



Framework Plan

Evidence Base Report

Appendices

September 2024

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Garden
Communities

The Hemel Garden Communities (HGC) Framework Plan Evidence Base Report is a technical document to support the Regulation 19 Local Plans consultations for St Albans City and District Council (SADC) and Dacorum Borough Council (DBC).

The Framework Plan Evidence Base Report forms part of a suite of evidence documents. Further detail about different HGC workstreams and evidence can be found in the HGC Delivery Statement.

These Appendices to the HGC Framework Plan Evidence Report have been prepared by David Lock Associates on behalf of the HGC Partners: St Albans City & District Council, Dacorum Borough Council and Hertfordshire County Council with Hertfordshire Futures (Formerly Hertfordshire Local Enterprise Partnership - Herts LEP) and Hertfordshire Innovation Quarter (Herts IQ).

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1.0	24/09/2024	Supporting document to SADC and DBC Regulation 19 Local Plans Consultation	JC

HEMEL GARDEN COMMUNITIES FRAMEWORK PLAN

EVIDENCE BASE REPORT: APPENDICES

APPENDIX 1: SITE AND CONTEXT ANALYSIS

APPENDIX 2: SUMMARY OF POLICY CONSIDERATIONS

APPENDIX 1: SUMMARY OF POLICY CONSIDERATIONS

1.1 This appendix provides an account of the relevant Local Plan policies, as they have evolved during the course of the Framework Plan exercise. A summary of the policy requirements at the time of the Regulation 19 consultations (2024) is provided in the main Hemel Garden Communities Framework Plan evidence report. These requirements are reflected in the agreed Framework Plan. This appendix is solely for capturing the 'working' assumptions in the development of the Framework Plan over the timeframe from 2020-2024. The latest policies, at the time of writing, are the Local Plans' Regulation 19 consultations (2024), should be referred to.

Dacorum Borough Council Policy Background

1.2 The DBC 2020 Regulation 18 included two draft allocations: Growth Area HH01: North Hemel (Phase 1) and Growth Area HH02: North Hemel (Phase 2). These areas were amalgamated into one allocation in the 2023 Regulation 18 DLP. Table 1 below summarises the policy evolution between those two dates. Table 2 summarises the 2020 policy requirements for HH02; whilst relevant to the initial Framework Plan exercise, these have since been incorporated into the new allocation boundary.

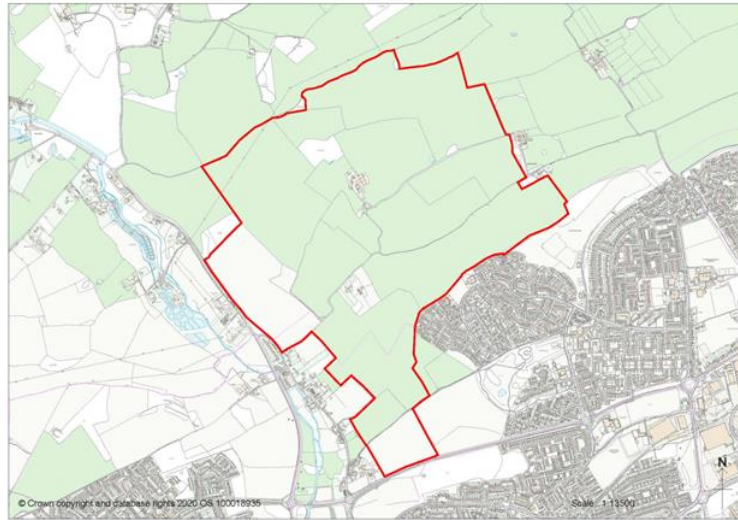


Figure 1: Growth Area HH01: North Hemel (Phase 1)

Table 1: HH01 Policy Requirements

	DBC 2020 Regulation 18	DBC 2023 Regulation 18
Housing	Around 1,550 homes (including provision for older people), subject to masterplanning.	<ul style="list-style-type: none"> • Around 2,500 homes (including provision for older people), subject to masterplanning. • Around 3,000 dwellings to be delivered post 2040, subject to masterplanning
Transport	<ul style="list-style-type: none"> • Development of the site should seek to achieve a 60% share of sustainable transport modes by 2050. • Primary access to be provided via Leighton Buzzard Road/B440 with secondary access to be provided via Link Road (GA-HH22 – Marchmont Farm). • Safeguard sufficient land to provide for a new strategic corridor route (40mph) which will connect the Leighton Buzzard Road to North Hemel (Phase 2) and the allocations to the east (St Albans City and District Council Local Plan). The preferred route will be identified through the Masterplan. 	<ul style="list-style-type: none"> • Delivery of a strategic corridor route between Leighton Buzzard Road and Redbourn Road (via land in St Albans City and District Council);
Social infrastructure	<ul style="list-style-type: none"> • Create a new district/local/neighbourhood centre and a medium or large supermarket if it is decided not to build this facility on site HH02. • Provide 3 ha of land for and deliver a new primary school, to be located at the district/local/neighbourhood centre. 	<ul style="list-style-type: none"> • Four new primary schools (3ha x 4). - Two new Secondary schools (13¹ha x 2).

¹ The HCC representations on the 2023 DBC consultation confirmed the requirement for secondary school sites to be 10.78ha.

	<ul style="list-style-type: none"> • Provide 13 ha of land for and deliver a new secondary school on site. 	
Landscape	<p>Development will need to take account of and/or mitigate the following landscape sensitivities:</p> <ul style="list-style-type: none"> • The topography of the site with particular attention to those areas which are highly intervisible; • areas which share characteristics with or create the setting for the Chilterns AONB; • the setting of the historic settlement and conservation area of Piccotts End; • the variation in landscape sensitivity within the parcel; • conserving enhancing or restoring the hedgerows and field patterns and boundaries; • conserving and enhancing the historic sunken lanes and PRow; • the vernacular, use of materials and setting of the existing farmsteads; and • the characteristic ridgelines and tree-lined skylines of the area. 	
Biodiversity & Green Infrastructure	<ul style="list-style-type: none"> • Deliver Suitable Alternative Natural Greenspace (SANG) on-site to offset potential adverse effects on the Chilterns Beechwoods SAC arising from recreational pressure. The scale and form of this SANG will need to be agreed with Natural England in advance of the submission of an outline planning application. • Use the new landscape structure to develop a series of new green and blue infrastructure corridors through the site and connect with existing green networks in the area • Retain and where possible enhance Ancient Woodland both within (Varney's wood) and on the edge of the site. • A new country park of district-wide importance, accessed through a new green infrastructure network that links existing and future communities. 	<ul style="list-style-type: none"> • Retention of ancient woodland within the site.
Heritage	<p>Ensure the heritage assets at Piccotts End (including the Conservation Area, Listed Buildings and Scheduled Monuments) are conserved through appropriate landscape mitigation measures on land to be retained in the Green Belt.</p>	
Waste	<p>Safeguarded land for a council depot and household waste recycling centre.</p>	

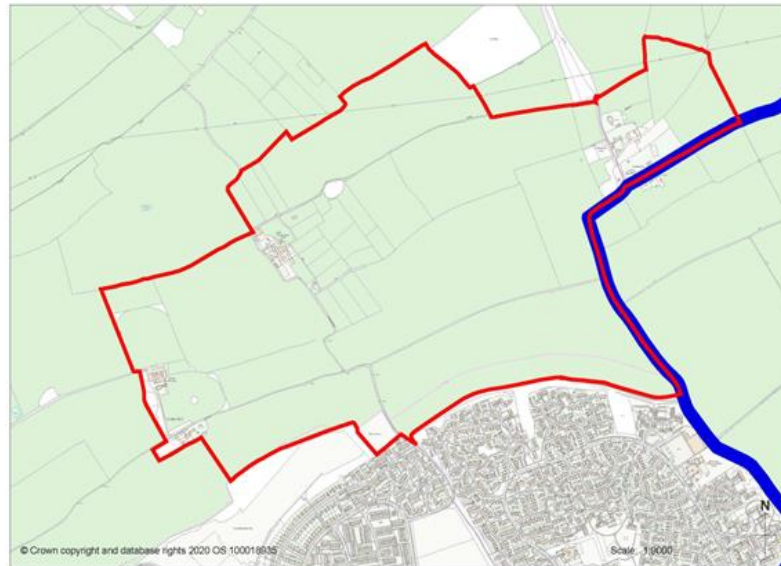


Figure 2: Growth Area HH02: North Hemel (Phase 2)

Table 2: HH02 Policy Requirements

	DBC 2020 Regulation 18	DBC 2023 Regulation 18
Housing	Around 4,000 dwellings to be delivered post 2038 (removed from the Green Belt and safeguarded), subject to masterplanning.	Allocated Land, merged with HH01 to form one allocation (HH01/02)
Transport	<ul style="list-style-type: none"> • Development of the site should seek to achieve a 60% share of sustainable transport modes by 2050. • Safeguard sufficient land to provide for a new transport corridor which will connect the Leighton Buzzard road to the allocations to the east (St Albans City and District Council Local Plan). The route will be identified through the Masterplan. 	
Social infrastructure	<ul style="list-style-type: none"> • Create a network of new district/local/neighbourhood centres across the site, including retail and community facilities to serve the day-to-day needs of new and existing residents, and a medium or large supermarket if it is decided not to build this facility on site HH01. • Provide 6 ha of land for and deliver two new primary schools (3ha each), to be located at district/local/neighbourhood centres. • Provide 13 ha of land for and deliver a new secondary school on site. 	
Environmental Health	Consideration should be given to Controlled Waters as a receptor to potential ground contamination.	
Landscape	Development will need to take account of and/or mitigate the following landscape sensitivities:	

	<ul style="list-style-type: none"> • the topography of the site with particular attention to those areas which are highly intervisible; • areas which share characteristics with or create the setting for the Chilterns AONB; • the variation in landscape sensitivity within the parcel; • conserving enhancing or restoring the hedgerows and field patterns and boundaries; • conserving and enhancing the historic sunken lanes and PRow; • the vernacular, use of materials and setting of the existing farmsteads; and • the characteristic ridgelines and tree-lined skylines of the area. 	
<p>Biodiversity and Green Infrastructure</p>	<ul style="list-style-type: none"> • Deliver Suitable Alternative Natural Greenspace (SANG) on-site to offset potential adverse effects on the Chilterns Beechwoods SAC arising from recreational pressure. The scale and form of this SANG will need to be agreed with Natural England in advance of the submission of an outline planning application. • Use the new landscape structure to develop a series of new green and blue infrastructure corridors through the site and connect with existing green networks in the area. 	
<p>Heritage</p>	<ul style="list-style-type: none"> • Investigate the effect of development on five listed buildings within the site and ensure that their setting is conserved and/or enhanced. Further guidance on how this can be achieved will be provided through the Masterplan. • Retention of existing listed buildings within the site. • Ensure the setting of the scheduled monument The Aubreys Camp to the east of the site (in St. Albans City and District Council) is conserved. 	

