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## Biodiversity Net Gain Assessment

### Site Address:

18 - 20 Church Street, Royston, Barnsley, South Yorkshire, S71 4QU

### Client:

Hennessy Group

### Assessment Date:

2<sup>nd</sup> February 2026

### Project:

This report is prepared to inform a planning application with the Barnsley Metropolitan Borough Council. The proposal is described as:

“The installation of a parking area within the site with associated landscaping.”

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **[BNG Methodology and Legislation – 2025.](#)**

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Version Control			
Status	Issue	Name	Date
Draft	0.1	Jessica Sibley BSc (Hons) MSc, Consultant Ecologist	02/02/2026
Proof	0.5	Jamie-Lee Anderson BSc (Hons), Senior Ecologist	03/02/2026
Final	1.0	Jessica Sibley BSc (Hons) MSc, Consultant Ecologist	

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## Site Location and Context

A baseline habitat map is provided in **Appendix 1**, a post development habitat map in **Appendix 2**, a proposed development plan in **Appendix 3**, headline BNG results in **Appendix 4**, and condition assessments in **Appendix 5**.

The survey site is centred on National Grid Reference: SE 36203 11366 and has an area of approximately ~0.069ha. The site comprises developed land, gravel beds, modified grassland, introduced shrubs, scattered small trees and boundary features in Barnsley, South Yorkshire.

The underlying geology of the site is siltstone and sandstone (Pennine Middle Coal Measures Formation-Mudstone), overlain by slowly permeable seasonally wet acid loamy and clayey soils of low fertility. Typical habitats include seasonally wet pastures and woodlands.

MAGIC habitat designations within 2km include patches of: 'Priority Deciduous Woodland' (closest ~0.70km south), 'Open Mosaic Habitat' (closest ~1.33km east), 'Ancient Woodland' (closest ~1.68km west), and 'Priority Traditional Orchard' (~1.94km north).

The site is situated in a suburban area in Royston, surrounded by dwellings and gardens with a cemetery south of the site. Treelines and grassland fields as well as dwellings and gardens extend in the wider vicinity. The wider landscape comprises the larger settlement of Barnsley to the southwest of the site with Wakefield north. The closest watercourse to the site is wet ditch located ~0.20km east.

This report should be read in conjunction with the following documents:

- ❖ Statutory Baseline BNG Metric – 18 – 20 Church Street, S71 4QU (Arbtech Consulting Ltd., 2026)
- ❖ Preliminary Ecological Appraisal (PEA) - 18 – 20 Church Street, S71 4QU (Arbtech Consulting Ltd., 2026)

## Executive Summary

### 1. Baseline Biodiversity Value – Area-Based Habitats

The site generates a total of **0.19 area-based biodiversity units** across four habitat types:

- **Sealed & Unsealed Surfaces:** 0.00 units
- **Modified Grassland:** 0.07 units
- **Introduced Shrubs:** 0.01 units
- **Urban trees (7 small, poor condition):** 0.11 units

**Total area-based units: 0.19 units**

## 2. Baseline Biodiversity Value – Linear Habitats

- **Built linear features: 0.00 units** (all linear habitats predetermined as N/A condition).
- **Total linear units: 0.00 units** (no functional linear habitat present).

## 3. BNG Target Requirements

The statutory requirement for all developments is a minimum **+10% net gain**.

Therefore, based on the baseline figures:

- **Required area-based units: 0.21 units** (baseline  $0.19 \times 1.1$ ).
- **Required linear units: 0.00 units** (no baseline linear value).

## 4. Key Constraints (Trading Rules)

Certain habitat types must be replaced **like-for-like or like-for-better**, including:

- Modified Grassland,
- Introduced Shrubs,
- Individual Trees.

Failure to provide equivalent or higher-value replacement habitats will trigger **trading rule errors**, limiting on-site deliverability.

