

Biodiversity Net Gain Technical Note



Lidl, Birstall

5th March 2025

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**Tyler
Grange**

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Section 1: Introduction

- 1.1. This note has been prepared by Tyler Grange Ltd on behalf of LIDL GB. It sets out the results of a Biodiversity Net Gain (BNG) calculation utilising Defra's Metric Version 2.0 for a parcel of land located opposite the Birstall Shopping Park, in Birstall (OS SE 23584 27437), hereafter referred to as the 'Site'. This report has been produced alongside an Ecological Impact Assessment (EclA) of the site (Tyler Grange report reference **13438_R01a_EclA_AS_MM_260321** dated 26th March 2021) and should be read in conjunction with the EclA for the site.
- 1.2. The National Planning Policy Framework (NPPF) updated in July 2021, states that planning and decisions should contribute to and enhance the natural environment by, amongst other, *'identifying and pursuing opportunities for securing measurable net gain for biodiversity'*. The Kirklees Council Local plan strategy and policies (*Policy LP30*) also specifies the need for net gain in biodiversity.
- 1.3. Emerging national and local policy to be incorporated within the Environment Act will mandate net gains in biodiversity post-development in accordance with approved metrics.
- 1.4. In line with the requirement of Local Planning Policy and section 170 of the NPPF, this note provides the summary of the baseline biodiversity value of the site assessed against the proposed post-development value to detail the change in biodiversity value onsite.



Section 2: Methodology

- 2.1 The DEFRA Biodiversity Metric 2.0 (JP029) was published on the 29th July 2019¹ and was the current version in use at the time of the original assessment. This calculator is used to ‘*measure and account for biodiversity losses and gains resulting from development*’. The calculator requires baseline habitat data as well as the information on habitats to be lost and created to calculate the total number of biodiversity units on site post-development. Version 2.0 has continued to be used for consistency in calculations and approach despite more recent metrics being published since the time of the original submission.
- 2.2 Baseline: an extended Phase I habitat survey of the site was undertaken by Tyler Grange in August 2020. This data was used to determine the area and value of habitats currently on site ‘*the baseline*’. This data was then transported into classification of the UK Habitats² to utilise within the Defra 2.0 metric.
- 2.3 Retained/ replacement habitats: the landscape proposals (see **Appendix 1**) was then used in combination with the baseline data, to calculate the areas of retained and replacement habitats on site.
- 2.4 The calculator automatically assigns distinctiveness scores to each habitat type, and the user inputs scores for condition, ecological connectivity, strategic significance and total area (in hectares); as per the guidance, the area of trees on site was calculated using the integrated ‘street tree helper’ tool within the metric spreadsheet.
- 2.5 No condition or connectivity scores are required for hardstanding or building as part of the calculator.
- 2.6 Biodiversity units: the information above was then input into the Defra V2.0 calculator, to determine the number of biodiversity units at baseline and at post-intervention (i.e. habitat creation + retention). The calculator then uses this data to produce the total net unit and percentage change. The Defra calculator is provided separately to this note.
- 2.7 Further information on the baseline habitats is available in the EclA for the site (**13438_R01a_EclA_AS_MM_260321** – Tyler Grange).

¹ <http://publications.naturalengland.org.uk/publication/5850908674228224>

² UK Habitat Classification Working Group (2018) UK Habitat Classification – Habitat Definitions V1.0



Section 3: Results

3.1. **Table 3.1** below summarises the existing biodiversity baseline value of the site.

Table 3.1 habitat units at baseline

Habitat type	Area (ha)	Baseline Units	Units lost	Units retained	Units enhanced
Tall Ruderal (Sparsely vegetated land – ruderal/ephemeral)	0.13	0.29	0.29	0.00	0.00
Poor semi-improved grassland	Too small to register in the metric	0.00	0.00	0.00	0.00
Introduced shrub	0.03	0.20	0.20	0.00	0.00
Mixed plantation woodland	0.20	1.32	1.19	0.13	0.00
Hardstanding	1.17	0.00	0.00	0.00	0.00
Scattered Tree	0.08	0.35	0.18	0.18	0.00
Total	1.53	2.16	1.85	0.31	0.00

3.2. **Table 3.2** below summarises the post-development value of the site, which excludes enhancements. The BNG calculations workbook provides additional detail regarding habitat condition for each proposed habitat type.

