



**Land at Hollands Farm
Bourne End
Buckinghamshire
DRAFT Development Brief**

December 2020

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Spatial Information Management

ICT Business Systems

Queen Victoria Road

High Wycombe

Bucks

HP11 1BB

1 Introduction

1.1 Purpose

- 1.1.1 A Development Brief provides a series of principles for how a site should be developed, adding detail to a Local Plan policy site allocation.
- 1.1.2 This Development Brief is for Hollands Farm, Bourne End, allocated ‘BE2’ in the Wycombe District Local Plan (2019). The Development Brief has been produced having regard to national and local planning policy, local infrastructure and environmental considerations and community aspirations sought through a local liaison group (see chapter 2 for community engagement). It has been produced by Buckinghamshire Council (“the Council”) in collaboration with the site’s land promoters, Catesby Estates and Capreon.
- 1.1.3 The main purpose of this Development Brief is to:
 - explain the planning policy context within which the development will be considered;
 - identify the key constraints and opportunities affecting the development of the site;
 - set out the vision for and key objectives of the development;
 - establish a broad design approach/concept for the site; and
 - provide an illustrative framework.
- 1.1.4 Following community consultation, the Development Brief will be adopted by Buckinghamshire Council as a supplementary planning document (SPD).
- 1.1.5 In due course, the land promoters will draw up a planning application for the development of the site. Further public consultation will take place before the planning application is submitted. The public will then have another opportunity to provide comments to the Council

before it determines the planning application.

1.2 Structure of this Development Brief

Part One - Analysis

- 1.2.1 The first part of the Development Brief, chapters 1-4, considers the site’s history, planning policy and physical context through examining the site and its surroundings. Input from the community and local stakeholder engagement on key issues are also considered. An overview of the following constraints and opportunities is set out and summarised in terms of strengths, weaknesses, opportunities and threats (SWOT Analysis):
 - Landscape and Settlement Character
 - Conservation and Heritage
 - Access, Transport and Movement
 - Green and Blue Infrastructure
 - Ecology
 - Flood Risk and Ground Conditions
 - Services and Amenities
 - Noise, Vibration and Air Quality

Part Two - Development Framework

- 1.2.2 In the second part of the Brief, chapters 5-7 set out the vision, objectives and development framework for Hollands Farm. Drawing on the context identified in Part 1, including the SWOT analysis and community identified issues, a series of development principles for the site are developed. The framework is set out as follows:
 - Landscape Character and Placemaking
 - Conservation and Heritage;
 - Access;
 - Transport Movement;
 - Green and Blue Infrastructure;
 - Ecology;
 - Flood Risk and Sustainable Urban Drainage Systems;

- Services and Amenities;
 - Climate Change and Sustainability Measures; and
 - Character Areas
- 1.2.3 This is supported by an illustrative masterplan to show the distribution of land uses, taking into account the Local Plan policy requirements. This includes the approximate location of housing, a primary school site, the principal road through the site, pedestrian access points into and through the site and open space provision. Approaches to climate change and sustainability measures are also identified. Chapter 7 sets out how the site should be delivered, including phasing and infrastructure requirements.



Figure 1.1 Location Plan

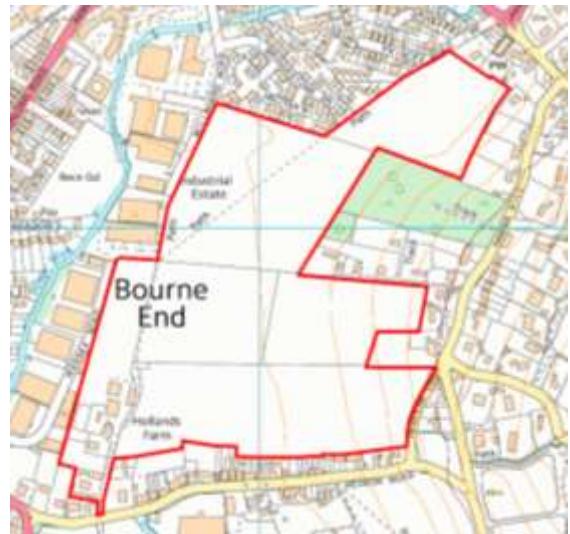


Figure 1.2 Site Plan

1.3 Site Location and Existing Use

- 1.3.1 The Hollands Farm site is 23.74 hectares of land located towards the eastern side of Bourne End. Bourne End is identified in the Local Plan as a Tier 2 settlement offering a number of services and transport links for rail, road and bus service. The A4094 is located to the north of the site connecting Bourne End to High Wycombe and Cookham. The River Thames runs to the west of the site and the River Wye meanders around the north and west.
- 1.3.2 The site comprises of several agricultural fields part of Hollands Farm. The fields lie adjacent to Hedsor Road and associated properties to the south which lie within Hedsor Parish; Heavens Lea and Hawks Hill borders the site to the east.
- 1.3.3 To the western boundary, Wessex Road and Millboard Road lies an employment area, a mix of office and industrial development. By contrast the other boundaries of the site are predominantly characterised by agricultural buildings; woodland areas; and a wide mix of residential property types and styles.



Figure 1.3 Aerial photograph of the site

PART 1 ANALYSIS

2 Community Engagement

2.1 Need

2.1.1 Engagement with the community is a fundamental aspect of the development brief process. The size of the site and quantity of proposed development gives rise to the need for input from the local community.

2.2 Liaison Group

2.2.1 To help inform this development brief, the Council set up a Local Liaison Group in August 2019. Representatives from the local area included local ward and district councillors from Buckinghamshire Council, Wooburn and Bourne End Parish Council and Hedsor Parish Meeting. Community representatives of the Wooburn and Bourne End Parish Council's Neighbourhood Planning Group were also included. The aim of the liaison group has been to provide a forum for the discussion of issues relating to development at Hollands Farm. The group has played a central role in providing local information, and scrutinising the production of the development brief.

2.2.2 The liaison group have met four times. The purpose of these meetings was to discuss the issues of the site, share options and principles for the site, share the draft development brief and discuss feedback on the draft development brief before wider public consultation. Details of the meetings can be found on our website at the following link, or search 'Hollands Farm Wycombe planning' in your web browser:
<https://www.wycombe.gov.uk/pages/Planning-and-building-control/Major-projects-and-reserve-sites/Hollands-Farm.aspx>

2.3 Community Key Issues

2.3.1 Key issues arising from the meetings can be grouped in to five broad themes, as follows.

2.3.2 Road Infrastructure and Wider Connectivity:

- Impact on traffic volumes/congestion for surrounding roads and junctions including Cores End Road and roundabout, Ferry Lane/Hedsor Road junction and Cookham bridge
- Safety and capacity issues at Ferry Lane/Hedsor Road junction and at Heavens Lea/Hedsor Hill
- Road safety due to speeding, parking on pavements/verges obstructing visibility for road users and pedestrians (see photos in Appendix C)
- Width of the proposed principal route through the site, capacity for a diverted bus route (route 37) and location of bus stops
- Connecting new roads into the site, in particular Millboard Road
- Access onto Heavens Lea at any time before, during or after the Development begins and ends due to its unsuitability for pedestrian/vehicular movement.
- Impact on existing footpaths and expanding the existing footpath and cycleway network, including connections to the Bourne End railway station.
- Car parking provision

2.3.3 Services and Facilities:

- Where to locate a new primary school
- Community wishes for a local convenience shop and new health care facilities

2.3.4 Environment and Landscape:

- Separating the development from the Hawks Hill area;
- The need to protect visual aspects up the hillsides;
- Risk of more fluvial flooding as a result of building near the River Thames and River Wye; and
- Surface water flooding at the southern end of the site, along Heavens Lea and Hedsor Road as a result of run-off from nearby higher ground.

2.3.5 Heritage and Conservation:

- Impact on the Hedsor and Riversdale Conservation Area and nearby listed buildings; and
- Recognition that houses to the south of Hedsor Road are part of Hedsor Parish forming part of a different character area.

2.3.6 Nature and Open Space:

- Provision of appropriate open space and play facilities.

2.3.7 See Appendix D for a full Issues Log.

3 Planning Policy Framework

3.1 National Policy

3.1.1 National planning policy is set out in the National Planning Policy Framework (NPPF) which applies at a local level in all areas. At its heart is 'a presumption in favour of sustainable development'(paragraph 14 of the NPPF), meaning The Council must accommodate development needs that show they can balance and sustain the social, environmental and economic needs of the area. The NPPF includes more detailed policy on a range of issues, of most relevance for the development brief are the following:

- Chapter 8. Promoting healthy and safe communities
- Chapter 9. Promoting sustainable transport
- Chapter 11. Making efficient use of land
- Chapter 12. Achieving well-designed places
- Chapter 14. Meeting the challenge of climate change, flooding [and coastal change]
- Chapter 15. Conserving and enhancing the natural environment

3.1.2 The National Design Guide 2019 sets out planning and design principles for creating beautiful, enduring and successful places. It is a design approach for all developments that considers site context, identity, built form, movement, nature, public spaces, land uses, homes/buildings, resources and lifespan.

3.2 Local Policy

3.2.1 This Development Brief provides a site specific Supplementary Planning

Document (SPD) to policy BE2 of the Wycombe District Local Plan (2019):

BE2: HOLLANDS FARM, BOURNE END AND WOOBURN

The site as shown on the Policies Map is allocated for residential-led mixed use. Development of the site is required to:

- 1. Placemaking**
 - a. Adopt a landscape-led positive approach to design and layout to limit its impact on the landscape;*
 - b. Have special regard to the conservation of nearby Heritage Assets and their settings, including the Hedsor Road and Riversdale Conservation Area;*
 - c. Maintain a sense of separation between Harvest Hill and the new development site;*
 - d. Ensure satisfactory relationship to the industrial buildings at Millboard Road Employment Area on the western boundary.*
- 2. Transport**
 - a. Provide a link road through the site linking to the Cores End Road roundabout and Ferry Lane;*
 - b. Provide a redirected bus service and enhanced provision through the site;*
 - c. Provide contributions to off-site highway improvements as required by the Highway Authority;*
 - d. Provide and enhance footpath and cycle links to the village centre.*
- 3. Green Infrastructure/ Environment**
 - a. Provide on-site high quality open space;*
 - b. Provide S106 contributions to mitigate recreational impacts at Burnham Beeches SAC;*
 - c. Maintain north south connectivity for Public Rights of Way through the site;*

d. Protect and enhance the biodiversity and green infrastructure value of the former orchard in accordance with Policy DM34, providing public access and ongoing management as part of the overall development. Buildings within this area will not be acceptable;

e. Avoid areas of fluvial flood risk where possible;

f. Provide appropriate SuDS across the site.

4. Other

a. Provision of a one form entry primary school.

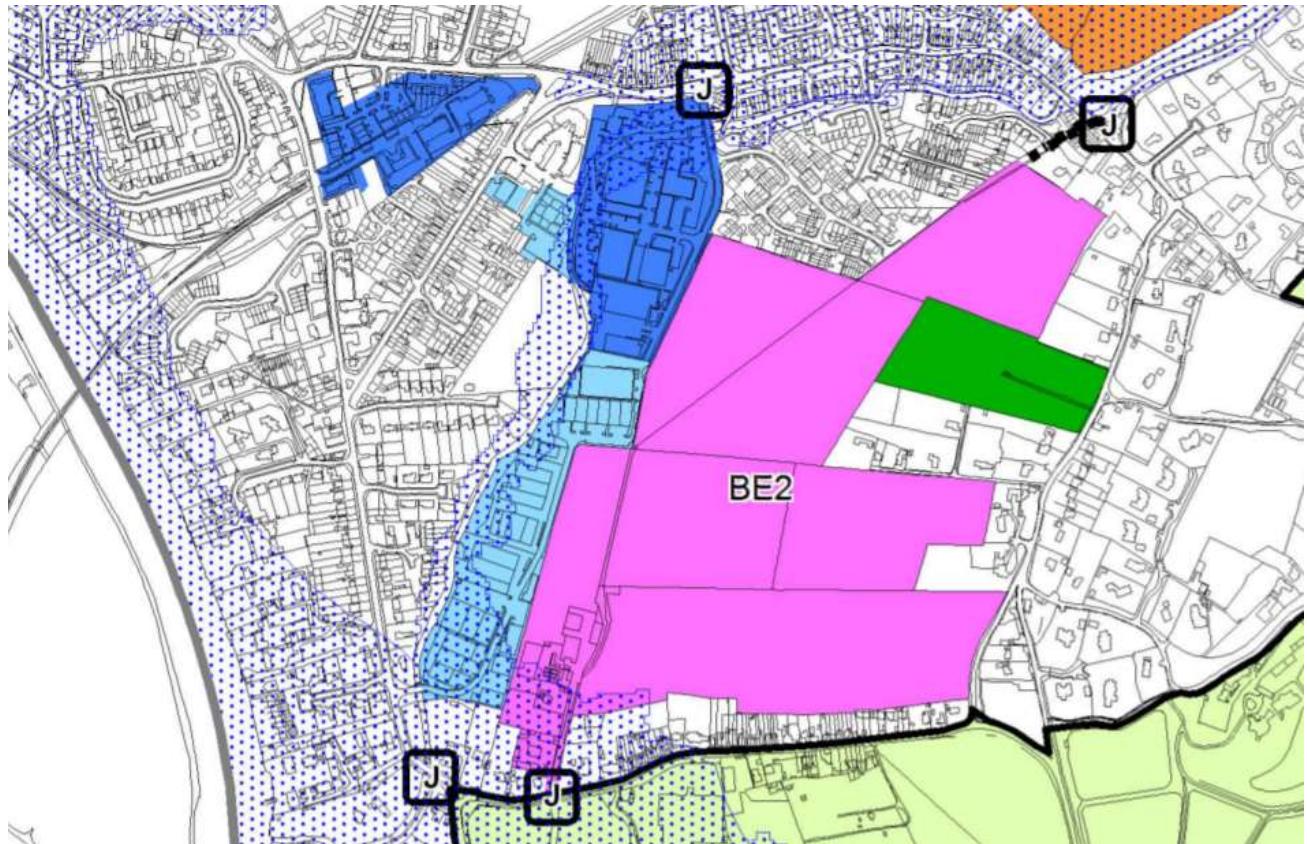


Figure 3.1 Map 8 (extract) Wycombe District Plan 2019 Identifying the Hollands Farm policy area



Figure 3.2 Policy BE2 Indicative Layout Plan Wycombe District Local Plan 2019

- 3.2.2 The adopted Wycombe District Local Plan (2019) and Delivery and Site Allocations Plan (2013) both form the Development Plan for the Wycombe Area, which this development brief responds to. All policies should be considered, of most relevance in addition to BE2 are policies:
- CP9 Sense of place
 - CP10 Green Infrastructure and the natural environment
 - CP11 Historic environment
 - CP12 Climate Change
 - DM2 Transport requirement for new development sites
 - DM11 Green Networks and infrastructure
 - DM13 Conservation and Enhancement of Sites, Habitats and Species of Biodiversity and Geodiversity Importance
 - DM14 Biodiversity in development
 - DM16 Open space in new development
 - DM19 Infrastructure and delivery
 - DM22 Housing mix
 - DM24 Affordable Housing
 - DM29 Community Facilities
 - DM31 Development affecting the Historic Environment
 - DM32 Landscape character and settlement patterns
 - DM33 Managing Carbon Emissions: Transport and Energy Generation
 - DM34 Delivering Green Infrastructure and Biodiversity in Development
 - DM35 Placemaking and Design Quality
 - DM38 Water Quality and Supply
 - DM39 Managing Flood Risk and Sustainable Drainage Systems
 - DM40 Internal Space Standards
 - DM41 Optional Technical Standards for Building Regulation Approval
- 3.2.3 This development brief will be a ‘material consideration’ (i.e. a matter taken into account) in the determination of any planning applications for this site.
- 3.2.4 A Neighbourhood Development Plan is currently being prepared for the Wooburn and Bourne End neighbourhood area. This process has helped to identifying community aspirations for the development here. Draft policies within the emerging neighbourhood plan are not a material planning consideration at this stage.

3.3 Supplementary Planning Documents/Guidance

- 3.3.1 A series of (SPDs and SPGs) support the Development Plan, providing greater detail on specific issues, for example Planning Obligations, Canopy Cover and Community Facilities. A guidance document on Parking Standards is also relevant. All SPD's and guidance documents are available on the Council's website, which can be found by searching 'Wycombe planning SPDs' in your web browser or at the following link:
- <https://www.wycombe.gov.uk/pages/Planning-and-building-control/Planning-policy/SPDs-and-guidance.aspx>*
- 3.3.2 The Council's Residential Design Guidance SPD (2017) for the Wycombe Area is especially relevant to this site. This deals with the following design issues:
- Character - designing to improve and reinforce character, identifying character and responding to the unique character of Wycombe;
 - Connections and movement - understanding connections & movement integrating with existing areas, creating walkable and legible neighbourhoods and people friendly street;

- Green infrastructure-integrated open spaces, enhancing biodiversity, sustainable drainage, integrating existing trees and other vegetation, planting new trees and landscape treatment;
- Parking design-parking to support street activity, preferred parking arrangements, rear shared parking, parking that serves residents and visitors, reducing the visual impact of parking, garages; under-croft and underground parking; and
- Building relationships-active fronts and private backs, achieving active frontages, achieving privacy, achieving good private amenity, achieving a good outlook, achieving attractive boundaries;

3.3.3 See Appendix A for a full list of relevant references.

4 Site Analysis

4.1 Introduction

- 4.1.1 This section sets out the current built and natural environment conditions for the site. It informs the SWOT Analysis at the end of this Chapter, and helps to shape objectives for the site as set out in Chapter 5.

4.2 Landscape and Settlement Character

- 4.2.1 Prior to removing the site from the Green Belt a landscape appraisal of the site and its surroundings was undertaken as part of a countywide Green Belt Review. A summary of the landscape appraisal follows:

This site has well-established urbanising influences, particularly residential development at the northern margin and the industrial estate at the western margin. The site is visually contained by a mixture of built development, mature trees, woodland and hedgerows, overlooked from neighbouring developments and to a degree from higher ground to the north and east, where the site is seen within its wider urban context. Public access and amenity is provided by a footpath passing through the site. Sensitive visual receptors will be local residents and users of the public footpath. The landscape lacks notable special qualities but benefits from a ‘wooded’ outlook over rising ground to the east and views to low hills to the north. The northern half of the site, particularly the

most northerly field, has a high capacity for development where the site is relatively enclosed and the landscape is most heavily influenced by neighbouring development. The southern half of the site is more open and rural in character but with significant urban influences from the industrial estate to the west and the rear of dwellings along Hedsor Road. Low-density housing within mature and wooded gardens also occurs on higher/rising ground to the east and, to some degree, overlooks the site. The southern part of the site has a moderate to high capacity for development provided the outlook from neighbouring residential areas (dwellings to the east and Hedsor Road Conservation Area) is addressed by way of layout/character areas, buffering and/or screening.

4.3 Landscape Character

- 4.3.1 There are no landscape designations that apply to the site or its surroundings. The Chilterns AONB lies approximately 1.5km to the northwest at its closest point. The Chiltern AONB Management Plan (2019-2024) provides development guidance for building within the setting of the AONB.
- 4.3.2 The site and surroundings comprise part of Landscape Character Area 26.1 ‘Thames Valley’ according to the Wycombe Landscape Character Assessment, undertaken by Land Use Consultants in 2011. Many of this area’s key characteristics are described in detail in the following sections.



Figure 4.1 Aerial photograph of the site

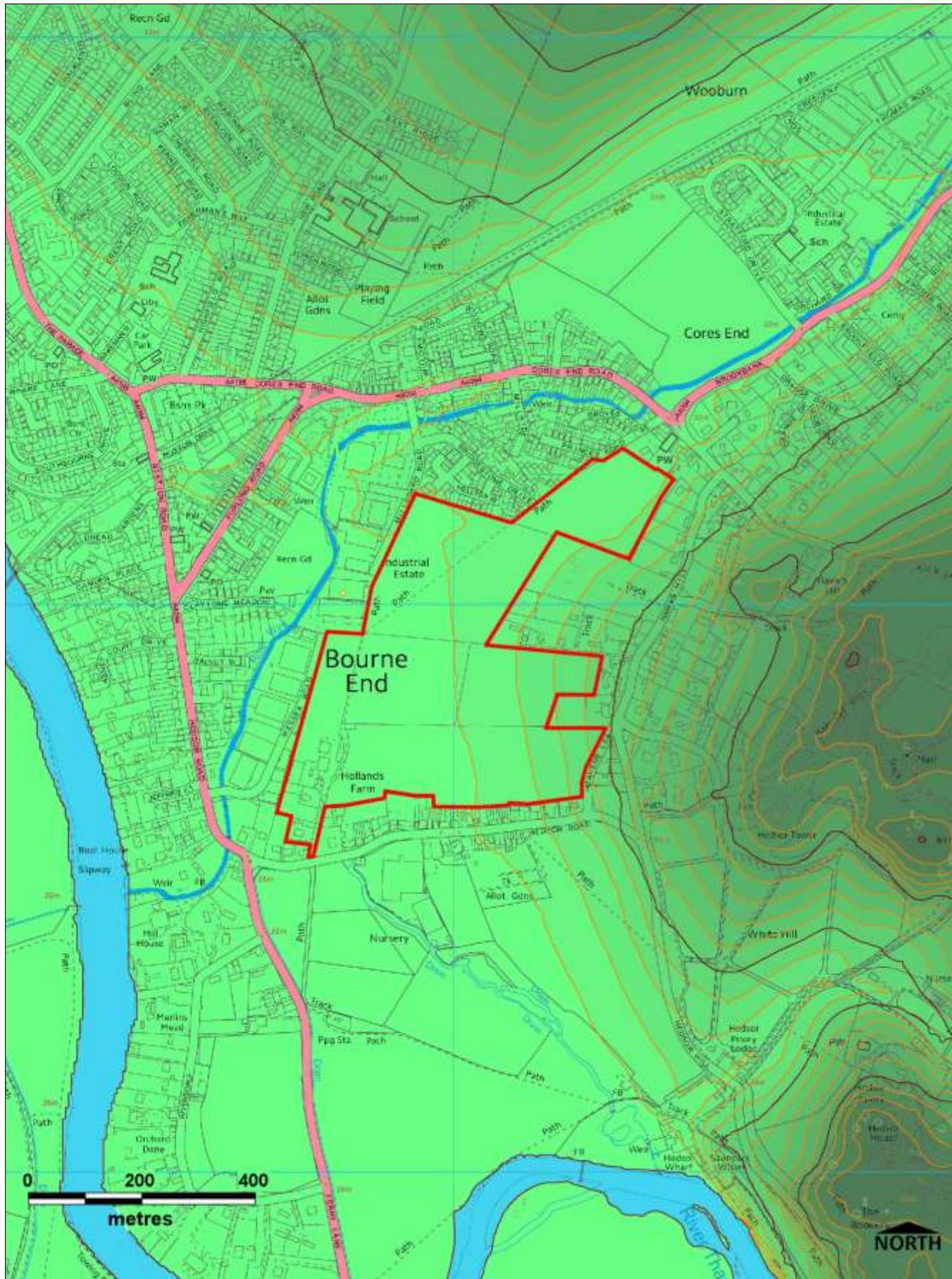


Figure 4.2 Topography and drainage

- 4.3.4 The Thames Valley is somewhat broader than the Wye Valley, cutting across the dip slope of the Chilterns, resulting in gently sloping ground north of the Thames floodplain, and relatively steep slopes to the south that rise to approximately 75 metres AOD. The floodplain is in fact at its narrowest where the site is located, approximately 600 metres wide, but elsewhere typically extends 800-1000 metres and more wide. The river is reasonably broad and is a strong landscape feature in itself.
- 4.3.5 The site itself is flattest in the central and western parts of the site, lying in the region of 35 metres AOD before rising to approximately 50 metres AOD towards the eastern margins, with gradients reaching 1:12 or more.

4.4 Vegetation

- 4.4.1 A mix of pasture and arable fields, with managed hedgerows between them and relatively unmanaged hedgerows and trees at the site 'boundaries, mostly on adjoining properties. A small number of mature trees are the subject of Tree Preservation Orders. The area was once populated by orchards and one remnant orchard survives adjoining the site's eastern boundary.

- 4.4.2 Beyond the site, the wider area is well-populated by mature trees along local streets and in gardens of many established residential neighbourhoods in Bourne End, Cores End, Hawks Hill / Harvest Hill and parts of Hedsor Road. Blocks of woodland are infrequent, occurring mainly to the southeast in Hedsor Park and the Cliveden Estate (see figures 4.1 Aerial photograph and 4.3 Vegetation).

4.5 Settlement

- 4.5.1 The area surrounding the site is well-settled and of varied character. It is mainly traditional two-storey residential settlement – the low-density rural settlement along Hawks Hill and Harvest Hill to the east, with denser village/urban development at Cores End and Bourne End to the north and west. 'A village character is also established at Hedsor Road to the south. In contrast, the site's western margin is characterised by the Wessex Road Industrial Estate and the Dukes Meadow Business Park at Millboard Road, comprising relatively large modern industrial and commercial buildings.
- 4.5.2 Settlement character and history is described in more detail at section 4.2 below.

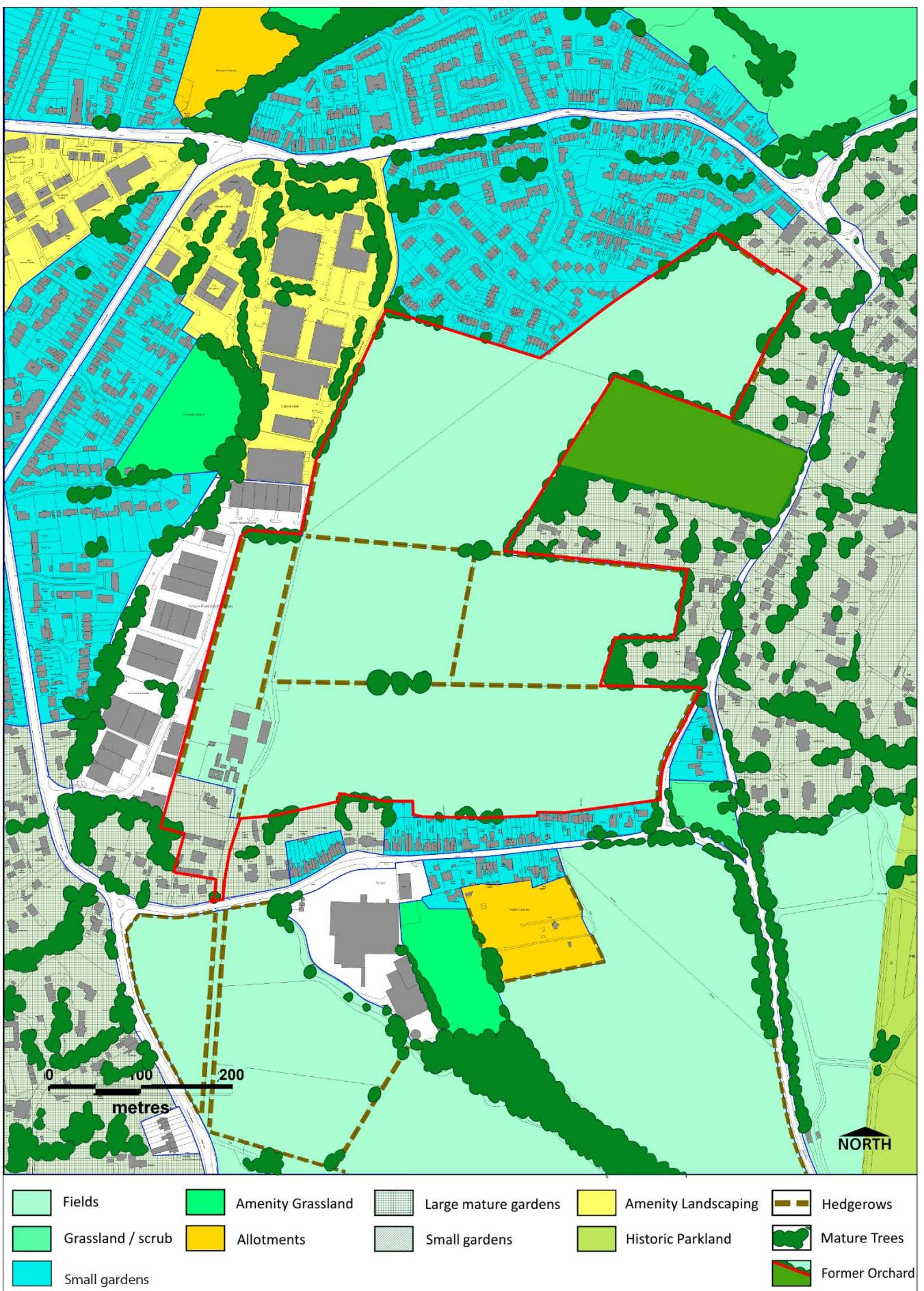


Figure 4.3 Vegetation

4.6 Visibility

- 4.6.1 Most views of the site occur within it and from its edges, with a few glimpsed or long-range views from the wider area (see figure 4.4 Views and vistas).
- 4.6.2 There are open views from the public footpaths that pass through the site (WOO/3/1 and WOO/3/2) and alongside it at Millboard Road (WOO/4/1). There are glimpsed public views from the residential streets north of the site at Princes Road, Bridgestone Drive and Hellyer Way, as well as from the employment areas at Wessex Road and Millboard Road to the west. There are also brief glimpses into the site from Heavens Lea to the east.
- 4.6.3 Views across the site looking to the west and north are adversely impacted by the appearance of the adjoining industrial estate / business park, and by the abrupt boundary between the site and properties on Bridgestone Drive / Hellyer Way.
- 4.6.4 Views into the site from surrounding public roads and open spaces are mostly constrained by intervening buildings and vegetation. There are no public views into the site from Cores End Road, or from nearby roads in Bourne End to the west. At the southern edge of the site, houses and gardens along Hedsor Road preclude most public views into the site except for a glimpse at the entrance to Hollands Farm. East of the site, most views from the public roads towards the site are obscured by roadside vegetation and houses. There is scope for glimpses of the site in winter with the lack of leaves on trees.
- 4.6.5 There are limited opportunities for views into the site from public rights of way in the wider landscape. South of the site, a public bridleway descends the field (ref HED/2/1) towards the site, with a view extending across/between the rooftops of houses on Hedsor Road towards the mature trees within the site and to the backdrop of Bourne End. From the north, public footpath WOO/20/4 descends the hill from the direction of Flackwell Heath towards Wooburn and Cores End, with a long-ranging view across the site to Bourne End and the countryside beyond.

