



e3p

Biodiversity Metric Report

Sandilands Primary School, Wythenshawe

Reference: 81-240-R2-2

Date: May 2023



BIODIVERSITY METRIC REPORT

Sandilands Primary School
Wythenshawe

Prepared for:
Tilbury Douglas Construction Ltd

Report Ref: 81-240-R2-2
Date Issued: 15/05/2023

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QUALITY ASSURANCE

PROJECT NUMBER	81-240		
VERSION	Version 1	Version 2	
REMARKS	Final	Final – Minor update	
DATE	May 2023	May 2023	
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EXECUTIVE SUMMARY

Site Address	Sandilands Primary School, Wendover Road, Manchester M23 9JX				
Co-ordinates	E 379597, N 389649				
Site Area	Approximately 3.35 ha				
Current Site Use	The site comprised Sandilands Primary School, comprising numerous school buildings hardstanding car parks and associated amenity grassland. Residential housing surrounded the site to the south, east and west, whilst a large area of broadleaved woodland lay adjacent to the north.				
Proposed Development	Development proposals include the demolition of the school buildings in the centre of the site, to facilitate the construction of a new school building with associated gardens and landscaping. The existing caretaker's property and Surestart nursery buildings in the east of the site will be retained, as well as the habitat area in the north-east and hardstanding tennis courts in the south-west.				
Results	The biodiversity metric results show a gain of habitat and hedgerow units as follows: <table><tr><td>Habitat Units</td><td>3.62</td></tr><tr><td>Hedgerow Units</td><td>1.06</td></tr></table> A 53.79% gain in habitat units and 33.02% gain of hedgerow units will be incurred on-site as a result of development.	Habitat Units	3.62	Hedgerow Units	1.06
Habitat Units	3.62				
Hedgerow Units	1.06				
Conclusions and Recommendations	A gain in habitat and hedgerow units will be achieved on-site as part of the development. Additional species enhancements could be provided on-site, which could include bat and bird boxes, hedgehog houses and hibernacula.				



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1. INTRODUCTION

1.1. BACKGROUND

E3P has been instructed Tilbury Douglas Construction Ltd to undertake a Biodiversity Metric Calculation at Sandilands Primary School, Wythenshawe, hereafter referred to as “the site”.

This report has been produced by Lowri Thomas BSc (Hons) ACIEEM, Project Manager – Ecology at E3P. Lowri has experience undertaking Biodiversity Net Gain and Condition Assessments on a wide variety of projects across the UK.

This report should be read in conjunction with ‘Biodiversity Metric 4.0 Calculation Tool – Sandilands Primary School, Wythenshaw.xl’.

1.2. PREVIOUS SURVEYS

A Preliminary Ecological Appraisal (PEA) of the site was undertaken by 1st Horizon in May 2021 (report ref: SL01-R13). During the survey, the site was found to comprise buildings, bare ground, amenity grassland, poor semi-improved grassland, introduced shrub, broadleaved woodland, scattered trees, and scattered shrubs.

A PEA was undertaken on the site by E3P in May 2023 (report references: 81-240-R1). During the updated survey, the site was found to comprise hardstanding, buildings, broadleaved woodland, amenity grassland, introduced shrub, dense scrub, hedgerow, treeline, and scattered trees.

1.3. SITE LOCATION

The site is located in the predominantly residential area of Wythenshawe, South Manchester. It is surrounded by residential developments to the south, east and west, with an area of broadleaved woodland located adjacent to the north. Fairywell Brook is located approximately 200 m west of the site at its’ closest point, which defines the eastern boundary of Beech Fields, a series of grassland playing fields. The A560 dual carriageway and an active railway line are located approximately 260 m and 400 m south of the site respectively. Wythenshawe Park and Gardens is located approximately 990 m east of the site. Please refer to Figure 1.1 for the approximate site location.



FIGURE 1.1 APPROXIMATE SITE LOCATION



1.4. OBJECTIVES

The objectives of the Biodiversity Metric are to:

- ✦ Identify percentage change in on-site habitat.
- ✦ Identify the number of habitat units lost/gained on-site; and
- ✦ Determine the need for a conservation offset payment or off-site habitat creation.