Table 3.2 Post development habitat creation

Habitat type	Area (ha)	Units delivered
Introduced Shrub	0.12	0.56
Amenity Grassland	0.05	0.10
Hardstanding	1.36	0.00
Street Tree	0.01	0.02
Total	1.53	0.67

3.3. **Table 3.3** below summarises the projected net biodiversity value of the site post development.

Table 3.3 Projected Net Biodiversity Value

Habitat	Baseline	Lost	Retained	Created	Enhanced	Percentage change
Habitats	2.16	1.85	0.31	0.67	-	-1.18 units / net loss of 54.53%

3.4. It is also noted that the proposals show additional native tree planting scattered within the introduced shrub and across hardstanding, but that the number of trees originally onsite exceeds this number, resulting in an overall net loss.



- 3.5. Additional native hedgerow planting is also proposed, as indicated in **Appendix 1** and accounted for in the accompanying metric. The new hedgerows would comprise species of field maple *Acer campestre*, hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium*, wild privet *Ligustrum vulgare*, dog rose *Rosa canina* and elder *Sambucus nigra*. The overall length would total 0.28km, resulting in a net gain in hedgerow length of 0.28km. As the baseline hedgerow value is 0 units as no hedgerows are present, it is not possible to calculate the uplift in hedgerow percentage gains with the metric. This hedgerow planting would generate a total of 0.54 hedgerow units.



Section 4: Conclusion

- 4.1. The Defra 2.0 Metric has calculated that without including off-site habitat creation, the proposed development at this stage as illustrated on the attached illustrative landscape strategy plan would amount to a relatively minor measurable net loss in biodiversity value of **1.18** biodiversity units, equating to a **54.53%** net loss in biodiversity value.
- 4.2. The existing EclA report for the site has made recommendations for the inclusion of bat roost and bird nesting features to provide enhancements to this regard.
- 4.3. It will, therefore, be necessary for off-site contributions to be made to the Local Planning Authority or 3rd-party land owner to create the required deficit of units off-site.
- 4.4. To achieve a 10% net gain, as targeted by Kirklees Council and emerging National Policy, it will therefore be necessary for the creation of an additional **1.396** biodiversity units off-site.
- 4.5. This is calculated as: 10% increase on baseline of 2.16 = 2.376. Currently development proposals result in 0.98 biodiversity units being present post development therefore a further 1.396 units must be purchased from an offsite provider to reach the required 10% uplift.



Appendix 1: Landscape Proposals



SEE DRAWINGS BY SMR ARCHITECTS FOR SURFACING AND BOUNDARY DETAILS

PLANTING NOTES

All trees to be planted and procured in accordance with BS 8545:2014 and BS 3936:1992 Nursery Stock Part 1. The providing nursery shall demonstrate Plant Health Certification and/or an adopted biosecurity policy and plant passport scheme. Aftercare shall be in accordance with the approved Landscape Management Document.

- GROUND PREPARATION**
- Where required all existing topsoil and subsoil shall be stripped and stored separately on site. Heaps must not exceed 3m in height and should be used within 12 months in accordance with BS 4425 (Code of practice for general landscape operations).
 - Existing topsoil and in situ soils, shall be analysed in accordance with BS 3882 to determine available nutrients, texture, organic matter content and pH. Where required, existing soils are to be improved in accordance with BS 3882:2015. Subsoils shall conform to BS 8601:2013.
 - In all instances, where soil is to be retained and relatively undisturbed for the purposes of planting new vegetation on site, then it must be alleviated to avoid compaction, must be tested for pH for specific species suitability, and may require the addition of biochar + compost + organic fertiliser + native soil.
 - Imported topsoil and site waste soils shall be to British Standards BS 3882 - Multipurpose Grade. Spread to 300mm depth over areas to be planted with trees and shrubs. Retaining minimum rooting depth to be provided by a good quality subsoil to BS 8601:2013. Free of building material debris to achieve the following overall rooting depths:
 - Grass - 450mm
 - Shrubs - 600mm
 - Trees - 900mm

