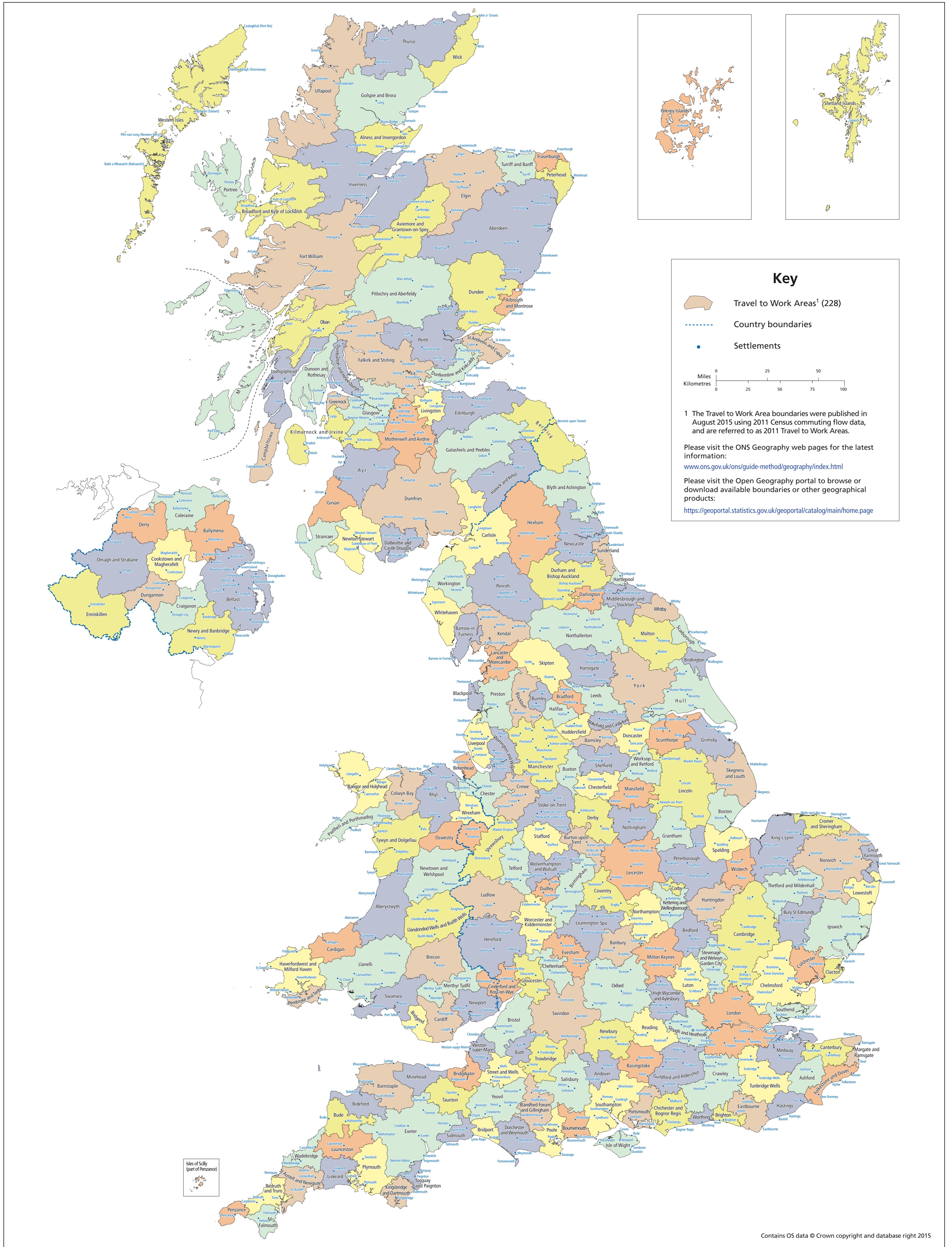
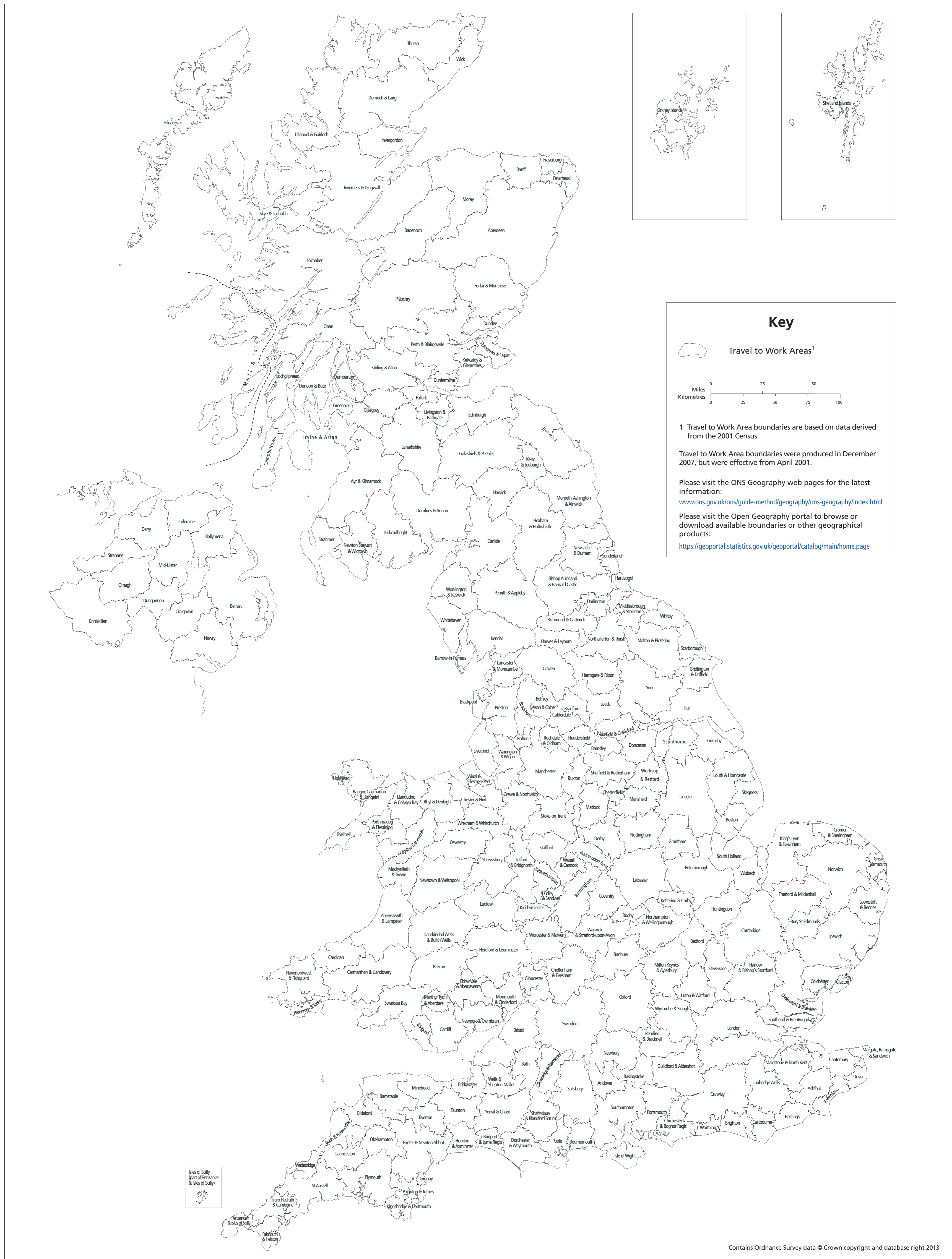

A2. TRAVEL TO WORK AREAS

United Kingdom: 2011 Travel to Work Areas



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United Kingdom: Travel to Work Areas, 2001



A3. PBA TECHNICAL ADVICE NOTE



Objectively Assessed Need and Housing Targets

Technical advice note



Second edition

July 2015

**This note has been prepared for the Planning Advisory Service by
Peter Brett Associates**

5 THE HOUSING MARKET AREA

- 5.1 In line with the NPPF and NPPG, where a housing market area straddles local authority boundaries authorities should work together to assess needs across the HMA as a whole. (Where Local Plans are at different stages of production, the PPG suggests that authorities can make separate assessments, provided they build on the existing evidence of other authorities in the HMA. But they should co-ordinate future assessments so they happen at the same time.¹⁰)
- 5.2 The underlying logic is that housing need is not tied to local authority areas, because many people do not care what local authority they live in as long as they are close enough to jobs, schools, families etc. An HMA is an area of search, bringing together places which households regard as reasonably close substitutes for one another. As planning steers development to the most sustainable locations, people may not be able to live in the exact places that they would otherwise choose. But if they can live in the same HMA the harm to their quality of life should be minimised, because they will still be in their area of search.

Drawing the boundaries

Sources

- 5.3 To identify places that are substitutes for one another, we need to look for evidence of household preferences, as manifested through household behaviour and market signals.
- 5.4 The PPG provides a long list of possible indicators, comprising house prices, migration and search patterns and contextual data including travel-to-work areas, retail and school catchments. In practice, the main indicators used are migration and commuting. With regard to migration, the PPG explains that areas that form an HMA will be reasonably self-contained, so that
- ‘A relatively high proportion of household moves (typically 70%) are contained [within the area]. This excludes long-distance moves (e.g. those due to a change of lifestyle or retirement, reflecting the fact that most people move relatively short distances due to connections to families, friends, jobs and schools).¹¹*
- 5.5 One problem in drawing boundaries is that any individual authority is usually most tightly linked to adjacent authorities and other physically close neighbours. But each of these close neighbours in turn is most tightly linked to its own closest neighbours, and the chain continues indefinitely.
- 5.6 Therefore, if individual authorities worked independently to define HMAs, almost each authority would likely draw a different map, centred on its own area. This of course would produce nearly as many HMAs as local authorities, with huge overlaps. For a

¹⁰ Reference ID: 2a-008-20140306

¹¹ Reference ID: 2a-011-20140306

more useful definition of HMAs we need a top-down analysis, which maximises containment across the country as a whole rather than a given local authority, and also centres HMAs on the main urban areas.

- 5.7 Such an analysis is provided by *Geography of Housing Market Areas*, a study commissioned by the former National Housing and Planning Advice Unit (NHPAU) and published by CLG in 2010¹². The study, led by the Centre for Advanced Urban Studies (CURDS) at Newcastle University, created a consistent set of HMAs across England, based on migration and commuting data from the 2001 Census. Although the analysis has not been updated following the 2011 Census, the CURDS study is the best available starting point for drawing HMAs.
- 5.8 The results of the NHPAU study are hosted on the CURDS website¹³. It defines a three-tiered system of HMAs – strategic, local and single-tier. In general we have found that the most useful for housing need studies is the single-tier ‘silver standard’ geography, which follows local authority boundaries, so that no local authority is divided between different HMAs¹⁴.
- 5.9 We prefer the single-tier level because strategic HMAs are often too large to be manageable; we prefer the ‘silver standard’ because HMAs boundaries that straddle local authority areas are usually impractical, given that planning policy is mostly made at the local authority level, and many kinds of data are unavailable for smaller areas. But for some areas, including many close to London, the single-tier silver standard geography looks unconvincing; in that plan-makers should look for guidance to other levels in the NHPAU analysis¹⁵.
- 5.10 As an alternative to the NHPAU, the starting point for defining HMAs could be established relationships or partnerships between authorities, including Local Enterprise Partnerships (LEPs) and joint planning units. Any such geography should be tested both against the NHPAU geography and through further analysis as described in the next section, especially to ensure that the HMA does not exclude authorities which rightly should be included.

Further analysis

- 5.11 Whether using the NHPAU or established relationships as a starting point, plan-makers should treat the resulting geography as a first draft, to be checked against local knowledge and the latest data. Again migration and commuting are the most useful indicators in practice, because they provide clear measures of containment.
- 5.12 Therefore the analysis should start with a look at migration and commuting, to identify the largest flows between local authorities. These data are available on the ONS

¹²C Jones, M Coombes and C Wong, *Geography of housing market areas*, Final report, November 2010, Department for Communities and Local Government

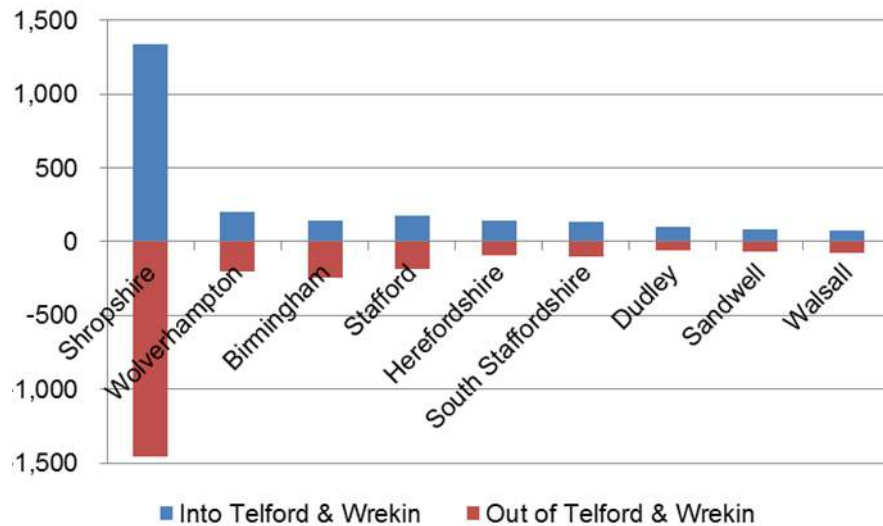
¹³ <http://www.ncl.ac.uk/curds/research/defining/NHPAU.htm>

¹⁴ Maps are at <http://www.ncl.ac.uk/curds/assets/documents/6.pdf> and lists at <http://www.ncl.ac.uk/curds/assets/documents/28.xls>.

¹⁵ Alternative geographies and further explanations are at <http://www.ncl.ac.uk/curds/research/defining/NHPAU.htm>.

website¹⁶; a simple example is at Figure 5.1 below. Combined with local knowledge, this analysis may point to local authority areas which are outside the first-draft HMA but are closely linked to it, and hence potentially should be added. Conversely it may identify areas which are in the first-draft HMA but are only weakly linked to it, and perhaps should be excluded.

Figure 5.1 Cross-boundary migration to and from Telford & Wrekin, 2010-11, top 10 origins and destinations, persons



Source: ONS

5.13 (Those of a technical mind may note that the data used in the example, like all migration statistics, count persons; whereas some studies suggest that we should be counting households, because the PPG refers to ‘household moves’. In our view this would be an over-literal interpretation of the PPG, especially as the technical report on which it is based refers to persons rather than households (see para 5.14 below), and there are no data on migration by household. In any case such data would be very complicated, because when people move house some households merge and others split.

5.14 The second stage should be to test the proposed HMA against the PPG criterion, that at least some 70% of all migration excluding long-distance migration should be contained in the HMA. The test is specified in more detail in an earlier CLG publication:

***‘Identifying suitable thresholds for self-containment:** The typical threshold for self-containment is around 70 per cent of all movers in a given time period. This threshold applies to both the supply side (70 per cent of all those moving out of a*

¹⁶ Migration origin-destination matrices for local authorities in 2010-2011 are at <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tc%3A77-269805>

And for 2009-10 at <http://www.ons.gov.uk/ons/rel/migration1/internalmigration-by-local-authorities-in-england-and-wales/2009-2010/internal-migration-by-localauthorities-in-england-and-wales.zip>.

Commuting for 2010 and 2011 is at <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tc%3A77-300966#tab-all-tables>

dwelling move within that same area) and the demand side (70 per cent of all those moving into a dwelling have moved from that same area).'¹⁷

5.15 Thus, there are two migration containment ratios:

Supply side (origin);

moves within the area

divided by all moves whose origin is in the area, excluding long-distance moves

Demand side (destination):

moves within the area

divided by all moves whose destination is in the area, excluding long-distance moves.

5.16 What counts as a long-distance move is a matter of judgment, since the PPG does not provide a definition. International moves should certainly be excluded. Moves between countries and regions of the UK should probably be excluded, unless an area is close to the boundary between two countries or regions, in which case moves that begin or end outside those two countries / regions should probably be excluded. Often the exact definition of long-distance moves will not matter, because the containment ratio exceeds the 70% threshold even if all moves are counted in the denominator. In that case there is no need to subtract long-distance moves from that denominator, because whatever number is subtracted can only increase the ratio, so the 70% test will still be met.

5.17 In testing for migration containment it is important to include house moves within local authorities, as well as between authorities. If only between-authority moves are included, containment ratios will be under-estimated, and it will be logically impossible for an HMA to consist of a single authority. Data that cover all moves in the year preceding the 2011 Census are at Table Cen MM01CUK_ALL.

5.18 As a secondary indicator it is helpful to analyse commuting containment, using the same calculation as for migration, except that there is no need to exclude long-distance flows (long-distance commuting is rare in any case). The PPG does not provide a threshold for commuting, but such a threshold is used by the ONS to define Travel-to-Work Areas (TTWAs):

*'The current criterion for defining TTWAs is that generally at least 75% of an area's resident workforce work in the area and at least 75% of the people who work in the area also live in the area... However, for areas with a working population in excess of 25,000, self-containment rates as low as 66.7% are accepted.'*¹⁸

5.19 Although the PPG does not refer to commuting containment, it does mention TTWAs, as contextual information that can help define both HMAs and economic market areas. TTWAs as currently defined are still based on the 2001 Census; an update version, based on the 2011 Census, is intended to be published in July 2015 and should be more useful in this regard.

¹⁷ Communities and Local Government, *Identifying sub-regional housing market areas, Advice note, March 2007*

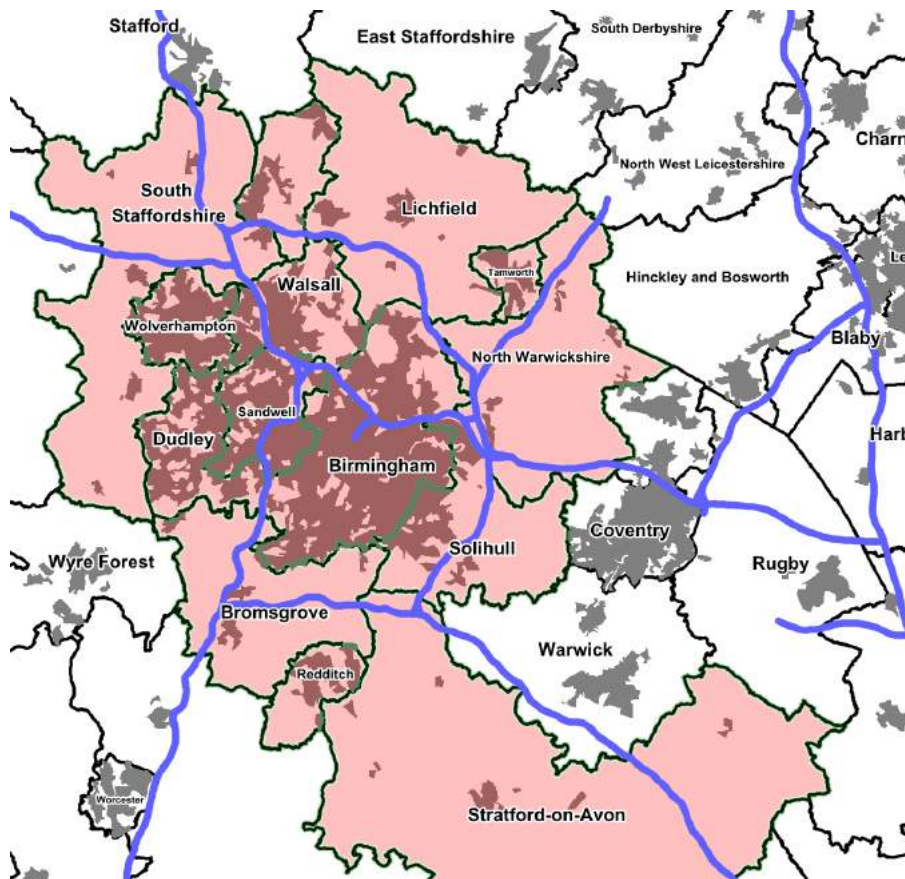
¹⁸ Office for National Statistics, *Guidance and Methodology, A Beginner's Guide to UK Geography*, <http://www.ons.gov.uk/ons/guide-method/geography/beginner-s-guide/other/travel-to-work-areas/index.html>. The TTWA geography was developed by the same team as the NHPAU geography discussed earlier, and the same team is now working on a 2011 Census update.

- 5.20 Once migration and commuting containments have been calculated for the proposed HMA, the analysis should experiment with adding and removing the 'marginal' areas identified in the earlier analysis. As well as the 70% containment test the final definition of the HMA should meet a common-sense test, which is important though impossible to specify rigorously – that the areas in the HMA should be more closely linked to each other than to areas outside the HMA.
- 5.21 As mentioned in passing earlier, it is best if HMAs, as defined for the purpose of needs assessments, do not straddle local authority boundaries. For areas smaller than local authorities data availability is poor and analysis ~~is~~ becomes impossibly complex. There may also be 'cliff edge' effects at the HMA boundary, for example development allowed on one side of a road but not the other.

Complications

- 5.22 HMAs made up of whole local authority areas sometimes look very imperfect, because for some authorities the market reality is that different parts of the area are linked to different neighbouring authorities. An example is the district of Stratford-on-Avon, which covers a very large land area. The fine-grained NHPAU geography and further analysis show that the north of the district is well related to the Greater Birmingham HMA and the south to the Coventry and Warwickshire HMA. But a housing needs analysis that splits the district in two would be unmanageable.
- 5.23 A better (though untidy) solution is to include the whole of Stratford district in housing needs assessments for both HMAs; and later when setting targets to bear in mind that both HMAs competing claims on the district's land supply. Inspectors have often accepted this kind of approach, noting that HMA overlap, their boundaries are permeable and no market geography is perfect.
- 5.24 As well as having no perfect answer, questions about market geography have no single best answer. Generally there is more than one combination of local authorities that meets both the containment criteria and the common-sense test, especially given that the criteria are minimums, so there is no obvious upper limit to the size of an HMA. In reality of course there is a hierarchy of housing market areas, as the NHPAU geography recognises. Inevitably, therefore, HMA definitions involve judgment, including pragmatic judgments about what area is manageable in practice.
- 5.25 Wherever the HMA boundary is drawn, it will look especially imperfect to local authorities on its periphery, because they will generally have close links to areas just beyond the boundary – unless the HMA is bounded by physical obstacles such as the sea or large areas of open countryside.
- 5.26 To illustrate by example,
- 5.27 Figure 5.2 below shows the NHPAU housing market area centred on Birmingham. Authorities just beyond the boundary, such as Wyre Forest and Warwick, have strong links with those districts within the HMA which they adjoin, but not with the HMA as a whole.

Figure 5.2 The Birmingham HMA



Source: NHPAU: CURDS, PBA

- 5.28 The housing needs assessment should identify such related districts. It should briefly review the balance of housing need and planned supply in these districts, using adopted and emerging plans and evidence bases, to see if they might import unmet need from parts of the HMA, or alternatively export some of their own unmet need to parts of the HMA.
- 5.29 Another limitation of HMAs is that in some cases migration and commuting links span long distances, beyond any reasonable HMA boundary. Major conurbations, including London, Birmingham and Brighton and Hove, have long been exporting housing need over long distances, both through direct migration (much of Crawley's growth has been migration out of London) and ripple effects (much of Horsham's growth has been migration out of Crawley). Continuation of these trends is built into assessed housing needs. But all three conurbations lack the supply capacity to meet those assessed needs. Therefore they are likely to generate unmet cross-boundary need, over and above past trends..
- 5.30 All these imperfections of HMA geographies need not be an obstacle to sound planning, because joint working and the Duty to Cooperate do not stop at the HMA boundary. The NPPF (paragraph 182) says that plans should cater for cross-boundary unmet need whenever this is reasonable and sustainable, and Inspectors have confirmed that this includes imports from beyond the HMA, including both boundary-hopping and long-distance overspill.

HMAs and economic market areas

- 5.31 The PPG advises that the need for land to accommodate economic development should be assessed in relation to functional economic market areas, just as the need for housing land should be assessed in relation to HMAs; and in some cases the two areas will be the same¹⁹.
- 5.32 Just as an HMA is an area in which households search for housing, an economic market area is an area in which businesses search for sites and premises. Much of the demand for land for economic uses can be met by sites either side of an administrative boundary, so long as these sites are in the same economic market area.
- 5.33 As mentioned earlier, HMAs may be defined on the basis of migration containment, or closure –the proportion of all house moves that are contained within the area. Similarly, as noted in the PPG, economic market areas may be defined as labour market areas, which are areas of commuting closure – meaning that a high proportion of all journeys to work occur within the area. They may also be seen as areas of search for business location.
- 5.34 One would expect HMAs and economic market areas to be geographically similar, because in broad terms both are largely determined by the reach of a daily return trip. Just as households' location decisions are largely driven by access to jobs and services, business location decisions are largely driven by access to the workers that fill those jobs and the customers who consume those services.
- 5.35 For this reason, and also for convenience, it is helpful if HMAs and economic market areas are coterminous. This makes both analysis and policy-making more manageable: the alternative of working with two larger-than-local areas, one for housing and one for economic land uses, adds layers of complexity. It also makes it possible to plan for alignment of jobs and workers – something which is very difficult to do at the level of individual authorities, precisely because labour markets are larger than local. Chapter 8 discusses this alignment further.

Area profile

- 5.36 Housing needs assessments should be a mostly forward-looking analysis driven by demographic projections. But to understand the projections and take an informed view of the future we need to understand the present and the past. It is helpful, therefore, that the housing assessments include a brief pen portrait of the area's residents and its economy. This contextual information shows broadly what kinds of people are generating demand and need for housing in different parts of the area and why they want to live there.
- 5.37 We would suggest the analysis address three main topics, as set out below. In relation to each topic, the report might first look at the HMA as a whole, then move on to contrast and compare individual authorities.

¹⁹ Reference ID: 2a-008-20140306

i Socio-economic profile

How many people live in the area and its main settlements? What is the mix of occupations and educational qualifications, and what are residents' average earnings, compared to national and regional benchmarks? This information is available from the ONS's Nomis website, <http://www.nomisweb.co.uk/>, which brings together data from many official sources into Local Authority Profiles.

ii Population change

How has the population changed in the past and how much of that change is due to migration as opposed to natural change? How has net migration varied over time and what was its age profile? What are the main origins and destinations of net migration flows?

This information, including the origin-destination matrices that we have already referred to, is on the ONS website. It is helpful to focus on change since 2001, because published data for 2001 and 2011 are taken from Censuses, and hence more reliable than those for inter-censal years, which are based on estimates. 2014 is the date of the latest ONS Mid-Year Population Estimates (MYEs), which are close to the 2011 Census and therefore should be relatively robust.

iii The labour market

How many jobs are located in the area (workplace jobs)? How has this number changed in the last 10 years or so, compared to national and regional benchmarks? What is the balance of workplace jobs and resident workers (net commuting)? What are the main origins and destinations for net commuting? Job numbers are on the Nomis website mentioned earlier²⁰; BRES (<http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/business-register-and-employment-survey--bres-/index.html>) provides more detail. Commuting data are available from the ONS, as we also noted earlier (Footnote 16).

