

Biodiversity Net Gain Assessment

Land at Benton Street, Manchester, M9 4NG

One Manchester

Revision A – November 2023



ecology

SITE NAME			
Land at Benton Street, Manchester M9 4NG			
GRID REFERENCE		DOCUMENT REFERENCE	
SD8694101400		[LM0118]EclA[Land at Benton Street] Rev B	
SITE DESIGNATION		LOCAL AUTHORITY	
None		Manchester City Council	
	NAME	QUALIFICATIONS	DATE
PRINCIPAL AUTHOR	Louisa Molloy	Consultant Ecologist; BSc (Hons)	24/07/2023
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REVISION HISTORY			
REVISION	DATE	AUTHOR	DESCRIPTION
A	July 2023	LM	Original based on Schedules and Site – Drawing No. 105 Rev 1 dated 11/11/20.
B	November 2023	LM	Update due to revised layout shown in Schedules and Site Plan – Drawing No. 105 Rev 9 dated 15/06/21

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TABLE OF CONTENTS

A	SUMMARY	4
B	INTRODUCTION	5
C	PLANNING POLICY AND LEGISLATION	6
D	METHODOLOGY.....	7
D.1	Desk Study	7
D.2	UK Habitat Survey	7
D.3	DEFRA Metric 4.0.....	7
E	ON-SITE PRE-INTERVENTION HABITATS	9
E.1	Habitats	9
E.2	Strategic Significance	9
E.3	Pre-intervention Biodiversity Value Calculations	9
F	ON-SITE POST-INTERVENTION HABITATS.....	10
F.1	Proposals.....	10
F.2	Strategic Significance	10
F.3	Post-intervention Biodiversity Value Calculations.....	11
G	BIODIVERSITY NET GAIN ASSESSMENT RESULTS.....	12
H	REFERENCES	13

APPENDIX A

- A.1 Pre-Intervention Habitat Plan
- A.2 Post Intervention Habitat Plan

A SUMMARY

- 1 LM Ecology was commissioned by One Manchester in May 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Benton Street, Manchester M9 4NG .
- 2 The BNGA was commissioned to support plans to develop the site for housing, which will comprise six dwellings with associated hard and soft landscaping.
- 3 The BNGA was carried out using the most recent biodiversity metric - DEFRA Metric 4.0.
- 4 The purpose of this report is as a supporting document to the DEFRA Metric 4.0 worksheet, and it provides an overview of the pre- and post-development values for the site and how a Biodiversity Net Gain (BNG) can be achieved on-site, if applicable.
- 5 The proposal plan that this BNGA is based on is as follows:
 - Schedules and Site Plan AS-BTP-00-SP-DR-A-4243_105.9 Revision 9 by BTP Architects dated 15th June 2021.
- 6 In summary, the baseline (pre-intervention) value of the site is 1.10 habitat units and 0.00 hedgerow units. The proposals will result in a post-intervention value of 0.20 habitat units and 0.00 hedgerow units, which is an overall net loss of -82.25% and 0% respectively. A total of 1.01 habitat units are needed to achieve no net loss and a minimum 10% net gain on-site. However, due to the small size of the site there are no opportunities to achieve this gain on-site and the losses will need to be offset off-site via a suitable mechanism.
- 7 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

B INTRODUCTION

8 LM Ecology was commissioned by One Manchester in May 2023 to carry out a Biodiversity Net Gain Assessment (BNGA) of a parcel of land at Benton Street, Manchester, M9 4NG (SD8694101400).

9 The site covers an area of approximately 0.16ha consisting of amenity grassland, a small area of bramble scrub and an individual young self-set tree.

10 The assessment was commissioned to support plans to develop the site for housing, which will comprise five dwellings with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens for each new dwelling, an area of amenity grassland to the west of the site, and the planting of two new trees within the amenity grassland. This BNGA is based on the landscaping shown on *Schedules and Site Plan AS-BTP-00-SP-DR-A-4243_105.9 Revision 7 by BTP Architects dated 15th June 2021*.

11 The purpose of this report is to:

- Provide baseline data to classify the type and strategic significance of the habitats prior to development.
- Ensure that the baseline habitat conditions are classified in a robust and consistent manner, so that classification is based on the best data available at the time of the assessment.
- Clearly identify data collection methods and any limitations.
- Calculate the post-development value of the site based on the development proposals.

