

BIODIVERSITY NET GAIN ASSESSMENT

JULY 2021

Space Studios
Vaughan Street
Manchester
M12 5FQ

U R B A N
G R E E N



QUALITY MANAGEMENT

Project No.:	UG893			
Project:	Space Studios			
Location:	Vaughan Street, Manchester M12 5FQ			
Title:	Biodiversity Net Gain Assessment			
Document Type:	BNG	Issue No.:	01	
Date:	15/04/2021			
Prepared By:	Maisie McKenzie	Signature:		Qualifications: Ecologist, MSc, ACIEEM
Checked By:	Mark Blacker	Signature:		Qualifications: Senior Ecologist, MSc, ACIEEM
Revision Status:				
Rev:	Date:	Issue/Purpose/Comment:	Prepared:	Checked:
02	05/11/2021	Minor layout changes	Mark Blacker	Maisie McKenzie
03	24/11/2021	Minor updates	Mark Blacker	Maisie McKenzie

NON-TECHNICAL EXECUTIVE SUMMARY

Urban Green have been appointed to complete a Biodiversity Net Gain Assessment using DEFRA Biodiversity Metric 3.0 to assess the proposed development on land at Space Studios, Vaughan Street in Manchester. The proposals include the erection of a new build of 2nr 20,000Sq. ft, including studio stages, workshop, offices, and support facilities.

The results of this calculation are summarised in the following table:

	On-site unit baseline	Habitat Unit Change				On-site unit post development	Net change in Biodiversity	
		Retained	Lost	Enhanced	Created		Habitat units	%
Habitat (Area) Units	2.20	1.12	-1.08	-	+1.20	2.32	0.12	+5.57
Hedgerow (Linear Habitat) Units	0.00	-	-	-	0.55	0.55	0.55	+100

Overall, this assessment does reach a net gain in biodiversity in both area and linear habitats, achieving a 100% gain in linear habitats and 5.57% in area habitats. This will provide a measurable gain to the environment within a dense urban setting greater than is currently present on site. The Landscape Management Plan (Urban Green, 2021) that has been provided will ensure that the value set out in this report is achieved. This project is in line with local and national policy ..

CONTENTS

1	Introduction	1
1.1	Background to the Scheme.....	1
1.2	Site Context and Current Use	1
1.3	Purpose of this Report	2
1.4	Planning Context.....	2
2	Methods	4
2.1	Sources of Information	4
2.2	Site Mapping	4
2.2.1	Existing Habitat (Baseline).....	4
2.2.2	Planning Layout (Post-Development).....	5
2.3	The Biodiversity Metric 3.0.....	5
2.4	Habitat Scoring.....	5
2.4.1	Baseline Units.....	5
2.4.2	Post Development Units.....	7
2.5	Constraints to the Survey	7
3	Baselines Condition Assessment.....	8
3.1.1	1) Bare Ground (N/A Condition)	8
3.1.2	2) Modified Grassland (Poor condition)	8
3.1.3	3) Ornamental Shrub (Poor Condition).....	8
3.1.4	4) Bramble Scrub (Poor Condition)	8
3.1.5	5) Scattered Trees (Poor Condition).....	8
3.2	Retained Habitats on Site.....	10
3.2.1	Amenity Grassland.....	10
3.2.2	Urban Trees.....	10
3.3	Lost Habitats on Site	10
3.3.1	Bare Ground.....	10
3.3.2	Scrub.....	10
4	Pre-Development Habitat Baseline	11
5	Habitat Retention, Creation & Losses	12
5.1	Created Habitats on Site	12

5.1.1	Modified Grassland.....	12
5.1.2	Urban Trees.....	12
5.1.3	Ornamental Shrub	13
5.1.4	Scattered scrub.....	13
5.1.5	Hedgerows (Native)	13
5.1.6	Hedgerows (Ornamental).....	14
6	Post-Development and Conclusion.....	15
7	References	16
	Appendix 1 - Pre- Development Habitat Map and Target Notes	17
	Appendix 2 - Soft Landscape Plan.....	18

1 Introduction

1.1 Background to the Scheme

Urban Green have been appointed to complete a Biodiversity Net Gain (BNG) Assessment on behalf of Space Studios to assess the implications of the proposed development on land at Space Studios, Vaughan Street in Manchester (hereafter referred to as ‘the site’). The proposals include the erection of a new build of 2nr 20,000Sq. ft, including studio stages, workshop, offices, and support facilities.