5.38 This historical analysis is not mentioned in the PPG, so it must be considered optional. But it provides valuable contextual information in assessing future housing need. By looking at past change we can judge whether future projections and forecasts are broadly credible. If we understand what kinds of people live in an area, who moves in and out and why, we can understand where new housing should be located so it provides what people want. This is important intelligence that will help inform every part of the needs assessment.

²⁰ For total jobs as opposed to employee jobs and a long time-series, refer to the Nomis table headed 'job density'. The BRES website provides more detail but users need a licence.

**A4. MECHANISM FOR THE CONSIDERATION OF UNMET HOUSING
NEED**



Guidance Note

Mechanism for the Consideration of Unmet Housing Need

This Guidance Note was approved by the Essex Planning Officers' Association at its meeting on 7 September 2017.

Essex Planning Officers' Association (EPOA)

Mechanism for the Consideration of Unmet Housing Need – September 2017

1 Introduction

- 1.1 At a Duty to Co-operate meeting for Chelmsford's Local Plan in May 2017, it was identified by participants that there was a need for a high-level process or mechanism to be agreed to guide how potential unmet housing needs are considered by all Essex authorities. Other requests by individual local authorities to potentially accommodate their 'unmet' housing need have been made in responding to recent Local Plan consultations. It was considered important to address this matter, as the lack of such a mechanism was identified as key issue by the Inspector at the Castle Point Local Plan Examination.
- 1.2 The EPOA Policy Forum discussed the matter at its meeting on 6 June and a Task Finish Group with membership from each of the Essex HMAs was established.



Housing Market Areas in Essex

- 1. West Essex - Epping Forest, Harlow and Uttlesford (+East Hertfordshire)
- 2. South Essex - Basildon, Castle Point, Rochford, Southend-on-Sea and Thurrock
- 3. North and Central Essex - Braintree, Chelmsford, Colchester and Tendring
- 4. Maldon
- 5. Brentwood

2 Policy Context

- 2.1 **Housing Need** - Paragraphs 47 and 159 of the NPPF states the full, objectively assessed needs for market and affordable housing are assessed for the housing market area (FOAHN). Jointly prepared Strategic Housing Market Assessments (SHMAs) identify the 'policy off' demographic derived need, making further adjustments for employment projections, affordability, the needs of specific groups in the community and wider market signals.

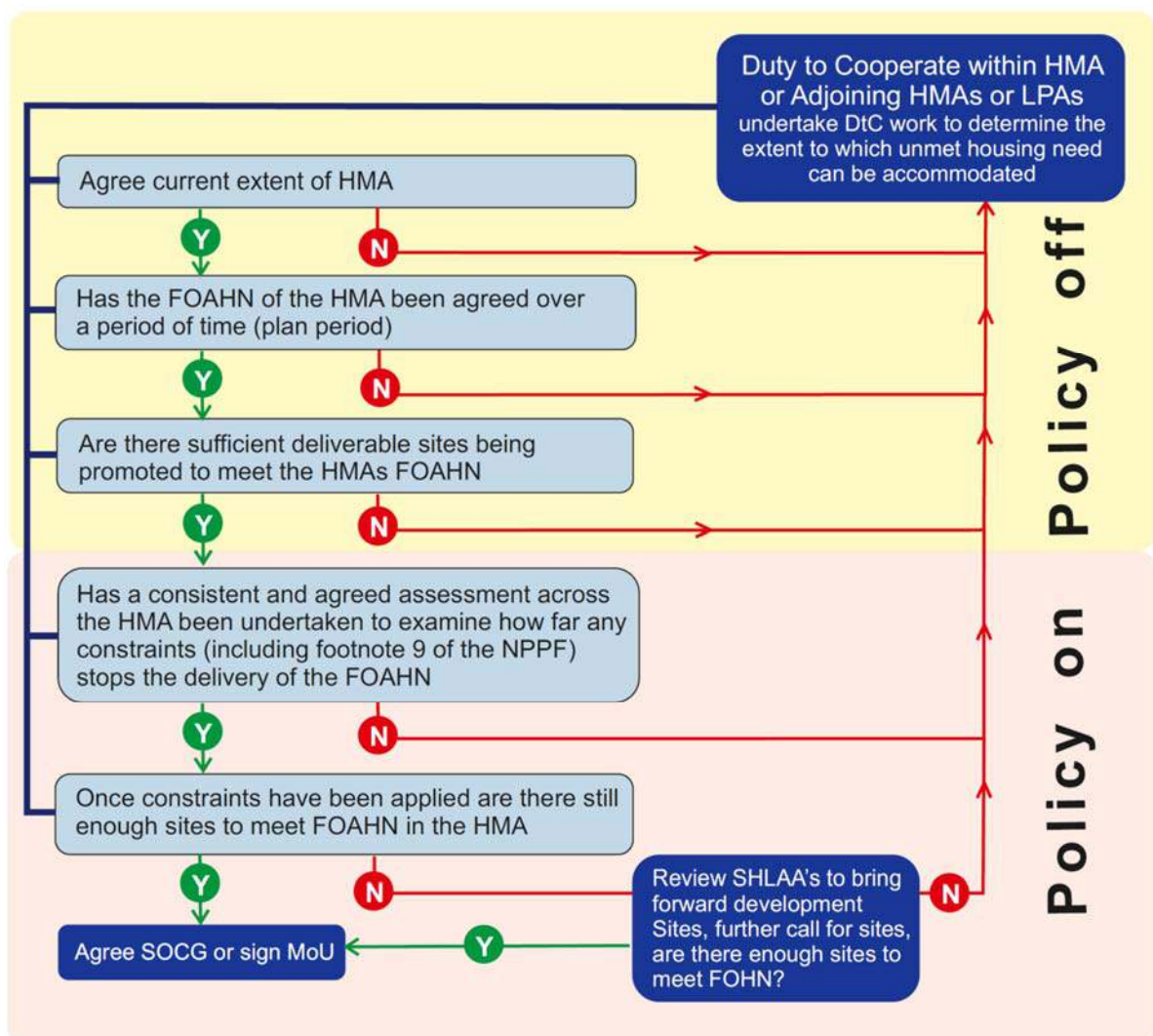
2.2 **Housing Supply** – Paragraph 159 of the NPPF identified the need to prepare a Strategic Housing Land Availability Assessment which identifies the potential supply of housing sites.

3 Process

3.1 To have a clear understanding of the housing needs in their HMA, local planning authorities, in partnership with neighbouring authorities and HMAs, should:

- 1) Agree their full objectively assessed housing number
- 2) Irrespective of policy constraints, assess whether there are sufficient available and achievable housing sites to deliver the identified housing need
- 3) Agree a consistent approach and methodology for assessing policy constraints across the HMA
- 4) If there is an unmet housing requirement – reassess SHLAA, potentially re-distribute within HMA and then consider request to adjoining HMA.

3.2 Consideration will be given to the use of third parties such as the Planning Advisory Service (PAS) or Planning Officers Society (POS) in the case of disputes over this process.



A5. SOCG BETWEEN HAVERING AND BRENTWOOD

Statement of Common Ground (SoCG) between:

The London Borough of Havering

~~The Greater London Authority~~

The London Borough of Barking and Dagenham

The London Borough of Redbridge

Brentwood Borough Council

Epping Forest District Council

Thurrock Council

Basildon Council

~~The London Borough of Bexley~~

~~Chelmsford City Council~~

Essex County Council

The London Borough of Newham

The London Borough of Waltham Forest

Rochford District Council

Duty to Cooperate and consultation with adjoining authorities

September 2018

Introduction

1. This Statement of Common Ground (SoCG) has been prepared jointly between:
 - a. The London Borough of Havering (Council);
 - b. The Greater London Authority (GLA);
 - c. The London Borough of Barking and Dagenham (Barking and Dagenham);
 - d. The London Borough of Redbridge (Redbridge);
 - e. Brentwood Borough Council (Brentwood);
 - f. Epping Forest District Council (Epping Forest);
 - g. Thurrock Council;
 - h. Basildon Council;
 - i. ~~The~~ London Borough of Bexley (Bexley);
 - j. Chelmsford City Council (Chelmsford);
 - k. Essex County Council (Essex);
 - l. The London Borough of Newham (Newham);
 - m. The London Borough of Waltham Forest (Waltham Forest); and
 - n. Rochford District Council (Rochford) (Adjoining Local Authorities).

Background

2. Council has prepared a Duty to Co-operate Statement 2018 (Statement) (references: LBHLP.4.1 and LBHLP.4.2).
3. The Council recognises that planning across boundaries is an important part of the plan making process. It has engaged with its neighbours and other key stakeholders in preparing the Havering Local Plan and has documented the fulfilment of this obligation as required under Section 33A of the Planning and Compulsory Purchase Act 2004 (as amended by Section 110 of the Localism Act) through the Statement.
4. The Council has been committed to fulfilling its Duty to Co-operate responsibilities and working effectively with Adjoining Local Authorities and other bodies to make sure that it has adequately consulted on issues that extend past administrative boundaries (including during the evidence base building stage and policy preparation stages and beyond).
5. Consultation has included cross-boundary engagement with relevant local authorities as well as a number of other 'prescribed' bodies as set out in Regulation 4 of the Town and Country Planning (Local Planning) (England) Regulations 2012.
6. Annex A of the Statement sets out in some detail who the Council engaged with, the manner of that engagement and whether there are any outstanding issues. It includes this information with regard to statutory organisations (Table A.1) and local authorities (Tables A.2 and A.4).
7. Council undertook consultation under regulation 19 between 7 August 2017 and 29 September 2017. Regulation 19 consultation included:
 - a. Consultation documents and supporting evidence published on the Council's Planning Policy Consultation Portal and available to view in person at various identified locations;

- b. Notification of the Local Plan consultation to over 3,500 consultees on Havering's consultation database;
 - c. Notice in local newspapers, social media and various web platforms; and
 - d. distribution of leaflets and posters and presence at local community events.
8. Basildon, Brentwood, Essex, GLA, Redbridge, Rochford and Thurrock made submissions at the Regulation 19 stage.
9. Brentwood and Redbridge did not object to the policies set out in the Havering Local Plan.
10. Basildon, Essex, Rochford and Thurrock responded with concerns that the policies in the Local Plan will not enable the Council to meet its objectively assessed housing need, which will in turn result in additional pressure on them develop more housing in their respective areas. Although the Council is not required to meet its objectively assessed need (as provided in the London Plan), the Council considers that the policies in the Local Plan will help 'close the gap' between its housing target and its objectively assessed need.
11. Essex also submitted that the Local Plan lacks detail on housing supply in the last five years of the plan period, raised concerns regarding the provision of school places and transport issues arising from cross boundary growth (especially the implications for the A127 road corridor). The Council has indicated in its proposed modifications to the Local Plan, that it will bring forward an early review of the Plan to address concerns about housing supply for the latter part of the plan period. Council also meets with Essex staff on education matters (including school place provision) on a regular basis, and commits to continuing to do so.
12. The GLA submit that the Local Plan is not in general conformity with the London Plan in regard to parking standards as it included minimum parking standards only. Council, have considered matters raised by GLA regarding parking standards against the evidence base and is satisfied the Local Plan approach is appropriate for the circumstances.
13. The Council understands that the Duty to Co-operate obligations do not require planning issues be resolved amongst interested stakeholders, and considers that there are no outstanding issues with any local authorities regarding the performance of its Duty to Co-operate responsibilities.

Common Ground

14. The parties to this SoCG agree that Council has engaged robustly and transparently with its neighbours and other key stakeholders during the preparation of the draft Local Plan and throughout the examination process.
15. The parties to this SoCG considers that Council has fully complied with the Duty to Co-operate requirements in the preparation of the Havering Local Plan and that the Statement adequately documents how Council has met this obligation.

16. The parties to this SoCG are committed to working effectively with the each other and other relevant authorities to ensure that continue to work collaboratively on issues that extend past administrative boundaries.

Endorsement

Signed on behalf of the London Borough of Havering		
Name & Position	Signature	Date
MARTIN THOMAS DEVELOPMENT AND TRAVEL PLANNING MANAGER.	<i>M. Thomas</i>	October 9 2018

Signed on behalf of the Greater London Authority		
Name & Position	Signature	Date
		


Signed on behalf of the London Borough of Barking and Dagenham		
Name & Position	Signature	Date
DAVE MANSFIELD CHIEF PLANNER	<i>D. Mansfield</i>	08.10.18.

Signed on behalf of the London Borough of Redbridge		
Name & Position	Signature	Date
Ciara Whelehan Planning Policy Manager	<i>Ciara Whelehan</i>	8 October 2018

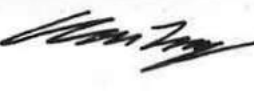
Signed on behalf of Brentwood Borough Council		
Name & Position	Signature	Date

Signed on behalf of the Epping Forest District Council		


Name & Position	Signature	Date

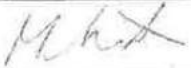
Signed on behalf of Thurrock Council		
Name & Position	Signature	Date
Sean Nethercott, Strategic Lead - Strategic Services. Place Directorate, Thurrock Council.		08/10/2018

Signed on behalf of Basildon Council		
Name & Position	Signature	Date
Matthew Winslow Head of Regeneration and Economic Development (Strategic Planning & Housing Strategy)		11 October 2018


Signed on behalf of London Borough of Bexley		
Name & Position	Signature	Date
Clare Loops Planning Policy and Placemaking Manager, Growth and Regeneration Department		10 October 2018

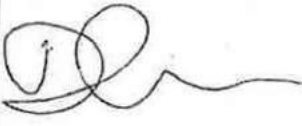
Name & Position	Signature	Date

Signed on behalf of the Essex County Council		
Name & Position	Signature	Date
Head of Planning & Development.		8/10/2018.

Signed on behalf of the London Borough of Newham		
Name & Position	Signature	Date
Mikyla Smith		12/10/18

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Signed on behalf of the London Borough of Waltham Forest		
Name & Position	Signature	Date
Joe Addo-Yobo – Head of Planning Policy & Strategy		08/10/2018

Signed on behalf of the Rochford District Council		
Name & Position	Signature	Date
Daniel Goodman Senior Strategic Planner		05/10/2018

A6. SOS LETTER TO THE MAYOR LONDON



Ministry of Housing,
Communities &
Local Government

Rt Hon Sadiq Khan
Mayor of London
City Hall
The Queen's Walk
London
SE1 2AA

The Rt James Brokenshire MP
*Secretary of State for Housing, Communities and
Local Government*

**Ministry of Housing, Communities and Local
Government**
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Our Ref:

27 July 2018

I am writing to you following the publication of the revised National Planning Policy Framework. This is an essential part of the Government's strategy to fix the broken housing market. It provides the basis for planning authorities to build the homes this country needs, release enough land in the right places and make the best possible use of that land.

The Government is clear that this needs to be a country that works for all. This means building the right homes where they are most needed and ensuring people have access to safe and secure homes. London faces the most severe housing pressures in the country with median house prices now over 12 times median earnings – comparing to an England wide ratio of below 8 – and far more than what an individual can typically expect to borrow for a mortgage. This is clearly unacceptable. Housing will continue to remain out of reach of millions of hard working Londoners unless we see a step change in housing delivery across London.

As you know, the Government is clear we need a London Plan in place that plans to meet London's housing needs in full. I welcome the proposed increase of London's housing target in your draft Plan from 42,000 to 65,000 homes a year as a helpful first step towards meeting London's housing needs. But as set out in the Government's response to your consultation, I am not convinced your assessment of need reflects the full extent of housing need in London to tackle affordability problems. I have listened carefully to yours, and others, representations, and I am clear that the public interest lies with ensuring you deliver the homes London needs, including in the short term, as quickly as possible. This is why I have decided to amend footnote 69 of the revised National Planning Policy Framework so that the draft London Plan will be examined against the previous National Planning Policy Framework rather than new national policy. This will mean you can continue to progress your Plan and start delivering your London Plan targets for which you are responsible.

It remains crucial however that you bring forward a revised London Plan that has regard to new national policies at the earliest opportunity. You will want to note paragraph 33 and annex 1 of the revised National Planning Policy Framework, which sets out that the Government expects plans to be reviewed early where all identified housing need is not being met and to ensure a plan is in place which reflects current national policy. I would

therefore expect you to review the London Plan to reflect the revised National Planning Policy Framework immediately once the London Plan has been published. I remind you that if this is not forthcoming, I have powers to direct the review to ensure London delivers the plan and homes that communities need.

The Government is also clear that Plans should be effective, deliverable and consistent with national policy. You will recall that the Government highlighted a number of further issues with your draft Plan in response to your consultation, including that:

- A number of policy areas in the draft that are inconsistent with national policy, such as your policies allowing development on residential gardens and your policy on car parking.
- The detail and complexity of the policies within the draft London Plan have the potential to limit accessibility to the planning system and development.
- The draft Plan strays considerably beyond providing a strategic framework.
- The draft Plan does not provide enough information to explain the approach you will take to ensure your targets are delivered, including collaboration with boroughs and neighbouring areas.
- There are a number of policies in the draft Plan which seek to deal with matters relating to building standards and safety. It is important that there is a consistent approach to setting building standards through the framework of Building Regulations.

I look forward to seeing the draft London Plan and suggested modifications that you have submitted to the Planning Inspectorate. I would remind you that I have powers to intervene before the Plan is published, by giving a direction to avoid any inconsistencies with current national policy or to avoid detriment to the interests of an area outside of Greater London and I will be carefully considering whether it is appropriate to exercise any of my statutory powers.

Getting a London Plan in place as soon as possible will help us focus on the challenge of significantly increasing housing delivery across London. The Government recognises the scale of the challenge, which is why at the Spring Statement we increased our investment in affordable housing by a further £1.67bn and why last month we announced London boroughs can bid for up to £500m additional borrowing headroom to build more council houses. But London will only deliver with strong leadership. As Mayor of London you are responsible for delivering the strategy to significantly increase housing delivery in London and you will be held to account for delivering London's housing targets. It is in the public interest that there is much more, and more regular, information in the public domain on housing delivery across London and I have asked my officials for advice on what can be done to increase transparency of the net additions to the housing stock in London.

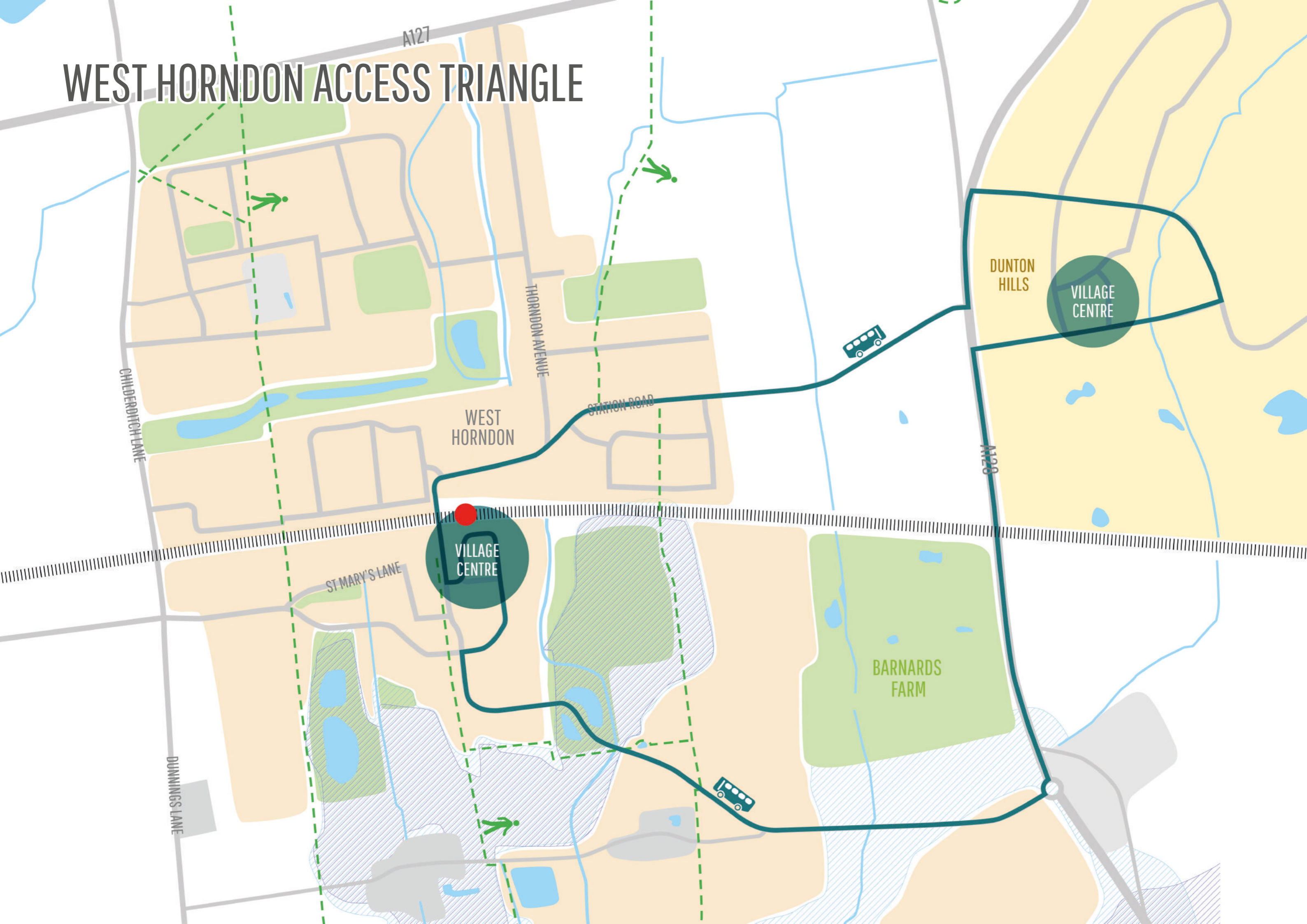
I look forward to further discussion on your plan for delivering the homes London so desperately needs.

A handwritten signature in blue ink, appearing to read 'James Brokenshire', is written over a light blue horizontal line.

RT HON JAMES BROKESHIRE MP

A7. PLAN ILLUSTRATING LOOP ROUTE WITH DHGV

WEST HORNDON ACCESS TRIANGLE



A8. REVIEW OF THE SUSTAINABILITY APPRAISAL



MARCH 2019

Brentwood Local Plan

Sustainability Appraisal and Habitats Regulations Assessment (HRA) of the Brentwood Local Plan: Pre-Submission (Regulation 19) Review

Iceni Projects Limited on behalf of
Estates and Agency Strategic Land
(EASL)

March 2019

ICENI PROJECTS LIMITED
ON BEHALF OF ESTATES
AND AGENCY STRATEGIC
LAND (EASL)

AND HABITATS
(HRA) OF THE
PRE-SUBMISSION

Brentwood Local Plan
SUSTAINABILITY APPRAISAL
REGULATIONS ASSESSMENT
BRENTWOOD LOCAL PLAN:
(REGULATION 19) REVIEW

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APPENDICES

- A1. SA FRAMEWORK FOR THE EASL SITE AT WEST HORNDON
- A2. AMENDED SA FRAMEWORK FOR THE BRENTWOOD LOCAL PLAN

1. INTRODUCTION

- 1.1 This document has been prepared by Icen Projects Ltd. ('Iceni') on behalf of Estates and Agency Strategic Land (EASL) in relation to the Sustainability Appraisal (SA) and Habitats Regulations Assessment (HRA) of the Brentwood Local Plan: Pre-Submission (Regulation 19) Review, which was published for consultation on 5th February 2019. Brentwood Borough Council (BBC) is preparing a new Local Plan that will set out the amount and location of new development across the Borough in the period up to 2033. The SA forms an integral part of this new Local Plan in order to identify how sustainable development is being addressed.
- 1.2 EASL have an interest in land at West Horndon and therefore, are making representation to the Local Plan to promote their Site in helping achieve the emerging plans' objectives.
- 1.3 The purpose of this review is to determine whether the preparation of the Local Plan thus far has been based on an adequate process and to identify any issues which raise concerns regarding legal compliance of the SA and HRA, and the soundness of the Local Plan to date.

Background

- 1.4 West Horndon is located towards the south of the borough to the south of the A217 junction with the M25. The settlement has a train station with regular services between London and Shoeburyness, as well as shops, services and facilities typical of an urban area. The Horndon Industrial Park is located to the north-west of the main settlement, providing commercial, office and warehouse facilities. EASL have an interest in land at West Horndon and is currently working with landowners and local stakeholders to bring forward a strategic extension, incorporating a mix of uses including housing, road infrastructure, educational, community and health facilities as well as employment uses.
- 1.5 The Local Plan Pre-Submission (Regulation 19) version identifies West Horndon as a strategic extension¹ which has been considered within the SA. Two separate sites in West Horndon are promoted, as follows:
- West Horndon West (WHW) for 900 homes as part of the wider masterplan linking the strategic site to the south-west of the village in Thurrock; and

¹ Paragraph 5.3.2 (second bullet point), page 20

-
- West Horndon East (WHE) for 600 homes.

1.6 Variations of the above options have been considered within the SA. It should also be noted that the Thurrock Local Plan: Issues and Options (Stage 2) consultation document identifies an option of a new settlement² at West Horndon to provide up to 10,000 homes.

Compliance and the Requirement for SA to be Undertaken

1.7 Sustainability Appraisal (SA) is a statutory requirement under the Planning and Compulsory Purchase Act 2004³. The SA process is underpinned by the requirements of the EU Strategic Environmental Assessment (SEA) Directive⁴ which applies to all Development Plan Documents. The legal requirements for SEA are set out in the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulations') which transpose the Directive 'on the assessment of the effects of certain plans and programmes on the environment' (the 'SEA Directive') into UK domestic law.

1.8 Although SEA and SA are separate processes, they have similar aims and objectives. SEA focuses on the likely environmental effects of a plan while SA includes a wider range of considerations, extending to social and economic impacts. The NPPG brings these requirements together and states that:

"Sustainability appraisal should meet all of the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004..."⁵ and "Sustainability appraisal is integral to the preparation and development of a Local Plan, to identify how sustainable development is being addressed"⁶

1.9 Therefore, SA/SEA is a procedural requirement of the plan making process.

² Page 57 of the Thurrock Local Plan: Issues and Options (Stage 2) Integrated Sustainability Appraisal

³ Section 19(4)

⁴ 2001/42/EC

⁵ NPPG Paragraph: 007 Reference ID: 11-007-20140306

⁶ NPPG Paragraph: 006 Reference ID: 11-006-20140306

Compliance and the Requirement for HRA to be Undertaken

- 1.10 The need for a Habitats Regulations Assessment (HRA) to be undertaken is set out within Article 6 of the EC Habitats Directive 1992⁷, which has been transposed into UK domestic law by the Conservation of Species and Habitats Regulations 2017⁸ (the ‘Habitats Regulations’).
- 1.11 The purpose of the HRA is to identify any aspects of a plan, programme or project which have the potential to cause likely significant effects on internationally designated / European sites (Special Areas of Conservation (SAC), Special Protection Areas (SPA) or Ramsar) as defined by the Habitats Regulations in order to “*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*”⁹.
- 1.12 A plan or project can only be permitted once it is ascertained, beyond all reasonable doubt, that no significant effects on internationally designated sites will occur as a result. This usually takes the form of an Appropriate Assessment. The ruling associated with *People Over Wind*, Peter Sweetman v Coillte Teoranta (April 2018) states that it is not permissible to take account of measures intended to avoid or reduce the harmful effects of the plan or project on a European site at the screening stage. This is supported by PINS Note 05/2018, which states that the screening stage must be undertaken on a precautionary basis without regard to any proposed integrated or additional avoidance or reduction measures. Where the likelihood of significant effects cannot be excluded, the competent authority must undertake an Appropriate Assessment to establish whether the plan or project will affect the integrity of the European Site, considering the effectiveness of the proposed avoidance or reduction measures as relevant.
- 1.13 Consequently, it is clear that HRA is an integral, procedural requirement of the Local Plan development process. Further details on the HRA process undertaken for the Brentwood Local Plan are provided in Section 4 of this report.