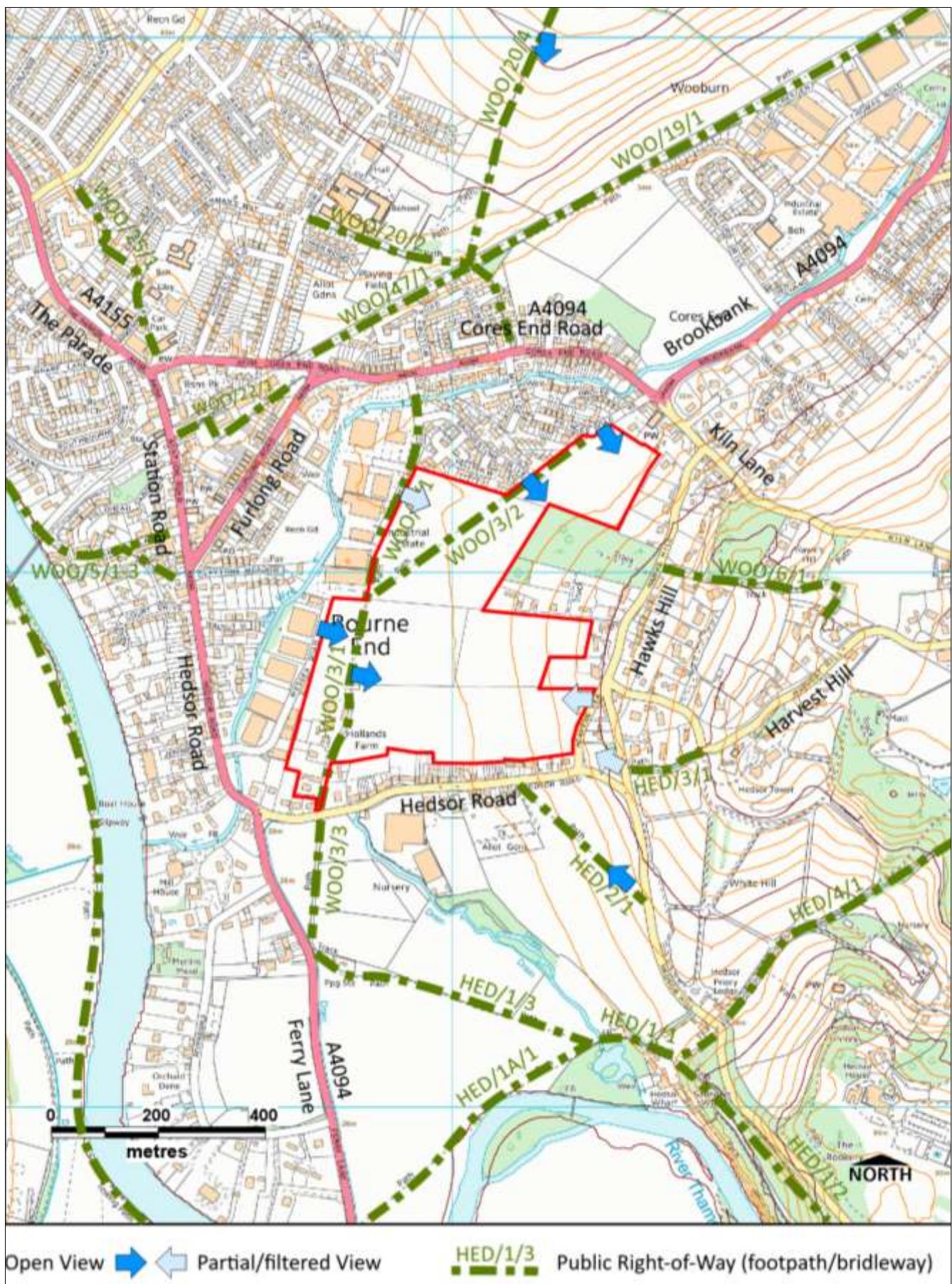


Figure 4.4 Views and vistas

4.7 Settlement Character

- 4.7.1 The site directly adjoins the settlement of Bourne End. It is identified as a 'large settlement' within the Settlement Hierarchy for the Wycombe District Local Plan, with a mainly 'traditional' urban character (see Figure 4.5). Cores End adjoins the northern side of the site and is part of Bourne End. Hedsor Road to the south is a settlement associated with Hedsor Parish, with worker's cottages that used to house staff of Hedsor House and the nearby Hedsor Wharf, having a character of its own. Hawks Hill and Harvest Hill have a low density rural character and are also part of Bourne End. Historic Settlement
- 4.7.2 The original centre of Bourne End lies west of the site, on and around what is now called Station Road. However, Bourne End began to expand north of the railway line late nineteenth century onwards, and the modern (retail) centre of Bourne End lies just north of the station. Substantial residential development took place in the 1960s and 1970s and thereafter, merging Bourne End with Well End a little further west. The 1970s also saw the establishment of what is now the modern industrial estate and business park adjoining the site to the west, replacing the former mills along the River Wye.
- 4.7.3 In the meantime, Cores End remained relatively compact in the late nineteenth and early twentieth centuries, expanding a little to the east on Kiln Lane. It wasn't until the latter half of the twentieth century that major residential expansion in the area began to close the gap between Cores End and nearby Wooburn.
- 4.7.4 Hedsor Road had a core of houses around the Garibaldi pub in the late nineteenth century and was largely surrounded by orchards. By 1900, many of the houses seen today were built, with a few additions east and west completed by the 1920s. However, nearby Hawks Hill and Harvest Hill remained largely unbuilt at this stage, though a handful of large individual houses had begun to appear. It was the 1960s and 1970s when many of the houses seen today were first built.
- 4.7.5 Industry was historically located along the River Wye, using the water as a source of energy as well as a raw material. This was reinforced with the arrival of the railway, resulting in significant areas of employment land between the railway and river that remain to this day, though in a modern form now. The river here is no longer used for commercial purposes and the railway line linking Bourne End to High Wycombe was closed in the 1960s and subsequently dismantled, leaving Bourne End with access to London only via Maidenhead (see Figure 4.6 illustrating the growth of development in the area between 1882 and 2015 and Figure 4.7 illustrating the present day range of character areas found in the surrounding area).

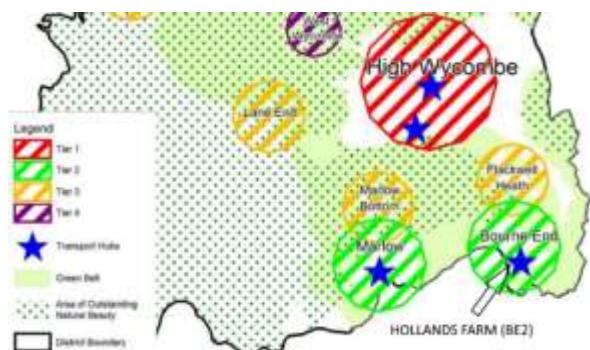
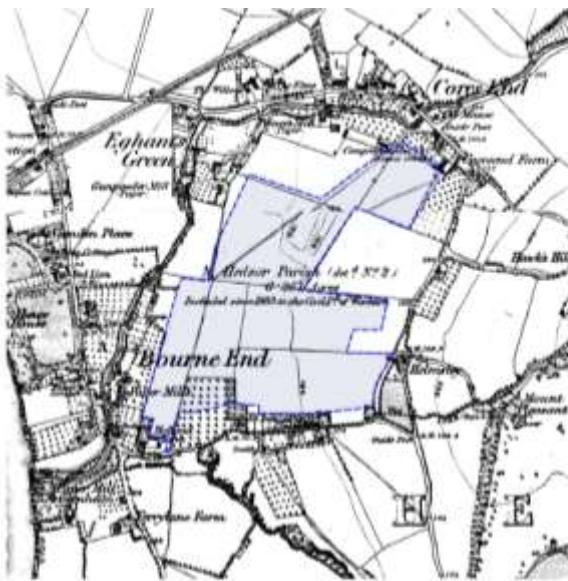
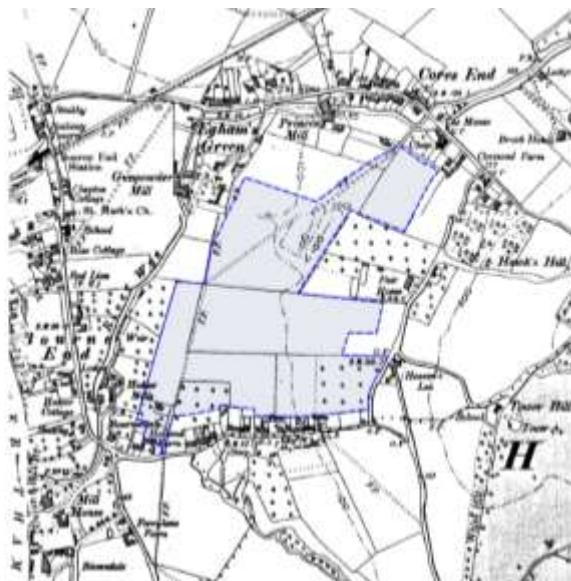


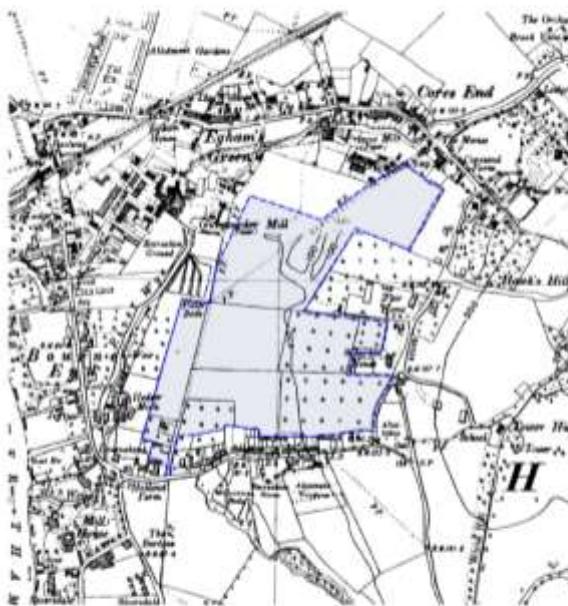
Figure 4.5 Settlement hierarchy



A: OS Map of 1882-83



B: OS Map of 1900



C: OS Map of 1938



D: OS Map of 1960



E: OS Map of 1977-78



F: OS Map of 2015

Figure 4.6 A - F Historic maps

4.8 Character Areas

Bourne End

- 4.8.1 Refer to Figures 4.8 a-d for photographs.
- 4.8.2 The modern centre of Bourne End, just north of the railway line, is mostly mid-to-late twentieth century buildings. The shopping centre is mostly modernist in style, two storeys with flat roofs with brick, render and glazed facades. While some late-nineteenth and early twentieth century buildings line the Parade and Marlow Road, much of the surrounding development is mid to late twentieth century housing and schools, mostly brick with pitched roofs and two storeys high, with occasional three storey buildings towards the centre and occasional streets of bungalows / dormer bungalows elsewhere. Streets and gardens are typically generous for the most part and frequently support mature trees.
- 4.8.3 South of the railway station and in pockets north of the station, houses are mostly two-storey pitched-roof buildings from the late nineteenth or early twentieth century, in red brick or render, complemented by mid to late twentieth century infill housing development. Between the River Thames and Ferry Lane, large detached houses occupy equally large plots with mature trees.
- 4.8.4 Around the railway station, former railway line and along the River Wye lie modern employment areas – brick and render two-storey buildings are characteristic of the business parks, while metal cladding and shallow-pitched metal roofs characterise the industrial estates.

Cores End

- 4.8.5 Refer to Figures 4.9 a-d for photographs.

4.8.6 Cores End has a compact linear historic core at the centre of the village, where late-nineteenth century two-storey pitched-roof houses line Cores End Road. Late twentieth-century housing development has taken a similar built form and broadened the village north and south of Cores End Road. The church on Kiln Lane marks the point at which Cores End, Wooburn and Hawks Hill converge. Gardens are modest for the most part but there is reasonably good tree cover along parts of Cores End Road, along the River Wye and in some of the larger gardens.

Hawks Hill/Harvest Hill

- 4.8.7 Refer to Figures 4.10 a-d for photographs.
- 4.8.8 The southern end of Wooburn adjoins Hawks Hill / Harvest Hill across Kiln Lane, characterised by large detached houses on large plots with mature gardens. Most are modern houses borrowing from traditional styles, being mostly two-storey elevations in brick, render and tile, with pitched roofs. Hawks Hill and Harvest Hill are heavily tree-lined.

Hedsor Road

- 4.8.9 Refer to Figures 4.11 a-d for photographs.
- 4.8.10 Hedsor Road is lined with traditional two-storey houses from the late 19th & early 20th century, many of which jostle for position close to the road. Plots are often narrow and many houses are either terraced or semi-detached. Gardens are long for most of the northern side of Hedsor Road. A handful of gardens having been substantially extended in the past. A small group of houses to the eastern end of Hedsor Road is set back far from the road with very short or no rear gardens, placing them very close to the site.

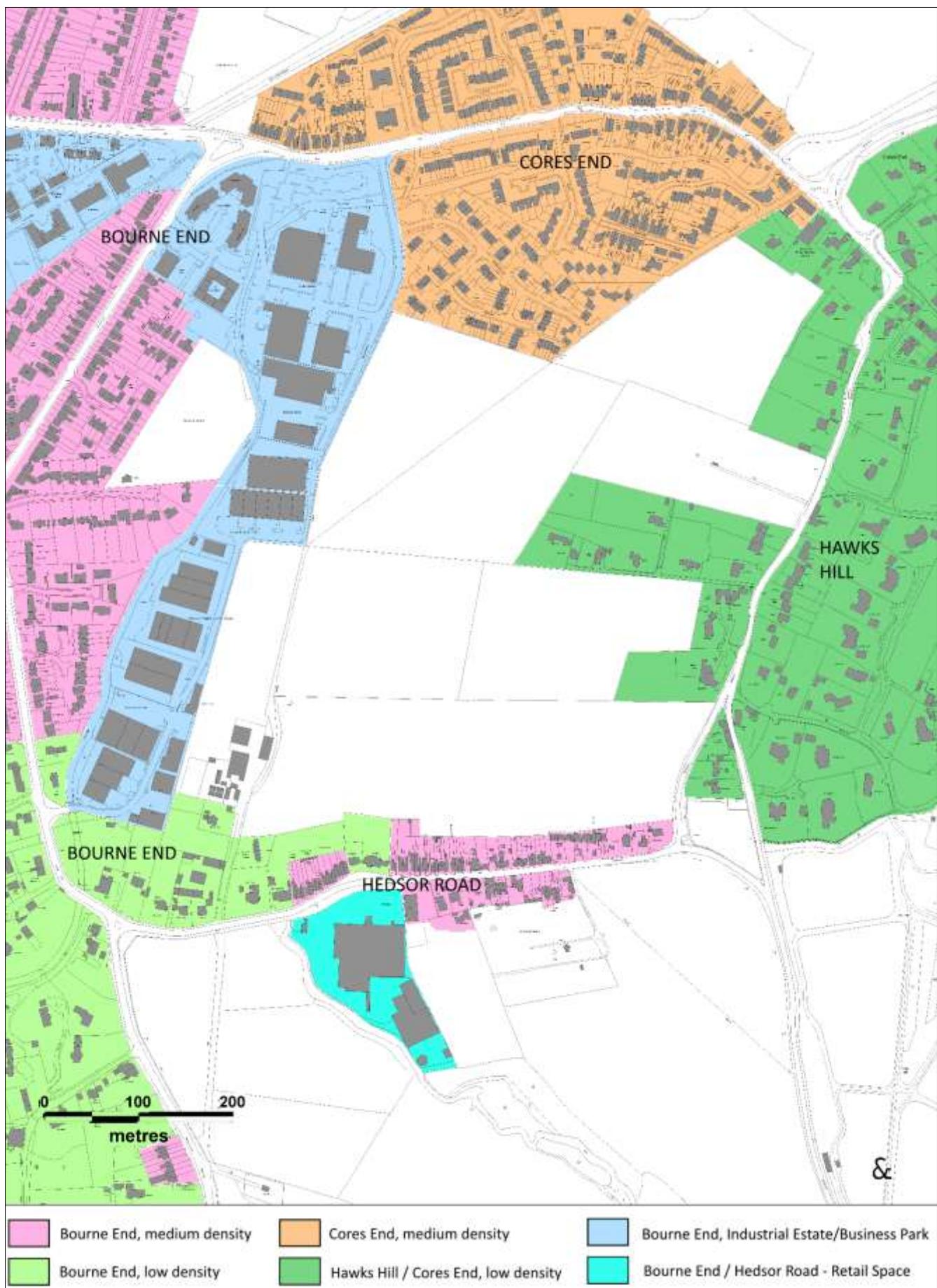


Figure 4.7 Settlement character areas



Figure 4.8 a - d photographs of Bourne End

Figure 4.9 a - d Photographs of Cores End



a



b



c



d



a



b



c



d

Figure 4.10 a - d Hawks Hill / Harvest Hill

Figure 4.11 a - d Photographs of Hedsor Road

- 4.8.11 The south side of Hedsor Road is of more mixed character, supporting a social club and playing field, allotments and a sizeable modern garden centre, retail outlet and car park (see figure 4.7).

4.9 Conservation and Heritage

- 4.9.1 Heritage assets in and around Hollands Farm range from sites and buildings of local historic value to those of the highest significance in the wider landscape, such as Cliveden, a Grade I Listed Building approximately 1.5km to the southeast, although it cannot be directly seen from the site.

Designated Heritage Assets

- 4.9.2 Designated heritage assets include nationally Listed Buildings, Conservation Areas and Registered Historic Parks and Gardens. Designated heritage assets within and in the vicinity of the site are identified in the Figure below.

Hedsor Road and Riversdale Conservation Area

- 4.9.3 This is a large Conservation Area south of the settlement of Bourne End. Formerly comprising two separate designations, the two distinct areas of Hedsor Road (Upper Bourne End) and Riversdale were amalgamated to make a single Conservation Area in 1991 (see Figure 4.12). The Conservation Area Character Appraisal was updated and adopted in March 2018.

- 4.9.4 The Conservation Area extends along the southern boundary of the site and also includes the proposed southern access. Housing fronts the road and is set within the wider landscape with fields behind on both sides reinforcing a distinctly linear form. It is intensively developed and has a relatively consistent and modest scale of building throughout; it is also adjoined by the Hedsor Club and Garden Centre on

the south side of the road. Despite being a relatively busy road, the lack of formal engineered road design, footways, signage and lighting helps retain the rural character. Mature trees within the site and beyond are visible above the roofs in views from public vantage points to the south.

- 4.9.5 Hedsor Road and Riversdale Conservation Area adjoins the site's southern boundary and at one point extends in the southern area of the site.
- 4.9.6 Listed Buildings lie in close proximity to the site at Cores End, Heavens Lea and Hedsor Road (see Figure 4.13). There are also several Designated and Undesignated Heritage Assets in the surrounding area and it will be important to have special regard to their settings.

Listed Buildings

- 4.9.7 There are 8 Listed Buildings within the Conservation Area including Hollands on Hedsor Road near the southern access, also May Cottage and Quantings located on the southern side of Hedsor Road. Old Bartons is just beyond the Hedsor Road character area and overlooks the junction with Ferry Lane (see Figure 4.13).

- 4.9.8 There is a group of Grade II Listed Buildings at Heavens Lea to the east of the site. This hamlet comprises vernacular cottages – 1.5 storey brick and timber structures with tile or thatched roofs and timber weather boarding (see Figure 4.10c).

- 4.9.9 The group of Listed Buildings immediately to the north of the site include Cores End House (Grade II*), Cores End United Reform Church and Cores End Cottage (both Grade II) (see Figure 4.9c).

Registered Historic Parks & Gardens

4.9.10 To the east lies the Grade II Registered Historic Park and Garden at Hedsor House. The park contains associated Grade II Listed Buildings including Lord Boston's Folly and the Church of St Nicholas.

4.9.11 Designated heritage assets in the wider area also include Cliveden which comprises the Grade I mansion in its

Grade I Registered Park & Garden and associated Grade II* and II Listed Buildings.

4.9.12 It is not anticipated that the development will have a direct physical impact on any of the above designated historic assets or their curtilages, special care is needed to avoid or minimise harm to their settings.

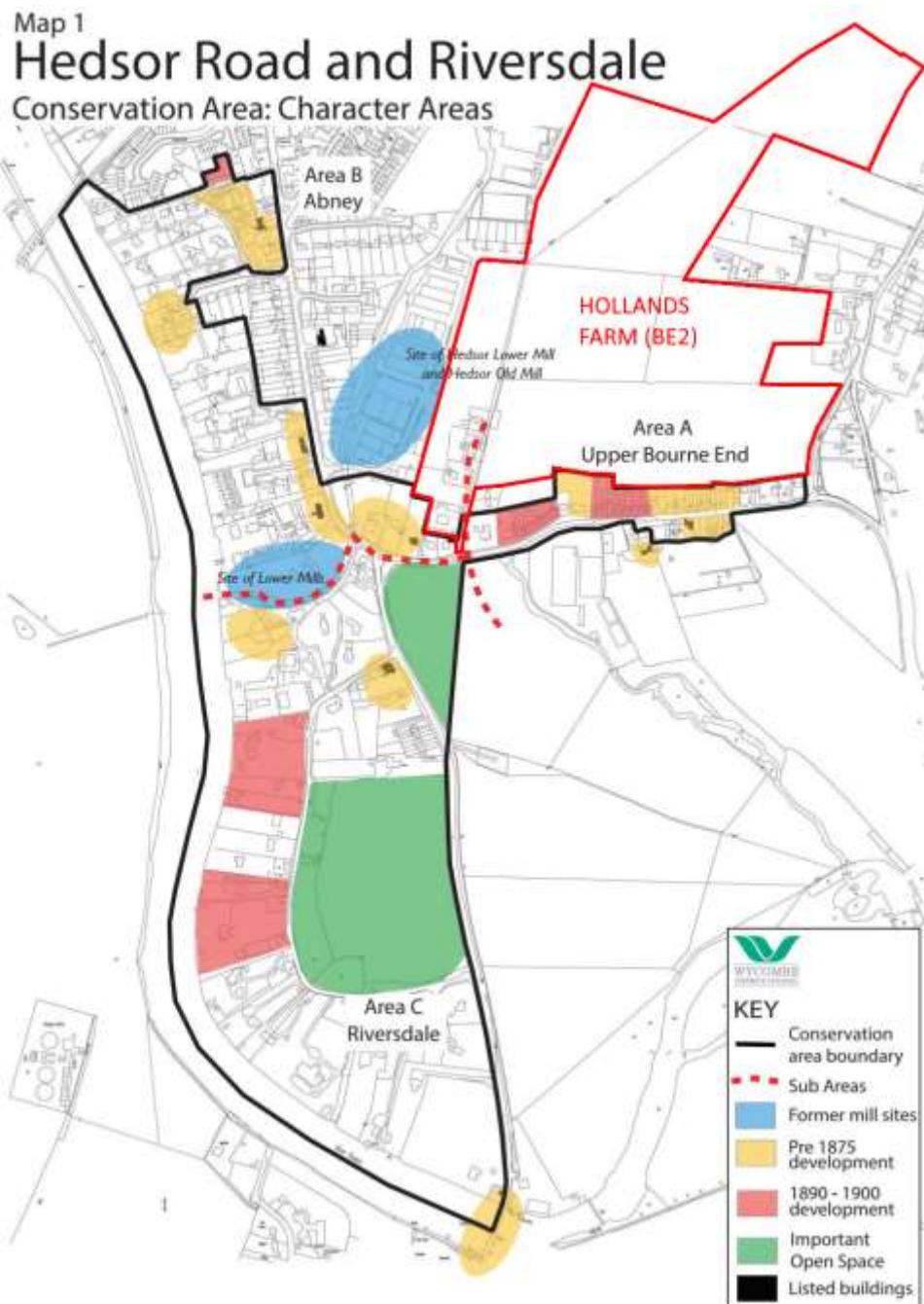
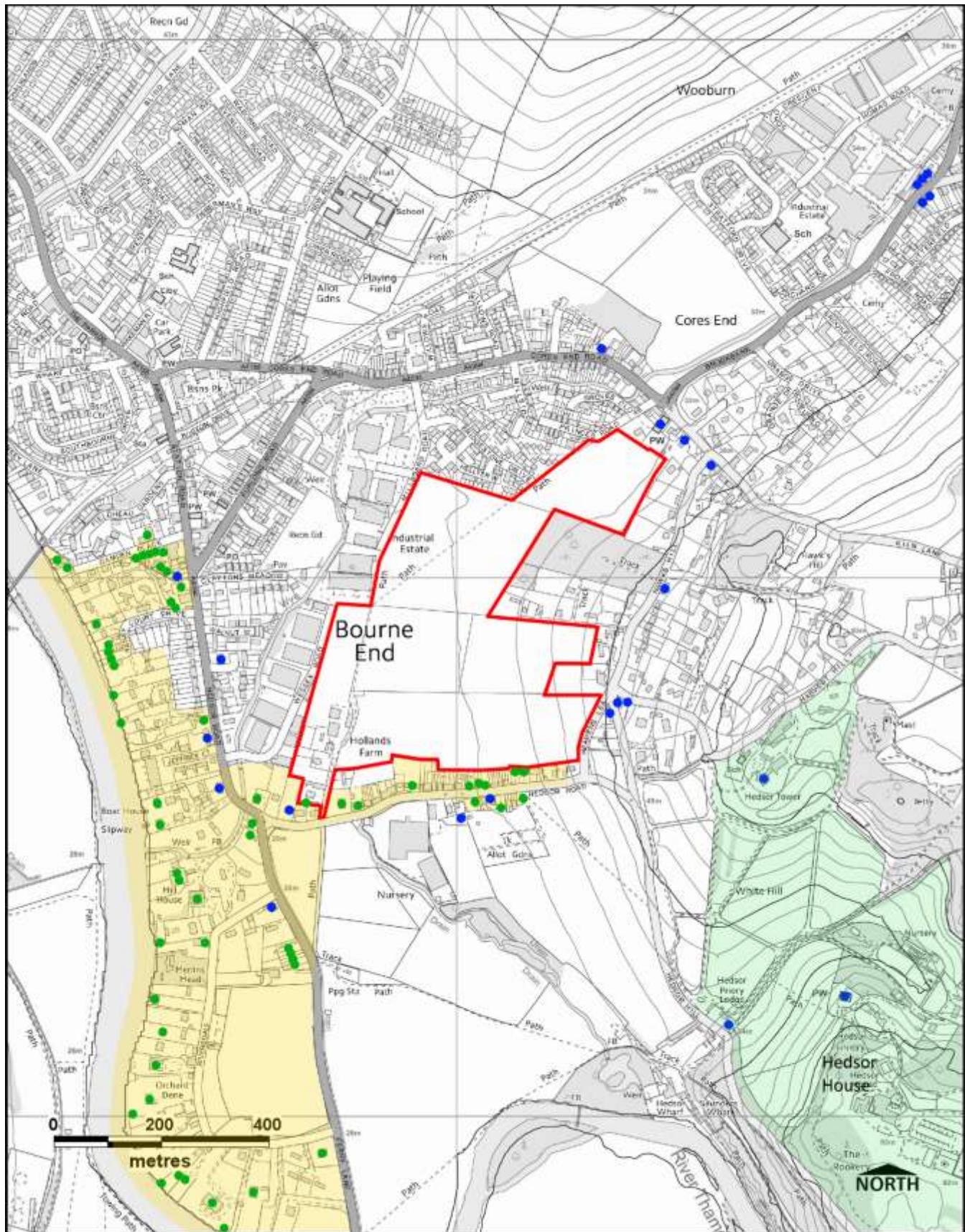


Figure 4.12 Hedsor Road and Riversdale conservation area map 1: character areas



- Listed Building
- Non-designated Heritage Asset
- Conservation Area
- Registered Park & Garden

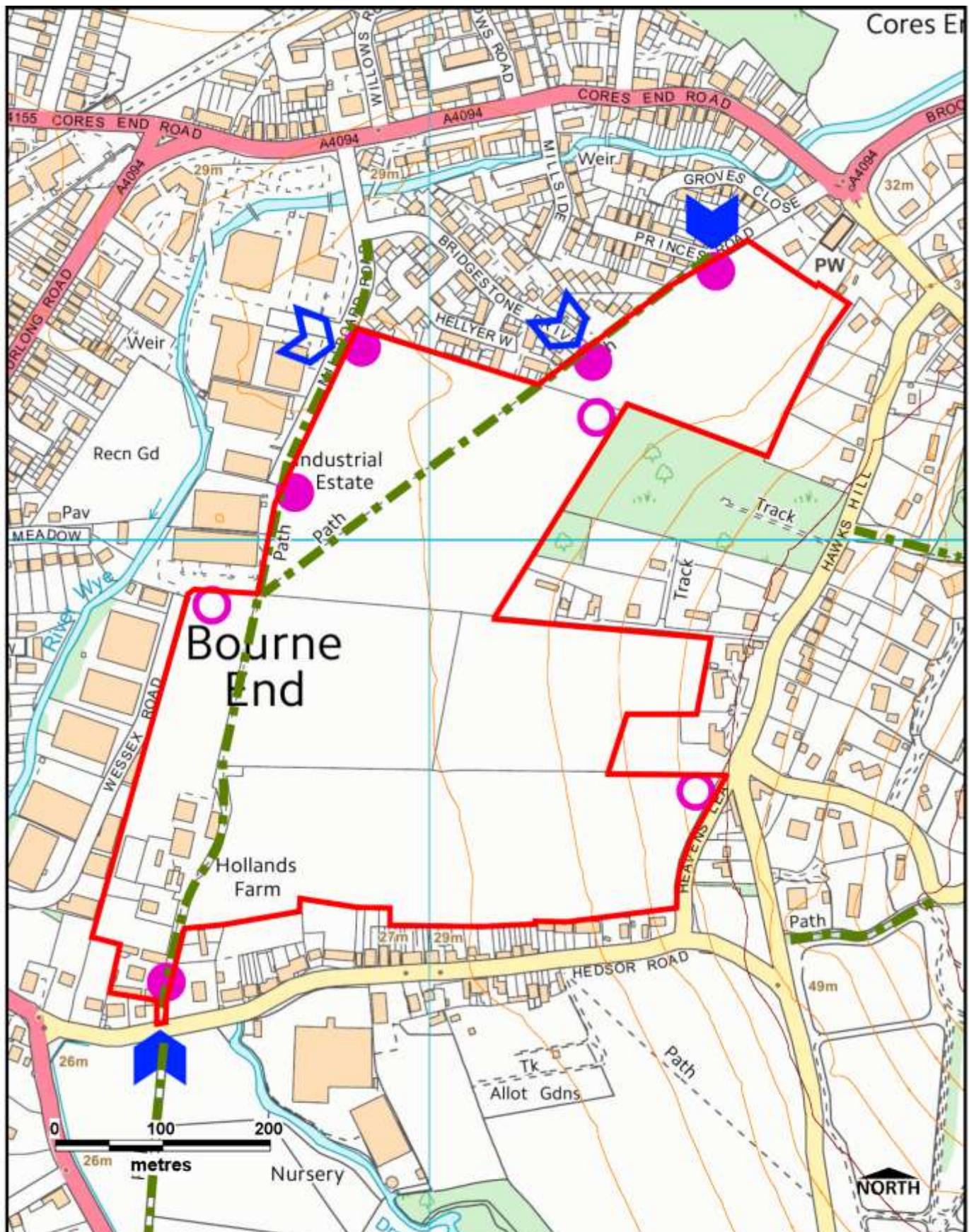
Figure 4.13 Designated and non-designated heritage assets

Non-designated Heritage Assets

- 4.9.13 Locally Listed Buildings and historic buildings that contribute to the special interest of the Conservation Area may be considered non-designated heritage assets.
- 4.9.14 While no undesigned heritage assets are located on site, there are several surrounding it, worthy of particular mention: Southfields, Long Boyds, The Meads, The Old Cottage and Erleigh Cottage, the Garibaldi public house, 1 & 2 Southview Cottages and Shalimar. These buildings are all situated on the north side of Hedsor Road and noted within the Conservation Area character appraisal as important buildings. Refer to Figure 4.13 for non-designated heritage assets.

