

## Appendix E – 757 Land South of Northampton Road, Bromham

1. This is a *deliverable* site in a sustainable and accessible location, with potential for 345 homes, adjoining the existing Bromham Neighbourhood Plan allocation.
2. The site's sustainability and accessibility credentials are identified in the Council's SA of the site, summarised at **Appendix E(i)**. The site is in close proximity to a food store, primary school and major employment – all of which scores positively in the Council's assessment.
3. The site is close to bus services on Northampton Road, providing frequent services to the centre of Bedford and Bedford train station – just 15-20 minutes journey time via Service 41 (Stagecoach East).
4. The SA demonstrates that access can be achieved without constraints. With respect to the 'uncertain' impacts on highway capacity identified in the SA, transport consultants Jubb have undertaken testing of the impact of the development on the local highway network which shows that all junctions currently and will continue to operate within capacity, factoring in the proposed development and other committed schemes (refer to the Transport Technical Note enclosed at **Appendix E(ii)**). Even if issues were encountered the modest scale of development on this non-strategic site would be capable of localised mitigation through the S106/S278 process as required.
5. In terms of highway capacity, the Council's SA shows that strategic-scale developments including HOU16 (Land East of Wixhams), HOU14 (Kempston Hardwick New Settlement) and HOU19 (Little Barford New Settlement) will have a negative impact on highway and junction capacity in any event with highway access also identified as constraints by the Highway Authority. Site 757 therefore clearly performs better in access and highway terms than strategic growth allocations preferred by the Council, and is not dependant on SRN improvements or EWR.
6. Recognising the 'uncertain' impacts in the SA with respect to the landscape, **Appendix E(iii)** provides a landscape Topic Paper (FPCR, July 2022). This demonstrates that there would be no unacceptable adverse impacts that should preclude development in landscape and visual terms. In context, however, it is important to note that against the SA criteria there are uncertain effects identified for the Council's preferred allocations too – allocations at a more considerable and strategic scale (see HOU11, HOU13, HOU15 & HOU19 for example – refer **Appendix E(i)** for further details).

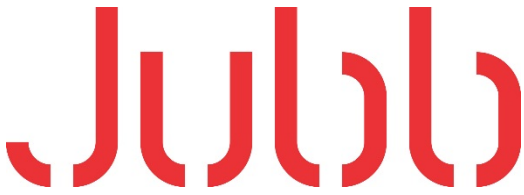
7. In terms of ecology, the Ecology Topic Paper at **Appendix E(iv)** (FPCR, July 2022) demonstrates that the site does not provide a significant resource for protected species and, where species are present, can be readily accommodated as part of the scheme's Green Infrastructure Network. Furthermore, it demonstrates that biodiversity net gains are achievable. Based on the illustrative masterplan it is clear that more than 10% is achievable at this stage. This resolves the SA's 'uncertain' impacts under objectives 2b (protected species) and 2c (achieving a net gain). In the Council's SA the site clearly performs better than the preferred strategic site allocations where negative impacts are identified in the SA – for sites HOU11, HOU13, HOU15 and HOU16 for example (refer **Appendix E(ii)**).
8. With respect to heritage it is important to note that the SA shows that all of the Council's favoured strategic allocations (HOU11, HOU13, HOU14, HOU15, HOU16 & HOU19) score negative against this SA objective (4a) as demonstrated in **Appendix E(ii)**. Nevertheless, the conclusions of the Council's heritage assessment for site 757 have been considered and are addressed in the topic paper enclosed at **Appendix E(v)** (Cotswold Archaeology, July 2022). It is clear that no built assets are affected – as confirmed by the Council - and that their principal issue related to uncertain effects with respect to archaeology. However, Cotswold Archaeology's assessment demonstrates that: *“there is sufficient information to indicate that there are unlikely to be any archaeological remains in the Site of a level of importance that would preclude or otherwise constrain development. The implementation of suitable archaeological conditions could ensure that provision is made for the management of any remains which are present.”*
9. A draft masterplan is enclosed at **Appendix E(vi)** to illustrate how a well-planned community can be realised, informed by the above technical work. Rainier Developments is keen to work with the Council, Members, local community and key stakeholders to realise the opportunities and benefits associated with this deliverable site.

## **Appendix Ei Sustainability Appraisal Scoring Comparison**

	KSC & RSC options	Draft Strategic Site Allocations				New Settlements (not assessed against same sub-criteria)	
	757 (Bromham) Land South of Northampton Road	HOU11 (3245) Land at River Valley Park	HOU13 (1333 & 636) Kempston Rural, Land at Gibraltar Corner	HOU15 (1004) Land South of Wixhams	HOU16 (3233) Land East of Wixhams	HOU14 (0004) Land at Kempston Hardwick - New Settlement	HOU19 (907) Little Barford - New Settlement
1a. Within or adjoining AUB SPA or built form of a small settlement	?	x	?	?	x		
1b. Accessible on foot to a food store	+	x	+	++	++		
1c. Accessible on foot to a primary school	+	x	+	++	++	x	x
1d. Accessible on foot or by bus to a major employer	+	+	+	x	x		
1e. Outside, adjoining or within the air quality management area	+	+	+	+	+		
2a. Within or adjoining site of nature conservation importance	+	x	+	+	+		
2b. In an area where protected species are known or likely to exist	?	xx	xx	xx	x	?	?
2c. Potentially able to achieve a net gain in biodiversity	?	?	?	?	?		
2d. Able to link into the green infrastructure opportunity network	0	+	+	+	+		
3a. Proposing a new renewable energy scheme or extra energy efficiency standards	0	0	0	0	+		
3b. Within or adjoining the urban area, a defined settlement policy area or the built form of a small settlement	x	x	?	?	x		
3c. Accessible on foot to a food store	+	x	+	++	++	x	x
3d. Accessible on foot to a primary school	+	x	+	++	++		
3e. Accessible on foot or by bus to a major employer	+	+	+	x	x		
4a. Likely to impact on designated or nondesignated heritage assets or their settings	x	x	x	x	x	x	x
5a. Likely to increase future economic and employment opportunities	0	+	0	0	+	++	+
6a. Proposing a main town centre use in, on the edge or outside of a town centre	0	0	0	0	+	?	?
7a. Within 400m of an existing open space or proposing open space within it	x	x	+	x	+		
7b. Within 800m of a sports facility or proposing a sports facility within it	x	+	x	x	+	+	+
8a. Likely to have a significant adverse impact on the surrounding landscape	?	?	?	?	0		
8b. Within the existing settlement built form	+	x	+	+	x		
9a. On previously developed land	x	x	x	x	x		
9b. On best and most versatile agricultural land ie grades 1, 2 or 3a	x	x	?	?	x	+	x
10a. Within a groundwater source protection zone	0	+	+	+	+	+	+
11a. At risk of flooding	+	?	+	+	?	?	?
12a. Likely to provide a mix of housing, including affordable housing	+	+	+	+	+		
12b. Able to address a particular housing need	x	x	+	+	+	+	+
13a. Within 800m of a facility where cultural or social activities can be accessed	x	x	+	+	+	+	+
14a. Likely to encourage social cohesion	0	+	+	0	+		
14b. Likely to help make the area safer	+	+	+	+	+		
15a. Within or adjoining the urban area, a defined settlement policy area or the built form of a small settlement	x	x	?	?	x		
15b. Accessible on foot to a food store	+	x	+	++	++		
15c. Accessible on foot to a primary school	+	x	+	++	++		
15d. Accessible on foot or by bus to a major employer	+	+	+	x	x	x	x
15e. Connect highway without constraint	+	+	+	?	?		
15f. Highway or junction capacity issues	?	+	?	?	x		

Key	
0	Neutral
?	Uncertain
+	Positive
++	Major positive effect
x	Negative
xx	Major negative effect

## **Appendix Eii Transport Technical Note**



Title: Technical Note 01– Review of Bedford  
Local Plan 2040 Transport Evidence –  
Bromham (Site 43)

Date: July 2022

Prepared by: AMW

## 1.0 Introduction

- 1.1 Jubb have been appointed by Rainier Developments Ltd (Rainier) to undertake a review of the transport evidence supporting the draft Bedford Local Plan 2040.
- 1.2 Rainier have submitted representations for residential development at Bromham (Site 43).

## 2.0 Preferred Option

- 2.1 The Plan has focussed on the delivery of new settlements located within the proposed future East West Rail corridor.
- 2.2 The East West Rail route between Bedford and Cambridge is at an early planning stage with no agreed preferred route or location for the new rail station at St Neots currently identified and with no funding established for its delivery. This is a **fundamental flaw** in the assessment of the delivery of the preferred option for the delivery of the draft Local Plan proposals.
- 2.3 The new settlements are reliant on the delivery of **large-scale highway infrastructure** to ensure their traffic generation can be accommodated without detriment to the highway network. Whilst for the Bedford highway network, schemes have been identified, the ability to deliver, and the viability of the schemes has not been progressed in any detail. **No schemes have been identified** for the Strategic Road Network and therefore, the ability to mitigate the effects of the preferred strategy is not known. This lack of detail gives rise to concerns in respect of the **soundness** and **justification** of the whole strategy.
- 2.4 The modelling recognises that for the proposed settlements, due to the large distances to the existing urban areas, **active travel will be prohibitive**. This statement brings into question the ability of the strategy to deliver sustainable development.
- 2.5 The location of the proposed settlements and their proximity to the proposed new rail station cannot be determined at this stage as the siting of the new station has not been determined. Therefore, at this stage, the sustainability of the preferred option **cannot be considered to be reliable**.

## 3.0 Modelling Scenarios

- 3.1 Modelling of four development scenarios was undertaken utilising the Bedford Borough Transport Model (BBTM) to inform the transport impacts:
  - Grey – dispersed growth uniformly scaling all sites identified as part of the Local Plan 2040 call for sites;
  - Pink, Yellow & Brown – infrastructure focused growth along the A421 corridor and the proposed East West rail corridor
  - Red & Orange – new settlement focussed growth; and
  - Brown – Urban focused growth

- 3.2 The modelling of the four scenarios is **not consistent** with each scenario delivering differing levels of housing (between 12,000 and 15,500) and jobs (between 11,000 and 16,500). These significant differences mean that the assessments of development scenarios are **not equivalent** as traffic generation of an additional 3,500 dwellings and/or an additional 5,500 jobs would be significant and therefore, the impact on the highway network would be **not comparable**.
- 3.3 The 'Grey' scenario is an **unformed and flawed** approach to the assessment of the delivery of dispersed growth. By uniformly scaling all sites it does not consider the viability of each site when delivering a reduced number of residential units, it does not review each site's location in terms of delivering sustainable development and it does not consider an approach where several smaller development sites in Key Service Centres could improve the existing sustainability to the benefit of the existing community.
- 3.4 Whilst not important in terms of assessment of the 2040 Local Plan, the 'Grey' scenario does not include any growth to 2050 whilst all other scenarios provide growth. Given that the call for sites the Council received submissions proposing in excess of 70,000 dwellings and 603 hectares of employment as a primary use, the reasons for not including growth during this time period have not been explained.
- 3.5 The majority of the identified mitigation schemes for the 2040 Local Plan growth are expected to open in 2040 or even, in the case of the proposed Dennybrook and Little Barton development after 2040. These schemes, which are not committed and, have **not been fully assessed** in terms of deliverability with available highway land, achieving design standards or fully costed, will not offer a resolution to the expected growth until the end of the 2040 plan period resulting in congestion.
- 3.6 All identified mitigation measures for the 'Grey' scenario have been utilised for the assessment. It is unclear whether these large schemes are beneficial in terms of mitigating the impact of dispersed development. The assessment **does not identify local mitigation** that could alter the results of some of the metrics utilised within the RAG assessment (e.g. localised transport schemes could reduce the 'red' assessment for rerouting onto less appropriate roads in the AM and PM peak hours and delays/volume capacity in the PM peak hours. Uniformly scaling all of the sites received from the call for sites has resulted in a scatter gun approach that does not consider the benefits of locating dispersed growth using a hierarchical approach set by accessibility to services and facilities and public transport provision along with local mitigation i.e. smaller junction improvements to increase capacity and prevent vehicles using alternative less appropriate roads and increased public transport frequency or routeing.

