







PLANNING FOR GROWTH











Settlement Hierarchy and Accessibility Mapping Analysis

Technical study





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1. Introduction

1.1 Background

- 1.1.1 Hertsmere Borough Council is currently in the process of reviewing its Local Plan. A significant element of this process is a consideration of the borough's housing need and how best to meet this sustainably. As such, an evidence base approach is required which includes a range of studies which explore the different options for accommodating future development requirements.
- 1.1.2 The evidence base includes an assessment of the size and function of all the settlements in the borough alongside an assessment of their ability to accommodate growth. To this end, a comprehensive Settlement Hierarchy Study is required to inform the consideration of future spatial strategies.
- 1.1.3 The evidence base approach also includes an assessment of the borough's accessibility to services and public transport. This report will include both a study of the existing settlement hierarchy and the borough's accessibility, and will be split up into two sections accordingly. Part I will relate to the settlement hierarchy, and Part II will look at the accessibility mapping analysis. However, it is important to note that this document will also compliment linked technical work on the review of the Green Belt (Stages 1 &2),the Infrastructure Development Plan, the Sustainability Appraisal and the Housing and Economic Land Availability Assessment (HELAA).

1.2 Regional Context

- 1.2.1 In considering the settlement hierarchy and the boroughs accessibility, it is important to understand the immediate and wider context.
- 1.2.2 Hertsmere is situated immediately north of London, with the majority of the borough being inside the M25. It is the southernmost borough of Hertfordshire. Hertsmere sits along the boundary of Greater London and shares borders with the London Boroughs of Harrow, Barnet and Enfield. To the west of the borough is Watford and together with other nearby centres they have a significant influence in terms of the housing market, jobs, retailing/leisure and other services, and patterns of movement.
- 1.2.3 Hertsmere is well connected to London and the rest of the country. The M25, M1 and A1 all run through the borough, it is also served by main line rail services stopping at Potters Bar, Radlett and Borehamwood.

1.3 Local context

- 1.3.1 Due to the nature of its formation in 1974, as a combination of Bushey Urban District, Potters Bar Urban District, Elstree Rural District and a section of Watford Rural District, the different areas of the borough have distinct characteristics.
- 1.3.2 Approximately 80% of the borough is currently Green Belt land, with the four main settlements of Borehamwood, Potters Bar, Bushey and Radlett constituting the only urbanised areas, where the majority of the population reside.

1.4 Context/role of the Settlement Hierarchy Study and Accessibility Mapping Analysis

1.4.1 The evidence base that informs the Local Plan is made up of a number of technical

- documents and includes the settlement hierarchy study and accessibility mapping analysis. Other studies consider housing and employment need, land availability, sustainability and green belt functionality.
- 1.4.2 The settlement hierarchy and accessibility mapping guide our consideration of the distribution of future development across the borough, and ensure that the full extent of the borough is considered, instead of development being solely directed to existing towns for example.

Settlement Hierarchy

- 1.4.3 The settlement hierarchy will analyse the majority of the settlements across the borough in order to determine their current capacity and potential for growth. It is important to understand how much development can be accommodated in both the larger settlements but also the smaller villages and rural areas, which are less accessible, and have limited local services and facilities. Policies that strictly prohibit further growth in the villages can result in viable facilities closing, which can have a detrimental effect on the social fabric of the community.
- 1.4.4 This part of the report explains and provides a framework for defining and analysing the different settlements within Hertsmere, based on the current situation and their potential for growth. In particular, the report looks at:
 - The reason and context for producing a settlement hierarchy
 - The structure and definition of the settlement hierarchy
 - The overall methodology for the settlement hierarchy
 - Analysis of the settlements included within the top 5 tiers of the settlement hierarchy
 - An assessment of the information gathered and how settlement hierarchy was determined.

Accessibility Mapping Analysis

- 1.4.5 The accessibility mapping will compare the different levels of accessibility across the borough to help determine where potential growth could be located and what the capacity of these areas would be. It is important to ensure that development is located in areas which have ease of access to key local services and amenities, or where this can be readily provided to ensure that new development is genuinely sustainable.
- 1.4.6 This part of the report provides a framework for defining and analysing the different levels of accessibility across Hertsmere. This data has then been used to inform decisions on the site capacity and suitability in the Housing and Economic Land Availability Assessment (HELAA). In particular the report looks at:
 - The reasons for completing an accessibility mapping analysis
 - The overall methodology of the accessibility mapping analysis
 - How the accessibility mapping analysis has been used.

2. Part I – Settlement Hierarchy Study

2.1 What is a settlement hierarchy?

- 2.1.1 A settlement hierarchy ranks settlements according to their size and the range of services and facilities they provide. The process of establishing a settlement hierarchy helps to inform our opinion and understanding of the existing capacity of each of the settlements located within the borough, their potential for growth, and the inter-relationship between them.
- 2.1.2 The purpose of this settlement hierarchy study is to inform Hertsmere Borough Council during the process of establishing a new Local Plan up to 2036. This evidence will be used throughout the process especially in relation to decisions regarding the location and pattern of new development.

2.2 Purpose and aims

- 2.2.1 The purpose of this section is to establish a new settlement hierarchy which will underpin spatial policies within the new Local Plan.
- 2.2.2 The aims of the study are as follows:
 - 1. Examine the existing settlement hierarchy

Examine the role and characteristics of all settlements across the borough including their population demographics, household figures, provision of services and accessibility.

2. Update existing Settlement Hierarchy to reflect the current make-up of the borough

Re-assess the existing settlement hierarchy and how the current settlements are categorised so that it accurately reflects the existing pattern of development across the borough.

2.3 Policy Context

National and Regional planning policy National Planning Policy Framework NPPF 2018

- 2.3.1 The National Policy Framework (NPPF) 2018 states that the purpose of the planning system is to contribute to the achievement of sustainable development. One of the key principles of national policy is an understanding of the roles and character of different areas. This enables local authorities to direct growth to those areas that are most sustainable in terms of the services and facilities they offer, or can be more sustainable through additional growth, and in the ease in accessing them.
- 2.3.2 The NPPF does not explicitly require planning authorities to prepare a settlement hierarchy to distribute future growth, although these are developed as a useful tool to inform the process. Paragraph 31 of the NPPF 2018 clearly states that:
 - "The preparation and review of all policies should be underpinned by relevant and up-to-date evidence. This should be adequate and proportionate, focused tightly on supporting and justifying the policies concerned, and take into account relevant market signals."
- 2.3.3

 The settlement hierarchy also helps in achieving the key requirements for the local

- plan (paragraph 35) by ensuring that the local plan is positively prepared, justified, effective and consistent with national policy.
- 2.3.4 The NPPF 2018 details a number of objectives which should be achieved through the development of a planning policy which effectively require this to happen. Relevant objectives include:
 - Promoting sustainable transport through actively managing patterns of growth, and focusing significant development on locations which are or can be made sustainable. (paragraph 103)
 - Making sure that planning policies and decisions are responsive to local circumstances and support housing developments, within rural areas, that reflect local needs. (paragraph 77)
 - Promoting sustainable development in rural areas, by locating development in places where it will enhance or maintain the vitality of rural communities. (paragraph 78)
 - Supporting the role that town centres play at the heart of local communities, by taking a positive approach to their growth, management and adaptation. (paragraph 88)
 - Providing social, recreational and cultural facilities and services that the community needs. (paragraph 92)

National Planning Policy Guidance NPPG

- 2.3.5 The National Planning Practice Guidance (NPPG) states that a thriving rural community in a living, working countryside depends, in part, on retaining local services and community facilities such as schools, local shops, cultural venues, public houses and places of worship, and that rural housing is essential to ensure viable use of these local facilities.
- 2.3.6 The guidance goes on to say that assessing housing need and allocating sites should be considered at a strategic level and through the Local Plan and/or neighbourhood plan process. However, it states that all settlements can play a role in delivering sustainable development in rural areas and so blanket policies restricting housing development in some settlements and preventing other settlements from expanding should be avoided unless their use can be supported by robust evidence.

