

BIODIVERSITY NET GAIN DESIGN STAGE ASSESSMENT

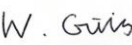
MARCH 2026

Sandy Brow
Perimeter Road
Knowsley
L33 3AN

**U R B A N
G R E E N**



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1 Executive Summary

- 1.1.1.1 Balance Power Ltd are proposing to develop land at land off Perimeter Road in Knowsley (hereafter referred to as 'the site'). The proposals include the development of a battery storage site, with power grid infrastructure and associated hard landscaping.
- 1.1.1.2 Urban Green has been appointed to carry out a Biodiversity Net Gain Design Stage Assessment to support a full planning application for the development of the site.
- 1.1.1.3 This assessment was conducted using the Statutory Biodiversity Metric to calculate the pre- and post-development biodiversity habitat units of the site for the proposed development.
- 1.1.1.4 The proposed development produces a net gain of 2.23 units (16.23%) for area habitats, a net gain of 3.84 units for linear hedgerow habitats, and a net gain of 1.61 units (>100%) for linear river habitats. No percentage has been calculated for hedgerow habitats as the baseline was zero. In addition, the trading rules were satisfied by the landscape proposals.
- 1.1.1.5 In addition, the trading rules have been satisfied by the proposals for all habitats. Consequently, the development meets all local and national planning policy.
- 1.1.1.6 To ensure that the habitats proposed as part of the post-development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a management plan should be implemented post-development (Urban Green, 2026a).

2 Introduction

2.1 Scope

- 2.1.1.1 Urban Green has been instructed by Balance Power Ltd to carry out a Biodiversity Net Gain Assessment at land off Perimeter Road in Knowsley (hereafter referred to as ‘the site’) and produce our findings in a report.
- 2.1.1.2 The proposals include the development of a battery storage site, with power grid infrastructure and associated hard landscaping.

2.2 Site Context

- 2.2.1.1 The sites are located at National Grid Reference SJ 44170 98325 and comprise a total area of approximately 3.1ha (see Figure 1).
- 2.2.1.2 The site is located in the rural outskirts of the greater Liverpool built-up area, ~2.2km north of Knowsley. The site is bounded west by Perimeter Road, immediately beyond which lies an extensive retail/industrial estate. Expansive rural land dominates the wider landscape to the north, east, and south of site – mostly agricultural land, and notably Knowsley Park & Safari to the south.

2.3 Purpose of Report

- 2.3.1.1 The report has been produced to document the methods, results and conclusions of a Biodiversity Net Gain Design Stage Assessment that was undertaken on site. The advice herein is based on both desk and field-based studies and intends to fulfil the following purposes:
 - Ensure the core principles of Biodiversity Net Gain including the mitigation hierarchy are applied;
 - Identify the baseline habitats present on site (pre-development), assess the condition and provide an indication of the ecological value of those habitats;
 - Identify the post development habitats present on site, assess the possible target condition and provide an indication of the likely importance of those habitats;
 - Calculate the overall change in biodiversity score from pre- to post-development habitats (measured as habitat units).



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Legend: Red Line Boundary		1 Kilometers		N
Client: Balance Power		Issue: 01	Figure: 01	URBAN GREEN A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF T: +44 (0) 161 312 3131 weareurbangreen.co.uk
Project: Sandy Brow		Scale @ A4 1:12,000		
Title: Site Context		Approved by: CL	Checked by: SP	
Drawing Ref: UG_2142_SITE_CONTEXT		Author: CL	Date: 01/04/2025	

2.4 Legislation and Policy

- 2.4.1.1 In England, a minimum of 10% BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (Appendix 1).
- 2.4.1.2 For development in Knowsley, policy CS8 Green Infrastructure of the Knowsley Local Plan Core Strategy states that new development should seek to protect, maintain and enhance biodiversity within and around new developments.
- 2.4.1.3 The following policies of the Knowsley Local Plan Core Strategy are also relevant to BNG:
- Policy CS19 Design Quality and Accessibility in New Development - clause 1d) relates to promoting biodiversity. Clause 3b) regards tackling climate change, by integrating biodiversity in accordance with CS8;
 - Policy CS21 Greenspaces and Trees clause 3c) states development will be resisted that harms biodiversity. Clause 10 a) relates to biodiversity retention, and clause 10 b) regards habitat planting; and
 - Policy CS24 Managing Flood Risk clause 4a) states new development should include flood mitigation that contributes to biodiversity
- 2.4.1.4 Within Liverpool Local Plan 2013 – 2033, the following policies are relevant to the provision of BNG:
- Policy STP 2 ‘Sustainable Growth Principles’ – Liverpool City Council will support developments which achieve net environmental gains, for example net gains in biodiversity, contributing to the recovery of priority species and habitats and new habitat creation.
 - Policy CC 26 ‘Protection and Enhancement of Green Infrastructure’ – All new development proposals within the city centre to, where possible, provide elements of green infrastructure within the overall design of the scheme, including green roofs and walls, water features linked to sustainable drainage features and landscaping with native species.
 - Policy GI 3 ‘Green Wedges’ – Development proposals within green wedges must demonstrate that they result in a net gain in biodiversity.
 - Policy GI 6 ‘Protection of Biodiversity and Geodiversity’ - Development which may result in a likely significant effect on an internationally important site must be accompanied by sufficient evidence to enable the Council to make a Habitats Regulations Assessment. Adverse effects should be avoided and/or mitigated to ensure that the integrity of internationally important sites is protected. Development which may adversely affect the integrity of internationally important sites will only be permitted where there are no alternative solutions and there are imperative reasons of overriding public interest and suitable compensatory provision is secured.
 - Policy GI 7 ‘Liverpool City Region Nature Improvement Areas’ – Development within Nature Improvement Areas (NIA) contributes towards opportunities for habitat creation and management as set out within the NIA Focus Profiles.

- Policy GI 8 ‘New Planting and Design’ – New development should make provision on-site for the planting and successful growth of new trees and landscaping, including any replacement planting provided as compensation for loss due to development.
- Policy GI 10 ‘Green Infrastructure Enhancement’ – All development proposals should contribute to ensuring a net gain in biodiversity in the city including, where relevant, contributing towards the recovery of priority species and habitat and that major development proposals be designed to incorporate green infrastructure measures including integrating or enhancing existing biodiversity features.

2.4.1.5 In addition, Merseyside Environmental Advisory Service (MEAS) have produced a guidance note mandatory BNG and its implementation within the Liverpool region (Merseyside Environmental Advisory Service, 2024), which outlines how Biodiversity Net Gain should be carried out in the Liverpool City Region.

3 Methods

- 3.1.1.1 The Biodiversity Net Gain Assessment and Report follows the user guidance produced by Department for Environment, Food & Rural Affairs (2024a) and the good practice methodology as detailed within the *Biodiversity Net Gain: Good Practice Principles for Development* (Baker, et al., 2019).

