

Ecological Consultants Environmental and Rural Chartered Surveyors

Your Ref: Our Ref: AWG/5267

> Mr Mark Brown Oakmere Homes

> > Friday, 03 April 2020

Dear Mr Brown

## RE: CHATBURN ROAD SOUTH - BIO-DIVERSITY OFFSETTING CALCULATIONS

In respect of construction work to be undertaken at Chatburn Road South. I would provide the following which highlights details within the submitted planning documents.

## **BIODIVERSITY CALCULATIONS**

In respect of biodiversity, defining enhancement proves problematic as "valuing" the natural environment requires a standardised methodology and baseline values against which to compare a site before and after.

Ecological valuation is complicated, and is highly sensitive to the type and condition of the habitat being lost, and the type and condition of the habitat being created on-site in mitigation and also off-site in compensation. Differences in habitat type and condition can make a large difference to the amount of offsetting required.

The Biodiversity Metric 2.0 published as a 'beta test' has been used in this assessment. This is an experimental calculation methodology and is currently subject to review and public testing.

The author of this report is a Rural Practice Chartered Surveyor, Chartered Environmentalist and full member of the Chartered Institute of Ecology and Environmental Management. The author is a full member of the Royal Institution of Chartered Surveyors (RICS) and therefore is competent in a range of valuation techniques and procedures.



Tel: 015395 61894 Email: info@envtech.co.uk Web: www.envtech.co.uk Envirotech NW Ltd The Stables, Back Lane, Hale, Milnthorpe, Cumbria. LA7 7BL Directors: A. Gardner BSc (Hons), MSc, CEnv, MRICS, Dip NDEA H. Gardner BSc (Hons), MSc, CEnv, MRICS Registered in England and Wales. Company Registration Number 5028111 "Biodiversity Metric 2.0"

We have utilised a spread sheet for calculating the biodiversity value of the site before and after "Biodiversity Metric 2.0 Calculation Tool Beta Test - December 2019 Update". This was the most current version of the spread sheet at the time of compilation.

Baseline conditions were taken as reported by Envirotech (2020) following a site visit.

Post development conditions are taken from Detailed Landscape Proposals and Tree Survey Phase 3 (C-981-40)

Pre development, the ecology report for the site indicates the site comprises a species poor grassland with hedges and fences to its boundary. The closest match to this habitat type on site is Grassland - Modified grassland and Sparsely vegetated land - Ruderal/Ephemeral. These have a low distinctiveness, most of the condition criteria are being failed so they have a poor condition.

Post development, Grassland - Other neutral grassland comprises areas of wildflower planting/ meadow and bulbs. This should achieve a good condition.

Heathland and shrub - Mixed scrub comprises and area of native scrub planting within the wildflower planting/ meadow area. This should achieve a good condition.

Lakes - Ditches- Marginal planting to the stream side. This should achieve a good condition.

Urban - Vegetated garden- amenity grassland and garden areas. These will be poor condition.

All habitats will be created on site.

A small length of native hedgerow will be lost. This is currently a defunct hedgerow of scattered hawthorn and elder. There was no notable ground flora vegetation associated with it. New native hedgerows including hedges with trees will be created on site.

Using the Biodiversity Metric 2.0 calculations for habitat types, distinctiveness, condition, difficulty of creation and allowing suitable discount periods for the habitats to reach their target value, the site pre development is 1.60 Units, post development the site will be 1.64 Units, an ecological gain of 0.04 Units. On an area basis the site is therefore 2.78% better ecologically post development than pre-development.

Using the Biodiversity Metric 2.0 calculations for hedge types, distinctiveness, condition, difficulty of creation and allowing suitable discount periods for the hedges to reach their target value, the site pre development is 0.06 Units, post development the site will be 0.64 Units, an ecological gain of 0.58 Units. On a connectivity basis the site is therefore 963% better ecologically post development than pre-development.

The proposal delivers an ecological ain in respect of habitats and connectivity gain in respect of hedgerow enhancement under the Biodiversity Metric 2.0 Calculation Tool Beta Test -December 2019 Update.