2.0 ST ALBANS CITY & DISTRICT COUNCIL POLICY BACKGROUND

2.1 The initial work on the Framework Plan, began with utilising the withdrawn 2018 St Albans Local Plan as the baseline policy position. In the withdrawn 2018 St Albans Local Plan, four broad locations were identified:

- Policy S6 i) - East Hemel Hempstead (North) Broad Location
- Policy S6 ii) - East Hemel Hempstead (Central) Broad Location
- Policy S6 iii) - East Hemel Hempstead (South) Broad Location
- Policy S6 iv) - North Hemel Hempstead Broad Location

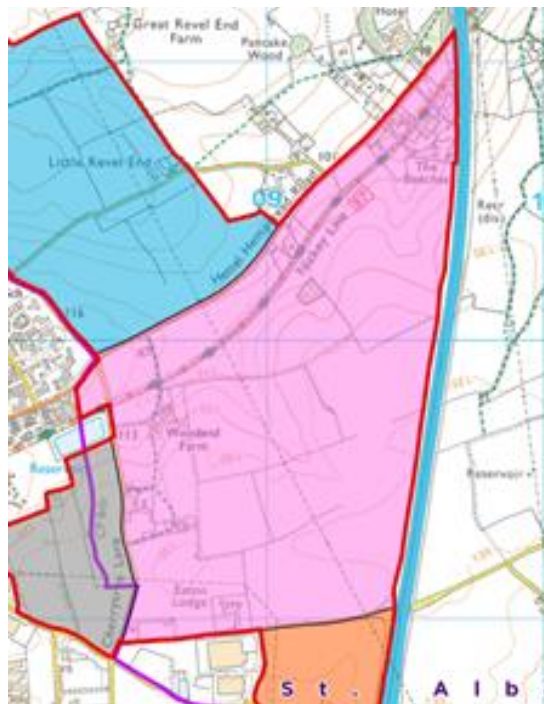


Figure 23: East Hemel Hempstead (North) Broad Location

Source: DLA

Table 3: East Hemel Hempstead (North) Policy Requirements

	SADC Withdrawn Local Plan (2018)	SADC Regulation 18 (2023)
Housing	<ul style="list-style-type: none"> • Minimum capacity 1,650 dwellings • includes at least one 50+ bed C2 Residential or Nursing care home, at least one 50+ home C3 Flexi-care scheme and 12 units to provide special needs accommodation • Minimum 40% Affordable Housing • 3% of homes provided to be self-build housing 	<ul style="list-style-type: none"> • approximately 1,335 dwellings to 2041 and beyond (approximately 265 homes to be delivered post-2041). • 1,600 dwelling figure above to include at least two 70+ unit home extra-care schemes

	<ul style="list-style-type: none"> • Minimum overall net density 40 dwellings per hectare • Housing size, type and mix as set out in Policy L1 and Appendix 6 	
Green infrastructure	<ul style="list-style-type: none"> • Strategic and local public open space, including managed woodland and ecological network links • Countryside access links including improved off-road paths (rights of way) and links to a community food zone retained in the Green Belt • A substantial new Country Park providing facilities for new and existing communities and a permanent green buffer to Redbourn • Retention of important trees and landscape features 	<ul style="list-style-type: none"> • connections under the M1 motorway • Opportunities for community food growing that relate to the landscape setting. • Access and improvements to the Nickey Line (including connections to Redbourn) and delivery of the HGC Green Loop and connections to the Green Loop running through the site.
Social infrastructure	<ul style="list-style-type: none"> • Recreation space and other community facilities, including health provision • New neighbourhood and local centres, including commercial development opportunities • A 3FE primary school, including Early Years provision, to serve the new community • An 8FE secondary school to serve the new and existing communities • Community Management Organisation with sufficient assets to provide sustainable management of community facilities, open spaces and parklands 	
Transport	<ul style="list-style-type: none"> • Transport network (including walking and cycling links) and public transport services upgrades/improvements 	<ul style="list-style-type: none"> • Integrated Mobility hub with facilities to encourage and facilitate modes of transport other than the private car.
Sustainability	<ul style="list-style-type: none"> • Excellence in design, energy efficiency and water management • Appropriate renewable energy production and supply mechanisms 	
Utilities	<ul style="list-style-type: none"> • Appropriate buffer zones and mitigations to address the Buncefield oil depot and pipelines 	
Noise/Air	<ul style="list-style-type: none"> • Design to mitigate adverse impacts from motorway noise and air pollution 	

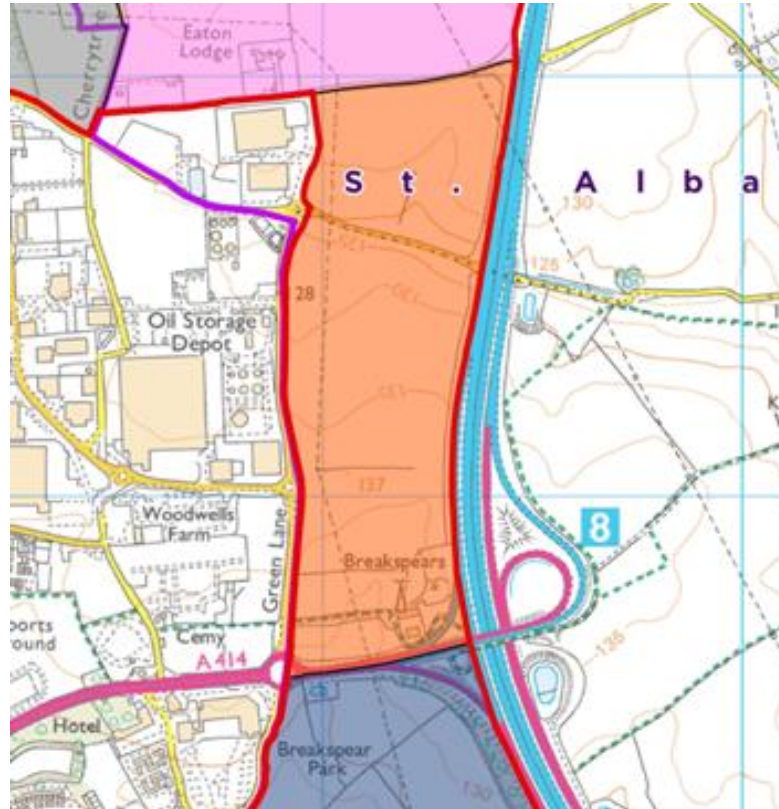


Figure 34: East Hemel Hempstead (Central) Broad Location

Source: DLA

Table 4: East Hemel Hempstead (Central) Broad Location Policy Requirements

	SADC Withdrawn Local Plan (2018)	SADC Reg 18 (2023)
Objectives	<ul style="list-style-type: none"> To provide a major new Enviro-Tech focused employment location, including enhanced transport infrastructure for new and existing employment and residential areas. Accordance with the aims and status of the Hertfordshire Enviro-Tech Enterprise Zone to deliver both Enviro-Tech Businesses and environmentally friendly buildings 	
Employment	<ul style="list-style-type: none"> offices, research and development, light industrial and logistics; within the approximately 55 Ha area north of Breakspear Way and south of Punchbowl Lane A significant new Business Park consisting primarily of B1 office accommodation on the southern approximately 17 Hectares of the site A significant new logistics and mixed industrial area on the northern approximately 38 Hectares of the site Sufficient variety of employment uses must be provided over time to offer in the order of 	

	<p>10,000 jobs. Over-concentration of low employment generating logistics uses will not be permitted</p> <ul style="list-style-type: none"> • The first phase of employment development will be required to provide some starter units / incubator space 	
Housing	<ul style="list-style-type: none"> • One 15 pitch Gypsy and Traveller site 	15-20 pitch
Green infrastructure	<ul style="list-style-type: none"> • Retention of important trees and landscape features 	
Transport	<ul style="list-style-type: none"> • A new link road from M1 junction 8 to the Green Lane/Boundary Way roundabout • Multi-Modal Transport Interchange with facilities to encourage and facilitate modes of transport other than the private car 	Integrated mobility hub with facilities to encourage and facilitate modes of transport other than the private car; this will connect the site to key destinations and the Maylands Business Park.
Sustainability	<ul style="list-style-type: none"> • Use of the exceptional environmental opportunities provided by this scale of employment development including Combined Heat & Power and large scale solar power generation 	for large scale solar power generation; including on all rooftops and as appropriate on car parking, lorry parking etc.
Construction	<ul style="list-style-type: none"> • Full exploration of possibilities for an offsite construction facility (primarily for modular housing) within the logistics and mixed industrial area 	
Utilities	<ul style="list-style-type: none"> • Appropriate buffer zones and mitigations to address the Buncefield oil depot and pipelines 	
Noise/Air	<ul style="list-style-type: none"> • Design to mitigate adverse impacts from motorway noise and air pollution 	