### Summary

- 3.7 The quantum of development differs over the four scenarios and therefore, the assessment is not comparable.
- 3.8 The 'Grey' scenario does not consider the accessibility of the sites received from the call for sites. The assessment has been undertaken in a manner that does not represent the scenario in the best light and therefore, the soundness of this scenario is questioned. Detailed filtering of the sites included in the 'Grey' scenario should be undertaken to ensure the highest accessible sites are included in the scenario assessment.
- 3.9 The deliverability and viability of the identified mitigation measures has not been considered raising concerns over the soundness of the ability to provide the schemes. Localised mitigation measures for the 'Grey' scenario have not been considered; the identification of more localised measures could have an effect on the RAG assessment findings and again questions the soundness of the modelling and its findings.

## 4.0 Results of the Modelling

- 4.1 The RAG assessment states for the preferred 'Red & Orange' scenario:

AM Peak Hour – *“The ‘with mitigation’ scenario of this option produces the same RAG assessment as ‘Grey’ ‘with mitigation’. The ‘without mitigation’ scenario is also similar to ‘Grey’ ‘without mitigation’ with identical ratings for all metrics except for the cross boundary impacts.”*

PM Peak Hour – *“The ‘with mitigation’ scenario is very similar to ‘Grey’ ‘with mitigation’ varying only for the forecast volume-capacity ratios at key junctions and impacts on the AQMA. The mitigation measures only improve*

*forecasts for average network speeds and forecast volume-capacity ratios with all other metrics forecast to stay the same or worsen with the inclusion of mitigation measures”*

- 4.2 The 2030 Reference Case modelling, which includes the adopted Local Plan 2030 growth and identified infrastructure schemes indicates that the anticipated traffic flows will be approaching or exceeding the capacity of the road network. These include junctions along the A421 to the south of Bedford and along Clapham Road in northern Bedford town with **no identified improvement schemes** and in the case of the A421 Highways England are **only monitoring**.
- 4.3 Despite these statements indicating that the performance of the ‘Red & Orange’ and ‘Grey’ scenarios are similar in finding, only the ‘Red & Orange’ scenario was taken forward for further assessment including additional mitigation with” *Implementing bus provision or active mode measures with a dispersed growth scenario (‘Grey’) would be impractical due to the dispersed nature of growth assumed in this scenario”.*
- 4.4 Whilst this statement can be agreed for the ‘Grey’ scenario as modelled, this statement does not hold ground for a ‘Grey’ scenario where sites are **filtered on sustainability and accessibility** and where this may provide a ‘Grey’ scenario where development is able to **support and enhance existing bus services**.
- 4.5 Additionally, in relation to the ‘Red & Orange’ scenario it is stated “the larger distances between these proposed settlements and existing urban areas would likely be **prohibitive to the development of active mode measures** to significantly reduce car usage”. Many of the ‘Grey’ scenario sites are located on urban fringes in proximity of existing services and facilities and given the opportunity to be filtered for accessibility would provide an opportunity to **improve existing active travel infrastructure** and decrease car usage.
- 4.6 The results of the further assessment of the ‘Red & Orange’ scenario indicates that extensive highway infrastructure will be required to mitigate the impact of the new settlements. The **ability to deliver** these schemes on the ground has not been considered in detail and their impact on the **viability** of the developments is not considered.
- 4.7 Critically, mitigation for the related impacts of the ‘Red & orange’ scenario on the Strategic Highway Network **has not been identified** with Highways England stating within a Memorandum of Understanding “*The parties will continue to work together to assess specific impacts in more detail and agree the outcomes of the modelling, which will confirm the package of interventions to be included in the IDP required to support delivery of the plan.*”

#### **Summary**

- 4.8 The **crude** assessment of the ‘Grey’ scenario **performs similarly** to the preferred ‘Red & Orange’ scenario. As identified earlier the ‘Grey’ scenario assessment should be undertaken with **filtering of sites** using accessibility thresholds and identified local mitigation schemes to enable a **realistic comparison exercise** of these similarly performing scenarios to be undertaken.
- 4.9 The delivery of the identified mitigation for the ‘Red & Orange’ scenario has not been assessed in terms of **deliverability** and **viability** and **necessary mitigation for the Strategic Road Network has not been identified** calling into the **soundness of the Council’s preferred option** for development post 2030.

#### **5.0 Bromham Site 757**

- 5.1 This section undertakes a review of the Rainier site at Bromham for which representations to the Local Plan call for sites has been submitted.
- 5.2 The site is identified to deliver approximately 400 residential units.
- 5.3 As identified in the Bedford Site Assessment Pro Forma (BSAPF) reports, suitable access can be provided.
- 5.4 The BSAPF reports that there are potential capacity issues at the Northampton Road / Chestnut Avenue and Northampton Road / A428 junctions with commentary provided that this second junction may require signalisation.



- 5.5 Mitigation schemes for these junctions were not included in the 'Grey' 'with mitigation' scenario and may have resulted in an incorrect assessment of the assessed metrics.
- 5.6 In 2018 Jubb undertook testing of the impact of the development and cumulative development (Northampton Road (200 dwellings), Stagsden Road (80 dwellings), West of Bromham (390 dwellings and Bromham Park Estate (27 dwellings)) on the local highway which indicates that the A428 / Northampton Road priority junction, the Northampton Road / Grange Lane 'give-way' junction, the Village Road / Grange Lane priority junction and the Northampton Road / Stagsden Road priority junction would all operate well within capacity in 2023. The maximum recorded RFC was 0.71 falling well below the 1.0 RFC which indicates that junctions have reached capacity.
- 5.7 The Council's Sustainability Appraisal scored the site positively for criteria 1b, 1c, 1d and 15b - 15e. Jubb's analysis aligns with the findings and the appraisal shows that the site sites are in a sustainable and accessible location.
- 5.8 **Table 5.1** below summarises a list of key local facilities within walking and cycling distance of the proposed development site as well as the walk/cycle distance and walk/cycle time based on the recognised speeds of 1.4m/s for pedestrians and 4.0m/s for cyclists.

Service/Facility	Postcode	Type	Distance (m)	↑ (mm:ss)	🚲 (mm:ss)
Browning Close Play Area	MK43 8TQ	Recreation - Play Area	800	09:31	03:20
The Prince of Wales	MK43 8PE	Public House	950	11:19	03:58
Budgens	MK43 8PU	Retail - Food store	1033	12:18	04:18
ATM (@ Budgens)	MK43 8PU	Finance - ATM	1033	12:18	04:18
Paypoint (@ Budgens)	MK43 8PU	Finance - Bill Payment	1033	12:18	04:18
Bromham Library	MK43 8NT	Library	1055	12:34	04:24
Bromham CoE Primary School (Grange Lane Site)	MK43 8NR	Education - Primary	1084	12:54	04:31
BP Petrol Station	MK43 8PT	Retail - PFS and Convenience Store	1360	16:11	05:40
Bluebells Children's Centre @ Bromham CoE Primary School (Village Road Site)	MK43 8JP	Education - Children's Centre	1405	16:44	05:51
Bromham Baptist Church	MK43 8LJ	Place of Worship	1425	16:58	05:56
Bromham Village Hall	MK43 8JP	Community Hall	1513	18:01	06:18
The Swan	MK43 8LS	Public House	1645	19:35	06:51
One Stop Shop, Bromham	MK43 8LD	Retail - Convenience	1692	20:09	07:03
Post Office (@ One Stop Shop)	MK43 8LD	Post Office	1692	20:09	07:03
ATM (@ One Stop Shop)	MK43 8LD	Finance - ATM	1692	20:09	07:03
Bromham Pharmacy	MK43 8JT	Healthcare - Pharmacy	1700	20:14	07:05
Bromham Fish Shop	MK43 8JT	Takeaway - Fish & Chips	1711	20:22	07:08
Bromham Surgery	MK43 8JT	Healthcare - GP	1740	20:43	07:15
Scrivens Opticians	MK43 8JT	Healthcare - Opticians	1740	20:43	07:15
St Owen CoE Church	MK43 8HH	Place of Worship	1940	23:06	08:05

Table 5.1 – Summary Table of Local Facilities including distance and Walk/Cycle time

- 5.9 There are existing footways that serve the site and also the presence of a shared foot/cycleway opposite the site. The development will promote a new shared foot/cycleway along its frontage.
- 5.10 Bus stops on Northampton Road served by frequent bus services are available within a 600m walk of the site. The 41 service with a 60 to 90-minute frequency provides access to Bedford (20 mins) and Northampton (60 mins) providing access to the shops, service and employment found in the centres and access to both Bedford railway station and bus station enabling onward travel by sustainable modes. The proposed development will add patronage and increase viability of the existing bus services.
- 5.11 There are a range of services and facilities within a reasonable 2km walking distance of the site including convenience stores, library, primary schools, post office, GP surgery and pharmacy.

- 5.12 The site is **sustainably located** with access to a range of everyday services and facilities with **suitable infrastructure** to enable journeys to be undertaken by means **other than the private car**. The proposed development **would not have a detrimental effect** on the operation of the local highway.

#### **Summary**

- 5.13 The assessment of the site at Bromham that has been submitted for consideration has shown that the site is sustainably located with the ability to undertake journeys by modes other than the private car. The development is compliant with the requirements for new development set out in the National Planning Policy Framework.

### **6.0 Summary**

- 6.1 This assessment of the transport evidence to support the Local Plan transport evidence has highlighted issues in respect of comparativeness, site selection and the deliverability and viability of identified mitigation for the four scenarios tested.
- 6.2 Of particular concern is the 'Grey' scenario where development has been uniformly scaled using all of the sites received in the call for sites rather than assessing the sites based on accessibility. A more detailed and well thought out assessment of the 'Grey' scenario is required to be undertaken.
- 6.3 The assessment has shown shortfalls in the transport work undertaken to date to support the Local Plan 2040 and this raises concerns regarding the soundness and justification of the whole strategy.
- 6.4 Due to the uncertainty in respect of the alignment of the East West rail route and the siting of new railway stations, along with the recognition that the new settlements will be prohibitive to active travel modal shift, the sustainability of, and therefore compliance with the National Planning Policy Framework, of the preferred strategy is brought into question.
- 6.5 The identified highways infrastructure required to support the new settlement preferred option is uncertain in terms of deliverability and viability. The Rainer site at Bromham is sustainably located and able to provide the undertaking of journeys by means other than the private car. The site does not require significant transport infrastructure improvements and can provide additional patronage to existing services and facilities.
- 6.6 Therefore, due to the unreliability of the transport evidence, the Local Plan 2040 should consider the allocation of sustainably located smaller development to ensure the required housing supply can be met.

