

Biodiversity Net Gain Assessment

Site Address:

Land to rear of 62 Green Street, Royston, Hertfordshire, SG8 7BA

Client:

Claire North

Assessment Date:

29/07/2025

Project:

This report is prepared to inform a planning application with the North Herts District Council. The proposal is described as: building of two 4 bed houses.

BNG assessment methodology and legislation can be found in the Arbtech Supplement: **BNG Methodology and Legislation – 2025.**

The results and recommendations contained within this report are valid for 18 months. An updated site visit and BNG assessment 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	Millie Holland BSc (Hons), MSc; Consultant Ecologist	28/07/2025
Final	1.0	Millie Holland BSc (Hons), MSc; Consultant Ecologist	01/07/2025

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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 site is centred on national grid reference TL 36004 41710, and is ~0.07ha in size. The survey site is a small area of a larger residential dwelling with associated hardstanding ground, vegetated garden and parking. The site consists of grassland, buildings, hardstanding, unmanaged vegetable patches and hedgerows. The site is immediately surrounded by further residential dwellings and an allotment to the north. The wider landscape consists of further residential dwellings, with areas of amenity grassland. There is a trainline located ~140m west of the site.

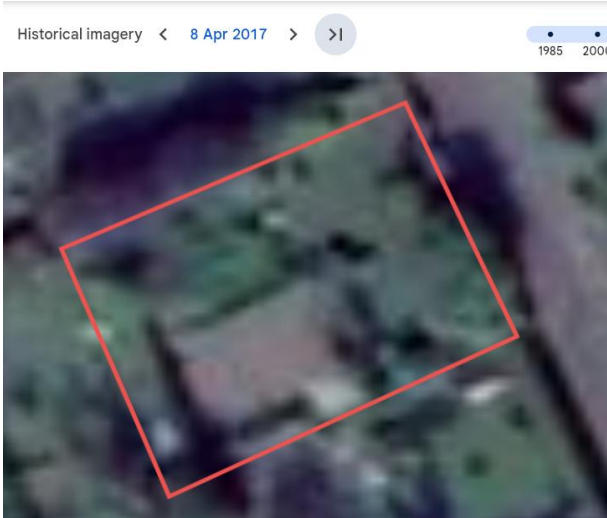
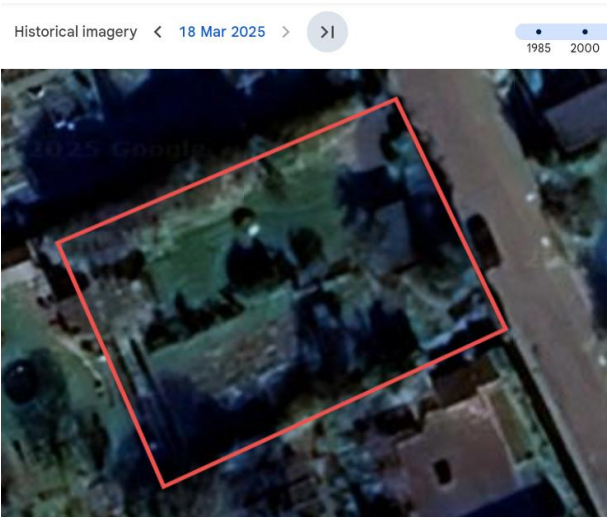
This report should be read in conjunction with the following documents:

- ❖ Statutory BNG Metric - Land to rear of 62 Green Street, SG8 7BA_5699256_01-08-25 (Arbtech Consulting Ltd., 2025)
- ❖ Proposed Plan (02, 2025)
- ❖ Preliminary Ecological Appraisal (PEA) - Land to rear of 62 Green Street, SG8 7BA (Arbtech Consulting Ltd., 2025)