Yours Sincerely

Andrew Gardner BSc (Hons), MSc, MRICS, CENV Director Envirotech NW Ltd

	Habitat units	1.60
On-site baseline	Hedgerow units	0.06
	River units	0.00
On site past intervention	Habitat units	1.64
On-site post-intervention	Hedgerow units	0.64
(Including habitat retention, creation, enhancement & succession)	River units	0.00
	Habitat units	0.00
Off-site baseline	Hedgerow units	0.00
	River units	0.00
Officite pact intervention	Habitat units	0.00
Off-site post-intervention	Hedgerow units	0.00
(Including habitat retention, creation, enhancement & succession)	River units	0.00
Total net unit change	Habitat units	0.04
Ŭ	Hedgerow units	0.58
(including all on-site & off-site habitat retention/creation)	River units	0.00
Total net % change	Habitat units	2.78%
Ŭ	Hedgerow units	963.74%
(including all on-site & off-site habitat creation + retained habitats)	River units	0.00%

		Habitats and areas			Habitat distinctiveness Habitat condition		Ecological connectivity			Strategic significance			Suggested action to address	Ecological baseline	Retention category biodiversity value								
Ref	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier		Total habitat units	Area retaine	Area d enhanced	Area succession	units	Baseline units enhanced	Baseline units succession	Area lost	Units lost
1	Grassland	Grassland - Modified grassland	0.78	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required	1.56	0	0	0	0.00	0.00	0.00	0.78	1.56
2	Sparsely vegetated land	Sparsely vegetated land - Ruderal/Ephemeral	0.02	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required	0.04	0	0	0	0.00	0.00	0.00	0.02	0.04
3																							
4																							
5																						-	
		Total site area ha	0.80												1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.80	1.60

		Post developme	ent/ post interv	ention habitats				]
				Ecological	Strategic significance	Temporal multiplier	Difficulty	
Proposed habitat	Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance	Time to target condition/years	Difficulty of creation category	Habitat units delivered
Grassland - Other neutral grassland	0.13	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	15	Low	0.91
Heathland and shrub - Mixed scrub	0.01	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	7	Low	0.09
Grassland - Other neutral grassland	0.01	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	15	Low	0.07
Lakes - Ditches	0.01	Medium	Good	Low	Area/compensation not in local strategy/ no local strategy	10	Low	0.08
Urban - Vegetated garden	0.25	Low	Poor	Low	Area/compensation not in local strategy/ no local strategy	1	Low	0.48
Urban - Developed land; sealed surface	0.39	V.Low	N/A - Other	Low	Area/compensation not in local strategy/ no local strategy	0	Low	0.00
Totals	0.80							1.64

		UK Habitats - existing habitats	Habitat distinctiveness			ess Habitat condition		Ecological connectivity			Strategic signi		Ecological baseline		Retention category biodiversity value							
Base re	Hedge number	Hedgerow type	length KM	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance position multiple		Suggested action to address habitat losses	Total hedgerow units		ngth ained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost
1	1	Native Hedgerow	0.03	Low	2	Poor	1	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.06		0	0	0	0	0.03	0.06
2																						
3																						
4																						
5																						
		Total Site length/KM	0.03											Total Site baseline	0.0	6	0.00	0.00	0.00	0.00	0.03	0.06

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		Proposed habitats	Habitat distinctiveness		Habitat condition		Ecological connectivity			Strategic significa	Temporal r	nultiplier	Difficulty of creation	Hedge units			
Baselir ref	e New hedge number		Length km	Distinctiveness	Score	Condition	Score	Ecological connectivity	Connectivity	Connectivity multiplier	Strategic significance	Strategic significance	Strategic position multiplier	Time to target condition/years	Time to target multiplier	multiplier	delivered
1		Native Species Rich Hedgerow with trees	0.06	Medium	4	Good	3	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	20	0.490	0.67	0.24
2		Native Hedgerow	0.12	Low	2	Moderate	2	Low	Unconnected habitat	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0.837	1	0.40
3																	
4																	
5																	
		Creation Length/KM	0.18														0.64