## **Appendix Eiii – Landscape Technical Note**



Rainier Developments Ltd

**Bromham, Bedfordshire**

**LANDSCAPE AND VISUAL TOPIC PAPER**

July 2022

**FPCR Environment and Design Ltd**

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**CONTENTS**

1.0 INTRODUCTION ..... 2

2.0 BASELINE CONDITIONS..... 2

3.0 KEY OPPORTUNITIES AND CONSTRAINTS..... 4

4.0 NECESSARY MITIGATION AND ENHANCEMENTS..... 5

5.0 LVA SUMMARY AND CONCLUSIONS..... 6

**FIGURES**

- Figure 1: Site Location Plan
- Figure 2: Aerial Photograph
- Figure 3: Landscape Character
- Figure 4: Designations
- Figure 5: Topography
- Figure 6: Viewpoint Location Plan
- Figure 7-13: Photo Viewpoints

## 1.0 INTRODUCTION

1.1 A Landscape and Visual Appraisal (LVA) has been carried out for the proposed development by FPCR Environment and Design Ltd<sup>1</sup>. This Topic Paper provides a summary of the LVA study and the anticipated landscape and visual effects arising from the proposed development. The landscape and visual effects have been considered in relation to the proposed development detailed below.

### Site Location

1.2 The site is situated on the north-western edge of Bromham in the Borough of Bedford and lies approximately 470 metres from the village centre. The site lies immediately to the south of Northampton Road and is contained to the west by the A428 Bromham bypass. Residential areas on the edge of Bromham contain the site to the southeast. Figures 1 and 2 show the location and context of the site.

### Proposed Development

1.3 The proposed development comprises a residential led scheme of up to 345 homes with public open space, including provision for children's outdoor play/ recreation as well as amenity open space, structural landscape planting, and new footpath links. In addition to the retention of perimeter hedgerows and mature tree groups within the site (where possible) it is anticipated that new tree, shrub and hedgerow planting would take place, as part of the development.

## 2.0 BASELINE CONDITIONS

### Landscape Character

2.1 The site lies within the Bedfordshire and Cambridgeshire Claylands National Character Area (NCA 88) and the Pavenham Wooded Wolds Landscape Character Area (LCA 2B) defined by the Bedford Borough Landscape Character Assessment (May 2014). This document was updated by LUC in 2020. The 2020 update reviews the character and condition within areas where significant change has taken place. This relates to the following character areas, as agreed with the Council as the areas of focus for landscape change since 2014:

- 1B: Riseley Clay Farmland
- 1E: Renhold Clay Farmland
- 2A: Hinwick Wooded Wolds
- 3B: Oakley – Great Ouse Limestone Valley
- 4A: Great Ouse Clay Valley
- 5D: North Marston Clay Vale.

2.2 The extent of the Landscape Types and Character Areas are shown on Figure 3.

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<sup>1</sup> FPCR Environment and Design Ltd, Bromham, Bedfordshire – Landscape and visual Appraisal (January 2018)

## Designations

The site does not fall within any areas afforded a level of protection and value as a result of regional or national landscape designation. Similarly, there are no identified Scheduled Ancient Monuments or Listed Buildings on or adjacent to the site. No other landscape related designations have been identified within the immediate surrounding area. Figure 4 illustrates the location of the identified designations.

## Topography

- 2.3 The following should be read in conjunction with Figure 5.
- 2.4 The topography of the site's context is shaped by the River Great Ouse located to the north, east and south of Bromham. To the northwest of Bedford this watercourse follows a meandering course from north to south, with associated tributaries feeding into the river from higher ground to the west. The broad river valley bottom to the east of Bromham is predominantly level at around 25 - 30m above ordnance datum (AOD). Two main tributaries feed into the River Great Ouse and converge on the western edge of Bromham to the southeast of the site at around 35m AOD.
- 2.5 The site landform occupies the rising and gently rolling slopes which lie to the west of Bromham and the confluence of the two watercourses, which form shallow valleys to the north and south of the site. The site has a south easterly aspect falling gently from a high point of around 55m AOD at the western end to around 40m AOD in the southeastern corner.

## Site and Immediate Context

- 2.6 The local landscape of the study area surrounding the site includes the large village of Bromham, road transport infrastructure (A428, A22 and A6), woodland, arable and pasture land together with The Glade Residential Care site and an extensive area of recent residential development which provides containment to the north.
- 2.7 19.17 hectares of land immediately to the south of the site – and east of the A428 Bromham Bypass - is allocated for residential development under Policy HA1 of the Bromham Neighbourhood Plan (BNP). The BNP considers that this allocation – known as “*Beauchamp Park*” – is suitable for “*390 residential units together with recreational and community facilities, and some informal green space*”.
- 2.8 The site extends to approximately 17.21ha and consists of an intensively managed arable field, bounded by well-established hedgerows and occasional trees, together with a small paddock comprising semi-improved grassland grazed by horses. It is strongly defined along its western boundary by the A428 Bromham Bypass and the northern site boundary has a road frontage to Northampton Road of circa 700m. Vehicular access to the site is currently taken from Northampton Road in two locations. A Public Bridleway extends through the site for approximately 275m adjacent to the southern site boundary. It is judged that overall, the site and the immediate landscape context is of **medium** landscape value.

## Visual Baseline

- 2.9 A visual appraisal has been undertaken for the site. This has explored the nature of the existing visual amenity of the area and sought to establish the approximate visibility of the site from



surrounding locations and receptors. A series of photo viewpoints have been selected which support this analysis. Figure 6 details the Photo Viewpoint locations and Figures 7-13 illustrate the representative Photo Viewpoints.

### 3.0 KEY OPPORTUNITIES AND CONSTRAINTS

- It is considered that the site has the potential to accommodate change in the form of well-planned development, yet it is recognised that the master planning response needs to take into account the site's relationship with Northampton Road to the north, existing public rights of way within and in close proximity to the site, and neighbouring properties to the east and southeast. Appropriate design and mitigation approaches should be adopted to minimise impacts on landscape character including retention and enhancement of the perimeter hedgerows and trees where possible. The site's landscape would also benefit from improvements to the existing perimeter hedgerows and planting structure through new tree, shrub, and hedgerow planting.
- The interaction of undulating topography, existing built form and overlapping vegetation results in a relatively restricted visual envelope. Receptors of high susceptibility to change are limited to the public bridleways running through the southeast part of the site and adjacent to the southern site boundary together with those residential properties abutting or in close proximity to the site boundary.
- The Glade and recently established built development to the north of Northampton Road together with belts of mature trees and an established block of woodland (Salem Thrift) contain the site and reduce viewing opportunities of the site from the northwest.
- Established vegetation including hedgerows and trees along the A428 and Northampton Road corridors limit views towards the site from these locations.
- A relatively small number of residential properties on the western edge of Bromham have views from predominantly upper storey windows towards the site, however views from ground and lower storey windows are largely screened by intervening features including existing garden vegetation, fences, hedgerows and hedgerow trees.
- The main views towards the assessment site, and which are most likely to be sensitive to the development of the site, are from Bromham Grange, a small number of residential properties on the western edge of Bromham and users of public rights of way which extend through or are in close proximity to the site.
- There are no views from the vast majority of properties within Bromham.
- Circa 10 properties to the south - on Partridge Lane, Peartree Close and Walnut Close - potentially have mid-range northerly views towards the site, albeit the southern site boundary hedgerow partially screens the site in these views. Notwithstanding foreground views will be significantly altered as the allocated "*Beauchamp Park*" development is implemented.
- More distant glimpsed views of the site are available in places from the public bridleway (Ref. BW7) on higher land to the north, however the visible extents of the site form a small component within a large expansive view and are seen in context with existing residential properties on the western edge of Bromham.

## 4.0 NECESSARY MITIGATION AND ENHANCEMENTS

### Landscape Design and GI Objectives

4.1 The key objectives of the landscape and GI proposals for the scheme are to:

- Provide new accessible public open space within the development to include; play facilities, recreational space and new planting to create a soft settlement edge;
- Retain and enhance existing landscape features of value and provide additional landscape features such as hedgerows and trees;
- Create a well-designed development, sensitive to its location on the settlement edge;
- Ensure development is in keeping with the context and character of Bromham and its landscape surrounds;
- Be sensitive to the adjacent residential area to ensure the retention of the privacy and light of the adjoining properties;
- Minimise any potential adverse landscape and visual effects of the development through careful layout design of the proposed development and location of public open space and screening vegetation; and
- Create a well landscaped development with appropriately designed gateways, open spaces, footpaths, buildings and streets which will be safe and attractive to use.

### Landscape and Green Infrastructure (GI) Proposals

4.2 In summary the GI proposals include:

- Retention of existing landscape features of value where possible including the existing mature trees and perimeter hedgerows.
- The provision of circa 4.8ha of land dedicated to landscape, public open space, play and habitat related proposals – representing approximately 28% of the total site area;
- New areas of public open space to be formed within and around the perimeter of the site, creating a buffer between the new development, adjacent fields and existing settlement;
- Setting back of buildings from the southern, eastern and western boundaries of the site to create landscaped buffers between the new and existing housing and adjacent fields to the south and west. New houses will also be set back from the boundaries of nearby properties including Bromham Grange and neighbouring properties on Browning Close, Howkin Close, Wisdom Close and Barker Drive to retain privacy and light for these existing properties.
- New tree planting within areas of public open space across the whole of the site. This will soften the development for close proximity views in particular;
- Retention and enhancement of the landscaped frontage to Northampton Road creating a positive sense of arrival to Bromham for road users.