Executive Summary

- ❖ The current landscaping proposal generates a net loss of area-based habitat units (-9.42%) and a net loss of linear-based habitat units (-57.60%) with unmet trading rules. In line with the Statutory Biodiversity Metric User Guide (2024), any loss of a habitat must be replaced on a like-for-like or like-for-better principle. At present, trading conditions are not satisfied for the loss of vegetated garden, bare ground and native hedgerow. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024).
- ❖ In order to achieve a +10% biodiversity net gain for area-based habitats, a minimum area-based unit score of 0.93 will need to be achieved. At present, there is a unit deficit of 0.16 units. Of these units, 0.01 units of bare ground and 0.07 units of vegetated garden to satisfy trading rules.
- ❖ Similarly, to achieve a +10% biodiversity net gain for linear-based habitats, a minimum linear-based unit score of 0.09 will need to be achieved. At present, there is a unit deficit of 0.05 units. Of these units, 0.04 units must be native hedgerows and 0.01 units of non-native hedgerows.

Introduction

BNG Informative		
Habitat Degradation Statement	Date reflected by BNG calculations	15 th July 2025
	The baseline biodiversity value of the site is derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2025). As evident in the screenshots of satellite imagery obtained from GoogleEarth dated 8 th April 2017 and 18 th March 2025, 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 30th January 2020.	
		
Irreplaceable Habitat Statement	No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30 th January 2020.	
Metric Version & Publication Date	Statutory Biodiversity Metric Calculation Tool first published 29 th November 2023 with last updates to metric tools and user guides on 23 rd July 2024.	
BNG Target Uplift	+10%	
National Character Area (NCA)	87 - East Anglian Chalk	

Strategic Significance	Hertfordshire County Council is currently preparing its first statutory Local Nature Recovery Strategy (LNRS), in collaboration with the Hertfordshire Nature Recovery Partnership (HNRP). The HNRP includes key partners such as the Environment Agency, Natural England, Forestry Commission, Herts & Middlesex Wildlife Trust, and local planning authorities. The LNRS will identify existing priority habitats, set local biodiversity priorities, and map areas where habitat creation or enhancement would deliver the greatest environmental benefit. It will also provide an interactive mapping tool, a shortlist of target species, and a framework for practical conservation action across both urban and rural areas. As of July 2025, the strategy is in development, with stakeholder engagement underway and public consultation expected in summer 2025. Final publication is anticipated later in 2025.		
	Habitat	Baseline / Post-Development	Justification
	Urban trees	Baseline	Urban trees should be assigned medium distinctiveness in the BNG metric. They support a range of species, enhance habitat connectivity, and provide important ecosystem services in otherwise low-biodiversity areas. While less complex than woodlands, they offer foraging and roosting opportunities for birds, bats, and invertebrates. This aligns with the statutory metric's criteria for habitats of moderate ecological value that are neither rare nor irreplaceable.
	Vegetated garden	Both	Vegetated garden habitats should be assigned low strategic significance in the BNG metric. Existing local biodiversity frameworks—including the Hertfordshire Climate Change and Sustainability Partnership (HCCSP) Biodiversity Action Plan and the Hertfordshire Nature Recovery Partnership (HNRP) materials—do not identify gardens as a priority habitat. While vegetated gardens may provide incidental value for urban wildlife, they are not targeted for enhancement or protection in local strategic plans and therefore meet the criteria for low strategic significance as defined in the Statutory Biodiversity Metric User Guide.
	Bare ground	Baseline	Bare ground should also be assigned low strategic significance . There is no indication in current Hertfordshire biodiversity policies or draft LNRS engagement materials that bare ground is considered a priority habitat. It is typically of limited ecological value and is not referenced as a target for conservation or restoration in the HNRP's objectives or the HCCSP Biodiversity Action Plan. In the absence of local or national strategic focus, bare ground fits the definition of low strategic significance within the BNG metric framework.
	Native hedgerow	Baseline	Native hedgerows in Hertfordshire should be assigned medium strategic significance in the BNG metric. The Hertfordshire Green Infrastructure Strategy and the HCCSP Strategic Action Plan both support the protection and enhancement of hedgerows, particularly for their role

