# *Harlow Strategic Site Assessment*

# *Final Report*

**Informing local plan-making for Harlow, Epping Forest, East Herts and Uttlesford District Councils**

September, 2016

## Quality information

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# Contents

# Executive Summary

East Hertfordshire, Epping Forest, Harlow and Uttlesford District Councils are at various stages of preparing new Local Plans and consequently working through the obligations of the Duty to Cooperate to engage constructively, actively and on an ongoing basis to consider strategic cross boundary matters affecting their Housing Market Area (HMA).

A number of separate urban extensions and developments are being promoted in and around Harlow. AECOM has been appointed by the councils to provide planning expertise and guidance to assist in the coordination of strategic planning matters, in accordance with the provisions of the Duty to Cooperate, particularly in respect of the consideration of large development sites.

This work relates to and takes forward work already undertaken on visioning and objective setting related to the strategic growth in and around Harlow. It should be considered alongside other work in relation to developing and testing housing options for the wider West Essex and East Hertfordshire HMA. This Strategic Site Assessment report is a high-level study that the constituent councils can draw upon as evidence when finalising their individual Local Plans and deciding the overall distribution of growth and individual site allocations.

The objectives of the Harlow Strategic Site Assessment study are to:

- Consider and evaluate potential strategic sites in and around Harlow
- Establish an up-to-date direction of travel in terms of the acceptability of growth
- Take account of high-level infrastructure implications of particular sites, and in combination across Harlow
- Enable officers, Members, statutory consultees and land promoters to understand how the sites perform
- Provide outputs capable of forming part of the evidence base for the emerging Local Plans

AECOM's approach to this study has followed five key stages:

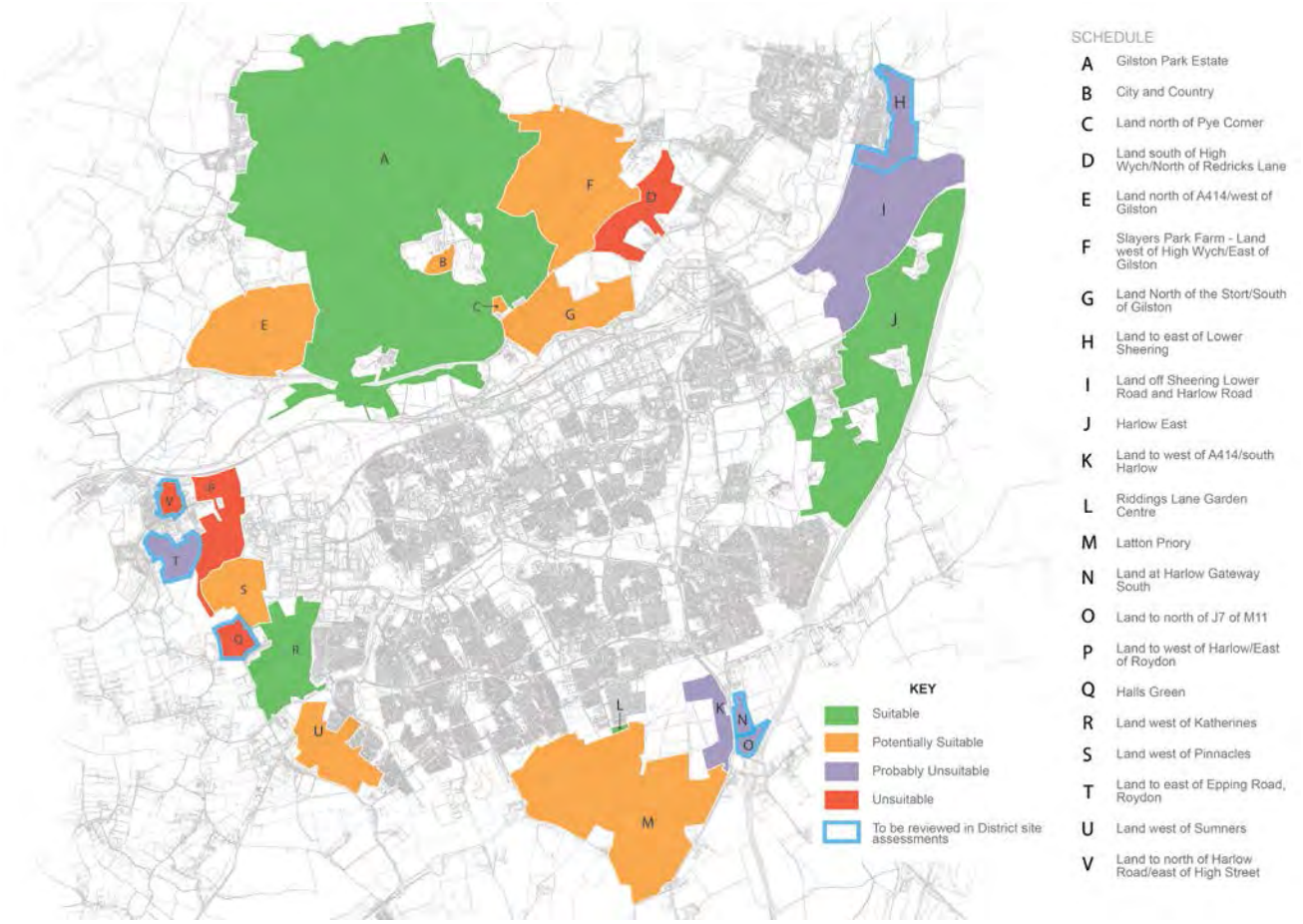
1. *Synthesis of all existing evidence base*
2. *Area-wide GIS analysis of each strategic site based upon key constraints (*broken down by seven themes):
    - Environmental
    - Geo-environmental
    - Landscape and Green Belt
    - Heritage
    - Transport and accessibility
    - Regeneration potential
    - Infrastructure capacity and provision of local services
3. *Liaison with statutory stakeholders and providers*
4. *Liaison with land promoters*
5. *Individual assessment of each site*

The results of the individual assessments are summarised in Appendix 1 and evidence how the sites perform in isolation based upon a series of detailed criteria. The area-wide GIS mapping in Appendix 3 illustrate the town-wide extent of the constraints and designations based upon the seven themes.

Inputs from the promoters and statutory consultees have fed into our final pro-forma assessments, including setting out the promoters' assumptions for development trajectories, densities and key proposed infrastructure items. These submissions have been scrutinised for the purposes of the site assessments.

The results of the area-wide GIS analysis, consultation with statutory consultees/promoters and individual site assessments have enabled AECOM to identify a 'basket of sites' or long list deemed to be 'suitable' or 'potentially suitable' for future development (should there be appropriate site specific mitigation and dependent on strategic Harlow-wide infrastructure improvements).

*Figure 1 Assessment findings summary*




Our analysis of constraints and promoter proposals showed that, largely in landscape terms, the full extent of many of the sites would not expect to be developed. The approximate extent of the appropriate developable areas for the sites judged to be suitable or potentially suitable is shown in Figure 2 (overleaf).

*Figure 2 Approximate developable areas of suitable and potentially suitable sites*


Taking Figure 2 as the starting point, AECOM has sought to identify synergistic spatial opportunities for sites considered in combination(s). East of Harlow (Site J), due to its comparative lack of environmental and statutory designation constraints stands out as a sustainable location for growth, based upon the site assessment and feedback from statutory consultees. However, Site J impacts on the local road network will need to be investigated more fully prior to establishing the precise level of appropriate growth. Similarly, whilst Gilston (Sites A and E) has landscape, historic environment and Green Belt constraints, it nonetheless offers great potential to provide for a comprehensively planned urban extension capable of delivering a substantial level of growth via a series of interlinked villages (over the course of at least two plan periods) and in close proximity to the railway stations and A414.

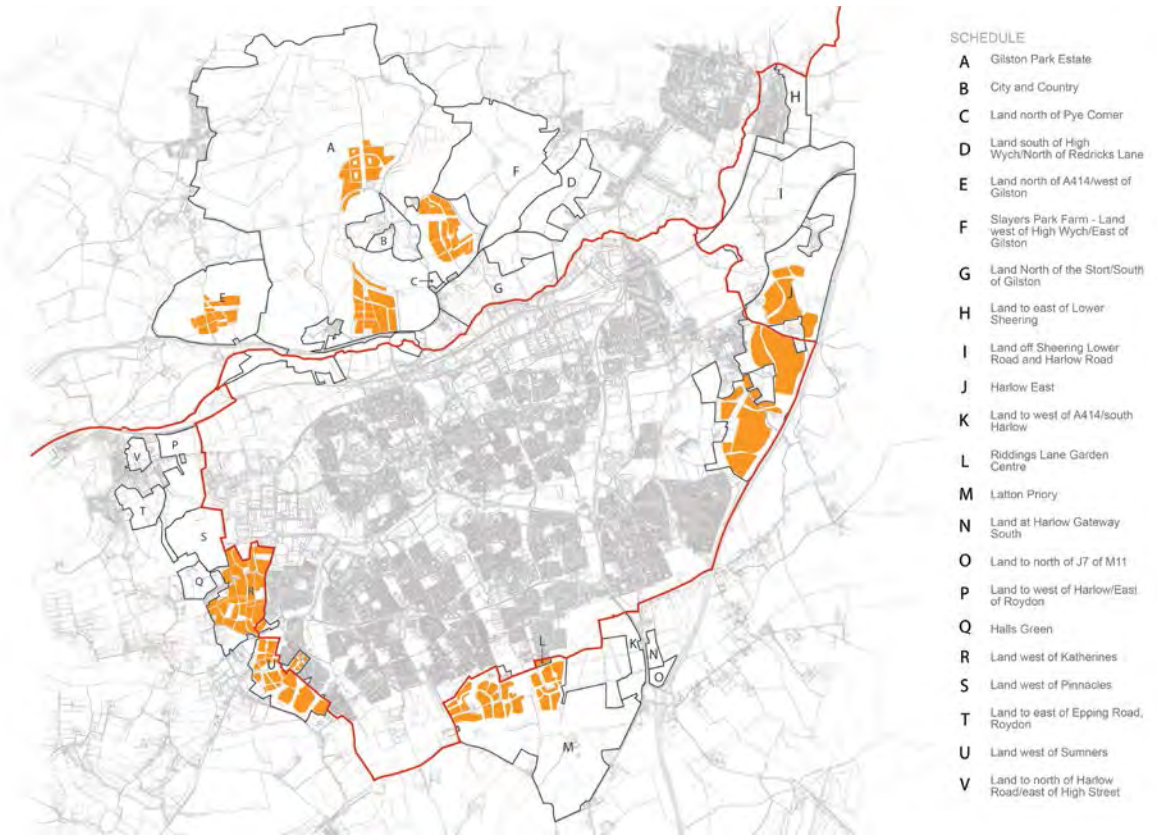
It is necessary to consider what other sites and directions of growth would represent the most sustainable patterns of development. For example, Land north of the Stort (Site G) in combination with Gilston (Sites A and E) could assist with the delivery of a second Stort crossing. In addition, analysis from Essex County Council has identified the potential for a sustainable transport corridor between the Gilston (Sites A and E) and Latton Priory (Site M) and a complementary east-west sustainable corridor also. Proposals of this type would align well with a garden settlement approach. Our analysis suggests that there is potential for growth to the south, although the 'ridge line' is an important boundary that should not be breached, unless the benefits of development are capable of outweighing harm to the landscape, alongside appropriate mitigation. The cluster of sites to the west of Harlow offer greater suitability for growth where they directly adjoin the urban edge of Harlow, provided that coalescence with Roydon and other smaller settlements can be avoided (as is also a concern with Sawbridgeworth, Lower Sheering and High Wych to the north east). The west of

Harlow sites would also require adequate integration with Harlow and a package of transport improvements to ameliorate identified highways impacts.

The 2015 Objectively Assessed Need (OAN) figure, as set out in the Strategic Housing Market Assessment (SHMA) was 46,100 dwellings across the HMA. However, the SHMA consultants (ORS) have advised that, with reference to the Government's recently released 2014-based Sub-National Population Projections, and 2014-based Household Projections (July 2016), the OAN could potentially rise to approximately 54,600[1] dwellings in the HMA (precise figures to be confirmed). Early indications show that growth is required in and around Harlow to provide sufficient sites to address needs in the wider HMA. However, the transport network will not be able to accommodate the full level of growth required in and around Harlow only, required to meet OAN for the wider HMA. Further testing is being undertaken by Essex County Council Highways. The preferred growth/spatial option for the HMA indicate that 51,100 dwellings could potentially be accommodated across the HMA, of which ~16,100 would be located in and around Harlow. This represents a figure greater than the published SHMA figure of 46,100 but lower than the revised estimate of 54,600 under the latest Government projections.

The transport modelling undertaken to date demonstrates that growth of between 14,000 and 17,000 new homes in and around Harlow can be accommodated provided that the mitigation measures set out in the Highways and Transportation Infrastructure MOU are delivered during the plan period. Evidence suggests that growth beyond 2033 is likely to be possible subject to further transport modelling and the identification and delivery of additional strategic highway mitigation measures.

*Figure 3 AECOM recommended option*




[1] SHMA consultants ORS have estimated that the impact of the 2014-based Sub-National Population Projections, and 2012-based Household Projections could mean a rise in OAHN to approximately 54,600, but this number is not final. It has been tested through the Spatial Options Study in the interests of assessing what that number might mean for the HMA. Formal review of the OAHN number will take place through a full SHMA update in the future.

This report identifies that there are sufficient suitable sites in and around Harlow to accommodate close to 16,100 units provided that:

- Further detailed traffic modelling for development to the East of Harlow demonstrates growth is deliverable on the scale envisaged;
- Significant infrastructure requirements are met, including highways, sustainable travel options, education, sewerage/drainage etc.;
- Landscape impacts can be mitigated; and
- Development can be distributed amongst several sites in combination (e.g. north and west of Harlow).

Figure 3 is the most suitable option for growth capable of accommodating approximately 16,100 units in and around Harlow, based upon the evidence assessed by AECOM. The shaded orange areas show the indicative net developable area on sites deemed to be suitable/potentially suitable. The Local Planning Authorities will be able to use this analysis in finalising their individual Local Plans and spatial strategies in cooperation with adjoining districts.

# 01 Introduction

## 1.1 Purpose and role

East Hertfordshire, Epping Forest, Harlow and Uttlesford District Councils are at various stages of preparing new Local Plans and consequently working through the obligations of the Duty to Cooperate to engage constructively, actively and on an ongoing basis to consider strategic cross boundary matters affecting the area.

To assist in discharging the Duty to Co-operate, the Co-operation for Sustainable Development Member Board (the Co-op Member Board[2]) considered six options for accommodating new housing development across the West Essex and East Hertfordshire Housing Market (HMA) area up to 2033. These six options varied in terms of:

i. the overall quantum of development to be provided for across the HMA (ranging from ~48,300 to ~56,250 new houses); and
ii. the spatial distribution of that development, in particular the amount of new housing to be accommodated in around Harlow town.

Varying the overall quantum of development allowed the Co-op Member Board to test the implications of different levels of growth including: 46,100 (the figure for objectively assessed housing need in the Strategic Housing Market Assessment, SHMA); 49,638 (a figure based on the CLG 2012-based household projections); and 54,600 (an updated OAHN figure provided by Opinion Research Services, ORS, in light of recent information including the CLG 2014-based household projections). Varying the spatial distribution of development allowed the Co-op Member Board to explore the implications of focusing different levels of development in different parts of the HMA. In particular, the options varied in terms of the level of development located in and around Harlow, the HMA's key urban centre.

The implications of the six options have been investigated through four means:

1) Transport modelling to explore their implications in relation to traffic flows and the need for road upgrades or additional highways infrastructure;
2) Sustainability Appraisal to assess their implications in relation to a range of topics including biodiversity, community and wellbeing, historic environment, landscape and water;
3) Habitat Regulations Assessment to determine their implications, if any, for the integrity of the Epping Forest Special Area of Conservation; and
4) The results of this Strategic Site Assessment.

The Co-op Member Board identified a Preferred Spatial Option to deliver c. 51,100 new homes across the HMA to 2033 broken down as follows:

[2] East Hertfordshire District Council, Epping Forest District Council, Harlow District Council, Uttlesford District Council, Essex County Council, Hertfordshire County Council, Highways England

***Table 1 Preferred Spatial Option***

| Local authority | Net new dwellings 2011-2033 |
|---|---|
| East Hertfordshire District Council | c. 18,000 |
| Epping Forest District Council | c. 11,400 |
| Harlow District Council | c. 9,200 |
| Uttlesford District Council | c. 12,500 |
| **Total across the HMA** | **c. 51,100** |
| …of which the area in and around Harlow* will provide | c. 16,100 |

**'in and around Harlow' refers to development in Harlow town as well as around Harlow in adjoining districts*

The Preferred Spatial Option was chosen by the Co-op Member Board as the most sustainable choice for the HMA partially on the basis that:

- At circa 51,100 new homes, the planned level of housing growth is higher than both the established OAHN within the published 2015 SHMA (46,100) and the figure based on the CLG 2012-based household projections (49,638). It is lower than ORS' estimated OAHN figure taking into account recent information including the CLG 2014-based household projections (54,608) but nonetheless represents good progress towards this higher figure. Overall, the figure of c. 51,100 indicates that the four HMA authorities are positively seeking opportunities to meet the development needs of their areas in line with the National Planning Policy Framework (NPPF) and, furthermore, significantly boosting the supply of housing (NPPF, para. 47).
- Harlow represents the most sustainable location within the HMA at which to concentrate development given its role as a sub-regional centre for employment (especially in technology); its Enterprise Zone status; the need to rejuvenate the town centre; the opportunity to capitalise on its transport connections (for example, good rail links to London, Stansted Airport and Cambridge) and deliver north-south and east-west sustainable transport corridors traversing the town; its important location on the London – Stansted – Cambridge corridor; and, above all, the wider economic growth aspirations for the town.

A number of separate urban extensions and developments are being promoted around the fringes or in close proximity to Harlow. AECOM have been appointed by the Councils to provide planning expertise and guidance to assist in the coordination of strategic planning matters, in accordance with the provisions of the Duty to Cooperate, particularly in respect of the further consideration of large strategic development sites.

This work relates to and takes forward work already undertaken on visioning and objective setting related to the strategic growth of Harlow and the wider Housing Market Area. It should be considered alongside emerging activity in relation to developing and testing housing options for the wider West Essex and East Hertfordshire Housing Market Area.

The overall objectives of the Strategic Site Assessment are to:

- Consider and evaluate potential strategic sites in and around Harlow, located within the administrative boundaries of Epping Forest District Council, East Herts District Council and Harlow District Council;
- Establish an up-to-date direction of travel in terms of the acceptability of growth;
- Provide more clarity about the high-level infrastructure implications of any particular sites
- Enable land promoters to understand how the sites perform; and
- Provide outputs capable of forming part of the evidence base for all four emerging Local Plans.

# 1.2 National policy context

There are a number of relevant provisions in national policy forming the context for the distribution of growth in and around Harlow. The National Planning Policy Framework (NPPF) was adopted in March 2012. The document states that at its heart is a presumption in favour of sustainable development, which should be seen as 'a golden thread running through both plan making and decision-taking'. A key aim is to help identify sustainable locations for growth on behalf of the four Local Planning Authorities. Specific points of relevance to the assessment include the following paragraphs[3]:

**Housing**

Paragraph 17: With respect to allocations of land for development, authorities should:

- Prefer land of lesser environmental value, where consistent with other policies;
- Encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value; and
- Actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

Paragraph 37: Planning policies should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.

Paragraph 38: For larger scale residential developments in particular, planning policies should promote a mix of uses in order to provide opportunities to undertake day-to-day activities including work on site. Where practical, particularly within large-scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties.

Paragraph 50: To deliver a wide choice of high quality homes, widen opportunities for home ownership and create sustainable, inclusive and mixed communities, local planning authorities should plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community.

**Employment**

Paragraph 21: Authorities should

- Plan positively for the location, promotion and expansion of clusters or networks of knowledge driven, creative or high technology industries; and
- Facilitate flexible working practices such as the integration of residential and commercial uses within the same unit.

**Transport**

Paragraph 30: In preparing Local Plans, local planning authorities should support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.

Paragraph 32: All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- safe and suitable access to the site can be achieved for all people; and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

Paragraph 35: Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to:

- Accommodate the efficient delivery of goods and supplies;
- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;

[3] Please Note: the NPPF and Planning Practice Guidance have been considered as a whole to inform the report findings

- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones; and
- Incorporate facilities for charging plug-in and other ultra-low emission vehicles.

**Heritage**

Paragraph 59: Planning policies and decisions should aim to ensure that developments respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation.

Paragraph 132: Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significant, notably scheduled monuments, protected wreck sites, battlefields, grade I and II listed buildings, grade I and II registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Paragraph 137: Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the setting of heritage assets to enhance or better reveal their significance.

**Landscape and agricultural land**

Paragraph 109: The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, geological conservation interests and soils;

Paragraph 112: Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.

**Ecology**

Paragraph 110: Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework.

Paragraph 117: To minimise impacts on biodiversity and geodiversity, planning policies should:

- plan for biodiversity at a landscape-scale across local authority boundaries;
- identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;
- promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;
- aim to prevent harm to geological conservation interests; and
- where Nature Improvement Areas are identified in Local Plans, consider specifying the type of development that may be appropriate in these Areas.

**Flood Risk**

Paragraph 100: inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

**Retail**

Paragraph 23: Planning policies should define a network and hierarchy of centres that is resilient to anticipated future economic changes.

Paragraph 24: When considering edge of centre and out of centre proposals, preference should be given to accessible sites that are well connected to the town centres.

# 1.3 Methodology

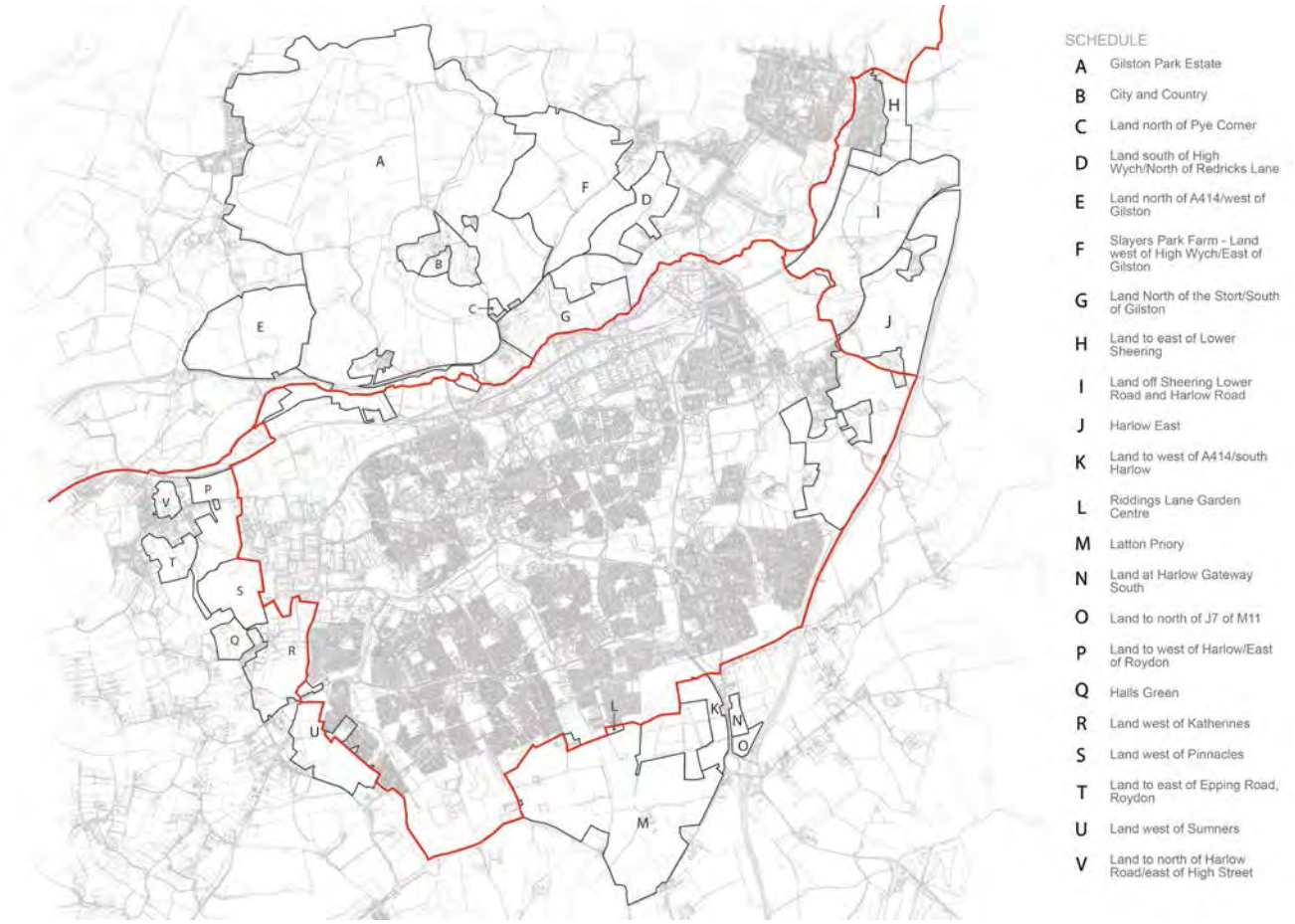
The sites selected for assessment in the study have been drawn from the respective Housing and Economic Land Availability Assessments ('HELAA') for Harlow, Epping Forest[4] and East Herts District Councils which have followed a call for sites, resulting in the identification of sites that were being promoted by developers and landowners. In, general most sites are capable of delivering in excess of 1,000 units of housing or are smaller sites that could be considered alongside such sites based on location and relationship. The majority of sites are adjacent to the built up area of Harlow within around 500m and are being actively promoted by developers and landowners through the relevant Locals Plans (and so deemed 'available').

The full list of sites assessed for this study is as follows (and shown in Figure 4):

- Site A Gilston Park Estate
- Site B City and Country
- Site C Land North of Pye Corner
- Site D Land South of High Wych / North of Redricks Lane
- Site E North of A414/ West of Gilston
- Site F West of High Wych and East of Gilston
- Site G Land North of the Stort / South of Gilston
- Site H East of Lower Sheering
- Site I Land off Sheering Lower Road & Harlow Rd
- Site J Harlow East
- Site K West of A414 to the south of Harlow
- Site L Riddings Lane Garden Centre
- Site M Latton Priory
- Site N Land at Harlow Gateway South
- Site O Land to North of J7 of M11
- Site P Land to West of Harlow/East of Roydon
- Site Q Halls Green
- Site R Land West of Katherines
- Site S Land West of Pinnacles
- Site T Land to East of Epping Road, Roydon
- Site U Land West of Sumners
- Site V North of Harlow Rd and East of High Street, Roydon

[4] Epping Forest District Council have a Strategic Land Availability Assessment ('SLAA')

*Figure 4 Sites subject to assessment*




AECOM's approach to assessing the sites has followed five key stages:

1. *Synthesis of all existing evidence base*
2. *Liaison with statutory consultees*
3. *Liaison with land promoters*
4. *Area-wide GIS analysis of each strategic site based upon key constraints and designations*
5. *Individual assessment of each site*

**Stage 1 Synthesis of all existing evidence base**

Gathering and synthesising relevant information including a review of appropriate evidence prepared jointly and individually by the four authorities e.g. Green Belt Reviews, SHMA and HELAA, and information submitted by site promoters. Systematically reviewed and synthesised to form an important part of the desk based review. Specialist technical experts in transport and landscape contributed to this desk based review. Visits to the promoted sites were undertaken to ensure that the desk-based review was verified with a 'real world' understanding of the sites and their context.

**Stage 2 Liaison with statutory consultees**

Consultation with statutory consultees was undertaken to fully understand the current spatial context and to provide a comparative commentary on the strategic sites. Essex County Council and Hertfordshire County Council, the four local authorities and a selection of other specific organisations were consulted. A separate statutory consultee pro-forma was sent to all relevant stakeholders (e.g. Highways England, Heritage England, Environment Agency etc.) Returned pro-forma were collated to identify salient points from the stakeholders' views and highlight additional evidence on the sites. In a number of cases follow up phone calls and emails were undertaken to clarify any inconsistencies or areas of uncertainty.

**Stage 3 Liaison with land promoters**

Consultation with active land promoters was used to gain an up-to-date understanding of the sites, including analysis of deliverability i.e. what infrastructure is required, both on-site and off-site, costs (where known) and development trajectories for each site to inform later more detailed viability testing. Promoters were also sent a specific pro-forma response form in order to gain a thorough understanding of the sites and what supporting information has already been prepared, submitted or could be made available for the study. The pro-forma offered promoters an opportunity to present their current proposals, key information (e.g. known costs) and supporting studies, and to highlight what kind of assistance they might require to ensure deliverability.

**Stage 4 Area-wide GIS analysis**

Using all available data from the authorities in combination with open data, GIS mapping of the study area was undertaken to illustrate the key constraints and designations broken down by seven themes:

- Environmental
- Geo-environmental
- Landscape and Green Belt
- Heritage
- Transport and accessibility
- Regeneration potential
- Infrastructure capacity and provision of local services

**5 Individual assessment of each site**

Considering the performance of each site against the wider contextual information and key deliverability considerations organised by the seven themes (as above). The pro-forma addressed detailed criteria under each of the themes and incorporated key information submitted by the promoters (e.g. information for planned infrastructure). Based upon likely delivery trajectories and cumulative opportunities/constraints in the north, south, east and west of Harlow, AECOM put forward a commentary setting out how the growth requirements could be distributed in and around Harlow.

The area-wide GIS mapping in Appendix 3 fed directly into the pro-forma assessment and illustrates the town-wide constraints and designations based upon the seven themes, allowing a comparative assessment of the sites. The results of the individual assessments are summarised in Appendix 1 together with evidence as to how the sites perform against a series of detailed criteria on the basis of a RAG score. Professional judgment on the basis of the evidence was then used to categorise each site in terms of its suitability for development with sites labelled: ***Suitable***; ***Potentially Suitable***; ***Probably Unsuitable***; or ***Unsuitable***.

Through the process of the assessment some sites have been found to have limited capacity for development (but not at a strategic scale). Some of the sites assessed as ‘Probably Unsuitable’ have been scored on the basis that they could not function as a strategic location for growth. Based upon a number of factors such as: a low potential for housing (less than 1000 units), the site is not contiguous with the Harlow built-up area and would instead be an extensions to other settlements (e.g. Roydon, Lower Sheering) and/ or the site is freestanding and detached from any settlement (such as the sites by Junction 7). However, these sites could be deemed appropriate for more limited housing development or employment uses as part of the Local Planning Authorities wider spatial strategy in their emerging Local Plans. As such we have identified sites that warrant further consideration on this basis.

# 02 Site Assessments

## 2.1 Assessment criteria

Each of the strategic sites was subject to individual assessment against a series of criteria, considered equal in terms of importance, grouped by seven themes:

1. Environmental context;
2. Geo-environmental considerations
3. Landscape and Green Belt;
4. Heritage;
5. Transport and accessibility;
6. Regeneration potential; and
7. Infrastructure capacity and provision of local services.

Inputs from the promoters and statutory consultees were fed into our final pro-forma assessments, including the promoters' assumptions for development trajectories, densities and key infrastructure items (put forward by promoters). The criterion are principally based on GIS mapping (supplemented by qualitative judgements) and has the effect of 'sieving' out those areas where development would be less desirable in relative terms. Each of these themes is discussed in more detail below.

The results of the individual assessments are summarised in Appendix 1 and evidence as to how the sites perform in isolation is based on a series of detailed criteria. The area-wide GIS mapping in Appendix 3 illustrate the town-wide impacts of the constraints and designations based upon the seven themes.

Prior to the detailed site assessment, AECOM produced a constraints overview map using readily available datasets[5]. Each dataset was reclassified in classes of -1, 0 and 1, where -1 is low suitability and 1 high suitability. To do this, some datasets were prescribed values based upon recognised distance thresholds and some a simple reclassification based on their input values (e.g. Flood zones 1, 2 and 3). This process helped to highlight and verify that the strategic sites being subject to assessment were in locations that did not preclude development because of the sheer number of constraints. This also helped to provide the project team and Councils with an early indication of possible suitable and unsuitable areas within the strategic sites – see Figure 1 (Appendix 3).

**Environmental Context**

The environmental constraints criterion covered immovable physical features and protective designations. Paragraph 113 of the NPPF is relevant here. It states that 'Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks.'

[5] Flood Zones, Areas at Risk of Surface Water Flooding, Groundwater Source Protection Zones, Historic Landfill Sites, Power Stations, Ramsar, SAC, SPA, SSSI, NNR, LNR, Listed Buildings, Registered Parks and Gardens, Registered Battlefields, Scheduled Monuments

Protective environmental designations are split into two layers 'statutory' and 'non-statutory'. The approach has been to seek to identify areas free from environmental constraints and protective designations to the greatest extent possible.

Flood risk

The extent of the flood risk areas in the study area has been reviewed. Zones 2 and 3 are shown in light and dark blue respectively. Zone 2 is a medium probability, or between 1 in 100 and 1 in 1,000 year annual risk of fluvial flooding, Zone 3a has a high probability of fluvial flooding and Zone 3b is designated as functional floodplain. In line with the NPPF approach, land falling within Flood Zone 3 was considered as unsuitable for development and land falling within flood zone 2 was considered as suitable only where mitigation was considered a realistic option and/or development could not feasibly be redirected to land in Flood Zone 1.

Agricultural land

NPPF paragraph 112 states that 'local planning authorities should take into account the economic and other benefits of the best and most versatile[6] agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.' This would indicate that development sites should aim to use Grades 3 and 4 rather than Grades 1 and 2 to the extent that this is consistent with the achievement of sustainable development or other relevant criteria.

Environmental designations

Statutory designations include Sites of Special Scientific Interest (SSSIs), National and Local Nature Reserves (NNRs and LNRs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), National Parks and Areas of Outstanding Natural Beauty (AONBs).
Non-statutory designations include national designations (for example, Ancient Woodland) and local designations within each of the relevant local authorities.

Environmental assets and designations across the study area are illustrated in detail in Figure 2 (Appendix 3).

**Geo-environmental considerations**

This criterion covers a range of geological and environmental constraints to new development. In most cases, however, geo-environmental constraints are not absolute, and regulatory systems are in place to cover those that emerge. For example, Building Regulations cover radon protection measures for new development. However, these constraints have potential to increase development cost and lead in time.

Groundwater Source Protection Zones

The Environment Agency have defined Source Protection Zones (SPZs) for 2000 groundwater sources such as wells, boreholes and springs used for public drinking water supply in England and Wales. These zones show the risk of contamination from any activities that might cause pollution in the area (the closer the activity, the greater the risk). Mapping from the EA shows these zones. The shape and size of a zone depends on the condition of the ground, how the groundwater is removed, and other environmental factors. Groundwater source catchments are divided into three zones as follows:

- Inner zone (Zone 1) - Defined as the 50 day travel time from any point below the water table to the source. This zone has a minimum radius of 50 metres;
- Outer zone (Zone 2) - Defined by a 400 day travel time from a point below the water table. This zone has a minimum radius of 250 or 500 metres around the source, depending on the size of the abstraction;
- Total catchment (Zone 3) - Defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source.

The underlying hydrogeological sensitivity of the strategic sites was reviewed using the Environment Agency website.

[6] Best and most Versatile (BMV) agricultural land mean Grades 1, 2 and 3A.

Hydrogeological Sensitivity

Groundwater is contained within underground strata (aquifers) of various types across the country. Groundwater provides a proportion of the base flow for many rivers and watercourses and in England and Wales it constitutes approximately 35% of water used for public supply. It is usually of high quality and often requires little treatment prior to use.

However, it is vulnerable to contamination from pollutants, both from direct discharges into groundwater and indirect discharges into and onto land. Aquifer protection classifications are defined as follows:

*Principal Aquifers*

These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

*Secondary Aquifers*

These include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage. Secondary aquifers are subdivided into two types:

- Secondary A - permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers;
- Secondary B - predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

Secondary Undifferentiated - has been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

*Soil leaching* classification data is based on soil physical and chemical properties which affect the downward passage of water and contaminants. This classification is not applied to soils above non-aquifers. Soils are divided into three types:

- H: High leaching potential – soils with little ability to dilute pollutants.
- I: Intermediate Leaching Potential – soils with a moderate ability to dilute pollutants.
- L: Low Leaching Potential – soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to dilute pollutants.

Land Contamination

Where significant potentially contaminating processes and industry have been identified on-site, a higher risk of contamination has been assigned.

Historical landfill GIS data is available on the Environment Agency website and was assessed accordingly. Where historical landfilling is noted to have been present locally, risk has been assigned respectively.

Radon

Radon is a naturally occurring radioactive gas which originates from minute amounts of uranium that occur naturally in rocks and soils. It is almost always possible to mitigate the impacts of radon at the levels found in England through protective measures such as appropriate ventilation or installation of an active radon sump, and reference has been made to the publication 'Radon - Guidance on protective measures for new buildings' to ascertain the likely requirement for radon protection measures to be installed on new buildings. Reference has also been made to the England and Wales radon maps available online at: http://www.ukradon.org/information/ukmaps/englandwales

Geo-environmental assets and designations across the study area are illustrated in detail in Figure 3 (Appendix 3).

**Landscape and Green Belt**
For each strategic site, the sensitivity of the local landscape to employment and residential development was assessed with reference to the relevant local landscape character assessment. Existing Green Belt evidence was also highlighted with any relevant site specific commentary on the fundamental aims and fiver purposes of Green Belt insofar as this was relevant to future development.

East Herts, Epping Forest and Harlow District Councils each have their own separate Green Belt reviews. All three reports broadly follow the same methodology as informed by the National Planning Policy Framework, relevant written ministerial statements and case law. There are minor methodological differences between the three studies. For example, the size of the assessed parcels differ and thus there is some variance in scoring for Green Belt land that is adjacent and adjudged to perform better or less well against the fundamental aims of Green Belt and five purposes of Green Belt. This study does not include new Green Belt evidence. This report brings together the results from various pieces of evidence produced by the Local Planning Authorities in order to provide qualitative judgements on relative suitability (taking account of factors beyond just Green Belt).