## 5.0 LVA SUMMARY AND CONCLUSIONS

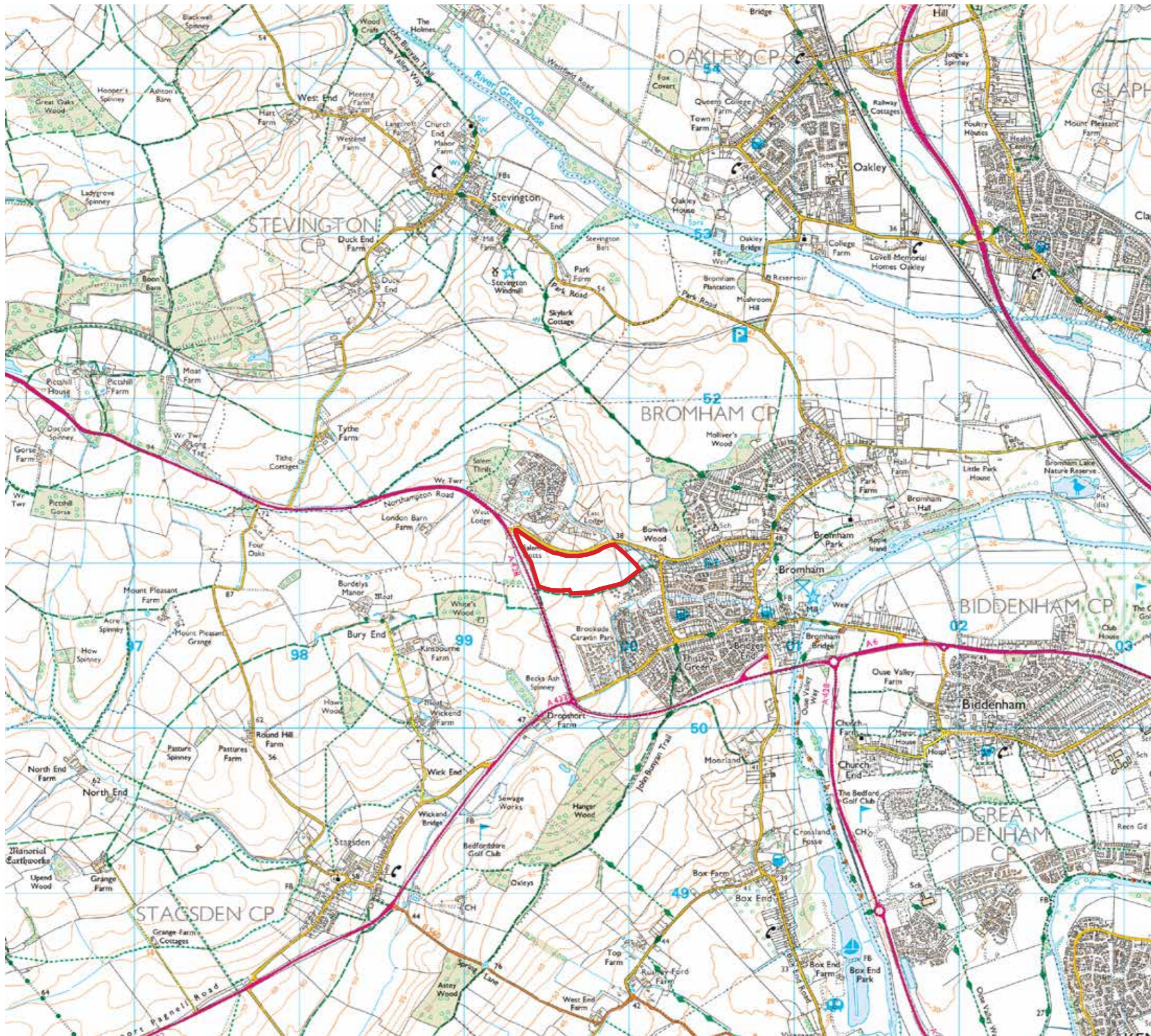
- 5.1 The proposed development would alter the character of the site from an undeveloped agricultural site to a medium density built residential development. At the National and Borough level it is considered that landscape effects would be no worse than minor adverse. At a site wide scale, it is considered that the effect caused by the loss of arable farmland and open space would be moderate - major adverse during construction and upon completion; however, this adverse effect would be reduced to moderate in the longer term offset by the beneficial effects arising from the maturing of the GI proposals. For other landscape receptors including site landform, vegetation and watercourses effects would be no worse than minor adverse at the outset. Whilst there would be, to varying degrees, some elements of change to each of these receptors, the nature and extent of these changes would not bring about any unacceptable adverse landscape effects. The implementation of a suitably robust GI framework and the application of an appropriate landscape management regime would also offer some localised and longer-term benefit.
- 5.2 Properties adjacent or in close proximity to the site boundary - including Bromham Grange and a number of dwellings to the southeast - will experience the greatest visual effects arising from the proposed development, especially during the construction phase when change will be most conspicuous. It is anticipated that those properties which immediately abut or are in close proximity to the site – on Browning Close, Howkin Close, Peacock Road, Wisdom Close and Barker Drive - will initially experience moderate/major adverse effects, reducing to minor or moderate adverse after ten years.
- 5.3 Overall users of public rights of way extending through or in close proximity to the site will experience moderate – major adverse effects initially reducing slightly to become minor or moderate adverse once the proposed landscaping has established. Users of more distant public rights of way including those on the elevated ridge to the north would experience no worse than minor adverse effects where the clearest views are available.
- 5.4 Users of the A428 bypass and Northampton Road approaching Bromham from the northwest - with the clearest views into the site - will experience moderate adverse effects at worst upon completion of the scheme. The visual effects for the majority of other road users are considered to be negligible or minor adverse upon completion of the scheme.
- 5.5 In terms of the landscape and visual context it should also be noted that the local baseline character will change significantly – reducing sensitivity to the type of development proposed - as the allocated “*Beauchamp Park*” residential development, immediately to the south, comes forward.
- 5.6 To conclude, despite the inevitable adverse effects of built development upon the local landscape character and on a limited number of visual receptors immediately adjacent to the site, it is considered that there would be no unacceptable adverse effects that should preclude the proposed development in landscape and visual terms.

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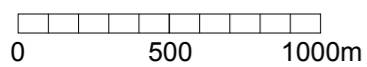
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Site Boundary



Scale: 1:25000 @ A3



client  
Rainier Developments Ltd

project  
Bromham,  
Bedfordshire

drawing title  
SITE LOCATION



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20 Sept 2017  
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# Figure 1



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Site Boundary

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**Figure 2**

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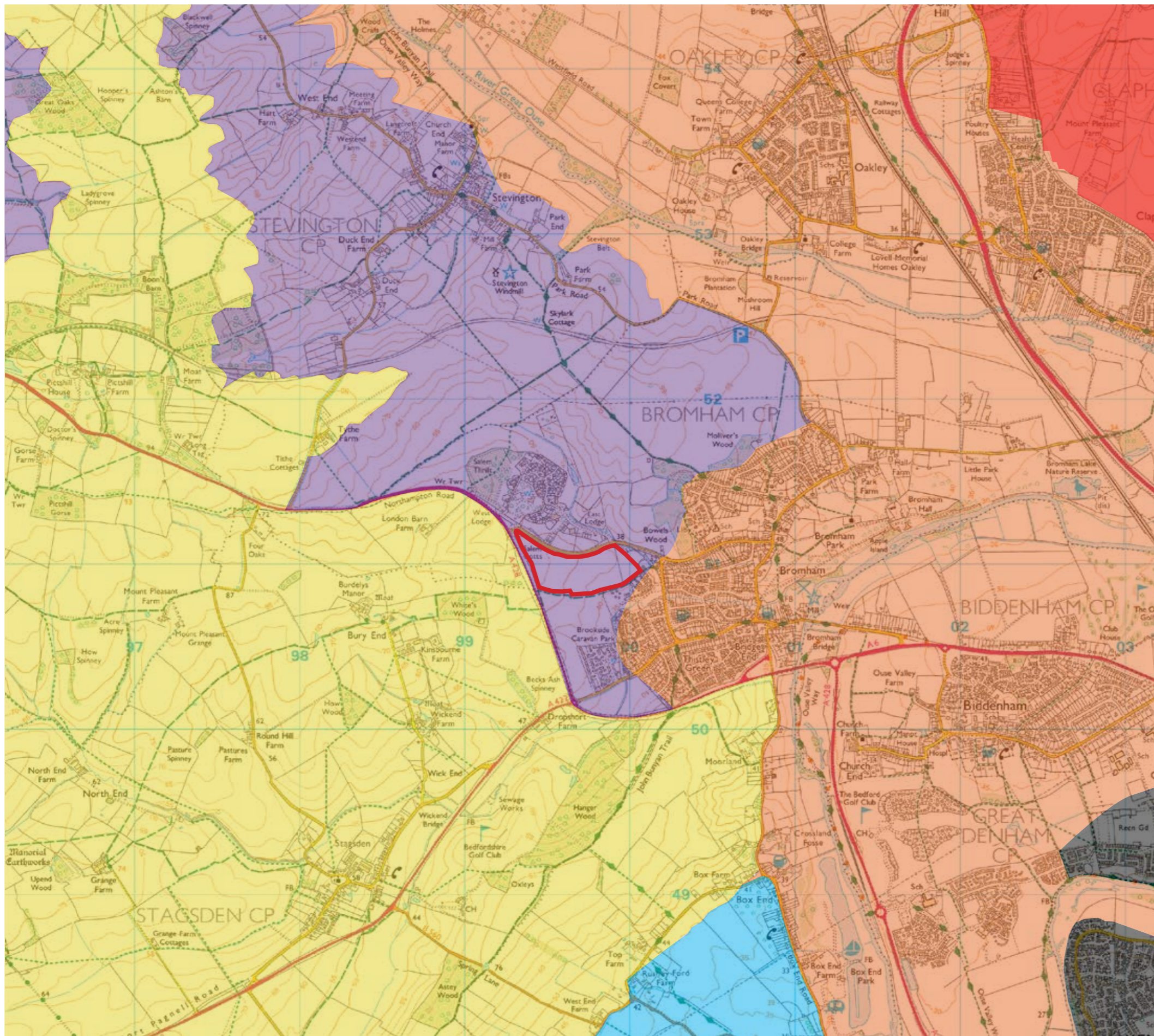
Site Boundary

**National Character Area**

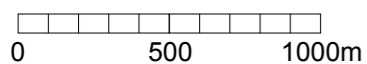
The Site and its context is located entirely within NCA 88 - Bedfordshire and Cambridgeshire Claylands

**Bedford Borough Landscape Character Assessment**

-  Urban Areas
-  1A Cranfield to Stagsden Clay Farmland
-  2A Hinwick Wooded Wolds
-  2B Pavenham Wooded Wolds
-  3B Oakley - Great Ouse limestone Valleys
-  5D North Marston Clay Vale



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LANDSCAPE CHARACTER



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


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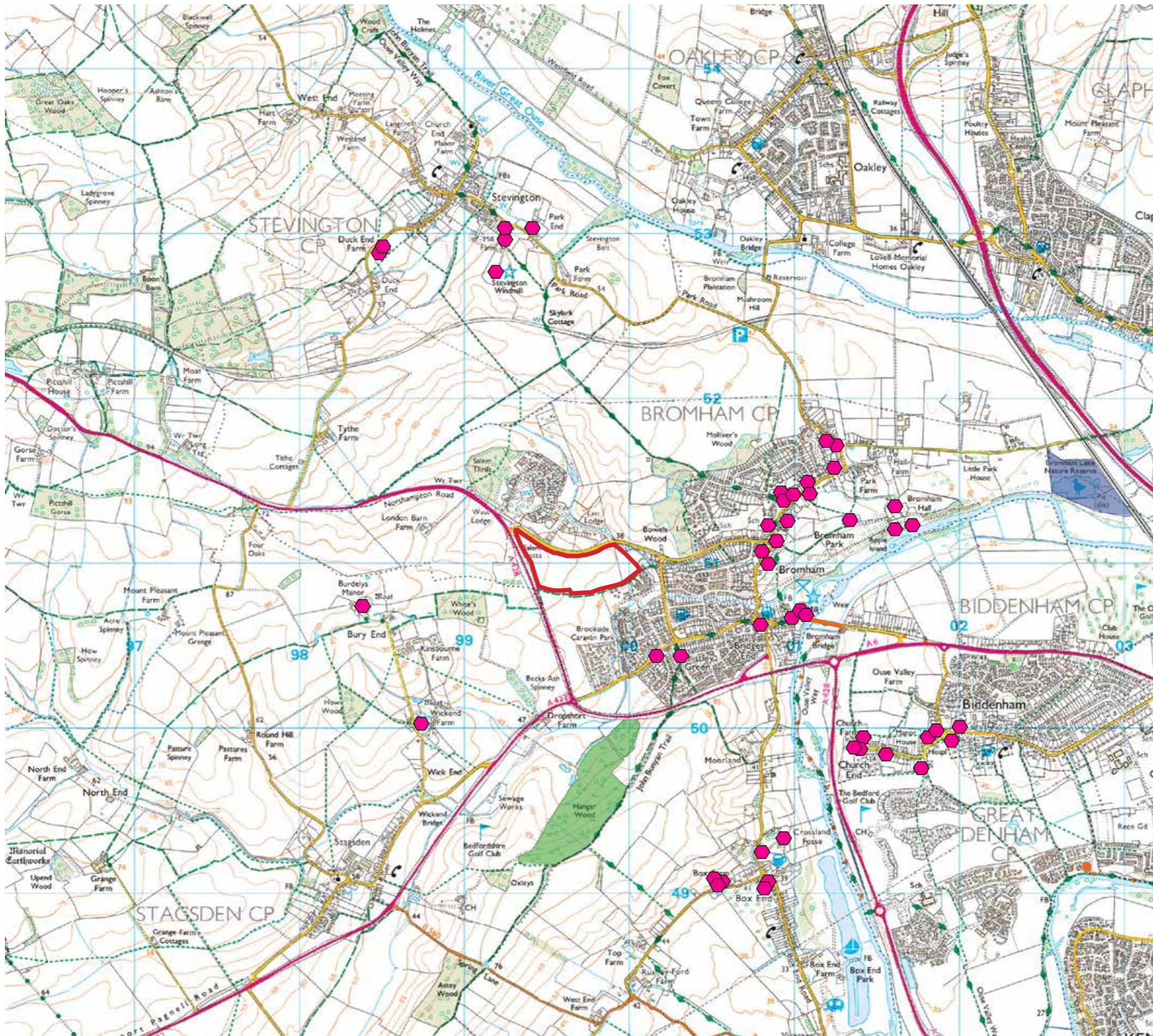
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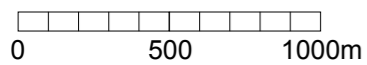
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-  Site Boundary
-  Local nature Reserve
-  Site of Special Scientific interest
-  Scheduled Monument
-  Listed Buildings (within approximately 2km of the Site)



