



Biodiversity Net Gain Assessment

Sackville School, Lewes Road, East Grinstead, West Sussex RH19 3TY

Sackville School

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Arbtech Consultant's Contact Details:

Georgina Rennie BSc (Hons) MSc
Consultant Ecologist
Email: georgianrennie@arbtech.co.uk
<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 Sackville School to undertake a Biodiversity Net Gain (BNG) Assessment at Sackville School, Lewes Road, East Grinstead, West Sussex RH19 3TY (hereafter referred to as “the site”). The assessment was required to inform a planning application for the creation of an artificial grass sports field (hereafter referred to as “the proposed development”).

The baseline habitat value of the site is 2.2 units, comprising of modified grassland.

The post development habitat value of the site is 2.23 units, comprising of retained and created modified grassland.

This results in a net change in biodiversity of 5.10% (i.e. a net gain).

Recommendations to meet the net gain are given in section 4.2. The planting of three offsite trees will meet the 10% net gain requirement.

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by Sackville School to undertake a Biodiversity Net Gain (BNG) Assessment at Sackville School, Lewes Road, East Grinstead, West Sussex RH19 3TY (hereafter referred to as “the site”). The assessment was required to inform a planning application for the creation of an artificial grass sports field (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:

- Defra Statutory Biodiversity Metric
- PEA Report for the site. (Arbtech, 2024)

1.2 Site Location, Geology and Landscape Context

The survey site is centred on National Grid Reference RH19 3TY and has an area of approximately 1.7ha. The site is located to the north-east of the town of East Grinstead. Ashplats Wood is present to the north of the site, whilst Pitlands Wood is present to the east. Habitat surrounding the site includes residential dwellings and grassland. In the wider landscape, grassland, agricultural land, residential properties, and woodland are present. There is no priority habitats present on site, however deciduous woodland, ancient woodland, traditional orchards, and good quality semi-improved grassland are present within a 2km radius from the site, with deciduous woodland present 90m to the east 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) states biodiversity net gain is mandatory for sites over 0.5ha as of February 2024. The requirement for biodiversity net gain is also enshrined within the National Planning Policy Framework (NPPF, 2021). The DEFRA Statutory Biodiversity Metric is the widely accepted tool used to calculate BNG. It enables the calculation of habitat value pre- and post-development in order to determine the overall change in biodiversity value as a result of the proposed development. The Biodiversity 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 Biodiversity 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.

2.0 Methodology

2.1 Baseline Biodiversity Value

The baseline BNG Calculation was informed by PEA (Preliminary Ecological Appraisal) (Arbtech, 2024). A baseline habitat plan is provided in Appendix 3.

Habitat Classification

The PEA (Arbtech, 2024) 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 Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

Habitat Condition

Habitat condition was assessed using the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2023).

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 the Mid Sussex District Plan 2014-2031

2.2 Post Development Biodiversity Value

The post development BNG Calculation was informed by the proposed development plan 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 development plan.

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.

Areas of scattered trees were calculated using the Tree Helper tool within the Statutory Biodiversity Metric. Class sizes for urban trees are set out in Table 8-1 of the Statutory Biodiversity Metric User Guide (Natural England, 2023).

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 Biodiversity Metric spreadsheet as well as the relevant condition assessment sheets found in the Statutory Biodiversity Metric User Guide (Natural England, 2023). 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 Mid Sussex District Plan 2014-2031

2.3 Limitations

No limitations

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. A full condition assessment for each habitat (where relevant) is provided in Appendix 5a.