The findings of the calculation are detailed within this report, along with recommendations.



2. METHODOLOGY

2.1. BIODIVERSITY METRIC

Department for Environment, Food and Rural Affairs' (DEFRA) Biodiversity Metric 4.0 2023 version was used to undertake the metric calculation. The metric was undertaken following guidance as detailed within The Biodiversity Metric 4.0 User Guide (Natural England, 2023), the Biodiversity Metric 4.0 Technical Supplement (Natural England, 2022) and the Summary of Changes Biodiversity Metric 3.1 to 4.0 (2023).

This metric was calculated by Lowri Thomas, Project Manager – Ecology, BSc (Hons) ACIEEM. Lowri has attended a CIEEM training course on 'Biodiversity Metric V3.1' and has completed numerous Condition Assessments on a range of sites.

This metric was reviewed by Associate Director Celia Barlow, BSc (Hons) MSc MEnvSc CEnv MCIEEM. Celia has undertaken a number of online training courses with CIEEM including 'Calculating and Using Biodiversity Units with Metric 2.0' and 'Biodiversity Net Gain Through Development'. Celia has also completed Condition Assessments on a number of sites across the UK and holds a Level 3 Field Identification Skills Certificate (FISC).

2.2. ON-SITE HABITAT BASELINE DATA

The baseline data used to inform the condition assessment was collected on 05th April 2023 during the Preliminary Ecological Appraisal. The Biodiversity Metric 4.0 – Technical Annex 1 – Condition Assessment Sheets and Methodology (Natural England 2023) was used to undertake the condition assessment. The methodology follows the Biodiversity Metric 4.0 – User Guide (Natural England 2023).

On-site baseline habitats were measured off the Phase 1 Habitat Plan using QGIS. The Root Protection Areas (RPAs) of scattered trees were taken from the Arboricultural Impact Assessment and Method Statement produced by E3P in 2023 (report reference:81-240-R3). Please see Appendix I for the Phase 1 Habitat Plan.

Phase 1 habitat types were translated into UKHab habitat types using the metrics Technical Data Translation Tool.

2.3. POST DEVELOPMENT HABITAT CREATION

The Landscape Plan was used to measure potential habitat creation on-site (Ellis Williams, 2023, Drawing Reference SRP1034-EWA-ZZ-ZZ-DR-L-9003). The areas of the proposed habitat were measured using AutoCAD from the DWG drawing. Please see Appendix II for the Landscape Plan.

2.4. LIMITATIONS

Some areas on the site are double counted, including root protection zones and areas of habitat, where overlap is shown. This means areas of habitat pre- and post-development do not total to the same area.



3. RESULTS

3.1. ON-SITE BASELINE CONDITION ASSESSMENT RESULTS

Table 3.1 shows the details of the habitat condition assessment used for input into the metric calculation tool.

TABLE 3.1 HABITAT BASELINE CONDITION ASSESSMENT RESULTS

HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
BUILDINGS AND HARDSTANDING	Urban – Developed Land; Sealed Surface	1.4201	N/A	N/A
AMENITY GRASSLAND	Grassland – Modified Grassland	1.6293	Poor	Fails criteria 1 which is essential for achieving moderate condition as there is less than 6-8 species per m ² .
ARTIFICIAL GRASS	Urban – Artificial Unvegetated Unsealed Surface	0.079	N/A	N/A
DENSE SCRUB	Heathland and Shrub – Bramble Scrub	0.1064	N/A	Automatically assigned by metric.
INTRODUCED SHRUB	Urban -Introduced Shrub	0.0063	N/A	Automatically assigned by metric
BROADLEAVED WOODLAND	Woodland and Forest - Other Woodland; Broadleaved	0.1098	Moderate	Scores 28. Please see Appendix II for the detailed condition assessment results.