Scale: 1:25000 @ A3



client  
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project  
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Bedfordshire

drawing title  
**DESIGNATIONS**



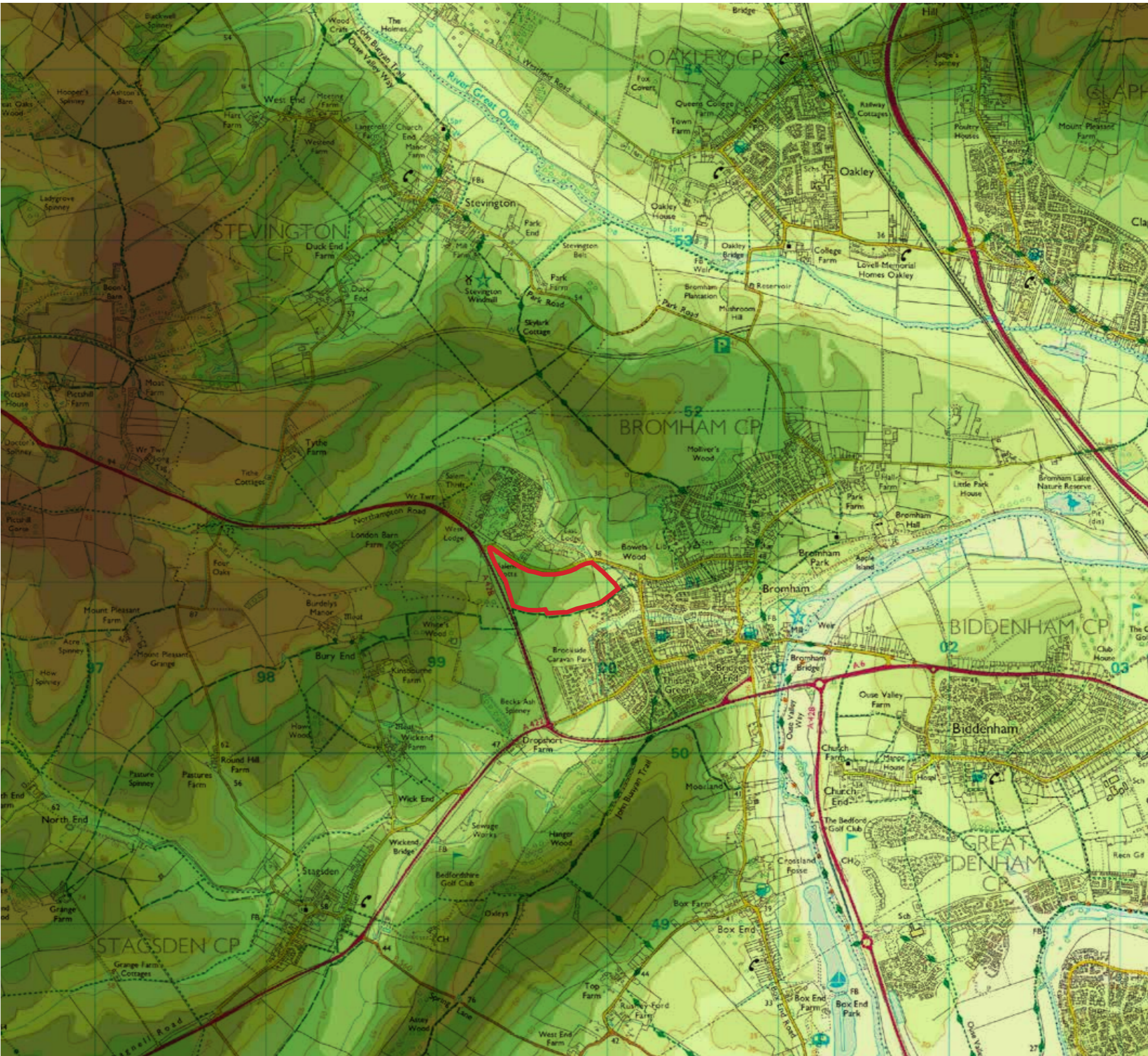
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**Figure 4**

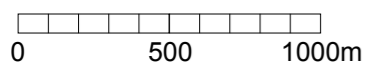


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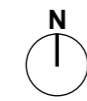
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




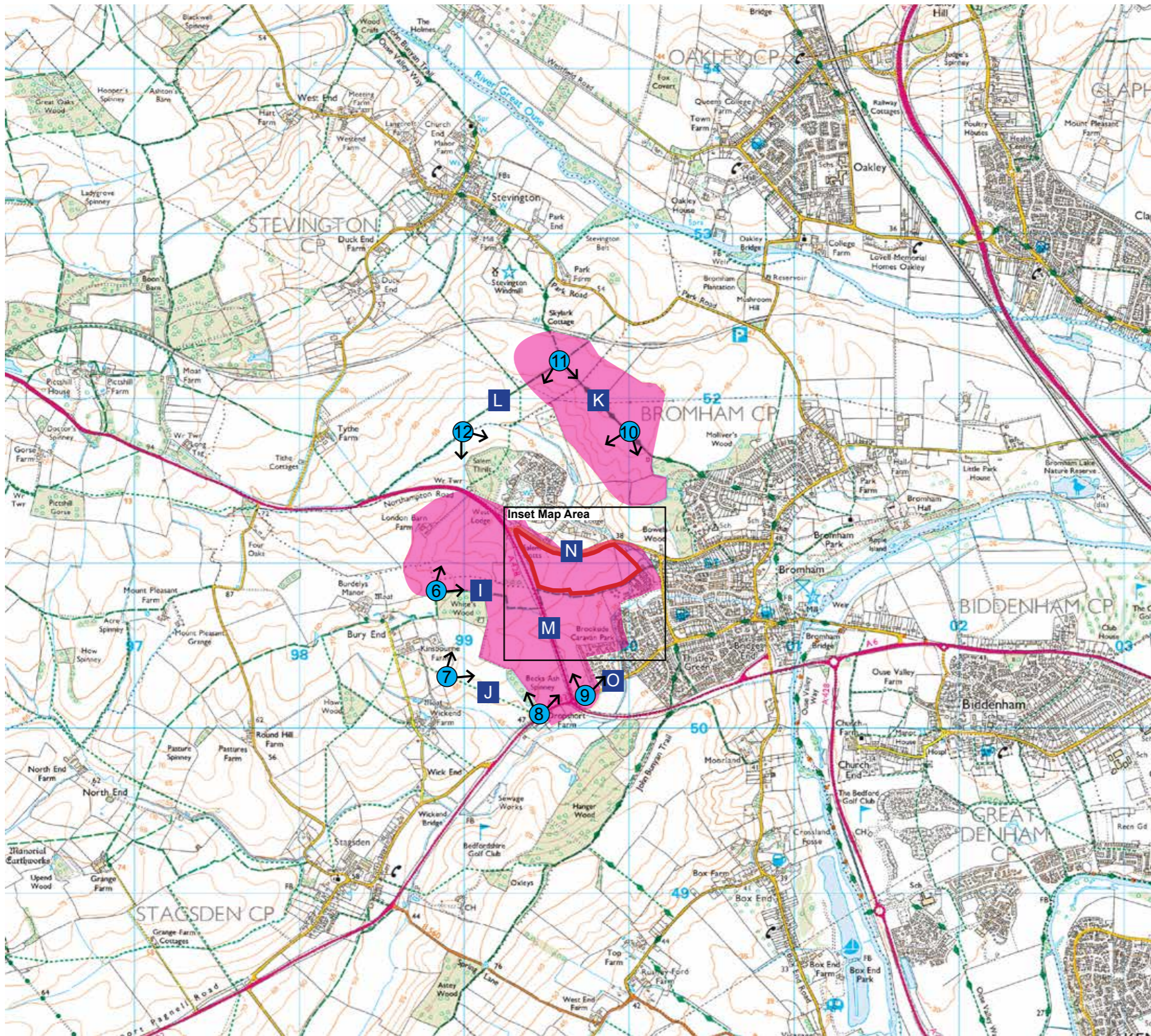
# Figure 5



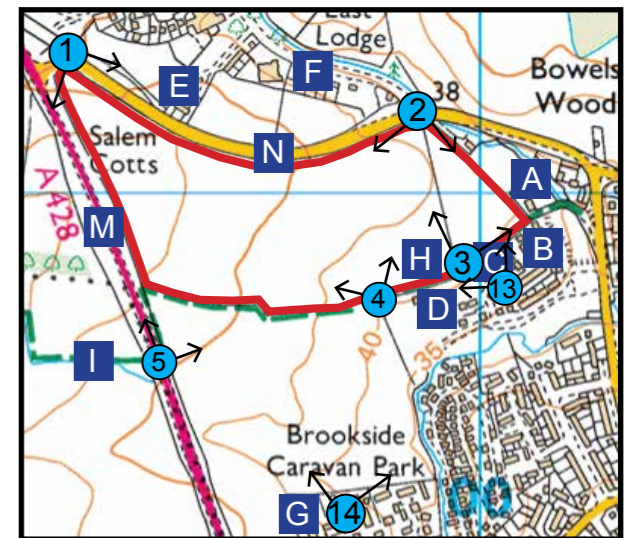
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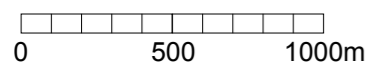
-  Site Boundary
-  Photo Viewpoint Location
-  Visual Receptors
-  Visual Envelope



Inset Map (1:12,500)



Scale: 1:25000 @ A3



client  
Rainier Developments Ltd

project  
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Bedfordshire

drawing title  
VIEWPOINT LOCATION PLAN

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1:25000 @ A3  
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20 Sept 2017  
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**Figure 6**

**A**



PHOTO VIEWPOINT 1: View southeast from Northampton Road



PHOTO VIEWPOINT 2: View south from Northampton Road / Chestnut Avenue Junction

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PHOTO VIEWPOINTS 1 & 2

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**Figure 7**

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**A**



PHOTO VIEWPOINT 3: View northeast from Bridleway (Ref: BW5)



PHOTO VIEWPOINT 4: View north from Bridleway (Ref: BW5)

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PHOTO VIEWPOINTS 3 & 4

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**Figure 8**

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**A**



PHOTO VIEWPOINT 5: View northeast from A428 (Bromham Bypass)