3.2 Desk Study

- 3.2.1.1 Sources of information used in the desk study are presented in Table 1.

Table 1 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGiC website (www.magic.gov.uk)	30/04/2025	Locations of statutory designated sites within 1km of the site boundary. Locations of Natura 2000 sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites/.naturalengland.org.uk/)	30/04/2025	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	30/04/2025	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
The Statutory Biodiversity Metric	10/06/2025	The Statutory Biodiversity Metric, including the tool itself, user guides and reference documentation associated with the tool.
Liverpool Local Nature Recovery Strategy	30/04/2025	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Liverpool Local Biodiversity Action Plan	30/04/2025	Species and habitats which are given special conservation status at the local level.
Preliminary Ecological Appraisal (Urban Green, 2023a)	30/04/2025	Notable species, habitats and designations identified on site and within a 1km radius.
Ecological Walkover (Urban Green, 2025)	30/04/2025	

Source	Date Consulted	Information Sought
Biodiversity Net Gain Design Stage Assessment (Urban Green, 2023b)	30/04/2025	BNG results from previous assessment.
Arboricultural Impact Assessment (Urban Green, 2026b)	16/03/2026	Data for existing trees and hedgerows present onsite.
Proposed Landscape Plan (Urban Green, 2026c)	16/03/2026	Habitat areas and conditions as to be included within the planning layout (post-development) for site.

3.3 Site Mapping

3.3.1 Existing Habitats

- 3.3.1.1 An ecological walkover of land at Sandy Brow Lane, Knowsley, was conducted on 16th April 2025, by Barnaby Indio Gardner, Ecologist, BSc, MEnvSci, PGCert, and Tafara Musonza, Biodiversity Net Gain Consultant, BSc. A previous survey was also conducted by Urban Green at the site in August 2023.
- 3.3.1.2 Plant species were identified and recorded, flora species listed as protected in the Wildlife and Countryside Act 1981 (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey. Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the Wildlife and Countryside Act 1981 and the Invasive Alien Species (Enforcement and Permitting) Order 2019 were also searched for during the field survey.
- 3.3.1.3 Habitat types were identified and recorded using the Coreo habitat mapping application (V2.0) which utilises UKHab classifications (Butcher et al., 2023). Habitat types were based on the UKHab guidance provided and the assessor's best judgment while using these guidelines. Habitats were identified using primary codes and additional secondary codes have been used to record further information regarding various aspects of the site.
- 3.3.1.4 These habitats were subsequently mapped using ESRI ArcGIS Pro software, and habitat areas and lengths were calculated to demonstrate habitats within the proposed development and the surrounding area. The baseline habitat map is displayed in Appendix 2. A summary of primary and secondary codes can be found in Appendix 3.

3.3.2 Post-Development Habitats

- 3.3.2.1 The proposed landscape plan was provided by Urban Green (see Appendix 4) in PDF and DWG format, detailing planting mixes and the areas of the proposed habitats (Urban Green, 2026c). These were used to categorise the proposed habitats to inform the assessment. Calculations for areas relating to each habitat were also provided. The landscape plan has also been converted into a UKHab map using UKHab symbology and habitat classification (Appendix 5).

3.4 The Statutory Biodiversity Metric

- 3.4.1.1 The BNG calculation was undertaken utilising The Statutory Biodiversity Metric from the Department for Environment, Food & Rural Affairs, using data obtained from the field surveys.
- 3.4.1.2 The calculation was performed by a technically competent and experienced person as detailed in British Standard BS8683 - Suitably qualified person – definition in BS8683:2020.
- 3.4.1.3 The Statutory Biodiversity Metric uses habitat features as a proxy measure for capturing the value and importance of nature. The metric considers the size, ecological condition, location and proximity to nearby ‘connecting’ features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

3.5 Habitat Scoring

- 3.5.1.1 The Statutory Biodiversity Metric supplies reference documents and user guides to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

3.5.2 Minimum Mapping Units (MMU)

- 3.5.2.1 The UKHab classification system can be applied at various levels – fine scale, suitable for smaller sites, and large scale, used for broader landscapes. The fine scale level, which acknowledges areas of minimum 25m² and lengths of 5m, is considered appropriate for this site.

3.5.3 Baseline Units

- 3.5.3.1 To assess the quality of a habitat, and therefore calculate the units scored, the Statutory Biodiversity Metric utilises three scoring factors detailed as follows:

3.5.3.2 Condition

- 3.5.3.3 The condition of a habitat is assessed utilising the Condition Sheets provided for each habitat type (Department for Environment, Food & Rural Affairs, 2024b). These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition.

- 3.5.3.4 Condition assessment results for each habitat have been provided within the ‘user comments’ column of the associated Statutory Biodiversity Metric (Urban Green, 2025c).

3.5.3.5 Vegetative Survey Methodology

- 3.5.3.6 Species abundance was described using the DAFOR scale as shown in Table 2. Percentages are an approximate indication rather than a quantitative measure.

Table 2 – Key to Species Abundance

Code	Term	Description	Indicative Percentage Ranges
D	Dominant	Covers most of the area	>50%

Code	Term	Description	Indicative Percentage Ranges
A	Abundant	Very common throughout the area.	33 – 50%
F	Frequent	Common or with many individuals.	25 – 33%
O	Occasional	Occurs in several places but not throughout. Populations are not large.	10 – 25%
R	Rare	Occurs in low numbers in relation to size of area.	0.1 – 10%
“L” will be used to indicate abundance in a localised area, e.g. LA = Locally abundant			

3.5.3.7 For grassland habitats, at least five 1m² quadrat samples are taken for each grassland parcel and the number of species present within each quadrat is recorded to inform grassland classification and condition.

3.5.3.8 Distinctiveness

3.5.3.9 The distinctiveness of each habitat is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat. Table 3 provides the basis of the distinctiveness assessment for area habitats.

Table 3 – Distinctiveness Assessment for Habitats

Distinctiveness Categories		
Category	Scores	Multiplier
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action e.g. blanket bog.
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g. lowland fens.
Medium	4	Semi-natural habitats not classed as a Priority Habitat.
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub.
Very Low (hedgerows)	1	Lowest biodiversity value possible e.g. non-native and ornamental hedgerow
Very Low (area and watercourse)	0	Little or no biodiversity value e.g. hard standing or sealed surface.

3.5.3.10 Strategic Significance

3.5.3.11 The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting biodiversity and nature improvement, such as Nature Recovery Areas, local biodiversity plans, National Character Area 14 objectives and green infrastructure strategies (see Table 4).

