

Biodiversity Net Gain Assessment

Site Address:

Land at 158 Cheetham Hill Road, Manchester, Greater Manchester, M8 8LQ

Client:

Mohammad Tahir

Assessment Date:

23rd March 2026

Project:

This report is prepared to inform a planning application with Manchester City Council. This proposal can be described as: a proposed exhibition centre

BNG assessment methodology and legislation can be found in the Arbtech Supplement: [BNG Methodology and Legislation – 2026](#).

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	Lizzie Hill BSc (Hons) MSc, Graduate Ecologist	23/03/2026
Review	0.2	Leo Plevin BSc (Hons), MSc, MCIEEM Technical Manager (Ecology)	24/03/2026
Final	1.0	Lizzie Hill BSc (Hons) MSc, Graduate Ecologist	24/03/2026

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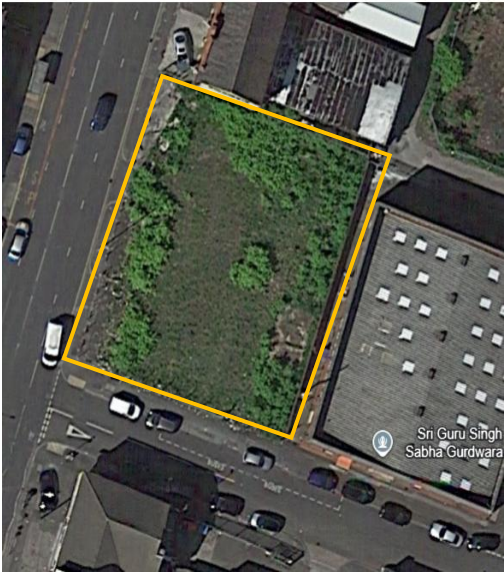
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Site Location and Context
A baseline habitat map is provided in Appendix 1, a post development habitat map in Appendix 2, a proposed development plan in Appendix 3, headline BNG results in Appendix 4, and condition assessments in Appendix 5. The site is centred at National Grid Reference SJ 84258 99777 and has an area of approximately 0.11ha. The development site comprises ruderal/ephemeral sparsely vegetated urban land which has been previously cleared, surrounded by palisade fencing. The site is situated in the inner-city area of Cheetham Hill, Manchester ~1km north of Manchester city centre. The immediate and wider landscape has an urban character, with the site surrounded by buildings, roads and tarmac hardstanding. There are various greenspaces nearby such as Cheetham Park ~550m northwest but there is no direct connectivity to the site. There is a railway line ~550m south. The River Irwell is situated ~900m southwest and the River Irk ~420m southeast. There are 3 priority habitats located within 2 km of the site. These comprise deciduous woodland, traditional orchard and wood pasture and parkland. The closest priority habitat comprises deciduous woodland, located ~470m east of the site. Due to the surrounding urban infrastructure, there is no direct connectivity between the site and nearby notable habitats. This report should be read in conjunction with the following documents: ❖ Statutory BNG Metric - Land at 158 Cheetham Hill, M8 8LQ – v1 (Arbtech Consulting Ltd., 2026) ❖ Proposed Plan (Muse Architects, 2026) ❖ Green Roof Plan (Muse Architects, 2026) ❖ Rear Green Wall Elevation Plan (Muse Architects, 2026) ❖ Preliminary Ecological Appraisal (PEA) – Land at 158 Cheetham Hill, M8 8LQ – v1 (Arbtech Consulting Ltd., 2026)
Executive Summary
❖ The current landscaping proposal generates a net gain of area-based habitat units (+40.59%). As such, the proposed development is compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024; Greater Manchester Local Nature Recovery Strategy, 2025) as a minimum biodiversity net gain of +10% was achieved for area-based habitat units. ❖ All trading conditions have been satisfied. ❖ 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.