			in ecological networks. Although not formally listed as priority habitats in an LNRS, native hedgerows align with the User Guide's definition of medium strategic significance due to their clear relevance in existing strategic policy and habitat network planning.
	Non-native hedgerow	Baseline	Non-native hedgerows should be assigned low to medium strategic significance in the BNG metric. In the absence of an LNRS and without specific mention in local strategies, non-native hedgerows do not meet the criteria for high or clearly defined medium significance. However, where they form part of wider habitat corridors or green infrastructure, a low-to-medium significance rating may be justified based on their secondary functional value.
Limitations			
There were no specific limitations to the assessment.			

Baseline

Baseline Biodiversity Value: On-Site				
Area-Based Habitats (A-1)				
Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Buildings	0.01314238	Within the site there are two buildings, both timber, one workshop, with a sheltered garage area, and the second a timber storage shed. These will both be removed by the proposed development.	Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance
Developed land, sealed surface	0.005190138	The site has a hardstanding entrance point from the east boundary, that leads onto the site, to the garage. The site also has hardstanding areas which provide walkways through the garden.	Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	
Vegetated Garden	0.056760386	The site is primarily characterised by vegetation typical of a previously maintained garden, although recent cessation of management has resulted in areas developing more natural characteristics. The grassland is now subject to partial management, with a mosaic of maintained and unmanaged areas.	Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	

Bare ground	0.007220959	To the north of the site, a group of raised beds have been left unmanaged. These are interspersed with large, seemingly active compost bins. Vegetation in this section is sparse and dominated by English ivy, perfoliate alexanders, and patches of bare ground.	Poor: passes 1 of 3 criteria Assessed using the 'Urban' habitat type condition sheet.	
Urban trees	0.081430082	Within the northern bare ground area, five medium-sized cherry trees, each approximately 8–10 metres tall, are present. These trees are heavily colonised by English ivy, contributing to vertical structure and limited cover in this part of the site.	Moderate: passes 4 of 7 criteria. Assessed using the 'Individual trees' habitat type condition sheet.	Medium strategic significance

Baseline Biodiversity Value: On-Site

Linear-Based Habitats (B-1)

Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
Native hedgerow	0.009704442	Through the centre of the garden runs a native hedgerow, primarily composed of mature apple and pear trees. Estimated to be over 20 years old, the hedgerow is beginning to show signs of senescence, with several of the trees exhibiting structural ageing such as thinning canopies, gnarled or dead branches, and limited new growth.	Moderate: passes 4 of 8 criteria. Assessed using the 'hedgerow' habitat type condition sheet	Medium strategic significance
Non-native hedgerow	0.037883169	The site boundaries are predominantly defined by well-maintained privet hedgerows, particularly along the eastern and western edges. These hedgerows are approximately 3 metres in height and 1.5 metres in width, providing a consistent, dense visual and physical boundary around the site.	Habitat condition pre-determined as 'poor' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance

Post-Development

Post-Development Biodiversity Value: On-Site					
Area-Based Habitats					
	Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Retained (A-1)	Urban trees	0.081430082	Trees to the north of the site will be retained post development.	Moderate: passes 4 of 7 criteria. Assessed using the 'Individual trees' habitat type condition sheet.	Medium strategic significance
Created (A-2)	Buildings	0.029404454	Two proposed residential properties, and two garages.	Habitat condition pre-determined as 'N/A' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance
	Developed land, sealed surface	0.027965855	Proposed new entry into site.		
	Vegetated garden	0.025080274	The area to the north that will be the residential garden for the new properties.		
Enhanced (A-3)	Not applicable				

Post-Development Biodiversity Value: On-Site					
Linear-Based Habitats					
	Habitat	Length (km)	Description	Condition Assessment	Strategic Significance
Retained (B-1)	Non-native hedgerow	0.034163186	Some removal on the east boundary for the new entrance.	Habitat condition pre-determined as 'poor' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low Strategic Significance
Created (B-2)	Not applicable.				
Enhanced (B-3)	Not applicable				