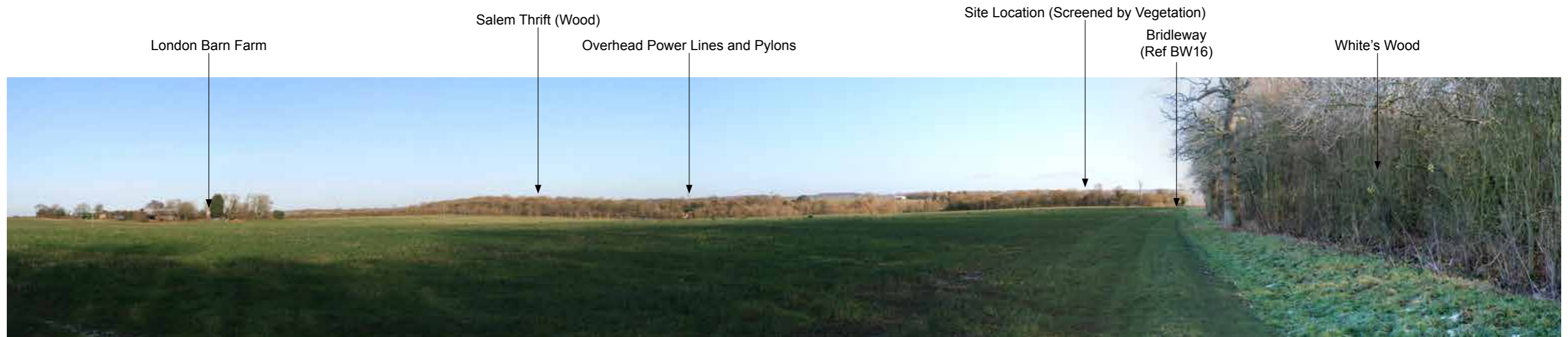


PHOTO VIEWPOINT 6: View northeast from Bridleway (Ref: BW16) north of White's Wood

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PHOTO VIEWPOINTS 5 & 6

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PHOTO VIEWPOINT 7: View northeast from Public Footpath (Ref: FP29)



PHOTO VIEWPOINT 8: View north from Public Footpath (Ref: FP29) near Dropshot Farm

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PHOTO VIEWPOINTS 7 & 8

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PHOTO VIEWPOINT 9: View north from Stagsden Road



PHOTO VIEWPOINT 10: View south from Bridleway (Ref: BW7) forming part of the John Bunyan Trail



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 drawing title  
 PHOTO VIEWPOINTS 9 & 10  
 scale  
 NTS @ A3  
 drawing / figure number  
**Figure 11**  
 drawn  
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PHOTO VIEWPOINT 11: View south from Bridleway (Ref: BW20)



PHOTO VIEWPOINT 12: View south east from Bridleway (Ref: BW20)

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PHOTO VIEWPOINTS 11 & 12

scale  
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drawing / figure number  
**Figure 12**

rev  
**A**

Approximate Site Extents



PHOTO VIEWPOINT 13: View north from Howkin Close

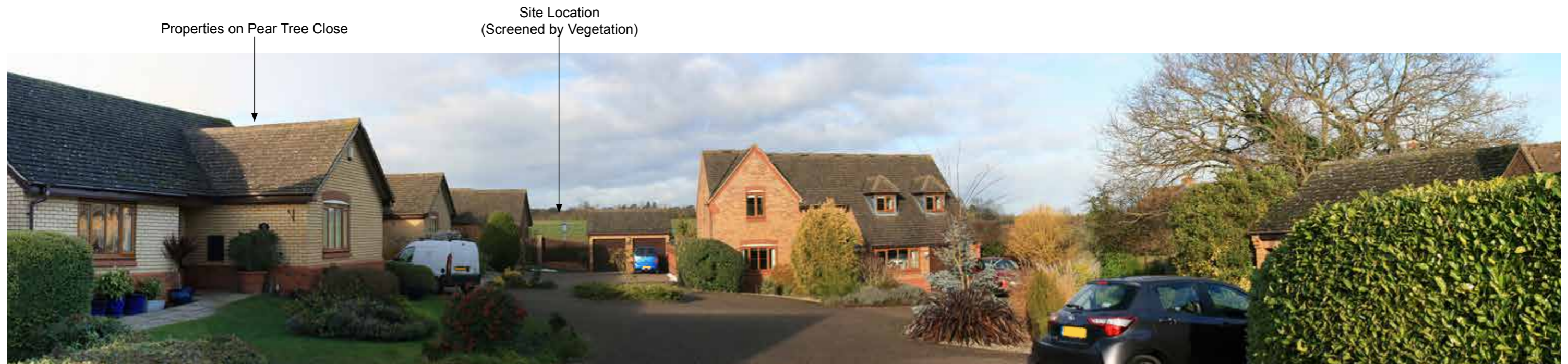


PHOTO VIEWPOINT 14: View north from Pear Tree Close

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issue date  
03 January 2018  
rev  
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## **Appendix Eiv Ecology Technical Note**



July 2022

## **Ecological Technical Note: Land at Bromham, Bedfordshire.**

### **1.0 Background**

1.1 FPCR Environment and Design Ltd. (FPCR) have been instructed by Rainer Development Ltd. to provide additional ecological information to support the representations to the Bedfordshire Local Plan Review 2040. The following technical note focuses to two main matters:

1. The potential effects on protected species; and
2. The potential of the site to achieve a net gain to biodiversity.

1.2 The site has previously been subject to ecological survey work in 2017 and 2018. These surveys included: a phase 1 habitat and initial protected species survey, bat activity surveys and an eDNA survey of an assessable pond to the east of the site<sup>1</sup>.

1.3 To support the representations to the Local Plan an updated habitat survey has been completed in July 2022. This survey recorded the habitats present within the site and completed the habitat condition assessments required to inform a biodiversity net gain assessment using the current version of the DEFRA metric (DEFRA 3.1). In accordance with standard methodology additional evidence of protected species was recorded and the potential of the habitats to support protected species assessed during the update survey.

### **2.0 Ecological Baseline**

#### **Flora**

2.1 The ecological surveys work completed over the period of 2017 – 2018 confirmed the habitats effected by development of the site are dominated by intensively managed arable land with a smaller area of horse grazed semi-improved grassland to the east of the site. Additional habitats recorded included a small area of semi-natural broadleaved woodland to the northwest of the site and field boundary hedgerows.

2.2 The intensively managed arable land and the species poor semi-improved grassland were identified as being of no more than site to local level ecological importance. Hedgerows H3 and H7 were classified as being 'important' under the Hedgerow Regulations 1997 and all of the hedgerows met the criteria to be classified as habitat of principle importance as defined in S41 of the NERC Act 2006. The majority of the

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<sup>1</sup> Land at Bromham, Bedfordshire. Ecological Topic Paper. FPCR March 2018.

hedgerows were assessed as being of local level importance but hedgerows H3 and H7 were assessed as being of county level importance.

- 2.3 The updated habitat survey completed in July 2022 confirmed there was no significant change in the baseline ecological conditions. Intensively managed arable land remained the dominant habitat and species poor semi-improved grassland is present to the east of the site (Figure 1). The ecological value of the arable land is still only site level importance and given the intensive grazing the species poor semi-improved grassland is of no more than local level value. The small area of broadleaf woodland has also been assessed as being of local level importance.
- 2.4 Management of the site boundary hedgerows has been maintained and the ecological value of the hedgerows within the site remains as previously recorded.

### **Fauna**

#### **Badgers**

- 2.5 An outlier badger sett was previously recorded in the northern boundary hedgerow. The updated survey confirmed this outlier sett remains partially activity but a further two disused outlier setts were recorded in the northern boundary hedgerow. No latrines or additional evidence of use by badgers was recorded in the site. Consequently, the habitats site and the occasionally used outlier sett have not been identified as a significant resource which is required to maintain the local badger population.

#### **Bats: Roost Sites**

- 2.6 No suitable roost sites were recorded associated with the mature trees on the site boundary during the 2018 or the 2022 surveys.

#### **Bats: Foraging Resource**

- 2.7 The intensively managed arable land and the species poor semi-improved do not provide a significant foraging resource for the local bat population. The hedgerow network and the small area of woodland in the northeast of the site will provide a foraging and commuting resource for the local population. These conditions have remained unchanged since the 2017 survey period and as such the results of previous survey work will be applicable.
- 2.8 Previous activity surveys confirmed the dominant species using the site was common pipistrelle *Pipistrellus pipistrellus* and occasional use by soprano pipistrelle *Pipistrellus pygmaeus*. Other species recorded included Noctule *Nyctulas noctula*, unidentified *Myotis* species and single registrations from Barbastelle *Babastella barbastellus*. With the exception of Barbastelle the assemblage using the site are widespread species but all of the species recorded will also be using land surrounding the site.
- 2.9 Whilst Barbastelle is a rare species, occasional use of a site confirms the species is present locally but the level of use recorded does not confirm that the site provides a significant resource for the species or is required to maintain the conservation status of the species. Given the habitats within the site are sub-optimal for Barbastelle, it has been concluded that the site does not provide a significant resource for this species.

### Great Crested Newts

- 2.10 Previous survey identified a single waterbody (Pond P1) within 250m of the site and an additional two waterbodies (Ponds P2 and P3) over 400m from the site. No ponds are present within the site.
- 2.11 Pond P1 is a residential garden pond approximately 20m from the eastern site boundary and the Habitat Suitability Index (HSI) for this pond was recorded as poor. The results of an eDNA survey completed on the pond in 2018 was inconclusive.
- 2.12 Pond P2 located to the south of the site is isolated from the available habitats within the site by an intensively managed arable field. Pond P3 situated to the north of the site is isolated from the limited terrestrial habitat within the site by extensive area of existing arable farmland, residential dwellings and a minor infrastructure road.
- 2.13 The terrestrial habitats present are intensively managed and lack the structural diversity or potential resting place to support a significant population of great crested newts (GCN) if present in Pond P1. The only suitable habitats which could potential support GCN include the site boundary hedgerows and the ranker vegetation adjacent to the boundary hedgerows. These suitable habitats are limited in extent and would not support a significant terrestrial population of GCN. The condition of the terrestrial habitats has not improved since 2018, as such if GCN are present in Pond P1 the site would not support a significant proportion of the population or form a significant resource required to maintain the favourable conservation status of the species locally.

### Reptiles

- 2.14 To support common species of reptile a mosaic of varying habitats including areas of tussock vegetation, bare ground and area of denser vegetation to provide cover for the population are necessary. The habitats present within the site are dominated by homogenous habitats which do not provide optimal habitat for common species of reptiles. The hedgerow and vegetation immediately adjacent to the hedgerow do provide limited areas of suitable habitats for reptiles but these areas in extent and would not support a significant population of reptiles.

## **3.0 Potential Effects to Protected Species**

- 3.1 The Illustrative Masterplan (Drawing Reference: RG-M-09 Rev B) shows that within green infrastructure corridors the proposals can retain the majority of the existing hedgerows, including the hedgerows classified as important on the southern site boundary. The Illustrative Masterplan also shows the broadleaf woodland to the northwest of the site can be retained. The retention of these habitats will avoid significant effects to a number of the protected species discussed in the baseline assessment.
- 3.2 The Illustrative Masterplan also shows a significant area of green infrastructure can be provided on the eastern and southern boundaries of the site and wetland can be created in proposed area of the balancing facility to the southeast of the site. The implementation of these features will provide further mitigation and enhancements for the protected species discussed in Section 2.0.

- 3.3 The following provides additional assessment of the potential effects of the proposals to protected species.

