



McCarthy Stone

# Maelgwyn Road, Llandudno

Biodiversity Assessment

2482014

AUGUST 2021

**RSK**  
**biocensus**  
EXPERTS IN ECOLOGY

## RSK GENERAL NOTES

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**Title:** Maelgwyn Road, Llandudno – Biodiversity Assessment  
**Client:** McCarthy Stone  
**Date:** August 2021  
**Office:** Helsby  
**Status:** Rev00

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Date:

29 July 2021

**Technical and quality reviewer**

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Date:

5 August 2021

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK Biocensus Ltd.

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## EXECUTIVE SUMMARY

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This assessment is a desk-based exercise using the results of surveys undertaken by RSK Biocensus on 3 June 2021 to establish the baseline (pre-construction) ecology of the site and assuming post-construction habitats taken from a proposed site landscaping plan provided by the client.

This report calculates 'biodiversity units' using the Defra Biodiversity Metric 3.0 and following the methods set out in Defra's Biodiversity Metric 3.0 user guide. The calculations are based on the area (or length), distinctiveness, condition and strategic significance of habitats found on the site.

The biodiversity assessment calculation can be found in the accompanying Microsoft Excel document 2482014 - Biodiversity assessment 3.0

The site comprises five habitat types with a baseline totalling 0.08 biodiversity area units, 0 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.

Post-development plans indicate zero retained or enhanced habitats and five new habitats totalling 0.27 biodiversity area units, 0.07 terrestrial linear biodiversity units and 0 aquatic linear biodiversity units.

The biodiversity assessment concludes that the current proposed development will result in a change of + 0.19 biodiversity area units, + 0.07 terrestrial linear biodiversity units and +0 aquatic linear biodiversity units.

There were no deviations from default values or standard guidance.

Assumptions have been made regarding the conditions of enhanced and proposed habitats. The condition assessments for these habitats are listed in *Appendix B*.

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# 1.0 INTRODUCTION

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## 1.1 Purpose of this report

- 1.1.1 This report presents a study of the effects on biodiversity in connection with the removal of habitats for a proposed residential development involving 52 apartments and associated parking and communal garden. The site is c.0.4 ha and is located at Maelgwyn Road Car Park, Llandudno (OS Grid Reference: SH 77757 82237) (*Figure 1*). The appraisal was carried out on behalf of McCarthy Stone. The purpose of the report is to calculate the change in biodiversity units that will arise if the proposed landscaping scheme is implemented.

## 1.2 Landscape context

- 1.2.1 The site is an active car park formed of hardstanding, with small patches of amenity grassland, ornamental shrubs and scattered trees, bounded on all aspects by either fencing or walls. A small substation building is present on site. Land within a 30 m buffer of the site includes residential properties and gardens, with supporting road infrastructure.
- 1.2.2 The site is in north Llandudno, with the wider landscape characterised by the town itself, rural areas to the north with scattered woodland blocks, Liverpool Bay c.0.68 km to the west and Ormes Bay c.0.82 km to the east.

## 2.0 METHODS

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### 2.1 Introduction

- 2.1.1 The Biodiversity Metric 3.0 is designed to quantify biodiversity to inform and improve planning, design, land management and decision-making (Defra, 2021).
- 2.1.2 This study has been carried out as a desk-based exercise, comparing the results of field surveys carried out at the site by RSK Biocensus with a proposed site landscaping plan (July 2021) provided by the client. The primary documents consulted as part of this study include:
- 2482014 – Maelgwyn Road, Llandudno Preliminary Ecological Appraisal Report (RSK Biocensus, 2021)
  - Proposed Landscape Layout provided by client (drawing *NW-2717-02-LA-001*)
- 2.1.3 A map of the pre-construction habitats from the ecological appraisal is presented in *Figure 2*.