Table 4 – Strategic Significance Assessment for Habitats

Strategic Significance Categories	
Category	Score
High strategic significance Identified in Local Nature Recovery Strategy (LNRS) and delivers specified priorities, or identified local plans as ecologically important	1.15
Medium strategic significance Where LNRS is not available, good potential but not in area defined in local policy – using professional judgment	1.1
Low Strategic Significance Definitions for high or medium not met, i.e., does not deliver specific priorities outlined in LNRS/local plans	1

3.5.3.12 A desk-based study using MAGIC was also performed to identify any statutory or non-statutory sites in the area using a 1km radius. The results are summarised in Table 5.

Table 5 – Statutory and Non-Statutory Sites within 1km of the Site

Designated Site	Approx. Distance from Site	Details
Statutory Designated Sites		
Acornfield Plantation LNR, LWS	400m	A 12-hectare woodland, designated for its basin mire habitat and associated abundance of sphagnum mosses, as well as other aquatic habitats and vegetation assemblages.
Non-Statutory Designated Sites		
Charley Wood LWS	10m	A broadleaved woodland on acid peat soil – hosting two local BAP habitats, thirteen locally rare plant species and rare invertebrate interest.

3.5.3.13 The site falls within the Green Belt allocation; therefore, all habitats onsite have been allocated a **high strategic significance**.

3.5.4 Local Nature Recovery Strategy

3.5.4.1 The Local Nature Recovery Strategy for Liverpool has also been used to inform opportunities for this site.

3.5.4.2 The site is identified as an opportunity area for farmland. Specifically, the opportunity is for more sustainable farming methods and management on agricultural peat soils. This opportunity states that wetter farming methods should be promoted in this area through reduced drainage of agricultural soils.

3.5.4.3 However, as this site will no longer be used for farming, it is unlikely that the proposals will be able to capitalise on this opportunity.

3.5.5 Post-Development

3.5.5.1 Post-development habitats are subject to the same condition assessments as baseline habitats, based on information provided by the proposed landscape layout (Appendix 4).

- 3.5.5.2 Two additional factors are considered within post-development landscapes which are detailed below.
- 3.5.5.3 Temporal Multiplier
- 3.5.5.4 For post development habitat creation or enhancement, a risk multiplier will be automatically applied by the tool to account for the period of diminished ecological value while the habitat reaches the targeted post development condition. This time and therefore risk multiplier differs between habitat types, if the habitat is being created or enhanced and how the habitat is to be managed. The predetermined multiplier is based on the average time to meet targeted condition assuming good practice principles and appropriate management strategies are applied.
- 3.5.5.5 Difficulty Multipliers
- 3.5.5.6 A risk multiplier will be automatically applied by the tool to account the ‘difficulty’ of habitat-specific enhancement or creation. There are two separate difficulty multipliers assigned to each habitat, one for creation and one for enhancement/restoration, recognising that the technical challenges will not necessarily be the same for both.

3.6 Lifespan of Report

- 3.6.1.1 In accordance with CIEEM’s Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until **16th October 2026**). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3.7 Constraints to the Survey

- 3.7.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.
- 3.7.1.2 Best possible effort was made during the mapping process to ensure that the habitat map accurately represents the area of habitats present on site. Some margin of error is possible due to the continuous and difficult to define nature of habitat boundaries, however this margin of error has been minimised using professional opinion of experienced ecologists and up to date aerial imagery. As such this is not expected to be a significant constraint and affect the overall Biodiversity Net Gain Calculation provided within this report.
- 3.7.1.3 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

4 Pre-Development Habitat Assessment

- 4.1.1.1 Baseline habitats were assessed following the methodology outlined in Section 3 and is supported by data from the Preliminary Ecological Appraisal (Urban Green, 2025) and the Arboricultural Impact Assessment (Urban Green, 2026b).
- 4.1.1.2 Habitat descriptions are provided below, and the results of the condition assessment are provided in the accompanying Statutory Biodiversity Metric (Urban Green, 2026d).
- 4.1.1.3 Habitats with comparable structure and condition assessment results have been grouped for simplicity. The habitats have been given reference numbers for clarity regarding in-text and the metric calculation illustrates the numerical data.
- 4.1.1.4 Photographs of the habitats present onsite are included in Appendix 6.

4.2 Area Habitats

4.2.1 1) Grassland – Other Neutral Grassland (g3c 14 101 503)

- 4.2.1.1 The most dominant habitat present on the site was grassland, which comprised approximately 95% of the total site area. The grassland was poorly drained, marshy and wet, and featured a diverse, structurally complex sward with interspersed aquatic and scattered rock microenvironments.
- 4.2.1.2 The habitat is predominantly comprised of grasses, including Yorkshire fog (*Holcus lanatus*), cock's foot (*Dactylis glomerata*), and creeping bent (*Agrostis stolonifera*) grasses, as well as hard rush (*Juncus inflexus*), with an abundant presence of soft rush (*Juncus effusus*) across much of the site's area. A full species list is available in Appendix 7.
- 4.2.1.3 Scattered Himalayan balsam (*Impatiens glandufera*) is also present, localised to the south-western corner near the ditch.
- 4.2.1.4 The species that are commonly found within the grassland suggest that the soil is consistently damp, weakly acidic and richly fertile (high in nitrogen). The soil is also likely to have a high peat content. Historical aerial imagery also shows previous grazing of the site by cattle; however, the grassland is now fenced off from cattle.
- 4.2.1.5 The grassland closely matches the Holcus-Juncus neutral grassland classification; however, within BNG this is classified under other neutral grassland.
- 4.2.1.6 Overall, the grassland had a low species richness overall (<10 species per m²), with invasive species and species of suboptimal condition present. Therefore, this habitat has been assessed as **poor condition**.

4.2.2 2) Grassland – Other Neutral Grassland (g3c 14 101 503)

- 4.2.2.1 A second area of grassland is present to the south-west of the site. Himalayan balsam was more extensively present in this habitat. In addition, the grassland featured a lower abundance of rushes; therefore, it did not match the definition for Holcus-Juncus neutral grassland and has instead been classified as other neutral grassland.

- 4.2.2.2 This grassland has a low species richness overall (<10 species per m²), with invasive Himalayan balsam present; therefore, it has been assessed as **poor condition**.

4.2.3 3) Heathland and Shrub – Mixed Scrub (h3h 524)

- 4.2.3.1 Dense scrub habitat lined the banks of the ditch bordering the south of site. This habitat was dominated by bramble (*Rubus fruticosus* agg.) and bracken (*Pteridium* spp.), with some scattered young willow (*Salix* spp.), maple (*Acer* spp.), and birch (*Betula* spp.), as well as nettle (*Urtica dioica*), and spear thistle (*Cirsium vulgare*). The species composition of the ground layer was consistent with the adjacent grassland.
- 4.2.3.2 This habitat hosted two invasive non-native species: Japanese knotweed (*Reynoutria japonica*) and Himalayan balsam.
- 4.2.3.3 This habitat has been assessed as **poor** condition, due to a lack of species diversity and the presence of invasive species.

