

# Ecology Technical Note: Condition 20, Axis J9, Bicester (Ref 10706\_R01\_Biodiversity Enhancements Tech Note\_Condition 20\_GS)

Date Issued: 16/08/2023

## Background/Context

Tyler Grange Group Ltd were commissioned Quod to provide ecological services in relation to a planning application at Axis J9, Phase 3 (Grid Reference: SP 56480 23271), hereinafter referred to as 'the site'.

A planning application for the construction 5 units within 3 buildings and associated parking and servicing, landscaping and associated works was granted permission by The Planning inspectorate (appeal application number APP/C3105/W/22/3304021) in January 2023 subject to several conditions.

This technical note aims to discharge condition 20. Full details of the condition are provided below as per the appeal decision notice for the site:

• **Condition 20:** Full details of the proposals to provide a biodiversity net gain of 5.5% and enhance biodiversity as referred to within paragraphs10.6.30, 10.6.31 and 10.6.32 of the Environmental Statement including the position and type of each proposed enhancement measure shall be submitted to and approved in writing by the Local Planning Authority prior to the development reaching slab level. Thereafter, the biodiversity enhancement measures approved shall be carried out prior to occupation and retained in accordance with the approved details.

This tech note provides details of the biodiversity net gain and other ecological enhancements which were detailed in the Environmental Statement, and has the following objectives:

- Objective 1 Provide +5.5% biodiversity net gain
- Objective 2 Enhance biodiversity as referred to within 10.6.30, 10.6.32 of the ES including the position and type of each proposed enhancement measure.

The responsibility for ensuring all recommendations are carried out in line with this technical note lie with the appointed contractor for the works. Overall control will be help by the contractors site manager.

Tyler Grange Group Limited.

Registered in England No. 11435090 | VAT Reg No. 326 7564 81 Tyler Grange Group Limited, 97 Icknield Street, Birmingham, B18 6RU Birmingham | Bristol | Cotswolds | Exeter | London | Manchester



# **OBJECTIVE 1: Biodiversity Net Gain Detail**

### Habitats and Biodiversity Net Gain

Biodiversity Net Gain has been assessed using Warwickshire Coventry and Solihull - Biodiversity Impact Assessment Calculator v. 18.3 (08/08/2014).

## **Existing habitats**

The site prior to development was dominated by an arable field, other habitats included the field boundaries associated with the hedgerows and a section of footpath. Hedges with trees were also present on site and were of a moderate-high distinctiveness and moderate condition, ditches (which were dry at time of survey in 2016) were also present.

In total the **existing habitat areas** on site had a biodiversity value of **41.29 Habitat Impact Score** (HIS) and the **existing linear habitats** on site had a value of **9.44 Linear Impact Score** (LIS). 50.73

Full details of habitats and condition assessments are provided in the appended excel calculator (Appendix 1).

## **Proposed Habitats**

The proposed habitats on site include wildflower grassland, wetland vegetation (swales), woodland planting, scattered trees, dense scrub, wet grassland, meadow grassland, and native species rich hedgerows as well as enhanced field margins and hedgerows.

In total the created habitats and enhanced habitats on site will provide a **habitat mitigation score (HMS) of 43.04 habitat units** which will gain of **+2.35 units** from the baseline existing habitats. The **Linear Mitigation Score (LIS) will be 10.85** which would provide an uplift of **+1.41 units**. 53.89

The overall change from existing habitats to proposed habitats equates to a +5.7% increase in habitat score and 14.9% in linear score.

## **OBJECTIVE 2: Biodiversity Enhancements**

The proposed enhancement measures are set out below (Landscape Plan, Appendix 2).

Habitat enhancements being provided:

- Amphibians new and enhanced field margins, hedgerows and wildflower grassland will improve the terrestrial habitat provision and the two new swales will provide aquatic habitat for this species group. Overall based on the landscaping plans for the site there will be an uplift in value for amphibians and in particular great crested newts.
- **Bats** no habitats of value to commuting, foraging or roosting bats will be impacted by the development. There will however be an uplift in habitats for the species in the form of the



swale, grassland buffers, and improved management of existing hedgerows. Lighting on site will also comply with best practice guidelines (<u>Guidance Note 8 Bat and Artificial Lighting</u>).

### **Bird Boxes**

Bird boxes will be erected on the northern and eastern elevations of the northern building (see 10706/Bio enhancement Plan for specific installation locations) following manufacturers specification with the entrances facing between north and east to avoid the strongest sunlight and wettest winds and to be placed 3-6m off the ground. The box entrances will have a clear unobstructed flight path to ensure safe access/egress.