Table 1: Baseline Biodiversity Value

Habitat	Area / Length	Description	Condition Assessment	Strategic Significance
Modified grassland [g4]	0.366 ha	Grassland is present in the centre and around the boundary of the site. Species include cocksfoot (D), clover (A), creeping buttercup (F), daisy (O), dandelion (O), and plantain (O). Some scrub is present at the boundaries of the site including bramble (F), sedge (F), ragwort (F), maple saplings (O), and fleabane (O).	Good	Low Habitat is not included within local plan.
Buildings [u1b5]	0.002 ha	There are two buildings on site; both garages used for storage.	N/A	Low Habitat is not included within local plan.
Artificial unvegetated, unsealed surface [u1c]	1.439 ha	The site is characterised by the presence of a Redgra athletics and sport pitch.	N/A	Low Habitat is not included within local plan.
Developed land, sealed surface [u1b]	0.008 ha	Areas of hard standing lead to the sports area on the western side of the site.	N/A	Low Habitat is not included within local plan.

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. The proposed development will result in the loss of modified grassland.

Table 2: Post Development Biodiversity Value

Habitat	Area / Length	Description	Target Condition	Strategic Significance
Modified grassland [g4]	0.317 ha retained 0.096 ha created	The majority of the field area is to be retained with additional areas being created. It is assumed that the created habitat will be created to the same species composition and condition as the baseline. As the use of the area is not changing, it is assumed that the level of physical damage will not increase.	Good	Low Habitat is not included within local plan.
Artificial unvegetated, unsealed surface [u1c]	1.268 ha created	Areas of artificial surface to be created	N/A	Low Habitat is not included within local plan.
Developed land, sealed surface [u1b]	0.16 ha created	Areas of developed land to be created.	N/A	Low Habitat is not included within local plan.

3.3 Change in Biodiversity Value of the Site

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

Areas of Habitat

The baseline habitat value of the site is 2.2 units, comprising of modified grassland.

The post development habitat value of the site is 2.23 units, comprising of retained and created modified grassland.

This results in a net change in biodiversity of 5.10% (i.e. a net gain).

4.0 Recommendations to Deliver BNG

4.1 Discussion

The current proposed plan results in a 5.1% net gain in habitat units. This is less than the 10% target of biodiversity net gain.

In order 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 Recommendations

A scenario has been created which meets the 10% net gain and the trading rules. The addition of three off site trees (detailed in Table 3) at a moderate condition will result in a 10.7% net gain and a post development unit value of 0.77. This is also detailed within the recommended metric.

Table 3: Recommended Post Development Biodiversity Value

Habitat	Area / Length	Description	Target Condition	Strategic Significance
Scattered trees [32]	0.0122 ha created	A total of three trees should be planted. Trees must be native in order to achieve a moderate condition. Species can include hazel, hawthorn, English oak, birch, field maple and rowan. These are to be placed above areas of modified grassland.	Moderate	Medium Habitat is not included within local plan but is ecologically desirable.

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 0.04 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 through 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 must be produced for the site. This should include recommendations for the implementation, management and monitoring of the site for at least 30 years.