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0202 (T41, T40, T43-T50)	Moderate	Passes 4 of 6 condition assessment criteria: - The tree is a native species. - The tree canopy is predominantly continuous (individual trees automatically pass this criterion). - No evidence of adverse impact on tree health by anthropogenic activities. - More than 20% of tree canopy is oversailing vegetation beneath
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0505 (T1, T23, T24, T26, T42 T51, T59, T60)	Moderate	Passes 5 of 6 condition assessment criteria: - The tree is a native species. - The tree canopy is predominantly continuous (individual trees automatically pass this criterion). - The tree is mature. - No evidence of adverse impact on tree health by anthropogenic activities. - More than 20% of tree canopy is oversailing vegetation beneath
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0131 (T2, T6, T53-T58)	Moderate	Passes 3 of 6 condition assessment criteria: - The tree canopy is predominantly continuous (individual trees automatically pass this criterion). - No evidence of adverse impact on tree health by anthropogenic activities.



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
				More than 20% of tree canopy is oversailing vegetation beneath.
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.1752 (T3, T4, T8, T9, T25, T39, T52, T62-T66)	Moderate	Passes 4 of 6 condition assessment criteria: - The tree canopy is predominantly continuous (individual trees automatically pass this criterion). - The tree is mature. - No evidence of adverse impact on tree health by anthropogenic activities. - More than 20% of tree canopy is oversailing vegetation beneath.
HEDGEROW 1	Native Hedgerow	0.1456	Good	No more than 2 failures in total; AND No more than 1 in any functional group. Passes A1, B1, B2, C2, D1, and D2.
HEDGEROW 2	Native Hedgerow	0.1302	Good	No more than 2 failures in total; AND No more than 1 in any functional group. Passes A1, A2, B1, B2, C2, D1, and D2.
HEDGEROW 3	Native Hedgerow	0.0147	Good	No more than 2 failures in total; AND No more than 1 in any functional group. Passes A1, B1, B2, C2, D1, and D2.



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
HEDGEROW 4	Native Hedgerow with trees	0.1257	Good	No more than 2 failures in total; AND No more than 1 in any functional group. Passes A1, A2, B1, B2, C2, D1, D2, E1 and E2.
TREELINE 1	Line of Trees	0.1083	Moderate	Passes 3 of 5 condition assessment criteria: - At least 70% of trees are native species. - Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. - At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.
TREELINE 2	Line of Trees	0.0321	Moderate	Passes 3 of 5 condition assessment criteria: - At least 70% of trees are native species. - Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. - At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.
TREELINE 3	Line of Trees	0.0351	Moderate	Passes 3 of 5 condition assessment criteria:



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT	DESCRIPTION
				- At least 70% of trees are native species. - Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. - At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.

3.2. HABITAT RETENTION

A number of habitats will be retained under the current proposals, including amenity grassland, hardstanding and buildings. The hedgerows, treelines and broadleaved woodland will also be retained. A number of scattered trees will also be retained, as well as the treelines and hedgerow. Please see Table 3.2 for a summary of the retained on-site habitats.

HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT
BUILDINGS AND HARDSTANDING	Urban – Developed Land; Sealed Surface	0.2461	N/A
AMENITY GRASSLAND	Grassland – Modified Grassland	0.0555	Poor
DENSE SCRUB	Heathland and Shrub – Bramble Scrub	0.1064	N/A



HABITAT TYPE (PH1)	HABITAT TYPE (UKHAB)	AREA/LENGTH (HA/KM)	CONDITION ASSESSMENT
BROADLEAVED WOODLAND	Woodland and Forest -Other Woodland; Broadleaved	0.1098	Moderate
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0018 (T41)	Moderate
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0349 (T1, T23, T24, T26, T51, T59, T60)	Moderate
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.0131 (T2, T6, T53-T58)	Moderate
SCATTERED TREES	Individual Tree – Urban/Rural Tree	0.1752 (T3, T4, T8, T9, T25,T39, T52, T62-T66)	Moderate
HEDGEROW 1	Native Hedgerow	0.1456	Good
HEDGEROW 2	Native Hedgerow	0.1302	Good
HEDGEROW 3	Native Hedgerow	0.0147	Good
HEDGEROW 4	Native Hedgerow with trees	0.1257	Good
TREELINE 1	Line of Trees	0.1083	Moderate
TREELINE 2	Line of Trees	0.0321	Moderate
TREELINE 3	Line of Trees	0.0351	Moderate