12 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

C PLANNING POLICY AND LEGISLATION

- 13 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they should be applied. Chapter 15 states that developers must identify and pursue opportunities for securing measurable net gains for biodiversity.
- 14 Under the Environment Act 2021, all planning permissions granted in England (with a few exceptions) will have to deliver at least 10% Biodiversity Net Gain. This will become legally enforceable following a transition period.

D METHODOLOGY

D.1 Desk Study

16 A desk study was carried out in July 2023 as part of the Biodiversity Net Gain Assessment. The following information was reviewed:

- Multi-Agency Geographic Information for the Countryside (MAGIC) online database.
- Greater Manchester Combined Authority (GMCA) MappingGM online database.
- Manchester' Local Development Framework Core Strategy Development Plan Document 2012 to 2027
- GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021

D.2 UK Habitat Survey

17 The site survey was carried out by Louisa Molloy (Consultant Ecologist, BSc (Hons)) and Elizabeth McBride (Consultant Ecologist, BSc (Hons), MCIEEM) on 22nd June 2023, in accordance with the UK Habitat Classification (UKHab) methodology (Butcher, et al., 2020). The habitats within the boundary of the survey site were broadly mapped with the principal habitat types and, where applicable, the dominant plant species identified within each habitat type.

D.3 DEFRA Metric 4.0

18 The Biodiversity Net Gain Assessment was carried out using the DEFRA Metric 4.0.

19 UK Habitat Survey habitats recorded from the site were input into the DEFRA Metric 4.0 worksheet and the baseline (or pre-intervention) biodiversity unit value of each habitat parcel was calculated.

20 The proposed development habitats were mapped and assigned a UK Habitat Survey type and then input into the DEFRA Metric 4.0 worksheet. The biodiversity unit values for the proposed development (or post-intervention) were then calculated using the same method.

21 The change in biodiversity value is calculated by subtracting the pre-intervention values from the post-intervention values to give final values from which it can be determined if the scheme delivers a biodiversity net gain or loss.

22 Metric calculations were undertaken by Louisa Molloy.

23 The assessment is based on CIEEMs Good Practice Principles (Baker, et al., 2019) and Biodiversity Net Gain Report and Audit Templates (CIEEM, 2021).

24 Post-intervention habitats were mapped from the following proposal plan provided by the client:

- Schedules and Site Plan AS-BTP-00-SP-DR-A-4243_105.9 Revision 9 by BTP Architects dated 15th June 2021.

- 25 The full results of the BNG assessment are provided in the supplied DEFRA Metric 4.0 worksheet. Pre-and post-intervention habitat plans are included in Appendix A as figures A.1 and A.2, respectively.
- 26 The strategic significance of the habitats was determined via the use of the GMCA MappingGM layer **Greater Manchester Local Nature Recovery Strategy (LNRS) Opportunities, 2021.**
- 27 Habitat areas and lengths, both pre-and post-intervention, have been measured using QGIS. Whilst every effort has been made to map the habitats as precisely as possible, there may be very minor errors in accuracy.
- 28 Proposed individual trees have not been included in the post-intervention habitat calculation as per the Biodiversity Metric 4.0 User Guide (Natural England, 2023), which states that *“Where private gardens are created, any tree planting within the created garden should not be included within post-development sheets of the metric. The habitat type ‘Urban – Vegetated garden’ should be used.”* Proposed individual trees in amenity spaces have been included in the post-intervention calculations.

E ON-SITE PRE-INTERVENTION HABITATS

E.1 Habitats

E.1.1 Modified grassland

30 Modified grassland in the form of species poor regularly mown amenity grassland covering an area 0.1512ha.

31 The grassland passed 6 of the 7 condition criteria, including essential criterion A, and has been assessed as being in good condition.

32 This habitat has a value of 1.04 habitat units.

E.1.2 Individual Urban Trees

33 One small individual urban tree with a total area of 0.0041ha.

34 This tree passed 3 of the 6 condition criteria and has been assessed as being in moderate condition.

35 This tree has a value of 0.04 habitat units.

E.1.3 Bramble scrub

36 A dense bank of bramble scrub covering an area of 0.004ha.

37 A condition assessment is not applicable to the habitat type.

38 This habitat has a value of 0.02 habitat units.

E.1.4 Artificial unvegetated; unsealed surface

39 A small area of unsurfaced track with a total area of 0.003ha.

40 A condition assessment is not applicable to the habitat type.

41 This habitat has a value of 0.00 habitat units.

E.2 Strategic Significance

42 The site has been identified in a local strategy as an opportunity for tree planting. Therefore, 'Formally identified in local strategy' has been assigned.

