

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

## 14. CULTURAL HERITAGE AND ARCHAEOLOGY

### 14.1 Introduction

This chapter has been prepared by RPS Group. It provides an assessment of the potential impacts of the proposed development at AWE Aldermaston on the archaeology and cultural heritage of the Hydrus Development Site and its surroundings. Full details of the development proposals are included in *Chapter 5: The Proposed Development* of this Defence Exempt Environmental Appraisal (DEEA).

The Application Site is shown in *Chapter 1: Introduction* Figure 1-1 and comprises the following principal components:

- The Hydrus Development Site (6.47 hectares (ha));
- The existing Central Area Construction Enclave (CACE) and construction site access from the A340 Gate (2.18 ha) ; and
- The existing West End Construction Enclave (WECE) (5.38 ha).

This chapter covers all known or potential cultural receptors ('heritage assets') that may be temporarily or permanently affected by the Proposed Development. Such heritage assets include archaeology, built heritage, and the historic landscape. These encompass known and unknown archaeological sites, Listed Buildings, Scheduled Ancient Monuments, Conservation Areas, Historic Battlefields or Historic Parks and Gardens and historic landscape. The temporal scope of the study relates to all historical periods from the Palaeolithic to the present.

The aims of the assessment are to:

- Identify the known heritage resources of the Hydrus Development Site and its surroundings and to assess their importance;
- Determine the potential for, and likely importance of, as yet unknown archaeological remains within the Hydrus Development Site, taking into account the local archaeological and historical context; and
- Identify the potential impacts of the Proposed Development, both during construction and permanently thereafter, on the existing and potential heritage assets, including impacts from nuisance and on setting.

The impacts in this chapter are assessed with regard to the current baseline position, and also following the implementation of a programme of recommended mitigation measures, the latter being the residual impacts.

#### 14.1.1 Consultation and Design Evolution

It should be noted that the evolution of the design proposals has been the result of formal consultations with English Heritage and West Berkshire Council (WBC). Preliminary discussions with English Heritage in November 2008 indicated that it was unlikely that the impact of the Proposed Development on Aldermaston Park or Aldermaston Court would merit their further involvement. Following a further

pre-application meeting in December 2009 at which the photo montages were tabled, English Heritage confirmed that they saw no issues of national importance and that they would be content to rely on the expertise within WBC on conservation matters.

As advised by English Heritage, the positions from which photo montages would be prepared and the evolution of the design proposals have been the result of extensive formal consultations and discussions with the Principal Design and Conservation Officers of West Berkshire Council (WBC). Details of the how the design has evolved to minimise visual impacts are described in detail in *Chapter 4: Alternatives and Design Evolution* of this DEEA. A number of alternative site locations were considered during the initial phase of the project. These are also outlined in *Chapter 4: Alternatives and Design Evolution*.

Once it was determined that the only viable location for the Proposed Development was adjacent to Aldermaston Park, consultation with English Heritage and WBC recognised the need to take account of the potential impact of the Proposed Development on Aldermaston Park and Aldermaston Court. It was agreed at an early stage that the preferred option was to locate the Operations Building axially on the truncated avenue leading south from Aldermaston Court, allowing a direct and clear relationship with the elements of the surrounding historic setting. The final positioning utilises a direct alignment providing a solid, balanced proportion of architecture within the landscape contextual setting of the oak avenue. The Support Building and the Electrical Substation were located to either side of the Operations Building (to the east and west, respectively), removing their visual influence on, or association with, the avenue axis.

Having established a clear rationale for the position of the buildings, forms were developed which sought to diminish the massing and scale of the facilities by the use of recessive and continuous shapes, minimising silhouettes and skyline impacts. An early decision to use a single primary roof form for the Operations Building was the key to this philosophy (See *Chapter 4: Alternatives and Design Evolution, Figure 4-4*). The roof form, a flattened dome, brings the scale and massing down towards the ground, encompassed by a smooth circular edge. This continuous over-sailing roof acts as a counterfoil to the complexities and demands of the building's plan form below. Based on an octagon, the footprint has several projections for functional reasons, all of which are unified by the sinuous roof form above. Considerable work has gone into smoothing the roof form and choosing the least visually intrusive cladding, which will have a light grey appearance to soften its outline against the sky.

A Lightning Protection System (LPS) is required by the Nuclear Installations Inspectorate to protect the Operations Building from lightning strike. Two design options were prepared: the first had one LPS catenary mast centred on the visual axis from Aldermaston Court along the oak avenue; the second had LPS catenary masts located equally to either side of the visual axis. Officers of WBC expressed a preference for the second option, and this design has been selected for visual and operational reasons. The deliberate centring of the LPS catenary masts on the historic avenue axis has produced a strong and deliberate relationship with the historic landscape context. Whilst this is a powerful interaction with the avenue, it is also a visually stable and balanced relationship.

The LPS catenary masts were initially considered as lattice towers which enabled a traditional engineering response, but it was immediately apparent the volume of visual clutter would have significant greater visual impact. The solution was to design and engineer circular section masts with a gently tapering shape, diminishing to the smallest dimension at the tip as could reasonably be achieved. To minimise visual impact, these will be painted off-white/very light grey.

Detailed consultation on the proposed design and layout of the revised design took place with WBC in May and June 2009. Options for the Support Building(s) were discussed in relation to the overall layout and the potential impact to views from Aldermaston Court. WBC expressed a preference for the option of a single support building, which would enable the Operations Building to be located on the axis of the oak avenue within Aldermaston Court. Views of the Support Building would also be better screened by existing woodland.

The Proposed Development and site layout design (described and illustrated in *Chapter 5: The Proposed Development*) was subsequently developed from this arrangement. Roof heights throughout have been kept to a minimum, dictated by the size of assemblies that need to be housed within each building. Landscaping has been developed to screen ground-level activity, using a 2m high bund with high hedge planting on its top. The Support Building has been arranged as a mainly single storey building, with a living 'green' Sedum roof in order to minimise the visual impact. Initially designed with a simple rectangular footprint, this building was redesigned with a 'chevron' footprint, rotated slightly in order to reduce the cross-sectional area facing Aldermaston Court.

The Support Building utilises a functional three-stepped roof form with the greater part of the mass and height stepping away from the Operations Building. The need for an overhead travelling crane in the workshop has dictated the highest roof level over the workshop. The size of the Support Building was also kept to a minimum by locating all non-operational staff in the New Office Accommodation (NOA) at AWE Aldermaston. NOA is already completed and located some 1.4 kilometres (km) to the south-west of the Hydrus Development Site.

The Electrical Substation is a single storey building and is located as far as possible to the west of the Operations Building to minimise the visual impact on Aldermaston Court.

The WBC Archaeologist was consulted following the archaeological evaluation of the Hydrus Development Site in July 2007, in relation to the archaeological potential of the Hydrus Development Site and on the scope of any subsequent archaeological actions to mitigate potential impacts on archaeological remains. He indicated that no further archaeological work was necessary, due to the Site's low potential.

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

## 14.2 Planning Policy Context

### 14.2.1 National Planning Policy and Guidance

#### 14.2.1.1 Scheduled Monuments (SM)

Statutory protection for archaeology is principally enshrined in the Ancient Monuments and Archaeological Areas Act 1979 (Ref. 14-1), as amended by the National Heritage Act 1983 (Ref. 14-2). Nationally important sites are listed on a Schedule of Monuments which is maintained by the Secretary of State for Culture, Media and Sport. Scheduled Monument (SM) consent is required for any work that would affect the fabric of a Scheduled Monument.

#### 14.2.1.2 Listed Buildings

Listed buildings and their settings are protected under the provisions of the Town and Country Planning Act 1971 (Ref. 14-3), as amended by the Planning (Listed Buildings and Conservation Areas) Act 1990 (Ref. 14-4). These empower the Secretary of State to maintain a list of built structures of national historic or of architectural significance. Listed buildings and their settings need not be preserved unchanged, but development should in all but exceptional cases, aim to preserve the building's historic or architectural interest.

#### 14.2.1.3 Conservation Areas

Conservation areas (and their settings) are also protected under the provisions of the Town and Country Planning Act 1971 and the Planning (Listed Buildings and Conservation Areas) Act 1990. These impose on local authorities the duty to identify and protect areas worthy of preservation or enhancement. Again, development is not precluded, but it is the presumption that all development within the conservation area or its setting should aim to preserve or enhance the area's historic character or appearance. Local authorities are required to carry out appraisals of all of their conservation areas in order to define the areas' special characteristics/interest, to guide future development.

#### 14.2.1.4 National Planning Policy Guidance

Planning Policy Statement 5: Planning for the Historic Environment (PPS5) (Ref. 14-5) sets out the Government's planning policies on the conservation of the historic environment.

Published in March 2010, it replaces Planning Policy Guidance 15: Planning and the Historic Environment (PPG15) (Ref. 14-6) and Planning Policy Guidance 16: Archaeology and Planning (PPG16) (Ref. 14-7). It introduces a unified approach to Listed buildings, ancient monuments, archaeological sites and historic landscapes, all of which are defined as 'heritage assets' and addresses the issue of how the historic environment should be viewed in the context of today's major challenges such as climate change, economic development and housing supply. It consolidates the previous advice to planning authorities concerning the safeguarding of heritage assets of all types within the planning process, emphasises the irreplaceability of heritage assets and details the role of records kept in County Historic Environment Records (HERs).

The PPS stresses the need to understand both the significance and setting of heritage assets, whether designated or not. By stressing significance, the PPS aims to ensure the protection of the most important aspects of that asset, i.e. the asset's significance.

*Significance* and *Setting* are defined thus within the PPS:

- **'Significance:** The value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic.
- **Setting:** The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.'

In considering applications, Policy HE9.4 of the PPS makes it clear that:

*'Where a proposal has a harmful impact on the significance of a designated heritage asset which is less than substantial harm, in all cases local planning authorities should:*

- i. weigh the public benefit of the proposal (for example, that it helps to secure the optimum viable use of the heritage asset in the interests of its long-term conservation) against the harm; and*
- ii. recognise that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss.'*

The PPS encourages early consultation and sets out the requirements for applicants to furnish sufficient information about the impact of their proposals for reasonable planning decisions to be made. It indicates the circumstances in which further investigation would be necessary to fully understand significance of an asset.

In considering applications, policy HE10 of PPS5 states that:

*'When considering applications for development that affect the setting of a heritage asset, local planning authorities should treat favourably applications that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset. When considering applications that do not do this, local planning authorities should weigh any such harm against the wider benefits of the application. The greater the negative impact on the significance of the heritage asset, the greater the benefits that will be needed to justify approval.'*

PPS 5 is currently accompanied by two supporting documents:

- The Government's Statement on the Historic Environment for England 2010 (Ref. 14-8); and

- PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide (Ref. 14-9).

The PPS5 Practice Guide supports the policies outlined in the PPS with explanations and guidance but adds no new policies itself. The PPS responds to Government views on the protection of the historic environment as previously expressed in the Draft Heritage Protection Bill 2008 (Ref. 14-10). The draft Bill has been presented to Parliament but is not in the current programme and is thus regarded as 'dormant'.

### 14.2.2 Regional Planning Policy

#### 14.2.2.1 The South East Plan

Regional Planning Guidance for the South East is provided by the South East Plan (Ref. 14-11). This replaced The Berkshire Structure Plan. It includes the following with regard to the historic environment:

*'POLICY BE6: MANAGEMENT OF THE HISTORIC ENVIRONMENT*

*When developing and implementing plans and strategies, local authorities and other bodies will adopt policies and support proposals which protect, conserve and, where appropriate, enhance the historic environment and the contribution it makes to local and regional distinctiveness and sense of place. The region's internationally and nationally designated historic assets should receive the highest level of protection. Proposals that make sensitive use of historic assets through regeneration, particularly where these bring redundant or under-used buildings and areas into appropriate use should be encouraged.'*

This policy is underpinned by the following paragraphs:

*'The historic environment includes the physical evidence of past human activity. It is all around us as part of everyday life, and it is therefore dynamic and continually subject to change. It is not limited to the built environment and archaeological sites, but includes landscapes, both urban and rural and as an example of its great diversity, marine heritage sites around the coast. These environments are fragile and require protection, but also have an enormous potential to contribute to a sense of place and identity and add to the quality of our daily lives through understanding and appropriate management and access. (Para. 12.15)*

*It is widely recognised that the South East has a rich and diverse historic environment. This is a tremendous asset, a precious and irreplaceable expression of our history, heritage and culture, visibly so, where it lies at the heart of local and regional character and sense of place. The historic buildings and landscapes that characterise the region add much to the quality of life that underpins the region's economy. Both the rural landscape and the historic urban fabric influences investment decisions of individuals and businesses. The historic environment is part of the wider environment of the region that is a 'draw' for those investing in the area. (Para. 12.16)*

*Regionally significant historic features and sites in the South East include:*

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

3. an historic countryside of varying character reflecting both Midlands Enclosure on top of open field systems...

4. an outstanding archaeological heritage...

5. the network of historic market towns and villages...

6. the stately homes and historic parks and gardens...

7. the defence heritage of the region which has always been in the front line of the defence of England.

*Sustainable management of the historic environment through the planning system and other plans and strategies should be based upon an understanding of its significance and vulnerability to change. This is critical given the pace and scale of change faced by the region. The standardisation of some new development can lead to a dilution of local character, and should be discouraged. Local character assessment, for example historic landscape and urban characterisation, can be a useful tool to inform policy development. (Para. 12.19).*

#### 14.2.3 Local Planning Policy

##### 14.2.3.1 The West Berkshire Local Plan 1991-2006 – Saved Policies

Under the Planning and Compulsory Purchase Act 2004 (Ref. 14-12) Local Plans will be replaced by Local Development Frameworks. WBC is in the process of consulting on their core document for their Local Development Frameworks. However until WBC Local Development Framework documents are adopted, certain policies from the West Berkshire Local Plan 1991 - 2006 (Ref. 14-13) have been saved. However, the West Berkshire Local Plan has no saved policies on the historic environment.