Local Policy

- 2.3.7 The current Hertsmere Borough Council Core Strategy was adopted in January 2013. The settlement hierarchy contained with this documentation (Table 1: Existing Settlement Hierarchy Local Plan Core Strategy 2013) will be reviewed as part of this report. This shows Potters Bar, Bushey and Borehamwood as the largest centres for employment within the borough and where a large section of the home, jobs and services are located.
- 2.3.8 The existing Local Plan 2013 target for the number of homes per annum is stated as 266. This is currently in the process of being reviewed although the latest figure under the new standard methodology is 444 (plus a 20% buffer). Further proposed

changes to the standard methodology are set to be made by the end of 2018.¹

2.3.9 The current Local Plan Core Strategy 2013 spatial vision highlights the importance of delivering a high quality, accessible, safe and economically viable environment; which recognises the distinct development needs and local constraints of the four key settlements of Borehamwood, Potters Bar, Bushey and Radlett together with those of other communities.

Policy SP1, Creating Sustainable development, of the Core Stratedy 2013 states that:

"New development will be required to prioritise the efficient use of brownfield land in delivering the land use requirements of the private sector, local service providers and the different needs of the hierarchy of settlements across the Borough."

And

All development "should be of high quality design and appropriate in scale, appearance and function to the local context and settlement hierarchy, taking advantage of opportunity to improve the character and quality of an area."

It is therefore imperative that the settlements across the borough are clearly defined and assessed so that the scale of development reflects the local character and capacity, including accessibility to public transport and local services.

- 2.3.10 This part of the document also helps to achieve some of the priorities for the new local plan. (Issues and Options document September 2017).
 - To respond to local housing need through ensuring that all new homes are built in places where there are or will be roads, schools, cycle routes, shops and other services and facilities nearby.
 - To deliver economic growth and enterprise by ensuring our shop centres can continue to grow and thrive.
 - To help people in Hertsmere connect better by helping to provide community facilities which meet the changing needs of our diverse community.
 - To help create a better environment by making sure our towns and villages retain their own distinct and separate identities.

Table 1: Existing Settlement Hierarchy - Local Plan Core Strategy 2013

Borehamwood & Elstree

A diverse, growing population and an important economic centre for South Hertfordshire, rail and bus links to London and other key towns, an international reputation for film and television production, along with a retail centre with a growing presence of national multiples.

Potters Bar

A key local town in the east of the Borough with a number of major employers, two distinct shopping areas, thriving industrial areas and rail and bus links to London and towns to the north.

Bushey

Predominantly residential in character covering three distinct centres (Bushey Heath, Bushey Village and North Bushey) with bus and nearby rail links to Watford and London, significant pockets of industrial land and a wide variety of shops and services.

Radlett

Largely residential in character and surrounded by green belt with good rail links to London and a popular district centre serving both the local population and an increasing number of visitors from further afield.

<u>Shenley</u> (that part proposed to be removed from the Green Belt)

The former Shenley Hospital development, a key service village largely residential in character with 900 new homes and a limited range of local shops and services. Limited opportunity for infill development.

Elstree (that part outside of the green belt)

A distinctive village in its own right, which, despite its close proximity and association with Borehamwood, contains a small but visible centre with a range of local businesses and services with limited opportunities for infill development.

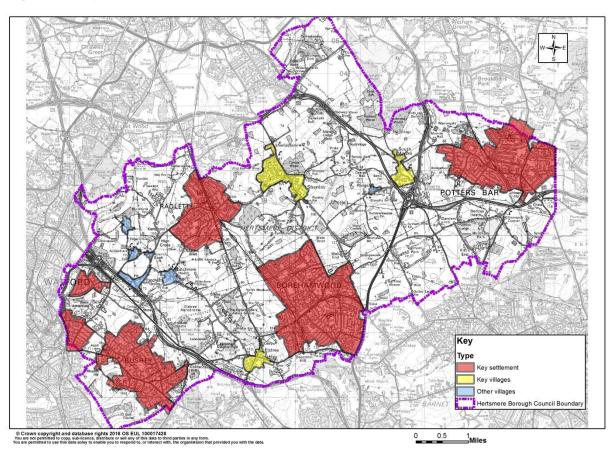
Elstree (that part within the green belt), Aldenham (including Wall Hall), Letchmore Heath, Patchetts Green, Ridge and South Mimms, Shenley (that part within the green belt)

Small rural villages within the green belt which remain largely residential in character and land use, relying on larger settlements nearby for employment and local services.

2.7 Settlement Profiles

- 2.7.1 In order to fully assess all of the defined settlements across the borough, settlement profiles have been created outlining the key information. This includes a summary of the population demographics, household number and makeup, business units, and services. Full settlement profiles have not been provided for Aldenham (including Wall Hall), Letchmore Heath, Patchetts Green, and Ridge due to the size of the settlements and number of facilities.
- 2.7.2 All population data is initially based on the 2011 Census and information has been broken down into the different District Council Wards.
- 2.7.3 The population for each settlement has been adjusted to be in accordance with the new population estimates from ONS, which predicted a significant reduction in the growth of the overall population for the Borough. These changes have been attributed to the effects of the current political and economic climate, and a reduction in the number of migrants.

Figure 1: Map of Settlements across Hertsmere



Borehamwood and Elstree (east)

Borehamwood - Borehamwood Brookmeadow, Borehamwood Cowley Hill, Borehamwood Hillside, Borehamwood Kenilworth & Elstree Wards Saffron Green BOREHAMWOOD @ 2110a North Medbur 101 Rowley Green Elstree eacons Hill Settlement area (ha) 720ha/2.78mi² Population of settlement (2018) based on Household 36,500 Number and the average household size. Household Number for settlement (2018) based on 14,780 Hertsmere Borough Council, Council Tax Data Population of settlement (2011) based on the ward 34,800 population (2011) and the percentage coverage. Ward Population (2011) based on Census information for 37,100 Borehamwood & Elstree wards Ward Household Number (2011) estimate based on 15,080 Census information for Borehamwood & Elstree wards No. of Businesses Units (B1, B2 B8 & Sui Genris) not inc. 420 retail and other community services. Based on Hertsmere Borough Council Business rates data. Total business rates collected (B1, B2 B8 & Sui Genris) £24,810,000 Based on Hertsmere Borough Council Business rates data. **COMMUNITY SERVICES Primary Schools** Saffron Green Primary School Parkside Community Primary School Monksmead School Meryfield Primary School Kenilworth Primary School Cowley Hill Primary School Summerswood Primary School St Teresa's Catholic Primary School

	Woodlands Primary School
Supermarkets	Yavneh
	Morrisons
	M&S
	Lidl
GP Surgeries	Tesco extra
	Fairbrook Medical Centre
	Theobald Medical Centre
Dental Surgeries	The Grove Medical Centre
	Beautiful Smiles Dental Lab
	Leeming Dental Clinic
	Borehamwood Dental Practice
	Elstree Dental
	Drayton House Dental Practice
	Harley House Dental Practice
	Dental Studios
	Hartforde Dental Care
	MyOralHealth
	Precision Dental
Post Office	Manor Way Dental Practice
	Aycliffe Road Post Office
	Borehamwood Post Office
Pharmacies	Manor Way Post Office
	Metro Pharmacy
	Safedale Pharmacy
	Wellswood Pharmacy
	Tesco Pharmacy
	Care Plus Pharmacy
	Boots
	Gilberts Chemist
	Borehamwood Pharmacy
Gym/ leisure	Crown Pharmacy
	PureGym
	The Venue
	Club Motivation
KEY REGIONAL SERVICES	
Secondary Schools	Hertswood Academy
	The Elstree UTC
	Yavneh College
Train Stations	Borehamwood and Elstree Station