The bird boxes proposed include provision for <u>species of conservation concern</u> kestrel, flycatchers, house sparrows, and redstarts all of which are listed as either red or amber Birds of Conservation Concern 5<sup>th</sup> addition which assess the status of UK bird populations. The following boxes are recommended

- 1 x 2TF Schwegler Kestrel Nest Box (or similar)
- 4 x 1MR Schwegler Avianex (or similar)

The specified bird boxes are made from materials that are rugged and long-lasting and thus require minimal maintenance. The boxes should be cleaned out once per year during the winter months when nesting birds are not present (October to February).

## Bat Boxes

Bat boxes will be positioned on the western elevations of the new warehouse (see 10706/Bio enhancement Plan for specific installation locations) to provide the maximum amount of daylight exposure to generate heat. The proposed bat boxes are designed to benefit a range of bat species associated with urban areas that that are likely to roost in buildings. The box entrances will have a clear unobstructed flight path to ensure safe access/egress.

• 3 x Eco Kent Bat Box (or similar).

The bat boxes recommended are suitable for soprano pipistrelle bats which listed as species of principal importance (NERC Act 2006)

The bat boxes will be positioned at a height that aims to minimise potential predation risks (3 to 8m). The specific bat box model recommended above has been designed to require no cleaning or maintenance.

## **Conclusion**

The above measures have been designed to provide an improvement to the existing biodiversity value of the site. The proposed landscape planting including swales, field margins, wildflower grassland and hedgerows are of known benefit to wildlife, including amphibians, bats, and birds. The proposed bird and bat boxes also offer additional nesting and roosting opportunities for these



species groups. The proposed measures are in-line with the approved Environmental Statement and provide an uplift of habitat value of >5.5%.



hello@tylergrange.co.uk | 0121 828 4043 | www.tylergrange.co.uk

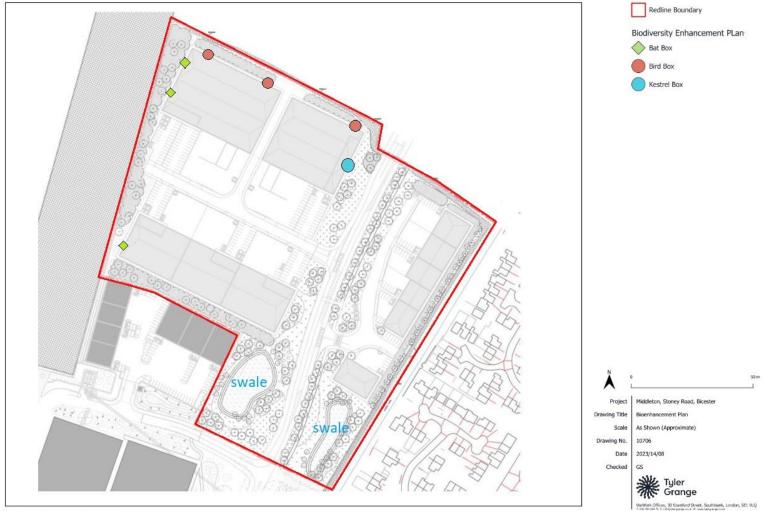
<u>Plans</u> 10706 – Biodiversity Enhancement Plan -

Tyler Grange Group Limited.

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### Appendix

Appendix 1: - Biodiversity Impact Assessment Calculator v. 18.3

Appendix 2: Landscape Plan - Planting Strategy (Re-form Landscape Architects, 2023)

Marsden Estate, Rendcomb, Cirencester, Gloucestershire, GL7 7EX

Warwickshire Coventry and Solihull - Biodiversity Impact Assessment Calculator

KEY No action required Enter value Drop-down menu Calculation Automatic lookup Result

Local Planning Authority:	Cherwell District Council
Site name:	Axis J9 Phase 3
Planning application reference number:	
Assessor:	Aaron Grainger
Date:	10/07/2023

or to provide feedback on the calculator Habitat Biodiversity Value

		Existing habitats on site Please enter <u>all</u> habitats within the site boundary		Habitat dist	nctiveness	Habitat c	ondition	no chan	e <u>retained</u> with ge within opment	Habitats to be enhance	e retained and ed within opment
T. Note	code	Phase 1 habitat description	Habitat area (ha)	Distinctiveness	Score	Condition	Score	Area (ha)	Existing value	Area (ha)	Existing value
		Direct Impacts and retained habitats			A		В	С	$A \times B \times C = D$	E	$A \times B \times E = F$
Arable F		Other: Arable	19.79	Low	2	Poor	1				
Field Ma		Other: Tall ruderal	0.57	Medium-Low	3	Poor	1			0.20	0.60
Road/pa	n/a	Built Environment: Buildings/hardstanding	1.00	none	0	Poor	1				
-											
					-						
-											
					-						
		Tota	21.36				Total	0.00	0.00	0.20	0.60
		1012	21.00	<u></u>			TOtal	0.00	0.00	0.20	0.00
											Site habitat bio
		Indirect Negative Impacts						Value of loss fr	om indirect impa	cts	
Be	fore/after	Including off site habitats						K x A x B			
	impact		К					= Li, Lii	Li - Lii		
	Before										
	After										
	Before										
	After										
	Before										
	After										
	Before										
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	Before After										
	Anter	Tota	0.00	1				М	0.00		
		1018	0.00					IVI	0.00		Habitat Impac