A landscape and Green Belt map for the study area is illustrated in detail in Figure 4 (Appendix 3).

**Heritage considerations**
In a similar way to the approach for environmental designations, and in line with paragraph 126 of the NPPF, the approach seeks to avoid development in areas where it would adversely impact on a designated heritage assets. Designated heritage assets are defined by the NPPF as including scheduled monuments, listed buildings, registered parks and gardens, registered battlefields and conservation areas. Our GIS mapping also considered locally defined assets, where relevant.

Heritage assets across the study area are illustrated in detail in Figure 5 (Appendix 3).

**Transport and accessibility**
The transport and accessibility criterion aims to identify the configuration, capacity and quality of existing transport networks and facilities. It also identifies corridors and nodes presenting opportunities for extension or enhancement based on assumed travel patterns associated with the planned growth.

The criterion covers accessibility (including on foot and by cycle), public transport routes and their potential capacity and constraints, and the location of potential growth sites in terms of their ability to be served by all modes of travel, but with an emphasis on minimising travel by car.
Recognising that Harlow functions as large town for a wider hinterland, the quality of routes linking each strategic site to the town centre has been assessed, as well as to adjacent communities offering services and facilities, as connectivity is a key requirement for sustainable urban extensions.

Such connectivity works both ways- ensuring that new development can enhance the quality of life of residents in existing areas, for example in enabling better access to schools and leisure facilities.

**Regeneration potential**

<u>Indices of Multiple Deprivation</u>
The Indices of Multiple Deprivation 2010 show how Lower Super Output Areas (LSOAs- a statistical division with a mean population of 1,500 people) perform against various indices of deprivation, namely:

- Income deprivation;
- Employment deprivation;
- Health deprivation and disability;
- Education, skills and training deprivation;

- Barriers to housing and services;
- Living environment deprivation; and
- Crime.

The scores against each individual index of deprivation are merged to produce an LSOA score on an index of multiple deprivation. The scores are then ranked, with the most deprived LSOA in England ranked 1st and the lowest ranked 32,482nd.

The ranking of each LSOA in the study area was scored from 1 to 10 according to the decile of English multiple deprivation within which it fell. For example, if a particular LSOA was ranked in the top ten percent most deprived in England, it was given a score of 1, whereas if it fell into the 10-20% least deprived, it got a score of 9.

The scores were then mapped, providing an at-a-glance indication of deprivation in and adjacent to each strategic site. If the strategic site showed high levels of deprivation, the adjacency argument (whereby new development, if designed and implemented in a sustainable and careful way, can have beneficial effects on existing development) would indicate that new development has the potential to lift the area and generate positive effects in terms of employment, health, education and other indicators of well-being.

By contrast, where there are lower levels of deprivation, it is likely that new development would be unlikely to have a significant effect on local deprivation rankings.

Barriers to Housing and Services

The Barriers to Housing and Services Domain measures the physical and financial accessibility of housing and local services. The indicators fall into two sub-domains: 'geographical barriers', which relate to the physical proximity of local services, and 'wider barriers' which includes issues relating to access to housing such as affordability and homelessness.

Growth on strategic sites in close proximity to areas that experience barriers to housing are interpreted as being more suitable for housing development on this criterion, on the grounds that an increased supply of housing in the area would help correct existing mismatches between supply and demand. In the same way, those strategic sites where affordability pressures are less severe were considered less suitable for housing development on this criterion, as demand for housing is lower in these locations.

Economic development

This criterion relates to the location of employment and is based on the principle that homes should be built close to places of work in order to reduce commuting distances and thus reduce the need to travel. Each strategic site was assessed on its location relative to existing major employment locations and evidence on clusters.

It was assumed that potential for economic development was higher in strategic sites with a track record of being attractive locations to major employers.

This criterion also takes into account existing and planned transport infrastructure in each strategic site and therefore interacts with the transport criterion to some extent. Employers tend to demand good access to road, rail and air transport. It may be, therefore, that some strategic sites with low levels of existing economic activity may be 'unlocked' for economic development if new transport infrastructure is delivered.

Local integration

This final criterion covers any other factors considered important in terms of the spatial extent and boundaries of new development and the potential for integration with the existing built up area of Harlow. This includes the need for new development to seek to avoid coalescence between Harlow and nearby existing free-standing settlements. Likewise, where defensible boundaries to development exist, they can be regarded as a spatial opportunity for limiting development and protecting valued landscapes. Opportunities for improved physical linkages were also considered.

**Infrastructure capacity and provision of local services**

Infrastructure covers a range of services and facilities provided by public and private bodies. In this report, the following types of infrastructure are included under the heading of infrastructure:

- Social and community infrastructure: health and education
- Physical infrastructure i.e. utilities: power generation and supply, water and sewerage
- Green infrastructure: green spaces and landscape corridors

Transport capacity and infrastructure is covered under a separate heading. In the case of utilities infrastructure the capacity of the existing infrastructure has been taken into account through consultation with statutory providers, and whether infrastructure would be a constraint to development. For social, community and green infrastructure, it has been assumed that large scale development would necessitate new infrastructure such as schools, health services and open space and consultation with promoters has revealed emerging thinking on required infrastructure items.

To ensure developments are sustainable, they need to be located to maximise use of existing infrastructure capacity where possible and to be of a critical mass to sustain the provision of new infrastructure where it is not already available.

Infrastructure capacity and potential considered as part of this assessment was based on the existing planning evidence bases of the three relevant local authorities and through consultation with infrastructure providers. The aim was to understand the extent to which development in each of the strategic sites could be met by existing capacity and/or committed/likely reinforcements. For each strategic site, the infrastructure analysis helped to identify any key areas of concern that will require mitigation, the potential capacity of existing infrastructure to absorb new development, the extent to which new infrastructure would be required, and if so, what type.

Engagement with Essex and Hertfordshire County Councils, Local Authority Planning teams and external Infrastructure service providers (utilities, transport and healthcare) revealed a number of key infrastructure capacity issues in and around Harlow:

- M11 Junction 7 congestion
- Harlow town centre congestion
- A414 corridor peak time congestion
- Peak time congestion into London on M11
- Surplus provision of primary and secondary places, however some localised capacity issues related to primary schools in Harlow
- Poor level of patients per GP provision within West Essex CCG
- Acute hospitals operating near capacity in Princess Alexandra Hospital NHS Trust
- Poor level of patients per FTE GP provision in Epping Forest District
- M11 Junction 8 peak time congestion

Whilst this report does not represent a detailed infrastructure capacity assessment these issues were explored in consultation with the relevant agencies (see below) and considered in the assessment of the strategic sites.

# 2.2 Statutory consultee feedback

An important element of this study has been to engage with sub-regional, regional and national stakeholders to gauge their views on the relative merits of the strategic sites put forward by promoters for future growth in and around Harlow. The following organisations were engaged for the purposes of this study:

- Essex County Council
- Hertfordshire County Council
- Natural England
- Historic England
- The Environment Agency
- The Homes and Communities Agency (ATLAS)

- Princess Alexandra Hospital NHS Trust
- Sport England
- Highways England
- Network Rail
- Abellio Greater Anglia
- Thames Water

Professional views from the various organisations were sought and requests made for specific views or technical information on the constraints, opportunities, priorities, strategies and requirements relevant to the potential sites/broad areas of growth (i.e. north, south, east, and west). The extracts below summarise the key information supplied.

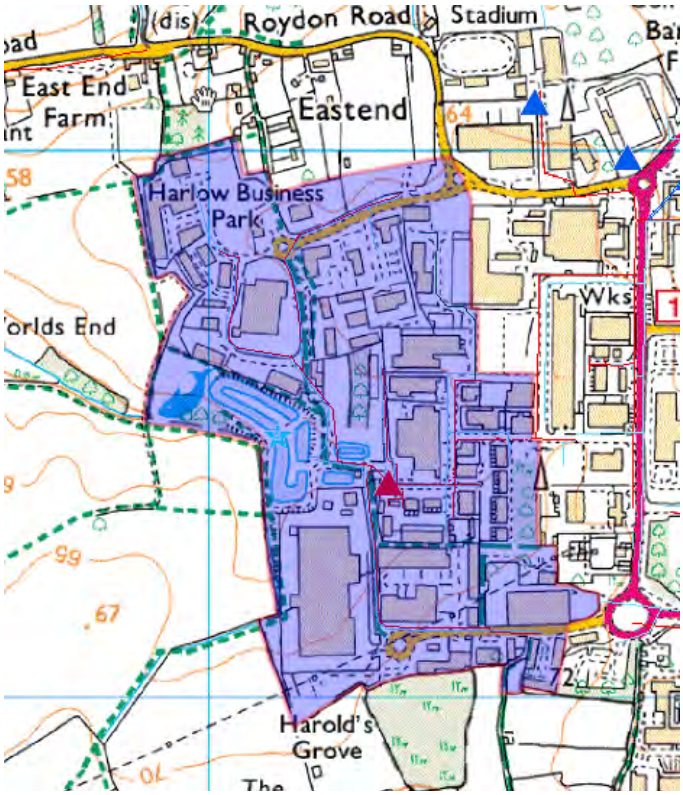
Highways England

- **M11 Junction 7 -** near to operating capacity with development already permitted, further growth would increase pressure as traffic demand grows. Committed Road Investment Strategy ('RIS') 1 scheme (2015-2020) which should bring the junction back up to capacity in the short term.
- **Junction 7a -** proposed that development in and around Harlow contributes to the cost of the junction. This scheme is not included in any major infrastructure programme at present. Evidence from the local plans will need to be robust in supporting the case for a scheme, which could be promoted thought the future RIS.
- **Infrastructure timing** - critical that bus services, schools, surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs don't come forward with the housing, resulting in commuting.
- **Design** - can also have a positive effect upon sustainable transport. For example, it is imperative that all new dwelling have somewhere to store bikes
- **Potential to improve links** - to town centre, rail station and employment sites and potentially to other development sites around the town (e.g. Site M Latton Priory)

Thames Water

- **All sites** eventually feed into the same sewer located on the Eastern side of Harlow which then drains to Rye Meads (Eastern Outfall – Harlow Sewerage Drainage Area Catchment 'SDAC'). This means that there is a common sewer capacity restriction
- **Limited capacity** to accommodate additional flow in current sewer system. Currently enhancing the hydraulic sewer model (based on the expected growth). Until complete, TW do not have a clear view on how much development the pubic sewer system can accommodate prior to infrastructure reinforcement. The current Eastern Outfall – Harlow SDAC already accommodates circa 40 000 dwellings
- **East of Harlow –** can't connect into local sewer system (too small to accommodate proposed development). Need to upgrade system or connect directly to the Eastern Outfall – Harlow SDAC
- **West of Harlow / East of Roydon** – can't connect into local sewer system (too small). Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC
- **Land west of Pinnacles** (see Figure 5 overleaf) - most likely can't connect into the local sewer system (too small). Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC.

***Figure 5 Area identified by Thames Water***




Network Rail

- **Recognition that Crossrail 2 / four-tracking proposal** between Broxbourne and Tottenham Hale can make to enhancing the network's capacity and improving journey times along this line and to Stansted
- **Level crossings -** of particular interest due to impact on stations. Once sites have been selected, Network Rail would require that the developers and Councils liaise with them to determine the impact of the developments, due to the increase in road and pedestrian/passenger use, on the affected level crossings (in particular at Roydon and between Roydon and Harlow Town), and any mitigations required
- **Sites A and E (North) and sites K, M, N and O (South) -** stand out in respect of the level crossing issue if accompanied by employment proposals
- **Station enhancements –** for sites **A/D/E/F/G (North), H/I (East) and P/S (West)** the impact on the existing stations will need to be understood, as they may need to be enhanced (e.g. car parking, accessibility, facilities) depending on the forecast increase in use. Roydon and Harlow Mill are of particular interest due to their current facilities, although Harlow Town would also need to be reviewed.

Historic England

- **West** - important to retain the character and separation of these historic settlement In keeping with the original Gibberd principles
- **North** – the countryside retains its historic grain and character. The juxtaposition with Hunsdon airfield is also interesting. Gilston Park and the associated historic buildings, together with Hunsdon House are very fine examples.
- **East** - perhaps of less high quality. The Gibberd Garden would certainly benefit from safeguarding. Never-the-less, building up against the motorway would seem to run counter to Gibberd's new town principles
- **South** - Latton Priory and its setting within open countryside is undoubtedly important, as is the green wedge, which formed part of the original new town principles and is important to retain.
- **Sites K, N and O (South)** - may have impacts upon the landscape setting and also would seem to run counter to the spirit of Gibberd by building up to the motorway

Environment Agency

- **Sites within flood zones 3b, 3a and 2 -** want to see the Sequential Test carried out (using the relevant, current Strategic Flood Risk Assessment as a starting point) and a sequential approach used to the design of the sites to reduce flood risk. The few sites with 1:100 year +20%cc have been identified (Site G and P). It must be noted that any new development will require the new climate change allowances applied and this may increase the risk of flooding particularly in larger developments. There are no identified EA flood management projects (i.e. flood alleviation schemes) planned in this area currently. Requested that Herts & Essex CC input into surface water flood risk discussions for the preferred sites
- **Sites containing main rivers** - river channel / corridor improvements and a minimum of an 8 metre undeveloped buffer zone either side of the watercourse. EA support the action to open up any culverted watercourse, and happy to support discussions in concept and design stages – which may be essential, as working with the EA they can ensure designs comply with Water Framework Directive (WFD) standards, and avoid local deterioration in status.
- **Invasive non-native species** - Himalayan Balsam and Floating pennywort present along Stort, likely to be on other brooks too. Opportunity to engage with communities, local wildlife trusts and landowners should be sought in long term management/eradication approach
- **Migration routes intercepted by bridges (e.g. infrastructure)** - seeking clear span to facilitate both high flows and wildlife migration routes (in both directions). Throughout the Stort and Lee Valley a wish to establish and facilitate native riparian mammal distribution. The Manual for Roads and Bridges Design is a recommended guidance document.
- **Strategic LWS and other designated sites along riparian corridors** - e.g. Eastwick Mead LWS, and primarily Stort. It is the long term aspiration of Herts Middlesex Wildlife Trust, NE and EA to increase riparian connectivity through the protection, retention and creation of a variety of wetland habitats along the riparian corridors.

Natural England

- **Sites H, I and J (East)** - have relatively easy access to M11 at J7 (and proposed new J7A) should result in lower risk of increased traffic and associated air pollution affecting Epping Forest SSSI and SAC.
- **Sites P, Q, R, S, T, U and V (West)** - have difficulty of access to M11 at J7 (or proposed new J7A) is likely to result in increased risk of traffic using B181, leading to increased traffic and associated air pollution affecting Epping Forest SSSI and SAC.

Essex County Council

- Modelling by Essex County Council undertaken to date (as at September 2016) demonstrates that growth of between 14,000 and 17,000 new homes in and around Harlow can be accommodated provided that the mitigation measures set out in the Highways and Transportation Infrastructure MOU are delivered during the plan period. Modelling shows that an increase of ~14,000 units in and around Harlow would result in a ~35-40% increase in trips on network by 2033.
- Evidence suggests that growth in and around Harlow beyond 2033 is likely to be possible subject to further transport modelling and the identification and delivery of additional strategic highway mitigation measures.
- **Major improvement at Junction 7 and Junction 7A** would both be essential to deliver growth
- **Major improvements at Junction 8** would be essential for wider HMA growth, and the potential Stansted Airport expansion beyond the consented 35 million passengers per annum, to be promoted for Road Investment Strategy 2 (post 2020)
- Essex County Council Highways deem it essential to provide a robust policy framework to promote and deliver sustainable travel, to manage overall travel demand
- **Early delivery of 2nd River Stort crossing is deemed essential** to enable growth
- **North-south and east-west sustainable travel corridors** could provide significant modal shift and wider network benefits to Harlow. Sustainable travel corridors are a key element of 'garden settlement' approach. It is important to note that the north-south sustainable corridor would be contingent on a sufficient critical mass of development at M (Latton Priory) to deliver the necessary infrastructure including access to the M11 in addition to the corridor.
- Essex County Council highways have some concerns about growth of circa 3,350 units on Site J (Land east of Harlow)

- **All or most of the primary and secondary schools are at or near capacity** - or will be in the next few years i.e. there are no pockets of surplus provision that new development could help to fill
- **It is generally the size of site rather than its location -** that dictates whether or not new capacity would need to be provided as part of a development on strategic sites
- **Access to existing secondary schools** - some of the sites to the west of Harlow may make safe/convenient access by foot or bike more difficult because of distance. Creating safe walking, cycling and travel routes and encouraging more pupils to walk and cycle to school is one of the best ways to reduce the need for transport.
- Essex County Council did not provide guidance on how many homes in a particular location would trigger the delivery of a new education facility. However, the Council's Developers' Guide to Infrastructure Contributions, revised edition 2016, suggests that 700-1400 new homes equates to one form entry of primary school children and 1050-2100 new homes to one form entry of secondary school children.

Sport England

- **All large sites** – will require some on-site sports facility provision especially outdoor sports
- **Site T** - If this site was selected for development, the playing fields would have to be retained (preferable) or relocated on a like for like basis to accord with NPPF (para 74). Sport England would object to a future application unless playing fields are retained or replaced.

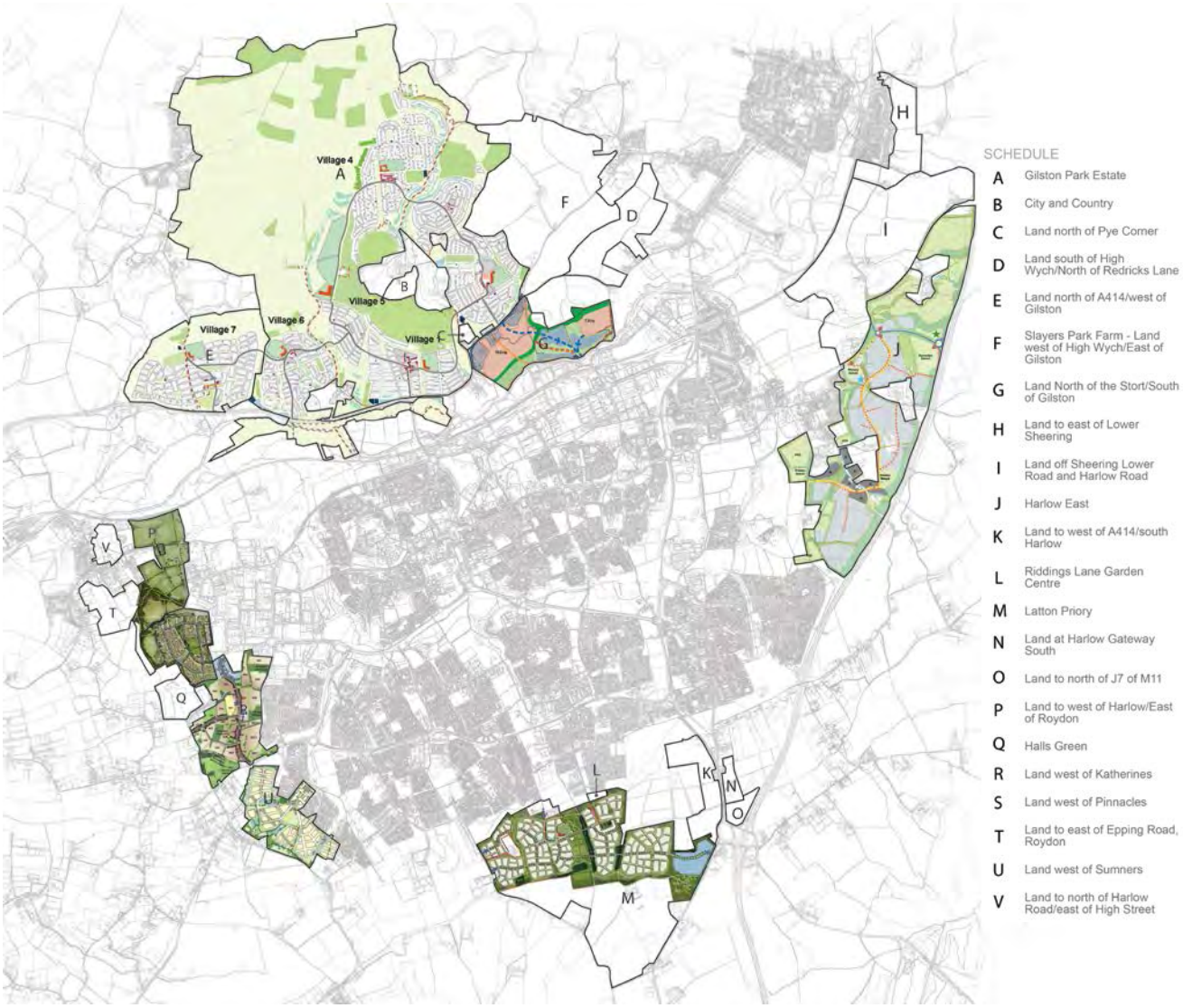
# 2.3 Site promoter feedback

An important element of the study was to engage with landowners, promoters and developers to refresh the information held by the respective Councils via previous strategic housing and employment land availability assessments (HELAA) and any pre-application or live application processes through the development management stage.

Up to date evidence and information was requested to understand the constraints and opportunities for each location. In addition, a pro-forma based upon typical HELAA requirements was sent to all promoters with requests to populate. The pro-forma also had sections on detailed deliverability, as informed by discussions with the Homes and Communities Agency ATLAS team, to help collect crucial infrastructure/viability information. Information and evidence supplied by promoters has fed into the relevant sections of the site assessment pro-forma and has been shared with the respective Councils in order to inform future updates to their individual evidence base.

Overleaf (Figure 6) is a composite of the concept plans and masterplans shared with AECOM through this process. The composite masterplan image was used to gauge the location of access points and strategic infrastructure and indicate possible net developable areas. This information was shared with the Councils and statutory consultees in order to gauge more informed comments on the relative suitability of the sites, including feeding into updated transport modelling by Essex County Council Highways.

*Figure 6 Composite of submitted masterplans*



# 2.4 Pro-forma assessment summaries

**Site A Gilston Park Estate**
*Site size ~1,015 hectares*
*Promoter's indicative capacity - 10,000 units*
*Density - 30 dwellings per hectare*

Environmental context: The area south of the A414 is within Flood Zone 2 and 3 (covering 4.7% of the southern end of the site); in addition land south of A414 is shown within area of High to Medium risk of pluvial flooding 60% of the site is grade 2 (60%) agricultural land and involve the loss of best and most versatile land. The south west corner of Site is less than 500m to Hunsdon Mead SSSI and the site also contains Deciduous Woodland (UK priority habitat) and Ancient Woodland (but any possible impacts can be mitigated). South of the site below the A414 is within Coastal and Floodplain Grazing Marsh Priority Habitat. The features and species may not be retained in their entirety but impact can be mitigated.

Geo-environmental: There are few issues impacting Site A with low leaching potential, mainly Source Protections Zones 2, 3 and 4, medium incidence of Radon and no known contamination on site.

Landscape and Green Belt: Gilston Park is referred to in HCC documentation on historic parks and gardens. East Herts LCA characterises the area as having Moderate Character and Moderate Condition. The site sits across two East Herts LCA landscape areas (81 and 83), 81 indicates that development and land use change would inevitably have an effect on the landscape character, whilst 83 states this area also includes large tracts of unremarked landscape. The 2015 Green Belt Review rates the site as having "Very Low" suitability for development and that "Land is Fundamental to the Green Belt" (Site ref. 51 & 52). Site is within Green Belt, where the level of harm caused by release of the land for development would be moderate, high or very high. Gilston Park Estate plays a role in preserving the openness of the Green Belt. If the southern parts of the site were to be developed, it would act as a break in the continuity of the Green Belt, and in theory, permit for the sprawl of Harlow to north. Development of this land would bring the north of Harlow closer to the settlement of Hunsdon.

Heritage: The site contains numerous Listed Buildings and Scheduled Monuments. The site includes three scheduled moated sites, scheduled World War II defenses (in fourteen separate areas) and numerous listed buildings. Highly graded listed buildings include the Grade I listed St Mary's Church in Gilston (with a separately listed Grade I monument), the Grade II* Gilston House, the Grade II* St Botolph's Church in Eastwick and the Grade I Hunsdon House and Grade I St Dunstan's Church in Hunsdon. There are also many non-designated heritage assets within and surrounding the site, including assets of archaeological interest. The size of site should mean it is possible to mitigate but it would need to be managed in a masterplan.

Transport & accessibility: VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable. Third party land not currently in promoter's control and would be required to deliver off site transport works, but third party has indicated willingness. There are currently public footpaths that cross the site. Access is from the A414 and would require new crossings over the River Stort as development progresses to facilitate high quality pedestrian, cycle and public transport links with Harlow. The M11 Junction 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. It is the largest site in and around Harlow with good potential to link to the town centre, rail station and employment sites and potentially to other development sites around the town e.g. aspiration for a sustainable north-south link with Site M (Latton Priory).

Regeneration potential: Though the site is not in an area of high deprivation, area has significant potential to address high levels of deprivation across Harlow as a whole. Development of site would have a strongly positive impact on access to housing and local services. Large scale of the site will in itself have strongly positive economic impact, likely transformative for town if appropriately integrated; site physically closest to Harlow Town station and town centre, thus likely to enhance its

vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. River Stort and its flood plain mean that local integration would be challenging, even with an additional river crossing, although presence of the stations to the south would mean some gravitational pull towards the town. Emerging masterplan envisages freestanding villages.

Infrastructure capacity and provision of local services: Overhead power lines cross part of the site. The site promoter has provided an indication of the physical infrastructure that is likely to accompany development (at a level of growth of ~10,000 units):

- Primary road network
- 3 new access points to the site
- Bus infrastructure
- Substation
- New crossing of the River Stort adjacent to the Eastwick Crossing
- Burnt Mill roundabout signalisation
- Replacement of existing roundabout at the A414 Fifth Avenue junction with traffic signals
- Provision of northern station access

Development would not involve the loss of public open space. The promoter envisages that Green Wedges will provide usable open landscape between neighbourhoods and a connection to the countryside. The site promoter has provided an indication of the green and blue infrastructure that is likely to accompany development:

- Cycle routes and footways within the site and connecting the site to the surrounding area
- 840ha of green space
- Sustainable urban drainage systems (SUDS) such as swales and holding ponds are proposed to reduce the risk of flooding.
- On site waste water treatment facilities
- Contribution to the upgrade of the off-site water mains and onsite water supply infrastructure

The site promoter has provided an indication of the social infrastructure that is likely to accompany development (planned infrastructure related to circa 10,000 units over two plan periods):

- 5 primary schools
- 2 secondary schools
- Leisure centre
- 2 primary care centres
- Community centre and Place of Worship
- Police station
- 6 crèches

*RATING:* ***SUITABLE***

Dependent on access to the site, the second Stort crossing would be required during the plan period according to Essex County Council Highways team. The scale of the site and potential for comprehensive planning is in its favour. The site could provide a large amount of the housing pipeline for the HMA over at least two plan periods. Due to its scale it would require early provision of infrastructure commensurate to the level of growth envisaged prior to 2033. The promoter has supplied an ambitious trajectory based on their own viability evidence. However, based on precedents found elsewhere it is likely that the site could yield ~3,000 units (at delivery rate of approximately 300 units per annum) prior to 2033 (see deliverability analysis in Section 3 of this report).

**Site B City and Country**
*Site size ~7.5 hectares*
*HELAA indicative capacity - 160 units*
*Density – Not identified*

Environmental context: Flood Zone 2 and 3 are present on the north-eastern boundary of the site. The Eastern boundary is shared with waterbody with high to medium risk of surface water flooding. Development would involve loss of a small amount of the best and most versatile agricultural land (grade 1 and 2). Southeast and eastern edge of the site intersects with Deciduous Woodland Priority Habitat. Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations).

Geo-environmental: No issues highlighted.

Landscape and Green Belt: Gilston Park is referred to in HCC documentation on historic parks and gardens. East Herts LCA characterises the area as having Moderate Character and Moderate Condition. East Herts LCA indicates that built development and land use change in the corresponding landscape area (81) has not created significant landscape impact. This area is on the fringe of an existing settlement so with correct landscaping, could have minimal landscape impact. The Green Belt Review, rates the site as having “Very Low” suitability for development, and that “Land is Fundamental to the Green Belt” (Site ref. 51). However, no significant Green Belt impact would result from the development of such a small site. It would comprise a small extension from the existing buildings surrounding Gilston Park house.

Heritage: The site includes two listed buildings and is within 50m to 500m of eleven others. The site is also in close proximity to an area of archaeological interest. No statutorily designated historic assets within the site. However, Gilston Park grade II* and remains of original house (New Place) at Gilston Park to the north of the site. Potential impact on setting of high grade listed asset and other listed building. Careful design would be needed due to adjacent listed buildings in order to maintain their setting.

Transport & accessibility: It is a comparatively small site which on its own is unlikely to have a material impact upon the Harlow town network or SRN (strategic road network) and is generally isolated from services.

Regeneration potential: In general, development in this location would help to address barriers in access to housing and services experienced locally. The site is physically close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. However, small size of site means regeneration potential is only moderate and it is reliant on integration with Site A.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING: **POTENTIALLY SUITABLE***
The site only really makes sense in strategic terms if viewed as part of a wider development in the north with Site A.

**Site C Land North of Pye Corner**
*Site size ~2.5 hectares*
*Promoter's indicative capacity - 50 units*
*Density – Not identified*

Environmental context: The site is close to sensitive habitats being located within 400m -1km to Harlow Marsh LNR and Lowland Fens (Priority Habitat Inventory). However, no effect as features and species could be retained or due to distance of local wildlife sites from site/BAP priority habitats from site. A small area of high risk of surface flooding can be found in the centre of the site, with a medium risk of surface flooding on the southern boundary of the site.

Geo-environmental: No issues identified.

Landscape and Green Belt: East Herts LCA characterises the area as having Moderate Character and Moderate Condition. East Herts LCA indicates that built development and land use change in the corresponding landscape area (81) has not created significant landscape impact. This area is on the fringe of an existing settlement so with correct landscaping, could have minimal landscape impact. The Green Belt Review, rates the site as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 52). However, no significant Green Belt impact would result from the development of this small site representing a single field in close proximity of wider growth in the north and proximity to an area of search for the second Stort crossing.

Heritage: The site is within 50m of listed buildings and within 500m of a scheduled monument, with potential to mitigate any impacts on setting. No statutorily designated historic assets within the site. However cluster of grade II listed buildings to the south of the site in Gilston village. Need to consider impact on setting of listed buildings.

Transport & accessibility: Small site which on its own is unlikely to have a material impact upon the Harlow town network or SRN (strategic road network). A low impact but isolated from services.

Regeneration potential: In general, development in this location would help to address barriers in access to housing and services experienced locally. The site is physically close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. However, small size of site means regeneration potential is only moderate and it is reliant on integration with Site A.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING:* ***POTENTIALLY SUITABLE***
The site only really makes sense in strategic terms if viewed as part of a wider development in the north with Site A.

**Site D Land South of High Wych / North of Redricks Lane**
*Site size ~50.5 hectares*
*HELAA indicative capacity- 2,117 units*
*Density – Not identified*

Environmental context: Development would involve some loss of best and most versatile agricultural land (grade 2). There is a pocket of Woodland Priority Habitat in the southern tip of the site and the site is located within 400m – 1km to Grassland, Woodland and Lowland Fens Wetland Priority Habitats. Features and species could be retained and there are opportunities to enhance existing features.

Geo-environmental: The site intersects with Source Protection Zones 1 and 2.

Landscape and Green Belt: East Herts LCA characterises the area as having Low Character and Moderate Condition and that built development and land use change in the corresponding landscape area (81) has had high impact on the area condition. Development for site F would have to make special consideration for preserving the village character of High Wych. The LCA recommends encouraging the reduction of urban impact by dense woodland planting around settlements. From the outside, views to this area are largely concealed, though there are some visual links with the industrial area to the North of Harlow. There is also widespread visual impact on the development from suburban development and a transport corridor running through the south of the site. Though development would cause significant visual impact, considering the land condition is rated low, and there are already surrounding visual disamenities. The Green Belt Review rated the site as having “Very Low” suitability for development, and that “Land is Fundamental to the Green Belt” (Site ref. 55). Development of this site would risk coalescence of Harlow and High Wych. It would also obstruct connectivity between the green belt land north of High Wych Road and the land south of road. The associated risks for release suggest that it is unsuitable for development.

Heritage: The site is adjacent to Conservation Area at the tip of site and less than 50m from listed buildings and archaeological event, feature or find. Redricks Farm house and stable, are both grade II, Aisled barn grade II* to south of site. Rowney Farm to north west of site. Proximity to High Wych Conservation Area to north east (which includes The Church of St James the Great grade II* and a number of other grade II listed buildings). Potential impact on setting of high grade and other listed buildings and the Conservation Area. Therefore there is potential to affect the setting of Listed Buildings and Conservation Area.

Transport & accessibility: Site D is a large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Junction 7 and Junction 8 but could be mitigated with the potential to improve public transport, cycling and/or walking. The access is uncertain and would need further testing before being determined.

Regeneration potential: The site is very well located for the enterprise zones, existing industrial estates and the rail corridor, and on the right side of settlement for access to the M11. However, it is isolated from the town and so little regeneration potential exists.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING:* ***UNSUITABLE***
A critical issue with this site is its isolated location and potential to cause coalescence with High Wych.

**Site E – North of A414/ West of Gilston**
*Site size ~117 hectares*
*Promoter's indicative capacity - 10,000 units (included alongside site A)*
*Density - 30 dwellings per hectare*

Environmental context: Development would involve some loss of best and most versatile agricultural land (grade 2). The site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site. Whilst development here is not likely to be significant alone, the site will need to be checked for in-combination effects on the RAMSAR and SPA. A pocket of Woodland Priority Habitat is in the southern tip of the site and is in close proximity to Grassland Priority Habitat. Though features and species could be retained and there are opportunities to enhance existing features.

Geo-environmental: More than 30% of homes are at or above the Action Level for Radon. The site also intersects with SPZ 2, 3 and 4.

Landscape and Green Belt: East Herts LCA characterises the area as having Moderate Character and Moderate Condition. The area of this particular site raises concern as it would inevitably have an effect on the landscape character. The Green Belt Review rated the site as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 49). Removal of this site from the Green Belt would be significant as the site sits on the edge of the outer perimeter of the Green Belt.

Heritage: The site contains two listed buildings, and is within close proximity to a number of listed buildings and two scheduled monuments (<500m). Brickhouse Farmhouse and Barn and attached stable - both grade II listed within development site. Cluster of listed buildings including Hunsdon House and parish Church of St Dunstan, both grade I listed buildings to the north of the site - will be important to consider the potential impact on setting of listed buildings both within the site and also high grade listed buildings to the north. Development of the site has the potential to affect the setting of a Listed Building or other heritage asset but it is generally a low heritage impact with the potential to mitigate.

Transport & accessibility: VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable. It is a large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Junction 7 and Junction 8 but could be mitigated with the potential to improve public transport, cycling and/or walking.

Regeneration potential: The site is not in area of high multiple deprivation, but due to scale and location (in combination with Site A), has some potential to positively impact on this criterion in western half of Harlow. Development of the site could assist in addressing barriers in access to housing and services (decile 2). Relative size of the site will in itself have a positive economic impact; the site physically close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; well located for some (but not all) existing industrial estates and the rail corridor, although distance from the M11 is considered to reduce its potential to medium.

Infrastructure capacity and provision of local services: Overhead power lines, likely to have little impact.

*RATING: **POTENTIALLY SUITABLE***
The site is worth considering as part of a wider development in the north of Harlow and its relationship with site A.

**Site F – West of High Wych and East of Gilston**
*Site size ~174 hectares*
*HELAA indicative capacity- 3,388 units*
*Density – Not identified*

Environmental context: Flood Zone 2 and 3a are on parts of site. Development would involve loss of best and most versatile agricultural land (grade 2). A local Wildlife Site is in close proximity (27/002A) and a pocket of Woodland and Lowland Fens Wetland Priority Habitat intersects the site. Impacts can be mitigated, features and species could be retained and there are opportunities to enhance existing features.

Geo-environmental: SPZs (1, 2 and 3) cover the east of the site.

Landscape and Green Belt: East Herts LCA characterises the area as having Moderate Character and Moderate Condition. The LCA indicates that built development and land use change in the corresponding landscape area (81) has not created significant landscape impact. However, the area of this particular site raises concern as it would inevitably have an effect on the landscape character. The Green Belt Review rated the site as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 52 & 55). Release of this site would remove a large chuck of Green Belt on its northern frontier which may be problematic if no reallocation occurs. Development of this land would act as a disruptor to the openness of green belt land to the north of Harlow, albeit the southern tip of site borders industrial quarry land. Development of this site could risk coalescence with High Wych. However, there may be potential for a small portion to the west to be considered alongside Site A.

Heritage: The site is within close proximity to a number of listed buildings in High Wych (<50m) and the High Wych Conservation Area to north east (which includes The Church of St James the Great grade II* and a number of other grade II listed buildings). The manor of Groves and Jeffs, both grade II are also located to the north of the proposed development site. Potential impact on setting of high grade and other listed buildings and the Conservation Area. Development has the potential to impact on the setting of historic assets.

Transport & accessibility: The site is in close proximity on its eastern edge to an existing primary school and relatively close to secondary schools, Harlow's enterprise zones, rail stations and the A414. Access can be created within landholding to adjacent highway. It is a large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Junction 7 and Junction 8. However, there is potential to mitigate these impacts.

Regeneration potential: The site is in relatively deprived location and, as such, has good potential to help address it through development. It is an area with very significant barriers in access to housing and services (1st decile). Therefore, it performs very well on this criterion relative to other sites. The site has the potential for development of a relatively large scale to make a positive economic impact. The site is only moderately close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; it is also well located for the enterprise zones, existing industrial estates and the rail corridor, and well-located for M11. However, there is generally little regeneration potential, without Site A coming forward in combination, due to the site's isolation.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING:* ***POTENTIALLY SUITABLE***
This site would be unsuitable without Site A also coming forward in combination for North Harlow. The indicative numbers highlighted in the HELAA would not be appropriate in light of the assessment findings but there may be opportunities to integrate partial development on the western side with the development envisaged for Site A. This site could be considered by East Herts in the long term as part of a the next plan period.