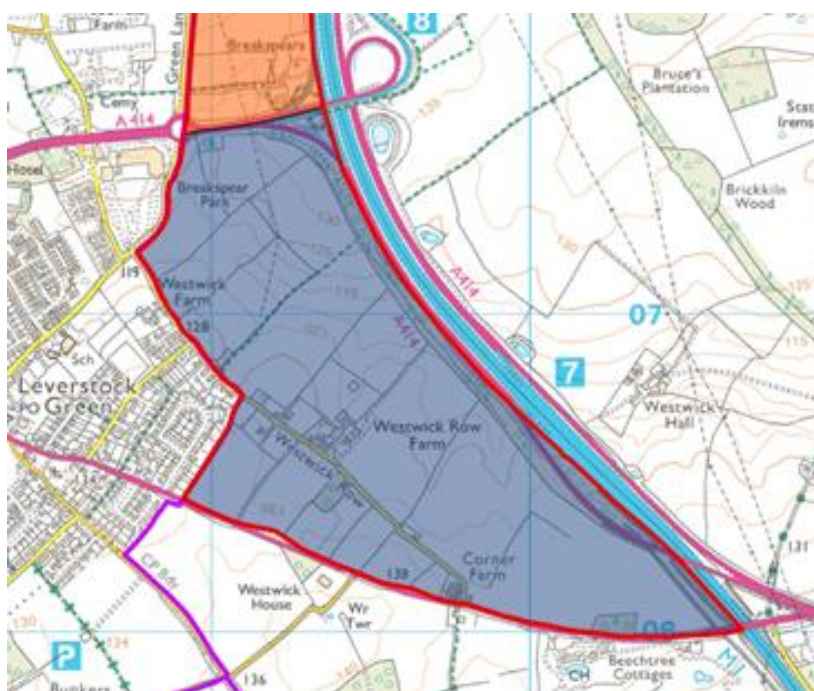


Figure 45: East Hemel Hempstead (South) Broad Location

Source: DLA

Table 5: East Hemel Hempstead (South) Broad Location Policy Requirements

	SADC Withdrawn Local Plan (2018)	SADC Reg 18 (2023)
Housing	<ul style="list-style-type: none"> • Minimum capacity 2,400 dwellings (Delivery of approximately 200 dwellings continuing beyond 2036) • The 2,400 dwelling figure above includes at least one 50+ bed C2 Residential or Nursing care home, at least one 50+ home C3 Flexi-care scheme and 12 units to provide special needs accommodation, in accordance with Policy L2 • Minimum 40% Affordable Housing in accordance with Policy L3 • 3% of homes provided to be self-build housing • Housing size, type and mix as set out in Policy L1 and Appendix 6 • Minimum overall net density 40 dwellings per hectare • One 15 pitch Gypsy and Traveller site 	<ul style="list-style-type: none"> • Changes delivers approximately 2,400 dwellings to 2041 and beyond (approximately 235 homes to be delivered post-2041) • 2,400 dwelling figure above to include should include at least three 70+ unit home extra-care schemes. • 15-20 pitch
Green infrastructure	<ul style="list-style-type: none"> • Strategic and local public open space, including managed woodland and ecological network links • Countryside access links including improved off-road paths (rights of way) and links to a community food zone retained in the Green Belt • A substantial new Country Park providing facilities for new and existing communities 	<ul style="list-style-type: none"> • The site lies within the Chilterns Beechwoods Special Area of Conservation (CBSAC) Zone of Influence (ZOI). Appropriate contributions must be made towards the Strategic Access Management and Monitoring Strategy (SAMMS). Development proposals will also need to make provision for a

	<p>and a permanent green buffer to the south east</p> <ul style="list-style-type: none"> • Recreation space and other community facilities, including health provision • Retention of important trees and landscape features 	<p>new Suitable Alternative Natural Greenspace (SANG), or alternatively contribute towards the maintenance of a suitable SANG project elsewhere.</p>
Social infrastructure	<ul style="list-style-type: none"> • New neighbourhood and local centres, including commercial development • One new 3FE and one new 2FE primary schools, including Early Years provision, to serve the new community • Community Management Organisation with sufficient assets to provide sustainable management of community facilities, open spaces and parklands • A positive relationship with Leverstock Green and the wider existing neighbourhood structure of Hemel Hempstead 	
Transport	<ul style="list-style-type: none"> • Transport network (including walking and cycling links) and public transport services upgrades/improvements opportunities; which provide support for, rather than competition with, existing Leverstock Green facilities. 	
Sustainability	<ul style="list-style-type: none"> • Excellence in design, energy efficiency and water management • Appropriate renewable energy production and supply mechanisms 	
Noise/Air	<ul style="list-style-type: none"> • Design to mitigate adverse impacts from motorway noise and air pollution. 	

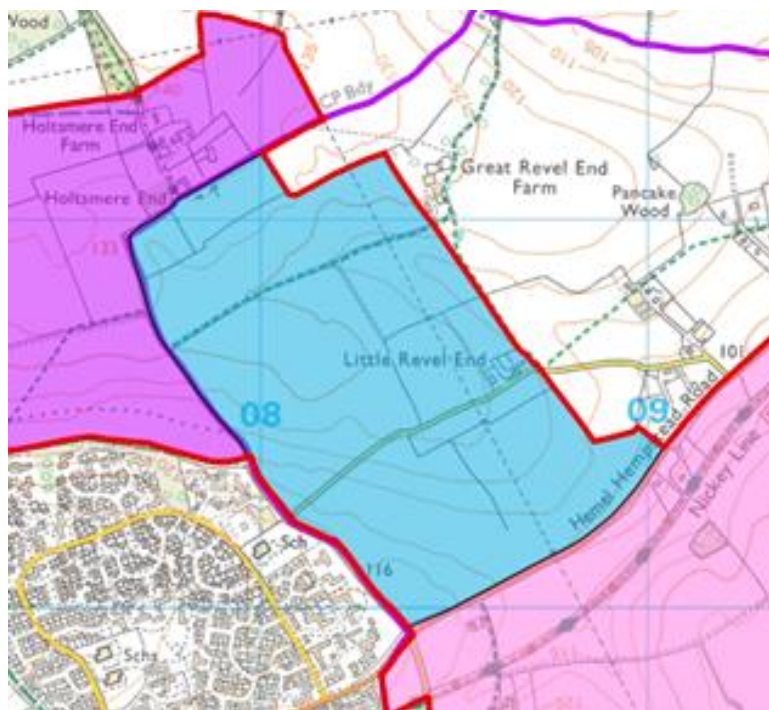


Figure 56: North Hemel Hempstead Broad Location

Source: DLA

Table 6: North Hemel Hempstead Broad Location Policy Requirements

	SADC Withdrawn Local Plan (2018)	SADC Reg 18 (2023)
Housing	<ul style="list-style-type: none"> • Minimum capacity 1,500 dwellings (Delivery of approximately 1,000 dwellings continuing beyond 2036) • The 1,500 dwelling figure above includes at least one 50+ bed C2 Residential or Nursing care home, at least one 50+ home C3 Flexi-care scheme and 12 units to provide special needs accommodation, in accordance with Policy L2 • Minimum 40% Affordable Housing in accordance with Policy L3 • Minimum overall net density 40 dwellings per hectare • Housing size, type and mix as set out in Policy L1 and Appendix 6 • 3% of homes provided to be self-build housing 	<ul style="list-style-type: none"> • approximately 1,250 dwellings to 2041 and beyond (approximately 250 homes to be delivered post-2041). The 1,500 dwelling figure above includes at least two 60+ unit home extra-care schemes.
Green infrastructure	<ul style="list-style-type: none"> • Strategic and local public open space, including managed woodland and ecological network links • Countryside access links including improved off-road paths (rights of way) and links to a community food zone retained in the Green Belt 	<ul style="list-style-type: none"> • Enhance links to Spencer's park; Woodhall Farm and Holtsmere End. • Including connections under the M1 motorway • Opportunities for community food growing that relate to the landscape setting.

