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1 Introduction

1.1 Purpose and structure of this document

1.1.1 The purpose of this document is to:

i. explain the proposed approach to understanding the significance of the historic environment; and

ii. to identify proposed approaches that might be adopted in the design and delivery of the Project: including identifying opportunities to improve access to and appreciation of the historic environment. The scheme development is at an early design stage and as such we have not sought to describe in detail the historic environment or the likely effects of the Project.

1.1.2 This document forms part of a suite of materials produced for our Stage 1 pre-application consultation and should be read in conjunction with the other documentation prepared in support of the consultation.

1.1.3 The remainder of this document is structured as follows:

• Policy context: key aspects of the historic environment policy framework relevant to our plans.

• Heathrow and its surroundings: a brief overview of the history of the Heathrow area and the nature and extent of heritage assets that might be affected by the Project.

• Our approach: the key principles and vision for the Heathrow historic environment.

• Understanding and significance: describes proposed baseline studies that will inform our understanding of the historic environment and the proposed significance assessment criteria that will inform our assessment of and response to impacts affecting individual heritage assets, their settings and the wider local historic environment.

• Protecting heritage assets - our design approach: the key design and decision-making principles relating to the historic environment that will inform the development of the Project.

• Opportunity: exploration of initial options to unlock the potential for sustainable uses of heritage assets and for creating circumstances to help others to manage heritage assets that might otherwise be at risk; as well as creating new amenity that increase people’s ability to enjoy the wider historic environment.

Figure 1.1: Entrance to St Mary’s Church, Harmondsworth
Have your say

We would like to know your views on our approach to historic environment for the expansion of Heathrow, in particular;

Please tell us what you think about our approach to historic environment issues.

We are seeking your views on our proposals and there are prompts throughout the document on aspects you may wish to consider when answering that question.

In answering this question you may like to consider:

- The way in which you think the Project may affect the historic environment.
- The way in which we are proposing to develop our understanding of the historic environment.
- The way we are proposing to apply design and decision-making principles to inform the development of the Project.
- How might the Project make a positive contribution to the historic environment for example improving access to assets or interpretation of them.

1.2 Historic environment and cultural heritage

1.2.1 Historic environment is a term describing 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. See the revised draft Airports National Policy Statement (ANPS) (NPS 5.186-189)

1.2.2 Historic England (English Heritage 2008, p.715) define cultural heritage as: “Inherited assets which people identify and value as a reflection and expression of their evolving knowledge, beliefs and traditions, and of their understanding of the beliefs and traditions of others.”

1.2.3 Inherited assets have value for what they tell of evolving knowledge, beliefs and traditions of ourselves and others. This emphasis on people, especially how we understand ourselves and others, has pertinence at Heathrow, given it is a place that connects people globally.

1.2.4 Further key terms relating to the historic environment are defined in other sections and a glossary of historic environment terms from the National Planning Policy Framework (NPPF) has been included at the end of this document.
2 Historic environment policy context

2.1 Overview

2.1.1 Government policy in relation to a Nationally Significant Infrastructure Project (NSIP) is set out in a National Policy Statement (NPS). The revised draft Airports National Policy Statement1 (ANPS) was published in October, 2017 and is due to be designated in the first half of 2018 (subject to any amendments).

2.2 National policy

2.2.1 The revised draft ANPS (NPS 5.185) acknowledges that expansion of the airport and delivery of associated infrastructure has the potential to cause adverse impacts on the historic environment, both through the scale form and function of the airport development and in terms of associated infrastructure in support of existing transport networks, and changes in aircraft movement, noise and light levels.

2.2.2 Government policy for the historic environment recognises it is desirable to sustain and, where appropriate, enhance the significance of heritage assets, be they buildings, monuments, sites, places, areas or landscapes, or any combination of these; acknowledging both the contribution of their settings and the benefits conservation can make to supporting sustainable communities – including to their quality of life, their economic vitality, and to the public’s enjoyment of these assets.

2.2.3 The revised draft ANPS (NPS 5.195-201) confirms that when determining applications for development consent, the Secretary of State must comply with legislation relating to listed buildings, conservation areas and scheduled monuments set out in the Infrastructure Planning (Decisions) Regulations 2010. To enable appropriate assessment to be made of the effect of the proposals on the historic environment, there is a need to properly understand the significance of each heritage asset that may be affected, its setting, surroundings and landscape context; to define how they are currently experienced, or might be better appreciated; to identify potential harm; and to develop appropriate design or mitigation responses (NPS 5.191).

2.2.4 The revised draft ANPS (NPS 5.200-201) incorporates the tests and decision-making criteria set out in chapter 12 of the National Planning Policy Framework (NPPF) requiring the Secretary of State in considering the impact on heritage assets of development proposals, to give great weight to the asset’s conservation. Any loss or harm will require clear and convincing justification. Substantial harm or loss to grade II listed buildings or registered parks and gardens should be exceptional, and in relation to higher designation heritage assets (including grade I and II* listed buildings, and registered parks and gardens, World Heritage Sites, and Scheduled Monuments) should be wholly exceptional. Such harmful impact should be weighed against the public benefit of the development, recognising that the greater the harm the greater justification will be required.

2.2.5 Where the development will lead to substantial harm or total loss of a designated heritage asset, the revised draft ANPS (NPS 5.202) confirms that the Secretary of State will refuse consent unless it can be demonstrated that such harm or loss is necessary in order to deliver substantial public benefits that outweigh that harm or loss, or that certain key conditions apply.