**Site G – Land North of the Stort / South of Gilston**
*Site size ~73.5 hectares*
*Promoter's indicative capacity - 900 units*
*Density – 30 to 37.5 dwellings per hectare*

Environmental context: High fluvial, pluvial and groundwater flood risk (including flood zone 3). The site sits within a high biodiversity area and is adjacent to Harlow Marsh LNR and contains Woodland Priority Habitat on the southern edge of the site. Features and species unlikely to be retained and impact cannot be mitigated.

Geo-environmental: There is potential for contamination due to status as a former landfill site and so would need remediation.

Landscape and Green Belt: East Herts LCA characterises the area as having Moderate Character and Moderate Condition. East Herts LCA indicates that development in the area should be resisted if within or adjacent to the floodplain as it is the source of much of the ecological character for the area. The wetland habitats in particular require conservation considerations. The area is highly valued by the community, and is recognised as a High Biodiversity Area. Though views are restricted, community and ecological damage are hard to avoid in the non-industrial sections of the site. The more industrial areas of the site offer opportunities for landscape enhancement. On balance, this site both has the potential to improve and detract from the landscape character of the area. The Green Belt Review rates the site as having "Very Low" suitability for development and that "Land is Fundamental to the Green Belt" (Site ref. 53). Though the area is rated unsuitable for development in the green belt review, this site would not significantly impact on the openness of the Green Belt. It would be unlikely to make a large contribution to the sprawling of Harlow as it is disconnected by transport despite its proximity to the urban periphery. The site contains some low quality industrial land and its development would not significantly be of detriment to the environmental value of this area of Green Belt.

Heritage: The site is within close proximity to a number of listed buildings (<50m) and archaeological event, feature or find (50m - 500m), with potential to mitigate any impacts on setting. Pole Hill grade II listed building within the site. Also a cluster of grade II listed buildings to the west of the site in Gilston village. Need to consider impact on setting of listed buildings.

Transport & accessibility: The site is in close proximity to public transport, public footpaths and local services. Access issues need to be determined once the scale of development is known for North Harlow including the need for a second Stort crossing prior to 2033. It is a large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Junction 7 and Junction 8. However, there is potential to improve public transport, cycling and/or walking.

Regeneration potential: Though the site is itself largely outside an area of significant deprivation, it is directly adjacent to the deprived urban edge, and as such is considered to have a strong potential to have a positive impact. The site is in an area of mixed housing need but considering the wider context, development is likely to have a positive impact for access to housing and services. The development is likely to have a positive economic impact due to the on proximity of industrial estates, enterprise zones and M11. However, the site is a little further from town centre, so less of a positive impact on its viability and vitality. Potential exists to form a link between any new communities to north and existing town.

Infrastructure capacity and provision of local services: There is high potential for blue infrastructure, flood amelioration and access improvements (second Stort crossing).

*RATING: **POTENTIALLY SUITABLE***
This site would be unsuitable without Site A also coming forward in combination for wider development in the north of Harlow, and could assist with the delivery of a second Stort Crossing. Flood and access issues would need to be adequately provided for if allocated for development.

**Site H – East of Lower Sheering**
*Site size ~37.5 hectares*
*HELLA indicative capacity- 1,049 units*
*Density - Not identified*

Environmental context: The site has little environmental designations that would prohibit development. However, development would involve some loss of the best and most versatile agricultural land (grade 3). Site is close proximity to Grassland Priority Habitat and Woodland Priority Habitat. Features and species may not be retained in their entirety but impact can be mitigated

Geo-environmental: Generally few issues, although potential contamination over parts of the site (including piggeries, maltings, infilled pit/ponds and landfill within 250m), which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District Landscape Character Area B1 and designated as being of High Landscape Sensitivity. High Sensitivity also identified in the Settlement Edge Landscape Sensitivity Study. Area B1 has a high sensitivity to change and offers views down the valley towards the River Stort. It is rated as relatively tranquil due to this setting and the sense of enclosure as a result of lots of vegetation. Rated as having “Relatively Strong/Strong” contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1, and High contribution to Green Belt purposes in the Stage 2 report (2016), so the suitability for development is low (area ref. DSR-002). The land is predominantly agricultural in character, and sits between Lower Sheering and the M11 and railway line. Development of this site would have a notable impact on the openness of this narrow wedge of land between the two arterial transport infrastructure elements.

Heritage: The site has two Listed Buildings and a small part of a Conservation Area. There is also a Scheduled Monument in close proximity to the site. The substantive portion of the site does not contain any heritage assets. New House Farmhouse and Barn both grade II listed to the west of the site and Walnut Cottage grade II to the north east. Also locally listed building to the west. Need to consider potential impact upon setting of listed buildings. There is an opportunity to manage development to avoid harming the heritage assets and help to further reveal their significance and enhance the setting.

Transport & accessibility: The site is moderately well positioned to public transport (e.g. Sawbridgeworth Station adjacent to site), local employment areas and local services. It is not well positioned for access to the strategic road network and to Harlow. Access to the site already exists but Sheering Lower Road is unsuitable for higher levels of traffic generated by the site, especially towards Harlow. There is potential to improve public transport, cycling and/or walking.

Regeneration potential: The site is small and development here is likely to have little impact on deprivation levels which are low already. However, there are barriers in access to housing and services (decile 2) therefore development of this site would have a positive impact on this criterion The site is remote from economically deprived areas in Harlow and is relatively small. However, excellent access to the M11 and Stansted airport (should Junction 7A be delivered) raises its potential for economic growth to at least moderate. However, there are few opportunities to connect into Lower Sheering due to layout of village and the site is divorced from the centre of Harlow (even if there were to be development of Sites I and J).

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING: **PROBABLY UNSUITABLE***
This site would be best considered for smaller scale local development as part of Epping Forest District Council’s wider spatial strategy. Development here would be extension to Lower Sheering/Sawbridgeworth and the site does not have a close relationship with Harlow or future development to the East of Harlow.

**Site I – Land off Sheering Lower Road and Harlow Rd**
*Site size ~164.5 hectares*
*HELAA indicative capacity - 1,550 units*
*Density – Not identified*

Environmental context: Part of the site is within Zone 2 and 3 due to a watercourse traversing site from east to west. However, some 94% of the site is in flood zone 1. Higher flood risk areas 2 and 3a, covering 6% of the site, are located in the southern part of the site and flood risk can be mitigated through site layout. Pincey Brook Meadows Local Wildlife Site covers a small part of site and would need to be retained. The site is in close proximity to Grassland Priority Habitat and contains Woodland Priority Habitat also. Development would involve the loss of some of the best and most versatile agricultural land (grade 2 – 3). Site adjacent to or contains Ancient Woodland and TPOs exist but at a sufficiently low density that removal could be largely mitigated. Features and species may not be retained in their entirety but impact can be mitigated.

Geo-environmental: There is high leaching potential in part of the site and potential contamination on site, which could be mitigated (Filled Clay Pits, Gravel Pits and Ponds, Offsite Landfill Site within 250m and Farmyards). More than 30% of homes would be at or above the Action Level for Radon.

Landscape and Green Belt: The site lies across two Landscape Character Areas - B1 has a high sensitivity to change whilst C1 has moderate sensitivities. The Settlement Edge Landscape Sensitivity Study notes a Sensitive Historic Landscape (pre-18th Century fields in northern part of site). Part of this site rated as having “Relatively Strong/Strong” contribution to Green Belt purposes on its western edge, “Moderate Contribution” on eastern half in the 2015 Epping Forest District Green Belt Review Stage 1, and mostly Very High contribution to Green Belt purposes in 2016 Stage 2 report, so the suitability for development is low (area ref. DSR-002 & DSR-004). Development between the railway line to west and the M11 would result in reduction of openness of Green Belt.

Heritage: The site includes a Registered Park and Garden in the southern part of the site (The House, March Lane also referred to as the Gibberd Garden). The site is also in close proximity to a Registered Battlefield and Scheduled Monument. Also includes two grade II* listed buildings (Durrington Hall and Aylmers) as well as a number of grade II listed buildings and locally listed buildings. Also Sheering hall grade II* listed just to the east of the site. Potential impact upon listed and locally listed buildings. There is an opportunity to enhance significance of the historical assets/ further reveal their significance / enhance their setting.

Transport & accessibility: The site is relatively poorly positioned to public transport (with only two bus stops on the southern boundary of Sheering Road and being approximately 1.5km to both Harlow Mill and Sawbridgeworth rail stations) and the strategic road network (approximately 1.5km). Access to the site already exists but would require improvement, there is potential for park and ride and improvements for public transport, cycling and/or walking. However, while access to the sites could be improved with J7a in place, the site is still relatively dislocated from the urban edge of Harlow and would remain so even with the development of Site J.

Regeneration potential: In general terms, the site is in an area of low deprivation and distant/detached from areas of multiple deprivation. The Site is in an area of high housing need and as such would have a positive impact on this criterion. The site could become well located for the M11 (should Junction 7A come forward) and Stansted Airport. However, it is more distant from Harlow Town station and the town centre, thus having a negligible effect on its vitality and viability. Whilst it is on the right side of town for the Enterprise Zones, and some industrial estates, it is relatively distant from them. There is no integration potential without wider development.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING: **PROBABLY UNSUITABLE***
The site is principally unsuitable due to the likely Green Belt impacts. The site is not well related to Harlow and would still be questionable even with the development of Site J.

**Site J – Harlow East**
*Site size ~267.5 hectares*
*Promoter's indicative capacity - 3,850 units*[7]
*Density - 35 dwellings per hectare*

Environmental context: Site largely within Flood Zone 1 but the northern tip of site within Flood Zone 2 and 3 due to watercourse traversing site. Development would involve the loss of some of the best and most versatile agricultural land (grade 2-3). The site contains pockets of Priority Woodland. Features and species could be retained and there are opportunities to enhance existing features.

Geo-environmental: A small part of the western corner is within a Low Productivity Aquifer. There is Potential contamination on site, which could be mitigated. Between 10-30% of homes would be at or above the Action Level for Radon.

Landscape and Green Belt: The site lies across three Epping Forest District LCA landscape areas - B1, C1 and C2. B1 has a high sensitivity to change whilst C1 and C2 have moderate sensitivities. The Epping Forest District part of the site has High Sensitivity in the EFDC Settlement Edge Landscape Sensitivity Study. The northern part of this site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the Epping Forest District 2015 Green Belt Review Stage 1 (ref. DSR-003), and Very High in the 2016 Stage 2 Report. The southern part of site is in the Harlow Green Belt Review (2016) and given a total score of 3 out of 8, indicating that generally the site is poorly functioning as green belt. Some small areas of the site are indicated to have potential for re-designation as 'Green Fingers' (ref. 8.1, 8.2 8.3, 8.4). Release of this land would impact on openness by enabling Harlow to sprawl. The differing scores within the Harlow and Epping Forest District Green Belt reviews reflect the scale of the site and differing characteristics found from north to south, including its relationship to the existing built edge of Harlow. The Epping Forest District and Harlow Green Belt Reviews have reached differing conclusions as a result of the parcel sizes and in recognition of the different characteristics of the site overall. The M11 can act as a significant barrier/defensible boundary. Development on site J would sever the Green Belt in the south east and north east of Harlow. Development would form a connection between Harlow urban footprint and the M11. The parts of the site in the far north would be less appropriate in Green Belt terms for release, whilst the southern part of the site has potential for expansion with the inclusion of Green Fingers ameliorating the impact of development in this location.

Heritage: The site contains some listed buildings including Grade II * Sheering Hall and several grade II listed buildings including two barns at Sheering Hall, a house north west of St Stephen's cottages, Franklins Farmhouse, a locally listed building and a number of listed buildings just beyond the site boundary. Consideration will need to be given to the potential impact upon the setting of these listed buildings. However, there may be limited scope for development within parts of the site. There is also a Conservation Area in close proximity in Harlow and the site is within 500m of a Registered Park and Garden and archaeological assets. It is likely that impacts can be avoided / mitigated

Transport & accessibility: VISUM modelling has been undertaken and further evaluation is required to establish level of development on site that could be enabled. The site is well located for public transport, walking and cycling, but less well located to the strategic road network. It is also in close proximity to schools, local services and employment areas. There is potential for significant mitigation including improvements to access to public transport, cycling and walking and connectivity with Harlow town centre, rail station and employment sites. Access from Sheering Road, Gilden Way and Moor Hall Road. The site can only be delivered, in full, with delivery of Junction 7A.

Regeneration potential: The site is not itself in an area of multiple deprivation and is detached from parts of Harlow that are deprived. However, its sheer scale and location close to the M11 suggest that there would be an overall positive impact on this criterion if the site were developed. The site is

[7] Extrapolating this figure up to 2033 (the plan period), based upon the promoter's submitted trajectory results, the figure is circa 3,100 units

in an area of significant barriers to accessing housing and services, and due to its large scale would address this criterion very well. The scale of site is significant enough to be transformative for economic growth in eastern Harlow and it offers good connections to the M11 and Stansted airport, and is in good location for some industrial estates, as well as enterprise zones, but is further away from the town centre and Harlow Town station. The integration with new development such as New Hall, in the east of town, is an opportunity.

Infrastructure capacity and provision of local services: Thames Water report that site cannot connect into the local sewer system as it is too small to accommodate the proposed development. Thames Water would either need to significantly upgrade the existing system or connect it directly to the Eastern Outfall – Harlow SDAC. It may also be possible for onsite waste water treatment works and surface water attenuation to be provided. Green and blue infrastructure is likely to accompany development e.g. SUDS. Social infrastructure that is likely to be provided includes: a new local centre; 3 primary schools; and 1 secondary school. There is a potential opportunity to create a public transport gateway near the proposed M11 Junction 7A.

*RATING:* ***SUITABLE***

The initial phases of development on the part of the site within Harlow District could be provided with infrastructure reinforcement to drainage and local highways improvements, to be identified by Essex County Council. Development in later phases towards Epping Forest District in the northern part of the site would be contingent on Junction 7A. Essex County Council highways reported that further modelling is required to test whether 3,350 units can be provided in this location; it is therefore unlikely that the promoter submitted capacity figure of 3,850 units can be provided this plan period. The principle of development in this location is justified based upon the assessment findings but further detailed testing is required to understand the level of growth that can be accommodated alongside feasible strategic infrastructure improvements.

**Site K – West of A414 to the south of Harlow**
*Site size ~28.5 hectares*
*HELAA indicative capacity- 155 units and Employment (71,240m$^2$)*
*Density - Not identified*

Environmental context: Development would involve loss of best and most versatile agricultural land (grade 2). The intensity of site development would be constrained by the presence of protected trees either on or adjacent to the site. The site is adjacent to Woodland Priority habitat and has features/species that could be retained with opportunities to enhance existing features.

Geo-environmental: There is potential contamination on site, which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area E1, and therefore has a moderate sensitivity to change. The site is within Epping Forest District LCA landscape area E1, and has a moderate sensitivity to change. This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest District. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area. Rated as having Very High contribution to Green Belt purposes in draft 2016 Stage 2 Green Belt Study. The barrier of the motorway near the south side of the site potentially compromises the openness of the Green Belt to the north east.

Heritage: There are very few heritage issues, aside from a number of Listed Buildings and a Scheduled Monument within approximately 500m of the site. Several grade II listed buildings and a locally listed building to the north east of the site. Need to consider impact on setting of listed buildings in any development.

Transport & accessibility: The site is immediately adjacent to the A414 and within 1km of Junction 7 of the M11. Whilst the site is nearby to employment areas, schools and public footpaths, it is not well located for cycle routes and the Town Centre. Access to the site can be created within landholding adjacent to the highway. Site would give rise to additional trip generation with potential adverse impact on the highways network; however this could potentially be mitigated. The ability of sites to the east/south east of Harlow to accept significant levels of growth remains unproven in the VISSUM modelling undertaken for Essex County Council.

Regeneration potential: Development has some potential to address deprivation on the southern edge of Harlow, but it is small in scale and therefore this potential is limited. The site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a strong positive impact. The site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and distance from Harlow Town and Harlow Mill stations combine to limit its potential to moderate. No real urban character or the ability to integrate with Harlow, it is a trunk road from M11.

Infrastructure capacity and provision of local services: The site falls within a HSE buffer area due to the close proximity of a gas pipeline. Gas or oil pipelines may constrain part of the site but there is potential for mitigation. Some 26% of the site is in HSE middle consultation zone located along the southern site boundary. No area in inner zone. Due to location and size of affected area mitigation is possible through layout design. The site is detached from the Harlow built up area, new residents in this location would not be well located for local services, social infrastructure or accessible green infrastructure.

*RATING: **PROBABLY UNSUITABLE (for housing)***
The site has less of a relationship with the Harlow built up area and more of a functional relationship with the M11. The site is detached from the urban edge and less well located than other sites assessed.

**Site L – Riddings Lane Garden Centre**
*Site size ~1.5 hectares*
*Promoter's indicative capacity - 50 units*
*Density - Not identified*

Environmental context: There are few environmental constraints; most notable is that the site is adjacent to Woodland Priority habitat. Potential for mitigation for features and species that could be retained and there are opportunities to enhance existing features.

Geo-environmental: Few issues with the potential for contamination on site, which could be mitigated.

Landscape and Green Belt: The site is judged to have low sensitivity. Characteristics of the landscape are able to accommodate development without significant character change. The site is within Harlow and is attached to the urban boundary. It does not lie on any significant landscape area, nor is it likely that the development of the site would have a large impact on the views or character of surrounding landscape areas. In the Harlow Green Belt Review (2016), the surrounding area including site L are given a total score of 4 out of 8. Specific commentary on site L states there is "no evidence that sub-area is functioning as Green Belt" (ref.7.1). Release of this land would make nominal contributions to the sprawl of Harlow. Overall, considering its small size and relationship to the existing urban fringe, impact would be nominal.

Heritage: No effect likely on historic assets due to distance from site.

Transport & accessibility: Access is currently difficult with a narrow lane approaching the site. The site would not give rise to significant additional trip generation with potential adverse impact on highways network. The site is relatively close to bus stops, footpaths, schools and existing employment areas.

Regeneration potential: The site is itself in an area of moderate deprivation. Although its development has some potential to address deprivation on the southern edge of Harlow, it is very small in scale and therefore this potential is limited. The site borders and is partly within an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a positive impact. With regards to economic development the site is well located for the M11 and the Enterprise Zone via Southern Way/A414. However, its small size, its distance from the town centre and distance from Harlow Town station combine to limit its potential to moderate. It should be possible to integrate with town edge.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING: **SUITABLE***
This is a small site that as part of a wider redevelopment to the south would represent a sustainable location for development on a previously developed site. However, it should be considered and planned alongside Site M to ensure the comprehensive planning of the area.

**Site M – Latton Priory**
*Site size ~260 hectares*
*Promoter's indicative capacity – 2,477 units*[8]
*Density - 35 dwellings per hectare*

Environmental context: Development would involve some loss of best and most versatile agricultural land (grade 2). Due to the nature and scale of development proposed, consultation with Natural England would be required as it falls within an Impact Risk Zone for the nearby SSSI. Mitigation may ameliorate risk to SSSI. The site also contains a number of ancient trees and is in close proximity to Local Wildlife Sites and TPOs. The intensity of site development would be constrained by the presence of protected trees either on or adjacent to the site.

Geo-environmental: Few issues, but small scale contamination potential (Farm / Sewage Sludge / in filled Ponds). The potential adverse impacts could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area E1, and has a moderate sensitivity to change. This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest District. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area. Analysis from AECOM landscape specialists (see Appendix 2 found that the plateau at the top of the ridge should not be developed, as this would have the potential to result in significant effects on the local landscape and views. New development should therefore be set down on the northern side of the ridge, such that the roof line is below the top of the plateau. This would allow space to substantially strengthen the woodland on the southern edge of the ridge in order to lessen the visual impact of the development from Harlow and from the rural area within Epping Forest District. This would also create opportunities for further green infrastructure improvements linking the proposed development and Harlow more generally with the wider landscape. Green Belt is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1 and mostly Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-072). Releasing this land from the Green Belt would result in a large urban extension to the town. The east and south east of the overall site border the B1393/A414 which could act as a defensible boundary if removed from Green Belt. Rye Hill Road could act as a defensible boundary in the west.

Heritage: The site contains two scheduled monuments and Latton Priory is a Grade II* Listed Building with nearby Latton Farmhouse being Grade II Listed. The site is also in close proximity to a Conservation Area in the west and includes locally listed buildings on the southern boundary. Historic England recently grant aided considerable work at Latton Priory and is undertaking extensive research on surrounding earthworks with a view to revising the designation of the site. There is also a moated site 350m south of Dorrington Farm.

Transport & accessibility: VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable. It is a large site which may have a material impact upon the Harlow town network and strategic road network including M11 Junction 7. Significant potential exists to mitigate trip generation at the site through promotion of sustainable modes and wider network impacts through the implementation of physical mitigation measures e.g. potential for a sustainable transport corridor linking Site A and M exists through the green wedge. The site is relatively well located for schools, employment, bus stops, footpaths and the strategic road network.

Regeneration potential: A small part of southern boundary is within Decile 6. The scale of site and adjacency to deprived areas in southern Harlow, despite the fact that the site is not itself in an area of high deprivation, combine to indicate that development would have regeneration benefits. The site covers Decile 1 in barriers in access to housing and services; therefore, development of the site would have a strong positive impact on this criterion, given its proposed scale. The scale of the site

[8] Extrapolating this figure up to 2033 (the plan period), based upon the promoter's submitted trajectory results, the figure is circa 2,012 units

will in itself have strong positive economic impact, potentially transformative for southern Harlow if appropriately integrated. However, the site is a large distance from Harlow Town station, but closer to town centre, thus likely to enhance its vitality and viability. This site is also well located for the enterprise zones and extremely well located for the M11; however, more distant from existing industrial estates and the rail corridor. Strong potential exists to establish a sustainable corridor north-south through the town for the benefit of wider Harlow.

Infrastructure capacity and provision of local services: The site falls within a HSE buffer area due to the close proximity of a gas pipeline. Gas or oil pipelines may constrain part of the site but there is potential for mitigation. Due to location and size of affected area mitigation is possible through layout design. The site promoter has provided an indication of the physical infrastructure that is likely to accompany development (of 2,000+ units) including a bus service to connect to Harlow Town Centre, bus and rail stations and two new junctions off Rye Hill Road to the west and a dedicated employment access from London Road to the east. In terms of green infrastructure that is likely to accompany development: 150 acres of new accessible green space, incorporating an extension to the Southern Harlow green wedge, parks, allotments, sports facilities, play and recreational facilities have been cited with potential to extend the existing green wedge and access to countryside. Other items likely to accompany development include: new village green; small equipped play areas; a number of attenuation areas. An indication of the social infrastructure that is likely to accompany development includes: 2 to 3 primary schools; new healthcare facilities; neighbourhood shopping and community facilities.

*RATING:* ***POTENTIALLY SUITABLE***

The site's largest constraint is the 'ridge line' and associated landscape impacts. However, there are many influential factors to recommend development in this location, not least the potential to establish a central north-south sustainable transport corridor. Dependent on further landscape and Green Belt analysis, the site would be a suitable location for some of Harlow's growth. Initial landscape analysis (Appendix 2) has highlighted that the promoter's submitted capacity assumption of 2,477 units would be difficult to achieve without harm to the landscape. Delivery of ~1,000 units has been assumed for this site in this report reflecting the landscape constraints encountered, but this lower level of growth may adversely affect the potential to establish a sustainable transport corridor linking to the Town Centre and sites to the north, and to limit impact on the local road network.

**Site N – Land at Harlow Gateway South**
*Site size ~7.5 hectares*
*Promoter's indicative capacity - Employment (28,760m$^2$)*
*Density – Not identified*

Environmental context: Development would involve some loss of the best and most versatile agricultural land (grade 2). The site is adjacent to deciduous woodland and Ancient Woodland. Features and species may not be retained in their entirety but any possible impacts can be mitigated.

Geo-environmental: Potential contamination on site, which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area E1, and has a moderate sensitivity to change. This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest District. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area. However, it is also host to the M11 which has a significant negative impact on the tranquillity of the area. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads. The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review so low suitability for development (ref. DSR-053). The site is rated as having Very High contribution to Green Belt purposes in the 2016 Stage 2 Green Belt Study. However, the site is very small, and sited near major highways which act as a natural barrier to the Green Belt's openness. Has some form of industrial / storage land use on site so it is not presently making a significant contribution to the principles of the Green Belt.

Heritage: No heritage assets or their settings are likely to be affected by the site allocation.

Transport & accessibility: The site is below the site size threshold where it would be expected to significantly affect congestion, although there may be local impacts. Potential exists to improve public transport, cycling and walking. Site access is achievable from A414. The site is in close proximity to bus stops, footpaths, public open space and secondary schools but distant from the Town Centre and train stations.

Regeneration potential: Development has some potential to address deprivation on the southern edge of Harlow, it is small in scale and therefore this potential is limited. The site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development could have had a positive impact. However, the site is not being proposed for housing-led development. For economic development, the site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and Harlow Town and Harlow Mill stations combine to limit its potential to moderate. There is low potential for Harlow integration based on its separated location.

Infrastructure capacity and provision of local services: Likely to have little impact. The site promoter has provided an indication that development shall be accompanied by a new internal access road; new substations; and SUDs.

*RATING: **PROBABLY UNSUITABLE***
As at September 2016 the site is subject to appeal proceedings and it is apparent the promoter has a preference for employment development. The site may be suitable for employment, to be determined by the Local Planning Authority, but generally unsuitable for new housing due to detachment from Harlow. The site is detached from the urban edge and less well located than other sites assessed.

**Site O – Land to north of J7 of M11**
*Site size ~6.5 hectares*
*HELAA indicative capacity- Employment only (28,680m$^2$)*
*Density – Not identified*

Environmental context: The north and north eastern part of the site experiences medium to high surface water flooding. Development would involve some loss of the best and most versatile agricultural land (grade 2). The site is adjacent to deciduous woodland and Ancient Woodland. Features and species may not be retained in their entirety but any possible impacts can be mitigated.

Geo-environmental: Potential contamination on site, which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area E1, and has a moderate sensitivity to change. This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest District. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area. However, it is also host to the M11 which has a significant negative impact on the tranquillity of the area. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads. The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-053).. However, this site is small and sits between two major roads which already make significant reductions to the openness of the Green Belt. Therefore, development on this site would have very little impact to the integrity of Green Belt land.

Heritage: No heritage assets or their settings are likely to be affected by the site allocation.

Transport & accessibility: The site is below the site size threshold where it would be expected to significantly affect congestion, although there may be local impacts. Potential exists to improve public transport, cycling and walking. Site access is achievable from A414. The site is in close proximity to bus stops, footpaths, public open space and secondary schools but distant from the Town Centre and train stations.

Regeneration potential: Development has some potential to address deprivation on the southern edge of Harlow, it is small in scale and therefore this potential is limited. The site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a strongly positive impact. For economic development, the site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and Harlow Town and Harlow Mill stations combine to limit its potential to moderate. There is low potential for local integration with no apparent opportunities in its dislocated location.

Infrastructure capacity and provision of local services: Likely to have little impact.

*RATING: **PROBABLY UNSUITABLE (for housing)***
Possibly suitable for employment, to be determined by the Local Planning Authority, but generally unsuitable for substantial new housing due to detachment from Harlow. The site is detached from the urban edge and less well located than other sites assessed.

**Site P – Land to west of Harlow/East of Roydon**
*Site size ~53.5 hectares*
*HELAA indicative capacity- 1800 units*
*Density - Not identified*

Environmental context: There is medium risk of groundwater flooding. Development would involve loss of some of the best and most versatile agricultural land (grade 2-3). The site falls within an Impact Risk Zone and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate any risk to the SSSI. The World's End Local Wildlife Site cuts through the centre of the site also. Features and species may not be retained in their entirety but impact can be mitigated. The site is in close proximity to Grassland Priority habitat and contains Woodland Priority Habitat. Such features and species may not be retained in their entirety but impact can be mitigated. No impact on Ancient Woodland is anticipated and the site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated.

Geo-environmental: Source Protection Zones cover a large part of the site in the north (including SPZ 1 and 2). The northern boundary also lies within a Low Productivity Aquifer. There is potential contamination onsite from very small areas in the east and south west, which could be mitigated. Between 10-30% of homes would be at or above the Action Level for Radon.

Landscape and Green Belt: The Settlement Edge Landscape Sensitivity Study noted this area as High Sensitivity. The site is within Epping Forest District LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquillity in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees. However, the site is bordered by and overlooks an industrial estate on the Western fringe of Harlow. New development on this side of the site will therefore have less of an impact on the character of the landscape area, and indeed, may even present an opportunity for improvement. However, due to the location of the site on a narrow piece on land between Roydon and Harlow, it would appear that obstructing views across the landscape to the Stort Valley would be inevitable. The site is rated as having “Relatively Strong/Strong” contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-064). The development of this site would result in the coalescence of Harlow and the village of Roydon and reduce the openness of the Green Belt as it sits in a valley and may obscure views across it.

Heritage: Eastend Farm house, grade II listed building is within the site to the east and Roydon Village Conservation Area is nearby. Development will need to consider impact upon setting. It is likely that any negative impacts can be avoided / mitigated.

Transport & accessibility: Suitable access to the site already exists. There is potential to improve public transport, cycling and/or walking. The site is well located for bus stops, cycle routes, footpaths, employment areas, public open space, existing centres and primary schools but less well located for secondary schools and the strategic road network.

Regeneration potential: The site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location and its medium scale. The site is in a moderate area of housing need, but could help address the needs of adjacent western Harlow. For economic development, the site is well-located to the industrial estate to the west, the town centre (thus improving its vitality and viability) and Harlow Town station. However, its potential is limited to moderate by its poor connections to the M11. There is limited potential for integration with Roydon if desired.

Infrastructure capacity and provision of local services: Thames Water reports: This most likely cannot connect into the local sewer system as it is too small to accommodate the proposed development. Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC. As with Site S the promoter considers green infrastructure could be provide in part of Site P to help mitigate development in Site S.

*RATING:* ***UNSUITABLE***

Impacts on Roydon, landscape and Green Belt would make development on this site extremely challenging to justify. It is better viewed as part of site S in terms of its role as providing a buffer and enhanced green infrastructure.

**Site Q – Halls Green**
*Site size ~15.5 hectares*
*HELAA indicative capacity - 120 units and Employment (61,000m$^2$)*
*Density - 33 dwellings per hectare*

Environmental context: Development would involve the loss of some of the best and most versatile agricultural land (grade 3). Site contains Woodland priority habitat with features and species unlikely to be retained and impact cannot be mitigated. The site also contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. Majority of the site is woodland and is in close proximity to nearby Ancient Woodland. Proposals would likely result in direct loss or harm.

Geo-environmental: The site has potential contamination on site, which is not likely to be able to be fully mitigated. Potential contamination (associated with previous Brickworks and Anti-Aircraft Gun Site) could impact achievability.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquillity in the area as a result from the gentle undulating fields of farmland with some views to River Lea Valley to the west, and the historic landscape setting of hedgerows and veteran trees. Glasshouses are scattered throughout much of this area which the LCA deems to contribute to the landscape pattern. The site is also identified as High Sensitivity in Settlement Edge Landscape Sensitivity Study. The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-066). Development would result in the expansion of Halls Green hamlet to the extent that it almost connects to Harlow through contiguous developed land (only a garden centre would stand between Halls Green and Harlow).

Heritage: Within Nazeing and South Roydon Village Conservation Area. Impact upon Conservation Areas and Scheduled Monument (located in the centre of northern portion of the site, a Cold War Heavy Anti Air-Craft Gun Site). Development may impact setting, although southern portion of site may be suitable for limited development without harming the setting, particularly given the existing tree belt. The site is washed over by the Conservation Area. Development of the site will result in harm to the significance of heritage assets and/or their setting. It is unlikely that impacts can be fully avoided or mitigated.

Transport & accessibility: Suitable access to the site exists via the nurseries. The site is in close proximity to bus stops, footpaths and employment areas. The site is not particularly well located for essential local services, and is physically separate from the existing urban edge of Harlow.

Regeneration potential: The site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is very limited. The site is in an area of high housing need, and development could therefore have a small positive effect access to housing and services. For economic development, the site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent. However, its potential is limited to low by its small size, lack of connection to the urban edge, and poor connections to the M11. For local integration with Harlow there is low potential due to the site's isolated position.

Infrastructure capacity and provision of local services: Likely to have little impact with no issues evident. The site promoter has cited that public open space and a primary school would accompany development however with only 120 units it's questionable if this is feasible.

*RATING:* ***UNSUITABLE***
The site is isolated and would result in large impacts to the local environment and heritage assets.

**Site R – Land west of Katherines**
*Site size ~72.5 hectares*
*Promoter's indicative capacity – 1,100 units*
*Density - 33 dwellings per hectare*

Environmental context: Development would involve loss of best and most versatile agricultural land (grade 1 and 2). Parndon Wood Local Wildlife Site is on site. The site is adjacent to Ancient Woodland but any possible impacts can be mitigated with features and species being retained and opportunities taken to enhance existing features. Veteran and other protected tress exist but at a sufficiently low density that removal could be largely mitigated or any possible impacts could be mitigated.

Geo-environmental: Potential contamination on site, which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquillity in the area as a result of the gentle undulating fields of farmland with some views to River Lea Valley to the west, and the historic landscape setting of hedgerows and veteran trees. Glasshouses are scattered throughout much of this area which the LCA deems to contribute to the landscape pattern. To the north, the site borders an industrial estate. There is some existing development to the west of the site but the land here is not of particularly high landscape value owing to the relatively modern age of the buildings and sprawling pattern of development. The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review and 'High' in 2016 Stage 2 report and so low suitability for development (ref. DSR-066). Development of this site would not result in coalescence with Roydon Hamlet, Broadley Common, or the housing adjacent to Southview nursery. The impact on the openness would be subtle as buildings already exist or cross through a large portion of the site.

Heritage: Brookside Cottage, grade II listed, is located on the site with other Listed buildings adjacent in the west and south of the site. The southern part of site is in the Nazeing and South Roydon Conservation Area. Development will need to consider the setting of Listed buildings and also impact upon Conservation Area. It is likely that impacts can be avoided / mitigated.

Transport & accessibility: A site of this size will result in additional trip generation. VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable. Suitable access to site already exists and there is potential to improve public transport, cycling and/or walking. The site is well located for buses, footpaths, and primary school.

Regeneration potential: The development of the site would have no more than a moderate effect on overall deprivation as its surroundings are evenly balanced in terms of deprivation. The site is in an area of high housing need, and development would therefore have a positive effect on this criterion. The site is well-located for economic development being close to the western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent). However, its potential for local integration is limited to medium by its poor connections to the M11, but there is some potential to connect into Katherines whilst improving routes to and from the centre of Harlow.

Infrastructure capacity and provision of local services: No issues evident. The site promoter has provided an indication that development is likely to be accompanied with public open space and a primary school. In addition, contributions to road mitigation measures would be required.

*RATING: **SUITABLE***
The site is generally well contained in landscape terms with medium regeneration potential owing to its proximity to employment areas/Town Centre and its location in an area of high housing need (due to the barriers to housing and services). Opportunities exist for greater integration into Harlow via Third Avenue and Southern Way. Highways and sustainable transport improvements would be required to mitigate the impacts of growth and support integration with the west of Harlow.

**Site S – Land west of Pinnacles**
*Site size ~43 hectares*
*Promoter's indicative capacity – 1,000 units*
*Density - Not identified*

Environmental context: Parts of the site have been identified as medium to high risk of surface water flooding. Part of the site is covered by a Local Wildlife Site and the site also contains veteran trees on woodland edges and a few within the site boundary. The site is in close proximity to Ancient Woodland but any possible impacts can be mitigated. Development would involve loss of some of the best and most versatile agricultural land (grade 2). The scheme would therefore have to be sensitively planned with appropriate mitigation.

Geo-environmental: Few issues but with potential contamination on site from a very small area to the north of the site, which could be mitigated.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquillity in the area as a result of the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees. However, the site borders and overlooks an industrial estate and large scale greenhouse plant nursery on the western fringe of Harlow. New development on the west of the site will therefore have less of an impact on the character of the landscape area, and indeed, may even present an opportunity for improvement.

The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-064). The site is appended to Harlow urban area via an industrial estate. Development would diminish the openness of the Green Belt to a small extent as the gap between Harlow and Roydon would decrease. The impact on the openness would be subtle as buildings already restrict views down the valley to the south of the site. The location of the site on a narrow piece on land between Roydon and Harlow does raise concern for impact on views to the Stort Valley, yet mitigation would not be challenging with appropriate urban design.

Heritage: The site is adjacent to Nazeing and South Roydon Conservation Area and the site is in close proximity to a couple of Listed Buildings and a Scheduled Monument in the south. Development will need to consider the impact upon the Conservation Area.

Transport & accessibility: Additional trip generation is likely due to the scale of the site. Access to site exists via Pinnacles, though wider accessibility improvements would be likely as part of a package of measure for the west of Harlow. The site is well located for bus stops, footpaths, employment areas. It is moderately well located for cycle routes, public open space and schools with the potential to improve public transport, cycling and/or walking.

Regeneration potential: The site is directly adjacent to the western edge of Harlow, it has potential to address deprivation in this location and therefore is considered to have a moderate potential on this criterion. The site is located in an area with significant barriers to accessing housing and services, and as such development would have significant potential to address this criterion. The site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent). However, its potential is limited to medium by its poor connections to the M11. Integration via Pinnacles will be challenging but possible. An access point from Third Avenue/Felix Meadow would require substantial transformation to make it safe and attractive for pedestrians and cyclists whilst mitigating the impact of additional trips.

Infrastructure capacity and provision of local services: Thames Water report it's likely the site cannot connect into the local sewer system as it is too small to accommodate the proposed development. Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC. The site promoter has provided an indication that a new improved primary road; safe cycle routes and streets re-defined for

pedestrians and cyclists would accompany development of the site. As would green infrastructure such as a community park and a 'woodland corridor' on the western boundary of the site. Social infrastructure is likely to include: a new primary school and local shops.