### 2.2 Biodiversity assessment methods

- 2.2.1 To calculate biodiversity units for the site and assess any changes arising from the proposed development, this study used methods set out by Defra in their latest Biodiversity Metric 3.0 user guide (Defra, 2021).
- 2.2.2 The Biodiversity Metric uses habitat area as its core measurement, except for linear features where it uses habitat length. Habitat area is multiplied by several factors (distinctiveness, condition and strategic location) that indicate its quality, and this gives its biodiversity unit value. This can be used for existing and future habitats. Connectivity of habitats has been removed from the latest version of the Biodiversity Metric (3.0).
- 2.2.3 Where future habitats are to be enhanced or newly created, the risk of failure is accounted for by applying multipliers for risk factors (difficulty, time to target condition, and off-site risk).
- 2.2.4 The biodiversity value is assessed separately for linear habitats because describing them only by area would result in an underestimate and would therefore fail to ensure adequate compensation for losses. Linear habitats are split into two types: terrestrial, mainly hedgerows and lines of trees; and aquatic, mainly rivers and streams. They are assessed using the same metric, but they cannot be summed together. Therefore, a site can have three biodiversity unit values: one for habitat areas; one for terrestrial linear features; and one for aquatic linear features.

#### Habitat distinctiveness

- 2.2.5 Habitats are classified using the Phase 1 habitat survey methodology (JNCC, 2010) or the UK habitat classification system (UKHAB, 2020). The Biodiversity Metric 3.0 includes a conversion table relating these to one another, and it then assesses habitats using the UK habitat classification system. The metric pre-assigns each habitat type to a

distinctiveness band according to its distinguishing features, i.e. species richness, rarity (at local, regional, national and international scales), and the degree to which it supports species rarely found in other habitats.

- 2.2.6 On rare occasions, the habitat distinctiveness of a habitat can be altered up or down from the preassigned value. Any alterations must then be fully explained in the condition assessment (*Section 2.2.7*) using evidence relevant to the site, e.g. an increase in distinctiveness because of rare flora or fauna or a decrease in distinctiveness because of significant damage to the habitat.

### **Habitat condition**

- 2.2.7 Habitat condition measures the varying quality of similar habitats against what is perceived to be their optimal state. The Biodiversity Metric 3.0 technical supplement (Defra, 2021a) contains condition sheets for all habitats to which the metric can apply. The condition sheets contain a habitat description, contextual information to aid the assessment, and the assessment criteria. The criteria describe what components need to be present for a habitat to be in good, moderate or poor condition.

### **Strategic location**

- 2.2.8 Strategic location - sometimes called 'strategic significance' - works at a landscape scale, allowing additional value to be added to habitats in 'priority' or 'biodiversity target areas'. They include statutory and non-statutory sites and other areas with biodiversity value or potential), and they are mainly identified from local plans and objectives. If a habitat is within such a target area, a multiplier is applied to increase its value.

### **Difficulty of creation and restoration**

- 2.2.9 The risks associated with creating or enhancing habitats, e.g. owing to management, are known as difficulty factors. The Biodiversity Metric 3.0 contains default values for each habitat based on the average difficulty of creating or enhancing it. Occasionally under exceptional circumstances these can be modified, any deviation from the default value must be fully justified in the condition assessment.

### **Time to target condition**

- 2.2.10 There is often a lag between a habitat being removed and the new compensation habitats achieving their target condition. This gives reduced biodiversity for a time. The Biodiversity Metric 3.0 preassigns the time to target condition based on good practice and typical conditions, and it assigns a multiplier based on the number of years required to achieve it. Using bespoke techniques under unique conditions, or creating compensation habitats prior to impacts taking place, the time to target condition can be adjusted. Any changes must be fully justified in the condition assessment.

### **Off-site risk**

- 2.2.11 Sometimes it is not possible to adequately compensate for loss of biodiversity within the site boundary, so off-site compensation is required. If the off-site compensation is a significant distance from the development site, then there will be a local loss of biodiversity and a multiplier is applied to any off-site compensation.

## **3.0 BIODIVERSITY ASSESSMENT**

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3.1.1 For the Biodiversity assessment refer to the accompanying Microsoft Excel document.

2482014 – Biodiversity Assessment 3.0

## 4.0 BIODIVERSITY ASSESSMENT SUMMARY

### 4.1 Biodiversity baseline

- 4.1.1 The Phase 1 habitat survey map (*Figure 2*) was used to categorise five habitat types with a total of 0.08 area units. As there are no linear terrestrial or aquatic features, the score for linear units is 0 for both.
- 4.1.2 The condition assessments are provided in *Appendix A*. There were no deviations from the default methods for baseline habitats.