2.2.6 The revised draft ANPS (NPS 5.207) makes clear that making documentary records of the past is not as valuable as retaining the heritage asset, and the ability to record heritage assets should not be a factor in deciding whether consent for the development should be granted.
2.2.7 Alongside protection, the revised draft ANPS also encourages positive contributions to the historic environment (NPS 5.193). Opportunities to respond to heritage assets with sensitive development design, or to promote beneficial use and management, or through improved access, interpretation, understanding and appreciation, can all make a positive contribution to the historic environment.

2.3 Regional and local policies

2.3.1 In addition to national policies, regional and local historic environment planning policies pertinent to development and design will also inform our scheme.

2.3.2 The London Plan - The Spatial Development Strategy for London Consolidated with Alterations Since 2011 (Greater London Authority 2016) includes policies that require development to:

- Have regard to the form, function, and structure of an area, place or street and the scale, mass and orientation of surrounding buildings. In areas of poor or ill-defined character, development should build on the positive elements that can contribute to establishing an enhanced character for the future function of the area;

- Ensure London’s public spaces are secure, accessible, inclusive, connected, easy to understand and maintain, relate to local context, and incorporate the highest quality design, landscaping, planting, street furniture and surfaces;

- Provide architecture that makes a positive contribution to a coherent public realm, streetscape and wider cityscape. It should incorporate the highest quality materials and design appropriate to its context;

- Recognise London’s heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account;

- Incorporate measures that identify, record, interpret, protect and, where appropriate, present the site’s archaeology; and

- Development in World Heritage Sites and their settings, including any buffer zones, should conserve, promote, make sustainable use of and enhance their authenticity, integrity and significance and Outstanding Universal Value. The Mayor has published Supplementary Planning Guidance on London’s World Heritage Sites – Guidance on Settings to help relevant stakeholders define the setting of World Heritage Sites.

2.3.3 A revised London Plan was issued in December 2017 and is out for public consultation. Policies relating to the historic environment have been presented slightly differently but are largely aligned to existing policies. We shall consider and develop our approach in accordance with the relevant policies as adopted.

2.3.4 The NPPF and the London Plan policies are further developed within local plan policies for the authorities in and around Heathrow, and these include specific policies related to the protection and management of heritage assets and the wider historic environment. In developing our emerging plans, we will take account of these policies, and in particular any more detailed guidance they offer in relation to specific heritage assets in the relevant area.

2.3.5 We are continuing to work closely with Historic England, who provide a key source of advice and guidance.
3 Heathrow and its surroundings

3.1 The Airport

3.1.1 Heathrow is located on a low-lying Thames Valley river terrace (c. 20-25m Above Ordnance datum AOD). Immediately to the west, the multi channelled River Colne flows south to meet the Thames at Staines, c. 3.8km to the south west. The River Crane flows to the east of the Airport, joining the Thames at Isleworth, 7km to the east.

3.1.2 The rivers, along with changes in elevation at the boundary with adjacent terraces to the north and south, define a physically discrete landscape block of approximately 35 square kilometres, in which the most evident feature is its flatness; a factor that influenced the original siting and further development of Heathrow.

3.1.3 Since civil aircraft operations began in 1946 there has been rapid airport growth, as Heathrow evolved to meet demand. It handled one million passengers annually in 1953. In 2016 the figure was 75.7 million. Operational changes have been largely met within the post-World War II airport boundaries, but growth influenced land use beyond the Airport perimeter, where various commercial service providers have located hotel, logistic and catering facilities.

3.1.4 Today Heathrow is a modern international hub airport connected to the national motorway and rail network and a wide range of logistics and customer service facilities. It is surrounded by neighbouring communities.

3.1.5 The current airside layout reveals changing configurations tracing the Airport adoption from military to civil use and the introduction of advanced commercial aircraft technology and design. The Heathrow estate includes the Grade II Listed Technical Block A, part of the British Airways Eastern Maintenance base, built between 1950-55 to the design of Sir E Owen Williams. More recently the Airport has invested in architecture of international merit, such as the Rodgers Stirk Harbour and Partners’ Terminal 5 Building and Foster and Partners/Luis Vidal + Architects new Queen’s Terminal (Terminal 2).

3.1.6 As an integral part of the wider historic environment Heathrow is a significant presence, physically, historically and culturally.

Figure 3.1: Historic mapping of Heathrow. Top right – 1959, Bottom left – 1978, Bottom right – 2009
3.2 The area

3.2.1 Heathrow lies in the Thames Valley National Character Area and is a component of the metropolitan south-west fringe: a diverse landscape of urban and suburban settlements, infrastructure networks, fragmented agricultural land, historic parks, commons, woodland, reservoirs and extensive minerals workings.

3.2.2 Favourably located in the middle Thames Valley, Heathrow’s environs reflect patterns of inhabitation 8,000 years in the making:

- Traditions of communal or ceremonial activities at special locations, perhaps originated during the Mesolithic Period, are represented in early Neolithic monument building, e.g. Stanwell Cursus and Mayfield Farm causewayed enclosure;
- Physical division of the landscape first occurs in the early Bronze Age;
- Broad continuity of agricultural settlement from middle Bronze Age to the end of the Roman-British period established landscape divisions that influenced later estate/administrative structures;
- Permanent settlement and individual land ownership is associated with emergence of mid and late Saxon multiple estates located around Hounslow Heath and the eastern Colne Valley;

Figure 3.2: Example of areas of heritage value within the Heathrow area. Top left — Colnbrook conservation area, Top right — Mayfield Farm Scheduled Monuments, Bottom — Longford conservation area
• Settlement nucleation linked to manorial estates resulted in the historic villages entities familiar today, for example Harmondsworth and Stanwell; and

• Major 19th/early 20th century metropolitan infrastructure and suburbanisation radically transforms the rural landscape character.