4.2.4 4) Individual Trees – Rural Trees

- 4.2.4.1 Two young trees, one silver birch (*Betula pendula*) and one hawthorn (*Crataegus monogyna*), were located within the grassland. Both trees were small and appeared to be self-set from the adjacent area of woodland, with no evidence of management activities.
- 4.2.4.2 Both trees have been assessed as **moderate condition**.

4.2.5 5) Urban – Artificial Unvegetated, Unsealed Surface (u1c 839)

- 4.2.5.1 A gravel/dirt track was present to the north of the site, running through the section of grassland that extends to the west and connecting to Perimeter Road via two gates.
- 4.2.5.2 Artificial unvegetated, unsealed surface is automatically allocated a condition score of **N/A** within the metric.

4.3 Watercourse Habitats

4.3.1 1) Ditch (r2b 50 524)

- 4.3.1.1 A ditch was present along the south-western boundary of the site. While this is labelled as Kirkby Brook, the watercourse functions as and more closely matches the UKHab definition for ditch; therefore, it has been classified as such.
- 4.3.1.2 The bed of the ditch was obscured from view at the time of surveying due to the density of vegetation growing along the banks. However, a water vole survey was carried out on the ditch in August 2024 and the data from this has been used to assess the ditch (Urban Green, 2024).
- 4.3.1.3 Banks were heavily vegetated by invasive Himalayan balsam and scrubby species such as nettles (*Urtica dioica*), willowherbs (*Epilobium* spp.), and hedge bindweed (*Calystegia*

sepium). Suitable foraging plants such as flag iris (*Iris pseudacorus*), bulrush (*Typha latifolia*), and wild mustard (*Sinapis arvensis*) were present in small abundance.

- 4.3.1.4 The site's peaty soils evidently drained an overabundance of organic material, likely exacerbated by farmland runoff, and water was evidently polluted; in areas, eutrophication was apparent, with hazy waters and a thick cover of algae.
- 4.3.1.5 Overall, the ditch has been assessed as **poor condition**, with no watercourse encroachment. The riparian encroachment levels have been assessed as no encroachment and moderate encroachment, due to agricultural management of the adjacent field.

5 Retained Habitats

- 5.1.1.1 The proposed landscape layout and the Statutory Biodiversity Metric were used to calculate the units associated with the habitats which are to be retained on site. This has been illustrated within the Habitat Retention and Loss Plan (Appendix 8).

5.2 Area Habitats

- 5.2.1.1 A strip of grassland along the southern aspect of the site will be retained and enhanced. Enhancements are detailed in Section 8.

5.3 Watercourse Habitats

- 5.3.1.1 The offsite ditch will be retained in its current condition (see Table 6).

Table 6 – Watercourse habitats to be retained on site

Habitat Parcel Reference	Total Length (km)	Total Units	Length Retained (km)	Units Retained
1) Ditch	0.06	0.27	0.06	0.27

6 Lost Habitats

6.1.1.1 The proposed landscape layout and the Statutory Biodiversity Metric were used to calculate the units associated with the habitats which are to be lost on site.

6.2 Area Habitats

6.2.1.1 The majority of existing habitats will be lost.

6.2.1.2 Proposed mitigation strategies have been set out to demonstrate how and if the loss of these habitat types will be mitigated for following the Biodiversity Gain Hierarchy.

6.2.1.3 Table 7 shows a summary of the area habitats and their corresponding area (ha) and unit score to be lost on site.

Table 7 – Area habitats to be lost on site

Habitat Parcel Reference	Total Area (ha)	Total Units	Area Lost (ha)	Units Lost	Proposed Mitigation
1) Other neutral grassland	2.74	12.59	2.53	11.62	Retained grassland will be enhanced and new areas of other neutral grassland will be created.
2) Other neutral grassland	0.18	0.83	0.08	0.37	
3) Mixed scrub	0.06	0.28	0.06	0.28	A new area of mixed scrub will be created onsite.
4) Rural tree	0.01	0.07	0.01	0.07	40 individual trees will be planted.
5) Artificial unvegetated, unsealed surface	0.09	0	0.09	0	No mitigation required
Total	3.07	13.77	2.75	12.28	

7 Pre-Development Habitat Summary

7.1.1.1 Using the Statutory Biodiversity Metric, the habitat units of the existing site habitats were calculated as well as the habitat units to be retained, lost and enhanced in site development.

7.1.1.2 The results of these calculations are presented in the Table 8.

Table 8 - Pre-Development Unit Summary

	On-site baseline	Retained	Lost	Enhanced
Area Habitat Units	13.77	0	12.28	1.49
Watercourse Habitats	0.27	0.27	0	0

8 Enhanced Habitats

8.1 Area Habitats

8.1.1 1&2) Other Neutral Grassland (Poor to Good)

- 8.1.1.1 The parcel of other neutral grassland to the south-west of the site, and a strip of existing grassland along the southern boundary will be retained and enhanced.
- 8.1.1.2 The grassland is currently in poor condition due to a low species richness and a high proportion of species indicative of sub-optimal condition, such as dock and nettles.
- 8.1.1.3 The enhancements proposed involve cutting back the existing grassland and reseeding the area with the EM2 Standard General Purpose Meadow Mixture from Emorsgate Seeds. This grassland mix contains a mix of 15% wildflowers and 85% native grasses, which are characteristic of traditional meadows across a wide range of soil types.
- 8.1.1.4 In addition, the Himalayan balsam present within the grassland, particularly to the south-west, should be eradicated and controlled.
- 8.1.1.5 These enhancements will ensure that all condition criteria are now passed, and the grassland will achieve **good condition**.

9 Post-Development Habitat Assessment

- 9.1.1.1 Proposed habitats were assessed following the methodology outlined in Section 3, using the Proposed Landscape Plan (Urban Green, 2026c).
- 9.1.1.2 Habitat descriptions are provided below, and the results of the condition assessment are provided in the accompanying Statutory Biodiversity Metric (Urban Green, 2026d).
- 9.1.1.3 Habitats with comparable structure and condition assessment results have been grouped for simplicity. The habitats have been given reference numbers for clarity regarding in-text and the metric calculation illustrates the numerical data.
- 9.1.1.4 For a detailed species list refer to the planting schedule within the landscape proposals.

9.2 Area Habitats

9.2.1 1&2) Grassland – Other Neutral Grassland

- 9.2.1.1 The majority of the habitats created onsite will comprise a wildflower meadow (other neutral grassland). The majority of the proposed other neutral grassland will be seeded using EM2 Standard General Purpose Meadow Mixture from Emorsgate Seeds (as described in Section 8.1).
- 9.2.1.2 A sustainable drainage feature and ditches are also proposed within this grassland (see Sections 9.2.6 and 9.4.1) and will instead be sown with the Wet Wildflower Meadow Seed Mix from Habitat Aid, which contains native wildflower and grass species which are more suited to wetland habitats.
- 9.2.1.3 All proposed areas of other neutral grassland are expected to achieve **good** condition due to the high species diversity of the proposed seed mix.