Introduction

BNG Informative	
Habitat Degradation Statement	Date reflected by BNG calculations14th May 2019 The baseline biodiversity value of the site is not derived from the site as observed during the PEA field survey (Arbtech Consulting Ltd., 2026) as evidence of habitat degradation had occurred. Therefore, the baseline biodiversity value of the site is derived from assumptions inferred from historic satellite imagery (i.e. GoogleEarth) and Google Street View (2025). Although degradation has occurred via extensive vegetation clearance, the habitat classification and condition remain the same.
	Historical imagery < 14 May 2019 >  Historical imagery < 6 Mar 2025 > 
	Irreplaceable Habitat Statement No irreplaceable habitats as listed under the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations (2024) are currently present nor were present before 30th 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 3 rd July 2025.		
BNG Target Uplift	+10%		
National Character Area (NCA)	55 - Manchester Conurbation		
Strategic Significance	Greater Manchester Local Nature Recovery Strategy - https://www.greatermanchester-ca.gov.uk/media/2bpiowl5/27766_gmca-local-nature-recovery-strategy_v15.pdf		
	Habitat	Baseline / Post-Development	Justification
	Sparsely vegetated land – ruderal/ephemeral [u1f-81]	Low	Habitat not in Local Nature Recovery Strategy.
Limitations			
The site has been cleared from what it was in previous years however, this is not considered a significant constraint as the habitat type and condition match what was previously cleared.			

Baseline

Baseline Biodiversity Value: On-Site				
Area-Based Habitats (A-1)				
Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Sparsely vegetated land – ruderal/ephemeral [u1f-81]	0.1108ha	The site comprises sparsely vegetated urban land - ruderal/ephemeral. The site has been previously cleared, with areas of hardstanding visible and has vegetation cover <75%, with moss cover present on exposed rubble/soil. Japanese knotweed is present and covers >5%.	Poor: passes 1 of 3 criteria, fails essential criterion C. Assessed using the ‘urban – sparsely vegetated land – ruderal/ephemeral’ habitat type condition sheet.	Low Strategic Significance

Post-Development

Post-Development Biodiversity Value: On-Site

Area-Based Habitats

	Habitat	Area (ha)	Description	Condition Assessment	Strategic Significance
Created (A-2)	Developed land; sealed surface	0.03033	Proposed exhibition centre.	Habitat condition pre-determined as ' N/A ' as detailed within the Statutory Biodiversity Condition Assessment Supplement.	Low
	Developed land; sealed surface	0.01299	Hardstanding in areas without landscaping.		
	Ground level planters	0.00517	Landscaped planter areas at ground floor level.		
	Other green roof	0.05269	Green roof to be provisioned atop the new building.		
	Vegetated garden	0.00932	Landscaping around perimeter.		
	Façade-bound green wall	0.026	Green wall to be provisioned along the rear (east) elevation wall.	Poor: anticipated to pass 1 of 3 criteria. Assessed using the 'urban – green wall' habitat type condition sheet.	
	Urban tree	0.0529	13no. created urban trees planted at a DBH of less than 30cm (small sized tree).	Poor: anticipated to pass 1 of 6 criteria. Assessed using the 'Individual Trees' habitat type condition sheet.	