3.2.3 In addition to the effect of Heathrow’s development, local urban form has been greatly shaped by 19th and 20th century metropolitan infrastructure. This includes large scale water supply reservoirs, ongoing mineral extraction and former quarry landfill sites and intersected by a national motorway network. A particularly notable legacy are the historic villages neighbouring the Airport, originally part of a specific and exclusively rural socio-economic system that operated for at least 800 years prior to 19th and 20th century metropolitan expansion.

3.2.4 A range of residential village and estate forms, which have adapted or responded to the airport’s presence, contain a varied historic building stock. These range from the medieval timber framed Harmondsworth Great Barn to the 1950’s architect designed British Airways Staff Housing Society accommodation at Stanwell.
3.3 Initial consideration of heritage assets

3.3.1 We have identified an indicative study area for the purposes of initial assessment of the historic environment. This has been informed by the Heathrow North West Runway selected by the Airports Commission and will be subject to change depending on the final detailed design, including airspace considerations and consultation feedback.

3.3.2 This initial study area encompasses all land within historic parish boundaries (based on 1851 Ordnance Survey) associated with the principal historic settlements in the immediate vicinity of the airport: Cranford, East Bedfont, Harlington, Harmondsworth, Horton (including Colnbrook), Stanwell, West Drayton and Wraysbury. It also includes areas of the adjoining parishes of Iver, Langley Marsh and Staines. Referencing the study area to historic parishes originating in the 12th/13th centuries will ensure baseline historic landscape character analysis recognises how patterns of historic settlement and land-use arrangements have evolved to contribute to current local historic character.

3.3.3 Detailed assessment of the heritage assets within this study area has not yet taken place, but we are able to provide a brief overview of a number of heritage assets which are most likely to be affected by the Project, and which have helped to inform our initial approach and principles.

Figure 3.4: Potential heritage assets impacted on within the study area
3.3.4 It should be noted that the heritage assets identified here are not an exhaustive list as detailed assessment still needs to take place in accordance with our proposed approach. To inform that process, we would welcome comments on the study area being considered and whether you feel there are any other heritage assets which should be highlighted for specific consideration at this early stage of design development.

**Potential total or substantial loss**

3.3.5 Longford conservation area, with the possibility of complete loss and associated loss of the following designated heritage assets:

- King’s Bridge
- King Henry public house, the stable
- Longford Close
- Flats 1-3 (yeomans)
- The White Horse public house
- Weekly House
- Barn to west of Weekly House
- Wall to north west of Weekly House
- Longford Cottage
- Queen River Cottage / Willow Tree Cottage
- Orchard Cottage

3.3.6 Harmondsworth conservation area, with the possibility of 50% loss and associated loss of designated heritage assets:

- Harmondsworth Hall
- Harmondsworth Grange
- Wall and gates to south of Harmondsworth Hall
- Wall to the west and north of the Grange
- Wall to east of the Grange

3.3.7 Potential loss (or relocation) of the grade II listed monument at north western end of General Roy’s survey base (located within Heathrow Airport).

3.3.8 Likely loss of larger scale archaeological landscapes containing multiple non-designated archaeological remains (specific nature and extent still to be assessed).

3.3.9 Land use changes affecting the management of scheduled monuments at Mayfield Farm.

3.3.10 Changes in historic landscape character and features, including alignment of historic watercourses within the Colne Valley Regional Park (yet to be defined).

3.3.11 The visibility and noise of Airport operations are likely to affect the settings and use of grade I listed Great Barn and II* St Mary’s Church in Harmondsworth, along with noticeable setting effects on more distant heritage assets along flightpaths, such as conservation areas and registered parks and gardens, including Kew Gardens World Heritage Site (this is yet to be fully defined).

3.3.12 The Scheme Development Report and Our Emerging Plans document prepared as part of this consultation contain further details associated with specific scheme options and the associated potential effects on heritage assets.

**Potential indirect impacts**

Figure 3-5: The White Horse Pub Longford
3.4 Heritage at risk

3.4.1 In addition to those heritage assets we have initially identified as being most likely to be affected by the Project, the most recent Heritage at Risk Register compiled by Historic England (2017b) has included designated heritage assets currently judged to be in a poor or deteriorating condition which fall within the study area:

- Harmondsworth conservation area;
- Harlington conservation area;
- Longford conservation area, including:
  - Former King Henry public house and stables, Bath Road, Longford;
  - Barn to the west of Weekly House, Longford
- Cranford Park conservation area; including
  - Cellars of former Cranford House, Roseville Road, Cranford;
  - Cranford House stables, Roseville Road, Cranford;

3.4.2 Since the Risk Register does not consider all categories of heritage assets, such risks will likely apply more widely and include other assets in close proximity to the Project for example the Colnbrook conservation area. To better understand the implications of the Project we need to more fully determine the local factors that influence heritage risk as encouraged in the ANPS (NPS 5.193), and further discussed in section 7.3 Protecting (Vulnerable heritage assets).