*RATING:* ***POTENTIALLY SUITABLE***

A satisfactory solution for integrating with Harlow is required to establish a functional relationship with the rest of the town. The site's integration with Harlow is more challenging than the nearby sites west of Katherines and Sumners which adjoin established residential areas. Main access through an industrial area would be inadequate on its own and would require a package of local highways and junctions improvements to be identified by Essex County Council for the whole of west of Harlow, including strategic solutions in combination with Sites R and U.

**Site T – Land to east of Epping Road, Roydon**
*Site size ~22 hectares*
*Promoter's indicative capacity - 150 units*
*Density – Not identified*

Environmental context: Development would involve loss of best and most versatile agricultural land (grade 3). The site includes Ancient Trees and TPOs and has a Local Wildlife Site adjacent on the eastern side. Veteran and other protected trees exist but at a sufficiently low density that removal could be largely avoided or mitigated. The site is adjacent to deciduous woodland (UK Priority Habitats) with some features and species that could be retained and there are opportunities to enhance existing features.

Geo-environmental: Part of northern corner intersects with Source Protection Zone 1. The site has potential contamination on site from a very small area to the north west of the site, which could be mitigated.

Landscape and Green Belt: The site is assessed as having High Sensitivity in Settlement Edge Landscape Sensitivity Study. The site is within Epping Forest District LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquility in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west. The historic landscape setting of hedgerows and veteran trees is also a significant characteristic of the area. The site has views across farmland to the south and to an industrial estate on the western fringe of Harlow to the east, though the latter view will be largely obscured by existing woodland to the east of the site. The site borders the village of Roydon to the north and to the west and therefore has significant potential to detract from the landscape character of the settlement. Historic trees and field boundaries, if preserved, could significantly reduce the impact of a village extension as viewed from the surrounding landscape. The site is rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1 and Very High in Stage 2 report so low suitability for development (ref. DSR-064). The site adjoins Roydon on two sides and could potentially accommodate limited development without harming significant views or reducing openness in areas that are well contained by existing built development.

Heritage: No statutorily designated historic assets within the site. Grade II listed buildings to west of site that will need to be considered for impact on setting of listed buildings. However, it is likely that impacts can be avoided / mitigated

Transport & accessibility: Potential for access to the site to be created through third party land or existing access would require substantial upgrade. There is potential to improve public transport, cycling and/or walking. The site is well located for bus stops, cycle routes, footpaths, employment areas, public open space and primary schools, but does not relate well to the existing edge of Harlow.

Regeneration potential: The site offers some potential to help address deprivation in western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is very limited. The site's regeneration potential is limited to low by its small size, lack of connection to the urban edge, and poor connections to the M11.

Infrastructure capacity and provision of local services: No issues evident. The site promoter has provided an indication that development would maintain the playing field

*RATING: **PROBABLY UNSUITABLE***
No functional relationship to Harlow, the Local Planning Authority should consider the site principally as an extension to Roydon.

**Site U – Land west of Sumners**
*Site size ~56.5 hectares*
*Promoter's indicative capacity – 1,200 units*
*Density - 29.5 – 35.4 dph*

Environmental context: Medium to high surface water flood risk on the southern edge of the site. Development would involve the loss of some of the best and most versatile agricultural land (grade 2). The site falls within an Impact Risk Zone for a SSSI and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to SSSI. There is deciduous woodland (UK Priority Habitat) in the north of the site, features and species could be retained and there are opportunities to enhance existing features. The site also contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated.

Geo-environmental: Potential contamination in the eastern portion of the site, which could be mitigated.

Landscape and Green Belt: The site falls within LCA C8 which encompasses a patchwork of undulating arable fields that are lined within a network of mature hedgerows. Mature single trees are a distinctive feature of hedgerows and fields which contribute to recognisable sense of place. Sensitive key characteristics and landscape elements within this LCA include hedgerows, veteran trees and sites of ecological interest. Overall this LCA is considered to have moderate to high sensitivity to change. The site is sated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-067). The site directly adjoins Harlow (Sumners and Kingsmoor) urban area. Development would diminish the openness of the Green Belt as it would bring the urban footprint of Harlow closer to Broadley Common. It may also diminish visual links across the valley towards the River Stort. However, the strip of land between Harlow and Broadley common is long and narrow, bound by major roads out of Harlow, and is somewhat disconnected from the wider Green Belt to the south west of Harlow.

Heritage: Partly within Nazeing and South Roydon Conservation Area to the south. Several grade II listed and local listed buildings just beyond site boundary. There is potential impact upon the Conservation Area and settings of listed buildings. However, it is likely that impacts can be avoided / mitigated.

Transport & accessibility: Additional trip generation is likely due to the scale of the site. Access to site exists via Broadley Road and Water Lane. VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable. The site is well located for bus stops, footpaths, employment areas, public open space and schools with potential to improve public transport, cycling and/or walking.

Regeneration potential: The site is in an area of high housing need, and could also help address the needs of adjacent western Harlow. The site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent). However, its potential is limited to medium by its poor connections to the M11. The proposed rebuilding/renewing facilities for the Hatch and school would help to integrate the site well into Harlow, and specifically the existing Sumners area.

Infrastructure capacity and provision of local services: The site promoter has provided an indication of the physical infrastructure that is likely to accompany development: new roundabout onto Water Lane; the extension of Broadley Road; subsidiary access onto Parsloe Road; extension of bus routes and onsite water storage and pump to release effluent during periods of low flows in the network. For green infrastructure: new open / green space; Public footpath and cycleway integration; SUDS ponds in the proposed green space along the brook along the western boundary of the site; and a contribution to Sir Frederick Gibberd's green wedges radiating out of the New Town. Social infrastructure could include: a new primary school to replace the existing 1980's Water Lane Primary; early years provision; new health centre; new community facilities; and

children’s play spaces. The green infrastructure proposals set out for the site appear to be well considered.

*RATING:* ***POTENTIALLY SUITABLE***

The site's western edge is sensitive in Green Belt and landscape terms but this is considered to be outweighed by transport, accessibility and regeneration considerations. Development would need to be sensitively planned to avoid coalescence between Harlow and Broadley Common. The promoter has assumed a capacity of 1,200 units but based upon the noted landscape and coalescence issues an assumption of 1,000 units would be a more realistic for the plan period up to 2033. Development here 'completes' a neighbourhood and has high potential to be an integrated part of Harlow, so long as the Broadley Common interface can also be managed.

**Site V – North of Harlow Rd & E of High Street, Roydon**
*Site size ~10 hectares*
*HELAA indicative capacity - 289 units*
*Density – Not identified*

Environmental context: Flood Zones 2, 3a and 3b cover 6% of the site on the eastern edge but this can be avoided through site layout. Development would result in the loss of some of the best and most versatile agricultural land (grade 3). The site falls within an Impact Risk Zone for a SSSI and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to SSSI. The site is adjacent to grassland and Woodland Priority habitat. No impact to adjacent Ancient Woodland anticipated.

Geo-environmental: Source Protection Zones 1-4 intersect the site. Potential contamination on site, which could be mitigated (Brickworks / Gravel Pit / infilled pond). More than 30% of homes would be at or above the Action Level for Radon.

Landscape and Green Belt: The site is within Epping Forest District LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the high tranquillity in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees. This particular site is likely to be of a high degree of sensitivity to change for the area. Sitting within the valley slopes of the river Stort, it has significant visibility from the north of the Stort, and from the village perspective, and it acts as a void to preserve views across the historic landscape of the Stort Valley. Therefore, obstructing views across and from the landscape to the Stort Valley to the historic houses bordering the site in Roydon would be inevitable. The site is also identified as High Sensitivity in Settlement Edge Landscape Sensitivity Study. The site is rated as having “Relatively Strong/Strong” contribution to Green Belt purposes in the 2015 Epping Forest District Green Belt Review Stage 1 but Moderate in Stage 2 report so medium to low suitability for development (ref. DSR-064).

Heritage: Partly within Roydon Village Conservation Area to the western edge of the site and close to many listed and locally listed buildings. Potential impact on setting of listed buildings and Conservation Area. The site could result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided / mitigated.

Transport & accessibility: Moderate additional trip generation is likely. Suitable access to site already exists, off Harlow Road. The site is well located to bus stops, footpaths, employment sites, public open space and primary schools, but does not relate well to the existing urban area of Harlow

Regeneration potential: The site offers some potential to help address deprivation in adjacent western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is limited. The site is in a moderate area of housing need, but could help address the needs of adjacent western Harlow to a minor extent. The site’s regeneration potential is limited to low by its small size, lack of connection to the urban edge, and poor connections to the M11. Local integration potential is low.

Infrastructure capacity and provision of local services: Likely to have little impact with no issues evident.

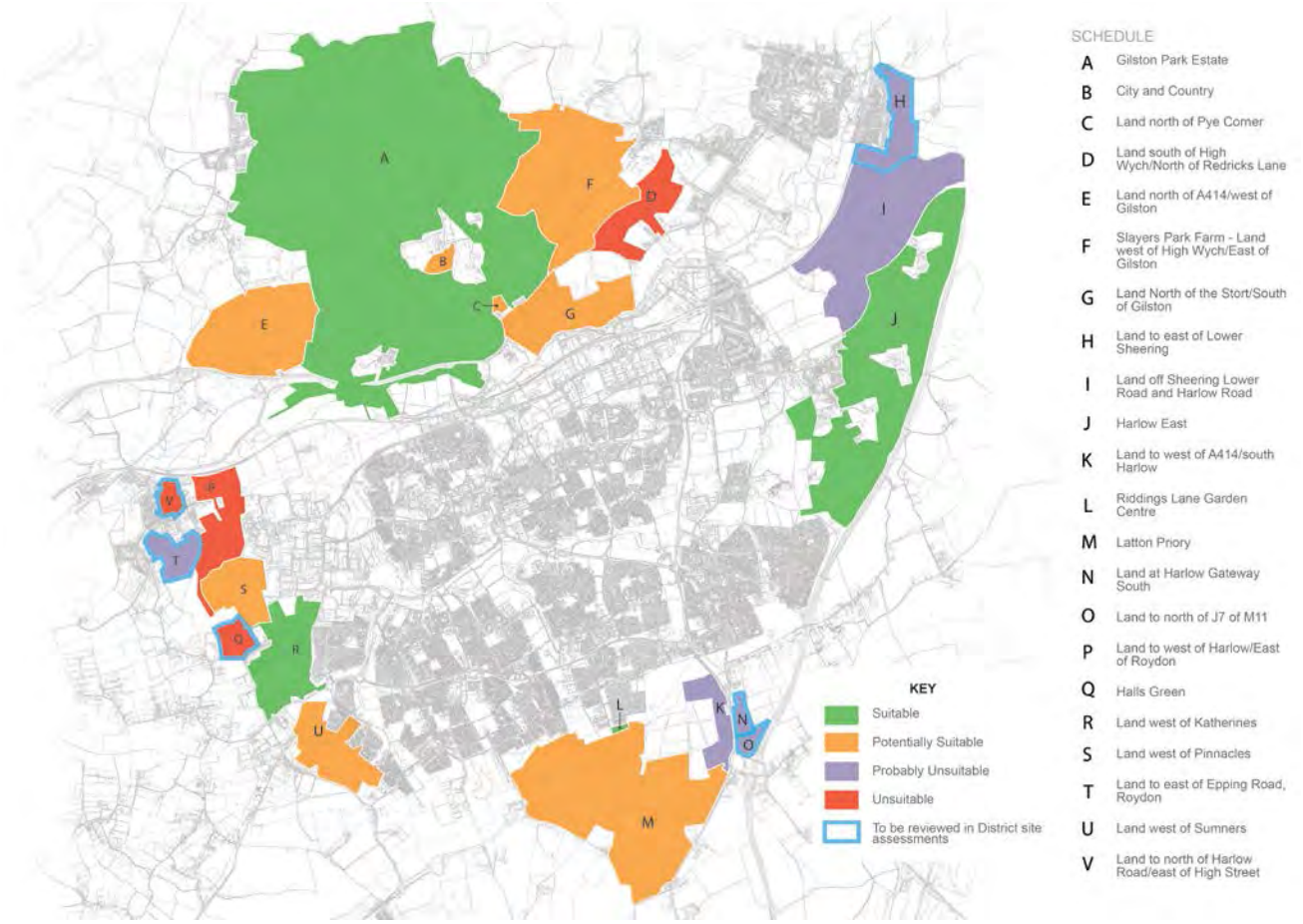
*RATING:* ***UNSUITABLE***
The site is an infill site for Roydon in a sensitive area for development and should be considered via the Epping Forest District Local Plan process.

# 03 Conclusions

## 3.1 Site assessment findings

The results of the literature review, area-wide GIS analysis (Appendix 3), consultation with statutory consultees/promoters and individual site assessments (Appendix 1) enabled AECOM to identify a 'basket of sites' or long list deemed to be 'suitable' or 'potentially suitable' for future development (should there be appropriate site specific mitigation and dependent on strategic Harlow-wide infrastructure improvements).

*Figure 1 Assessment findings summary*




Analysis of constraints and promoter proposals indicates that, largely in landscape terms, the full extent of many of the sites could not reasonably be expected to be developed. The approximate extent of the appropriate developable areas for the sites judged to be suitable or potentially suitable is shown in Figure 2 (overleaf).

*Figure 2 Approximate developable areas of suitable and potentially suitable sites*


Taking Figure 2 as the starting point, AECOM has sought to identify synergistic spatial opportunities for sites considered in combination(s). East of Harlow (Site J), due to its comparative lack of environmental and statutory designation constraints stands out as a sustainable location for growth, based upon the site assessment and feedback from statutory consultees. However, Site J impacts on the local road network will need to be investigated more fully prior to establishing the precise level of appropriate growth. Similarly, whilst Gilston has landscape, historic environment and Green Belt constraints, it nonetheless offers great potential to provide for a comprehensively planned urban extension capable of delivering a substantial level of growth via a series of inter-linked villages (over the course of at least two plan periods) and in close proximity to the railway stations and A414.

In a scenario where growth to the north and east is deemed suitable and appropriate, it is then necessary to consider what other sites and directions of growth would represent the most sustainable patterns of development. For example, Land north of the Stort (Site G) in combination with Gilston (Sites A and E) could assist with the delivery of a second Stort crossing but Site G is not without constraints (such as flooding). In addition, analysis from Essex County Council has identified the potential for a sustainable transport corridor between the Gilston and Latton Priory sites. A proposal of this type would align well with a garden settlement approach. Our analysis suggests that there is potential for growth to the south, although the 'ridge line' is an important boundary that should not be breached, unless the benefits of development are capable of outweighing harm to the landscape, alongside appropriate mitigation. The cluster of sites to the west of Harlow offer greater suitability for growth where they directly adjoin the urban edge of Harlow, provided that coalescence with Roydon and other smaller settlements can be avoided (as is also a concern with Sawbridgeworth, Lower Sheering and High Wych to the north east). The west of Harlow sites would also require adequate integration with Harlow and a package of transport

improvements to ameliorate highways impacts. Sites U and R adjoin residential areas and offer opportunities for well integrated extensions, whereas Site S adjoins an industrial area which would require a more comprehensive urban design solution for access.

The 2015 Objectively Assessed Need (OAN) figure, as set out in the Strategic Housing Market Assessment (SHMA) was 46,100 dwellings across the HMA. However, the SHMA consultants (ORS) have advised that, with reference to the Government's recently released 2014-based Sub-National Population Projections, and 2014-based Household Projections (July 2016), the OAN could potentially rise to approximately 54,600[9] dwellings in the HMA (precise figures to be confirmed). Early indications are that sufficient sites to reach the ~54,600 figure cannot be allocated in and around Harlow, as the transport network will not be able to accommodate the level of growth in and around Harlow that this would entail. Further testing is being undertaken. The preferred growth/spatial option for the HMA indicate that 51,100 dwellings could potentially be accommodated across the HMA, of which ~16,100 would be located in and around Harlow. This represents a figure greater than the published SHMA figure of 46,100 but lower than the revised estimate of 54,600 under the latest Government projections.

The transport modelling undertaken to date demonstrates that growth of between 14,000 and 17,000 new homes in and around Harlow can be accommodated provided that the mitigation measures set out in the Highways and Transportation Infrastructure MOU are delivered during the plan period. Evidence suggests that growth beyond 2033 is likely to be possible subject to further transport modelling and the identification and delivery of additional strategic highway mitigation measures.

# 3.2 Deliverability

AECOM has sought to apply realistic assumptions for growth at each site and to consider key determining factors such as landscape sensitivity, highways capacity and the potential for local integration and access into and out of the sites.

There is a broad consensus that the supply of new housing in England lags well behind the need[10]. An important element of the study has been to consider whether or not the market has capacity to absorb new houses in and around Harlow based on the overall requirement for homes agreed by the Local Planning Authorities.

Whilst information on build out rates from large urban extensions is often difficult to source, research undertaken by AECOM and previous research from Hourigan Connolly (*A report into the delivery of urban extensions,* 2014) identified a number of examples that had delivery rates in excess of 200 units[11] in peak years with others having achieved over 300 units. Elsewhere in the region, North West Cambridge is planned to build out at an average of 230 units per year for 13 years, Clay Farm in Cambridge is anticipated to be 255 per year and Alconbury within Huntingdonshire 250 per year.

Research by PRP, URBED and Design for Homes in 2008 (*Beyond Eco-towns, Applying the Lessons from Europe, Report and Conclusions*, 2008) found that rapid build-out rates could be

[9] SHMA consultants ORS have estimated that the impact of the 2014-based Sub-National Population Projections, and 2012-based Household Projections could mean a rise in OAHN to approximately 54,600, but this number is not final. It has been tested through the Spatial Options Study in the interests of assessing what that number might mean for the HMA. Formal review of the OAHN number will take place through a full SHMA update in the future.

[10] "A crisis in housing supply" - Stimulating housing supply – Government initiatives (England). House of Commons BRIEFING PAPER Number 06416, 15 June 2016 Accessed at: http://researchbriefings.files.parliament.uk/documents/SN06416/SN06416.pdf

[11] Land north of Fareham, Welborne; Barton Farm, Oxford; Loves Farm, Huntingdonshire; Weedon Hill, Aylesbury Vale; Queen Elizabeth Park, Guildford; Marks Farm, Braintree; Pondholton Farm, Braintree (Maltings Lane); NE Carterton (Shilton Park), West Oxfordshire; and Northstowe, Cambridge.

achieved where there is a strong masterplan, infrastructure is delivered early and there is not an over-dependence on the private sector. A scheme in Hammarby Sjöstadin Sweden for 11,000 dwellings in an area of 200 hectares was built out at a rate of some 550 homes a year (ten units a week):

> *"Because of the way the developments were phased and because of faster build rates, they appeared to become established and mature more quickly than UK examples. Essential pieces of infrastructure such as shops and schools and public transport were provided early on."*

Savills undertook research[12] (*Urban Extensions Assessment of Delivery Rates*, 2014) which analysed the relationship between delivery rates and housing market strength by plotting the number of units delivered three years after construction commenced, against Hometrack house price data for a sample of sites of varying sizes. The sample analysed showed that sites that struggle to deliver at high volumes tend to be in lower value areas.

Savills reported that, there were high rates recorded on a site in Milton Keynes called the Eastern Development Area (capacity 4,000 units) where 791 units were delivered after three years of construction. This was in an established growth area, and was associated with high levels of competition between multiple developers on site.

Based on the information summarised above and delivery information supplied by the promoters, indicative trajectories for the strategic sites can be analysed to determine whether there would be market absorption issues up to 2033 and whether the numbers of units put forward (per annum on each site) are realistic set against known precedents.

The rate of housing delivery is not something that a Local Planning Authority, developer or landowner can control. Whether there is an adequate land supply is within a Local Planning Authority's sphere of influence, and a developer can set the rate that houses are built – however neither of these will influence the number of houses that are actually sold. The rates of sales are influenced by many other factors.

Even when planning consent is granted, development cannot normally start immediately. There is a period of mobilisation whilst planning conditions and s106 obligations are discharged, Building Regulation approvals sought and the detail of infrastructure provision agreed. Arrangements have to be made for service connections and then effected. Contractors and subcontractors need to be sought, often through a competitive tendering exercise (particularly where a site is in public ownership).

It would not be unusual, where there is an up to date development plan in place and the principles are not contentious, for a large planning application to take 9 months to progress (including the period of pre-application discussions and post approval legal process). It is likely then to take a further 9 months to start on site and then 9 months to a year before the first new homes have been completed and are ready for occupation. This period of 2 to 2½ years as a minimum needs to be factored into any phasing programme.

The Hourigan Connolly research found that on average the time period from initial concept (i.e. from the site originally being proposed) to grant of planning permission is 6.67 years. In relation to the time period from commencement of preparation of an outline planning permission it said:

> *"Based upon the foregoing analysis of the results received from Local Authorities, it is reasonable to suggest that the delivery of houses from urban extensions takes approximately 9 years. Whilst there are instances of speedier delivery, these are in the*

[12] Accessed at: https://www.tauntondeane.gov.uk/irj/go/km/docs/CouncilDocuments/TDBC/Documents/Forward%20Planning/SADMP%20Evidence%20Base/SADMP%20Statements%202%20Mar%202016/ED46-5A%20Appendix%201.pdf

> *minority whereas there are many more examples of sites that take far longer to deliver houses, with many yet to deliver any houses at all."*[13]

Ensuring that there is adequate land supply is within the Local Planning Authority's control (assuming landowners are willing to make their land available), however simply allocating land for housing will not mean housing will come forward quickly. The appetite for new homes can be limited and, within geographical areas, competition between sites will be a real factor. In the current market developers are unlikely to be willing to go 'head to head' and compete directly.

When considering the details of the site design it will be necessary to ensure that there are a range of sites that will be suitable for a range of housing products, so as to meet the widest possible market. This is more than just house / unit size, it is about the full range of factors including, size, price, style, location and situation. In addition, it is necessary that there is the widest possible range of products in terms of tenure including (but not limited to) affordable to rent, affordable to buy, market housing to buy and rent, older people's (sheltered / retirement) housing, student housing etc. Within the market sectors a range of priced products is also required.

An important aspect of this is the number of outlets that there may be on any one site. It is not unusual for more than one developer to be active on one site. In terms of site size the following rules of thumb are widely used:

- Up to 100 = 1 developer
- Up to 500 = 2 developers (some say up to 300)
- Over 500 = 3 developers.

As a site develops it is normally possible to accommodate more outlets. There is little (if any) reliable research into how schemes relate, when they complement each other, and when they compete with each other to such an extent that they adversely impact on developers' margins. What is clear is that the layout of a site, (can different outlets be accessed from different ends, roads, public transport) and a range of products, can be tailored to maximise output.

A report by DCLG & University of Glasgow (*Factors Affecting Housing Build Out Rates*, 2008) based on research undertaken before the downturn in the economy, using a literature review and survey work amongst 18 national housebuilders, concluded that:

> *"Government policy and industry practice have thus combined to encourage developer caution about the ability of local housing markets to 'absorb' new-build supply. This finds expression in unambitious build-out rates. Even if substantially more land were to be released by the planning system, it is likely that housing developers will take a considerable length of time before responding by bidding at lower land acquisition prices and building out more quickly."*[14]

Sales rates for market housing from other parts of England can vary between 4-9 units per calendar month. These range from about 30 units per outlet per year to over 100, with the norm being about 50 units per year. This is further evidenced by the research undertaken by Hourigan Connolly:

> *"From analysis of those proformas received that include information on completed dwellings and from subsequent discussions with the relevant developers (including Taylor Wimpey, Barratt, David Wilson Homes, Bellway and Redrow), an average annual delivery rate of 30 - 35 dwellings per annum per single house builder is realistically achievable"*[15]

[13] p.63

[14] Executive Summary, page 2

[15] A Report into the Delivery of Urban Extensions, Hourigan Connolly (February 2014) Accessed at: http://www.swindon.gov.uk/ep/ep-planning/planningpolicy/ep-planning-localdev/localplanexamination/Documents/Issue%2011E%20Written%20Statement%20-%20Gladman%20Developments%20App1%20Hourigan%20Connolly%20SUE%20Report.pdf

Analysis from Savills[16], that added to and drew upon the Hourigan Connolly work, found that once construction starts (and in a strong market) on large sites annual delivery for urban extensions can be anticipated to be around 60 units in first year of construction, picking up to more than 100 units per annum in subsequent years and increasing to around 120 units. However, the report did acknowledge that in the South of England there were examples of schemes in excess of 120 units per annum:

> *"The build out rate of each site will depend on the disposal strategy of each developer, but the presence of multiple developers on site helps to drive higher annual completion rates. We are aware of many urban extensions in the south of England where recent delivery rates have been substantially in excess of 120 units per annum"*

Analysis of the sample shows that every site that failed to deliver 200 units or more after three years of construction was located in a local authority where the upper quartile sales value was less than £250 per sqft in 2013.

As stated previously there were high rates recorded on a site in Milton Keynes (791 units were delivered after three years of construction). Conversely, a site in Ravenscraig in Motherwell (capacity 3,500 units) had only delivered 116 units over a similar three year period. Factors contributing to this included a weaker housing market, with upper quartile sales values of £126 per sq ft, and only having one developer active on site.

Whilst the Savills and Hourigan Connolly research is useful, it does not necessarily reflect the circumstances of the strategic sites in and around Harlow. In addition, much of the sample used in the research noted previously fell within a recessionary period. For the purposes of this analysis we have assumed that the maximum rate of general housing (market and affordable housing) delivery is unlikely to exceed an overall average of 300 units per year (for large strategic sites) over the relevant part of the plan period.

It is important to note that individual phases and detailed outlet analysis have not been assessed in precise detail as a comprehensive approach to community engagement is required to inform more detailed planning of each strategic site in question. It will be necessary to ensure that the house types developed are designed so as not to compete directly on price. As such it will be necessary for the units to vary in terms of size (overall size as well as the number of bedrooms), quality (specification etc.) and design, in contrast to traditional 'modern estate housing' delivered by a single developer.

Inputs from the promoters and statutory consultees have fed into our final pro-forma assessments, including setting out the promoters' assumptions for development trajectories, densities and key infrastructure items. A key task for the study was to verify the total growth numbers within the promoter submissions (with assistance from the HCA ATLAS team) based upon what is feasible up to 2033. The HCA advised that in terms of town-wide market absorption Milton Keynes had delivered circa 2,500 units/pa at its peak, albeit with a large proportion of social housing. From 1981 to 2010 Swindon had multiple growth sites representing approximately 34,000 units and averaging in the region of 1,200 units/pa. These New Town precedents make it possible to place the projected trajectories for Harlow into context.

[16] Urban Extensions Assessment of Delivery Rates, Savills (31 October 2014) Accessed at: http://www.stroud.gov.uk/info/plan_strat/lpreps/PS2C03d.pdf

The analysis in Table 1 (below) shows AECOM's working assumptions for proposed phasing and delivery trajectories (informed by promoter submissions and discussions with the HCA) to understand what levels of growth might be achievable based upon: (1) a town-wide basis per annum; and (2) levels of housing growth envisaged for each site (where known) up to 2033. The moderated scenarios reflect relevant secondary evidence for average build out rates which suggest in excess of 300 units per annum per site would be above most precedents found elsewhere[17].

*Table 2 Phasing and market absorption assumptions*

| ***AECOM PHASING AND MARKET ABSORPTION ANALYSIS*** | **2016/ 17** | **2017/ 18** | **2018/ 19** | **2019/ 20** | **2020/ 21** | **2021/ 22** | **2022/ 23** | **2023/ 24** | **2024/ 25** | **2025/ 26** | **2026/ 27** | **2027/ 28** | **2028/ 29** | **2029/ 30** | **2030/ 31** | **2031/ 32** | **2032/ 33** | **TOTAL to 2033** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Sites A & E** | | | | | | | *150* | *200* | *300* | *300* | *300* | *300* | *300* | *300* | *300* | *300* | *300* | *3050* |
| Site B | | | | 50 | 75 | 35 | | | | | | | | | | | | 160 |
| Site C | | | | | 50 | | | | | | | | | | | | | 50 |
| Site G | | | | | | | 50 | 100 | 150 | 200 | 150 | 100 | 100 | 50 | | | | 900 |
| *Site J** | | | | | *100* | *200* | *250* | *250* | *300* | *300* | *300* | *300* | *300* | *300* | *300* | *300* | *150* | *3350* |
| Site L | | | | | 50 | | | | | | | | | | | | | 50 |
| *Site M** | | | | *50* | *100* | *100* | *150* | *150* | *150* | *150* | *100* | *50* | | | | | | *1000* |
| Site S | | | | | | 75 | 100 | 100 | 100 | 125 | 125 | 100 | 100 | 100 | 75 | | | 1000 |
| Site R | | | | 50 | 100 | 135 | 135 | 135 | 135 | 135 | 125 | 100 | 50 | | | | | 1100 |
| *Site U** | | | *50* | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *100* | *50* | | | | | *1000* |
| **TOTAL** | | | **50** | **250** | **575** | **645** | **935** | **1035** | **1235** | **1310** | **1200** | **1050** | **900** | **750** | **675** | **600** | **450** | **11660** |
| **EMERGING SCENARIO OPTION** | | | **50** | **200** | **450** | **535** | **785** | **835** | **985** | **985** | **925** | **850** | **700** | **600** | **600** | **600** | **450** | **9550** |

**Key**

Suitable

Potentially Suitable

* Moderated trajectory

[17] An Interim Report Into The Delivery Of Urban Extensions (Hourigan Connolly, 2013) Accessed at: http://www.eastcambs.gov.uk/sites/default/files/HS2-4%20Gladman%20Developments%20Appendix%202.pdf
Urban Extensions Assessment of Delivery Rates, Savills (31 October 2014) Accessed at: https://www.tauntondeane.gov.uk/irj/go/km/docs/CouncilDocuments/TDBC/Documents/Forward%20Planning/SADMP%20Evidence%20Base/SADMP%20Statements%202%20Mar%202016/ED46-5A%20Appendix%201.pdf
Factors Affecting Housing Build-out Rates (CLG/University of Glasgow, 2008) Accessed at: http://www.gla.ac.uk/media/media_302200_en.pdf

# 3.3 Recommendations

This report identifies sufficient suitable sites in and around Harlow to accommodate close to 16,100 units provided that:

- Detailed traffic modelling demonstrates that development to the East of Harlow is deliverable on the scale envisaged
- Significant infrastructure requirements are met, including highways, sustainable travel options, education, sewerage/drainage etc.
- Landscape impacts can be mitigated
- Development can be distributed and planned amongst several sites in combination (e.g. north and west of Harlow) in a comprehensive manner

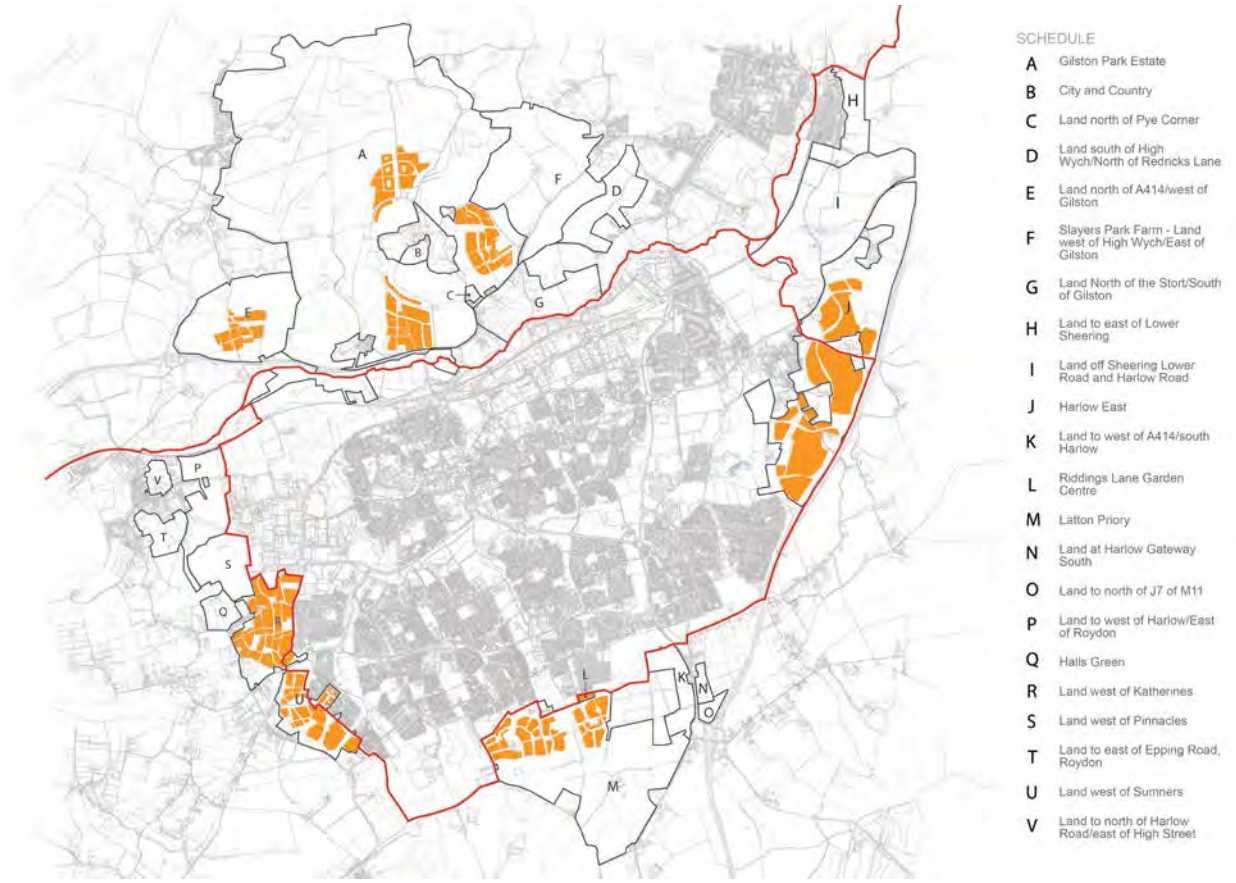
Table 3 presents AECOM's recommended spatial distribution for growth for the strategic sites.

*Table 3 AECOM recommended spatial distribution*

| Site name | Approximate housing numbers up to 2033 |
|---|---|
| Sites A and E – Gilston Park Estate | 3050 |
| Site J – Harlow East | 3350 |
| Sites L and M – Latton Priory and Riddings Lane | 1050 |
| Site R – West of Katherines | 1100 |
| Site U – West of Sumners | 1000 |
| **TOTAL** | **~9550** |

Figure 3 (below) presents the most suitable option for growth based upon the evidence assessed by AECOM. The shaded orange sections show the indicative net developable area on suitable/potentially suitable sites. The Local Planning Authorities will be able to use this analysis in finalising their individual Local Plans and the relationship of their spatial strategies with those in the adjoining districts.

*Figure 3 AECOM recommended option*



Based upon completions, commitments and assumptions for brownfield sites in Harlow District there is a requirement to allocate approximately ~9550 units on the strategic sites to achieve a total figure of ~16,100 in and around Harlow. Whilst Sites B, C, G, F and S were deemed to be potentially suitable for development in our detailed site assessments, the sites selected are considered to be those with the greatest potential to deliver sustainable development on the basis of a requirement for ~9550 units.

Sites B and C are not currently part of the wider Gilston concept framework and would not yield sufficient housing numbers to be deemed strategic allocations in isolation. Site G is recognised as having potential for development but other sites had fewer constraints; flood risk, in particular, would limit its developable area and potential to integrate into the north of Harlow. Site F was found to be potentially suitable for development primarily for the western portion of this site where it has the opportunity to integrate with future development on Site A. The eastern portion of Site F has greater sensitivity due to factors such as coalescence and landscape impacts. Site's B, C, G and F could all potentially offer opportunities in the future for integration into the wider development of Harlow North and would benefit from the second Stort crossing. Site S was found to be potentially suitable rather than suitable primarily because its relationship with Harlow would be via the Pinnacles industrial area, not an existing residential neighbourhood. These connectivity and integration issues are part of the reason why Sites R and U were preferred locations for growth in the west.

The Local Planning Authorities are free to address discounted sites within their individual Local Plans. Similarly the Local Planning Authorities may need to adjust the final site allocation growth numbers in light of more up to date evidence, such as Highways modelling. This report is a technical analysis of the available sites provided on the basis for the Local Planning Authorities to make local planning decisions about exactly which sites should be allocated for development in their respective Local Plans. Section 39(2) of the Planning and Compulsory Purchase Act 2004 places a duty on those bodies responsible for the function of preparing local development documents to contribute to the achievement of sustainable development and to have regard to national policies and advice contained in guidance issued by the Secretary of State.

The recommendations in this report would require alterations to Green Belt boundaries. The statutory duty contained in Section 39 of the PACP 2004 applies to officers, Members and Inspectors (a duty to the achievement of sustainable development). This means that the contents of paragraph 84[18] of the NPPF are relevant, therefore alterations should consider how best to shape development. This report, alongside other evidence (such as the District's own Green Belt evidence) should be used when making decisions to alter Green Belt boundaries. It should be clear that a planning judgement has been made in light of evidence, including this report. Alterations should be consistent with the relevant Local Plan spatial strategy and be made with due consideration to relevant evidence, such as a sustainability appraisal and other technical evidence for sustainable development.

The judgements and recommendations in this report reflect latest national policy and guidance (as at September 2016) and should be utilised alongside other evidence to make planning judgments that consider: (i) the acuteness/intensity (or otherwise) of land requirements in and around Harlow; (ii) the constraints on supply/availability of land prima facie suitable for sustainable development; (3) the consequent difficulties in achieving sustainable development without impinging on the Green Belt around Harlow; (iv) the nature and extent of the harm to this Green Belt (or those parts of it which would be lost if the boundaries were altered) and wider landscape and planning considerations; and (v) the extent to which the consequent impacts may be ameliorated or reduced to the lowest reasonably practicable extent (having regard to sustainable patterns of development in the long term).

[18] When drawing up or reviewing Green Belt boundaries local planning authorities should take account of the need to promote sustainable patterns of development.