##### 14.2.3.2 Supplementary Planning Guidance (SPG)

WBC has no adopted Conservation Area Appraisals for any settlements within 10km of the Hydrus Development Site. Relevant supplementary planning guidance appears to be limited to the Village Design Statements for villages within the 10km Study Area, some of which feature views towards the Hydrus Development Site. The Village Design Statements for Ashmore Green, Beenham, Bucklebury, Cold Ash and Stanford Dingley are adopted as Supplementary Planning Documents (SPDs). The Village Design Statements for Brimpton and Stratfield Mortimer are adopted as 'Material Considerations' (Ref. 14-14).

Relevant SPDs for Basingstoke and Deane appear to be limited to Conservation Area Appraisals and Village Design Statements. The relevant Conservation Area Appraisals for Conservation Areas and villages that lie within 10km of the Hydrus Development Site are those for Tadley (3km), Tadley Church Road (3km), Silchester (3.5km), Silchester (The Pound) (5km), Ramsdell (6.75km), Bramley (6.75km), Monk Sherborne (7.25km), Bramley Green (8km), Sherborne St John (8.5km), Kingsclere (8.75km) and Sherfield on Loddon (10km). Basingstoke and Deane also have a large number of adopted Village Design Statements. Those relating to settlements within 10km of the Hydrus Development Site include those for Ashford Hill with Headley, Baughurst, Kingsclere, Sherborne St. John, Tadley and Silchester (Ref. 14-15).

### 14.3 Assessment Methodology and Significance Criteria

#### 14.3.1 Assessment Methodology

##### 14.3.1.1 Desk Study

The public archives and key documents used to identify heritage assets that might be affected by the Proposed Development have included:

- West Berkshire Historic Environment Record;
- West Berkshire Historic Landscape Characterisation (Ref. 14-15);
- English Heritage databases of Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields and Listed Buildings;
- Historic map sources, including: J Roque's 'An Actual Survey of the County of Berkshire' (1761), Thomas Pride's 'Reading and the Country Adjacent' (1790) and the 1882 and 1913 editions of the OS 6 inches to 1 mile (1:10560) maps of 1882 and 1913;
- Reading Library Local Studies Library; and
- Multi-Agency Geographic Information for the Countryside www.magic.gov.uk (Ref. 14-16).

This assessment has taken account of a desk-based assessment for the Hydrus Development Site, undertaken in April 2004 by Atkins Ltd (included here as *Technical Appendix F.1*). This reviewed recorded historic environment information, documentary sources and historic maps held within readily accessible public archives. This information was compiled into a catalogue of known heritage assets including existing historic buildings, archaeological sites and find-spots lying within a 1km radius assessment area around an early iterative design of the Proposed Development. For the purposes of this DEEA, the information collected during the preparation of the Atkins 2004 desk-based assessment was updated and re-checked for the primary 1km search area centred on the Hydrus Development Site.

Further information on the historical land use in the area is included in a historic building record of the structures formerly within the Hydrus Development Site (*Technical Appendix F.2*), an archaeological evaluation of the Hydrus Development Site carried out by Oxford Archaeology in 2007 (*Technical Appendix F.3*) and an historic landscape characterisation and management study of the AWE sites at Aldermaston, Burghfield and Blacknest (*Technical Appendix F.4*), carried out by Atkins Ltd in 2007 in response to the increasing recognition of the heritage value of these 20<sup>th</sup>-century military installations and the need to take their historical development into consideration when planning development.

An area extending to 1km from the Hydrus Development Site has been studied in detail as the primary basis for assessing the archaeological potential of the Hydrus Development Site (Figure 14-1 and *Technical Appendix F.6*).

The same radius has also been used to identify designated or undesignated heritage assets of all types and grades that might be affected physically, visually

or by nuisance, through construction and / or operational activities associated with the Proposed Development.

A further area extending to 10km from the Hydrus Development Site centre has been used to identify the highest grades of designated heritage asset (World Heritage Sites, Scheduled Monuments, Grade I and II\* Listed buildings and registered parks and battlefields) that might be affected by distant (predominantly visual) impacts on setting (Figure 14-2 and *Technical Appendix F.5*). This 10km radius is derived from the English Heritage 2005 publication Wind Energy and the Historic Environment (Ref. 14-17). Whilst the Proposed Development does not involve wind turbines, the English Heritage guidance nevertheless provides a basis for assessing impacts of setting caused by other classes of tall, free-standing structures, in this instance the impact of chimney stacks and LPS catenary masts. The Zone of Theoretical Visibility (ZTV) derived in *Chapter 13: Landscape and Visual* has been of assistance in scoping out those areas and receptors from which the Proposed Development will not be visible because of intervening topography (see Figure 14-2 and *Technical Appendix F.5* Scoping Table F5.1).

It should be noted that the English Heritage guidance referred to above relates to structures that are typically in excess of 60m in height, with large diameter blades. The LPS catenary masts in this case are no more than 40m in height and taper to a point at their maximum height.

Designated heritage assets of lesser grades located between 1km and 10km from the Hydrus Development Site have not been identified or assessed, as any distant effects that might be caused by the stacks and LPS catenary masts could not result in significant effects on receptors of lesser importance under any accepted environmental assessment methodology. These receptors were scoped out therefore.

##### 14.3.1.2 Fieldwork

A walkover survey of the Hydrus Development Site was conducted as part of the assessment process, in order to assess the significance and condition of known heritage assets and also to check for the presence of any other previously unrecorded historic features or remains.

Key heritage assets beyond the Hydrus Development Site identified during the preparation of this chapter have also been visited to assess the potential impact of the Proposed Development on their settings. These include all heritage assets within 1km of the Hydrus Development Site (Figure 14-1 and *Technical Appendix F.6*) and all heritage assets between 1km and 10km (Figure 14-2 and *Technical Appendix F.5*) that lie within the ZTV identified in *Chapter 13: Landscape and Visual*. In many cases it was found that local factors meant that there are no views towards the Hydrus Development Site. Such local factors are summarised below and / or in *Technical Appendix F.5*.

Intrusive archaeological evaluation of the operational part of the Hydrus Development Site was carried out by Oxford Archaeology (OA) between 2nd and 10th July 2007 (*Technical Appendix F.3*). This comprised eight machine-excavated trenches. The CACE was the subject of a 'watching brief' during its

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

preparation for the construction of the nearby High Explosives Fabrication Facility (HEFF).

Figure 14-1: Cultural heritage assets within 1km radius of the Hydrus Development Site, from West Berkshire Historic Environment Record, with relevant Second World War features and features identified from historic maps added

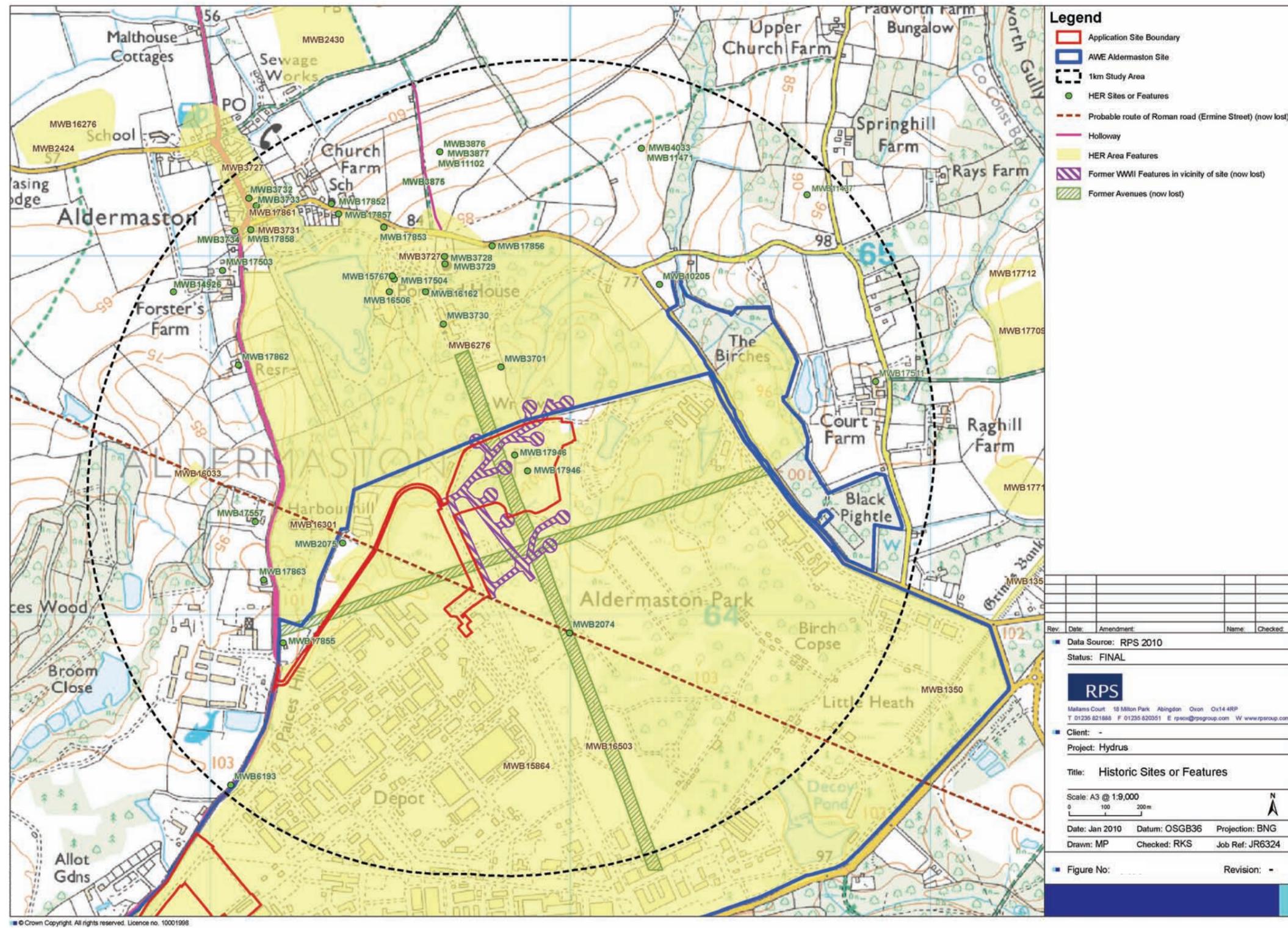
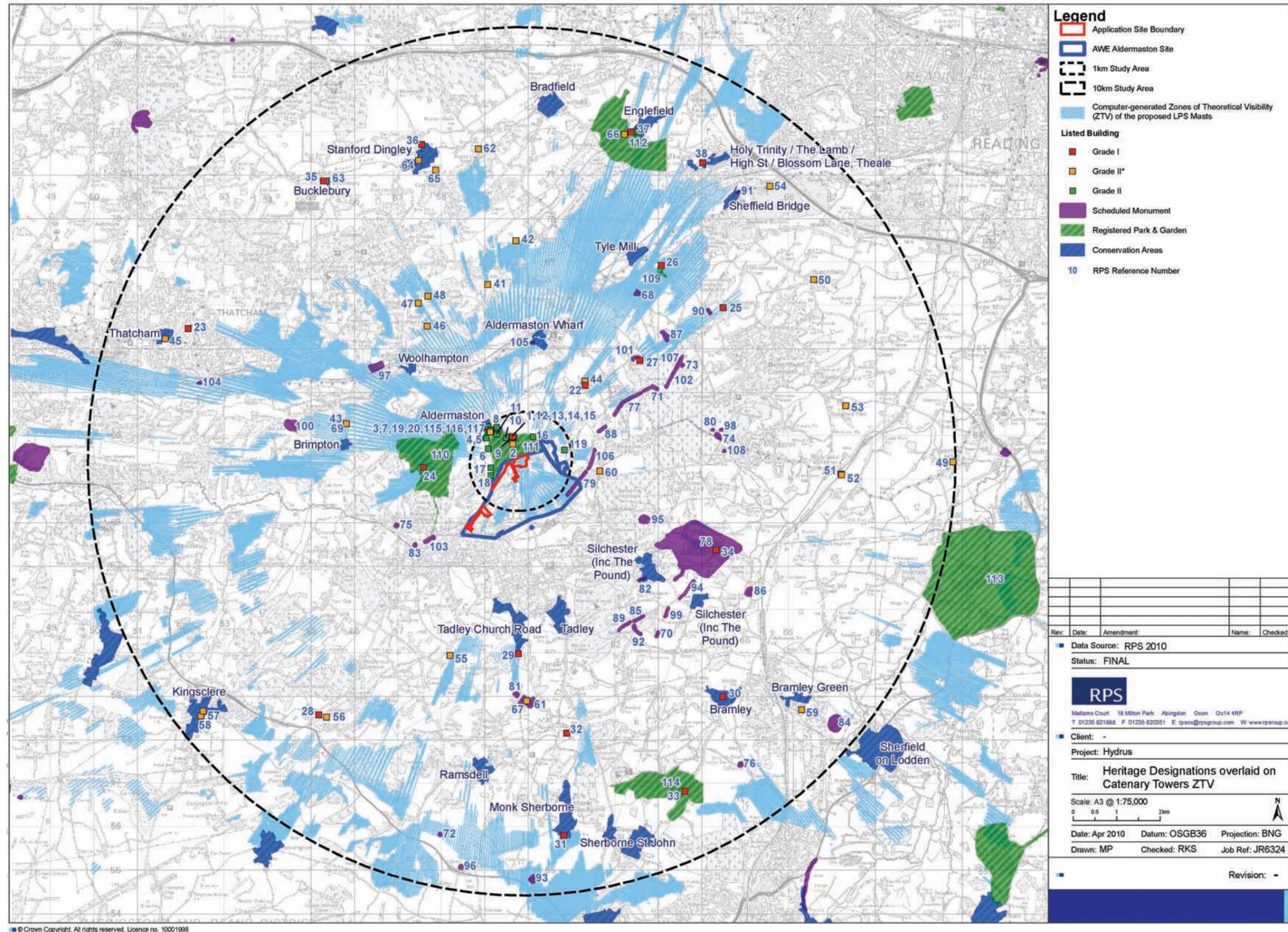


Figure 14-2: Cultural heritage assets within 10km of the Hydrus Development Site



Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	Hydrus Defence Exempt Environmental Appraisal Volume I	Reference: MER-110-009288

#### 14.3.1.3 Evaluation of Heritage Assets

In assessing the effects of the proposals upon heritage assets, it is necessary to consider the importance of these assets, as well as the magnitude of impact. In many cases a degree of professional judgement is required, for example where impacts on settings already compromise significance, or where distant visual impacts will be all but imperceptible to the naked eye.