### 4.2 Post-development habitat creation and enhancement

- 4.2.1 The proposed landscaping plan (July 2021) was used to categorise five new habitats with a total of 0.27 biodiversity area units and 0.07 terrestrial linear biodiversity units. There are no new aquatic linear biodiversity units, and no retained or enhanced habitats.
- 4.2.2 There were no deviations from the default methods for post-development habitats. Further details of the assumptions made to achieve the proposed conditions using default values can be found in *Appendix B*.

### 4.3 Change in biodiversity value

- 4.3.1 Under the current proposals set out in the proposed landscaping plan (July 2021) there will be a positive gain of + 0.19 biodiversity area units, +0.07 terrestrial linear biodiversity units and no aquatic linear biodiversity units. This is shown in **Error! Reference source not found.** below.

**Table 1: Change in Biodiversity Units Calculation**

Post-development Biodiversity Area Units	-	Baseline Biodiversity Area Units	=	Change in Biodiversity Area Units
0.27	-	0.08	=	+ 0.19
Post-development Biodiversity Terrestrial Linear Units	-	Baseline Biodiversity Terrestrial Linear Units	=	Change in Biodiversity Terrestrial Linear Units
0.07	-	0.00	=	+ 0.07
Post-development Biodiversity Aquatic Linear Units	-	Baseline Biodiversity Aquatic Linear Units	=	Change in Biodiversity Aquatic Linear Units
0.00	-	0.00	=	+ 0.00

### 4.4 Suggestions to improve biodiversity gain

- 4.4.1 Although the current proposals will result in a 225.53% gain in habitat area units and a gain in terrestrial linear units, the biodiversity value of the site would remain extremely low under the current proposals. The ecological value of the site would be improved further by using native species rather than the proposed ornamental non-native species

and by creating a pond with native aquatic vegetation. The pond could be fenced off for the safety of residents whilst still allowing access for wildlife.

## 5.0 REFERENCES

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Defra (2021), The Biodiversity Metric 3.0: Auditing and Accounting for Biodiversity Value. User Guide (July 2021). Natural England

Defra (2021a), The Biodiversity Metric 3.0: Auditing and accounting for biodiversity value. Technical Supplement (July 2021). Natural England

JNCC (2010), Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit. JNCC, Peterborough

RSK Biocensus (2021), *2480214 Maelgwyn Road, Llandudno Preliminary Ecological Appraisal Rev00*.

UKHAB (2020), UK Habitat Classification Documents. <https://ukhab.org/>

## 6.0 FIGURES

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Figure 1 – Site Location Plan

Figure 2 – Existing Habitats

Figure 3 – Proposed Landscape Plan (provided by client)



Legend:  
 Site Boundary  
 Study Area (30m)



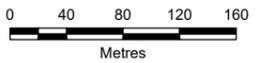
Rev	Date	Description	Drn	Chk	App
00	09/06/2021	2482014	GO	RG	TW

**Maelgwyn Road**



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TITLE: Figure 1:  
 Site Location Plan



Metres  
 SCALE: 1:5,000 @ A3



N  
W E  
S

REV 00



- Legend:**
- Site Boundary
  - g4 - Modified Grassland
  - h3h - Mixed Scrub - Introduced
  - u1b5 - Building
  - u1b - Developed Land - Sealed Surface
  - u1c - Artificial Unvegetated Surface
  - h2 - Hedgerow
  - u1e - Built Linear Feature
  - Target Note