4.10 Archaeology and Find Records

- 4.10.1 The Historic Environment Record describes archaeological considerations as follows:
- 4.10.2 There are no designated archaeological assets with the site boundary, such as scheduled monuments or registered battlefields.
- 4.10.3 Three archaeological finds scattered within the site comprise roman metalwork, a roman coin and a medieval mount, scattered across the site. There is no pattern of archaeological deposits within the site.
- 4.10.4 While the wider Thames Valley appears to have been settled, there is no evidence of such (e.g. crop marks) on the site or in the immediately surrounding area.
- 4.10.5 A small number of scattered finds occur from the Palaeolithic period to the Bronze Age, mostly to the south, suggesting activity in the local area.
- 4.10.6 There is limited evidence of Roman activity in the area, including the course of a road and a possible cemetery to the southeast of the site.
- 4.10.7 Early Medieval archaeology includes cemeteries to the northwest (60 and 300m from the site boundary) along with metalwork to the northwest, south and southeast.
- 4.10.8 A geophysical survey carried out in 2019 did not identify any anomalies of potential archaeological features.



Pedestrian Access - existing
- potential (approx.) Vehicular Access - existing
- potential (approx.) Right of Way

Figure 4.14 Site access

4.11 Access, Transport and Movement

Vehicular

- 4.11.1 Vehicular access to the site is currently provided from the north at Princes Road and from the south/Southwest at the entrance to Hollands Farm via Ferry Lane and Cookham Bridge. Cookham Bridge is Grade II listed and has weight restrictions with limited capacity. Both access routes are constrained by adjacent properties. Roads also adjoining the site boundaries at Bridgestone Drive to the north, at Millboard Road and Wessex Road to the west and at Heavens Lea to the east, with potential for additional vehicular and/or pedestrian links.
- 4.11.2 The main route through Bourne End and Cores End is the A4094. It approaches Bourne End from the south along Ferry Lane/Hedsor Road, then follows Furlong Road and Cores End Road north of the site before following Town Lane along the Wye Valley through Wooburn and Woodburn Green to the northeast. Meanwhile, the A4155 approaches Bourne End from Marlow / Little Marlow to the west. These are the main routes in and out of the area. In addition, Kiln Lane provides a secondary route to the east, while Hedsor Hill provides another to the south.
- 4.11.3 Hedsor Road (to the south) and Harvest Hill/Hedsor Hill (to the east and south east) have weight restrictions of seven tonne.

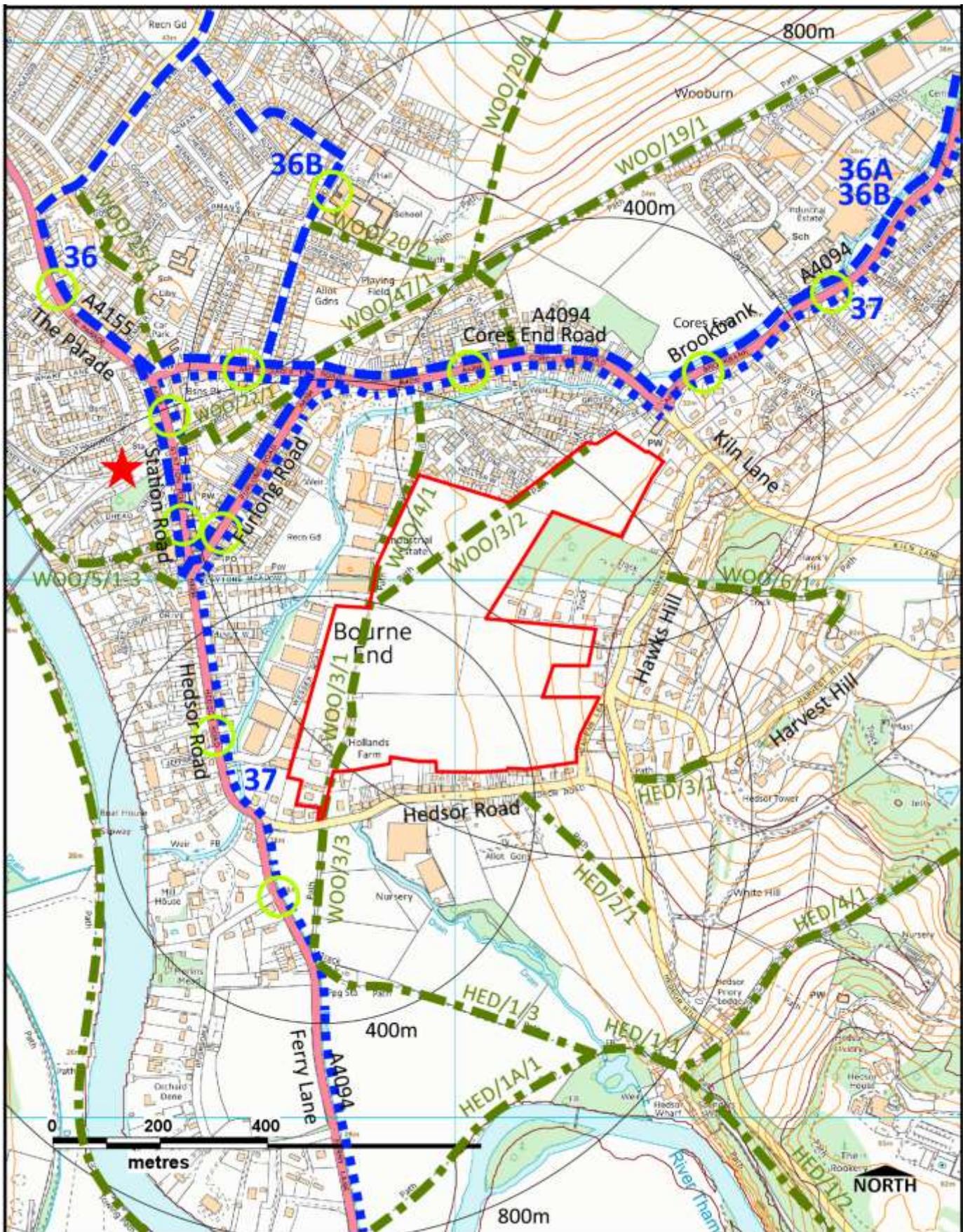
Cyclists

- 4.11.4 There is no specific provision for cycling lanes or facilities in the local area that would aid or encourage cycle use either

on or off the public roads. However, there is a local planning objective (DM4) to upgrade the public right-of-way along the former Bourne End to High Wycombe railway line to a surfaced footpath and cycleway, which would potentially encourage more cycling for both recreational purposes and commuting between Bourne End and High Wycombe.

Pedestrians

- 4.11.5 There is existing pedestrian access into the site from Princes Road and Millboard Road to the north, and from the entrance to Hollands Farm on Hedsor Road to the south. There is no pedestrian access into the site from the east. Public rights of way provide pedestrian access through the site (ref. WOO/3/1 and WOO/3/2) linking Hedsor Road to Princes Road, and to Millboard Road (ref. WOO/4/1) (see figure 4.14).
- 4.11.6 In the wider area, provision for pedestrian movement is reasonably good to the north and west within Cores End and Bourne End, where roadside pavements are consistently provided. However, Hawks Hill / Harvest Hill to the east and Hedsor Road to the south generally have no roadside pavements, where walking on the road makes pedestrian movement difficult / unsafe. A short public footpath (ref. HED/3/1) links Harvest Hill to Hawks Hill from the east, while a public bridleway (WOO/6/1) also links Harvest Hill to Hawks Hill further north. Two public footpaths (HED/2/1 and WOO/3/3) join Hedsor Road from the south, with potential to link into the site. Refer to Figure 4.15 for the location of local rights-of-way.



- Bus Route 36
- - Bus Route 37



A green circular icon with a white bus symbol inside, representing a bus stop.

Right of Way

Figure 4.15 Movement network

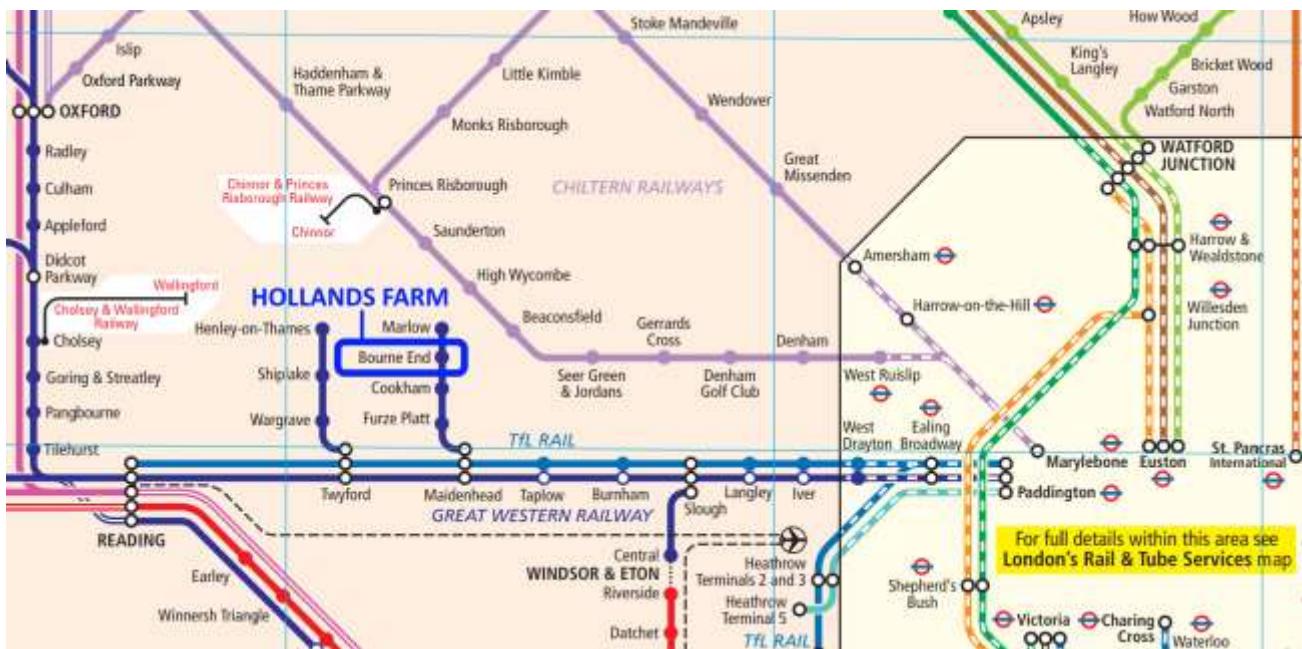


Figure 4.16 Strategic rail map

4.12 Public Transport

- 4.12.1 There is a railway station at Bourne End serviced by Great Western Railway, with hourly services to Maidenhead (including onward connections to London and elsewhere) plus additional peak time services; trains also run to and from Marlow via a spur line (see Figure 4.16).

4.12.2 Two bus routes serve Bourne End, as indicated on Figure 4.15.

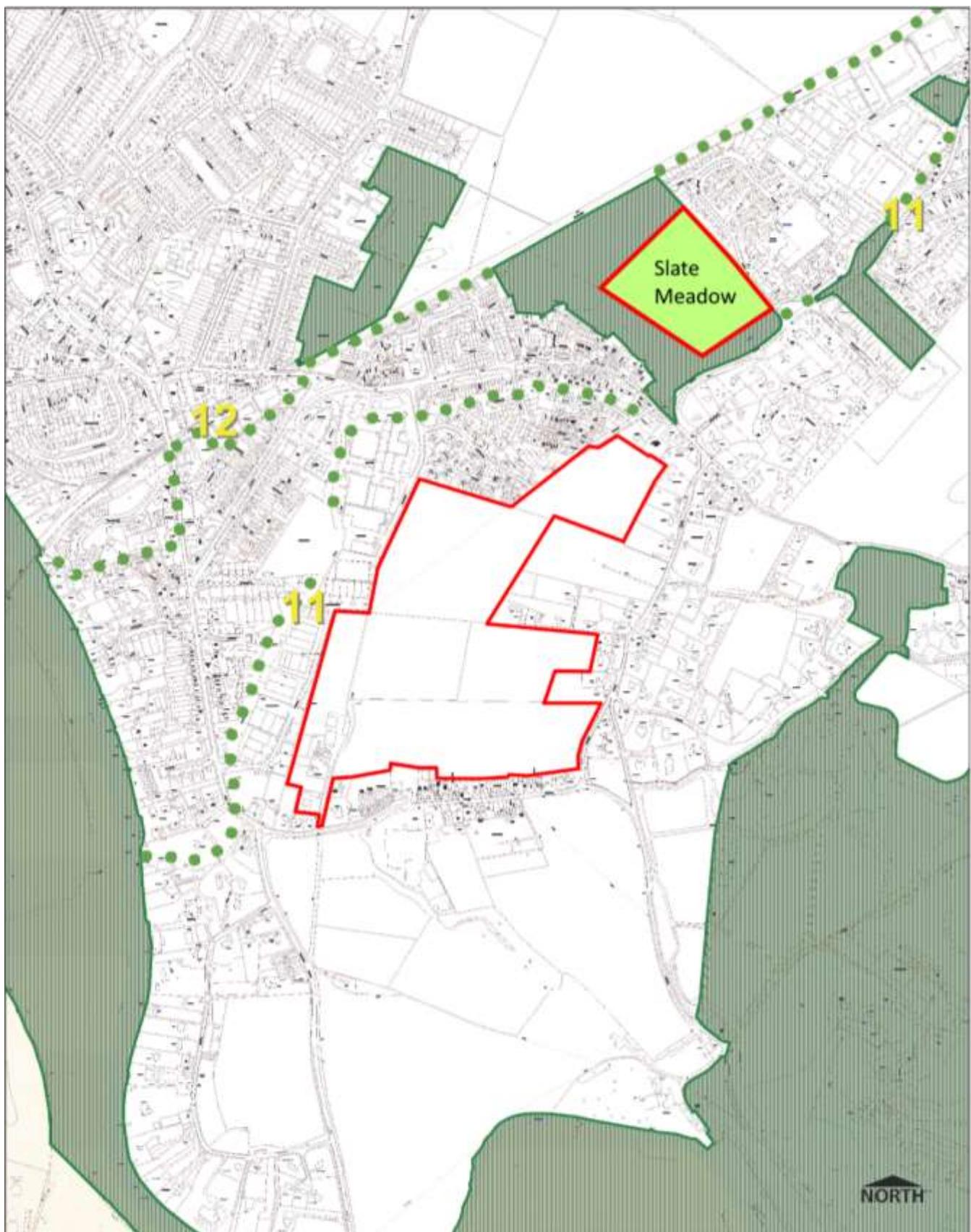
4.12.3 Bus route 36/36A runs between High Wycombe and Bourne End via Flackwell Heath (Blind Lane), approaching the site from the northwest. It joins Cores End Road before following Furlong Road and terminates on Station Road. This route serves existing bus stops within 800 metres of the site. Services are operated by Carousel buses and run Monday to Saturday, excluding bank holidays, at intervals of 30-60 mins approximately.

4.12.4 Bus route 37/37A runs between High Wycombe and Maidenhead via Bourne End. It approaches from the direction of Wooburn along Brookbank / Town Lane

before following Cores End Road into the centre of Bourne End. It then turns south along Station Road and Ferry Lane towards Maidenhead. This route is served by existing bus stops within 200 metres north and 300 metres south of the site. Services are operated by Arriva buses; service 37 runs Monday to Saturday at intervals of 15-45 minutes, while service 37A runs at hourly intervals on Sundays and bank holidays.

4.13 Green and Blue Infrastructure

- 4.13.1 Within the site, there are relatively few Green Infrastructure assets. A small number of mature deciduous trees stand within intact hedgerows centrally within the site. Of the most significant are subject to Tree Preservation Orders. Most of the site supports arable land and improved pasture. The GI value of these fields is relatively low for wildlife but they are fundamental to enjoyment of public footpaths passing through them. Refer to Figure 4.3 Vegetation Map earlier in this section.



 Opportunity Areas  Green Infrastructure Area  Future Development Area

Figure 4.17 Green Infrastructure (GI) Opportunity areas

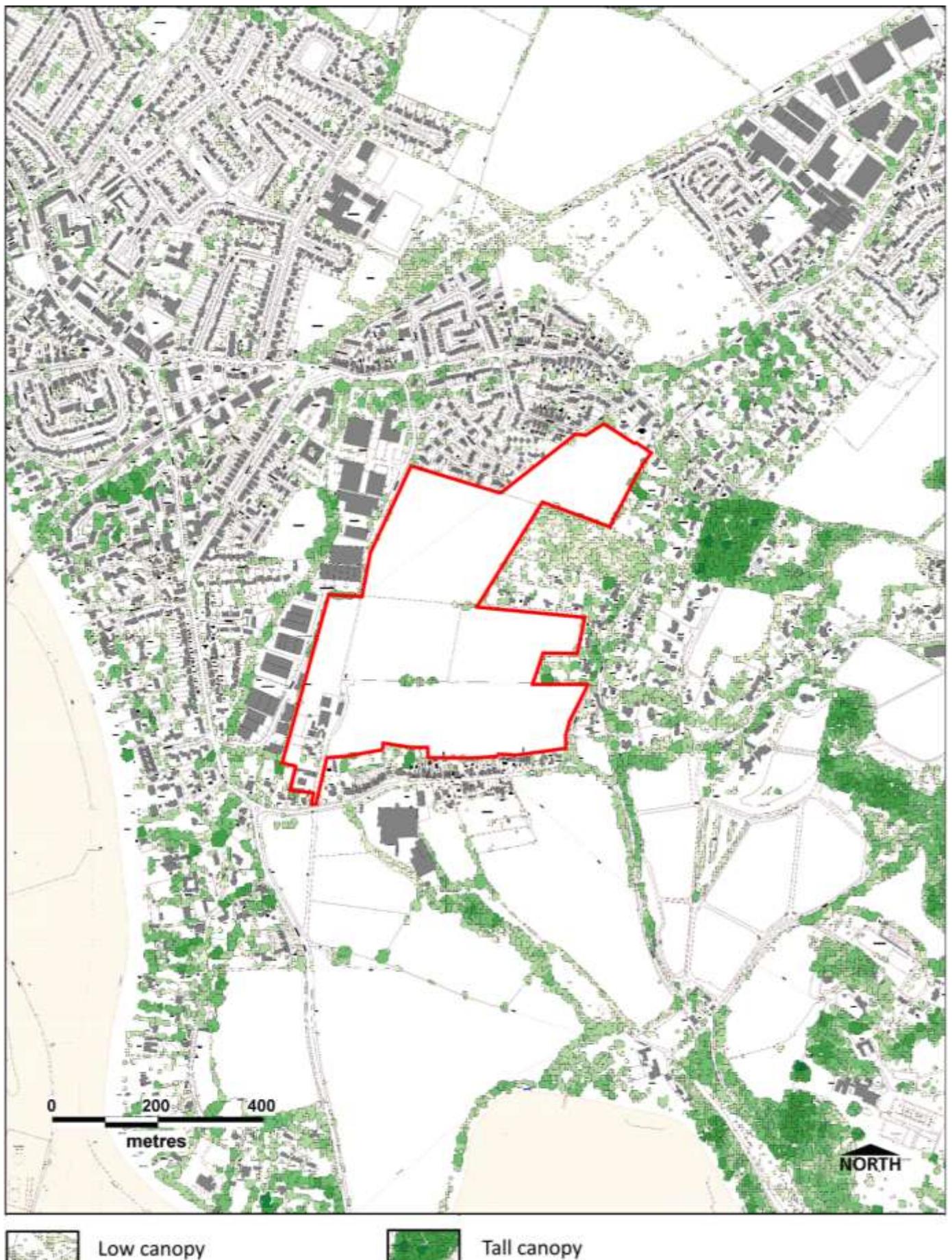


Figure 4.18 Canopy cover

- 4.13.2 Adjoining the site to the east is an old unmanaged orchard approximately 2.3 hectares. It fits the criteria for being a Traditional Orchard (a priority habitat) and is designated as a Green Space in the Local Plan as well as being protected by a Tree Preservation Order. It contains a mix of small to medium trees with a few large mature native deciduous trees at its boundary.
- 4.13.3 North and south of the orchard, there are private gardens characterised by mature trees and shrubs some of which are also protected by Tree Preservation Orders.
- 4.13.4 Small numbers of trees and fragmented hedgerows occur along most other boundaries. The northern site boundary is rather sparse, while the western boundary with Millboard Road is more consistently vegetated with trees and shrubs. The western boundary with the Wessex Road industrial estate supports small numbers of trees with some recently felled trees regenerating themselves. The southern boundary is defined by gardens of mixed sizes, some supporting mature trees.
- 4.13.5 The hedgerows within the site are mostly formed of mixed native species and have been managed as agricultural field boundaries. They are considered to be priority habitats and are therefore covered by policy DM13.
- 4.13.6 There are no permanent water bodies within the site, but it is close to the River Wye. It is likely that wildlife crosses the site to gain access to the river.
- 4.13.7 Policy DM11 and the Green Networks and Infrastructure Background Paper identify areas of Green Infrastructure (GI) Network which are located close to the site to the south east, the east and the north of the site (see Figure 4.17). The River Wye passes within 100 metres north/northeast through Cores End and west/southwest of the site through Bourne End from where it flows into the River Thames, which lies approximately 300 metres west of the site at its closest. The River Wye is a Green Corridor Opportunity Area 11.
- 4.13.8 The tree canopy cover surrounding the site tends to be higher in areas of larger more established properties around Hawks Hill, Harvest Hill and similar properties adjoining the River Thames. There is a lower canopy cover and generally smaller trees in the residential and industrial areas directly to the north and west of the site. In the wider area to the west, mature trees occur frequently throughout much of Bourne End (see Figure 4.18).
- 4.13.9 Public rights-of-way link to the edges of the site and some pass through it, providing scope for a highly integrated local network of footpaths and bridleways. Refer to Figure 4.15 for more details.

4.14 Ecology

Designated and Non-designated Ecological Assets

- 4.14.1 There are no designated ecological sites within or adjoining the site. The agricultural hedgerows on site are priority habitats and so too is the traditional orchard adjacent to the site.
- 4.14.2 The most substantial and significant designated ecological site is the nearby Burnham Beeches Special Area of Conservation (SAC) / Site of Special Scientific Interest (SSSI) / National Nature Reserve (NNR) approximately 4 kilometres to the east, with Littleworth Common SSSI.

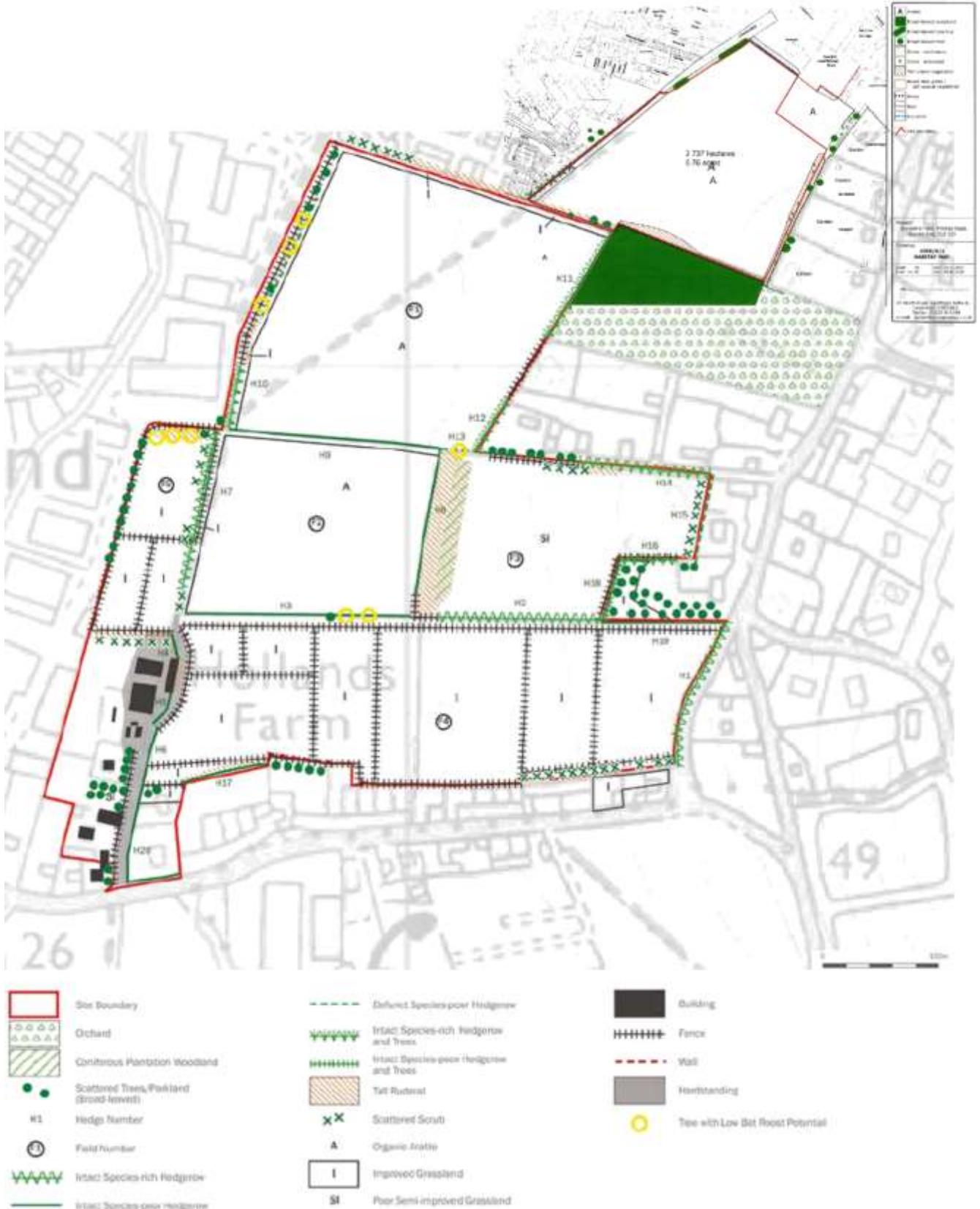


Figure 4.19 Phase 1 habitat survey (combined)

4.14.3 Other significant sites include Cock Marsh SSSI and beyond that the Chiltern Beechwoods SAC and Bisham Woods SSSI / Local Nature Reserve (LNR). To the northeast lies Fern House Gravel Pit near Little Marlow. Warren Nature Reserve (LNR) lies to the northeast at Wooburn Green. Other SSSIs, LNRs, Local Wildlife Sites (LWS) and Biological Notification Sites (BNS) are located within the local area.

Protected Species and Species of Principal Importance

4.14.4 There is scope for badgers to be using the site, as the fields, hedges and nearby woodlands provide suitable habitat.

4.14.5 It is likely that bats are roosting in some of the trees and/or buildings within the site, and it is also likely that bats forage over parts of the site and use hedgerows and trees within and on the margins of the site for navigation around and through the area.

4.14.6 More information about the extent of ecological activity on site and the constraints and opportunities it implies, is likely to be available towards the end of May 2020.

Ecological Corridors

4.14.7 Within the site, principal ecological corridors follow existing hedgerows through the site and along the site margins (see Figure 4.19). It is likely that

the former orchard east of the site, perhaps in conjunction with the adjoining mature gardens, is a significant ecological link to the east to Harvest Hill and beyond. The woodlands and wooded gardens to the southeast and east of the site are likely to influence wildlife movement to/from and through the site. Refer to Figure 4.20 above.

4.14.8 The River Wye forms part of the Central Chilterns Chalk Rivers Biological Opportunity Area (BOA) that covers the northern and western parts of the site (refer to Figure 4.21).