The author of the report is Ecologist, Maisie McKenzie ACIEEM, MSc. Maisie has experience providing ecological consulting services including Biodiversity net gain calculations for a range of development schemes across the UK, including residential and commercial schemes.

1.2 Site Context and Current Use

The site is located at National Grid Reference SJ 86800 96900 and comprises a total area of approximately 1.4ha (see Figure 1).

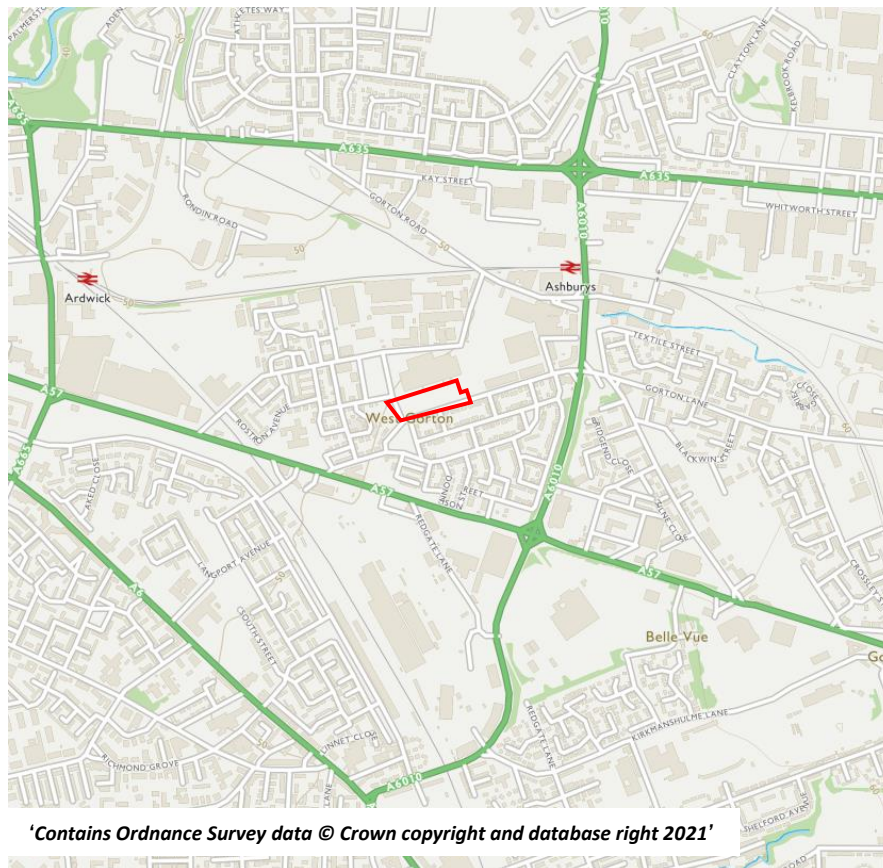


Figure 1 – Site Extent

The site is currently used as a car park and an ornamental garden, located within a wider business park. Residential housing is located to the south and west. The site is located in a densely urban area of west Gorton, approximately 3.5km from the centre of Manchester. Gorton Park, a large, landscaped park and recreational area is present approximately 1km to the southeast of the site. Due to the site's location close to the city centre, there is a high level of disturbance from main roads which are present

approximately 600m north, 350m east and 300m south of the site and railway lines which are present approximately 325m north of the site.

1.3 Purpose of this Report

This report has been produced to document the methods, results, and conclusions of a BNG Assessment that was undertaken on site. The advice herein is based on both desk and field-based studies and intends to fulfil the following purposes:

- ensure that all core principles including the mitigation hierarchy are applied
- identify the baseline habitats present on site (pre-development), assess the condition, and provide an indication of the ecological value of those habitats;
- identify the post development habitats present on site, assess the possible target condition, and provide an indication of the likely importance of those habitats;
- calculate the overall change in biodiversity score from pre- to post-development habitats (measured as habitat units);
- provide design recommendations to maximise gains in biodiversity as part of the proposed development on site, and;
- provide an indication of the likely outcomes and indicative costs (including offsetting) on this project if they are required and for future reference and the planning of projects.