Report Structure

- 1.14 This report is structured as follows:
- Section 2: Review of the SA Process to Date;
 - Section 3: Review of the SA for the Brentwood Local Plan;

⁷ 92/43/EEC

⁸ HMSO, (2017); Conservation of Species and Habitats Regulations 2017

⁹ Article 2(2) of the Habitats Directive (92/43/EEC)

-
- Section 4: Review of the HRA for the Brentwood Local Plan; and
 - Section 5: Summary and Recommendations.

1.15 **Appendix A1** provides an alternative version of the SA Framework for the EASL site at West Horndon.

2. REVIEW OF THE SA PROCESS TO DATE

2.1 SA/SEA is an iterative process that takes place alongside preparation of the Local Plan and consists of 5 stages:

1. Stage 1 / A: Setting the context and objectives, establishing a baseline and deciding on the scope - resulting in a Scoping Report;
2. Stage 2 / B: Developing and refining options and assessing effects - resulting in an Issues and Options Interim SA Report;
3. Stage 3 / C: Prepare the Sustainability Appraisal Report - resulting in the Final SA Report;
4. **Stage 4 / D: Consult on the draft SA Report and the Local Plan - resulting in any modifications to the SA Report;** and
5. Stage 5 / E: Adoption and Monitoring - adoption Statement alongside the Local Plan.

2.2 The SA for the Brentwood Local Plan (January 2019) comprises Stage 4 of this process and presents an appraisal of the preferred option to be taken forward alongside the Local Plan.

2.3 The Brentwood Local Plan has been under development since 2009, with five iterations of the SA Report published over the course of the Local Plan process as part of several consultations held under Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012¹⁰. Summaries of the findings of these Interim SA Reports is provided in the following sections to demonstrate how the SA process has developed alongside the Local Plan.

2.4 As set out in national guidance, the role of SA is to promote sustainable development by assessing the extent to which the emerging Plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives. This process is an opportunity to consider ways by which the Plan can contribute to improvements in environmental, social and economic conditions, as well as a means of identifying and mitigating any potential adverse effects that the plan might otherwise have. By doing so, it can help make sure that the proposals in the Plan

¹⁰ Her Majesty's Stationery Office (HMSO), (2012); Town and Country Planning (Local Planning) (England) Regulations 2012

are the most appropriate given the reasonable alternatives. It can be used to test the evidence underpinning the Plan and help to demonstrate how the tests of soundness have been met.

- 2.5 Sustainability appraisal should be applied as an iterative process informing the development of the Local Plan. This review highlights where we disagree with the effects of some of the growth options and provides an alternative scoring which should be considered.
- 2.6 Throughout the review of the Interim SA reports prepared to support the Local Plan at various stages, options which are relevant to West Horndon are *italicised* for emphasis. In the relevant table significant negative effects are identified in **red** whilst significant positive effects are identified in **green**.

Stage 1: Setting the Context and Objectives

SA Scoping Report (May 2013)

- 2.7 The SA Scoping Report was published in 2013 which set out the proposed scope of the SA and provided an overview of the relationship between the SA and the Local Plan development process. This was published for public consultation between the 31st May and 5th July 2013. The organised consulted include the Environment Agency, Historic England and Natural England, who are all statutory consultation bodies under the SEA Regulations.
- 2.8 It is unclear as to whether the above statutory consultation bodies responded to the SA Scoping Report consultation, as no record of any responses received are provided within the Interim SA Reports or form part of the Local Plan evidence base.
- 2.9 The Scoping Report is fundamental to the SA process in that it sets out the methodology to be used for the assessment of effects. It identifies:
- Relevant plans, policies and programmes;
 - Baseline information, evidence and sustainability issues; and
 - The SA Framework and methodology and use of significance criteria in accordance with the SEA Regulations, including secondary, cumulative and synergistic effects.
- 2.10 The SA Scoping Report states that the SA must be informed by robust, credible and proportionate information on the current and future state of the environment and communities, to allow the SA to influence the plan-making process.
- 2.11 The SA Scoping Report was prepared in May 2013 and consequently reflected the conditions within the borough at the time of writing. However, since 2013 Brentwood has undergone significant

change, which should be reflected in the evidence base, including the SA, to ensure robust, credible and proportionate assessments have been undertaken to support the Local Plan. The evidence base should comprise detailed technical assessment on the social, economic and environmental characteristics of the borough and updated regularly throughout the Local Plan development process.

2.12 The evidence base for the pre-submission version of the Local Plan includes (but are not limited to):

- Economic Futures 2013-2033 (January 2018);
- Green Belt Study (November 2018);
- Green Infrastructure Strategy (September 2015);
- Habitats Regulations Assessment (January 2019);
- Strategic Flood Risk Assessment (SFRA) (November 2018);
- Landscape Sensitivity and Capacity Study (November 2018);
- Strategic Housing Market Assessment (SHMA);
- Brentwood Infrastructure Delivery Plan;
- Built Facilities Strategy (October 2018);
- Playing Pitch Strategy (November 2018); and
- Transport Assessment (October 2018).

2.13 Statutory consultation on the Lower Thames Crossing (LTC) was undertaken between October and December 2018, which identified potential changes along the A127 and A128 in Brentwood. The Transport Assessment has taken the LTC into consideration, however as information on the impact of the LTC on the highway network in Brentwood is limited at this stage and will need to be reviewed as the scheme progresses over the Plan period.

2.14 However, whilst many of the technical assessments which form the evidence base for the Local Plan have been updated, the SA Scoping Report has not. Considering that there is an approximate six year lapse between the publication of the SA Scoping Report and the Final SA Report, best practice indicates that an updated SA Scoping Report should have been prepared to demonstrate that the proposed scope and methodology are still sufficient to provide a robust and comprehensive assessment. It should be noted however that the introductory sections of the Interim SA Reports published in 2013 and 2016 state that stakeholders were “*welcome to comment on the SA scope at*

*the current time*¹¹ but it is unclear how any responses received have been incorporated into each iteration of the SA.

- 2.15 The SA Scoping Report sets out the 'topics' to be considered within the assessment and provides a 'methodological framework' for the draft Local Plan and consideration of alternatives. However, we are concerned that this methodology is not clearly defined or applied consistently throughout the SA process.

Stage 2: Developing and Refining Options

Interim SA Report (August 2013)

- 2.16 The Interim SA Report published in August 2013 sets out the sustainability context, including baseline conditions, for the Brentwood Local Plan. This includes identification of potential sustainability issues to be addressed as part of the SA.
- 2.17 This document was published as part of the Local Plan 2015-2030 Preferred Options consultation, and set out five spatial strategy options as follows:
- *Option 1: Focus on development primarily at Brentwood, Shenfield and West Horndon;*
 - Option 2: Centralise growth in and around Brentwood;
 - *Option 3: Transport-led growth – develop settlements with a rail station, i.e. Brentwood, Ingatestone, Shenfield and West Horndon;*
 - Option 4: Semi-dispersed growth (i.e. larger villages); and
 - Option 5: Dispersed growth (all settlements).
- 2.18 A SA of the spatial strategy options was undertaken, and the results summarised in **0** as follows.

Table 2.1 Summary Appraisal of the Spatial Strategy Options (Table 16.1 of the Interim SA (August 2013))

SA Topic	<i>Option 1</i>	Option 2	<i>Option 3</i>	Option 4	Option 5
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¹¹ Paragraph 4.1.3, page 4 of the Interim SA Report (2016)

Air Quality	2	1	2	4	5
Biodiversity	1	1	2	3	4
Climate Change	1	3	2	4	5
Community and Wellbeing	2	3	1	4	5
Cultural Heritage	1	3	2	4	5
Economy and Employment	1	3	2	4	5
Flooding	2	1	3	4	5
Housing	-	-	-	-	-
Landscape	1	1	1	2	3
Soil and Contamination	2	1	2	3	4
Waste	-	-	-	-	-
Water Quality and Resources	1	1	2	3	3

2.19 Based on the above, Options 1 and 3 perform best against the sustainability objectives, with significant positive effects identified in relation to community and wellbeing, and economy and employment. Whilst significant negative effects are identified in relation to landscape, and soil and contamination for all options due to development within the Green Belt and on greenfield land, Options 1, 2 and 3 are considered to use this land most efficiently.

2.20 Consequently, based on this Interim SA development should be focused around Brentwood, Shenfield and West Horndon, with a particular focus around transport-led development growth.

Interim SA Report (2014)

2.21 In November 2014 an Interim SA was prepared as part of the evidence base for the Dunton Garden Suburb consultation in 2015. This report was prepared jointly by Brentwood and Basildon Councils, and does not constitute part of the emerging Local Plan for either borough. However, the information presented was used to inform further assessment against the evidence base for their corresponding Local Plan development processes.

-
- 2.22 This report concluded that Dunton Garden Suburb is likely to result in a mixture of positive and negative impacts in relation to the SA Objectives. Positive impacts were identified in relation to a number of topics, including Housing, Health and Wellbeing and Regeneration. However, negative effects were identified as well, notably in relation to Biodiversity, Flood Risk, Pollution and Traffic Congestion.
- 2.23 Consequently, whilst this should be considered as a viable option for delivering housing and employment growth within Brentwood, further assessment of this option is required and should be included within the Local Plan evidence base.
- 2.24 It should be noted that paragraph 9.7.1 of the Interim SA Report (2016) implies that the Dunton Garden Suburb scheme (in conjunction with Basildon Council) was no longer being considered as a suitable spatial option and was replaced by Dunton Hills Garden Village. The reasons for this are not clear, and there is limited information within the supporting evidence base for the Local Plan to justify this decision.

Interim SA Report (February 2016)

- 2.25 This Interim SA Report was published in February 2016 as part of the Draft Local Plan consultation in response to feedback from the Strategic Growth Options and Dunton Garden Suburb consultation in 2015.
- 2.26 BBC determined that there is limited potential to deliver more than one strategic site allocation as part of the Local Plan due to most sites being located in proximity to one another and the potential for negative in-combination effects. Consequently, six spatial options were considered as part of this SA:
- Option 1: 2,500 homes at Dunton Hills Garden Village (DHGV)¹²;
 - *Option 2: 2,500 homes through an extension at West Horndon;*
 - Option 3: 1,420 homes at land north of Brentwood (including one of the preferred A12 urban extension allocations);
 - Option 4: 2,500 homes at land to the East of Running Waters, Hutton;
 - Option 5: 3,200 homes at DHGV and land north of Brentwood; and

¹² *Following further consideration, it appears that a comprehensive Dunton Garden Suburb option with Basildon was replaced with Dunton Hills Garden Village*

- Option 6: 3,200 through an urban extension of West Horndon and at land north of Brentwood.

2.27 An updated SA of the spatial strategy options was undertaken, and a summary of the findings are presented in **Table 2.2**.

Table 2.2 Summary Appraisal of the Spatial Strategy Alternatives (Table 7.2 of the Interim SA (February 2016))

SA Topic	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Air Quality	2	1	5	6	4	3
Biodiversity	5	5	1	1	3	3
Climate Change	4	3	5	5	2	1
Community and Wellbeing	3	4	5	5	1	2
Cultural Heritage	1	5	1	6	1	4
Economy and Employment	3	3	5	6	1	1
Flooding	=	=	=	=	=	=
Housing	3	3	6	3	1	1
Landscape	4	1	1	5	4	1
Soil and Contamination	4	4	1	4	2	2
Waste*	=	=	=	=	=	=
Water Quality and Resources	=	=	=	=	=	=

*waste was omitted from Table 7.2 but has been included here for completeness

2.28 The SA concluded that a strategic allocation at either of the A127 corridor locations (i.e. DHGV or West Horndon) should be supported, as these options result in the fewest number of significant negative effects.

2.29 The Draft Local Plan places a great deal of emphasis on DHGV, which benefits from a site allocation under Policy 6.6: Strategic Sites. Furthermore, Policy 7.1: Dunton Hills Garden Village outlines a commitment from the Council to work with the community and local stakeholders to deliver DHGV as a major strategic housing-led development. This implies that DHGV was identified as the preferred option, a conclusion which **is not supported by the findings of the Interim SA Report**.

2.30 Whilst significant positive effects have been identified in relation to Economy and Employment, and Housing provision for DHGV, significant negative impacts in relation to Landscape were also identified. In contrast, **no significant negative effects were identified against any of the SA Objectives in relation to urban expansion at West Horndon**, or in relation to a combination of urban expansion at West Horndon and land north of Brentwood. The conclusion of the Interim SA Report states that a balance between socio-economic and environmental objectives is sometimes inevitable and could be addressed through amendments to policy wording or incorporation of additional policies to address these issues specifically.

2.31 However, the Interim SA fails to acknowledge that two alternative options were presented which did not result in significant negative effects against any of the SA Objectives, which could provide a solution to these issues. **This implies that the selection of DHGV as the main development strategy within the Draft Local Plan was not supported by a robust and credible evidence base and an objective assessment of all ‘reasonable alternatives’ as required by the SEA Regulations.**

Interim SA Report (January 2018)

2.32 The January 2018 Interim SA Report presents an appraisal of the preferred site allocations following feedback on the Draft Local Plan in 2016. This formed part of the wider evidence base for the Local Plan: Preferred Site Allocations consultation in 2018.

2.33 Feedback from the Draft Local Plan consultation in 2016 did not identify a need for any major changes to the spatial strategy for the A127 (i.e. in relation to West Horndon or DHGV)¹³. Section 6.6 of this report set out the ‘reasonable alternatives’ considered within this Interim SA, which are summarised below:

Table 2.3 Reasonable Alternatives (Table 6.1 of the Interim SA (2018))

Location Variable	Options* assessed as Reasonable Alternatives
North Brentwood	2,500 homes Nil homes
Dunton Hills Garden Village	2,500 homes Nil homes

¹³ Paragraph 6.5.12, page 22

West Horndon West	1,200 homes
	600 homes
	Nil homes
West Horndon East	1,000 homes
	500 homes
	Nil homes

**number of dwellings are approximate*

2.34 This resulted in ten spatial strategy options being presented and considered within the Interim SA Report, with varying levels of housing provision and across different locations. The appraisal concluded that DHGV performed best against the most SA Objectives, with significant positive effects identified in relation to Air Quality, Community and Wellbeing, Cultural Heritage, and Economy and Employment. Significant negative impacts were identified in relation to soils due to loss of best and most versatile agricultural land, but this was the case for all the options presented. However, lower growth options (such as those around West Horndon) generally performed better in relation to environmental considerations, although socio-economic benefits, whilst positive were not as significant as for higher growth options. Paragraph 7.13.2 states that it is the duty of the plan-makers to decide how best to reach a balance between the different objectives and to determine which option is the most sustainable.

2.35 A matrix providing detailed explanation and supporting information as to the conclusions drawn from the SA was not provided in this version of the report. This detailed assessment is presented in the Final SA Report published in January 2019 which is discussed in the following section.

3. REVIEW OF THE SA FOR THE BRENTWOOD LOCAL PLAN

Objectives of the Brentwood Local Plan

- 3.1 The Brentwood Pre-Submission Local Plan sets out four strategic objectives to support the overarching aims of the Local Plan. An appraisal of the proposed submission Local Plan has been undertaken against each of the SA topics, with significant positive effects identified in relation to housing. Whilst not significant, positive effects were identified in relation to climate change mitigation, community and wellbeing and economy and employment. However, significant negative effects were identified in relation to landscape and soils due to impacts on valued landscapes and loss of best and most versatile agricultural land.
- 3.2 There are still some uncertainties associated with the Local Plan, however there will be opportunities to make further improvements to the Local Plan through the Examination in Public (EiP). As the Council will submit the Brentwood Local Plan after the end of the transition period for implementing the new NPPF, the Brentwood Local Plan will be examined by the Planning Inspectorate under the NPPF (2018)¹⁴.
- 3.3 In accordance with the SEA Regulations, consideration has also been given to the effect of the Brentwood Local Plan in combination with other plans, programmes and projects that can reasonably be foreseen at this stage (i.e. cumulative effects). Key matters considered include:
- **South Essex Sub-Region:** the Brentwood Local Plan seeks to meet the borough's local housing need in full, thereby reducing any unmet need that would need to be provided under the South Essex Joint Spatial Plan;
 - **A127 Corridor:** there is a sub-regional objective to support the A127 enterprise corridor which is partially supported within the Brentwood Local Plan. However, significant road infrastructure upgrades are required to avoid significant negative effects;
 - **Metropolitan Green Belt:** the green belt between London and Basildon is the most extensive within the borough, with potential significant development (i.e. DHGV) proposed within it. It is noted that Thurrock Council is considering potential urban expansion at West Horndon but due to the early stage of the Local Plan process, this has not been considered a constraint in relation to development at DHGV; and

¹⁴ Ministry of Housing, Community and Local Government (MHCLG), (2018); The National Planning Policy Framework

-
- **Landscape and Biodiversity:** this is a primary consideration towards the south-east of the borough where landscape and biodiversity features are considered to be most sensitive. The Basildon Local Plan proposed limited growth towards the west and south-west of the borough, however opportunities to support landscape and biodiversity connectivity within Brentwood should also be considered.

3.4 We generally support the conclusions drawn from the cumulative effect assessment. However, it is important to consider the cross-boundary development potential at West Horndon comprehensively. It should be noted that a new settlement option in this location has been assessed as part of the Issues and Options (Stage 2) consultation and performed strongly in terms of the SA Objectives at this stage. This should be kept under review as the Thurrock Local Plan progresses to ensure the correct spatial strategy for the area is implemented.

SA Framework and Objectives

3.5 Table 3.1 of the SA sets out the SA Framework and Objectives against which the Brentwood Local Plan will be assessed. These have been developed and refined through consultation with statutory and public consultees throughout the Local Plan development process.

3.6 The appraisal of the growth and strategic site options has been undertaken against the objectives of the SA Framework whereby the likely effects of each option are determined by professional judgement in the majority of cases. Consequently, the conclusions of the SA are open to interpretation and, **whilst we are broadly in agreement with the SA scores, there are a number of effects that we disagree with and set out our alternative assessment at Appendix A1 of this review.**



3.7 SA is an iterative process which means, the assessment of effects and the resulting scoring should be refined to include the consultation responses and when the specific site allocation options are advanced.

Alternatives

3.8 The review of alternative options is a key requirement of the SA process as defined in Regulation 12(2) of the SEA Regulations, and states that any 'reasonable' alternatives should be considered through ISA. It is understood that the Local Plan is at the Pre-Submission stage, and therefore a detailed assessment of the alternative options should have been undertaken to identify a preferred option.

3.9 To align with the Council's methodology and scoring system, the following colours have been used to demonstrate how the strategic site options have performed against the SA Objectives.

Table 3.1 Colour Coding Used within the SA of the Brentwood Local Plan

Colour	Definition
	Potential to result in significant positive effects
	Potential to result in significant negative effects

Spatial Strategy Options

3.10 Section 5.2 of the SA identifies the following high-level issues and options to be considered within the spatial strategy options for the Brentwood Local Plan:

- **Quantum** – how many homes should the Brentwood Local Plan provide for; and
- **Broad Distribution** – which areas are more or less suited to housing growth.

3.11 The following scenarios are set out in relation to the quantum of housing growth:

- Option 1: Set a housing target based on the standard method approach for the most recent data (2016-projection data) as stated within the PPG resulting in a target of **350 dwellings per annum (dpa)**; or
- Option 2: Set a housing target based on the 2014-projection data (based on the current Government consultation) resulting in a target of **454 dpa**.

3.12 The uncertainty regarding the methodology to calculate housing targets is discussed in the borough's Strategic Housing Market Assessment (Part 1) Report¹⁵ and concludes that the 380 dpa target used within the Draft Local Plan can be supported, and therefore should be taken forward to the submission version of the Local Plan¹⁶. This was assessed in the Interim SA published in 2018 and concluded that it would result in positive significant effects, thereby supporting the decision to take this forward to the final version of the Local Plan.

3.13 However, this figure has not been applied consistently throughout the SA, with paragraph 5.2.7 of the SA stating that the Local Housing Need (LHN) is considered to be 350dpa **which is inconsistent with the recommendations set out in the SHMA (Part 1) Report**. Consequently, the 'buffer' figures referred to within the discussion section of Appendix VI of the SA Report in relation to housing are incorrect. The flaws of this approach are discussed in further detail later in this section.

¹⁵ Brentwood Borough Council (BBC), (2018), Strategic Housing Market Assessment (SHMA) Part 1

¹⁶ Paragraph 5.2.6, page 12

3.14 The SA Report identifies seven broad distribution (strategic site) alternative options to be considered, which are outlined below (the Spatial Options which are relevant to the EASL site (i.e. West Horndon) are *italicised*):

- *Option 1: West Horndon East and West Horndon West (6,587 dwellings);*
- Option 2: Brentwood (7,827 dwellings);
- Option 3: DHGV (7,787 dwellings);
- *Option 4: Brentwood and West Horndon East (7,887 dwellings);*
- *Option 5: Brentwood and West Horndon West (8,187 dwellings);*
- *Option 6: DHGV and West Horndon West (8,687 dwellings); and*
- *Option 7: Brentwood, West Horndon East and West Horndon West (8,787 dwellings).*

3.15 It should be noted that the SA Report has identified a number of sites which are considered to be 'constant' and were identified through the preferred site allocations consultation undertaken in 2018. These include sites at West Horndon and Brentwood, which are different to those being considered in the alternative assessment in this report (as outlined above). As these preferred sites are included in Table 5.5 of the SA which sets out the housing delivery for each of the alternative options, this may cause some confusion and misinterpretation of the information being presented, and should therefore be clarified.

3.16 Appendix VI of the SA provides a detailed SA matrix for each of the spatial distribution options, which includes a strategic urban extension at West Horndon.

3.17 The SA concludes that allocations along the A127 corridor (either alone or in combination with each other) perform better than those supporting growth along Brentwood. However, it goes on to state that DHGV (Option 3) is found to 'out-perform' strategic urban expansion in West Horndon (Option 1), with the exception of air quality and landscape considerations.

3.18 A couple of fundamental limitations in the relation to the methodology applied within the SA have been identified. Firstly, the SA identifies significant positive and negative effects only. Under Schedule 1 of the SEA Regulations the magnitude and spatial extent of the effects should be identified¹⁷. Consequently, the nature and magnitude of each option against the SA Framework should be identified, with the statement of significance as appropriate. For example, all options are

¹⁷ Schedule 1, Regulation 2(e)

likely to result in negative impacts in relation to biodiversity, but this is only explicitly stated for Options 2, 4, 5, and 7 because these have been identified as significant. Options 1, 3 and 6 should be identified as minor negative effects.

3.19 Secondly, the SA Report has based its conclusions on the 'SA Score' (i.e. based on the ranking allocated under each SA Objective) rather than the significance of the effects identified in accordance with the SEA Regulations. On this basis Options 1 and 3 are considered to be equal in terms of significant effects, with both options presenting significant positive impacts in relation to housing provision and significant negative effects in relation to landscape, and soils and contamination impacts. Once significant effects have been identified, only then is it appropriate to consider the 'rank' of each option. From the matrix, it clear that West Horndon performs better from a landscape perspective than DHGV, and therefore this should be recommended as the preferred option as, although significant negative effects could still arise, these are likely to be to a lesser extent than for Option 1.

3.20 Table 5.5 of the SA Report published in 2019 summarises the scores for each of the spatial options considered. Whilst the proposed assessment matrix is comprehensive in relation to the range of issues covered, we believe it is inconsistent with the scoring methodology and the recommendations which have been carried through to the Local Plan. The grey shading table below highlights where these scores should be amended, with the original rankings provided in brackets.

Table 3.2 Amended SA for Spatial Strategy

SA Topic	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7
Air Quality	1	4	2	5	5	3	6
Biodiversity	2 (3)	5 (4)	3 (1)	6 (6)	4 (5)	1 (2)	7 (7)
Climate Change	1	3	1	3	2	1	1
Community and Wellbeing	2	5	1	5	4	2	3
Heritage	1 (2)	2 (2)	3 (1)	3 (3)	2 (2)	3 (1)	3 (3)
Economy and Employment	2	3	1	3	2	1	3
Flooding	=	=	=	=	=	=	=
Housing	7	6	5	4	3	2	1
Landscape	1	2	3	5	4	7	8

Soil and Contamination	=	=	=	=	=	=	=
Waste	=	=	=	=	=	=	=
Water Quality and Resources	1	2	3	4	5	6	7

3.21 In summary, the following amendments to the SA Scores have been made in relation to:

- **Biodiversity:** locations along the A127 corridor are constrained by Thorndon Park SSSI located to the north, with Options 1, 3, 4, 6 and 7 located partially within the IRZ for the SSSI. This is particular constraint for DHGV and West Horndon East. In addition, there are number of sensitive on-site habitats present within the options presented at Brentwood, which has potential to result in significant negative effects; and
- **Cultural Heritage:** generally, locations within the A127 corridor are considered to be less constrained than those in Brentwood with respect to heritage assets. Notably, there are three Grade II listed buildings within the proposed DHGV site (Dunton Hills, Church of St. Mary, and Dunton Hall), the settings of which are likely to be negatively impacted by development in this location. Consequently, Option 1 is considered to have the least negative impacts on heritage assets; and
- **Housing:** higher housing growth options perform best against this objective. A significant discrepancy between the figures used within the SA and those presented in the Local Plan have been identified, resulting in Options 1 to 5 no longer meeting the minimum housing requirement. This is discussed in more detail below.

Local Housing Need (LHN)

3.22 The primary objective of the Brentwood Local Plan is to ensure that sufficient housing can be delivered over the Plan period to meet the LNH identified. Consequently, if the spatial options cannot meet this core objective, these should not be considered as 'reasonable alternatives' or recommended to be implemented as part of the Local Plan

3.23 As stated above, there is some uncertainty regarding the methodology to be used to calculate the borough's housing targets, with two scenarios set out in relation to housing growth of 350 dpa and 454 dpa, based on the 2016-projection and 2014-projection data respectively.

3.24 This is discussed in detail within the SHMA (Part 1) Report which states that, given the uncertainty, the figure of 380 dpa used within the Draft Local Plan (2016) should also be applied to the submission version of the Local Plan. However, on review it does not appear that this figure has been applied

consistently throughout the SA, thereby undermining the validity of the conclusions in relation to housing. A summary of the different housing targets is provided below.