PLANTING SCHEDULES

ORNAMENTAL PLANTING SCHEDULE				
Nr	Name	Ht in cm	Pot(L)	Density
30	Bergenia cordifolia 'Purpurea'	3L	3L	5.00
62	Geranium endressii 'Wargrave Pink'	3L	3L	5.00
Shrub				
Nr	Name	Ht in cm	Pot(L)	Density
95	Ceanothus thyrsiflorus repens	30-40cm(D)	3L	5.00
184	Choysya ternata 'Sundance'	30-40cm	3L	5.00
57	Cistus 'Silver Pink'	30-40cm	3L	5.00
73	Cornus sanguinea 'Mid Winter Fire'	40-60cm	3L	5.00
62	Escallonia 'Apple Blossom'	30-40cm	3L	5.00
30	Eunonymus fortunei 'Emerald Gaiety'	20-30cm(D)	3L	5.00
77	Eunonymus fortunei 'Emerald n Gold'	20-30cm(D)	3L	5.00
233	Hebe albicans 'Red Edge'	20-25cm	3L	5.00
81	Hebe pinguifolia 'Page'	20-30cm(D)	3L	5.00
154	Lavandula angustifolia 'Hidcote'	20-25cm	3L	5.00
124	Pachysandra terminalis 'Variegata'	10-15cm	3L	5.00
82	Philadelphus 'Manteau d'Hermine'	30-40cm	3L	5.00
73	Prunus laurocerasus 'Otto Layken'	20-40cm	3L	5.00
127	Santolina chamaecyparissus nana	20-25cm	3L	5.00
211	Skimmia japonica 'Rubella'	30-40cm	3L	5.00
90	Spiraea japonica 'Goldflame'	30-40cm	3L	5.00
107	Viburnum davidii	20-25cm	3L	5.00

All shrub material shall be first quality, sturdy, well rooted non-refrigerated stock with well branched heads and fibrous root systems. Shrubs shall be planted into 450mm good quality fibrous topsoil incorporating organic compost and slow release fertiliser in accordance with all good horticultural practice. A proprietary geotextile membrane is to be installed between the soil and much of the planted areas (with 200mm minimum overlap) cut with T or X slots to fit around the plants as required. Sufficient pegs to be used to ensure that membrane does not lift. All plant material shall be a minimum of 3L pot size unless otherwise specified and conform to BS3936 Part 1 and BS 4428. Finished beds shall be dressed with 50mm depth of purple slate chippings.

TREE SCHEDULE			
SPECIES	NUMBERS REQUIRED		
	Ht in m	4.5 min	
	Grth in cm	16-18	
Acer campestre 'Ebury'		6	
Betula utilis 'Jaqueminottii' (BuJ)		9	
Carpinus betulus 'Frans Fontaine' (ChFF)		4	
Prunus calleryana 'Chanticleer' (PcC)		2	
Sorbus aucuparia 'Sheerwater Seedling' (SaS)		5	

All trees to have clear stems to 2.0m above ground level with well developed branching heads with a single, central leader and healthy, fibrous root systems. Trees shall be planted into pits of an appropriate size to accommodate the root system without restriction, backfilled with a 3:1 topsoil/compost mix and shall be secured to a machine rounded stake using 1 no. tree tie with rubber spacers. Finished height of stake shall not exceed 1/3 height of staked tree above ground. Extra heavy standard trees in hard landscape within tree grilles to be underground guyed and fitted with an irrigation system such as RootRain by GreenBlue Urban. Underneath hard surfacing a crate system such as StrataCrib by GreenBlue Urban, is to be installed. The extent of the pit to be fitted with a tree pit crate system is shown by the blue dashed line. All pits are to be 1m deep.

NATIVE HEDGE

NATIVE HEDGE SCHEDULE						
Nr	Name	Height/cm	Age	Root	Pot/L	
70	Acer campestre	60-80cm	1u1	BR		
70	Corylus avellana	40-50cm	1/0	BR		
70	Crataegus monogyna	40-50cm	1u1	BR		
140	Ilex aquifolium	50-60cm		C	2L	
270	Ligustrum vulgare	50-60cm	0/1	BR		
70	Rosa canina	50-60cm	1/1	BR		
140	Sambucus nigra	60-80cm	1/1	BR		

Hedge to be planted in a previously prepared trench, 300mm wide and 450mm deep backfilled with a 2:1 mix of multipurpose topsoil to BS3882:2007 and planting compost. Bareroot transplants to be dipped in a suitable mycorrhizal dip before planting. Plants to be planted in a double staggered row, 300-350mm wide, at 5m plants per linear metre with species planted randomly throughout in groups of 7 to 30 of a single species. The hedge lines shall be matched after planting with forest mulch to a uniform depth of 50mm.