Importance is based on statutory designations (Scheduled Monuments, Listed building grades) as well as on normally accepted criteria:

- Period;
- Rarity;
- Group Value; and
- Condition.

Importance is judged as follows:

- National: the highest status of archaeological site (e.g. Scheduled Monuments), Listed buildings Grade I and II\*, registered Battlefields; registered Historic Parks and Gardens Grade I and II\* and areas within AWE Aldermaston assessed as being of High importance in Atkins, 2007;
- Regional: archaeological sites with reasonable evidence of occupation, ritual, industry etc., Listed buildings Grade II, registered Historic Parks and Gardens Grade II and areas within AWE Aldermaston assessed as being of Medium importance in Atkins, 2007;
- Local: archaeological sites of low importance, buildings of local architectural, historical or social-historical importance and areas within AWE Aldermaston assessed as being of Low importance in Atkins, 2007;
- Unimportant: buildings of no architectural or historic merit and areas within AWE Aldermaston assessed as being of No importance in Atkins, 2007; and
- Uncertain: insufficient evidence to judge importance.

With regard to impacts on setting, this chapter addresses both historic setting and physical setting. Historic setting refers to land or features that are, or have been, historically associated with the receptor. Physical setting comprises the existing surroundings in which a heritage asset is experienced. It may be affected by nuisance such as noise, dust and smell, as well through visual intrusion on views from the receptor, or occasionally on views from which both the receptor and the development may both be visible in proximity. It should also be noted that the assessment of visual effects on setting in this chapter is based on a different methodology to that applied in *Chapter 13: Landscape and Visual*. This is not only because the different disciplines use different approaches, but,

fundamentally, because the historic value and the visual value of a given receptor will seldom be the same.

#### 14.3.1.4 Assessment of Effects

The effects of development upon cultural heritage resources can take different forms. Probably most common or obvious of these are:

**Physical effects** on buried archaeology and historic earthworks, buildings, structures and landscape features, where these may be permanently destroyed or their significance reduced as a result of construction activity. Such effects will almost always be permanent and negative. Recording may mitigate the loss, but cannot reduce the effect.

**Temporary effects** on visible historic earthworks, buildings, structures and historic landscape features or their settings, caused by construction activities, including light pollution, noise or nuisance. These do not usually physically affect the heritage asset, but may alter its significance, setting or utility. Such effects may be short-term (i.e. associated with the construction phase) or medium term (i.e. tree-planting may take some years to take effect). Again, the effects will always be negative, but will be transient and may be mitigated or reduced through appropriate measures (e.g. screening).

**Permanent effects** on the significance, setting or utility of visible historic earthworks, buildings, structures and historic landscape features, caused by the development itself or by light pollution, noise or nuisance associated with its operation. Again, these do not usually physically affect the resource, but may permanently alter its significance, setting or utility. The effects may be negative, but can equally be positive, such as where the significance, setting or utility of a historic building or landscape is enhanced through the removal of existing discordant elements.

In addition, in rare cases development may have **secondary effects** that may not be easy to predict. These might include changes to the preservation of buried archaeology through changes to hydrology or, for example, through the drying out of an ornamental lake, possibly at some distance from the development, as a result of unforeseen changes to the water table. Such effects will almost always be permanent and negative.

#### 14.3.1.5 Significance of Effect Criteria

The significance of effect reflects both the value of the heritage asset and the degree to which its heritage significance would be affected. Significance of effect is determined in accordance with Table 14.1.

Table 14-1: Significance of Effect Criteria

Significance of effect	Comment
<b>Substantial adverse</b>	The proposals would: <ul style="list-style-type: none"> <li>• Result in loss of nationally important heritage assets.</li> <li>• Result in physical damage to nationally important heritage assets, resulting in severe loss of significance.</li> <li>• Severely compromise or degrade the significance of nationally important heritage assets through changes to setting or context.</li> </ul>
<b>Moderate adverse</b>	The proposals would: <ul style="list-style-type: none"> <li>• Result in loss of regionally important heritage assets.</li> <li>• Result in physical damage to regionally important heritage assets, resulting in severe loss of significance.</li> <li>• Result in minor damage to nationally important heritage assets, resulting in some loss of significance.</li> <li>• Severely compromise or degrade the significance of regionally important heritage assets through changes to setting or context.</li> <li>• Further compromise the significance of nationally important heritage assets through changes to setting or context, where the existing setting or context is already compromised.</li> </ul>
<b>Minor adverse</b>	The proposals would: <ul style="list-style-type: none"> <li>• Result in loss of, locally important heritage assets.</li> <li>• Result in physical damage to locally important heritage assets, resulting in severe loss of significance.</li> <li>• Result in minor damage to regionally important heritage assets, resulting in some loss of significance.</li> <li>• Severely compromise or degrade the significance of locally important heritage assets through changes to setting or context.</li> <li>• Further compromise or degrade the significance of regionally important heritage assets through changes in setting or context, where the existing setting or context is already compromised.</li> <li>• Have a low but perceptible adverse effect on the significance of nationally important heritage assets through changes in setting or context, where the existing setting or context is already compromised.</li> </ul>
<b>Negligible</b>	The proposals would have a discernible impact on heritage assets, but so slight as to have no real effect on significance.
<b>Neutral</b>	The proposals would have appreciable, but balanced, positive and negative impacts on the significance of any known or potential heritage assets.
<b>No change</b>	The proposals would have no impacts whatsoever, either positive or negative, on any known or potential heritage assets.
<b>Minor beneficial</b>	The proposals would remove or reduce existing minor impacts (direct and indirect) affecting the significance of locally or regionally important heritage assets.
<b>Moderate beneficial</b>	The proposals would remove or reduce existing minor impacts (direct and indirect) affecting the significance of nationally important heritage assets.
<b>Substantial beneficial</b>	The proposals would: <ul style="list-style-type: none"> <li>• Restore the significance of regionally and nationally important heritage assets through removal of damaging or discordant existing impacts (direct or indirect) or through extensive restoration or enhancement of characteristic features or their setting.</li> <li>• Remove existing visual or other intrusion, such that the significance of a highly valued heritage area or group of heritage assets of national or regional importance is re-established.</li> </ul>

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

Residual impacts are those impacts that exist after the application of mitigation measures. For the purposes of the assessment, effects that are assessed as being either moderate or substantial are considered to be significant. Although minor, negligible and neutral impacts are not considered significant, they remain worthy of consideration and are therefore also noted.

## 14.4 Baseline Conditions

The baseline conditions with regard to the Hydrus Development Site and the 1km primary study area is addressed in detail in the Atkins 2004 desk study within *Technical Appendix F.1* and the additional information in *Technical Appendices F.2, F.3, F.4 and F.5*.

### 14.4.1 Site Location, Topography and Current Land-Use

The Hydrus Development Site is located at the northern end of the AWE Aldermaston Site, on land formerly belonging to the Aldermaston Court Estate. It is roughly trapezoidal-shaped and comprises predominantly level cleared land, with some remaining trees.

Ground levels across the Hydrus Development Site vary between approximately 96m Above Ordnance Datum (AOD) and 101m AOD. An access road (Cwm Road) runs along the northern and north-western boundaries of the Hydrus Development Site and separates the Proposed Development from the Grade II Registered Park of Aldermaston Court, a Grade II\* Listed Building. For the purposes of this assessment, the term Aldermaston Park is used to denote the Registered Park, whilst the term Aldermaston Court is used to refer to the Grade II\* house.

The Hydrus Development Site is located in an area of AWE Aldermaston which was previously used for the processing and/or storage of explosives in characteristic mounded structures. Following a period of disuse, the explosive buildings and their associated foundations and infrastructure were removed (following recording) prior to the commencement of this assessment.

The Proposed Development is one of a number of projects envisaged for the AWE Aldermaston Site in-line with the ministerial statement of 19<sup>th</sup> July 2005 by Dr John Reid, Secretary of State for Defence. The AWE Aldermaston & Burghfield Site Development Context Plan 2000–2015 (Ref. 14-18) (SDCP08) sets out the overall approach to the modernisation of AWE Aldermaston and AWE Burghfield, through the refurbishment and replacement of existing facilities. This includes NOA providing a total of approximately 21,000 m<sup>2</sup> gross floorspace, HEFF providing a total of approximately 4,000 m<sup>2</sup> gross floorspace and Pegasus providing a total of approximately 8,500 m<sup>2</sup> gross floorspace. NOA was granted planning permission from WBC in January 2007 and construction work is complete. HEFF was granted planning permission in February 2008 and Pegasus was granted planning permission in February 2010. NOA, HEFF and Pegasus thus form part of the baseline of this assessment. This specific project delivers a key capability required to underwrite the reliability and safety of the UK's sole nuclear deterrent; it is therefore of national importance.

### 14.4.2 Geology and Topography

The Hydrus Development Site is located on a substantial undulating woodland and heathland plateau, located between the chalk scarp of the Hampshire Downs and the flat river-terrace gravels of the Kennet and Thames river valleys. The underlying geology of the plateau is chalk, overlain by sandy clays of the Bagshot Formation and the well drained Pleistocene Silchester gravels. The Hydrus Development Site lies on the northern edge of this plateau, overlooking the lower reaches of the Kennet Valley and, beyond, both the Thames valley and further rising heath and woodland between the valleys of the Kennet and Thames. With its well drained soils, commanding views and natural routes of communication, the general area is likely to have always been attractive to settlement.

### 14.4.3 Archaeological and Historical Background

The locations of known heritage assets that may potentially be affected by the proposals are shown on Figure 14-1 and Figure 14-2. These are tabulated in *Technical Appendices F.5 and F.6*. In the Archaeological and Historical Background section below, site references prefixed MWB refer to the West Berkshire Historic Environment Record. Numbers in brackets prefixed by AH are the corresponding references to the Desk Based Assessment produced by Atkins Heritage (*Technical Appendix F.1*). Numbers prefixed by RPS refer to sites within the 10 km radius study area.

#### 14.4.3.1 The Early Prehistoric (Palaeolithic to Mesolithic) Period - 500,000BC to 4,000BC

The discovery of hand axes and other tools, as well as waste pieces from working and gathering sites (such as the flint flakes (MWB11437, MWB11463 and MBW11471 (AH 7, 8 and 9)) found during field walking 400m and 900m north-east of the Hydrus Development Site), demonstrate considerable activity in the area in the early prehistoric periods. In contrast, the Downs and other parts of Berkshire have yielded only a few scattered finds, suggesting that these areas may have only been used seasonally, and certainly not as intensively as the valley gravels and overlooking plateaux. Archaeological evidence also points towards the existence of small groups of people occupying the River Kennet corridor. The river valleys were used as communication channels as well as providing ideal settlement sites on gravel islands and river terraces, with abundant fish and waterfowl for food.

#### 14.4.3.2 The Neolithic Period - 4,000BC to 2,300BC

The area is likely to have consisted of open pasture during the Neolithic period, following widespread woodland clearance. Gradually, however, the light soils, assisted by the slight natural acidity and permeability of the underlying sands and gravels, gradually became leached of nutrients, and became better suited for acid-tolerant species such as heather and gorse, leading to the establishment of heath in some areas, still visible today. Although farming developed in this period, it is not the remains of farms or settlements that are most well known in West Berkshire, but funerary monuments, in the form of burial mounds. There are three Neolithic long barrows in West Berkshire: one near Lambourn; one near East Ilsley and a third on Inkpen Hill between Inkpen and Combe. A number of flint

tools of the period were discovered during the construction of the Aldermaston – Brimpton pipeline in the area around Aldermaston.

#### 14.4.3.3 The Bronze Age - 2,300BC to 700BC

The most prevalent monument type of the Bronze Age in West Berkshire is also for burial, during this period comprising round barrows. The area around Aldermaston appears to be part of a potentially widespread funerary landscape. As well as on the Thames, a particularly high concentration of settlement sites has been found in the valley of the Kennet, such as at Aldermaston Wharf. These consisted of unenclosed clusters of round houses and pits, which show evidence for a mixed agricultural economy and craft activity such as textile production. There is, however, little evidence of metalwork or other wealth. Gravel working near Burghfield has also uncovered a much larger Late Bronze Age settlement at Knight's Farm. This yielded evidence of occupation over a period of about 1,000 years, up to c.400BC. The River Thames has proven to be the richest source of finds from the period, with finds such as numerous axes, swords, daggers, spearheads and knives having been found over the years (Bradley et al, 1980). Looking at these and other archaeological evidence, it is clear that the Middle Thames valley was densely populated in the period. However, little is known of the activity on the Aldermaston plateau, where the Hydrus Development Site is located.

#### 14.4.3.4 The Iron Age - 700BC to AD43

Surviving hillforts provide evidence of Iron Age settlement and activity in West Berkshire, the best known example being Walbury Camp on Inkpen Hill. Located on high ground above the Kennet Valley, the site comprises massive encircling banks and ditches. The Roman town of Calleva Atrebatum (Silchester) originated as the tribal capital of the Atrebates in the 1<sup>st</sup> Century AD (Cunliffe, B 1993). Within, and leading out of the AWE Aldermaston Site, is Grim's Bank, a linear earthwork, running for three miles to Ufton Nervet. Although Grim's Bank has not been conclusively dated, it seems probable that it originated at a time of tribal strife in the early 5th century when the Catuvellauni appear to have occupied the territory of the Trinovantes and parts of the territory of the Atrebates, including Silchester.