#### 5. Likely Requirement for Off-Site Units

Due to the **proportion of sealed/unsealed surfaces proposed** and the small size of the site and vegetation clearance required for parking installation, on-site BNG delivery is unlikely to achieve +10%.

The assessment states off-site measures will likely be required, such as:

- Off-site habitat creation,
- Purchasing units from habitat banks,
- Purchasing statutory credits (noting **2:1 ratio** for statutory credits).

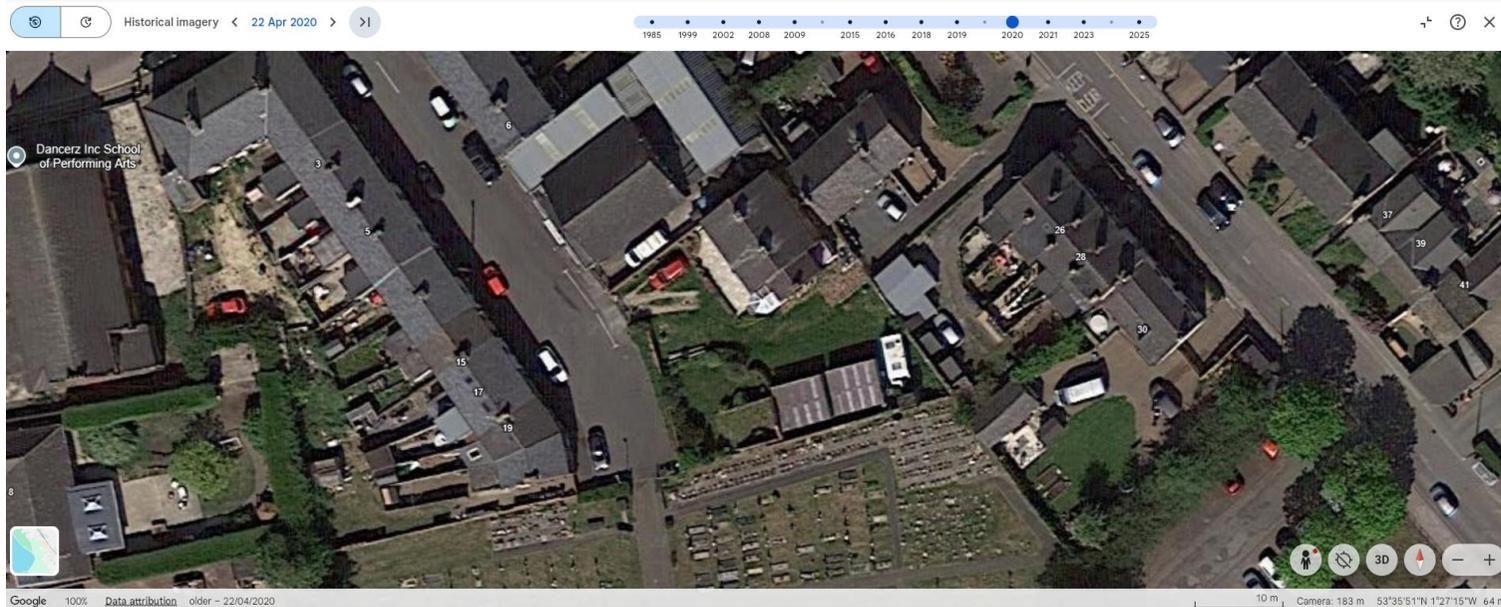
Introduction

BNG Informative

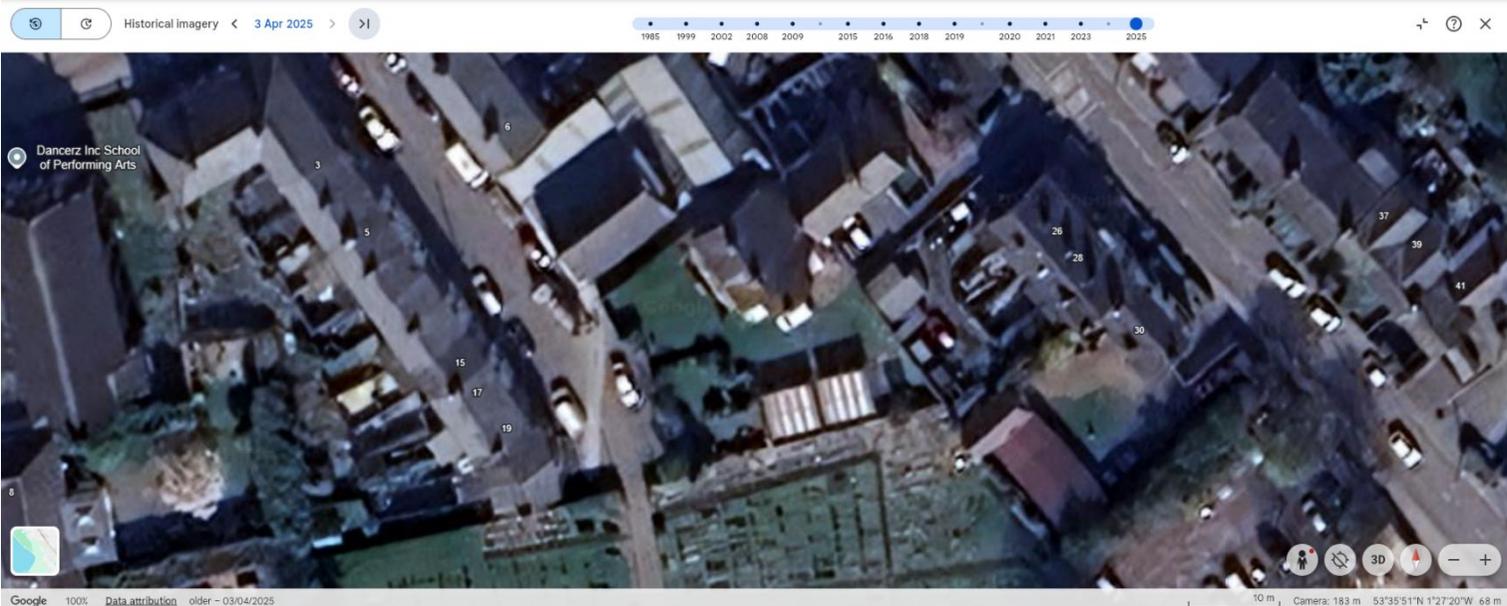
Date reflected by BNG calculations	27 <sup>th</sup> January 2026
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The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2026). As evident in the screenshots of satellite imagery obtained from GoogleEarth dated 22<sup>nd</sup> April 2020 (next satellite image dated to 5<sup>th</sup> April 2020) and 3<sup>rd</sup> April 2025 (most recent satellite image), the site does not appear to have undergone any degradation. The habitats on site, and therefore biodiversity value of the site, is not considered to have undergone degradation since 30<sup>th</sup> January 2020.

**April 2020:**



Habitat Degradation Statement

	<p><b>April 2025:</b></p> 
<p>Irreplaceable Habitat Statement</p>	<p>No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30<sup>th</sup> January 2020.</p>
<p>Metric Version &amp; Publication Date</p>	<p>Statutory Biodiversity Metric Calculation Tool first published 29<sup>th</sup> November 2023 with last updates to metric tools and user guides on 3<sup>rd</sup> July 2025.</p>
<p>BNG Target Uplift</p>	<p>+10%</p>
<p>National Character Area (NCA)</p>	<p>38 - Nottinghamshire, Derbyshire and Yorkshire Coalfield</p>