	<ul style="list-style-type: none"> • A substantial new Country Park providing facilities for new and existing communities and a permanent green buffer to Redbourn • Retention of important trees and landscape features 	<ul style="list-style-type: none"> • Access and improvements to the Nickey Line (including connections to Redbourn) and delivery of the HGC Green Loop and connections to the Green Loop running west of the site.
Social infrastructure	<ul style="list-style-type: none"> • New neighbourhood and local centres, including commercial development opportunities • Recreation space and other community facilities, including health provision • A 3FE primary school, including Early Years provision, to serve the new community • Community Management Organisation with sufficient assets to provide sustainable management of community facilities, open spaces and parklands 	
Transport	<ul style="list-style-type: none"> • Transport network (including walking and cycling links) and public transport services upgrades/improvements 	<ul style="list-style-type: none"> • Integrated Mobility hub with facilities to encourage and facilitate modes of transport other than the private car
Sustainability	<ul style="list-style-type: none"> • Excellence in design, energy efficiency and water management • Appropriate renewable energy production and supply mechanisms 	<ul style="list-style-type: none"> • Appropriate design and buffer zones to mitigate adverse impacts from motorway noise and air pollution and address the Buncefield oil depot and pipelines

3.0 Strategic Policies

3.1 Housing

3.2 The authorities have different housing mix requirements. The SW Herts Local Housing Needs Assessment (2020) is the most recent evidence. This will be updated through a new Housing Needs Assessment by the end of 2024. The 2020 evidence includes the following mix:

Table 7: SW Herts LHNA Housing Mix

Tenure	1-bed (%)	2-bed (%)	3-bed (%)	4-bed (%)
social/affordable housing (rented)	30	35	25	10
affordable home ownership	25	40	25	10
market housing	5	20	45	30

Source: SW Herts Local Housing Needs Assessment (2020)

- 3.3 For affordable housing, Dacorum's Policy DM2 expects 40% in the HGC Growth Areas, and St Albans' Policy L3 expects a minimum of 40% which should include 30% affordable social rent, 30% social rent, and 40% subsidised home ownership.
- 3.4 There is no requirement of gypsy and traveller sites in Dacorum's Local Plan, however, in St Albans' withdrawn Local Plan (2018) and Regulation 18 (2023) there is a requirement for two 15-20 pitch sites – one in For East Hemel Hempstead (Central) Broad Location East Hemel Hempstead (South).
- 3.5 There are separate requirements for self-build plots: Dacorum requires 5% and St Albans requires 3%.
- 3.6 Finally, St Albans set out specific requirements for specialist housing:
- two 60+ unit home extra care schemes
 - five 70+ unit home extra-care schemes
- 3.7 The Framework Plan will be tested for its viability and therefore it will test the policy requirements for affordable homes and tenure mix. Sensitivity testing can look at maximising social housing and other forms of tenure that are in high demand.

Employment

3.8 The vision in the withdrawn St Albans Local Plan (2018) and Regulation 18 (2023) for the employment allocation is to provide a major new Enviro-Tech focused employment location, including enhanced transport infrastructure for new and existing employment and residential areas. The employment area should also accord with the aims and status of the Hertfordshire Enviro-Tech Enterprise Zone to deliver both Enviro-Tech Businesses and environmentally friendly buildings.

3.9 B class employment uses are focussed in East Hemel Hempstead (Central) Broad Location, within St Albans. This includes:

- Offices, research and development, light industrial and logistics; within the approximately 55 Ha area north of Breakspear Way and south of Punchbowl Lane.
- A significant new Business Park consisting primarily of B1 office accommodation on the southern approximately 17 hectares of the site.
- A significant new logistics and mixed industrial area on the northern approximately 38 Hectares of the site.
- Sufficient variety of employment uses must be provided over time to offer in the order of 8,000 jobs. Over-concentration of low employment generating logistics uses will not be permitted.
- The first phase of employment development will be required to provide some starter units / incubator space.

3.10 There are no B class employment uses in the Dacorum allocations.

3.11 Outside of the employment areas Herts IQ also refer to around 2,000 jobs being created in the neighbourhood centres throughout the Growth Areas. Flexible workspaces will need to be provided to assist in meeting this target along with retail and service jobs.

Education

3.12 The Local Plan policies in the draft Dacorum Local Plan and withdrawn St Albans Local Plan set out the requirements for schools. The number of schools needed for the HGC Growth Areas is shown in Table 8.

Table 8: Local Plan School Requirements (2022)

	Primary	Secondary
Growth Area HH01: North Hemel (Phase 1)	2 x 3FE (including early years)	1 x 10FE
Growth Area HH02: North Hemel (Phase 2)	3 x 3FE (including early years)	1 x 10FE
East Hemel Hempstead (North) Broad Location	1 x 3FE (including early years)	1 x 10FE
East Hemel Hempstead (South) Broad Location	1 x 2FE (including early years) 1 x 3FE (including early years)	
North Hemel Hempstead Broad Location	1 x 3FE (including early years)	

3.13 The Hertfordshire Developer Contributions Guide (Draft) 2021 and subsequent Placemaking and Service Provision Guide (2024) includes guide land areas for new schools (Table 9). The Guide has a list of requirements for the land/build requirement for primary schools; these include, such as, being of regular shape, relatively flat (not more than 1:20 gradient) and free of physical landscape or topographical features. The same applies to secondary schools.

Table 9: Herts Schools Land Areas

School Size	School Area (ha)
Primary 2FE	2.03
Primary 3FE	2.92
Secondary 6FE	8.36
Secondary 7E	9.57
Secondary 8FE	10.78
Secondary 9FE	11.99
Secondary 10FE	13.20

3.14 In summary, the agreed baseline position required the Framework Plan to identify locations for three secondary schools at 8FE to serve the future demand in the Growth Areas and for one secondary school to meet demand in Hemel Hempstead (outside of the Growth Areas). There is also the need to identify eight primary schools in the Framework Plan. The locations of the schools need to follow the design criteria set out by the local education authority.

Health

- 3.15 Dacorum's IDP says that health facilities will be required but the exact contribution will depend on the number of units delivered and will be calculated based on a formula. The IDP references the ratio in the NHS England "Premises Principles of Best Practice Part 1 Procurement & Development" which is 2,000 patients per GP and 199m² of floorspace. Therefore, 5,550 homes in the DBC allocations amounts to a population of 12,800 people which would require 6-7 GPs and around 1,200 sqm of floorspace using the NHS ratio.
- 3.16 The St Albans' IDP (2022) refers to NHS England estimates that development at East Hemel Hempstead could create an additional 9,700 GP registrations in the area, resulting in the need for 5 additional full time GPs and 960m² of General Medical Services (GMS) floor space.
- 3.17 The North Hemel Hempstead development is estimated to create an additional 3,600 GP registrations in the area, resulting in the need for up to two additional full time GPs and 360m² of General Medical Services (GMS) floor space.

Figure 6: GP Requirements (2023)

	GPs	Floorspace (sqm)
Growth Area HH01: North Hemel (Phase 1)	7	1,200
Growth Area HH02: North Hemel (Phase 2)		
East Hemel Hempstead (North) Broad Location	5	960
East Hemel Hempstead (South) Broad Location		
North Hemel Hempstead Broad Location	2	360

- 3.18 The Framework Plan assumes health services will be located within assumes /local centres.

Sport, Recreation and Open Space

- 3.19 Open space requirements are set out in Policy DM63 of the draft Dacorum Local Plan (2020) and shown in the table below. These are the same as Fields in Trust's standards.

Type of Open Space		Hectares per 1,000 population	Accessibility	Time Equivalent
Parks & gardens		0.80	710m	9-minute walk time
Natural & semi-natural		1.80	720m	9-minute walk time
Amenity green space		0.60	480m	6-minute walk time
Play areas and provision for young people (minimum activity area ha)	LAP (0.01)	0.25	100m	1-minute walk time
	LEAP (0.04)		400m	5-minute walk time
	NEAP (0.1)		1,000m	12.5-minute walk time
	MUGA Youth (0.1)		700m	9-minute walk time
Allotments		0.25	N/A	N/A

Figure 7: Dacorum Open Space Requirements

Source: Draft Dacorum Local Plan (2020)

3.20 In addition, Policy DM62 (Sport and Leisure) requires new residential development to contribute towards sport and playing pitch provision, which should be calculated using Sport England's outdoor pitch calculator.

3.21 The withdrawn St Albans Local Plan included quantity standards for open space, also shown in the table below.

Type of green space		Quantity standard (square metres per person)
Multi-functional green space	Amenity green space (including use as multi-functional space to include playing pitch provision)	15
	Natural and semi-natural green spaces	5
	Parks and gardens (including use as multi-functional space to include playing pitch provision)	12
Total multi-functional green space standard		32
Allotments		4.5
Children's play areas		0.6
Teenage areas		0.18

Figure 8: St Albans Open Space Requirements

Source: St Albans Local Plan (2018, Withdrawn)

3.22 Accessibility standards are also included as shown below.

Figure 9: St Albans Open Space Accessibility Standards

Type of green space		Accessibility standard (metres)
Multi-functional green space	Amenity green space (including use as multi-functional space to include playing pitch provision)	300
	Natural and semi-natural green spaces	600 (walking) 5,000 (driving)
	Parks and gardens (including use as multi-functional space to include playing pitch provision)	500
	Allotments	600
	Children's play areas	Younger children: 300 Older children: 450 Strategic play area: 900
	Teenage areas	600 (walking) 1,500 (cycling)

Figure 10: St Albans Open Space Accessibility Standards

Source: St Albans Local Plan (2019, Withdrawn)

3.23 At the Regulation 18 stage, Country Parks were required at the following broad locations:

- East Hemel Hempstead (North) Broad Location: A substantial new Country Park providing facilities for new and existing communities and a permanent green buffer to Redbourn.
- East Hemel Hempstead (South) Broad Location: A substantial new Country Park providing facilities for new and existing communities and a permanent green buffer to the south east.
- North Hemel Hempstead Broad Location: A substantial new Country Park providing facilities for new and existing communities and a permanent green buffer to Redbourn.

3.24 Furthermore, Policy L26 – Local Green Space, aims to designate strategic open spaces within the broad locations as Local Green Space.

3.25 The quantity and accessibility standards set out in each Local Plan are different. Therefore the Framework Plan will need to use one set of standards in interests of consistency. The Fields in Trust standards, as used by Dacorum are the industry standard and so these can reasonably be used to test the requirements in the Framework Plan.

3.26 Further discussions will be needed between all parties to understand the need for an indoor sports facility and whether this could be co-located with one of the secondary schools. Also, the potential for an equestrian facility and cycling uses as part of the green infrastructure should be given further consideration.

Waste

3.27 The draft Dacorum Local Plan (2020) included a requirement under allocation HH01 to safeguard land for a waste recycling centre. A site of 1ha is needed.