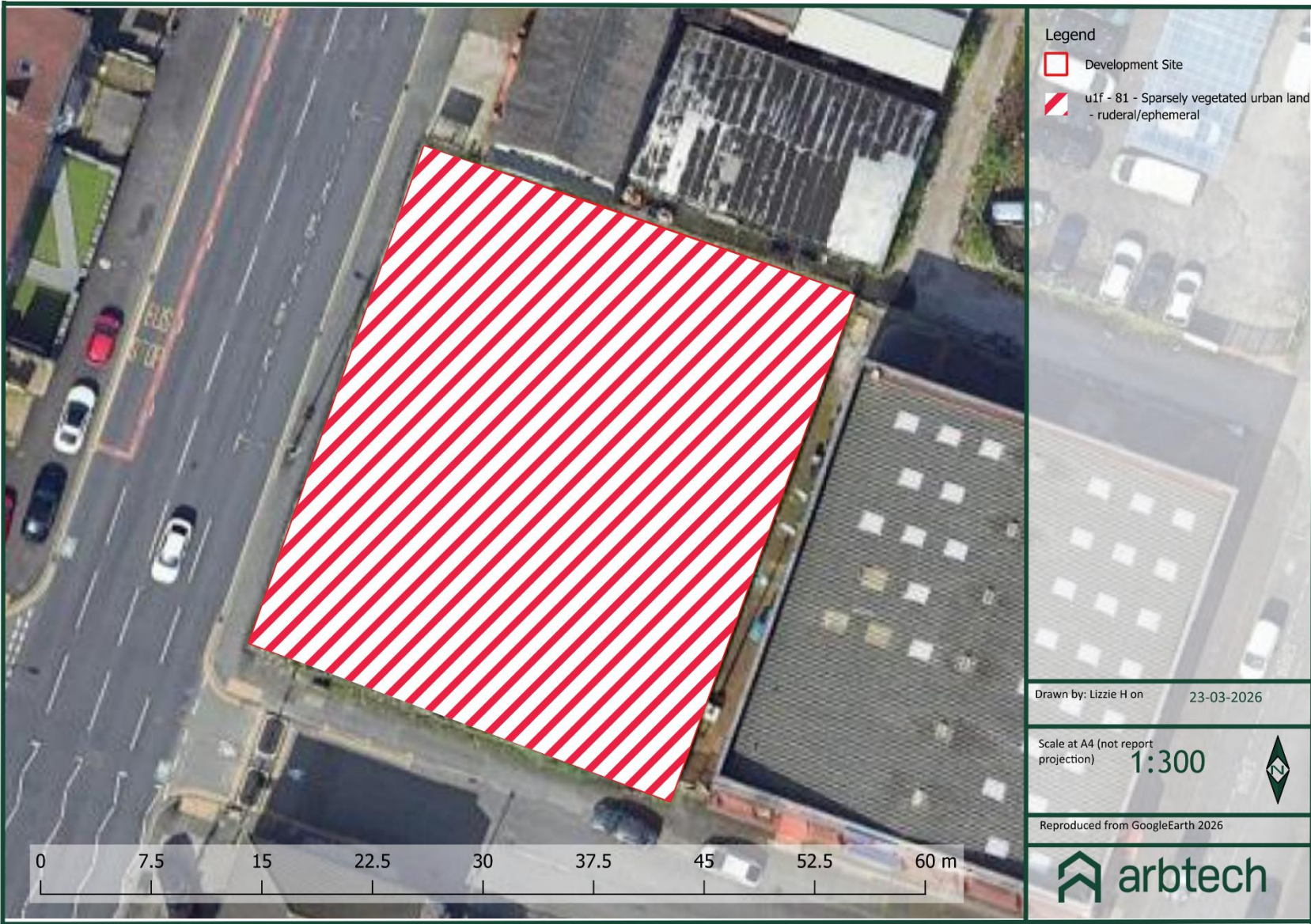
Change of Biodiversity Value

		Biodiversity Units		
		Area-Based	Linear-Based	Watercourse-Based
On-Site	Baseline	0.22 ❖ Sparsely vegetated land – ruderal/ephemeral (0.22)	N/A	N/A
	Post-Development	0.31 ❖ Developed land; sealed surface (0.00) ❖ Developed land; sealed surface (0.00) ❖ Ground level planters (0.01) ❖ Other green roof (0.10) ❖ Vegetated garden (0.02) ❖ Façade-bound green wall (0.03) ❖ 13no. small sized urban trees of poor condition (0.15)		
	Overall Net Change	+0.09 (40.59%)		