Potters Bar

Potters Bar	
Potters Bar – Potters Bar Furzefield, Potters Bar Oakı	mere, Potters Bar Parkfield
Redwell Wood Warrengate Figure 20 South Bignell's 20 South S	Boitons Bar Park Park Park Park Place Place RHOSP Chase 115 Key Key settlement Corne Hetsmere Borough Council Boundary 40,000 0 0.25 0 5 illes
	520ha/2.01mi
Settlement area (ha)	
Population of settlement (2018) based on Household Number and the average household size.	22,900
Household Number for settlement (2018) based on	9,260
Hertsmere Borough Council, Council Tax Data	5,250
The second secon	
Population of settlement (2011) based on the ward	21,850
population (2011) and the percentage coverage.	<u> </u>
Ward Population (2011) based on Census information for Potters Bar wards	21,880
Ward Household Number (2011) estimate based on	9,180
Census information for Potters Bar wards	
N (D) 11 ((D) 22 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	400
No. of Businesses Units (B1, B2 B8 & Sui Genris) not inc.	430
retail and other community services stated below. Based on Hertsmere Borough Council Business rates data.	
Total business rates collected (B1, B2 B8 & Sui Genris)	£8,770,000
Based on Hertsmere Borough Council Business rates	25, 0,000
data.	
COMMUNITY SERVICES	
Primary Schools ²	Cranbourne Primary School
	Ladbrooke JMI School
	Oakmere Primay School Stormont School*
	Lochinver House School*
	The Wroxham School
	Pope Paul School
Supermarkets	Tesco Superstore
	·

² * independent schools

	Sainsbury's
GP surgeries/medical centres	Parkfield Medical Centre
	Highview Medical Centre
	Annandale Medical Centre
	Potters Bar Hospital
Dental Surgeries	Orchard Dental Care
	Selbourne Dental Practice
	Leighton House Dental Practice
	Sterling Dental Laboratories
	S B O Dental Laboratory
	Greenleaves Dental Practice
	A J Dental Care
Post Offices	Cranborne Parade Post Office
	Barnet Road Post Office
	Darkes Lane Post Office
Pharmacies	Boots
	Questmoor Pharmacy
	Elms Pharmacy
	Tesco Pharmacy
Gym/leisure	Next Gen Fitness
	Revive Fitness and Spa
	Furzefield Leisure Centre
	Sweat Room Gym
KEY REGIONAL SERVICES	
Secondary Schools	Dame Alice Owen's School
	Mount Grace School
Train Stations	Potters Bar Station

Bushey

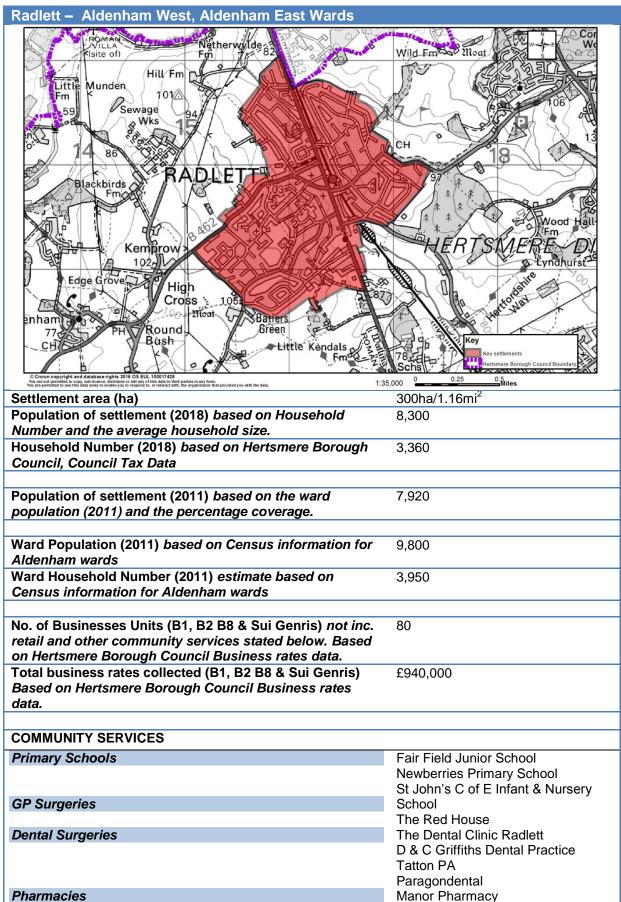
Bushey – Bushey Heath, Bushy North, Bushey Park, I	Bushev St James Wards
PH PH	
CHI 666 777 889 Halfie	Aldenham School North Medburn Fm Slades Fm The Haberdashers Askes School In Home Fm Laboratory Addenham Country Fark Aldenham Country Fark Aldenham Country Fark Aldenham Country Fark Hotel Brockley Fill Hotel Key Key settlement Hersmere Borough Council Boundary
© Crown convright and database rights 2016 OS FIII. 100007428	0 025 05
	50,000 Miles
Settlement area (ha)	515ha/1.99mi ²
Population of settlement (2018) based on Household	27,500
Number and the average household size.	
Household Number for settlement (2018) based on Hertsmere Borough Council, Council Tax Data	11,120
	25,750
Population of settlement (2011) based on the ward population (2011) and the percentage coverage.	
population (2011) and the percentage coverage. Ward Population (2011) based on Census information for	25,750
population (2011) and the percentage coverage.	
ward Population (2011) and the percentage coverage. Ward Population (2011) based on Census information for Bushey wards Ward Household Number (2011) estimate based on	25,750
population (2011) and the percentage coverage. Ward Population (2011) based on Census information for Bushey wards Ward Household Number (2011) estimate based on Census information for Bushey wards No. of Businesses Units (B1, B2 B8 & Sui Genris) not inc. retail and other community services stated below. Based	25,750 10,670
Ward Population (2011) based on Census information for Bushey wards Ward Household Number (2011) estimate based on Census information for Bushey wards No. of Businesses Units (B1, B2 B8 & Sui Genris) not inc. retail and other community services stated below. Based on Hertsmere Borough Council Business rates data. Total business rates collected (B1, B2 B8 & Sui Genris) Based on Hertsmere Borough Council Business rates data.	25,750 10,670 150
Ward Population (2011) based on Census information for Bushey wards Ward Household Number (2011) estimate based on Census information for Bushey wards No. of Businesses Units (B1, B2 B8 & Sui Genris) not inc. retail and other community services stated below. Based on Hertsmere Borough Council Business rates data. Total business rates collected (B1, B2 B8 & Sui Genris) Based on Hertsmere Borough Council Business rates	25,750 10,670 150

	Sacred Heart Catholic School
	Meadow Wood School
Companyor and radio	Longwood School*
Supermarkets	Tesco Extra
GP Surgeries	Little Bushey Surgery
	Attenborough Surgery Schopwick Surgery
	Manor View Practice
	InHealth – Spire Bushey Hospital
Dental Surgeries	Bushey Dental Surgery
Dental Surgeries	Bushey Health Dental Care
	Bupa Dental Care Bushey
	Chiltern Avenue Dental Practice
	White House Dental
	Caspian Dental Clinic
Post Offices	Bushey Post Office
	Aldenham Road Post Office
	Bushey heath Post office
Pharmacies	Bushey Pharmacy
	Abell Chemist
	Triangle healthcare
	Lister chemists
	The Health Pharmacy
Gym/leisure	Bushey Grove Leisure Centre
KEY REGIONAL SERVICES	
Secondary Schools ³	Bushey Meads School
	The Bushey Academy
	Immanuel College*
	St Margaret's School*
	Falconer School
Train Stations	Queens' School
Haili Stations	Bushey Station(outside the borough)