E.3 Pre-intervention Biodiversity Value Calculations

43 Based on the data input into the DEFRA Metric 4.0 worksheet, the pre-intervention habitats have a total value of:

- 1.10 habitat units; and
- 0.00 hedgerow units.

F ON-SITE POST-INTERVENTION HABITATS

F.1 Proposals

44 The proposals will involve construction of five new dwellings with associated hard and soft landscaping. Proposed soft landscaping includes the creation of vegetated gardens for each new dwelling, an area of amenity grassland to the west of the site, and the planting of two new trees within the amenity grassland.

F.1.1 Retained Habitats

45 None of the pre-intervention habitats will be retained.

F.1.2 Habitat Creation

46 The proposals will result in the creation of:

- 0.0198ha of modified grassland in moderate condition. The habitat will have a value of 0.08 habitat units.
- 0.0395ha of vegetated garden. A condition assessment is not applicable to this habitat type. The habitat will have a value of 0.09 habitat units.
- 0.1045ha of developed land; sealed surface. A condition assessment is not applicable to this habitat type. The habitat will have a value of 0.00 habitat units.
- 0.0081ha comprising two small individual urban trees in moderate condition. The habitat will have a value of 0.03 habitat units.

47 No long-term management of the newly created habitats is proposed as the modified grassland will likely be regularly mown by the local council or maintenance company. However, a standard planning condition, worded as follows, can ensure that any planting within the proposed development is successful:

- If within a period of five years from the date of planting of any tree/hedge/shrub that tree/hedge/shrub, or any replacement, is removed, uprooted or destroyed or dies, or becomes, in the opinion of the Local Planning Authority seriously damaged or defective, another tree/hedge/shrub of the same species and size as that originally planted shall be planted in the same location as soon as reasonably possible and no later than the first available planting season, unless otherwise agreed in writing by the Local Planning Authority.

F.1.3 Habitat Enhancement

48 Habitat enhancement is not applicable to this site.

F.2 Strategic Significance

49 The site has been identified in a local strategy as an opportunity for tree planting. Therefore, 'Formally identified in local strategy' has been assigned.

F.3 Post-intervention Biodiversity Value Calculations

50 Based on the data inputted into the DEFRA Metric 4.0 worksheet, the post-intervention habitats have a total value of:

- 0.20 habitat units; and
- 0.00 hedgerow units.

G BIODIVERSITY NET GAIN ASSESSMENT RESULTS

51 Completion of the BNGA using the DEFRA Metric 4.0 shows that the proposals will result in a net loss of -0.90 habitat units (-82.25%) and no net change in hedgerow units.

Figure 1 Screen grab of DEFRA Metric 4.0 final results for Land at Benton Street

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)		Habitat units	-0.90	
		Hedgerow units	0.00	
		Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)		Habitat units	-82.25%	Total net gain achieved is less than target set ▲
		Hedgerow units	0.00%	
		Watercourse units	0.00%	
Trading rules satisfied?		No - Check Trading Summaries ▲		
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	1.10	1.21	1.01
Hedgerow units	10.00%	0.00	0.00	0.00
Watercourse units	10.00%	0.00	0.00	0.00
				Unit requirement met or surpassed ✓
				Unit requirement met or surpassed ✓

52 The landscaping required to achieve this result is shown on the following plan:

- Schedules and Site Plan AS-BTP-00-SP-DR-A-4243_105.9 Revision 9 by BTP Architects dated 15th June 2021.

53 The implementation of this landscaping can be secured by a standard planning condition.

54 A total of 1.01 habitat units are needed to achieve no net loss and a minimum 10% net gain on-site. However, due to the small size of the site there are no opportunities to achieve this gain on-site and the losses will need to be offset via a suitable mechanism.

55 The results are valid for up to two years from the date of publication (November 2023) and only for the landscaping shown on the above plan. Any changes to the site layout and/or landscaping plans will require a recalculation to be carried out.

H REFERENCES

Baker, J., Hoskin, R. & Butterworth, T., 2019. *Biodiversity net gain. Good practice principles for development. A practical guide.*, London: Ciria.

Butcher, B. et al., 2020. *The UK Habitat Classification User Manual Version 1.1.* [Online] Available at: <https://ukhab.org/> [Accessed 24 April 2023].