Table 3.3 Quantum of Housing Options for Each Spatial Strategy

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Total Dwellings	6,587	7,287	7,787	7,887	8,187	8,687	8,787
Total per Annum	387	429	458	464	482	511	517
% above 350 dpa	11%	23%*	31%	33%	38%	46%	48%
% above 380 dpa	2%	13%	21%	22%	27%	34%	36%
% above 454 dpa	-15%	-6%	1%	2%	6%	13%	14%

*corrected for rounding error

3.25 As shown in Table 3.3, all options exceed the LHN for 350 dpa, with a sufficient buffer to ensure that, should unanticipated delays occur at some sites which could impact upon delivery, the Council is confident that it can still demonstrate a sufficient five year housing land supply (5YLS) and meet the requirements of the Housing Delivery Test (HDT). However, as the LHN increases, fewer sites provide a sufficient buffer to ensure the 5YLS and HDT can be met.

3.26 In the case of 380 dpa being required, Option 1 should be discounted as, although it meets the LHN, the 2% buffer is not sufficient to demonstrate that the 5YLS and HDT could be met over the Plan period. If the LHN is raised to 454 dpa, Options 1 and 2 should be removed immediately as these do not meet the housing target requirements. However, careful consideration should be given to Options 3, 4, and 5 as the buffer for these options is small and not sufficient to ensure 5YLS or HDT criteria could be met if unforeseen delays occur.

3.27 However, Policy SP02: Managing Growth of the Local Plan makes provision for 7,752 new dwellings over the Plan period which equates to 456 dpa, which is just above the higher LHN figure identified in the table above (i.e. the minimum figure). Consequently, it is clear that the housing figures used within the SA are not based on the most recent standard method figures, and therefore the **SA in relation to housing is not robust** and should be reviewed and updated in light of the most recent data. The updated SA should be re-issued for public consultation following these amendments.

Conclusion

3.28 The amended SA Framework demonstrates that the identification of DHGV as the preferred option **is not based on a comprehensive and robust assessment**. There is a significant discrepancy between the housing figures used within the SA and those proposed within the Pre-Submission

version of the Local Plan which must be addressed prior to the finalisation of the Local Plan. Based on the proposed amendments to the SA in relation to biodiversity, cultural heritage and housing, **Option 6 (DHGV and urban expansion at West Horndon) is the preferred option and should therefore be considered within the Local Plan.**

4. REVIEW OF THE HRA FOR THE BRENTWOOD LOCAL PLAN

4.1 The HRA comprises the following four stage process:

- **Evidence Gathering:** collection of relevant information on European sites, their conservation objectives and characterises and details of relevant plans or projects to be considered;
- **Screening:** identified as to whether a plan or project will result in Likely Significant Effects (LSE) on an internationally designated / European site (without consideration of any mitigation);
- **Appropriate Assessment:** ascertaining the effect of a plan or project on the integrity of an internationally designated / European site in relation to its conservation objectives (taking into account consideration of any proposed mitigation as appropriate); and
- **Mitigation Measures and Alternative Solutions:** amendments and alternations of the plan or project to remove all adverse effects.

4.2 As mentioned in Section 1, it is important to consider the HRA process in the context of recent case law. The judgement in the case of *People Over Wind* (2018) concluded that it was not permissible to take into consideration measures intended to avoid or reduce potentially harmful effects on internationally designated / European sites as a result of a plan or project at the screening stage. Consequently, where the potential for LSE cannot be excluded at the screening stage, the competent authority must undertake an Appropriate Assessment to establish whether the plan or project will affect the integrity of the European Site, considering the effectiveness of the proposed avoidance or reduction measures as relevant.

4.3 A HRA Report has been prepared and submitted as part of the evidence base for the Pre-Submission version of the Brentwood Local Plan. The scope of the HRA includes all sites within the Brentwood borough boundary and any other sites which are shown to be linked to development within the borough through an identified 'pathways of impact'.

4.4 Section 3 of the HRA Report identifies potential 'pathways of impact'. The HRA Report states that the identified pathways which are assessed are based on the "*findings of the Regulation 18 screening HRA*"¹⁸ as follows:

- Recreational Pressure on Epping Forest SAC;

¹⁸ Paragraph 3.1, page 14

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- Air Quality issues relating to Epping Forest SAC;
 - Recreational Pressure on the Essex Coastal European sites; and
 - Water Quality relating to the Essex Coastal European sites.
- 4.5 Whilst it is recognised that Section 4 of the HRA provides some commentary on the LSE which could arise as a result of the Local Plan, with a detailed screening matrix of the Local Plan policies provided in Appendix C of the HRA Report (incorrectly signposted in paragraph 4.1 as Appendix A), the **HRA Screening Report which formed part of the Regulation 18 consultation is not provided as part of the evidence base for the Local Plan**. Consequently, it is difficult to fully understand the assessment process undertaken to date and ensure it is compliant with the requirements set out within the Habitats Regulations.
- 4.6 It is also noted that a Scoping Report for the HRA does not appear to have been prepared as part of the process. Whilst the scoping stage of the HRA process is not mandatory, best practice suggests that it is a useful tool for formally agreeing the proposed scope and methodology to be applied throughout the assessment with the relevant competent organisation (i.e. Natural England). Furthermore, there is no evidence within the report, or the Local Plan evidence base to indicate that any consultation with Natural England has been undertaken to date in relation to the Brentwood Local Plan. Consequently, details of comments received from Natural England in relation to the HRA, in addition to the Regulation 18 version of the HRA Report, should be included within the Local Plan evidence base **as without evidence of these being undertaken, the HRA cannot be considered to be a robust assessment in support of the Local Plan, which therefore cannot be considered to be sound**.
- 4.7 An Appropriate Assessment on potential impacts on Epping Forest SAC and the Essex Coastal European sites was undertaken, the conclusions of which we are in agreement with. In relation to recreational pressure on Epping Forest SAC, a Zone of Influence (Zoi) of 6.2km is identified, of which a small area of woodland and arable farmland within Brentwood is located. The nearest location which could result in an increase in residential dwellings is at Navestock Heath, located approximately 9km from Epping Forest SAC. Consequently, it was concluded that the Brentwood Local Plan would not result in adverse significant effects on Epping Forest SAC in relation to recreational pressure, and no additional mitigation measures are identified. Furthermore, transport and air quality modelling undertaken identify that vehicle trips from Brentwood in proximity to Epping Forest SAC form a negligible proportion of all vehicle trips in proximity to the SAC. As such, no adverse air quality impacts are anticipated, although it is noted that this conclusion will need to be reviewed as further modelling data for the West Essex / East Hertfordshire HMA are published.
- 4.8 Two European sites within the Essex Coastal region have recreational Zoi which extend into Brentwood: Blackwater Estuary Ramsar site / SPA and Essex Estuaries SAC. It is acknowledged
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that significant increases in residential development could result in significant in-combination effects if not properly mitigated, however the Local Plan provides protective policies to safeguard these sites within the catchment of the borough. The HRA concludes that this policy wording is sufficient to conclude no adverse significant effects will occur, with the caveat that the HRA may need updating one the RAMS development progresses. There is no mention of a Strategic Access Management and Monitoring Strategy (SAMMS) or provision of Suitable Alternative Natural Green Space (SANGS) provision, which could provide suitable mitigation against some recreational impacts. In relation to water quality, it is recommended that the Council seeks confirmation from the relevant water companies that their housing/employment distribution and trajectory does not pose issues with regard to the known capacity limitations of Ingatestone, Doddinghurst, Upminster and Brentwood wastewater treatment works. This implies that the HRA cannot conclude, beyond all reasonable doubt, that no LSE on the Essex Coastal European sites will occur in relation to water quality.

- 4.9 It is clear that there are still some uncertainties associated with the conclusions set out within the HRA in relation to the Brentwood Local Plan, which may require this report to be updated as further information is available. Any revisions to the HRA should be published for public consultation to ensure a robust and transparent process has been followed and that the Local Plan is considered sound.

5. SUMMARY AND RECOMMENDATIONS

5.1 EASL have an interest in land at West Horndon and therefore, as part of the representation to the Local Plan to promote their Site, have instructed Icenii to review the SA and HRA for the Pre-Submission Brentwood Local Plan. This comprises Stage 4 of the SA / SEA process.

5.2 A number of housing growth options have been considered within the SA, which are set out as follows:

- *Option 1: West Horndon East and West Horndon West (6,587 dwellings);*
- Option 2: Brentwood (7,827 dwellings);
- Option 3: DHGV (7,787 dwellings);
- *Option 4: Brentwood and West Horndon East (7,887 dwellings);*
- *Option 5: Brentwood and West Horndon West (8,187 dwellings);*
- *Option 6: DHGV and West Horndon West (8,687 dwellings); and*
- *Option 7: Brentwood, West Horndon East and West Horndon West (8,787 dwellings).*

5.3 Based on the analysis presented in Table 6.1 of the SA Report and the options presented in the Pre-Submission Local Plan, DHGV is presented as the preferred option for delivering the required housing growth. However, as a result of fundamental issues and inconsistencies in the methodology used within the SA, the following amendments are recommended:

- **Biodiversity:** locations along the A127 corridor are constrained by Thorndon Park SSSI located to the north, with Options 1, 3, 4, 6 and 7 located partially within the IRZ for the SSSI. This is particular constraint for DHGV and West Horndon East. In addition, there are number of sensitive on-site habitats present within the options presented at Brentwood, which has potential to result in significant negative effects; and
- **Cultural Heritage:** generally, locations within the A127 corridor are considered to be less constrained than those in Brentwood with respect to heritage assets. Notably, there are three Grade II listed buildings within the proposed DHGV site (Dunton Hills, Church of St. Mary, and Dunton Hall), the settings of which are likely to be negatively impacted by development in this location. Consequently, Option 1 is considered to have the least negative impacts on heritage assets; and

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- **Housing:** higher housing growth options perform best against this objective. A significant discrepancy between the figures used within the SA and those presented in the Local Plan have been identified, resulting in Options 1 to 5 no longer meeting the minimum housing requirement.
- 5.4 The **use of the incorrect housing figure is a fundamental flaw within the SA** as this contradicts the key objective which the Local Plan seeks to address, i.e. residential growth across the borough to meet the minimum housing requirements.
- 5.5 In addition, insufficient consideration has been given to the urban expansion / new settlement options at West Horndon considered by Thurrock as part of the Issues and Options (Stage 2) consultation. Whilst it is acknowledged that insufficient details are available at this stage to for this to be fully considered within the Brentwood Local Plan, regular reviews of this option should be undertaken to ensure a coordinated approach to the delivery of the Brentwood and Thurrock Local Plans.
- 5.6 On this basis, we recommend that a joint spatial strategy between DHGV and urban expansion at West Horndon is adopted within the Local Plan to ensure that housing targets are met in the most sustainable way.
- 5.7 A HRA Report has been prepared and submitted as part of the evidence base for the Pre-Submission version of the Brentwood Local Plan. The Appropriate Assessment considers the potential impacts on Epping Forest SAC and the Essex Coastal European sites. In relation to recreational pressure on Epping Forest SAC, the pathway which is likely to have the most significant impact, a Zone of Influence (Zoi) of 6.2km is identified, of which a small area of woodland and arable farmland falls within Brentwood.
- 5.8 Our review has highlighted that there are still some uncertainties associated with the conclusions set out within the HRA in relation to the Brentwood Local Plan, which may require this report to be updated when further information is available. Any revisions to the HRA should be published for public consultation to ensure a robust and transparent process has been followed and that the Local Plan is considered sound.

A1. SA FRAMEWORK FOR THE EASL SITE AT WEST HORNDON

Table 5.1 Alternative SA for the EASL Site in West Horndon

SA Topic	Positive / Negative / Negligible Effects	Likely Significant Effects?	Discussion
Air Quality	Minor Negative	No	The spatial development strategy for the Brentwood Local Plan should seek to limit traffic through existing Air Quality Management Areas (AQMAs), which are primarily located along the A12 in proximity to Brentwood. From this perspective, development at West Horndon should be considered the preferred option. Growth in this location will be in proximity to an existing train station, thereby minimising the need for car travel, as well as resulting in improvements to the village centre to improve facilities for residents. As such, no significant negative effects in relation to air quality are anticipated.
Biodiversity	Minor Negative	No	Development along the A127 corridor is constrained due to proximity (i.e. within the Impact Risk Zone (IRZ)) to Thorndon Park Site of Special Scientific Interest (SSSI) and ancient woodland. The EASL site is partially located within the IRZ for the SSSI for residential developments over 100 units, however it is likely that detailed ecological surveys and assessments would be undertaken prior to the submission of any applications and therefore significant negative effects are not anticipated.
Climate Change	Minor Positive	No	Growth along the A127 corridor presents opportunities to minimise transport emissions through development in proximity to existing services and improve public transport connectivity, such as West Horndon train station. In addition, it is likely that low carbon measures will be incorporated into the detailed design of the development to further minimise climate change impacts during the construction and operational phases. Therefore, significant negative effects in relation to climate change are not anticipated.
Community and Wellbeing	Minor Positive	No	Urban expansion at West Horndon has the potential to provide improvements to community facilities and infrastructure in the area for existing and future residents. There are also opportunities for greater improvements in this area if a wider coordinated approach with the site to the south of the railway line (within Thurrock) was also considered.

SA Topic	Positive / Negative / Negligible Effects	Likely Significant Effects?	Discussion
Cultural Heritage	Negligible	No	There are no listed buildings either within or adjacent to the site boundary. However, there are a number of designated heritage assets within and around West Horndon, including Thorndon Hall Registered Park and Garden (Grade II*) and the Thorndon Conservation Area which could be affected by any large-scale development affecting their rural settings which should be considered. It is likely that measures to mitigate any negative impacts on the setting of heritage assets will be incorporated into the detailed design of the development, and therefore significant negative effects are not anticipated.
Economy and Employment	Negligible	No	The majority of the West Horndon site is within proximity to existing employment opportunities. In addition, urban expansion at this location could provide some new employment opportunities, although details on this are uncertain at this stage. As such, negligible effects are anticipated.
Flooding	Minor Negative	No	A portion of the site is located within Flood Zones 2 and 3 (i.e. identified as being at medium to high risk of flooding from fluvial sources). As such, a Flood Risk Assessment (FRA) will be required for any applications for development within these areas. A small section of the south-west corner of the site is identified as being at risk of flooding from reservoirs and there are also areas of surface water flooding on-site. However, with incorporation of appropriate assessment and mitigation measures, including Sustainable Urban Drainage Systems (SuDS), no significant negative effects are anticipated.
Housing	Positive	Yes	This settlement option would provide significant housing growth and provision of community facilities in an area identified as being within the 10% most deprived areas in terms of barriers to housing and services. This could be a consequence of the rural nature of the area. As such, significant positive effects in relation to housing are anticipated as it would provide a substantial contribution to the borough's overall housing target.

SA Topic	Positive / Negative / Negligible Effects	Likely Significant Effects?	Discussion
Landscape	Negative	Yes	It is recognised that the West Horndon site lies within the A1: Bulphan Fenland, and that this are considered to be of high sensitivity to large scale housing development. However, in order to reduce the potential for significant negative effects it is likely that the scale and material palette selected for the developments will designed to complement the existing landscape. The exact nature of the impacts on the surrounding landscape character cannot be determined until further details on the scale, location and layout of the urban expansion are available. As such, significant negative impacts in relation to landscape may occur.
Soils	Negligible	No	The site at West Horndon lies adjacent to an area of Grade 3 (Good to Moderate quality) agricultural land, however the land which comprises the site is not classified ¹⁹ .
Waste	Negligible	No	It is assumed that there is sufficient capacity at waste management facilities in Essex to accommodate waste for development in this location. The site at West Horndon is not within 250m of a designated mineral site or waste facility. Consequently, negligible impacts are anticipated.
Water Quality and Resources	Minor Negative	No	The site is not located within a Source Protection Zone (SPZ). There are a number of small watercourses within the potential West Horndon site, which could be adversely affected by development, either through culverting or degradation from contaminated surface water runoff. In addition, development at this location could result in additional impacts on wastewater treatment capacity which will need to be discussed with the relevant water authority. However, significant negative effects are not anticipated.

¹⁹Natural England, (2010); Agricultural Land Classification map London and the South East (ALC007). Available at: <http://publications.naturalengland.org.uk/category/5954148537204736>

A2. AMENDED SA FRAMEWORK FOR THE BRENTWOOD LOCAL PLAN

Table 5.2 Review of the Spatial Strategy Alternatives Appraisal – Air Quality

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	1	4	2	5	5	3	6
Significant Effects?	NO	YES	NO	YES	YES	NO	YES
Agree / Disagree	Agree						
Discussion	<p>The spatial development strategy for the Brentwood Local Plan should seek to limit traffic through existing Air Quality Management Areas (AQMAs), which are primarily located along the A12 in proximity to Brentwood. Consequently, all options at Brentwood are considered to result in significant negative effects.</p> <p>From this perspective, development at West Horndon should be considered the preferred option. Growth in this location will be in proximity to an existing train station, thereby minimising the need for car travel, as well as resulting in improvements to the village centre to improve facilities for residents. In addition, DHGV should also be considered which, as a new garden village, is likely to provide local amenities as well as public transport infrastructure improvements.</p>						

Table 5.3 Review of the Spatial Strategy Alternatives Appraisal – Biodiversity

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	2	5	3	6	4	1	7
Significant Effects?	NO	YES	NO	YES	YES	NO	YES
Agree / Disagree	Disagree						

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Discussion	<p>It is recognised that sites within the A127 corridor are constrained due to proximity to Thorndon Park Site of Special Scientific Interest (SSSI) and ancient woodland located near West Horndon East. It should be noted that DHGV is located immediately to the east of this site as well, as is therefore constrained by the presence of ancient woodland at this location. This is supported by comments from Essex Wildlife Trust that <i>“Strategic options to the east of West Horndon are unacceptable as they would adversely impact on priority ancient woodlands and wood pasture and parkland habitats which function as necessary linkage between Thorndon and Langdon”</i>, and this includes DHGV.</p> <p>The locations around Brentwood are also constrained by on-site habitats including part of the Havering and Brentwood Ridge Living Landscape, Weald Country Park Local Wildlife Site (LWS) and St. Faiths LWS and are considered to result in significant negative effects.</p> <p>Consequently, Option 6 should be considered the preferred option as it is likely to result in the fewest negative impacts in relation to biodiversity.</p>						

Table 5.4 Review of the Spatial Strategy Alternatives Appraisal – Climate Change Mitigation

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	1	3	1	3	2	1	1
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Agree						
Discussion	Growth along the A127 corridor presents opportunities to minimise transport emissions through development in proximity to existing services and improve public transport connectivity. In addition, large-scale development option (such as those at West Horndon and DHGV) may present opportunities to incorporate low carbon measures into their detailed design to further minimise climate change impacts.						

Table 5.5 Review of the Spatial Strategy Alternatives Appraisal – Communities and Wellbeing

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	2	5	1	5	4	2	3
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Agree						

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Discussion	Access to community facilities is a key consideration, and the new settlement of DHGV is likely to present the greatest opportunity to provide new facilities and services for local communities. However, urban expansion at West Horndon also has the potential to provide improvements to community facilities and infrastructure, notably if this were to be delivered as part of a wider coordinated approach (including a site in Thurrock). Whilst it is acknowledged that DHGV is the preferred option from this perspective, the development potential at West Horndon should not be discounted.						

Table 5.6 Review of the Spatial Strategy Alternatives Appraisal – Cultural Heritage

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	1	2	3	3	2	3	3
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Disagree						
Discussion	Sites within the A127 corridor (i.e. West Horndon and DHGV) are considered to be less constrained than those in Brentwood, with the setting of Thorndon Hall Registered Park and Garden (Grade II*) and Thorndon Conservation Area the primary considerations from a heritage perspective. Development at West Horndon East and DHGV is most likely to impact upon these heritage assets due to proximity. In addition, there are three Grade II listed buildings within the proposed site for DHGV (Dunton Hills, Church of St. Mary, and Dunton Hall), the rural settings of which are likely to be affected by the DHGV development. Consequently, Option 1 should be considered the preferred option from a heritage perspective as it is likely to result in the fewest negative impacts.						

Table 5.7 Review of the Spatial Strategy Alternatives Appraisal – Economy and Employment

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	2	3	1	3	2	1	3
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Agree						
Discussion	The majority of the West Horndon site is within proximity to existing employment opportunities. In addition, urban expansion at this location could provide some new employment opportunities, although details on this are uncertain at this stage. As such, negligible effects are anticipated.						

Table 5.8 Review of the Spatial Strategy Alternatives Appraisal – Flooding

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	=	=	=	=	=	=	=
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Agree						
Discussion	The sites along the A127 corridor are partially located within Flood Zones 2 and 3 (medium to high risk of flooding from fluvial sources), however a Flood Risk Assessment (FRA) will be undertaken for all development schemes to ensure mitigation measure against flooding are identified as appropriate. Whilst the loss of greenfield land could result in increased surface water runoff to the surrounding area, it is likely that Sustainable Urban Drainage Systems (SuDS) techniques will be incorporated into the detailed design of development at these sites to minimise this risk.						

Table 5.9 Review of the Spatial Strategy Alternatives Appraisal – Housing

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	7	6	5	4	3	2	1
Significant Effects?	NO	NO	NO	NO	NO	YES	YES
Agree / Disagree	Disagree						
Discussion	<p>Whilst we agree with the ranking as higher housing growth options perform best against this objective, a significant discrepancy between the figures used within the SA and those presented in the Local Plan have been identified, resulting in Options 1 to 5 no longer meeting the minimum housing requirement.</p> <p>Consequently, significant positive effects in relation to housing are anticipated for Options 6 and 7 only, as these are the only options which meet or exceed the minimum housing requirement based on the latest available data.</p>						

Table 5.10 Review of the Spatial Strategy Alternatives Appraisal – Landscape

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	1	2	3	5	4	6	7
Significant Effects?	YES	YES	YES	YES	YES	YES	YES
Agree / Disagree	Agree						

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Discussion	Whilst there are no nationally important landscapes within Brentwood, much of the borough is designated as Green Belt with the purpose of maintaining openness. Consequently, as the entire borough is considered to be sensitive in landscape terms, likely significant effects are anticipated for all options. However, the lowest growth option at West Horndon is considered the best as this option is less constrained from a landscape perspective than DHGV for example and will deliver the minimal amount of housing required over the Plan period in the least sensitive location.						

Table 5.11 Review of the Spatial Strategy Alternatives Appraisal – Soils

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	=	=	=	=	=	=	=
Significant Effects?	YES	YES	YES	YES	YES	YES	YES
Agree / Disagree	Agree						
Discussion	The spatial development strategy for the Brentwood Local Plan should seek to minimise loss of higher quality agricultural land. Whilst it could be argued that lower growth options would be preferable in this context this could increase pressure for growth outside of the borough where the agricultural land quality is higher. It is therefore reasonable to conclude that all spatial development options would result in significant negative effects.						

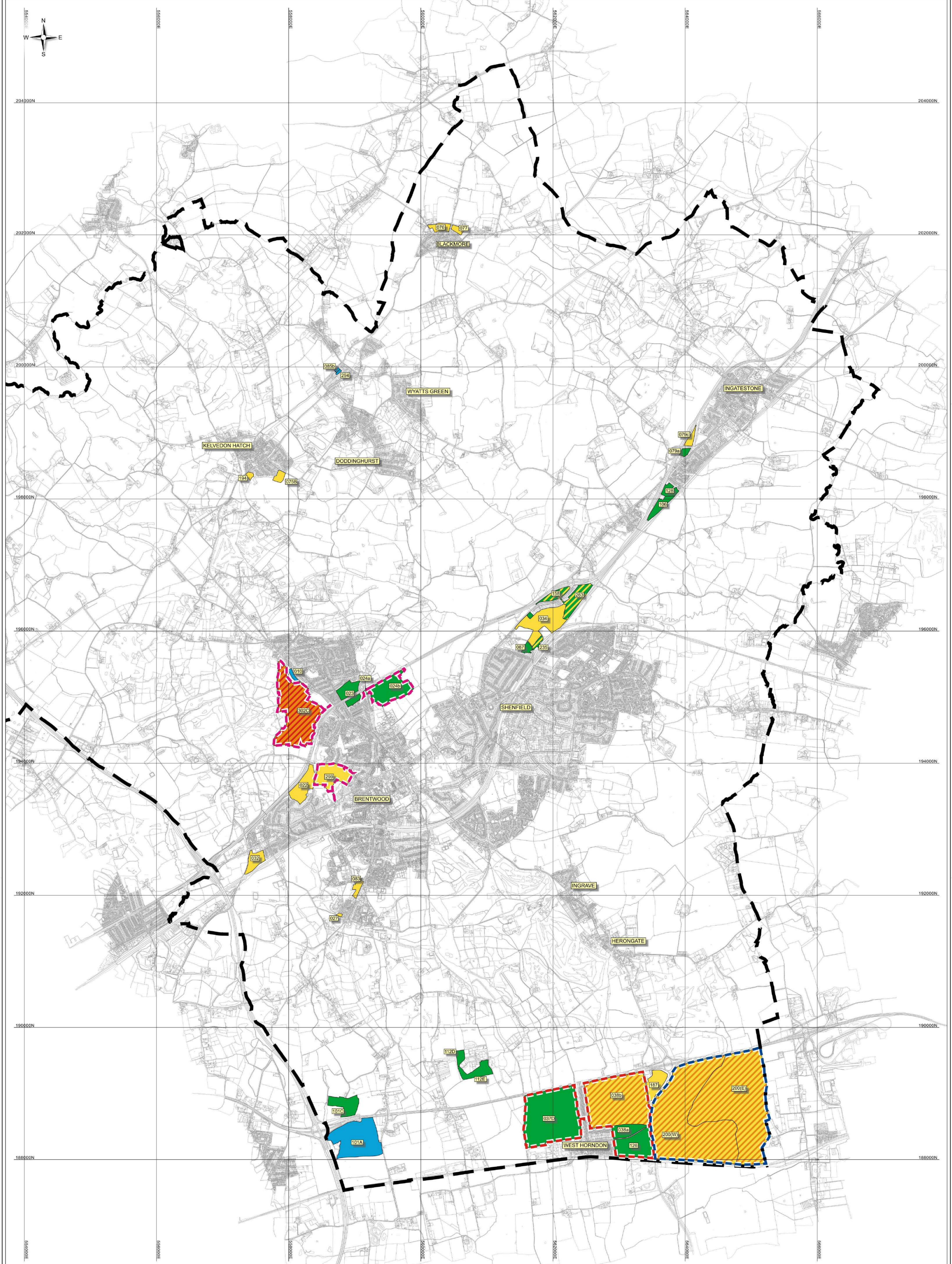
Table 5.12 Review of the Spatial Strategy Alternatives Appraisal – Waste

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	=	=	=	=	=	=	=
Significant Effects?	NO	NO	NO	NO	NO	NO	NO
Agree / Disagree	Agree						
Discussion	It is assumed that there is sufficient capacity at waste management facilities in Essex to accommodate waste for the above scenarios.						

Table 5.13 Review of the Spatial Strategy Alternatives Appraisal – Water Quality and Water Resources

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>	<i>Option 5</i>	<i>Option 6</i>	<i>Option 7</i>
Rank	1	2	3	4	5	6	7
Significant Effects?	NO	NO	NO	YES	YES	YES	YES
Agree / Disagree	Agree						
Discussion	It is clear that high-level growth options could result in significant negative effects in relation to waste water treatment capacity and therefore a lower growth option would be preferred.						