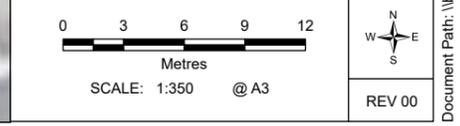


Rev	Date	Description	Drn	Chk	App
00	11/08/2021	2482014	GO	RG	TW

**Maelgwyn Road**



TITLE: Figure 2:  
UK Habitat Survey



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1. This drawing is the copyright of tpm landscape Ltd and cannot be reproduced in any form without the consent of the company.
2. This drawing is to be read in conjunction with detail landscape drawings, details and specification.
3. This drawing is to be read in conjunction with all relevant Architects', Engineer's, Specialists, Bills of Quantities and Specifications.
4. The insertion of any firm or proprietary brand on this drawing is an indication of the class or quality required and does not exclude the use of alternative materials that are equal in performance, quality and appearance, provided that they have been approved in writing by the Landscape Architect.
5. The Contractor is responsible for accurately ascertaining the position of underground services and responding to all relevant service easement requirements.
6. All dimensions are in millimetres unless stated otherwise, for the purposes of construction this drawing must not be scaled and only written dimensions used. Written and scaled dimensions to be checked on site, any discrepancies reported prior to work commencing. IF IN DOUBT PLEASE ASK.
7. All work and materials are to be in accordance with the relevant British Standards and Code of Practice.
8. All Proprietary products are to be used strictly in accordance with the manufacturer's instructions and details.



**LEGEND**

**HARD LANDSCAPE**

- Proposed Tarmac Surface for Pavements**  
To engineers specification.
- Proposed Tarmac Surface for Vehicular Routes**  
To engineers specification.
- Proposed Permeable Tarmac Surface for Vehicular Routes - No Dig Construction**  
To engineers specification.  
Blue hatch denotes areas which requires a no dig construction and permeable paving due to location within Root Protection Area.
- Proposed Block Paving for Parking Bays**  
Product: Omega block paving by Brett (or similar approved)  
Dimensions: 200x100x80mm  
Colour: Brindle  
Laying Bond: Herringbone  
Demarcation: Single row of Omega blocks in Charcoal colour
- Proposed Permeable Block Paving for Parking Bays - No Dig Construction**  
Product: Omega Flow block paving by Brett (or similar approved)  
Dimensions: 200x100x80mm  
Colour: Brindle  
Laying Bond: Herringbone  
Demarcation: Single row of Omega Flow blocks in Charcoal colour
- Proposed Block Paving (Pedestrian Crossing)**  
Product: Omega Tumbled paving by Brett (or similar approved)  
Dimensions: 200x100x80mm  
Colour: Silver Haze  
Laying Bond: Herringbone  
Edge: Shoulder course
- Proposed Permeable Block Paving (Paths)**  
Product: Omega Flow paving by Brett (or similar approved)  
Dimensions: 200x100x80mm  
Colour: Silver Haze  
Laying Bond: Running Bond
- Proposed Permeable Block Paving (Entrance)**  
Product: Alpha Flow paving by Brett (or similar approved)  
Dimensions: 210x140x80mm  
Colour: Autumn Gold  
Laying Bond: Running Bond
- Proposed Flag Paving**  
Material: Broadway Flag Paving by Brett (or similar approved)  
Dimensions: 450 x 450 x 65mm  
Colour: Buff  
Laying Bond: Perpendicular
- Proposed Gravel**  
Gravel bed to edge of the proposed car park.

**BOUNDARY TREATMENTS TO ARCHITECTS DETAILS.**

**BOUNDARIES**

- Proposed Terracing/ Raised Planters**
- Proposed Retaining Wall and Piers with Railings**  
Retaining wall to engineer's details.
- Proposed Handrail**

**SOFT LANDSCAPE**

- Proposed Medium Size Ornamental Tree**  
Trees to be planted as 16-18cm girth, Extra Heavy Standard, 4-4.5m high.  
Root barriers may be required.
- Proposed Small Tree**  
Selected Standard, 10-12cm girth, 2.5-3.5m high.
- Proposed Large Shrub**  
Large shrub 30-50L.
- Proposed Ornamental Planting**  
Proposed shrubs and flowering herbaceous to be planted as 3-5L pots at 3-5 per sq.m. and enhanced by feature specimens in 10-20L pots and climbers in 5L pots.
- Proposed Evergreen Hedge**  
Evergreen hedge to be planted in 10L containers at a rate of 3 per lin. metre.
- Proposed Grass**  
To be turf.
- Proposed Bulbs**  
To provide seasonal interest.

**FEATURES**

- Proposed Table and Chair Set**  
Rattan Furniture.