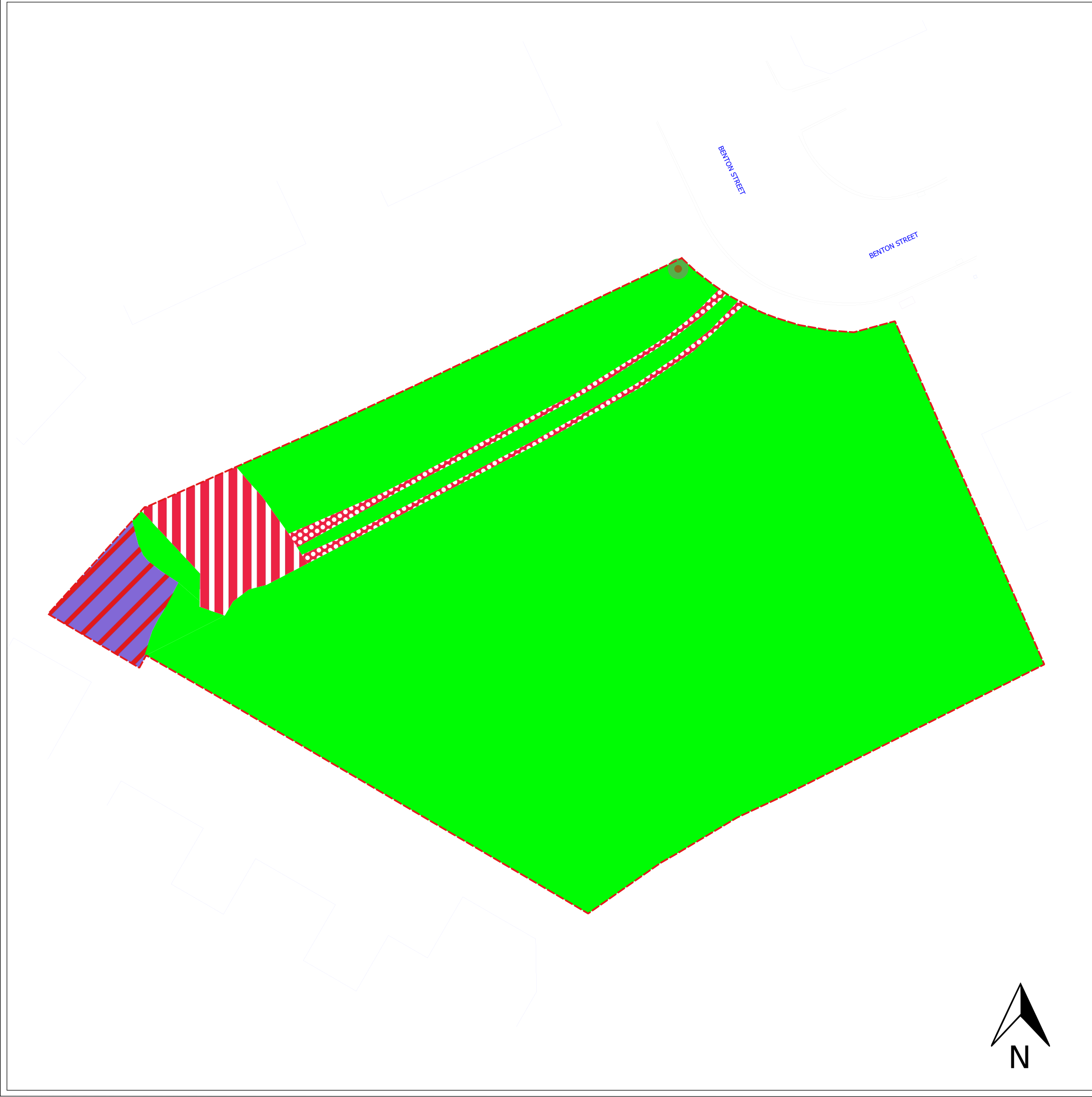
CIEEM, 2021. *Biodiversity Net Gain Report and Audit Templates*, Winchester, UK: Chartered Institute of Ecology and Environmental Management.

Footprint Ecology and WSP, 2021. *GMCA Biodiversity Net Gain Guidance for Greater Manchester February 2021*, Manchester: GMCA.

Manchester City Council, 2012. *Manchester's Local Development Framework Strategy Core Strategy Development Plan Document Adopted 11th July 2012*, Manchester: Manchester City Council.

Natural England, 2023. *The Biodiversity Metric 4.0 User Guide*, s.l.: Natural England.