**A9. EXTRACT FROM THE BRENTWOOD LANDSCAPE SENSITIVITY
AND CAPACITY STUDY**



Legend:

- Brentwood Borough Boundary
- Housing Site Reference

Landscape Capacity:

- High
- Medium - High
- Medium to High - Medium Split
- Medium
- Medium - Low to Medium Split
- Low - Medium
- Low - Medium to Low Split

Strategic Options:

- Option 1: Dunton Hills
- Option 2: West Horndon
- Option 3: North Brentwood

Note: Finalised for purposes of Reg 19 Pre-Submission Consultation

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Client:

Brentwood Borough Council			
Landscape Capacity of Sites: Strategic Options			
Drawn By: AC	Checked By: KJ	Date: 29 Oct 2018	Scale: 1:20,000
Status: FINAL	Final Revision: -	CD Ref: CE-BW0565-DW02 - FINAL	Page Ref: A1
Drawing No: Figure 1			

A10. WEST HORNDON MASTERPLAN REPORT



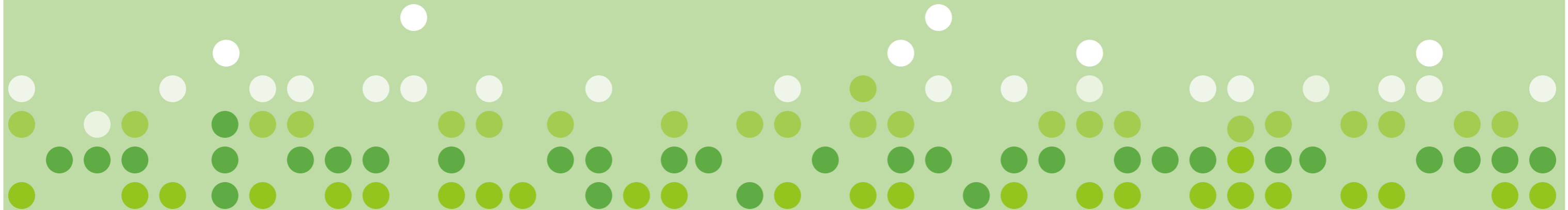
West Horndon

Masterplan Report
Document Produced for: EASL
FINAL - September 2017

AECOM

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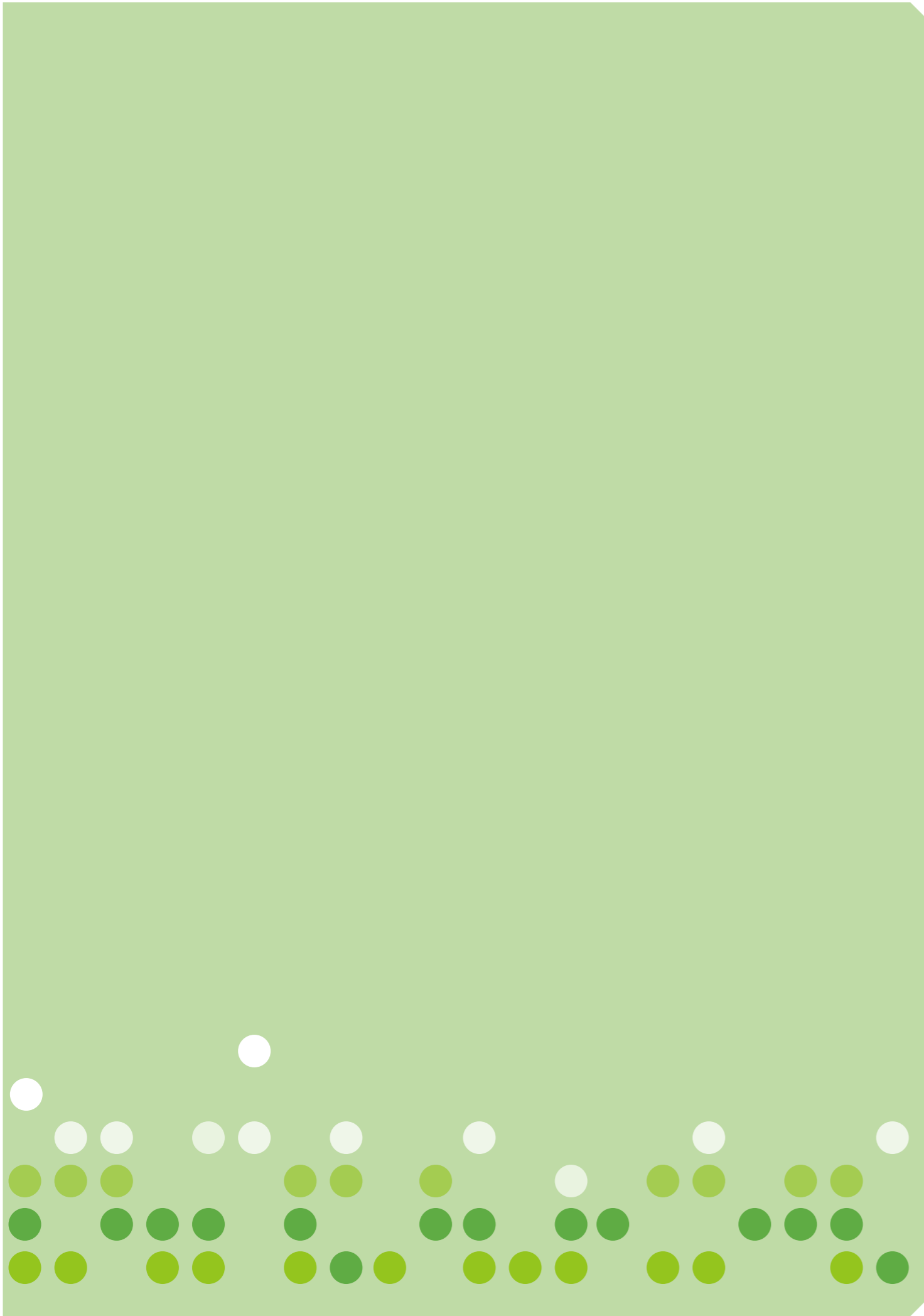


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Appendix A Cost plan estimate

Appendix B Landscape and visual impact technical note





1.0 INTRODUCTION

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Introduction

1.1 Overview

EASL has commissioned its team of consultants to undertake a comprehensive masterplanning exercise for a site north and northwest of the village of West Horndon in Brentwood, Essex. EASL and the consultant team believe the site has the potential to become an attractive and sustainable residential-led development close to West Horndon railway station.

The core project team comprises:

- AECOM – masterplanning, landscape and visual impact assessment (LVIA), green infrastructure and landscape design;
- Icen Projects – town planning, environmental impact assessment (EIA), transport, engagement and heritage;
- Herrington Consulting – flood risk management;
- Peter Brett Associates – public transport, energy, utilities, foul water, noise, waste and sustainability;
- Ecology Solutions – ecology; and
- Glenny – property market and viability.

The wider consultant team also includes:

- Crossways Development Solutions – education;
- Quantem – costs;
- CMSD – health; and
- Forsters – legal advice.

1.2 Work undertaken to date

EASL has been working with the core project team since 2015 to understand the potential of a wider area around West Horndon - including the area around and south of the railway station - for development.

In January 2017, EASL commissioned the core and wider team to undertake a more detailed masterplanning exercise, focusing on land north and northwest of West Horndon, also known as Brentwood 1. The full project scope is shown below in Figure 1.1.

To date, the team have:

- Attended a day-long site visit and briefing workshop with the client team;
- Developed a preferred masterplan option for West Horndon;
- Assessed the preferred option with respect to the various technical disciplines;

- Refined the masterplan based on that feedback;
- Finalised the masterplan and produced a detailed land use budget; and
- Prepared an attractive illustrative masterplan to accompany the technical drawings and schedules, and to bring the scheme to life.

This report, the Masterplan Report, provides a comprehensive summary of the work carried out to date on the Brentwood 1 land, as outlined above. The remainder of this document is structured as follows:

- Chapter 2 describes our vision and objectives for the new community, and high level development principles;
- Chapter 3 sets out the illustrative masterplan and proposals for West Horndon including the indicative land use budget;
- Chapter 4 provides an overview of the technical evaluations; and
- Chapter 5 sets out overarching conclusions for taking the site forward.

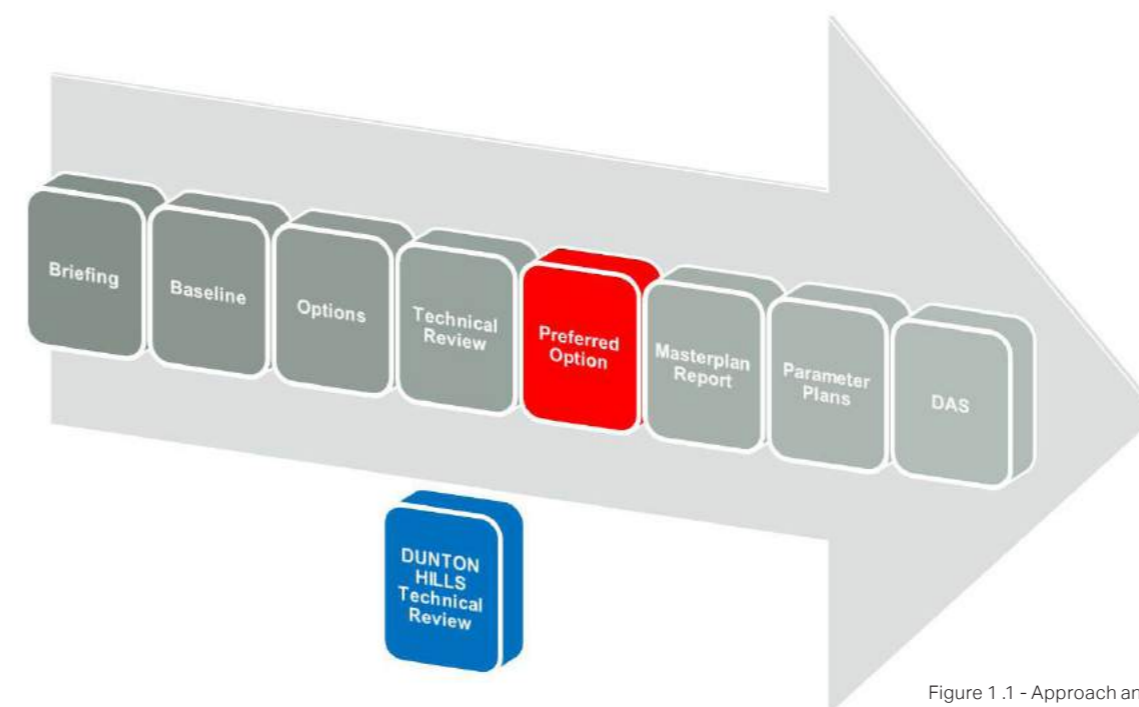


Figure 1.1 - Approach and methodology to the West Horndon masterplanning exercise

The cost plan estimate for the draft masterplan proposals is included at Appendix A, and the landscape and visual impact technical note is included at Appendix B.

Alongside this, the team has also prepared a review of the emerging proposals for a Garden Village at nearby Dunton Hills. This is covered in a separate report.

1.3 The site

Figure 1.2 shows the strategic location of the site. It can be seen that it is strategically located adjacent to West Horndon Railway Station providing direct rail connections to Central London, Basildon and Southend. It is well served by the A127 and A128 trunk roads and located only a few miles east of the M25. The proposed Lower Thames Crossing will provide further improved strategic road access. The site is well connected to the new DP World Port and the international airports at Stansted, London City and Southend can all be readily accessed by rail and road.

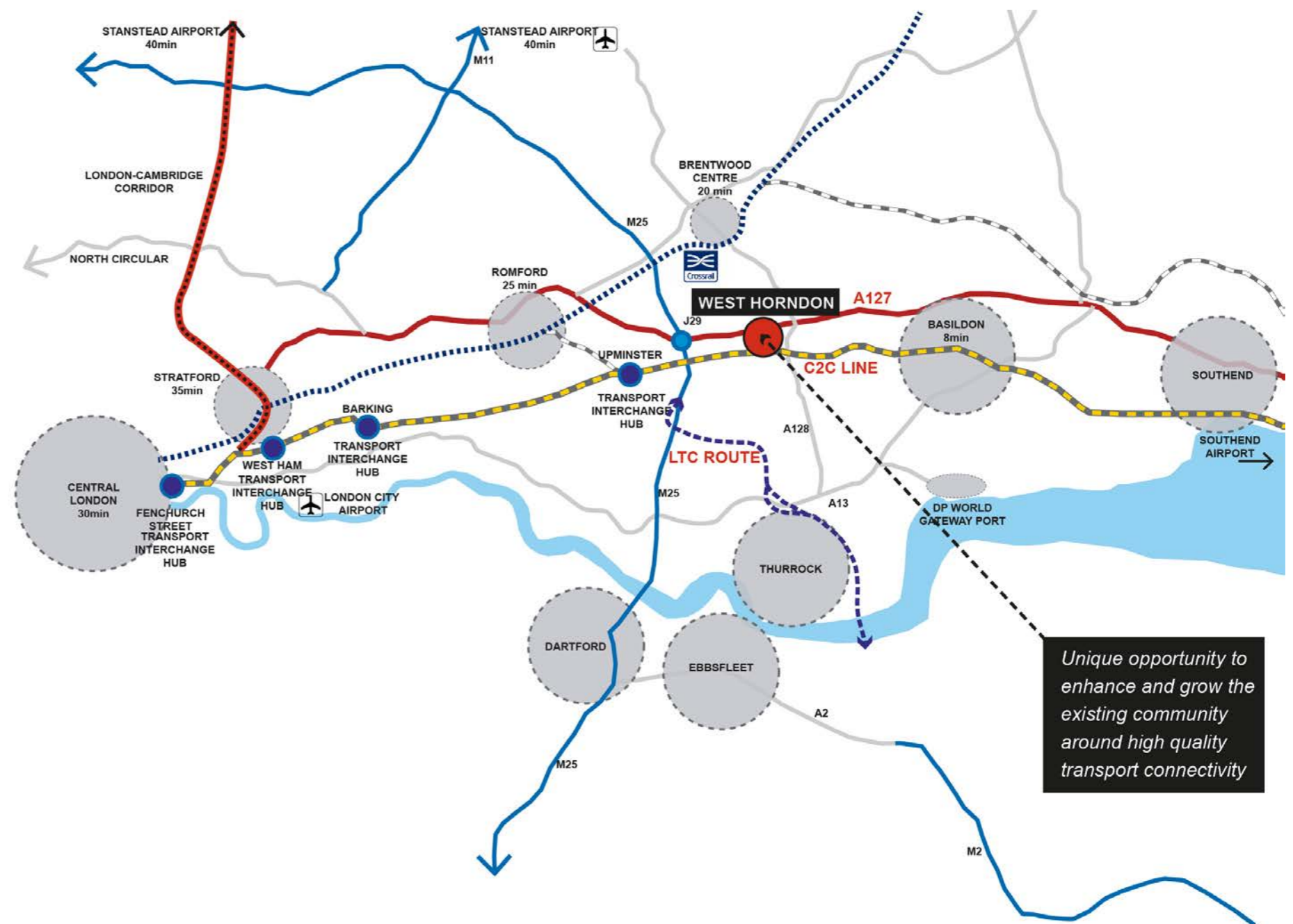


Fig. 1.2 Strategic location

As shown by Figure 1.3, West Horndon has good road and rail access, existing local shops, existing employment opportunities and existing community facilities. A primary school, church, village hall, post office, newsagent and hotel are currently located in the existing West Horndon Village to the east of the site. To the west, along Little Warley Hall Lane, there are a few local facilities including a church and petrol station. Along the A127 Halfway House Junction, there is a hotel and a church. Thorndon Country Park is located to the north of the site but is currently disconnected from it by the A127. Along Childerditch Hall Drive in the north, there is another industrial park. There are also two golf courses in close proximity to the site, Warley Park Golf Course and South Essex Golf Centre.

It is anticipated that the landowners of Horndon Industrial Park, immediately to the south of the site, will shortly be submitting a hybrid planning application for a residential-led mixed use development. Pre-application public consultation was undertaken in March 2017 and proposals shown at this event included 420 new homes with some business uses retained on site, and some new uses such as convenience retail, a doctors' surgery, offices and leisure.



Fig. 1.3 Site and wider local context

The site, shown in Figure 1.4, covers approximately 77 hectares immediately west of the existing village of West Horndon. It is currently in use as a farm with associated agricultural fields and an access road from Childerditch Lane.

The site is bounded to the east by the back gardens of dwellings along Thorndon Avenue, by Childerditch Lane to the west, and Horndon Industrial Estate to the south. The northernmost part of the site is bounded by Thorndon Country Park and Jury Hill. The A127 bisects the northern portion of the site, running east to west.

The site provides a significant opportunity to establish a new residential-led mixed use development at West Horndon and to enhance amenity for the existing residents, whilst maximising the benefits of being in close proximity to West Horndon railway station, the A127 and Thorndon Country Park.

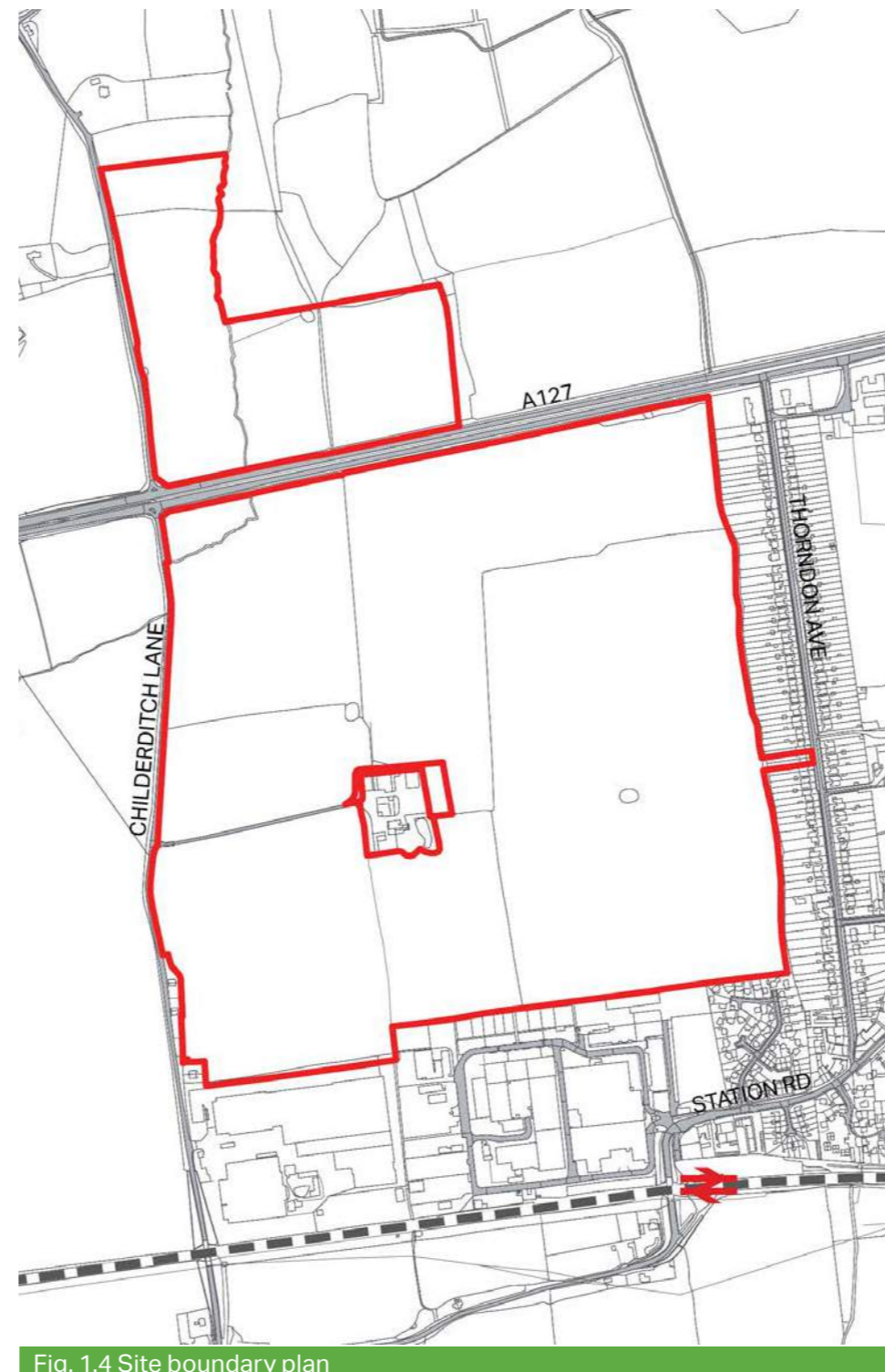


Fig. 1.4 Site boundary plan



2.0 VISION FOR WEST HORNDON

2.1	Vision for West Horndon	12
2.2	Objectives and principles for West Horndon	12



Vision

2.1 Vision for West Horndon

“A thriving new community, linking West Horndon and its railway station to the Thorndon Country Park to create a well-connected neighbourhood that can flourish economically and socially and where people have the opportunity to live healthy and active lives within an attractive and well landscaped environment.”

A thriving development, West Horndon will deliver approximately 900 new homes set within an attractive, landscaped setting defined by new watercourses and water bodies. The development will provide convenient and safe walking and cycling access to West Horndon railway station and a new direct link to Thorndon Country Park in the north. Homes will be centred on a village green which will be fronted by a new primary school, local shops and a care home to provide for everyday needs of new and existing local residents. A new employment area of approximately 4ha in the north-eastern corner of the site will provide much-needed accommodation for local and medium-sized enterprises with visibility and access off the A127.

An interconnected network of different green spaces will be provided throughout the site, including a central Village Green, play areas, parks, sports pitches, allotments, green corridors associated with the Sustainable Urban Drainage System (SuDS) and a landscaped approach to the new pedestrian/cycle bridge over the A127, connecting the main body of the site to semi-natural green space and Thorndon Country Park in the north. This wide range of green spaces, together with tree-lined and grass verges on primary and secondary roads will help to create a leafy character for the new community. This leafy character will be complemented by a waterside setting in the southern part of the site, with residential development – including larger houses and higher density apartment blocks - fronting new water bodies, set within green landscaped areas.

This vision has been shaped by an in-depth understanding of the site's opportunities and constraints, and inspiration drawn from Garden City and Suburb design principles and local precedents.

2.2 Objectives and principles for West Horndon

Four key objectives have emerged to support this vision. The new community at West Horndon will:

1. **Be well integrated into its surrounding landscape context;**
2. **Be well connected** to surrounding areas;
3. **Support healthy and active living;** and
4. **Create an attractive environment** for new and existing residents.

Sitting under each of these overarching objectives is a set of high level development principles which translate the objectives into spatial proposals. These are set out below.

Objective: West Horndon will be well integrated into its surrounding landscape context

As well as being physically connected, West Horndon will be visually integrated into its landscape setting.

Principle - Ensure the development sits well within the existing countryside landscape

To achieve this, development at West Horndon will include:

- **A network of green spaces and green corridors and a landscaping strategy** to ensure the development sits well with the existing landscape of agricultural fields and relatively open countryside, creating an attractive setting for residential development.
- The **provision of screening** of specific parts of the site through tree and shrub planting to mitigate against potential visual and heritage impacts on the surrounding areas. This includes tree planting within the long back gardens of properties on the eastern edge

of the site, with gaps provided between the terraces of houses, to mitigate against any potential visual impact on existing properties on Thorndon Avenue.

Objective: West Horndon will be well connected with its surrounding areas

West Horndon will be well connected with its surrounding areas including the existing village of West Horndon and the adjacent industrial estates. The development principles are set out below.

Principle - Enhance and integrate with the existing community at West Horndon by providing permeable connections

This will include:

- **Four new access points**, one on each side of the site, will be provided to ensure that the development can be easily accessed from the surrounding areas, rather than relying on one main access point. This includes new vehicular access points on the A127, Thorndon Avenue and Childerditch Lane (the existing access for Nuttys Farm is retained but closed off at its western end for direct access to Childerditch Lane) and an enhanced pedestrian/cycle access point on the southern site boundary.
- **Direct pedestrian and cycle routes from the development to West Horndon railway station in the south, and Thorndon Country Park** and the new employment area in the north via a new pedestrian/cycle bridge over the A127. This important route will also take in the new primary school, Village Green, local shops and pub, located at the heart of the development.
- **On-site provision of employment space, a primary school, care home, local shops and a pub, and amenity space**, as well as the new pedestrian/cycle bridge over the A127 to Thorndon Country Park, will help to integrate the development socially, as well as physically, from the outset.

It is useful to note here that the adjacent Horndon Industrial Park immediately to the south of our site is due to be redeveloped for mixed use. The landowner proposals include retained industrial units on its northern edge - providing a degree of buffering for our site - and new homes and green space fronting the route from the West Horndon site to the railway station in the south.

Principle - Promote walking, cycling and use of public transport as alternatives to the private car

West Horndon will provide:

- **A clear hierarchy of attractive and convenient streets and routes** to promote walking and cycling between homes and the Village Centre and railway station.
- **An internal road layout which is designed to be flexible enough to facilitate public transport movements** through the site, potentially via either a local hopper bus service or a diversion of an existing Brentwood-Grays bus route.
- **A new primary school on the primary street network** to support ease of access by safe and convenient walking and cycling routes, as well as public transport. This will also ensure that the school is located in a vibrant part of the site.
- **A direct pedestrian and cycle access route to West Horndon railway station** to the south, which is integrated into the proposed layout of the adjacent industrial estate which is due to be redeveloped for mixed use. This route will lead north through to the site to Thorndon Country Park.

Objective: West Horndon will support healthy and active living

The development at West Horndon will support healthy and active living amongst its new residents, as well as those living nearby in the existing village, in a number of ways.

Principle - Provide a range of formal and informal recreational opportunities

This will include:

- **A variety of formal sporting opportunities** such as sports pitches and play areas for children, located around the community.
- **A range of informal opportunities for cycling and walking** with routes through attractively landscaped areas. There will be foot and cycle paths along the north-south green corridors alongside the proposed swales, and an east-west path along the southern end of the site, which will also include a circular leisure route around the water bodies.

- **Spaces for passive recreation** via the network of green open spaces distributed throughout the site – parks, the Village Green, green corridors alongside the swales, and around the water bodies in the southern part of the site – as well as private garden spaces. Trees, gardens and green spaces will provide opportunities for close contact with the natural environment so as to support residents' mental health and well-being.

- **A new foot/cycle bridge over the A127** will help enhance local access to Thorndon Country Park by connecting the development with an existing Public Right of Way (PROW) north of the A127.

Principle - Provide opportunities for gardening and promote healthy eating

Communal allotments and private gardens will provide opportunities for residents to enjoy gardening, encourage food production and promote healthy eating.

Objective: West Horndon as an attractive environment to live, work and relax in

Creating an attractive environment in which people will want to live, work, play and invest is central to our vision for West Horndon.