4.14.9 The Central Chilterns Chalk Rivers BOA (<https://bucksmknap.co.uk/boa/central-chalk-rivers/>) covers part of the western side of the site (refer to Figure 4.6.3). Of the BOA targets associated with it, those with potential to be achieved on site are:

- Lowland Meadows – Management, Restoration, Creation
- Hedgerows – Management, Restoration, Creation
- Chalk Rivers – Management, Restoration

Other targets are:

- Traditional Orchards – Management, Restoration
- Eutrophic Standing Water – Management, Restoration
- Woodland – Management, Restoration
- Wood Pasture & Parkland – Management, Restoration

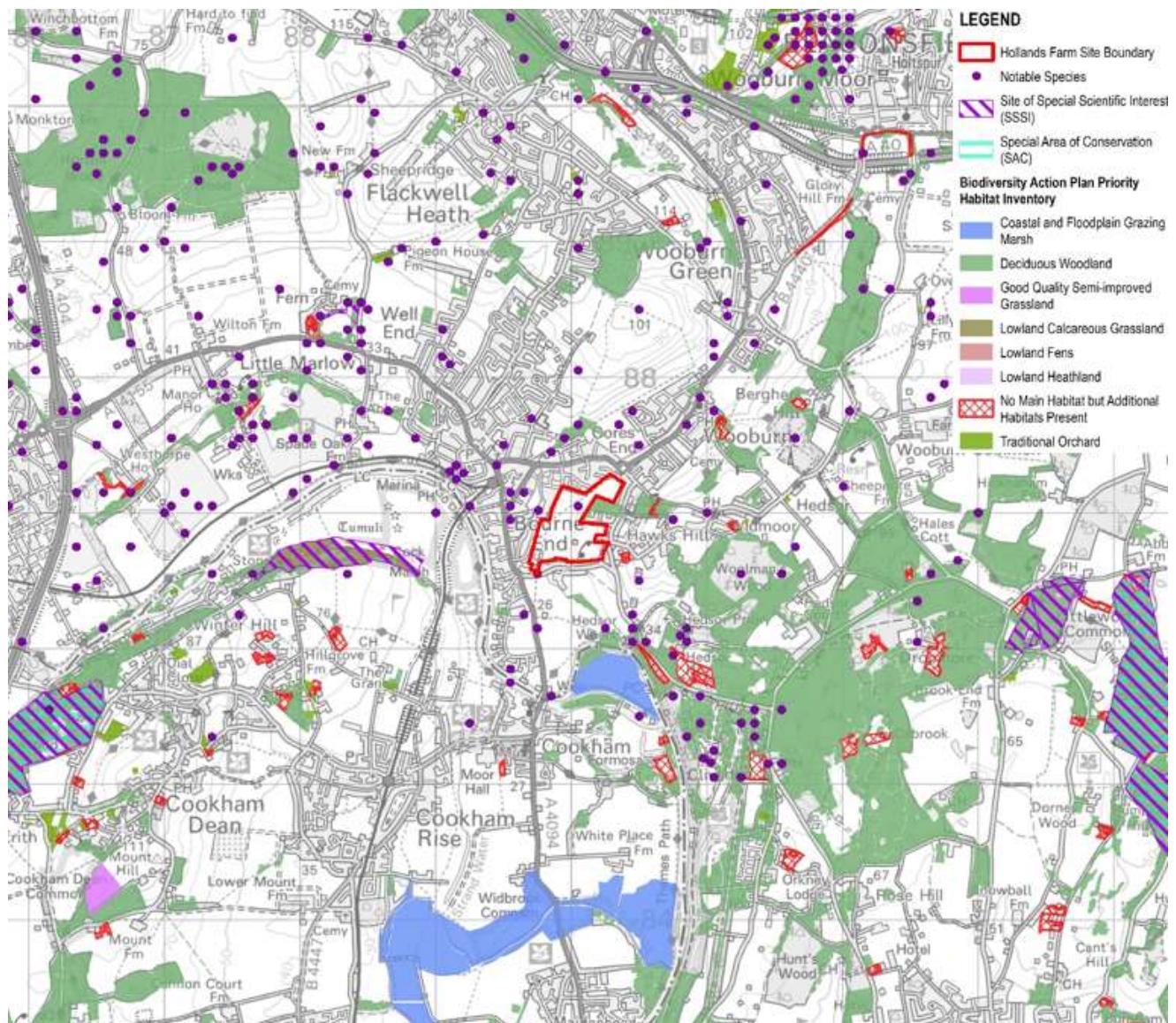


Figure 4.20 Biodiversity designations and priority habitats

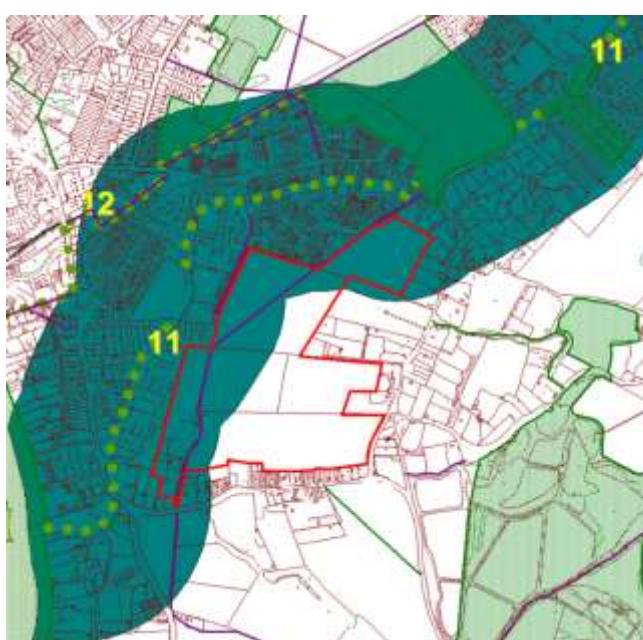


Figure 4.21 Green infrastructure and biological opportunity areas

4.15 Flood Risk and Ground Conditions

Fluvial Flooding

4.15.1 The site is mostly within Flood Zone 1 (lowest risk) with a small pocket of Flood Zones 2 and 3 in the southwest corner. Beyond the site boundary at the northern vehicular entrance point via Princes Road (itself located in Flood Zone 1), Cores End Road is shown to be located in an area of fluvial flooding (Flood Zone 2 – medium probability) from the River Wye. Also, the southern vehicular access point is affected by fluvial flooding (Flood Zone 2 and 3) from the River Thames at Hedsor Road (see Figure 4.22).

Surface Water Flooding

4.15.2 Figure 4.23 Flood mapping identifies areas of surface water flood risk in the northern and western parts of the site. Central, southern and eastern parts of the site are shown to be located in the very low flood risk area. As defined in Wycombe District Council's Strategic Flood Risk Assessment (SFRA) Level 1, the outline of the Medium Risk of Flooding from Surface Water has been used as a basis to define Wycombe Critical Drainage Areas (WCDA). See Section 4.5 of the Wycombe District Local Plan SFRA Level 2.

Groundwater Flooding

4.15.3 Low levels of groundwater flooding occur along the site's western margin.

4.15.4 Groundwater levels are generally high in central and western parts of the site as illustrated in Figure 4.24. Groundwater levels may rise in response to high river levels (in this instance in response to water levels in the River Wye and/or River Thames). The impact of rising groundwater on the proposals may be readily manageable through the masterplanning process, e.g. by making sure that flow routes are maintained through the site (to allow any emergent groundwater to exit without incident).

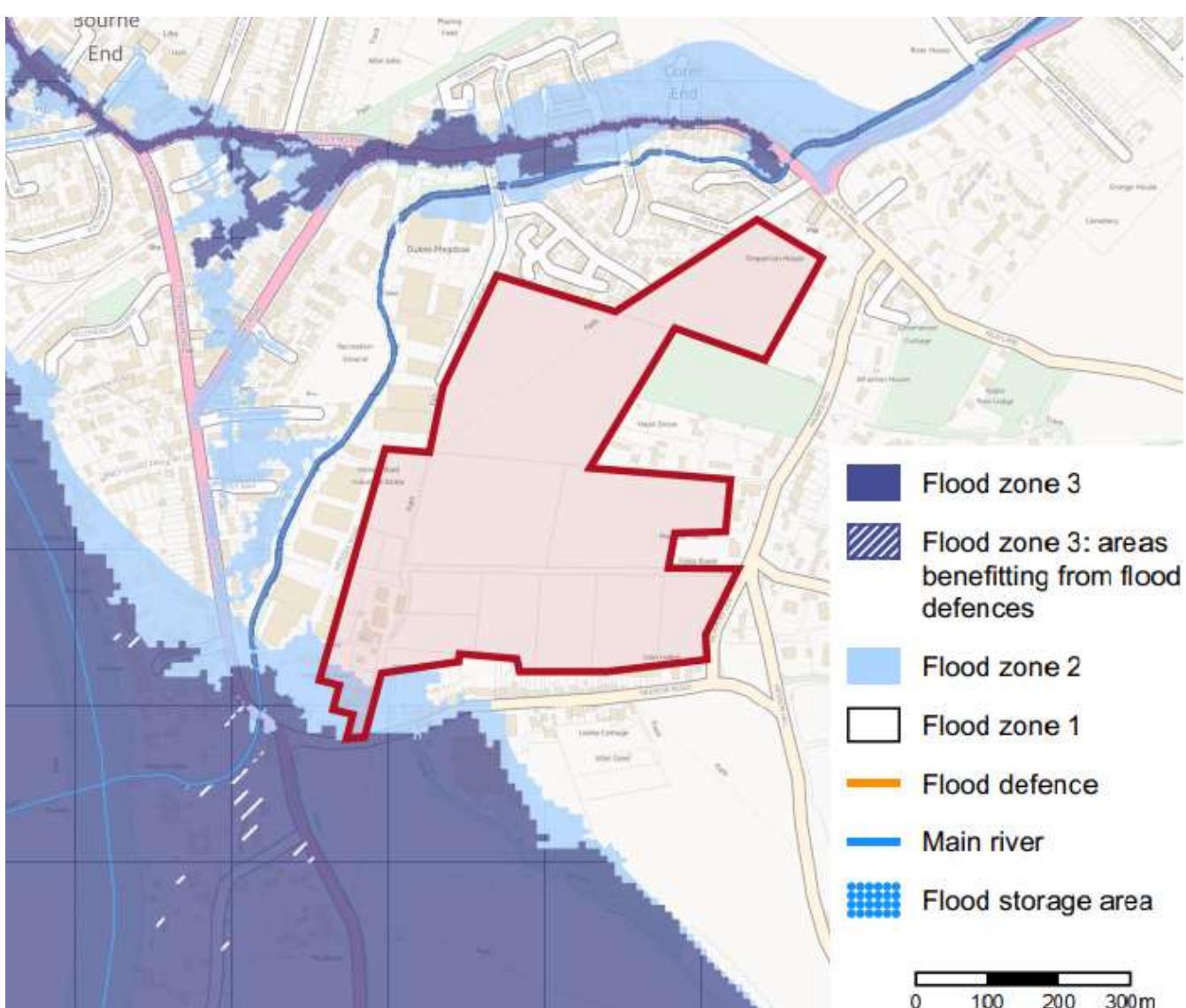
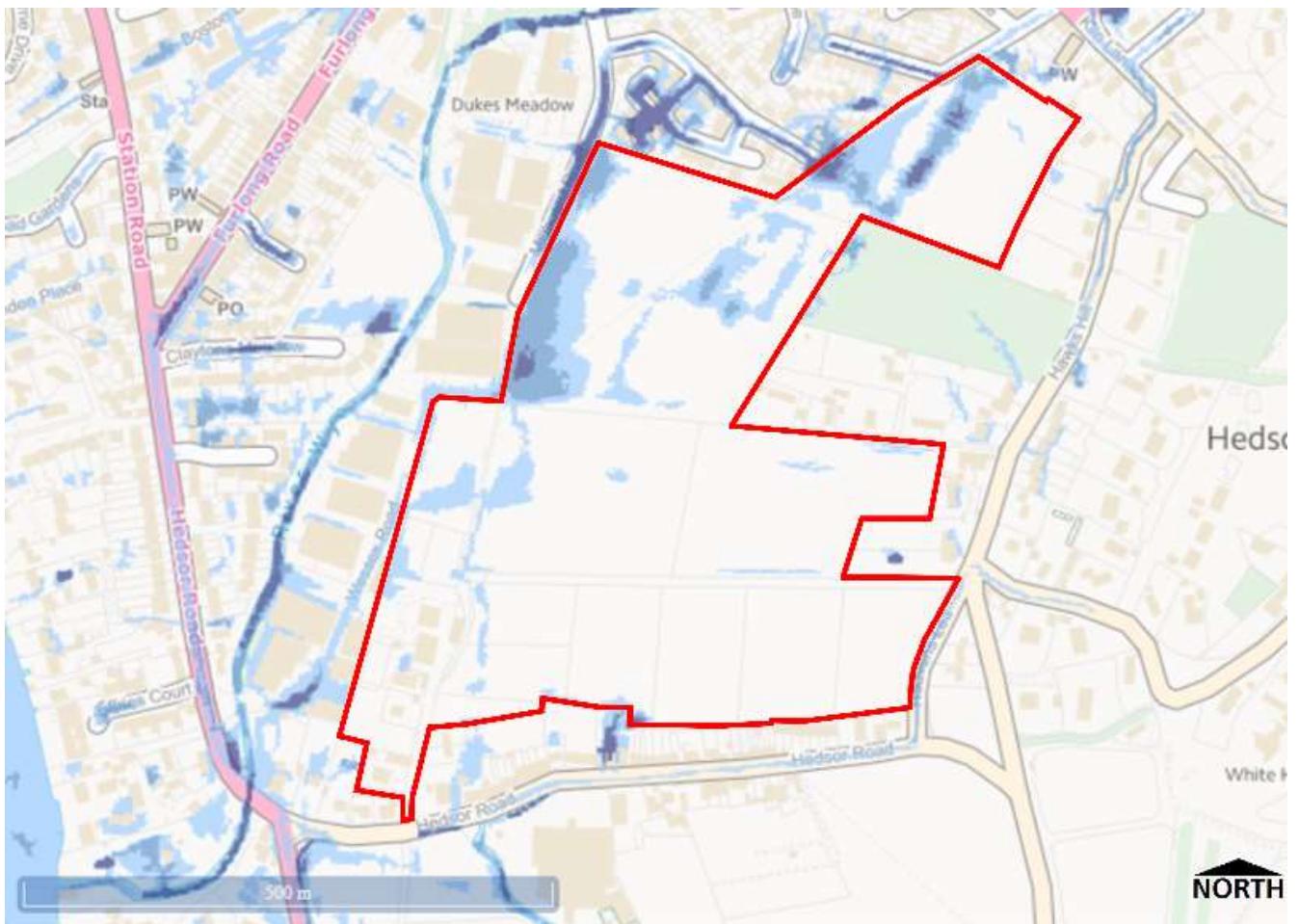


Figure 4.22 Fluvial flooding map (Environment Agency)



Extent of flooding from surface water

● High
 ● Medium
 ● Low
 ○ Very low
 ○ Location you selected

Figure 4.23 Surface water flooding map (Environment Agency)

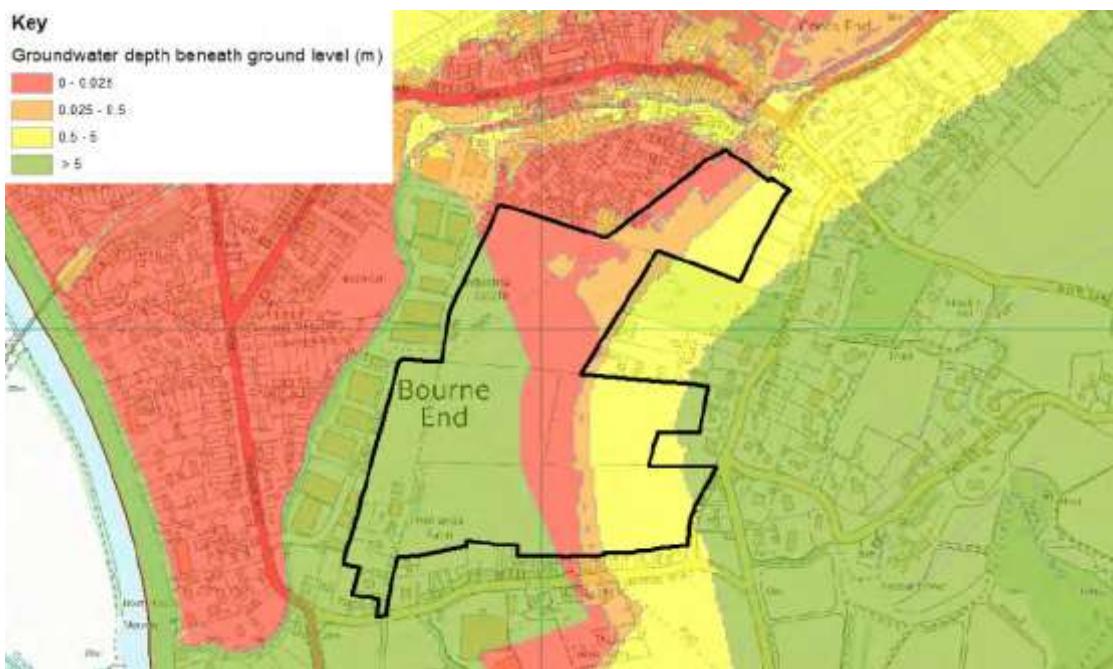


Figure 4.24 Groundwater levels

4.16 Services and Amenities

- 4.16.1 A full range of services and amenities can be found in the vicinity of the site as illustrated on Figure 4.25.
- 4.16.2 In broad terms, most services and amenities nearby are found towards the centre of Bourne End, to the northwest, including shops, retail services and healthcare facilities.
- 4.16.3 In close proximity to the site is a small range of Services and amenities on Hedsor Road. These include the Garibaldi Pub, the Hedsor Club, a garden centre (including limited convenience retail) and allotments. At Wessex Road Industrial Estate there are two gyms, sportswear and school-wear shop and children's soft play centre.

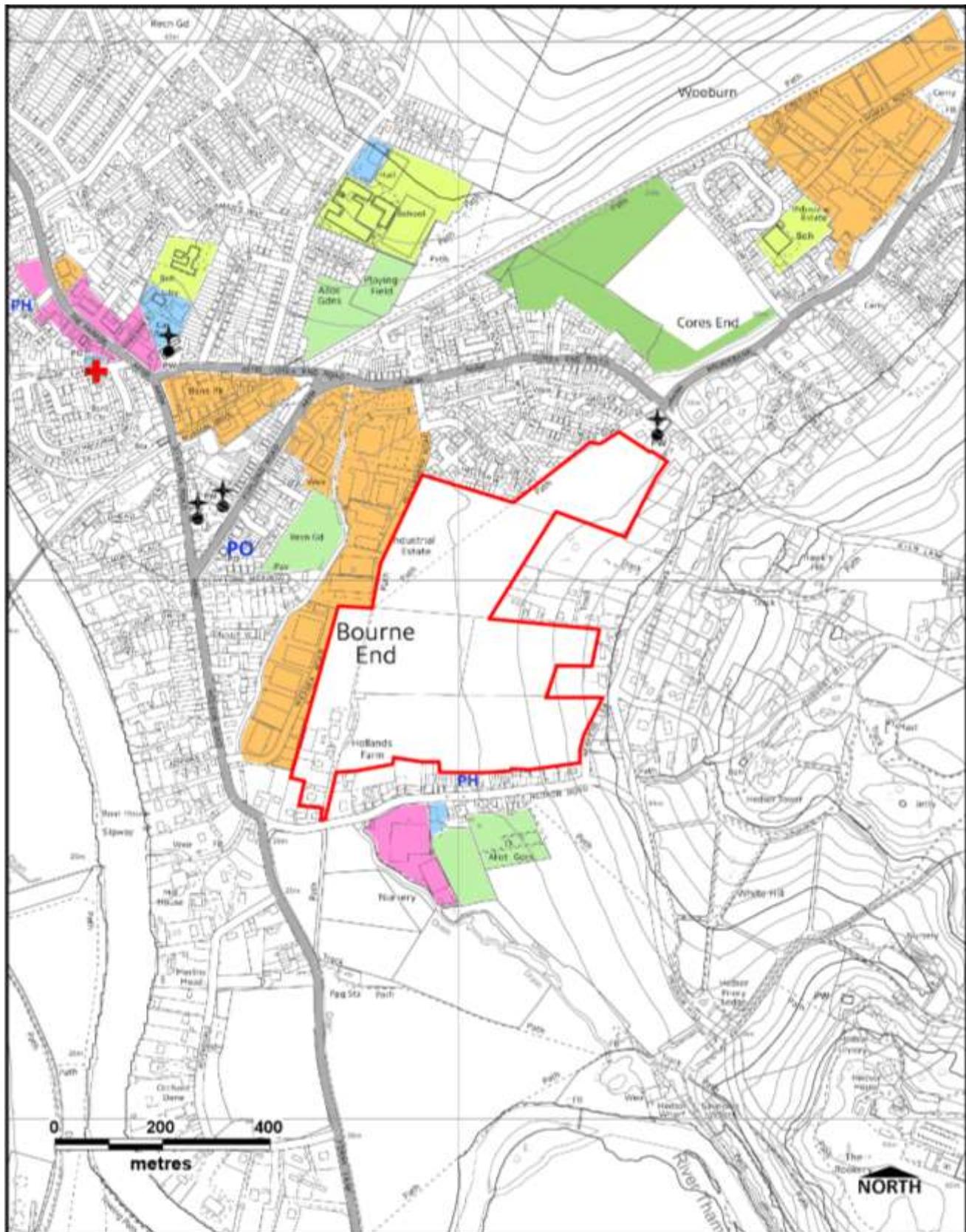
4.17 Utilities

- 4.17.1 Utilities enter and cross parts of the site, as indicated in Figure 4.26. There are no existing overhead utilities such as power and telecommunications. A foul sewer and foul rising main enter the site at the entrance to Hollands Farm, passing through the farm and extending along the site's western boundary to Millboard Road. Foul sewers enter the south-eastern quarter of the site from Hedsor Road and Hawks Hill. Thames Water have identified the water network capacity in this area is unlikely to be able to support the demand anticipated from the Hollands Farm development. Strategic water supply infrastructure upgrades are likely to be

required to ensure sufficient capacity is brought forward ahead of the development. The developers are encouraged to work with Thames Water early on in the planning process to understand what water infrastructure is required, where, when and how it will be delivered.

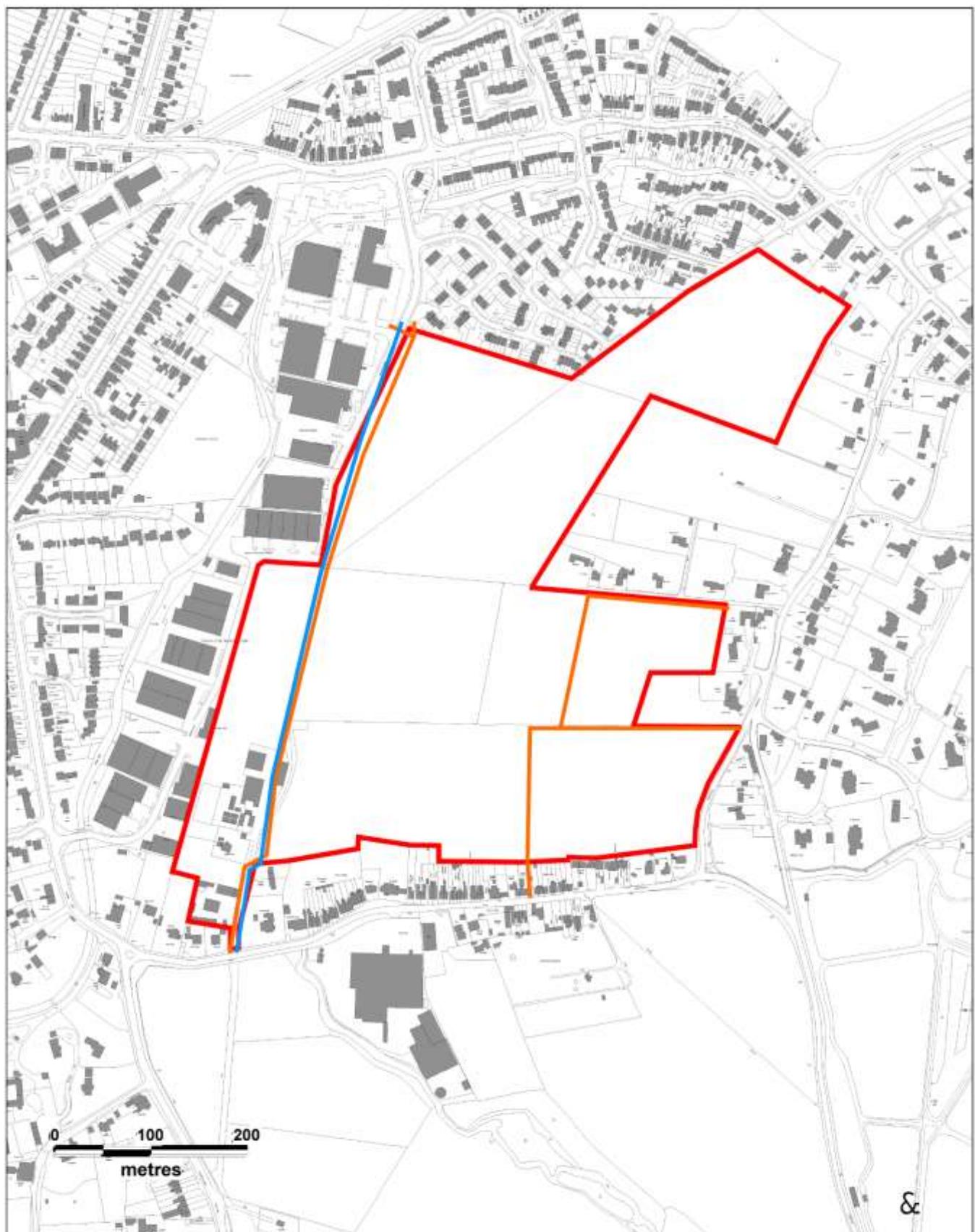
4.18 Noise, Vibration and Air Quality

- 4.18.1 The site lies within the vicinity of the River Thames. Pollutants are likely to include nearby roads and industrial activities within and adjoining the site.
- 4.18.2 A timber sawmill / joinery operates on the southwest corner of the site at Hollands Farm itself, with noise and dust likely to arise while operating.
- 4.18.3 The adjacent industrial estate on Wessex Road supports a mix of businesses. Amongst these are machine workshops, motor repairs / servicing / parts, food processing/manufacture and printing, each with scope for emitting noise, vibration and/or air pollutants.
- 4.18.4 Most traffic runs south, west and northeast of the site along the A4094, and northwest along the A4155, beyond intervening residential areas. At peak travel times, vehicles regularly queue on these roads and are likely to raise noise pollution and air pollution locally. Smaller local roads have the potential for noise and air pollution from traffic to a lesser degree, including Hedsor Road to the south.



School	Employment	Refer to Figure 4.15 'Movement Network' for public transport and public rights-of-way
Community	Retail	
Open Space	Place of Worship	
Future Open Space	PH Public House	
		Medical Centre
		PO Post Office

Figure 4.25 Services and amenities



- Foul Sewer (3m easement)
- Foul Rising Main (3m easement)

Figure 4.26 Utilities

4.19 Strengths, Weaknesses, Opportunities and Threats (SWOT)

4.19.1 Key points from this chapter have been identified through a SWOT analysis. The SWOT analysis, community engagement and planning policy connect, will guide the Development Objectives and Development Framework that follow in Part 2 of this brief.

4.19.2 Figure 4.27 illustrates key Opportunities and Strengths, while Figure 4.28 illustrates key Weaknesses and Threats.

4.19.3 Strengths

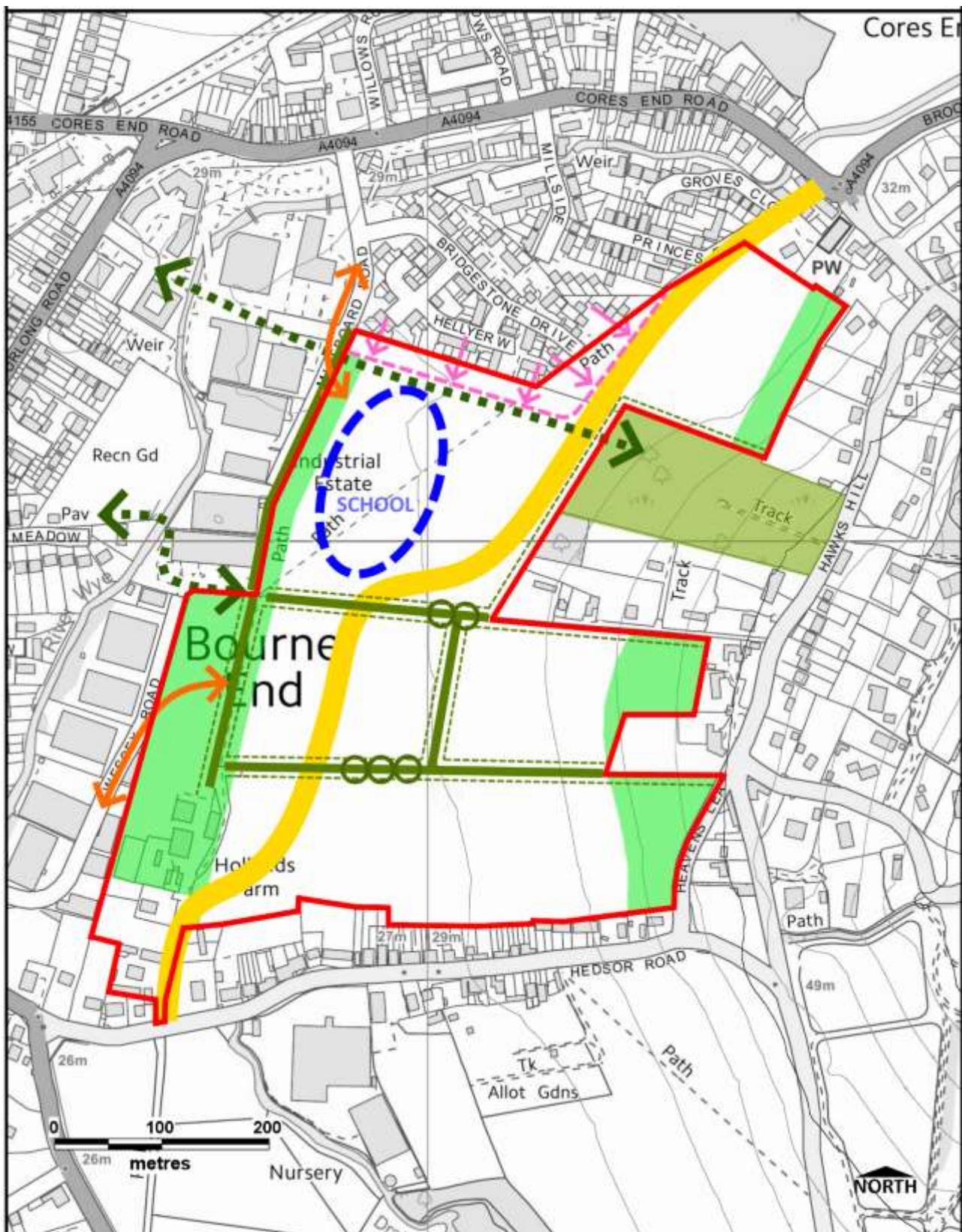
- a) No landscape designations to constrain development.
- b) Little vegetation within site, few/no losses needed.
- c) Existing built development occurs on all sides, with scope for integration and limiting wider visibility into the site.
- d) A diverse mix of building styles and quality occurs in the surrounding area, while there is also consistent character to Hedsor Road and Cores End.
- e) Distinctive built form and architectural character of the Conservation Area and Listed Buildings.
- f) Road connections north (Princes Road) and south (Hedsor Road) with potential western vehicular links to Bridgestone Drive, Millboard Road and Wessex Road.
- g) Comprehensive and safe pedestrian routes linking north and west into Bourne End.

- h) Few existing GI assets and connections give flexibility to development layout.
- i) No designated ecological sites within/adjoining the site, distance to major assets limits scope for adverse impacts.
- j) Hedgerows, the adjacent traditional orchard and the nearby River Wye are priority habitats that are likely sources for a net gain in biodiversity within the site.
- k) The majority of the site is in fluvial Flood Zone 1 (low risk).
- l) A comprehensive range of essential retail and community facilities are already available in Bourne End, along with a range of employment opportunities.
- m) There are limited direct noise, dust or air pollution effects from within and surrounding the site.