v. 18.3 08/08/2014 Please fill in both tables rows, do not delete them If additional rows are required,

Amendment from v18.2 only affects green roofs, for c

Please do not edit the formulae or structure

To condense the form for display hide vacant

please contact WCC Ecological Services

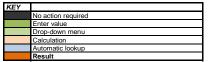
## Habitats to be <u>lost</u> within development

	•
Area (ha)	Existing value
G	$A \times B \times G = H$
19.79	39.58
0.37	1.11
1.00	0.00
21.16	40.69
	∑D + ∑F + ∑H
diversity value	41.29
	HIS = J + M
t Score (HIS)	
	40.69

		Proposed habitats on site (Onsite mitigation)		Target habitats distinctiveness Target habitat condition			Time till target condition			Difficulty rest	Habitat		
Note	code	Phase 1 habitat description	Area (ha)	Distinctiveness	Score	Condition	Score		Time (years)	Score	Difficulty	Score	biodiversity valu
		Habitat Creation	N		0		Р			Q		R	(N x O x P) / Q / R
	B22	Grassland: Semi-improved neutral grassland	2.32	Medium	4	Moderate	2		10 years	1.4	Medium	1.5	8.84
	F22	Wetland: Inundation vegetation	0.57	High	6	Good	3		10 years	1.4	Low	1	7.33
	B22	Grassland: Semi-improved neutral grassland	0.25	Medium	4	Moderate	2		5 years	1.2	Medium	1.5	1.11
	A112	Woodland: Broad-leaved plantation	1.82	Medium	4	Good	3		32+ years	3	Medium	1.5	4.85
	J14	Other: Introduced shrub	0.18	Low	2	Good	3		5 years	1.2	Low	1	0.90
	n/a	Built Environment: Buildings/hardstanding	12.69	none	0	Poor	1		5 years	1.2	Low	1	0.00
	A3	Woodland: Scattered trees	0.32	Medium	4	Good	3		25 years	2.4	Low	1	1.60
	A21	Woodland: Dense continuous scrub	0.38	Medium-Low	3	Good	3		10 years	1.4	Low	1	2.44
	A112	Woodland: Broad-leaved plantation	0.47	Medium	4	Good	3		32+ years	3	Medium	1.5	1.25
	F22	Wetland: Inundation vegetation	0.13	High	6	Good	3		10 years	1.4	Low	1	1.67
	B22	Grassland: Semi-improved neutral grassland	1.06	Medium	4	Good	3		5 years	1.2	Medium	1.5	7.07
	A21	Woodland: Dense continuous scrub	0.19	Medium-Low	3	Good	3		10 years	1.4	Low	1	1.22
	A3	Woodland: Scattered trees	0.78	Medium	4	Good	3		25 years	2.4	Low	1	3.90
			_										
			tal 21.1	6									
		Habitat Enhancement						Existing value S ( = F )					(( N x O x P) - S) Q / R
ield Ma	C31	Other: Tall ruderal	0.20	Medium-Low	3	Good	3	0.60	10 years	1.4	Low	1	0.86
			_				_						
		То	tal 0.2	0							Troding down		
		10	ual 0.2									orrection value	
											nabilal willgati	on acore (FIMa	
										La	hitat Biodivarai	ty Impact Score	HBIS = HMS - HI

KEY		
	No action required	
	Action required	
	Drop-down menu	
	Calculation	
	Automatic lookup	
	Overall Result	Loss to biodiversity
	Overall Result	Gain to biodiversity

### Warwickshire Coventry and Solihull - Biodiversity Impact Assessment Calculator - Linear Features



### Linear Features

Linear reatures Hedges and other linear features can offer a higher biodiversity value per length than a standard area of habitat due to factors such as connectivity and must therefore be compensated for in parallel to the standard metric.