1.4 Planning Context

BNG means leaving biodiversity in a better state than it was before. As part of the Government's 25 Year Environment Plan, this requirement is being introduced and mandated for all developments. National planning policy and several Local Plans already require developments to deliver BNG.

Currently the National Planning Policy Framework (NPPF) details:

Paragraph 170 of the NPPF states:

Planning policies and decisions should contribute to and enhance the natural and local environment by inter alia:

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

Greater Manchester and Manchester City Council also have the Manchester Core Strategy 2021 -2027 which states:

So6.

Environment Protect and enhance both the natural and built environment of the City and ensure the sustainable use of natural resources, in order to mitigate and adapt to climate change, support biodiversity and wildlife, improve air, water and land quality, recreational opportunities and provide networks of high-quality green infrastructure, ensuring that the City is inclusive and attractive to residents, workers, investors and visitors. The development of networks of green infrastructure across the City and City Region, together with protecting and enhancing townscape

character and securing a high standard of design in all development proposals, will promote healthy, low-carbon lifestyles, contribute to a sense of wellbeing, and help to facilitate the sustainable and inclusive growth of the City,

Under this policy, Greater Manchester commits to no net loss in biodiversity local and regional policy.

2 Methods

2.1 Sources of Information

Table 1 – Desk Study Sources of Information

Source	Date Consulted	Information Sought
Preliminary Ecological Appraisal and Phase one Habitat Map, Ref; UG_893_ECO_PEA_o2	13/07/2021	Phase 1 Habitat Survey map and description of existing habitat distinctiveness and condition.
Arboricultural Impact Assessment (AIA), Urban Green 2021 UG_893_ARB_AIA_o1	14/07/2021	Tree Root Protection Areas (RPA) for existing trees on site and details of trees scheduled for removal/retention as part of the development on site.
Soft Landscape plan Urban Green 2021 UG_893_Lan_SL_DRW_o02	14/07/2021	Habitat areas and conditions as to be included within the planning layout (post-development) for site.
The Biodiversity Metric 3.0 <i>Natural England Publications</i> (http://nepubprod.appspot.com/publication/6049804846366720)	13/07/2020	The Biodiversity Metric 3.0, including the tool itself, user guides and reference documentation associated with the tool.

2.2 Site Mapping

2.2.1 Existing Habitat (Baseline)

A PEA field survey was undertaken by Urban Green in 2021. The methods were based on the standard 'Phase 1' habitat survey technique (JNCC, 2010) which was extended to include any relevant information on evidence or suitability for use by protected or notable species. Site habitats, extent, quality, and botanical species abundance was recorded for all habitats present on site.

The walkover was performed by Senior Ecologist Katie Bird ACIEEM on 10th June 2021. Weather was clear and dry with a temperature of 20°C and a cloud cover of 0/8 oktas.

These habitats were subsequently mapped using ESRI ArcGIS Pro software, and habitat areas and lengths were calculated (see Appendix 1 and Section 7).

Additionally, an Arboriculture Impact Assessment was conducted on site by Urban Green in June 2021, which obtained information on site trees, namely their species, size, respective age, crown spread, condition, life expectancy and root protection areas (RPAs). The data from this survey we also utilised in calculating tree habitat areas.

Habitat types were converted to UKHab classifications (The UK Habitat Classification Working Group, May 2018) using the UK Habitat Classification V1 guidance tool based on the assessor's judgment of how JNCC habitat descriptions best meet the criteria of the UK habitat classification.

2.2.2 Planning Layout (Post-Development)

The Soft Landscape plan (UG_893_Lan_SL_DRW_002) (see Appendix 2) provided an indicative redline and development site boundary and detailed the habitats and species to be created on site.

