Biodiversity Net Gain Assessment

Trust Ford Huddersfield, St Andrew Road, Huddersfield, Yorkshire HD1 6RJ

Kennedy Design

Status	Issue	Name	Date
Draft	1	Rebecca Gane BSc (Hons), Graduate Ecologist	20/05/2025
Reviewed	1.1	Georgina Rennie BSc (Hons), MSc. Consultant Ecologist	21/05/2025
Final	2	Rebecca Gane BSc (Hons), Graduate Ecologist	22/05/2025

Arbtech Consultant's Contact Details:

Rebecca Gane BSc (Hons), Graduate Ecologist

Email: Redacted

https://arbtech.co.uk

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Industry Guidelines and Standards

This report has been written with due consideration to:

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management, Construction Industry Research and Information Association & Institute of Environmental Management and Assessment (2019). Biodiversity Net Gain – Good Practice Principles for Development.

Proportionality

> The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.
>
> The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.
>
> (BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by Kennedy Design to undertake a Biodiversity Net Gain (BNG) Assessment at Trust Ford Huddersfield, St Andrew Road, Huddersfield, Yorkshire HD1 6RJ (hereafter referred to as "the site"). The assessment was required to inform a planning application for the extension of the car park. (hereafter referred to as "the proposed development").

- The baseline habitat value of the site is 0.27 units.
- The post development habitat value of the site is 0.24 units.
- This results in a net change in biodiversity of -13.17% (i.e. a net loss).

Contents

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Kennedy Design to undertake a Biodiversity Net Gain (BNG) Assessment at Trust Ford Huddersfield, St Andrew Road, Huddersfield, Yorkshire HD1 6RJ (hereafter referred to as "the site"). The assessment was required to inform a planning application for the extension of the car park. (hereafter referred to as "the proposed development"). A plan showing the proposed development is provided in **Appendix 1**.

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

- Statutory Metric.
- Preliminary Ecological Appraisal (PEA), Arbtech Consulting Ltd, April 2025.

1.2 Site Location, Geology and Landscape Context

The site is located at National Grid Reference SE 15102 17371 and has an area of approximately 1.37ha. The site is situated in a commercial area within Huddersfield, with commercial buildings and roads. The River Colne with vegetated banks lies adjacent to the east site boundary, with woodland, grassland, and dwellings with gardens further east. West, south, and north of the site comprises more built-up areas, with commercial buildings, and infrastructure, with scattered vegetation, with the Huddersfield town centre to the southwest of the site. A site location plan is provided in **Appendix 2**.

1.3 BNG Informative

BNG is a specific, measurable outcome of project activities that deliver demonstrable and quantifiable benefits to biodiversity compared to the baseline situation. In order to achieve BNG, a project must be able to demonstrate that it has followed all 10 of the Principles of Biodiversity Net Gain (as outlined in the *British Standard 8683:2021 Process for Designing and Implementing Biodiversity Net Gain*).

The legalised Environment Act (2021) requires developments in England to demonstrate a measurable net gain in biodiversity and sets a target of a minimum of 10% BNG for all developments. It also stipulates that a management plan with a minimum 30-year term, should be adopted to ensure biodiversity net gain can be delivered. The Environment Act (2021) is mandatory as of February 2024. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2024).

The Statutory Metric is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development to determine the overall change in biodiversity value because of the proposed development. The Statutory Metric has separate BNG assessments for areas of habitat, hedgerows, and watercourses.

The biodiversity value of a site should be maximised. However, it may not always be possible to achieve a 10% biodiversity net gain within a site and therefore the Statutory Metric can also account for offsite habitat creation, where land is available. Alternatively, developers can seek to provide an agreed financial contribution to an appropriate third party (such as the Local Authority, the UK Government, or another landowner) to deliver the required biodiversity net gain elsewhere on their behalf.

In accordance with the principles of the mitigation hierarchy, efforts have been made to avoid, minimize, and compensate for potential biodiversity impacts arising from the proposed development

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by the PEA (Arbtech Consulting Ltd, 2025). A baseline habitat plan is provided in **Appendix 3**.

Habitat Classification

The PEA classified the habitats on site according to The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023).

Habitat Area/Length

The area or length of each habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of a similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or lost (i.e. destroyed by proposed development).

Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Metric.

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Metric (Natural England, 2024). The development is situated approximately 30m from the River Colne, and therefore a River Condition Assessment (RCA) was not undertaken.