Principle - Create a new centre focused around a Village Green

A 'heart' for the new community is proposed, focusing around the landscaped Village Green with key facilities and amenities located around its edges to act as a hub for community activity. The Village Green should be of a sufficient size to create a sense of openness at the heart of the development and will provide an attractive, multi-use green space for informal and formal recreation and community events.

Principle - Create a series of strong, attractive gateways into the site to shape a clear identity for the development

On arrival via the Thorndon Avenue entrance, the first impression of the new development will be of a beautifully landscaped Village Green at the heart of the residential area. This Village Green will be fronted by new shops, a pub, new primary school, care home and also a new pond in the south-eastern corner of the site. Rising northwards from the Village Green will be a green corridor leading to an attractively landscaped ramp and pedestrian/foot bridge rising over the A127.

On the southern approach from the railway station, the visitor will see a series of water bodies to the west in a landscaped setting with a circular walking/cycling route, a new pond to the east fronted by apartments and a direct green corridor leading north through the site.

Principle - Create a leafy and green setting for new homes to enhance value, wellbeing and biodiversity, as well as ensuring the development is resilient to climate change

Research has shown that gardens and trees can enhance the value of properties, enhance the wellbeing of residents and can also help to mitigate against the effects of the urban heat island and anticipated increases in temperature in the climate. To this end, development at West Horndon will provide:

- Interconnected green corridors which allow for north-south and east-west movements, but which also link the site's green spaces, and which provide a green, leafy character to the development.
- Creation of a SuDS network which will serve to ensure drainage across the site, enhance the natural environment for flora and fauna, and to enhance the living environment for new and existing residents of West Horndon.

Principle - Provide a variety of homes and settings within the development

West Horndon will need to appeal a wide range of residents of all ages with differing requirements. The development will provide:

- A variety of homes differing in size, style and tenure to suit a wide range of needs, set within a leafy, and green environment, close to facilities and open spaces, and easy accessible by car, on foot, cycle or public transport. Homes will have access to private or communal gardens and the majority of streets will be tree-lined with grass verges.
- A choice of different landscape settings and character areas within the development. These include: a village centre character with homes and facilities focused around the Village Green; larger homes and higher density apartments in a waterside setting along the site's southern edge; and townhouses facing the wide, tree-lined boulevard which runs east-west across the site from Childeritch Lane to the Village Green.



3.0 MASTERPLAN

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Masterplan

3.1 Illustrative masterplan

The Illustrative Comprehensive Masterplan opposite (Figure 3.1) has been prepared to show how the high level development principles could be applied to deliver the vision and objectives for West Horndon.

Figure 3.2 shows an aerial view illustrating the design approach to the area.

The masterplan seeks to deliver:

- Over 900 new homes centred on a Village Green with a new primary school, local shops, a pub and care home fronting the green space.
- New homes close to West Horndon railway station with a direct and safe walking and cycling routes to the station.
- Approximately four hectares of employment land, directly accessible and visible from the A127.
- A permeable network of streets and routes to ensure ease of movement in and out of the site from surrounding roads and across the site itself.
- Direct and safe walking and cycling routes from the station and site across the A127 (via a new pedestrian and cycle bridge) linking to Thorndon Country Park in the north.
- A green infrastructure network including a range of open spaces to serve new (and existing) residents of West Horndon.
- Swales running north-south and attenuation ponds at the southern end of the site creating an attractive setting for new homes as well as providing drainage and flood mitigation.
- A breakdown of the masterplan components is discussed in the following pages.



Fig. 3.1 Illustrative Masterplan



Fig. 3.2 Illustrative aerial view

3.2 Land use budget

The masterplan showing where land uses are located within West Horndon is illustrated in Figure 3.3 opposite. The quantum of development proposed is included in the land use budget shown at Table 1 and accommodation schedule at Table 2.

The land use budget has been separated into two main categories: primary infrastructure and proposed land uses. This is intended to provide a distinction between the primary or site-wide infrastructure that is assumed to be provided by a master developer, from the different land uses which might be provided by a plot developer.

Primary infrastructure

This includes:

- 1A. Land required for sustainable drainage (SuDS) – i.e. land required for the swales (shown in dark green) and attenuation ponds (but not including the adjacent open space) (shown in light blue).
- 1B. Primary road network – i.e. the strategic road linking Thorndon Avenue to the A127, the core proposed bus route and main roads needed to open up serviced development plots. This would include verges and footways.
- 1C. Principal public open spaces – the Village Green and its adjoining spaces to the north and south (leading to the employment area and the south-eastern water body), and the second main open space to the west.
- 1D. Open space areas associated with the pedestrian and cycle bridge over the A127 - these are essentially the areas required for the mounds and abutments on either of the A127.
- 1E. Landscape areas directly associated with the SuDS system – this relates to the space adjacent to the water bodies along the site's southern edge.
- 1F. Sports pitches including the structural landscape buffer and noise bund – the area required to meet the standard for playing pitches.
- 1G. Allotments – the area required to meet the standard.

Proposed land uses

- 2A. Employment – including its access road and any adjacent open space which is related to the employment area rather than residential areas
- 2B. Primary school
- 2C. Pub

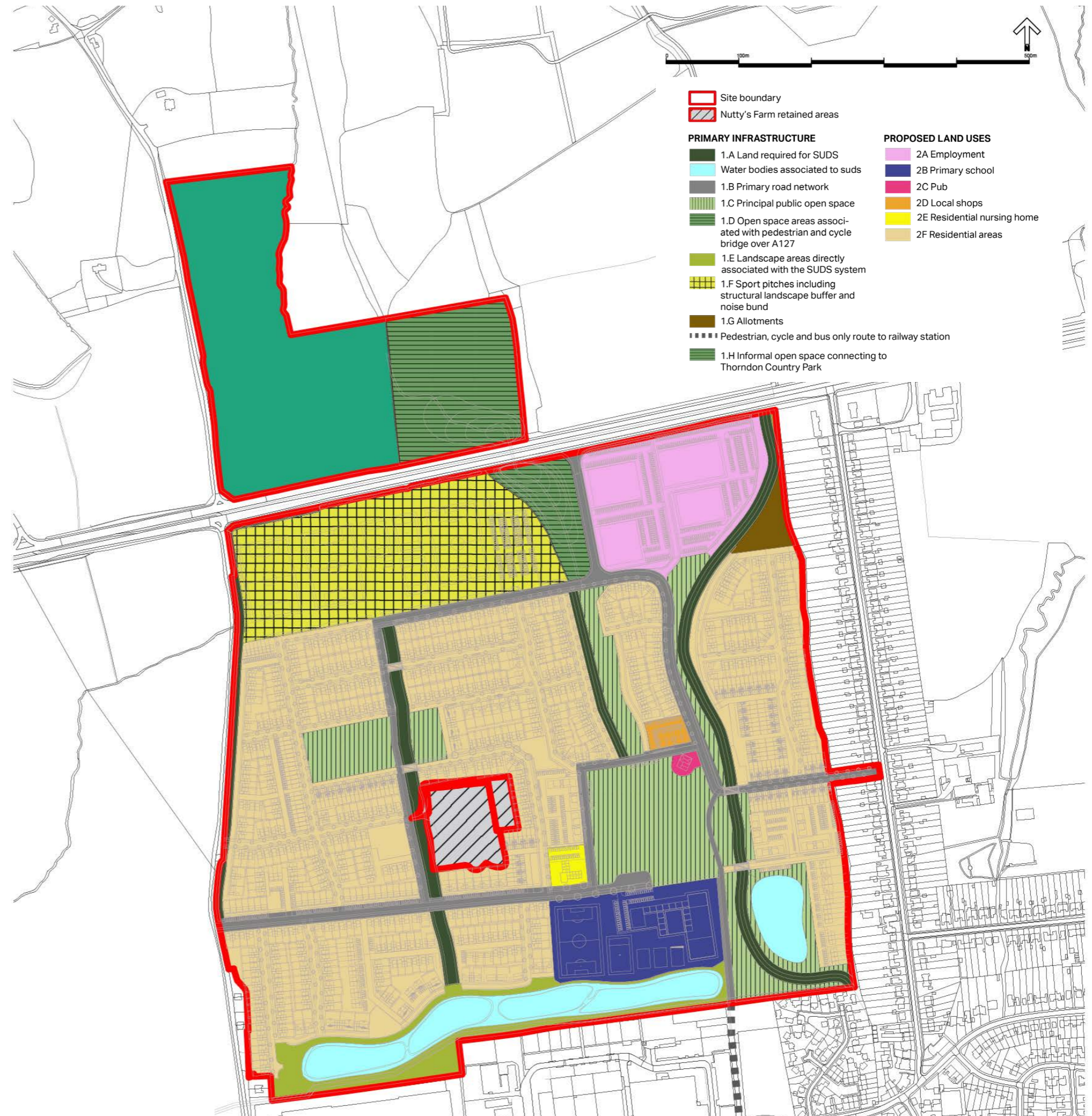


Fig. 3.3 Land use plan

- 2D. Local shops
- 2E. Residential nursing home – it is assumed that the site for this would be sold to an operator i.e. not including any adjacent roads or open space.
- 2F. Residential areas – the land areas that would be sold to plot developers for houses and apartments. This would include the secondary and tertiary road network providing access to and around these areas (i.e. roads other than 1B above), incidental open spaces (i.e. smaller public open spaces including children’s play areas but excluding those areas counted at 1C, 1D, 1E and 1F).

3.3 Planning policy audit of the land use budget

The land use budget table as shown below sets out the proposed quantum of development but it is important to understand how this relates to an audit of the relevant adopted and emerging Brentwood Local Plan policies. Table 3 overleaf shows how the development meets the requirements of the Local Plan. The review of the adopted and emerging Local Plan policies has been prepared by Icen Projects and interpreted for the site’s land use budget by AECOM.

AREA	NOTE	m2	ha	acres
OVERALL SITE AREA A	Total area within red line including land north and south of A127 and Nuttys Farm and retained area.	764,736.00	76.47	188.97
GROSS SITE AREA B	Overall area above less the undevelopable land north of the A127 and Nuttys Farm retained area	631,634.00	63.16	156.08
SITE NORTH OF A127 C	Gross area	119,338.00	11.93	29.49
SITE SOUTH OF A127 D	Gross area including Nuttys Farm and retained area	645,398.00	64.54	159.48
NUTTY'S FARM EXCLUDED E SITES	Nutty's Farm retained areas	13,764.00	1.38	3.40

		Main site south of A127			North of A127			
		m2	ha	acres	m2	ha	acres	
1. PRIMARY INFRASTRUCTURE	1.A	Land required for SUDS	61,223.00	6.12	15.13	-	-	-
	1.B	Primary road network	36,500.00	3.65	9.02	-	-	-
	1.C	Principal public open space	62,388.00	6.24	15.42	-	-	-
	1.D	Open space areas associated with pedestrian and cycle bridge over A127 (north and south)	10,784.00	1.08	2.66	35,034.87	3.50	8.66
	1.E	Landscape areas directly associated with the SUDS system	20,410.00	2.04	5.04	-	-	-
	1.F	Sport pitches including structural landscape buffer and noise bund	68,715.00	6.87	16.98	-	-	-
	1.G	Allotments	4,172.00	0.42	1.03	-	-	-
2. PROPOSED LAND USES	2A	Employment	40,581.00	4.06	10.03	-	-	-
	2B	Primary School	27,879.00	2.79	6.89	-	-	-
	2C	Pub	1,036.00	0.10	0.26	-	-	-
	2D	Local shops	2,146.00	0.21	0.53	-	-	-
	2E	Residential nursing home	2,680.00	0.27	0.66	-	-	-
	2F	Residential areas	293,086.00	29.31	72.42	-	-	-
TOTAL AREA= GROSS SITE AREA B			631,600.00	63.16	156.07			

BLOCK ID	TOTAL	TOTAL	CARE HOME	NOTES
	HOUSES	FLATS	ROOMS	
RESI-01	26			
RESI-02	25			
RESI-03	35			
RESI-04	24			
RESI-05	31			
RESI-06	25			
RESI-07	26			
RESI-08	23			
RESI-09	23			
RESI-10	0			BLOCK WAS TURNED INTO FLATS
RESI-11	21			
RESI-12	30			
RESI-13	22			
RESI-14	44			
RESI-15	31			
RESI-16	22			
RESI-17	24			
RESI-18	31			
RESI-19.1	33			
RESI-19.2	16			
RESI-20	17			
RESI-21	31			
RESI-22	9			
RESI-23	16			
RESI-24	26			
RESI-25	17			
RESI-26	18			
RESI-27	24			
RESI-28	16			
RESI-29	19			
RESI-30	19			
RESI-31	20			
RESI-32	13			
RESI-33	17			
TOTAL	774			
FLATS-01		48		
FLATS-02		12		
FLATS-03		21		
FLATS-04		8		
TOTAL FLATS		89		
CARE HOME - CH-01			50	
TOTAL UNITS	913			

Table 1 - Land use schedule

Table 2 - Accomodation schedule

Table 3 - Planning policy matrix

	Adopted (Saved Policies of the Brentwood Replacement Local Plan 2005)	Emerging (Draft Local Plan 2016)	Masterplan response / compliance
Sustainable drainage	<p><u>Policy IR5</u> New development proposals, including the conversion or re-use of existing buildings, should:</p> <ul style="list-style-type: none"> (i) incorporate the principles of energy conservation and efficiency in the design, massing, siting, orientation, layout and use of materials (ii) encourage the use of renewable sources of energy (iii) encourage water conservation 	<p><u>Policy 10.14</u> All developments should incorporate appropriate Sustainable Drainage Systems (SuDS) for the disposal of surface water. Runoff should where possible be restricted to the greenfield 1 in 1 year runoff rate during all events up to and including the 1 in 100 year rainfall event with climate change. Source control techniques such as green roofs, permeable paving and swales should be used so that rainfall runoff in events up to 10mm does not leave the site. The preferred hierarchy of managing surface water drainage from any development is through infiltration measures, secondly attenuation and discharge to watercourses, and if these cannot be met, through discharge to surface water only sewers.</p>	<p>Then masterplan has incorporated a comprehensive water management strategy based on SUDS and waterbodies. The main SUDS strategy is a system that runs north-south with a waterbody area to the south collecting water. Layout responds to site features and seeks to improve energy efficiency. Buildings will seek to use appropriate materials that improve energy efficiency and green roofs where appropriate. Layout and orientation have also sought to maximise solar gain and respond to prevailing winds.</p>
Transport/ access	<p><u>Policy T2</u> Planning permission will not be granted for proposals where:</p> <ul style="list-style-type: none"> i) an assessment of the proposal indicates an unacceptable detrimental impact on the transport system which cannot be resolved by agreed mitigation measures ii) it does not comply with the current county highway authority's guidance as set down in the following publications: a) "the Essex Design Guide for Residential and Mixed Use Areas – Service and Access" Brentwood replacement Local Plan (Aug 2005) saved policies (Aug 2008) 67 b) "The Highway Aspects of Development Control". <p><u>Policy T3</u> Subject, where appropriate, to highway authority agreement and funding, traffic management measures will be introduced within the borough to:</p> <ul style="list-style-type: none"> i) improve highway safety through traffic calming (including the use of 20 mph zones) particularly in more sensitive areas such as residential areas, shopping areas, near schools and rural lanes ii) provide for the creation of "home zones" and "quiet lanes" iii) promote safe walking and cycling iv) give priority to public transport iv) manage on-street parking in a manner compatible with the Sustainable Car Parking Strategy set out in Policy T8 v) improve the quality and attractiveness of the urban environment vi) help to avoid or manage traffic congestion in central areas. <p><u>Policy T5</u> Any provision for vehicle parking will be expected to comply with the parking standards in ECC Parking Standards SPD – 1 space per 1 bed, 2 spaces per 2+bed dwelling, and 0.25 visitor spaces per dwelling.</p> <p><u>Policy T10</u> The Council will seek to promote an environment which is accessible to all through the provision of appropriate numbers and suitably designed car parking spaces for disabled persons, transport infrastructure, are accessible to and functional for disabled people, and the pedestrian environment is laid out and designed to facilitate safe access for disabled people, particularly those who are blind or partially sighted or have limited mobility.</p>	<p><u>Policy 10.1</u> Where travel is necessary public transport (rail, bus, taxi), walking, and cycling will be promoted as an alternative means of transport to the private car. Development close to schools and Early Years & Childcare facilities should facilitate an attractive public realm that is safe for children and encourages walking and cycling as opposed to school run traffic. The Council will seek the retention of existing bus and rail services and, where possible, encourage improved and new services</p>	<p>The site is in close proximity to West Horndon Rail Station. Therefore the layout has explicitly been designed with a pedestrian, cycle and bus connection to the station. A potential bus route has been incorporated in the Masterplan with adequate carriageway provision. A new primary school has been proposed on the site and in close proximity to the Railway Station. Roads and parking standards reflect the latest guidance applicable in Essex. This masterplan shows at least 2no. carparking spaces per unit plus visitor spaces. The layout has been designed to with traffic calming in mind and a variety of streets and zones that will add variety to the scheme. It also follows a perimeter block strategy enabling easy links and walking distances to and from the different areas of the Masterplan. The masterplan places the main public space at the centre of the scheme and surrounded by key facilities. This facility is within a 500m catchment for the large majority of units.</p>

Table 3 - Planning policy matrix (continued)

	Adopted (Saved Policies of the Brentwood Replacement Local Plan 2005)	Emerging (Draft Local Plan 2016)	Masterplan response / compliance
Open space	<p><u>Policy LT4</u> Proposals for residential development or redevelopment shall make provision for public open space that is made necessary by and is fair and reasonably related to the proposed development. All open space should be laid out and equipped, as appropriate, at the developer's expense and, where principally of benefit to the development itself, dedicated to the council with a financial contribution to ongoing maintenance.</p> <p>Children's playing spaces: LAP – within 100m walking distance and of 100sqm LEAP – within 400m walking distance and of 400sqm NEAP – within 1km walking distance and of 1,000sqm</p> <p>Developers of residential sites greater than 1.0 ha. (or 50 units) will normally be required to provide a LEAP with a minimum area of 400 sq.m and 5 types of play equipment (either onsite or off-site) and at least 1 LAP on-site with a minimum area of 100 sq.m and make a financial contribution towards the provision of a NEAP. The precise amount of the contribution will depend on the nature and extent of existing provision in the locality, the type and scale of development proposed and specific site circumstances. Within larger housing areas (sites of 50 units and above) at least 15% of the site area should be set aside for public open space, part of which should be suitably hard surfaced.</p>	<p><u>Policy 10.8</u> All proposals, where appropriate, will be required to comply with the Council's open space standards. Outdoor Sport: 3.15 ha per 1000 population Children's Playing Space: Between 0.13 – 0.17ha per 1000 population Allotments and Community Gardens: 0.18 per ha per 1000 population With regard to Children's Play Space, the Council will seek proposals which meet the Fields in Trust minimum standards: LAP: Walking Distance (100m) / Minimum Size (100 sqm) Small, low-key games area. LEAP: Five types of play equipment and a small games area. Walking Distance (400m) / Minimum Size (400 sqm) NEAP: Eight types of play equipment with opportunities for ball games or wheeled activities. Walking Distance (100m) / Minimum Size (1000 sqm)</p>	<p>Then masterplan has an approach to open space provision that is quantity and quality compliant with LA's policy. The new parks and open spaces will be accessible for the new and existing population of West Horndon. Moreover, the masterplan includes a pedestrian and cycle bridge over the A127 to open access to Thorndon Country Park. The beneficiaries would not only be the new residents but the larger surrounding population of West Horndon. Parks, green spaces and play areas are strategically located to provide easy, walking access to all residents.</p>
Green infrastructure	<p><u>Policy C6</u> Existing trees, hedges, woods, ponds, watercourses and other natural features should be retained, with new landscape works required to enhance any new development. Satisfactory measures must be taken prior to the start of any development to protect landscape features during development.</p>	<p><u>Policy 10.10</u> All major development proposals should seek to include elements of Green Infrastructure and Ecological Networks, such as but not limited to SuDS, allotments, street trees, green roofs, recreational areas, areas of new and existing natural habitat, green corridors through the site and waterbodies, and existing networks including Thames Chase Forest.</p>	<p>The masterplan seeks to preserve the perimeter planting with added planting to improve screening (see Section 3.5 and 4.2). In addition to existing and retained hedgerows, trees and field boundaries, new trees on streets and proposed SuDS and waterbodies will add to screening and greening feel of the site. Trees will provide cooling affect and microclimate. Rear and front gardens will generate biodiversity corridors. North of the A127 there is a substantial area of GI being provided, also linking with Thorndon Country Park.</p>
Sports facilities	<p><u>Supporting text to Policy LT3</u> It has been a long standing recommendation of the National Playing Fields Association (NPFSA) that the minimum standard for outdoor playing space is 2.43 hectares per 1000 population.</p>	<p><u>Policy 10.8 as above</u></p>	<p>The masterplan is proposing a location for sports pitches alongside the northern edge. The provision is compliant with Policy 10.8</p>
Allotments	<p>None</p>	<p><u>Policy 10.8 as above</u></p>	<p>An area dedicated to allotments use, Compliant with Policy 10.8, is proposed to the north eastern area of the Masterplan.</p>
Employment space	<p><u>Policy E8</u> Any development for employment (B1, B2 or B8) purposes will need to satisfy all the following criteria: i) it will be of a scale and nature appropriate to the locality ii) it is accessible by public transport, walking and cycling iii) road access will avoid using narrow residential streets and country lanes and avoid significant traffic movements within rural areas iv) appropriate landscaping and screening shall be provided.</p>	<p><u>Policy 8.3</u> Development for employment uses (Class B1, B2 or B8) will be encouraged provided the proposal: a. is of a scale and nature appropriate to the locality; b. provides appropriate landscaping and screening; c. is accessible by public transport, walking and cycling; d. ensures vehicular access avoids residential streets and country lanes, and the proposal does not give rise to significant traffic movements within rural areas; e. is easily accessible to main arterial routes (A127, A12, M25) with appropriate parking provision; and f. is accompanied by a Transport Assessment and Travel Plan in accordance with Policy 10.1 where a significant amount of movement is generated.</p>	<p>An employment area is proposed at the north eastern corner of the Masterplan. It comprises four discreet B1 units with less than 5000 sq m each. The employment zone is within walking/cycling distance from West Horndon Station. There's also a proposal for a hopper bus servicing this area. Access is via main roads and directly accessible from the A127. Parking provision meets current standards.</p>

Table 3 - Planning policy matrix (continued)

	Adopted (Saved Policies of the Brentwood Replacement Local Plan 2005)	Emerging (Draft Local Plan 2016)	Masterplan response / compliance
Education provision	<u>No specific policy.</u>	No specific policy. The Council's is preparing a Community Infrastructure Levy (CIL) Charging Schedule alongside the Local Plan. Until this is adopted, the Council will assess all development proposals and seek the provision of, or contributions to, necessary on or off-site infrastructure to be secured through planning obligations.	The masterplan includes a site for a new primary school.
Pub/shops	<u>Policy S1</u> Major retail development will only be permitted within Brentwood town centre and the boroughs other district centres where it is within an area allocated for shopping purposes or within the context of Policy TC10. Other retail development will be permitted if it is of a size appropriate to the scale and character of the centre or area in which it is to be located and satisfies the sequential approach in ppg6. All retail proposals should satisfy the following: i) the proposed development will not have an unacceptable detrimental impact on the vitality and viability of Brentwood town centre or any other local district shopping centre as a whole ii) the proposed development is easily accessible by public transport, foot and cycle	<u>Policy 5.14</u> Provision is made for 4,844 square metres (net) of comparison retail floorspace and 3,833 square metres (net) of convenience floorspace to be provided in the Borough over the Plan period. The primary location for new retail growth will be Brentwood Town Centre. New local retail provision will also accompany mixed-use development at Dunton Hills and West Horndon	The masterplan is proposing four retail units of less than 180 sq m each for convenience retail and services. These are located to the north of the main space (village green) and also adjacent to the bus route. Cycling and walking is within 500 m of the majority of units. Proximity and linkages with the existing community means they will also benefit from this additional provision.
Residential Nursing home	<u>Policy H12</u> Proposals including new buildings or a change of use for residential homes within the built up area will only be permitted where the following criteria are met: i) the proposal would not result in the over concentration of residential homes in any individual street ii) the proposal is within an established residential area and within close proximity to facilities such as shops, leisure and health care facilities and, where appropriate, employment and day centres. For the purposes of this policy residential homes are: i) Nursing homes ii) Communal housing for people with a disability or other special needs groups.	<u>Policy 7.7</u> Proposals for specialist residential and supported accommodation will be permitted subject to a number of criteria being met which are summarised below. the proposal has all necessary facilities close by such as shops, public transport, health and leisure facilities and, where appropriate, employment and day centres; evidence is provided demonstrating the suitability of the premises to meet the particular needs of the group to be housed; the proposal provides appropriate landscaping and amenity space.	The masterplan is proposing a site for a 50 bed nursing home, directly opposite the village green and within 250m from the proposed retail units above.
Residential	<u>Policy H9</u> The council will seek a proportion of 35% of the number of dwelling units to provide for affordable housing in a manner to be agreed with the council and subject to: The affordable housing will be provided on site as part of the development. Where this would not be appropriate or possible the council may accept the affordable housing to be provided either in part or in whole on another site. <u>Policy H14</u> Residential densities will be expected to be no less than 30 dwellings per hectare net unless the special character of the surrounding area determines that such densities would be inappropriate. <u>Policy H16</u> The design and layout of all new residential properties should seek to increase their flexibility, convenience, safety and accessibility such that they are able to provide for, or be easily adapted to, the changing needs of households and/or an occupier's mobility.	<u>Policy 7.8</u> Nationally Described Space Standards, will apply to all new housing development, subject to viability. Provide a minimum of 35% affordable housing on sites of 11 or more dwellings.	The illustrative masterplan shows a capacity for 913 units with different typologies such as family homes, apartments and care home units. These will also cater for the affordable provision in due course. The density as shown in the illustrative masterplan is 31 dph.

Indicative parking provision for the development is set out below in Tables 4 and 5 and how it meets policy requirements. This may need to be refined during the detailed design stage.