Strategic Significance	South Yorkshire Mayoral Combined Authority, the responsible authority for drafting the Local Nature Recovery Strategy (LNRS) for Barnsley Metropolitan Borough Council, has yet to adopt a comprehensive LNRS. As advised by the Local Planning Authority (LPA), the following documents from its adopted Local Plan (including Supplementary Planning Documents, SPDs), were used to determine strategic significance: <ul style="list-style-type: none"> <li>❖ Policies Map</li> <li>❖ Biodiversity Action Plan (2009)</li> </ul>		
	Habitat	Baseline	Justification
	Developed land, sealed surface [u1b]	Low	Habitat not in local Biodiversity Action Plan (2009).
	Modified grassland [g4]	Low	Habitat not in local Biodiversity Action Plan (2009).
	Artificial unvegetated, unsealed surface [u1c]	Low	Habitat not in local Biodiversity Action Plan (2009).
	Built linear features [u1e]	Low	Habitat not in local Biodiversity Action Plan (2009).
	Introduced shrubs [847]	Low	Habitat not in local Biodiversity Action Plan (2009).
	Scattered trees [32]	Low	Habitat not in local Biodiversity Action Plan (2009).
<b>Limitations</b>			
There were no specific limitations to the assessment. A pre-development biodiversity calculation has been produced. Arbtech has not been instructed to produce a post-development calculation at this stage, a such, a net change in biodiversity is not calculable.			

Baseline

Baseline Biodiversity Value: On-Site				
Area-Based Habitats (A-1)				
Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Sealed & Unsealed Surface	0.024 + 0.008 = 0.032	There are three buildings within the site boundary, and there are also areas of stone patio across the site. Small pockets of the site are bare soil substrate with gravel beds.	Habitat condition pre-determined as ' <b>N/A</b> ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	<b>Low</b> Strategic Significance
Modified Grassland	0.033	<p>Sections of the site are grassland which best represents 'modified grassland'. Species richness among the sward is low at &lt;6 species per m<sup>2</sup>. Grass cover is &gt;75%. Sward height is homogeneously short at ~5cm. Species include:</p> <p><b>D:</b> Perennial rye grass <i>Lolium perenne</i>.</p> <p><b>A:</b> Red fescue <i>Festuca rubra</i>.</p> <p><b>O:</b> White clover <i>Trifolium repens</i>, dandelion <i>Taraxacum officinale agg.</i>, black medic <i>Medicago lupulina</i>, common ragwort <i>Jacobaea vulgaris</i>, common comfrey <i>Symphytum officinale</i>, and common feather moss <i>Kindbergia praelonga</i>.</p> <p>Grassland – condition assessment:</p> <ul style="list-style-type: none"> <li><b>A.</b> There are &lt;6 vascular plant species per m<sup>2</sup> present – FAIL.</li> <li><b>B.</b> The sward height across the grassland parcels is homogeneously short without microclimates for vertebrates and invertebrates – FAIL.</li> </ul>	<p><b>Poor:</b> passes 5 of 7 criteria excluding essential criterion A.</p> <p>Assessed using the 'Grasslands Low Distinctiveness' habitat type condition sheet.</p>	<b>Low</b> Strategic Significance