Strategic Significance

Strategic significance was assigned for each habitat based upon a review of the following:

- Ecological value
- Function within the landscape
- Any site or habitat allocations under Kirklees Council Local Policy

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the proposed plans which is included in **Appendix 1**. A post development habitat plan is provided in **Appendix 4**.

Habitat Classification

Proposed habitats were translated to their equivalents in the UK Habitat Classification using The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023) and the information provided within the proposed plans.

Habitat Area/Length

The area or length of each proposed habitat was calculated using qGIS software. In calculating the area or length of each habitat, habitats which occur as two or more isolated parcels across the site were combined, where they were deemed to be of similar composition and condition. Distinctions were made between habitats to be retained (i.e. left as found in baseline), enhanced (i.e. improved condition) or newly created.

Habitat Condition

Target habitat condition for each proposed habitat was determined assessed using the Temporal Multipliers Tool and the Enhancement Temporal Multipliers Tool included in the Statutory Metric spreadsheet as well as the relevant condition assessment sheets found in the Statutory Metric User Guide (Natural England, 2024). This is based on the assumption that a 30-year management plan will be adopted for the site.

Strategic Significance

Strategic significance was assigned for each proposed habitat based upon a review of the following:

- Likely ecological value
- Function within the landscape
- Any site or habitat allocations under the Kirklees Council Local Policy

2.3 Limitations

This Biodiversity Net Gain (BNG) assessment has been prepared in accordance with the Environment Act 2021 and relevant statutory guidance. It is noted that the red line boundary of the site lies within 10 metres of the River Colne, which, under current BNG legislation would typically trigger the requirement for a River Condition Assessment (RCA) to establish the baseline condition of the watercourse. However, a formal RCA has not been undertaken as part of this assessment due to the proposed development being situated ~30m from the river. As a result, river habitat units have not been calculated, and any potential impacts or enhancements relating to the adjacent watercourse have not been accounted for within the biodiversity metric calculations. This represents a limitation of the assessment and may require further survey and metric revision to ensure full compliance with the statutory requirements for BNG.

3.0 Results

3.1 Baseline Habitats

Table 1 details the baseline habitats present within the site along with their area/length, condition, and strategic significance. An assessment of the anticipated condition for each habitat (where relevant) is provided in Appendix 5a (where necessary).

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
u1b - Developed land; sealed surface	1.159ha	Hardstanding and building. To be retained.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.
u1c – Artificial unvegetated, unsealed surface	0.008ha	Unsealed surface. To be retained.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.
g4 – Modified grassland	0.047ha	Small areas along the boundaries of the site are grassland which best represents 'modified grassland'. Species richness among the sward is low at <6 species per m^2. Grass cover is >75%. Sward height is homogenously short at ~5cm. Species include: **D:** Perennial rye grass *Lolium perenne*. **F:** White clover *Trifolium repens*. **O:** Red fescue *Festuca rubra*, daisy *Bellis perennis*, chickweed *Stellaria media*, dandelion	Poor	Low strategic significance. Area/compensation not in local strategy/ no local strategy.

		Taraxacum *officinale agg.*, and hairy bittercress *Cardamine hirsuta*.		
32 – Individual trees	0.0163ha	One medium silver birch *Betula pendula* is located within the south eastern corner of the site. The elder recorded within the PEA appears to be outside the red line boundary.	Good	Medium strategic significance Location ecologically desirable but not in local strategy.
847 – Introduced shrub	0.018ha	Small areas of the site are introduced shrubbery. Species include occasional hebe *Veronica sp.*, *Cotoneaster sp.*, cherry laurel *Prunus laurocerasus*, Aaron's beard *Hypericum calycinum*, Japanese spindle *Euonymus japonicus*, and palm *Arecaceae sp*.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.

3.2 Post Development Habitats

Table 2 details the post development habitats present within the site along with their area/length, condition, and strategic significance. An assessment of the anticipated condition for each habitat (where relevant) is provided in Appendix 5b, which is based on the assumption that a 30 year management plan will be implemented for the site.

Table 2: Post Development Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
u1b - Developed land; sealed surface	1.159ha - retained	Retained hardstanding and building.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.
u1c – Artificial unvegetated, unsealed surface	0.008ha - retained	Retained unsealed surface.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.
g4 – Modified grassland	0.044ha - retained	Retained grassland.	Poor	Low strategic significance. Area/compensation not in local strategy/ no local strategy.
32 – Individual trees	0.0163ha - retained	Retained tree.	Good	Medium strategic significance. Location ecologically desirable but not in local strategy.

