

Biodiversity Net Gain Assessment

July 2026

Project Reference: PR-26-0137

Land at Villiers Road

Knowsley

Prescot

L34 9ET

National Grid Reference: SJ 42920 96570



Land at Villiers Road, Knowsley, Prescot, L34 9ET
Biodiversity Net Gain Assessment

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Prepared by	Tyrer Ecological Consultants Ltd

Author	Mr. H. Mulligan ACIEEM	
Surveyor & BNG Assessor	Mr. H. Mulligan ACIEEM	
Reviewed by	Miss. H. McGlynn Qualifying CIEEM	Mr. B. Richards ACIEEM
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Approved by	Mrs. K. Wilding CEnv MISEP ACIEEM	
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Executive Summary

As part of an ongoing planning application with Knowsley Council (Ref.: 26/00153/FUL) concerning land at Villiers Road, Tyrer Ecological Consultants Ltd were commissioned by PAB Chartered Architects Ltd to undertake a Biodiversity Net Gain (BNG) assessment. This process follows on from a site visit carried out in June 2026, which identified, mapped and assessed the habitats present within the red line boundary.

Proposals include the erection of new security fencing around the car park of an existing warehouse, together with the installation of 27 air conditioning units in four separate locations around the site.

Based on the landscaping proposals, the scheme will result in a **11.51% net-gain in Habitat units**. In terms of specific unit changes, the metric output indicates a **gain of 0.06 Habitat units**. In addition, **the trading rules are satisfied for the scheme**.

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	0.06
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	11.51%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Tyrer Ecological Consultants Ltd can confirm that the current iteration of the landscaping proposals was created following consultation between the applicant and ecological consultant, and represents an improvement in terms of habitat units relative to the original design.

If proposals are altered, then it may be necessary to re-assess the scheme using the Statutory Biodiversity Metric Calculation Tool in order to ascertain the scale of the unit changes on site.

BNG guidance provides a comprehensive framework for the sequential usage of the mitigation hierarchy, which details that a net-gain on site is the preferable approach where possible. In this sense, the applicant has proceeded in line with the mitigation hierarchy and in accordance with BNG guidance, as well as with local policy.

Next steps

To ensure that no degradation will occur to the retained medium distinctiveness habitat, namely the woodland on-site, a Construction Environmental Management Plan (CEMP) or Arboricultural report detailing the relevant root protection zones may need to be produced.

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- *PR-25-0137 Land at Villiers Road – The Statutory Metric* (Tyrer Ecological Consultants Ltd, July 2026)

1.0 Introduction & Scope

- 1.1 As part of an ongoing planning application with Knowsley Council (Ref.: 26/00153/FUL¹) concerning land at Villiers Road, Tyrer Ecological Consultants Ltd were commissioned by PAB Chartered Architects Ltd to undertake a Biodiversity Net Gain (BNG) assessment. This process follows on from a site visit carried out in June 2026, which identified, mapped and assessed the habitats present within the red line boundary.
- 1.2 Proposals include the erection of new security fencing around the car park of an existing warehouse, together with the installation of 27 air conditioning units in four separate locations around the site. See **Figure 1.1** below for a proposed site plan layout.

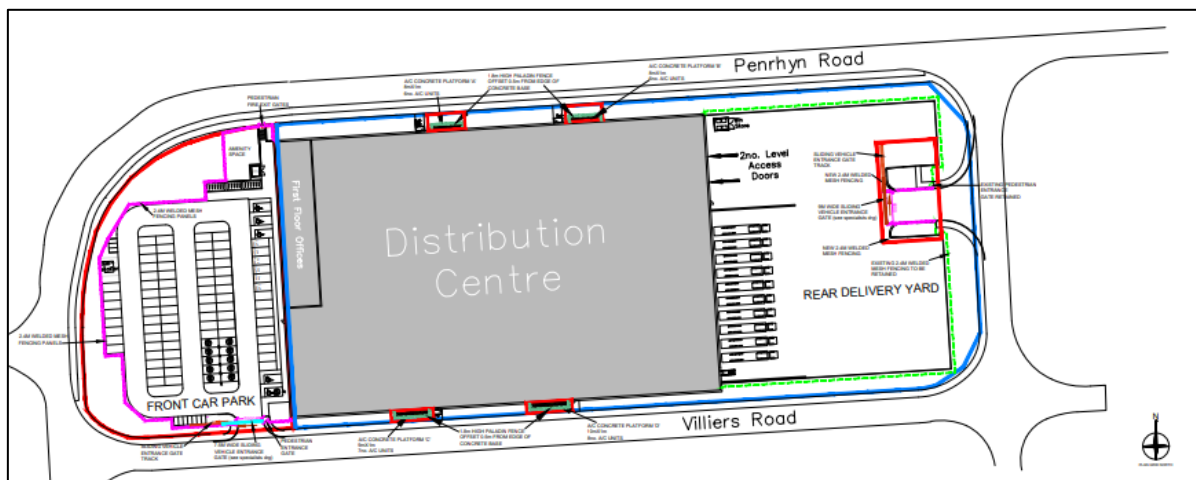


Figure 1.1 – Proposed site plan layout (©PAB Chartered Architects Ltd)

- 1.3 This BNG Assessment relies on information gathered during the site survey as well as from plans associated with the scheme (see **Point 2.7** of this report for key third-party data sources).
- 1.4 This assessment uses 'The Statutory Biodiversity Metric Calculation Tool' (as published on 3rd July 2025) as this is the most recent and most appropriate metric for the proposed scheme versus alternatives available. This metric can be used or specified by any development project, consenting body or landowner that needs to calculate biodiversity losses and gains for terrestrial and / or intertidal habitats and has been extensively tested.