# Appendix 1: Site pro-formas

Pro-formas for each site are presented in this appendix. The pro-formas detail site constraints and opportunities against the seven themes (Environmental context, Geo-environmental considerations, Landscape and Green Belt, Heritage, Transport and accessibility, Regeneration potential and Infrastructure capacity and provision of local services).

Site A Gilston Park Estate
Site B City and Country
Site C Land North of Pye Corner
Site D Land South of High Wych / North of Redricks Lane
Site E North of A414/ West of Gilston
Site F West of High Wych and East of Gilston
Site G Land North of the Stort / South of Gilston
Site H East of Lower Sheering
Site I Land off Sheering Lower Road & Harlow Road
Site J Harlow East
Site K West of A414 to the south of Harlow
Site L Riddings Lane Garden Centre
Site M Latton Priory
Site N Land at Harlow Gateway South
Site O Land to North of J7 of M11
Site P Land to West of Harlow/East of Roydon
Site Q Halls Green
Site R Land West of Katherines
Site S Land West of Pinnacles
Site T Land to East of Epping Road, Roydon
Site U Land West of Sumners
Site V North of Harlow Rd and East of High Street, Roydon

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*A) Gilston Park Estate*

| | | | | | |
|---|---|---|---|---|---|
| | ***GENERAL INFORMATION*** | | | | |
| **Site location** | Gilston Park Estate is a large estate to the North of Harlow | | | | |
| **Local Authority** | East Herts (small segment in Harlow) | | | | |
| **Direction of growth around Harlow** | North | | | | |
| **Gross area** (hectares) | ~1015 ha | | | | |
| **HELAA site reference** (if applicable) | 21/004 | | | | |
| **Owned by / Promoted by** | Places for People | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ | |
| | Majority of site is greenfield land that is not adjacent to a settlement | | | | |
| **Surrounding land uses** | Gilston Park Estate predominantly borders similar agricultural land uses. It borders the settlement of Hunsdon to the west, and contains Eastwick to the south and Gilston Park within site as enclaves. Agricultural land to the east, north and west. The A414, River Stort and Harlow neighbour to the south. | | | | |
| **Current / previous use** | The land is predominantly used as agricultural land. | | | | |
| **Assumed capacity** | Approximately 10,000 units (over at least two plan periods) | | | | |
| | ***ENVIRONMENTAL CONTEXT*** | | | | |

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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2**<br>**Zone 1** | **Comments**<br>Site north of the A414 within Flood Zone 1<br>Site south of the A414 within Flood Zone 2 and 3 (4.7% of the southern end of the site)<br><br>Main river = Stort, Fiddlers Brook, Eastwick Brook |
| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium**<br>**Low** | Land south of A414 within area of High to Medium risk of pluvial flooding<br>Land north of A414 within area of Low risk of pluvial flooding |
| **Groundwater Flooding** | **Low** | Site largely within Groundwater Protection Zone 2. Land north of the A414 has a low Risk of Flooding from Reservoirs. |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3** | Grades 2 (60%) and 3 (20%)<br>Development would result in loss of poorer quality agricultural land (grade 3-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site within 1.5km – 7.5km of Lee Valley Ramsar and SPA site.<br>Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations)<br>Effects of allocating site for proposed use not likely to be significant alone need to be checked for in-combination effects |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | South west corner of Site is less than 500m to Hunsdon Mead SSSI<br><br>Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's.<br>Site falls within an IRZ and, due to the nature and scale of development proposed, consultation with Natural England could be required.<br>Mitigation may ameliorate risk to SSSI. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **400m – 1km** | Southeast edge of Site within 400m – 1 km of Harlow Marsh Local Nature Reserve.<br><br>The site has a number of SINCs in the north, east and south of the site. |

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| | | No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | South of the site below the A414 is within Coastal and Floodplain Grazing Marsh Priority Habitat;<br>Southeast of the site is within 400m – 1km of Lowland Fens Priority Habitat;<br>Pockets of Deciduous Woodland Priority Habitat exist within the site.<br><br>Features and species may not be retained in their entirety but impact can be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Western half of site intersects Agricultural land under Environmental Stewardship |
| **Woodland** | **Part of the site in woodland** | Site contains Deciduous Woodland and Ancient Woodland in the north and centre of the site.<br>Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>The central to east side of the site contains Source Protection Zone 2 and 3. |
| **Hydrological Sensitivity** | **Low leaching potential** | Southern boundary partly falls within a Low Productivity Aquifer but the rest of the site is mainly rocks with essentially no groundwater. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **5-10** | Part of the southern edge of the side is within Radon. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>Constraints exist but potential for mitigation. 40m change in level across site from the North to South end of site, but this is over 3-4km so not a significant incline. The greatest gradients are towards the Southwest corner. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | Gilston Park is referred to in HCC documentation on historic parks and gardens.<br>East Herts LCA characterises the area as having Moderate Character and Moderate Condition.<br>A small part of the south of the site is within a Special Landscape Area and adopted Green Wedge. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development would be likely to harm the existing settlement character.** | The site sits across two East Herts LCA landscape areas, #81 and #83. #81 indicates that development and land use change would inevitably have an effect on the landscape character, whilst #83 states "a few locations are noted for their distinctiveness but this area also includes large tracts of unremarked landscape." Development would have to pay due attention to numerous factors including:<br>Views to and from the northern edge of Harlow over the Stort Valley<br>Veteran and parkland trees and woodland management<br>The protection and replanting of hedges to enhance landscape character<br>Protecting the historic integrity of the landscape<br>Managing existing and providing new grasslands to offset the loss of biodiversity and character from development<br>To minimise the loss of ponds and ditches, and where unavoidable, |

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| | | replacement features to be produced |
| **Green Belt**<br>Based on local study findings | **Intersects** | Around 40% of the southern part of the site is in the Green Belt |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 51 & 52).<br><br>Gilston Park Estate plays a role in preserving the openness of the Green Belt. If the southern parts of the site were to be developed, it would act as a break in the continuity of the Green Belt, and in theory, permit for the sprawl of Harlow to north. Development of this land would bring the north of Harlow closer to the settlement of Hunsdon. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br><br>Site contains a number of listed buildings as well as Scheduled Monuments |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **Intersects or <50m** | Would need to be managed in masterplan. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **The site would result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | Size of site should mean mitigation possible |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **<1 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Various bus stops around the western and southern boundaries of the site. |
| **Links to strategic road network (M11 and A414)** | **Immediately adjacent to A414**<br><br>**3-10km from Junction 7 of M11** | Site A is 0km from A414<br><br>Site A is 5,263m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |

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| **Distance to nearest Enterprise Zone** | **1 – 1.5 km** | Site A is 1,127m from nearest Enterprise Zone. |
| **Key employment site other than EZ** | **<1 km** | Site A is 233m from nearest Existing Employment Area. |
| **Distance to Princess Alexandra Hospital** | **400m 2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site A is 1,758m from Local Centre. |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade** | Third party land not currently in promoter's control would be required to deliver off site transport works, but third party has indicated willingness. Public footpaths cross the site.<br><br>Access from the A414. This would require a number a new River Stort crossing as development progresses to facilitate high quality pedestrian, cycle and public transport links with Harlow. |
| **Transport Modelling Findings** | **VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable.** | M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |

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| **Potential for Sustainable Modes of Transport** | **Potential to improve access to public transport, cycling and walking and connectivity with Harlow town centre, rail station and employment sites.** | Large site with good potential to link to town centre, rail station and employment sites and potentially to other development sites around the town e.g. aspiration for a sustainable north-south link with Latton Priory (Site M).<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 7**<br>**Decile 2** | **Comments**<br>Mostly 7 with some areas of 2 in the north-east and south. Very small areas of 4 on the southern boundary. Though it is not in an area of high deprivation, area has significant potential to address high levels of deprivation across Harlow as a whole. |
| **Housing Need / Affordability** | **Decile 1**<br>**Decile 2** | Site covers Deciles 1 and 2 of barriers in access to housing and services; therefore, development of site would have a strongly positive impact on this criterion |
| **Economic Growth** | **High Potential** | Large scale of the site will in itself have strongly positive economic impact, likely transformative for town if appropriately integrated; site physically closest to Harlow Town station and town centre, thus likely to enhance its vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. |
| **Local Integration** | **Low Potential** | River Stort and its flood plain mean that local integration would be challenging, even with an additional river crossing, although presence of the stations to the south would mean some gravitational pull towards the town. Emerging masterplan envisages freestanding villages. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |

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| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Intersects** | **Comments**<br><br>Over Head Line runs through the site from west to north-east..<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ Primary road network<br>☐ 3 new access points to the site<br>☐ Bus infrastructure<br>☐ Substation<br>☐ New crossing of the River Stort adjacent to the Eastwick Crossing<br>☐ Burnt Mill roundabout signalisation<br>☐ Replacement of existing roundabout at the A414 Fifth Avenue junction with traffic signals<br>☐ Provision of northern station access |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements | Green Wedges provide usable open landscape between neighbourhoods and a connection to the countryside.<br><br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ Cycle routes and footways within the site and connecting the site to the surrounding area<br>☐ 840ha of green space |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage) | Sustainable urban drainage systems (SUDS) such as swales and holding ponds are proposed to reduce the risk of flooding.<br><br>The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ On site waste water treatment facilities<br>☐ Contribution to the upgrade of the off-site water mains and onsite water supply infrastructure |

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| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | Will need to provide significant local infrastructure.<br><br>The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ 5 primary schools<br>☐ 2 secondary schools<br>☐ Leisure centre<br>☐ 2 primary care centres<br>☐ Community centre and Place of Worship<br>☐ Police station<br>☐ 6 crèches |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*B) City and Country*

| *GENERAL INFORMATION* | | | | | |
|---|---|---|---|---|---|
| **Site location** | Within Gilston Park Estate | | | | |
| **Local Authority** | East Herts | | | | |
| **Direction of growth around Harlow** | North | | | | |
| **Gross area** (hectares) | ~7.5 ha | | | | |
| **HELAA site reference** (if applicable) | 21/006 | | | | |
| **Owned by / Promoted by** | City and Country | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land within a settlement boundary | | | | |
| **Surrounding land uses** | Agriculture and residential | | | | |
| **Current / previous use** | Agriculture | | | | |
| **Assumed capacity** | 160 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
|---|---|---|
| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2**<br>**Zone 1** | **Comments**<br>Site is mainly within Flood Zone 1.<br>Flood Zone 2 and 3 (north-eastern boundary of the site) |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | Eastern boundary is shared with waterbody with high to medium risk of flooding. Site is within area that has very low risk of flooding. |
| **Groundwater Flooding** | **Low** | No groundwater flooding exists on site. |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | Adjacent to Wildlife Site 61/028<br><br>No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Southeast and eastern edge of the site intersects with Deciduous Woodland Priority Habitat. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Does not intersect Environmental Stewardship agreement area. |
| **Woodland** | **No woodland present** | Southeast and eastern edge of the site intersects with Deciduous Woodland Priority Habitat. |
| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments**<br>The whole site contains rocks with essentially no groundwater. |
| **Hydrological Sensitivity** | **Low leaching potential** | |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | Gilston Park is referred to in HCC documentation on historic parks and gardens.<br>East Herts LCA characterises the area as having Moderate Character and Moderate Condition |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development unlikely to have an effect on settlement character** | East Herts LCA indicates that built development and land use change in the corresponding landscape area (#81) has not created significant landscape impact. This area is on the fringe of an existing settlement so with correct landscaping, could have minimal landscape impact.<br>Considerations for the site are:<br>Veteran and parkland trees and woodland management<br>Protecting the historic integrity of the landscape |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of | **High = Inappropriate land area for release.** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 51).<br><br>However, no significant Green Belt impact would result from the |

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| development' | | development of such a small site if considered as part of Site A and E. It would comprise a small extension from the existing buildings surrounding Gilston Park house. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Site intersects two listed buildings, to the west Gilston Park House and to the east New Place, which are Grade II* and Grade II, and is within 50m to 500m of eleven others.<br><br>Proposed site adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **Intersects or <50m** | Mitigation needed. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **The site would result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | Careful design needed due to adjacent listed buildings |

| *TRANSPORT AND ACCESSIBILITY* | | |
|---|---|---|
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **>800m** | |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br>**3-10km from Junction 7 of M11** | Site is 1,034m from A414<br>Site is 6,555m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **>800m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 2,185m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 1,433m from Existing Employment Areas |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |

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| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 1,758m from Local Centre |
| **Primary School** | **>1.6 km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade Access can be created within landholding to adjacent highway** | |
| **Transport Modelling Findings** | **Site would not give rise to significant additional trip generation with potential adverse impact on highways network** | Small site which on its own is unlikely to have a material impact upon the Harlow town network or SRN (strategic road network) |
| **Potential for Sustainable Modes of Transport** | Small site with limited potential to deliver material improvements to sustainable transport modes.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Neutral impact |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation** Adjacency for beneficial impact on deprivation | **Decile 7** | Site itself not in an area of high multiple deprivation and likely too small to have significant impact on deprivation levels elsewhere. |
| **Housing Need / Affordability** | **Decile 2** | Site covers Decile 2 of barriers in access to housing and services; therefore, development of site would have a strongly positive impact on this criterion |
| **Economic Growth** | **Moderate potential** | Site physically close to Harlow Town station and town centre, thus likely |

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| | | to enhance its vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. However, small size of site means potential only moderate |
| **Local Integration** | **Moderate potential** | Possible integration with existing Gilston Park development but nothing beyond unless site A is developed. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*C) Land North of Pye Corner*

| *GENERAL INFORMATION* | | | | |
|---|---|---|---|---|
| **Site location** | Between Gilston Park Estate and Harlow | | | |
| **Local Authority** | East Herts | | | |
| **Direction of growth around Harlow** | North | | | |
| **Gross area** (hectares) | ~2.5 ha | | | |
| **HELAA site reference** (if applicable) | 21/001 | | | |
| **Owned by / Promoted by** | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** |
| | Majority of site is greenfield land adjacent to a settlement | | | |
| **Surrounding land uses** | Agricultural land surrounds the majority of the site with some houses and a pub present on the southern corner | | | |
| **Current / previous use** | Agricultural land | | | |
| **Assumed capacity** | 50 dwellings | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium** | A small area of high risk of surface flooding can be found in the centre of the site, with a medium risk of surface flooding on the southern boundary of the site. |
| **Groundwater Flooding** | **Low** | No groundwater flooding exists on site. |
| **Agricultural Land Classification** | **Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **400m – 1km** | Site is located within 400m -1km to Harlow Marsh LNR.<br><br>No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **400m – 1km** | Site is located 400m – 1km from Lowland Fens Priority Habitat Inventory.<br><br>No effect as features and species could be retained or due to distance of BAP priority habitats from site. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Site shares a boundary with an area under environmental stewardship. |
| **Woodland** | **No woodland present** | No impact to Ancient Woodland anticipated. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments**<br>The whole site has rocks with essentially no groundwater. |
| **Hydrological Sensitivity** | **Low leaching potential** | |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | | **Comments** |

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| | **Flat** | No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | East Herts LCA characterises the area as having Moderate Character and Moderate Condition |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development unlikely to have an effect on settlement character** | East Herts LCA indicates that built development and land use change in the corresponding landscape area (#81) has not created significant landscape impact.<br>This area is on the fringe of an existing settlement so with correct landscaping, could have minimal landscape impact. Considerations for the site are:<br>Managing existing and providing new grassland<br>The protection and replanting of hedges to enhance the landscape character |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 52).<br><br>However, no significant impact to the function of the Green Belt would result from the development of this small site if considered a part of the Sites A and E. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, | **50m 500m** | **Comments**<br>Site is within 500m of a scheduled monument to the west and Grade II listed buildings to the south and west. |

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| Scheduled Monuments | | No effect likely on historic assets due to distance from site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Two bus stops on the southern and eastern boundary of the site. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**3-10km from Junction 7 of M11** | Site is 789m from A414<br><br>Site is 5,810m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open | **400-800m** | |

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| countryside / open space beyond.<br>(50k base OS mapping) | | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km**<br>**1 – 1.5 km**<br>**<1 km** | Tbc |
| **Key employment site other than EZ** | **1 – 1.5 km** | Site is 1,493m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,459m from Local Centre |
| **Primary School** | **>1.6 km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | |
| **Transport Modelling Findings** | **Site would not give rise to significant additional trip generation with potential adverse impact on highways network** | Small site which on its own is unlikely to have a material impact upon the Harlow town network or SRN (strategic road network) |

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| **Potential for Sustainable Modes of Transport** | Small site with limited potential to deliver material improvements to sustainable transport modes.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Neutral impact |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | Decile 7 | **Comments**<br>Site itself not in an area of high multiple deprivation and likely too small to have significant impact on deprivation levels elsewhere. |
| **Housing Need / Affordability** | Decile 2 | Site covers Decile 2 of barriers in access to housing and services; therefore, development of site would have a positive impact on this criterion |
| **Economic Growth** | Medium Potential | Small scale of the site will result in lesser positive economic impact than all other sites; however, site close to Harlow Town station and town centre, thus likely to contribute to its vitality and viability; also well located for the enterprise zones, existing industrial estates and the rail corridor, although slightly further from the M11 than some other sites. |
| **Local Integration** | Low Potential | Low potential to integrate with neighbourhoods in need of revitalisation. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | Falls outside | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | Falls outside | Development would not involve the loss of public open space. |

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| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*D) Land south of High Wych / North of Redricks Lane*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | At the North Eastern tip of Harlow | | | | |
| **Local Authority** | East Herts | | | | |
| **Direction of growth around Harlow** | North | | | | |
| **Gross area** (hectares) | ~50.5 ha (combined HELAA site 21/002 =135.83ha) | | | | |
| **HELAA site reference** (if applicable) | 21/002 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land that is not adjacent to a settlement. There is a farm building at the centre of the site. | | | | |
| **Surrounding land uses** | Predominantly agricultural land on the western side of the site, whilst the eastern side borders a mixture of agricultural land and developed land in the settlement of High Wych. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 2117 dwellings | | | | |
| *ENVIRONMENTAL CONTEXT* | | | | | |
| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments** | | | |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use not likely to be significant alone |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **>1km** | No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon**<br>**400m – 1km** | A pocket of Woodland Priority Habitat in the southern tip of the site; The Site is located 400m – 1km to Grassland Priority Habitat, Woodland Priority Habitat and Lowland Fens Wetland Priority Habitat.<br><br>Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Does not intersect with Environmental Stewardship |
| **Woodland** | **Part of the site in woodland** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | TPOs exist but at a sufficiently low density that removal could be largely |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Inner zone (Zone 1)**<br>**Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>Majority of site within Zone 1, 2 and 3 Source Protection Zone, expect south-western corner. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Hydrological Sensitivity** | **Low leaching potential** | Part of eastern corner within Low Productivity Aquifer but rest of site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>Though the site is on a mild hill, there are no known constraints |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | East Herts LCA characterises the area as having Low Character and Moderate Condition |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | East Herts LCA indicates that built development and land use change in the corresponding landscape area (#81) has had high impact on the area condition.<br>Development for site F would have to make special consideration for preserving the character of High Wych which has to present retained its village character. The LCA recommends encourage the reduction of urban impact by dense woodland planting around settlements.<br>Vegetation and wildlife is not exceptional in the area, and many historic hedges have been removed.<br>From the outside, views to this area are largely concealed, though there are some visual links with the industrial area to the North of Harlow.<br>There is also widespread visual impact on the development from suburban development and a transport corridor running through the |

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| | | south of the site. Though development would cause significant visual impact, considering the land condition is rated low, and there are already surrounding visual disamenities, we can conclude that development may be appropriate in this landscape provided that it is respectful of High Wych. |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release without significant development restrictions on site** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 55).<br><br>Development of this site would risk coalescence of Harlow and High Wych. It would also obstruct connectivity between the Green Belt land north of High Wych Road and the land South of road. The associated risks for release suggest that it is unsuitable for development. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Site is less than 50m from listed buildings, 3 directly to the south (Grade II and Grade II*) and Grade II building to the north. |
| **Conservation Area** | **Intersects or <50m** | Potential to affect the setting of Listed Buildings and Conservation Area. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **The site would result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **<1 km** | |
| **Distance to nearest bus stop** | **<400m** | Site is adjacent to various bus stops on the western, northern and eastern boundaries. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**3-10km from Junction 7 of M11** | Site is 977m from A414<br><br>Site is 5,856m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Site is 302m from nearest Enterprise Zone |

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| **Key employment site other than EZ** | **<1 km** | Site is 934m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 3,976m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade** | Would need further testing<br><br>Other access issues to be determined once scale of development is known.<br><br>Build main junctions and roundabouts on A414. |
| **Transport Modelling Findings** | | Large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Jct 7 and Jct 8.<br><br>M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |

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| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9** | **Comments**<br>A very small area of Decile 2 lies on the western boundary. Site itself not significantly deprived and likely too disconnected from heavily populated areas of deprivation for it to have a significant impact on this criterion. |
| **Housing Need / Affordability** | **Decile 5** | Site is in an area average in its barriers in access to housing and services (5th decile). Therefore, it performs only moderately well on this criterion relative to other sites. |
| **Economic Growth** | **High Potential** | Site very well located for the enterprise zones, existing industrial estates and the rail corridor, and on the right side of settlement for M11 access. |
| **Local Integration** | **Low Potential** | Isolated site. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |

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| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*E) Land north of A414/ West of Gilston*

| *GENERAL INFORMATION* | | | | |
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| **Site location** | North of A414/ West of Gilston | | | |
| **Local Authority** | East Herts | | | |
| **Direction of growth around Harlow** | North | | | |
| **Gross area** (hectares) | ~117 ha | | | |
| **HELAA site reference** (if applicable) | 29/004 | | | |
| **Owned by / Promoted by** | City & Provincial Properties | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** |
| | Majority of site is greenfield land that is not adjacent to a settlement. There is a farm building at the centre of the site. | | | |
| **Surrounding land uses** | Predominantly agricultural land. There is some woodland to the west and a historic housing estate to the north. | | | |
| **Current / previous use** | Agricultural | | | |
| **Assumed capacity** | Approximately 10,000 units (over at least two plan periods) – this site is considered as part of Site A | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **Intersects or <1.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use not likely to be significant alone need to be checked for in-combination effects |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | Use of IRZs confirms no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. However site is only 0.2km to the north of Hunsdon Mead SSSI. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **>1km** | Adjacent to two Wildlife Sites – 61/004 and 61/014 |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | A pocket of Woodland Priority Habitat in the southern tip of the site;<br>Site contains pockets of Woodland Priority Habitat and is in close proximity to Grassland Priority Habitat and adjacent Woodland Priority Habitat.<br><br>Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Adjacent to agricultural land under environmental stewardship |
| **Woodland** | **Part of the site in woodland** | Site adjacent to Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>Site is all in Source Protection Zone 2 and 3. |
| **Hydrological Sensitivity** | **Low leaching potential** | Site fully contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **Greater than 30** | Southern half of site is within Radon. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>No known constraints – only a moderate slope towards the southeast of the site. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

| | | |
|---|---|---|
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | East Herts LCA characterises the area as having Moderate Character and Moderate Condition |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | East Herts LCA indicates that built development and land use change in the corresponding landscape area (#81) has not created significant landscape impact. However, the area of this particular site raises concern as it would inevitably have an effect on the landscape character. Development would have to pay due attention to numerous factors including:<br>Views to and from the northern edge of Harlow over the Stort Valley<br>Veteran trees and woodland management<br>The protection and replanting of hedges to enhance landscape character<br>Managing existing and providing new grasslands to offset the loss of biodiversity and character from development |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release unless land is re-designated as Green Belt to the north of the site.** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 49).<br><br>Removal of this site from the Green Belt would be significant as the site sits on the edge of the outer perimeter of the Green Belt. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as** | **Intersects or <50m** | **Comments** |

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| **being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | | Site contains two Grade II listed buildings at Brickhouse Farm, and is within close proximity to a number of listed buildings and two scheduled monuments to the east (<500m). |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **50m 500m** | No effect likely on historic assets due to distance from site. Briggens Park to the south-west of the site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Number of bus stops on the southern boundary of the site. |
| **Links to strategic road network** | **Immediately adjacent to A414** | Site is 65m from A414 |

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| **(M11 and A414)** | **3-10km from Junction 7 of M11** | Site is 6,782m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 3,642m from J7 M11 |
| **Key employment site other than EZ** | **1 – 1.5 km** | Site is 1,332m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 1,629m from Local Centre |
| **Primary School** | **>1.6 km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Access can be created within landholding to adjacent highway** | Access to be determined |

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| **Transport Modelling Findings** | **VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable.** | Large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Jct 7 and Jct 8.<br><br>M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 7** | **Comments**<br>Site not itself in area of high multiple deprivation, but due to scale and location, has some potential to positively impact on this criterion in eastern half of Harlow. |
| **Housing Need / Affordability** | **Decile 2** | Site covers Decile 2 of barriers in access to housing and services; therefore, development of site would have a strongly positive impact on this criterion |
| **Economic Growth** | **High Potential** | Relative size of the site will in itself have a positive economic impact; site physically close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; well located for some (but not all) existing industrial estates and the rail corridor, although distance from the M11 is considered to reduce its potential to medium |

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| **Local Integration** | **Low Potential** | Only worth considering as part of a wider development. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Intersects** | **Comments**<br><br>Over Head Line runs through the site from west to east in the northern section of the site.<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ Eastwick roundabout improvements<br>☐ A414/Church Lan junction improvements<br>☐ New junction along A414<br>☐ A secondary Stort Crossing<br>☐ Bus subsidy<br>☐ Energy centres<br>☐ Widening of the existing Fifth Avenue Stort Crossing<br>☐ Burnt Mill roundabout capacity upgrade<br>☐ Footbridge/cycle paths across A414 |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | Green Wedges provide usable open landscape between neighbourhoods and a connection to the countryside. |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | Sustainable urban drainage systems (SUDS) such as swales and holding ponds are proposed to reduce the risk of flooding. |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ Primary schools<br>☐ Secondary school<br>☐ Community Centre<br>☐ Place of Worship<br>☐ Library<br>☐ Crèche<br>☐ Healthcare centre |

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| | | ☐ Money contribution to fire services |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*F) Sayes Park Farm Land west of High Wych / East of Gilston*

### *GENERAL INFORMATION*

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| **Site location** | West of High Wych and East of Gilston | | | |
| **Local Authority** | East Herts | | | |
| **Direction of growth around Harlow** | North | | | |
| **Gross area** (hectares) | ~174 ha | | | |
| **HELAA site reference** (if applicable) | 27/002 | | | |
| **Owned by / Promoted by** | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ |
| | Majority of site is greenfield land that is not adjacent to a settlement. There are 2 farm buildings in the centre of the site. | | | |
| **Surrounding land uses** | Predominantly agricultural land. To the northeast lies a golf course and the small settlement of High Wych. | | | |
| **Current / previous use** | Agricultural | | | |
| **Assumed capacity** | 3388 dwellings | | | |

### *ENVIRONMENTAL CONTEXT*

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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2** | **Comments**<br>Flood Zone 2 and 3 (part of site)<br>Site within Flood Zone 2 and exception test not required |

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| | | Site within Flood Zone 3a where exception test required |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **400m – 1km** | Features and species may not be retained in their entirety but impact can be mitigated.<br><br>Contains a Site for Importance for Nature Conservation in the south-west of the site.<br><br>Wildlife Site 27/002 |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | A pocket of Woodland Lowland Fens Wetland Priority Habitat.<br><br>Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Part of the site in woodland** | Site adjacent to the east of Ancient Woodlands but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Inner zone (Zone 1)**<br>**Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>Source Protection Zones 1, 2 and 3 only intersecting on the eastern boundary. |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Land Contamination**<br>Historic landfill sites, Made Ground | **Falls outside** | No contamination on site. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>No known significant constraints – a small dip through the centre of the site |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | East Herts LCA characterises the area as having Moderate Character and Moderate Condition |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development would be likely to harm the existing settlement character.** | East Herts LCA indicates that built development and land use change in the corresponding landscape area (#81) has not created significant landscape impact. However, the area of this particular site raises concern as it would inevitably have an effect on the landscape character. Development would have to pay due attention to numerous factors including:<br>Views to and from the northern edge of Harlow over the Stort Valley<br>Veteran and parkland trees and woodland management<br>The protection and replanting of hedges to enhance landscape character<br>Managing existing and providing new grasslands to offset the loss of biodiversity and character from development<br>Preserving the village character of High Wych |
| **Green Belt** | **Entirely within Green Belt** | |

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| Based on local study findings | | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 52 & 55).<br><br>Release of this site would remove a large chuck of Green Belt on its northern frontier which may be problematic if no reallocation occurs. Development of this land would act as a disruptor to the openness of Green Belt land to the north of Harlow, albeit the southern tip of site borders industrial quarry land. Development of this site could risk coalescence with High Wych. However, there may be potential for a small portion to the west to be considered alongside Site A. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br><br>Site is within close proximity to a number of Grade II listed buildings in High Wych (<50m). |
| **Conservation Area** | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Setting of Heritage Assets** | **The site could result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | Impact on High Wych CA |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Bus stop within site on High Wych Road. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Sites is 1,293m to A414<br><br>Sites is 6,031m to J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **>800m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Sites is 827m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Sites is 693m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |

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| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,482m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Access can be created within landholding to adjacent highway** | |
| **Transport Modelling Findings** | | Large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Jct 7 and Jct8.<br><br>M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |

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| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 2** | **Comments**<br>Small area in south-western corner within Decile 7. Site is in relatively deprived location and, as such, has good potential to help address it through development. |
| **Housing Need / Affordability** | **Decile 1** | Site is in an area with very significant barriers in access to housing and services (1st decile). Therefore, it performs very well on this criterion relative to other sites. |
| **Economic Growth** | **High Potential** | Relatively large scale of the site will in itself have positive economic impact, site moderately close to Harlow Town station and town centre, thus likely to enhance its vitality and viability; also very well located for the enterprise zones, existing industrial estates and the rail corridor, and well-located for M11. |
| **Local Integration** | **Low Potential** | Little potential for integration – isolated without wider Harlow North development |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |

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| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*G) Land North of the Stort / South of Gilston*

| *GENERAL INFORMATION* | | | | |
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| **Site location** | North of the Stort and South of Gilston | | | |
| **Local Authority** | East Herts, with a small portion in Harlow | | | |
| **Direction of growth around Harlow** | North | | | |
| **Gross area** (hectares) | ~74 ha (combined HELAA site 21/002 135.83ha) | | | |
| **HELAA site reference** (if applicable) | 21/002 | | | |
| **Owned by / Promoted by** | Stort Landowners Consortium | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>☐ | **Brownfield**<br>☐ | **Mixture**<br>☒ | **Unknown**<br>☐ |
| | Majority of site is previously developed land that is not adjacent to a settlement the site comprises of quarries – some of which have been repurposed to greenfield land whilst others remain active industrial sites. | | | |
| **Surrounding land uses** | Primarily agricultural land on the northern side with the River Stort abutting to the south. Beyond the river is an industrial estate in Harlow. | | | |
| **Current / previous use** | | | | |
| **Assumed capacity** | 900 dwellings (suggested by promoter) | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site** | **Zone 3** | **Comments** |

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| **fall within or intersect with?** | **Zone 2** | Site within Flood Zone 3a where exception test required |
| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium** | |
| **Groundwater Flooding** | **High** | |
| **Agricultural Land Classification** | **Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Site is within 1.5km to 7.5km of Lee Valley Ramsar and SPA site.<br><br>Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | Adjacent to Harlow Marsh LNR. Part of a Site of Importance for Nature Conservation falls within the south-west corner of the site.<br><br>Features and species may not be retained in their entirety but impact can be mitigated. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site contains Woodland Priority Habitat is located on the southern edge of the site and is adjacent to Woodland Priority Habitat.<br><br>Features and species unlikely to be retained and impact cannot be mitigated. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **None** | No TPO or TPO exists but potential to develop site with no loss of TPO Trees |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Land Contamination**<br>Historic landfill sites, Made Ground | **Potential contamination** | Former landfill site, would need remediation |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau – some steep gradients** | **Comments**<br>Site has moderate slopes towards its central area, with a small hill on the western edge. Quarries within the site make this the most unviable site in regards to topography, yet this would not limit development. In conclusion:<br>Constraints exist but potential for mitigation. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity** | East Herts LCA characterises the area as having Moderate Character and Moderate Condition.<br><br>High Biodiversity Area.<br><br>Adjacent to a potential new Green Finger. Adjacent to a Green Wedge. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could both contribute to or detract from the existing settlement character** | East Herts LCA indicates that development in the area should be resisted if within or adjacent to the floodplain as it is the source of much of the ecological character for the area. The wetland habitats in particular require conservation considerations.<br>Views to and from the area are generally restricted by vegetation and buildings. It is, however, influenced by the urban envelope with noise pollution from the railway, road and planes.<br>The area is highly valued by the community, and is recognised as a High Biodiversity Area.<br>Though views are restricted, community and ecological damage are hard to avoid in the non-industrial sections of the site. The more industrial areas of the site offer opportunities for landscape enhancement. On |

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| | | balance, this site both has the potential to improve and detract from the landscape character of the area. |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Low = Highly appropriate land area for release.** | In 2015 East Herts Green Belt Review, the site is rated as having "Very Low" suitability for development, and that "Land is Fundamental to the Green Belt" (Site ref. 53).<br><br>Though the area is rated unsuitable for development in the Green Belt review, some development of the site could be considered alongside Sites A and E.<br><br>Site contains some low quality industrial land and is in close proximity to the urban periphery of Harlow; its development would not significantly be of detriment to the value of the Green Belt. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Site is within close proximity to a number of listed buildings (<50m) and contains one Grade II listed building in the north of the site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be significantly affected by the site allocation** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **<1 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **<1 km** | |
| **Distance to nearest bus stop** | **<400m** | Site is adjacent to a number of bus stops to the west. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**3-10km from Junction 7 of M11** | Site is 509m from A414<br><br>Site is 5,282m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **400-800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Site is 60m from enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 19m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |

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| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,627m from Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade** | Other access issues to be determined once scale of development is known. |
| **Transport Modelling Findings** | | Large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Jct 7 and Jct 8.<br><br>M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |

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|---|---|---|
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9**<br>**Decile 7**<br>**Decile 2** | **Comments**<br>Though site is itself largely outside an area of significant deprivation, it is directly adjacent to the deprived urban edge, and as such is considered to have a strong potential to have a positive impact on this criterion if developed. |
| **Housing Need / Affordability** | **Decile 5**<br>**Decile 1**<br>**Decile 2** | Site is in an area of mixed housing need but considering wider context, development is likely to have a positive impact on this criterion. |
| **Economic Growth** | **Moderate potential** | Site itself is in an area of low deprivation, but development likely to have a positive impact due to proximity of industrial estates, enterprise zones and M11. However, site a little further from town centre, so less of an impact on its viability and vitality. |
| **Local Integration** | **Moderate potential** | Potential to form link between any new communities to north and existing town. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | High potential for blue infrastructure |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*H) Land to east of Lower Sheering*

| *GENERAL INFORMATION* | | | | | |
|---|---|---|---|---|---|
| **Site location** | East of Lower Sheering | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | East | | | | |
| **Gross area** (hectares) | ~37.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0032, SR-0121, SR-0313, SR-0472 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | Lower Sheering, a small village, is situated the west of the site, whilst the surround uses are farmland. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 1049 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
|---|---|---|
| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 3**<br>**Grade 4** | Development would involve loss of best and most versatile agricultural land (grade 1-3)<br>Development would result in loss of poorer quality agricultural land (grade 4-5) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **500m-2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. Sawbridgeworth Marsh SSSI to the north of the site. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **>1km** | No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site is less than km from Grassland Priority Habitat and Woodland Priority Habitat.<br><br>Features and species may not be retained in their entirety but impact can be mitigated |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Woodland** | **No woodland present** | No impact to Ancient Woodland anticipated. |
| **Tree Preservation Order(s)** | **Contains** | TPO's located on the southern side of the site. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Small part of site to the west within a Low Productivity Aquifer. Rest of the site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site, which could be mitigated.<br>Potential contamination over parts of the site centrally and in the south (Piggeries, Maltings, infilled pit/ponds and landfill within 250m).<br>Potential adverse impact that could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **1-3** | Small portion of the site in the south and north contains Radon. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity** | The site is within Epping Forest Landscape Character Area B1 and designated as being of High Landscape Sensitivity in majority of the site.<br><br>High Sensitivity in Settlement Edge Landscape Sensitivity Study. |

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| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site lies within Epping Forest LCA landscape area B<br><br>B1 has a high sensitivity to change.<br>This area has offers views down the valley towards the River Stort and is rated as relatively tranquil due to this setting and the sense of enclosure as a result of lots of vegetation.<br>The LCA recommends that any development should be small scale, responds to the historic settlement pattern and is of the local vernacular style.<br>The land in the site is predominantly intensive agriculture.<br>Development considerations include:<br>Managing occasional veteran trees<br>Responding to the strong pattern of trees lining the valley sides and brownfield boundaries particularly in preserving the landscape setting of nearby settlement, Lower Sheering.<br>The predominantly historic field pattern<br>Maintaining open views along the valley corridor and towards the Stort<br>Conserving the rural character and tranquility of the area<br>Enhancing wetlands habitats if and where they cross the site |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1, and High contribution to Green Belt purposes in the Stage 2 report (2016), so the suitability for development is low (area ref. DSR-002). The land is predominantly agricultural in character, and sits between Lower Sheering and the M11 and railway line. Development of this site would have a notable impact on the openness of this narrow wedge of land between the two arterial transport infrastructure elements. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, | **Intersects or <50m** | **Comments**<br>Opportunity to enhance significance of the historical asset/ further reveal its significance / enhance the setting. Grade II Listed buildings within the western boundary of the site, and to the south-west corner. Grade II* |

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| Scheduled Monuments | | Listed building to the north of the site. |
| **Conservation Area** | **Intersects or <50m** | Adjacent to a conservation area on the northern boundary. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **Intersects or <50m** | Opportunity to enhance significance of the historical asset/ further reveal its significance / enhance the setting. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | Site entirely falls within an area of high sensitive to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments**<br>But adjacent to Sawbridgeworth Station |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | But adjacent to Sawbridgeworth Station |
| **Distance to nearest bus stop** | **<400m** | Contains and is adjacent to a number of bus stops. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 2,797m from A414<br><br>Site is 6,749m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |

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| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Contains various Public Right of Ways. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **1 – 1.5 km** | Site is 2,077m from Enterprise Zone |
| **Key employment site other than EZ** | **1 – 1.5 km** | Site is 2,077m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 800-1600 m from nearest principal, smaller or district centre** | Site is 1,312m from Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Access is sufficient. |
| **Transport Modelling Findings** | **The ability of sites to the east of Harlow to accept significant levels of growth remains unproven in the VISSUM modelling undertaken for Essex County Council** | More than 1km from nearest identified key congested junction. |

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|---|---|---|
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on one of public transport, cycling or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 8** | **Comments**<br>Site small, not deprived itself and distant from areas of multiple deprivation. As such, development here is likely to have little impact on this criterion. |
| **Housing Need / Affordability** | **Decile 2** | Site covers Decile 2 of barriers in access to housing and services; therefore, development of site would have a positive impact on this criterion |
| **Economic Growth** | **Moderate potential** | Site is remote from economically deprived areas and is relatively small. However, its excellent access to the M11 and Stansted airport raises its potential to at least moderate. Site is adjacent to an Epping ELR Cluster. |
| **Local Integration** | **Low potential** | Few opportunities to connect into Lower Sheering due to layout of village |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |

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| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*I) Land off Sheering Lower Road and Harlow Road*

| *GENERAL INFORMATION* | | | | |
|---|---|---|---|---|
| **Site location** | Around Sheering Lower Road and Harlow Road | | | |
| **Local Authority** | Epping Forest with the West side of the site in Harlow | | | |
| **Direction of growth around Harlow** | East | | | |
| **Gross area** (hectares) | ~164.5 ha | | | |
| **HELAA site reference** (if applicable) | SR-0403 | | | |
| **Owned by / Promoted by** | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ |
| | Majority of site is greenfield land that is not adjacent to a settlement | | | |
| **Surrounding land uses** | The northwest of the site is bound by the railway line to Stansted, whilst the remainder is farmland. A small section of the site in the northeast borders the M11. | | | |
| **Current / previous use** | Agricultural | | | |
| **Assumed capacity** | 1550 dwellings | | | |

| *ENVIRONMENTAL CONTEXT* | | |
|---|---|---|
| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2**<br>**Zone 1** | **Comments**<br>Site is largely within Zone 1 |

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| | | Part of the site within Zone 2 and 3 due to watercourse traversing site from east to west. Some 94% of the site is in flood zone 1. Higher flood risk areas 2 and 3a, covering 6%, are located in the southern part of the site and flood risk can be mitigated through site layout. |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3**<br>**Grade 4**<br>**Non Agricultural**<br>**Urban** | Development would result in loss of poorer quality agricultural land (grade 4-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1 3) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | Features and species could be retained and there are opportunities to enhance existing features.<br><br>Pincey Brook Meadows Local Wildlife Site covers small part of site and would need to be retained.<br><br>Site of Importance for Nature Conservation lies within the south-west of the site. |

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| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site is less than km from Grassland Priority Habitat and contains Woodland Priority Habitat.<br><br>Features and species may not be retained in their entirety but impact can be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Part of the site in woodland** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | TPOs exist but at a sufficiently low density that removal could be largely mitigated. Small clusters in the centre of the site.<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **High leaching potential**<br>**Low leaching potential** | Eastern half of site contains rocks with essentially no groundwater, while western half of site contains low productivity aquifer and a small section of highly productive aquifer. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site, which could be mitigated.<br><br>Potential contamination on southern part of the site and small clusters with the centre and northern boundary (Filled Clay Pits, Gravel Pits and Ponds, Offsite Landfill Site within 250m and Farmyards). Potential adverse impact that could be mitigated |
| **Radon**<br>Percentage of homes at or above the Action Level | **Greater than 30** | More than half of the site on the western side is within Radon. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>No known constraints Site has a mild dip in the centre running from east to west |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity**<br>**Medium Sensitivity** | The site lies across two Landscape Character Areas B1 has a high sensitivity to change whilst C1 has moderate sensitivities.<br><br>Settlement Edge Landscape Sensitivity Study notes Sensitive Historic Landscape – pre-18$^{th}$ Century fields in northern part of site.<br><br>Small section of southern part of the site falls with a Special Landscape Area. |
| **Landscape Impact / Spatial Opportunities and Constraints** | Qualitative judgment on conservation & positive enhancement of valued landscapes and settlement character | The site lies across two Epping Forest LCA landscape areas B1 and C1, both of which offer views down the valley towards the River Stort. B1 has a high sensitivity to change whilst C1 has moderate sensitivities. B1 is rated as relatively tranquil due to the river setting and sense of enclosure as a result of lots of vegetation.<br>The LCA recommends that any development should be small scale, responds to the historic settlement pattern and is of the local vernacular style.<br>It is also noted that the areas will lose their tranquility on approach to the M11 which is a significant visual and aural disamenity to the landscape.<br>The land in the site is predominantly intensive agriculture. |

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| | | Development considerations include:<br>Managing occasional veteran trees and ancient woodland<br>Responding to the strong pattern of trees lining the valley sides and brownfield boundaries particularly in preserving the landscape setting of nearby settlement, Lower Sheering.<br>The predominantly historic field pattern<br>Maintaining open views along the valley corridor and towards the Stort<br>Conserving the rural character and tranquility of the area (away from the M11) |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | Part of this site rated as having "Relatively Strong/Strong" contribution to Green Belt purposes on its western edge, "Moderate Contribution" on eastern half in the 2015 Epping Forest Green Belt Review Stage 1, and mostly Very High contribution to Green Belt purposes in 2016 Stage 2 report, so the suitability for development is low (area ref. DSR-002 & DSR004).<br><br>Development between the railway line to west and the M11 would result in reduction of openness of Green Belt. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Contains both Grade II and Grade II* Listed Buildings in the centre of site, and Grade II listed buildings to the north of the site. Scheduled Monument lies to the south-west of the site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed |

| | | |
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| | | Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **Intersects or <50m** | Registered Park or Gardens on Marsh Lane and Bonks Hill, both adjacent and slightly within the site. |
| **Registered Battlefields** | **>500m** | |
| **Locally listed building** | **Intersects or <50m** | Opportunity to enhance significance of the historical asset/ further reveal its significance / enhance the setting. |
| **Setting of Heritage Assets** | **The site seeks offers to protect and enhance heritage assets, has a positive effect on the historic environment, or provides an opportunity to better reveal the significance of heritage assets** | However the site does fall within a high sensitivity of change area. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Contains two bus stops on the southern boundary on Sheering Road. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 1,471m from A414<br><br>Site is 5,085m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **<400m** | Adjacent on the southern boundary. |

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|---|---|---|
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Various Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Site is 953m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 953m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 1,831m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Suitable access to site already exists. Access is sufficient.<br><br>Note: Potential park & ride |
| **Transport Modelling Findings** | **The ability of sites to the east of Harlow to accept significant levels of growth remains unproven in the VISSUM modelling undertaken for Essex County Council** | More than 1km from nearest identified key congested junction. |

| | | |
|---|---|---|
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 8** | **Comments**<br>Small part of site within Deciles 5 and 7. However, in general terms, site is in an area of low deprivation and distant/detached from areas of multiple deprivation. As such, development would have little impact on this criterion. |
| **Housing Need / Affordability** | **Decile 1**<br>**Decile 2** | Site is in an area of high housing need and as such would have a positive impact on this criterion. |
| **Economic Growth** | **Moderate potential** | Site is very well located for the M11 and Stansted Airport. However, it is more distant from Harlow Town station and the town centre, thus having a negligible effect on its vitality and viability. Though on the right side of town for the Enterprise Zones, and some industrial estates, it is relatively distant from them. |
| **Local Integration** | **Low potential** | No integration potential without wider development. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ Potential park and ride<br>☐ Highway improvement works along Gilden Way and Sheering |

| | | |
|---|---|---|
| | | road (B183)<br>☐ London Road/ First Avenue improvement works |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | Possible on site waste water treatment works and surface water attenuation<br><br>The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ Surface water attenuation on site<br>☐ Possible on-site waste water treatment works |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ Primary schools (4FE)<br>☐ Possible secondary school |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*J) Harlow East*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | Between the western edge of Harlow and the M11 | | | | |
| **Local Authority** | Harlow and Epping Forest | | | | |
| **Direction of growth around Harlow** | East | | | | |
| **Gross area** (hectares) | ~267.5 ha | | | | |
| **HELAA site reference** (if applicable) | SA4, SA11, SA20, SA109, SA249, SA369, SR-0146C | | | | |
| **Owned by / Promoted by** | Miller Homes | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | The M11 bounds the site to the east. Harlow urban periphery is situated at the south west of the site. Agricultural land forms the remaining land usage to the west. | | | | |
| **Current / previous use** | Predominantly agricultural. | | | | |
| **Assumed capacity** | ~3850 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2** | **Comments**<br>Site largely within Flood Zone 1 |

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| | **Zone 1** | Northern tip of site within Flood Zone 2 and 3 due to watercourse traversing site.<br>Site within Flood Zone 2 and exception test not required<br>Site within Flood Zone 3a where exception test required |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3**<br>**Non Agricultural**<br>**Urban** | Development would result in loss of poorer quality agricultural land (grade 3-5)<br>Development would involve loss of best and most versatile agricultural land (grade 1-3) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | Adjacent to a Site of Importance for Nature Conservation. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site contains pockets of Woodland Priority Woodland.<br><br>Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Northern part of site intersects Environmental Stewardship |
| **Woodland** | **Part of the site in woodland** | No impact to Ancient Woodland anticipated. |
| **Tree Preservation Order(s)** | **TPO –Large Clusters** | Site contains large clusters of TPOs in the centre.<br><br>Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Small part of western corner within Low Productivity Aquifer but rest of site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site in the centre and north, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **10-30** | Large proportion of the site in the centre to north contains Radon. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Topography and landform** | **Plateau** | **Comments**<br>No known constraints Site undulates throughout but there are no significant gradients. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity**<br>**Medium Sensitivity** | The site lies across three Epping Forest LCA landscape areas B1, C1 and C2. B1 has a high sensitivity to change whilst C1 and C2 have moderate sensitivities<br><br>Epping Forest part of the site has High Sensitivity in EFDC Settlement Edge Landscape Sensitivity Study.<br><br>Potential new Green Wedge crosses the site in the south. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site lies across three Epping Forest LCA landscape areas B1, C1 and C2, all of which offer views down the valley towards the River Stort. B1 has a high sensitivity to change whilst C1 and C2 have moderate sensitivities.<br>B1 is rated as relatively tranquil due to the river setting and sense of enclosure as a result of lots of vegetation.<br>The LCA recommends that any development should be small scale, responds to the historic settlement pattern and is of the local vernacular style.<br>It is also noted that the areas will lose their tranquility on approach to the M11 which is a significant visual and aural disamenity to the landscape.<br>The land in the site is predominantly intensive agriculture.<br>Development considerations include:<br>Managing occasional veteran trees and ancient woodland<br>The predominantly historic field pattern<br>Maintaining open views along the valley corridor and towards the Stort<br>Conserving the rural character and tranquility of the area (away from the M11) |
| **Green Belt**<br>Based on local study findings | **Almost entirely within Green Belt (>95%)** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary** | **North: High = Inappropriate land area for release.** | Northern part of this site is rated as having “Relatively Strong/Strong” contribution to Green Belt purposes in the Epping Forest 2015 Green Belt Review Stage 1 (ref. DSR-003), and Very High in 2016 Stage 2 |

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| Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **South: Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Report. Southern part of site is in the Harlow Green Belt Review (2016) and given a total score of 3 out of 8, indicating that generally the site is poorly functioning as Green Belt. Some small areas of the site are indicated to have potential for re-designation as 'Green Fingers' (ref. 8.1, 8.2 8.3, 8.4).<br><br>Release of this land would impact on openness by enabling Harlow to sprawl. The differing scores within the Harlow and Epping Forest District Green Belt reviews reflect the scale of the site and differing characteristics found from north to south, including its relationship to the existing built edge of Harlow. The Epping Forest District and Harlow Green Belt Reviews have reached differing conclusions as a result of the parcel sizes and in recognition of the different characteristics of the site overall. The M11 can act as a significant barrier/defensible boundary. Development on site J would sever the Green Belt in the south east and north east of Harlow. Development would form a connection between Harlow urban footprint and the M11. The parts of the site in the far north would be less appropriate in Green Belt terms for release, whilst the southern part of the site has potential for expansion with the inclusion of Green Fingers to help ameliorate the impact of development. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Proposed site contains a number of Grade II Listed Buildings in the south and centre. Adjacent to a large quantity of Grade II and Grade II* Listed Buildings on all boundaries. |
| **Conservation Area** | **50m 500m** | Adjacent to a Conservation Area to the west. No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | .<br>Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Locally listed building** | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | Northern part of site lies in high sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Contains a number of bus stops in the south. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**1-3km from Junction 7 of M11** | Site is 1,320m from A414<br><br>Site is 2,968m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **<400m** | National Cycle Route crosses the site. |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Site is 911m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 966m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |

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| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 800-1600 m from nearest principal, smaller or district centre** | Site is 842m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Access from Sheering Road and Moor Hall Road. |
| **Transport Modelling Findings** | **VISUM modelling has been undertaken and further evaluation is required to establish level of development on site that could be enabled.** | More than 1km from nearest identified key congested junction.<br><br>M11 Jct 7 is very near operating capacity and development already permitted but yet to come forward would increase pressure as traffic demand grows. There is a committed RIS (Road Investment Strategy) 1 scheme which should bring the junction back up to capacity in the short term (i.e. to 2020). |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve access to public transport, cycling and walking and connectivity with Harlow town centre, rail station and employment sites. |

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| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9**<br>**Decile 7**<br>**Decile 5** | **Comments**<br>Site is not itself in an area of multiple deprivation, and is detached from parts of Harlow that are deprived. However, its sheer scale and location close to the M11 suggest that there would be an overall positive impact on this criterion if the site were developed. |
| **Housing Need / Affordability** | **Decile 2**<br>**Decile 3** | Site is in an area of significant barriers to accessing housing and services, and due to its large scale would address this criterion very well. |
| **Economic Growth** | **High potential** | Scale of site is significant enough to be transformative for eastern Harlow. Site offers good connections to the M11 and Stansted airport, and is in good location for some industrial estates, as well as enterprise zones, but is further away from town centre and Harlow Town station. |
| **Local Integration** | Qualitative judgement based on potential positive integration with adjacent rural and urban communities and contribution to revitalisation of existing neighbourhoods; and<br>Ability to maintain and enhance the important features, character and assets of the New Town and existing settlements. | Potential for integration with newer development to east of town. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br><br>Thames Water report that site cannot connect into the local sewer system as it is too small to accommodate the proposed development. Thames Water would either need to significantly upgrade the existing system or connect it directly to the Eastern Outfall – Harlow SDAC<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ Public transport gateway near M11 Junction 7A |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space | |

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| | Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | Possible on site waste water treatment works and surface water attenuation<br><br>The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ SUDS |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ New local centre<br>☐ 3 primary schools<br>☐ 1 secondary school |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*K) Land to west of A414/south Harlow*

| *GENERAL INFORMATION* | | | | |
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| **Site location** | West of A414 to the south of Harlow | | | |
| **Local Authority** | Epping Forest | | | |
| **Direction of growth around Harlow** | South | | | |
| **Gross area** (hectares) | ~28.5 ha | | | |
| **HELAA site reference** (if applicable) | SR-0074, SR-0092 | | | |
| **Owned by / Promoted by** | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** |
| | Majority of site is greenfield land that is not adjacent to a settlement | | | |
| **Surrounding land uses** | The site is bounded by agricultural and forest land to the west, north and south, and a major arterial A road from Harlow to the east. | | | |
| **Current / previous use** | Agricultural | | | |
| **Assumed capacity** | 155 dwellings (with 71,240 sqm employment floorspace) | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | Site adjacent to a Site of Importance for Nature Conservation.<br><br>No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Adjacent to Woodland Priority habitat<br>Features and species could be retained and there are opportunities to enhance existing features. |
| **Agricultural land under Environmental Stewardship**[l] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Contains some woodland** | |

[l] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| | | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. Site contains a small number of Epping Ancient Trees. |
| **Tree Preservation Order(s)** | **TPO – Individual** | The intensity of site development would be constrained by the presence of protected trees either on or adjacent to the site<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entirely contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on majority of site, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>No known constraints – gentle slope up to the west. |

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| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | The site is within Epping Forest LCA landscape area E1, andtherefore has a moderate sensitivity to change. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change.<br>This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area.<br>However, it is also host to the M11 which has a significant negative impact on the tranquility of the area. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads.<br>New development on this site would need to consider:<br>• Maintaining views across the slope<br>• Preservation of historic trees, woodland and hedges<br>• The visual impact the tall development might bring to local landscape characters<br>• Ensuring that development is small scale and reflects local architectural distinctness |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having Very High contribution to Green Belt purposes in 2016 Stage 2 Green Belt Study.<br><br>This land does not border Harlow's urban periphery. The barrier of the motorway near the south side of the site potentially compromises the |

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| development' | | openness of the Green Belt to the northeast. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **50m 500m** | **Comments**<br>No effect likely on historic assets due to distance from site. Small amount of Grade II listed buildings to the east of the site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | However entirely within an areas highly sensitive to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Adjacent to a couple of bus stops on the A414. |
| **Links to strategic road network (M11 and A414)** | **Immediately adjacent to A414** | Site is 0m from A414 |

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| | Within 1km of Junction 7 of M11 | Site is 83m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | >800m | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | <400m | A couple of Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | >800m | |
| **Distance to nearest Enterprise Zone** | 1 – 1.5 km | Site is 1,911m from Enterprise Zone |
| **Key employment site other than EZ** | <1 km | Site is 883m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | >2 km | |
| **Public Open Space / recreation facilities** | <400m | |
| **District Centre / Local or Neighbourhood Centre / Parade** | Site 1600-5000 m from nearest principal, smaller or district centre | Site is 3,608m from Local Centre |
| **Primary School** | <800 m | |
| **Secondary School** | <1.6 km | |
| **How the site is currently accessed? Is it accessible from the highway network?** | Potential for access to be created through third party land and agreement in place, or existing access would require upgrade<br>Access can be created within landholding to | Access to the site can be created within landholding to adjacent to the highway.<br><br>Site access achievable from A414. |

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| | adjacent highway | |
| **Transport Modelling Findings** | **The ability of sites to the east/south east of Harlow to accept significant levels of growth remains unproven in the VISSUM modelling undertaken for Essex County Council** | Site would give rise to additional trip generation with potential adverse impact on highways network, however could be mitigated |
| **Potential for Sustainable Modes of Transport** | Mixed use residential and employment site with potential to deliver material improvements to sustainable transport modes internally and links to external networks and reduce the need for Harlow residents to commute.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Site is itself not in an area of high deprivation. Although its development has some potential to address deprivation on the southern edge of Harlow, it is small in scale and therefore this potential is limited. |
| **Housing Need / Affordability** | **Decile 1** | Site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a strongly positive impact |
| **Economic Growth** | **Moderate potential** | Site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and distance from Harlow Town station combine to limit its potential to moderate. |
| **Local Integration** | **Low potential** | No real urban character; trunk road from M11 |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Entirely within HSE buffer area**<br>**Intersects** | **Comments**<br><br>constraints exist but affect part of site or potential for mitigation |

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| | | Gas or oil pipelines may constrain part of the site but there is potential for mitigation;<br>Some 26% of the site is in HSE middle consultation zone located along the southern site boundary. No area in inner zone. Due to location and size of affected area mitigation is possible through layout design. HSE guidance AA for affected area. |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*L) Riddings Lane Garden Centre*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | On Riddings Lane in South Harlow | | | | |
| **Local Authority** | Harlow | | | | |
| **Direction of growth around Harlow** | South | | | | |
| **Gross area** (hectares) | 1.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0139 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | A residential area of Harlow lies to the north and west of the site, whilst the remaining site is farmland. | | | | |
| **Current / previous use** | Garden centre | | | | |
| **Assumed capacity** | 50 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Non Agricultural Urban** | Development would not result in loss of agricultural land |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **500m-2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. Harlow Woods SSSI 1.5km to the south-west. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | The site is adjacent to a Site of Importance for National Conservation. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Adjacent to Woodland Priority habitat<br><br>Features and species could be retained and there are opportunities to enhance existing features.<br>mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Woodland** | **No woodland present** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated.<br>Site adjacent to or contains Ancient Woodland and proposals would result in direct loss or harm. |
| **Tree Preservation Order(s)** | **None** | No TPO<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Site entirely contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination in the south of site, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. | **Low Sensitivity** | Low sensitivity: characteristics of the landscape are able to accommodate development without significant character change. |

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| The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | | |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development unlikely to have an effect on settlement character** | Site L is within Harlow and attaches to the urban boundary. It does not lie on any significant landscape area, nor is it likely that the development of the site would have a large impact on the views or character of surrounding landscape areas. |
| **Green Belt**<br>Based on local study findings | **Intersects** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Low = Highly appropriate land area for release.** | In the Harlow Green Belt Review (2016), the surrounding area including site L is given a total score of 4 out of 8. Specific commentary on site L states there is "no evidence that sub-area is functioning as Green Belt" (ref.7.1).<br><br>Release of this land would make nominal contributions to the sprawl of Harlow. Overall, considering its small size and relationship to the existing urban fringe, impact would be nominal. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **50m 500m** | **Comments**<br>No effect likely on historic assets due to distance from site. Grade II listed building lie to the north of the site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |

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| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Adjacent to a bus stop on the northern boundary. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**1-3km from Junction 7 of M11** | Site is 730m from A414<br><br>Site is 1,161m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Adjacent to a Public Right of Way. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **1 – 1.5 km** | Site is 2,471m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 822m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |

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| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,643m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade Access can be created within landholding to adjacent highway** | Access is currently difficult. |
| **Transport Modelling Findings** | **Small site which on its own is unlikely to have an impact on the Harlow town network or SRN (strategic road network) including the M11.** | Site would not give rise to significant additional trip generation with potential adverse impact on highways network |
| **Potential for Sustainable Modes of Transport** | Small development with the potential for good connectivity to town centre. Could facilitate a link through to Latton Priory (Site M)<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5**<br>**Decile 4** | **Comments**<br>Site is itself in an area of moderate deprivation. Although its development |

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| | | has some potential to address deprivation on the southern edge of Harlow, it is very small in scale and therefore this potential is limited. |
| **Housing Need / Affordability** | **Decile 1**<br>**Decile 4**<br>**Decile 5** | Site borders and is partly within an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a positive impact |
| **Economic Growth** | **Moderate potential** | Site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and distance from Harlow Town station combine to limit its potential to moderate. |
| **Local Integration** | **High potential** | Should be possible to integrate with town edge. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*M) Latton Priory*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | Site situated to the west of B1393/A414 and east of Rye Hill Road | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | South | | | | |
| **Gross area** (hectares) | ~260 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0006, SR-0046 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ | |
| | Majority of site is greenfield land that is not adjacent to a settlement, north edge of site is adjacent | | | | |
| **Surrounding land uses** | Agricultural land on all sides | | | | |
| **Current / previous use** | Agricultural / some small areas of woodland and farm buildings | | | | |
| **Assumed capacity** | 2250 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Non Agricultural**<br>**Urban** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | Site falls within an IRZ and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to SSSI.<br><br>Harlow Woods SSSI adjacent to the site to the west. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **400m – 1km** | No effect as features and species could be retained or due to distance of local wildlife sites from site. Pardon Woods and Common Local Nature Reserve 0.2km to the west.<br><br>The site is adjacent to a Site of Importance for Nature Conservation to the north. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | Southern tip of site intersects Environmental Stewardship area |
| **Woodland** | **Woodland present** | A large number of Epping Ancient Trees lie within the site. |
| **Tree Preservation Order(s)** | **TPO – Individual** | The intensity of site development would be constrained by the presence of protected trees either on or adjacent to the site<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | The site entirely contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Possibility of Contamination** | Potential contamination on entire site (Farm / Sewage Sludge / In filled Ponds). Potential adverse impact that could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>Constraints exist but potential for mitigation. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| | | Site is on a gentle ridge that runs from west to east. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change.<br><br>A small part of the site to the north lies in an adopted Green Wedge.<br><br>The site is adjacent to a Special Landscape Area to the west. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change.<br>This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area.<br>Unlike the other sites in landscape area E1, Latton Priory is distanced from the M11 and therefore relatively tranquil. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads.<br>New development on this site would need to consider:<br>• Maintaining views across the slope<br>• Preservation of historic trees, woodland and hedges<br>• The visual impact the tall development might bring to local landscape characters<br>• Ensuring that development is small scale and reflects local architectural distinctness |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release if the site is fully developed.** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 and mostly Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-072).<br>Releasing this land from the Green Belt would result in a large urban extension to the town. The east and south east of the overall site border the B1393/A414 which could act as a defensible boundary if removed from Green Belt. Rye Hill Road could act as a defensible boundary in the west. |

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| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Site contains two scheduled monuments at Rye Hill Common and Latton Priory. Latton Priory is a Grade II* Listed Building with nearby Latton Farmhouse being Grade II Listed. There is also a Listed Building at Rivetts Farm within the site and Listed Buildings at Whipps Cottage, Rye Hill, Rundells and Horseshoes Farm adjacent to the site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **Intersects or <50m** | The site adjacent to two locally listed buildings to the south but no effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | The site lies in an area highly sensitive to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |

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| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | The site is adjacent to a number of bus stops on London Road. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**Within 1km of Junction 7 of M11** | Site is 214m from A414<br><br>Site is 214m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | A couple of Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 2,596m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 904m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | Recreation facility lies to the west of the site. |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 2,873m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |

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| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Access from London Road, Rye Hill Road, Fern Hill Lane and a private road. |
| **Transport Modelling Findings** | **VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable for a scheme of over 2000 dwellings. The impacts of a smaller scheme are untested.** | Large site which may have a material impact upon the Harlow town network and SRN (strategic road network) including M11 Jct 7.<br><br>Potential to mitigate trip generation at the site through promotion of sustainable modes and wider network impacts through the implementation of physical mitigation measures.<br><br>More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Large development with good potential to link to Harlow town centre and potentially to other development sites around the town e.g. aspiration for a sustainable north-south link with Gilston Park Estate (Site A).<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve access to public transport, cycling and walking and connectivity with Harlow town centre, rail station and employment sites. |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Small part of southern boundary within Decile 6. Scale of site and adjacency to deprived areas in southern Harlow, despite the fact that the site is not itself in an area of deprivation, combine to indicate that development |
| **Housing Need / Affordability** | **Decile 1** | Site covers Decile 1 in barriers in access to housing and services; therefore, development of site would have a strongly positive impact on this criterion, given its scale |

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| **Economic Growth** | **Medium potential** | Large scale of the site will in itself have strongly positive economic impact, potentially transformative for southern Harlow if appropriately integrated; site far, however, from Harlow Town station, but closer to town centre, thus likely to enhance its vitality and viability; also well located for the enterprise zones and extremely well located for the M11; however, more distant from existing industrial estates and the rail corridor. |
| **Local Integration** | **High potential** | Strong potential to complete North-South green corridor through town. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Intersects** | **Comments**<br>Gas Pipe runs through the southern part of site from east to west.<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ High quality shuttle bus service to connect to Harlow Town Centre, bus and rail stations<br>☐ 2 new junctions off Rye Hill Road to the west and a dedicated employment access from London Road to the east |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br><br>The site promoter has provided an indication of the Open Space infrastructure that is likely to accompany development:<br>☐ 150 acres of new accessible green space, incorporating an extension to the Southern Harlow green wedge, parks, allotments, sports facilities, play and recreational facilities |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | Extension of green wedge and access to countryside<br><br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ New village green<br>☐ Small equipped play areas |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ A number of attenuation areas |

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| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ 2 to 3 primary schools<br>☐ New healthcare facilities<br>☐ Sport and recreation<br>☐ Neighbourhood shopping<br>☐ Community facilities |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*N) Land at Harlow Gateway South*

| *GENERAL INFORMATION* | | | | |
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| **Site location** | East of A414 to the south of Harlow | | | |
| **Local Authority** | Epping Forest | | | |
| **Direction of growth around Harlow** | South | | | |
| **Gross area** (hectares) | ~7.5 ha | | | |
| **HELAA site reference** (if applicable) | SR-0066 | | | |
| **Owned by / Promoted by** | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** |
| | Majority of site is greenfield land that is not adjacent to a settlement<br>Some of the greenfield land is of low quality, acting as an industrial storage and trailer site. | | | |
| **Surrounding land uses** | Farmland, with the A414 on the west side of the site. | | | |
| **Current / previous use** | Farmland with some semi-industrial storage land. | | | |
| **Assumed capacity** | 28,760 sqm employment floorspace | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | Site adjacent to a Site of Importance for Nature Conservation on the eastern boundary.<br><br>No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Features and species may not be retained in their entirety but impact can be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| | | Site adjacent to or contains Ancient Woodland and proposals would result in direct loss or harm. |
| **Tree Preservation Order(s)** | **None** | No TPO<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site to the south, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape | **Medium Sensitivity** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change. |

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| quality will be vital. | | |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change.<br>This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area.<br>However, it is also host to the M11 which has a significant negative impact on the tranquility of the area. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads.<br>New development on this site would need to consider:<br>• Maintaining views across the slope<br>• Preservation of historic trees, woodland and hedges<br>• The visual impact the tall development might bring to local landscape characters<br>• Ensuring that development is small scale and reflects local architectural distinctness |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review so low suitability for development (ref. DSR-053).<br><br>Rated as having Very High contribution to Green Belt purposes in 2016 Stage 2 Green Belt Study.<br><br>However, the site is very small, and sited near major highways which act as a natural barrier to the Green Belt's openness. Has some form of industrial / storage land use on site so it is not presently making a significant contribution to the principles of the Green Belt. |
| ***HERITAGE*** | | |

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| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **50m 500m** | **Comments**<br><br>No effect likely on historic assets due to distance from site. Grade II listed buildings lie to the north and south-east of site. |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | However site is within an area of high sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Two bus stops on the northern boundary of site on the A414. |
| **Links to strategic road network** | **Within 1km of A414** | Site is 39m from A414 |

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| **(M11 and A414)** | **Within 1km of Junction 7 of M11** | Site is 380m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | A public right of way crosses the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **1 – 1.5 km** | Site is 2,169m from Enterprise Zone |
| **Key employment site other than EZ** | **1 – 1.5 km** | Site is 1,467m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 3,825m from Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Site access achievable from A414. |
| **Transport Modelling Findings** | **Site below the site size threshold where it would be expected to affect congestion, although there may be local impacts** | |

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| **Potential for Sustainable Modes of Transport** | Employment site with potential to deliver material improvements to sustainable transport and reduce the need for Harlow residents to commute.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Site is itself not in an area of high deprivation. Although its development has some potential to address deprivation on the southern edge of Harlow, it is small in scale and therefore this potential is limited. |
| **Housing Need / Affordability** | **Decile 1** | Site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a strongly positive impact |
| **Economic Growth** | **Moderate potential** | Site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and distance from Harlow Town station combine to limit its potential to moderate. |
| **Local Integration** | **Low potential** | Low potential for Harlow integration. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br><br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ New internal access road<br>☐ New substations will be installed |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |

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| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ SUDS |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*O) Land to north of J7 of M11*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | North of M11Junction 7 | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | South | | | | |
| **Gross area** (hectares) | ~6.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0409 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land that is not adjacent to a settlement | | | | |
| **Surrounding land uses** | The site is triangular shaped and bound on its three sides by the M11, the A414 and farmland to the north. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 28,680 sqm employment floorspace | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **>7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | Site adjacent to a Site of Importance of Nature Conservation on the northern boundary. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Features and species may not be retained in their entirety but impact can be mitigated. |
| **Agricultural land under Environmental Stewardship**[l] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | |

[l] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Tree Preservation Order(s)** | **None** | No TPO<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entirety of site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site from a very small area, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | Medium sensitivity: characteristics of the landscape are resilient to change and able to absorb development without significant character change. |

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| **Landscape Impact / Spatial Opportunities and Constraints** | **Development is unlike to detract from the existing settlement character** | The site is within Epping Forest LCA landscape area E1, and has a moderate sensitivity to change.<br>This area is characterised by an arable farming ridge which offers some of the highest land in Epping Forest. Views are offered across the landscape character area and towards the Harlow south periphery. The LCA notes that blocks of woodland are a key landscape feature in this area.<br>However, it is also host to the M11 which has a significant negative impact on the tranquility of the area. The A414 adds a similarly negative character to this site. The LCA also notes that there has been a continual decline in the condition of field boundaries, loss of hedgerows, and increases in traffic along the non-major roads.<br>New development on this site would need to consider:<br>• Maintaining views across the slope<br>• Preservation of historic trees, woodland and hedges<br>• The visual impact the tall development might bring to local landscape characters<br>• Ensuring that development is small scale and reflects local architectural distinctness |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-053).<br><br>However, this site is small and sits between two major roads which already make significant reductions to the openness of the Green Belt. Therefore, development on this site would have very little impact to the integrity of wider Green Belt land. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, | **50m 500m** | **Comments**<br><br>No effect likely on historic assets due to distance from site. Grade II listed buildings lie to the south-east and north from the site. |

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| Scheduled Monuments | | |
| **Conservation Area** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | However the whole site lies within a high sensitivity to change area. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **1-5 km** | |
| **Distance to nearest bus stop** | **<400m** | Three bus stops lie to the south of the site on B1393. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**Within 1km of Junction 7 of M11** | Site is 31m from A414<br><br>Site is 187m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond. | **<400m** | Public Right of Ways lie to the north of the site. |

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| (50k base OS mapping) | | |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **1 – 1.5 km** | Site is 2,543m from Enterprise Zone |
| **Key employment site other than EZ** | **1 – 1.5 km** | Site is 1,752m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 3,620m from Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **<1.6 km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Access can be created within landholding to adjacent highway** | Site access achievable from A414 |
| **Transport Modelling Findings** | **Site below the site size threshold where it would be expected to affect congestion, although there may be local impacts** | |

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| **Potential for Sustainable Modes of Transport** | Employment site with potential to deliver material improvements to sustainable transport and reduce the need for Harlow residents to commute.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Site is itself not in an area of high deprivation. Although its development has some potential to address deprivation on the southern edge of Harlow, it is small in scale and therefore this potential is limited. |
| **Housing Need / Affordability** | **Decile 1** | Site is in an area of significant barriers of access to housing and services, so in terms of housing need, its development would have a strongly positive impact |
| **Economic Growth** | **Moderate potential** | Site is very well located for the M11 and the Enterprise Zone. However, its small size, its distance from the town centre and distance from Harlow Town station combine to limit its potential to moderate. |
| **Local Integration** | **Low potential** | No chance of Harlow integration. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |

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| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*P) Land to west of Harlow/East of Roydon*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | West of Harlow and East of Roydon | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~53.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0052 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | The village of Roydon lies to the south and west, the train line to Stansted to the north, and an industrial estate in Harlow to the east. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 1800 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1**<br>**Zone 2**<br>**Zone 3** | **Comments**<br>The site is largely within Flood Zone 1. Some 95% of the site is in flood |

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| | | zone 1.<br>Higher flood risk areas 2, 3a and 3b, covering 5%, are located on the northern site boundary and in the middle portion of the site. These areas can be avoided and the flood risk mitigated through site layout. |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Medium** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Grade 3** | Development would involve loss of best and most versatile agricultural land (grade 1-3) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | Site falls within an IRZ and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to SSSI.<br><br>Hunsdon Mead SSSI 0.1km to the north. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | World's End Local Wildlife Site cuts through centre of site. Site of Importance for Nature Conservation runs through the site.<br><br>Features and species may not be retained in their entirety but impact can be mitigated. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site in close proximity to Grassland Priority habitat and contains Woodland Priority Habitat.<br><br>Features and species may not be retained in their entirety but impact |

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| | | can be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Part of the site in woodland** | No impact to Ancient Woodland anticipated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | No TPO<br><br>Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated.<br>Some veteran trees on woodland edges and a few within site boundaries. Scheme would have to be sensitively planned. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Inner zone (Zone 1)**<br>**Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>Southern part of site not within any Source Protection Zones, but norther part of site in Source Protection Zone 1 and majority of site within Source Protection Zone 2 and 3. |
| **Hydrological Sensitivity** | **Low leaching potential** | Northern boundary within a Low Productivity Aquifer but rest of site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site from a very small area in the east, which could be mitigated. |
| **Radon** | **10-30** | Northern part of site within Radon. |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| Percentage of homes at or above the Action Level | | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>Constraints exist but potential for mitigation.<br>Site has a change in level of 20m from south to north |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity** | High sensitivity: vulnerable to change and unable to absorb development without significant character change. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development would be likely to harm the existing settlement character.** | High Sensitivity in Settlement Edge Landscape Sensitivity Study.<br><br>The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees.<br>On the negative side, the site is bordered to and overlooks an industrial estate on the Western fringe of Harlow. New development on this side of the site will therefore have less of an impact on the character of the landscape area, and indeed, may even present an opportunity for improvement.<br>However, due to the location of the site on a narrow piece on land between Roydon and Harlow, it would appear that obstructing views across the landscape to the Stort Valley would be inevitable.<br>New development on this site would need to consider:<br>• Conserving the historic setting of Roydon<br>• Maintaining views across the Stort valley<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |

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| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-064).<br><br>The development of this site would result in the coalescence of Harlow and the village of Roydon and reduce the openness of the Green Belt as it sits in a valley and may obscure views across it. |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset.<br><br>Listed Building at East End Farm within site. |
| **Conservation Area** | **Intersects or <50m** | Southern tip of site within a Conservation Area, |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **50m 500m** | No effect likely on historic assets due to distance from site but adjacent to a Locally Listed Building. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | Site sits in an area of medium sensitivity to change. |

| *TRANSPORT AND ACCESSIBILITY* | | |
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| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |
| **Distance to nearest bus stop** | **<400m** | Bus stop to the north-west of the site. |
| **Links to strategic road network (M11 and A414)** | **Within 1km of A414**<br><br>**3-10km from Junction 7 of M11** | Site is 927m from A414<br><br>Site is 6,096m from A414 |
| **Cycle route**<br>NCR Sustrans | **<400m** | National cycle route crosses the site west to east. |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Various public right of ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 4,957m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 10m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site less than 800 metres from nearest principal, smaller or district centre** | Site is 477m from Local Centre |