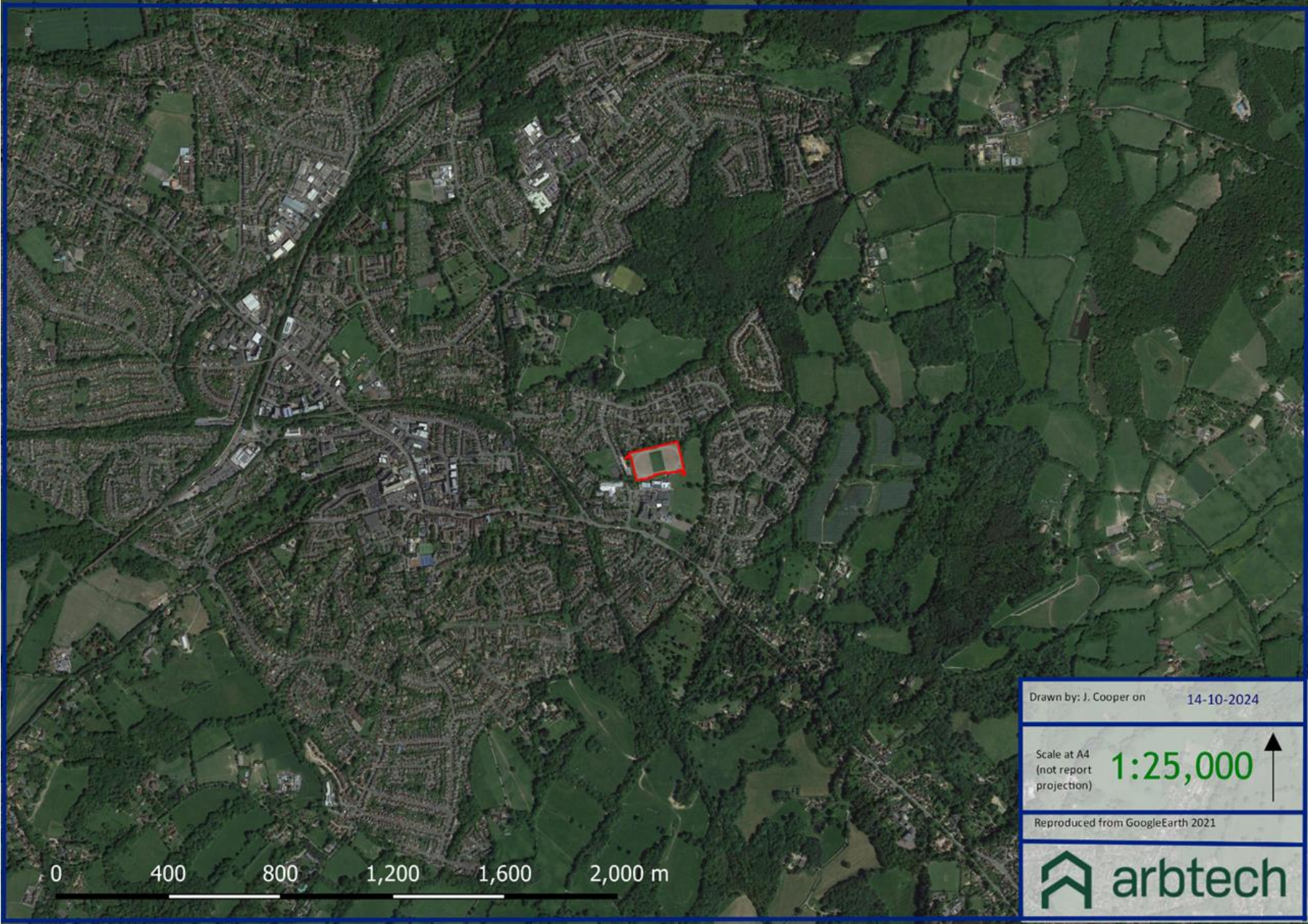
5.0 Bibliography

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