Figure 3.6: Harmondsworth conservation area

Key things to consider

The study area being considered and whether you feel there are any other heritage assets which should be highlighted for specific consideration at this early stage of design development.
4 Heathrow: our approach to historic environment

4.1 Approach

4.1.1 Our proposed approach to understanding and responding to the historic environment is designed to accord with the policy framework set out in revised draft ANPS and the relevant regional and local policies.

4.1.2 This approach is influenced by Historic England advice and recognises the benefit of analysing historic environment character, to look “beyond individual heritage assets to the understanding of the overall character of a whole neighbourhood or area”. By broadening understanding we will be better placed to design measures that seek to avoid, minimise or mitigate potential harm to specific heritage assets, and can further identify opportunities to make a positive contribution to the historic environment.

4.1.3 A fuller understanding of the historic environment, its context, circumstance and narrative, not only enables a sensitive approach to design, it also provides opportunities for people to interpret and appreciate the locality in new and engaging ways.

4.1.4 In our approach to the historic environment we intend to:

• Sustain heritage significance and increase understanding of the past;
• Reconcile and connect contrasting areas of local historic character;
• Minimise harm and provide benefits for present and future generations;
• Provide a powerful economic and social stimulus to unlock the wider historic environment, and address existing heritage assets at risk;
• Realise cultural value through neighbourhood conservation improvements;
• Recognise aviation’s role in fostering cultural connections across the world.

4.1.5 This approach is best described under three main headings:

• Understanding
• Protecting
• Opportunity

Figure 4-1: Example of historic detail within Harmondsworth Great Barn
4.2 Guiding principles

4.2.1 Our approach to the historic environment at Heathrow will be guided by evolving heritage conservation principles developed by Historic England (English Heritage 2017a):

1. The historic environment is of value to us all
2. Everyone should be able to participate in sustaining the historic environment
3. Understanding the significance of heritage assets is the starting point for effective conservation
4. Heritage assets should be managed to sustain their heritage values
5. Decisions about change need to be reasonable, transparent and consistent
6. Documenting and learning from decisions is essential to inform future management

4.2.2 The following sections further explain the approach, which provide an opportunity for detailed and specific comment, and we would welcome views on our approach to the historic environment.
5.1 Gathering information

5.1.1 The revised draft ANPS (NPS 5.191-192) requires, as part of the Environmental Statement submitted in support of the Project, a description of the significance of the heritage assets affected by the proposed development, and the contribution of their setting to that significance. We explain how significance will be assessed in section 6, which relies on accurate baseline information.

5.1.2 Baseline information will be generated through various studies, such as historic landscape characterisation, historic area assessment and archaeological fieldwork and noise modelling.

5.2 It is anticipated that a geographic information system (GIS) data platform will facilitate integrated research-led assessment of heritage significance, which can both assist in formulating measures to avoid, minimise or mitigate harm, as well as contributing to interpretative design options.

5.3 Baseline studies

5.3.1 Historic England guidance, *Understanding Place: Character and context in local planning* (2012), advocates a logical approach to making decisions affecting England’s historic environment. It stresses the importance of understanding the fabric and evolution of places that are subject to change.

5.3.2 We propose to generate primary data through landscape scale baseline studies to inform the Environmental Impact Assessment and scheme development.

*Figure 5.1: Historic environment data management flow diagram*
5.3.3 Characterising historic landscape and areas

5.3.4 Historic England (2012) describes historic characterisation as ‘area-based ways of identifying and interpreting the historic dimension of present day townscape and landscape. It looks beyond individual heritage assets to the understanding of the overall character of a whole neighbourhood or area that is central to securing good quality, well designed and sustainable places’.

5.3.5 A hierarchical approach to characterisation of the Heathrow landscape, within the indicative study area will deliver three levels of characterisation, with a trend towards increasing detail and finer resolution:

- Level 1 Outline Assessment
  - Historic Landscape Character (HLC);
- Level 2 Rapid Assessment
  - Historic Area Assessment (HAA);
- Level 3 Detailed Assessment
  - Targeted Historic Area Assessment.

5.4 Describing archaeological landscapes

5.4.1 We have yet to develop a detailed approach for archaeological baseline data, pending further decisions, yet to be made, as to what development will be proposed and where. We would welcome comments that would inform archaeological proposals we will develop in consultation with Historic England. Our approach to gathering archaeological baseline data is likely to take into consideration:

- Information held in existing detailed archaeological archives from investigations previously undertaken in the Heathrow environs;
- Extent of areas where archaeological remains no longer survive, due to previous quarrying and large-scale development;
- Opportunities to undertake non-intrusive archaeological survey, including aerial photographic and geophysical surveying;
- Targeted archaeological trial trenching, with the scope and timing subject to land access constraints.

Figure 5.2: Archaeological research at Terminal 5
5.5 Archaeological research

5.5.1 Archaeological research undertaken since the 1940s has produced a wealth of knowledge and information specific to the immediate environs of Heathrow. The scale of this archaeological endeavour is exceptional, comparable to the major programme of archaeological investigations undertaken in and around the City of London since World War II.

5.5.2 Archaeological research resulting from the development of Heathrow Terminal 5 and associated facilities (Lewis, et al 2010) demonstrated the importance of examining the landscape in which individual monuments would have been encountered and operated. Such an approach has proven to be particularly well suited to tackling the challenge of mitigating the archaeological impact of large scale development programmes.