4.19.4 Opportunities

- a) Few constraints within the site boundary enables easy integration / distribution of landscape infrastructure and built development.
- b) Reduce the visual impact of neighbouring industrial estate / business park with landscaping and/or built development.
- c) Establish a more secure and attractive residential edge at Cores End boundary by ‘completing’ perimeter blocks.
- d) Use character of the Conservation Area and other heritage assets to inform the design approach of the proposed development.
- e) Use key views into/across the site as a setting to the Conservation Area to

- guide distribution of development and green open space to maximum benefit of heritage assets.
- f) Potential additional vehicular access points from the west - Bridgestone Drive, Millboard Road and Wessex Road.
 - g) Re-route existing bus service(s) through the site.
 - h) Connect to potential pedestrian route west through adjoining business park / industrial estate and east through orchard, in order to improve pedestrian connectivity / permeability.
 - i) Provide and reinforce green infrastructure throughout the site and connect with the wider network.
 - j) Relieve pressure of visitors to Burnham Beeches by providing new recreational open space and robust GI links to the wider countryside.
 - k) New habitats and strengthening ecological corridors that connect into the wider GI network.
 - l) Work with the adjoining landowner to bring former orchard into active management to improve its special ecological value and provide a right of way linking the nearby bridleway.
 - m) Address local issues with fluvial flooding as part of new road junction designs.
 - n) Provide a new school on site, with potential to incorporate community uses.
 - o) Provide a new healthcare facility with modern facilities to attract General Practitioners.
 - p) Use open space as a buffer to adjacent noise / vibration / pollution sources.



- Potential spine route
- ↔ Potential secondary access
- Potential primary school
- ↑↑ Complete perimeter block
- Reinforce existing trees & hedgerows
- Green buffer
- ↔ Green infrastructure links sought

Figure 4.27 Strengths and opportunities

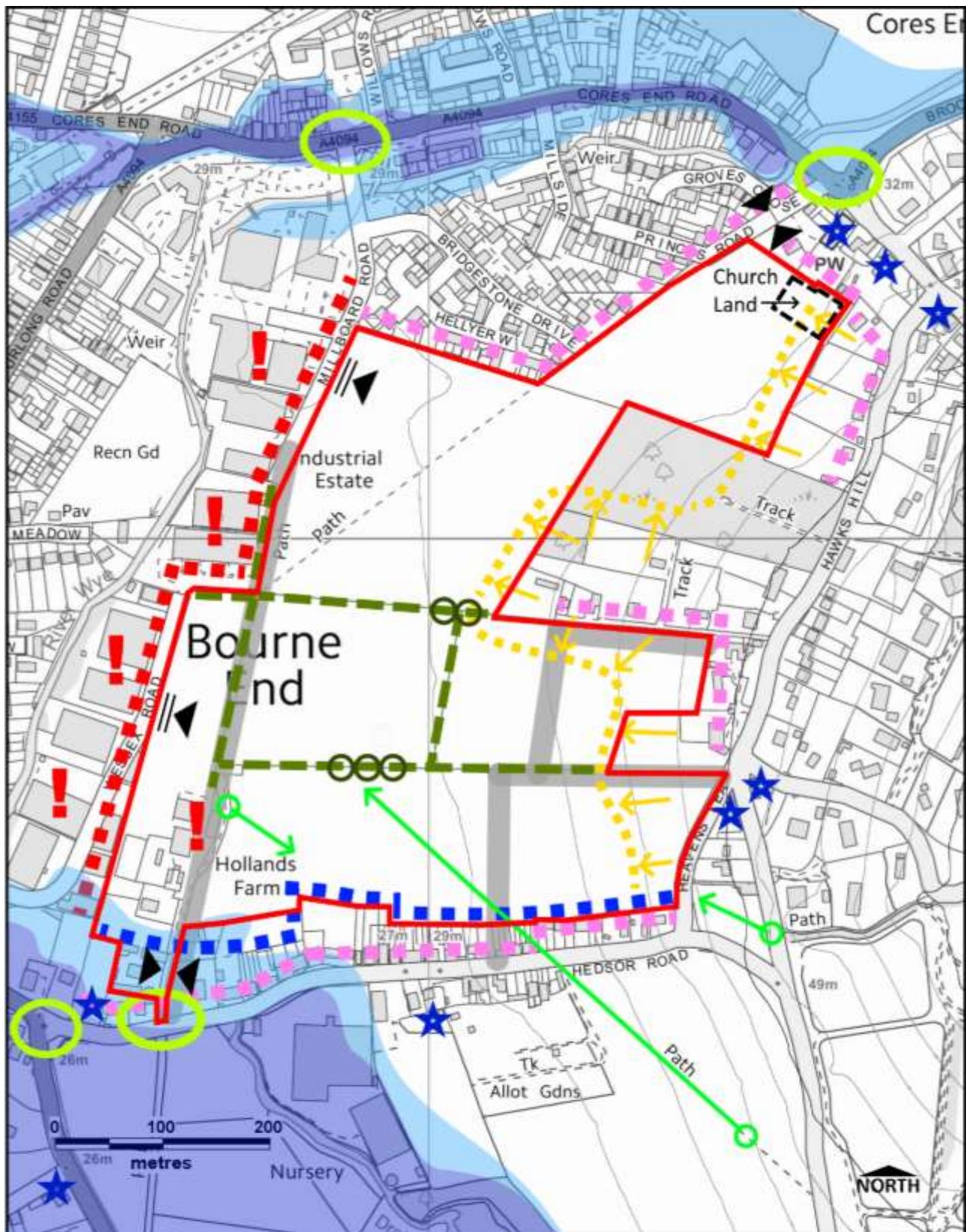
4.19.5 Weaknesses

- a) Few trees/hedgerows to provide immediate landscape structure; unattractive urban edge to western boundary.
- b) Poor urban edge to Bourne End along western boundary with an adverse visual impact (employment land).
- c) Garden centre detracts from character of Hedsor Road.
- d) Reduced separation between Wooburn and Bourne End settlement (tier 2) and Hedsor hamlet (Tier 6)
- e) Sensitivity of built heritage to proximity and character of new development.
- f) Constrained vehicular entrances into site both north and south and need to mitigate highway impacts at the Hedsor Road/Ferry Lane junction
- g) Lack of pedestrian pavements to Hawks Hill / Harvest Hill and along Hedsor Road.
- h) Nearby country roads unsuitable for the speed and frequency of modern traffic, such as Hawks Hill, Kiln Lane, Harvest Hill, Widmoor, Hedsor Lane, Sheepcote Lane and Heathfield Lane.
- i) GI assets have been eroded over time as a result of intensive farming practice.
- j) Limited existing ecological assets within site to act as corridors, 'stepping stones' or as biodiversity source.
- k) Fluvial flooding affects both vehicular access points.
- l) Groundwater levels and groundwater flooding limit options for SuDS solutions.
- m) Limited accessible sports and play provision.
- n) Limited capacity in existing schools.
- o) Existing utilities cross the site.
- p) Likely noise / dust / pollution sources directly adjoining site's western boundary.
- q) Small-scale industry in the south-western corner of the site on long-term leases limits scope and/or timing for redevelopment.

4.19.6 Threats

- a) Perceived / actual merging of built-up areas.
- b) Reduced private amenity for nearby/adjacent properties.
- c) Loss of private and public views to open countryside.
- d) Lack of perceived / actual integration with Bourne End / Cores End.
- e) Loss of perceived separation between Conservation Area and new housing.
- f) Loss of visual relationship between trees / open space and Conservation Area.
- g) Impact of 'standard' highways design for new junctions on built heritage and Conservation Area.
- h) Constrained vehicular site access may impact upon movement of buses and other large vehicles.
- i) Dependence on cooperation of adjacent landowners may preclude establishing new secondary road and pedestrian routes.
- j) Agreement with private bus operators needed limits certainty of rerouting buses through the site.

- k) Development severing the few existing hedgerows and reducing connectivity with the river.
- l) Impact on protected species and trees.
- m) Former Orchard land ownership is outside control of site promoters. This limits the scope to establish public access and ongoing management for the adjacent former orchard.
- n) Protected species may influence scope or extent of site development, and conversely development could have a negative impact upon protected species.
- o) Fluvial flooding has the potential to interrupt access to/from the site.
- p) Flood control and drainage works must not worsen problems off-site.
- q) Conflict between underground services and trees (both existing and new).
- r) Potential for queueing traffic at junctions to exit the site onto the local road network, and/or increasing queueing at existing road junctions.



- ■ ■ Industrial Edge / Barrier
- ■ ■ Residential amenity
- ■ ■ Conservation Area Edge
- ↑ ↑ Hawks Hill Buffer
- - - - - Hedgerow, TPO trees
- ↔ Potential ownership barrier to vehicular access
- Constrained road corridor (available width)
- Junction design impacts
- ← View Across Site
- Utilities
- Listed Building
- ! Noise, dust, air pollution (source)

Figure 4.28 Weaknesses and threats

PART 2: DEVELOPMENT FRAMEWORK

5 Vision and Development Objectives

5.1 The Vision

- 5.1.1 This vision is “to create an attractive and sustainable residential neighbourhood that is well-integrated with the landscape, with neighbouring communities and is a place people happily choose to live”.

5.2 Development Objectives

- 5.2.1 The principles of good urban design and placemaking, including those set out in the Council's Residential Design Guidance [ref], are the foundation for achieving the following objectives.

5.2.2 Objective 1: Adopt a landscape-led approach to site layout and green infrastructure which responds sensitively to the surrounding environment.

- a) Limit the impact of the development on the surrounding landscape.
- b) Provide a physical and visual separation between Hawks Hill, Hedsor Road and the new development.
- c) Mitigate visual and other impacts arising from the industrial buildings on Millboard Road and Wessex Road.
- d) Provide public rights of way within the site and linking routes to the wider network.
- e) Identify how the existing public right of way routes through the site would benefit from being diverted, to better serve the development and the wider area.
- f) Facilitate future long-term public access and biodiversity enhancement to the adjacent orchard at Hawks Hill.
- g) Deliver a biodiversity net gain and enhances green infrastructure (GI).

- h) Provide the appropriate amount and type of open space in accessible locations for the benefit of new residents.

- i) Contribute to specific improvements at Little Marlow Lakes Country Park to relieve recreational impacts at Burnham Beeches Special Area of Conservation (SAC).

5.2.3 Objective 2: Create a sense of place and identity, promoting community cohesion

- a) Establish a variety of appropriate residential character areas within the development.
- b) Ensure the new development makes a positive contribution to local character and distinctiveness.
- c) Incorporate robust landscape infrastructure throughout the site and use good placemaking principles as the foundation for a legible, cohesive and safe site layout.

5.2.4 Objective 3: Sensitively integrate with the existing residential areas to form a cohesive area.

- a) Follow the guidance set out in the Residential Design Guidance SPD.
- b) Ensure the amenity and security of existing residents is protected.
- c) Orientate buildings and blocks to minimise overlooking and impact.
- d) Integrate trees, green infrastructure and open space for mutual benefit.
- e) Integrate with the development on Hellyer Way and the end of Bridgestone Drive.

5.2.5 Objective 4: Have special regard to the conservation of nearby heritage assets and their settings, including the Hedsor Road and Riversdale Conservation Area

- a) Apply sensitive design of highway works.
- b) Ensure new development has an appropriate relationship with nearby built

heritage and takes opportunities to reveal or emphasise its significance.

5.2.6 Objective 5: Identify the design and layout requirements for a comprehensive movement network.

- a) Where design and construction stipulations allow provide a vehicular route linking Cores End Road to Hedsor Road/Ferry Lane.
- b) Identify to what extent Millboard Road and Princes Road could potentially provide vehicular/pedestrian/cycle access.
- c) Facilitate a north/south bus route in one or two directions through the site.
- d) Provide footpaths and cycleways within landscape corridors for amenity and safety.
- e) Facilitate footpath and cycle links into the wider network. Ensure the layout and landscaping provide sufficient convenient parking to deter parking on pavements and verges

5.2.7 Objective 6: Ensure development does not increase fluvial or surface water flood risk

- a) Ensure residential development avoids areas of fluvial flood zone
- b) Ensure flood risk is not worsened either on- or off-site.
- c) Incorporate a range of sustainable drainage solutions (SuDS) throughout the site.

5.2.8 Objective 7: Provide necessary community facilities to support the site

- a) Provide a one form entry primary school in an appropriate location.
- b) Provide two junior sports pitches, a Multi-Use Games Area (MUGA) and an informal recreation facility for teenagers in appropriate locations to meet local needs.
- c) Provide local public open space for new residents.

d) Determine whether other community facilities would be justified and deliverable within the site given the scale and location of the development.

6 Development Framework

6.1 A Coordinated Approach

6.1.1 Development of the site will be informed by three elements: planning policy, site constraints / opportunities and the principles of sustainable development and good urban design. These elements are incorporated into the responses below.

6.2 Landscape Character and Placemaking

6.2.1 The first requirement of local plan policy BE2 is a landscape-led approach, which means:

- a) responding appropriately to the landscape character and setting of the site; and
- b) incorporating a robust landscape framework into the site layout.

6.2.2 A landscape-led approach requires new development to respond sensitively to the existing landscape/townscape, respecting local character areas and either integrating with them or providing a sensitive transition between them.

6.2.3 A landscape-led approach also requires continuity of green infrastructure networks between the site and surrounding area, incorporating new green spaces and green corridors throughout the site as a basis for recreation, nature, movement and residential amenity. Green corridors and spaces should be a focus or setting for development rather than an add-on or afterthought, promoting its active use and passive supervision while minimising opportunities for crime and antisocial behaviour.

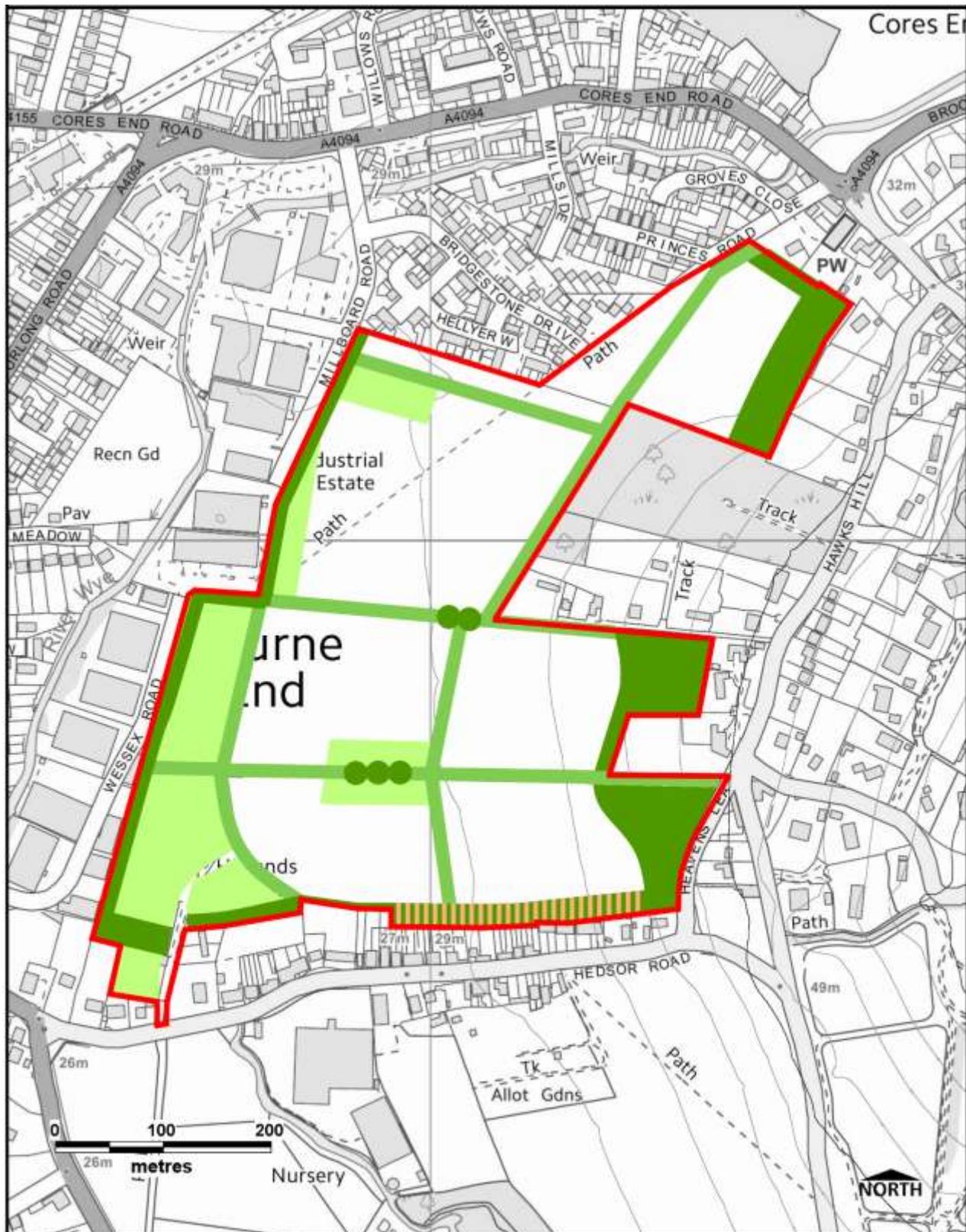
6.2.4 The following specific landscape considerations will inform design of the development:

- a) Respond appropriately to the character areas immediately adjoining the site through a combination of borrowing design elements, employing complementary design elements and making a sensitive transition between the two;
- b) Use new residential development in a back-to-back relationship with existing houses to establish a secure perimeter block for the benefit of existing and new residents. Explore opportunities to do the same at the site's southern boundary adjoining properties on Hedsor Road;
- c) Use more spacious plots with generous gardens to aid the transition between new development and Hawks Hill / Hedsor Road Conservation Area;
- d) Use a carefully considered site layout incorporating green spaces and landscape infrastructure to contribute to the visual amenity of existing views across the proposed development from the surrounding area. Respond to views across the site from public rights of way and roads where these occur at a distance from the north and in closer proximity from the east and south (see figure 4.1.4);
- e) Use a substantial landscape buffer of trees and open space on higher ground to provide physical and visual separation between Hawks Hill / Harvest Hill /Hedsor Road Conservation Area and development within the site;



- Principal Route Options
- Walk/Cycle Route
- Public Right-of-Way
- Public Right-of-Way
(external to site)
- New Walk/Cycle Route (permissive / right-of-way)
- Landscape Buffer
- Landscape Corridor
- Formal/Informal
Open Space
- Residential
- Residential, low-density/height
- School
- Junction Improvement

Figure 6.1 Development framework



- Landscape Buffer
- Landscape Corridor
- Formal/Informal Open Space

Figure 6.2 Landscape framework

- f) Work with existing site topography to avoid and minimise abrupt changes of level. Sloping ground to the east is not suitable for development requiring large flat areas - e.g. sports pitches and school grounds are best located on flatter ground to the west;
 - g) Recognise that built development on higher ground towards the site's eastern side will be more visible from the surrounding area than other parts of the site, and requires particular attention to high standards of design, layout and landscaping;
 - h) Retain and protect existing mature trees and hedgerows within the site and at the site perimeter, incorporating these into public open spaces and green corridors. Use new tree planting to protect/reinforce the setting of nearby heritage assets, where appropriate;
 - i) Provide formal and informal public open space within easy walking distance (no more than 400 metres / 5 minutes' walk) of all new homes for recreation and amenity purposes;
 - j) Use public open spaces as a landscape setting / focus for areas of built development and principal roads;
 - k) Design, integrate and link public open spaces and green corridors as part of wider networks of open space, green infrastructure and biodiversity;
 - l) Use generous green corridors as the basis for a footpath/cycle network throughout the site and to link together areas of public open space;
 - m) Maintain a high standard of landscape amenity where sustainable drainage systems are incorporated into public open spaces and green corridors; and
 - n) In meeting the policy requirement for canopy cover across the site, prioritise delivery with tree planting on public streets and open spaces / green buffers.
- ### 6.3 Urban Design
- 6.3.1 Alongside the landscape-led approach outlined above, good urban design will ensure that a high standard of placemaking is achieved, as required by policy BE2. The Residential Design Guidance (2017), adopted by Wycombe District Council, then informs some of the key principles of urban design, which should be comprehensively adopted for this site.
 - 6.3.2 Site development should incorporate a variety of built characters and layouts is sympathetic to adjacent character areas. These will include:
 - a) 'Completing' perimeter blocks for the existing residential area at the site's northern boundary (rear of Hellyer Way and cul-de-sac end of Bridgestone Drive). These areas largely back onto the site with a somewhat 'unfinished' edge. Site development has an opportunity to improve the security and amenity of these edges;
 - b) Locating either strategic open space or built development (possibly apartments) adjacent to the western boundary as a buffer between the existing employment area at Wessex Road and Millboard Road and the remainder of the site. Alternatively, this area may be required to fulfil a SuDS function;
 - c) Relating built development and landscaping to the Conservation Area in an appropriate manner (see section 6.2 below); for example, appropriate means of securing the

- exposed rear boundaries of Hedsor Road properties is an important consideration;
- d) Placing lower-density housing with restrained building height and generous plots on rising ground towards Hawks Hill, with a substantial and heavily-planted landscape buffer separating the two;
 - e) Locating higher-density development away from the more sensitive edges (including Heavens Lea and Hawks Hill), towards the centre and west of the site; and
 - f) Relocating the existing employment and equestrian uses off-site.
- 6.3.3 The character of the streets and buildings should vary throughout the site, this could take a more ‘traditional’ approach in the vicinity of the sensitive eastern and southern edges and perhaps a more contemporary form elsewhere. Character should be expressed not only in terms of built form and materials but also street widths, parking arrangements and landscaping.
- 6.3.4 It is envisaged that building heights will range from 1 to 3 storeys according to the new character areas they are located within. Limiting building heights to predominantly 1-1.5 storeys will be required where this helps to minimise the impact of new development on views to/from higher ground beyond the site or as seen in the context of the adjoining Conservation Area. In both cases it will serve to minimise the visibility and prominence of development in the landscape and allow new tree planting to provide context and screening more easily/quickly.
- 6.3.5 Buildings of 2.5-3 storeys will reinforce a more urban character in the central/western portion of the site, especially adjoining the industrial area or overlooking a larger public open space.
 - 6.3.6 The character of the Principal Route will be an integral part of the surrounding development, framed by buildings and street trees and providing direct access to neighbouring dwelling plots and side streets. It will seek to avoid the perception of being a fast-moving through-route and promote slow road speeds for residential areas.
 - 6.3.7 A variety of character and scale will be incorporated into public open spaces, varying between formal / informal / naturalistic, and of differing scales.
 - 6.3.8 Strategic open space will be relatively large, formal and open, comprising mainly sports pitches, MUGA, one or more parks and a Local Equipped Area of Play (LEAP). A facility for teen recreation will also be provided.
 - 6.3.9 Where a SuDS is incorporated, a less formal or even naturalistic character may be chosen, though formal landscapes can also serve this purpose.
 - 6.3.10 Landscape infrastructure will primarily be informal or naturalistic, including the buffers to the east and south and a series of much smaller incidental open spaces distributed throughout the site.

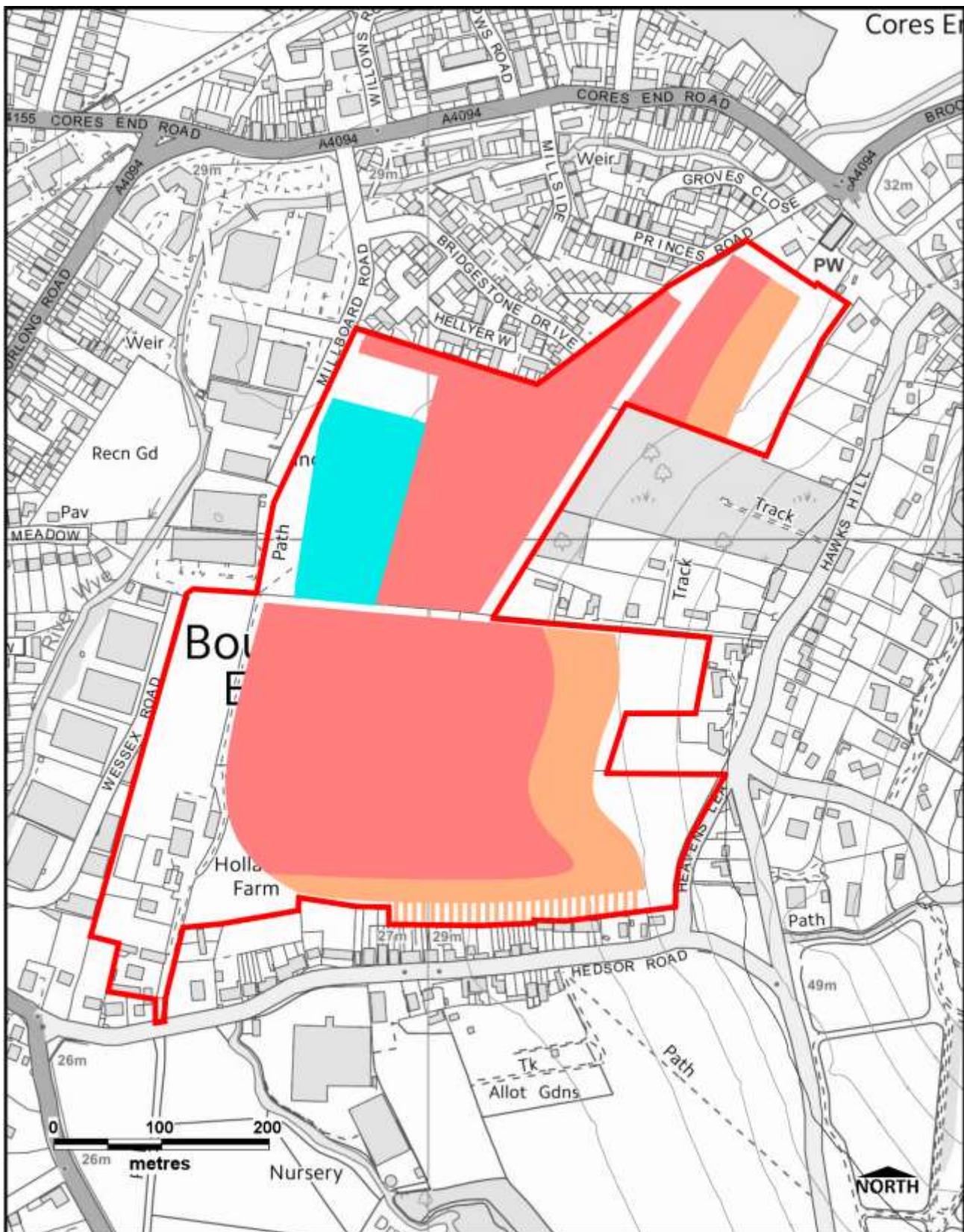


Figure 6.3 Height and density

6.4 Conservation and Heritage

- 6.4.1 The wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring is widely recognised and can reinforce local character and distinctiveness. Design solutions that sustain and enhance heritage assets and their settings in a manner appropriate to their significance can make a positive contribution to the built environment for the quality of life and enjoyment of existing and future residents.
- 6.4.2 Design of the Cores End Road roundabout should address the following:
- a) Place-making opportunities should be incorporated into the redesign of the Cores End Road roundabout to ensure it is as sympathetic as possible given its location within the settings of the United Reform Church, a Grade II listed building, and other heritage assets;
 - b) Signage, road markings, and highway-related features should be kept to the minimum necessary so that it is not over engineered;
 - c) It should be designed to accommodate the movement of motor vehicles but also meet the needs of pedestrians, cyclists and public transport users, so that growth in these modes of travel is encouraged, whilst following required design standards for road construction; and
 - d) The design should have minimal impact on the existing trees located at Brookbank (also a Green Space designation).
- 6.4.3 The relationship with properties at Hedsor Road should address the following:

- a) Placing low-density development back-to-back in response to the sensitivity of the Conservation Area at Hedsor Road;
 - b) Building heights adjoining the Conservation Area (i.e. the first ‘row’ of houses beyond the CA) to be 1.5-2 storeys with ridge heights lower than those houses in the adjacent Conservation Area. This is to help provide visual separation between new development and existing houses; and
 - c) In order to retain the distinctive linear character of this part of the conservation area, incorporate a substantial landscape buffer by way of extended gardens to some existing houses and generous plots for new housing, both of which will include a significant proportion of structural tree planting; A minimum width of 20m landscape buffer should be provided by the development.
- 6.4.4 Design of the Hedsor Road / Principal Route Junction should consider the following:
- a) The highway junction should be designed to have the least impact on the Conservation Area, its setting and the settings of the nearby listed buildings and other heritage assets;
 - b) Dependant on a requisite junction analysis, a T-junction is preferable over a roundabout option as this is less intrusive;
 - c) Widening to be on the Southfields House side, with minimal impact on the setting of the house; and
 - d) Junction design at Hedsor Road/Ferry Lane should minimise the risk of pedestrian and vehicular accidents.