Change of Biodiversity Value

		Biodiversity Units		
		Area-Based	Linear-Based	Watercourse-Based
On-Site	Baseline	0.84 ❖ Developed land sealed surface (0 units) ❖ Buildings (0 units) ❖ Vegetated garden (0.11 units) ❖ Bare ground (0.01 units) ❖ Urban trees (0.72 units)	0.08 ❖ Native hedgerow (0.04 units) ❖ Non-native hedgerow (0.04 units)	❖ Not applicable
	Post-Development	0.76 ❖ Developed land, sealed surface (0 units) ❖ Buildings (0 units) ❖ Vegetated garden (0.04 units) ❖ Retained urban trees (0.72 units)	0.03 ❖ Non-native hedgerow (0.03)	
	Net Change	-9.42%	-57.60%	
	Off-Site	Baseline	❖ Not applicable	
Post-Development				
Net Change				
Overall Net Change		-9.42%	-57.60%	

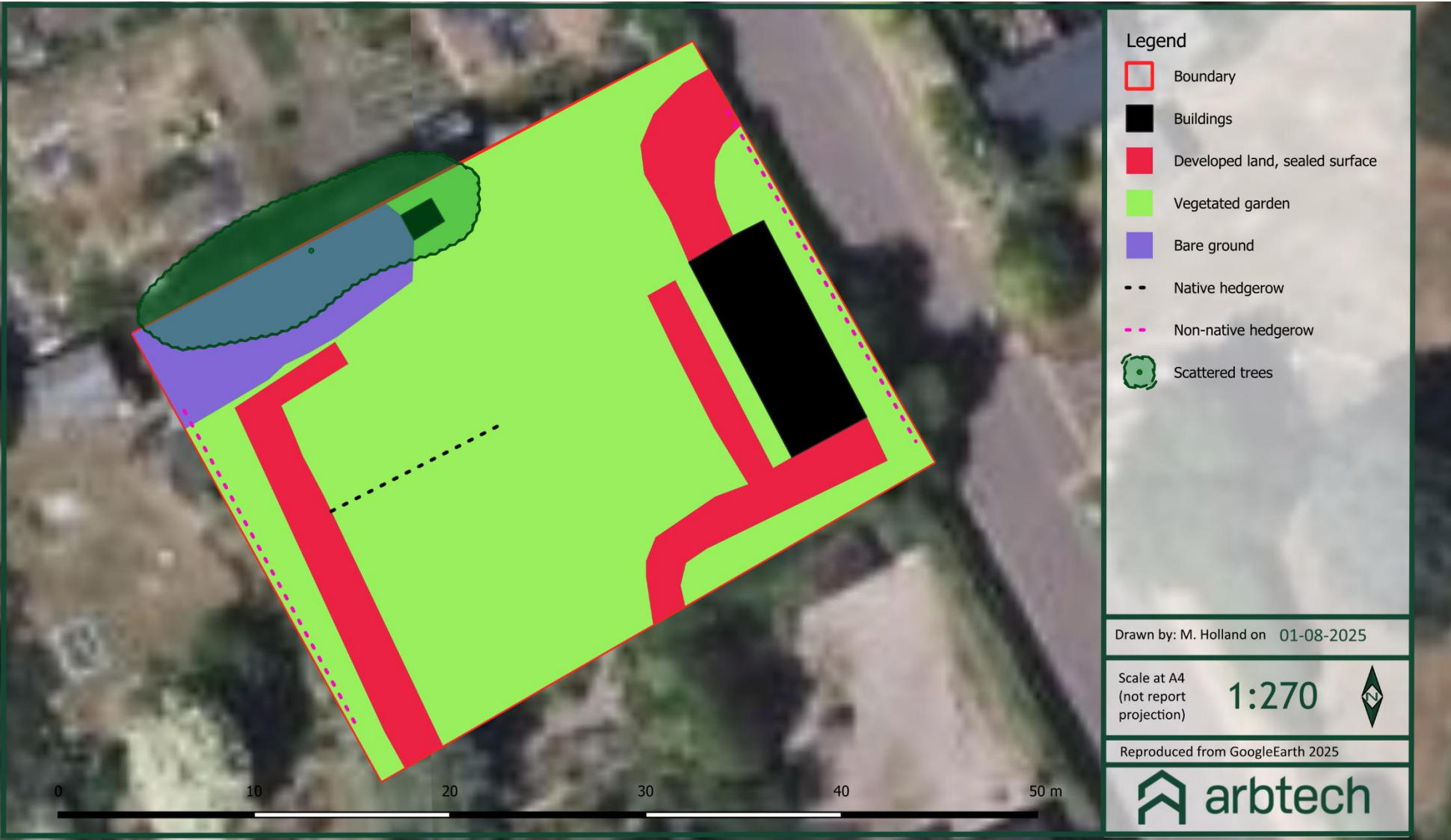
Results, Discussion, and Next Steps

BNG Informative	
Results	The current landscaping proposal generates a net loss of area-based habitat units (-9.42%) and a net loss of linear-based habitat units (-57.60%) with unmet trading rules. In line with the Statutory Biodiversity Metric User Guide (2024), any loss of a habitat must be replaced on a like-for-like or like-for-better principle. At present, trading conditions are not satisfied for the loss of vegetated garden, bare ground and native hedgerow. With unmet trading conditions and a net loss, the proposal fails principal Rules 1 and 2 of BNG and is not compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024). In order to achieve a +10% biodiversity net gain for area-based habitats, a minimum area-based unit score of 0.93 will need to be achieved. At present, there is a unit deficit of 0.16 units. Of these units, 0.01 units of bare ground and 0.07 units of vegetated garden to satisfy trading rules. Similarly, to achieve a +10% biodiversity net gain for linear-based habitats, a minimum linear-based unit score of 0.09 will need to be achieved. At present, there is a unit deficit of 0.05 units. Of these units, 0.04 units must be native hedgerows and 0.01 units of non-native hedgerows.
Recommendations and Next Steps	In order to achieve the required net gain in biodiversity as a result of the proposed development, the provision of additional or alternative landscaping should be explored and the proposed plans amended accordingly to achieve a net gain on site. The provisioning of additional landscaping should first be considered within the site boundary. There is limited scope within the site to deliver meaningful on-site biodiversity enhancements, and it is unlikely that the required provision can be achieved either on-site or immediately adjacent to the development area under the current arrangement. This constraint is primarily due to the presence of an established vegetated garden within the red line boundary, which restricts the area available for habitat creation or enhancement. Given the size of the proposed development footprint and the minimal amount of soft landscaping proposed within the parcel, opportunities for delivering measurable Biodiversity Net Gain (BNG) are significantly constrained. In line with current biodiversity guidelines, it is not feasible to locate the remaining habitat units within the vegetated garden, as this area already supports existing habitats and cannot be significantly altered or enhanced to provide higher distinctiveness habitats. As a result, the provision of higher-value habitats within the site boundary is not achievable under the current design, and alternative options (such as off-site compensation or biodiversity credits) may need to be explored to meet BNG requirements.