3.3. HABITAT CREATION CONDITION ASSESSMENT

Habitats are proposed on the Landscape Plan, which include a new school building, eco-rich grassland and a green roof. Table 3.3 shows the details of the target condition assessment and total areas of habitat creation. It has been assumed that there will be no significant delay in the creation of the proposed habitat features, as such the delay in starting habitat creation has been set to zero.

TABLE 3.2 HABITAT CREATION CONDITION ASSESSMENT RESULTS

HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA (HA)	TARGET CONDITION/DESCRIPTION	TARGET TIME TO CONDITION
HARDSTANDING AND BUILDINGS	Urban - Developed Land; Sealed Surface	0.9636	N/A	N/A
AMENITY LAWN	Grassland – Modified Grassland	1.5344	Poor Fails criteria 1 which is essential for achieving moderate condition as there is less than 6-8 species per m ² .	Target time to condition will be one year.
ECO-RICH GRASSLAND	Grassland – Modified Grassland	0.1017	Poor Passes 4 of 6 condition assessment criteria: ❖ Sward height is varied (at least 20% <7cm and at least 20% >7cm). ❖ Cover of bare ground is between 1 and 5% ❖ Cover of bracken is less than 10% and cover of scrub is less than 5%. ❖ Combined cover of species per m² and physical damage is below 5%. Does not pass criteria A which is essential for a Moderate or Good condition. Does not pass criteria F which is essential for a Good condition.	Target time to condition will be one year.



HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA (HA)	TARGET CONDITION/DESCRIPTION	TARGET TIME TO CONDITION
ORNAMENTAL SHRUB	Urban – Introduced Shrub	0.109	N/A	Target time to condition will be one year.
GREEN ROOF	Urban – Biodiverse Green Roof	0.1244	Moderate Passes 3 of 4 condition assessment criteria: - Vegetation is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. - Contains different plant species beneficial to wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year. - Invasive non-native species and other which are of detriment to native wildlife cover less than 5% of area.	Target time to condition will be five years.
SCATTERED TREES	Individual Trees – Urban Tree	0.1914 (x47 small)	Moderate Passes 4 of 6 condition assessment criteria:	Target time to condition will be 27 years.



HABITAT TYPE (LANDSCAPE PLAN)	HABITAT TYPE (UKHAB)	AREA (HA)	TARGET CONDITION/DESCRIPTION	TARGET TIME TO CONDITION
			- The tree is a native species. - The tree canopy is predominantly continuous (individual trees automatically pass this criterion). - No evidence of adverse impact on tree health by anthropogenic activities. - More than 20% of tree canopy is oversailing vegetation beneath	
HEDGEROW	Native Hedgerow	0.27 km	Good No more than 2 failures in total; AND No more than 1 in any functional group. Passes A1, A2, B1, B2, C2, D1, and D2.	Target time to condition will be 12 years.



3.4. STRATEGIC SIGNIFICANCE

The site predominantly comprised hardstanding, buildings and amenity grassland associated with Sandilands Primary School, which is anticipated to provide minimal ecological value. The surrounding area is also anticipated to have limited ecological value, due to its urban built-up nature. Additionally, the site is not noted within the local strategy. As such, the strategic significance was defined as 'Area not in local strategy, no local strategy'. However, the broadleaved woodland has been denoted as 'Location ecologically valuable but not in local strategy'.

3.5. BIODIVERSITY UNIT RESULT

The headline results of the metric show a gain 3.62 habitat units and 1.06 hedgerow units as a result of development. Table 3.3 shows the headline results detailed within the Biodiversity Metric.