National Policy

- 1.5 The National Planning Policy Framework (NPPF), revised in December 2024, legislates net gain in biodiversity through paragraphs 8(c), 187(d), 192(b) and 193(d). An effort should be made, therefore, through the development design to provide ecological enhancement in order to deliver an overall increase in biodiversity, and opportunities to incorporate biodiversity in and around developments should be encouraged.
- 1.6 The Environment Act 2021 ('The Act') came into force in November 2021. Aspects of the Act relating to BNG came into force on 12th February 2024 for Major developments and 2nd April for minor developments, whereby BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).
- 1.7 The Act is supported by secondary legislation, consisting of six statutory instruments² laid within law, of which the relevant legislation includes:

¹ See: <https://planapp.knowsley.gov.uk/online-applications/applicationDetails.do?activeTab=externalDocuments&keyVal=TCRPNWIXJF400>

² See: <https://www.legislation.gov.uk/primary+secondary?title=The%20Biodiversity%20Gain>

- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024,
- The Biodiversity Gain Site Register Regulations 2024,
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024,
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024,
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024,
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024.

1.8 Other legislature considered for the purposes of this report includes the following:

- Biodiversity Net Gain: Good practice principles for development (2019),
- Natural Environment and Rural Communities (NERC) Act (2006) Section 41.

Local Policy

1.9 The following policies from the Knowsley Local Plan Adopted Core Strategy (adopted January 2016) are considered relevant to this assessment (see **Table 1.1** below):

Table 1.1 – Relevant policies as extracted from the Knowsley Local Plan³

Policy Title	Summary
CS8 Green Infrastructure	Knowsley's existing green infrastructure will be protected, managed, or enhanced, through the identification, protection and enhancement of strategically important areas of greenspace. In relation to the LCR, the Council will work with partners to help deliver local and sub-regional programmes, initiatives and strategies to enhance Green Infrastructure.
CS21 Greenspaces and Trees	The Council will provide and maintain quantitative, qualitative and accessibility standards for different types of public open space.

³ See: <https://www.knowsley.gov.uk/sites/default/files/2023-11/knowsley-local-plan-adopted-core-strategy.pdf>

2.0 The Statutory Biodiversity Metric Calculation Tool

- 2.1 Biodiversity Net Gain is specified as “an approach to development which aims to leave the natural environment in a measurably better state than before”. The Statutory Biodiversity Metric Calculation Tool is a quantitative tool used to calculate how development projects impact upon the biodiversity value of a site and allows for the scale of mitigative / compensatory measures to be calculated by a suitably qualified individual.
- 2.2 Using the available baseline ecological information gathered and supported by the design information as has been communicated, the Statutory Biodiversity Metric Calculation Tool was completed by the following assessor (see **Table 2.1** below):

Table 2.1 – BNG Assessor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan ACIEEM	• Senior Ecologist & BNG Lead with 4 years of professional training and experience, • MBiolSci in Biological Sciences (Zoology), • Received in-house training from Senior Ecologists as well as attended external webinars and training courses in application of the Metric, • FISC Level 4 Botanist, • Undertaken a large number of BNG assessments, utilising both the SSM Beta's and full BNG tool, v3.0, v3.1, v4.0 & Statutory.

- 2.3 Application of use follows the Biodiversity Net Gain Principles and Rules (Defra, June 2026) covered in the most recent User Guide⁴ (see **Tables 2.2 – 2.3**), whilst also taking into account the Biodiversity Net Gain: Good practice principles⁵, developed by **CIRIA** (Construction Industry Research and Information Association), **CIEEM** (Chartered Institute of Ecology and Environmental Management) and **ISEP** (Institute of Sustainability & Environmental Professionals, formerly IEMA).
- 2.4 It is a legal requirement that the four BNG Rules are met, whilst the nine BNG Principles provide guidance for application of use.

⁴ See:

https://assets.publishing.service.gov.uk/media/6a1d98e9c7335e2ca6daadd5/The_Statutory_Biodiversity_Metric_-_User_Guide_-_June_2026.pdf

⁵ See: <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

Table 2.2 – Biodiversity Metric Rules

Rule Number	Rule Detail
1	The trading rules of this biodiversity metric must be followed.
2	Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applied to each unit type.
3	To accurately apply the biodiversity metric formula, you must use the biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites. The tools remove the need for a user to manually calculate the change in biodiversity value. The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.
4	In exceptional circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.