**REVISION NOTES**

Rev	By	Description	Date

Client  
**McCarthy & Stone Retirement Lifestyles Ltd**

Project  
**Maelgwyn Road, Llandudno**

Description  
**Landscape Layout**

Status  
**For Approval**

Scale @ A1  
**1:200**

Drawn  
**KD**

Checked  
**JS**

Date  
**15.07.21**

Drawing number  
**NW-2717-02-LA-001**

Revision  
**-**

# APPENDIX A – BASELINE DETAILED CONDITION ASSESSMENTS

This appendix presents the condition assessments of the baseline habitats against the condition sheets in the Biodiversity Metric 3.0 technical supplement published by Defra (2021a). There were no deviations from the published guidance.

## Grassland – Modified grassland (low distinctiveness)

<b>Phase 1 Habitat</b>	Amenity grassland		
<b>UKHAB classification</b>	Grassland – Modified grassland		
<b>Distinctiveness</b>	Low (2)	<b>Area / Length</b>	0.01 ha
<b>Habitat Description</b>			
Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of Rye-grass ( <i>Lolium spp.</i> ) and White Clover ( <i>Trifolium repens</i> ).			
<b>Condition Assessment Criteria</b>			
<ol style="list-style-type: none"> <li>1. There must be 6-8 species per m<sup>2</sup>. If a grassland has 9 or more species per m<sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>This criterion is non-negotiable for achieving good condition.</b></li> <li>2. 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 insects, birds and small mammals to live and breed.</li> <li>3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.</li> <li>4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.</li> <li>5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.</li> <li>6. Cover of bracken less than 20%.</li> <li>7. There is an absence of invasive non-native species and undesirable species make up less than 5% of ground cover.</li> </ol>			
<b>Condition</b>			
Good	Passes 6 or 7 of 7 criteria including non-negotiable criterion 1		
Moderate	Passes 4 or 5 of 7 criteria; OR passes 6 of 7 criteria excluding non-negotiable criterion 1		
Poor	Passes 0, 1, 2 or 3 of 7 criteria		
<b>Condition Result</b>			Poor (1)
<b>Justification</b>			
<ol style="list-style-type: none"> <li>1. On average there are below 6 species per m<sup>2</sup> - <b>Fail</b></li> <li>2. Sward height is very short and universal due to frequent mowing - <b>Fail</b></li> <li>3. No scrub present – <b>Pass</b></li> <li>4. Extensive damage due to frequent mowing and pedestrians – <b>Fail</b></li> <li>5. Bare ground present but makes up &lt;5% of grassland area – <b>Pass</b></li> <li>6. No bracken present – <b>Pass</b></li> <li>7. Undesirable species, particularly white clover and docks, make up a high proportion of ground cover (&gt;5%) – <b>Fail</b></li> </ol>			

### Grassland – Modified grassland (low distinctiveness)

<b>Phase 1 Habitat</b>	Improved grassland		
<b>UKHAB classification</b>	Grassland – Modified grassland		
<b>Distinctiveness</b>	Low (2)	<b>Area / Length</b>	0.01 ha
<b>Habitat Description</b>			
Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of Rye-grass ( <i>Lolium spp.</i> ) and White Clover ( <i>Trifolium repens</i> ).			
<b>Condition Assessment Criteria</b>			
<ol style="list-style-type: none"> <li>There must be 6-8 species per m<sup>2</sup>. If a grassland has 9 or more species per m<sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>This criterion is non-negotiable for achieving good condition.</b></li> <li>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 insects, birds and small mammals to live and breed.</li> <li>Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.</li> <li>Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.</li> <li>Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.</li> <li>Cover of bracken less than 20%.</li> <li>There is an absence of invasive non-native species and undesirable species make up less than 5% of ground cover.</li> </ol>			
<b>Condition</b>			
Good	Passes 6 or 7 of 7 criteria including non-negotiable criterion 1		
Moderate	Passes 4 or 5 of 7 criteria; OR passes 6 of 7 criteria excluding non-negotiable criterion 1		
Poor	Passes 0, 1, 2 or 3 of 7 criteria		
<b>Condition Result</b>			Moderate (2)
<b>Justification</b>			
<ol style="list-style-type: none"> <li>Average of 6-8 species per m<sup>2</sup> – <b>Pass</b></li> <li>Grass is less regularly managed with a universal sward height &gt;7 cm – <b>Fail</b></li> <li>Some scattered bramble but &lt;20% of grassland area – <b>Pass</b></li> <li>No evidence of physical damage. Grassland strips bisected by a footpath, limiting damage to the grassland itself – <b>Pass</b></li> <li>Small areas of bare ground present but &lt;5% of grassland area – <b>Pass</b></li> <li>No bracken present – <b>Pass</b></li> <li>Undesirable species, including creeping buttercup and common nettle, make up &gt;5% of ground cover – <b>Fail</b></li> </ol>			