### Please fill in both tables

Please do not edit the formulae or structure	
To condense the form for display hide vacant	
rows, do not delete them	
If additional rows are required,	
or to provide feedback on the calculator	
please contact WCC Ecological Services	

	RESUL								Linear Biodiversity Value						
									tures to be	Linear fea	tures to be		s to be <u>lost</u> within		
		Existing linear features on site		Linear distinctiveness Linear condition				th no change	retained an	d enhanced		lopment			
							within development		within development		uovolopinoni				
<b>T</b> N		Phase 1 habitat description	Feature length (km)	Distinctiveness	Score	Condition	Score	Length (km)	Existing value	Longth (km)	Eviating value	Longth (km)	Existing value		
T. Note	code	Direct Impacts and retained features	iengui (kiii)	Distinctiveness	A	Condition	B	C	$A \times B \times C = D$	E	$A \times B \times E = F$	G	$A \times B \times G = H$		
Hedgero	122	Hedges: Hedge with trees	2.40	Medium-High	5	Moderate	2	Ŭ	XXBX0=B	1.58	15.80	0.82	8.20		
Ditches		Ditches: Dry ditch	1.32	Low	2	Poor	1	0.70	1.40	1.50	13.00	0.62	1.24		
Bitorioo	020	Diches. Dry dien	1.02	2011	-	1 001		0.10				0.02			
-											-				
-															
-															
		Total	3.72				Total	0.70	1.40	1.58	15.80	1.44	9.44		
							- Ottai						ΣD + ΣF + ΣH		
											Site Linear Bi	odiversity Value	26.64		
		Indirect Negative Impacts						Value of loss fr	om indirect impa	cts					
Bef	ore/after							KxAxB							
_	impact		к					= Li, Lii	Li - Lii						
	Before		_												
	After Before														
	After														
	Before														
	After														
	Before														
	After														
	Before														
	After														
		Total	0.00					М	0.00		Linearly	t Cases (LIC)	HIS = J + M		
											Linear Impa	ct Score (LIS)	9.44		

		Proposed linear features on site (Onsite mitigation)		Target linear di		T T	-		arget condition Difficulty of creation restoration			Linear	
T. Note	code	Phase 1 habitat description	Length (km)	Distinctiveness	Score	Condition	Score		Time (years)	Score	Difficulty	Score	biodiversity value
		Linear Creation	N		0		Р			Q		R	(N x O x P) / Q / R
	J211	Hedges: Native species rich intact hedge	0.61	High	6	Moderate	2		10 years	1.4	Low	1	5.21
		Total	0.61					<b>-</b>					(N) 0 0 0
		Linear Enhancement						Existing value S ( = F )					(( N x O x P) - S) / Q / R
	J23	Hedges: Hedge with trees	1.58	Medium-High	5	Good	3	15.80	10 years	1.4	Low	1	5.64
		 					+	l					
			1 50	ERROR - Total le	noth of features	enhancement mus	st equal total len	th of features to	be enhanced a	oove	Trading down	correction value	0.00
			1.52	Little Totalle	ingen of realtines	or manoor none max		gar or realtines to	be emaneed a		inear Mitigatio	on Score (LMS)	10.85
											jun		LBIS = LMS - LIS
												y Impact Score	
											Percentage of li	near impact loss	
1	KEY		1										

CAUTION - Destruction of features of medium or high distinctiveness, e.g. hedgerows and streams, may be against local policy. Has the mitigation hierarchy been followed, can impact to these habitats be avoided? Any unavoidable loss of valuable habitats must be replaced like-for-like. E.G. Loss of hedgerows must be replaced with similar or better hedgerows. All newly planted hedges should be native species-rich hedgerows.

KEY					
	No action required				
	Action required				
	Drop-down menu				
	Calculation				
	Automatic lookup				
	Overall Result	Loss to biodiversity			
	Overall Result	Gain to biodiversity			

Site name: Axis J9 Phase 3								
Planning reference number:								
Habitats	Area (ha)	Habitat Biodiversity Value						
Total existing area onsite	21.36	41.29						
Habitats negatively impacted by development Habitat Impact Score	21.16	40.69						
On site habitat mitigation Habitat Mitigation Score	21.36	43.00						
Habitat Biodiversity Impact Score If -ve further compensation required Percentage of biodiversity impact	-	2.31						
Linear features	Length (km)	Linear Biodiversity Value						
Total existing length onsite	3.72							
Linear features negatively impacted by development Linear Impact Score	1.44	9.44						
On site linear mitigation Linear								
Mitigation Score	2.13	10.85						
Linear Biodiversity Impact Score If -ve further compensation required		1.41						
Percentage of linear biodiversity impact								

CAUTION - Destruction of habitats of high distinctiveness, e.g. lowland meadow, ancient woodland or species-rich hedgerows, may be against local policy. Has the mitigation hierarchy been followed, can impact to these habitats be avoided? Any unavoidable loss of habitats of high distinctiveness must be replaced like-for-

For any questions with regard to biodiversity impact and this development please contact Warwickshire County Council Ecological Services:

email: planningecology@warwickshire.gov.uk tel: 01926 418060

If there is an anticipated loss to biodiversity and no further ecological enhancements can be incorporated within the development it may be possible to compensate for this loss through a biodiversity offsetting scheme.