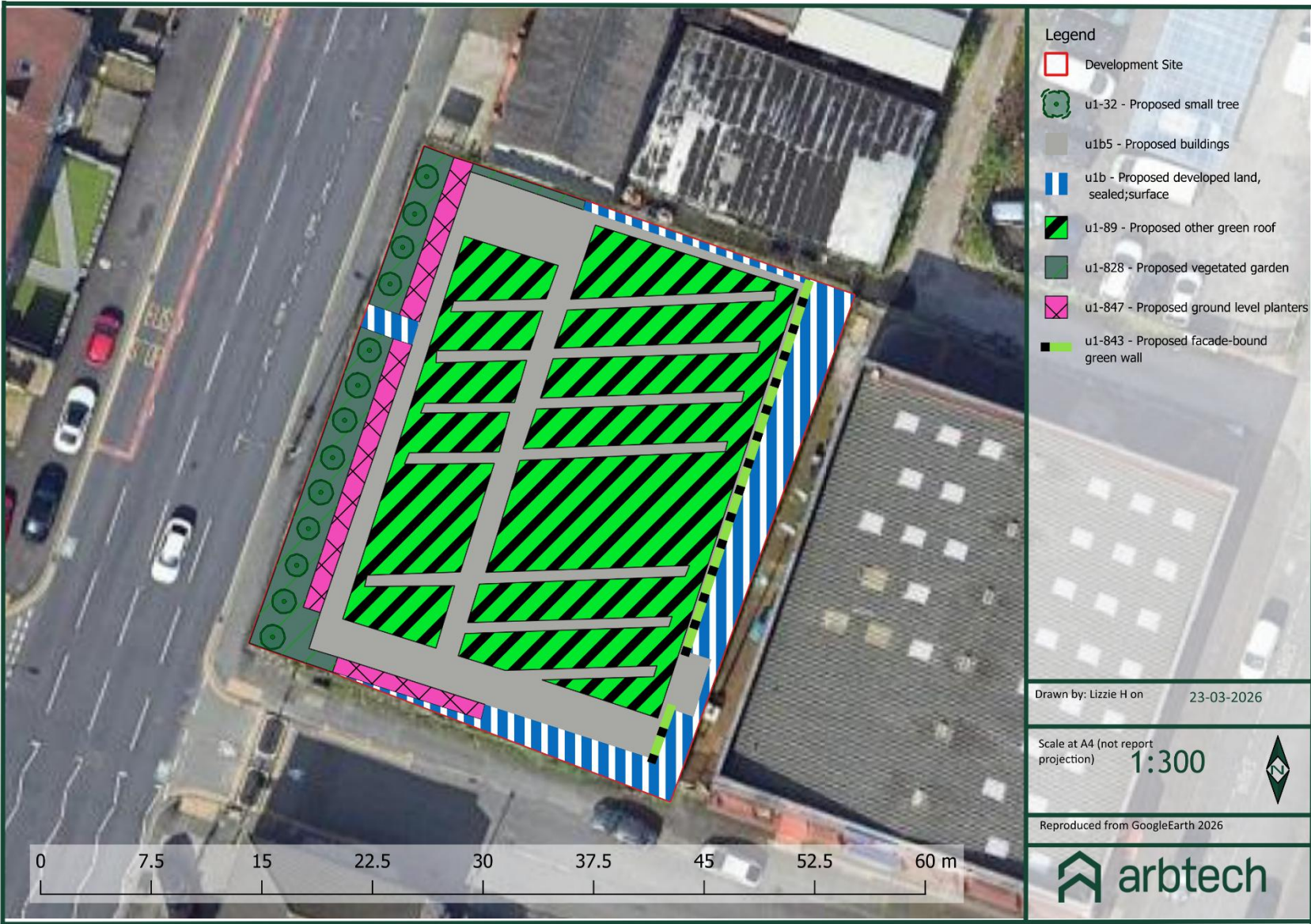
Results, Discussion, and Next Steps

BNG Informative	
Results and Next Steps	The current landscaping proposal generates a net gain of area-based habitat units (+40.59%). As such, the proposed development is compliant with current legislation (Environment Act 2021) and planning policies (National Planning Policy Framework, 2024; Greater Manchester Local Nature Recovery Strategy, 2025) as a minimum biodiversity net gain of +10% was achieved for area-based habitat units. All trading conditions have been satisfied. 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.
BNG Mitigation Hierarchy	
Avoidance	All habitat is required to be lost to facilitate the development.
Minimisation	
Mitigation	Various urban greening measures have been incorporated, comprising a green roof, a green wall on the rear elevation of the proposed building, ground level planters, as well as urban trees. Evident by the significant uplift in biodiversity value, such provisions more than compensate for the loss of the sparsely vegetated land on site and elevates the site’s biodiversity value for insects and in turn birds and bats.
Offset	Net gain has been achieved on site and as such no offset is anticipated.