#### 14.4.3.5 The Roman Period - AD43 to AD450

Evidence of the Roman period is abundant in the region, the walled town of Calleva Atrebatum (Silchester) being the most important site. All major roads across Berkshire led to Calleva, Ermin Street (MWB2074, MWB2075 and MWB2076 (AH 17, 18 and 19)) running from Cirencester to Silchester, with a projected route that runs through the AWE Aldermaston Site. A description from 1943 suggests that the south western terminal of Grim's Bank within the AWE Aldermaston Site (MWB1350 (AH 45), RPS 79) lay 80 yards from this road. Two copper alloy brooches (MWB14926 (AH 11)) have also been found just within the 1km study area, 1km north-west of the Hydrus Development Site centre. Following the economic collapse of the Roman way of life and before the arrival of the Saxons, there appears to have been 10–20 years early in the 5th century when tribal rivalries resurfaced. Grim's Bank was clearly brought back into use, as it cuts the Roman road to Dorchester. This may have been to halt a potential

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	Hydrus Defence Exempt Environmental Appraisal Volume I	Reference: MER-110-009288

Saxon advance from the north, yet the same ditch stretches west to encompass the road to Cirencester (Gloucestershire) which, according to the Anglo-Saxon chronicle, did not fall to the Saxons until 577.

#### 14.4.3.6 The Early Medieval Period - AD450 to AD1065

The best known find from this period in the area comes from Silchester, in the form of an ogham (a form of writing thought to originate in Ireland) inscription, carved on a Roman baluster pillar. This records the burial of Ebicatus, who was probably of Irish origin. Various dates have been proposed for the inscription, the most likely being about AD 500 or soon after. These few scraps hint at the survival of some kind of indigenous Romano-British community within the remains of the Roman town during the period of Saxon penetration, when Germanic enclaves were building up around Dorchester-on-Thames to the north and Winchester to the south.

In the early medieval period, the area appears to have remained in pastoral and agricultural use. A Saxon settlement at Aldermaston (MWB3728 (AH 24)), located 900m north-east of the Hydrus Development Site, derives its name from *Aeldremanestone*, the Old English for "Ealdorman's Homestead". The Saxon Ealdorman of Berkshire (the equivalent of an Earl) was the predecessor of the County Sheriff, who ruled Berkshire on the King's behalf. Though his country estate was here, he would have spent much time at his town-house in the county town of Wallingford. Aldermaston was thus a significant settlement which showed early signs of developing into an important town. The Anglo-Saxon Chronicle states that the first known Ealdorman of Berkshire, Aethelwulf, fought the Danes with Ethelred of Wessex at nearby Englefield in 871.

The estate was identified as 'king's land', an estate formerly in the hands of the Saxon royal estate. Prior to the Norman Conquest in 1066, the land and properties of Aldermaston formed part of the estates of England's foremost magnate, Harold Godwinson, the Earl of Wessex, later King Harold II of England.

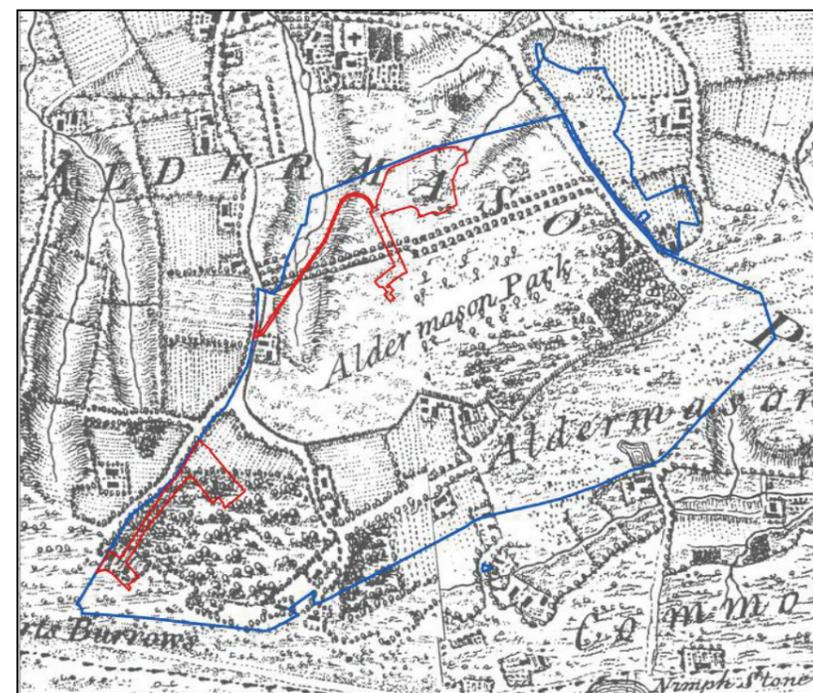
#### 14.4.3.7 The Medieval Period - AD1066 to AD1539

At the time of the Domesday Survey (1086) the Aldermaston estate, which included a mill and two fisheries, was held by William the Conqueror. William and his army are believed to have camped on the estate on their way north from their victory at Hastings to cross the Thames at Wallingford, before advancing on London. During the remainder of the reign of William, and later his son William Rufus, Aldermaston was owned by the Crown. There is no evidence of there being a large house at that time. The Aldermaston estate was awarded to a Norman, Robert Achard, by Henry I, on the King's accession in 1100. The family held the estate until 1361 when it passed to the de la Mare family. The de la Mares appear to have built themselves a quadrangular house, of a type that was popular in the late 14th century. This stood immediately alongside the parish church. During the Norman period, the area now occupied by the AWE Aldermaston Site was likely to have been part of the manorial hunting grounds of Aldermaston Estate. A medieval deer park belonging to Aldermaston Manor is recorded in early 13th century documents and historic maps dating to the 16th century schematically depict an enclosed park associated with the house. The exact extent of the deer park is not known.

#### 14.4.3.8 The Post-Medieval Period - AD1540 to AD1900

By the early 16th century, Aldermaston Manor had passed to Sir George Forster who had married the last heiress of the de la Mares. In 1636, soon after Sir Humphrey Forster had inherited the estate, changing fashions led him to mortgage the estate in order to rebuild the house completely. In 1752 the estate passed by marriage to the Congreve family. The layout of the house, park and estate soon after are shown in Thomas Roque's 'Actual Survey of Berkshire', published in 1761 (see Figure 14-3).

Figure 14-3: Excerpt from 'An Actual Survey of Berkshire', Thomas Roque, 1761

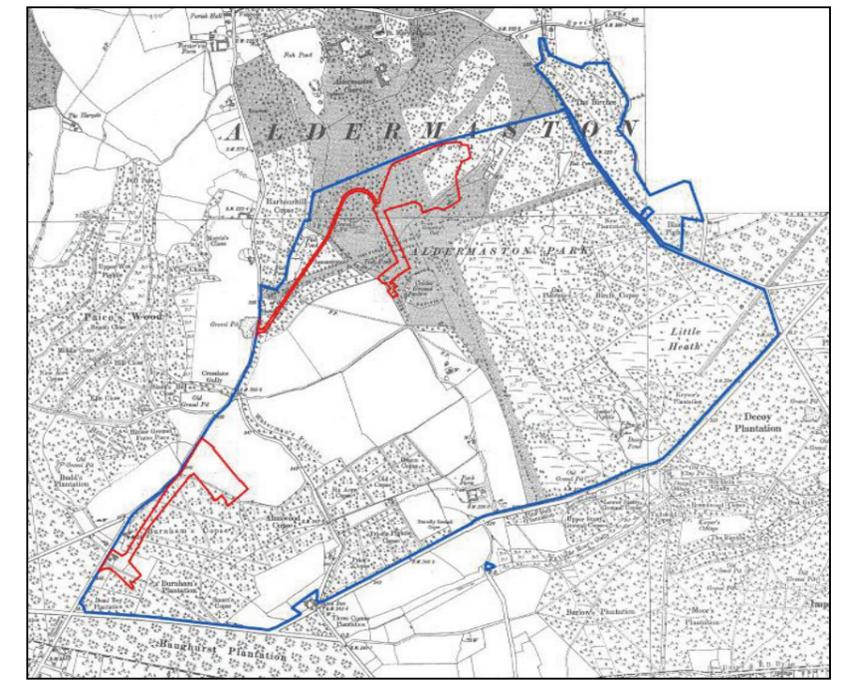


Many changes to their estate occurred during the family's ownership. The lake by the house was created by damming the stream and the wrought-iron Eagle Gates, at the north-east of the estate were installed. The Kennet and Avon Canal was built along the northern edge of the estate and the Aldermaston to Baghurst turnpike road was built (MWB6193 (AH 36)) 500m west of the Hydrus Development Site. On 13 January 1843, a serious fire destroyed more than a third of the house. William Congreve never recovered from the fire and died within three months. Five years later the present Aldermaston Court (now Listed at Grade II\*) was designed by Philip Hardwick for Daniel and Mary Higford Burr. This stands 200m west of the old house, whose cellars still exist beneath the lawn.

Under the Congreves the medieval deer park transmuted into a landscaped park, a transition that can be traced on historic maps spanning the 18th and 19th Centuries. Most of the historic parkland of Aldermaston Court was later subsumed into the Aldermaston airfield (now the AWE Aldermaston Site), but the

northernmost part surrounding the house is now a Grade II Registered Park / Garden (WMB6276 (AH 37) and RPS 111). A detached relic of the park is the Decoy Pond (MWB4886 (AH 35)), located approximately 1km south-east of the Hydrus Development Site. By 1913 there was an avenue of trees running south from the house and across the AWE Aldermaston Site, although nothing now remains of this within the AWE Aldermaston Site (see Figure 14-4).

Figure 14-4: Excerpt from OS 6": 1 mile Berkshire XLIV NW, 1913, revised 1909



#### 14.4.3.9 The 20th Century

The Aldermaston estate and village were purchased in 1893 by a stockbroker, Charles Edward Keyser. Keyser forbade advertisements, opposed all modernisation and refused to allow the construction of additional homes. After the death of Mrs. Charles Keyser in 1938, the whole estate was sold to a syndicate who auctioned it off in separate lots in September 1939. Many of the lots were bought by their tenants. The house and its immediate grounds were bought by Associated Electrical Industries Ltd (AEI), but were subsequently requisitioned by the Government. The extensive parkland was also sold, but very soon afterwards was chosen by the Government as the site for RAF Aldermaston.

#### 14.4.3.10 The Second World War, AD1939 – AD1945

RAF Aldermaston was built as a bomber Operational Training Unit in the late 1930s. Three runways were provided, with extensive dispersed enclaves and a large bomb dump. Opened on 1st July 1942, the airfield was never used as originally intended but instead was earmarked for use by the United States Army

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

Air Force. As soon as it was habitable, the 60th Troop Carrier Group (TCG) occupied the base, comprising the 10th, 11th, 12th and 28th Troop Carrier Squadrons, equipped with C47 (DC-3) transports. Initially used for moving cargo, the transports were soon used for paratrooper training.

A large aircraft shed was taken over by Vickers in July 1943 for the assembly of Spitfires, using parts manufactured by sub-contractors mainly in Reading and Newbury. The aircraft were flight-tested from Aldermaston. Production of Spitfires continued until the spring of 1945, with the construction facility finally being closed in 1946.

The WWII airfield (MWB15767 (AH 15)) extended beyond the Hydrus Development Site (see Figure 14-5). The alignment of the north – south runway is preserved in the alignment of Griffin Road (adjacent to the west of the Hydrus Development Site). Some important examples of World War II airfield buildings and aircraft hangars are still extant in the south of the AWE Aldermaston Site. The Hydrus Development Site was peripheral to the World War II airfield, accommodating only taxi ways and four banjo-shaped dispersal bays. No traces of these survive within the Hydrus Development Site.

Figure 14-5: Plan of AWE Aldermaston, with Second World War features overlain in red



#### 14.4.3.11 The Cold War, AD1946 - AD1989

After WWII Aldermaston Court was returned to AEI and became their nuclear research laboratory. An experimental nuclear reactor was constructed on the eastern side of the lake, in a position now occupied by Portland House and its forecourt (MWB16506). In 1965 Collier MacMillan Schools took over the house and remaining 137 acres (55 ha) of the estate. Blue Circle Industries bought the estate in 1981. They restored Aldermaston Court and converted it into a hotel

and conference centre. They also built an office complex on the estate near to the stable block (Portland House), which won an award from The Concrete Society in 1986. Holaw (420) Ltd., the present owners, bought the estate in 1997. The house, now formally known as 'Aldermaston Manor', continues to operate as a hotel and conference centre. It is managed by the Compass Group of companies.

Between 1946 and 1950 the Aldermaston airfield was used for civil aviation training and as a temporary civil airport, with up to 10,000 aircraft movements per month in 1947. The Atomic Weapons Research Establishment (AWRE) (MWB16503) was developed on the former airfield in the early 1950s as the principal centre for Britain's nuclear weapons programme. Within its perimeter are many unique structures associated with Britain's nuclear weapons projects. Since the end of the Cold War AWE Aldermaston has been in use as a weapons assembly and research centre. Until recently the Hydrus Development Site contained a number of 1950s buildings, which had removed all traces of the former dispersal bays. These have been demolished and their foundations removed, following detailed building recording by WS Atkins (*Technical Appendix F.2*).

#### 14.4.4 Historic Landscape Character

There are two overlapping historic landscape studies covering the AWE Aldermaston Site and Aldermaston Park.