#### Badgers

- 3.4 Over the survey period a single partially active outlier sett and two disused outlier setts have been identified along the northern boundary hedgerow. Whilst it is possible to retain these setts, the setts do not provide a significant resource to the local badger population. Consequently, if closure under a Natural England development licence is necessary loss of the sett would not result in significant negative effect to the local population.
- 3.5 No evidence of foraging activity has been recorded over the survey period and the intensively managed nature of the habitat does will not provide a significant resource for the local population. Therefore, loss of the current habitats would not affect the conservation status of the local badger population.
- 3.6 The creation of the green infrastructure shown on the Illustrative Masterplan would provide optimal foraging habitats for badgers and once the habitats have established the badger local foraging resource is likely to be improved.

#### Bats

- 3.7 No bat roost sites are currently present within the site. The construction of new residential dwellings within the site offers the potential for the implementation of a range of bat boxes which would increase the provision of bat roost site locally. Such provision would be beneficial to the local population.
- 3.8 The completed survey work has confirmed the intensively managed habitats within the site to not provide a significant resource for the local bat population and the completed activity survey confirmed the assemblage using the site was dominated by common and widespread species. Whilst Barbastelle was recorded using the site the level of use was low and as such the site is not considered to provide a significant resource to the population.
- 3.9 The Illustrative Masterplan confirms it possible to retain the hedgerows and the woodland which are the key foraging and commuting route for bats. The masterplan also demonstrates that significant area of natural open space within the site. This open space is likely to include species rich grassland, scattered scrub and wetlands within the balancing facility. The creation of such habitats would increase the overall habitat diversity locally and the implementation of a sensitive lighting scheme it expected that the development of the site could result in minor positive effects to the local bat population.

#### Great Crested Newts

- 3.10 No breeding habitats for great crested newts are present within the site and the intensively managed habitats on the site only offer suboptimal habitats for GCN if present in the wider environment.
- 3.11 Whilst the eDNA survey results from pond P1 were inconclusive, if GCN are present in this waterbody the habitats within the site will not provide a significant resource to the population. Development of the site would provide significant areas of habitat

enhancements for GCN including wetland in the balancing facilities, and grassland and scrub in the wider GI corridor surrounding the site. Should a Natural England development licence be required following determination of a planning application, the terrestrial habitats shown on the Illustrative Masterplan would be adequate to satisfy the requirements of Natural England licensing department. This would however require the completion of further survey work prior to submission of a planning application for the site.

- 3.12 The site is in an area cover by District Level Licensing (DLL). Consequently, a DLL approach rather than the traditional licensing approach. Adopting the DLL approach would not require the provision of mitigation within the site or the completion of aquatic surveys in offsite ponds. The DLL approach requires a contribution to be provided for the creation of habitats off site provided in strategic positioned areas which are beneficial to the population. The application of such mitigation is considered to avoid potential effects to the favourable conservation status of the species.

#### Reptiles

- 3.13 The terrestrial habitats within the site are not optimal to support a significant population of common species of reptiles. If present any population is likely to be small and the mitigation outline above in the green infrastructure would provide adequate mitigation for the loss of existing habitat within the site. Following creation, the long-term management of habitat in the green infrastructure are likely to be beneficial to local populations of reptiles if present.

### **4.0 Biodiversity Net Gain**

- 4.1 None of the habitats effected by the proposed development are of significant ecological importance and all of the habitats are easily re-creatable. The Illustrative Masterplan also demonstrate that habitats of greater ecological value such including the hedgerows and woodland can be retained in the development.
- 4.2 The completed BIA assessment confirm that the existing ecological baseline value of the site is 39.93 biodiversity units and 10.87 linear units (Appendix A).
- 4.3 Through the implementation of habitats including: modified grassland, other neutral grassland, scrub and ponds in the green infrastructure and the creation of gardens and the implementation of street trees through the development shown on the Illustrative Masterplan, post development the biodiversity units delivered has been calculated to be 44.64 unit and 10.87 liner units (Figure 2 & Appendix A). This provides a potential net gain of 11.81% in biodiversity units and 15.38% in linear units.
- 4.4 Consequently, the Illustrative Masterplan demonstrates that the requirements of biodiversity net gain can be achieved within the site.

### **5.0 Conclusions**

- 5.1 From the assessment of the habitats within the site, it has been concluded that the site does not provide a significant resource for protected species. Whilst there is the

potential for some protected species to be present on the site, the Illustrative Masterplan provides a framework which could increase the overall diversity of habitats within the site. The diversification of habitats and long-term management of the habitats would provide adequate mitigation for protected species if using the site and it is likely that the implementation of such habitats would provide positive benefits for the species locally and ensure the favourable conservation status of the species is maintained.

- 5.2 From assessment of the baseline habitat conditions and additional assessment of the Illustrative Masterplan it has been concluded that a net gain for biodiversity can be achieved within the site.
- 5.3 Given the completed assessment it is considered that the site can achieve net gains from to protected species and overall net gain to biodiversity as required by 2b and 2c in the Sustainably Appraisal of the Local Plan.

**Appendix A:**  
**Biodiversity Net Gain Assessment**  
**(DEFRA Metric Extracts)**



Headline Results

Return to results menu

On-site baseline	<i>Habitat units</i>	39.93
	<i>Hedgerow units</i>	9.42
	<i>River units</i>	0.00
On-site post-intervention <small>(Including habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	46.27
	<i>Hedgerow units</i>	10.87
	<i>River units</i>	0.00
On-site net % change <small>(Including habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	15.88%
	<i>Hedgerow units</i>	15.38%
	<i>River units</i>	0.00%
Off-site baseline	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Off-site post-intervention <small>(Including habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	0.00
	<i>Hedgerow units</i>	0.00
	<i>River units</i>	0.00
Total net unit change <small>(including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	6.34
	<i>Hedgerow units</i>	1.45
	<i>River units</i>	0.00
Total on-site net % change plus off-site surplus <small>(including all on-site &amp; off-site habitat retention, creation &amp; enhancement)</small>	<i>Habitat units</i>	15.88%
	<i>Hedgerow units</i>	15.38%
	<i>River units</i>	0.00%
Trading rules Satisfied?	Yes ✓	



A-2 Site Habitat Creation

Condense / Show Columns

Condense / Show Rows

Main Menu

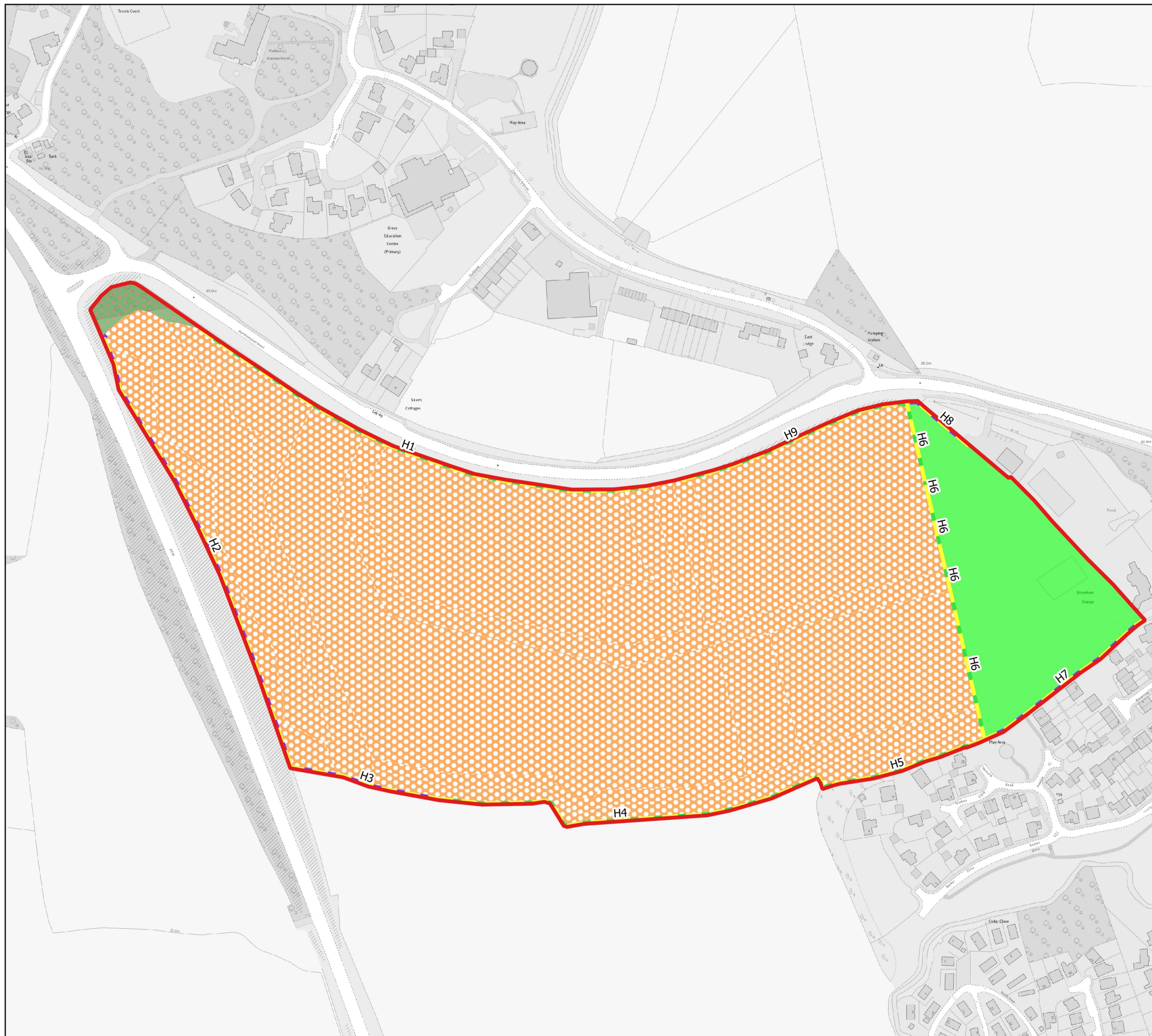
Instructions

Broad Habitat	Proposed habitat	Area (hectares)	Post development/ post intervention habitats																		Comments	
			Distinctiveness		Condition		Strategic significance			Temporal multiplier			Difficulty multipliers						Habitat units delivered			
			Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation		Difficulty multiplier applied	Assessor comments	Reviewer comments
Grassland	Modified grassland	1.5409	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	2.97		
Grassland	Other neutral grassland	2.2212	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	14.67		
Heathland and shrub	Mixed scrub	1.482	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700	Low	Standard difficulty applied	Low	1	12.45		
Heathland and shrub	Mixed scrub	0.1611	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	1.08		
Lakes	Ponds (Non- Priority Habitat)	0.3959	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	1.53		
Urban	Developed land, sealed surface	1.1961	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00		
Urban	Developed land, sealed surface	6.00816	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00		
Urban	Vegetated garden	4.04544	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	7.81		
Urban	Urban Tree	1.3999	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700	Low	Standard difficulty applied	Low	1	3.92		





## Figures



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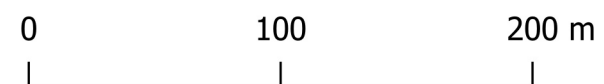
## Key