847 – Introduced shrub	0.003ha - retained	Retained shrub.	N/A	Low strategic significance. Area/compensation not in local strategy/ no local strategy.

3.3 Change in Biodiversity Value of the Site

Full details are provided in the Statutory Metric. The headline results are presented in **Appendix 6**.

Areas of Habitat

The baseline habitat value of the site is 0.27 units, comprising 0.04 units of introduced shrub, 0.09 units of modified grassland, 0.14 units of individual trees, buildings and developed land; sealed surface (no value).

The post development habitat value of the site is 0.24 units, comprising 0.01 units of introduced shrub, 0.09 units of modified grassland, 0.14 units of individual trees, buildings and developed land; sealed surface (no value).

This results in a net change in biodiversity of -13.17% (i.e. a net loss).

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a 13.17% net loss in habitat units. This is less than the 10% target of biodiversity net gain.

The habitats proposed on site include hardstanding, all of which are urban habitats which do not require long-term management, therefore post-development maintenance and management is not required, and a Biodiversity Net Gain Management Plan will not be needed for the site.

To achieve the required minimum 10% 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 either achieve a 10% net gain on site or to reduce off-site compensation requirements that may be required to achieve a 10% net gain.

4.2 Landscaping

It is recommended that the red line boundary of the site be reduced to ensure it lies more than 10 metres from the River Colne. This adjustment would remove the requirement to undertake a River Condition Assessment (RCA) under the current Biodiversity Net Gain. Further, it would release the remaining, unaffected habitats onsite from the 30-year management term.

To maximise the biodiversity value of the site itself, the following alterations to the current landscaping proposals could be considered:

- Replacing introduced shrub with areas of mixed scrub
    - Scrub is considered a highly valuable habitat type for wildlife, with many species depending on it for survival. Mixed scrub provides resource opportunities for birds, mammals, invertebrates, reptiles and amphibians.
    - Mixed scrub should not exceed 5m in height and should have a dense composition, comprising a continuous cover of 75% or more.
    - Mixed scrub should contain a mixture of species and should not be dominated by a single species.
    - Species include hawthorn, hazel, common alder, dog rose and bramble
- Planting native tree species

Should these alterations be incorporated this BNG Assessment will need to be updated to accurately reflect the change in biodiversity value of the site pre- and post-development.

4.3 Biodiversity Offsetting

If the landscaping plans are not altered or if the above alterations still do not deliver a 10% net gain, the deficit will need to be delivered in a suitable offsite location i.e. biodiversity offsetting.

According to the Defra Statutory Biodiversity Metric there is a **unit deficit of 0.06 habitat units** and this will need to be provided to offset the loss in biodiversity and achieve a 10% biodiversity net gain.

The mechanism for securing this off-setting will need to be proposed to, and confirmed by the LPA e.g., purchasing conservation credits though a registered provider, habitat creation directly through the client owned or LPA offered land or a financial contribution towards another provider such as a local nature reserve or park. As well as the creation of new habitats, this should also secure the management of the proposed habitats to help achieve the desired condition for at least 30 years. This 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. An ecology survey of the baseline habitat of any off-site land will be required to inform the baseline conditions of any land subject to off-site compensation measures.

4.4 Post Development

A Biodiversity Net Gain (BNG) Management Plan is not required due to the low value urban habitat proposed.