5.5.3 We anticipate building on the legacy of archaeological research at Heathrow:

- We will draw on information notable for its depth and richness, within the baseline analysis and environmental impact studies associated with Heathrow Terminal 5 and other projects in the vicinity;
- Where possible we will focus development activities on extensive areas where the archaeological landscape no longer survives, following gravel extraction or previous commercial development. At least 30% of the proposed runway development area is already totally cleared of archaeological remains due to past mineral extraction alone;
- Evaluation and mitigation investigations will use new techniques, that combine recording of the above and below ground archaeological evidence, especially in relation to the historic villages of Longford and Harmondsworth.

5.6 Understanding noise and its effects on heritage assets

5.6.1 Further to revised draft ANPS (NPS 5.192), we will carry out detailed studies on the effect of airport operations, in particular noise. These studies will be based on the guidance provided in *The Setting of Heritage Assets (second edition)* (Historic England) and the *Aviation Noise Metric*. (Temple 2014), and will also be considered as part of developing our methodology for the scoping of the environmental impact assessment in the next stage of project development.

Figure 5.3: Archaeology in action at Terminal 5
5.7 Consultation and engagement

5.7.1 This document is part of an initial pre-application public consultation exercise. Further stages of consultation are planned, both with regulatory stakeholders and in further public consultation events.

5.7.2 As the baseline studies and scheme design progress we will closely liaise with technical and regulatory organisations and other stakeholders, including property owners, to ensure we can support the application with relevant information and develop appropriate measures to protect heritage assets and contribute positively to the historic environment.

5.7.3 Advances in our understanding of the Heathrow environs historic environment will be shared so that it can further appreciated by local people and communities.

5.7.4 We have already begun dialogue on our approach with Historic England, engaging with them as we progress.

Key things to consider

The way in which we are proposing to develop our understanding of the historic environment.

Figure 5.4: Heathrow engagement event for the Airports Commision
6 Assessing significance

6.1 Assessing significance

6.1.1 Following on from the baseline studies, we will need to carry out an assessment of the significance of the identified heritage assets likely to be affected by the Project.

6.1.2 The revised draft ANPS (NPS 5.187) defines significance as: "Those elements of the historic environment that hold value to this and future generations because of their historic, archaeological, architectural or artistic interest are called 'heritage assets'". Heritage assets may be buildings, monuments, sites, places, areas or landscapes, or any combination of these. The sum of the heritage interests that a heritage asset holds is referred to as its significance. Significance derives not only from a heritage asset's physical presence, but also from its setting. NPPF defines the interests that contribute to significance as archaeological, architectural, artistic or historic.

6.2 Historic

6.2.1 A heritage asset can be valued for historic interest in a number of ways:
- It can illustrate the story of past events, people and aspects of life;
- If used for its original purpose, for example as a place of recreation, worship, or manufacture, it illustrates the relationship between design and function;
- It has meaning for those who draw part of their identity from it or have emotional links to it; and
- It is associated with a notable person, event, or movement.

6.3 Archaeological

6.3.1 This is sometimes called evidential or research value. There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity that could be revealed through investigation at some point. Archaeological interest in this context includes above-ground structures as well as earthworks and buried or submerged remains more commonly associated with the study of archaeology.

6.4 Architecture and artistic

6.4.1 Architectural and artistic interests derive from a contemporary appreciation of the asset's aesthetics. Architectural interest is an interest in the art or science of the design, construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is derived from the use of human imagination and skill to convey meaning through all forms of creative expression. This might include the use, representation or influence of historic places or buildings in artworks (contributing to their significance through their association with art), as well as the meaning, skill and emotional impact of works of art within our environment that are either part of heritage assets or assets in their own right.

The degree to which these interests determine significance will inform, alongside the responses from consultation, our assessment of the impact of the Project on the historic environment, and identification of measures for protecting and mitigating the effects on heritage assets.
7 Protecting: our design approach

7.1 In evidence presented to the Airports Commission we recognised our historic environment responsibilities, but also the extent to which there may also be limitations to what we can achieve.

7.1.1 We recognise that loss of conservation areas and listed buildings is permitted only in exceptional or wholly exceptional circumstances and that the revised draft ANPS guides us to make decisions that avoid and minimise harm. This applies to all aspects of the Project, including temporary as well as permanent development effects, that might impact or harm the fabric of heritage assets or the setting of heritage assets.

7.1.2 Our understanding of the heritage assets and their significance will inform design proposals for the Project that address the revised draft ANPS policy. Specifically, we will:

- Minimise or mitigate setting effects on heritage significance at Harmondsworth conservation area (including the Great Barn and St Mary’s Church), Harlington and Colnbrook conservation areas and the Mayfield Farm Scheduled Monuments.
- Minimise or mitigate setting effects on heritage significance at Harmondsworth High Street, and the relative proximity of the airport site to the grade I listed Great Barn. Further details on options and the potential effects on heritage assets can also be found in the Scheme Development Report. As these options develop further, we will seek further direct engagement with affected communities and stakeholders to inform the preferred option for the purpose of our next phase of consultation.