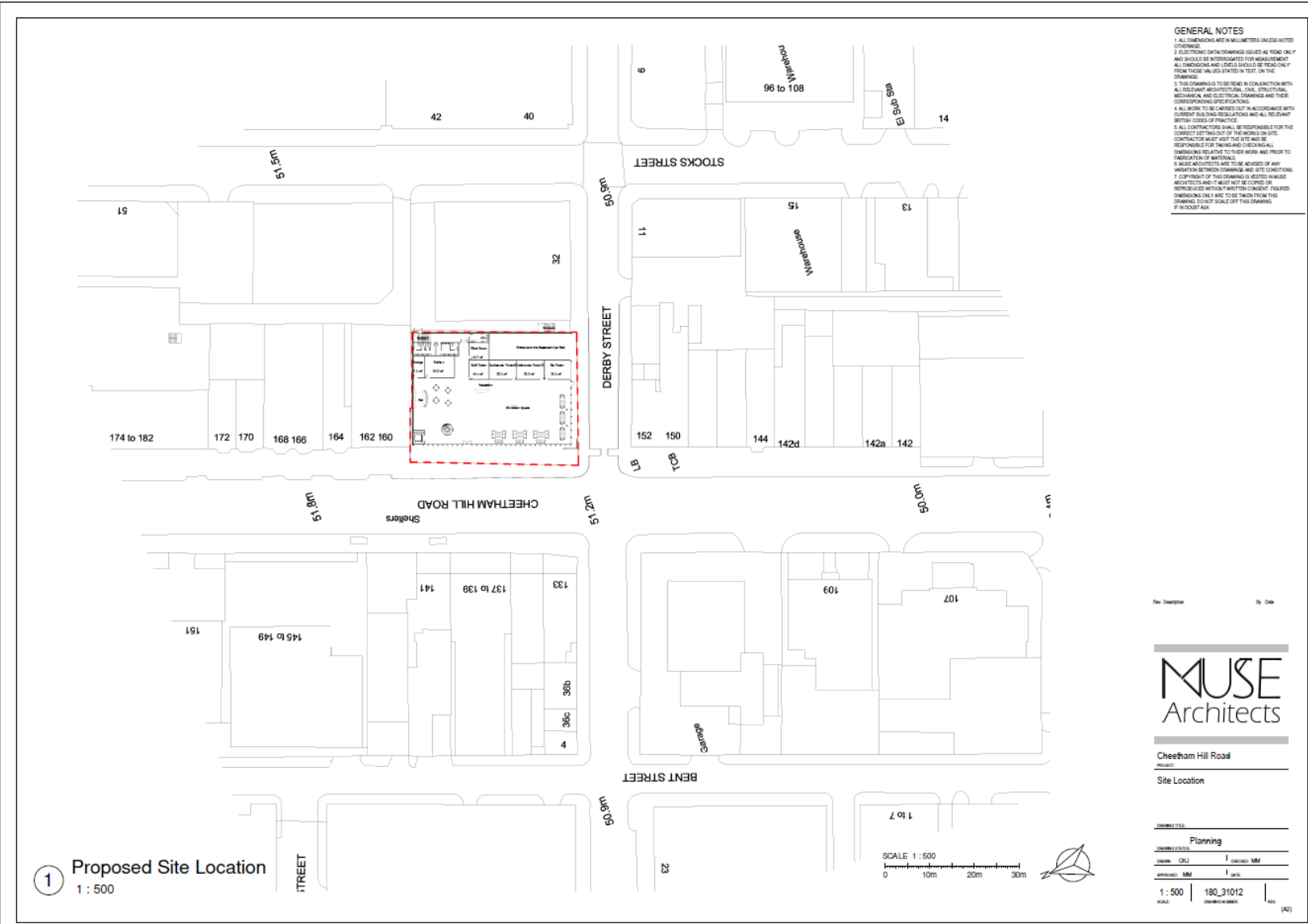
Appendix 1: Baseline Habitat Plan

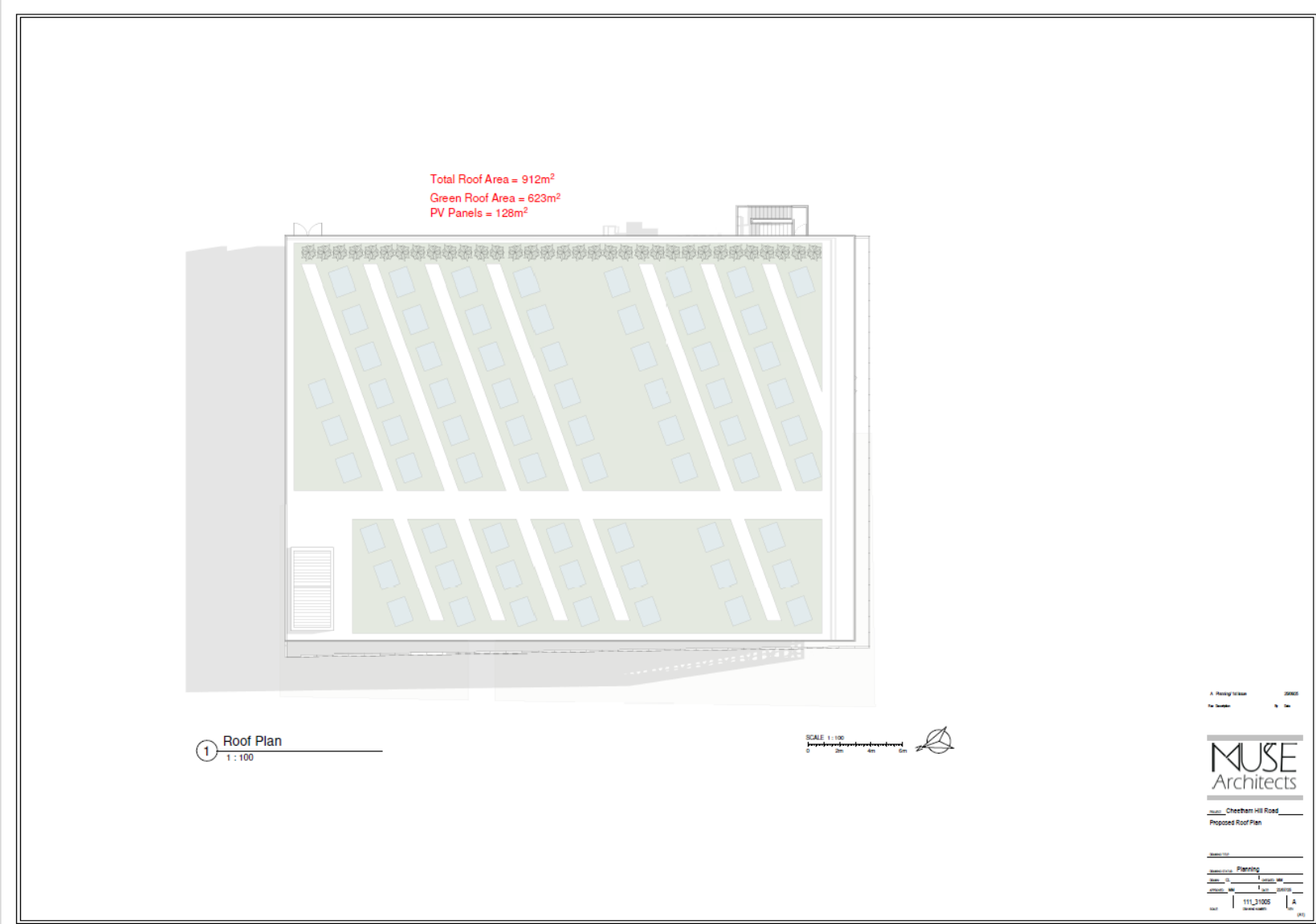