Baseline Biodiversity Value: On-Site				
Area-Based Habitats (A-1)				
		<p><b>C.</b> Scrub accounts for &lt;20% the grassland area (i.e., none recorded) – PASS.</p> <p><b>D.</b> Physical damage is &lt;5% – PASS.</p> <p><b>E.</b> Cover of bare ground is &lt;10% – PASS.</p> <p><b>F.</b> Cover of bracken <i>Pteridium aquilinum</i> is &lt;20% (i.e., none recorded) – PASS.</p> <p><b>G.</b> No invasive non-native species (as listed under Schedule 9 of the Wildlife and Countryside Act, 1981), were recorded across the grassland parcels – PASS.</p> <p>The grassland is classed as being in ‘<b>poor</b>’ condition.</p>		
Introduced Shrub	0.005	<p>Small pockets of the site are introduced shrubbery. Species include:</p> <p><b>O:</b> <i>Buddleia Buddleja davidii</i>, rosemary <i>Salvia Rosmarinus</i>, palm <i>Arecaceae sp.</i>, dusty miller <i>Jacobaea maritima</i>, boxleaf honeysuckle <i>Lonicera pileata</i>, rose <i>Rosa sp.</i>, and Franchet’s cotoneaster <i>Cotoneaster franchetii</i>.</p>	Habitat condition pre-determined as ‘ <b>N/A</b> ’ as detailed within the Statutory Biodiversity Condition Assessment Supplement.	<b>Low</b> Strategic Significance
Urban Tree	Poor: 0.0285	<p>There are seven small trees within the site boundary. Species include occasional Leyland cypress <i>Cupressus × leylandii</i>, common alder <i>Alnus glutinosa</i>, spruce <i>Picea sp.</i>, and willow <i>Salix sp.</i></p> <p>Individual trees – condition assessment:</p> <p><b>A.</b> &lt;70% of the trees within the block are native species – FAIL.</p>	<b>Poor: passes 2 of 6 criteria.</b>	<b>Low</b> Strategic Significance

Baseline Biodiversity Value: On-Site				
Area-Based Habitats (A-1)				
		<p><b>B.</b> The tree canopy is predominantly continuous with gaps in canopy cover making up &lt;10% total area (individual trees automatically pass this criterion) – PASS.</p> <p><b>C.</b> &lt;50% of trees within the block are mature – FAIL.</p> <p><b>D.</b> There is no evidence of an adverse impact on tree health by human activities but with a current pruning regime so trees retain &lt;75% of expected canopy for their age range and height – FAIL.</p> <p><b>E.</b> No natural ecological niches were recorded, associated with the trees – FAIL.</p> <p><b>F.</b> The trees oversail grassland and shrub vegetation beneath (i.e., &gt;20%) – PASS.</p>		
		<p>The individual trees are classed as being in <b>‘poor’</b> condition.</p>		

Baseline Biodiversity Value: On-Site				
Linear-Based Habitats (B-1)				
Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
Built Linear Features	0.153	Boundaries of the site and access gates include ~2.5m and ~1m tall, mortared walls and fencing.	Habitat condition pre-determined as ' <i>N/A</i> ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	<b>Low</b> Strategic Significance

