge, which draws attention to it as a structure and emphasises its boundary/entry point function. This position and role forms the setting of this asset, though there are a number of obviously modern elements within this setting, including the nearby roundabout, the Airport, the concrete structures within the river below and nearby houses from the post-war period.

Predicted effects and their significance

- 11.7.22 The ZTV in **Figure 10.1** (see **Appendix 10.3: LVIA Figures**) illustrates that the noise barrier would be theoretically visible from King's Bridge, and VP6 from the bridge (**Figure 10.7a** and **Figure 10.7b** of **Appendix 10.3: LVIA Figures**) illustrates that the noise barrier would be visible along the line of the river to the south. In this view, it would be seen as another new element in views of and from the bridge alongside the concrete structures of the canalised river and existing metal fencing alongside the bridge. The noise barrier would therefore introduce a change, but in a view that already contains comparable modern structures, and this would not notably affect an appreciation of the bridge as an entrance feature on the western edge of Longford village.
- 11.7.23 The King's Bridge is of **high** heritage significance, but as the introduction of the noise barrier would not alter the perception of the bridge as an historic entry point into Longford village, there would be **no effect** on its heritage significance.

11.8 Cumulative Effects

- 11.8.1 There is the potential for effects on historic environment to interact with other aspects and create a greater effect (known as intra-project effects) These are considered within **Chapter 13: Cumulative Effects**.
- 11.8.2 There is also the potential for effects from the Proposed Development to combine with the effects arising from other developments (inter-project effects) on historic environment. Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. An assessment inter-project effects is considered within in **Chapter 13: Cumulative Effects** of this Environmental Statement.

11.9 Assessment summary

- 11.9.1 **Table 11.12** and **Table 11.13** provides a summary of the findings of the assessment:

Construction phase

Table 11.12 Summary of residual effects during construction.

Activity	Summary of residual effect	Receptor	Significance	Summary rationale
Disturbance of archaeological remains as a result of construction of new airfield infrastructure (runway access taxiways)	Negligible	Archaeological remains	Not Significant	Potential for the presence of archaeological remains, though these are likely to have been subject to some level of previous disturbance.
Disturbance of archaeological remains as a result of construction of noise barrier	No effect	Archaeological remains	Not Significant	Archaeological remains not anticipated to be present due to extent of previous disturbance and archaeological investigations.

Operational phase

Table 11.13 Summary of residual effects during operation.

Activity	Summary of residual effect	Receptor	Significance	Summary rationale
Harm to the character of the Longford Village Conservation Area and the setting of other listed buildings as a result of the presence of noise barrier at Longford	No effect	Longford Village Conservation Area	Not Significant	The lack of outward visibility of the noise barrier from within the conservation area would ensure that the historic ‘village’ character of the conservation area aligned along Bath Road and The Island would be maintained and there would be no effect on its heritage significance.
	No effect	Orchard Cottage Grade II listed building (1358337)	Not Significant	As a result of the lack of outward visibility of the noise barrier from the asset itself or as it is seen on Bath Road, there would be no effect on its heritage significance.
	No effect	King’s Bridge Grade II listed building (1080299)	Not Significant	The noise barrier would be visible from the bridge, but alongside other, comparable modern structures and this would not alter the perception of the bridge as an historic entry point into Longford village so there would be no effect on its heritage significance.