7.1.3 We will ensure that the potential effects of development on the historic environment will be one of the factors considered as part of determining the location and extent of land take for the Project. For example, in chapter 5 of ‘Our Emerging Plans’ document included as part of this consultation, options relating to the precise location of the runway are explored and show how variations in the positioning of extent of the northern boundary can alter the effects on heritage assets on Harmondsworth High Street, and the relative proximity of the airport site to the grade I listed Great Barn. Further details on options and the potential effects on heritage assets can also be found in the Scheme Development Report. As these options develop further, we will seek further direct engagement with affected communities and stakeholders to inform the preferred option for the purpose of our next phase of consultation.

7.1.4 We also recognise the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets and that revised draft ANPS (NPS 5.193) encourages proposals that make a positive contribution to the historic environment, through sensitive design, reducing risk to heritage
assets and enhanced access, interpretation, understanding and appreciation.

7.1.6 Our proposed design approach has been developed in response to the revised draft ANPS guidance and advice and in recognition of the nature of heritage assets and historic character likely to be affected.

7.1.7 Integration of the historic environment with architectural, landscape and environmental design can prove invaluable in avoiding, minimising or mitigating harm and realising opportunities that make a positive contribution to the historic environment.

7.1.8 In the context of our approach to the historic environment, we propose the following design principles:

- Urban design should maintain connectivity to neighbouring historic land use and settlement patterns;
- Architectural design should respect or enhance local historic character;
- Public realm and landscape design should seek to create memorable local places of sustainable and lasting cultural value, and that stimulate interest, experience and exploration;
- Public art should seek to explore and embody relevant heritage or cultural themes and narratives.

Figure 7.2: Examples of integrating sensitive heritage design within architecture, landscape and environmental design. Top left - Blackpool comedy carpet, Top right - Bloomberg Fountain, London, Bottom - Castle Park, Bristol
7.1.9 Sensitive design can assist in actively managing changes affecting heritage places and assets through recognising and reinforcing their historic significance and helping to ensure their continued use and enjoyment.

7.2 Green infrastructure

7.2.1 Our Expansion Consultation Document: Design Approach to Natural Environment (Heathrow 2018) outlines green infrastructure designs that integrate proposals for the wider environs of the expanded Airport. The document describes how we intend to realise opportunities to provide recreation and amenity (public open spaces and Public Rights of Way) and generate a positive contribution to landscape and visual amenity, protected species, biodiversity, the water environment in a manner that compliments the historic environment.

7.2.2 Creating a network of new or improved connected spaces that reflect their contextual environment, brings multifunctional benefits to people and wildlife.
7.2.3 Opportunities for green infrastructure to contribute to the appreciation, resilience and sustainability of heritage assets, within a multi-functional environment, may include:

- Provision of heritage interpretation information and amenity facilities at focal points, such as Harmondsworth conservation area and Mayfield Farm, the location of particularly significant historic settlement and prehistoric heritage assets. These could provide information and other facilities from which to explore, via designed cycling and pedestrian routes, places of historic, environmental and landscape interest surrounding the Airport and within the Colne Valley Regional Park;

- Circular route linking historic places along the margins of the expanded Airport, with Cranford Park to the north east, Harlington and Harmondsworth to the north, Colnbrook to the north west, Stanwell to the south east and East Bedfont to the south;

- Local enhancements to conservation areas, to improve the amenity and appreciation of interconnected historic places.

Figure 7.4: Examples of heritage interpretation and connected routes
7.3 Vulnerable heritages assets

7.3.1 For many of the heritage assets already known to be at risk, or which may be more vulnerable to risk, such as those referred to in section 3.4, one of the key issues is the need to identify ways in which an appropriate and viable use can be established and sustained. Our plans may generate yet further risks, but also opportunities, that could influence the future uses and function of heritage assets.

7.3.2 Where possible we will co-ordinate heritage resilience activities with local conservation programmes, such as the London Borough of Hillingdon Cranford Park restoration, which involves the conversion and interpretation of the historic buildings and landscape at Cranford Park for community, recreational and educational use.

7.3.3 We recognise noise control and mitigation measures could influence the future viability of heritage assets, particularly of the Harmondsworth Great Barn and St Mary’s Church, Harmondsworth. In section 5 we refer to the baseline noise studies we shall undertake, as advised in the revised draft ANPS (NPS 5.192). We also intend to explore innovations, such as sound-masking, to ensure we take into account measures that could mitigate aviation noise effects so that they are less disturbing to people in relation to the use of heritage assets (see further details in section 8).

7.3.4 Looking beyond the immediate environs, we will also assess the implications of airspace design and consequent implications for noise affecting the setting of other historic areas (including conservation areas and registered parks).

7.3.5 Our proposals raise various possibilities for indirect beneficial change in a manner consistent with continued preservation of heritage assets:

- Airport expansion can contribute to local socio-economic activities and community functions that determine productive use of heritage assets;
- Urban design can stimulate productive third-party use of heritage assets.

7.3.6 This has relevance to properties within village conservation areas neighbouring the proposed 3rd runway, e.g. Colnbrook, Cranford, Harmondsworth, Sipson, Harlington and Stanwell, but also more widely. We propose to further analyse and assess the socio-economic opportunities to improve resilience through sustainable use of heritage assets. For instance, the sensitive realignment of local roads and relocation of commercial facilities might improve connections with historic areas. As a result, they could benefit from the economic stimulus of airport expansion, through improved infrastructure and further opportunities for investment that help sustain heritage assets.

Figure 7.5: The Stables and Stables Walls, Cranford Park

Key things to consider

The way we are proposing to apply design and decision-making principles for the historic environment to inform the development of the project.