Table 2.3 – Biodiversity Metric Principles

Principle Number	Principle Detail
1	The metric assessment should be completed by a competent person.
2	The use of the biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirement. This includes consenting or licencing processes, for example woodlands.
3	The biodiversity metric should be used in accordance with established good practice guidelines and professional codes.
4	The biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.
5	Biodiversity units are a proxy for biodiversity and should be treated as relative values.
6	This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.
7	Habitat interventions need to be realistic and deliverable within a relevant project timeframe.
8	Created and enhanced habitats should seek, where practical and reasonable, to be local to any impact and deliver strategically important outcomes for nature conservation.
9	The metric does not enforce a minimum habitat size ratio for compensation of losses. However, proposals should aim to: - maintain habitat extent (supporting more, bigger, better and more joined up ecological networks) and - ensure that proposed or retained habitat parcels are of sufficient size for ecological function

- 2.5 Assessment of baseline / post-development Area Habitat / Hedgerow / Watercourse units have been carried out and assessed separately in accordance with the guidance, principles, and rules – where present on site. Any revisions required following the issue of this report will use The Statutory Biodiversity Metric in accordance with the rules of use for that version.
- 2.6 Measurement of habitats was carried out using a combination of desktop software – QGIS, Google Earth and MAGiC Maps 2026, whilst physical habitat measurements were also taken in the field during ground truthing, where necessary.
- 2.7 Key third-party data sources and / or information used to help inform this BNG assessment include:
- **Mood Landscape Ltd** (Ref.: 22_208_L001 Rev D) – Detailed Soft Landscape Plan (July 2022),
 - **PAB Chartered Architects Ltd** (Ref.: 2616-PL-01) – Location Plan (May 2026),
 - **PAB Chartered Architects Ltd** (Ref.: 2616-PL-02) – Existing Site Plan Layout (May 2026),
 - **PAB Chartered Architects Ltd** (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).
- 2.8 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, Director of Tyrer Ecological Consultants Ltd, and her assessment concurs with the findings and recommendations of Mr. H. Mulligan, as well as with other senior consultants within the company.

3.0 Limitations

- 3.1 Third-party information was utilised in the completion of the Biodiversity Net Gain assessment (see **Point 2.7**); therefore, Tyrer Ecological Consultants Ltd cannot be held accountable for any possible discrepancies within supporting information.
- 3.2 The habitat codes of UK Habitats are not, at present, fully aligned with the Biodiversity Metric Calculator. Translations have, therefore, been made between the two categorisations by the assessor, who aims to most accurately represent the biodiversity value of the site and the habitats present.
- 3.3 Measurements have been calculated utilising software such as 'QGIS' (a Geographic Information System or GIS), aerial imagery and third-party plans provided by the applicant, all of which may have varying levels of inaccuracy, and as such Tyrer Ecological Consultants Ltd cannot be held accountable for any discrepancies between habitat areas (ha) or linear features (km) stated in this report and other documentation pertaining to the site.
- 3.4 The Statutory Biodiversity Metric allows for an area / length accuracy to any number of decimal places, however 'Total area' / 'Total length' is displayed to two decimal places, this may result in small rounding discrepancies on large sites with many small parcels of habitat. However, the metric uses the true value entered into each row to calculate the overall unit change of the site, thus while rounding discrepancies may be displayed under 'Total area' / 'Total length' these discrepancies do not impact the results of the calculation tool; nonetheless, the reader should be aware that these discrepancies can occur.
- 3.5 Based upon the site visit and historic satellite imagery, it is evident that habitat degradation has taken place at the site. Whilst this is accepted as a constraint, the pre-degradation character and condition of the cleared areas have been inferred from information submitted as part of a previous planning application at the site and information gathered from the site visit, with a precautionary approach taken where unclear. See **Section 5.0** for further information.
- 3.6 In considering possible limitations, no significant constraints were experienced which might adversely influence the results, conclusions, and recommendations of this BNG assessment, the results of which have been presented in accordance with the rules and principles of use to the satisfaction of the assessor.

4.0 Baseline Strategic Significance & Irreplaceable Habitats

- 4.1 As stated within the BNG User Guide, where a Local Nature Recovery Strategy (LNRS) has been published, as is the case in Merseyside, the baseline strategic significance values for habitat parcels in that area should always be scored as low. As such, all habitats within the site have been assigned 'Area/compensation not in local strategy/no local strategy' at the baseline.
- 4.2 The site was not host to any irreplaceable habitats outlined under The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024, as evidenced during the site visit undertaken by Tyrer Ecological Consultants in June 2026.

5.0 Habitat Degradation

- 5.1 Habitat degradation appears to have taken place since the relevant date of January 30th 2020; prior to the site visit, areas of vegetation to the north and south of the warehouse had been cleared to facilitate the AC units included within this application, and this did not occur as part of a granted planning application (see **Figure 5.1**).



Figure 5.1 – Imagery taken during site visit on 5th June 2026 indicating placement of AC units in place of vegetation.

- 5.2 As such, the baseline value of the cleared areas has been entered in its pre-clearance value. Analysis of the Knowsley Council Planning Portal and historic satellite imagery indicates that these areas were planted between 2023 and 2024 as part of the proposals to create the warehouse (Ref.: 22/00163/FUL⁶). Based upon the remaining vegetation in the bordering areas, and the 'Detailed Soft Landscape Plan' (© Mood Landscape, February 2022) produced as part of the granted planning application, these areas were previously covered by ornamental and non-native cultivars, such as *Viburnum bodnantense* 'Dawn', *Photinia fraseri* 'Red Robin', *Cornus alba* 'Sibirica' and *Pyracantha* 'Orange Glow'. Based upon this, the cleared areas have been entered as '**Introduced shrub**' within the metric, consistent with much of the landscaping that remains onsite.