9.2.2 3) Woodland and Forest – Other Woodland; Broadleaved

- 9.2.2.1 Two parcels of woodland will be created onsite along the eastern and western boundaries of the site, to provide screening from adjacent developments.
- 9.2.2.2 The woodland will comprise a mix of native tree and shrub species, such as hawthorn, silver birch, hazel (*Corylus avellana*) and blackthorn (*Prunus spinosa*). Larger, individual trees will also be planted within the woodland parcels – species will include whitebeam (*Sorbus aria*), hornbeam (*Carpinus betulus*) and alder (*Alnus glutinosa*).
- 9.2.2.3 This habitat is not expected to achieve beyond **poor** condition due to the size of the woodland parcels.

9.2.3 4) Heathland and Scrub – Mixed Scrub

- 9.2.3.1 A parcel of mixed scrub is proposed to the south-west of the site, to replace the mixed scrub which will be lost. This scrub will be created from a mix of native shrub species, such as hawthorn, elder (*Sambucus nigra*), blackthorn, hazel, and bramble.

9.2.3.2 This scrub is expected to achieve **moderate** condition.

9.2.4 5) Individual Trees – Urban Trees

9.2.4.1 A total 77 trees will be planted onsite; however, 37 will be planted within the woodland. The remaining 40 are classified as individual trees and will be planted within scrub and grassland habitats.

9.2.4.2 Trees will comprise a mix of native species, such as alder, beech (*Fagus sylvatica*), bird cherry (*Prunus padus*), and English oak (*Quercus robur*).

9.2.4.3 All trees are expected to achieve **moderate** condition.

9.2.5 6) Urban – Developed Land; Sealed Surface

9.2.5.1 The battery storage area will be comprised of hardstanding and a new hardstanding access route will also be created replacing the existing track.

9.2.5.2 Hardstanding is classified as developed land; sealed surface within the metric, which is automatically allocated a condition score of **N/A**.

9.2.6 7) Urban – Sustainable Drainage System

9.2.6.1 The ditches will drain into a sustainable drainage feature, which will also be planted with the same Wet Wildflower Meadow Seed Mix from Habitat Aid as the surrounding grassland habitat.

9.2.6.2 This habitat is expected to achieve **moderate condition**, as the habitat will be comprised entirely of native grassland.

9.3 Linear Hedgerow Habitats

9.3.1 1) Species-Rich Native Hedgerow

9.3.1.1 Two new lengths of hedgerow will be created along the peripheries of the site, totalling 427m. The hedgerows will comprise at least five native species; therefore, they have been classified as species rich. Species will include hawthorn, wild privet (*Ligustrum vulgare*), hazel, holly and guelder rose (*Viburnum opulus*).

9.3.1.2 Both hedgerows are expected to achieve **good** condition.

9.4 Linear Watercourse Habitats

9.4.1 1) Ditches

9.4.1.1 Six new ditches will be created across the site to facilitate drainage and will flow into the sustainable drainage feature. The banks of the ditches will be planted with the Wet Wildflower Meadow Seed Mix.

- 9.4.1.2 The ditches are expected to have some pollution and filamentous algae present as a result of agricultural run-off from adjacent fields, which cannot be controlled. Therefore, all ditches are expected to achieve **poor** condition.

10 Post-Development Habitat Summary

10.1.1.1 Using the Statutory Biodiversity Metric, the habitat units of the proposed and created habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

10.1.1.2 The results of these calculations are presented in the Table 9.

Table 9 - Post Development Biodiversity Net Gain Calculation

	Habitat Unit Change					On-site post development	Net change in Biodiversity	
	On-site baseline	Retained	Lost	Enhanced	Created		Habitat units	%
Area Habitat Units	13.77	0	12.28	1.49	12.76	16.00	+2.23	+16.23
Linear Hedgerow Units	0	0	0	0	3.84	3.84	+3.84	N/A
Watercourse Units	0.27	0.27	0	0	1.61	1.88	+1.61	+>100

10.1.1.3 As illustrated in Table 9, the current landscape proposals for the development of the site produce a net gain of 2.23 units (16.23%) for area habitats, a net gain of 3.84 units for linear hedgerow habitats, and a net gain of 1.61 units (>100%) for linear river habitats. No percentage has been calculated for hedgerow habitats as the baseline was zero. In addition, the trading rules were satisfied by the landscape proposals.

10.1.1.4 In addition, the trading rules have been satisfied by the proposals for all habitats. Consequently, the development meets all local and national planning policy.

10.1.1.5 To ensure that the habitats proposed as part of the post-development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a long-term management plan (usually 30 years) is required.

10.1.1.6 This length of management plan is required due to the complex nature of the habitats to be enhanced/created on site and the high value they will provide to the environment. This management plan is provided by Urban Green (Urban Green, 2026a) as a separate document and covers the recommended management practices for the proposed habitats discussed in this report.

11 References

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Appendix 1 – National Biodiversity Net Gain Legislation

Biodiversity Net Gain (BNG) is a way of creating and improving natural habitats. BNG makes sure development has a measurably positive impact ('net gain') for biodiversity, compared to what is present onsite prior to development.

BNG is now a mandatory condition for any new development of land in England (specific exemptions apply), as of 12th February 2024. In order for planning permission to be granted, the development must be able to achieve at least a **10% net gain in biodiversity** for each type of habitat unit present (i.e., area habitats, linear hedgerow habitats and watercourse habitats) and meet the trading rules.

Where a 10% net gain cannot be achieved onsite, offsite mitigation will be necessary and must be carried out under a conservation covenant or planning obligation.

In England, BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

Schedule 14 the Environment Act (2021) states:

Overview

1 (1) This Schedule makes provision for grants of planning permission in England to be subject to a condition to secure that the biodiversity gain objective is met.

(2) Paragraphs 2 to 12 have effect for the purposes of this Schedule.

Biodiversity gain objective

2 (1) The biodiversity gain objective is met in relation to development for which planning permission is granted if the biodiversity value attributable to the development exceeds the pre-development biodiversity value of the onsite habitat by at least the relevant percentage.

(2) The biodiversity value attributable to the development is the total of—

- (a) the post-development biodiversity value of the onsite habitat,
- (b) the biodiversity value, in relation to the development, of any registered offsite biodiversity gain allocated to the development, and
- (c) the biodiversity value of any biodiversity credits purchased for the development.

(3) The relevant percentage is 10%.

(4) The Secretary of State may by regulations amend this paragraph so as to change the relevant percentage.

The National Planning Policy Framework (NPPF, 2024) supports the requirements of the Environment Act:

Paragraph 187 of the NPPF states:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and

incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.

Paragraph 192 of the NPPF states:

To protect and enhance biodiversity and geodiversity, plans should:

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

Paragraph 193 of the NPPF states:

When determining planning applications, local planning authorities should apply the following principles:

d) 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.