15

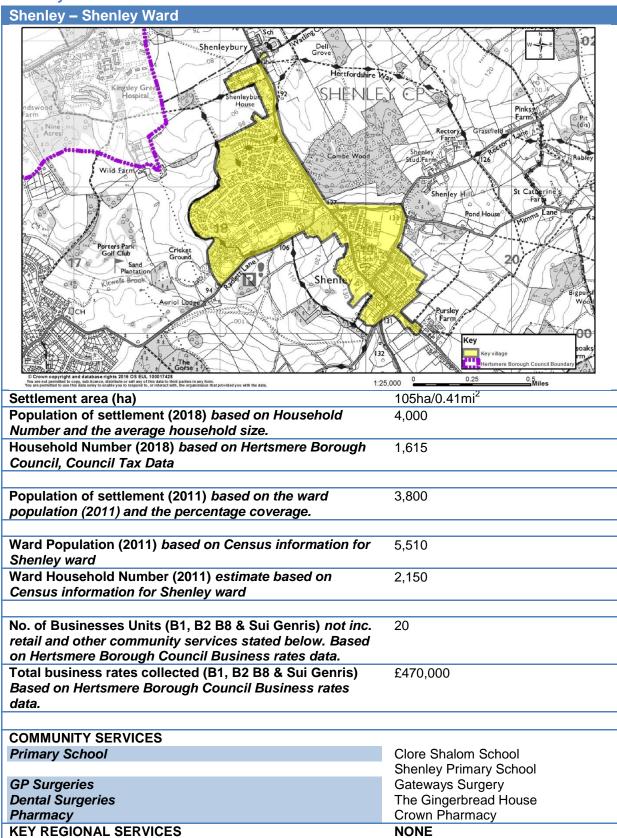
³ *independent schools

Radlett

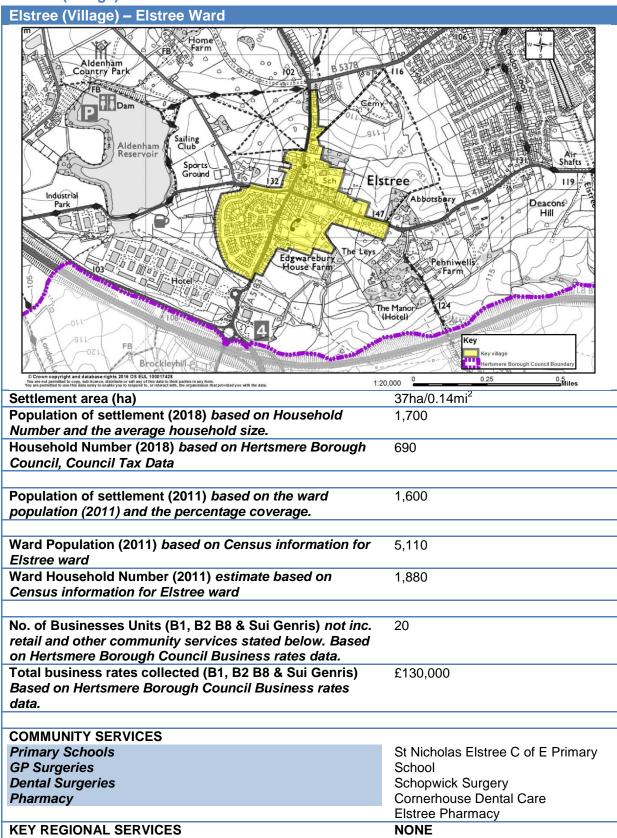


Gym/ leisure	Boots The Gym and Tonic Club CycleZone Studio
KEY REGIONAL SERVICES	
Train Stations	Radlett Station

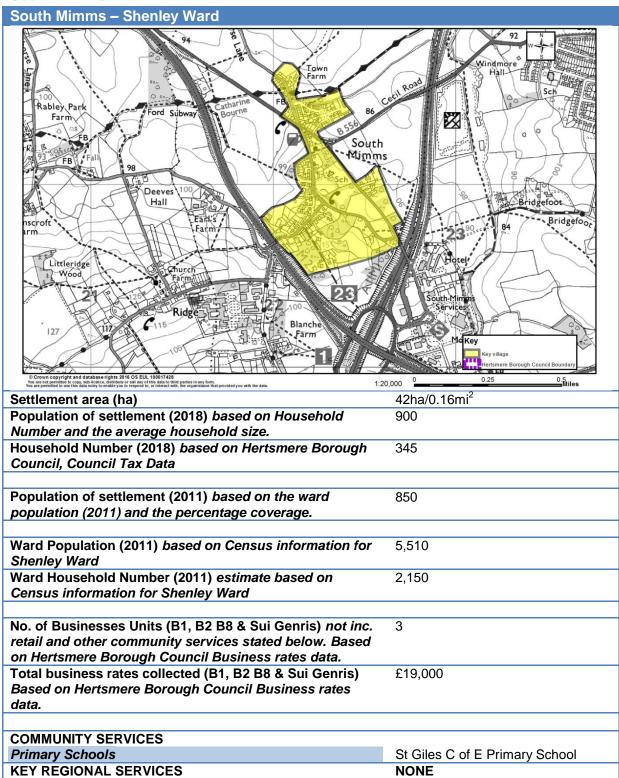
Shenley



Elstree (Village)



South Mimms



2.8 Methodology

- 2.8.1 The following assessment stages were undertaken in order to ensure that the aims and objectives stated within this document and the Local Plan were met.
 - Stage 1: Define settlements and establish population and household sizes
 - Stage 2: Audit of services and facilities (including employment)
 - Stage 3: Audit of Accessibility
 - Stage 4: Categorisation of settlements into hierarchy
 - Stage 5: Consideration of planned growth

Stage 1: Define settlements and establish population and household sizes

2.8.2 The first step was to establish a clear definition for what constitutes a settlement. After careful consideration it was decided that the best way to define a settlement was based on a minimum number of households within a defined area. For the purposes of this settlement hierarchy study a settlement was defined as follows:

A settlement is a defined geographical location, with a minimum of 50 households.

- 2.8.3 There are a number of small rural communities that have less than 50 households, these communities have been excluded as due to their size, and lack of facilities they have had a limited impact on development activity.
- 2.8.4 For the purposes of this study the part of Elstree which is located east of Watling Street and includes Allum Lane and Deacons Hill Road has been included within the settlement boundary of Elstree and Borehamwood. The old village centre which includes Elstree Hill and the High Street has been defined as its own separate settlement.

Table 2: Household number and Population size, 2018

Settlement	Households	Population
Aldenham (including Wall Hall)	200	520
Borehamwood & Elstree	14,780	36,500
Bushey	11,120	27,500
Elstree (Village) (the old village centre inc. Elstree Hill)	690	1,700
Letchmore Heath	105	300
Patchetts Green	180	400
Potters Bar	9,260	22,900
Radlett	3,360	8,300
Ridge	65	200
Shenley	1,615	4,000
South Mimms	345	900
Other (includes all other households not within the defined settlement boundaries and/or households bordering other larger settlements outside the borough e.g Watford & Greater London)	560	1,400
Total	42.200	404 GEO
Total	42,300	104,650

^{*}N.B All figures have been rounded and are based off estimates obtained from ONS, Hertfordshire County Council and Hertsmere Borough Council

2.8.5

Table 2 shows the breakdown for the different settlements across the borough in terms of household number and population size. The population size of each settlement was calculated using a standard multiplier for the average household size and correlating that with the estimates provided by ONS and HCC.