Please contact The Environment Bank for discussions on potential receptor sites in your area:

email: Imartland@environmentbank.com tel: 01926 412772





### Habitat trading down correction calculator

Existing Site						
Existing habitat	Area of habitat impact	Distinctiveness	High distinctiveness habitat loss biodiversity value	Medium-High distinctiveness habitat loss biodiversity value	Medium distinctiveness habitat loss biodiversity value	Medium-Low distinctiveness habitat loss biodiversity value
Direct impacts						
Other: Arable	19.79	Low		0.00	0.00	0.00
Other: Tall ruderal	0.37	Medium-Low	0.00	0.00	0.00	1.11
Built Environment: Buildings/hardstanding	1.00	none	0.00	0.00	0.00	0.00
-				0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
-	L		0.00	0.00	0.00	0.00
-				0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
	L			0.00	0.00	0.00
			0.00	0.00	0.00	0.00
-				0.00	0.00	0.00
	L		0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
	L		0.00	0.00	0.00	0.00
	L		0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
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•			0.00	0.00	0.00	0.00
-	L		0.00	0.00	0.00	0.00
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-				0.00	0.00	0.00
-			0.00	0.00	0.00	0.00
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Indirect impacts	L					
•	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
-	-			0.00	0.00	0.00
-	-		0.00	0.00	0.00	0.00
TOTAL	21.16		0.00	0.00	0.00	1.11

### Proposed Site

Proposed habitat creation	Area of habitat creation	Distinctiveness	High distinctiveness proposed biodiversity value	Medium-High distinctiveness proposed biodiversity value	Medium distinctiveness proposed biodiversity value	Medium-Low distinctiveness proposed biodiversity value
Grassland: Semi-improved neutral grassland	2.32	Medium	0.00	0.00	8.84	0.00
Wetland: Inundation vegetation	0.57	High	7.33	0.00	0.00	0.00
Grassland: Semi-improved neutral grassland	0.23	Medium	0.00	0.00	1.02	0.00
Woodland: Broad-leaved plantation	1.82	Medium	0.00	0.00	4.85	0.00
Other: Introduced shrub	0.18	Low	0.00	0.00	0.00	0.00
Built Environment: Buildings/hardstanding	12.80	none	0.00	0.00	0.00	0.00
Woodland: Scattered trees	0.32	Medium	0.00	0.00	1.60	0.00
Woodland: Dense continuous scrub	0.38	Medium-Low	0.00	0.00	0.00	2.44
Woodland: Broad-leaved plantation	0.53	Medium	0.00	0.00	1.41	0.00
Wetland: Inundation vegetation	0.22	High	2.83	0.00	0.00	0.00
Grassland: Semi-improved neutral grassland	0.99	Medium	0.00	0.00	6.60	0.00
Woodland: Dense continuous scrub	0.22	Medium-Low	0.00		0.00	1.41
Other: Introduced shrub	0.12	Low	0.00	0.00	0.00	0.00
Woodland: Scattered trees	0.46	Medium	0.00	0.00	2.30	0.00
-	-		0.00	0.00		0.00
Proposed habitat enhancement	Area	Distinctiveness	High	Medium-High	Medium	Medium-Low
Other: Tall ruderal	0.20	Medium-Low	0.00		0.00	0.86
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
-	-		0.00		0.00	0.00
·	-		0.00			0.00
TOTAL	21.36		10.16	0.00	26.63	4.71

Trading Down Correction	High	Medium-High	Medium	Medium-Low
Value of existing habitat loss per distinctiveness	0.00	0.00	0.00	1.11
Value of created habitats per distinctiveness	10.16	0.00	26.63	4.71
Would this result in trading down habitats?	Never	No	No	No
If no, value each distinctiveness still requiring compensation	0	0	0	0
Surplus gain to be carried over to compensate loss of lower habitats (rolls over)	10.16	10.16	36.78	40.39
Trading down correction value	n/a	0	0	0

This calculator assess whether there is any down trading in habitats value. E.g. loss of high distinctiveness habitat cannot be compensated for by surpluss medium mitigation. correction value which enters into the primary calculator to take this into account. Such that the full level of high habitat loss compensation is required. However if additional me generated above the value of the high loss, this surplus is still be taken into account with on site gain.

CAUTION - Destruction of habitats of high distinctiveness, e.g. lowland meadow or ancient woodland, may be against local policy. Has the mitigation hierarchy been followed, can impact to these habitats be avoided? Any unavoidable loss of habitats of high distinctiveness must be replaced like-for like.

