



Our Ref: JBA 16/281 ECO12 SR Rev A

3rd December 2021

On behalf of Countryside Properties Ltd.

Indicative Biodiversity Net Gain Calculation for Land at Cambridge Road, Melbourn, Cambridgeshire

James Blake Associates Ltd. (JBA) was commissioned by Countryside Properties Limited to provide a biodiversity net gain calculation for the proposed development on land at Cambridge Road, Melbourn, Cambridgeshire (South Cambridgeshire District Council).

As the development layout and landscaping is not yet finalise, this statement is an indication only and explains how the net gain calculation was carried out, the assumptions made and the conclusions from the calculation. Only habitats/linear features currently and proposed within the site boundary have been included within the calculations. The draft 'Framework Plan' is provided in Appendix A.

Background

A biodiversity net gain calculation has been carried out using Defra Biodiversity Metric 3.0 (updated July 2021). For more information on the metric, please see [here](#).

Defra's Biodiversity Metric 3.0 provides a way of measuring and accounting for biodiversity losses and gains resulting from development or land management change. The metric encompasses both area (e.g. grasslands) and linear habitats (such as hedgerows, rivers and streams). Note that 'material' enhancements for species, such as bat/bird boxes, reptile hibernacula, hedgehog 'highways' etc. cannot currently be factored into the calculation.

The habitats and linear features currently present within the site boundary are used to calculate the baseline biodiversity units; the percentage gain that the proposed development can potentially deliver is estimated using the draft 'Framework Plan' for the development and assumptions made by the assessor (Appendix A).

At present, national policy states '*opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity*' (NPPF, 2021). The figure of 10% net gain is sometimes regarded as the minimum but this has now been highlighted as mandatory with the emerging Environment Bill.

Methodology and Rationale

The baseline figures for the metric calculation were based on the Phase 1 Habitat survey undertaken by JBA in 2017, and later updated by JBA in November, 2021. The area measurement for each of the baseline habitat types was made using Defra's MAGIC map: for more information about MAGIC, please see [here](#).

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Baseline habitats consist of arable land and ruderal vegetation associated with the field margins. Three scattered trees are present within the arable land which have been classed as 'urban tree' due to the surrounding and likely impact from agricultural works. A small area of woodland is present at the western boundary of the site, along with a pathway of hardstanding.

The site is surrounded by native hedgerows, however all are species-poor and have been highly managed. There is also a wet ditch present at the north-western boundary of the site.

The strategic significance of the location was checked against the 'Local Plan' of Braintree. The location did not appear to be in or near to a locality mentioned in the Strategy. However, this category can be amended accordingly if required.

The areas for habitat to be retained and/or created were taken from the draft 'Framework Plan' drawing prepared by FINC Architects Ltd. (2021) (Appendix A).

None of the arable habitats will be retained; however, the development will provide new habitats in the Public Open Space (POS) area. It is assumed that POS areas will be seeded with wildflower grassland, wet wildflower grassland (in the SuDS area) with approximately 80 urban street trees. It is assumed that amenity grassland will also be used within the POS areas for recreational use, and gardens in the residential area will be turfed. Tree planting will also add biodiversity value to the scheme. Native plant species should be used to create the wildflower, wet wildflower grassland and marginal plug planting.

All boundary hedgerows will be retained and existing gaps used for access. The ditch at the north-western boundary of the site will also be retained and enhanced to improved its current condition. It is also assumed that native hedgerow will be proposed at suitable locations throughout the development. A number of ornamental shrubs will likely be used in the residential areas also.

In terms of habitat creation, landscape planting schemes do not always translate directly into ecologically relevant habitat types, so the best fit for the landscape plans was selected from the draw-down menu in the metric.

A value of 'fairly good' has been ascribed to the potential condition that could be achieved by wildflower grassland (categorised as 'other neutral grassland' in the metric) (see Appendix B for condition tables). 'Other neutral grassland' is described in UKHab (2020) classification as species-rich, semi-improved neutral grassland. A condition score of 'fairly good' has been ascribed as there is likely to be minor differences between the created grassland and what is described in the relevant habitat classification for priority grassland habitat.

A condition score of 'fairly good' has been ascribed to the wet wildflower grassland (also categorised as 'other neutral grassland') as this will be more species-rich; it is assumed to be plug-planted with native aquatic emergent species in addition to being sown with a native seed mixture suitable for seasonally wet soils. Furthermore, it is assumed that emergent species will be proposed within small areas of the attenuation basin which has been classified as 'reedbeds' with 'moderate' condition.

Evaluation

The overall score is a potential gain of 10.02% for habitat units, a 11.15% gain for hedgerows/linear features and a gain of 59.10% for 'river' units. These figures are minimums and it is expected that at the detailed design stage that further net gain is achievable through the incorporation of various enhancement measures.

It is worth noting that these gains are purely from habitats/hedgerows and therefore 'material' enhancements are not included in this calculation. Although, it is recommended the proposed development includes the following enhancements;

- Bird and bat boxes to be erected onto new dwellings and retained mature trees (where possible)
- Hedgehog gaps (13cm x 13cm) to be created in garden fences to ensure small mammal movement is maintained throughout the site.
- In addition, hibernacula to benefit reptiles, amphibians etc.

Note that the final location of enhancements should be determined during construction by an Ecological Clerk of Works (ECoW).

Conclusions

Based on draft 'Framework Plan' and assessor assumptions, it is concluded that the development can potentially deliver an overall gain of 10.02% for habitat units, a 11.15% gain for hedgerows/linear features and a gain of 59.10% for 'river' units. The development is expected to deliver more of a gain when 'material' enhancements are included such as bird and bat boxes. Landscape and ecological management plans may be required to secure the potential benefits for biodiversity in perpetuity.

Yours sincerely,

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James Blake Associates Ltd.

References

FINC Architects Ltd. (2021) *Framework Plan of Cambridge Road, Melbourn, South Cambridgeshire*. On behalf of Countryside Properties Ltd.

James Blake Associates Ltd. (2021) *Updated Ecological Walkover Survey of Land at Cambridge Road, Melbourn, Cambridgeshire*. On behalf of Countryside Properties Ltd.

James Blake Associates Ltd. (2017) *Melbourn Phase 1 Habitat Survey – Land north of Cambridge Road*. On behalf of Countryside Properties Ltd.

Appendix A. Draft 'Framework Plan'