### Urban – Introduced shrub

<b>Phase 1 Habitat</b>	Introduced shrub		
<b>UKHAB classification</b>	Heathland and shrub – Mixed scrub		
<b>Distinctiveness</b>	Low (2)	<b>Area / Length</b>	0.01 ha
<b>Habitat Description</b>			
Dense scrub comprising a mixture of non-native ornamental species without a single species dominant.			
<b>Condition Assessment Criteria</b>			
N/A – fixed at 'poor', default multiplier of 1.			
<b>Condition</b>			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			Poor (1)
<b>Justification</b>			
The areas of shrub are dominated by non-native and invasive species.			

### Urban – Artificial unvegetated; unsealed surface

<b>Phase 1 Habitat</b>	Hardstanding / bare ground		
<b>UKHAB classification</b>	Urban – Artificial unvegetated; unsealed surface		
<b>Distinctiveness</b>	Very Low (0)	<b>Area / Length</b>	0.01 ha
<b>Condition Assessment Criteria</b>			
N/A – Other (default multiplier of 0)			
<b>Condition</b>			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			N/A (0)
<b>Justification</b>			
The areas of hardstanding and bare ground support very few, if any, species.			

### Urban – Developed land; sealed surface

<b>Phase 1 Habitat</b>	Buildings		
<b>UKHAB classification</b>	Urban – Developed land; sealed surface		
<b>Distinctiveness</b>	Very Low (0)	<b>Area / Length</b>	0.01 ha
<b>Condition Assessment Criteria</b>			
N/A – Other (default multiplier of 0)			
<b>Condition</b>			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			N/A (0)
<b>Justification</b>			
The buildings support very few, if any, species.			

### Urban – Developed land; sealed surface

<b>Phase 1 Habitat</b>	Hardstanding		
<b>UKHAB classification</b>	Urban – Developed land; sealed surface		
<b>Distinctiveness</b>	Very Low (0)	<b>Area / Length</b>	0.35 ha
<b>Condition Assessment Criteria</b>			
N/A – Other (default multiplier of 0)			
<b>Condition</b>			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			N/A (0)
<b>Justification</b>			
The hardstanding supports very few, if any, species.			

## Urban – Urban trees

<b>Phase 1 Habitat</b>	Scattered trees		
<b>UKHAB classification</b>	Urban – Urban tree		
<b>Distinctiveness</b>	Medium (4)	<b>Area / Length</b>	0.005 ha
<b>Habitat Description</b>			
<p>Covers the following topographical formations most commonly found in urban areas:</p> <ul style="list-style-type: none"> <li>• <b>Individual trees:</b> Young trees over 75 mm in diameter measured at 1.5 m from ground level and individual semi-mature and mature trees of significant stature and size that dominate their surroundings whose canopies are not touching but that are in close proximity to other trees.</li> <li>• <b>Perimeter blocks:</b> Groups or stands of trees within and around boundaries of land, former field boundary trees incorporated into developments, individual trees in gardens whose canopies overlap continuously.</li> <li>• <b>Linear blocks:</b> Lines of trees along streets, highways, railways and canals whose canopies may or may not overlap continuously.</li> </ul>			
<b>Condition Assessment Criteria</b>			
<ol style="list-style-type: none"> <li>1. More than 70% of trees are native species.</li> <li>2. Tree canopy is predominantly continuous with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide.</li> <li>3. More than 50% of trees are mature or veteran.</li> <li>4. There is little or no evidence of adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so that trees retain &gt;75% of expected canopy for their age range and height.</li> <li>5. Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc.</li> <li>6. Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.</li> </ol>			
<b>Condition</b>			
Good	Passes 5 or 6 of 6 criteria		
Moderate	Passes 3 or 4 of 6 criteria		
Poor	Passes 0, 1, or 2 of 6 criteria		
<b>Condition Result</b>			Moderate (2)
<b>Justification</b>			
<ol style="list-style-type: none"> <li>1. Singular small ash tree present on site – <b>Pass</b></li> <li>2. Canopy relatively open with gaps making up &gt;10% of total area – <b>Fail</b></li> <li>3. Tree is not mature or veteran – <b>Fail</b></li> <li>4. No evidence of adverse impact on tree health – <b>Pass</b></li> <li>5. No micro habitats observed and no signs of active management to achieve any – <b>Fail</b></li> <li>6. Tree situated within area of amenity grassland - <b>Pass</b></li> </ol>			