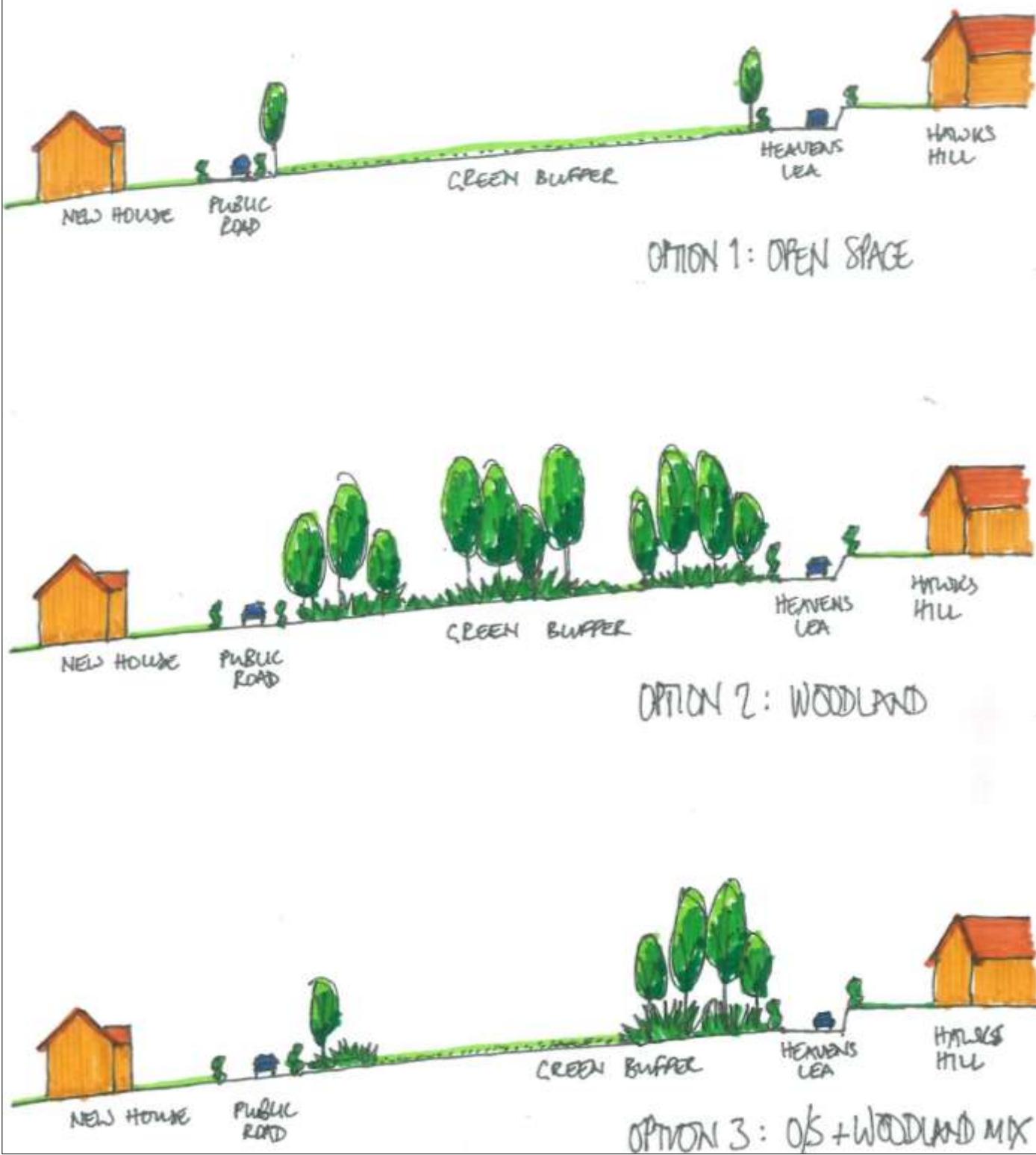
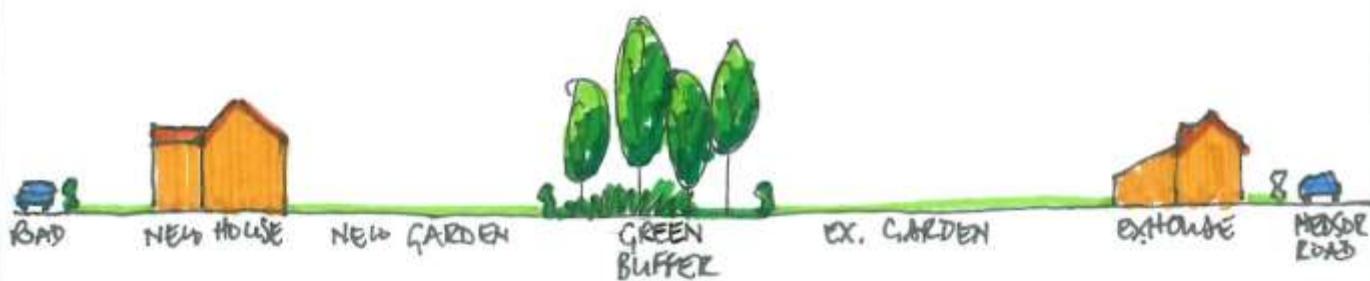


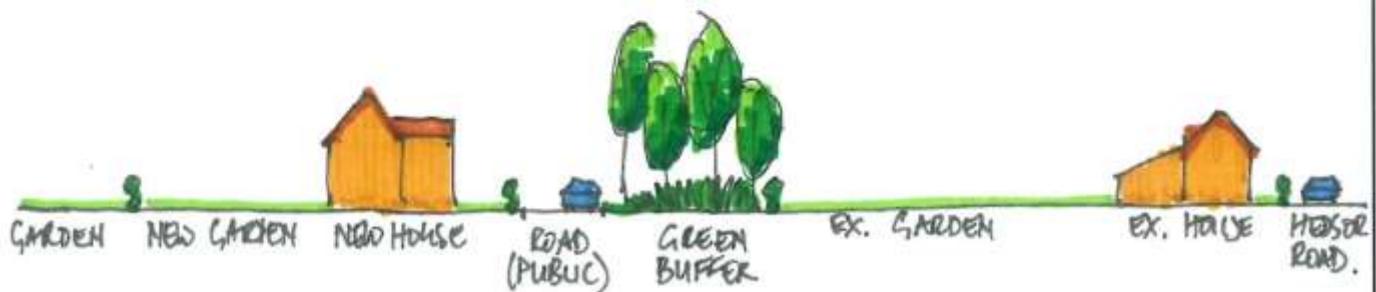
Figure 6.4 Hawks Hill buffer options



OPTION 1: BACK-TO-BACK, NO BUFFER



OPTION 2: BACK-TO-BACK, PRIVATE BUFFER



OPTION 3: PUBLIC ROAD + GREEN BUFFER

Figure 6.5 Hedsor Road buffer options

6.5 Access and Transport Movement

Connectivity

- 6.5.1 Connectivity throughout the site and to adjoining areas will be provided for all forms of movement, with the following broad priorities:
- Walking;
 - Cycling;
 - Public transport;
 - Servicing; and
 - Private transport (cars)
- 6.5.2 A Principal Route should be provided to connect Cores End Road / Brookbank / Town Lane to Ferry Lane. This will provide the primary vehicular route through the site, to which other roads within the site will be connected, and should be built to allow large vehicles to pass in two directions.
- 6.5.3 Access from Hedsor Road and Princes Road by the Principal Route will require widening of the existing access routes.
- 6.5.4 A road link to Millboard Road will improve accessibility if this can be delivered, and will have particular benefits to the primary school access and egress. However, this could reduce the benefits of reduced congestion through Bourne End provided by the Principal Route, this will need to be considered if the road is brought forward as part of the development. If Millboard Road is delivered, the bus route should still be provided along Princes Road.
- 6.5.5 The Principal Route should take into account the following principles:
- Accommodate two-way traffic;

- Accommodate a two-way bus service where road width allows;
- Provide safe and attractive pedestrian and cycle facilities;
- The Principal Route is to be residential in nature, with residential properties fronting the road;
- The layout should promote low speeds through the development whilst maintaining uninterrupted traffic flows; and
- Pedestrian and cycle links to neighbouring areas will aid sustainable movement between neighbouring communities, to local services and help to link the wider network of footpaths and bridleways, including the future reopening of the Bourne End to High Wycombe Rail line as a shared use path.

Walking

- 6.5.6 Pedestrian-friendly streets will be a priority throughout the proposed development.
- 6.5.7 Existing public rights-of-way pass through the site from Princes Road at the north (WOO/3/2) to Hedsor Road (WOO/3/1) and beyond to the south (WOO/3/3). This is a well-used route at present and will be retained as a key route through the site.
- 6.5.8 Diversions to this established route will be required to enhance its amenity. This is to enable a more complete perimeter block to the existing (adjoining) housing area and to make use of the existing orchard and garden boundaries as a green route. This will maximise the security of housing areas, and the amenity and connectivity of the route. Links will be maintained with public right-of-way WOO/4/1, following Millboard to the west.

6.5.9 There are several aspirational footpath links off-site as follows, delivery will be sought through cooperation between adjacent land-owners and the Parish Council:

- a) Through the former orchard to the east, linking with WOO/6/1 (bridleway);
- b) Through the business park / industrial estate to the west linking to the existing sports field and playground and onwards to the River Thames via existing right-of-way WOO/5/1-3, which in turn links to the Little Marlow Lakes Country Park; and

6.5.10 These links would encourage walking between adjacent communities and to nearby community facilities and public transport. Should access to the former orchard site not be achieved, the footpath within the site should provide a connection to the orchard, to future proof long-term connectivity.

Cycling

6.5.11 The north-south public right-of way should include a shared or dedicated cycle path (with pedestrians not vehicles) separate from the road, being the primary route through the site, to provide for both commuters and recreational cyclists;

6.5.12 A cycle link to Millboard Road will be supported to encourage cycling to/from the centre of Bourne End and beyond; and

6.5.13 Cyclist-friendly streets will be a priority throughout the proposed development.

Public Transport

6.5.14 A Principal Route is proposed between Princes Road and the Cores End Road roundabout in the north and Hedsor Road in the South. This will provide the primary access route through the site and will be served by a bus route in either one or both directions. The rerouting of bus route 37 will be sought to deliver a bus service to the site as well as the surrounding neighbourhoods. The provision of a bus lay-by on the Principal Route should be considered to accommodate lay over requirements to remove existing conflicts around the train station.

6.5.15 Width restrictions on Princes Road results in insufficient space to allow for 6.5m carriage way requirements for two buses to pass each other at the same time. The technical design for the Principal Route will ensure a two-way bus service can be accommodated safely and without unduly impeding the flow of other traffic, except at this location on Princes Road where the existing road width is constrained. Bus stop locations within the development should be considered in relation to land uses within the site and comply with national guidance in terms of walking distances. At least one bus stop should adjoin or be close to the school.

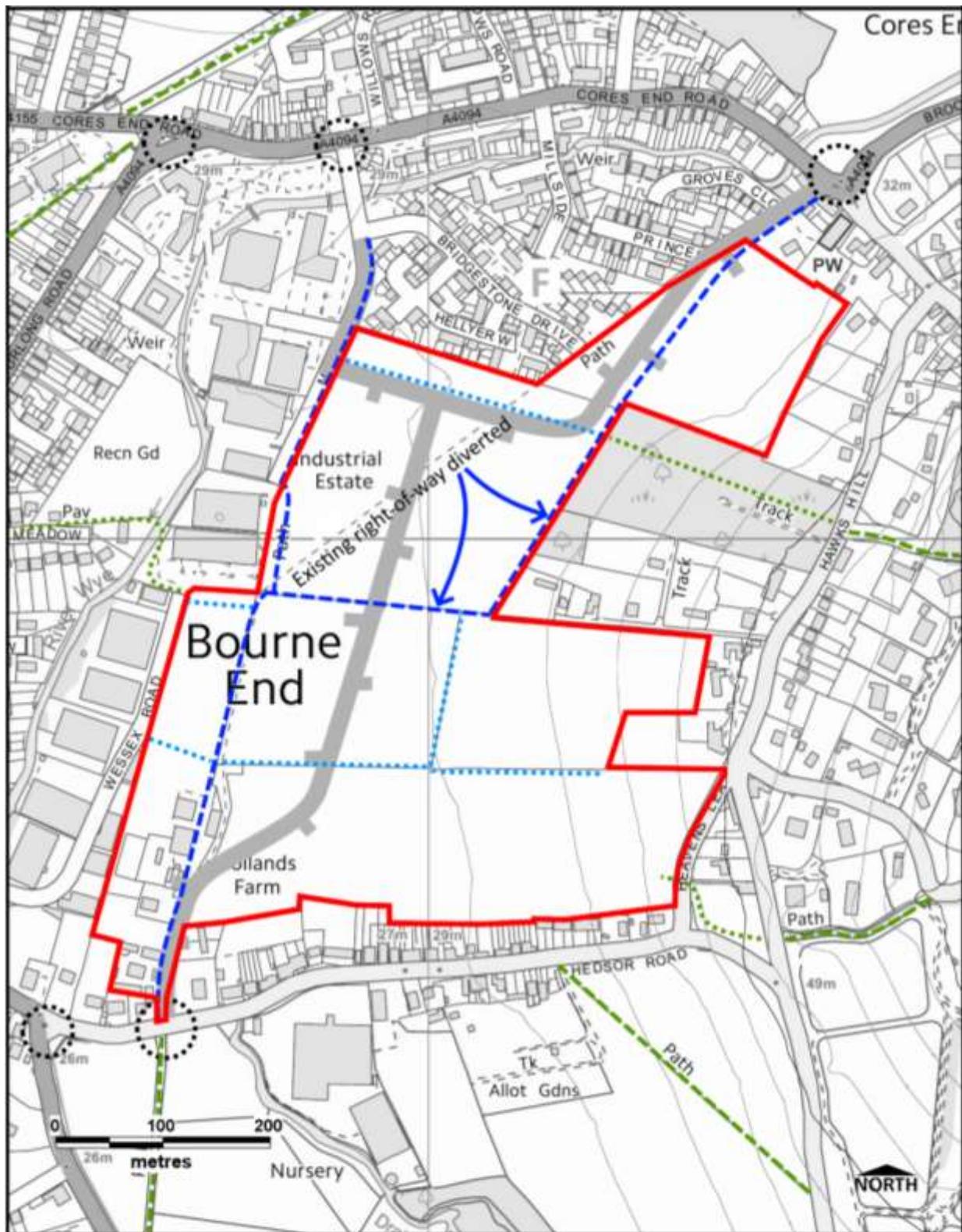


Figure 6.6 Movement framework

Servicing

6.5.16 The road network within the proposed development will provide for the safe and efficient servicing of all development, including deliveries, waste collection and emergency services. Road networks will therefore minimise the number and length of cul-de-sacs and provide sufficient road width for large vehicles to pass in two directions.

Private Transport (cars)

6.5.17 All roads within the proposed development will be two-way and to dimensions that are appropriate to their hierarchy and design speed. Road/street design should encourage slow vehicular speeds throughout the entire development, while avoiding/minimising congestion and waiting. The environment should give priority to pedestrians over cars.

6.5.18 Road access to and from the site will be via Princes Road and Cores End Road and Hedsor Road only. However, additional road links via Millboard Road and Bridgestone Drive are desirable in order to improve permeability between the site and the centre of Bourne End. This is subject to agreement with the adjoining landowners and ensuring the benefits of the link road to the wider Bourne End road network as identified in the County-Wide Modelling for the Local Plan are still provided.

Parking

6.5.19 Parking provision will be required for residential area, the school, for drop-off and collection of pupils, and for on-site sports facilities where provided.

6.5.20 Parking will be discouraged along the Principal Route in order to maintain traffic flows at peak times, and particularly to

minimise and avoid congestion near the school.

6.5.21 Parking for new residential areas and associated uses should follow the Buckinghamshire Countywide Parking Guidance (2015) and ensure careful designed to discourage parking on roads, pavements and verges which are not intended for this purpose.

Off-site junction improvements

6.5.22 The following junctions (but not limited to) will need to be assessed in terms of capacity and safety and where appropriate mitigation identified in order to accommodate the Principal Route and development (see policy DM3):

- Furlong Road / Cores End Road;
- Furlong Road / Station Road;
- Hedsor Road / Ferry Lane;
- Hedsor Road / new Principal Road; and
- Millboard Road / Cores End Road (subject to deliverability).

6.5.23 This detail will be for Transport Assessment at the planning application stage.

Off-site Parking

6.5.24 Parking should be reviewed at the following locations as part of the access strategy to ensure free-flowing vehicular movement to and from the development:

- Princes Road;
- A4094;
- Kiln Lane;
- Millboard Road (if vehicular connectivity is delivered); and
- Any other locations yet to be identified.

Off-site contributions

6.5.25 Financial contributions (Section 278 agreement/Section 106 agreement and/or Community Infrastructure Levy funding) will be provided for improvements to the local road network / junctions where the proposed development gives rise to their need. Contributions cannot be sought for mitigation which does not directly arise from the development. Contributions will also be sought for improvements to the wider footpath/cycle network, including the former Bourne End to High Wycombe Railway line.

Travel Plans

6.5.26 A planning application for development of the site will be accompanied by a travel plan setting out the long-term travel management strategy for how sustainable modes of transport will be facilitated and promoted in preference to private transport. See requirements set out DM2.

6.6 Green and Blue Infrastructure

Green and Blue Infrastructure Connections

6.6.1 Green infrastructure (GI) within the site will build upon existing landscape features including TPO trees, agricultural hedges running E-W within the site and the existing hedge running north-south towards the western edge of the site. Green infrastructure will also integrate with GI in the surrounding area including the former orchard adjoining the site's eastern boundary, the green lane of Hawks Hill and the wider network of public rights-of-way.

6.6.2 Local Plan Policy BE2 requires a landscape-led approach to the masterplanning and detailed design of development on this site. As part of this, 2.2 hectares of structural landscape has been identified as a

requirement in addition to the strategic open space requirement (see below).

6.6.3 The quantity of structural landscaping (see Section 6.4.2) makes provision for landscaped buffer areas between the proposed development, such as Hawks Hill and Harvest Hill, and housing along Hedsor Road and wider GI objectives.

6.6.4 Structural landscape areas may accommodate compatible uses such as local open space, 'natural' play facilities, allotments and sustainable drainage systems ('SuDS') provided these do not compromise the primary buffer/screening objectives described above.

6.6.5 A sustainable drainage system (SuDS) will extend a blue infrastructure (BI) network through the site with the potential to link offsite to the River Wye (Green Corridor Opportunity Area 11). SuDS features should be a naturalistic design (in line with The SuDS Manual) in order to be an integral part of this blue infrastructure network, controlling the quantity and quality of surface water discharge into the river.

6.6.6 Trees and hedges will be retained, where possible, within public open spaces and green corridors, and incorporated into an extensive green network, comprising:

- a) A planted buffer along the southern site boundary adjoining the Conservation Area, in conjunction with existing rear gardens, will provide a green link between Hawks Hill and the western margin of the site, near the River Wye;
- b) A substantial planted buffer to the eastern boundary, perhaps incorporating areas of chalk grassland, reinforcing the green lane and gardens of Hawks Hill; and

- c) Green corridors accommodating the retained/diverted public rights-of-way and new footpaths.
- 6.6.7 Retained trees and new planting will contribute to canopy cover requirements under Local Plan policy DM34. In addition to GI and tree planting in the public realm, opportunities will be taken to include tree planting within the proposed school grounds, including parking areas, and within private gardens if necessary (as a last resort).
- 6.6.8 Figure 6.2 'Landscape and Open Space' provides an illustrative layout of these elements.
- Open Space Requirements – Strategic and Local*
- 6.6.9 The allocation of this site, which currently assumes 467 dwellings, results in the following indicative open space requirements based on policy DM16 (this is subject to change depending on the number of dwellings proposed):
- 6.6.10 Strategic Open Space (at 3.3 hectares per 1000 residents): 3.85 hectares, comprising:
- Sport: 1.4 hectares;
 - Park: 1.95 hectares;
 - Play: 0.23 hectares; and
 - Allotments: 0.27 hectares.
- 6.6.11 Local Open Space (at 1.15 hectares per 1000 residents): 1.34 hectares, this should be incorporated within net developable area.
- 6.6.12 There are a number of sporting facilities near to the site. The 2015-2020 Sports Facility Strategy highlights a deficiency in youth football pitches and a lack of a multi-use games area (MUGA) in the Flackwell Heath, Bourne End and Wooburn Green sub area. Therefore, Strategic Open Space provided by the proposed development should include 2 youth football pitches and 1 MUGA. These are best located adjacent or close to the proposed school.
- 6.6.13 The youth pitches should be designed to Sports England U15/16 standard (97 x 61 metres, 0.59 hectares overall area), while the MUGA should be designed to the Wycombe Area standard (30 x 15 metres).
- 6.6.14 The brief assumes that Strategic Open Space will be provided on-site unless agreed otherwise. The MUGA should be provided on-site in any scenario and will form part of the facilities for teenagers.
- 6.6.15 Parking will be provided to serve these facilities. It is assumed that changing rooms and toilets will not be required at this site as youth footballers generally arrive ready to play.
- 6.6.16 Play facilities and a public park will be provided on-site. A Neighbourhood Equipped Area of Play (NEAP) will be provided for prospective residents:
- a) Built to the six-acre standard (Fields in Trust);
 - b) Sympathetic to the environment and surroundings, using natural materials;
 - c) Providing equipment for children of all ages;
 - d) Located close to the school and neighbouring residential areas; and
 - e) Co-located with the MUGA where possible.
- 6.6.17 Recreational provision is to be made for teenagers. The proposed MUGA will fulfil part of this need, but will be a managed facility with restricted uses / hours of access. Therefore, alongside the MUGA there should be a teen facility that is

accessible throughout the daytime and evening. It is suggested that this include a kick-about area (roughly 15 x 15 metres) and mini-goal plus a basketball hoop, such as that found at The Rye in High Wycombe, plus a shelter and seating.

- 6.6.18 The co-location of MUGA and teen facilities is appropriate given their complementary activities and the potential for noise arising from their use. Sport England provides guidance on the design of MUGAs, including separation distances from residential and other users.
- 6.6.19 Refer to Figure 6.2 Landscape and Open Space Framework Plan.

6.7 Ecology

- 6.7.1 The design and layout of the site will take into account the presence of protected and priority species and habitats and apply the mitigation hierarchy (avoid, minimise, mitigate, compensate and enhance) as set out in Local Plan policy DM34 to ensure that a measurable net gain in biodiversity is achieved.
- 6.7.2 The existing site, and most importantly its hedgerows, provides connections in the wider ecological landscape which includes large back gardens, an old traditional orchard and woodlands to the south and east and the river wye to the north and west. Maintaining and enhancing connectivity will be a high priority, achieved by the following means:
- Minimising severance and disturbance of hedgerow connections and maintaining generous undeveloped buffers (e.g. 10m to either side);
 - Providing new/alternative green corridors and wildlife crossings/tunnels;

- Minimising lighting and hard surfacing along hedgerows, in green spaces and other areas of ecological sensitivity;
 - Incorporating native tree/shrub species, native wildflower mixes and sympathetic SuDS features within green corridors;
 - Using plant species and features throughout that provide food, water and shelter for wildlife; and
 - Providing structural features throughout the site for nesting, roosting and hibernation, and to aid movement at ground level between plots/gardens.
- 6.7.3 New biodiversity net gain is required and should be demonstrated through biodiversity accounting.

6.8 Flood Risk and Sustainable Drainage Systems (SuDS)

- 6.8.1 Almost all of the site is Flood Risk Zone 1 while there are small areas in the south west corner of the site along Hedsor Road which are Flood Risk Zones 2 and 3.
- 6.8.2 Sustainable drainage systems (SuDS) will be prioritised in areas that are at low risk of surface water or fluvial flooding. SuDS in areas of high groundwater could be possible but careful consideration should be given to the design, for instance how capacity will be maintained during high groundwater periods.
- 6.8.3 Source control SuDS should be prioritised; this will assist with incorporating SuDS into the landscape across the site to mimic natural drainage processes and create blue-green corridors.
- 6.8.4 The surface water drainage scheme should seek to meet all four pillars of sustainable drainage (water quantity, quality,

- biodiversity and amenity). ‘End of pipe’ solutions are not desirable.
- 6.8.5 The preference is for above ground SuDS which provide multifunctional benefits, such as tree pits, bio-retention areas and swales. A detailed SuDS strategy will need to form part of a future planning application.

6.9 Services and Amenities

Education – Primary School

- 6.9.1 A single form entry school is to be provided in accordance with the requirements of the local education authority; it will require approximately 1.1 hectares of land with an additional requirement for parent/coach drop-off area of at least 0.3 hectares.
- 6.9.2 The preferred location for the school is immediately east of Millboard Road (refer to Figure 6.1). This location is easily accessible by the catchment area it serves, where walking to school is encouraged and the drop-off / collection of pupils can be undertaken without causing local congestion or undue inconvenience to local residents. The school should be located on a secondary road rather than directly onto the Principal Route.

Health Centre

- 6.9.3 It is a policy objective (BE3 of the Local Plan) to deliver a health facility in the local area. With regard to this development, such a facility might be provided on site if an agreement can be reached with the developer; or a financial contribution may be made towards a facility elsewhere in the local area.

Utilities (Water, Gas, Electric, Communications)

- 6.9.4 Existing services occur within the site, most notably water supply and sewerage pipes. The proposed development will need to accommodate these through working around them and respecting necessary wayleaves, or by rerouting them. Details of this will be provided in a future planning application.

6.10 Noise, Vibration and Air Quality

- 6.10.1 The proposed development will take account of existing and new sources of noise, vibration and air pollution and take steps to minimise their effects upon exiting and new residents.
- 6.10.2 Sources may include:
- Existing industrial operations within the site (e.g. joinery workshop) or in the adjoining industrial estate;
 - Recreational activities including the use of sports pitches and play areas; and
 - Traffic potentially queueing within the site approaching road junctions or waiting at the school.

6.11 Climate Change and Sustainability Measures

- 6.11.1 In the first instance, the proposed development will address national and local policy.
- 6.11.2 National Policy is set out in the National Planning Policy Framework paragraphs 7-14, where it seeks the balancing and mutual support of economic, social and environmental factors.
- 6.11.3 Local Policy is contained in the Development Plan for the Wycombe Area, in particular:

- DM1: presumption in favour of sustainable development;
- CP1: Sustainable Development; an
- CP12: Climate Change.

6.11.4 Sustainable development is a thread running through many national and local policies.

6.11.5 The site allocation itself contributes to several sustainability objectives:

Economic

- Provides land for housing growth to meet local demand;
- Provides short-term employment during construction;
- Provides long-term employment at the school; and
- Boosts local demand for products and services in Bourne End.

Social

- Facilitates growth of the local community;
- Boosts demand/support for local community services;
- Expands local footpath and open space networks; and
- Increases connectivity between established communities.

Environmental

- Provides opportunities to retain and enhance existing green spaces and public rights of way;
- Provide opportunities to expand and connect green-blue infrastructure through the site;
- Promotes walking and cycling through proximity and connectivity between new

and existing housing, employment, schooling and leisure opportunities; and

- Design objectives set out in the development framework promote more sustainable forms of development, including the following.

6.11.6 At a masterplan scale, development should deliver the following:

- Implementation of a comprehensive sustainable drainage system throughout the site;
- Provide a comprehensive green-blue infrastructure network throughout the site that connects to the wider GI network;
- Provide attractive and efficient walking and cycling routes through the site;
- Provide direct access to public transport within the site;
- Provide efficient vehicular movement/circulation through the site;
- Provide public open spaces that are attractive, safe and accessible to promote community cohesion and personal health/wellbeing;
- Use layout and building design to maximise passive supervision of streets and open spaces, to minimise opportunities for crime and anti-social behaviour; and
- Self-build on higher/bigger plots.

6.11.7 At a detailed design scale, development should deliver the following:

- Reuse of existing buildings where possible;
- Active/passive design in buildings and landscaping to aid heating/ cooling and microclimate;
- Use of BRE Green Guide construction materials;

- d) Minimising construction waste and maximising re-use/recycling;
 - e) Incorporate high standards of energy efficiency;
 - f) Capture renewable energy sources through solar thermal/voltaic panels and ground/air source heat pumps;
 - g) Consider modular on-site CHP and/or connection to a wider district heating system;
 - h) Incorporate high standards of water efficiency and provide for grey water recycling;
 - i) Provide suitable infrastructure for electric vehicle charging;
 - j) Incorporate green roofs to suitable buildings, such as the school, to enhance biodiversity and increase building insulation;
 - k) Incorporate detailed provision for biodiversity/wildlife such as bird/bat boxes and wildlife gates/corridors; and
- A range of traditional and contemporary buildings;
 - A range of layouts, densities, heights, plot sizes and clustering of buildings;
 - Coherent street frontages on any one street: e.g. narrow/wide, terraced, semi-detached or detached; long/short front gardens; on/off-street parking arrangements, street trees;
 - Open spaces and landscaping: formal ‘squares’ framed by buildings; semi-formal parks, informal/natural green spaces; and
 - Any phasing of the development must not compromise the delivery of distinct character areas on account of spreading the range of accommodation evenly between phases.

6.11.8 A Sustainability Appraisal (SA) for the site has been completed and is available for comment alongside the draft Development Brief consultation.

6.12 Character Areas

6.12.1 The masterplan for the site should set out a series of character areas that will deliver variety and interest in the layout, streetscapes, built forms and open spaces. This should be done in a meaningful way through a high standard of design; subtle changes to standard house types (e.g. materials) is far from sufficient to deliver this.

6.12.2 Character areas might be defined using a range of tools, for example:

7 Planning and Development Delivery

7.1 Approach

- 7.1.1 Collaborative working between Buckinghamshire Council, development promoters, and the local community is a priority. Promoters/developers are expected to work in partnership with each other across the entire site to demonstrate coordinated development and infrastructure delivery.
- 7.1.2 In order to ensure a high quality, cohesive development across the site, any planning application should be supported by a comprehensive and robust masterplan informed by the development brief for the whole Hollands Farm site. Outline and reserved matters applications for land within the development brief area will need to demonstrate how the principles for the whole of the site will be supported by the proposals.

7.2 Phasing and Infrastructure

- 7.2.1 The Council will require outline and reserve matters planning applications to be accompanied by a detailed phasing and infrastructure delivery plan for the whole development brief area, including off site infrastructure. Timing of triggers for community and open space facilities will also need to be identified. Phasing should not compromise the ability to create distinct character areas.
- 7.2.2 Planning applications will need to demonstrate that the full package of on and offsite infrastructure set out in this brief will be delivered (but not limited to):

Onsite Infrastructure

- a) A principal route through the site linking Princes Road to Hedsor Road should be

delivered in the first phase of construction so that new residents can have proper access to their properties from the outset;

- b) Delivery of a one form entry primary school is required by making available at least 1.4 ha of land. The trigger point for this is when the demand reaches 0.5 form of entry. A financial contribution towards education is also to be made in accordance with the latest Buckinghamshire Council Guidance on Education Planning Obligations; and
- c) The provision of strategic open space, including the sports pitches, MUGA, Teen play facility, NEAP and allotments. Strategic open space must have a long term management plan in place. It may be adopted by The Council or Wooburn and Bourne End Parish Council, or be managed by a management company.