TABLE 3.3 HEADLINE RESULTS

HEADLINE	CATEGORY	RESULT
TOTAL NET UNIT CHANGE	Habitat Units	3.62
	Hedgerow Units	1.06
	River Units	N/A
TOTAL NET % CHANGE	Habitat Units	53.79%
	Hedgerow Units	33.02%
	River Units	N/A

The trading rules of the metric have been satisfied as habitats lost have been 'traded up'.



4. CONCLUSIONS AND RECOMMENDATIONS

Overall, the site has achieved a gain in habitat and hedgerow units based on current landscape plans and as such complied with local and national policy and legislation.

The Biodiversity Metric does not take account for additional species enhancements within the site, and to further increase the site's value for wildlife the following could be provided:

- ✦ Creation of hibernacula (following guidance set out within Froglife, 2001) for common amphibians.
- ✦ Hedgehog houses may be installed to enhance the site for hedgehogs.
- ✦ Bat and bird boxes could be integrated into the site.



5. REFERENCES

- ✦ Ellis Williams (2023) Landscape Plan (SRP1034-EWA-ZZ-ZZ-PR-L-9003)
- ✦ E3P (2023). Preliminary Ecological Appraisal (81-240-R1).
- ✦ E3P (2023). Arboricultural Impact Assessment and Method Statement (81-240-R3).
- ✦ 1st Horizon (2023) Preliminary Ecological Appraisal (SL01-R13)
- ✦ National Planning Policy Framework (2021). Ministry of Housing, Communities and Local Government.
- ✦ Natural England Joint Publication JP039. (2023). The Biodiversity Metric 4.0. User Guide. Technical Annex 2.
- ✦ Natural England Joint Publication JP039. (2023). The Biodiversity Metric 4.0. User Guide.
- ✦ Natural England. (2023). The Biodiversity Metric 4.0. Technical Annex 1. Condition Assessment Sheets.

END OF REPORT



APPENDIX I

PHASE 1 HABITAT PLAN



Key:

- Site boundary
- Scattered trees
- Wall cotoneaster
- Bat potential tree
- Rhododendron
- Hedgerow
- Treeline
- Wet ditch
- hardstanding
- Amenity grassland
- Dense scrub
- Artificial grass
- Broadleaved woodland
- Building
- Introduced shrub

Notes

Issue: 1	Revision: 1	Date: 13/04/2023	Drawn: LT	Authorised: CB
Client: Tilbury Douglas Construction Ltd			Job No. 81-240	Date: 13/04/2023
Job title: Sandilands Primary School, Wythenshawe			Drawing No. 81-240-001	Scale:1:2900 @A4
			Drawing title: Phase 1 Habitat Plan	

