

02/09/2025

Ashfield District Council



Clayton Ecology

Biodiversity Net Gain Assessment Quinton House

January 2025

Client/Agent name:	Ellis Riley and Son Ltd
Planning Reference	TBC
Report reference:	200_46
Report issue date:	January 2025
Version:	1
Survey date:	4 th December 2024
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SUMMARY

This report has been prepared by Clayton Ecology Ltd on behalf of the client, Ellis Riley and Son Ltd. The report provides the results of a Biodiversity Net Gain Assessment of Quinton House, The Hill, Kirkby-in-Ashfield, NG17 8JR.

The proposal is for a two-storey rear extension and change of use of a care home to 10 bed HMO & two-storey side extension to form two flats.

The attached, and supporting Biodiversity Net Gain Metric, identify that the changes to the Site will result in net loss in biodiversity.

The proposals will result in a loss in Habitat Units of 0.09 (equivalent to -70.81%).

The proposals will result in a gain in Hedgerow Units of 0.01 (equivalent to 51.96%).

Trading Rules

The trading rules within the DEFRA calculation tool have not therefore been satisfied with the proposed development plan for habitats.

The trading rules within the DEFRA calculation tool have therefore been satisfied with the proposed development plan for hedgerows.

Habitat Unit Loss Offsetting

The loss in habitat units will be offset by purchasing credits from reputable and local supplier such as the Environment Bank or Wild Solutions (part of Derbyshire Wildlife Trust). A total of 0.14 habitat units is required to meet the 10% requirement.

1. INTRODUCTION

This report has been prepared by Clayton Ecology Ltd on behalf of the client, Ellis Riley and Son Ltd. The report provides the results of a Biodiversity Net Gain Assessment of Quinton House, The Hill, Kirkby-in-Ashfield, NG17 8JR. The survey area is centred at Ordnance Survey grid reference, SK 49564 56226.

The proposal is for a two-storey rear extension and change of use of a care home to 10 bed HMO & two-storey side extension to form two flats.