## APPENDIX B – POST-DEVELOPMENT DETAILED CONDITION ASSESSMENTS

This appendix presents the assessment of the post-development habitats against the condition sheets in the Biodiversity Metric 3.0 technical supplement published by Defra (2021a). There were no deviations from the published guidance.

### Grassland – Modified grassland (low distinctiveness)

<b>Phase 1 Habitat</b>	Amenity grassland		
<b>UKHAB classification</b>	Grassland – modified grassland		
<b>Distinctiveness</b>	Low (2)	<b>Area / Length</b>	0.02 ha
<b>Habitat Description</b>			
Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of Rye-grass ( <i>Lolium spp.</i> ) and White Clover ( <i>Trifolium repens</i> ).			
<b>Condition Assessment Criteria</b>			
<ol style="list-style-type: none"> <li>There must be 6-8 species per m<sup>2</sup>. If a grassland has 9 or more species per m<sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>This criterion is non-negotiable for achieving good condition.</b></li> <li>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 insects, birds and small mammals to live and breed.</li> <li>Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area.</li> <li>Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.</li> <li>Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.</li> <li>Cover of bracken less than 20%.</li> <li>There is an absence of invasive non-native species and undesirable species make up less than 5% of ground cover.</li> </ol>			
<b>Condition</b>			
Good	Passes 6 or 7 of 7 criteria including non-negotiable criterion 1		
Moderate	Passes 4 or 5 of 7 criteria; OR passes 6 of 7 criteria excluding non-negotiable criterion 1		
Poor	Passes 0, 1, 2 or 3 of 7 criteria		
<b>Condition Result</b>			Poor (1)
<b>Justification</b>			
Includes turfed and bulb areas. Assumes poor condition based on the following justifications:			
<ol style="list-style-type: none"> <li>Grassland will be species-poor with an average of &lt;6 species per m<sup>2</sup> – <b>Fail</b></li> <li>Grassland will be managed to maintain a universal short sward height – <b>Fail</b></li> <li>Frequent mowing will prevent colonisation of scrub – <b>Pass</b></li> <li>Physical damage from frequent management and pedestrians expected to be high – <b>Fail</b></li> <li>Some areas of bare ground expected totalling &gt;5% of grassland areas, expected from pedestrians – <b>Fail</b></li> <li>No presence of bracken – <b>Pass</b></li> <li>Undesirable species cover expected to be high – <b>Fail</b></li> </ol>			

### Urban – Introduced shrub

<b>Phase 1 Habitat</b>	Introduced shrub		
<b>UKHAB classification</b>	Heathland and shrub – Mixed scrub		
<b>Distinctiveness</b>	Low (2)	<b>Area / Length</b>	0.06 ha
<b>Habitat Description</b>			
Dense scrub comprising a mixture of non-native ornamental species without a single species dominant.			
<b>Condition Assessment Criteria</b>			
N/A – fixed at 'poor', default multiplier of 1.			

Condition	
Good	N/A
Moderate	N/A
Poor	N/A
<b>Condition Result</b>	
Poor (1)	
Justification	
The areas of shrub are dominated by non-native species.	

### Urban – Developed land; sealed surface

<b>Phase 1 Habitat</b>	Hardstanding		
<b>UKHAB classification</b>	Urban – Developed land; sealed surface		
<b>Distinctiveness</b>	Very Low (0)	<b>Area / Length</b>	0.18 ha
Condition Assessment Criteria			
N/A – Other (default multiplier of 0)			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			N/A (0)
Justification			
The hardstanding supports very few, if any, species.			

