

BRITISH STANDARD 5837

TREE SURVEYS ARBORICULTURAL IMPLICATION STUDIES

TPO/PLANNING ADVICE/ PROJECT MANAGEMENT

TREE INVENTORIES AND RISK ASSESSMENTS

WOODLAND MANAGEMENT PLANS

TREE PLANTING SCHEMES

TPO RE-SURVEY



31 - 33 Lancaster Avenue,
Whiston

Biodiversity Net Gain Summary

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Authored by Richard Roe BSc MSc MCIEEM CEnv



Mulberry

Adamson House, Towers Business Park, Wilmslow Road, Didsbury, M20 2YY

T 0161 955 3628

F 0161 955 4201

E info@mulberrytmc.co.uk

www.mulberrytmc.co.uk

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1 Introduction

1.1 Background

Kingdom Ecology have undertaken a Biodiversity Net Gain Assessment of comprises a strip of land located between 31 and 33 Lancaster Avenue, Whiston, Halton (National Grid Reference SJ46839130). The proposed works include the construction of a new dwelling with associated vegetated garden and parking.

The assessment has been carried out to identify any ecological constraints which should be considered during proposed works and to allow an assessment as to whether the development will deliver a biodiversity net gain.

Field surveys were undertaken by Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking habitat and protected species surveys as a professional ecological consultant with over twenty years' experience. Richard holds a Level 4 FISC.

1.2 Purpose of Report

This report provides the findings of field surveys undertaken at the site. The field surveys comprised of an ecological walkover survey with a search for habitats that could support any protected or notable species.

Following a description of the survey findings and an evaluation of habitats at the site, the report goes on to make recommendations for further works, mitigation and ecological enhancement measures where relevant.

A Biodiversity Metric Assessment for the site pre- and post-development has been carried out to determine whether the development will achieve a biodiversity net gain.

2 Field Survey Methods

2.1 Survey Aims and Objectives

The survey aim was to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Survey comprised of an ecological walkover survey of the site, this included an assessment of habitats in terms of their suitability to support any protected species including breeding birds.

Species that are considered unlikely to be significantly affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment.

2.2 Survey Methods

2.2.1 Ecological Walkover Survey

An Ecological Walkover of the site was undertaken on the on the 30th July 2024 .

The aims of the walkover survey were to:

- identify areas or habitats that are of particular ecological interest for nature conservation and which require more detailed investigation;
- provide a broad botanical description of habitats present;
- provide additional information regarding incidental observations of protected species or non-native, invasive species;
- to assess the site as to its ecological importance by assessing the value of habitats and their suitability to support any protected or notable species (including badgers, bats and breeding birds).

A map of the study site is shown in Figure 1. Typical habitats recorded at the site are also shown in photographs in the Appendix.

3 Survey Results

3.1 Site Description

The site comprises a strip of land located between two residential properties on Lancaster Avenue, Whiston, Halton. Surrounding land use comprises principally of residential housing, however there are parks with associated pockets of woodland and parkland located approximately 50m southwest of the site.

The proposed development area consists of patches of vinyl sheeting over bare ground and concrete, interspersed with patches of tall herb vegetation. Vines of hedge bindweed spread over the tops of the plastic sheeting. The proposed development involves the construction of a new dwelling, along with an associated vegetated garden and car park.

The tall herbs patches primarily consist of common nettle and hedge bindweed, plus occasional broad-leaved dock, mugwort, and ground elder. Additionally, a small greenhouse constructed from plastic sheeting is located at the northern end of the site, adjacent to a garage. This structure will not be affected by the works. A small wooden shed is situated at the southern boundary of the site. The boundaries of the site are marked by a mix of fences, including wood panel, corrugated tin, and prefabricated concrete panels.

With regards to the UKHab classification, habitats at the site comprise mostly of 'artificial, unvegetated, unsealed surface'. The strips of tall vegetation comprise of 'tall forbs' which was assessed as being in a 'poor' condition, according to the condition assessment criteria

Development proposals are very unlikely to affect any protected species including nesting birds.

Existing habitats are shown in photographs and are mapped in Figure 1 in the Appendix.

4 Summary & Recommendations

4.1 Habitats

4.1.1 Summary and Recommendations

An Ecology Walkover Survey and Biodiversity Net Gain Assessment has been undertaken of a strip of land between 31 and 33 Lancaster Avenue, Whiston, Halton

Habitats at the site are highly modified comprising principally of artificial, unsealed surfaces and patches of tall forbs.

Proposed development works include the construction of a new dwelling. The extent of the proposed development area is shown on Figure 2 in the Appendix.

Recommendations to enhance the biodiversity value of the proposed development are provided in section 4.2.

4.2 Recommendations

4.2.1 Plants for Pollinators and Birds

The development proposals should also aim to maximise the biodiversity of landscaping proposals at the site.

It is recommended that new planting includes species which can provide nectar sources for insects and berries/fruits for invertebrates and birds. It is recommended that 1 x native tree be provided at the site within the rear garden.