2.3 The Biodiversity Metric 3.0

The BNG calculation was undertaken utilising The Biodiversity Metric 3.0 from DEFRA (full calculation available UG_893_ECO_BNGCALC_01), the site's Phase 1 Habitat map (as obtained from the Preliminary Ecological Appraisal) and the most detailed landscape proposals available (UG_893_Lan_SL_DRW_002).

The calculation was performed by a technically competent and experienced ecologist as detailed in British Standard BS8683 - Suitably qualified person –definition in BS8683:2020.

The Biodiversity Metric 3.0 uses habitat features as a proxy measure for capturing the value and importance of nature. The metric takes into account the size, ecological condition, location, and proximity to nearby 'connecting' features. The metric enables assessments to be made of the present and forecast future biodiversity value of a site.

Sources of information used in the desk study are presented in Table 1.

2.4 Habitat Scoring

The Biodiversity Metric 3.0 supplies reference documents and user guides in which to accurately evaluate and assess the different habitats on site. The methodology for the baseline and post development calculations are demonstrated in the following sections.

2.4.1 Baseline Units

To assess the quality of a habitat and therefore calculate the units scored the Biodiversity Metric 3.0 utilises three scoring factors as detailed below.

Condition

The condition of a habitat is assessed utilising the Condition Sheets' provided for each habitat type. These list positive indicators for each habitat and indicate how many of these indicators need to be present to meet certain thresholds of condition. These condition sheets can be found in Biodiversity Metric 3.0 Technical Supplement Part 1a (Natural England Joint Publication, 2021).

For this assessment, the **Grassland (Low)**, **Urban**, **Urban Trees**, **Scrub** and **Hedgerow** assessment sheets were used to assess the various habitats on site (see Table 2).

Table 2 – Conditions sheets used for habitat assessment

Condition Sheet	Habitats Assessed
Area Habitats	
Grassland (Low)	Modified grassland

Condition Sheet	Habitats Assessed
Scrub	Mixed scrub, Bramble scrub
Urban	Developed land sealed surface, Artificial unsealed unvegetated surface, Urban Trees, Introduced Shrub
Linear Habitats	
Hedgerows	Native hedgerow, Ornamental non-native hedgerow

Distinctiveness

The distinctiveness of each habitat (area and linear) is automatically assigned by the tool, based upon national records of the occurrence and rarity of each habitat (Biodiversity Metric 3.0). Tables 3 and 4 provides the basis of the distinctiveness assessment for area and linear habitats respectively.

Table 3 – Distinctiveness Assessment for Habitat Areas

Distinctiveness Categories		
Category	Scores	Description
Very High	8	Priority habitats as defined in Section 41 of the Natural Environment and Rural Communities (NERC) Act that are highly threatened, internationally scarce and require conservation action e.g., blanket bog.
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g., lowland fens.
Medium	4	Semi-natural habitats not classed as a Priority Habitat.
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub.
Very Low	0	Little or no biodiversity value e.g., hard standing or sealed surface.

Table 4 – Distinctiveness Assessment for Hedgerows / Line of Trees

Distinctiveness Categories of Hedgerows and Lines of Trees					
Associated features	Woody plant structural composition				
	Species rich hedgerow (inc. hedgerow with trees)	Native species hedgerow	Other hedgerow (ornamental/non-native species)	Line of Trees (Ecologically Valuable)	Line of trees
Associated earth bank or ditch	High – 6	Medium - 4	Low - 2	Medium - 4	Low - 2
None	Medium - 4	Low - 2	Very Low - 1	Medium - 4	Low - 2

Strategic Significance

The idea of strategic significance works at a landscape scale. It gives additional unit value to habitats that are in preferred locations for biodiversity and other environmental objectives. Strategic significance utilises published local plans and objectives to identify local priorities for targeting

biodiversity and nature improvement, such Nature Recovery Areas, local biodiversity plans, National Character Area 14 objectives and green infrastructure strategies.

Table 5 – Strategic Significance Assessment for Habitat Areas and Linear Habitats

Strategic Significance Categories	
Category	Score
High strategic significance High potential & within area formally identified in local policy	1.15
Medium strategic significance Good potential but not in area defined in local policy	1.1
Low Strategic Significance Low potential and not in area defined in local policy	1

2.4.2 Post Development Units

Additional factors are implemented when assessing post development habitats.