### Urban – Developed land; sealed surface

<b>Phase 1 Habitat</b>	Buildings		
<b>UKHAB classification</b>	Urban – Developed land; sealed surface		
<b>Distinctiveness</b>	Very Low (0)	<b>Area / Length</b>	0.14 ha
Condition Assessment Criteria			
N/A – Other (default multiplier of 0)			
Condition			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>			N/A (0)
Justification			
The hardstanding supports very few, if any, species.			

### Urban – Urban trees

<b>Phase 1 Habitat</b>	Scattered trees		
<b>UKHAB classification</b>	Urban – Urban tree		
<b>Distinctiveness</b>	Medium (4)	<b>Area / Length</b>	0.0425 ha
Habitat Description			
Covers the following topographical formations most commonly found in urban areas: <ul style="list-style-type: none"> <li>• <b>Individual trees:</b> Young trees over 75 mm in diameter measured at 1.5 m from ground level and individual semi-mature and mature trees of significant stature and size that dominate their surroundings whose canopies are not touching but that are in close proximity to other trees.</li> </ul>			

<ul style="list-style-type: none"> <li>• <b>Perimeter blocks:</b> Groups or stands of trees within and around boundaries of land, former field boundary trees incorporated into developments, individual trees in gardens whose canopies overlap continuously.</li> <li>• <b>Linear blocks:</b> Lines of trees along streets, highways, railways and canals whose canopies may or may not overlap continuously.</li> </ul>	
<b>Condition Assessment Criteria</b>	
<ol style="list-style-type: none"> <li>1. More than 70% of trees are native species.</li> <li>2. Tree canopy is predominantly continuous with gaps in canopy cover making up &lt;10% of total area and no individual gap being &gt;5 m wide.</li> <li>3. More than 50% of trees are mature or veteran.</li> <li>4. There is little or no evidence of adverse impact on tree health by anthropogenic activities such as vandalism or herbicide use. There is no current regular pruning regime so that trees retain &gt;75% of expected canopy for their age range and height.</li> <li>5. Management regime has encouraged micro habitat sites for birds, mammals and insects e.g. presence of deadwood, cavities or loose bark etc.</li> <li>6. Trees are immediately adjacent to other vegetation, and tree canopies are oversailing vegetation beneath.</li> </ol>	
<b>Condition</b>	
Good	Passes 5 or 6 of 6 criteria
Moderate	Passes 3 or 4 of 6 criteria
Poor	Passes 0, 1, or 2 of 6 criteria
<b>Condition Result</b>	Moderate (2)
<b>Justification</b>	
<p>Ornamental trees will be planted throughout their development. These will be predominantly non-native species and their size has been assumed based on the planting sizes shown on the landscaping plan. Moderate condition assumed based on the following justifications:</p> <ol style="list-style-type: none"> <li>1. Majority of trees will be ornamental non-native species – <b>Fail</b></li> <li>2. Canopy of each tree expected to be continuous with minimal gaps – <b>Pass</b></li> <li>3. Trees unlikely to reach maturity in time taken to reach target condition (27 years for moderate) – <b>Fail</b></li> <li>4. No adverse effects on tree health anticipated – <b>Pass</b></li> <li>5. Management activities unlikely to encourage micro habitats, instead likely to focus on maintaining aesthetic appeal for development residents – <b>Fail</b></li> <li>6. Trees will all be situated in areas of ornamental planting - <b>Pass</b></li> </ol>	

### Hedgerow – Hedge ornamental non-native

<b>Phase 1 Habitat</b>	Native species-poor hedgerow		
<b>UKHAB classification</b>	Hedgerow – Other hedgerows		
<b>Distinctiveness</b>	V. Low (1)	<b>Area / Length</b>	68 m
<b>Habitat Description</b>			
Hedgerows that do not consist predominantly (i.e. 80% or more cover) of at least one woody UK native species.			
<b>Condition Assessment Criteria</b>			
N/A – fixed at 'poor', default multiplier of 1.			
<b>Condition</b>			
Good	N/A		
Moderate	N/A		
Poor	N/A		
<b>Condition Result</b>	Poor (1)		
<b>Justification</b>			
The hedgerows are dominated by non-native, ornamental species.			



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