Offsite Infrastructure

- d) Junction Improvements required by the Highway Authority and policy DM3 – Transport Improvement Lines;
- e) Provide and enhance footpath and cycle links to the village centre; consideration should be given specifically to Millboard Road and Cores End Road (route A on Figure 7.1) and a potential new link through the Millboard Road/ Wessex Road employment area (route D on Figure 7.1);
- f) Section 106 contributions to facilitate public access to the former orchard;
- g) Contributions towards improving access and upgrading the bridleway on the disused former Bourne End to High Wycombe railway line between Cores End Road and White Pit Lane (see policy DM4 - Former Bourne End to High Wycombe Railway Line, of the Wycombe District Delivery and Site Allocations Document);

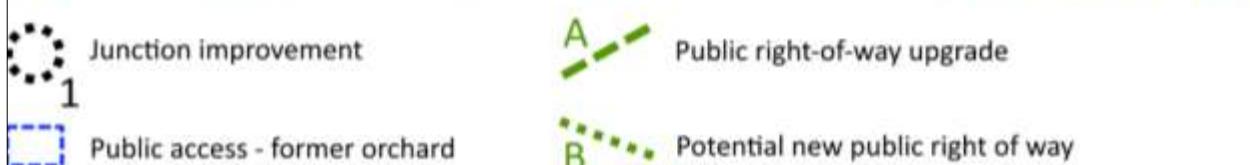
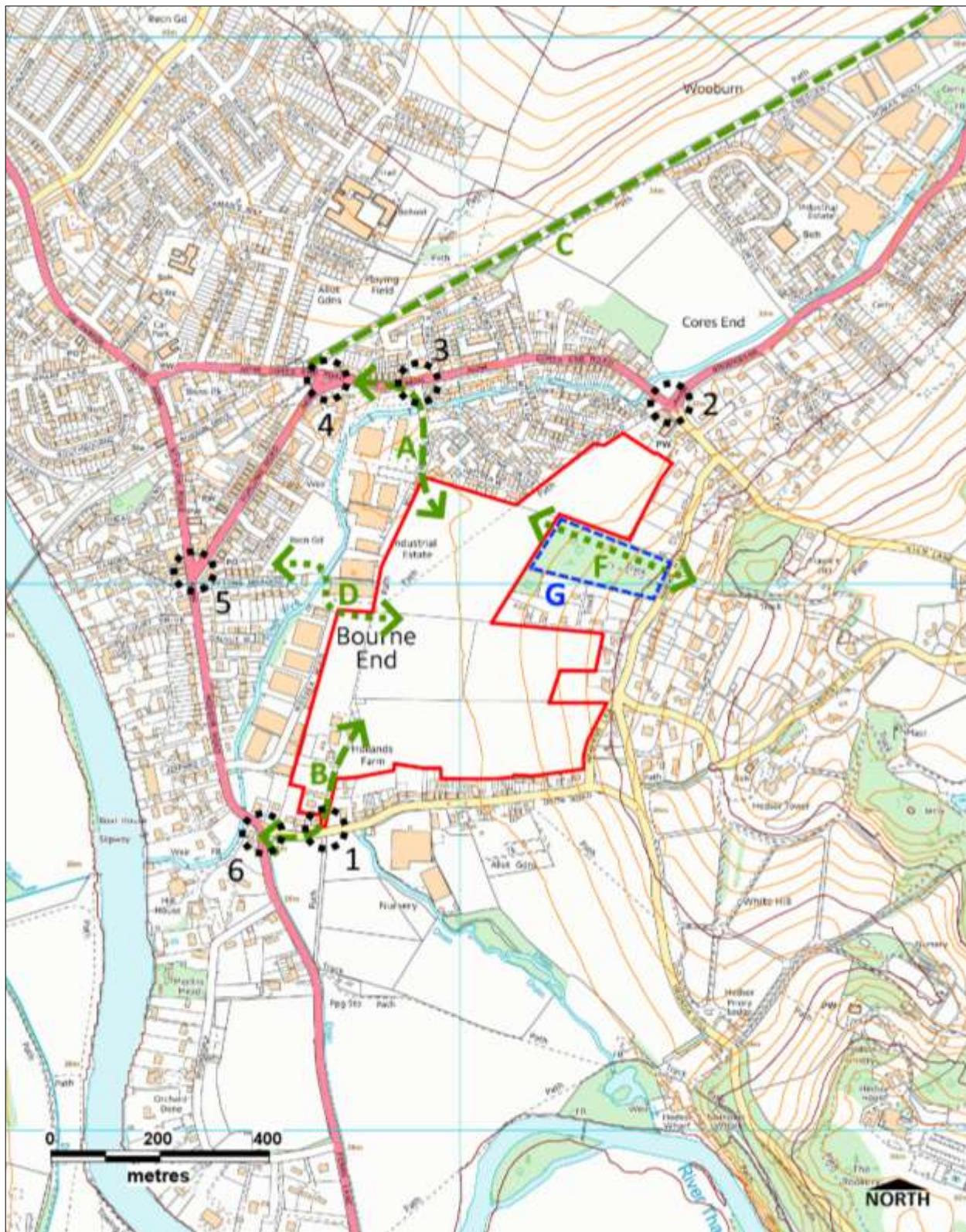


Figure 7.1 Off-site infrastructure

- i) Contributions to an appropriate healthcare facility for the local area; and
- j) Provide Section 106 contributions to mitigate recreational impacts at Burnham Beeches SAC.

7.3 Burnham Beeches SAC Mitigation

- 7.3.1 Section 3(b) of policy BE2 identifies the need for S106 contributions to mitigate recreational impacts at Burnham Beeches Special Area of Conservation (SAC). In line with the Wycombe District Local Plan Habitats Regulations Assessment findings and Natural England's advice to minimise recreational impacts on the Burnham Beeches SAC, a Section S106 contribution will be directed to improve access and the attractiveness to the Little Marlow Lakes Country Park (LMLCP).
- 7.3.2 Policy BE2 sets out that contributions should deliver improvements to the LMLCP as well as providing access to the country park by sustainable travel modes. This is in addition to the requirements of DM16 for open space provision. Any planning application for residential development must be supported by an Appropriate Assessment to demonstrate that the proposal alone or in combination with other plans and projects does not create adverse impacts on the Burnham Beeches Special Area of Conservation.
- 7.3.3 A draft Appropriate Assessment (AA) has been carried out to inform the development brief, and accompanies this consultation. Table 1 of the Hollands Farm AA (September 2020) - see Appendix B - sets out the required mitigation measures to be delivered at Little Marlow Lakes Country Park. In order to support a conclusion of 'no adverse effects on the site

'integrity' of the Burnham Beeches SAC, development proposals will need to deliver all 'high' priority measures plus at least three of the additional 'medium' and 'low' priority measures set out in Table 1.

- 7.3.4 These measures will have to be delivered prior to the occupation of the Hollands Farm development, and that will be built into the Section 106 obligation.
- 7.3.5 As it is a legal requirement for AA mitigation measures for European sites, any mitigation measures will have to be secured 'in perpetuity' (defined as 80 years) to ensure their long-term effectiveness. The Council proposed to seek developer contributions on this basis.
- 7.3.6 The application will also be assessed against the requirements of the Regulations. Indicative cost estimates have been set out. These will need to be further clarified, alongside deliverability of the mitigation measures proposed.
- 7.3.7 A definitive mitigation package should be proposed at the outline planning application stage. The definitive package of mitigation measures will then be agreed upon by the Council and Natural England. These will be secured by way of section 106 obligations prior to the grant of an implementable planning permission.

7.4 Supporting Documents Required to be Submitted with a Planning Application

- 7.4.1 The planning application will be supported by various studies, reports and plans in accordance with our validation check lists, notwithstanding that this should include, but not limited to:
 - a) Masterplan for the entire site;
 - b) Transport Assessment;

- c) Archaeological Evaluation;
- d) Ecology and Habitat Surveys;
- e) Appropriate Assessment for HRA (including mitigation measures package);
- f) Arboricultural report and Impact Assessment;
- g) Landscape and Visual Impact Assessment;
- h) Canopy Cover Calculator and associated plans as set out in the Canopy Cover SPD;
- i) Heritage Impact Assessment;
- j) Flood Risk Assessment (for fluvial, surface water and ground water);
- k) Detailed Drainage Strategy;
- l) Detailed plans and sections for each street types within the site and for key spaces, illustrating relationships between buildings and the street, front garden and boundary treatments, parking both on plot and in the street, footpaths, landscape areas, street trees, SuDS, and utility zones; and
- m) Combined Landscape and Utility masterplan.

7.5 Management and Maintenance

- 7.5.1 Core infrastructure through the site, including the principle road, water supply:
 - a) SuDS and sewerage should be made available for adoption by public authorities; and
 - b) Management and maintenance plans should be identified for all public community areas which are not adopted by the LPA. This should include un-adopted roads, landscape areas and informal open space.

Appendix A: References

Wycombe District Local Plan (WDLP) (Wycombe District Council, August 2019)

[National Planning Policy Framework](#) (NPPF) (Ministry of Housing, Communities and Local Government, February 2019)

[National Design Guide](#) (Ministry of Housing, Communities and Local Government, 2019)

[Delivery and Site Allocations Plan for Town Centres and Managing Development](#) (Wycombe District Council, 2013)

[Green Belt Review Part 2](#) (Wycombe District Council, September 2017)

[Settlement Hierarchy Report](#) (Wycombe District Council, September 2017)

Buckinghamshire Council Guidance on Education Planning Obligations (Buckinghamshire Council, 2020)

Draft Hollands Farm Sustainability Appraisal (AECOM, July 2020)

Draft Hollands Farm Appropriate Assessment (AECOM, October 2020)

Appendix B: Appropriate Assessment, Table 1 extract

Table 1: List of mitigation measures that are recommended for delivery in the Little Marlow Lakes Country Park (LMLCP), describing their nature, likely impact and priority (as considered by AECOM).

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
1	One of the main entrance points to the LMLCP, currently only with a standard 'Public Footpath' sign.	To increase visibility, it is recommended that a more visible signpost marking the LMLCP is installed here to augment the existing signage. Furthermore, a DDA compliant gate should be installed here. It is noted that signposts are lacking across the entire LMLCP. Therefore, further signposts could be provided at the other main access points to the country park, such as the A404 along Marlow and the Thames Coast Path. While a total of four signposts are costed here, the number and siting of signage posts should be developed further in a comprehensive signage plan.	<u>Capital Cost</u> £200 based on four signposts to be delivered across the LMLCP; approx. £50 per signpost £500 for one DDA compliant metal gate <u>Replacement Timeline</u> Signposts and metal gate to be replaced every 10 years <u>Total In-Perpetuity Cost (over 80 years) including capital and replacement costs</u> £200 (four signposts) + £500 (one metal gate) + £4,900 (in-perpetuity replacement costs) = £5,600	Attract more visitors to the country park.	Medium (optional deliverable)
2	Outer footpath running parallel to the Spade Oak Perimeter Path and leading around the northern edge of the Spade Oak Nature	This section of the footpath is extremely muddy (see Figure 4) and comprises an old, slippery wooden footbridge. Both the path surface and the footbridge should be renewed. Error! Reference source not found.	<u>Capital Cost</u> £5,000 for a 200m section of 'Half Tray with Geotextile and Georigid' standard footpath; approx. £25 per	Increase footfall in this section of the LMLCP. No visitors were encountered here during the site visit, and this may partly be due to the condition of the path.	High ('must' deliverable)

¹ The locations are shown in Figure 3.

² Approximate pricings have been obtained from the Estimating Price Guide for Path Projects (2020). Available at : https://www.pathsforall.org.uk/mediaLibrary/other/english/estimating-price-guide-for-path-projects_paths-for-all_-rev1-dec-2019-2.pdf [Accessed on the 31/07/2020]. Refined costs will be required as the projects get developed and should involve experienced cost consultants and quantity surveyors

³ It is to be noted that the mitigation measures will have to be secured 'in perpetuity' (over at least 80 years) and an indicative maintenance timeline for relevant interventions is therefore provided in brackets.

⁴ Please see a further explanation of which interventions should be delivered to avoid adverse effects on the site integrity of the Burnham Beeches SAC in paragraph 4.18.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
	Reserve		<p>m² of path</p> <p>£740 for V drainage ditches along a 200m section of footpath; approx. £3.70 per linear metre for V drainage ditches</p> <p>£2,500 for a 5m long wooden footbridge; approx. £500 per m² of bridge (bridge costs are difficult to price due to a wide range in design, materials and complexity)</p> <p><u>Maintenance Cost</u></p> <p>£60 for annual vegetation strimming along 200m of path; approx. £0.30 per m²</p> <p>£30 for annual litter picking along 200m of path; approx. £0.15 per m²</p> <p>£2,400 for 10-yearly path repair works along 200m of path; £12 per m²</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and maintenance costs</u></p> <p>£5000 (path works) + £740 (V drainage) + £2,500 (wooden footbridge) + £4,800 (in-perpetuity vegetation strimming) + £2,400 (in-perpetuity litter picking) + £16,800 (in-perpetuity path repair works) =</p>		

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			£32,240		
3	Existing footpath along scrubland and field margins to the northern outer edge of the Spade Oak Nature Reserve	Buckinghamshire Council's suggestion of constructing a cycleway here that runs along the field outside the northern edge of the lake from Coldmoorholme Lane (where a new level access entrance is required) to Muschallik Road is considered to be a highly suitable mitigation measure. This is already a section of the LMLCP that is very appealing to walkers (see Error! Reference source not found.).	<u>Capital Cost</u> £36,740 for a 1,100m section of bound gravel cycle path; approx. £33.40 per m ² of bound gravel path <u>Maintenance Cost</u> £330 for annual vegetation strimming along 1,100m of path; approx. £0.30 per m ² £165 for annual litter picking along 1,100m of path; approx. £0.15 per m ² £13,200 for 10-yearly path repair works along 200m of path; £12 per m ² <u>Other Cost</u> £6,650 surveyor and legal fees ⁵ £5,000 one-off fee to landowner <u>Total In-Perpetuity Cost (over 80 years) including capital, maintenance and other costs</u> £36,740 (1,100m of bound gravel cycle path) + £26,400 (in-perpetuity vegetation strimming) + £13,200 (in-	This measure would increase the attractiveness of the LMLCP to cyclists and would align the SPD with Natural England's recommendation to make the park more accessible to sustainable travel modes. High ('must' deliverable)	

⁵ Surveyor and legal fees include a 33% flexibility bias.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			perpetuity litter picking) + £92,400 (in-perpetuity path repair works) + £11,650 (other cost) = £180,390		
4	Junction where the Spade Oak Perimeter Path meets The Moor (intersection of footpath with a tarmacked road)	This is currently the only dog waste bin in the entire site (see Figure 6). It is recommended that at least 4 dog waste bins are installed near the main access points. These should be placed up to 100m into the site away from car parks or foot access points, because dogs typically defecate after they have been walked for some distance.	<u>Capital Cost</u> £400 based on the provision of four dog waste bins; approx. £100 per bin <u>Replacement Timeline</u> Dog waste bins to be replaced every 10 years <u>Annual Maintenance Cost</u> £800 for annual servicing (regular emptying, repairs, etc.) of four dog waste bins; at £200 annual maintenance cost per bin <u>Total In-Perpetuity Cost (over 80 years) including capital and annual maintenance costs</u> £400 (cost for provision of four dog waste bins) + £2,800 (10-yearly replacement) + £64,000 (in-perpetuity maintenance) = £67,200	Reduce littering with dog waste bags (which was observed particularly in the western section of the LMLCP) and make the site more appealing for other user groups ⁶ .	High ('must' deliverable)
5	Railway crossing of The Moor adjacent to the Little Marlow	The footpath gate to the south of the railway tracks is damaged	<u>Capital Cost</u>	A new gate would make this section of the site more appealing. It is also potentially a safety	Low (optional)

⁶ Footprint Ecology undertook a series of visitor surveys in Suitable Alternative Natural Greenspaces (SANGs) designed to reduce recreational pressure in the Thames Basin Heaths SPA. Visitors were asked about changes that would increase their visit frequency to the SANGs and 'provision of dog waste bins' was one of the key responses given. Fearnley H. & Floyd L. 2014. Results of on-site visitor survey work at Diamond Ridge Woods SANG. 45pp.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
	Sewage Treatment Works	and could be replaced.	<p>£500 (for a DDA compliant metal gate)</p> <p><u>Replacement Timeline</u></p> <p>Gate to be replaced every 10 years</p> <p><u>Other Cost</u></p> <p>£3,990 surveyor and legal fees (Network Rail - landowner)⁷</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital, replacement and other costs</u></p> <p>£500 (one metal gate) + £3,500 (in-perpetuity replacement) + £3,990 (other cost) = £7,990</p>	issue which will need addressing.	deliverable)
6	Southern section of the proposed LMLCP comprising a section of the Thames Path; a long-distance footpath with high footfall	<p>The ground below three of the gates is highly compacted and waterlogged, and people were observed to climb the fence to avoid puddles. Addressing local drainage and ground incline is recommended here.</p> <p>Furthermore, all three metal field gates need replacing to be Disability Discrimination Act (DDA) compliant.</p>	<p><u>Capital Cost</u></p> <p>£321 for 4m⁸ of French drains to be installed at three gates; approx. £26.75 per linear metre of drain</p> <p>£2,632.20 for 42.8m² of ground repair works⁹ (e.g. releveling and adjusting incline) at three gates; approx. £20.50 per m² of repairs</p>	This measure would make navigation easier and discourage visitors from climbing over fences (with associated risks of injury).	Medium (optional deliverable)

⁷ Surveyor and legal fees include a 33% flexibility bias.

⁸ The area identified for drainage requirement was based on a site visit and subsequent measurement of wet ground on satellite imagery.

⁹ The area identified for ground repair works was based on a site visit and subsequent measurement of wet ground on satellite imagery.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<p>£1,500 for three metal field gates; approx. £500 per DDA compliant gate</p> <p><u>Replacement Timeline</u></p> <p>Metal field gates to be replaced every 10 years</p> <p><u>Other Cost</u></p> <p>£2,660 surveyor and legal fees (Randall – landowner)¹⁰</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and replacement costs</u></p> <p>£321 (12m of French drains) + £2,632.20 (ground repairs) + £1,500 (three metal field gates) + £10,500 (10-yearly replacement of gates) + £2,660 (other cost) = £17,613.20</p>		
7	Footpath leading past the Crowne Plaza Marlow and connecting the Thames Path with the area around Westhorpe House; key area for improvement as the path enables a circular trail around the LMLCP	This section of path is very narrow, overgrown with vegetation, muddy (see Figure 7) and has a littering issue. BC's proposal of constructing a new footpath here is considered a key measure for the park. It is to be noted that this will require a new Permissive Path Agreement with the landowner(s).	<p><u>Capital Cost</u></p> <p>£25,850 for a section of 1,034m 'Half Tray with Geotextile and Georigid' footpath to be provided; approx. £25 per m² of footpath</p> <p><u>Maintenance Cost</u></p> <p>£310.20 for annual vegetation</p>	An enhanced footpath in this area would increase the overall accessibility of the LMLCP from the Thames Path; the attractiveness of the park would be greatly increased.	High ('must deliverable')

¹⁰ Surveyor and legal fees include a 33% flexibility bias.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<p>strimming along 1,034m of path; approx. £0.30 per m²</p> <p>£155.10 for annual litter picking along 1,034m of path; approx. £0.15 per m²</p> <p>£12,408 for 10-yearly path repair works along 1,034m of path; £12 per m²</p> <p><u>Other Cost</u></p> <p>£3,990 surveyor and legal fees¹¹</p> <p>£4,000 one-off payment to landowner</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital, maintenance and other costs</u></p> <p>£25,850 (footpath provision) + £24,816 (in-perpetuity vegetation strimming) + £12,408 (in-perpetuity litter picking) + 86,856 (in-perpetuity path repair works) + £7,990 (other cost) = £157,920</p>		
8	Intersection of various footpaths to the north of Crowne Plaza Marlow; near residential area and the A404	This location offers an opportunity for improving signage, as it is easy to get lost here (for example heading towards the A404 or private land belonging to the angling club); a new waymarker could signpost the LMLCP circular trail.	<p><u>Capital Cost</u></p> <p>£215 for one timber post with finger blades</p>	Better signposting will make navigation easier, making the park more appealing to visitors and likely increasing footfall.	Medium (optional deliverable)

¹¹ Surveyor and legal fees include a 33% flexibility bias.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<u>Replacement Timeline</u> Timber post to be replaced every 10 years <u>In-Perpetuity Cost (over 80 years) of capital and replacement costs</u> £215 (timber post with finger blades) + 1,505 (in-perpetuity replacement) = £1,720		
9	Current footpath / cycle path to the north of the western lakes and Westhorpe House	BC's proposal to extend / enhance the cycleway here is considered to be an effective intervention, as there currently is only a very short well surfaced (compacted gravel) cycle path section to the north of Westhorpe House. The surfacing could be improved along the entire section of this path. It is to be noted that this will require a new Permissive Path Agreement with the landowner(s).	<u>Capital Cost</u> £17,702 for a section of 530m bound gravel cycle path; approx. £33.40 per m ² of bound gravel path <u>Maintenance Cost</u> £159 for annual vegetation strimming along 530m of path; approx. £0.30 per m ² £79.50 for annual litter picking along 530m of path; approx. £0.15 per m ² £6,360 for 10-yearly path repair works along 530m of path; £12 per m ² <u>Other Cost</u> £3,990 surveyor and legal fees	This measure would increase the attractiveness of the LMLCP to cyclists and would align the SPD with Natural England's recommendation to make the park more accessible to sustainable travel modes.	High ('must' deliverable)

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<p>(landowner to be confirmed)¹²</p> <p>£4,000 one-off payment to landowner</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital, maintenance and other costs</u></p> <p>£17,702 (530m of DBM cycle path) + 12,720 (in-perpetuity vegetation strimming) + 6,360 (in-perpetuity litter picking) + 44,520 (in-perpetuity path repair works) + £7,990 (other cost) = £89,292</p>		
10	Viewpoint over the Spade Oak Nature Reserve adjacent to The Moor and starting point to the Spade Oak Perimeter Path; key point in the LMLCP overlooking The Spit (a roosting site for waders and wildfowl)	<p>The information board at the viewpoint could be updated with more detailed information on the species present and the ecological importance of decommissioned quarries. A wide range of bird species were observed during the site visit, including red kite, common buzzard, swift, house martin, sand martin, common tern and lapwing, highlighting that the reserve is likely to be appealing to laymen as well as wildlife enthusiasts. Also, a bench and / or picnic tables here would offer visitors the opportunity for a rest, as there is currently no seating anywhere in the LMLCP (see Error! Reference source not found.).</p>	<p><u>Capital Cost</u></p> <p>£825 for one timber bench</p> <p>£2,700 for one information board</p> <p><u>Replacement Timeline</u></p> <p>Timber bench and information board to be replaced every 10 years</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and replacement costs</u></p> <p>£825 (for one timber bench) + £2,700 (for one information board) + £24,675</p>	<p>Installation of these features would enhance the attractiveness of the viewpoint and may increase visitor footfall.</p>	Medium (optional deliverable)

¹² Surveyor and legal fees include a 33% flexibility bias.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			(in-perpetuity replacement) = £28,200		
11	South-western section of the Spade Oak Perimeter Path	Several locations (currently used mainly by anglers) provide expansive views over the lake and there is the opportunity to enhance these with benches. Furthermore, there are several common tern (species of amber conservation status in the UK) nest floats and an information board on this conservation project may be attractive (see Error! Reference source not found.).	<u>Capital Cost</u> £825 for one timber bench £2,700 for one information board <u>Replacement Timeline</u> Timber bench and information board to be replaced every 10 years <u>Total In-Perpetuity Costs (over 80 years) including capital and replacement costs</u> £825 (two timber benches) + £2,700 (two information boards) + 24,675 (in-perpetuity replacement costs) = £28,200	The installation of seating opportunities and / or an information board would make the south-western section of the Spade Oak Perimeter Path more appealing and likely increase footfall; it makes completing a circular trail more attractive.	High ('must' deliverable)
12	Southern section of the Spade Oak Perimeter Path, eventually leading northwards back to the Spade Oak Public House	The path here is very muddy in places and would benefit from resurfacing. Similar to location 11, there are several locations, currently used by anglers, where benches would provide an appealing view over the nature reserve. It is acknowledged that the northward section of this footpath has already been improved, but still requires seating. The section of path still needing improvement (i.e. the 468m), lies to the south of Spade Oak.	<u>Capital Cost</u> £11,700 based on a 468m section of 'Half Tray with Geotextile and Georigid' footpath to be provided; approx. £25 per m ² of footpath £1,650 for two timber benches; at £825 per bench <u>Maintenance Cost</u> £140.40 for annual vegetation	Resurfacing the path and providing seating opportunities would make this section of the Spade Oak Perimeter Path more appealing and the circular trail more attractive.	Medium (optional deliverable)

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<p>strimming along 468m of path; approx. £0.30 per m²</p> <p>£70.20 for annual litter picking along 468m of path; approx. £0.15 per m²</p> <p>£5,616 for 10-yearly path repair works along 468m of path; £12 per m²</p> <p><u>Replacement Timeline</u></p> <p>Timber benches to be replaced every 10 years</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and maintenance costs</u></p> <p>£11,700 (468m of footpath) + £1,650 (one timber bench) + £11,232 (in-perpetuity vegetation strimming) + £5,616 (in-perpetuity litter picking) + £11,550 (in-perpetuity replacement) + 39,312 (in-perpetuity path repair works) = £81,060</p>		
13	Through-cut between the Spade Oak Perimeter Path and the entrance at the Spade Oak Public House	The existing 'wildlife area' and 'danger – quarry water' signage look very worn / have fallen off. These could be replaced and a waymarker could signpost the Spade Oak Perimeter Path and the wider LMLCP circular trail.	<p><u>Capital Cost</u></p> <p>£215 for one timber post with finger blades</p> <p>£2,700 for one information board</p> <p><u>Replacement Timeline</u></p>	<p>The provision of new signage and wayfinding at this location would help orientate visitors and increase the likelihood that a circular trail is completed.</p>	High ('must' deliverable)

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
			<p>Timber post and information board to be replaced every 10 years</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and replacement costs</u></p> <p>£215 (for one timber post with finger blades) + £2,700 (for one information board) + £20,405 (in-perpetuity replacement costs) = £23,320</p>		
14	Near the Spit	<p>BC is considering a new car park near The Spit (specifically along the concrete road or within the old gravel yard) to increase the visitor capacity of the LMLCP and enhance access to the northern section of the site. The Spit forms the tranquil core and is the main roosting site for waterfowl and waders in the LMLCP. The car park would lie within approx. 200-300m of the roost site, which may result in disturbance effects during and post-construction (depending on the construction machinery used¹³ and the volume of traffic).</p> <p>Other options for additional parking opportunities have also emerged, including expansion of the Athletics Track car park along Westhorpe Farm Lane or a more formalised landscaped version of parking in Carington field.</p> <p>During the site visit it was noted that visitors currently use</p>	<p><u>Capital Cost</u></p> <p>£12,000 for 60m² of car park for approx. 20 parking spaces¹⁴; approx. £200 per m² of car park¹⁵.</p> <p><u>Maintenance Cost</u></p> <p>£18 for annual vegetation strimming around 60m² of car park; approx. £0.30 per m²</p> <p>£9 for annual litter picking around 60m² of car park; approx. £0.15 per m²</p>	<p>An increase in the parking capacity is a key predictor of visitor numbers to a site¹⁶ and it is likely that this would enhance the capacity of the LMLCP to absorb more recreational pressure, including from the Hollands Farm development.</p>	High ('must' deliverable)

¹³ The Waterbird and Disturbance Mitigation Toolkit provides detailed background on the distances at which different noise levels may lead to the disturbance of waterbirds.

¹⁴ Natural England uses a rule of thumb of one parking space per hectare for SANG (for example in the Thames Basin Heaths SPA area). The LMLCP is not proposed as SANG and has an area of approx. 321ha. It is not deemed appropriate to provide a very large car park in the LMLCP, given that the site is already served by two car parks. Therefore, a medium-sized car park providing for 20 spaces is costed here.

¹⁵ A medium car park (for up to about 20 cars). Excavate to 300mm depth and fill to 150mm with clean hardcore. Surface with minimum 150mm of new hardcore (Type 1) with topping of fines to bind surface. Each parking bay requires 5m x 3m, plus turning space (1.5 x car length).

¹⁶ Weitowitz DC, Panter C, Hoskin R & Liley D. (2019). Parking provision at nature conservation sites and its implications for visitor use. Landscape and Urban Planning 190: 1-10.

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
		<p>parking on Muschallik Road – known as Fisherman's car park – adjacent to the entrance to the Little Marlow Waste Water Treatment Works. Due to the importance of The Spit for wildlife, AECOM advises that as a preferred option the expansion of parking along Muschallik Road is explored instead of a car park on the Spit.</p> <p>It is noted that there is a car park owned by Little Marlow Parish Council past the Spade Oak Public House car park further down on Coldmoorholme Lane. However, most visitors parking here were observed to access the Thames Path rather than the LMLCP. Furthermore, by extending the parking capacity in a different part of the LMLCP (e.g. on Westhorpe Farm Lane or Muschallik Road), this would enhance the accessibility of the Country Park in other areas.</p> <p>The different options for additional parking provision should be scoped out further and consulted upon with Natural England at the earliest opportunity, in order to identify the preferred solution for the outline planning application.</p>	<p>£1,890 for 10-yearly repair works on 60m² of car park; £31.50 per m²</p> <p><u>Total In-Perpetuity Cost (over 80 years) including capital and maintenance costs</u></p> <p>£12,000 (for a medium-sized car park with 20 parking spaces) + £1,440 (in-perpetuity vegetation strimming) + £720 (in-perpetuity litter picking) + £13,230 (in-perpetuity repair works) = £27,390</p>		
15 (not on map)	Distribution of information leaflets advertising the LMLCP in Hollands Farm	<p>A leaflet¹⁷ advertising the key circular routes through the LMLCP could be produced and distributed in households of the Hollands Farm development. Key information on the routes (e.g. distance, difficulty, access information) could be provided in this brochure. Furthermore, the information leaflet may be used as an educational platform to provide details on the history and wildlife of the Little Marlow Lakes, as well as the Countryside Code.</p>	<p><u>Capital Cost</u></p> <p>£124 for two rounds of leaflet distribution in the Hollands Farm development; approx. £62 for one round of 500 double-sided A6 leaflets¹⁸ (excl. design of content and distribution)</p>	<p>Providing additional advertisement for the LMLCP is likely to increase the recreational footfall within the site. Furthermore, the provision of routes with descriptions is likely to be an additional attraction. Visitors like to be guided on visits, which gives a sense of accomplishment (see success of routes on the ViewRanger application).</p>	Medium (optional deliverable)

¹⁷ A leaflet produced by the Chilterns Conservation Board covers a section of the site and is a useful source for inspiration. Available at: https://www.chilternsaonb.org/uploads/files/Walks_and_Rides/Access_to_the_Countryside/LittleMarlowWaterWalk.pdf [Accessed on the 31/07/2020]

¹⁸ Guide price for leaflet printing obtained from a web search at: <https://www.alocalprinter.co.uk/digital-leaflet> [Accessed on the 31/07/2020]

Location Number ¹	Description	Proposed Measure	Initial Ballpark Cost Estimate ² (capital, maintenance and replacement costs as appropriate ³)	Likely Impact	Priority (low, medium, high) ⁴
16 (not on map)	Strategic delivery officer role in Little Marlow Lakes Country Park	<p>This measure provides for a part-time delivery officer role with the purpose to administer funds, review project progress and liaise with relevant stakeholders (e.g. Natural England or private landowners). In other projects (e.g. BirdAware Solent), officers are full-time employed, but it is considered that a part-time role would suffice to oversee the LMLCP mitigation package.</p> <p>The officer working hours could be adjusted according to the requirements of the role, with most input being required in the initial set-up phase. In line with this, the officer role could be provided permanently in the first 5 years, with another 5 years of the role being spread over the remaining 75 years of the project (reflecting that the role would be limited to maintenance requirements after the initial project set-up phase).</p>	<u>Annual Cost</u> £45,000 part-time officer role (at 75% time) based on FTE salary of £50,000, and allowance for support costs (e.g. office supplies, IT support, etc.) and outsourcing the role ¹⁹ . The role would be provided over a total of 10 years (see column on the left). <u>Total In-Perpetuity Cost (over 80 years) of annual costs</u> £450,000 (salary for part-time delivery officer)	The delivery officer role will ensure that developer contributions are utilised appropriately and that mitigation interventions are achieved on time.	High ('must' deliverable)
All	Total in-perpetuity costs for all proposed mitigation measures		£1,198,259²⁰		

¹⁹ Data provided by Buckinghamshire Council

²⁰ It is to be noted that this figure provides a very crude ballpark figure for the lifetime costings of the mitigation measures identified for LMLCP. The total in-perpetuity cost may differ significantly, for example based on the lengths of foot- and cycle paths enhanced / replaced, and / or the amount of repair works required.