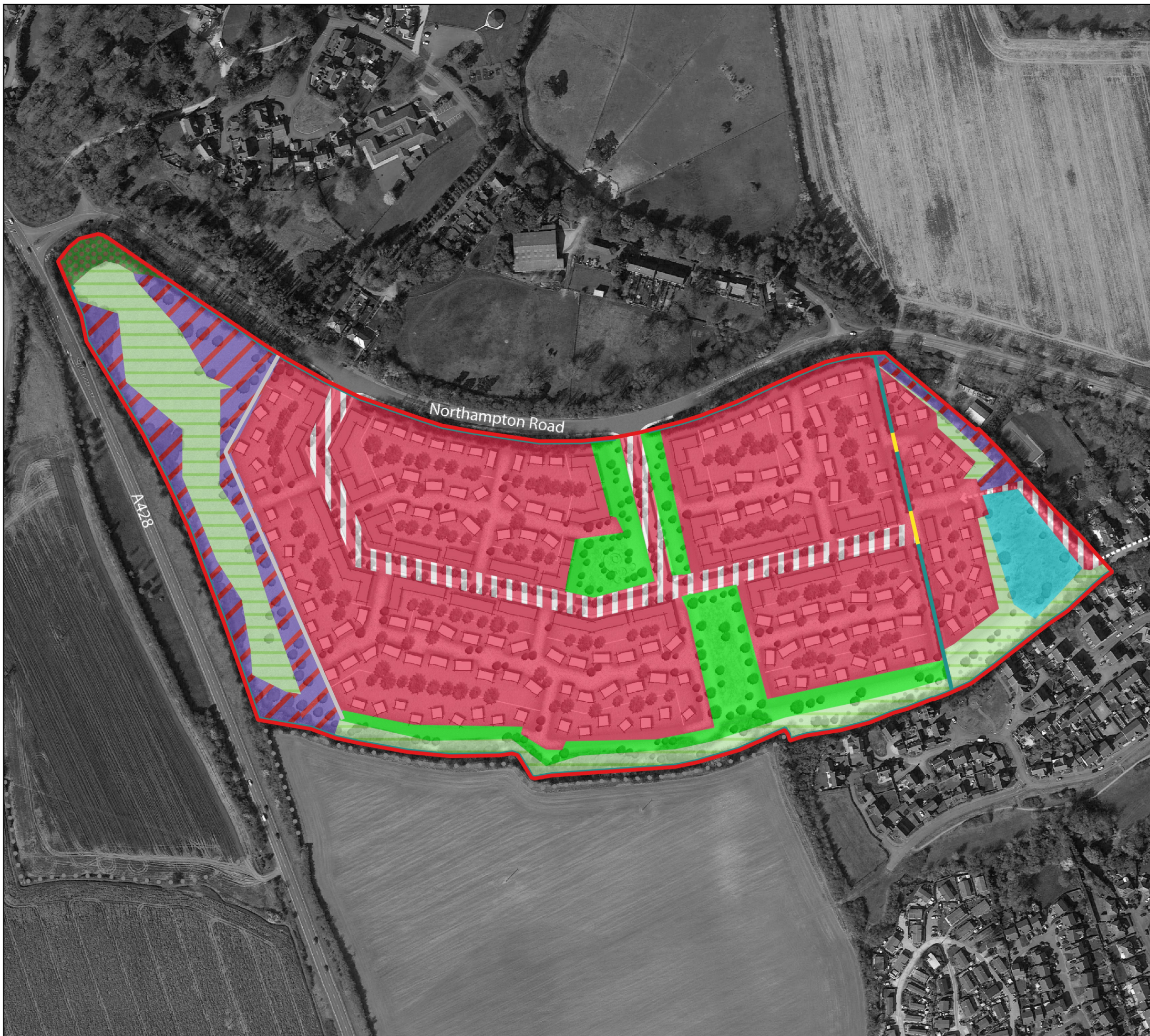
### Area Habitats

- Modified grassland
- Non-cereal crops
- Other woodland; broadleaved

### Hedgerows

- Native Hedgerow
- Native Hedgerow with trees












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## Key

### Area Habitats

-  Developed land; sealed surface
-  Mixed scrub
-  Amenity Grassland
-  Neutral grassland
-  Broad-leaved Woodland
-  Pond
-  Urban Development 60% HS / 40% garden)

### Hedgerow Retention

-  Created
-  Retained
-  Lost





## **Appendix Ev – Heritage Technical Note**

## HERITAGE TECHNICAL ADVICE NOTE

### Land South of Northampton Road, Bromham: Heritage Technical Note

Author: Richard Morton, Principal Heritage Consultant

Date: 12 July 2022

Distribution: Not restricted

#### Purpose of the Technical Note and Completed Heritage Works

The purpose of this Technical Note is to provide further information regarding conclusions upon the subject of heritage in the Bedford Borough Council's Sustainability Appraisal Report of April 2022 (hereafter referred to as 'the SA report'). Appendix 11 of the SA report contains site-specific appraisals, and Land South of Northampton Road, Bromham comprises site reference 757.

Cotswold Archaeology carried out a programme of staged heritage assessment and survey of the Site in 2017-2018, the results of which are set out in the document 'Land South of Northampton Road, Bromham, Bedfordshire: Heritage Assessment'. Cotswold Archaeology is a Registered Organisation with the Chartered Institute for Archaeologists, and the work was carried out in accordance with heritage best-practice standard and guidance. The report was provided via email to the Archaeology Team at Bedford Borough Council on 7 December 2020. The Heritage Assessment is informed by several stages of heritage research and survey, including:

- Historic environment 'desk-based' assessment (including archaeological and historical research of the Site)
- Geophysical survey (Magnetometer survey)
- Assessment of the contribution of the Site to the 'setting' of heritage assets

This work has allowed informed conclusions upon the following items:

- the significance of any known heritage assets in the Site
- the potential for any currently unknown heritage assets in the Site
- the contribution of the Site to the significance of heritage assets in its wider vicinity
- likely effects of residential development in the Site upon heritage assets (both physical and non-physical)

The heritage analysis set out in the Heritage Assessment thus informs conclusions on the 'capacity for change' of the Site for residential development, in heritage terms, and whether there are any known or likely over-riding heritage constraints.

## Heritage Assets

### Former ridge and furrow remains

Both LiDAR and the geophysical survey indicate that the site formed a part of the medieval arable open-field agricultural land of Bromham (former furrows were recorded in the geophysical survey data). A very small part of remnant ridge and furrow earthworks remains in the north-east corner of the site.

The ridge and furrow earthworks are highly eroded, and considered to be of insufficient remnant heritage value to comprise a 'heritage asset'.

### Other buried features

The geophysical survey also identified several fragmentary linear responses, which may represent former field system boundaries, a possible trackway and pits. No evidence for features indicative of former domestic settlement was identified.

The form of the anomalies does not indicate archaeological features which may be of more than limited archaeological interest. Thus on balance the evidence indicates the presence of remains associated with former field systems, which comprise 'non-designated heritage assets' of limited (low) heritage significance.

### Former watermill

Earthwork evidence suggests that a medieval watermill was once situated to the east of the site, in the location of the former buildings of The Grange. This area has subsequently been developed for post-war housing. The evidence indicates that no earthworks or remains associated with these buildings extended to within the site (they were, rather, situated around the small stream outside of the site).

### The contribution of the Site to the 'setting' of other heritage assets

The Site does not form a part of the setting that contributes to the significance of any designated heritage assets. Similarly, it does not contribute to the limited significance of the former Bromham House parkland which lies to its north (this is not a Registered Park or Garden, and has been greatly altered and developed in the 20th century).

## National Planning Statute, Policy and Guidance

No statutorily-protected designated heritage assets (including Conservation Areas, Listed buildings, Scheduled Monuments or Registered Parks and gardens) will be adversely affected by residential development in the Site.

The NPPF (2021) paragraph 194 requires that '*local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance*'. It is concluded that the Heritage Assessment, and its information base, provides such a 'proportionate' level of information.

No designated heritage assets would be adversely affected by development of the Site for residential housing. Thus residential development of the Site would be in accordance with paragraph 199 of the NPPF which states that '*When considering the impact of a proposed*

*development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance'.*

As described above, the evidence indicates that relatively limited responses of probable field systems remains identified in the Site by the geophysical survey are unlikely to be of more than limited heritage interest. If they are, in due course during further survey/mitigation, found to hold evidential value, they are of a form which would not be anticipated to be of more than 'a non-designated heritage asset of low heritage significance'. Thus in accordance with paragraph 203 of the NPPF a balanced judgement would be required in a planning decision recognising this limited value, and the scale of any harm from the proposals.

The Historic England publication 'Statements of Heritage Significance: Analysing Significance in Heritage Assets' ('HEAN12') was published in 2019, after the Heritage Assessment. It's content is based upon the approach to defining 'heritage significance' and 'development effects' set out in the NPPF; it's publication does not materially alter the conclusions of the Heritage Assessment or its recommendations.

### **The Local Plan 2030**

The Bedford Borough Local Plan 2030 was adopted in January 2020. Policy 41S 'Historic environment and heritage assets' notes that applicants should describe the significance of heritage assets, and how the proposal seeks to preserve or enhance heritage assets. As described in the Heritage Assessment, no designated heritage assets would be affected, and the surveys indicate that any archaeological remains would be of, at most, low heritage value.

The policy states that *'This description must be in the form of one or a combination of: a desk-based assessment; heritage statement; heritage impact assessment; and/or archaeological field evaluation. Further information will be requested where applicants have failed to provide assessment proportionate to the significance of the assets affected and sufficient to inform the decision-making process.'*

As noted, the Heritage Assessment is considered to provide suitable information regarding the Site, and includes desk-based assessment, heritage statement (regarding the built environment and heritage assets; and assessment of potential development impacts.

### **Recommended Mitigation and Enhancements**

As a condition of any approval of outline planning permission, further archaeological techniques may be utilised, including archaeological evaluation trenches (to examine further the agricultural features identified in geophysical survey), and, if warranted, additional mitigation measures may be put in place for the further recording of remains. The scope and methodology of such works would be set out within a Written Scheme of Investigation and agreed with the Council's Archaeology Team.

### Comment upon the conclusions of the April 2022 Site Appraisal regarding heritage

The purpose of the Site Appraisal objective 4a is whether a proposal is 'likely to impact on designated or non-designated heritage assets or their setting'.

For site 757 objective 4a states that:

*'The proposal has the potential to cause harm to heritage assets. This harm may range from low to high. There may be options to avoid, reduce or mitigate this harm and where sites have not been ruled out altogether for other reasons, further assessment will be undertaken to more fully explore impacts on significance and options for harm reduction and mitigation. This further assessment may ultimately lead to the conclusion that the site should not be allocated.'*

Comment from the Archaeology Team at the Council indicates that they consider that further information is required on potential archaeological remains in the Site: and that the technique of archaeological evaluation trenching would provide this additional data. As discussed above, it is the conclusion of the completed Heritage Assessment that there is sufficient information to indicate that there are unlikely to be any archaeological remains in the Site of a level of importance that would preclude or otherwise constrain development. The implementation of suitable archaeological conditions could ensure that provision is made for the management of any remains which are present.

Comment from the Conservation Team indicates that they consider that residential development in Site 757 would have no likely impact on built heritage assets. This accords with the results of the Heritage Assessment.

It is the case, therefore, that there are no known heritage assets which would hinder residential development of the Site, and it is agreed that no designated heritage assets would be affected by development of the Site. It is also agreed that further archaeological evaluation trenches in the Site would be of use; the only issue regarding objective 4a for the Site is on the timing of these additional trenches.

## **Appendix Evi – Illustrative Masterplan**

Land South of Northampton Road, Bromham, Illustrative Masterplan (indicative)



Bromham Neighbourhood Plan Allocation – Beauchamp Park (390 dwellings) – outline planning application lodged (19/01904/MAO)