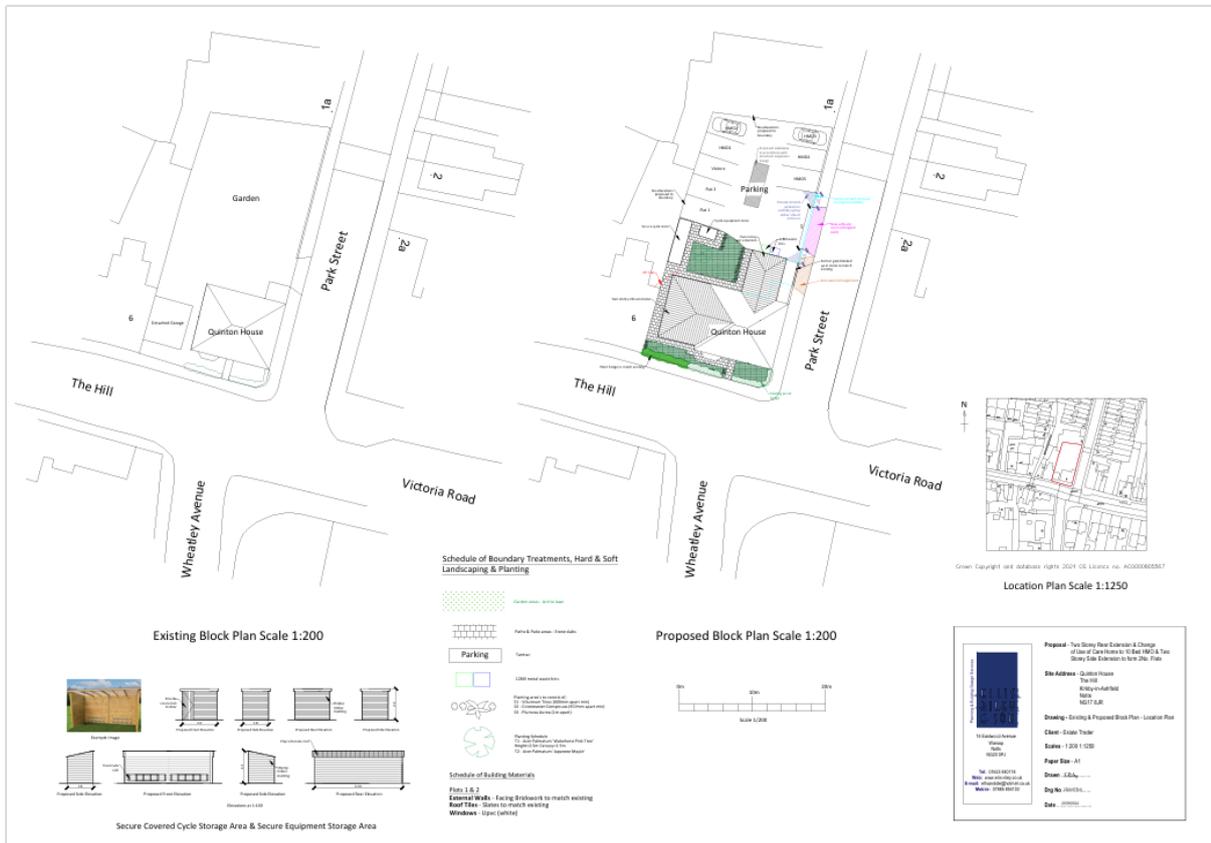


Figure 1: existing and proposed block plans from Ellis Riley and Son Ltd (2024)

The evidence is presented in the form of Statutory Biodiversity Metric calculations, based on assessments of the habitats on-site.

The location of the survey site in relation to wider environment is provided in Figure 2 below:



Figure 2: The Site (in red) and surrounding landscape. Aerial imagery courtesy of Google Maps 2024.

2. SURVEY METHODOLOGY

2.1 Biodiversity metric principles

Principle 1	The metric assessment should be completed by a competent person.
Principle 2	The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.
Principle 3	This biodiversity metric should be used in accordance with established good practice guidance and professional codes.
Principle 4	This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
Principle 5	Biodiversity units are a proxy for biodiversity and should be treated as relative values.
Principle 6	This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
Principle 7	Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
Principle 8	Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.
Principle 9	This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to: maintain habitat extent - supporting more, bigger, better and more joined up ecological networks ensure that proposed or retained habitat parcels are of sufficient size for ecological function.

Table 1: Principles taken from the Statutory Metric guidelines.

2.2 Desktop Study

A desktop study identifying designated wildlife sites within a 500-metre radius of the Site was undertaken through the government MAGIC website.

2.3 Habitat Condition Survey to inform BNG Calculations

To inform the Biodiversity Net Gain (BNG) Calculations, the habitat types and condition of the habitats on Site were assessed. This provided baseline information and allowed for the subsequent interpretation of the ecological value of the Site.

The broad habitat type 'Individual trees' has been used where a tree over 7 cm in diameter at breast height (DBH) does not meet or contribute towards the definition of

another habitat type. The tree sizes have been assessed using the Statutory Biodiversity Net Gain Metric guidelines (DEFRA 2024), as shown below in Table 1.

Size class	Diameter at breast height (cm)
Small	greater than 7cm and less than or equal to 30cm
Medium	greater than 30cm and less than or equal to 60cm
Large	greater than 60cm and less than or equal to 90cm
Very Large	greater than 90cm

Table 2: Tree size classes taken from Statutory BNG Metric guidelines.

2.4 BNG Calculations

The latest version of the Statutory Metric (DEFRA, 2024) has been used to calculate the baseline value of the site (before development) and the post-development value in order to calculate the Total Net Unit Change.

2.5 Survey constraints

The survey was undertaken outside of the optimal period for habitat surveys (April to October). Given the nature of the habitats present, it is considered that the botanical information collected was sufficient for categorising habitats and identifying potential features of value.