Table 4 - Indicative parking provision for non-residential uses

NON RESIDENTIAL USES									
B1 UNITS - EMPLOYMENT	1	SPACE PER	30	SQMT (MAXIMUM)	MAXIMUM REQUIREMENT (SPACES)	BLUE BADGE (SPACES)	5%	MET (Y/N)	NOTES
UNIT 1			3485	SQMT	116	6		Y	
UNIT 2			4175	SQMT	139	7		Y	
UNIT 3			2760	SQMT	92	5		Y	
UNIT 4			2874	SQMT	96	5		Y	
TOTAL					443	22			
PUB	1	SPACE PER	5	SQMT (MAXIMUM)	MAXIMUM REQUIREMENT (SPACES)	BLUE BADGE (SPACES)	5%	MET (Y/N)	
			280	SQMT	56	3		Y	12 spaces provided; of which 3no. can be Blue Badge. There is no minimum requirement.
PRIMARY SCHOOL	1	SPACE PER	15	PUPILS	MAXIMUM REQUIREMENT (SPACES)	BLUE BADGE (SPACES)	5%		
ASSUMED 2 FORM ENTRY = 12 CLASSES OF 30 PUPILS EACH= 360 pupils					24	1		Y	School carpark provides an indicative 54 spaces. The surplus of spaces has been allowed on the assumption that this will be a shared facility catering for other uses after school hours.
CARE HOME	1	SPACE PER	3	BEDS	REQUIREMENT	BLUE BADGE (SPACES)	5%		
Assumed 1 bed per room = 50 beds	50	BEDS			17	TBC		Y	Blue badge spaces are provided according to requirement.
Assumed	10	STAFF (1 space per member)			10			Y	
TOTAL					27			Y	
SHOPS	1	SPACE PER	20 SQMT - NON FOOD 14 SQMMT - FOOD	SQMT (MAXIMUM)	MAXIMUM REQUIREMENT (SPACES)	BLUE BADGE (SPACES)	6%	MET (Y/N)	NOTES
UNIT 1 - Assumed non food			160	SQMT	8	3		Y	There is no minimum. We are providing 18 spaces for four shops.
UNIT 2 - UNIT 1 - Assumed with Food			180	SQMT	13	4		Y	
UNIT 3 - UNIT 1 - Assumed with Food			180	SQMT	13	4		Y	
UNIT 4 - Assumed non food			160	SQMT	8	3		Y	
TOTAL					42	14			
					TOTAL	56			
SPORTS PITCHES	20	SPACES PER	PITCH		MAXIMUM REQUIREMENT (SPACES)	BLUE BADGE (SPACES)	6%	MET (Y/N)	
Assumed 5 pitches as shown in illustrative masterplan					100	6		Y	A surplus of car parking is shown as there might be arequirement for seated spectators. This can only be determined at detail design stage. Surplus could also be visitor overflow.

Table 5 - Indicative parking provision for residential uses

RESIDENTIAL USES	
All units allocate at least 2 spaces on plot or on curtilage for apartments =	1826 residential spaces
Houses and flats visitor spaces on street or courtyards	228 visitor spaces

3.4 Cost plan

Quantem Consulting has prepared a cost plan based on the above land use budget, this is included at Appendix A.

3.5 Masterplan framework

This section describes the different components of the masterplan framework for West Horndon which together, establish a clear rationale for the location of uses and quantum of development.

These components are as follows:

- Retention of existing uses - namely, Nutty's Farm;
- Green infrastructure strategy - including visual screening/containment buffers, open space and sports provision;
- SuDS strategy - this is integrated with the green infrastructure strategy;
- Movement - including the main link road, access to West Horndon station and Thorndon Country Park, indicative bus route and secondary road network;
- Gateways;
- The community 'heart' or hub;
- The employment area; and
- Development blocks.

Retention of Nutty's Farm

One of the key landowner requirements is to retain Nutty's Farm in situ and to preserve its access from the west. Figure 3.4 below shows the location of the retained parcel, at the centre of the development site.



Fig 3.4 - Retain Nutty's Farm

Green infrastructure strategy

Visual screening / containment buffers

Figure 3.5 shows the proposed location of retained, new and/or enhanced tree or shrub planting to help mitigate the potential visual impact on the surrounding areas. Existing trees, hedges and shrubs will be retained and strengthened by additional planting along the entire perimeter of the main site south of the A127, and along the western and southern edges of the retained semi-natural green space north of the A127. This includes tree planting within the back gardens of properties along the eastern boundary, backing onto existing gardens of homes on Thorndon Avenue. Further detail is set out in Chapter 4.



Fig 3.5 - Containment buffers

Public open spaces

Figure 3.6 shows the range and distribution of public open spaces that will be provided at West Hordon. These include:

- Retained semi-natural green space north of the A127 and the open space associated with the northern landing point of the pedestrian/cycle bridge over the A127;
- Open space associated with the pedestrian/cycle bridge over the A127 on its southern side – this will be in the form of a landscaped, green ramp as seen from the main body of the site;

- Three green corridors running north-south through the site which will incorporate swales;
- The Village Green as the main public open space and centrepiece of the new community;
- A local park serving the western half of the development; and
- Public open space associated with the water bodies and wetlands along the site's southern boundary.



Fig 3.6 - Public Open Spaces

Sports pitches

Almost 7ha of sports pitches will be provided immediately south of the A127 to serve the new resident population on the West Horndon site, as shown on Figure 3.7. This location is also considered to be appropriate as a land use which is not sensitive to noise generated by road traffic, unlike residential development. This area has the potential to accommodate three football pitches and changing room facilities along with associated parking (see Table 4) but this will need to be confirmed at the detailed design stage. This area is also capable of accommodating an acoustic bund to the north of the pitches, if deemed necessary following further survey work and acoustic modelling.



Fig 3.7 - Sports Pitches

SuDS strategy

Figure 3.8 illustrates the proposed SuDS strategy for the site which includes:

- A large wetland area with interconnected ponds along the southern edge of the site;
- Permeable surfacing; and
- Three swales running north-south through the site.

These SuDS components have helped inform the landscape framework and to define the character of West Horndon as an attractive place to live.

Figure 3.9 shows how the two strategies are intertwined, whilst further detail on the SuDS strategy is provided in Chapter 4.

Movement strategy

Main link road

The main link road will connect the A127 in the north to Thorndon Avenue in the east, through the development site (see Figure 3.10 below). The location of the access point on Thorndon Avenue has been determined by land already in the control of the landowner (two of the existing residential properties).



Fig 3.8 - SuDS strategy



Fig 3.9 - Integrated green infrastructure and SuDS strategy

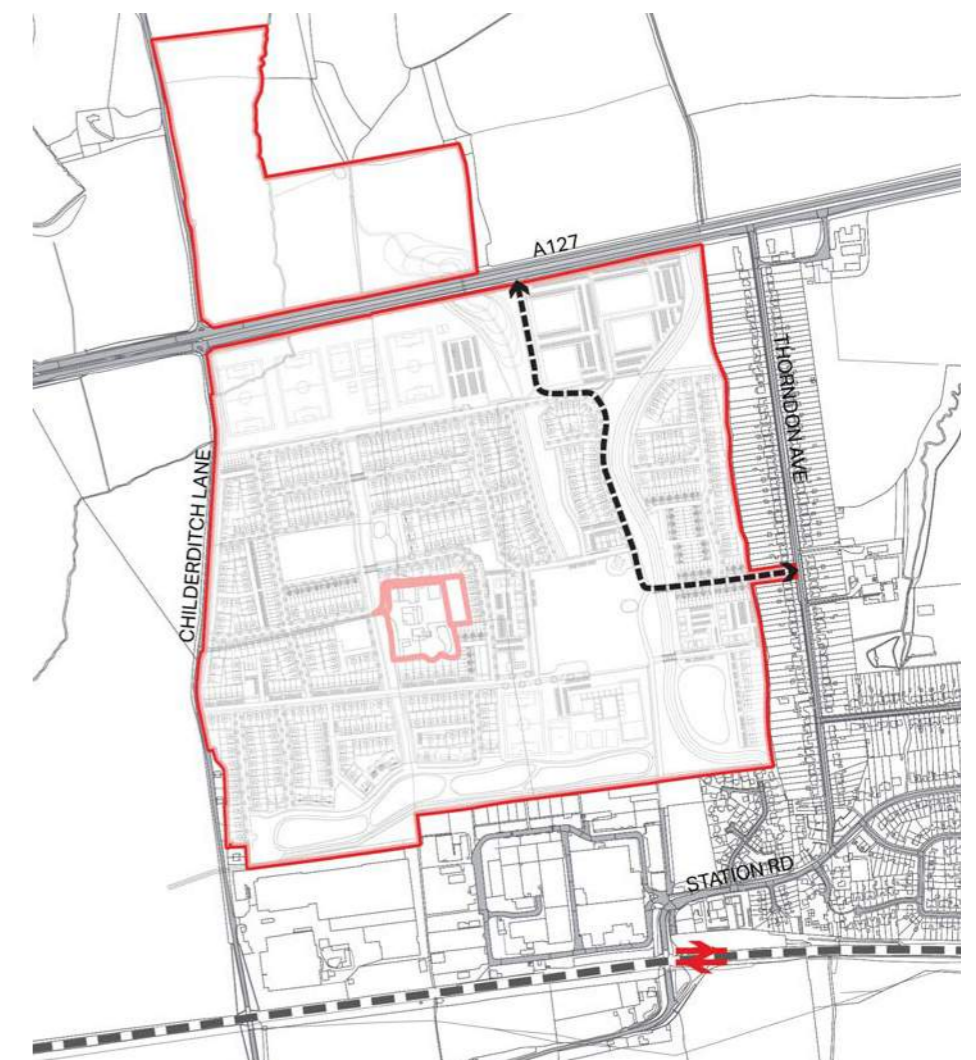


Fig 3.10 - Main link road and accesses

Access to West Horndon station and Thorndon Country Park

Figure 3.11 below shows the provision of a north-south route through the site, connecting the site to Thorndon Country Park in the north via a new foot/cycle bridge over the A127, and a connection to the existing walking/cycle route south of the site towards West Horndon railway station, via the Horndon Industrial Park. The owners of this site are intending to submit a planning application for the redevelopment of this site for residential use in 2017, which includes public realm improvements to the existing route to West Horndon station in the south, which will benefit development on our site.



Fig 3.11 - Access to station and country park

Indicative bus route

An indicative bus route is shown in Figure 3.12 below which will cover as much of the development as possible in a circular loop. The proposed bus route would operate on a one-way loop around West Horndon, entering Nutty's Farm via the new access from the A127, then through the development site before utilising a new link to Station Road. Further detail is set out in Chapter 4 and PBA's Public Transport Strategy technical note.



Fig 3.12 - Indicative bus route

Secondary road network

The secondary road network will include a series of north-south and east-west routes leading from, and connecting to, the primary road network as shown in Figure 3.13 below. These roads will serve the residential areas and the majority of them will be tree lined with grass verges on both sides, with front gardens of houses in the main.



Fig 3.13 - Secondary road network

Gateways

Figure 3.14 shows the proposed 'gateways' into the site. The main gateway, or 'front door' into the site will be at the Village Green at the heart of the development when you enter the site from Thorndon Avenue to the east. This will give a first impression of an attractively landscaped, high quality residential development with a strong sense of community with local facilities and amenities at the heart of the scheme. Two other gateways will be at the northern entrance of the site by the landscaped ramp structure leading to the new cycle/footbridge over the A127, and at the southern entrance by the proposed water bodies in the southern part of the site.



Fig 3.14 - Gateways

Community heart

The heart of West Horndon will be located around the Village Green in the centre of site, shown on Figure 3.15. The Village Green will be enclosed by development on three sides including local shops and a pub to the north, apartments and a care home to the west, and the new primary school to the south. A cricket pitch could be provided in the centre of this important green space with a circular path provided around its edge and informal planting around the small pond (existing) to the east. The new primary school will be directly connected both physically and visually to the Village Green.



Fig 3.15 - Community heart

Employment area

Approximately 4ha of employment land will be provided in the north-eastern corner of the site, adjacent to the A127. This will include four single storey B1 units ranging in size from approximately 2,500 sq m to over 4,000 sq m in size with associated parking (almost 500 spaces). Access to the employment area will be provided on its southern edge, off the main link road connecting the A127 to Thorndon Avenue in the east. These B1 units could either be a cluster of small workspace units (B1 b & c) or small to medium industrial/warehouse units (B1c). Due to the comparatively small unit size and associated tenant profile, dedicated servicing areas are not considered necessary.

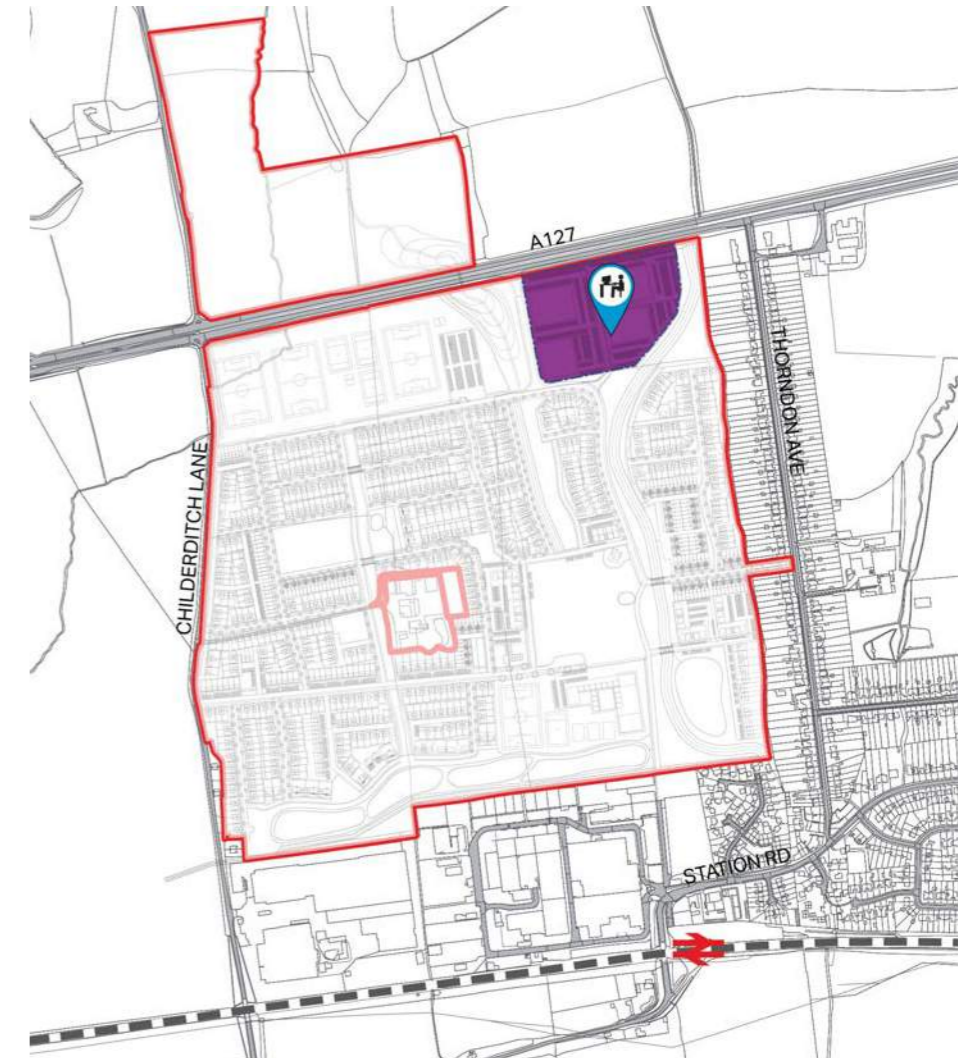


Fig 3.16 - Employment area

Development blocks

Indicative development blocks are shown on Figure 3.17 which could be sold to plot developers. The primary road network and high level development principles established earlier in this chapter - and to be implemented by the master developer - will help to ensure that the vision for the new community can be implemented in a number of different ways.

The flexibility of the development blocks is shown below in Figure 3.18, illustrating their ability to accommodate differing housing typologies and layouts.

The blocks have been sized to respond to Garden City principles. The block depths range from approximately 52m to 60m from back of footpath to back of footpath. This allows to site a front and back garden with the building's principal entrance overlooking the street.

This flexibility also allows for a number of typologies to be used such as: semidetached and detached properties, town houses and compact terraces as well as discreet blocks of flats.



Fig 3.17 - Development blocks



Illustrative masterplan approach - 135 homes



Alternative Option 1 approach - approx 134 homes



Alternative option 2 approach - approx 141 homes



Alternative Option 3 approach - 131 homes

Fig 3.18 - Plot layout options



4.0

SUPPORTING TECHNICAL STRATEGIES

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Technical Strategies

4.1 Overview

The masterplanning process has involved EASL's consultant team through continual feedback at design team meetings. This chapter provides an overview of the technical disciplines' inputs, based on technical notes prepared by the consultants, email correspondence and feedback at meetings. A list of the inputs is included at Section 4.15.

No concerns were raised by the consultant team regarding the masterplan layout in terms of waste, air quality, ground conditions, sustainability.

4.2 Planning strategy

The planning strategy for West Horndon project as it relates to Brentwood may be summarised as follows:

- **Continued watching brief on Brentwood** – Brentwood Borough Council is expected to publish a number of evidence base documents in support of the Local Plan in September 2017 and following this will publish a draft document for consultation on wider site allocations. The Council hope to submit the Local Plan to the Secretary of State in early 2018. We will continue to engage with Brentwood and Thurrock, who have a vested interest in Brentwood, in respect of the Brentwood Local Plan.
- **Develop the key messaging and very special circumstances case for the entire landholding** – we will detail the key attributes which West Horndon benefits from, in addition to the potential for a multi-modal transport hub. The key benefits of the scheme include the flood alleviation measures which may provide significant enhancements to the wider West Horndon village and an all through school education hub to meet the identified shortage of education spaces in the catchment area.
- **Ongoing monitoring of Hermes Industrial Estate Proposals and Dunton Garden Village** – in terms of Hermes, community consultation was held in Summer 2017 in respect of the redevelopment of the site for residential and we await the submission of the planning application. In regards to Dunton GV, this will be addressed largely through representations on the Brentwood Local Plan, however there may be potential to promote West Horndon alongside Dunton particularly since the LPA are acknowledging that they expect their housing numbers to increase.

4.3 Landscape strategy

The landscape setting of West Horndon is a strong factor influencing the sensitive design of the development, as previously discussed in Sections 2.2 and 3.5. AECOM's initial baseline study and technical note on landscape (included at Appendix B) identified a number of key constraints and opportunities to be incorporated into the masterplan. The illustrative masterplan (included earlier in Chapter 3) emphasises the strong landscape structure as a framework within which the development sits, as does the green infrastructure elements, and helps to create a highly attractive environment for people to live in and enjoy.

The proposed mitigation measures will include, but are not limited to, the following:

- **Adopt a 'landscape-scale approach' through the internal network of green infrastructure**, linking with the existing perimeter trees and hedges, which in turn link with the surrounding landscape features/habitats.
- **Retain and in parts, strengthen the existing pattern of woodland/hedges along the site boundaries**. This will help illustrate the site's landscape context and show how the proposed development to sits comfortably within the context of the adjacent rural landscape. It will also help the site to relate appropriately to the existing built-up area of West Horndon, particularly along its eastern boundary. Perimeter trees and hedges will also be used to create further containment/screening where required (see earlier in Chapter 3).
- **Retain and strengthen existing tree belt on the southern side of the A127**. Further tree planting along the length of this northern site boundary will help to provide separation from the A127 to benefit the proposed development and conversely, to assist in screening new development from the rural area and Thorndon Country Park to the north.
- **Focus built development on the site to the south of the A127**. Aside from the pedestrian/cycle bridge across the A127, no built development is proposed north of the A127. That part of the site will be retained as semi-natural green space and enhanced for its landscape and nature conservation value as well as creating a link to the Country Park.
- **Provide a green, landscaped bridge over the A127** to connect the site to the Country Park for pedestrians and cyclists, enhancing

the biodiversity of the site with suitable planting. Further work on its design and contribution to biodiversity will be undertaken at the detailed design stage.

- **Retain an open character within the area closest to Jury Hill**. The location of playing fields within the north-western part of the site will help minimise potential intrusion into views from the elevated ground to the north.
- **Provide tree/woodland structure planting along the western boundary beside Childerditch Lane**. This will build upon the existing roadside hedge. The design approach to development along the western edge site of the site will be important in creating an acceptable interface between the new urban area and the remaining farmland to the west. The intention is not to create a solid screen, but rather to create an edge where attractive development (building elevations, boundary features, etc) can be seen amongst trees and other vegetation.
- **Provide tree and shrub planting along the southern edge of the sports pitches** and a small swale to prevent unwanted access and provide for further attenuation for sports pitch drainage. The planting will also further assist in minimising potential intrusion into views from the elevated ground to the north.
- **Provide additional tree and shrub planting within the proposed long back gardens of properties on the eastern edge of the site**. This will reflect the existing situation to the rear of properties along the western side of Thorndon Avenue and supplement the visual separation between the two areas.
- **Establish a strong east-west pattern of landscape infrastructure through tree planting along road corridors by working with the east-west pattern of the masterplan**. In addition to creating an attractive, leafy environment for the new development, this will assist in integrating development into elevated views from the north.
- **Enhance landscape connectivity across the site with strong north-south and east-west connections**. The creation of a north-south green route running through the village green and central green corridor which links to an east-west route running alongside the proposed water bodies to the south, would enhance landscape connectivity across the site. In turn, the east-west route would also connect with the western swale/green corridor, leading to the sports pitches in the north.

4.4 Movement strategy

As set out earlier in Chapter 2 under Vision and Objectives, the site presents a significant opportunity to create a new, sustainable Garden Community which can capitalise on its strategic location and proximity to West Horndon railway station and Thorndon Country Park. The proposed movement strategy includes the following components:

- **A well connected site, accessible from all sides** of the site on foot, by cycle and private car.
- **Connections to West Horndon railway station and Thorndon Country Park.** The development will benefit from a direct pedestrian and cycle route between the railway station in the south and the Country Park in the north via a pedestrian/cycle route south of the site and a new foot/cycle bridge over the A127.
- **A permeable street network to promote safe walking and cycling routes.** The development will include a series of attractive, interconnected streets providing a choice of routes designed to encourage walking and cycling through the site. On the main link road, the cycling routes will be segregated, and shared with vehicles on the secondary roads.
- **Co-location of the shops, Village Centre and school at the heart** of the development where walking, cycling and vehicular routes converge.

Parking provision has been provided in accordance with Essex County Council's Parking Standards Design and Good Practice guide (September 2009), which was adopted by Brentwood Borough Council in 2011 as its Vehicle Parking Standards Supplementary Planning Document (see Table 4). Note that at the detailed design stage we may need to use the current draft Essex Standards if available at that time.

4.5 Highways strategy

The main components of the highways strategy include:

- **Three new vehicular access points** on the A127, Thorndon Avenue and Childerditch Lane and one pedestrian/cycle only access/link road towards West Horndon railway station in the south. (The existing road which previously served Nuttys Farm will be terminated before it reaches Childerditch Lane).
- **Main link road connecting the A127 in the north to Thorndon Avenue in the east.** This road will be the main route through the site with new access points provided directly off the A127 and Thorndon Avenue (see Figure 4.1). This link road will be part of the primary road network for the proposed development, along with the western loop and the east-west link connecting Childerditch Lane to the main link road via the Village Green. Primary roads will be 5.5m wide to accommodate the local bus services.
- **A secondary road network** with north-south and east-west routes leading off the primary road network. The majority of these will be capable of accommodating some element of on-street parking.

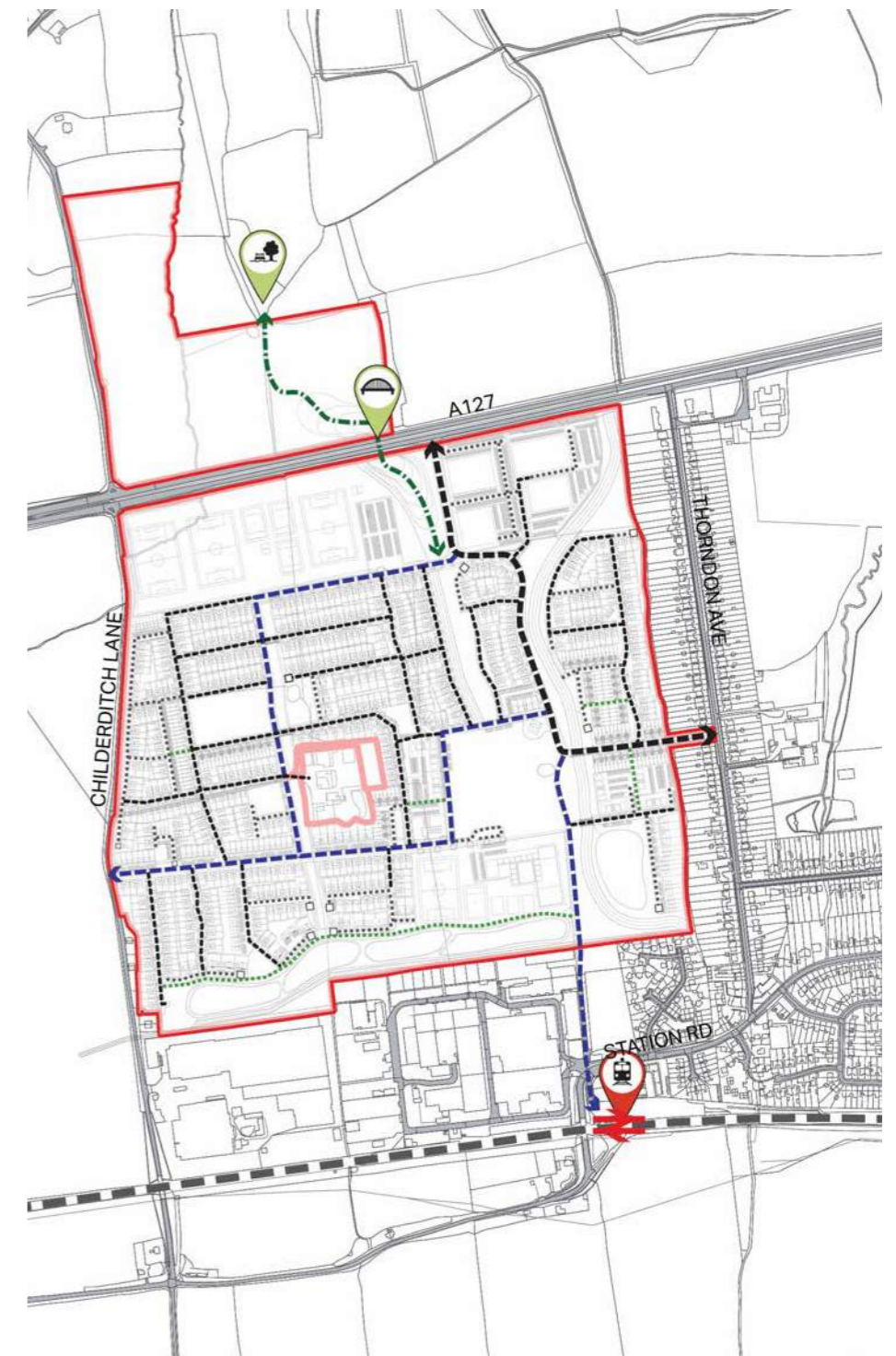


Fig. 4.1 Proposed road network

4.6 Public transport strategy

The provision of effective, high quality public transport services to West Horndon will be crucial in ensuring its success as a sustainable development. As the existing rail service provides for east to west movements (to Southend, Basildon, Upminster and London), the role of bus services in West Horndon is primarily to provide access to areas north and south, particularly Brentwood and Grays.

The primary roads have been designed by Icen Projects, Peter Brett Associates (PBA) and AECOM to be flexible enough (5.5m wide) to accommodate local buses operating on a one-way loop within the site and to serve as many of the new homes as possible. Figure 3.12 of the previous chapter – bus route shows an indicative bus route through the site, to be confirmed through the detailed design stage and through further discussions with bus operators. In the longer term, it is envisaged that a bus route serving the development could also potentially connect to an enhanced transport hub on the south side of West Horndon railway station and beyond, as part of PBA's Public Transport Strategy.

During phasing of the development, the route of the bus service will be amended to take advantage of more direct routes between land parcels where these are available. It is therefore expected that a route through West Horndon that serves the occupied areas of development would be achievable at all times throughout the build-out period.