The following small/medium sized tree species are recommended as they offer suitable foraging opportunities to various native wildlife (including birds and invertebrates): rowan, wild cherry, crab apple, silver birch, holly, and willow.

5 Biodiversity Metric Calculation

5.1.1 Biodiversity Metric Calculation Results

The relative biodiversity units at the site before and after the completion of development proposals, have been calculated following methodologies and using tools provided within DEFRA's Statutory Biodiversity Metric Calculator (DEFRA July 2024).

Summary tables of the calculations are provided in the Appendix. The full Biodiversity Metric Calculation Tool Spreadsheet for the site has also been submitted to the Council.

The baseline biodiversity units (i.e. the site's pre-development condition) has been calculated at 0.01 Habitat Units and zero hedgerow units.

The on-site biodiversity units after the completion of development has been calculated at 0.02 habitat units.

The development will therefore result in a net gain of 0.01 habitat units representing a 109.8% net percentage biodiversity gain of habitat units.

The development will therefore meet the required 10% biodiversity net gain uplift.

6 Appendix

31 - 33 Lancaster Avenue, Whiston
Habitat and BNG Assessment

Biodiversity Net Gain Summary Results Table

On-site baseline	Habitat units	0.01	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.02	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	0.01	109.08%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.01	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.01	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	109.08%	
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

***31 - 33 Lancaster Avenue, Whiston
Habitat and BNG Assessment***

PHOTOGRAPHS

Photograph 1- Aerial view of the site.