	Based on the proposed plans, it is unlikely that net gain will be achieved by ways of habitat creation/enhancement without significant changes to the proposals on site or require unfeasible commitments off-site. As such, a financial contribution to off-site ecological enhancements (i.e. purchasing biodiversity units) within an approved scheme is required to make up the +10% net gain for area-based habitat units. 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 must be of an appropriate distinctiveness to meet the trading rules of BNG. A summary as to what off-site units will be required is detailed in the table below. <table><tr><td></td><td>Distinctiveness</td><td>Broad Habitat Group</td><td>Habitat</td><td>Units Required</td></tr><tr><td rowspan="3">Area-based</td><td rowspan="2">Low</td><td rowspan="2">Urban</td><td>Bare ground</td><td>0.01</td></tr><tr><td>Vegetated garden</td><td>0.07</td></tr><tr><td colspan="3">Total</td><td>0.08</td></tr><tr><td rowspan="3">Linear-Based</td><td>Low</td><td>Hedgerow</td><td>Native Hedgerow with Trees</td><td>0.04</td></tr><tr><td>Very-low</td><td>Hedgerow</td><td>Non-native hedgerows and ornamental</td><td>0.01</td></tr><tr><td colspan="3">Total</td><td>0.05</td></tr></table>		Distinctiveness	Broad Habitat Group	Habitat	Units Required	Area-based	Low	Urban	Bare ground	0.01	Vegetated garden	0.07	Total			0.08	Linear-Based	Low	Hedgerow	Native Hedgerow with Trees	0.04	Very-low	Hedgerow	Non-native hedgerows and ornamental	0.01	Total			0.05
	Distinctiveness	Broad Habitat Group	Habitat	Units Required																										
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	Total			0.08																										
Linear-Based	Low	Hedgerow	Native Hedgerow with Trees	0.04																										
	Very-low	Hedgerow	Non-native hedgerows and ornamental	0.01																										
	Total			0.05																										
Pre-Commencement	A Biodiversity Gain Plan (BGP) and Habitat Management and Monitoring Plan (HMMP) must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years to ensure that biodiversity net gain is delivered. These additional requirements can only be actioned following the finalisation of the BNG assessment – be it on-site or off-site net gains sought.																													

BNG Mitigation Hierarchy	
Avoidance	The trees within the site are being retained.
Minimisation	
Mitigation	Enhancement of retained vegetated garden is considered unfeasible due to the usage of such amenity areas by residents.
Offset	Offsite credits will be required.