4.7 Surface water drainage strategy

The development site presents an opportunity to manage surface water runoff in a sustainable way which works with nature to create a new community with an integrated relationship with water. By managing surface water runoff through the use of Sustainable Drainage Systems (SuDS), the development can provide substantial benefits to the site and surrounding area. The surface water drainage strategy as developed by Herrington Consulting with AECOM provides the following benefits based on the "four pillars of SuDS design":

- **Controlling the rate and volume of surface water runoff discharged from the site.** The development will manage surface water runoff in a way which closely mimics the existing greenfield site. Water will be stored onsite and released into the surrounding drainage system at a restricted rate minimising the risk of flooding.
- **Managing quality of surface water runoff to reduce pollution.** By using SuDS that include natural mechanisms for filtering and controlling pollution the environmental impact of the development can be minimised. SuDS such as permeable paving and swales can provide significant benefits to the quality of water passing through the drainage system, especially when compared to more traditional piped drainage networks.
- **Provision of new amenity spaces for people which are integrated with water and the natural environment.** By incorporating SuDS within distinct "green corridors", through the centre of the development, it is possible to bring water into the community and provide new spaces for people to enjoy.
- **Provision of new areas for wildlife and improved biodiversity.** By keeping water above ground where possible the drainage system can provide new habitat spaces with links to water (see Ecology Strategy below). This is most apparent within the design of the wetland which will provide permanent waterbodies alongside dryer spaces designed to flood to various depths under a wide range of return period rainfall events.
- The development will include a series of SuDS, including; a large wetland area with interconnected ponds and swales. The proposed drainage strategy is summarised in Chapter 3 and further detail will be provided at the next design stage by Herrington.

4.8 Heritage strategy

The site is not in a Conservation Area, and contains no listed buildings, scheduled monuments, or other designated heritage assets. There are a number of heritage assets - though which lie a good distance from the site – in the surrounding area such as the Grade II* Thorndon Hall Registered Park and Garden and Grade II* listed All Saints Church. Whilst Icen Projects' desk-based assessment has indicated that the risk of impact to setting of all surrounding heritage assets is low, the development includes a number of elements intended to minimise any potential impact. These include:

- **Screening the sports pitches from the north and east.** This will be achieved by retaining and strengthening the existing planting on the northern side of the sports pitches and by the landscaped ramp to the east (which leads to the new pedestrian/cycle bridge over the A127). This will ensure that the sports pitches are well screened from views to the north and east which are the most sensitive in visual and heritage terms.
- **Screening of the employment area along the A127.** Screening (through planting) will be provided to the north and east of the proposed commercial buildings to help screen the wider views as much as possible.
- **Taller buildings located in the southern part of the site (apartment blocks of three storeys).** The southern area holds the least sensitivity in heritage terms so taller buildings are considered acceptable in this part of the site.
- **Creation of a strong green character throughout the site.** The number of green spaces, buffering and planting proposed throughout the development is considered to be broadly positive in heritage terms.

4.9 Ecology strategy

Ecology Solutions advise that it is important to note that there are no statutory designated sites of nature conservation interest situated within or immediately adjacent to the West Horndon site. The nearest European / internationally designated site is Thames Estuary and Marshes Special Protection Area (SPA) / Ramsar site, located approximately 10km to the south-east of the site boundary at its closest point.

Under current planning policy, there is no requirement to provide areas of informal open space (similar to 'Suitable Accessible Natural Greenspace') to mitigate for potential effects which could arise on this SPA / Ramsar site as a result of an increase in recreational pressure, and in any event the proposed development site is very significantly separated from these designated sites.

- **Provision of a significant area of informal open space to the north of the A127 (in the form of an extension to the existing Country Park),** together with other areas of open space within the site, would fully mitigate for any potential impacts by providing on-the-doorstep opportunities for new residents, as well as enhanced opportunities for existing residents. As such, any effect arising as a result of the development proposals can be concluded to be de minimis in nature.
- **Avoidance of impacts on Barrett's Shaw Local Wildlife Site.** This is subject to undertaking any necessary earthworks adjacent to the new foot/cycle bridge over the A127 under a suitable methodology, and providing fencing to discourage access (the details of which can be confirmed at the detailed planning stage).
- **Retention and significant enhancement of connections through the site for faunal species to move post-development, through a comprehensive network of green links, in the form of areas of open space, swales, wetland features and retained habitats and the green bridge over the A127.** The proposed features will retain and significantly enhance north/south and east/west connections through the site, allowing faunal species to move along these corridors post-development.
- **Provision of additional opportunities for biodiversity within the new swales and wetlands and the green bridge over the A127.** Whilst these proposed features are primarily for floodwater drainage, these are also expected to provide additional opportunities for biodiversity, representing significant enhancements compared to the existing situation.

- **Provision of long-term enhancements to biodiversity through the retention of land north of the A127 as semi-natural open space and as a significant 'extension' to Thorndon Country Park.** Further detail will however be required in due course (such as the design of the green bridge over the A127 and implementation of suitable management measures). There will also be benefits to new residents who will have direct access to the Country Park from the site.
- **Retention of two existing waterbodies which support breeding Great Crested Newts.** Survey work by Ecology Solutions has identified two waterbodies situated within the main site which support breeding Great Crested Newts, although terrestrial habitats for this group within the site are considered to be very poor at present, particularly for the waterbody in the eastern part of the site (located in the middle of an arable field). The masterplan layout as shown in this report retains both waterbodies within areas of open public space, located in close proximity to swales and other areas of open space that provide connectivity through the site. As such, it is considered that there would not be a requirement to deliver new ponds within the site specifically for Great Crested Newt mitigation, although a licence from Natural England will necessarily be required at the detailed stage prior to the commencement of works to facilitate the development proposals (involving capture and translocation of any newts from proposed development areas into retained / newly provided habitats). It is envisaged that the immediate area around the two ponds would be of an informal, natural design (for example with long, tussocky grassland with scrub) to help create optimal terrestrial habitats for newts, with infrequent management (e.g. rotational strimming of grassland habitats once a year) and restricted access to ponds if required.
- **Significant enhancement of opportunities for foraging and commuting bats to the local area.** The broad corridors of open space proposed within and passing through the site post-development (subject to the planting regime) will be enhanced compared to the existing situation. The adoption of a lighting regime that seeks to direct illumination only to areas where it is required and avoid lightspill would be of further benefit to bats, but will be determined at the detailed planning stage.
- **Ample scope to provide for mitigation for bats, reptiles and birds through the proposed areas of open space and new habitats.** It is likely that further more detailed survey work will be required to assess the existing trees and buildings along Thorndon Avenue in respect of bats. Even if further survey work identifies the presence

of any bat roosts – which would require a licence from Natural England at the detailed stage – Ecology Solutions is of the view that there is ample scope within the site to deliver appropriate mitigation.

It is Ecology Solutions' view that the masterplan layout as shown in this report addresses the ecological constraints identified within the site and provides a robust basis to argue that the proposals will not only mitigate for potential adverse impacts to biodiversity, but will also deliver significant, long-term enhancements compared to the existing situation.

4.10 Energy strategy

At this masterplanning stage, Peter Brett Associates in their Energy Strategy for the site have advised on the key design considerations at the spatial and plot design scales (based on adopted and emerging local planning policy), which have been incorporated into this masterplan layout. These include:

- **Provision of green open spaces to help reduce the heat island effect.** By providing a range of green open spaces within the site, the effect of the urban heat island can be reduced by providing evaporative cooling at night time. Passive shading from trees and road layout/plot location can also be used to facilitate passive ventilation.
- Consideration of plot location and road alignment to facilitate air movement and enhance natural ventilation, taking advantage of prevailing south-westerly winds.
- **Sufficient flexibility in the masterplan, through consideration of plot location and east-west road alignments, to allow a significant and appropriate proportion of houses to be orientated due south.** This must be balanced with other urban design and place making requirements. This will enable these houses to take advantage of passive solar gains and to accommodate roof-mounted renewable technologies, such as photovoltaic (PV) panels if required.

4.11 Utility strategy

Generally, the principle for the development will be to create resilience in the utility networks that are implemented. PBA's Utility Infrastructure Constraints Review (April 2017) has identified a number of utility requirements based on a previous masterplan layout comprising 900 residential units, primary school, local centre and 13.5ha of employment land – compared with the 4ha of employment land in the layout included in this report. The costs associated with these requirements are set out in the above review and cost plan.

- **Diversion of existing electrical overhead infrastructure** – the existing overhead 11kV HV infrastructure crossing through the site will need to be diverted and undergrounded through the new masterplan to the east of the proposed primary school. PBA's capacity enquiry to UKPN has confirmed that the site can be serviced with reinforcement from the 11kV network in St Marys Lane and secondary 11kV reinforcement cable 3km to Brentwood Road. Once on site, UKPN quoted for a total of five substations to service the development, with two supplying the southern part of the site (900 residential units, primary school and local centre) and three supplying the employment area. Accounting for the new masterplan layout with a large area previously zoned as employment now being used as sports pitches, it is expected that only two substations will be required for the employment area, but revised loads have not been submitted to UKPN at this stage.
- **Accommodation of existing strategic water main within the masterplan layout.** Records received by PBA from Essex and Suffolk Water (ESW) indicate that an existing, 36 inch steel treated water main runs directly across the site from west to east, with a 6m no build zone on either side of the water main. ESW has also issued guidance on tree planting recommendations in the vicinity of water mains. The layout as shown in this report has accommodated the water mains by placing it under the on-street parking area (parallel but not underneath the carriageway). Large trees – such as large Conifers and Broadleaves – would be planted in a single row in the area between 6.0 and 10.0 metres of the pipeline, within the green verge on either side of the carriageway, following the ESW guidance.

PBA has also advised that the proposed SuDS features (swales) will need to be very shallow as they pass over the main which is estimated to be approximately 1.3m deep as a minimum – this will be covered in the detailed planning stage. ESW have confirmed there is capacity in

the network to supply the site from the existing strategic water main crossing the site with no off site reinforcement being required.

With regard to gas, National Grid Gas has confirmed that the development can be serviced from the existing medium pressure main adjacent to the site. PBA advise that the site does not have any high pressure gas mains running through the development and the existing high pressure main located east of the existing West Horndon village would not affect the development.

PBA also advise that they expect no significant issues anticipated with providing the development at West Horndon with telecommunications infrastructure (provided by BT Openreach, Virgin Media and Vodafone). Broadband connectivity will be of critical importance for West Horndon's employment area and for new homes, with an aspiration to ensure that these uses are 'super-connected.'

4.12 Foul water

PBA has advised that there is an existing Anglian Water sewer along the site's southern boundary. In their view, the masterplan accommodates this existing foul water sewer within the layout – i.e. within the proposed open space south of the attenuation ponds. Whilst the masterplan will need to ensure that foul connections can pass under the proposed attenuation ponds to connect with this sewer, PBA has advised this should not be an issue as the existing sewer is approximately 3m deep and this will be explored further at the detailed planning stage.

A concept gravity drainage network has been designed which shows that the proposed development can connect into this sewer by gravity, and avoid the strategic potable water main.

Anglian Water have confirmed there is currently capacity in Upminster Water Recycling Centre to accommodate the site. However, the sewer running along the south of the site is indicating hydraulic issues with accepting the proposed flows which will require storage to be provided downstream of the site as a mitigation measure.

4.13 Noise strategy

PBA's Stage 1 Acoustic Review identified two main acoustic constraints to noise sensitive development (i.e. dwellings) – road traffic and West Horndon Industrial Estate – and proposed design considerations to mitigate the impact. Railway traffic, due to distance and screening from existing buildings, is considered by PBA to be an unlikely significant constraint on the development.

Please note that at the time of this report, detailed surveys and acoustic modelling have yet to be undertaken. As such, further work on the quantification of impacts and mitigation measures will be required at the detailed planning stage.

In relation to road traffic and the adjacent industrial estate to the south, the masterplan includes a number of mitigation measures:

- **Locating employment and non-noise sensitive uses adjacent to the A127.** The northern part of the main site includes sports pitches, open space and an employment area adjacent to the A127, helping to screen the residential properties from the road traffic noise. Sports pitches are not defined as noise sensitive so locating them alongside the A127 is considered acceptable. However, such uses are considered a noise source and the Fields in Trust guidance 'Planning and Design for Outdoor Sport and Play' (2008) provides advice in relation to suitable set-back distances from a variety of outdoor sport and play areas. The masterplan therefore provides a minimum of 30 metres between dwellings and the southern edge of individual sports pitches, meeting the stated requirements in the Fields in Trust guidance.
- **Flexibility within the masterplan layout to accommodate an acoustic bund along the A127 if required.** Subject to the results of more detailed survey work and acoustic modelling, a bund may be required north of the sports pitches to mitigate the impact of road traffic noise on residential properties. The masterplan layout includes sufficient space north of the sports pitches along the southern side of the A127 if a bund is deemed necessary.
- **Set-back of residential developable area from the A127 in the northern part of the site and West Horndon Industrial Estate to the south.** The sports pitches provide a set-back of approximately 190m from the A127 to the northernmost dwellings; the attenuation ponds and associated open space and tree planting provide a set-back with screening of approximately 70m from the southernmost dwellings to the adjacent industrial estate to the south.

- **Noise due to the A127 is likely to impact on external amenity and internal noise levels.** Therefore, mitigation measures such as orientation/external building fabric/acoustic barriers/use of non-noise sensitive use to provide shielding may need to be reviewed in order to meet acceptable levels. This could include ensuring that residential properties with a line of sight to the A127 may require up-rated acoustic glazing, mechanical ventilation and/or up-rated acoustic trickle vents. All residential properties facing the sports pitches have private amenity space located behind the buildings they serve, ensuring that the buildings provide some degree of attenuation. However, further quantification of impacts and mitigation measures such as introductions of barriers/bunds along the A127 are subject to a detailed survey/acoustic modelling being undertaken – this work is currently being progressed by PBA.

4.14 Property market

In a market report prepared by Glenny LLP in November 2016, it suggested that the site is well-placed for B1 (a, b & c), B2 and B8 employment use classes. The masterplan layout has focused on B1 (b & c) and B2 business employment uses as advised by Glenny, focusing in particular on small workspace units and small to medium industrial warehouse units, to demonstrate a focus on providing employment space for small and medium-sized local businesses at West Horndon as a key selling point.

In terms of residential development, Glenny has advised that the masterplan should: focus on providing amenity for residents within the site; provide a mix of housing types; and locate larger homes and apartments closest to the water bodies. To this end, the masterplan layout shows:

- **A range of open spaces, attractive tree-lined streets, water bodies and a direct link to Thorndon Country Park.** This will help to create a high level of amenity for new (and existing) residents at West Horndon.
- **A small parade of local shops at the heart of the scheme, facing the village green.** The location of the shops on the main route through the site will ensure they are visible to residents and through traffic.
- **A mix of units including apartments, terraced, semi-detached and detached houses.** Larger houses and higher density apartments will be located closest to the water bodies at the southern end of the site to benefit from higher levels of amenity.

The report recommended providing a cluster of small workspace units (B1 b & c) to attract the SME sector and comprising seedbed style workshops, as well as light industrial accommodation for new start up enterprises to help micro businesses establish themselves.

It also recommended providing small to medium sized industrial/warehouse units, typically providing between 1,000-5,000 sq ft of light industrial product which allows businesses that have grown and developed to put down firmer roots. This type of product can be usefully located adjacent to the small workshop/seedbed accommodation to act as an incubator. Due to the comparatively small unit size and associated tenant profile, there is likely to be limited impact upon any adjoining residential uses in terms of lower traffic generation, noise and pollution.

4.15 Supporting reports

The summaries in this chapter are based on the following inputs, as prepared by EASL's consultant team:

Transport:

- West Horndon Preliminary Advice Note - December 2010, Iceni
- West Horndon Transport Note (Rev A) – April 2013, Iceni
- Transport Note – West Horndon – November 2016, Iceni
- West Horndon Network Capacity – Technical Note – June 2017, Iceni
- Rail Strategy - June 2017, PBA
- Bus Strategy - June 2017, PBA

Surface water drainage:

- Review of West Horndon Hydraulic Modelling - August 2017, Herrington Consulting
- Ongoing advice/review of emerging masterplan - Herrington

Heritage:

- Assessment/critique of Dunton Hills Heritage Statement report – December 2016, Iceni
- Heritage desk based assessment – December 2016, Iceni
- Ongoing advice / review of emerging masterplan - Iceni

Ecology:

- Briefing note: Preferred Draft Masterplan Review - April 2017, Ecology Solutions
- Key Ecological Constraints Plan - January 2017, Ecology Solutions

Utilities:

- Existing Utility C2 Records – January 2017, PBA
- Utility Infrastructure Constraints Review (includes utility diversion costs) - May 2017, PBA
- Existing Services Plan – January 2017, PBA
- Anglian Water Drainage Impact Assessment Report - April 2017, PBA

Acoustics: Stage 1 Review – December 2016, PBA

Air Quality: Baseline Conditions – December 2016, PBA

Costs: Infrastructure Estimate, Brentwood 1 Land - June 2017, Quantem

Energy Strategy: Stage 1 Technical Note – December 2016, PBA

Ground Condition: Phase 1 Assessment (Contamination and Stability) – January 2017, PBA

Landscape and Visual Appraisal: Technical Note - June 2017, AECOM

Property market: Market Report, Land at Nuttys Farm - November 2016, Glennys

Sustainability Strategy: Stage 1 Technical Note – December 2016, PBA



5.0 CONCLUSION

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Conclusion

5.1 The opportunity

West Horndon is well placed for the development of a high quality new community which is attractive to a wide range of people for a number of reasons:

- **Its strategic location is a strong selling point.** Immediately adjacent to the railway station, the site provides direct public transport access to London, Basildon and Southend. The large majority of homes on the site would be within 10 minutes' walking distance of West Horndon station.
- The site benefits from **access to pre-existing facilities and services** in West Horndon village and will add to the facilities available within walking distance of existing residents. This will help to make West Horndon as a whole more sustainable and self-contained.
- The wide range of technical work undertaken confirms that the **site is not subject to any physical or development constraint that cannot be overcome** through the technical strategies as summarised in this report.
- The site benefits from being in **single ownership**, helping to ensure can be delivered in the short to medium term to help deliver much needed housing in Brentwood.

5.2 Masterplan response

To respond to these opportunities, the draft masterplan proposals seek to ensure that West Horndon is:

- **Well integrated into its surrounding landscape setting** with a strong landscape framework including additional buffer planting along its boundaries and retention of an open character in the northern part of the site, particularly north of A127 (adjacent to Thorndon Country Park);
- **Physically connected to existing settlements and the strategic road network** with new north-south and east-west routes linking the site to the A127 and Thorndon Avenue;
- **Socially connected to the existing village of West Horndon** with shared access for local people to the new shops, primary school, sports facilities and open spaces within the development, as well as a new direct pedestrian and cycle link to Thorndon Country Park via a green foot and cycle bridge over the A127;
- **A place in which local businesses choose to invest with a dedicated employment area**, providing jobs for local residents;
- **A place in which people can choose to walk, cycle or use public transport above the private car** with a range of attractive and safe routes to key destinations such as the railway station, Thorndon Country Park, employment area, local centre, Village Green or school;
- **A development which is resilient and sustainable** – a place where people can live, work, learn and enjoy the outdoors, all in one location, and which can adapt to the changing climate with an integrated SuDS and green infrastructure strategy;
- **Defined by a peaceful, green and leafy setting for new homes** with an emphasis on tree-lined streets, private gardens, public open spaces such as the central Village Green, sports pitches, play areas and green and SuDS corridors with existing and new water bodies, with the green link over the A127 into Thorndon Country Park.

The masterplan proposals also seek to respond to the changing environment surrounding it, namely the proposed redevelopment of Horndon Industrial Park to the south. The masterplan creates a direct link leading south from the local centre, past the new primary school and through a retained route within Horndon Industrial Park to West Horndon railway station, based on emerging proposals put forward by the landowners, Hermes. West Horndon's proposed southern water bodies and greenspace will also act as a buffer for the industrial units which are set to be retained along the northern edge of Horndon Industrial Park.

Overall, we believe that the site presents an outstanding opportunity to create an exceptionally attractive setting for a sustainable, new residential-led mixed use community, with excellent walking and cycling connections and a direct link between West Horndon railway station and Thorndon Country Park.

A11. TRANSPORT NOTE



TRANSPORT NOTE

To: **Brentwood Borough Council**
From: **Iceni Transport**
Date: **19th March 2019**
Title: **Brentwood Borough Council Local Plan Consultation – Review of Transport Assessment**

This Transport Note has been undertaken based on a review of the PBA Transport Assessment (TA) report dated October 2018 submitted as part of the evidence base to support Brentwood Borough Council's emerging Local Development Plan. This note specifically considers West Horndon given the EASL proposals.

PBA Transport Assessment Review

The TA considers Housing and Employment development across the borough up to 2033. With regard to West Horndon the proposal identifies 580 (200 plus 380) dwellings at West Horndon Industrial Estate and 2ha of employment also at West Horndon Industrial Estate. Additional development sites include East Horndon Industrial Park, Childerditch Business Park, Enterprise Business Park and Dunton Hills Garden Village.

A concern of the TA is that within its consideration of Neighbouring Authority Developments, whilst this have been carried out for Basildon and Havering, it is acknowledged that no information has been made available for Thurrock at the time of the TA being prepared. Therefore, to consider growth for the borough of Thurrock this is only included in background growth, rather than for specific sites, and therefore may not be wholly accurate.

With regard to the West Horndon lands, the TA acknowledges that there are multiple access points to the various parcels. The PBA report states that the land to the south has an existing agricultural gated access with the potential to link an access with Alexander Lane, the land to the north east has existing access on Chelmsford Road (A1023) alongside the car repair centre, whilst the land to the north west has an informal agricultural access onto Chelmsford Road (A1023).

The TA suggests that the south of Brentwood is comparatively very currently poorly served by sustainable transport options and therefore requires a level of financial investment in sustainable transport measures beyond that proposed around Central Brentwood.

On this basis it is suggested by PBA that in order to mitigate the impact of new development in this area, a primary measure proposed to improve accessibility in this part of the borough is to transform the current West Horndon Rail station and car park into a sustainable transport interchange.

The proposal is to include phased changes which will bring new regular buses services, plus secure cycling and walking infrastructure within 2 mins walk to a rail service connecting Southend and its Airport to the East and to Central London and Fenchurch Street to the West.

Further, it is suggested that the development phases of the new interchange will be aligned to Development Management agreements for investments from the development sites in Brentwood and potentially in the future from North Thurrock.

It is also identified that parking capacity is fully utilised most weekdays for commuters into London from the A127/A13 corridors. It is proposed that this station will form an integrated transport hub supporting the new sites in the south of the Borough and future sites from Thurrock.

Further details on the proposals for a West Horndon Public Transport Interchange are set out within paragraphs 7.2.25 to 7.2.28 as follows;

7.2.25 Within the Local Plan there is a recognition that provision of sustainable transport in the South of the Borough is poor. To mitigate the impact of the two employment sites and two residential sites new area specific sustainable transport measures will be implemented centred around West Horndon which is centrally located between the four sites. These measures will seek to deliver a minimal traffic impact for these sites on the existing the Highway infrastructure i.e. the A127, A128, and M25 J29. The measures would also seek to reduce the need for northward movements into central Brentwood. Where northward movement happens, it is planned that they are undertaken by electric car club vehicles, electric bikes (to deal with the topography) or Bus. These means of travel will be exempted from entering the restricted clear zone.

7.2.26 It is proposed that over the lifetime of this Plan that the improvements to the station and associated bus and cycle infrastructure are phased to create a new interchange. An increased capacity on the existing train service will be central to the new cycling, walking and bus movements of the new residents and employees accessing the four sites.

7.2.27 While a new Railway station would be the ultimate delivery goal it will only happen if sufficient development also comes forward from Thurrock to make the business case for a new station viable. To support the developments within Brentwood's draft Local Plan, it will be enough to:

- Alter and extend the existing Station building to include more Gate-lines and provide a new disabled bridge.*
- Make vehicular and cycle site access and egress from the Interchange safer through alterations to the existing adjacent Highways*
- Implement segregated cycle routes to all the surrounding developments.*
- Ensure an interim bus service(s) connecting the developments sites to the interchange is built into the development agreements to be funded for a minimum of 5 years. This should allow time for enough customer demand for a commercial operator to take on the routes.*

7.2.28 Appendix G shows the proposed option for the sustainable connections from the four sites to West Horndon Interchange and to the North.

The drawings from Appendix G of the PBA TA are attached at the end of this note.

In consideration of the West Horndon Station enhancements however there are some concerns as to whether the proposals are in fact suitable to be delivered. The St Marys Lane/Station Road junction is in close proximity to the bridge over the railway line raising some safety and technical highways concerns and is also likely to require additional land outside of the highways authority's control.

Further, whilst there are understood to be capacity issues with the current levels of car parking at West Horndon Rail Station, an increase in capacity to circa 200 cars may not be feasible in terms of delivery and demonstrating that the associated vehicle movements can be appropriately accommodated at the site access given the constraints of the highway network. As a consequence, such matters will need to be assessed and verified before they can be taken further.

West Horndon Site EASL Proposals

Iceni Transport have previously assessed development of the West Horndon site, whereby the highways strategy is to include three new vehicular access points, on the A127, Thorndon Avenue and Childerditch Lane and one pedestrian/cycle only access/link towards West Horndon railway station in the south (The existing road which previously served Nuttys Farm will be terminated before it reaches Childerditch Lane).

Further, the main link road connecting the A127 in the north to Thorndon Avenue in the east., would form the main route through the site with new access points provided directly off the A127 and Thorndon Avenue. This link road will be part of the primary road network for the proposed development, along with the western loop and the east-west link connecting Childerditch Lane to the main link road via the Village Green.

A secondary road network with north-south and east-west routes leading off the primary road network. The majority of these will be capable of accommodating some element of on-street parking, whilst appropriate road widths will be provided where necessary to accommodate bus services.

A well-connected site, accessible from all sides of the site on foot and by cycle is also crucial and, whilst in the longer term, it is envisaged that a bus route serving the development and connecting with the transport hub at West Horndon Rail Station could also be implemented. These would provide much needed connections to West Horndon railway station and Thorndon Country Park, whereby development would benefit from a direct pedestrian and cycle route between the railway station in the south and the Country Park in the north via a pedestrian/cycle route south of the site and a new foot/cycle bridge over the A127.

Summary

Development of West Horndon offers the potential to utilise and enhance transport infrastructure in order to provide a range of options for access and movement, both to the benefit of those currently living and working in West Horndon as well as for those in the future.

The proposal for a West Horndon Public Transport Interchange as part of the PBA TA is clearly a positive in Brentwood recognising this part of the borough and the need for an improvement to transport infrastructure. The proposals are to include investment in a revamped train station, the provision of a new bus interchange, and suitable facilities for pedestrian and cyclists.

As identified however, there are concerns with the PBA TA whereby consideration of sites within the neighbouring authority of Thurrock is based on general growth rather than specific sites and therefore should ideally be reviewed accordingly as part of future work. In addition, further assessment of the West Horndon Station proposals in regard to the increased parking and access junction should be undertaken.