Appendix C: Photographs to show parking congestion



Furlong Road / Cores End Road junction



Furlong Road / Cores End Road junction



Mayfield Road



Fieldhead Gardens



Hedsor Road (from Jeffries Court)



Station Road (from Claytons Meadow)

Appendix D: Issues Log

No.	Issue	Who identified issue	Parish Council View (where known)	Buckinghamshire Council Response + Development Brief Implications
	Policy Requirement: <ol style="list-style-type: none"> 1. Placemaking <ol style="list-style-type: none"> a) Adopt a landscape-led positive approach to design and layout to limit its impact on the landscape; b) Have special regard to the conservation of nearby Heritage Assets and their settings, including the Hedsor Road and Riversdale Conservation Area; c) Maintain a sense of separation between Harvest Hill and the new development site; d) Ensure satisfactory relationship to the industrial buildings at Millboard Road Employment Area on the western boundary. 			
1.1	What are the opportunities and constraints for a landscape-led positive approach to design and layout to limit impacts on landscape?	BC		<p>The development should provide a cohesive landscape framework that draws upon and connects with the surrounding landscape, while also supporting Green Infrastructure.</p> <p>Existing features such as mature trees and hedgerows provide mostly opportunities for the landscape framework, such as structure and focal points.</p> <p>Views of the Conservation Area should benefit from trees and open spaces that act as a buffer and/or provide a sense of separation from neighbouring development.</p>
1.2	How should the landscape impact on the density? Should there be character areas?	BC		<p>Areas of greater sensitivity should have less density, including the hillside of Hawks Hill and Harvest Hill. The development brief will need to distinguish where the buffer for Hawks Hill and Harvest Hill should be located and therefore to what extent development should go up the hillside.</p>

				Density should increase towards the town centre. Character areas to be identified when site layout is known.
1.3	How to minimise the impact of the development on Hellyer Way and the end of Bridgestone Drive houses in terms of their outlook and views?	PC	Important to maintain separation for the local residents.	The existing layout of Hellyer Way and Bridgestone Drive would benefit from an enclosed block layout. This will enable existing backs of gardens face to face onto new backs of gardens, providing 'private space' rather than overlooking of public areas. Minimum space standards between houses will be required as set out in the BC Design Guidance SPD.
1.4	What should the relationship be between the development and Upper Hedsor Road as this is located next to the conservation area. Is the proposed tree belt the best way to preserve the setting given the different relationships of buildings to the site?	BC		Design options have been progressed to consider mitigation for the impact of development on setting of conservation area and along the backs of houses on Upper Hedsor Road, taking into account opportunities to better reveal significance of historic environment. These options include a private tree belt within residential gardens. How the boundary is treated will vary depending on the length of the existing back gardens from properties on Hedsor Road.
1.5	How should the Cores End road junction improvements mitigate impacts on the setting of United Reformed Church listed building?	BC		The Cores End junction should be designed to be sympathetic to the listed building. It should not be over engineered. It should be designed to accommodate the movement of motor vehicles but also meet the needs of pedestrians, cyclists and public transport users, so that growth in these modes of travel is encouraged. The design should have minimal impact on the existing trees located at Brookbank (also a Green Space designation).

				AVCD/BCC's Highway Protocol for Conservation Areas, should be used to ensure a sympathetic approach is design.
1.6	How should the impact of the access road onto the Hedsor Road conservation area and the listed buildings be mitigated?	BC		The highway junction should be designed to have the least impact on the Conservation Area, its setting and the settings of listed buildings. A T-junction is preferable over a roundabout option as this is less intrusive. Precise detail of junction to be identified through the planning application stage rather than development brief.
1.7	How should the boundary with the Farm house (South Fields?) be treated to mitigate impacts on the conservation area?	BC		Detailed point which is dependent on the outcome of issue 1.6.
1.8	How to provide the sense of separation between Harvest Hill and the new development? To what extent should development go up the hillside and what form should the development should take?	PC	Would like a gap all the way around the eastern edge.	Separation should be provided between the development and Hawks Hill. Tree planting on the upper slope is supported as it would provide visual separation whilst contributing towards policy requirement of 25% tree canopy coverage. Extent of separation still to be determined at planning application stage.
1.9	How should we mitigate the visual and other impacts on the development of the industrial buildings on Millboard Road and Wessex Road?	BC		One potential option is to locate the school to the east of the industrial estate, this would then have a secondary benefit of providing a buffer between the industrial estate and new residential areas. The use of open space (as identified in the indicative diagram for the Local Plan) should also be used to provide mitigation.

2. Transport / Connectivity
Policy Requirements

- a) Provide a link road through the site linking to the Cores End Road roundabout and Ferry Lane;
- b) Provide a redirected bus service and enhanced provision through the site;
- c) Provide contributions to off-site highway improvements as required by the Highway Authority;
- d) Provide and enhance footpath and cycle links to the village centre.

2.1	What should be the scope of the development brief in terms of detailed transport requirements for onsite? Factors to consider - What type of road do we want the link road to be? What should be the design speed?	All	The aims should be to ensure safe low speeds through the development to ensure uninterrupted two-way traffic flow and safe access. Would like to identify off-site improvements, including what junction improvements.	Development brief should identify the preferred location of the link road. The link road should be residential in nature. The Wycombe Local Plan Sites Traffic Modelling (June 2017, Jacobs) modelled the road at 30mph and tested a length of 1.3km. This allows for some bends in the layout, rather than 1 continuous straight road. Residential properties should front the road. Specific details for junction improvements will and can only be dealt with through the planning application process via the Transport Assessment. This will not be available for the development brief stage.
2.2	Access from Princes Road is too narrow for a two way bus route.	PC	Access needs to provide proper two-way movement. Properties should be compulsorily purchased to provide proper and safe access. We strongly feel that the first preference is to make the road wide	<u>BCC response</u> The Local Plan does not mention CPO. It has, however, been pointed out that the arrangement of 2 x 2m footways and a 5.5m carriageway would be unsuitable for two-way bus flow (it is anticipated that a bus route will be taken through the development).

		<p>enough for two buses to pass each other and of course other public vehicles e.g refuse trucks and HGVs. A one way bus service would be highly inconvenient for residents.</p> <p>If there is sufficient space for 6.5m carriageway then this must be the preferred option and perhaps have a footpath on one side of the road only. 6.5 carriageway should be for the entire link road to avoid pinch points.</p> <p>BC principle should state:</p> <ul style="list-style-type: none"> • ‘Accommodate two way traffic including buses and goods vehicles.’ 	<p>BCC Passenger Transport have identified a one-way bus service would be their preference (based upon the routeing of the service to be diverted). The bus route should be located through a north south link to maximise fair box revenue but also to minimise delays. This would allow for Princes Road to be 5.5 or 6m wide instead of 6.5m wide.</p> <p>Whilst it is not envisaged that the north/south road through the development will be prohibit any specific traffic, the amount of HGV traffic is expected to be materially insignificant given the weight limit on the Cookham bridge and the restrictive width and geometry of Hedsor Road (east/west section) and its junctions with Hedsor Hill & Heavens Lea. Nonetheless, general guidance states that simultaneous two-way flows can be achieved for such vehicles in the event that they do pass each other on a 5.5m-wide carriageway. Nonetheless, and primarily in consideration of the differing drive height and wing mirror position for buses when compared to HGV's, it should be noted that bus operators and the council will not permit universal bus traversal over new roads with less than 6.5m in width</p> <p>Issues of width aside, the advantages to a one-way bus route equate to a reduction of bus traffic over the Cores End bridge over the River Wye and the use of Furlong Road in order for the service to ‘loop back’ on itself.</p> <p>Furthermore it reduces the walking distance to stops for residents living in the south of the Hollands Farm site and</p>
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			<p>for those living on Hedsor Road and the A4094 (between its junction with Ferry Lane and Bourne End railway station)</p> <p>In theory there is space for 6.5 but this would result in a reduction for the footpaths which would not be desirable and beyond the reduction recommended by national guidance, thus potentially resulting in a threat to pedestrian safety and convenience of use.</p> <p><u>BC comments on CPO</u></p> <p>CPO would give more scope for increasing the road width, but Highways Development Management can only look at the proposals as presented but can object if we believe that the development will have a non-mitigatable impact upon highway safety, convenience of use or network capacity. Furthermore, if CPO did come into play, it would be to facilitate development and therefore not a process that the Highway Authority would commission in which be involved.</p> <p>That aside, and in a scenario where Millboard Road was offered for adoption as highway, the council could facilitate this process. Although there are several options, potentially the most expeditious and cost-effective to the council would be via a Section 228 process (Highways Act 1980), whereby the owner brings the road up to adoptable standards or provides evidence that it already meets them. Once this has been achieved or demonstrated, the section of road required can be adopted in as little as 28 days.</p>
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				<p>However, a significant caveat to this is that the introduction of an access to the site via Millboard Road may erode or completely remove the advantages of having a north/south road through the site and encourages more traffic and consequent congestion through Bourne End.</p> <p><u>BCC suggested wording for development brief:</u></p> <p>The Link Road will need to be designed to be an attractive route linking Cores End Road/Town Lane to Ferry Lane and Cookham Bridge which shall take into account the following principles:</p> <ul style="list-style-type: none"> • Accommodate two-way traffic in accordance with national guidance • Accommodate the diversion of an existing bus route • Provide safe and attractive pedestrian and cycle facilities • Limit the number of access points onto the Link Road to reduce delay
2.3	How should Cores End roundabout be dealt with in the development brief?	PC	<p>Core End roundabout needs to be realigned/redesigned as it is currently unsafe for cars accessing Princes Road. The Brookbank Green Space should be considered in the roundabout design.</p> <p>The bridge over the Wye at this roundabout is too narrow and moving of the pedestrian walkways to the outer sides of the bridge may be a way to widen the road at this point.</p>	<p><u>BC suggested wording for development brief:</u></p> <p>Cores End Roundabout will need to be assessed in terms of capacity and safety and appropriately designed in order to accommodate the Link Road and development. This could be in the form of a realigned roundabout that facilitates better entry and exit from Princes Road.</p> <p><u>Other BC comments:</u></p> <p>There is a large amount of highway verge/open space here to implement a larger roundabout that facilitates better</p>

			<p>The bridge should form part of the re-engineered roundabout to remove the footpaths from the inside of the bridge to make it wider and replace them on the outside of the bridge</p> <p>The current roundabout arrangement is dangerous. If conservation takes priority and the roundabout is not re-engineered then the Development should not be allowed to proceed. A re-engineered roundabout could be positioned to be further from heritage assets - Cores End Church and Cores End House. See My Map.</p>	<p>entry/exit from Princes Road. However the grassed verge to the north of the roundabout is a Green Space designation 'Brookbank'. Any development in this area of land will be contrary to DM12, however exceptional circumstances are relevant for a departure from policy.</p> <p>It is not envisaged that the site will intensify the passage of larger vehicles over the Wye bridge. It is expected that the development will actually reduce these instances by diverting an existing bus route through the site. Therefore the widening of the bridge/removal of footways is not a mitigation element attached to the Hollands Farm site.</p> 
2.4	How should the road system around the site be dealt with?	PC	<p>Impact of the site should be considered in conjunction with Slate Meadow.</p> <p>Highways should still consider the opportunities to improve the road system and develop their own plan and seek a budget for it otherwise the opportunity is lost and the Villagers will suffer the consequences of the two developments.</p>	<p>The County Wide and Local Plan Transport modelling have considered the impacts collectively from all local plan allocation sites including Slate Meadow and Hollands Farm. This concluded the need for a link road through the site. No other mitigation measures are identified in BE2 other than the junction improvement as shown on the policies map.</p> <p>The full transport modelling reports are available on the Local Plan evidence page. This level of detail is sufficient</p>

			<p>Access and egress onto Ferry Lane should be considered now.</p>	<p>for the development brief process. Details on specific mitigation requirements for junction improvements will be part of the Transport Assessment for the planning application process.</p> <p>This site will (and can only) be judged on mitigating its own impact. Any improvements to the network from existing or anticipated future background traffic growth are not and cannot be part of the highway/transport considerations for the Hollands Farm site.</p>
2.5	How should bus laybys be accommodated? Separate lane or within the road?	PC	<p>Would like off street laybys (to prevent congestion). Parking should be designed to ensure uninterrupted traffic flow. The school, shop and bus laybys should be located together.</p> <p>Restate the need for a 2 way bus service.</p> <p>Lay over requirements to remove existing conflicts around the station. Are welcomed and will need follow up with the bus operators. As currently two buses often layover at the same time at the bus station the bus layby needs to be large enough to accommodate two buses at once.</p>	<p>The development brief should set out the principles for the location of the bus stops. The precise location will be for the planning application to determine.</p> <p><u>BC suggested wording for development brief:</u></p> <p>The provision of a bus lay-by on the Link Road should be considered to accommodate lay over requirements to remove existing conflicts around the station.</p> <p>Bus stop locations within the development should be considered in relation to land uses within the site and comply with national guidance in terms of walking distances.</p>

2.6	<p>How should Millboard Road be treated in the development brief? Should there be vehicular access? Pedestrian access? Cycle route?</p>	Dev./BC	<p>Would like both access points Millboard Road and Princes Road to be used for vehicular and pedestrian access.</p> <p>The option of a one-way flow should be considered.</p> <p>Should also consider a roundabout at end Millboard road and improved roundabout at Cores End. Car parking spaces on Millboard Road will be displaced, they should be reprovided for. Millboard Road could be the entry point for the new school.</p> <p>Link Road Options: 1, 2 & 3 do not address the reality that all three access/egress points will carry similar traffic loads.</p> <p>Vehicles travelling from the Wooburn direction on route to the bridge at Cookham will all access the site via the roundabout at Princes Road and exit at upper Hedsor Road and then onto Ferry Lane. Those taking/returning from the opposite direction from the bridge heading towards Wooburn and beyond will take the reverse route. Vehicles accessing the site from the direction of Bourne for school or visiting purposes will do so from</p>	<p>The preferred route for the link Road is Princes Road to Hedsor Road. This is what has been modelled for the Local Plan allocation. Millboard Road is not required for the site, however should the developers acquire the road, this could be used for a secondary road option and BC could adopt it but this would need to be brought up to standard at the cost of the developers.</p> <p><u>BC response:</u></p> <p>The design of the link road would have to be sufficient to protect highway safety but also to facilitate the road as a thoroughfare, as permeability between the A4094 and Ferry Lane was identified as a necessary function through the Jacobs modelling.</p> <p>Again, it is heavily forewarned that the use of Millboard Road as part of the access strategy for the Hollands Farm development could actually prove to be detrimental to traffic flow within the centre of Bourne End based upon the modelling data commissioned by the council to support the site's inclusion within the Wycombe Local Plan. Specifically, the use of a north/south Link Road through development mitigated the development's traffic impact and general conditions by addressing congestion outside the confines of the site.</p> <p>Car parking</p> <p>If access is proposed using Millboard Road then the impact of displaced parking will need to be assessed. There are two possibilities in which on-street parking on Millboard Road can be addressed in order to keep it parking-free (once in receipt of parking surveys that demonstrate when</p>
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			<p>Millboard Road as will those leaving the site to go towards Bourne End and beyond.</p> <p>All three routes should be of the same size and specification as this will prevent pinch points and congestion.</p> <p>Millboard Road - There is no mention of the junction Millboard Road/Cores End Road which will need redesign and most likely a mini roundabout. The development brief should identify the requirements.</p> <p>Car parking Millboard Road - Experience throughout the County shows Double yellow lines do not work for school drop off without enforcement.</p>	<p>it occurs and the likely reasons); one way would be to also adopt the generous verge on the eastern side of Millboard Road (between its junction with Bridgestone Drive and where it meets the development site) and require the developer to install a parking layby. The other option would be to include waiting restrictions (probably double-yellow lines), with the potential of the development including a small car park within the site to deal with the resultant displacement.</p> <p>Existing car parking issues are an enforcement matter and thus largely outside the highway/transport considerations for this site.</p>
2.7	What offsite highway improvements will be required? Any more junction improvements than those 4 required by the policy?	PC/ALL	<p>We feel strongly that specific details for junction improvements should be sorted before planning application and should be both part of Planning Agreements with Highways and with the developer ahead of any planning application.</p> <p>All junctions around the development should be assessed. Queried a one-way system.</p>	<p>DM2 - Transport Requirements of New Developments requires several junction improvements. This detail will be for the planning application stage rather than the development brief.</p> <p><u>BCC response:</u></p> <p>This would form part of the junction analyses contained within the Transport Assessment, but anything secured could only occur as a result of mitigation works. Only appropriate forms of junction management will be deployed in reflection of the flows through them occurring as a result of the Hollands Farm development.</p>

		<p>Consideration should be given to all routes through Bourne End to alleviate bottle necks and traffic backing up due to parking and left or right turns off main roads.</p> <p>Main and mini roundabouts should be considered wherever there is a busy junction and potential to cause tailbacks e.g:-</p> <p>The Junction(s) of Furlong Road and Cores End Road, Furlong Road and Station Road, Marlow Road and Blind Lane, Upper Hedsor Road and Ferry Lane.</p> <p>Parking on the bend in Cores End Road just past the Catholic Church should be removed. Risk and bottleneck.</p> <p>Millboard Road/Cores End Road needs to be included under list of junctions to be assessed for capacity. There needs to be proactive action with respect to the owners of the Millboard Industrial Site.</p> <p>Furlong Road/ Cores End Road - This junction bifurcates and has a left turn to Bourne End which is dangerous as some traffic turns right here despite vision being blocked by the brow of the hill. There is an opportunity to remove</p>	<p><u>BCC suggested development brief wording:</u></p> <p>The Link Road will provide an alternative route between Core End Road and Hedsor Road. In order to reinforce the desired traffic route, improvements to Furlong should be considered to reduce vehicle speeds/journey times.</p> <p>The following junctions (although not necessarily limited to) will need to be assessed in terms of capacity and safety and where appropriate mitigation identified in order to accommodate the Link Road and development:</p> <ul style="list-style-type: none"> I. Furlong Road/Cores End Road II. Furlong Road/Station Road III. Marlow Road/Blind Lane IV. Upper Hedsor Road/Ferry Lane <p>Any others deemed necessary where they feature significant distribution as a result of the implementation of the development.</p> <p>Parking to be reviewed at the following locations as part of the access strategy:</p> <ul style="list-style-type: none"> I. Princes Road II. A4094 III. Kiln Lane <p>Any other locations yet to be identified</p>
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			<p>the dangerous access towards Bourne End and at the same time take the opportunity to create parking from existing road and some of the green space.</p> <p>Upper Hedsor Road from the site entrance to the Ferry Lane junction - Many cars park on the verges and on the road side and, with some reengineering of the verges, it may be possible to have formalised parking to accommodate the actual parking need and enable double yellow lines on a section of road that will see continuous traffic from both directions.</p>	
2.8	How to provide a PRoW/cycle link to the train station and village centre?	PC	<p>Would like a cycle/footpath provided directly to the train station (through the Millboard Road industrial estate and recreation ground).</p>	<p>The council is supportive for the creation of this link, however there are a number of deliverability issues that make this difficult:</p> <p>Access is through third party land, this requires the wiliness of the landowner, there may also be safety implications.</p> <p>Any route is likely to require a new footbridge over the river Rye, which is costly and the Environment Agency may not support it due to safety implications.</p> <p>The exact location of the footpath link is still to be determined. A lesser constrained route would be through Millboard Road, where there is an existing PRoW. This presents an opportunity for a cycle path.</p> <p><u>BCC response:</u></p> <p>Millboard Industrial Estate is private, as is the southern section of Millboard Road that serves it, any use of it would only be through agreement or land acquisition, which may</p>

				<p>or may not occur through the course of time or compilation of the Development Brief.</p> <p><u>BC development brief proposed wording:</u></p> <p>The development should consider opportunities to improve pedestrian/cycle safety on Cores End Road to encourage sustainable modes of travel to Bourne End and the train station. This could include speed reducing features and footway improvements.</p>
2.9	Should a footpath/cycle route be provided through Bridgestone drive?	Dev./BC		<p>There is already an existing link although not a PRoW. Millboard Road likely to be more accessible as Bridgestone Drive located further to the north of the site. However it might not be suitable to encourage more pedestrians.</p>
2.10	What constraints does the PRoW place on the development?	Dev./BC		<p>The locations of the existing PRoW creates a triangulation of block sizes as it crosses through the site from the corner of Millboard Road Employment Area up to Bridgestone Drive. It is likely the footpath will need to have a small diversion to create an 'S' shape, allowing regular block sizes, which is a more efficient use of land. The location of the PRoW is largely dependent on the location of the link road and school and therefore any diversion is still to be determined.</p>
2.12	What does the development brief need to say about the Hedsor Road junction in terms of layout safety and design?	Ward Member	Should close the end of the road from Hollands Farm access onto Hedsor Road to Ferry Lane (making it a dead end) and create a new roundabout where the new spur joins Ferry Lane	<p>BCC response</p> <p>The arrangement, alignment, visibility, etc. was taken into account when the high-level DM comments were supplied to BC when looking to include Hollands Farm as a Local</p>

		<p>would be a safer design and create a more efficient traffic flow.</p> <p>Hedsor Road is rat run to via Cliveden to Slough and joins Ferry Lane at a right angle junction. Traffic is always backed up and there have been several accidents on the bend at the junction because of its layout.</p> <p>Cookham bridge - Walking is a recreational pursuit and walking to Cookham and along the Cookham river to the railways bridge and back through Bourne End should be an option. Cookham Bridge could be made two way if the footpaths were removed from the inside of the bridge and placed on the outside of the bridge. Highways have yet to talk to their colleagues in Berks and this should occur ASAP to discuss what is both desirable and possible.</p>	<p>Plan site. No specific options for this junction have been tabled or discussed.</p> <p>It is doubtful that the development will impact upon this junction in terms of safety or capacity due to the fact that they are providing a link road which provides an alternative route to Cores End, but junction analysis will form part of the pre-application process either alongside or after the Development Brief has been adopted. Therefore nothing in terms of changes to this junction have yet been ruled out.</p> <p>Hedsor/Road Ferry Lane Junction to be assessed in terms of capacity, safety and placemaking in view of its location within the HR&RC. Where appropriate mitigation identified in order to accommodate the Link Road and development.</p> <p>The Local Plan countywide modelling identified the bridge on Ferry Lane as a key highway constraint.</p> <p>The signals over the bridge need to be assessed in terms of capacity and where appropriate mitigation identified in order to accommodate the Link Road and development. Given the heritage asset nature of the site, it is highly unlikely that improvements to the bridge itself would be a viable option.</p> <p>The developer would be required to submit an analysis of peak hour operation of the shuttle working signals across the bridge, which will demonstrate the current situation and a future year both with and without the impact of the full occupation of the development. From this we will be</p>
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				able to differentiate the vehicular impact of the development against what would occur in the future at the bridge if the development were not to exist. In terms of pedestrian access, and given that residents from the development are more likely to walk between the site and the rest of Bourne End to reach local shops and services, there is likely to be no justification for the development to improve non-motorised facilities at the Grade II listed Cookham bridge.
	<p>3. Community Facilities</p> <p>a. Provision of a 1 form entry primary school</p>			
3.1	<p>What is the land take for a 1 form entry primary school?</p> <p>Where should the school be located? taking to account the character of the site required and access issue to the school.</p> <p>Could the school playing fields have dual use?</p> <p>Should the school be an extension to the existing school in Bourne End?</p>	PC/All	<p>Access should be from Millboard Road, prevent traffic building up on main roads. Current location would form a pinch point and increase safety risks.</p> <p>It would seem sensible to have the school and the shop close to the access from Millboard Road into the field where bus stops and parking lay-bys could be built into the design and thereby create a better hub for the site.</p>	<p>Confirmed land take to be 1.1 hectares + 0.3 for drop off / collection area.</p> <p>Three options for the school have been identified. The preferred option sets out in the development is to the east of Millboard Road employment area.</p> <p><u>BCC proposed development brief wording:</u></p> <p>The location of the school should be considered as part of the masterplan to ensure that school pick up/drop off does not impact on the operation of the Link Road. This school should preferably be located off a secondary road rather than a primary road.</p>

	Could the existing school be closed to allow for a new 2 form entry school?			
	<p>4. Green Infrastructure & Environmental</p> <p>a) Provide on-site high quality open space;</p> <p>b) Provide S106 contributions to mitigate recreational impacts at Burnham Beeches SAC;</p> <p>c) Maintain north south connectivity for Public Rights of Way through the site;</p>			
4.1	<p>How much open space and what type is required?</p> <p>What type of open space is required?</p> <p>Where is the most appropriate location for this?</p>	BC		<p>Policy DM16 of the Delivery and Site Allocations document identifies open space requirements based on population. For Hollands Farm a total of 5.19 ha of open space is required. Of this, 3.85 is strategic open space and 1.34ha is local open space.</p> <p>The following assessment has been identified from Community Services (BC)- This is the latest information available completed in 2017 as part of the Local Plan evidence, it is currently under review so may change.</p> <p>Only a small part of the very top of the site lies within the relevant distances for existing LEAP or NEAP areas as set out on the Open Space Framework, and there are very basic Teen facilities in the locality.</p> <p>There are various sporting facilities locally, including a Junior Sports club, Tennis Club and Cricket Club. The Sports Facility Strategy identifies various areas of improvement within the ward.</p>

			<p>Requirements:</p> <p>Play Equipment: A combined NEAP and LEAP for the prospective residents:</p> <ul style="list-style-type: none"> - built to the 6 acre standard (Fields in Trust) - sympathetic to the environment and surroundings, using natural materials - providing equipment for children of all ages - located towards the residential boundary. <p>A teen area is also required</p> <ul style="list-style-type: none"> - either improve the teen area at Wakeman Road using an off-site contribution, - or construct a new facility on the development site. <p>Public Outdoor Sport: There are a number of sporting facilities near to the site. Under the 2015- 2020 Sports Facility Strategy the lack of MUGA provision in the Flackwell Heath, Bourne End and Wooburn Green sub area is highlighted, along with a deficiency in tennis courts and youth football pitches. 1 MUGA and 2 junior sports pitches should be provided.</p> <p>It is assumed that changing rooms will not be required at this site as tennis players and youth footballers generally arrive ready to play.</p> <p>Allotments: There is good allotment provision locally, the size of the allotment requirement is 0.27ha. This should be provided</p>
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				on site unless suitable provision expanding a nearby allocation is identified.
4.2	Need to secure S106 contributions to mitigate recreational impacts at Burnham Beeches SAC by enhancing Little Marlow Gravel Pits.	BC		<p>Hollands Farm is within the 500m buffer of a Special Area of Conservation for Burnham Beeches. To mitigate the recreational impacts the development will have on Burnham Beeches due to increased pressure from visitor numbers, there is a requirement for S106 contributions for Little Marlow Lakes Country Park.</p> <p>BC has put together a proposals for requirements to help improve the attractiveness of the country park. S106 requirements are summarised into the following:</p> <ul style="list-style-type: none"> - New and improved footpaths + cycle ways - Signage (walking and cycling routes and information about the environment) - Car parking facilities <p>Full details can be viewed in the draft Hollands Farm Appropriate Assessment.</p>
4.3	What biodiversity and green infrastructure opportunities are there?	BC		<p>These may include:</p> <ul style="list-style-type: none"> - Retention and enhancement of existing hedgerows within the site / at its perimeter; - Incorporation of TPO trees within wider green spaces; - Provision of footpaths and cycleways following existing and new green corridors and linking existing/new green spaces; - Including native plant species throughout; - Incorporating a range of Sustainable Drainage (SuDS) features throughout the site, designed to include biodiversity benefits

				- Ensuring existing and new GI links to wider GI networks beyond the site boundary.
4.4	How does access to the Orchard affect the development site? e.g. routes for footpaths	Dev./BC		The layout of Hollands Farm should be designed to ensure a Public Right of Way linking from Hollands Farm through the Orchard and also ensure that public access of the wider orchard area can be achieved.
4.5	What will the development brief say about the Orchard, if at all?	BC		The development brief will identify how public access and ongoing management of the site will be delivered either through all landowners working together, or BC assisting by the use of available statutory powers. The policy requirements identifies no development should take place on the Orchard site.
4.6	How well will north south PRoW connectivity be maintained by the site?	BC		A north south Public Right of Way must be maintained through the site. A small diversion to the existing PRoW is suggested to make the best use of block layout and build on the existing green infrastructure. The development brief provides an indicative framework, this will be finalised at the planning application stage.
	<p>5. Flooding</p> <p>a) Avoid areas of fluvial flood risk where possible;</p> <p>Provide appropriate SuDS across the site.</p>			
5.1	Where are the areas of fluvial flood risk? What proposals should be made for them?			<p>The latest flood data identifies areas of flood zone 2 and 3 in the south west corner of the site along Hedsor Road.</p> <p>No residential development should take place in this location. See Environment Agency updated flood map here. (copy provided)</p>

				The planning application will need to be supported with a flood risk assessment.
5.2	How should areas of surface and ground water flooding be dealt with?			<p>Advice from Lead Flood Authority:</p> <p>SuDS should not be located in areas at risk of surface water (or fluvial flooding). SuDS in areas of high groundwater are possible but careful consideration will need to be given to the design, for instance how capacity will be maintained during high groundwater periods.</p>
5.3	<p>Would the requirements of SUDs place any requirements on the development?</p> <p>What are the opportunities to reduce flood risk? (See SFRA Level 2)</p>	PC/All	<p>Keen not to have SUDs within the open space, open space needs to be useable.</p>	<p>Advice from Lead Flood Authority:</p> <p>Source control SuDS should be prioritised, this will assist with incorporating SuDS into the landscape across the site. The preference is for above ground SuDS which provide multifunctional benefits such as tree pits, bioretention areas and swales.</p> <p>The development brief will identify broad locations and types of sites. It will be for the planning application to provide more specific detail through the Surface Water Strategy.</p>