- Difficulty of Creation/Enhancement
- Temporal Risk “Time to target condition”
- Spatial Risk (when offsite mitigation is necessary)

2.5 Constraints to the Survey

Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

Best possible effort was made during the mapping process to ensure that the habitat map accurately represents the area of habitats present on site. Some margin of error is possible due to the continuous and difficult to define nature of habitat boundaries, however this margin of error has been minimised using professional opinion of two experienced ecologists and up to date aerial imagery. As such this is not expected to be a significant constraint and affect the overall Biodiversity Net Gain Calculation provided within this report.

3 Baselines Condition Assessment

Full habitat descriptions and species lists can be found in the PEA (Urban Green, 2021). Condition assessment are provided below following the methodology outlined in Section 2.4. The habitats have been given reference numbers for clarity regarding in-text and the Matrix calculation (UG_893_ECO_BNGCALC_o2) which illustrates the numerical data.

3.1.1 1) Bare Ground (N/A Condition)

Condition scoring for the bare ground on site (Artificial unvegetated, unsealed surface) is N/A due to the lack of ecological services that bare ground provides. The tool automatically applies a distinctiveness of V. Low for this habitat. This habitat is to be lost post development.

3.1.2 2) Modified Grassland (Poor condition)

Table 6 – Condition Assessment for Amenity Grassland

Phase 1 Habitat Classification		Amenity Grassland			
UK Hab Classification		Modified Grassland			
Condition Criteria 1.	6-8 species per m²	Fail	Condition Criteria 5.	Cover of bare ground between 1%-5%	Fail
Condition Criteria 2.	Sward height is varied	Fail	Condition Criteria 5.	Cover of bracken less than 20%	Pass
Condition Criteria 3.	Scrub accounts for less than 20% of grassland area	Pass	Condition Criteria 6.	Absence of invasive species and undesirable species cover less than 5% of grassland area	Pass
Condition Criteria 4.	Physical damage evident in less than 5% of grassland area	Fail			
Condition	Poor	Passes 3 of 7 criteria			
Distinctiveness	Low				

3.1.3 3) Ornamental Shrub (Poor Condition)

Both habitat condition and distinctiveness scoring for the introduced shrub on site is automatically applied as poor and low respectively by the metric.

3.1.4 4) Bramble Scrub (Poor Condition)

Both condition and distinctiveness scoring for the bramble scrub (scattered scrub) is automatically applied as poor and medium respectively by the tool.

3.1.5 5) Scattered Trees (Poor Condition)

Table 7 – Condition Assessment for Scattered Trees

Phase 1 Habitat Classification	Scattered Trees
--------------------------------	-----------------

UK Hab Classification		Urban Trees			
Condition Criteria 1.	More than 70% of trees are native species	Fail	Condition Criteria 4.	Little evidence of impact from anthropogenic activities	Pass
Condition Criteria 2.	Tree canopy is continuous	Fail	Condition Criteria 5.	Management regime has resulted in micro habitats	Fail
Condition Criteria 3.	More than 50% of the trees are mature or veteran	Pass	Condition Criteria 6.	Trees are immediately adjacent to other vegetation	Fail
Condition	Poor	Passes 2 of 6 criteria			
Distinctiveness		Medium			

3.2 Retained Habitats on Site

3.2.1 Amenity Grassland

Amenity grassland habitats currently situated to the north east of the site are planned to be retained within the development as lawn areas. Habitat condition will be retained as poor.

3.2.2 Urban Trees

Urban Trees across the site are to be protected and retained within the development For further details of trees to be retained and details of protection methods within the AIA (Urban Green, 2021). Habitat condition will be retained as poor.

3.3 Lost Habitats on Site

3.3.1 Bare Ground

The majority of the site is currently a combination of sealed bare ground (hardstanding) and unvegetated unsealed areas.

3.3.2 Scrub

The area of scrub on site will be removed to facilitate development. This will be compensated for with the creation of larger and higher quality areas of native scrub planting across the site.

4 Pre-Development Habitat Baseline

Using the Biodiversity Metric 3.0, the habitat units of the existing site habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated. No linear habitat exists on site, pre-development.