TURFING

The topsoiled area to be turfed, is to be grade and cross-graded to even running falls, to allow the finished levels of the turf to be 40mm above the adjoining paved areas. The surface should be lightly and uniformly firmed by rolling or treading and reduced to a fine ribb up to 20mm in depth. All rubbish, stones greater than 50mm in diameter etc. shall be removed from the surface. Apply an even application of approved fertiliser at a rate of 70g/m² and rake in. No turves shall be laid in exceptionally frosty weather or in other unsuitable weather conditions. The turves shall be laid in a stretcher bond pattern, closely butted and firmed into position, to the correct levels. The turves should be laid off joints, working over turves previously laid. A dressing of fine, silted topsoil (complying with BS 3882) should be applied to the laid turf and brushed well into the joints. Turves shall be watered regularly to prevent them drying out before they establish.

NATIVE GROUND COVER PLANTING

GROUND COVER MIX SCHEDULE				
Nr	Name	Height/cm	Root	Pot/L
278	Cornus canadensis	C	2L	
463	Eunonymus fortunei 'Silver Queen'	25-30cm	C	2L
180	Laminium maculatum	C	2L	
278	Lonicera periclymenum 'Belgica'	60-80cm	C	2L
640	Pachysandra terminalis 'Green Carpet'	30-40cm	C	2L

All plant material shall conform to BS3936 Parts Land 4 and BS 4428. Topsoil to comply with BS3882:1994. Organic matter to be proprietary shrub planting compost, or approved compost derived from recycled organic matter. Slow release fertiliser to be 'Enmag' or similar. 450mm depth subsoil to be spread over area to be planted.

- Rev P: Updated to drawing DR-A-8001-S2-P3 (SF) March 25
- Rev N: Updated to drawing DR-A-3003-A4-C13, easement added and trees moved (SF) Feb 25
- Rev M: Correction to tree schedule and retained trees (SF) Oct 24
- Rev L: Updated to drawing DR-A-3003-A4-C3 (SF) July 24
- Rev K: Updated to drawing DR-A-8049-S2-P2 (MNB) Apr 24
- Rev J: Updated to drawing DR-A-3003-A3-C3 (MNB) Jan 24
- Rev I: Updated to site layout S3-P2 (SF) April 23
- Rev H: Updated to include additional native hedge to car park boundary and adjustment of species list (SF) Nov 21
- Rev F: Native hedge added behind the store (SF) Oct 21
- Rev E: Additional tree planting (SF) Oct 21
- Rev D: Entrance to Paradigm House updated and knee rail added (SF) Sept 21
- Rev C: Bollards and cycle hoops added in front of retail units (SF) Sept 21
- Rev B: Updated to latest site layout (SF) July 21
- Rev A: Amended in line with Proposed Site Plan Rev P3 (SEL) Mar 21

WOODHEAD ROAD

BANKWOOD

MAY

BANKWOOD WAY

NOTE: PLATFORM AND SERVICES FOR HOME BARGAINS UNIT IN LINE WITH BIRSTALL PLATEAU PERFORMANCE SPECIFICATION BY JKA

PROPOSED RETAIL UNIT

PROPOSED FOODSTORE TYPE 1500 PFL +150.00

KEY

- Existing trees, hedges and vegetation to be retained.
- Existing trees, hedges and vegetation to be removed.
- Proposed Extra heavy standard (16-18cm girth) tree.
- Proposed native hedgerow.
- Proposed ornamental shrub planting.
- Proposed ornamental groundcover mix.
- Proposed turf.
- Proposed 2000mm high palisade fence (detached by others).
- Proposed concrete.
- Proposed 200x100mm concrete block paving in Anthracite or Dark Grey.
- Proposed 1100mm hand rail.
- Proposed 450mm timber knee rail.
- Proposed retaining wall (detached by others).

<p>Site: See Farmer at 1621 W/L Landscape Architect</p> <p>Project: Proposed Store BANKWOOD WAY, BIRSTALL</p> <p>Location: Westleigh Hall Wakefield Road</p> <p>Drawn: Richard HODGSON</p> <p>Contact: Telephone 01484 861611 Fax 01484 861616</p> <p>Email: info@fdalandscape.co.uk www.fdalandscape.co.uk</p>	<p>Client: Lidl Great Britain Ltd</p> <p>Drawing Title: LANDSCAPE DETAILS</p> <p>Scale: 1:200</p> <p>Date: Mar 21</p> <p>Drawn by: SEL</p> <p>Checked by: R/2459/JP</p>
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