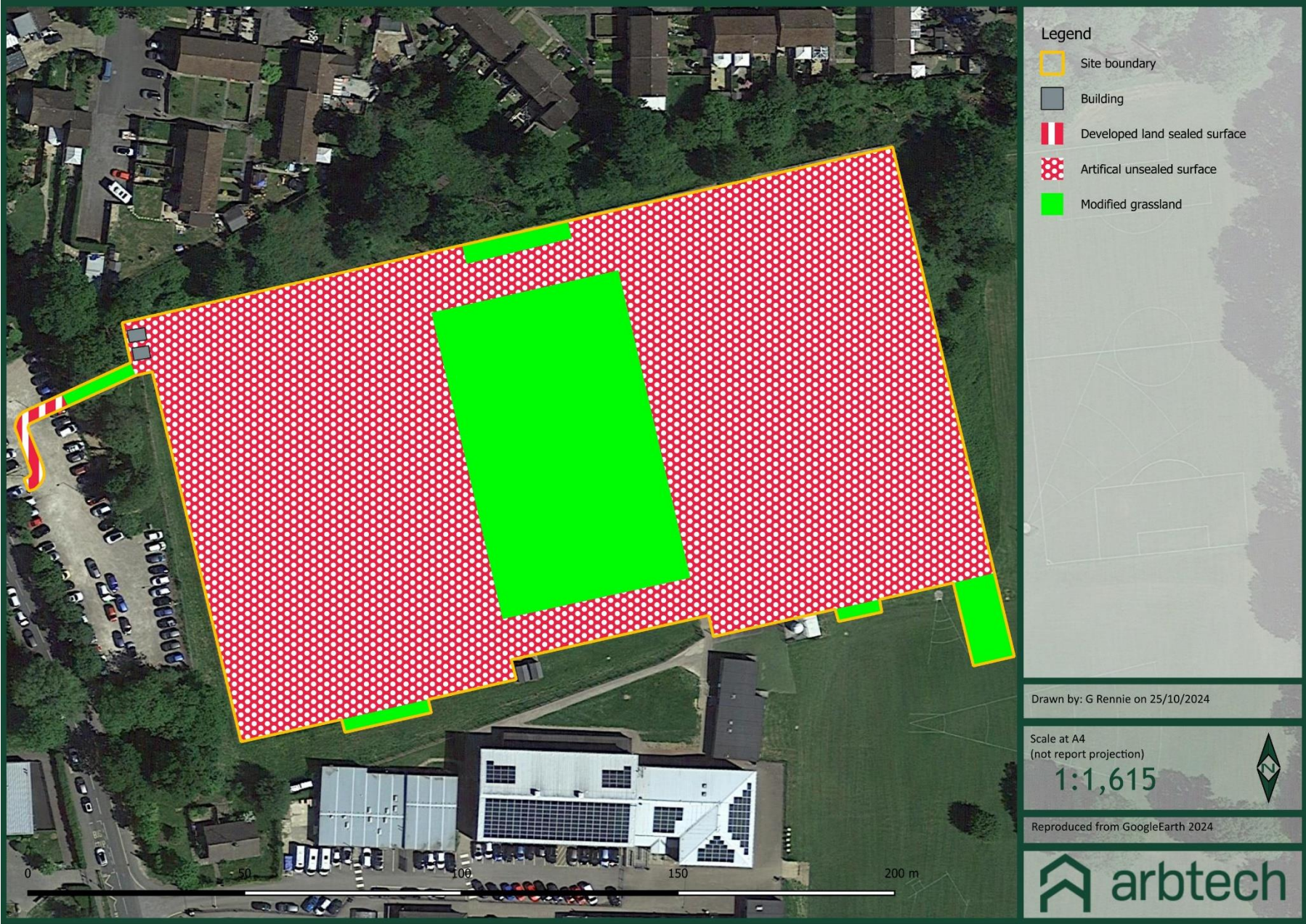
Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