The first of these is the District-wide West Berkshire Historic Landscape Characterisation (HLC). The West Berkshire HLC is regarded as unusual, but exemplary, in that it has time-depth. Within the HLC Aldermaston Park forms one historic landscape character area, whilst AWE Aldermaston forms another. These are characterised as follows:

##### Aldermaston Park

- Current character - industrial area
- 1st previous - military establishment
- 2nd previous - designed landscape

##### AWE Aldermaston

- current - military establishment
- 1st previous - mixed land use
- 2nd previous - none given

The characterisation of Aldermaston Park as both industrial and military is of particular relevance to this current assessment.

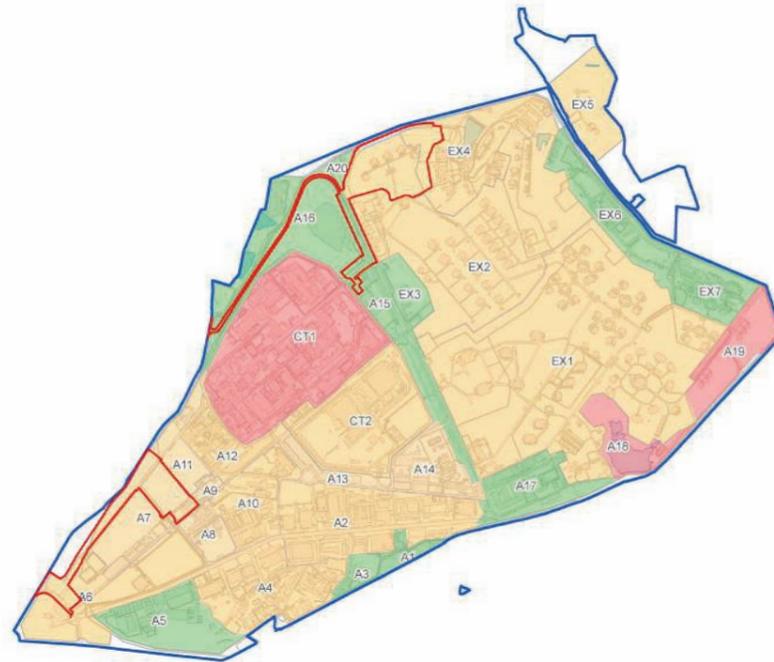
The second, and much more detailed historic landscape characterisation is the Historic Characterisation and Management Strategy for AWE Aldermaston, Burghfield and Blacknest, produced by WS Atkins in 2007 (see *Technical Appendix F.4*). This provides a means of understanding the site's historic and

recent development, as well as those aspects of the site which contribute to its current distinctive character and historic significance. Within the study the AWE Aldermaston Site is divided into a number of separate character areas (See Figure 14-6). The Hydrus Development Site and associated construction enclaves lie within several character areas. They are also in proximity to a number of others. These are:

- Most of the Hydrus Development Site is located within the northernmost part of the large character area EX2 – Northern Area Storage. This area, which occupies most of the eastern half of the AWE Aldermaston Site, is associated with the processing and storage of explosives in characteristic mounded structures. Most of area EX2 is still laid out as it was when first established during the Cold War, but the buildings, roadways and foundations within the Hydrus Development Site have been removed, following recording by WS Atkins. The area, whose significance lies in its Cold War buildings and its park-like character, is regarded as being of medium heritage value.
- The north-eastern end of the Hydrus Development Site lies within the western edge of character area EX4 – H Area. The significance of this area derives from its surviving Cold War layout and its 1950s buildings used for the development of non-metallic bomb / warhead components. This area is also regarded as being of medium heritage value.
- The Hydrus Development Site lies adjacent to character area A20 – MOD Kennels, an isolated area of low / no significance / heritage value, set in deciduous woodland, developed in the 1980s.
- The haul road accessing the Hydrus Development Site will be the existing curved, metalled road from the A340 Gate. This leads through character area A16 – Site Tip and Ponds. The water management ponds were developed in 1999 in an existing area of dense woodland. This area is also regarded as being of low / no significance / heritage value.
- Construction activity will also make use of the existing haul route and existing CACE, which lie within area A15 – Griffin Road. The significance of this wide roadway derives from its congruence with one of the runways built during the Second World War. This area is also regarded as being of low / no heritage value.
- Construction activity will also make use of the existing WECE, which lies along the periphery of area A7 – Recreation. The area concerned is regarded as being of medium heritage value, its significance deriving from its Cold war staff recreation facilities and the way it respects and incorporates another of the former Second World War runways.

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

Figure 14-6: Historic character areas, from *Historic Characterisation and Management Strategy for AWE Aldermaston, Burghfield and Blacknest* (WS Atkins, 2007). Red = High heritage value, yellow = medium heritage value, green = low / no heritage value



Also worthy of consideration are AWE's three character areas that are of high importance. These are more distant from the Proposed Development, but merit inclusion in this assessment as their high importance could result in significant effects from relatively small impacts on setting. These areas are:

- CT1 – Technical North (300m SW). A collection of buildings of very high significance, due to their having been erected for the development of the components of nuclear warheads, including in particular buildings from the first phase of AWRE development in the 1950s (notably A1, A3 and A6). This area is recognised as being of high heritage value.
- A18 – Decoy Pond (950m SE). The significance of the Decoy Pond and surrounding trees results from their being surviving elements of the original Aldermaston Court estate. This area is also recognised as being of high heritage value.
- A19 – Grim's Bank and Non-metallic Components Stores (1.1km SW). This partly wooded area is one of the most historically complex parts of the AWE Aldermaston Site, its significance deriving from both the section of the Scheduled Grim's Bank that it contains, and from three bomb stores (B9V1, B9V2 and B9V3) surviving from the original 1950s AWRE complex. This area is also recognised as being of high heritage value.

#### 14.4.5 Statutorily Designated Heritage Assets

##### 14.4.5.1 World Heritage Sites

There are no World Heritage Sites within 10km of the Hydrus Development Site.

##### 14.4.5.2 Scheduled Monuments

There are no Scheduled Monuments within the 1km primary study area (Figure 14-2). The most notable Scheduled site in the wider 10km search area (Figure 14-1) is the Late Iron Age Oppidum and Roman town of Silchester (Calleva Atrebatum) (RPS 78), which lies 4km SE of the Hydrus Development Site. This appears to be associated with Scheduled Pond Farm Hillfort (RPS 95) (3km SE). The closest Scheduled Monument to the Hydrus Development Site is Grim's Bank, a sub-Roman earthwork, apparently constructed to define or defend lands associated with Silchester. Whilst the south-western end of this boundary bank (RPS 79) lies within the AWE Aldermaston Site, 1.1km SE of the Hydrus Development Site, further sections lie at greater distances (RPS 106 (1.5km E), RPS 88 (1.8km NE), RPS 77 (2.5km NE), (RPS 71 (3.25km NE), RPS 102 (4km NE) and RPS 73 (4.5km NE)).

There are a further 40 Scheduled Monuments of varying types within the 10km Study Area. A number of these form functionally related groups, for example the Brimpton Common and Holden Firs barrow cemeteries (RPS 75, RPS 83 and RPS 103 – 2.5 to 3.0km SW and RPS 74, RPS 80, RPS 98 and RPS 108 - 4.0 to 4.5 km E), Flex Ditch and the linear earthworks SW of Silchester (RPS 82, RPS 85, RPS 89, RPS 92, RPS 94 and RPS 99 - 3.8 to 4.9 km SW) and the Sheffield, Monkey Marsh and Aldermaston locks on the Kennet and Avon Canal (RPS 91 - 8.25 km NE, RPS 104 - 7.5 km ENE) and RPS 105 - 2.5 km N).

The remainder of the Scheduled Monuments within the 10km radius are more dispersed and varied in nature and date. These include a Round Barrow at Ufton Nervet (RPS 107 – 4km NE), Bull's Down Camp (RPS 84 – 9km SE) and Field Barn Farm Keyhole Enclosure (RPS 93 – 9.5km S), the Woodgarston Farm Roman site (RPS 72 – 8.75km SSW), the medieval church, moated sites and fishponds at Ufton Green, Ufton Nervet, Ufton Court and Sulhampstead Abbots (RPS 68, RPS 87, RPS 90 and RPS 101 - 3.5 to 5.5km NE), the moated sites at Wyeford Farm (RPS 67 and RPS 81 - 5.3km S), Clapper's Farm (RPS 86 - 6km SE), Cufaude Farm (RPS 76 – 8.5km SE), Woodgarston Ring Motte (RPS 96 – 9.5km S), the Manor Farm Chapel at Brimpton (RPS 69 – 4km WNW), East Field Copse moated site (RPS 100 – 5km WNW), and the Woolhampton medieval field system (RPS 97 – 4km NW).

Many of these Scheduled Monuments lie wholly outside of the ZTV and were scoped out at an early stage. Those within the ZTV are:

- The Late Iron Age Oppidum and Roman town of Silchester (Calleva Atrebatum) (RPS 78), which lies 4km SE;
- The south-western end of Grim's Bank (RPS 79), which lies within the AWE Aldermaston Site 1.1km SE;

- The Monkey Marsh and Aldermaston locks on the Kennet and Avon Canal (RPS 104 - 7.5km ENE and RPS 105 - 2.5km N);
- The Field Barn Farm Keyhole Enclosure (RPS 93 – 9.5km S);
- The Woodgarston Farm Roman site (RPS 72 – 8.75km SSW);
- The remains of the medieval church at Ufton Green (RPS 68 - 4.75km NE);
- The moated site and three fishponds at Ufton Nervet (RPS 87 – 4.5km NE);
- The moated site and two fishponds at Malthouse Cottage, Sulhampstead Abbots (RPS 90 - 5.75km NE);
- The fishponds at Ufton Court (RPS 101 - 4km NE);
- The Manor Farm Chapel at Brimpton (RPS 69 – 4km WNW); and
- The Woolhampton medieval field system (RPS 97 – 4km NW).

##### 14.4.5.3 Registered Historic Battlefields and Parks and Gardens

There are no Registered Battlefields within 10km of the Hydrus Development Site.

There is one Registered Park within the primary 1km primary study area. This is Aldermaston Park (RPS 111), which lies immediately to the north of the Hydrus Development Site. The park is registered at Grade II. The designated area includes the Grade I-Listed church of St Mary and the Grade II\*-Listed Aldermaston Court and Northwest Gate Lodges. It also includes ten other Grade II-Listed buildings, structures and tombs, all of which are considered below.

Primarily designated as a 'mid and late 19<sup>th</sup>-century gardens and park, surrounding a mid 19<sup>th</sup>-century country house, with the remains of a 17<sup>th</sup>-/18<sup>th</sup>-century pleasure grounds relating to the former 17<sup>th</sup>-century manor house'. Its 'heritage significance' as a 17<sup>th</sup>-19<sup>th</sup>-century garden and park has been diminished by the loss of the majority of the park during the Second World War (and forms part of the AWE Aldermaston Site) and by subsequent developments (Oxford House, Portland House and car parks) within the surviving area of the park and garden. Interestingly, the West Berkshire Historic Landscape Characterisation describes the current and previous historic landscape character of the Registered park as 'Industrial Area' and 'Military Establishment' respectively. Presumably this is because of the wartime use of the park as part of RAF Aldermaston and because of the post-war ownership of Aldermaston Court by AEI and Blue Circle Cement. The entirety of the Hydrus Development Site and associated construction enclaves lay within the part of the park that was requisitioned for airfield use during the Second War. Consequently the historic association of the Hydrus Development Site with Aldermaston Park has already been severed and has therefore been excluded from the designated area. The close proximity of the Hydrus Development Site does however have the potential to affect the historic settings of the registered area.

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

More distant registered parks that lie within the calculated ZTV and from which parts of the development could be visible are:

- The Grade II 18th-century landscape park and 19th-century informal gardens at Wasing Park (RPS 110), which lies 1.5km W of the Hydrus Development Site;
- Grade II\* garden at Folly Farm, Sulhampstead, laid out by Lutyens' and Jekyll from 1912 (RPS 109 - 5.5km NE); and
- The Grade II 17th- to 19th-century gardens and park at Englefield House near Theale (RPS 112 – 7.5 to 8.25km NNE).

The Grade II Vyne Park (RPS 114 - 8.5km SE) has been scoped out as it lies outside of the ZTV of the LPS catenary masts and will not be affected. Parts of Stratfield Saye Park (RPS 113 - 10km E) do lie within the LPS catenary mast ZTV, but these areas are more than 10km from the Proposed Development. As significant effects would not be possible at such a distance, Stratfield Saye Park has also been scoped out.

#### 14.4.5.4 Listed Buildings

There are some 27 Listed buildings within the 1km radius primary study area. These are:

- RPS 1 and RPS 12, 13, 14 and 15: The Church of St Mary, Aldermaston (Grade I) and Harris Tomb, Cox Tomb, Wall and Block Doorway 15m SE of church and Railings and Gate 15m W of church (4 Grade II buildings) (all c.500m NNW);
- RPS 2: Aldermaston Court (Grade II\*) (c.300m NNW);
- RPS 3: North West Lodges and Gates to Aldermaston Court (Grade II\*) (800m NW);
- RPS 8: Church Lodge (Grade II) (500m NNW);
- RPS 9: Greenhouse and Wall 50m NW of Aldermaston Court (Grade II) (c.4350m NNW);
- RPS 10: Stable Block 150m NW of Aldermaston Court (Grade II) (c.450m NNW);
- RPS 11: Bridge 450m NW of Aldermaston Court (Grade II) (800m NW);
- RPS 16: Gate, Gate Piers and Wall to Aldermaston Court 130m NE of church (Grade II) (c.600m N);
- RPS 7, RPS 19, RPS 20, RPS 115, RPS 116, RPS 117, RPS 120, RPS 121 and RPS 122: 1-4 Alms Cottages, Church Road, Aldermaston, 25 The Street, Aldermaston, The Well House, The Street, Aldermaston, 22/22a The Street, Aldermaston, Tile Cottage, 23 The Street, Aldermaston, 42/43 The Street, Aldermaston, The Hind's Head, Aldermaston, Village Lock Up, Aldermaston and 1-3 Dixons Cottages, Aldermaston (Grade II) (800 to 1000m NW);

- RPS 4 and RPS 5: Forsters Farmhouse and Barn and Outbuildings 20m SE of Forsters Farmhouse, Paices Hill, Aldermaston (2 Grade II buildings) (800m NW);
- RPS 6: Little Orchard, Paices Hill (Grade II) (700m WNW);
- RPS 17: Barn End House, Paices Hill (Grade II) (500m W);
- RPS 18: 48-49 Paices Hill (Grade II) (550m WSW); and
- RPS 119: Court Farm, Rectory Road, Padworth (800m W).