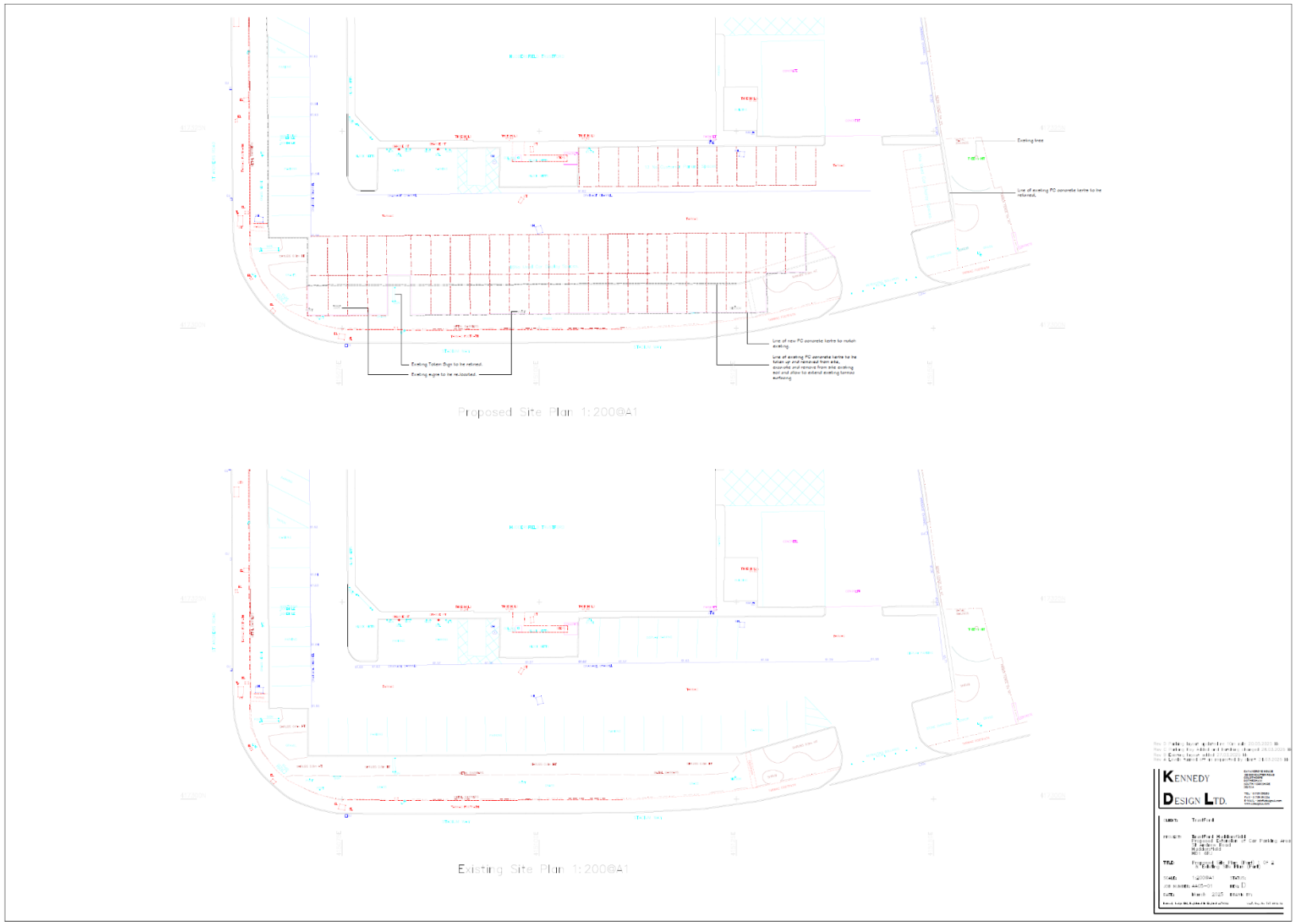
4.5 Design Statement

This report contains recommendations on measures for achieving BNG. These recommendations do not constitute a design for BNG. In submitting these recommendations, Arbtech Consulting has no Design Liability associated with these recommendations for BNG. The strategy sets out the criteria which the landscape team can use to design the creation and management of the site.