Appendix 2 – Baseline UKHab Habitat Map

U R B A N
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U R B A N G R E E N

Legend

- Red Line Boundary
- Rivers and streams
- Mixed scrub
- Artificial unvegetated
- Other neutral grassland
- Rural Tree
- Target note
 - TN1 - Himalayan balsam
 - TN2 - Japanese knotweed



0 15 30 60 Meters



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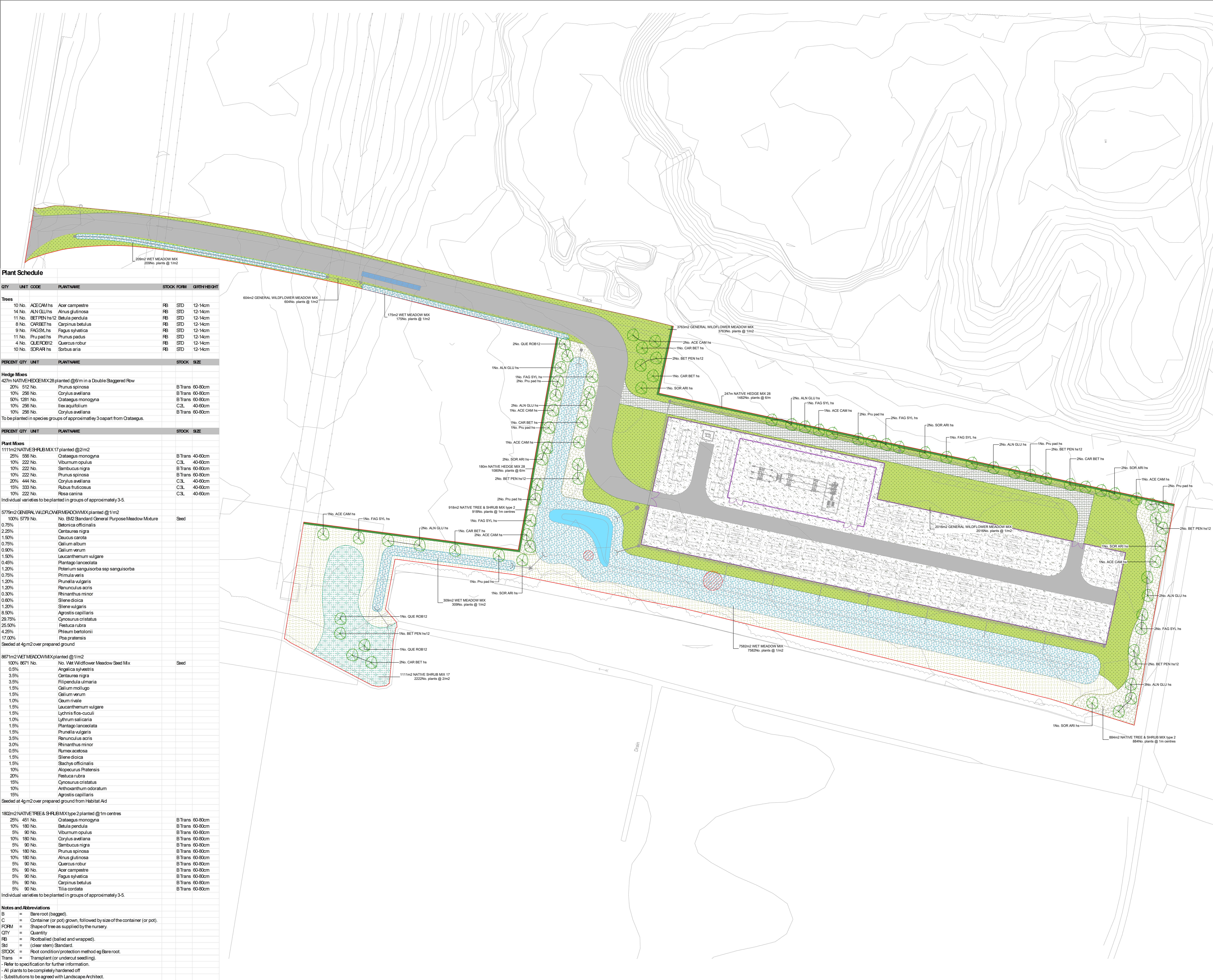
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Project:		Sandy Brow	
Title:		UKHAB Habitat Map	
Issue: 01		Figure: 00	
Drawn: CL	Checked: TM	Approved: BG	
Project: UG2142	Scale @ A3: 1:1500	Date: 17/04/2025	
Dwg No: UG_2142_ECO_HM_01		Revision: 01	

Appendix 3 – Primary and Secondary Codes

Primary Code	Definition
g3c	Other neutral grassland
h3h	Mixed scrub
r2b	Rivers and streams
u1c	Artificial unvegetated, unsealed surface
Secondary code	Definition
14	Scattered rushes
101	Cattle grazed
503	Wet
524	Invasive non-native species
839	Track

Appendix 4 - Proposed Landscape Plan

U R B A N
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QTY	UNIT	CODE	PLANTNAME	STOCK	FORM	GIRTH/HEIGHT
Trees						
10 No.		ACECAM	Acor campestre	FB	STD	12-14cm
14 No.		ALN GLU	Alnus glutinosa	FB	STD	12-14cm
11 No.		BETPEN	Betula pendula	FB	STD	12-14cm
8 No.		CARBET	Carpinus betulus	FB	STD	12-14cm
9 No.		FAGSYL	Fagus sylvatica	FB	STD	12-14cm
11 No.		Pru pad	Prunus padus	FB	STD	12-14cm
4 No.		QUEROB12	Quercus robur	FB	STD	12-14cm
10 No.		SORAR	Sorbus aria	FB	STD	12-14cm

PERCENT	QTY	UNIT	PLANTNAME	STOCK	SIZE
Hedge Mixes					
427m NATIVE HEDGE MIX 28 planted @ 6/1m in a Double Staggered Row					
20%	512 No.		Prunus spinosa	B Trans	60-80cm
10%	256 No.		Corylus avellana	B Trans	60-80cm
50%	1281 No.		Crataegus monogyna	B Trans	60-80cm
10%	256 No.		Ilex aquifolium	C2L	40-60cm
10%	256 No.		Corylus avellana	B Trans	60-80cm
To be planted in species groups of approximately 3 apart from Crataegus.					

PERCENT	QTY	UNIT	PLANTNAME	STOCK	SIZE
Plant Mixes					
1111m2 NATIVE SHRUB MIX 17 planted @ 2/1m2					
25%	556 No.		Crataegus monogyna	B Trans	40-60cm
10%	222 No.		Viburnum opulus	C3L	40-60cm
10%	222 No.		Sambucus nigra	B Trans	60-80cm
10%	222 No.		Prunus spinosa	B Trans	60-80cm
20%	444 No.		Corylus avellana	C3L	40-60cm
15%	333 No.		Rubus fruticosus	C3L	40-60cm
10%	222 No.		Rosa canina	C3L	40-60cm

Individual varieties to be planted in groups of approximately 3-5.