The results of these calculations are presented in the Table 8.

Table 8: Pre-Development Biodiversity Net Gain Summary

	On-site baseline	Retained	Enhanced	Lost
Habitat Units	2.20	1.12	-	-1.08
Hedgerow Units	0.00	-	-	-

5 Habitat Retention, Creation & Losses

Using the site Soft Landscape Plan (UG_893_Lan_SL_DRW_002) and the Biodiversity Metric 3.0, the habitats proposed to be created were analysed using the condition sheets. Habitat units were then calculated for the habitats to be created on site. The results of these calculations are available in Table 13.

5.1 Created Habitats on Site

5.1.1 Modified Grassland

Table 9 – Condition Assessment for Amenity Grassland

Phase 1 Habitat Classification		Amenity Grassland				
UK Hab Classification		Modified Grassland				
Condition Criteria 1.		6-8 species per m²	Fail	Condition Criteria 5.	Cover of bare ground between 1%-5%	Fail
Condition Criteria 2.		Sward height is varied	Fail	Condition Criteria 5.	Cover of bracken less than 20%	Pass
Condition Criteria 3.		Scrub accounts for less than 20% of grassland area	Pass	Condition Criteria 6.	Absence of invasive species and undesirable species cover less than 5% of grassland area	Pass
Condition Criteria 4.		Physical damage evident in less than 5% of grassland area	Fail			
Condition	Poor	Passes 3 of 7 criteria				
Distinctiveness		Low				

Areas of Public Open Space (POS) amenity grassland will be created. These areas will be planted with species that are native or with a known benefit to wildlife. Long-term management will also include reduced mowing, to allow plants to flower and set seed naturally providing increased benefits for invertebrates and in turn birds and bats. Habitat condition for the amenity grassland will be poor.

5.1.2 Urban Trees

Table 10 – Condition Assessment for Scattered Trees

Phase 1 Habitat Classification	Scattered Trees				
UK Hab Classification	Urban Trees				
Condition Criteria 1.	More than 70% of trees are native species	Fail	Condition Criteria 4.	Little evidence of impact from anthropogenic activities	Pass
Condition Criteria 2.	Tree canopy is continuous	Fail	Condition Criteria 5.	Management regime has resulted in micro habitats	Fail

Condition Criteria 3.		More than 50% of the trees are mature or veteran	Pass	Condition Criteria 6.	Trees are immediately adjacent to other vegetation	Fail
Condition	Poor	Passes 2 of 6 criteria				
Distinctiveness		Medium				

In total 48 urban trees will be planted across the site. This planting will include native species including field maple (*Acer campestre*), silver birch (*Betula pendula*), common hawthorn (*Carpinus betulus*) and English oak (*Quercus robur*). These trees will provide nesting opportunities for birds, but also pollinating and foraging opportunities for a wider range of wildlife including invertebrates and mammals. Habitat condition for the urban trees will be poor

5.1.3 Ornamental Shrub

Areas of ornamental shrub will be created around the periphery of the site and will be planted with non-native flowering species including dusty miller (*Cerastium tomentosum*), English lavender (*Lavandula angustifolia*) and periwinkle (*Vinca minor* 'Alba'). These areas will provide foraging opportunities for pollinators and consequently birds. Habitat condition was predetermined by the tool as poor.

5.1.4 Scattered scrub

Table 11 – Condition Assessment for Native Shrub / Scattered scrub

Phase 1 Habitat Classification		Native shrub				
UK Hab Classification		Scattered scrub				
Condition Criteria 1.		At least three woody species and is representative of UKHab description	Pass	Condition Criteria 4.	Well-developed edges with tall grass/herb species	Pass
Condition Criteria 2.		Good age range	Fail	Condition Criteria 5.	Clearing and glades within scrub	Fail
Condition Criteria 3.		Absence of invasive species and undesirable species cover less than 5% of grassland area	Pass			
Condition	Moderate	Passes 3 of 5 criteria				
Distinctiveness		Medium				

Areas of native shrub planting will be created containing 8 woody species including dog rose (*Rosa canina*), holly (*Ilex aquifolium*), bramble (*Rubus fruticosus*) and elder (*Sambucus nigra*). These areas will benefit birds, bats and small mammals providing foraging and shelter opportunities. Habitat condition will be moderate.