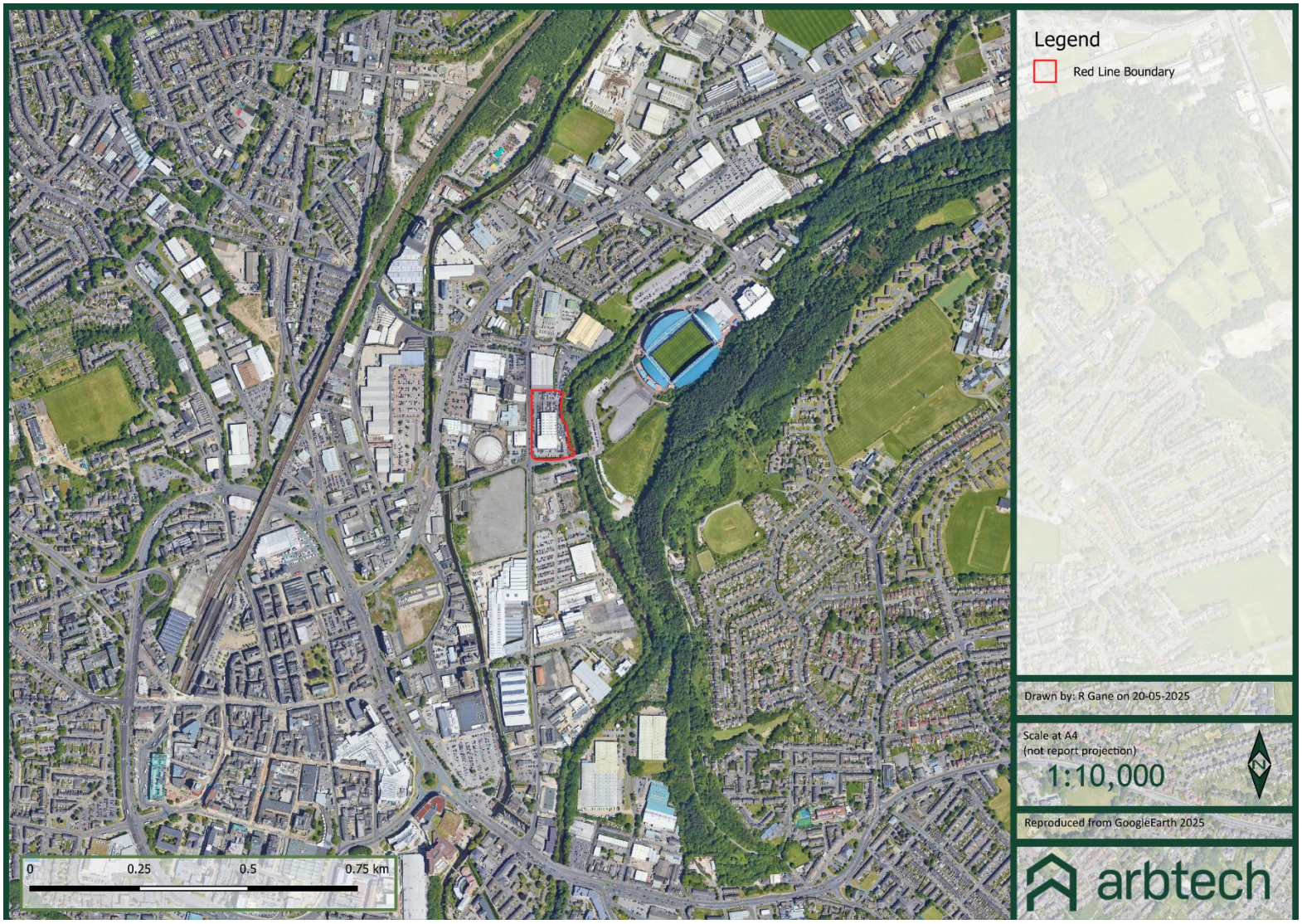
5.0 Bibliography

- Arbtech Consulting Ltd (2025) Preliminary Ecological Appraisal and Preliminary Roost Assessment.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- CIEEM-CIRIA-IEMA (2019) Biodiversity Net Gain – Good Practice Principles for Development.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit. http://jncc.defra.gov.uk/PDF/pub10_handbookforphase1habitatsurvey.pdf
- Natural England (2023). The Statutory Biodiversity Metric (JP039).
- Natural England (2023). The Statutory Biodiversity Metric User Guide (JP039).
- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 1 - Condition Assessment Sheets and Methodology (JP039).
- Natural England (2023). The Statutory Biodiversity Metric Technical Annex 2 – Technical Information (JP039).
- The UK Habitat Classification Habitat Definitions Version 2.0 (The UK Habitat Classification Working Group, July 2023) Appendix 1: Proposed Development Plan