Because of natural screening, only the settings of the Grade II\* Aldermaston Court (RPS 2), the Grade II greenhouse and wall (RPS 9) and Court Farm, Rectory Road Padworth have the potential to be inter-visible with the Proposed Development and therefore impact historic setting. For the same reason the Proposed Development also has the potential to affect the historic setting of the historically associated structures (RPS 3, RPS 8, RPS 10, RPS 11 and RPS 16).

A further 42 Grade I and II\* Listed Buildings lie within the 10km radius study area.

On the basis of the ZTV, seventeen of these lie in locations from which the Proposed Development has the potential to be visible. These are:

- RPS 46, RPS 47 and RPS 48: Woolhampton House (Elstree School), The Rectory and Douai Abbey Church, Upper Woolhampton (3.75 to 4.5km NW);
- RPS 41: The Church of St Mary, Beenham (4km NNW);
- RPS 42: White Cottage, Beenham Stocks (5km N);
- RPS 37 and RPS 66: The Church of St Mark and Englefield House, Theale (8.25km NNE);
- RPS 22 and RPS 44: Church of St John the Baptist and Padworth House, Padworth (2km NE);
- RPS 27: Ufton Court (3.25km NE);
- RPS 26: Folly Farmhouse and entrance court, Sulhampstead (4.25km NE);
- RPS 25: The Church of St Mary, Sulhampstead Abbots (5.5km NE);
- RPS 24: The Church of St Nicholas, Wasing Park (2km W);
- RPS 43: Chapel of St Leonard, Manor Farm, Brimpton (3.75km WNW) (also listed as SM RPS 69 above);
- RPS 34: The Church of St Mary, Silchester (5km ESE);
- RPS 29: Church of St Peter, Church Road, Tadley (4.25km S); and
- RPS 55: St Stephen's Church, Browninghill Green (4.5km SSW).

#### 14.4.6 Locally Designated Heritage Assets

##### 14.4.6.1 Conservation Areas

There are 25 conservation areas within 10km of the Hydrus Development Site. The closest to the Hydrus Development Site and the only one lying within the

1km radius primary study area is Aldermaston village. The closest part of this Conservation Area is about 850m from the centre of the Hydrus Development Site. The conservation area contains 34 Listed buildings or groups of buildings, 32 of which are Listed Grade II. The only buildings in the conservation area that have a higher grade are the Church of St Mary (Grade I) and the North West Gate Lodges to Aldermaston Court (Grade II\*), discussed above.

The WBC administrative area contains a further 13 Conservation Areas within the 10km study area. That part of the wider area within Basingstoke and Deane District contains a further 11. The only conservation areas within the ZTV and where there is a possibility of intervisibility are:

- Aldermaston Wharf Conservation Area (3km N);
- Brimpton Conservation Area (4.75km WNW);
- Tadley (Church Road) Conservation Area (3.0 to 4.25km S); and
- Tyle Mill Conservation Area (5.0 to 5.5km NE).

There are four Conservation Areas lying on the A340, which could potentially be affected by construction traffic. These are:

- Aldermaston Conservation Area (600m NW);
- Aldermaston Wharf Conservation Area (3km N)
- Sherborne Conservation Area (8.25 to 9.5km SSE); and
- Tadley Conservation Area (3.0 to 4.0km S).

There are no published appraisals for any of the conservation areas potentially affected.

#### 14.4.7 Results of Archaeological Desk-based Assessment and Evaluation

The full results of the Atkins 2004 desk-based assessment are included in *Technical Appendix F.1*. Similarly the detailed results of the Proposed Development archaeological evaluation are contained in the evaluation report (*Technical Appendix F.3*). The results of both these documents are summarised as follows.

Generally sites identified on the West Berkshire Historic Environment Record (HER) are either designated sites already discussed above, or various crop-marks and find-spots in the surrounding area that indicate a general background potential for archaeological remains of most periods.

Directly relevant HER entries include:

- MW 1350 (AH 45): Grim's Bank (1.1km SE);
- MWB2074, 2075, 2076 and 16301 (AH 17, 18 and 19): Projected course of Roman Silchester – Cirencester Roman road Ermin Street (c.250m to SE);

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

- MWB4886 (AH 35): Extant medieval or post-medieval decoy pond located within the AWE Aldermaston Site (1km SE);
- MWB6193 (AH 36): Extant post-medieval turnpike road (now A340 / Paices Hill) (500m W);
- MWB6276 (AH 37): Aldermaston Park;
- MBW15864 (AH 15): Military airfield 1941-45, site of AWE since 1950;
- MWB16503: Aldermaston Atomic Weapons Establishment;
- MWB16506: Site of AEI experimental nuclear reactor in Aldermaston Park (to E of Portland House);
- MWB17855: Old Kennels, Aldermaston (former west lodge to Aldermaston Court, later kennels); and
- MWB17946: Two truncated post-medieval ditches or palaeochannels discovered during archaeological evaluation of the Hydrus Development Site.

#### 14.4.8 Additional Heritage Assets Identified from Maps and Field Study

Map regression demonstrates that the Hydrus Development Site was historically an integral part of the parkland of Aldermaston Court. It has been separated from the parkland since the Second War. The regression exercise reveals that the Hydrus Development Site contains a number of features that may have left material remains (See Figure 14-3 and *Technical Appendix F.6*). These are:

- **Site 1:** A post-medieval ornamental tree-lined avenue, running WSW-ENE immediately south of the Hydrus Development Site. Shown as part of the ornamental parkland of Aldermaston Court on maps from 1790 up to the Second War. This avenue lay almost wholly within the part of the park that was requisitioned for airfield use in the Second War and now lies within the AWE Aldermaston Site. Apart possibly from a few isolated trees, no trace of the avenue now survives within the AWE Aldermaston Site.
- **Site 2:** A later post-medieval ornamental tree-lined avenue, running from the south front of Aldermaston Court, NNW-SSE across the Hydrus Development Site. Shown only on maps from 1877 up to the Second War, a truncated length survives within the present Aldermaston Park. Apart from isolated trees, all traces of the avenue within the AWE Aldermaston Site were removed during the Second War or after.
- **Site 3:** Unpublished mapping showing the layout of the Second War airfield reveals an extensive series of runways, taxiways and dispersal bays throughout the AWE Aldermaston Site, including the north - south runway, now Griffin Road, immediately east of the Hydrus Development Site. This mapping shows taxiways and four dispersal bays within the Hydrus Development Site, although no trace of these now survives.
- **Site 4:** Later unpublished mapping reveals twenty-one banded and non-banded buildings and associated roadways within the Hydrus Development Site, all associated with AWE use after 1950. These

buildings and roadways were subject to archaeological recording by WS Atkins to English Heritage Level 2 and Level 3 in March 2007 (*Technical Appendix F.2*) and have subsequently been removed.

The archaeological walk-over did not reveal any further potential heritage assets.

#### 14.4.9 Summary of Archaeological Potential

In July 2007 Oxford Archaeology carried out an eight-trench archaeological evaluation across previously undeveloped areas of the Hydrus Development Site. Despite the area's background archaeological potential, the evaluation revealed only two features of note. These were an undated east-west boundary ditch, probably associated with the medieval / post-medieval manorial Aldermaston Court estate, and an undated possible boundary ditch or peri-glacial channel. No finds pre-dating the Second World War were noted (*MWB17946*). Most trenches revealed evidence of significant war-time and post-war disturbance, including truncation and levelling, with layers containing buried services and discarded steel window frames, wire hawsers and broken tarmac, concrete and brick. These results indicate that the potential for significant remains is likely to be low.

### 14.5 Potential Impacts and Mitigation Measures

The Proposed Development has the potential to impact upon heritage assets both during construction and operation. Whilst likely impacts during the operational phase are considered to be restricted to visual impacts on the settings of surrounding heritage assets, the construction phase has the potential to cause direct physical impacts on any below-ground archaeological remains within the Hydrus Development Site. The construction phase nevertheless also has the potential to cause impacts off-site. These might, for example, be temporary impacts on views caused by on-site construction activity prior to the establishment of adequate screen planting or, potentially, off-site impacts caused by construction traffic.

#### 14.5.1 Construction Phase

The effects of construction activity on the settings of distant off-site heritage assets will be similar to those for the operational phase, with tall and visually intrusive but short-term tower cranes eventually giving way to the less intrusive but permanent LPS catenary masts of the completed project. Due to the distances involved and the resultant lack of any significant effects, construction effects on distant cultural heritage receptors are summarised in *Technical Appendix F.5*.

There are a small number of potential construction impacts that do merit consideration here, due principally to their close proximity to the Hydrus Development Site. These are as follows:

##### 14.5.1.1 Grim's Bank Scheduled Monument:

Construction activity will have a short term impact on the setting of the small part of the Grim's Bank Scheduled Monument (RPS 79 – 1.1km SE) that lies within the AWE Aldermaston Site. This part of the Scheduled Monument lies at the

southern end of character area *EX2 – Northern Area Storage*, in a post-war landscape of mounded storage buildings. Its historic and visual setting is thus much altered already, despite a number of retained parkland trees. Due to distance, intervening buildings and parkland trees, the short term nature of construction activity, the highly restricted access to the Monument and its already compromised setting, the impact of distant construction activity on the significance of this part of Grim's Bank will be negligible.

##### 14.5.1.2 Aldermaston Court and Aldermaston Park

Construction activity (notably construction cranes and noise) will have a short- to medium-term impact on the historic setting of the nationally important (Grade II\*) Aldermaston Court (RPS 2) and the regionally important (Grade II) Aldermaston Park (RPS 111), both of which lie to the immediate north of the Hydrus Development Site. The park formerly extended to include the entire AWE Aldermaston Site, including the Hydrus Development Site. The loss of these areas of parkland has reduced the 'heritage significance' of the present (registered) park. The northern fringes of the present park and the views south from Aldermaston Court towards the Hydrus Development Site are already affected by the security gate and fence of the AWE Aldermaston Site, as is recognised within the EH Register description. They are also compromised by disused wartime and post-war buildings within Aldermaston Park, notably the two-storey, 1960s Oxford House.

Whilst existing views south towards the Hydrus Development Site are constrained by the remnant Oak avenue which leads from the south side of Aldermaston Court, tall conifers along the boundary with AWE Aldermaston and by the evergreen hedges and trees within Aldermaston Park, the western part of the Hydrus Development Site may be glimpsed beyond the existing AWE Aldermaston security fencing, lighting and security gate. More distant structures within AWE Aldermaston can be glimpsed further south.

Night time construction activity is not proposed and any construction lighting would be seen in the context of the already well-lit perimeter fencing along Cwm Road and the existing night-glow created by security lighting across the AWE Aldermaston Site.

The construction activity will nevertheless cause additional short-term noise and visual impacts that has the potential to adversely affect the ability of people to appreciate or understand the 'heritage significance' of both the house and park. Due to the existing visual impacts and relative duration, the effects on the 'heritage significance' of the house and park will be (short-term) **minor adverse**.

##### 14.5.1.3 Aldermaston and Aldermaston Wharf Conservation Areas

Neither the Aldermaston Conservation Area nor its listed buildings (RPS 1, 3, 4, 5, 6, 7, 8, 12 to 22, 115, 116, 117, 120 and 121) lie within the ZTV of the Proposed Development. Nevertheless, construction traffic approaching the Hydrus Development Site from the north via the A340 will have to pass through the Aldermaston Wharf and Aldermaston Conservation Areas. Traffic accessing the Hydrus Development Site via the A340 from the south will have to pass through the Tadley and Sherbourne St John Conservation Areas. The A340 is

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

already a busy trunk route, carrying much heavy goods traffic. Because of the narrow swing bridge at Aldermaston Wharf and the hill and large number of roadside listed buildings in Aldermaston village, it would be ideal to restrict heavy vehicle movements away from the A340 north of AWE Aldermaston. However, significant height and weight restrictions upon other local access routes prevent use by HGVs. AWE therefore has an agreed HGV routing strategy with WBC Highways which restricts HGV movements to the A340 corridor. This route is currently being used in connection with other large construction projects on the AWE Aldermaston Site. The phasing of the AWE Aldermaston projects will mean that any additional effect over baseline conditions on the setting or 'heritage significance' of the four conservation areas will be **negligible**.

Plate 14-1: View south along the A340 through Aldermaston village, showing Aldermaston Court (Park) and Grade II\* Listed north-west gates in distance



#### 14.5.1.4 Court Farm, Rectory Lane, Padworth

The tops of tall construction cranes might potentially be visible from the grade II-listed Court Farm, Padworth (RPS 119 – 0.8km E). The setting of Court Farm on its western side is greatly marred by a very large lorry trailer park, modern workshop / business units and modern recreational fishing lakes. Views are dominated by the close proximity of the four chimneys of the AWE Aldermaston boiler house. The significance of any further temporary adverse construction effect on the building's setting or 'heritage significance' would be **negligible**.