5.1.5 Hedgerows (Native)

A series of hedgerows will be planted around the periphery of the site. These will include native species such common hawthorn (*Crataegus monogyna*), field maple and hazel (*Corylus avellana*). These linear

features will benefit multiple species including birds, bats, and terrestrial mammals, providing both a commuting resource but also foraging opportunities. Habitat condition will be moderate

Table 12 – Condition Assessment for Native Hedgerows

Phase 1 Habitat Classification		Native Hedgerows			
UK Hab Classification		Native Hedgerows			
A1. Height	Height >1.5m along length	Fail	C1. Undisturbed ground	>1m width of undisturbed ground with perennial herbaceous vegetation >90% of length	Pass
A2. Width	Width <1.5m along length	Fail	C2. Undesirable vegetation	>20% of undesirable species	Pass
B1. Gap- hedge base	Gap between ground and bae of cavity <0.5m for >90% of the length	Pass	D1. Invasive species	>90% of hedgerow free of invasive species	Pass
B2. Gap – hedge continuity	Gaps make up <10% of total length	Pass	D2. Current damage	>90% free from damage	Pass
Condition	Moderate	Fails both criteria in one functional group			
Distinctiveness	Medium				

5.1.6 Hedgerows (Ornamental)

Small areas of ornamental hedgerow will be created around the entrance of the units these will be planted with ornamental burkwood (*Osmanthus burkwoodii*). Habitat condition was predetermined by the tool as poor.

6 Post-Development and Conclusion

Using the Biodiversity Metric 3.0, the habitat units of the planned enhanced and created habitats were calculated; the habitat units to be retained within site development were calculated; and the habitat units that are anticipated to be lost in site development were calculated.

The results of these calculations are presented in the Table 13.

Table 13: Post Development Biodiversity Net Gain Calculation

	Habitat Unit Change					On-site post development	Net change in Biodiversity	
	On-site baseline	Retained	Lost	Enhanced	Created		Habitat units	%
Habitat (Area) Units	2.20	1.12	-1.08	-	+1.20	2.32	+0.12	+5.57%
Hedgerow (Linear Habitat) Units	0.00	-	-	-	0.55	0.55	+0.55	+100%

As illustrated in Table 9 the total Biodiversity Net Gain for the site, based on the current landscape design, is +5.57% of area habitats and a +100% of linear habitats. Overall, it demonstrates that the post development habitats on site will provide more ecological benefit to local wildlife species than the habitats currently found on site and is line with the relevant National Planning Policy Framework and Local Planning Policies.

To ensure that the habitats proposed as part of the post development design of this site reach the condition detailed within this report and the full gain in value to the environment is achieved by this site, a long-term management plan (30 years) is required. This length of management plan is required due to the complex nature of the habitats to be enhanced/created on site and the high value they will provide to the environment.

7 References

- British Hedgehog Preservation Society / People's Trust for Endangered Species (2019). Hedgehogs and Development. BHPS / PTES.
- Bat Conservation Trust (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Third Edition). The Bat Conservation Trust, London.
- CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.
- Defra (2021). The Biodiversity Metric 3.0 - Calculation Tool: User Guide - Beta Test.
- Defra (2021). The Biodiversity Metric 3.0 - Technical Supplement - Beta Test.
- Defra (2021). The Biodiversity Metric 3.0 - User Guide - Beta Test.
- eCountability Ltd. (2018). UK Habitat Classification (Professional Edition).
- English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Froglife (1999) Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation. Froglife Advice Sheet 10. Froglife, Halesworth.
- Gent, A.H & Gibson, S.D. (2003) Herpetofauna Workers' Manual. Joint Nature Conservation Committee, Peterborough
- Hutson A. M. (1993). Action Plan for Conservation of Bats in the United Kingdom. The Bat Conservation Trust, London.
- IEA (1995). Guidelines for Baseline Ecological Assessment. E & F Spon.
- JNCC (2010). Handbook for Phase One Habitat Survey – 2010 Edition. England Field Unit, Nature Conservancy Council. Reprinted JNCC.
- Joint Nature Conservation Committee (2004). Bat Workers Manual. JNCC, Peterborough.
- Pegasus (2020). Landscape Masterplan. P20-1347.002
- Stace, C. (2010). New Flora of the British Isles. 3rd ed. Cambridge: Cambridge University Press.
- The Environment Partnership (2018). Ecological Assessment. 6808.001 V3
- Urban Green (2021). Arboricultural Impact Assessment. UG_893_ARB_AIA_02.
- Urban Green (2021). Preliminary Ecological Assessment. UG893_ECO_PEA_01.
- Urban Green (2021). Soft landscape Plans. UG_893_Lan_SL_DRW_002
- Urban Green (2021) Landscape Management Plan. Ref: UG_893_LAN_LMP_DOC_10