2.8.6 All small communities below 50 households which include the hamlets of Round Bush, High Cross and Bentley make up part of the Other figure.

Stage 2: Audit of services and facilities

- 2.8.7 For all the settlements analysed with a total number of households over 50, an audit of services and facilities was undertaken. The services and facilities included in the audit were those considered to be important to the sustainable functioning of the different types of settlements. A wide range of services were included as part of the audit in order to clearly differentiate between the different tiers of settlement.
- 2.8.8 The services were differentiated according to their function and standard catchment area, with each service being designated as a Residential Service, a Community Service, or a Key Regional Service.
 - Residential Service serves mainly the local residents
 - Community Service serves both the local residents and the wider community
 - Key Regional Service serves as much greater area and is considered a key facility within the area.

Table 3: Classification of services for settlement heirarchy

Residential Service	Community Service	Key Regional Service
Convenience Store	Primary School	Secondary School
Pub	GP Surgery	Train Station
Place of Worship	Supermarket	
Town/ Village Hall	Post office	
	Dentist	
	Pharmacy	
	Gym/ Leisure Centre	

2.8.9

Table 3 shows which services were assessed and how they were classified, with each of the three classifications being given a different weighting depending on their importance. The weightings were as follows.

- Residential service 1
- Community service 3
- Key regional service 5

2.8.10

Table 4 shows what facilities and services were located within each of the defined settlements across the borough, and how each settlement scored based on the services and facilities available.

Table 4: Services and facilities by settlement

	Aldenham	Borehamwood	Bushey	Elstree (village)	Letchmore	Patchetts Green	Potters Bar	Radlett	Ridge	Shenley	South Mimms
Convenience Store		Υ	Υ	Υ			Υ	Υ		Υ	
Pub		Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ
Place of worship	Υ	Υ	Υ	Υ			Υ	Υ	Υ	Υ	Υ
Town/Village Hall		Υ			Υ			Υ	Υ	Υ	
Primary School		Υ	Υ	Υ			Υ	Υ		Υ	Υ
GP surgery		Υ	Υ				Υ	Υ		Υ	
Supermarket		Υ	Υ				Υ				
Post office		Υ	Υ				Υ	Υ		Υ	
Dentist		Υ	Υ	Υ			Υ	Υ		Υ	
Pharmacy		Υ	Υ	Υ			Υ	Υ		Υ	
Gym/Leisure		Υ	Υ				Υ	Υ			
Secondary school/ College		Υ	Υ				Υ				
Train Station		Υ	Υ				Υ	Υ			
Total Score	1	35	34	12	2	1	34	27	3	19	5
Position	10th	1st	2nd	6th	9th	10th	2nd	4th	8th	5th	7th

Stage 3: Audit of accessibility

- 2.8.11 Accessibility is an important component in defining the settlement hierarchy in terms of distance and ease of travel to local services. This is further highlighted when examining the smaller settlements (that don't contain high order facilities), as the ease and ability to access certain facilities is a key determining factor in its sustainability and potential for growth.
- 2.8.12 The audit of accessibility assesses the availability of public transport and the ease of travel to the main settlements and key services, across the borough, and to other large economic centres including London and Watford. The following points were assessed in order to determine the accessibility of each settlement:
 - Railway stations
 - Bus services
 - Community centres
 - Places of worship
 - Pubs

- Primary schools
- Secondary schools
- Town centres
- Local shopping parades
- Convenience stores/food stores
- 2.8.13 The following map shows the accessibility of each of the settlements across the borough. The two areas which score the highest in terms of accessibility are the main settlements of Potters Bar and Borehamwood, with the villages of Ridge and Aldenham being the least accessible.

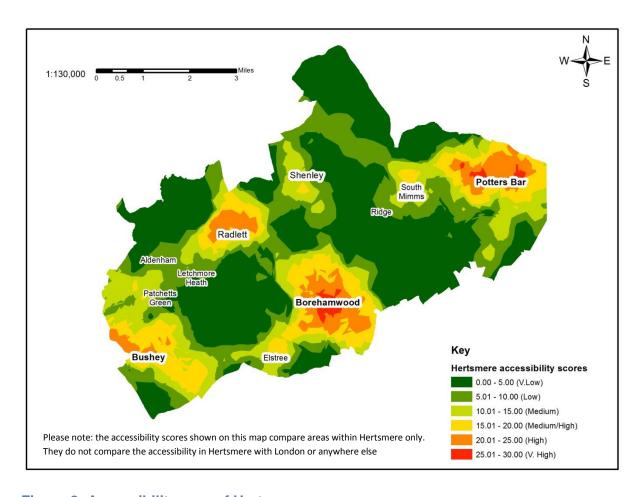


Figure 2: Accessibility map of Hertsmere

Stage 4: Categorisation of settlements into hierarchy

- 2.8.15 The information provided in the first three stages of the assessment was analysed against settlements place in the existing settlement hierarchy. This information was then summarised in Table 5 (New Settlement Hierarchy).
- 2.8.16 The settlement tiers were defined in relation to their:
 - Population and housing provision
 - Facilities and service provision
 - Accessibility
- 2.8.17 The settlement structure within Hertsmere is well established with the larger urban regional hubs being surrounded by smaller villages and rural settlements. In order to clearly define the different settlements within the borough a multi-tiered structure was adopted.

<u>Tier I Settlement:</u> Borehamwood and Elstree has the largest population of any of the settlements, and as such has a wide range of services and facilities, and business units. It is therefore considered to be the principle residential and economic centre for the borough.

<u>Tier II Settlement:</u> The two key towns of Potters Bar and Bushey also have all of the key services including secondary schools, and train stations that serve London. These are reasonably large economic centres that offer a wide array of job opportunities and business units.

<u>Tier III Settlement:</u> Radlett is a large residential settlement that has a wide array of community and local services, including primary schools, doctors and dentists. It also has its own train station which serves London. However, Radlett does not have a secondary school or the same level of economic output that the larger towns of Borehamwood and Elstree, Potters Bar and Bushey have.

<u>Tier IV Settlement:</u> The smaller well established settlements of Shenley and Elstree (village) are mainly residential, with a small amount of local businesses. Both have distinct village centres that have a number of services and facilities, including local primary schools, which meet many of the needs of the local residents.

<u>Tier V Settlement:</u> South Mimms is a small rural village, which includes a local primary school, a small range of facilities and a handful of local businesses.

<u>Tier VI Settlement:</u> Large enough in terms of size and scale to be consider their own individual settlements however lacking in terms of accessibility, service provision, and businesses.

Tier VII Settlement: Small hamlets with less than 50 households

Tier I Settlement - Borehamwood & Elstree

Population: 36,500

A diverse, growing population and an important economic centre for South West Hertfordshire, rail and bus links to London and other key towns, an international reputation for film and television production, along with a retail centre with a growing presence of national multiples.

<u>Tier II Settlement – Potters</u> Bar

Population: 22,900

A key local town in the east of the Borough with a number of major employers, two distinct shopping areas, thriving industrial areas and rail and bus links to London and towns to the north.

Tier II Settlement - Bushey

Population: 27,500

Predominantly residential in character covering three distinct centres (Bushey Heath, Bushey Village and North Bushey) with bus and nearby rail links to Watford and London, significant pockets of local employment and a wide variety of shops and services.