### Linear trading down correction calculator

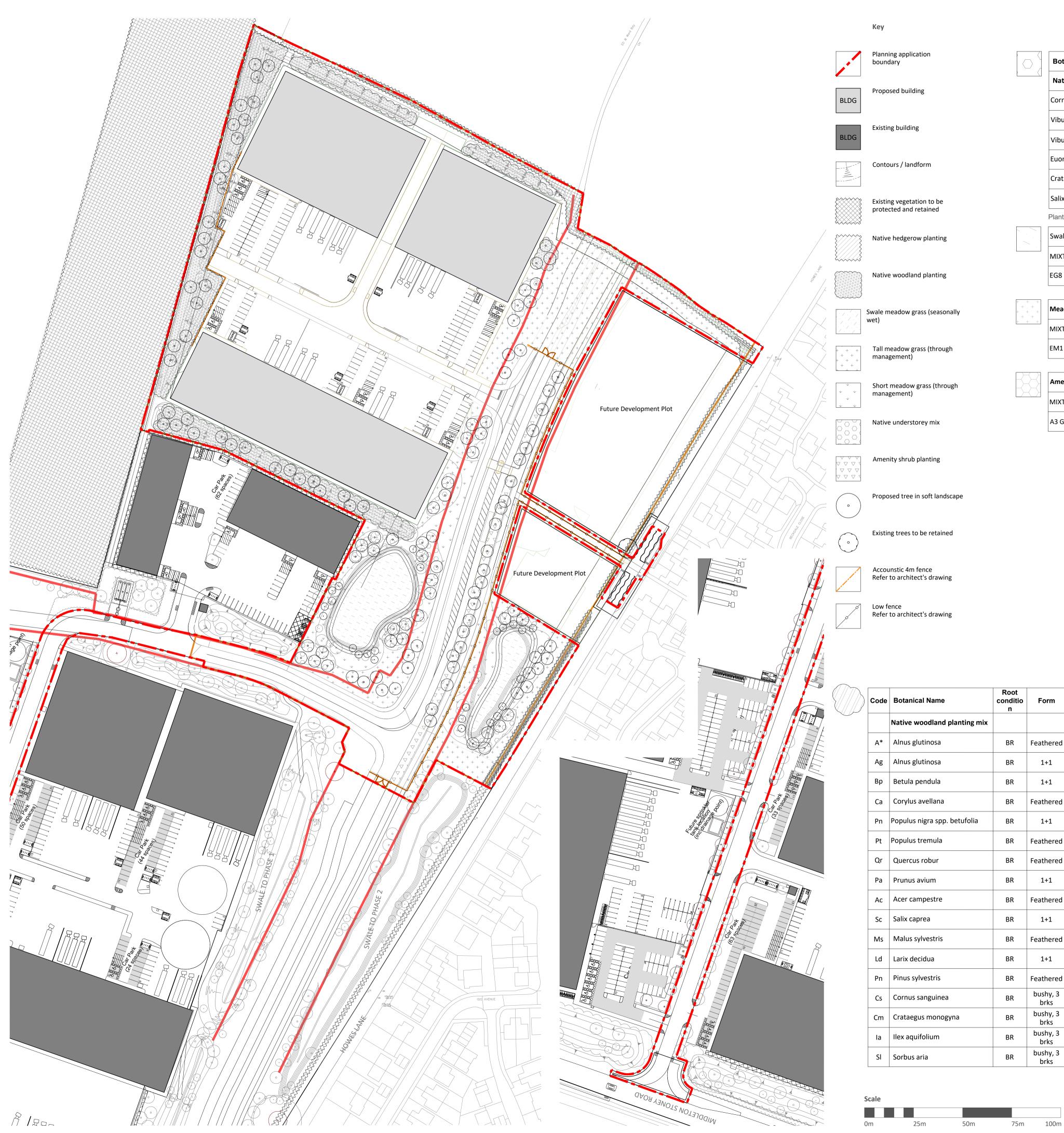
Linear trading down correction calculator								
Existing Site								
Existing linear features		length of loss (km)	Distinctiveness	High distinctiveness linear loss biodiversity value	Medium-High distinctiveness linear loss biodiversity value	Medium distinctiveness linear loss biodiversity value	Medium-Low distinctiveness linear loss biodiversity value	Low distinctiveness linear loss biodiversity value
Direct impacts								
Hedges: Hedge with trees		0.82	Medium-High	0.00	8.2	0.00	0.00	0.00
Ditches: Dry ditch		0.62	Low	0.00	0.00	0.00	0.00	1.24
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
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	-			0.00	0.00	0.00	0.00	0.00
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	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00			0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00			0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
	-			0.00	0.00	0.00	0.00	0.00
Indirect impacts								
	-	-		0.00	0.00	0.00	0.00	0.00
	-	-		0.00			0.00	0.00
	-	-		0.00	0.00	0.00	0.00	0.00
	-	-		0.00	0.00	0.00	0.00	0.00
	-	-						0.00
	TOTAL	1.44		0.00	8.20	0.00	0.00	1.24