579m2 GENERAL WILDFLOWER MEADOW MIX planted @ 1/1m2					
100%	579 No.		No. E12 Standard General Purpose Meadow Mixture	Seed	
0.75%			Betonica officinalis		
2.25%			Oenothera nigra		
1.50%			Daucus carota		
0.75%			Galium album		
0.90%			Galium verum		
1.50%			Leucanthemum vulgare		
0.45%			Plantago lanceolata		
1.20%			Poterium sanguisorba ssp sanguisorba		
0.75%			Primula veris		
1.20%			Prunella vulgaris		
1.20%			Ranunculus acris		
0.30%			Rhinanthus minor		
0.60%			Stene dioica		
1.20%			Stene vulgaris		
8.50%			Agrostis capillaris		
29.75%			Oxychirus cristatus		
25.50%			Festuca rubra		
4.25%			Phleum bertolonii		
17.00%			Poa pratensis		

867m2 WET MEADOW MIX planted @ 1/1m2					
100%	867 No.		No. Wet Wildflower Meadow Seed Mix	Seed	
0.5%			Angelica sylvestris		
3.5%			Centaurea nigra		
3.5%			Filipendula ulmaria		
1.5%			Galium mollugo		
1.5%			Galium verum		
1.0%			Gum rivale		
1.5%			Leucanthemum vulgare		
1.5%			Lycchnis flos-cuculi		
1.0%			Lythrum salicaria		
1.5%			Plantago lanceolata		
1.5%			Prunella vulgaris		
3.5%			Ranunculus acris		
3.0%			Rhinanthus minor		
0.5%			Rumex acetosa		
1.5%			Stene dioica		
1.5%			Stachys officinalis		
10%			Alopecurus Pratensis		
20%			Festuca rubra		
15%			Oxychirus cristatus		
10%			Anthoxanthum odoratum		
15%			Agrostis capillaris		

180m2 NATIVE TREE & SHRUB MIX type 2 planted @ 1/1m centres					
25%	451 No.		Crataegus monogyna	B Trans	60-80cm
10%	180 No.		Betula pendula	B Trans	60-80cm
5%	90 No.		Viburnum opulus	B Trans	60-80cm
10%	180 No.		Corylus avellana	B Trans	60-80cm
5%	90 No.		Sambucus nigra	B Trans	60-80cm
10%	180 No.		Prunus spinosa	B Trans	60-80cm
10%	180 No.		Alnus glutinosa	B Trans	60-80cm
5%	90 No.		Quercus robur	B Trans	60-80cm
5%	90 No.		Acor campestre	B Trans	60-80cm
5%	90 No.		Fagus sylvatica	B Trans	60-80cm
5%	90 No.		Carpinus betulus	B Trans	60-80cm
5%	90 No.		Tilia cordata	B Trans	60-80cm

Individual varieties to be planted in groups of approximately 3-5.

Notes and Abbreviations
B = Bare root (bagged)
C = Container (or pot) grown, followed by size of the container (or pot).
FORM = Shape of tree as supplied by the nursery.
QTY = Quantity
FB = Rootballed (balled and wrapped).
Std = (clear stem) Standard.
STOCK = Root condition/protection method eg Bare root.
Trans = Transplant (or undercut seedling).
- Refer to specification for further information.
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect.

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Notes:-

KEY

Application Site Red Line Boundary

Hard Landscape
Vehicular Asphalt Surface
To engineer specification & recommendation

Natural Looking Surface Material
To appropriate specification

Permeable Paving
To appropriate specification

2.4m High Security Fence
Green colour

Soft Landscape

Existing Tree and Shrub Planting
To be retained and enhanced

Native Tree
Heavy standard tree

Existing Tree
To be removed

Proposed Wet Wildflower Meadow

Native Woodland Mix Planting
Shrubs and tree whips

Proposed Wildflower Meadow

Proposed Native Hedge Planting

Proposed Native Shrub Planting

Existing Grassland
To be retained and enhanced

P08	03/03/26	UPDATED TO COMMENTS	TH	ME
P07	20/06/25	UPDATED TO COMMENTS	TH	SW
P06	03/06/25	UPDATED TO COMMENTS	MA	SW
P05	29/05/25	UPDATED TO COMMENTS	MA	SW
P04	21/05/25	LAYOUT UPDATE	MA	SW
P03	07/05/25	BNG UPDATE	SA	ME
P02	14/04/25	SECOND ISSUE	SW	ME
P01	15/09/23	FIRST ISSUE	TH	ME
REV.	DATE	DESCRIPTION	DRAWN	CHK'D

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Deva City Office Park, Trinity Way,
Manchester M3 7BF