2.6 Personnel

The survey on 4th December 2024 was carried out by Kayleigh Woodhouse BSc (Hons) MSc, assisted by Maiya Evans. Kayleigh has experience in habitat survey and condition assessments for biodiversity net gain and is appropriately qualified for the survey.

2.7 National Policy

The Environment Act 2021

This legislation and the requirement for mandatory biodiversity net gain of new developments came into force on the 12th of February 2024. As such, all developments (aside from those exempt) are required to demonstrate a 10% biodiversity net gain.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) (2023) guides Local Planning Authorities (LPAs) when developing their planning policies and considering planning applications affecting protected habitats, sites and species.

Planning Policy Statement 15: Conserving and enhancing the natural environment of the NPPF recognises that, planning policies and decisions should contribute to and enhance the natural and local environment. Section D of Paragraph 180 states:

“Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; In respect of the natural environment.”

Section B of Paragraph 185 states:

“Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity”.

Section D of Paragraph 186 also states:

“Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate”.

2.8 Local Policy

Ashfield District Council is the local authority. The Green Infrastructure and Biodiversity Strategy 2022-2032 (Ashfield District Council 2022) and Nottinghamshire Biodiversity Action Plan (Nottinghamshire Biodiversity Action Group 1998) were therefore used to understand the local biodiversity targets.

3. SURVEY RESULTS



Figure 3: The baseline assessment of the area impacted.

3.1 Desktop Study

A search of the Magic Map application identified no Statutory Designated Sites (Sites of Special Scientific Interest, Special Areas of Conservation, National Nature Reserves or Local Nature Reserves) within 500m of the Site.

3.2 On-site Habitats

The survey area is generally rectangular in shape and approximately 0.068 hectares in size. Habitat types present included Developed Land; Sealed Surface and Vegetated Garden. A number of young trees were present on-site but only two met the criteria to be classed as 'Individual Trees' (over 7cm DBH). Two lengths of Non-native and Ornamental Hedgerow were present on the southern Site boundary. Victoria Road (B6020) borders the Site to the south and residential infrastructure borders the Site in all other directions.

3.2.1 Developed Land; Sealed Surface – u1b (Map indicator 1)

The southern portion of the Site consisted of Developed Land; Sealed Surface. This included the area under the main building and garage and the paved areas of the front and back gardens.

Condition assessment: N/A





Photographs 1 & 2: Areas of Developed Land; Sealed Surface.

3.2.2 Vegetated Garden – 828 (Map indicator 2)

The northern portion of the Site consisted of Vegetated Garden, dominated by Springy Turf Moss (*Rhytidiadelphus squarrosus*). Other species present included Cock's-foot (*Dactylus glomerata*), *Festuca* sp., Dandelion (*Taraxacum* sp.), Daisy (*Bellis perennis*), Mouse-ear Hawkweed (*Pilosella officinarum*), Red Clover (*Trifolium pratense*), Selfheal (*Prunella vulgaris*), Bramble (*Rubus fruticosus*), *Geranium* sp., *Vicia* sp., Rhododendron (*Rhododendron ponticum*), Garden Privet (*Ligustrum ovalifolium*), Variegated Privet, Variegated Ivy, young conifers and a young Ash (*Fraxinus excelsior*).



Photographs 3 & 4: Area of Vegetated Garden

3.2.3 Individual Trees

Two of the trees on-site were large enough to be classified as Individual Trees.

Tree No.	Species	Size Class	Condition
T1	Unknown	Small	Moderate
T2	Sycamore	Small	Moderate

Table 3: Table showing the individual trees within the Site boundary.

Condition assessment:

Condition Assessment Criteria		Condition Achieved (Y/N)	
		T1	T2
A	The tree is a native species (or at least 70% within the block are native species).	N	Y
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).	Y	Y
C	The tree is mature (or more than 50% within the block are mature) ¹ .	N	N
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.	Y	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	N
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	y	N
Number of criteria passed		3	3
Condition Assessment Result		Moderate	Moderate

Table 4: Condition sheet for individual trees from Statutory Metric Condition Assessment 2024.