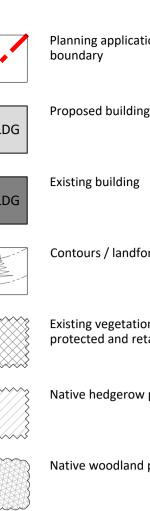
Proposed linear creation	Length of feature (km)	Distinctiveness	High distinctiveness proposed linear biodiversity value	Medium-High distinctiveness proposed linear biodiversity value	Medium distinctiveness proposed linear biodiversity value	Medium-Low distinctiveness proposed linear biodiversity value	Low distinctiveness proposed linear biodiversity value
Hedges: Native species rich intact hedge	0.61	High	5.21	0.00	0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
Proposed linear enhancement	Length	Distinctiveness	High	Medium-High	Medium	Medium-Low	Low
Hedges: Hedge with trees	1.58	Medium-High	0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00				0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00		0.00	0.00	0.00
	- 0.00		0.00	0.00	0.00	0.00	0.00
	OTAL 2.19		5.21	5.64	0.00	0.00	0.00

Linear trading down correction	High	Medium-High	Medium	Medium-Low	Low
Value of existing habitat loss per distinctiveness	0.00	8.20	0.00	0.00	1.24
Value of created habitats per distinctiveness	5.21	5.64	0.00	0.00	0.00
Would this result in trading down habitats?	Never	No	No	No	No
If no, value each distinctiveness still requiring compensation	0	0	0	0	1.24
Surplus gain to be carried over to compensate loss of lower habitats (rolls over)	5.21	2.65	2.65	2.65	n/a
Trading down correction value	n/a	0	0	0	0

This calculator assess whether there is any down trading in linear habitats. E.g. loss of high distinctiveness habitat and surplus creation of medium or low habitats. It calculates a correction value which enters into the primary calculator to take this into account. Such that the full level of high habitat loss compensation is required. However if additional medium gain is generated above the value of the high loss, this surplus is still be taken into account with on site gain.

CAUTION - Destruction of each habitat of medium distinctiveness and above should be mitigated for with creation/restoration of a similar habitat. Trading up of habitat type is encouraged.





Low fe Refer	ence to architect's drawing						
Code	Botanical Name	Root conditio n	Form	Height (cm)			Botanical Na
	Native woodland planting mix				% Mix		Trees
A*	Alnus glutinosa	BR	Feathered	150cm	5	-	Betula pendul
Ag	Alnus glutinosa	BR	1+1	60-80cm	5	-	Acer campest
Вр	Betula pendula	BR	1+1	60-80cm	5	-	Quercus robu
Са	Corylus avellana	BR	Feathered	150cm	5	_	Salix caprea
Pn	Populus nigra spp. betufolia	BR	1+1	60-80cm	5	_	Betula pendul
						-	Sorbus aria
Pt	Populus tremula	BR	Feathered	150cm	5	_	Populus alba
Qr	Quercus robur	BR	Feathered	150cm	10		Populus nigra
Ра	Prunus avium	BR	1+1	60-80cm	5		Acer campest
Ac	Acer campestre	BR	Feathered	150cm	5	-	Quercus robu
Sc	Salix caprea	BR	1+1	60-80cm	10	-	Salix caprea
Ms	Malus sylvestris	BR	Feathered	150cm	5	-	Betula pendul
Ld	Larix decidua	BR	1+1	60-80cm	5	-	Sorbus aria
Pn	Pinus sylvestris	BR	Feathered	150cm	10	_	Pinus sylvestri
			bushy, 3			_	Quercus ilex
Cs	Cornus sanguinea	BR	brks	60-80cm	5	_	llex aquifolium
Cm	Crataegus monogyna	BR	bushy, 3 brks	60-80cm	5		Prunus avium
la	llex aquifolium	BR	bushy, 3 brks	60-80cm	5		Prunus cerasit