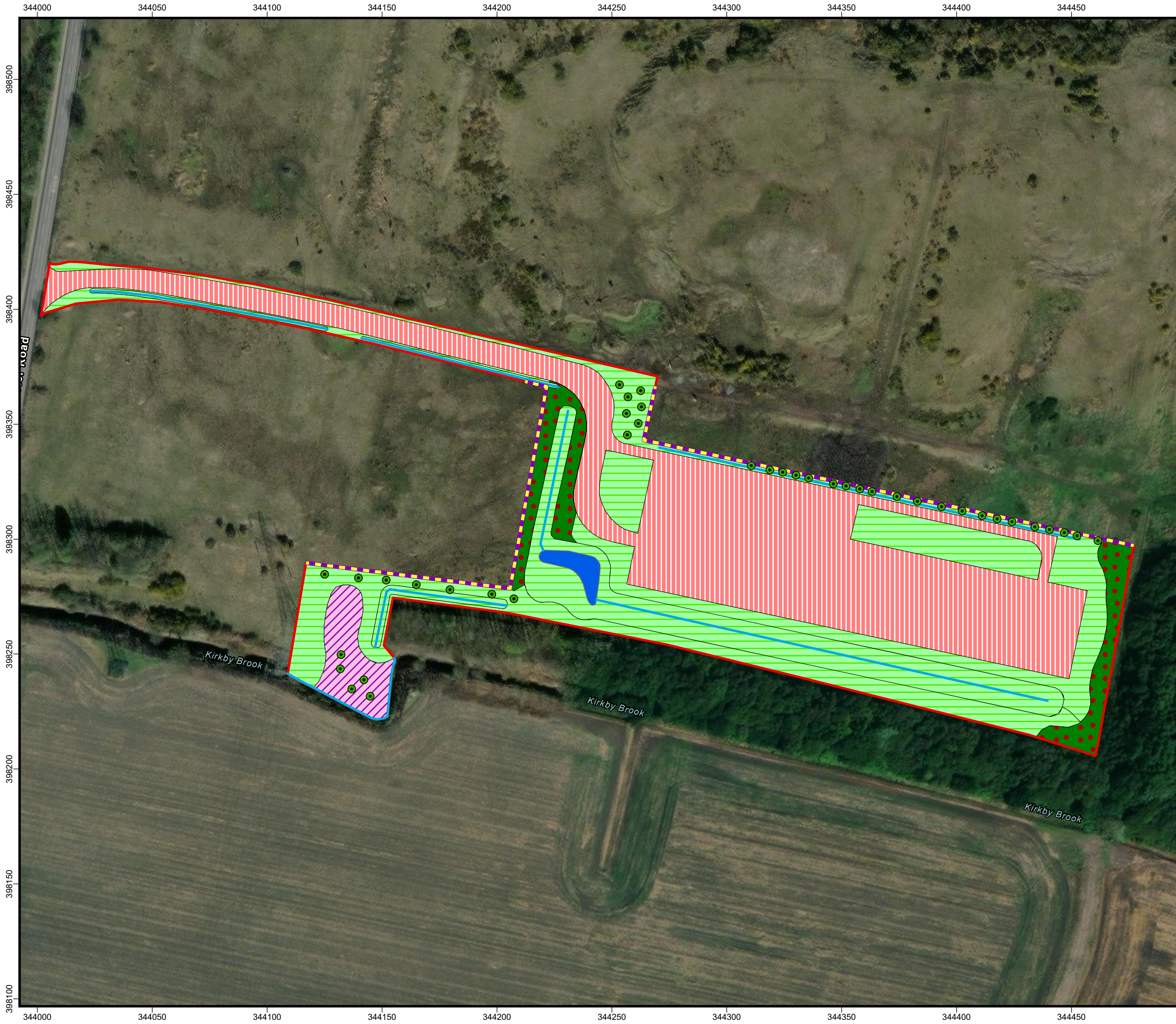
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Client:	BALANCE POWER		
Project:	SANDY BROW LANE, KIRKBY		
Title:	GENERAL ARRANGEMENT PLAN		
Issue:	PLANNING		
Drawn:	TH	Checked:	SA
Approved:			ME
Project:	UG2142	Scale @ A0:	1:500
Date:			15/09/23
Dwg No:	UG_2142_LAN_GA_DRW_01	Revision:	P08

Appendix 5 – Post- Development UKHab Habitat Map

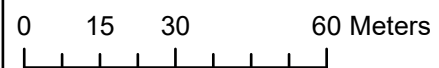
U R B A N
G R E E N



U R B A N G R E E N

Legend

- Red Line Boundary
- Ditch
- Native hedgerow
- Developed land sealed surface
- Mixed scrub
- Other broadleaved woodland
- Other neutral grassland
- SUDs
- Tree



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Project:	Sandy Brow	
Title:	Post Development UKHAB Habitat Map	
Issue:	01	Figure: 00
Drawn:	CL	Checked: TM
Approved:	BG	
Project:	UG2142	Date: 12/05/2025
Dwg No:	UG_2142_BNG_PDHM_01	Revision: 01

Appendix 7 – Photographs of the Site



Photograph 1 – Modified grassland with scattered rush



Photograph 2 – Lady's thumb localised to wetter patch of modified grassland



Photograph 3 – Mixed scrub



Photograph 4 – Himalayan balsam within mixed scrub



Photograph 5 – Individual birch tree within grassland



Photograph 6 – Ditch with surrounding dense scrub vegetation

Appendix 7 – Grassland Species List

Common Name	Species Name
Grasses and Rushes	
Cock's-foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis capillaris</i>
Creeping bent	<i>Agrostis stolonifera</i>
Creeping softgrass	<i>Holcus mollis</i>
False oatgrass	<i>Arrhenatherum elatius</i>
Hard rush	<i>Juncus inflexus</i>
Marsh foxtail	<i>Alopecurus geniculatus</i>
Perennial ryegrass	<i>Lolium perenne</i>
Reed canary grass	<i>Phalaris arundinacea</i>
Sheep's fescue	<i>Festuca ovina</i>
Soft rush	<i>Juncus effusus</i>
Tufted hairgrass	<i>Deschampsia cespitosa</i>
Yorkshire fog	<i>Holcus lanatus</i>
Herbs, Forbes, and Wildflowers	
Broad-leaved dock	<i>Rumex obtusifolius</i>
Common bird's-eye-trefoil	<i>Lotus corniculatus</i>
Common mouse-ear	<i>Cerastium fontanum</i>
Common nettle	<i>Urtica dioica</i>
Common sorrel	<i>Rumex acetosa</i>
Creeping buttercup	<i>Ranunculus repens</i>
Creeping thistle	<i>Cirsium arvense</i>
Curly dock	<i>Rumex crispus</i>
Dandelion	<i>Taraxacum</i> agg.
Dove's-foot crane's-bill	<i>Geranium molle</i>
Eyebright	<i>Euphrasia</i> spp.
Greater willowherb	<i>Epilobium hirsutum</i>
Hawkbit	<i>Leontodon</i> spp.
Hawk's-beard	<i>Crepis</i> spp.

Common Name	Species Name
Meadow buttercup	<i>Cirsium vulgare</i>
Ragwort	<i>Jacobaea vulgaris</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Selfheal	<i>Prunella vulgaris</i>
Silver weed	<i>Argentina anserina</i>
Spear thistle	<i>Cirsium vulgare</i>
Tufted vetch	<i>Vicia cracca</i>
Water dock	<i>Rumex hydrolapathum</i>
White clover	<i>Trifolium repens</i>
Yarrow	<i>Achillea millefolium</i>

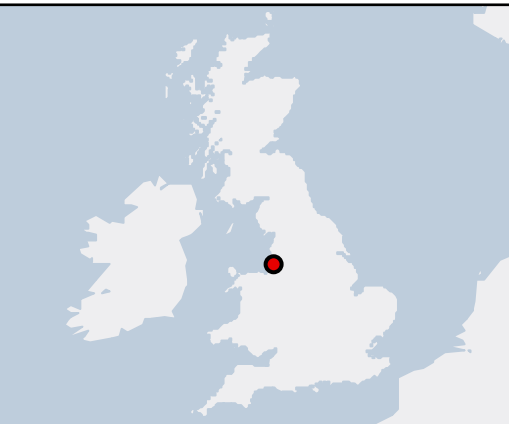
Appendix 8 – Habitat Retention and Loss Plan



U R B A N
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Legend

- Red Line Boundary
- Lost
- Retained



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Client:		Balance Power	
Project:		Sandy Brow	
Title:		Habitat Retention	
Issue: 01		Figure: 00	
Drawn: CL	Checked: TM	Approved: BG	
Project: UG2142	Scale @ A3: 1:1500	Date: 12/05/2025	
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