APPENDIX A



Legend

Survey boundary

Modified grassland

Bramble scrub

Developed land; sealed surface

Artificial unvegetated; unsealed surface

Individual urban tree

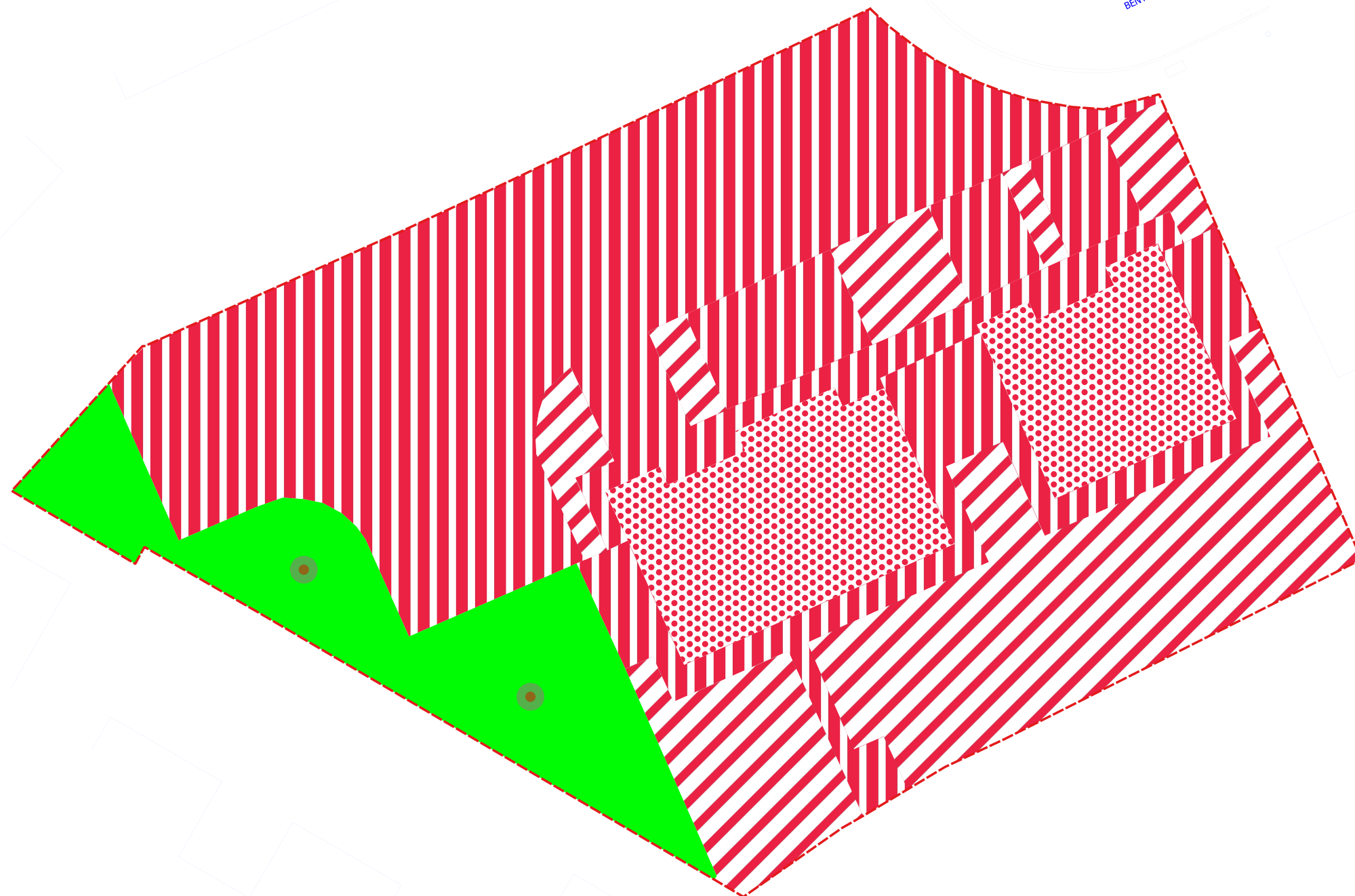
Project	Land at Benton Street, Manchester, M9 4NG
Title	A.1 Pre-intervention Habitat Plan
Client	One Manchester
Date	November 2023
Ref	[LM0118]A.1[REV B]PRE[BS]

051015 m

Indicative only.
Do not scale from plan.

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Legend

- Survey boundary
- Modified grassland
- Vegetated garden
- Developed land; sealed surface
- Developed land; sealed surface - buildings
- Individual urban trees

Project	Land at Benton Street, Manchester, M9 4NG
Title	A.2 Post-intervention Habitat Plan
Client	One Manchester
Date	November 2023
Ref	[LM0118]A.2[REV B]POST[BS]

0

5

10

15 m

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