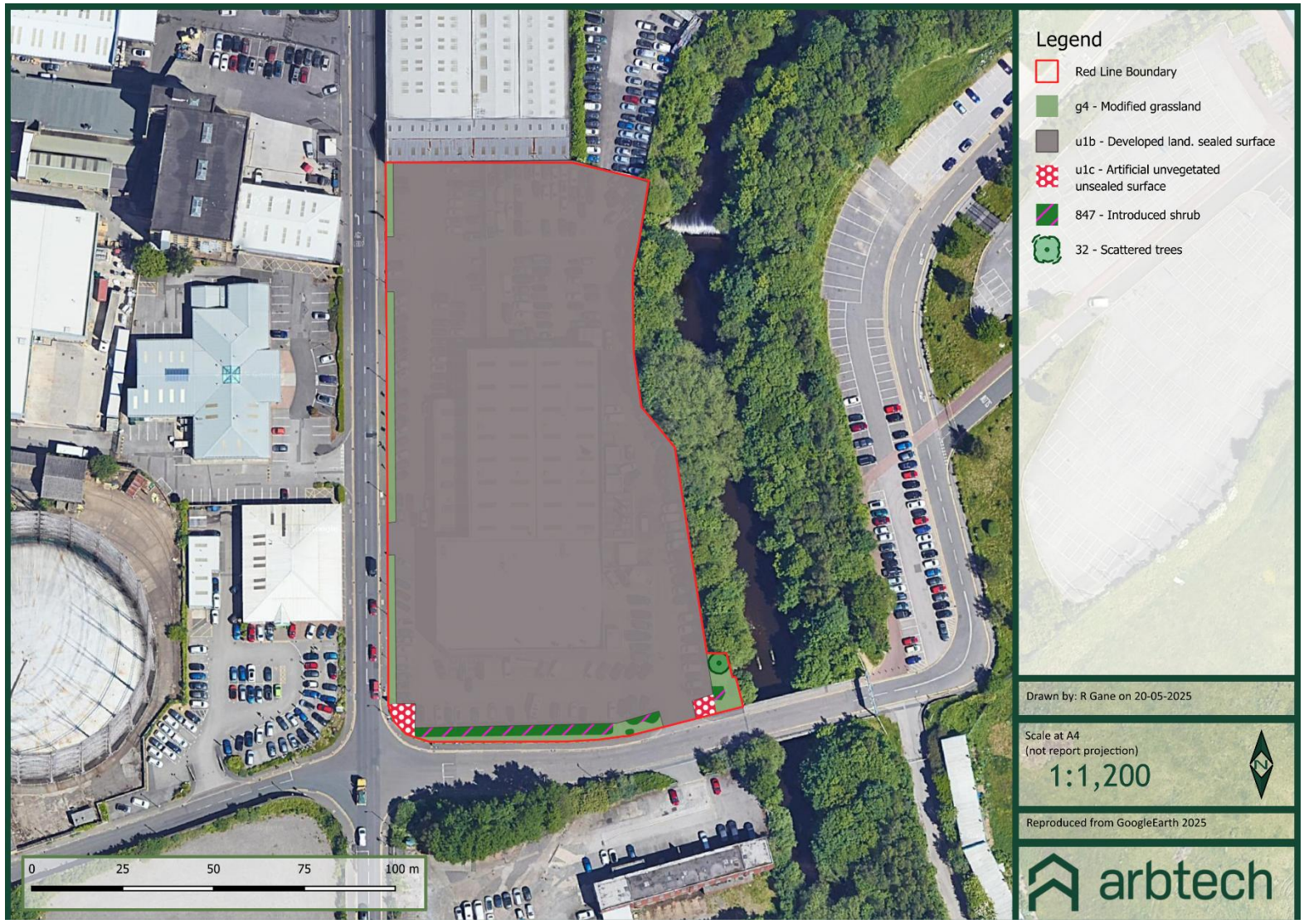
Appendix 1: Proposed Plan



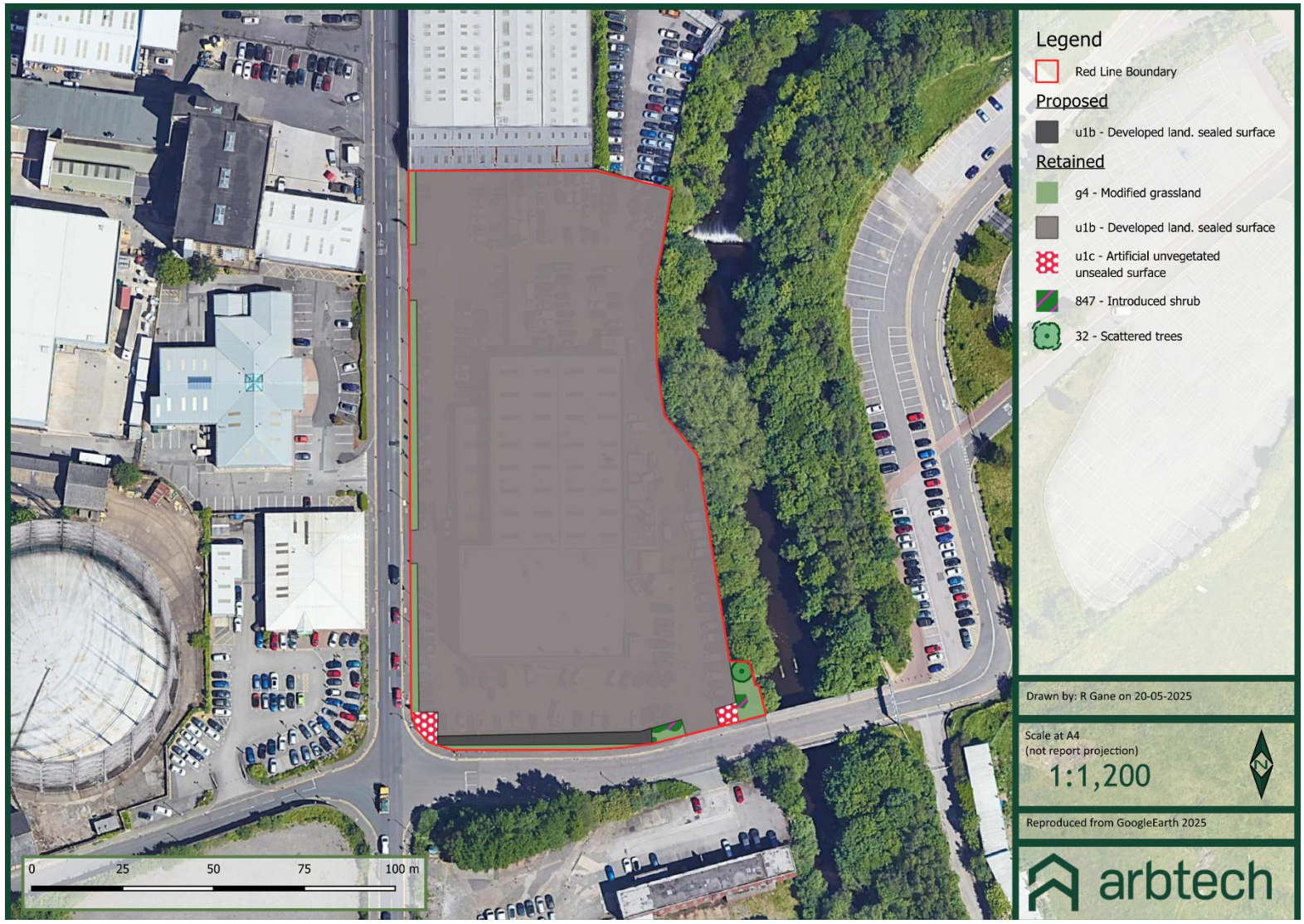
Appendix 2: Site Location Plan



Appendix 3: Baseline Habitat Plan



Appendix 4: Post Development Habitat Plan



Appendix 5a: Habitat Condition Assessment Sheets – Baseline

INDIVIDUAL TREES					
Condition Assessment Criteria		**Criterion passed**	**Condition Assessment Result**	**Metric Score**	**Score Achieved ×/✓**
A	The tree is a native species (or at least 70% within the block are native species).	Y	Good Passes 5 or 6 criteria	3	✓
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	Moderate Passes 3 or 4 criteria	2	
			Poor Passes 2 or fewer criteria	1	
C	The tree is mature (or more than 50% within the block are mature)[1].	Y	**Score achieved:**	GOOD	
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			
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N			
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y			

MODIFIED GRASSLAND					
Condition Assessment Criteria		**Criterion passed (Yes or No)**	**Condition Assessment Result**	**Metric Score**	**Score Achieved ×/✓**
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.**	N	**Good** Passes 6 or 7 criteria including passing essential criterion A	3	
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.	N	**Moderate** Passes 4 or 5 criteria including passing essential criterion A	2	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present).	Y	**Poor** Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	1	✓
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.	Y	**Score achieved:**		POOR
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	Y			
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Y			
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Y			

Appendix 5b: Habitat Condition Assessment Sheets – Proposed

N/A

Appendix 6: Headline BNG Results

The Statutory Metric is provided as a separate excel spreadsheet.

FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-0.04	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-13.17%	Total net gain achieved is less than target set ▲
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.27	0.30	0.06	
Hedgerow units	10.00%	0.00	0.00	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