⁶See: <https://planapp.knowsley.gov.uk/online-applications/applicationDetails.do?keyVal=R8SPQRIXJOE00&activeTab=summary>

6.0 Habitat Survey with Metric

Baseline Habitats

- 6.1 The reader is referred to the Statutory Biodiversity Metric Calculation Tool (hereafter referred to as the Metric)⁷, which will accompany this report when issued and should be read in conjunction with this section. See **Table 6.1** & **Figure 6.1** below for **baseline habitat information** as extracted from the Metric.
- 6.2 Please refer to **Appendix I** for specific scoring of the condition analyses carried out at the site on a per-habitat basis.

Table 6.1 – Baseline Habitat information for Area habitats

Habitat Type	Area (hectares)	Condition	Assessor comments	Habitat Units
Habitat Ref.: 1 g3c Other neutral grassland	0.0242	Poor	Areas of grassland to the north-west and east of the site, with approximately 6 species per m ² . As per the Detailed Soft Landscape Plan (© Mood Landscape, February 2022) produced for the site, these areas were to be sown with Emorsgate Seeds EM1 seed mix ⁸ , though it is assumed that an alternative wildflower seed mix was utilised given the species identified, with most of the wildflower species present not in the EM1 seed mix such as wild teasel (<i>Dipsacus fullonum</i>), yarrow (<i>Achillea millefolium</i>), foxglove (<i>Digitalis purpurea</i>) and hedge woundwort (<i>Stachys sylvatica</i>), alongside grasses such as Yorkshire-fog (<i>Holcus lanatus</i>), reed canary-grass (<i>Phalaris arundinacea</i>) and red fescue (<i>Festuca rubra</i>). In addition, the areas have been colonised by more enriched species unlikely to be present in the seed mix, such as creeping thistle (<i>Cirsium arvense</i>) and groundsel (<i>Senecio vulgaris</i>).	0.10
Habitat Ref.: 2 u1 847 Introduced shrub	0.1106	N/A	Areas of ornamental shrubbery throughout the site, containing non-native and cultivar species. This includes the areas cleared as detailed in Section 5.0.	0.22

⁷This section of the report should be read in conjunction with the site-specific Statutory Biodiversity Metric Calculation Tool – external Appendix.

⁸ See: <https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/>

Habitat Type	Area (hectares)	Condition	Assessor comments	Habitat Units
Habitat Ref.: 3 u1b6 Other developed land Metric: <i>Developed land; sealed surface</i>	0.3482	N/A	Areas of sealed hardstanding throughout the site acting as access and parking.	0.00
Habitat Ref.: 4 w1h Other woodland – Mixed	0.0458	Poor	Two pockets of plantation woodland to the south-west and north-west of the site. The canopy is predominantly pine (<i>Pinus</i> sp.), oversailing native broadleaved shrubs such as hawthorn (<i>Crataegus monogyna</i>), dogwood (<i>Cornus sanguinea</i>), hazel (<i>Corylus avellana</i>), pedunculate oak (<i>Quercus robur</i>), and guelder-rose (<i>Viburnum opulus</i>). As per the Detailed Soft Landscape Plan (© Mood Landscape, February 2022) and satellite imagery, the pine trees were present prior to the erection of the warehouse, with the understorey supplementary planted as part of the proposals.	0.18
Total Habitat Area	0.53		Total Habitat Units	0.50

Proposals

- 6.3 The proposals include the erection of new security fencing around the car park of an existing warehouse, together with the installation of 27 air conditioning units in four separate locations around the site, with works already commencing. Portions of the introduced shrub have been, or will be, lost to facilitate this, though all other habitats will be retained in their entirety.
- 6.4 Refer to **Figures 6.1 – 6.2** overleaf for UK Habitats maps of the on-site habitats at the baseline and post-development stage.

Post-Development Habitats

6.5 The reader is again referred to the Metric, see **Table 6.2** for **post-development habitat information** as provided to the author and extracted from the Metric.

Table 6.2 – Post-development Habitat information for Area habitats

Habitat Type	Area (hectares)	Condition	Assessor comments	Habitat Units
Habitat Ref.: 1 g3c Other neutral grassland <u>Retained</u>	0.0242	Poor	The neutral grassland areas to be retained in full post-development, as per PAB Chartered Architects Ltd (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).	0.10
Habitat Ref.: 2 u1 847 Introduced shrub <u>Retained</u>	0.0896	N/A	Areas of ornamental shrubbery throughout the site to be largely retained, except for areas already lost and strips of vegetation bordering the new fencing, as per PAB Chartered Architects Ltd (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).	0.18
Habitat Ref.: 3 u1b6 Other developed land <u>Retained</u> Metric: <i>Developed land; sealed surface</i>	0.3482	N/A	Areas of sealed hardstanding throughout the site acting as access and parking to be retained in full, as per PAB Chartered Architects Ltd (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).	0.00
Habitat Ref.: 4 w1h Other woodland – Mixed <u>Retained</u>	0.0458	Poor	Two pockets of plantation woodland to the south-west and north-west of the site to be retained in full, as per PAB Chartered Architects Ltd (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).	0.18
Habitat Ref.: 5 u1b6 Other developed land <u>Created</u> Metric: <i>Developed land; sealed surface</i>	0.0210	N/A	New areas of sealed hardstanding in place of existing ornamental shrub, where AC units will be placed and bordering the new fencing, as per PAB Chartered Architects Ltd (Ref.: 2616-PL-03 Rev A) – Proposed Site Plan Layout (May 2026).	0.00