Climate Change

3.28 The draft Dacorum Local Plan (2020) includes a strategic policy (Policy SP10 – Climate Mitigation and Adaptation) which aims to ensure that all new development is net zero by 2030. Up until 2030, all new development will be required to accord with Policy DM23 (Energy and Carbon Emissions Reductions in New Development) which will require proposals to show how design, orientation, layout, operation and performance monitoring will satisfy energy performance standards based on Part L of the Building Regulations 2013 for new residential developments and contribute to a 20% reduction in residual carbon emissions through the provision of on-site renewable energy generation or connection to decentralised low carbon energy sources.

3.29 Policy DM24 (Low Carbon Community Heat Energy Networks) expects major development proposals within a Renewable Energy Opportunity Area to create a site-wide community heat or energy network or connect to an existing decentralised network where this is available (unless a energy feasibility assessment determines a better alternative for emissions reduction or cost unviability).

3.30 Where proposals cannot meet the draft Local Plan's greenhouse gas reduction requirements on site, developers will be expected to contribute to the Council's Carbon Offset fund (Policy DM26 – Carbon Offsetting).

3.31 Policy DM23's expectations are more aligned with proposals at planning application stage when more detail is available. However, there will be opportunities in the Framework Plan to work towards net zero by 2030, particularly in relation to reducing greenhouse gas emissions from transport (such as by providing active travel measures and public transport connectivity) and operational energy (such as potential locations for solar farms), but not in relation to embodied energy.

3.32 St Albans' withdrawn Local Plan (2018) included a strategic policy in relation to 'climate change mitigation and adaptation, and conservation and enhancement of the natural,

built and historic environment, including landscape and green infrastructure.’ based directly on the draft NPPF (2018). Policy L25 included requirements for energy and environmental performance of new developments.

4.0 Emerging Infrastructure Delivery Plan

- 4.1 Work is ongoing on the Infrastructure Delivery Plan (IDP). This has been recognised in the Framework Plan exercise, which has been informed by wider known requirements in relation to schools planning and open space standards. The draft IDP will inform the final Framework Plan following the Regulation 18 consultation.

5.0 Sustainable Transport

- 5.1 The Hemel Garden Communities programme is aiming for active and sustainable travel modal share. The previous DBC Regulation 18 Local Plan (2020) included targets of 60% for journeys originating or ending within the Growth Areas, and 40% for journeys originating or ending in the overall town by 2050.
- 5.2 The Framework Plan explores the spatial opportunities to support a move to more sustainable travel. This includes consideration of how, via sustainable modes including public transport and Active Travel, people could move through the Growth Area to access jobs and services, and how they could connect with the existing town to reach important destinations such as the railway station, Maylands, the town centre and important leisure facilities.
- 5.3 The Framework Plan also considers how to integrate (or keep open the potential for integrating) the emerging proposals for the Hertfordshire-Essex Rapid Transit (HERT) scheme, which would provide a prioritised rapid transit link between Hemel Hempstead, St Albans and eventually onwards to Harlow and potentially beyond. The route options intersect the Framework Plan area around the A414 and in the south-eastern part of the site.

6.0 Improvements to M1 Junction 8

- 6.1 To support the anticipated growth in Hemel Hempstead, and enable significant expansion of the Maylands employment area, work has been ongoing to plan an upgrade to Junction 8 of the M1. The primary aim of the project has been to ensure that additional vehicle traffic from the growth of the town does not cause disruption to the motorway network, and that increases in vehicle and HGV traffic can be appropriately accommodated.

6.2 This work has been termed 'Project Breakspear' and is part of the baseline for the Growth Areas. The project, which has been jointly funded by Herts IQ and The Crown Estate, is considering active travel connectivity (particularly north south), the integration of a multi-modal transport hub in the main employment area, and public transport prioritisation as part of its remit (including provision for the Hertfordshire Essex Rapid Transit - HERT). The draft Framework Plan process has been prepared on the assumption that the improvements will be forthcoming. However, the phasing for implementation and whether all phases of the improvements will be required within the local plan periods is yet to be determined. The process of development of the Framework Plan has not sought to influence the design of Project Breakspear but has considered how the current north-south barrier of the A414 can be reduced for active and sustainable travel.

APPENDIX 2 SITE AND CONTEXT ANALYSIS

7.0 Overview

- 7.1 This appendix provides an assessment of the site and its wider context and provides some of the information used to directly inform the masterplanning work which underpins the Framework Plan.
- 7.2 The Growth Area wraps around the north and east of Hemel Hempstead for around 10km, with a depth between 500m and 1.2km. As can be seen from the following photographs, it is predominantly used for arable farming.





Figure 11: Site aerial photographs

- 7.3 Strategic growth should be considered in the context of Hemel Hempstead, as a Mark One New Town, set within a landscape which includes the Chilterns National Landscape to the immediate north. This section begins with a brief overview of Hemel Hempstead's history and development, how the town works today, and highlights the initial design cues that can be drawn from this. Following this overview, detailed mapping of the site's physical features are set out under the three key themes of Green & Blue Infrastructure, Transport and Community Wellbeing.

8.0 Existing Hemel Hempstead

- 8.1 Hemel Hempstead was founded in the 8th century and was given a town charter in 1539. It was centred on what is now known as the 'Old Town', north of the current town centre, nestled on the valley slopes above the River Gade flood plain. To the south, where the Gade joins the River Bulbourne at Two Waters, the construction of the Grand Junction Canal and the London and Birmingham Railway in the early 19th century connected the town to national transport networks. Hemel remained an agricultural town with a traditional form.
- 8.2 After the Second World War, Hemel Hempstead was chosen as one of the first generation 'New Towns' by the government, to provide new housing for those displaced by the Blitz. Hemel Hempstead today is a town of around 100,000 people, 35km north of London.
- 8.3 The original master plan for Hemel Hempstead New Town was prepared by the landscape architect Geoffrey Jellicoe. His vision for a town in a park with generous open spaces in and around the town centre and the residential neighbourhoods was only partly realised due to modifications by the Development Corporation. Whilst the overall structure of neighbourhoods within a green setting is apparent, the generosity and connectivity of those greenspaces is less than originally envisaged.
- 8.4 Topography had a driving influence on Jellicoe's master plan. Key to his vision was the arrangement of self-contained neighbourhoods on the valley sides and higher ground, leaving the valley floors as green corridors connecting the town with the countryside beyond.

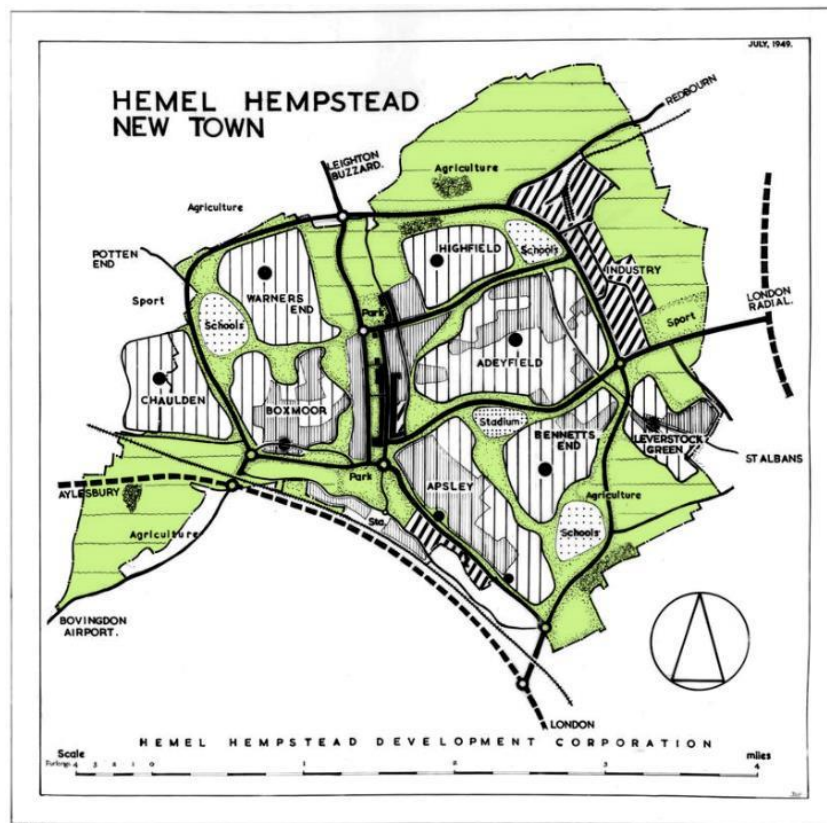


Figure 12: Geoffrey Jellicoe's Masterplan for the New Town

- 8.5 The execution of the master plan has left a legacy of challenges for future growth and integration, e.g. neighbourhoods turn their backs on the Growth Area, limiting opportunities for active travel connections.
- 8.6 The structure of the existing town, in particular the location of important destinations and the way people reach them has been of real importance as the Framework Plan has progressed, as opportunities to link new and existing neighbourhoods have been investigated.
- 8.7 To the north-west of the town lies the Chiltern Hills National Landscape and the Gade Valley. To the east across the M1 lies the Ver Valley and St Albans, with the village of Redbourn lying 1.5 kilometres to the northeast. The historic Gorhambury Estate lies approximately 1 kilometre east of M1 Junction 8.
- 8.8 The town is well-connected by road and rail connections, including the West Coast Main Line, M1, M25 and A41. The A414 connects the town east towards St Albans, Hatfield and other Hertfordshire towns.
- 8.9 To the northwest lies the Chiltern Beechwoods Special Area of Conservation (SAC), a European Protected Site.