The way in which our approach to natural environment can complement our approach to historic environment.
8 Opportunity: unlocking potential to make a positive contribution to the historic environment

8.1 The revised draft ANPS looks to Heathrow to make, where possible, a positive contribution to the historic environment as part of its design response.

8.1.2 By promoting designs that respond to local historic character and cultural heritage value, including that of the Airport itself, we consider there could be opportunities to increase understanding and appreciation of existing and affected heritage assets along with enhancements that contribute to a more accessible and resilient historic environment.

8.2 Opportunities

8.2.1 A number of heritage assets, including, but not limited to, the Harmondsworth Great Barn and local medieval parish churches, are still adapting to the intensified urban setting: a factor that contributes, in some instances, to uncertainties surrounding the viability of current uses.

8.2.2 In evidence to the Airports Commission, Heathrow (2014), we suggested options for the preservation of the grade I listed Harmondsworth Great Barn and the grade II* listed St Mary’s Church in their current locations. Retaining these buildings in situ remains our preferred approach, and we intend to undertake, at an early stage, research on the effectiveness of measures, such as noise controls, that will influence the viability of sustainable uses for heritage assets. One of our key concerns is to avoid exposing heritage assets to increased risk.

8.2.3 So, as previously recognised (Heathrow 2014), it may still be necessary to consider other options including the possible relocation of the Barn.

We have provided below initial thoughts in relation to the Great Barn and St Mary’s Church, and also some initial thoughts on options relating to Colne Valley Regional Park, and the Longford and Harmondsworth conservation areas. We would particularly welcome your views on the approaches being considered for these heritage assets, and on options which you feel should be considered for these and other heritage assets or areas which may be affected and that could assist us in seeking to both avoid unnecessary harm and potentially unlock opportunities to more fully realise heritage assets as local cultural resources.
8.2.4 Harmondsworth Great Barn (Grade I)

Harmondsworth Barn is among the largest surviving medieval timber-framed buildings in England. It ceased to be a viable agricultural building in the 1970s. Limited investment in repair and maintenance by subsequent owners prompted emergency repairs and subsequent compulsory purchase by English Heritage in 2012. The Great Barn is now managed on behalf of English Heritage by the Friends of the Great Barn at Harmondsworth, a local preservation volunteer group who open the building to the public for free each Sunday during a relatively short season.

8.2.5 Notwithstanding the implications of an expanded Heathrow, the viability of the barn as a historic visitor attraction faces challenges of location, conservation needs and the limited resources available to a small independent volunteer community management group. The visitor offer is currently under-developed and the Great Barn’s immediate future is currently dependant on the financing offered by English Heritage. Not only do restricted opening times and lack of vehicular access limit opportunities for public enjoyment, there is no independent revenue generation that might support further development as a heritage attraction or to meet the long-term maintenance needs; such as the recently completed urgent repair works to the roof.

8.2.6 We recognise the Great Barn is best suited as a heritage attraction; especially as adaption to other uses are likely to involve internal alterations that could be detrimental to its principal significance, as a display of medieval architecture and carpentry. We anticipate opportunities to work with Historic England, English Heritage and the Friends of the Great Barn at Harmondsworth and the wider local community towards realising a more sustainable and viable use for this important heritage asset.
St Mary’s Church, Harmondsworth (Grade II*)

8.2.7 St Mary’s Church is one of several medieval and later parish churches surrounding Heathrow that have considerable historic, architectural and communal value. It includes an attached graveyard that is subject to provisions that regulate the disturbance of human remains, and contains a number of historic and listed burial monuments.

8.2.8 St Mary’s Church is an important focal point within Harmondsworth’s historic village setting. However, we understand that increased noise may affect the worship of 25-30 regular congregants, and our aim is to avoid the possibility that the Church might become redundant. We intend to consult with the local Church authorities to identify means of ensuring future viability, including options for carrying out sensitive adaptations that could help to sustain worship and allow greater flexible uses. For example, it could become a new ‘community hub’ supporting the ministry of the church through community outreach and worship, but also offering a range of cultural, social and educational facilities to the local community.

Colne Valley Regional Park

8.2.9 The expansion of Heathrow will impact the southern reaches of the Colne Valley Regional Park. Watercourses will need to be modified and flood alleviation provision made as well as biodiversity/habitat enhancements. We also propose to improve the quality of the area through works that interpret and present the heritage of the Colne Valley and seek to re-use displaced heritage assets, such as the King’s Bridge at Longford.

8.2.10 This is a significant opportunity to consider habitat creation that takes into consideration historic land use management, with potential for reconstruction of former flood plain grazing marsh; traditional orchards (pre-mechanisation); lowland heath and river functions.

8.2.11 A programme of investigation in areas, where there is a risk that landscape engineering will encounter archaeological remains, will also form part of the wider archaeological research programme.

Longford and Harmondsworth conservation areas

8.2.12 Apart from the measures to mitigate individual designated heritage assets we anticipate a need to compensate the potential loss of the entirety of Longford conservation area (and all heritage assets within it), and approximately 50% of Harmondsworth conservation area.