Habitat Type	Area (hectares)	Condition	Assessor comments	Habitat Units
Habitat Ref.: 6 Individual trees Urban tree <u>Created</u>	0.0326	Moderate	A total of eight individual trees to be planted throughout the site to offset the loss of ornamental shrubbery. Trees will be native species such as wild cherry (<i>Prunus avium</i>), bird cherry (<i>Prunus padus</i>), silver birch (<i>Betula pendula</i>), downy birch (<i>Betula pubescens</i>) or rowan (<i>Sorbus aucuparia</i>), planted within the existing ornamental shrubbery area along the western site boundary.	0.10
Total Habitat Area (excl. urban trees)	0.53		Total Habitat Units (incl. urban trees)	0.56

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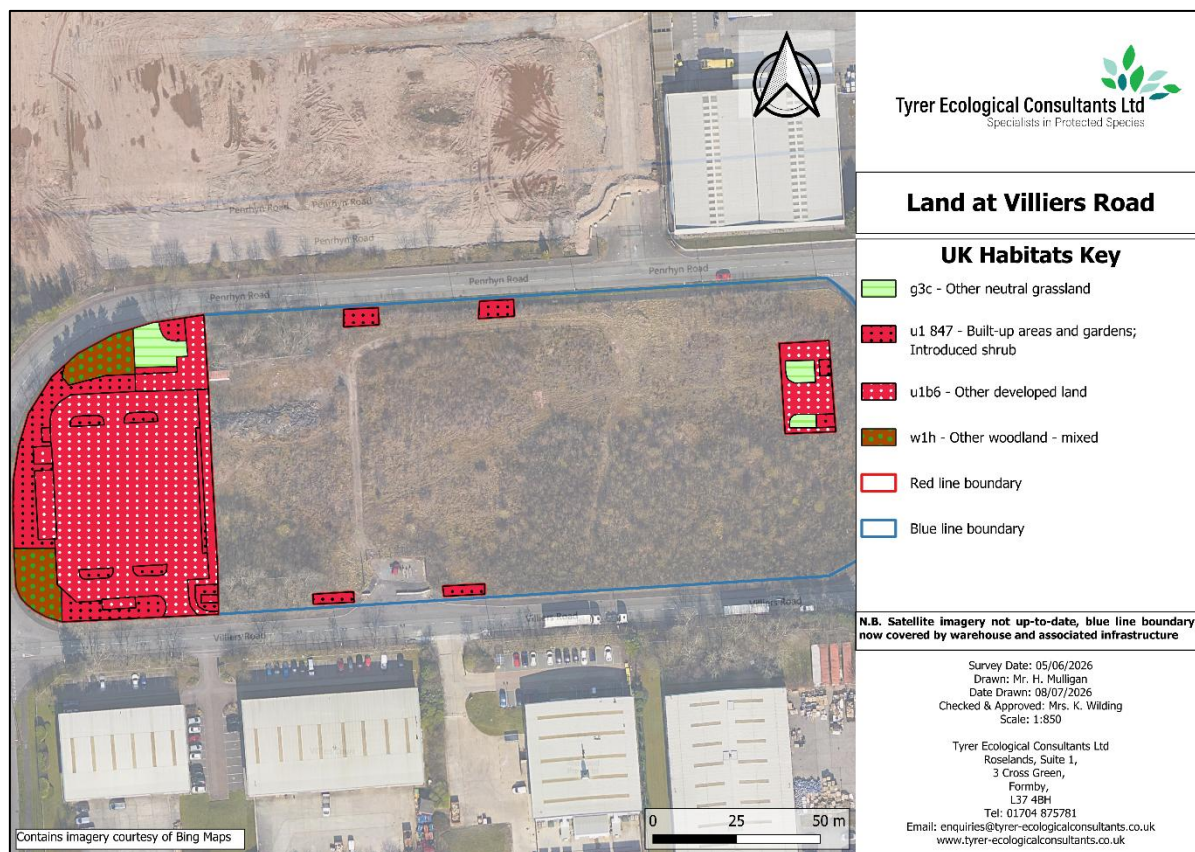