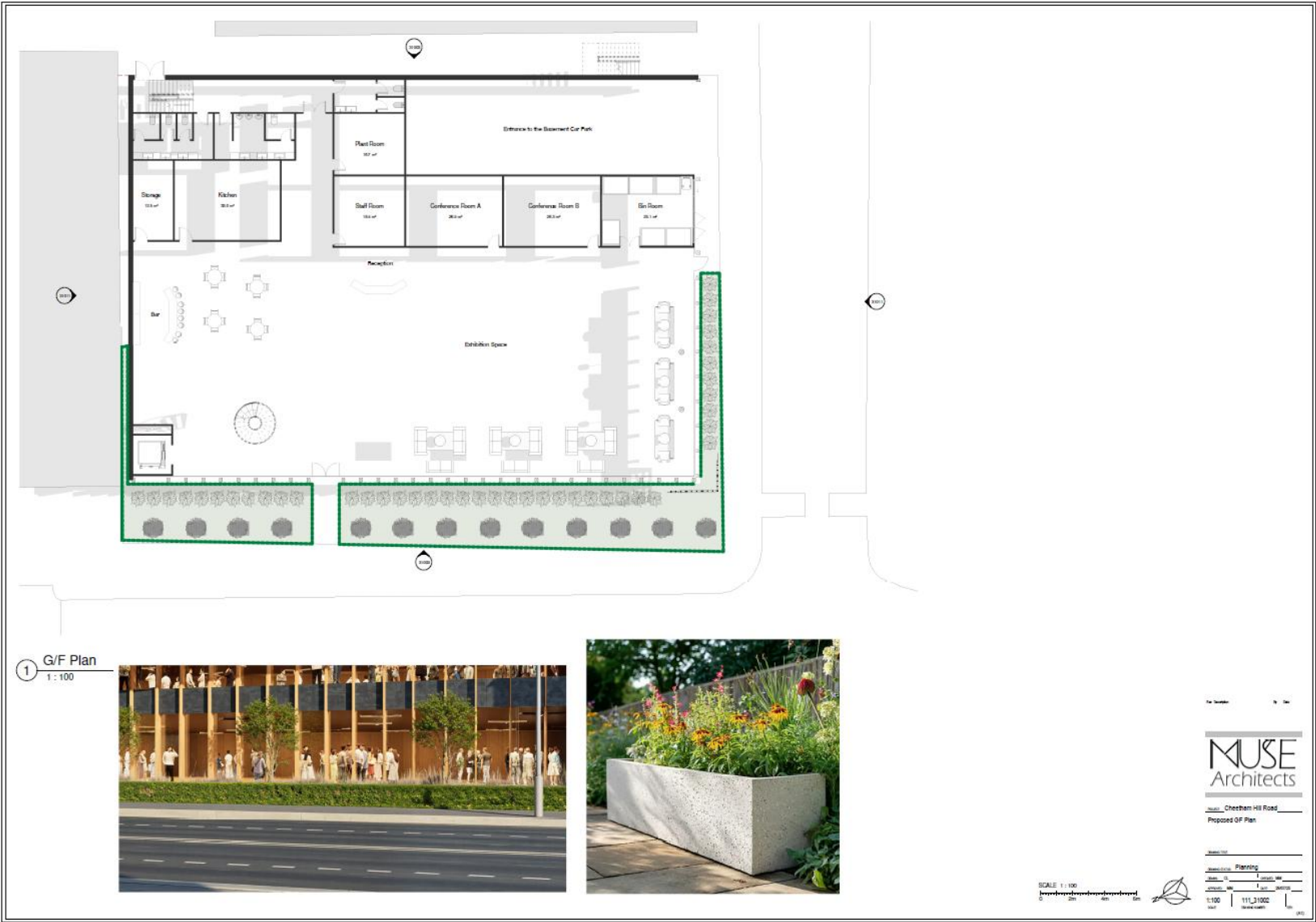
Appendix 2: Post-Development Habitat Plan