Figure 13: Existing Hemel Hempstead and its setting

Current Structure of Hemel Hempstead & Initial Design Cues



Major destinations

- 8.10 The town has a strong centre, but in addition the A414 east–west corridor hosts a number of main destinations for journeys.
- 8.11 Key design response: Rapid sustainable accessibility to and along A414 corridor essential for all parts of HGC.



Employment

- 8.12 There are two main employment centres—the town centre (primarily service and administrative), and Maylands (primarily light industrial, distribution and research uses). Retail, industrial and office parks are located in the south, but New Town masterplan limits employment in neighbourhoods.
- 8.13 Key design response: Extend Maylands into HGC, with strong connectivity, and provide some employment space in north, where it is currently lacking.



Public Transport

- 8.14 Bus routes tend to loop around neighbourhoods providing good coverage but poor directness and long journey times. The primary rail station is located at the far west of the town, and Apsley station to the south-west.
- 8.15 Key design response: Consider the scope for direct routes for public transport towards the town centre, A414 corridor and Maylands. Consider opportunities to link to Apsley station.



Vehicular Movement

- 8.16 A strong grid of primary vehicle routes connects the town centre, Maylands and northern neighbourhoods. Two key access points are the A41 junction and M1 J8.
- 8.17 Key design response: Extend this grid through HGC to limit through movement on existing network in north and east, considering appropriate sustainable modes.



Neighbourhoods

8.18 Neighbourhood units are distinctive and are arranged on valley tops, separated by main routes and green infrastructure. They are inspired by the self-contained Clarence Perry neighbourhood unit.

8.19 Key design response: Distinctive neighbourhoods strongly related to topography of 1,000 — 3,000 houses.



Centres

8.20 Local centres provide important services at the heart of their neighbourhoods, with some higher order centres such as Maylands, Old Hemel and the town centre. Two major retail park style developments (in yellow) also function as 'centres'. Centres are accessible on main routes.

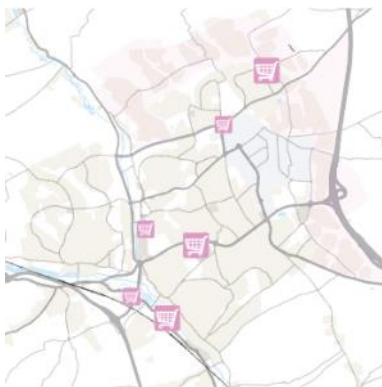
8.21 Key design response: Providing a strong mixed centre for each neighbourhood, accessible on main routes and by Active Travel modes.



Education

8.22 The town has six secondary schools, concentrated in the west, and primary schools are distributed evenly within neighbourhoods. A single post-16 FE college is located in the north of the town centre.

8.23 Key design response: Consider options for accessible locations for new secondaries. Embed primary schools within their neighbourhoods, in accessible locations. Provide good public transport access to further education college.



Supermarkets

8.24 The town has three major supermarkets, with a further three smaller/discount stores.

8.25 Key design response: Plan for smaller supermarkets and other shops to meet local need. Connect to Woodhall Farm Sainsbury's.



Accessible Green Space

8.26 Hemel Hempstead is well-provisioned for accessible green space, based around the network of valleys, with significant strategic spaces clustered near the town centre. Smaller green space is used within neighbourhoods.

8.27 Key design response: Use strategic green space to define neighbourhood edges, with smaller parks as central features. Develop and enhance existing green infrastructure for the benefit of all residents.



Sport

8.28 Playing fields are well integrated into open space networks and valley bottoms across the town. Indoor sports facilities are concentrated in the south and centre of the town.

8.29 Key design response: Provision of new indoor leisure facility in north or northeast of HGC, and new playing fields in accessible locations.

Site Analysis: Green & Blue Infrastructure

Landscape & Topography

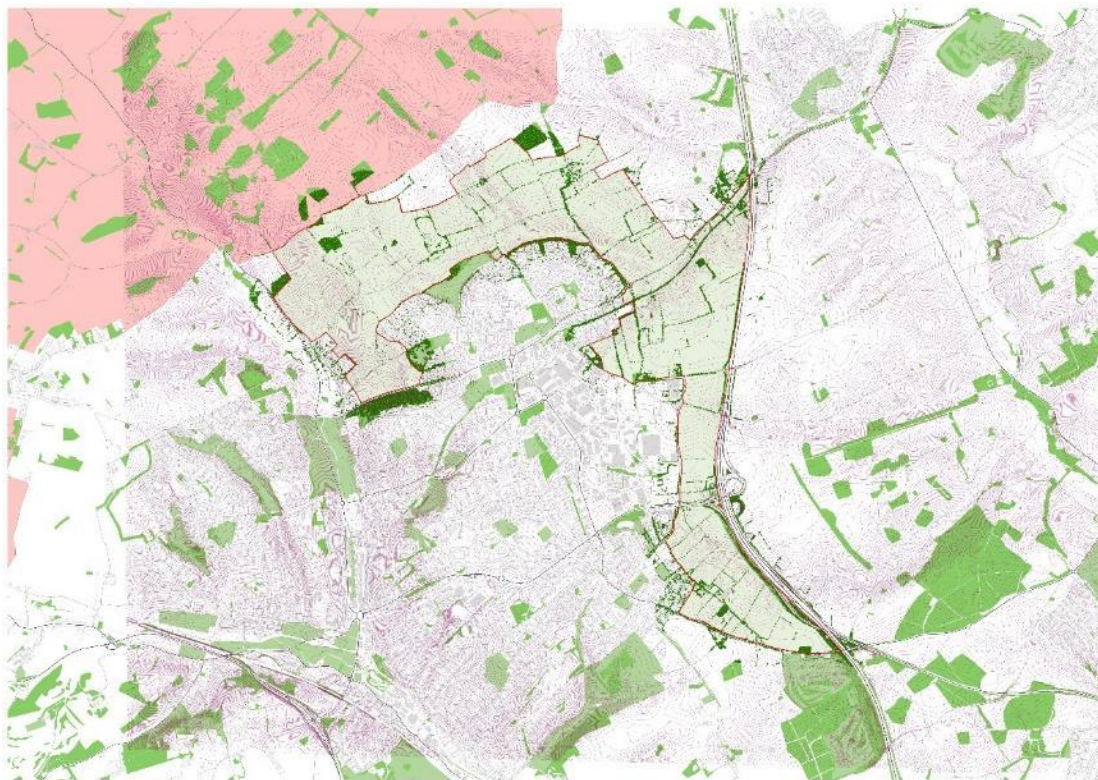


Figure 14: Topography and landscape context

8.30 The Chilterns National Landscape borders the site at its most north western edge. The Growth Area forms part of its setting. The extent of intervisibility between the Growth Area, the National Landscape and open countryside varies; intervisibility between the site and National Landscape varies, with some closed views and some longer views. The *North Hemel Hempstead Landscape Assessment*⁷, which forms part of the evidence base for the DLPs, provided more detailed insight into this issue as part of the iterative work on the Framework Plan.



Figure 15: Topography, ridgelines and steep areas

- 8.31 The site, in common with much of Hemel Hempstead, has significant variations in height and topography. In the north, a series of plateaux are separated by dry chalk valleys with relatively steep sides. The northern edge of Hemel Hempstead sits above one of these dry valleys, which separates the plateaux from the rest of the town.
- 8.32 Further east, a wide valley along the Redbourn Road then rises to a plateau that extends round to the A414, with occasional sharp dips. Further south this becomes much more rolling and undulating, again separated by a dry chalk valley.
- 8.33 One of the most visible parts of the site is the ridge above the Gade Valley in the northwest, which can be seen from a limited number of viewpoints outside the Growth Area. Parts of the Gade Valley slopes are visible from the road below and rise above Piccotts End village.
- 8.34 While some valley sides are steep enough to warrant a more bespoke approach to design, very little of the site is too steep to accommodate any development.



Figure 16: Key views into the site

8.35 Key areas of long view visual sensitivity (due to important receptors and prominence) are the slopes above the Gade Valley, and the land around M1 J8, visible from the Gorhambury Estate. Localised sensitivities are present around existing hamlets and villages such as Holtsmere End and Piccotts End.



Figure 17: Key views and visual connectivity out of the site

8.36 Much of the site is visually separated from the existing town and faces outwards towards the surrounding countryside. The exception is in the northwestern corner of the site, where the ridgeline above the Gade Valley has long views into the centre of Hemel Hempstead, visually connecting it to the settlement, and from Dodd's Lane, where parts of Grovehill are visible. Much of the rest of the site is visually contained, facing inwards, except for the northern part of the site around Holtsmere End which has long views out towards the countryside to the north, and the plateaux to the south of Redbourn Road, which has views out to the east.

Ecology and Biodiversity



Figure 18: Existing green infrastructure

- 8.37 Existing green infrastructure on the site consists mainly of hedgerows (of mixed quality) separating large open agricultural fields, with occasional areas of woodland concentrated in pockets in the north and northwest of the site. There is an area of ancient woodland on the Gade Valley slopes in the northwest corner of the site.
- 8.38 Much of the existing land use is agricultural fields of limited biodiversity and ecology value. The underlying geology and proximity to the Chilterns suggests there is considerable opportunity to extend characteristic chalk grasslands and woodland cover.