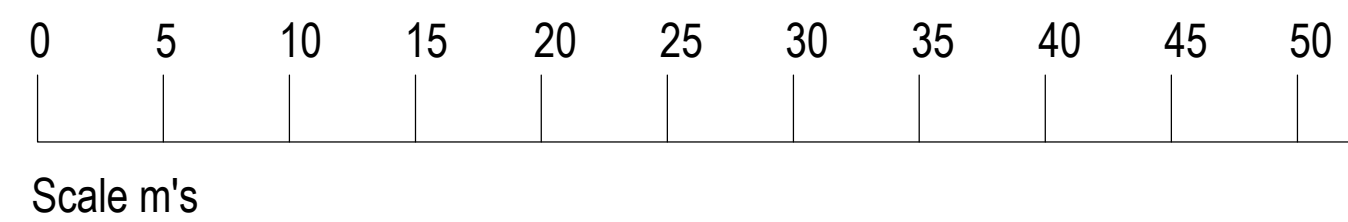


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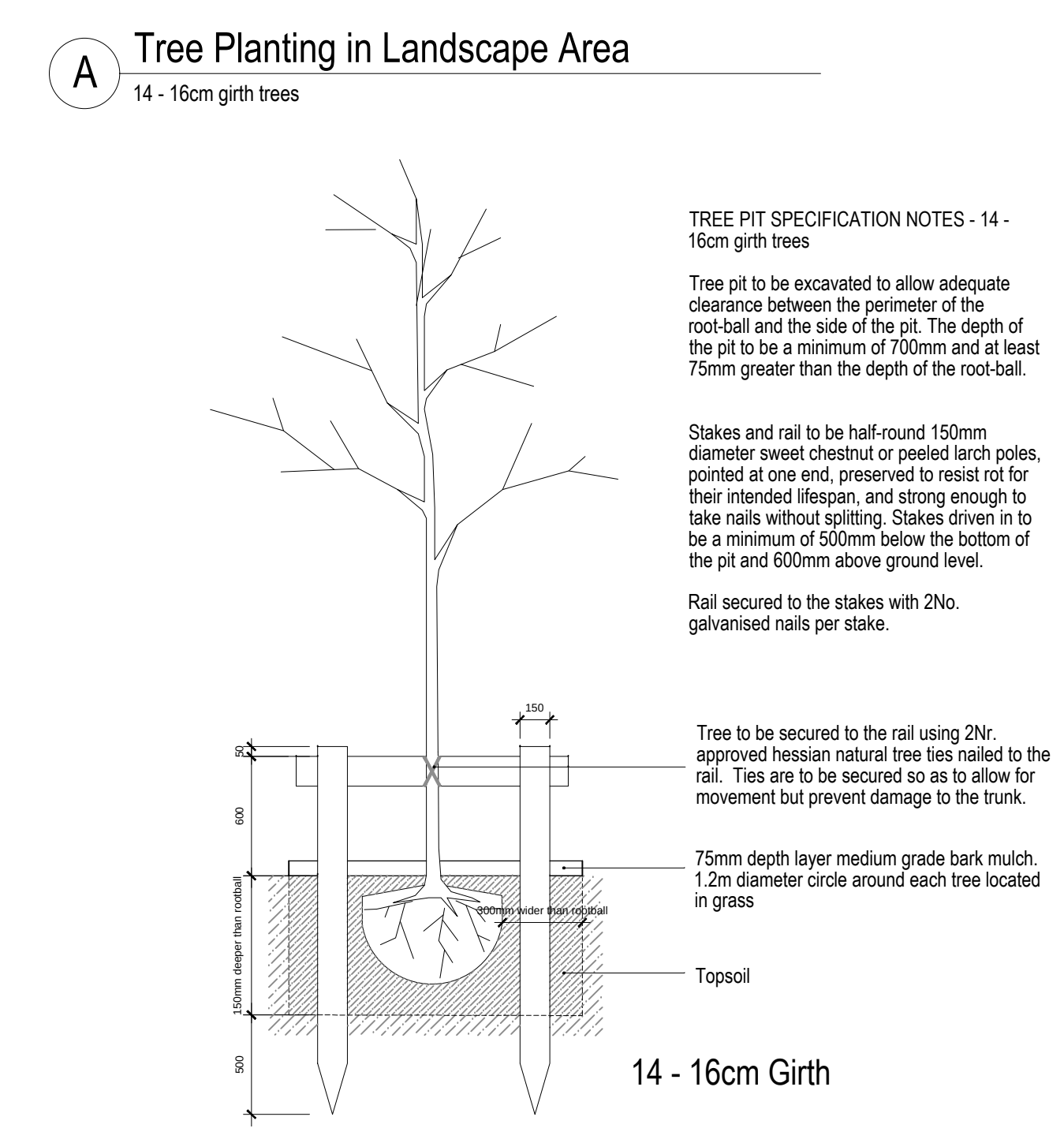
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APPENDIX II

LANDSCAPE PLAN



KEY



elliswilliams

Project Number: 2914
Project Name: SANDILANDS

Drawing Status: STAGE 3
Drawing Number: **SRP1034- EWA- ZZ- ZZ- DR- L- 9003**

Date: 28.02.23 Rev: P04
Drawn By: NH Scale: 1:300 @ A0

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APPENDIX III CONDITION ASSESSMENTS FOR CURRENT HEDGEROWS

ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CONDITION ACHIEVED (Y/N)			
				H1	H2	H3	H4
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is > 1.5 m height).	Y	Y	Y	Y
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (e.g. blackthorn suckers) are only included in the width estimate when they >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	N	Y	N	Y