**Baseline Biodiversity Value**

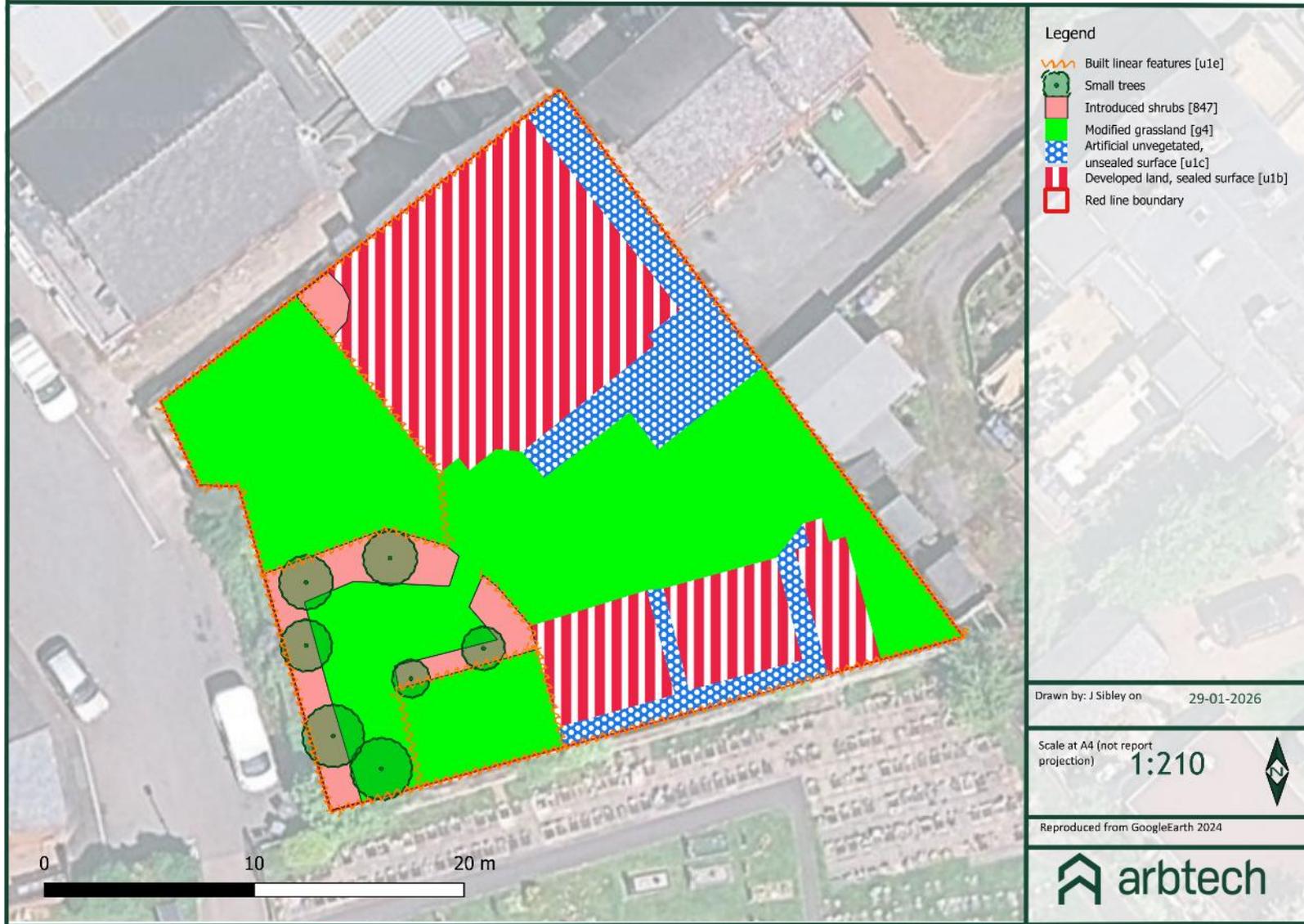
	Habitat Type	Biodiversity Units Generated
<b>Area-Based</b>	Sealed & Unsealed Surface	0.00
	Modified Grassland	0.07
	Introduced Shrub	0.01
	Urban Tree (7 no. small, poor condition)	0.11
	<b>Total</b>	<b>0.19</b>
<b>Linear-Based</b>	Built Linear Features	0.00
	<b>Total</b>	<b>0.00</b>

**Results, Discussion, and Next Steps**

<b>BNG Informative</b>	
Results and Discussion	<p>The site generates <b>0.19</b> area-based habitat units and <b>0.00</b> linear-based habitat units in its baseline. Note the habitat types are calculated separately and must independently achieve net gain; any excess of one cannot be used to offset any deficits of the other. To achieve a minimum +10% uplift for both, a minimum of <b>0.21</b> area-based habitat units and <b>0.00</b> linear-based habitat units are required.</p> <p>A post-development BNG assessment must be undertaken to discern the net change of biodiversity value as a result of the proposed development.</p>
General Recommendations	<p>Trading rules are foreseen to be a constraint: the removal of grassland, introduced shrub, hedgerow, and individual trees must be made up for on a like-for-like or like-for-better basis. In other words, unless sufficient amounts of grassland, introduced shrub, hedgerow, and individual trees habitats are proposed, the site will generate a trading error for the loss of these habitat types.</p> <p>No habitats can be created in BNG within any areas proposed to be private residential gardens. This includes any trees, green roofs, or wildflower meadows which may be proposed within such residential curtilages. Semi-natural habitats such as mixed scrub and trees should therefore be provisioned within communal areas under central management.</p> <p>Given the proposed vegetation clearance of the site to facilitate the provisioning of urban infrastructure, including large amounts of sealed surfaces, it is unlikely that net gain will be achieved within the site’s red line boundary. Off-site compensation will likely be required, and can be done by:</p> <ul style="list-style-type: none"> <li>❖ Creating the required habitats off-site (i.e. outside the red line boundary) <i>N.B. this will require a baseline ecological survey to determine the baseline value of the off-site parcel of land ideally within the curtilage of the LPA or within the same National Character Area (NCA), and the off-site land must be registered with the government;</i></li> </ul>