#### 14.5.1.5 Undesignated Historic Landscape

The construction works are assessed as having the following impacts on the identified historic character areas within the AWE Aldermaston Site:

*EX2 – Northern Area Storage:* All buildings, paths, roadways and foundations within the part of character area EX2 to be used for the Proposed Development have previously been removed, following archaeological recording. The physical effects of the construction activity on the Cold War archaeology within this character area will thus be **no change**. The Hydrus Development Site lies at the

northern extremity of this extensive character area of scattered mounded buildings lying in a parkland setting, whose integrity and 'heritage significance' remains otherwise intact. The character area is viewed as being of medium importance. Construction activity will nevertheless have a short-term impact on the setting of the remainder of the character area. Due to the large size of the character area, the loss of the historic buildings within the Hydrus Development Site, the total lack of public access and the duration of the works, the short- / medium-term impact of construction activity on the 'heritage significance' of this area will be **minor adverse**.

*EX4 – H Area:* The construction of the Proposed Development will have a direct impact on the undeveloped western fringe of this character area, which is viewed as being of medium importance. The construction activity will also temporarily affect the setting of the Cold War buildings within the character area, although these are generally screened from the Hydrus Development Site by trees and this character area's valley-bottom location. Due to topography, natural screening, the lack of public access and the relative duration of the works, the short- / medium-term impact of construction activity on the 'heritage significance' of this area will be **minor adverse**.

*A7 – Recreation:* This character area is already affected by the existing West End Construction Enclave (WECE), built for the now completed New Office Accommodation project. The area's significance and medium importance derives from its Cold War staff recreation facilities and the way it respects and incorporates another of the former Second War runways. The impact on the area's 'heritage significance' during construction will be **negligible**, due to the existing temporary buildings and existing construction activity associated with other projects.

*A15 – Griffin Road:* This character area's 'heritage significance' derives from Griffin Road preserving the alignment of a Second War runway. This area, which is assessed as being of low / no importance includes the existing CACE, built for the ongoing HEFF. The area concerned is already disturbed. The impact during construction will be **negligible**, due to the existing temporary buildings and construction activity associated with other projects.

*A16 – Site Tip and Ponds:* Construction activity will be visible from this character area, whilst construction traffic will pass through it on pre-existing roads. The area is well wooded, whilst the water-management lagoons are of low / no historic importance. The temporary construction impact on the area's 'heritage significance' will be **negligible**.

*A20 – MOD Kennels:* Construction activity on the Hydrus Development Site will have a short-term impact on the setting of the MOD kennels. These are of low / no historic importance and are set in dense woodland. Again, the temporary construction impact on the area's 'heritage significance' will be **negligible**.

Construction activity will have more distant visual effects on AWE Aldermaston's three character areas of High importance (*CT1 – Technical North* (300m SW), *A18 – Decoy Pond* (950mSE) and *A19 – Grim's Bank and Non-metallic Components Stores* (1.1km SW). Due to distance, existing ongoing construction activity and the visual intrusion of other large modern industrial buildings and tall

chimneys within AWE Aldermaston, construction activity associated with the Proposed Development will result in effects of **minor adverse** significance on these receptors.

Overall, the effect of construction activity on the 'heritage significance' and historic landscape character of AWE Aldermaston will be **minor adverse**.

#### 14.5.1.6 Archaeological remains

Construction work on the Hydrus Development Site will have a direct physical and permanent impact on any unidentified below ground archaeological remains present in areas subject to intrusive works. However, the disturbed nature of the Hydrus Development Site noted during the archaeological evaluation and the absence of any archaeological features and finds pre-dating the post-medieval and modern periods suggests that the existence of any significant remains is unlikely. No trace was found of Ermin Street, which is predicted to have passed some 150 metres SW of the Hydrus Development Site. The only in-situ features noted during the evaluation were the buried remains of two probable truncated post-medieval ditches. Were archaeological remains to survive on site, they could nevertheless date to any period, from the Prehistoric to the Modern. No below-ground remains of the post-war buildings formerly within the Hydrus Development Site are predicted, as their foundations and floor slabs were removed during demolition. Despite detailed intrusive evaluation and the known disturbance and truncation of the Hydrus Development Site, the archaeological potential of the site must remain to an extent unknown. Nevertheless, the potential of the Hydrus Development Site for important archaeological remains is considered to be so low that no further archaeological actions are required. The archaeological officer of WBC has confirmed his agreement to this conclusion.

The temporary WECE and CACE have been built under previous planning consents, the former under the NOA consent and the latter under the consent for the HEFF. No additional demolition or disturbance of below-ground or built features is proposed in the context of the Proposed Development.

#### 14.5.2 Operational Phase

The permanent assessed effects on known heritage assets are presented in *Technical Appendix F.5*. In most cases the potential effects beyond the boundary of the AWE Aldermaston Site are *no change* or *negligible* and do not merit further detailed consideration. There are, however, a small number that do merit more detailed consideration, due to their high importance or their proximity to the Hydrus Development Site. These are as follows:

##### 14.5.2.1 Scheduled Monuments

The Proposed Development will have no effect on the sections of Grim's Bank outside of the AWE Aldermaston Site, or their settings, as these (RPS 71, 73, 77, 88, 102 and 106) are all naturally screened from the Hydrus Development Site. The eaves, roof, stacks and LPS catenary masts of the Operations Building will be visible from the small part of Grim's Bank (RPS 79 – 1.1km SE) that lies within the AWE Aldermaston Site. As noted above, this part of the Scheduled Monument lies just to the south of character area *EX2 – Northern Area Storage*,

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

in a post-war landscape of mounded storage buildings. Due to distance, intervening buildings and parkland trees, the highly restricted access to the Monument, the existing AWE Aldermaston structures and the proposed bund and screen planting round the Operations Building, the permanent additional impact on the setting or 'heritage significance' of Grim's Bank will be **negligible**.

The LPS catenary masts of the Operations Building will be distantly visible intermittently from the north-western ramparts of the Scheduled Late Iron Age Oppidum and Roman town of Silchester (Calleva Atrebatum) (RPS 78 – 4km SE) and from the path leading from the English Heritage car park to the Roman town.

*Plate 14-2: View north-west from the northern ramparts of Silchester Roman town, looking towards the Hydrus Development Site. The four chimneys of the AWE Aldermaston boiler plant are just visible on the horizon, to the left of the dead tree. These are much larger and much closer to Silchester Roman town than the proposed LPS catenary masts*



Views here are already marred by nearby power lines and by the four prominent chimneys of the AWE Aldermaston boiler house. Despite the high national importance of the Roman town, the slender nature of the LPS catenary masts, the softening effects of intervening woodland, distance and the existing impacts on its setting, mean that any additional permanent impact on the setting or 'heritage significance' of the Roman town will be **negligible**.

Other Scheduled Monuments where possible distant effects were identified but judged to be imperceptible or almost imperceptible (**no change** or **negligible**) because of existing impacts include the Roman Site NW of Woodgarston Farm (RPS 72 – 8.75km SSW) and Keyhole Enclosure SE of Field Barn Farm (RPS 93 - 9.5km S). The rationale of these assessments is summarised in *Technical Appendix F.5*.

#### 14.5.2.2 Aldermaston Court and Aldermaston Park

The LPS catenary masts and parts of the roof of the Operations Building will be visible from the south front of the nationally important Aldermaston Court (RPS 2)

and from southerly parts of its regionally important registered park (RPS 111), both of which lie to the immediate north of the Hydrus Development Site. More of the roof and parts of the walls of the Operations Building may also be glimpsed through the intervening screen planting from certain locations and at certain times of year. The LPS catenary masts will also be visible from the regionally important (Grade II) greenhouse and attached wall (RPS 9).

As noted above, the 'heritage significance' of the 17<sup>th</sup> / 18<sup>th</sup>-century pleasure gardens and the remaining mid- / late-19<sup>th</sup>-century park is diminished by the annexation of much of the park in the Second World War and its subsequent use by AWE. The southern fringes of the park and the views south from Aldermaston Court towards the Hydrus Development Site are already affected by the security gate, fence and screen planting of the AWE Aldermaston Site and by disused wartime and post-war buildings within the grounds of Aldermaston Court, notably the two-storey, 1960s Oxford House (Plate 14-3) and a wartime brick building that lies in the centre foreground of the former designed view along the now truncated avenue (Plate 14-4). Other parts of the registered park have also been affected greatly by the laying out of car parks and through the building of the large lakeside Portland House.

*Plate 14-3: View from the east front of Aldermaston Court, looking south towards Hydrus Development Site, showing Oxford House in distance*



As is noted above, the West Berkshire Historic Landscape Characterisation describes the current and previous historic landscape character of the Registered park as 'Industrial Area' and 'Military Establishment' respectively, presumably because of the wartime use as part of RAF Aldermaston and the post-war ownership of Aldermaston Court as a nuclear research establishment by AEI and its later use by Blue Circle Cement. AWE Aldermaston is an inescapable presence within the park's setting and in many ways may be argued to add uniquely to the historic interest of the park and Listed buildings. Any permanent effect of the Proposed Development on the setting or 'heritage significance' of Aldermaston Park and its Listed buildings needs to be viewed in this context.

Following the advice of the WBC conservation officer, the Operations Building has been deliberately orientated so as to coincide with the exact centreline of the truncated avenue leading south from the south front of Aldermaston Court, so as not to produce an unsymmetrical or discordant effect (See Introduction 14.1 above and *Chapter 4: Alternatives and Design Evolution*).

Looking south from Aldermaston Court, a small proportion of the proposed Operations Building roof-scape and sidewalls will be visible in the gaps between the conifers and other trees at the end of the remnant Oak avenue. Six of the eight LPS catenary masts will also be visible, although the view of some of these masts is filtered by trees within the parkland. The new structures and the building would represent recognisable elements in this view along the avenue. However, the existing visual clutter of the existing security on the AWE Aldermaston boundary limit the impact of the proposals on both the setting or 'heritage significance' of the park and Listed buildings.

Ground level activity within the Hydrus Development Site will be largely screened from view by the proposed 2m high bund around it and by the high hedge planting on its top. This hedging would be 1.8m high at planting and so would make an immediate contribution to screening. The layering of the separate elements within the Proposed Development (e.g. bund, hedging, building walls, roof, catenaries) helps to break up the perceived mass of the development as a whole.

*Plate 14-4: Winter photomontage view from the east front of Aldermaston Court, looking south towards Hydrus Development Site and existing security gate and fence in distance.*



*Plate 14-5: Winter photomontage of Hydrus Development Site from Sir Humphrey Forester Suite, Aldermaston Court, looking south along the truncated avenue, showing existing impacts of Oxford House and wartime building*

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	Hydrus Defence Exempt Environmental Appraisal Volume I	Reference: MER-110-009288



Night-time views of the Hydrus Development Site would be seen in the context of already well-lit perimeter fencing along Cwm Road and the existing night-glow created by security lighting across the AWE Aldermaston Site.

As well as potential visual and noise impacts on the present setting of the house and park, it is recognised that the Hydrus Development Site lies within what was once the remainder of the house's former park. Development thus has the potential to affect the historic setting of the house and park. Because of existing 20th-century features within the Park and because of the existing and proposed screen planting on the boundary between the Park and the Hydrus Development Site, the permanent impact of the Proposed Development on the setting and 'heritage significance' of Aldermaston Court and Aldermaston Park will be only **minor adverse**. The effect on the setting of the Grade II listed greenhouse will be **negligible**. Natural screening means that the Proposed Development will have no visual impact on the settings of other associated listed buildings within the park (RPS 3, 8, 10 and 11). Because the Hydrus Development Site lies within the (now much altered) historic setting of these structures, it is justifiable to claim that there will be a **negligible** effect on their historic settings.

#### 14.5.2.3 Wasing Park

The curved roof, stacks and LPS masts of the Operations Building will according to the ZVT, be potentially visible from some remote parts of the Grade II registered Wasing Park (RPS 110 - 1.5km W). No direct impacts on the setting of the Grade II listed house and Grade I listed church (RPS 24) have been identified. The park is not generally open to the public, but is well used for weddings, film work, conferences and corporate events. Whilst the four chimneys of the AWE Aldermaston boiler plant are already visible from some parts of the park, these are generally well screened from the more sensitive locations by intervening topography and tree-cover. This same tree cover and topography will also screen the Proposed Development. The permanent impact on the Grade I listed church (and indeed the Grade II listed house) will thus be **no change**. The effect on the setting and 'heritage significance' of the Grade II registered park will be **negligible**.

*Plate 14-6: View east from Wasing Park, with the top of the Aldermaston Court tower just visible on horizon in centre of view. The Hydrus Development Site will be well to the right of this, screened by the intervening wooded hillside*



#### 14.5.2.4 Englefield Park

The ZVT suggests that the curved roof, stacks and LPS catenary masts of the Operations Building and the roof and stack of the Support Building will be visible on the horizon across the Kennet valley from parts of the Grade II registered park at Englefield House near Theale (RPS 112 – 7.5 to 8.25km NNE). The park is often open to the public, but these distant views are already marred by the four chimneys of the AWE Aldermaston boiler house and by other bulky buildings on the AWE Aldermaston Site, all of which already protrude above the distant horizon. Due to the considerable distance from the Hydrus Development Site, the existing impacts and the intervening tree cover, the additional impact of the Proposed Development on Englefield Park will be **negligible**. Due to intervening local topography, there will be no affect on the Grade II\* Church of St Mark or Englefield House (RPS 37 and RPS 66 - (8.25km NNE).

#### 14.5.2.5 Other Registered Parks and Listed Buildings

The ZVT suggests that the eaves, curved roof, stacks and LPS catenary masts of the Operations Building and the roof and stack of the Support Building may be visible from parts of the Lutyens and Jekyll designed garden at Folly Farm, Sulhampstead (RPS 109 - 5.5km NE). The garden (a Grade II\* Registered Park) is in private ownership, so this assessment is estimated from aerial photographs, maps and other documents.

The garden is formal and largely walled around, with an inward-looking design that does not take advantage of longer views to distant viewpoints. The gardens are broadly orientated to the west, so the Hydrus Development Site does not coincide with any apparent designed vista. The tallest existing AWE Aldermaston buildings and chimneys may be visible in wider, distant views from the garden boundaries. If such views exist, then there may be views of the proposed LPS catenary masts, and the roofs of the buildings. These would form only minor distant components in the views. Because of these factors, distance and intervening tree cover, the permanent effect on the setting and 'heritage significance' of the Folly Farm garden will be **negligible**, notwithstanding its high national importance.