60-80cm

Botanical Name	Root condition	Form		ight m)	
Native understory mix					% Mix
Cornus sanguinea	BR	bushy, 3 brks	60-8	30cm	15
Viburnum opulus	BR	bushy, 3 brks	60-8	30cm	20
Viburnum lantana	BR	bushy, 3 brks	60-8	30cm	20
Euonymus europaeus	BR	bushy, 3 brks	60-8	30cm	15
Crataegus monogyna	BR	bushy, 3 brks	60-8	30cm	15
Salix purpurea	BR	bushy, 3 brks 60-8		30cm	15
Planted in swathes of 3-5 species at 1	500mm centre	es			
Swale meadow grass mix (seasonally	v wet)				
MIXTURE	SUPPLIER		SC	W RATE	
EG8 (Meadow grass mixture for wet	Emorsgate S	Seeds	5g/m2	2 (50kgs/ha	
Meadow grass mix (Long and short)					
MIXTURE		SUPPLIER		SOW RATE	
EM1 - Basic general purpose meadow mixture		Emorsgate Seeds		5g/m2	
Amenity grass to 'Grassroad'				SOW RATE	
Amenity grass to 'Grassroad' MIXTURE		SUPPLIE	R	SC	W RATE

Botanical Name	Root condition	Size	Density
Amenity shrub planting			
Carex oshimensis 'Evergold'	С	2L	6/m²
Cornus sanguinea 'Midwinter fire'	С	3L	5/m²
Cotinus coggygria 'Purple Flame'	С	5L	3/m²
Escallonia 'Apple Blossom'	С	3L	5/m²
Hebe 'Red Edge'	С	3L	5/m²
Hebe 'Mrs Winder'	С	3L	5/m²
Photinia x fraserii 'Red Robin'	С	5L	3/m²
Prunus 'Otto Luyken'	С	3L	5/m²
Lonicera nitida 'Maigrun'	С	3L	5/m²
Miscanthus sinensis	С	3L	3/m²

Botanical Name	Root condition	Height	% mix
Native shrub mix			
Crataegus monogyna	С	60-80cm	35
Prunus spinosa	С	60-80cm	35
Cornus sanguinea	С	60-80cm	30

Planted with spacing at varied centres from 0.8-1.2m. Species in groups of 3-7no

Notes

- 1. All dimensions in mm, unless otherwise stated.
- 2. Scaling from drawing if printed incorrectly may lead to errors. 3. All information outside red line boundary shown for contextual purpose only.
- 4. All hatch patterns are indicative only unless stated otherwise. 5. This drawing is to be read in conjunction with the following re-form landscape architecture documentation: 0897-RFM-XX-00-DR-L-0002-LANDSCAPE SECTIONS
- AND all relevant documentation from the design team
- 6. Levels information on this drawing illustrates the design intent. The contractor is to check and verify all levels and dimensions against site survey information.
- 7. Any discrepancies in the design information are to be brought to the attention of re-form landscape architecture, in writing, prior to commencement of construction works.
- 8. All proprietary products shall be installed in strict accordance with manufacturers written instructions.
- 9. Refer to other consultants' drawings and specifications for the following design information:
- Foundation details Base course and/or sub bases design & specification
- Waterproofing of any element
- Levels & Drainage design and infrastructure
- Lighting and ducting • Existing & proposed utilities
- 10. Plant quantities are to suit site areas in accordance with scheduled plant densities.
- 11. Any proposed plant substitution shall be agreed with the landscape architect prior to ordering.

Botanical Name	Overall height (cm)	Mature Height (m)
Trees		
Betula pendula	min. 500	8m
Acer campestre	min. 450-500	8m
Quercus robur	min. 450-500	10m
Salix caprea	min. 450-500	8m
Betula pendula	min. 450-500	8m
Sorbus aria	min. 450-500	8m
Populus alba	min. 450-500	8m
Populus nigra	min. 450-500	8m
Acer campestre	min. 350-425	8m
Quercus robur	min. 350-425	10m
Salix caprea	min. 350-425	8m
Betula pendula	min. 350-425	8m
Sorbus aria	min. 350-425	8m
Pinus sylvestris	min. 350-425	10m
Quercus ilex	min. 350-425	8m
lex aquifolium	min. 350-425	8m
Prunus avium	min. 350-425	8m
Prunus cerasifera 'Nigra'	min. 350-425	8m
Alnus glutinosa	min. 350-425	8m
Salix alba	min. 350-425	8m
Tilia cordata 'Greenspire'	min. 500	10m
Carpinus betulus 'Frans Fontaine	min. 500	10m

05.05.22 Layout updated to account for new JR 04.04.22 Woodland planting mix revised 10.03.22 Planning update 06.09.21 Planning issue P03 04.08.21 Issued for co-ordination P01 Date Description of revision Drawn Checked Approve by by



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Client ALBION LAND Document title PLANTING STRATEGY

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Scale 1:1000

S2 Revision P05

\* If trees to be planted within the planting season contractor may consider RB © re-form landscape architecture