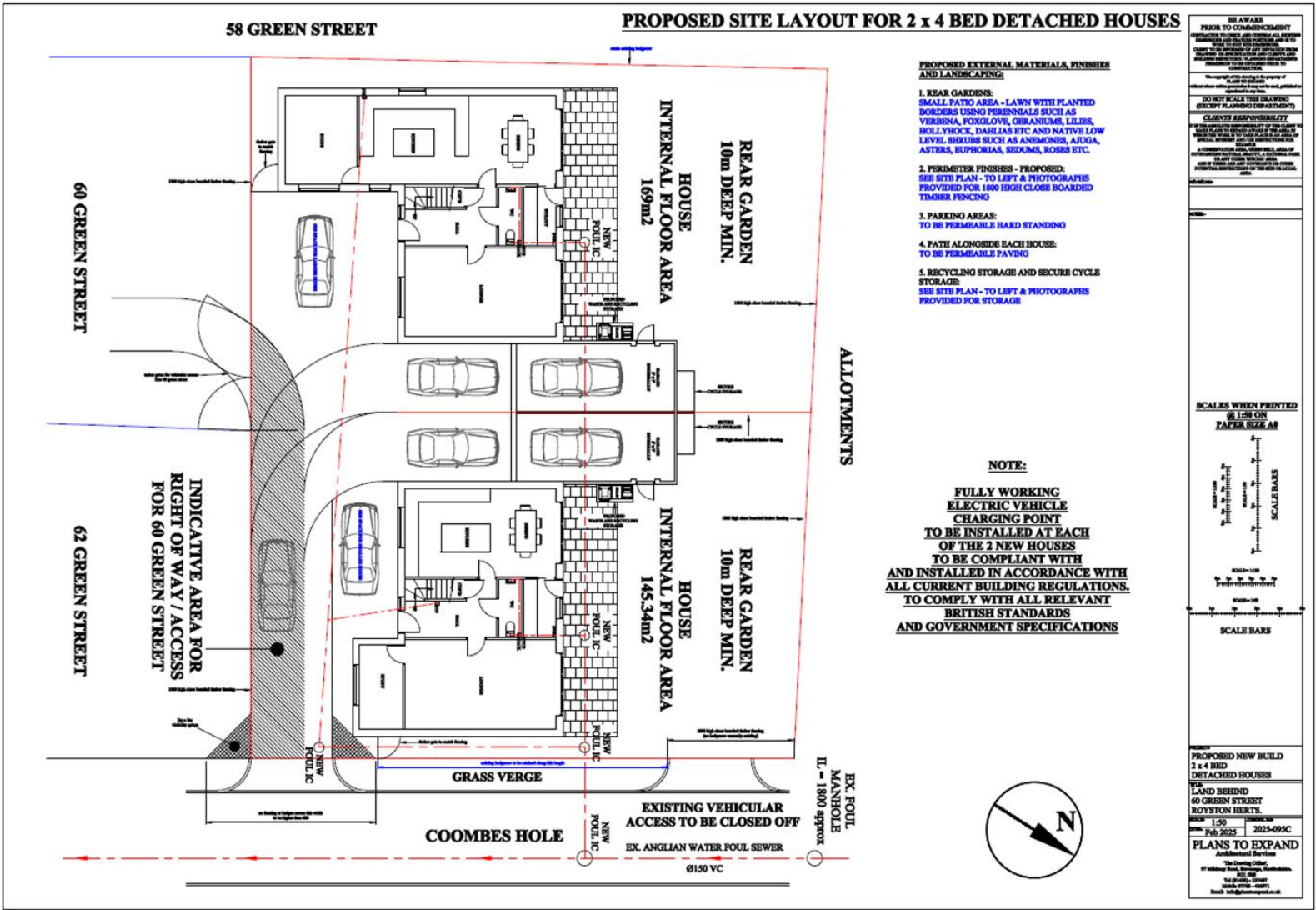
Appendix 1: Baseline Habitat Plan



Appendix 2: Post-Development Habitat Plan



Appendix 3: Proposed Development Plan



Appendix 4: Headline BNG Results

FINAL RESULTS

Total net unit change
(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units-0.08

Hedgerow units-0.05

Watercourse units0.00

Total net % change
(Including all on-site & off-site habitat retention, creation & enhancement)

Habitat units-9.42%

Hedgerow units-57.60%

Watercourse units0.00%

Total net gain achieved is less than target set ▲
Total net gain achieved is less than target set ▲

Trading rules satisfied?

No - Check Trading Summaries ▲

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	0.84	0.93	0.16
Hedgerow units	10.00%	0.08	0.09	0.05
Watercourse units	10.00%	0.00	0.00	0.00

No additional watercourse units required to meet target ✓

Input errors/rule breaks present in metric ▲

Appendix 5a: Baseline Habitat Condition Assessment Sheets

Habitat	Condition assessment		
Bare ground	A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	No
	B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	No
	C	Invasive non-native plant species (listed on Schedule 9 of WCA) and others which are to the detriment of native wildlife (using professional judgement) cover less than 5% of the total vegetated area.	Yes
Total			Poor – 1/3

Habitat	Condition assessment		
Scattered trees	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).	Yes
	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.	Yes
	E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Yes
	F	More than 20% of the tree canopy area is oversailing vegetation beneath.	No
Total			Moderate – 4/6

Habitat	Condition assessment		
Native hedgerow	A1	>1.5 m average along length (height)	Yes
	A2	>1.5 m average along length (wide)	No
	B1	Gap between ground and base of canopy <0.5 m for >90% of length	No
	B2	Gaps make up <10% of total length; and No canopy gaps >5 m	Yes
	C1	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length	No
	C2	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	No
	D1	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA3) and recently introduced species.	Yes
	D2	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	Yes
Total			Moderate – 4/8