Figure 6.1 – Baseline UK Habitats Map

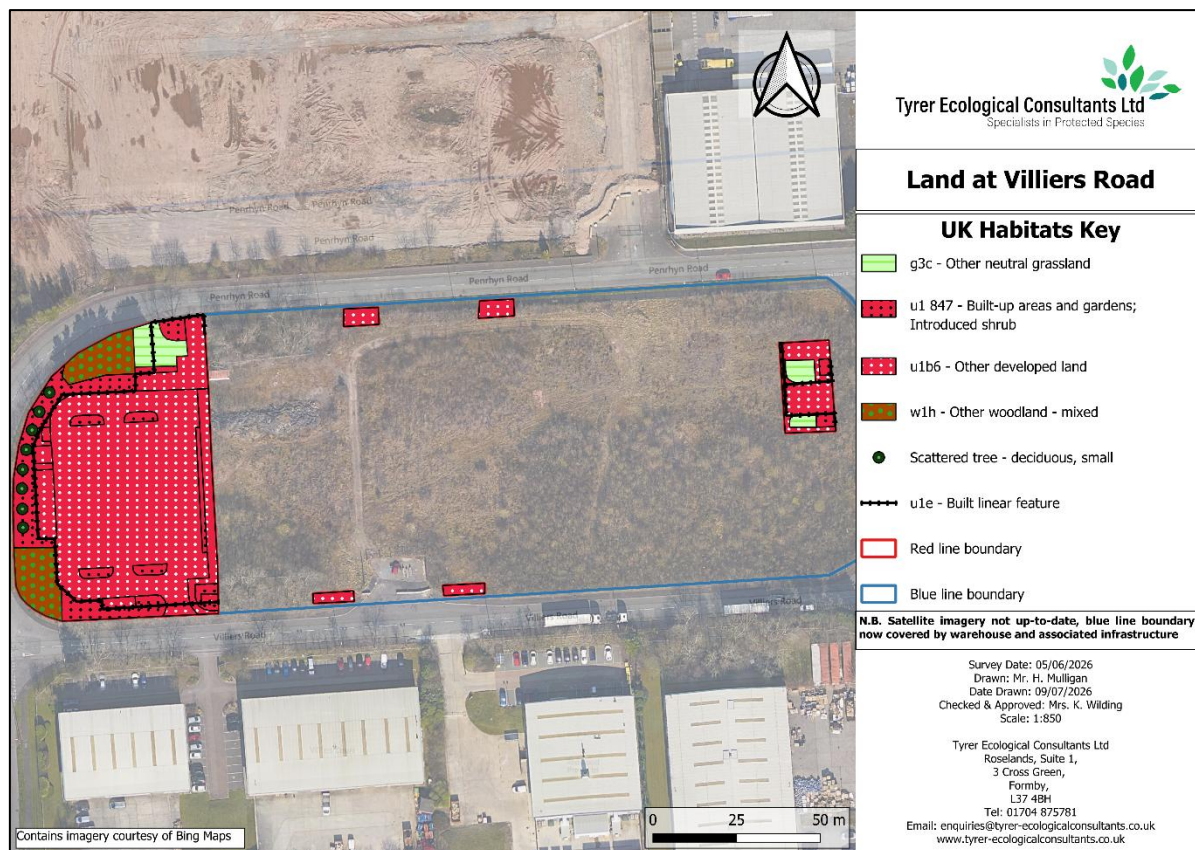


Figure 6.2 – Post-development UK Habitats Map

7.0 Post-development Strategic Significance

- 7.1 The Liverpool City Region Local Habitat Map⁹ was accessed and used to assess the post-development strategic significance of the site in relation to the Merseyside LNRS; based upon this, the site falls outside of all areas designated for nature recovery. As such, all of the post-development habitats onsite are considered to be 'Area/compensation not in local strategy/no local strategy'.

⁹ See: <https://lcr-lnrs.eu.giscloud.com/>

8.0 Significant Enhancements

- 8.1 The habitat creation works within the red line boundary pertain to only very low distinctiveness habitats, with the exception of the individual trees to be created which are a medium distinctiveness habitat. However, per MEAS' Guidance Note on Mandatory Biodiversity Net Gain and its Implementation in the Liverpool City Region (March 2024)¹⁰, individual trees are only considered to be a significant enhancement where 10 or more are proposed. In this case, given that eight trees will be planted, this is not considered to be a significant enhancement, and thus no Habitat Management and Monitoring Plan (HMMP) is required for the site.

¹⁰ See: https://eas.merseysidebiobank.org.uk/wp-content/uploads/2024/03/LCR_Mandatory_BNG_Guidance_Note_FINAL.pdf

9.0 Conclusions

- 9.1 Based on the landscaping proposals, the scheme will result in a **11.51% net-gain** in **Habitat units**.
- 9.2 In terms of specific unit changes, the metric output indicates a **gain of 0.06 Habitat units**.
- 9.3 In addition, **the trading rules are satisfied for the scheme**.
- 9.4 See **Figure 9.1** below for Headline results summary of projections as outputted by the Statutory Biodiversity Metric Calculation Tool.

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	0.06
	<i>Hedgerow units</i>	0.00
	<i>Watercourse units</i>	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	<i>Area habitat units</i>	11.51%
	<i>Hedgerow units</i>	0.00%
	<i>Watercourse units</i>	0.00%
Trading rules satisfied?	Yes ✓	

Figure 9.1 – Headline results summary outputted by the Statutory Biodiversity Metric Calculation Tool

- 9.5 Tyrer Ecological Consultants Ltd can confirm that the current iteration of the landscaping proposals was created following consultation between the applicant and ecological consultant, and represents an improvement in terms of habitat units relative to the original design.
- 9.6 If proposals are altered, then it may be necessary to re-assess the scheme using the Statutory Biodiversity Metric Calculation Tool in order to ascertain the scale of the unit changes on site.
- 9.7 BNG guidance provides a comprehensive framework for the sequential usage of the mitigation hierarchy, which details that a net-gain on site is the preferable approach where possible. In this sense, the applicant has proceeded in line with the mitigation hierarchy and in accordance with BNG guidance, as well as with local policy.