Appendix 3: Proposed Development Plans







Appendix 4: Headline BNG Results

On-site baseline	Area habitat units	0.22	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.31	
	Hedgerow units	0.00	
	Watercourse units	0.00	
On-site net change (units & percentage)	Area habitat units	0.09	40.53%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Off-site baseline	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Area habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Area 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)	Area habitat units	0.09	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Area 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)	Area habitat units	0.09	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Area habitat units	40.53%	
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

Appendix 5a: Baseline Habitat Condition Assessment Sheets

Sparsely vegetated land – ruderal/ephemeral

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes/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.	N	No varied vegetation structure.
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.	Y	Different plant species present.
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. Note – to achieve good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	N	Extensive Japanese knotweed re-growth >5% of total vegetated area.
Essential criteria relevant for habitat type achieved (Yes or No)			N
Number of criteria passed			1
Condition Assessment Result		Condition Assessment Score	Score Achieved ✓
Results for habitats requiring assessment of 3 core criteria only:			
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)	✓

Appendix 5b: Post-Development Habitat Condition Assessment Sheets

Façade-bound green wall; assessed using 'Urban – green wall' habitat type condition sheet:

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes/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.	N	No varied vegetation structure expected.
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.	N	Green wall not assumed to contain different plant species.
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. Note – to achieve good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Y	Green wall will not contain invasive non-native plant species.
Essential criteria relevant for habitat type achieved (Yes or No)			Y
Number of criteria passed			1
Condition Assessment Result		Condition Assessment Score	Score Achieved ✓
Results for habitats requiring assessment of 3 core criteria only:			
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)	✓

Urban Trees; assessed using 'Individual Trees' habitat type condition sheet:

Condition Assessment Criteria		Condition Achieved (Y/N)	Notes/Justification
A	The tree is a native species (or more than 70% within the block are native species).	N	Tree species not specified.
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	All trees considered individual trees and thus automatically pass this criterion.
C	The tree is mature (or more than 50% within the block are mature).	N	No mature trees anticipated.
D	There is little or no evidence of an adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	N	Not assumed to have no impacts from anthropogenic activities.
E	Natural Ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	None anticipated.
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	N	Less than 20% of the tree canopy area anticipated to have vegetation underneath.
Number of criteria passed			1
Condition Assessment Result		Condition Assessment Score	Score Achieved x/✓
Passes 5 or 6 of 6 criteria		Good (3)	
Passes 3 or 4 of 6 criteria		Moderate (2)	✓
Passes 0, 1 or 2 of 6 criteria		Poor (1)	✓