3.3 Baseline On-Site Habitat Units

Map ref	Baseline Habitat	Condition assessment	Area (ha)	Habitat Units (HBU)
1.	Developed land; sealed surface	N/A	0.0358	0
2.	Vegetated garden	N/A	0.0322	0.06
/	Individual trees	2 x small, moderate condition	0.0081	0.07
Totals (excluding trees)			0.068	0.06
Totals			0.0761	0.13

Table 5: Baseline values of the on-site habitats.

3.4 Baseline On-site Hedgerows

Two sections of Non-native and Ornamental Hedgerow were present along the southern Site boundary (see Photograph 1). The hedgerows were dominated by Garden Privet (*Ligustrum ovalifolium*) with some Ivy (*Hedera helix*) interspersed.

Condition assessment: Poor

Map ref	Baseline Hedgerow	Condition assessment	Length (m)	Hedgerow Units
/	Non-native and ornamental hedgerow	Poor	13	0.01

Table 6: Baseline values of the on-site hedgerow.

4. PROPOSED DESIGN



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Figure 4: The proposals for the site.

4.1 On-site Habitat Creation

4.1.1 Developed land, sealed surface (Map indicator 1)

The area of Developed Land; Sealed Surface is to be expanded from 358m² to 605m².

Minimum Targeted Condition: N/A

4.1.2 Vegetated Garden (Map indicator 2)

Most of the Vegetated Garden will be converted to sealed surface as part of the development. A small portion (38m²) is to be retained at the rear of the property. Two small areas of Vegetated Garden are also to be created at the front of the property.

Minimum Targeted Condition: N/A

4.1.3 Individual Trees

2 individual small trees (non-native) will be planted as part of the development.

Minimum Targeted Condition: Poor

4.2 Proposed Total On-Site Habitat Units

Map ref	Proposed Habitat	Area retention category	Proposed assessment	Condition	Area (ha)	Habitat Units (HBU)
1.	Developed land; sealed surface	Retained and created	N/A		0.0605	0
2.	Vegetated garden	Retained	N/A		0.0075	0.02
/	Individual trees	Created	Poor		0.0081	0.02
Totals (excluding trees)					0.068	0.02
Totals					0.0761	0.04

Table 7: The proposed values of the created/retained on-site habitats.

4.3 Proposed Total On-Site Hedgerow Units

The non-native hedgerow along the southern Site boundary is to be increased in length from 13m to 20m as part of the proposals.

Minimum Targeted Condition: Poor

Proposed Hedgerow	Area retention category	and	Proposed condition assessment	Length (m)	Hedgerow Units
Non-native and ornamental hedgerow	Retained and created		Poor	20	0.02

Table 8: Proposed values of the retained and created hedgerows.

5. BIODIVERSITY NET GAIN RESULTS

5.1 Habitats

In the absence of mitigation and compensation the development would result in a Total Net Habitat Unit Change of 0.09 (negative, equivalent to -70.81%).

5.2 Hedgerows

The development would result in a Total Net Hedgerow Unit Change of 0.01 (positive, equivalent to 51.96%).

5.3 Trading Rules

The trading rules within the DEFRA calculation tool have therefore not been satisfied with the proposed development plan for habitats.

The trading rules within the DEFRA calculation tool have therefore been satisfied with the proposed development plan for hedgerows.

5.4 Habitat Unit Offsetting

The loss in habitat units will be offset by purchasing credits from reputable and local supplier such as the Environment Bank or Wild Solutions (part of Derbyshire Wildlife Trust). A total of 0.14 habitat units is required to meet the 10% requirement.

Please see the excel document for full calculation details labelled:

**V1_ Quinton House- The_Statutory_Biodiversity_Metric_Calculation_Tool_-
_Macro_enabled_tool_23.07.2024**

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