Tier III Settlement - Radlett

Population: 8,300

Largely residential in character with good rail links to London and a popular well established district centre serving both the local population and an increasing number of visitors from further afield, with a large number of shops and local services.

Key village

<u>Tier IV Settlement – Shenley</u>

Population: 4,000
A rural village with a distinctive centre that has grown substantially in the last 20 years with the development of the former Shenley Hospital. Largely residential in character with a limited range of local shops and local services, and limited opportunity for infill development.

<u>Tier IV Settlement – Elstree (Village)</u>

Population: 1,700

A distinctive village in its own right, with a small visible centre that contains a range of local businesses and local services with limited opportunities for infill development.

<u>Tier V Settlement – South Mimms</u>

Population: 900

A distinctive village in its own right that is located close to the junction with the M25, with a limited range of facilities including a primary school.

Other villages

<u>Tier VI Settlement - Aldenham including (Wall Hall)</u>, <u>Letchmore Heath</u>, <u>Patchetts Green</u>, <u>Ridge</u>

Small rural villages which remain largely residential in character and land use, relying on larger settlements nearby for employment and local services.

<u>Tier VII Settlements</u> - Small hamlets with less than 50 households including Round Bush, Bentley Heath, High Cross.

2.9 Conclusions

- 2.9.1 The settlement hierarchy is based on a combination of three factors:
 - 1. The population and size of the settlement
 - 2. The presence and range of services
 - 3. The accessibility of those settlements within the settlement
- 2.9.2 Overall, the new settlement hierarchy provides a snapshot of the existing pattern of development within the borough, and the current makeup of each of these settlements. The New Local Plan will build on the information provided in this report, and will include a consideration of the planned growth up to 2036 and the proposed distribution of development across Hertsmere.

3. Part II – Accessibility Mapping Analysis

3.1 What is accessibility mapping analysis?

- 3.1.1 Accessibility mapping analysis is an analytical tool which measures how accessible any given location is in relation to public transport services, and community facilities a local resident may require. The process of analysing the accessibility mapping helps to inform our opinion and understanding of the strength of the existing public transport system, where there is potential for growth, and the inter-relationship between the borough's existing residential areas and the facilities and services they require.
- 3.1.2

 The purpose of this accessibility mapping analysis is to inform the process of establishing a new Local Plan up to 2036. This evidence will be used throughout the process especially in relation to decisions regarding the location and type of development.

3.2 Purpose and aims

- 3.2.1 The purpose of this section is to establish how different areas of the borough compare in terms of their accessibility to transport services and community facilities.
- 3.2.2 The aims of the study are as follows:
 - 1. Establish how accessible different parts of the borough are and how they compare to each other.

To examine the borough's accessibility and the existing relationship between public transport services and the settlements across the borough including their population demographics, household figures, provision of services and accessibility.

2. Help to inform the process of analysing the potential housing and employment sites.

To use the outcomes of the accessibility mapping to inform the local authority in decisions relating to potential housing and employment sites including the potential capacity of each site, and their linkages with other locations.

3.3 Policy Context

National and Regional planning policy NPPF 2018

- 3.3.1 The National Policy Framework (NPPF) 2018 states that the purpose of the planning system is to contribute to the achievement of sustainable development. One of the key principles of national policy is to foster well designed and safe built environments, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being.
- 3.3.2 Paragraph 72 of the NPPF 2018 clearly states that:

"The supply of large numbers of new homes can often be best achieved through planning for larger scale development, such as new settlements or significant extensions to existing villages and towns, provided they are well located and designed, and supported by the necessary infrastructure and facilities". In doing so they should, "ensure that their size and location will support a sustainable community, with sufficient access to services and employment opportunities within

the development itself (without expecting an unrealistic level of self-containment), or in larger towns to which there is good access."

- 3.3.3

 The accessibility mapping analysis also helps in achieving the key requirements for the local plan (paragraph 35) by ensuring that the local plan is positively prepared, justified, effective and consistent with national policy.
- 3.3.4 The NPPF 2018 details a number of objectives which should be achieved through the development of planning policy which effectively require this to happen. Relevant objectives include:
 - Supporting a prosperous rural economy through the retention and development of accessible local services and community facilities.(paragraph 83)
 - Ensuring that development is sensitive to its surroundings does not have an
 unacceptable impact on local roads and exploits any opportunities to make a
 location more sustainable. (paragraph 84)
 - Giving preference to accessible sites which are well connected to the town centre, when considering edge of centre and out of centre proposals. (paragraph 87)

Planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users. (paragraph 98)

- Ensuring that: safe and suitable access to the site can be achieved for all users. (paragraph 108)
- Giving priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use; (paragraph 110)
- Ensuring that developments make optimal use of the potential of each site, and that where there is an existing or anticipated shortage of land for meeting identified housing needs, a range of densities that reflect the accessibility and potential of different areas are considered.(paragraph 123)
- Ensuring that developments create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users. (paragraph 127)

Local Policy

3.3.5 The current Core Strategy was adopted in January 2013 and deals with issues that involve the use of land, the movement of people and access to services. The current vision for Hertsmere is for the delivery of a high quality, accessible, safe and economically viable environment to be achieved through a commitment to the principles of sustainable development. The accessibility mapping analysis will help the local authority achieve this vision and is one of a range of technical reports being written which will help to inform the Council when formulating the new Local Plan.

3.3.6 Hertsmere currently has a high degree of mobility and levels of in and outcommuting, which reinforces the need to improve both public transport patronage and capacity, and locate new development in accessible locations. This is highlighted by one of the current core strategy objectives:

> To raise levels of access by seeking development in locations not dependent on access by car and by requiring the provision of physically accessible transport interchanges and other buildings.

The following policies from the Core Strategy are also relevant:

- Policy CS15 (Promoting recreational access to open spaces and the countryside),
- Policy CS18 (Access to services),
- Policy CS22 (Securing a high quality and accessible environment),
- Policy CS24 (Development and accessibility to services and employment),
- Policy CS25 (Accessibility and parking).

It is important that any new development is assessed based on its current and potential accessibility, so that an accessible and sustainable built environment can be achieved with good links to transport services and community facilities.

- 3.3.7 This part of the document also helps to achieve some of the priorities for the new local plan. (Issues and Options document September 2017).
 - To respond to local housing need through ensuring that all new homes are built in places where there are or will be roads, schools, cycle routes, shops and other services and facilities nearby.
 - To help people in Hertsmere connect better by planning better public transport, cycle and pedestrian routes and other sustainable transport initiatives.

3.4 Methodology

- 3.4.1 The following assessment stages were undertaken in order to ensure that the aims and objectives stated within this document were met.
 - Stage 1: Audit of services and facilities
 - Stage 2: Categorisation and weighting of services and facilities
 - Stage 3: Tabulate data and map
 - Stage 4: Score potential housing and employment sites and calculate density multiplier.

Stage 1: Audit of services and facilities

3.4.2 As part of the settlement hierarchy study an audit of services and facilities was undertaken and this formed the basis of the information used in this study, with additional information being based on local knowledge, and data from external sources. This included information provided by Hertfordshire County Council

- 3.4.3 The following points were identified and mapped in order to determine the accessibility of each area:
 - Railway stations
 - Bus services
 - Community centres
 - Places of worship
 - Pubs

- Primary schools
- Secondary schools
- Town centres
- Local shopping parades
- Convenience stores/food stores

Stage 2: Categorisation and weighting of services

- 3.4.4 In order to fully assess the different levels of accessibility within the borough the services were differentiated according to their function and use.
- 3.4.5 These services were then categorised into either community services or regional services and weighted accordingly:
 - Regional services scores were based on whether the site was within walking distance, or whether it could be accessed by bus from a designated point.
 - Community services –scores were based on walking distance alone with the specified grade boundaries being 400m, 800m and 1500m respectively.