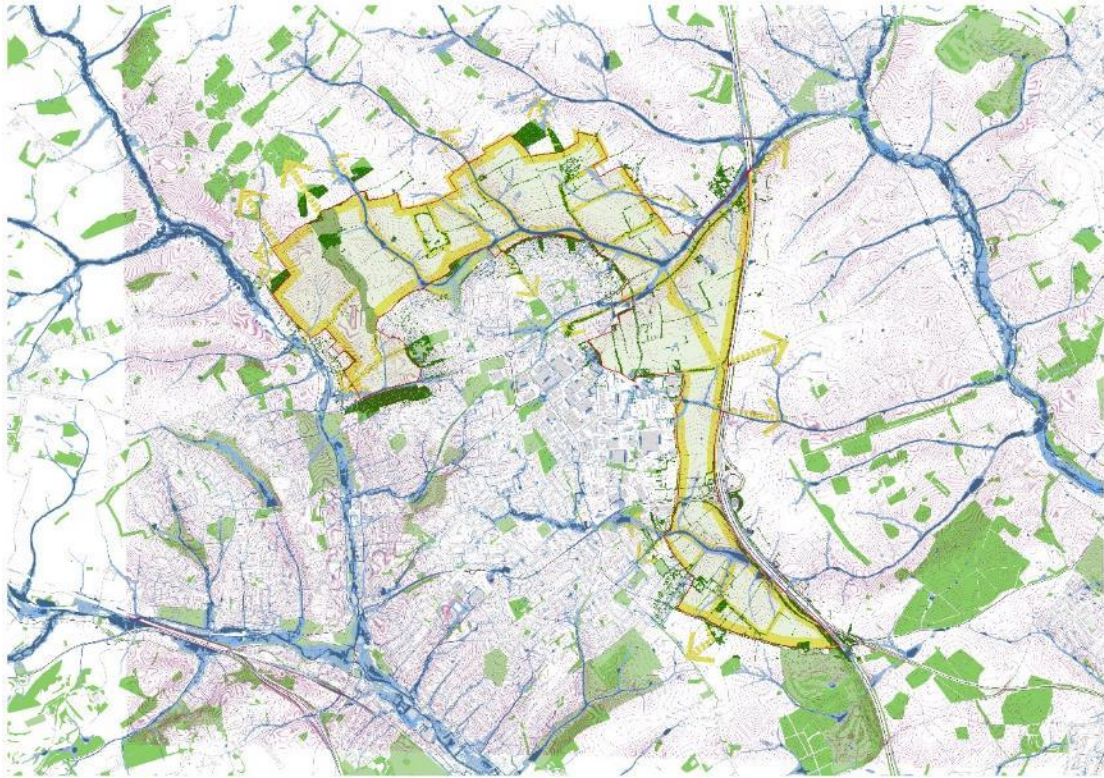


Figure 19: Potential habitat connectivity

8.39 Although habitat networks on the site are not strong at present, they can be strengthened through enhancement of existing hedgerows, woodland cover and tree lines connecting existing woodland, and off-site assets such as Howe Grove Woods in the northwest, and towards Bunkers Hill Park and Long Deans in the south. Connections towards the north towards Ashridge and the greater tree cover in this area will also be important in the northern part of the site.

Flooding and Drainage



Figure 20: Surface water and fluvial flood risk areas

- 8.40 The majority of the site drains towards the east, into the River Ver. This is in marked contrast to much of Hemel Hempstead, which drains into the Rivers Gade or Bulbourne. The watershed runs approximately NW-SE between Grovehill and Leverstock Green.
- 8.41 The northwestern corner of the site, on slopes above the Gade Valley, drains west into the River Gade, a sensitive chalk stream habitat.
- 8.42 There are no existing watercourses, land drainage or ditches within the site boundary. Some small ponds are present, as a result of agricultural activities.
- 8.43 Although there is little water on the site, it has made its presence felt through the steep valleys and seasonal surface water flow routes. Much of Hemel Hempstead's existing form is based on this structure of deep but dry valleys, with water only appearing visibly at the Gade and Bulbourne rivers. The town centre celebrates the presence of this water through the recently restored Water Gardens, designed by Geoffrey Jellicoe.

Flood Risk

- 8.44 The majority of the site is within an area of 'very low' risk of surface water flooding. There are however a number of surface water flow routes through the Site which are

associated with natural valleys within the landscape and are shown to have a 'high', 'medium' and 'low' probability of surface water flooding.

- 8.45 One of the major routes of surface water flow is along the Redbourn Road to the north-east, presenting a hazard to the highway during high rainfall events. This route drains much of the northern half of the site, and East Hemel (North).
- 8.46 A second major drainage corridor runs through East Hemel (South), and this drains much of the Maylands Industrial Estate, Leverstock Green and Adeyfield, before flowing under the M1 towards the east.
- 8.47 Much of the site drains via infiltration along the surface water flow routes. The Site is underlain by Lewes Nodular Chalk Formation and Seaford Chalk Formation consisting of chalk. Superficial deposits of Clay with Flints Formation (consisting of clay, silt, sand and gravel) are shown in the elevated areas of the Site and no superficial deposits are shown in the lower valleys which generally correlate with the surface water flow routes.
- 8.48 The entire Site is located within fluvial Flood Zone 1 indicating that a low risk of flooding from fluvial and tidal sources.

9.0 Transport & Connectivity

Strategic Mobility

- 9.1 The Growth Area is bounded at the north western end by the Leighton Buzzard Road, the eastern side by the M1, and at the south eastern end by the A4147 and M1. It is intersected by the Redbourn Road and the A414 which joins the M1 at junction 8, and also the Nickey Line, a former railway line now converted to active travel use, running between Hemel Hempstead and to Redbourn and Harpenden.
- 9.2 Hemel Hempstead railway station is located in the southwest of the town, between 3 and 6km from the boundary of the site. Apsley rail station is located in the south of the town, with stopping services to London. To the east, Harpenden and St Albans City and Abbey stations are also accessible to some parts of the Growth Areas, between 5 and 6km from the boundary.
- 9.3 Bus services in the area are primarily local loops in outer neighbourhoods such as Maylands, Grovehill and Woodhall Farm. Service 302 runs along the southern boundary through Leverstock Green and into Maylands and Adeyfield towards the town centre.

Connections to existing neighbourhoods



Figure 21: Connections to existing neighbourhoods

- 9.4 A number of potential connection points to existing neighbourhoods have been identified and classified for their suitability to support active travel connections or public transport and vehicular connections. Detailed studies of each point of connection have been undertaken, combining site visits, aerial photography and detailed mapping.



Figure 22: Impermeable edges to existing built-up areas

- 9.5 Some of the existing edges of Hemel Hempstead do not offer potential for connectivity due to backs of existing properties in the northwest, topography and steep slopes in the northeast, or large land uses such as industrial facilities in Maylands.

Active Travel



Figure 23: Existing Public Rights of Way and rural lanes

- 9.6 Within the Growth Area there are a variety of existing public rights of way (PRoW) and rural lanes providing connectivity for active travel. PRoWs also provide leisure connectivity to the wider countryside.
- 9.7 Lanes such as Dodds Lane, Holtsmere End Lane, Cherry Tree Lane and Westwick Row have the potential to be converted into ‘green lanes’ with active travel prioritised and vehicle traffic limited to accessing existing properties. This can ensure they retain their rural character and provide variety within the future active travel network. Several of these routes are part of Hertfordshire CC’s ‘Quietways’ initiative, which aims to provide rural active travel connections on existing lanes.
- 9.8 Several lanes running under the M1 provide potential connections to the east, such as Punch Bowl Lane and Hogg End Lane. These can provide connectivity to the potential Redbourn – St Albans cycleway and the countryside to the east.

10.0 Community Wellbeing

Heritage



Figure 24: Listed buildings, conservation areas and settings

- 10.1 There are several listed buildings within the site, primarily associated with distinctive existing farmsteads. Each listed building, or group of listed buildings, has the potential to add value and interest to the new community, whether retained in their current use or re-purposed for community or commercial areas. Each case should be considered individually in the context of future planning applications.
- 10.2 To the west of the Gade Valley slopes sits the Piccotts End conservation area, covering most of the village. The village has a cluster of listed and historic buildings and retains a clear separation from the rest of Hemel Hempstead through a physical gap and change in character.
- 10.3 To the east of the site, across the M1 sits the Gorhambury Estate, a historic park and stately home. To the northeast the conservation area in Redbourn is nearby with a number of historic listed buildings and valuable spaces such as the village green.
- 10.4 The Scheduled Ancient Monument of Aubrey's Fort sits to the north of the site, adjacent to the M1. Gadebridge Roman Villa is adjacent to the A4147/Leighton Buzzard Road roundabout and on the opposite site of the valley from the north-western extent of the

Growth Area. The setting of the villa is within the existing developed area of Hemel Hempstead, and it is well screened from potential new development.

10.5 The Hertfordshire Historic Environment Record was consulted for archaeological entries within the search area (taken as an area of approximately 1km radius from the Growth Area). Significant plough damage has been found across most of the East Hemel site, due to the intensive agricultural land use. This is anticipated to extend across the site. A Quaker Burial Ground is located near Wood End Farm in the northeast of the site, adjacent to Cherry Tree Lane.

10.6 Based on surveys carried out within East Hemel Hempstead, and desk-based assessments of the remaining site, it is considered that any archaeological remains within the Growth Areas are unlikely to be of high (national) importance. As such it is unlikely that remains would be present which would preclude development or form a significant constraint to the Framework Plan. This will need to be demonstrated at the Outline planning stage.

Utilities



Figure 25: Key utilities and hazards

10.7 Several utilities currently cross the site. The maintenance of easements and access will need to be accommodated within the Framework Plan. These strategic utilities, some of which are unlikely to remain in situ, are described here.