The ZVT suggests that the eaves, curved roof, stacks and LPS catenary masts of the Operations Building and the roof and stack of the Support Building will theoretically be visible from the Grade 1 Church of St John the Baptist, Padworth and from the Grade II\* Padworth House, Padworth (RPS 22 and RPS 44 - 2km NE). The churchyard is enclosed, much of it with dense *Leylandii* planting on the west. The tops of the LPS catenary masts and the uppermost part of the stack will nevertheless be obliquely and distantly visible over intervening woodland from some locations outside of the church lych gate. Notwithstanding the church's Grade I listing, the small permanent effect on its setting cannot result in an impact on its 'heritage significance' greater than **negligible**. Padworth House is a private school. It is orientated to face north, with a walled kitchen garden (now developed internally) and screen planting to the west and south. Its setting is marred by extensive modern school buildings to its east and south-east. Because the house is further downslope than the church, the Proposed Development will not be visible from the grounds of Padworth House. The permanent effect on the setting (and thus 'heritage significance') of the house will thus be **no change**.

The ZVT suggests that the tops of the LPS catenary masts might potentially be visible from the grade II-Listed Court Farm, Padworth (RPS 119 – 0.8km E). The setting of Court Farm on its western side is greatly marred by a very large lorry trailer park, modern workshop / business units and modern recreational fishing lakes. Views are dominated by the close proximity of the four chimneys of the AWE Aldermaston boiler house. Any further operational effect on the building's setting or 'heritage significance' would thus be **negligible**.

Other sites where possible distant effects were identified but judged to be imperceptible or almost imperceptible (**no change** or **negligible**) because of existing impacts include parts of the grounds of the Grade II Listed Elstree School (RPS 46 – 3.75km NW). The reasoning behind this and other assessments are summarised in *Technical Appendix F.5*.

#### 14.5.2.6 Conservation Areas

There will be no appreciable permanent impact on the setting of the Aldermaston Conservation Area, nor any of its Listed buildings, as the Proposed Development will be fully screened by existing tree cover within the parkland of Aldermaston Court. The permanent effect on the Aldermaston Conservation Area and its listed buildings will be **no change**.

The curved roof, stacks and LPS catenary masts of the Operations Building and the stack of the Support Building will be theoretically visible on the horizon from the Aldermaston Wharf Conservation Area and Scheduled Aldermaston Lock (RPS 105 - 2.5km N). In reality views in this valley-bottom location are very much limited by nearby hedgebanks, woodland and tree banks, whilst the local setting of conservation area and Scheduled lock are already greatly compromised by heavy lorry traffic on the A340 and by a large modern housing estate on the south side of the village. The predicted permanent effects on these historic assets will thus be **no change**.

*Plate 14-7: View south from Aldermaston Wharf Conservation Area, showing modern housing development limiting views and affecting historic setting*

Issue Date: June 2010	UNCLASSIFIED DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	Hydrus Defence Exempt Environmental Appraisal Volume I	Reference: MER-110-009288



Despite lying within the ZTV, on-site assessment reveals that local factors mean that Tadley (Church Road) CA (3.0 to 4.25km S) and Tyle Mill CA (5.0 to 5.5km NE) will be unaffected (**no change**). Brimpton Conservation Area (4.75km WNW) has no outward views towards the Hydrus Development Site from the public realm within the conservation area. The tops of the LPS catenary masts may be distantly visible over intervening woodland from more modern development on the eastern side of the village. As this view is already affected by the more dominant AWE Aldermaston boiler house chimneys, the effect on the setting and 'heritage significance' of the conservation area is thus **negligible**.

#### 14.5.2.7 On-site Historic Landscape

The Hydrus Development Site is assessed as having the following impacts on the identified historic landscape character areas within the AWE Aldermaston Site:

**EX2 – Northern Area Storage:** The Proposed Development will add a large and modern new element to the northern periphery of this landscape of small, mounded, post-war buildings and historic parkland trees. The proposed 2-metre high bund, together with existing and proposed planting, will reduce the impact of the Proposed Development on this generally well preserved character area. It will not be possible to disguise the contrasting scale of the Proposed Development. The insertion of the new structures will cause a greater dislocation between the remaining vestiges of historic parkland within this part of the AWE Aldermaston Site and that within Aldermaston Court than exists at present. Because the Hydrus Development Site is peripheral to this character area and because the historic buildings on the Hydrus Development Site have previously been demolished, the permanent impact on the overall 'heritage significance' of this character area will be **minor adverse**.

**EX4 – H Area:** The Proposed Development will also affect the setting of the post-war buildings within this character area, although these are generally screened from the Hydrus Development Site by trees and the area's valley-bottom location. Due to the topography and natural screening, the permanent impact on the 'heritage significance' of this character area will not be greater than **minor adverse**.

**A15 – Griffin Road:** The historic landscape character of this former runway is currently diminished by the existing temporary buildings and storage areas of the

Central Area Construction Enclave (CACE). The addition of the Proposed Development within its setting will have only a very minor further adverse impact. The operational impact on the setting and 'heritage significance' of this area will thus be **negligible**. Eventually the temporary buildings and stored materials will be removed, following the conclusion of ongoing construction projects. The setting of this former runway will then be significantly improved over current baseline conditions.

**A20 – MOD Kennels:** These 1980s kennels are of low / no historic importance and are set in dense woodland. Because the Proposed Development simply forms another phase of AWE Aldermaston development, the permanent impact on the setting and 'heritage significance' of these relatively modern structures will be **neutral**.

**A16 – Site Tip and Ponds:** The Proposed Development will affect the relationship between this wooded area and the parkland trees of Area EX2 and Aldermaston Court, especially as compared to the baseline position of the Hydrus Development Site with post-war buildings removed. As the area is of low / no historic importance, the resultant impact would be **negligible**.

The Hydrus Facility will have more distant visual effects on AWE Aldermaston's three character areas of High importance (**CT1 – Technical North** (300m SW), **A18 – Decoy Pond** (950mSE) and **A19 – Grim's Bank and Non-metallic Components Stores** (1.1km SW). Because the AWE Aldermaston landscape comprises a series of functional industrial buildings of many differing scales and dates (including a number of other large, brand-new structures), and because the Hydrus Facility is functionally related to all the other buildings on the AWE Aldermaston Site, the effect of the Proposed Development on the setting and 'heritage significance' of these areas will be **negligible**.

Overall, the permanent, operational effect of the Proposed Development construction activity on the 'heritage significance' of the AWE historic landscape will be **negligible**.

#### 14.5.2.8 Archaeological remains

No physical impacts on archaeological remains are predicted following the construction phase.

#### 14.5.3 Mitigation Measures

##### 14.5.3.1 Construction

Following the completion of a programme of archaeological trial-trenching across the Hydrus Development Site, the county archaeologist was contacted to advise on mitigation measures. On the 27th July 2006 it was indicated that no further archaeological work was necessary in relation to the Hydrus Development Site, given previous disturbance and its apparently very low archaeological potential.

Construction related uses will be located within the existing West End Construction Enclave (WECE) and the Central Area Construction Enclave (CACE). No further archaeological mitigation will be required.

No other mitigation is proposed during the construction phase.

The steps that have been taken to mitigate the visual impacts of the Proposed Development during the design stage are described in the Introduction (14.1) above. These are described further in *Chapter 4: Alternatives and Design Evolution* and *Chapter 13: Landscape and Visual*. No additional permanent mitigation is proposed.

#### 14.6 Residual Impact Assessment and Conclusions

The highest residual impacts of the Proposed Development will be on the historic character of AWE Aldermaston and on the historic setting of Aldermaston Court and the associated Registered Park and Garden - these are assessed at minor adverse. However taking into account the baseline conditions (including existing impacts and AWE Aldermaston buildings consented but not yet constructed) together with the mitigation measures described above, there will be no harmful effects upon the significance of any heritage assets.

#### 14.7 Cumulative Impact Assessment

Cumulative impacts for the historic environment in this instance may result from further intrusion on setting or from severance of the main components of a site and consequent loss of integrity of that resource.

As stated above, Proposed Development is one of a number of projects envisaged for AWE Aldermaston in line with the ministerial statement of 19<sup>th</sup> July 2005 by Dr John Reid, Secretary of State for Defence. The AWE Aldermaston & Burghfield Site Development Context Plan (SDCP08) 2000–2015 (Ref. 14-20) sets out the overall approach to the modernisation of AWE Aldermaston and AWE Burghfield, through the refurbishment and replacement of existing facilities. This includes the NOA providing a total of approximately 21,000 m<sup>2</sup> gross floorspace, HEFF providing a total of approximately 4,000 m<sup>2</sup> gross floorspace and Pegasus providing a total of approximately 18,489 m<sup>2</sup> gross floorspace. NOA was granted planning permission from WBC in January 2007 and construction is now complete, HEFF was granted planning permission in February 2008 and a Pegasus was granted planning permission in February 2010. NOA, HEFF and Pegasus thus form part of the baseline and do not form part of the cumulative assessment.

Those AWE schemes that are to be considered within the cumulative impact assessment are described in *Chapter 2: DEEA Methodology*. These need to be considered in the light of the landscape strategy for the AWE Aldermaston Site prepared by RPS in 2005 (Ref. 14-19) and AWE policies of retention of historically significant buildings, historic building recording and archaeological evaluation, as set out in AWE Aldermaston, Burghfield and Blacknest Historic Landscape Characterisation and Management Study (*Technical Appendix F.4*).

In addition to the forthcoming developments at AWE Aldermaston, external schemes have been considered as part of the cumulative assessment. The WBC, Reading Borough Council, Basingstoke and Deane Borough Council and Wokingham Borough Council Planning Registers have been reviewed for consented major planning applications that that may have a cumulative effect in

Issue Date: June 2010	<b>UNCLASSIFIED</b> DIRECTORATE MAJOR PROJECT	Issue No: FINAL 2
14. Cultural Heritage and Archaeology	<b>Hydrus Defence Exempt Environmental Appraisal Volume I</b>	Reference: MER-110-009288

conjunction with the Proposed Development and the other SDCP08 proposed developments. The only scheme considered to have a potential for cumulative impacts, is the development at Padworth Railway Sidings, Padworth Lane, Lower Padworth. This development is a change of use of land and erection of buildings to form new Integrated Waste Management Facility (IWMF) to comprise; Waste Transfer Station (WTS), Material Recovery Facility (MRF), Household Waste Recycling Centre (HWRC), In-Vessel Composting Facility (IVC), municipal depot with workshop, fuelling and washing facilities, administration and visitor centre, weighbridge; formation of associated parking, roadways and vehicular access; landscape works, including tree removals and additional planting, formation of a 2-metre high bund around the facility and surface water drainage swales; erection of new fencing. The development, which lies adjacent to the Aldermaston Wharf Conservation Area, was granted planning permission in March 2009.

There may potentially be overlap between the construction periods of the proposed future projects. The permanent effects of the combination of present and future developments will change the 'Cold War' appearance of the AWE Aldermaston facility and lead to some minor changes to skyline views of the AWE Aldermaston Site. The effects of the Proposed Development on sites within the Kennet valley and to its north will be **negligible** when added cumulatively to the consented AWE Aldermaston buildings and the Integrated Waste Management Facility (IWMF) at Padworth railway sidings

- Ref. 14-13 West Berkshire Council (2002). The West Berkshire District Local Plan 1991-2006.
- Ref. 14-14 For West Berkshire DC Village Design Statements, see (<http://www.westberks.gov.uk/index.aspx?articleid=4433>)
- Ref. 14-15 For Basingstoke and Deane DC Conservation Area Appraisals and Village Design Statements, see <http://www.basingstoke.gov.uk/regeneration/historic/caa/> and <http://www.basingstoke.gov.uk/planning/leaflets/villagedesigns.htm>
- Ref. 14-15 West Berkshire Historic Landscape Characterisation <http://www.westberks.gov.uk/CHttpHandler.ashx?id=13233&p=0> and <http://www.westberks.gov.uk/CHttpHandler.ashx?id=13232&p=0>
- Ref. 14-16 Multi-Agency Geographic Information for the Countryside [www.magic.gov.uk](http://www.magic.gov.uk)
- Ref. 14-17 English Heritage (2005). Wind Energy and the Historic Environment.
- Ref. 14-18 AWE (2008). AWE Aldermaston and Burghfield - Site Development Context Plan (SDCP) 2005-2015 Update.
- Ref. 14-19 RPS (October 2006): Landscape Strategy

## 14.1 References

- Ref. 14-1 Her Majesty's Stationery Office (HMSO) (1979). Ancient Monuments and Archaeological Areas Act 1979.
- Ref. 14-2 HMSO (1983). National Heritage Act 1983.
- Ref. 14-3 HMSO (1971). Town and Country Planning Act 1971.
- Ref. 14-4 HMSO (1990). Planning (Listed Buildings and Conservation Areas) Act 1990.
- Ref. 14-5 Department for Communities and Local Government (DCLG) (March 2010). Planning Policy Statement 5: Planning for the Historic Environment.
- Ref. 14-6 The Stationery Office (TSO) (1994). Planning Policy Guidance 15: Planning and the Historic Environment.
- Ref. 14-7 TSO (1990). Planning Policy Guidance 16: Archaeology and Planning.
- Ref. 14-8 Department for Culture, Media and Sport (DCMS) (March 2010). The Government's Statement on the Historic Environment for England 2010.
- Ref. 14-9 DCLG / DCMS / English Heritage (EH) (March 2010). PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide.
- Ref. 14-10 TSO (2008). Draft Heritage Protection Bill.
- Ref. 14-11 DCLG (2009). South East Plan – Regional Spatial Strategy for the South East of England.
- Ref. 14-12 HMSO (1994). Planning and Compulsory Purchase Act 2004.