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CONDITION ACHIEVED (Y/N)			
				H1	H2	H3	H4
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees')	This is the vertical gappiness of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	Y	Y	Y	Y
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length and No canopy gaps >5 m	This is the horizontal gappiness of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall gappiness, but are not subject to the >5 m criterion (as this is the typical size of a gate).	Y	Y	Y	Y
C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: - measured from outer edge of hedgerow, and - is present on one side of the hedge (at least)	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedge. Undisturbed ground should be present for at least 90% of the hedgerow length, greater than 1m in width and must be present along at least one side of the hedge. This criterion recognises the value of the hedge base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	N	N	N	N



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION')	DESCRIPTION	CONDITION ACHIEVED (Y/N)			
				H1	H2	H3	H4
C2.	Undesirable perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground	The indicator species used are nettles (<i>Urtica spp.</i>), cleavers (<i>Galium aparine</i>) and docks (<i>Rumex spp.</i>). Their presence, either singly or together, should not exceed the 20% cover threshold.	Y	Y	Y	Y
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species	Neophytes are plants that have naturalised in the UK since AD 1500. For information on neophytes see the JNCC website and for information on invasive non-native species see the GB Non-Native Secretariat website.	Y	Y	Y	Y
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (e.g. excessive hedge cutting).	Y	Y	Y	Y
Additional group applicable to hedgerows with trees only							



ATTRIBUTES AND FUNCTIONAL GROUPINGS (A, B, C, D & E)		CRITERIA (THE MINIMUM REQUIREMENTS FOR 'FAVOURABLE CONDITION'	DESCRIPTION	CONDITION ACHIEVED (Y/N)			
				H1	H2	H3	H4
E1.	Tree age	At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species.	This criterion addresses if there are sufficient mature trees (within the scope of planning timescales) which are of higher value to biodiversity.	N/A	N/A	N/A	Y
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.	N/A	N/A	N/A	Y



Condition categories for hedgerows without trees		
CATEGORY	MAXIMUM NUMBER OF ATTRIBUTES THAT CAN FAIL TO MEET 'FAVOURABLE CONDITION' CRITERIA IN TABLE TS1-2	WEIGHTING (SCORE)
GOOD	No more than 2 failures in total; AND No more than 1 in any functional group.	3
MODERATE	No more than 4 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition).	2
POOR	Fails a total of more than 4 attributes; OR Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1

Condition categories for hedgerows with trees		
CATEGORY	MAXIMUM NUMBER OF ATTRIBUTES THAT CAN FAIL TO MEET 'FAVOURABLE CONDITION' CRITERIA IN TABLE TS1-2	WEIGHTING (SCORE)
GOOD	No more than 2 failures in total; AND No more than 1 in any functional group.	3



MODERATE	No more than 5 failures in total; AND Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 and E1 = Moderate condition).	2
POOR	Fails a total of more than 5 attributes; OR Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition).	1



APPENDIX IV CONDITION ASSESSMENT FOR BROADLEAVED WOODLAND

INDICATOR		GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
1	AGE DISTRIBUTION OF TREES	Three age classes present	Two age classes present	One age class present	2
2	WILD, DOMESTIC AND FERAL HERBIVORE DAMAGE	No significant browsing damage evident in woodland ²	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
3	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



INDICATOR		GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
4	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	2
5	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	3
6	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	2



INDICATOR		GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
7	WOODLAND REGENERATIONS	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	2
8	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
9	VEGETATION AND GROUND FLORA	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1



INDICATOR		GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
10	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	2
11	VETERAN TREES	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1
12	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



INDICATOR		GOOD (3 POINTS)	MODERATE (2 POINTS)	POOR (1 POINT)	SCORE PER INDICATOR
13	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					28