Next Steps

- 9.8 To ensure that no degradation will occur to the retained medium distinctiveness habitat, namely the woodland on-site, a Construction Environmental Management Plan (CEMP) or Arboricultural report detailing the relevant root protection zones may need to be produced.

10.0 Bibliography

- **CIEEM**, 2019. *Biodiversity Net Gain: Good practice principles for development*. Available from: <https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf>
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Appendix I: Condition Assessment Tables

Baseline

Condition Assessment Score – Grassland (Medium – Very High) (Habitat Ref.: 1)

Condition Assessment Criteria		Habitat Reference
		1
		Criterion passed (Y/N)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	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 insects, birds and small mammals to live and breed.	Y
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	N
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	N
E	Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	N
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type. Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	N
Total Score		2
Essential criterion for Good condition achieved (for non-acid grassland)		N
Condition Assessment Result		Condition Assessment Score
Non-acid grassland Types (Result out of 6 criteria)		
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good
Passes 3 - 5 criteria, including essential criterion A.		Moderate
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor
		Y

Condition Assessment Score – Woodland (Habitat Ref.: 4)

Condition Assessment Criteria					Habitat Reference
					4
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score achieved
A	Age distribution of trees	Three age classes present	Two age classes present	One age class present	1
B	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	3
C	Invasive plant species	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	3
D	Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	3
E	Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	1
F	Open space within woodland	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	1
G	Woodland regeneration	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	1
H	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high-risk pest or disease present	3
I	Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1

Condition Assessment Criteria					Habitat Reference
					4
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score achieved
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	1
K	Veteran trees	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1
L	Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	1
M	Woodland disturbance	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	3
Total Score					23
Condition Assessment Result		Condition Assessment Score			
Total score >32 (33 to 39)		Good			
Total score 26 to 32		Moderate			
Total score <26 (13 to 25)		Poor			
					Y

Post-Development

Condition Assessment Score – Grassland (Medium – Very High) (Habitat Ref.: 1)

Condition Assessment Criteria		Habitat Reference
		1
		Criterion passed (Y/N)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	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 insects, birds and small mammals to live and breed.	Y
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens.	N
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	N
E	Combined cover of species indicative of sub-optimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	N
Additional Criterion - must be assessed for all non-acid grassland types		
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type. Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	N
Total Score		2
Essential criterion for Good condition achieved (for non-acid grassland)		N
Condition Assessment Result		Condition Assessment Score
Non-acid grassland Types (Result out of 6 criteria)		
Passes 5 or 6 criteria, including essential criterion A and additional criterion F.		Good
Passes 3 - 5 criteria, including essential criterion A.		Moderate
Passes 2 or fewer criteria; OR Passes 3 or 4 criteria excluding criterion A and F.		Poor
		Y

Condition Assessment Score – Woodland (Habitat Ref.: 4)

Condition Assessment Criteria					Habitat Reference
					4
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score achieved
A	Age distribution of trees	Three age classes present	Two age classes present	One age class present	1
B	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	3
C	Invasive plant species	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	3
D	Number of native tree species	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	3
E	Cover of native tree and shrub species	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	1
F	Open space within woodland	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	1
G	Woodland regeneration	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	1
H	Tree health	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high-risk pest or disease present	3
I	Vegetation and ground flora	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1

Condition Assessment Criteria					Habitat Reference
					4
Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score achieved
J	Woodland vertical structure	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	1
K	Veteran trees	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1
L	Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	1
M	Woodland disturbance	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	3
Total Score					23
Condition Assessment Result		Condition Assessment Score			
Total score >32 (33 to 39)		Good			
Total score 26 to 32		Moderate			
Total score <26 (13 to 25)		Poor			
					Y

Condition Assessment Score – Individual Trees (Habitat Ref.: 6)

Condition Assessment Criteria		Habitat Reference
		6
		Criterion passed (Y/N)
A	The tree is a native species (or at least 70% within the block are native species).	Y
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y
C	The tree is mature (or more than 50% within the block are mature).	N
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y
Total Score		4
Condition Assessment Result		Condition Assessment Score
Passes 5 or 6 criteria		Good
Passes 3 or 4 criteria		Moderate
Passes 2 or fewer criteria		Poor



Contains imagery courtesy of Bing Maps



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Specialists in Protected Species