	<p>Purchasing biodiversity units from existing habitat banks <i>N.B. such habitat bank should ideally be within the curtilage of the LPA or within the same NCA; or</i></p> <ul style="list-style-type: none"> <li>❖ Purchasing statutory biodiversity credits from the government <i>N.B. metric rules dictate if statutory credits are required, double the amount of credits will be required to compensate for a single unit deficit.</i></li> </ul> <p>The mechanism for securing this off-setting will need to be proposed to and confirmed by the LPA and would be linked to the application through a planning obligation Section 106 (s106) agreement. The proposed habitat compensation should be of an appropriate distinctiveness to meet the trading rules of BNG.</p>
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### Appendix 1: Baseline Habitat Plan



**Appendix 2: Post-Development Habitat Plan**

Not available at the time of writing.

### Appendix 3: Proposed Development Plan



**Appendix 4: Headline BNG Results**

**FINAL RESULTS**

<b>Total net unit change</b> (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	-0.19
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00

<b>Total net % change</b> (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	<b>-100.00%</b>
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%

<b>Trading rules satisfied?</b>	<b>No - Check Trading Summaries ▲</b>
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**Total net gain achieved is less than target set ▲**

<b>Area created must match area lost for both onsite and offsite ▲</b>				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
<i>Area habitat units</i>	10.00%	0.19	0.21	<b>0.21</b>
<i>Hedgerow units</i>	10.00%	0.00	0.00	0.00
<i>Watercourse units</i>	10.00%	0.00	0.00	0.00

No additional hedgerow units required to meet target ✓  
 No additional watercourse units required to meet target ✓

## Appendix 5a: Baseline Habitat Condition Assessment Sheets

### Grassland (low distinctiveness) – Condition Assessment:

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m <sup>2</sup> present, including at least 2 forbs (this may include those listed in Footnote 1). <b>Note – this criterion is essential for achieving Moderate or Good condition.</b>	No	
	Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m <sup>2</sup> (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.		
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	
C	Some scattered scrub (including bramble <i>Rubus fruticosus</i> agg.) may be present, but scrub accounts for less than 20% of total grassland area.  Note – patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) <sup>2</sup> .	Yes	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species <sup>3</sup> (as listed on Schedule 9 of WCA <sup>4</sup> ).	Yes	
<b>Essential criterion achieved (Yes or No)</b>			No
<b>Number of criteria passed</b>			5
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x1✓	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)		
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		
Passes 3 or fewer criteria; OR Passes 4 – 6 criteria (excluding criterion A)	Poor (1)	Yes	
<b>Suggested enhancement interventions to improve condition score</b>			

**Individual Trees: Condition Assessment:**

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The tree is a native species (or at least 70% within the block are native species).	No	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Yes	
C	The tree is mature (or more than 50% within the block are mature).	No	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	No	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	No	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Yes	
<b>Number of criteria passed</b>		<b>2</b>	
Condition Assessment Result (out of 6 criteria)		Condition Assessment Score	Score Achieved ×/✓
Passes 5 or 6 criteria		Good (3)	
Passes 3 or 4 criteria		Moderate (2)	
Passes 2 or fewer criteria		Poor (1)	Yes
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.			