Regional services	Community services
Elstree and Borehamwood station	Primary schools
Radlett station	Rural pub
Bushey station	Community centres
Watford High Street station	Local shopping parades
Stanmore tube station	Town centres (if other community services
Potters Bar Station	listed above were located within the town
Frequent bus service	centre they were not counted seperately)
Infrequent bus service (only counted if	
there is no frequent bus service)	
Secondary schools	

- 3.4.6 The weightings given to each particular site were based on their perceived importance with town centres and railway stations within walking distance scoring the highest.
- 3.4.7 As part of the methodology it was decided that the accessibility scores would only compare areas within Hertsmere. The scores do not relate to other sites outside of the borough and can not be used to compare parts of Hertsmere with London or anywhere else.

Stage 3: Tabulate data and map

3.4.7 Once the scores and weightings were agreed the results were tabulated for each service. These results were then merged together and mapped to create a composite map showing the accessibility of the borough based on the criteria stated.

- 3.4.8 The different areas were then categorised according to their accessibility scores, with the ranges stated below:
 - 0 to 5 Very Low
 - 5.01 to 10 Low
 - 10.01 to 15 Medium
 - 15.01 to 20 Medium/high
 - 20.01 to 25 High
 - 25.01 to 30 Very High

Below is the map showing the accessibility of the borough.

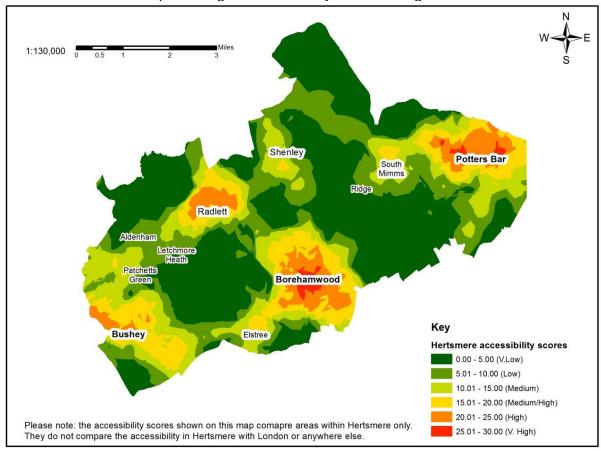


Figure 3: Accessibility map of Hertsmere

Stage 4: Score potential housing and employment sites and calculate density multiplier

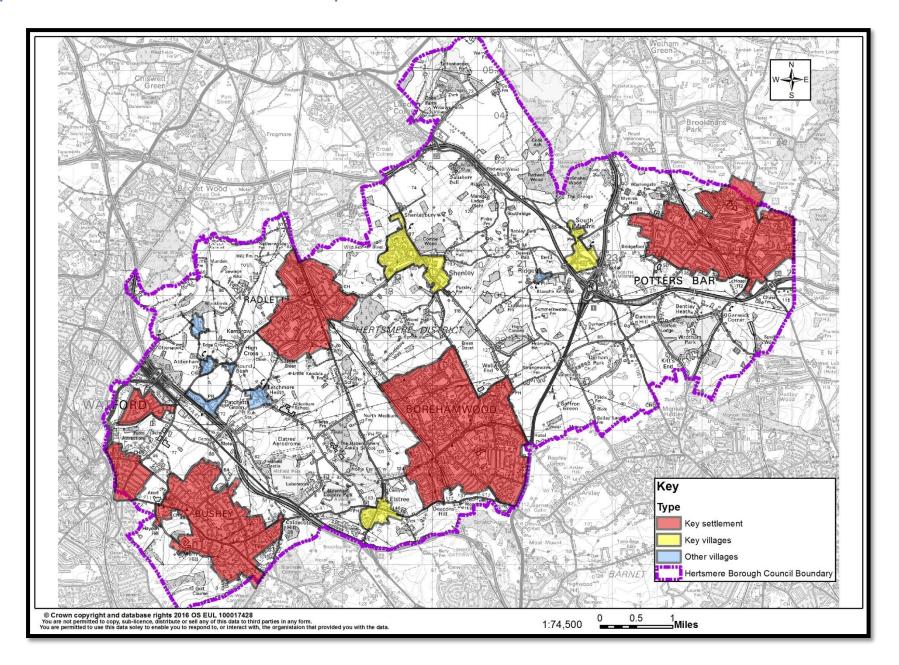
- 3.4.7 This stage relates to the potential housing and employment sites. Each site was plotted on the accessibility map and where more than one accessibility band existed across the site an average score for the site was calculated. This was based on measuring the different levels of accessibility within each of the sites and calculating this as a percentage of the whole. (see Appendix 3 Accessibility scores for potential housing and employment sites)
- 3.4.8 The sites were then given a grading out of ten based on their overall accessibility score, so that the individual sites could be distinguished into different levels of accessibility in the sites report (the higher the number the more accessible the site).

- For example Elstree Way Corridor scores 8 out of 10 and the Land west of Aldenham School, Letchmore heath scores 1 out of 10.
- 3.4.7 As part of the HELAA standard methodology for calculating the capacity of each of the residential sites promoted, a density multiplier was calculated based on the sites accessibility (as well as other factors such as the prevailing character of the area), with the more accessible sites being potentially able to accommodate higher density development and an increased yield.

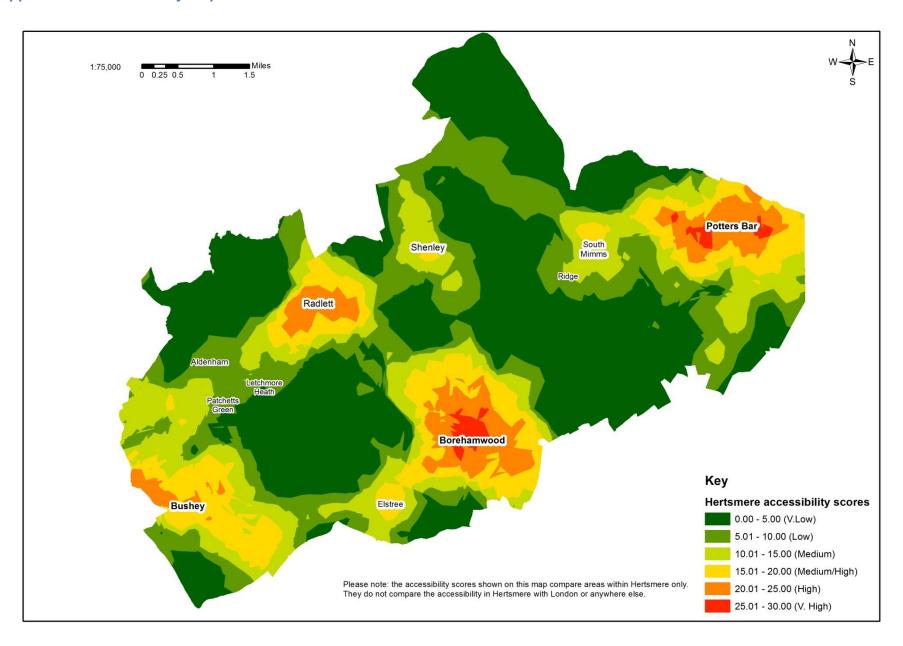
Appendices

Appendix 1	Map of Hertsmere showing all of settlement boundaries
Appendix 2	Map of Hertsmere showing the different accessibility levels across the borough
Appendix 3	Accessibility scores for potential housing and employment sites