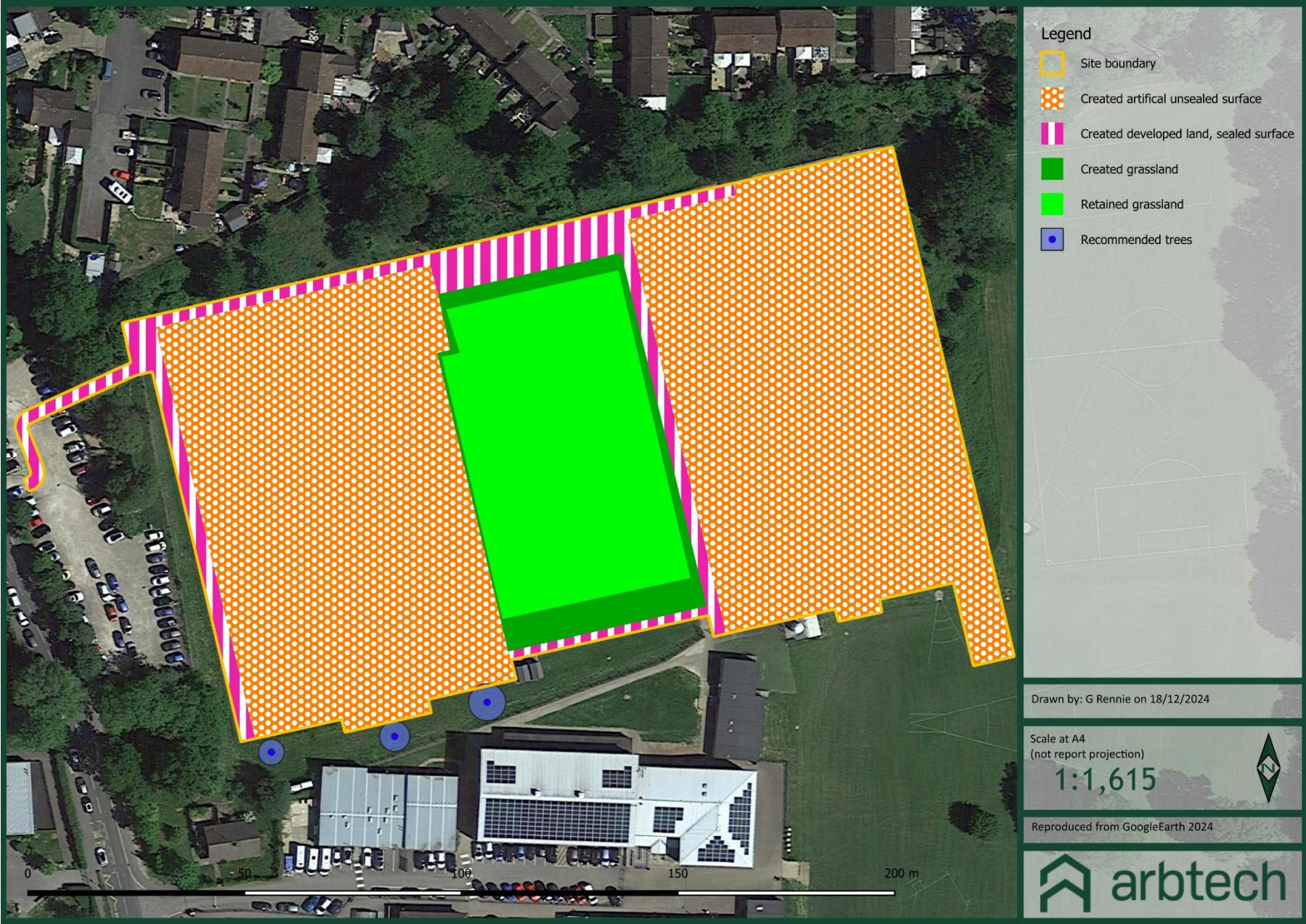
Appendix 3: Baseline Habitat Plan



Appendix 4a: Post Development Habitat Plan



Appendix 4b: Recommended Post Development Habitat Plan



Appendix 5a: Habitat Condition Assessment Sheets - Baseline

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
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.	Y	
	Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.		
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	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	
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	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens) ¹ .	Y	
F	Cover of bracken <i>Pteridium aquilinum</i> is less than 20%.	Y	
G	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of 'WCA').	Y	
Essential criterion achieved (Yes or No)			Y
Number of criteria passed			6
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x1/	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	Y	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		

Appendix 5b: Habitat Condition Assessment Sheets - Proposed

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
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. Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m ² (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	Y	
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	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble <i>Rubus fruticosus</i> agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	
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	
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 <i>Pteridium aquilinum</i> 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	
Essential criterion achieved (Yes or No)		Y	
Number of criteria passed		6	
Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved x1/	
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	Y	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)		

Appendix 6: Headline BNG Results

The Defra Statutory Biodiversity 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	5.10%	Total net gain achieved is less than target set ▲	
	Hedgerow units	0.00%		
	Watercourse units	0.00%		
Trading rules satisfied?	Yes ✓			

Area created must match area lost for both onsite and offsite ▲					
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	No additional hedgerow units required to meet target ✓ No additional watercourse units required to meet target ✓
Habitat units	10.00%	0.73	0.81	0.04	
Hedgerow units	10.00%	0.00	0.00	0.00	
Watercourse units	10.00%	0.00	0.00	0.00	