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| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | |
| **Transport Modelling Findings** | | More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Large site with good potential to link to town centre and potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9** | **Comments**<br>Site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location and its medium scale. |
| **Housing Need / Affordability** | **Decile 4** | Site is in a moderate area of housing need, but could help address the needs of adjacent western Harlow due to its location and its medium size |

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| **Economic Growth** | **Moderate potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station. However, its potential is limited to moderate by its poor connections to the M11. |
| **Local Integration** | **Moderate potential** | Limited potential for Roydon integration if desired. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br>Thames Water reports: This most likely cannot connect into the local sewer system as it is too small to accommodate the proposed development. Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC. The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ New primary road |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br>The site promoter has provided an indication of the Open Space infrastructure that is likely to accompany development:<br>☐ Community park |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | The proposed vision enhances the Woodland corridor on the western boundary of the site.<br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ Safe cycle routes<br>☐ Streets re-defined for pedestrians and cyclists |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care. Population impacts, child yields and education | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ New primary school<br>☐ Local shops |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*Q) Halls Green*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | Adjacent to Halls Green Hamlet | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~15.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0009 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land that is not adjacent to a settlement | | | | |
| **Surrounding land uses** | Prominently farmland. Roydon Hamlet is situated to the south west of the site. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 120 dwellings (with 61,000 sqm employment floorspace) | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 3** | Development would involve loss of best and most versatile agricultural land (grade 1-3) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **500m-2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | The site is adjacent to a couple of Sites of Importance for Nature Conservation. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Site contains Woodland priority habitat.<br><br>Features and species unlikely to be retained and impact cannot be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Woodland** | **Majority of the site is woodland** | Site containing a large proportion of Ancient Woodland in the centre and south. Proposals would result in direct loss or harm. |
| **Tree Preservation Order(s)** | **TPO – Individual** | No TPO<br><br>Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Contains entirely rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Whole site has potential contamination, which is not likely to be able to be mitigated. Potential contamination (associated with previous Brickworks and Anti-Aircraft Gun Site) could impact achievability. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints. |
| **Local Landscape Designations** | **High Sensitivity** | The site is within Epping Forest LCA landscape area C7 relating to |

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| Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | | Roydon hamlet, and has a moderate to high sensitivity to change.<br><br>High Sensitivity in Settlement Edge Landscape Sensitivity Study. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site is within Epping Forest LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland with some views to River Lea Valley to the west, and the historic landscape setting of hedgerows and veteran trees. Glasshouses are scattered throughout much of this area which the LCA deems to contribute to the landscape pattern. New development on this site would need to consider:<br>• Conserving the historic setting of Halls Green<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **High = Inappropriate land area for release.** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-066).<br><br>Development would result in the expansion of Halls Green hamlet to the extent that it almost connects to Harlow through contiguous developed land (only a garden centre would stand between Halls Green and Harlow). |
| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Scheduled Ancient Monument in centre of site (Cold War Heavy Anti Air-Craft Gun Site). Grade II listed buildings to eh east and west of site.<br>Development may impact setting, although front portion of site may be |

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| | | developed without harming setting particularly given existing tree belt. Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Conservation Area** | **Intersects or <50m** | Proposed site located within a Conservation Area. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | Locally listed building to the west of the site. |
| **Setting of Heritage Assets** | **The site will result in harm to the significance of heritage assets and/or their setting. It is unlikely that impacts can be avoided/mitigated** | |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |
| **Distance to nearest bus stop** | **<400m** | Adjacent to a bus stop on Epping Road. |
| **Links to strategic road network (M11 and A414)** | **3-10km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 2,601m from A414<br><br>Site is 5,628m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |

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| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Various public rights of way intersect the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **<1 km** | Site is 310m from Enterprise Zone |
| **Key employment site other than EZ** | **>1.5 km**<br>**1 – 1.5 km**<br>**<1 km** | |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **>800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 800-1600 m from nearest principal, smaller or district centre** | Site is 1,449m from Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | Suitable access to site already exists. Existing access to nurseries. |
| **Transport Modelling Findings** | | More than 1km from nearest identified key congested junction. |

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| **Potential for Sustainable Modes of Transport** | Mixed use residential and employment site with potential to deliver material improvements to sustainable transport modes internally and links to external networks and reduce the need for Harlow residents to commute.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is limited. |
| **Housing Need / Affordability** | **Decile 1** | Site is in a high area of housing need, and development would therefore have a positive effect on this criterion. |
| **Economic Growth** | **Low potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent. However, its potential is limited to low by its small size, lack of connection to the urban edge, and poor connections to the M11. |
| **Local Integration** | **Low potential** | Isolated cannot integrate with Harlow. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br><br>The site promoter has provided an indication of the Open Space infrastructure that is likely to accompany development:<br>☐ Public open space |

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| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ Primary school |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*R) Land west of Katherines*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | West of Harlow but East of Roydon Hamlet | | | | |
| **Local Authority** | Epping Forest (very small portion of Southern site in Harlow) | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~72.5 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0091 | | | | |
| **Owned by / Promoted by** | Landowner consortium | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield** ☐ | **Brownfield** ☐ | **Mixture** ☒ | **Unknown** ☐ | |
| | A large portion of the site is previously developed within or adjacent to a settlement | | | | |
| **Surrounding land uses** | Some residential and agricultural glass house buildings to the northwest. A residential district of Harlow which lies to the east. The remaining land uses are agricultural. | | | | |
| **Current / previous use** | Agricultural – a mixture of open land and glasshouse growing. | | | | |
| **Assumed capacity** | 1100 dwellings, 59,280 sq m commercial | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| | | Some 97% of the site is in flood zone 1.<br>Higher flood risk areas 2 and 3a covering 3% is located in the southeastern corner of the site and can be avoided through site layout. |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Non Agricultural**<br>**Urban** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **500m-2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent to, or encroaches upon** | Features and species could be retained and there are opportunities to enhance existing features. Parndon Wood Local Wildlife Site. Adjacent contains Sites of Importance for Nature Conservation in the north of the site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon**<br>**400m – 1km**<br>**>1km** | Features and species may not be retained in their entirety but impact can be mitigated. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Part of the site in woodland** | Site adjacent to or contains Ancient Woodland but any possible impacts can be mitigated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | TPOs exist in the centre and north of site but at a sufficiently low density that removal could be largely mitigated<br><br>Site contains veteran trees dotted in the south, west and north of site but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site in the northern section of the site, but this could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Topography and landform** | **Flat** | **Comments**<br>No known constraints, though there is some indication of a gentle gradient in the south-eastern peninsular of the site |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **Medium Sensitivity** | The site is within Epping Forest LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change.<br><br>The site is adjacent to the west of an adopted Green Wedge. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development unlikely to have an effect on settlement character** | The site is within Epping Forest LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland with some views to River Lea Valley to the west, and the historic landscape setting of hedgerows and veteran trees. Glasshouses are scattered throughout much of this area which the LCA deems to contribute to the landscape pattern.<br>To the north, the site borders an industrial estate.<br>There is some existing development to the west of the site but it is not of particularly high landscape value owing to the relatively modern age of the buildings and sprawling pattern of development.<br>This particular site is likely to be of relatively low sensitivity for the area as it abuts Harlow and predominantly covers existing brownfield land uses (agricultural buildings).<br>New development on this site would need to consider:<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review and High in 2016 Stage 2 report so low suitability for development (ref. DSR-066). Development of this site would not result in coalescence with Roydon Hamlet, Broadley Common, or the housing adjacent to Southview nursery. The impact on the openness would be subtle as buildings already exist or cross through a large portion of the site. |

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| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset.<br><br>Two Grade II listed buildings in the middle of the site on Old House Lane. A couple of Grade II listed buildings surrounding the site to the west and south. |
| **Conservation Area** | **Intersects or <50m** | Proposed site falls partially in the south of a Conservation Area. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | Site sits in an area of medium sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |
| **Distance to nearest bus stop** | **<400m** | A couple of bus stops are adjacent to the site in the south-west corner on |

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| | | the B181 and B1133. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 2,366m from A414<br><br>Site is 4,751m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **400-800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | A couple of Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 4,377m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 0m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **400m 2 km** | |
| **Public Open Space / recreation facilities** | **400-800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 1,633m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it** | **Suitable access to site already exists** | |

| | | |
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| **accessible from the highway network?** | | |
| **Transport Modelling Findings** | **VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable.** | More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Small part of site on the northern and eastern boundary within Decile 3, 4 and 7.Site development would have no more than a moderate effect on deprivation as its surroundings are evenly balanced in terms of deprivation. |
| **Housing Need / Affordability** | **Decile 1** | Site is in a high area of housing need, and development would therefore have a positive effect on this criterion. |
| **Economic Growth** | **Moderate potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent). However, its potential is limited to medium by its poor connections to the M11. Site is adjacent to a designated Employment Area. |
| **Local Integration** | **Moderate potential** | Some potential to connect into Katherines. |

| *INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES* | | |
|---|---|---|
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br><br>The site promoter has provided an indication of the open space infrastructure that is likely to accompany development:<br>☐ Public open space |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ Primary school |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*S) Land west of Pinnacles*

| *GENERAL INFORMATION* | | | | | |
|---|---|---|---|---|---|
| **Site location** | West of Pinnacles | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~43 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0052 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | The northeast corner of the site adjoins an industrial estate in Harlow. The remaining surrounding land uses are agricultural. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 1000 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2**<br>**Non Agricultural**<br>**Urban** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **>2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **Adjacent** | No effect as features and species could be retained or due to distance of local wildlife sites from site. The site is adjacent to a couple of Sites of Importance for Nature Conservation. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | No effect as features and species could be retained or due to distance of BAP priority habitats from site. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | Site adjacent to and contains Ancient Woodland but any possible |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| | | impacts can be mitigated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated.<br>Some veteran trees on woodland western and northern edges and a few within site boundaries. Scheme would have to be sensitively planned. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site from a very small area in the north, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Flat** | **Comments**<br>No known constraints |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special | **High Sensitivity** | The site is within Epping Forest LCA landscape area C7 relating to Roydon hamlet, and has a moderate to high sensitivity to change. |

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| Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | | High Sensitivity in Settlement Edge Landscape Sensitivity Study. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development unlikely to have an effect on settlement character** | The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees.<br>On the negative side, the site is bordered to and overlooks an industrial estate and large scale greenhouse plant nursery on the Western fringe of Harlow. New development on this side of the site will therefore have less of an impact on the character of the landscape area, and indeed, may even present an opportunity for improvement.<br>The location of the site on a narrow piece on land between Roydon and Harlow does raise concern for impact on views to the Stort Valley, yet mitigation would not be challenging with appropriate urban design. New development on this site would need to consider:<br>• Maintaining views across the Stort and Lea valleys<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR-064). The site is appended to Harlow urban area via an industrial estate. Development would diminish the openness of the Green Belt to a small extent as the gap between Harlow and Roydon would decrease. The impact on the openness would be subtle as buildings already restrict views down the valley to the south of the site. The location of the site on a narrow piece on land between Roydon and Harlow does raise concern for impact on views to the Stort Valley, yet mitigation would not be challenging with appropriate urban design. |
| ***HERITAGE*** | | |

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| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br><br>Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset.<br><br>Directly to the south lies a Scheduled Ancient Monument (Cold War Heavy Anti Air-Craft Gun Site). |
| **Conservation Area** | **Intersects or <50m** | Proposed site located just within a Conservation Area which lies to the south. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **No heritage assets or their settings are likely to be affected by the site allocation** | Site is within an area of land that is medium sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |
| **Distance to nearest bus stop** | **<400m** | Nearest bus stop lies to the south on Epping Road. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 1,924m from A414<br><br>Site is 5,572m from J7 M11 |

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| **Cycle route**<br>NCR Sustrans | **400-800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Few Public Rights of Way cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 4,896m from an Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 0m from an Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **400-800m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 3,685m from a Local Centre |
| **Primary School** | **800m-1.6km** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | |
| **Transport Modelling Findings** | | More than 1km from nearest identified key congested junction. |

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| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9**<br>**Decile 5** | **Comments**<br>Site itself is in an area of transition between low and moderate deprivation. However, as it is directly adjacent to the western edge of Harlow, it has potential to address deprivation in this location and therefore is considered to have a moderate potential on this criterion. |
| **Housing Need / Affordability** | **Decile 1**<br>**Decile 2** | Site is located in an area with significant barriers to accessing housing and services, and as such development would have significant potential to address this criterion. |
| **Economic Growth** | **Moderate potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent). However, its potential is limited to medium by its poor connections to the M11.<br><br>Site is adjacent to a designated Employment Area to the east. |
| **Local Integration** | **Moderate potential** | Integration via Pinnacles will be challenging but possible. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br><br>Thames Water reports: This most likely cannot connect into the local sewer system as it is too small to accommodate the proposed |

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| | | development. Upgrade options on the existing assets may be a possible solution, but so would direct connection into the Eastern Outfall – Harlow SDAC.<br><br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ New primary road |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br><br>The site promoter has provided an indication of the open space infrastructure that is likely to accompany development:<br>☐ Community park |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | The proposed vision enhances the Woodland corridor on the western boundary of the site.<br><br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ Safe cycle routes<br>☐ Streets re-defined for pedestrians and cyclists |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ New primary school<br>☐ Local shops |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*T) Land to east of Epping Road, Roydon*

| *GENERAL INFORMATION* | | | | | |
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| **Site location** | South of Roydon and West of Harlow | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~22 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0306, SR-0890 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield** | **Mixture** | **Unknown** | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | Roydon village lies to the west and north of the site. The remaining uses are agricultural. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 150 units on part of site (with promoter stating the remainder would form a green buffer) | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 3** | Development would involve loss of best and most versatile agricultural land (grade 1 3) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations)<br>Effects of allocating site for proposed use not likely to be significant alone need to be checked for in-combination effects |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **500m-2km** | Use of IRZ's confirm no requirement to consult Natural England as proposed development unlikely to pose a risk to SSSI's. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **>1km** | Site is adjacent to a Site of Importance for Nature Conservation to the east.<br><br>No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Features and species could be retained and there are opportunities to enhance existing features.<br>Features and species may not be retained in their entirety but impact can be mitigated. |
| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | Site adjacent to and contains Ancient Woodland but any possible |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| | | impacts can be mitigated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | TPOs exist in the centre of the site but at a sufficiently low density that removal could be largely mitigated<br><br>Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>Part of northern corner within Source Protection Zone 1, 2 and 3. Southern boundary not within any Source Protection Zones. |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site from a very small area in the west, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |
| **Topography and landform** | **Plateau** | **Comments**<br>Constraints exist but potential for mitigation.<br>Site changes level by 20m from its centre to northeast corner at a reasonably steep gradient |

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| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity** | The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. It also contains Urban Greenspace.<br><br>High Sensitivity in Settlement Edge Landscape Sensitivity Study. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character without a number of measures** | The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west most of which will be obstructed on this particular site by Roydon. The historic landscape setting of hedgerows and veteran trees is also a significant characteristic of the area.<br>The site has views across farmland to the south and to an industrial estate on the Western fringe of Harlow to the east, though the latter view will be largely obscured by existing woodland to the East of the site.<br>The site borders the village of Roydon to the North and to the West and therefore has significant potential to detract from the landscape character of the settlement. Historic trees and field boundaries, if preserved, could significantly reduce the impact of a village extension as viewed from the surrounding landscape.<br>New development on this site would need to consider:<br>• Conserving the historic setting of Roydon<br>• Maintaining views across the Stort valley<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 and Very High in Stage 2 report so low suitability for development (ref. DSR-064). The site adjoins Roydon on two sides and could potentially accommodate limited development without harming significant views or reducing openness in areas that are well contained by existing built development. |

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| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br><br>Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset.<br><br>Site adjacent to two Grade II listed buildings to the west on the B181. |
| **Conservation Area** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **50m 500m** | Locally listed buildings located to the north of the site. No effect likely on historic assets due to distance from site. |
| **Setting of Heritage Assets** | **It is likely that impacts can be avoided / mitigated** | Site within an area of moderate and high sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |

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| **Distance to nearest bus stop** | **<400m** | Two bus stops on the B181 to the west of the site. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br>**3-10km from Junction 7 of M11** | Site is 1,715m from A414<br>Site is 6,558m from A414 |
| **Cycle route**<br>NCR Sustrans | **<400m** | National Cycle Route to the north of the site. |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Various Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 5,509m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 456m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | Recreation facilities to the west of the site on the B181. |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,209m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |

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| **How the site is currently accessed? Is it accessible from the highway network?** | **Potential for access to be created through third party land and agreement in place, or existing access would require upgrade**<br>**Access can be created within landholding to adjacent highway** | Potential for access to the site to be created through third party land and agreement in place, or existing access would require upgrade.<br><br>Access would need to be substantially upgraded with new access points (existing access is not sufficient). |
| **Transport Modelling Findings** | | More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9** | **Comments**<br>Site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is limited. |
| **Housing Need / Affordability** | **Decile 4** | Site is in a moderate area of housing need, but could help address the needs of adjacent western Harlow to a minor extent. |
| **Economic Growth** | **Low potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station. However, its potential is limited to low by its small size, lack of connection to the urban |

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| | | edge, and poor connections to the M11.<br><br>Site is adjacent to an Epping ELR Cluster. |
| **Local Integration** | Qualitative judgement based on potential positive integration with adjacent rural and urban communities and contribution to revitalisation of existing neighbourhoods; and<br>Ability to maintain and enhance the important features, character and assets of the New Town and existing settlements. | Not clear how site would integrate with surrounds. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Recreation ground within the area but it is excluded from the development red line area proposed. |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*U) Land west Sumners*

| *GENERAL INFORMATION* | | | | |
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| **Site location** | West of Sumners | | | |
| **Local Authority** | Epping Forest | | | |
| **Direction of growth around Harlow** | West | | | |
| **Gross area** (hectares) | ~56.5 ha | | | |
| **HELAA site reference** (if applicable) | SR-0068, SR-0107, SR-0109 | | | |
| **Owned by / Promoted by** | Crest | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ |
| | Majority of site is greenfield land adjacent to a settlement | | | |
| **Surrounding land uses** | Harlow sits to west whilst a small hamlet lies to the east. Farmlands bounds the site on the north and south sides. | | | |
| **Current / previous use** | Agricultural | | | |
| **Assumed capacity** | 1200-1600 dwellings | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 1** | **Comments**<br>Site within Flood Zone 1 |

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| | | 99% of the site is in flood zone 1. Higher flood risk areas, totalling less than 1%, are located in the northern corner of the site and can be avoided through site layout. |
| **Risk of Flooding from Surface Water (pluvial)?** | **High**<br>**Medium** | Southern edge of site |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 2** | Development would involve loss of best and most versatile agricultural land (grade 1 and 2) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **1.5km – 7.5km** | Effects of allocating site for proposed use do not undermine conservation objectives (alone or in combination with other allocations) |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | Site falls within an IRZ and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to SSSI.<br><br>Harlow Woods SSSI to the south east of the site. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **400m – 1km** | No effect as features and species could be retained or due to distance of local wildlife sites from site.<br><br>Pardon Woods and Common Local Nature Reserve to the south east of the site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Features and species could be retained and there are opportunities to enhance existing features. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **Part of the site in woodland** | Site has numerous Epping Ancient Trees within it.<br><br>No impact to Ancient Woodland anticipated. |
| **Tree Preservation Order(s)** | **TPO – Individual** | No TPO<br><br>Site contains veteran trees but at a sufficiently low density across the site that removal could be largely avoided or any possible impacts could be mitigated. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Outside of SPZ** | **Comments** |
| **Hydrological Sensitivity** | **Low leaching potential** | Entire sites lies on rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site in the centre, which could be mitigated. |
| **Radon**<br>Percentage of homes at or above the Action Level | **0-1** | |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Topography and landform** | **Plateau** | **Comments**<br>No known constraints<br>There is a gentle incline running from north to south but this is not significantly steep |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity**<br>**Medium Sensitivity** | The site is within Epping Forest LCA landscape area C8 relating to Roydon village, and has a moderate to high sensitivity to change.<br><br>The site is adjacent to adopted Green Wedges to the north-east. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development could detract from the existing settlement character** | The site is within Epping Forest LCA landscape area C8 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland. The historic landscape setting of hedgerows and veteran trees is also a significant characteristic of the area.<br>The site borders a small hamlet to the west which has a mixture of historic and modern buildings.<br>New development on this site would need to consider:<br>• Preserving the landscape character of the neighbouring hamlet<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review and Very High in 2016 Stage 2 report so low suitability for development (ref. DSR067).<br>The site directly adjoins Harlow (Sumners and Kingsmoor) urban area. Development would diminish the openness of the Green Belt as it would bring the urban footprint of Harlow closer to Broadley Common. It may also diminish visual links across the valley towards the River Stort. However, the strip of land between Harlow and Broadley common is long and narrow, bound by major roads out of Harlow, and is somewhat disconnected from the wider Green Belt to the south west of Harlow. |

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| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br><br>Proposed site adjacent to a Grade II Listed Buildings on Epping Road to the west, at Richmonds Farm to the south-east and at the Garden Centre on Water Lane to the north of the site. |
| **Conservation Area** | **Intersects or <50m** | Proposed site located within a Conservation Area in the west of the site. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **Intersects or <50m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Setting of Heritage Assets** | **The site would result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | The site lies on medium sensitivity to change land. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |

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| **Distance to Harlow Mill Rail Station** | **>5 km** | |
| **Distance to nearest bus stop** | **<400m** | Adjacent to two bus stops on the B181. |
| **Links to strategic road network (M11 and A414)** | **3-10km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 3,375m from A414<br><br>Site is 4,018m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **>800m** | |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Has a Public Right of Way crossing the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 4,787m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 912m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site 1600-5000 m from nearest principal, smaller or district centre** | Site is 4,176m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **<1.6 km** | |

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| **How the site is currently accessed? Is it accessible from the highway network?** | **Suitable access to site already exists** | |
| **Transport Modelling Findings** | **VISUM modelling undertaken by ECC suggests that, with suitable mitigation, the impacts on the highway network will be manageable.** | More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Large site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>It is critical that bus services, schools, doctor surgery/health centres, shops and jobs come forward as and when the demand starts to arise. Developments may be unsustainable if public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting.<br><br>Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on public transport, cycling and/or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 5** | **Comments**<br>Site development would have a relatively minor effect on deprivation, despite the site's medium size, as its surroundings are in general terms not particularly deprived. |
| **Housing Need / Affordability** | **Decile 1** | Site is in an area of high housing need, and could also help address the needs of adjacent western Harlow to a minor extent. |
| **Economic Growth** | **Moderate potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station (but to a lesser extent. However, its potential is limited to medium by its poor connections to the M11. |
| **Local Integration** | **High potential** | Rebuilding of Hatch and school would integrate into Harlow, and |

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| | | highways connections exist elsewhere. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |
| **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments**<br>The site promoter has provided an indication of the physical infrastructure that is likely to accompany development:<br>☐ New roundabout onto Water Lane<br>☐ The extension of Broadley Road<br>☐ Subsidiary access onto Parsloe Road<br>☐ Extension of bus routes |
| **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space.<br><br>The site promoter has provided an indication of the open space infrastructure that is likely to accompany development:<br>☐ Open / green space |
| **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | The West Sumners masterplan incorporates a full range of g r e e n spaces, including a continuation of Sir Frederick Gibberd's green wedges radiating out of the New Town.<br><br>The site promoter has provided an indication of the green infrastructure that is likely to accompany development:<br>☐ Public footpath and cycleway integration<br>☐ Contribution to Sir Frederick Gibberd's green wedges |
| **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | The West Sumners masterplan locates room for SUDS ponds in the proposed green space along the brook along the western boundary of the site.<br><br>The site promoter has provided an indication of the blue infrastructure that is likely to accompany development:<br>☐ SUDS<br>☐ Onsite water storage and pump to release effluent during periods of low flows in the network |
| **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, | The site promoter has provided an indication of the social infrastructure that is likely to accompany development:<br>☐ New primary school to replace the existing 1980's Water Lane |

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| | health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | Primary<br>☐ Early years provision<br>☐ New health centre<br>☐ New community facilities<br>☐ Children play spaces |

## SITE PRO-FORMA (AECOM GIS / DESK RESEARCH)

*V) Land to north of Harlow Road / east of High Street*

| *GENERAL INFORMATION* | | | | | |
|---|---|---|---|---|---|
| **Site location** | Land to north of Harlow Road and east of High Street in Roydon | | | | |
| **Local Authority** | Epping Forest | | | | |
| **Direction of growth around Harlow** | West | | | | |
| **Gross area** (hectares) | ~10 ha | | | | |
| **HELAA site reference** (if applicable) | SR-0169, SR-0304 | | | | |
| **Owned by / Promoted by** | | | | | |
| **Nature of site**<br>If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield | **Greenfield**<br>X | **Brownfield**<br>☐ | **Mixture**<br>☐ | **Unknown**<br>☐ | |
| | Majority of site is greenfield land adjacent to a settlement | | | | |
| **Surrounding land uses** | The village of Roydon lies to the south and west, the trainline to Stansted to the north, and a mixture of dwellings and agricultural land to the east. | | | | |
| **Current / previous use** | Agricultural | | | | |
| **Assumed capacity** | 289 dwellings | | | | |

| *ENVIRONMENTAL CONTEXT* | | |
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| **Which Flood risk zone (fluvial) does the site fall within or intersect with?** | **Zone 3**<br>**Zone 2** | **Comments**<br>Site within Flood Zone 1 |

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| | **Zone 1** | 0 Site within Flood Zone 2 and exception test not required<br>Site within Flood Zone 3a where exception test required<br><br>Higher flood risk areas 2, 3a and 3b, covering 6%, is located on the eastern edge of the site and can be avoided through site layout. |
| **Risk of Flooding from Surface Water (pluvial)?** | **Low** | |
| **Groundwater Flooding** | **Low** | |
| **Agricultural Land Classification** | **Grade 3** | Development would result in loss of poorer quality agricultural land (grade 3-5) |
| **Sites designated as being of European Importance**<br>Ramsar Sites, Special Area of Conservation, Special Protection Area | **Intersects or <1.5km** | Residential development between 400m and 2km from Epping Forest Special Area of Conservation. In combination effects from recreational pressure likely.<br>Effects of allocating site for proposed use not likely to be significant alone need to be checked for in-combination effects |
| **Sites designated as being of national importance**<br>Sites of Special Scientific Interest, National Nature Reserves | **Intersects or <500m** | Site falls within an IRZ and, due to the nature and scale of development proposed, consultation with Natural England would be required. Mitigation may ameliorate risk to Hunsdon Mead SSSI, which is located to the north-east of the site. |
| **Sites designated as being of local importance**<br>Local Nature Reserves, Site of Importance for Nature Conservation, Local Wildlife Site | **>1km** | No effect as features and species could be retained or due to distance of local wildlife sites from site. |
| **Ecological value**<br>UK Priority Habitats Inventory | **Adjacent to, or encroaches upon** | Adjacent to grassland and Woodland Priority habitat<br><br>No effect as features and species could be retained or due to distance of BAP priority habitats from site. |

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| **Agricultural land under Environmental Stewardship**[I] | **Intersects Environmental Stewardship** | No |
| **Woodland** | **No woodland present** | No impact to Ancient Woodland anticipated. |
| **Tree Preservation Order(s)** | **None** | No TPO<br><br>No veteran trees are located within the site boundaries and/or the proposed development is not likely to impact veteran trees. |
| ***GEO-ENVIRONMENTAL CONSIDERATIONS*** | | |
| **Groundwater Source Protection Zones** | **Inner zone (Zone 1)**<br>**Outer zone (Zone 2)**<br>**Total catchment**/Special Interest **(Zone 3** & 4**)** | **Comments**<br>All zones cross this site. |
| **Hydrological Sensitivity** | **Low leaching potential** | Entre site contains rocks with essentially no groundwater. |
| **Land Contamination**<br>Historic landfill sites, Made Ground | **Intersects** | Potential contamination on site in the north, which could be mitigated. Potential contamination over small parts of the site (Brickworks / Gravel Pit / infilled pond). Potential adverse impact that could be mitigated |
| **Radon**<br>Percentage of homes at or above the Action Level | **Greater than 30** | Nearly all of the site falls within Radon, expect for the southern boundary. |
| ***LANDSCAPE, TOPOGRAPHY AND GREEN BELT*** | | |

[I] Environmental Stewardship is an agri-environment scheme which provides funding to farmers and other land managers in England who deliver effective environmental management on their land. ES land is likely to be of relatively high biodiversity value and 'well farmed' in general terms.

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| **Topography and landform** | **Plateau** | **Comments**<br>Constraints exist but potential for mitigation.<br>Site has a change in level of 20m from south to north |
| **Local Landscape Designations**<br>Areas of Great Landscape Value, Special Landscape Areas, or Areas of Special Landscape Importance, Green Wedges etc. The character of some landscapes will change, understanding the relative merits of landscape quality will be vital. | **High Sensitivity** | The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change.<br><br>High Sensitivity in Settlement Edge Landscape Sensitivity Study. |
| **Landscape Impact / Spatial Opportunities and Constraints** | **Development would be likely to harm the existing settlement character.** | The site is within Epping Forest LCA landscape area C6 relating to Roydon village, and has a moderate to high sensitivity to change. This sensitivity is largely owing to the relatively high tranquility in the area as a result from the gentle undulating fields of farmland that overlook the valley of the River Stort to the north and River Lea to the west, and the historic landscape setting of hedgerows and veteran trees.<br>This particular site is likely to be of a high degree of sensitivity to change for the area. Sitting within the valley slopes of the River Stort, it has significant visibility from the north of the Stort, and from the village perspective, and it acts as a void to preserve views across the historic landscape of the Stort Valley. Therefore, obstructing views across and from the landscape to the Stort Valley to the historic houses bordering the site in Roydon would be inevitable.<br>New development on this site would need to consider:<br>• Conserving the historic setting of Roydon<br>• Maintaining views across the Stort valley<br>• Respecting historic hedgerows, trees, and arable farming patterns or field margins |
| **Green Belt**<br>Based on local study findings | **Entirely within Green Belt** | |
| **Positive reinforcement and long-term contribution towards the purposes of the Green Belt Composite commentary**<br>Based on local study findings and AECOM interpretation of NPPF 'sustainable patterns of development' | **Medium = Neither inappropriate or highly appropriate (may require further detailed analysis)** | Rated as having "Relatively Strong/Strong" contribution to Green Belt purposes in the 2015 Epping Forest Green Belt Review Stage 1 but Moderate in Stage 2 report so medium to low suitability for development (ref. DSR-064). The site has development on two sides (south and west) being in close proximity to central Roydon. Development here could be suitable, however, it could result in the loss of readily accessible open space for local residents. |

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| ***HERITAGE*** | | |
| **Statutory sites/buildings designated as being of international and national importance**<br>UNESCO World Heritage Site, Listed Buildings, Scheduled Monuments | **Intersects or <50m** | **Comments**<br>Proposed site adjacent to a number of Grade I and Grade II listed buildings to the west and south of the site, on the High Street and Harlow Road. |
| **Conservation Area** | **Intersects or <50m** | Proposed site located within a Conservation Area on the western boundary. |
| **Archaeological event, feature or find**<br>Archaeological Priority Area / Zone | **50m 500m** | Proposed site located within a Conservation Area or adjacent to a Listed Building or other heritage asset or affecting the setting of a Listed Building or Conservation Area or other heritage asset. |
| **Registered Parks and Gardens** | **50m 500m** | No effect likely on historic assets due to distance from site. |
| **Registered Battlefields** | **>500m** | No effect likely on historic assets due to distance from site. |
| **Locally listed building** | **Intersects or <50m** | Locally listed building on the southern boundary. |
| **Setting of Heritage Assets** | **The site would result in harm to the significance of heritage assets and/or their setting. It is likely that impacts can be avoided mitigated** | Site within medium sensitivity to change. |
| ***TRANSPORT AND ACCESSIBILITY*** | | |
| **Distance to Harlow Town Rail Station** | **1-5 km** | **Comments** |
| **Distance to Harlow Mill Rail Station** | **>5 km** | |

| | | |
|---|---|---|
| **Distance to nearest bus stop** | **<400m** | Bus stops adjacent to the site on the B181. |
| **Links to strategic road network (M11 and A414)** | **1-3km from A414**<br><br>**3-10km from Junction 7 of M11** | Site is 1,137m from A414<br><br>Site is 6,942m from J7 M11 |
| **Cycle route**<br>NCR Sustrans | **<400m** | National Cycle Route crosses the site. |
| **Amenity footpath (inc. PROW)**<br>Opportunities to improve public access to open countryside / open space beyond.<br>(50k base OS mapping) | **<400m** | Numerous Public Right of Ways cross the site. |
| **Distance to Harlow Town Centre**<br>From edge of site to edge of defined points | **>800m** | |
| **Distance to nearest Enterprise Zone** | **>1.5 km** | Site is 5,612m from Enterprise Zone |
| **Key employment site other than EZ** | **<1 km** | Site is 648m from Existing Employment Area |
| **Distance to Princess Alexandra Hospital** | **>2 km** | |
| **Public Open Space / recreation facilities** | **<400m** | |
| **District Centre / Local or Neighbourhood Centre / Parade** | **Site less than 800 metres from nearest principal, smaller or district centre** | Site is 40m from Local Centre |
| **Primary School** | **<800 m** | |
| **Secondary School** | **1.6km – 3.2km** | |
| **How the site is currently accessed? Is it** | **Suitable access to site already exists** | Suitable access to site already exists, off Harlow Rd. |

| | | |
|---|---|---|
| **accessible from the highway network?** | | |
| **Transport Modelling Findings** | | More than 1km from nearest identified key congested junction. |
| **Potential for Sustainable Modes of Transport** | Medium site with potential to deliver material improvements to sustainable transport modes internally and links to external networks.<br><br>Developments may be unsustainable if access to public transport is not introduced from the outset or jobs do not come forward with the housing, resulting in people commuting. Design can also have an effect upon sustainable transport. It is imperative that all new dwellings have somewhere to store bikes for example. | Potential to improve on one of public transport, cycling or walking |
| ***REGENERATION POTENTIAL*** | | |
| **Indices of Multiple Deprivation**<br>Adjacency for beneficial impact on deprivation | **Decile 9** | **Comments**<br>Site is not itself in an area of multiple deprivation, but offers some potential to help address deprivation in adjacent western Harlow due to its location; however it is small and disconnected from the urban edge, so this potential is limited. |
| **Housing Need / Affordability** | **Decile 4** | Site is in a moderate area of housing need, but could help address the needs of adjacent western Harlow to a minor extent. |
| **Economic Growth** | **Low potential** | Site is well-located for western industrial estate, town centre (thus improving its vitality and viability) and Harlow Town station. However, its potential is limited to low by its small size, lack of connection to the urban edge, and poor connections to the M11.<br><br>Site is adjacent to an Epping ELR Cluster. |
| **Local Integration** | | Some potential for integration into Roydon. |
| ***INFRASTRUCTURE CAPACITY AND PROVISION OF LOCAL SERVICES*** | | |

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|---|---|---|---|
| | **Significant infrastructure crossing the site**<br>i.e. power lines/ pipe lines<br>UK Networks – powerlines, gas electricity (National Grid) | **Falls outside** | **Comments** |
| | **Public Open Space / Local Green Space Designations / Recreation** | **Falls outside** | Development would not involve the loss of public open space. |
| | **Green Infrastructure** | Ability to extend, enhance and reinforce strategic green wedges and public open space<br>Contribution of land towards meeting identified public open space requirements? | |
| | **Blue Infrastructure** | Positive response to sustainable water management (potable / sewerage/ drainage)? | |
| | **Social Infrastructure Provision of Local Services** | Provision of new and/or good access to local community facilities, health and education services<br>Areas with good existing capacity e.g. schools, health care facilities<br>Population impacts, child yields and education needs arising from growth assumptions | |

# Appendix 2: Site M landscape appraisal

**Location and context**

The Latton Priory site (Site M) is located within Epping Forest District in Essex. It lies to the south of Harlow, which was one of the first New Towns to be created in the mid-20th century. Consequently, Harlow has a strong and consistent character defined by its common block patterns, simple architectural detailing and integrated open space. The site, and the surrounding area to the south of Harlow, is currently green belt land. The M11 motorway runs north-south to the east of the site. Further to the south is Epping Forest.

**Landscape designations**

The site is currently designated as green belt land. There are also two patches of adjacent ancient woodland (Risden's Wood and Hospital Wood/Parndon Wood) to the west of Dorrington Farm, as well as the nearby Harlow and Latton Commons, which are also designated as Local Wildlife Sites.

**Landscape Character**

The site falls within National Character Area (NCA) 86: South Suffolk and North Essex Clayland (Natural England, 2014). Two local landscape character assessments also cover the site. The Essex Landscape Character Assessment (Chris Blandford Associates, 2003) describes it as part of the Lee Valley character area C3. The Harlow Area Landscape and Environment Study (Chris Blandford Associates, 2005) identifies the area as Jack's Hatch to Church Langley Ridge (20).

**Key landscape characteristics**

The key characteristics which define the site and its wider context are set out below:

- Well-defined ridge which runs southwest to northeast, forming a strong edge to the urban settlement of Harlow, which lies to the north.
- Undulating land at the edges of the ridge, running west-east across the site.
- The land rises from north to south, up to a peak of 110 metres AOD at Rye Hill.
- The River Lee and the River Stort converge to the west of Harlow within a wider and low-lying floodplain
- Intensively managed area of arable farmland, with large, regular fields bounded by tree belts and occasionally hedgerows
- Often large woodland blocks including plantation at Mark Bushes, which are prominent due to their location on rising ground or on the plateau at the top of the ridge
- Open landscape forming a wide countryside gap between Harlow and Epping
- The only existing development on the site comprises two farmsteads – Dorrington Farm (Business Park), which includes some large industrial sheds, and Riddings House, which includes some derelict buildings.
- Adjoins the southern tip of the Green Wedge, which is part of the original design of Harlow, connecting the town centre to the wider countryside
- Public rights of way run across the site, connecting the Harlow Green Wedge to the Stort Valley Way.
- The remains of the 13th century ecclesiastical settlement, Latton Priory, which is a Scheduled Ancient Monument, located in the south east of the site

**Review of current masterplan**

The masterplan for the Latton Priory site (Site M), developed by FCPR and Boyer Planning, includes proposals for up to 2,500 new homes with a range of housing types. The development is also proposed to include a mixed employment area and two or three primary schools.