8.2.13 In consultation with the Local Authorities we want to look at ways to conserve or enhance the remaining parts of Harmondsworth conservation area and agree potential measures to support the remaining heritage assets. The options to be considered should be of assistance in looking at other conservation areas in the vicinity, and would be developed in the context of our wider green infrastructure plans.
8.3 Interpretation and innovation

8.3.1 Story-telling

There are transformational opportunities to better integrate the Airport and the design of new infrastructure with the surrounding historic environment. Such design, including associated interpretive material can draw on the improved knowledge of the local historic environment generated through the assessment process, but equally it can recognise global cultural connections.

8.3.2 We intend to prepare a cultural interpretation framework that sets out key principles to ensure that interpretation design:

- Expresses unified narrative themes;
- Recognises the Airport as a key element of the local place;
- Explores connections between global cultures, the relationships fostered by aviation, and local cultural interests;
- Generates experiences for visitors, but particularly aimed at public realm interfaces with neighbouring communities;
- Uses public art to represent heritage narratives and themes in a contemporary manner;
- Engages communities.

We welcome further ideas that might contribute to our proposed interpretative approach, along with any views on how we might share archaeological interpretations and discoveries made during mitigation investigations, building on the award-winning Heathrow Terminal 5 archaeological programme.

Figure 8.5: Example of heritage storytelling, mosaic detail in Whitehaven, Cumbria
Relocating heritage assets

8.3.4 We recognise that several Grade II and locally listed buildings will be directly impacted by the Project, in particular those within the Longford conservation area. There may be options for relocation and reuse rather than demolition, and such solutions will be considered where practical. For instance, the 19th century cast iron King’s Bridge at Longford and General Roy’s memorial could be relocated, the former as part of the landscape improvements, within the Colne Valley Regional Park. We welcome views on the potential locations for the General Roy’s memorial or for other heritage assets affected by the Project.

Recording heritage assets

8.3.5 For other heritage assets affected by demolition there remains a requirement to record heritage significance. This could be achieved by archiving a detailed building archaeology record and retaining selected architectural materials at a suitable museum repository. Although the revised draft ANPS makes clear that this is not as valuable as retaining the heritage assets it could form part of the wider archaeological research programme. There may be scope to use innovative forms of digital recording and imaging to generate interactive digital models that allow people to explore historic village development and changes to individual buildings, including their construction, form, function and use.

Experience and interpretation

8.3.6 We also recognise the Project may harm the setting of heritage assets in ways that affect how they are experienced by people, for instance due to aviation noise. Again, there may be opportunities to consider innovative practices that contribute to the re-interpretation of heritage assets, in this instance through the use of sound-masking techniques that influence the experience by both masking nuisance sounds and contribute an aural component to the interpretation of the heritage asset.

8.3.7 Both sound-masking and digital recording and imaging are identified as potential innovations relevant to our approach to the historic environment. These are briefly outlined below, but we would welcome further views on any other options or approaches that we might apply generally or in relation to specific heritage assets.
8.3.8 Sound-masking
Our plans are likely to result in increased exposure to aviation and other forms of noise that will influence the setting of heritage assets and the ways they are experienced by people. This has particular relevance to the viability of the Harmondsworth Great Barn as a visitor attraction.

8.3.9 Noise impacts people’s quality of life in different, often complex, ways. The level of noise, attitude towards noise and control of noise, all influence the experience of noise. Reducing aviation noise effects can be achieved by means of control measures and further attenuated through the design of urban fabric, including open spaces and landscape, that could include sound-masking.

8.3.10 Sound-masking means inaudibility or partial inaudibility of sounds due to the interruption of another sound, and has been demonstrated to have considerable effects on the quality of soundscapes. Masking effects may not reduce perceived loudness directly, but it can significantly reduce annoyance.

8.3.11 In developing site-specific sound masking design, there is an opportunity to introduce elements that contribute to site interpretation.

8.3.12 Digital recording and imaging
Digital survey (including 3D recording) can work at a variety of scales ranging from individual objects through to built heritage and landscapes, with recent technology offering scope to produce fine resolution images and interactive models. The merit of digital recording technology in the context of the historic environment has recently be highlighted by Historic England (2017c).

8.3.13 We will explore the various ways that digital technology could make a positive contribution to managing the effects of change at Heathrow, especially in relation to heritage assets that would be lost, such as individual historic buildings, but also groups of buildings and townscapes, such as the Longford conservation area:

- Recording: efficient capturing of data using digital survey (i.e. instead of manual survey);
- Investigation: digital survey capturing data we wouldn’t otherwise get;
- Interpretation: using digital data to engage communities in positive narratives associated with the experience of change, or to understand assets in ways we are currently unable;
- Presentation: generate digital models for use in reporting, educational outreach etc.
We would like to know your views on our approach to historic environment for the expansion of Heathrow, in particular;

Please tell us what you think about our approach to historic environment issues.

We are seeking your views on our proposals and there are prompts throughout the document on aspects you may wish to consider when answering that question.

In answering this question you may like to consider:

- The way in which you think the Project may affect the historic environment.
- The way in which we are proposing to develop our understanding of the historic environment.
- The way we are proposing to apply design and decision-making principles to inform the development of the Project.
- How might the Project make a positive contribution to the historic environment for example improving access to assets or interpretation of them.

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Conservation</td>
<td>The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.</td>
</tr>
<tr>
<td>Designated Heritage Asset</td>
<td>A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Protected Military Remains, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.</td>
</tr>
<tr>
<td>Heritage asset</td>
<td>A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).</td>
</tr>
<tr>
<td>Historic environment</td>
<td>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.</td>
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</tbody>
</table>
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There are lots of ways you can contact us and find out more

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