Appendix 1 – Hertsmere settlement boundaries map



Appendix 2 – Accessibility map for Hertsmere



Appendix 3 – Accessibility scores for potential housing and employment sites

Location	HELAA ref.	Strategic/employm ent site ref.	Rating	Rank out of 10
Lyndhurst Farm	152		Low	3
Elle Dani Farm	159		Medium	5
Elstree Gate	160		Very High	8
land east of Southgate Road	161	PB4	Medium	5
land south of Barnet Road	162		Medium	5
Evelyn House	163		High	6
Fenny Slade	164		Low	3
former Gasworks	165		Very High	8
1 Elstree Way	166		High	7
Manor Point	167		Very High	8
Aldenham Reservoir	169	EMP6	Low	3
Bushey Health Centre	170		Very High	8
Centennial Land	171	EMP1	Low	4
Greyhound Lane	173		Medium	5
Hartsbourne Country Club	175		Low	3
Bushey Golf and Country Club	176	В3	High	6
Dove Lane	177		Medium	5
Rushfield	178		Medium	5
Hilfield Lane	179		V.Low	2
Kemprow, between White House and Adelaide Lodge	180		Medium	5
land adj Little Bushey Lane & Bournehall Ave (Compass Park)	181	B2	Low	4
Land adj Wilton End cottage Land at Barnet Lane	196 197a		Medium Low	5 3
Land north of Barnet Lane	197a 197b		Low	3
Land north of barrier Lane	1970		LOW	3
Land at Brickfields (adj Moses Dell)	198		Very Low	1
Land at Church Lane Elton Way	199	EMD2	Low	3
Ellon Way	200/20 8	EMP2	Low	3
land at Little Bushey Lane (Redrow)	201	B1	Low	3
land at Merry Hill Road	202		Medium	5
Land at Rossway Drive, (has permission already granted)	203		Low	4
Land at Stangate Crescent/ Barnet by-pass	204		High	6
land at Town Farm	205		Medium	5
Land East of Rowley Lane	206/37 6b	EMP3	Low	3
Land North of Barnet Lane (west)	209a	BE6	High	6
Land North of Barnet Lane (east)	209b		Low	3
Land off The Rise	210		Low	4
Land on the north side of Little Bushey Lane	211		Medium	5
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Location	HELAA ref.	Strategic/employm ent site ref.	Rating	Rank out of 10
Land off Watford Road	212		High	6
Land at rear of The Ridgeway	213		Low	3
Land south of Theobold Street	214		High	7
Land west of Rossway Drive	215		Low	4
Land west of Potters Bar station	216		Very High	8
Manor Place	217		Very High	8
Organ Hall Farm	218		Medium	5
Pegmire Lane	219		Low	3
Porters Park Golf Club	220		High	6
Rabley Green	221	H1	V.Low	2
Cobden Hill	222		High	6
75 Hatfield Road	223		High	6
Royal Connaught Park	224		Medium	5
SE of track between Loom Lane and Brickfields	225		Low	3
NW of track between Loom Lane and Brickfields	226		Low	3
Land adj 'Little Orchard' Barnet Lane (opp	007		V/1	
Woodcock Hill Farm) St Albans Road, South Mimms (north)	227 228a		V.Low High	6
St Albans Road, South Mimms (south)	228b		Medium	5
Starveacres	231		High	7
1 and 2 Borehamwood Industrial Park	233		Medium	5
Well Cottage, Bentley Heath (Wagon Road)	234a		Medium	5
Well Cottage, Bentley Heath (White House, Dancers Hill Road)	234b		Medium	5
Bushey Hall Garage	235		Medium	5
Rectory Farm	236	S3	Low	4
8 Hamilton Close	237		Medium	5
Land adj Elstree Road, A41 and Dagger Lane	238	E1/ EMP4	Low	4
Elstree Road (The Paddock)	239		Medium	5
Land at Carpenders Park Farm (part out of borough)	240		V.Low	2
Potters Bar Golf Club	251	PB2	High	6
Plots 47 and 48 Pegmire Lane	252		Low	3
Land at Theobald Street	253		Medium	5
land r/o Altus, 4 Blanche Lane (east)	254		Medium	5
land r/o Altus, 4 Blanche Lane (west)	255		Medium	5
Edgewarebury farm	274	E2	Low	4
Former Sunny Bank Primary School	318		Low	4
Land Formerly Part of Earl and Cross Keys Farm, (north site)	320		High	6
Land Formerly Part of Earl and Cross Keys Farm, (south site)	321		High	6
Aldenham Country Park	330		V.Low	2
Aldenham Country Park	331		Low	4
Hart's Farm	336		Low	4

Location	HELAA ref.	Strategic/employm ent site ref.	Rating	Rank out of 10
Land east of Farm Way (South)	337a		High	6
Land east of Farm Way (East)	337b		Medium	5
Land east of Farm Way (North west)	337c		Medium	5
Allum Lane East	340		Medium	5
Allum Lane West	341		High	6
Land South of Letchmore Heath	343	H3	V.Low	1
Aldenham Glebe	345		Low	4
Home Farm, Radlett	346	R2	V.Low	2
Wrotham Park Land off Cowley Hill	347	BE3	Low	3
Shenley Grange (north)	348	S4	Low	4
Shenley Grange (south)	349	S4	Low	4
Shenley Grange	348/34 9	S4	Low	4
Land at White House, Greyhound Lane, (main)	352		Medium	5
Land north of Fox Hollows	354		V.Low	1
Land South of Elstree Road	355		V.Low	2
Coursers Road	356		Low	3
Oxhey Lane	357		Low	3
Land South of Shenley Road	358		Medium	5
Land North of Stapleton Road	359		Medium	5
Land South of Radlett Lane	360		Low	4
Wrotham Park Land West of Baker Street	361	PB1/EMP5	Low	3
Wrotham Park West Barnet Road East Baker Street	362	PB3	Medium	5
Land adj Bridgefoot Cottages	365		Low	3
Land West of Watling Street	367		V.Low	2
Well End Lodge	369		Low	3
Land West of Shenley	370		V.Low	2
Old Haberdashers Sports Ground	371		High	7
Aldenham Hatch	373		Low	3
Land South of M25 (Salisbury Hall)	374a		Low	3
Land South m25 (London Colney eastern site) Land South m25 (London Colney (western	374b		Low	3
site)	374c		Low	3
Manor Road	375		High	6
Land off Well End Road (north)	376	BE4	Low	3
Wrotham Park Land east of Baker Street	377		High	6
Wrotham Park Land West of Barnet Road	378		Medium	5
Kemprow Farm	379	R1	Low	4
Redwell Garden village proposal	382	H2	V.Low	2
Redwell Garden village (North west)	382b		V.Low	1
Redwell Garden village (South)	382d		Low	3
Redwell Garden Village – proposed employment hub		EMP7	V.Low	2

Location	HELAA ref.	Strategic/employm ent site ref.	Rating	Rank out of 10
South Mimms area I&O eastern plot	385a	SM3	Low	4
South Mimms area I&O western plot	385b	SM2	Low	4
South Mimms area I&O southern plot	385c	SM1	Medium	5
Gravel allotments, Heathbourne Road	386		Low	3
The Point Borehamwood	388		Very High	8
Harperbury Hospital	389a/b	S2	V.Low	2
Land adj 52 Harris Lane	390		Low	3
Elstree Way Corridor	392	BE5	Very High	8
Land South of Allum Lane	393	BE1	Medium	5
Cranbourne Road	394		V.Low	2
Kemp Place Car Park	401		Very High	8
Aldenham depot	402		Medium	5
Newberries Car Park	403		Very High	8
Barnet Road Car Park/ Clayton Centre	404		High	6
Brook Road Car Park	405		High	7
Clarendon Road Car Park	406		Very High	10