The site would extend south into the existing green belt, to the top of the ridge described above. The development would extend from Mark Bushes and London Road in the east to the edge of Parndon Wood (SSSI) in the west. The masterplan includes an extension of the existing green wedge to form an area of open space including sports facilities, through the centre of the development.

**Landscape character appraisal**

The Latton Priory Landscape and Visual Study, prepared by FCPR and Boyer Planning (December, 2013) identifies three areas of different character and sensitivity across the site: Rye Hill (A), London Road (B) and Epping Valleys (C). The study assessed areas A and B as having low-medium landscape sensitivity to change, which it determined would have capacity for development. Area C, which slopes towards Epping and forms part of the open Epping Countryside is assessed as having a medium-high sensitivity to change and is recommended to be conserved, due to the Latton Priory SAM and other heritage assets within the area. No methodology is provided to determine how these areas or classifications of sensitivity were arrived at. Moreover, no analysis has been presented of the character or sensitivity of the surrounding landscape as a resource in its own right.

**Views and visual amenity**

*Views from London Road*

Looking westwards from London Road, gently undulating agricultural fields which are divided by trees and hedgerows extend across the view. Low hedgerows line the northern side of the road, offering clear views of the landscape beyond. The dense woodland of Latton Park and Rundell's Grove visually contains the open landscape.

*Views from Rye Hill Road*

Rye Hill Road is a tree and hedgerow lined road. It looks eastwards onto agricultural fields which slope southwards. Dorrington Farm is visible, but obscured by trees and hedgerows.

*Views from Harlow settlement edge*

The foreground comprises common land on the southern edge of Harlow, with dispersed mature trees and shrubs. The land undulates east-west and slopes upwards into the distance to the north, towards the site. Woodland blocks at the top of the ridge emphasise the steep topography and sense of enclosure. Two storey terrace houses are visible on the northern edge of the fields,

*Views from Harlow town centre*

The Green Wedge leads the eye south towards the ridge, which creates a rural backdrop to the view. The land dips from the town centre along the Green Wedge and then up again to the ridge, obscuring much of the intervening development, although the roof tops of some houses and taller buildings, including a tower block are visible. The woodland extending up the ridge emphasises the wooded skyline and prevents more distant views beyond.

*Views from Epping Upland*

The southern side of the ridge is distantly visible from Epping Upland in the south, but the ridge itself obscures views of Harlow beyond. The intervening land is characterised by open agricultural fields, hedgerows and woodland blocks.

**Constraints to development**

The ridge is a prominent feature in the landscape south of Harlow. It is currently largely undeveloped and creates a rural backdrop to the town. The few buildings which are located on the ridge are prominent in views, particularly from Harlow Town Centre. Views south from the town centre and along the Green Wedge currently look out towards open countryside, with the ridge forming a wooded horizon. This is an important part of the character and experience of the area. Any new development proposed on the top of the ridge would alter the setting of the area, as it would be highly visible due to its elevated position within the open landscape.

The ridge also preserves the openness of the green belt by forming a natural barrier to the encroachment of urban settlement into the wider countryside. Whilst the extent of development currently proposed for Latton Priory would not result in coalescence with other nearby settlements, it would give the impression of continuous development when viewed from Harlow and from Epping. The site is well served with public rights of way, including a footpath which passes through the area centrally from London Road, and two long distance trails, Forest Way and Stort Valley Way. These footpaths are connected to the Harlow Green Wedge which facilitates ease of access to the countryside from the town centre. From these paths, there are long distance views of the countryside to the south. If these paths were to cross through development, their amenity value could be lessened.

Other sensitive features of the site include two Scheduled Ancient Monuments: Rye Hill Moat, near Dorrington Farm in the southwest of the site, and the remains of Latton Priory in the southeast of the site. They are both located on high ground within an open setting, which would be altered greatly if they were to be surrounded by new development.

Finally, there are a number of woodland blocks located on the site, running both north-south up the ridge, and east-west at the top of the ridge. The dense vegetation add to the sense of enclosure of Harlow, and enhances its rural setting.

**Opportunities**

The green wedge which extends south from the town centre and the land around the southern periphery of Harlow is currently low quality pasture, mainly used for grazing horses. Future development of the land to the south offers the opportunity to substantially improve the quality of existing open space on the edge of Harlow, which could result in aesthetic, recreational and wildlife gains as part of a wider Green Infrastructure strategy for the area.

The network of public footpaths could also be extended, which would help connect Harlow with the new development, via the Green Wedge. Improvements to the public footpaths could also enhance accessibility to and enjoyment of the countryside, particularly via the long-distance trails, Stort Valley Way and Forest Way, which currently pass through the site.

There is also an opportunity to form a stronger green infrastructure network by connecting existing woodland blocks with new planting. This could also include improving connectivity between the larger area of woodland either side of the site: Pardon Wood Nature Reserve on the west and Mark Bushes on the east. This would further reinforce the wooded skyline which typifies views to the west and east from Harlow Town centre and could create a buffer of vegetation to prevent views of development on the southern edge of Harlow from Epping to the south.

**Conclusion and recommendations**

FCPR and Boyer Planning suggest that a combination of existing woodland and advanced woodland planting at the southern edge of the plateau could visually contain built development from

the wider Epping District. They also suggest that views of the Latton Priory development from Harlow would be screened or heavily filtered by intervening buildings and trees. However, initial analysis carried out by AECOM suggests that any development situated at the top of the ridge would be visible from Harlow in the north and Epping in the south because of its open aspect and elevated position. Whilst planting could reduce its impact, it would not be as effective in initial years as the plants establish, nor in the winter when canopy cover is less dense.

The plateau at the top of the ridge should not be developed, as this would have the potential to result in significant effects on the local landscape and views. New development should therefore be set down on the northern side of the ridge, such that the roof line is below the top of the plateau. This would allow space to substantially strengthen the woodland on the southern edge of the ridge in order to lessen the visual impact of the development from Harlow and Epping. This would also create opportunities for further green infrastructure improvements linking the proposed development and Harlow more generally with the wider landscape.

The 2013 study's visual analysis was limited to a comparative assessment of selected viewpoints. For such a sensitive and open landscape, it is recommended that a zone of theoretical influence (ZTV) of the proposal is prepared to more fully understand the extent to which development built on the elevated land would be visible from the wider landscape.

**Assumptions and limitations**

This landscape and visual appraisal is intended to provide additional information to support the housing site selection exercise currently being carried out for Harlow. It is based on an initial desk study and fieldwork. In the absence of a ZTV and detailed plans of the proposed development, it has not been possible to thoroughly review the landscape and visual baseline to accurately map the limits of visibility.

**References**


- Chris Blandford Associates, February 2005. Harlow Area Landscape and Environment Study
- Chris Blandford Associates, November 2005. A Green Infrastructure Plan for the Harlow Area
- Chris Blandford Associates, 2003. Essex Landscape Character Assessment

**Photographs**

The following photographs were taken by AECOM on a site visit carried out on 18 July 2016. As far as possible they replicate the viewpoints selected by FCPR and Boyer Planning to allow direct comparisons.

*Views from London Road* - 18/07/2016 11:07:06

*Views from Rye Hill Road* - 18/07/2016 11:16:38

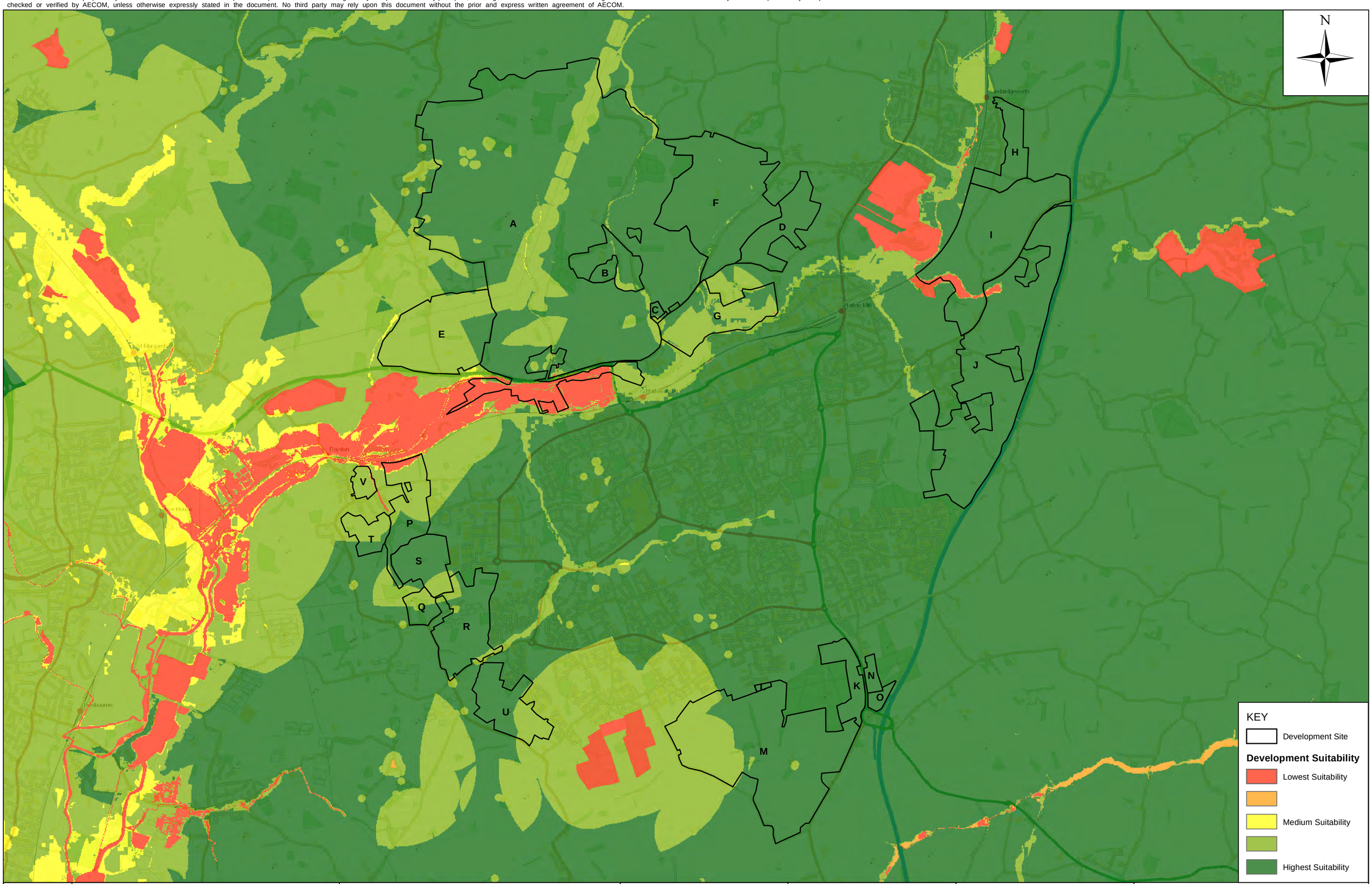
*Views from Harlow settlement edge* - 18/07/2016 11:27:51

*Views from Harlow town centre* - 18/07/2016 16:41:40

*Views from Epping Upland* - 18/07/2016 14:14:37

# Appendix 3: GIS mapping

**List of figures**

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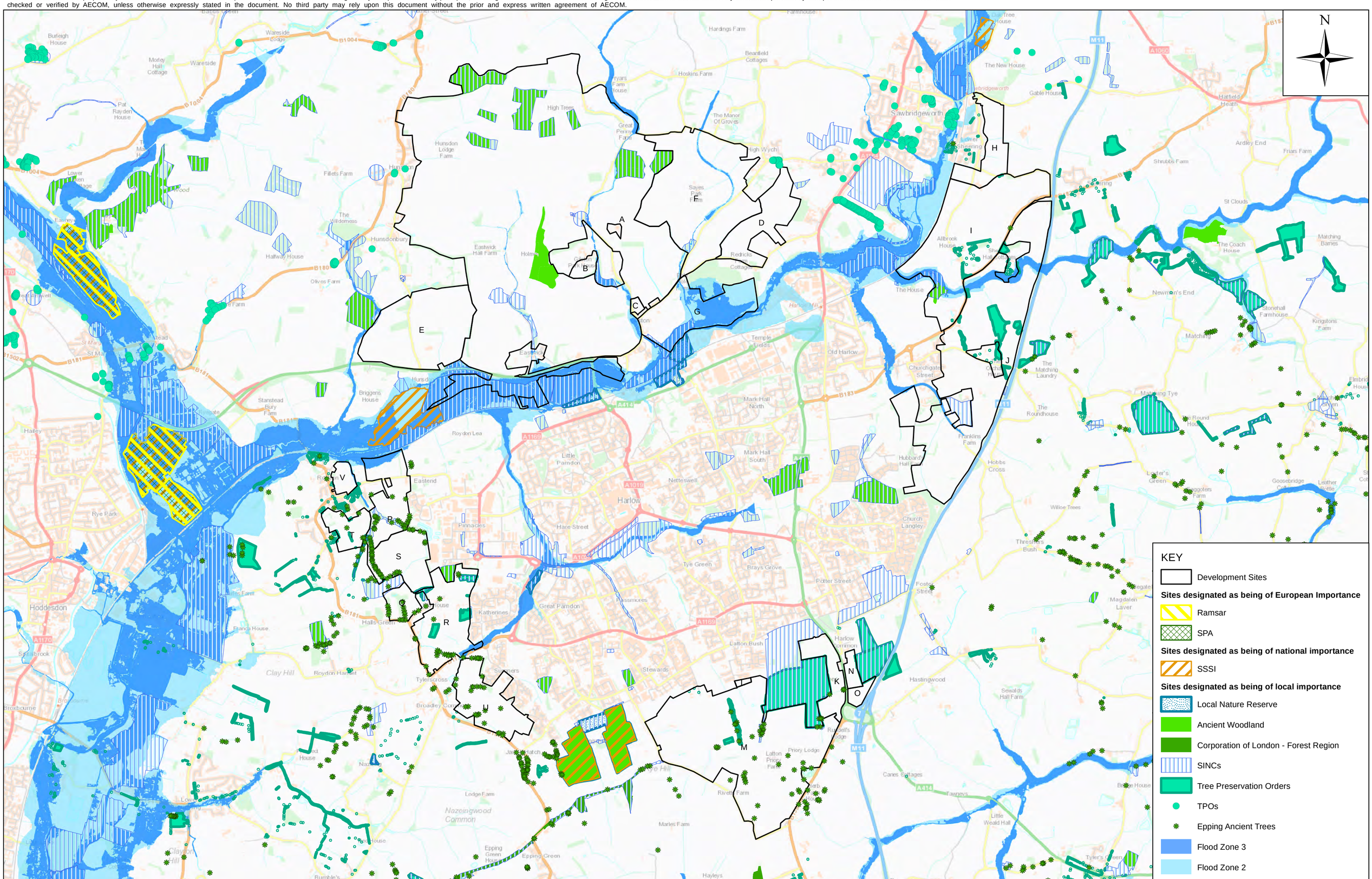


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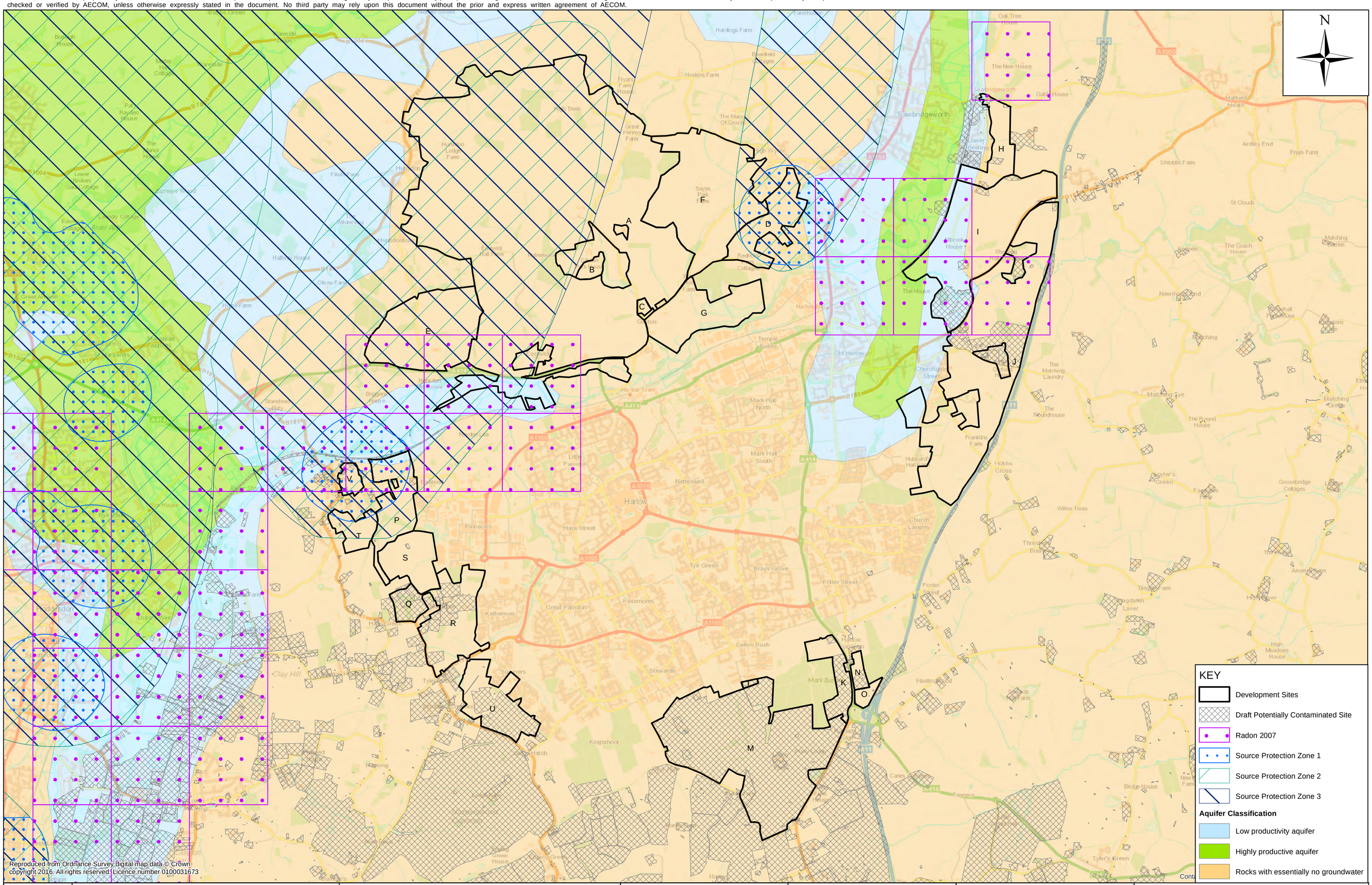




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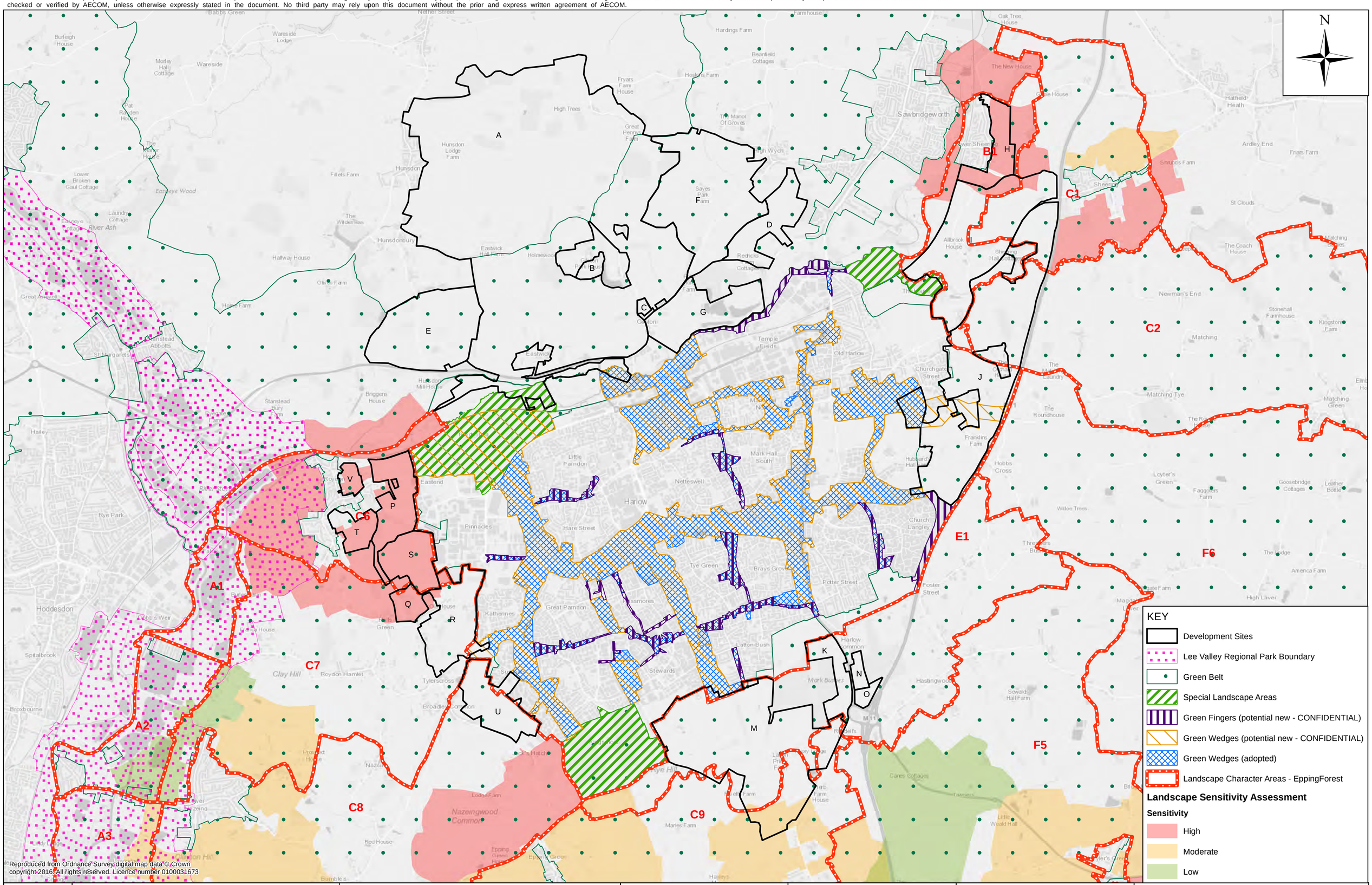




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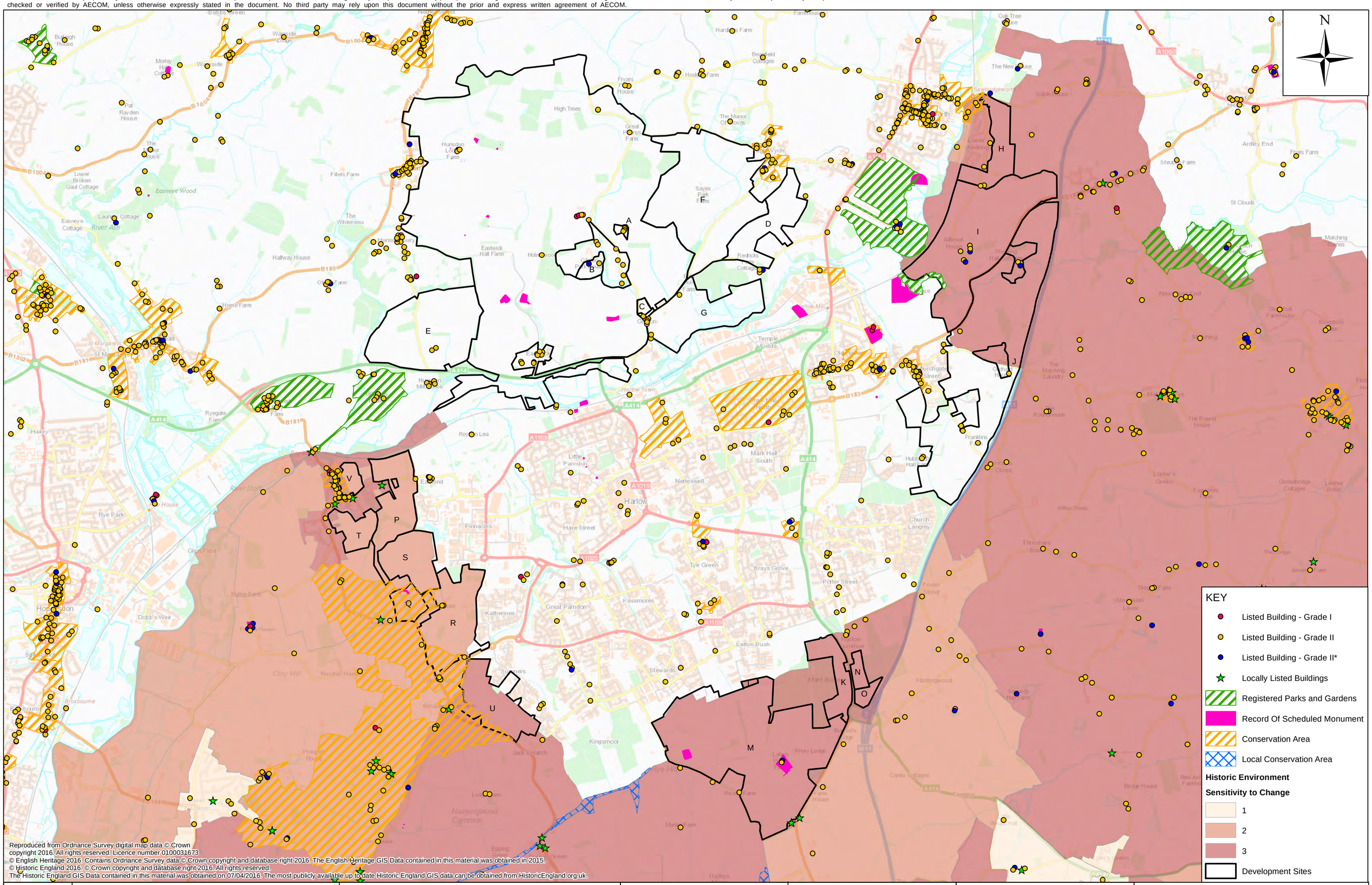




Project: HARLOW

Title: Figure 5 Heritage Context

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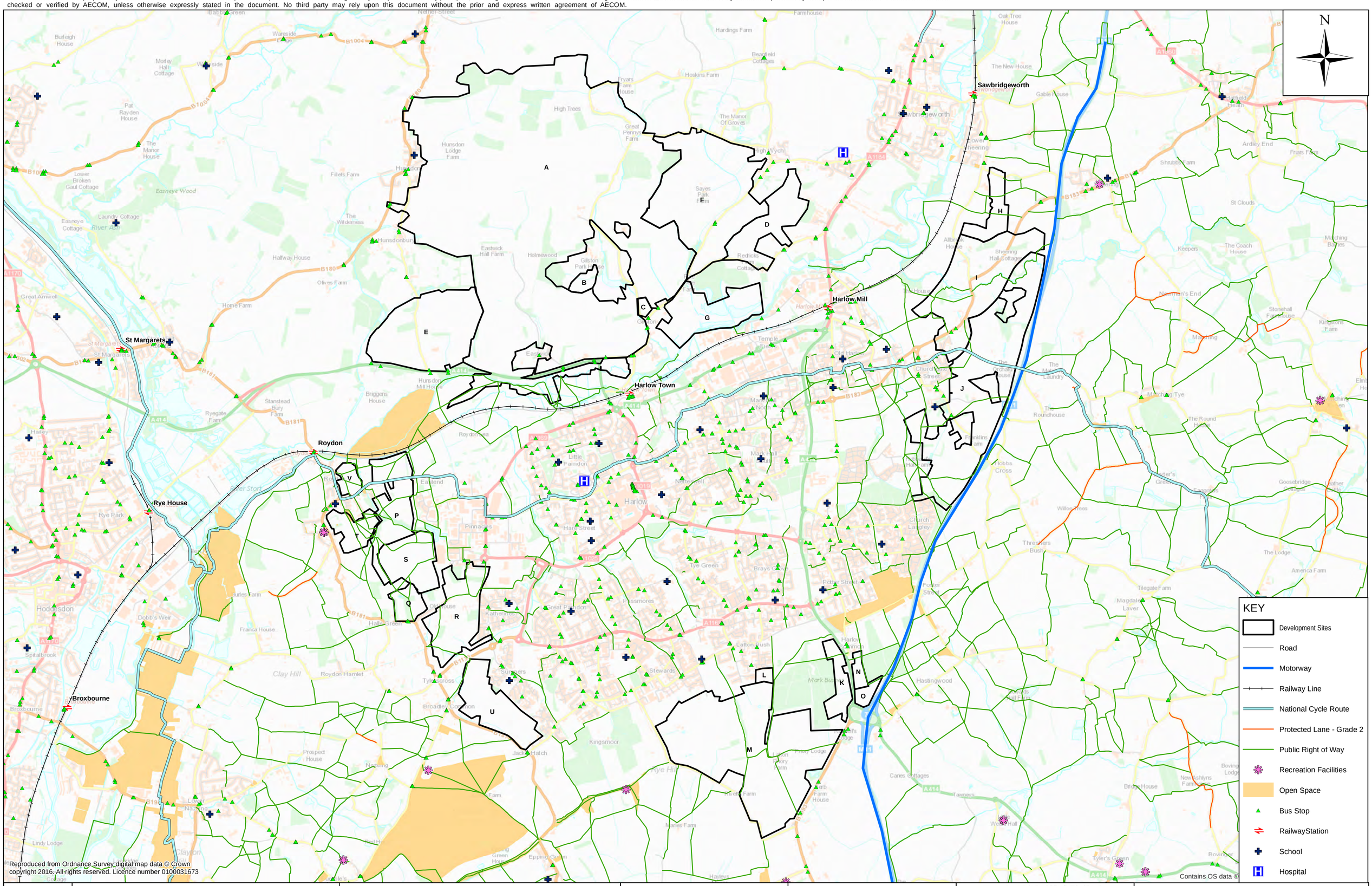




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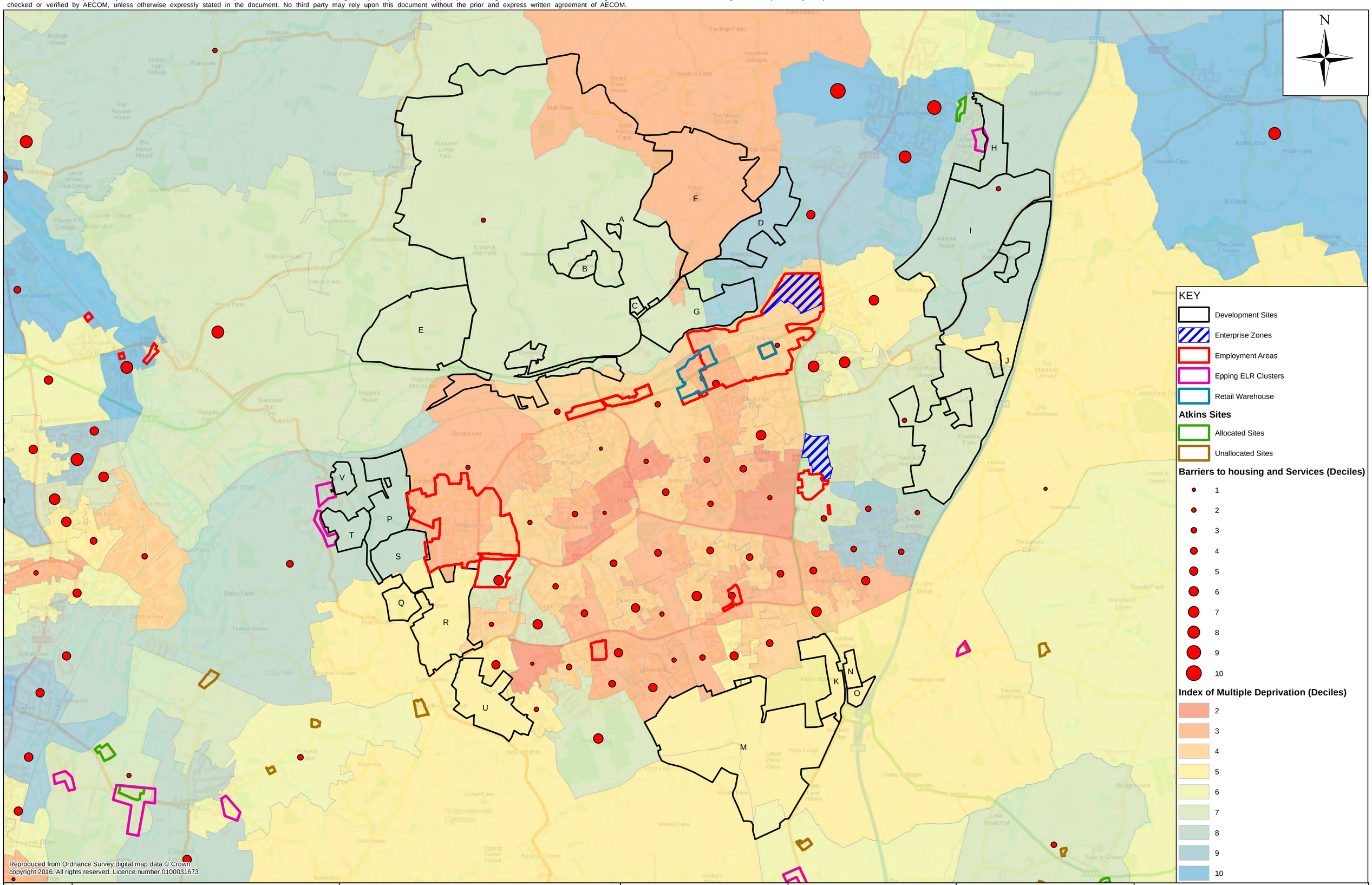




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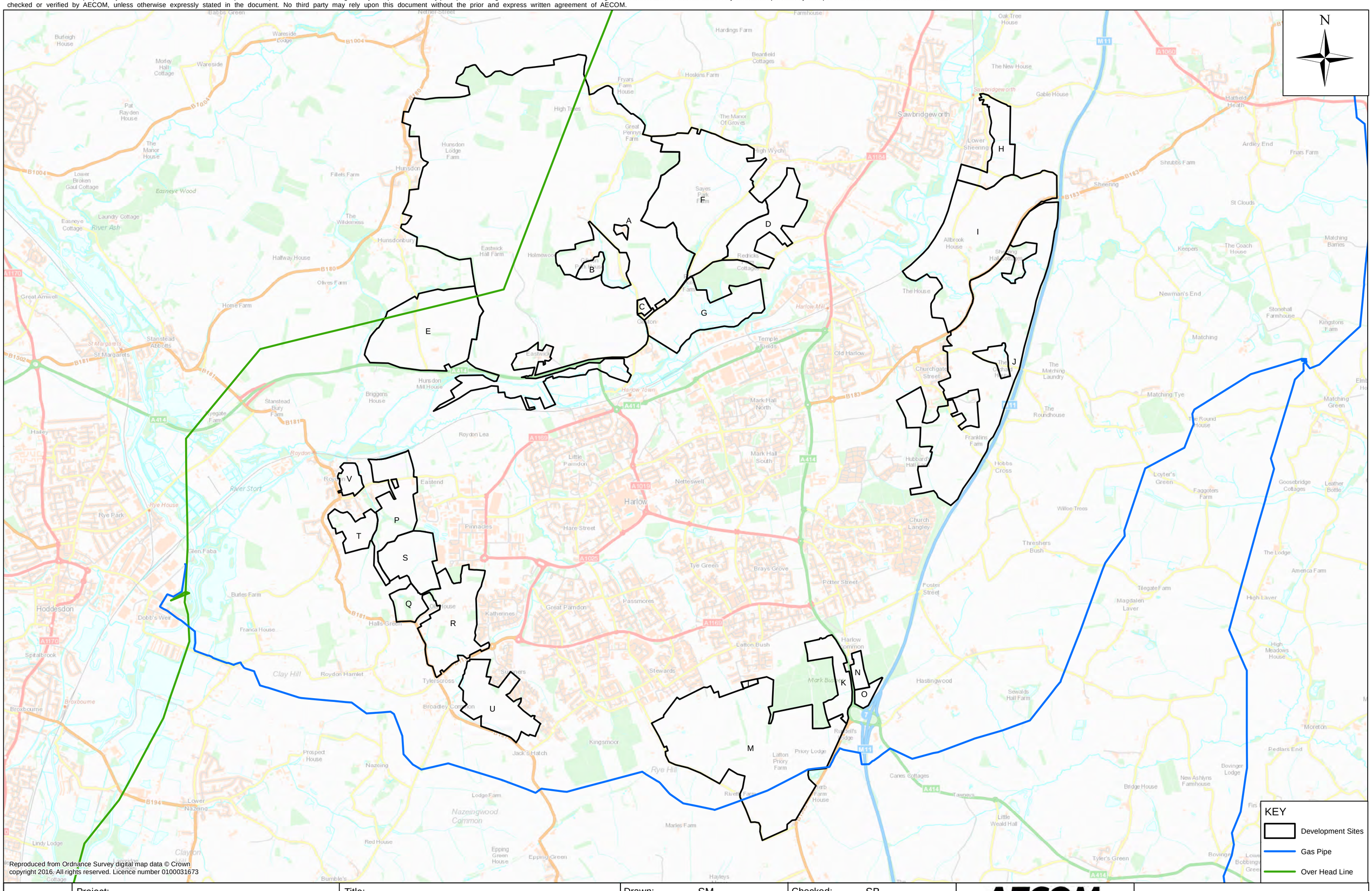




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