Appendix 1 – Pre- Development Habitat Map and Target Notes

Appendix 2 – Soft Landscape Plan

An aerial photograph of a residential neighborhood with a large, irregularly shaped area highlighted in yellow and black. The highlighted area is filled with a repeating pattern of the letter 'A'. A thick black line runs diagonally across the upper portion of this area. A red dashed line follows the perimeter of the highlighted area. Numerous green dots are scattered along the boundary of the highlighted area, particularly along the red dashed line. The surrounding area shows typical residential features like houses, streets, and green spaces. In the bottom right corner, there is a small text label: "Maxar, Microsoft".

- 

**U R B A N
G R E E N**

weareurbangreen.co.uk

SPACE STUDIOS

SPACE STUDIOS

PHASE 1 HABITAT MAP

PLANNING

KB

14/07/2021

02



Do not scale this drawing (printed or electronic version).

Contractors must check all dimensions from site.

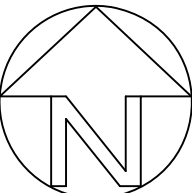
This drawing is copyright and is for use on this site only. This drawing should be read in conjunction with all relevant consultants drawings and specialist subcontractors / supply chain drawings and specifications.

All works to be carried out in accordance with the latest British Standards / Codes of Practice unless specifically directed otherwise in the specification.

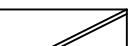
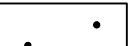
Responsibility for the reproduction of this drawing in paper form, or issued in electronic format, lies with the recipient to check that all information has been replicated in full and is correct when compared to the original paper or electronic image.

Graphical representations of equipment on this drawing have been co-ordinated, but are approximations only. Please refer to the specifications and / or details for actual sizes and / or specific contractor construction information.

Notes:-



KEY

-  Red line boundary
-  Proposed building line
-  Vehicular asphalt surfacing
-  Pedestrian asphalt surfacing
-  Poured/Brushed concrete surfacing
Existing & Proposed (Colour: Grey)
-  New PCC kerb lines
Refer to detail - D01 & D02
-  Bollards/door hoop barriers
To outward swinging doors
-  Sheffield stand cycle hoop
34no. Powdercoated (colour TBC)
-  Existing 3m high weldmesh fence & gates
-  Proposed ornamental shrub planting beds
-  Proposed tree planting
-  Existing trees and vegetation
to be retained
-  Proposed mixed species hedgerow
-  Proposed lawn areas
-  Proposed native shrub planting

P06	04/11/21	LAYOUT UPDATED	SA	ME
P05	24/09/21	LAYOUT UPDATED	RS	SA
P04	05/07/21	PLANNING LAYOUT	SA	ME
REV.	DATE	DESCRIPTION	DRAWN	CHK'D

U R B A N
G R E E N

A: Ground Floor, The Tower,
Deva City Office Park, Trinity Way,
Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

Client:

SPACE STUDIOS

Project:

**SPACE STUDIOS
MANCHESTER - PHASE 3**

Title:

**GENERAL
ARRANGEMENT PLAN**

Issue:

PLANNING

Drawn:	SA	Checked:	ME	Approved:	MT
Project:	UG893	Scale @ A1:	1:500	Date:	16/06/21
Dwg No:	UG_893_LAN_GA_DRW_001	Revision:	P06		