Photograph 2-View of site looking south

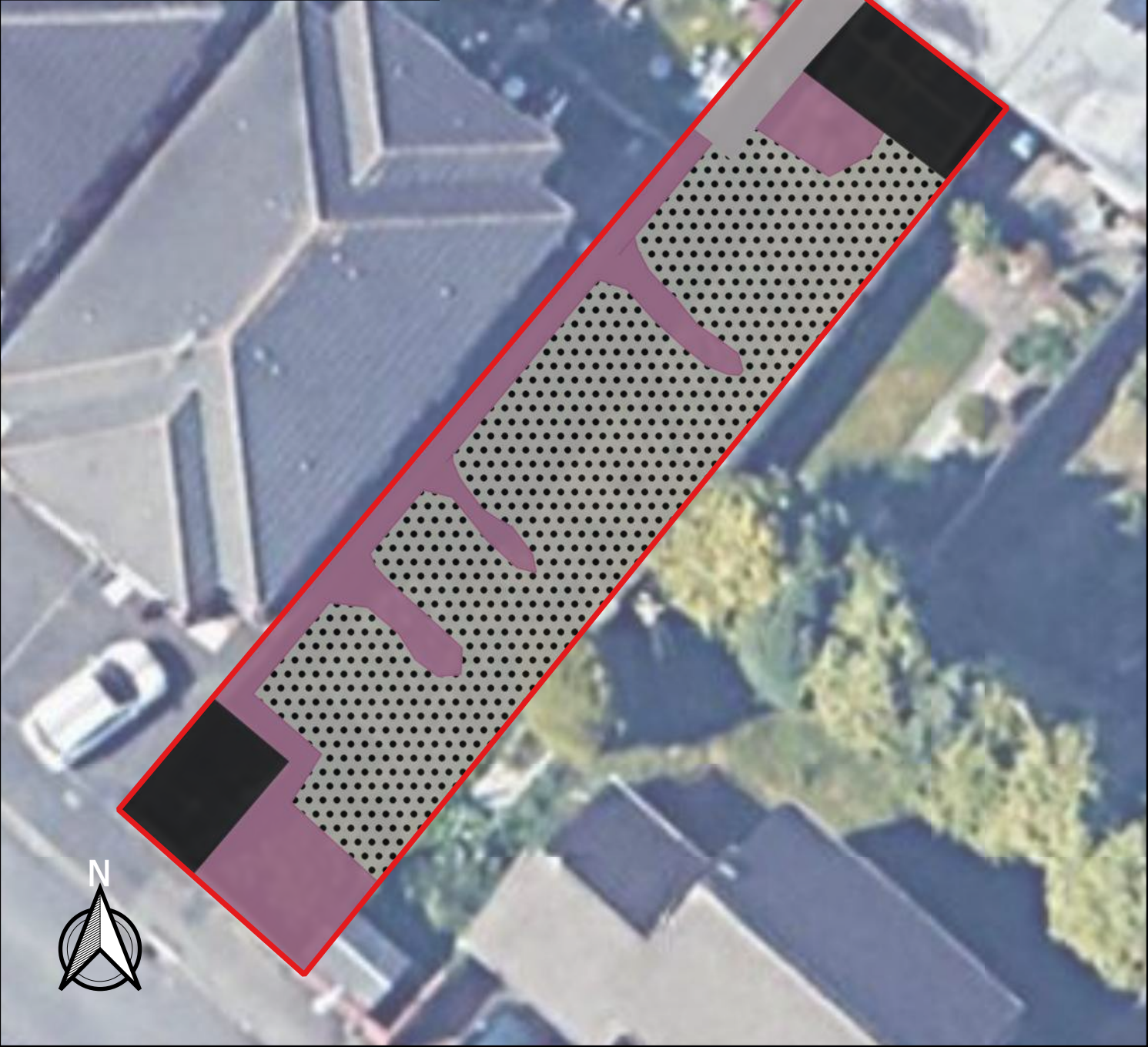


***31 - 33 Lancaster Avenue, Whiston
Habitat and BNG Assessment***

Photograph 3- Small shed at the south west corner of the site



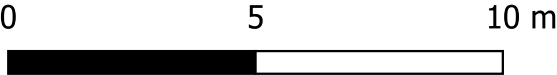
FIGURE 1 - Baseline Habitats



Map data ©2024 Google

KEY

-  Red Line Boundary
-  Developed/Sealed Surface
-  Buildings
-  Unvegetated, artificial, unsealed
-  Tall Forbs



Map data ©2024 Google

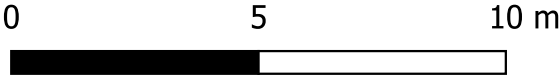
FIGURE 2 - Proposed Habitats



Map data ©2024 Google

KEY

-  Red Line Boundary
-  Vegetated Garden
-  Developed/Sealed Surface
-  Buildings



Map data ©2024 Google

Condition Sheet: URBAN Habitat Type			
Habitat Types			
Sparsely vegetated land - Ruderal/Ephemeral Sparsely vegetated land - Tall forbs Urban - Allotments Urban - Biodiverse green roof Urban - Bioswale Urban - Cemeteries and churchyards Urban - Facade-bound green wall Urban - Ground based green wall Urban - Intensive green roof Urban - Open mosaic habitats on previously developed land Urban - Rain garden Urban - Sustainable drainage system (SuDS) Urban - Vacant or derelict land Urban - Bare ground			
Habitat Description			
See the Statutory Biodiversity Metric User Guide for green roofs and UK Habitat Classification (UKHab) for other habitats:			UKHab – UK Habitat Classification
On-site or off-site, site name and location	Lancaster Avenue	Survey date and Surveyor name	R Roe
Limitations (if applicable)		Survey reference (if relating to a wider survey)	
Grid reference		Habitat parcel reference	
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types :			
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 ¹) and others which are to the detriment of native wildlife (using professional judgement) ² cover less than 5% of the total vegetated area ³ . Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	
Additional Criterion - must be assessed for Open mosaic habitat on previously developed land only:			
D	The parcel shows spatial variation and forms a mosaic of bare substrate PLUS: - At least four early successional communities (a) to (i); Communities: (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland, (i) pools.		
Additional Criteria - must be assessed for Bioswale and SuDS habitat types only:			
E1	Plant species are mostly native. If non-native species are present, they should not be detrimental to the habitat or native wildlife ⁴ .		
E2	The vegetation is comprised of plant species suited to wetland or riparian situations.		
Additional Criterion - must be assessed for Intensive green roofs only:			

F	The roof has a minimum of 50% native and non-native wildflowers. 70% of the roof area is soil and vegetation (including water features).		
Additional Criterion - must be assessed for Biodiverse green roofs only:			
G	The roof has a varied depth of 80 – 150 mm; at least 50% is at 150 mm and is planted and seeded with wildflowers and sedums or is pre-prepared with sedums and wildflowers. Note – to achieve Good condition some additional habitat, such as sand piles, stones, logs etc. are present.		
Essential criteria relevant for habitat type achieved (Yes or No)			
Number of criteria passed			
Condition Assessment Result		Condition Assessment Score	Score Achieved x/√
Results for habitats requiring assessment of 3 core criteria only (all listed urban habitats except Open mosaic habitat on previously developed land, Bioswale, SuDS and Green roofs):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C.		Good (3)	
• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
• Passes 0 or 1 of 3 core criteria.		Poor (1)	X
Results for Green roofs and Open mosaic habitat on previously developed land (requiring assessment of 4 criteria only - core criteria plus additional criterion specified for habitat type):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes additional criterion relevant to specific habitat type (D, F or G).		Good (3)	
• Passes 2 or 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
• Passes 0 or 1 of 4 criteria.		Poor (1)	
Results for Bioswale or SuDS (requiring assessment of 5 criteria - core criteria plus additional criteria specified for habitat type):			
• Passes all 3 core criteria; AND • Meets the requirements for Good condition within criterion C; AND • Passes all additional criteria relevant to specific habitat type (Group E)		Good (3)	
• Passes 3 or 4 of 5 criteria; OR • Passes 5 of 5 criteria but does not meet the requirements for Good condition within criterion C.		Moderate (2)	
• Passes 2 or fewer of 5 criteria.		Poor (1)	
Suggested enhancement interventions to improve condition score			
Footnotes			