Land at Villiers Road

UK Habitats Key

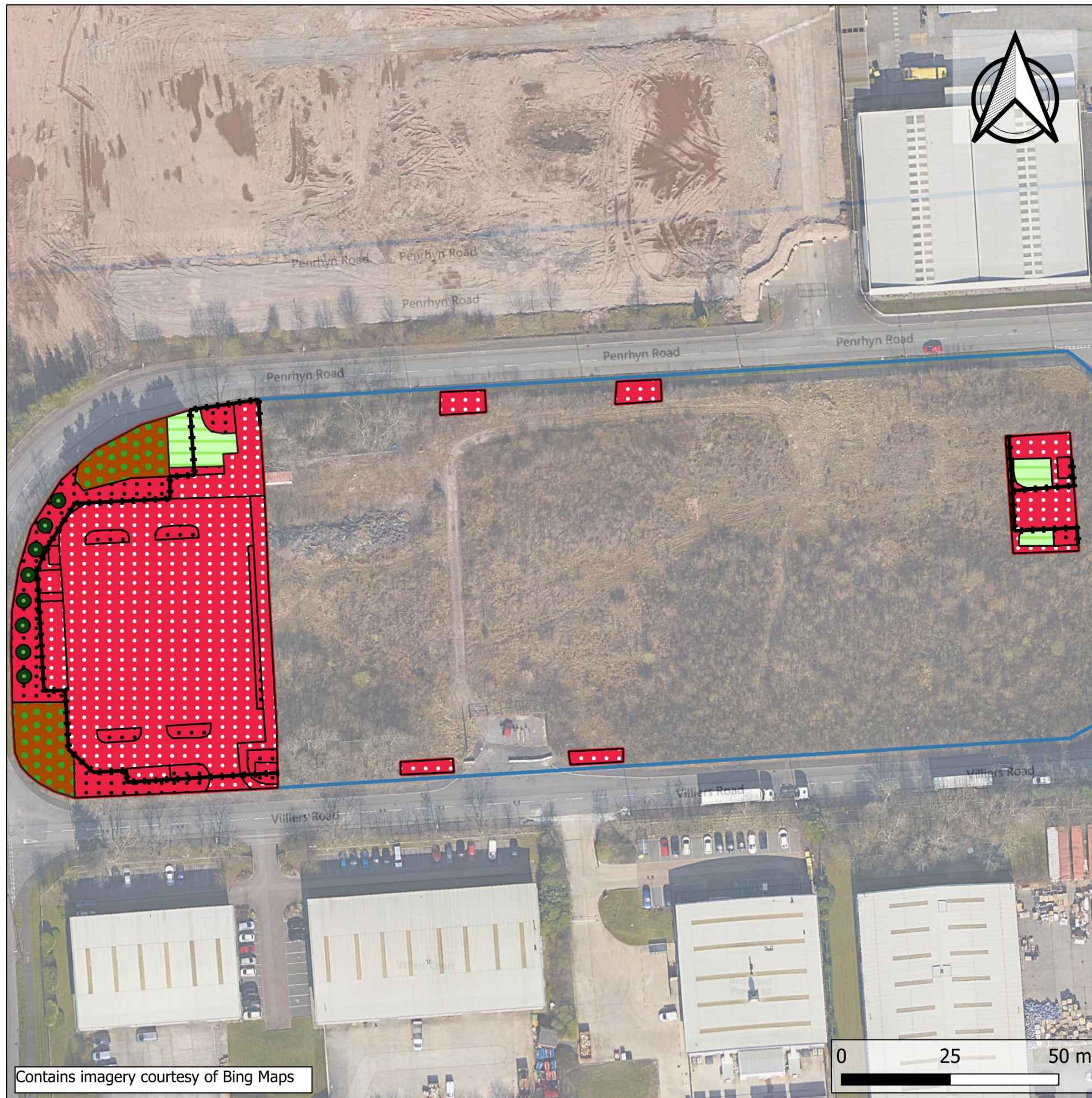
-  g3c - Other neutral grassland
-  u1 847 - Built-up areas and gardens; Introduced shrub
-  u1b6 - Other developed land
-  w1h - Other woodland - mixed
-  Red line boundary
-  Blue line boundary

N.B. Satellite imagery not up-to-date, blue line boundary now covered by warehouse and associated infrastructure

Survey Date: 05/06/2026
Drawn: Mr. H. Mulligan
Date Drawn: 08/07/2026
Checked & Approved: Mrs. K. Wilding
Scale: 1:850

Tyrer Ecological Consultants Ltd
Roselands, Suite 1,
3 Cross Green,
Formby,
L37 4BH

Tel: 01704 875781
Email: enquiries@tyrer-ecologicalconsultants.co.uk
www.tyrer-ecologicalconsultants.co.uk



Contains imagery courtesy of Bing Maps



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Land at Villiers Road

UK Habitats Key

-  g3c - Other neutral grassland
-  u1 847 - Built-up areas and gardens; Introduced shrub
-  u1b6 - Other developed land
-  w1h - Other woodland - mixed
-  Scattered tree - deciduous, small
-  u1e - Built linear feature
-  Red line boundary
-  Blue line boundary

N.B. Satellite imagery not up-to-date, blue line boundary now covered by warehouse and associated infrastructure

Survey Date: 05/06/2026
Drawn: Mr. H. Mulligan
Date Drawn: 09/07/2026
Checked & Approved: Mrs. K. Wilding
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Tyrer Ecological Consultants Ltd
Roselands, Suite 1,
3 Cross Green,
Formby,
L37 4BH

Tel: 01704 875781
Email: enquiries@tyrer-ecologicalconsultants.co.uk
www.tyrer-ecologicalconsultants.co.uk