- 10.8 Two underground gas pipelines exist in the northwest of the site, close to the boundary with the National Landscape. The most northerly has a 40ft (12.2m) easement either side of the centreline, and the southerly has a 20ft (6.1m) easement. No built development is allowed in these areas, although open space and highways or active travel routes that cross as close to perpendicular as possible are allowed.
- 10.9 In the east, a line of 400kV electricity cables on pylons runs southeast to northwest, owned by National Grid. Following National Grid design guidelines *A Sense of Place*, development under these lines is restricted. Land to the northeast of the power lines in the East Hemel (North) draft allocation has been considered as a 'Country Park' in the withdrawn St Albans Local Plan.
- 10.10A number of constraints exist in relation to the Buncefield Oil Terminal, at the eastern edge of the Maylands Industrial Estate and adjacent to the site boundary. Three oil pipelines run to the facility from south, east and north, each with 6m easements on either side of the centreline. Similar development restrictions apply to gas pipelines.
- 10.11The existence of the Buncefield facility imposes further development restrictions near to it. Buncefield Terminal is designated as an Upper Tier COMAH site. The Health and Safety Executive (HSE) has defined three safety zones at increasing distances from the site, which overlap onto the site. HSE are reluctant to agree to any changes, even to highways, within the most restricted no-build zone. A summary of restrictions is set out below.

Table 10: Development within Buncefield restriction zones

Zone	Development Allowed
No Build	None
Inner	None
Middle	Car Parking and Commercial
Outer	All, subject to HSE approval, and with limited residential densities

- 10.12Other utilities present on the site are not considered to present a major constraint on development and are assumed could either be accommodated or relocated as part of the development process.

Existing Neighbourhoods and Centres

- 10.13The site borders the existing neighbourhoods of (moving clockwise from northwest) Grovehill, Woodhall Farm, Maylands (commercial area) and Leverstock Green. Each of

these have distinctive characteristics and existing local centres that should be connected to and complemented.

10.14 Grovehill is a neighbourhood largely completed in the 1970s. It is one of the more deprived neighbourhoods in Hemel Hempstead, and there are efforts to improve and regenerate it through its 'Future Neighbourhood Plan'. It has a strong centre catering to local needs, with high occupancy levels. The Marchmont Farm development borders and connects to Margaret Lloyd Park, and the Growth Area borders the Grovehill Playing Fields.

10.15 Woodhall Farm was largely completed in the 1980s and is a later extension of the original New Town masterplan. Its local centre is on the eastern edge of the neighbourhood, based around a Sainsburys supermarket. There are limited opportunities to connect to Woodhall Farm due to the nature of existing development, where cul-de-sacs present backs of houses to a steep slope.

10.16 Maylands is an industrial estate and commercial area that is the main employment area within the town. It has a strong local centre focused on providing for employees, with an increasing mix of employment, local facilities and some residential development. The edges of the neighbourhood have some impermeable, large-scale uses such as Buncefield Oil Terminal. There is significant market interest in logistics (B8) provision in Maylands, given its proximity to the M1.

10.17 Leverstock Green is a historic village that has been incorporated into the urban area of Hemel Hempstead, but it retains much of its distinctive character. It is one of the more affluent neighbourhoods of the town and has a strong and well-used local centre. The site has a number of potential connection points into this centre, which could be an accessible destination, strengthening the centre's catchment.

Social Infrastructure

10.18 Given the scale of new development and long-term nature, it is expected that growth will provide sufficient new facilities for education, health and other social infrastructure to provide for its new population. Land within the Growth Area may also be able to ameliorate notable local under provision in the existing town, however this is subject to a separate study. Local development patterns

10.19 Dacorum and St Alban's Strategic Design Guide presents a detailed study of development pattern and form in response to local landscape characteristics. Many of the landscape typologies described in the design guide are present on the site, such as

valley sides, plateau tops with linear connections, and valley bases. It is anticipated that the suite of documents comprising the Guide will inform future masterplanning and design.

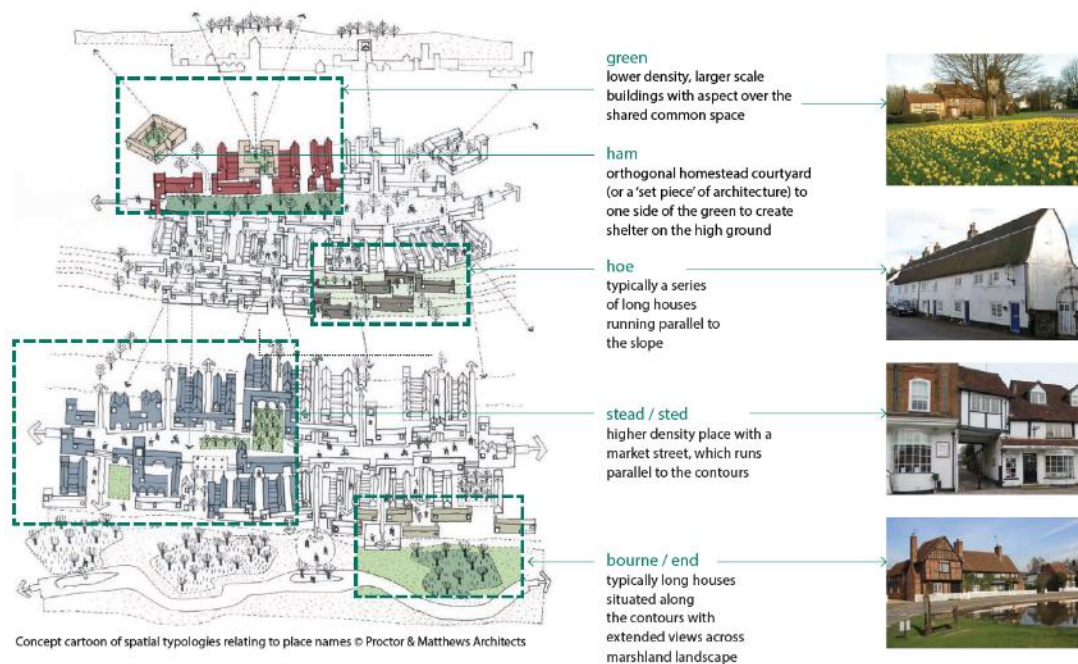


Figure 26: Identifying spatial typologies (extract from Strategic Sites Design Guide)

10.20 The process ("Observe, Evaluate, Make") described as part of the Design Guide to understand the landscape and develop appropriate contemporary responses to it has been considered as part of the Framework Plan.

11.0 Opportunities and Constraints Summary

11.1 The site presents a complex mix of physical and technical constraints to development, which have been documented through the layer plans and the combined constraints plan below.



Figure 27: Combined site constraints plan

11.2 Figure 32 highlights the potential limits on developable areas within the Growth Area.

11.3 However, it is intended that masterplanning of the Growth Area will be an opportunity-led approach, with consideration of constraints informing the limits of what is possible, rather than leading the process.

11.4 Layering the various constraints together with opportunities and Spatial Vision principles across the Growth Area together provide a robust starting point for the exploration of development potential (Figure 33).

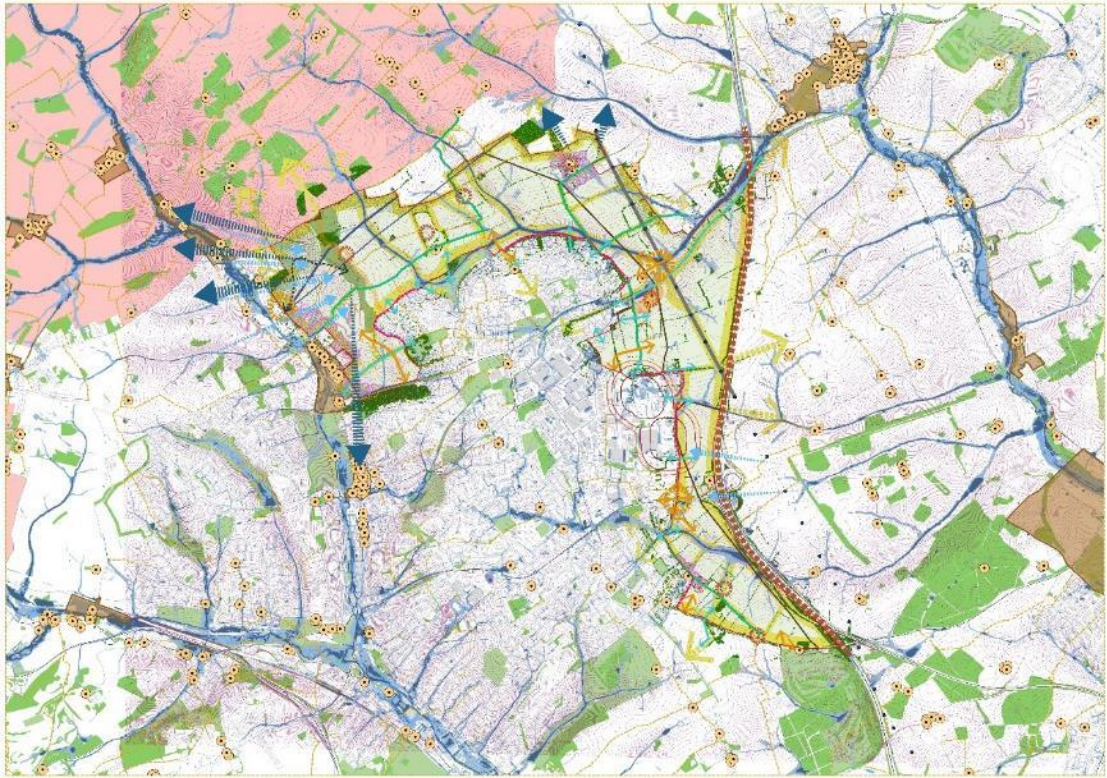


Figure 28: Combined site opportunities and constraints plan (development parameters)

11.5 Three plans across the key themes summarise some of the key spatial opportunities present on the site, bringing together, policy, stakeholder engagement, masterplanning experience and site analysis.

