

Biodiversity Net Gain (BNG) Technical Note



**Manchester Life, Poland Street Zone
Jersey Wharf,**

6th May 2022



**Tyler
Grange**

TG Report No. 13399_R08b_LCD_CW

Report No:	Date	Revision	Author	Checked
13399_R08b	6 th May 2022	B	Leanne Deighton BSc (Hons) Qual CIEEM	Joseph Dance BSc (Hons) MCIEEM



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Summary

- S.1. This briefing note has been prepared by Tyler Grange Group Ltd. on behalf of Manchester Life Development Company 3 Ltd – centred on OS Grid Reference SJ 85273 98773 in relation to land off Jersey Street, Ancoats and hereafter referred to as ‘the site’. It should be read alongside the Ecological Impact Assessment (13399_R07c) plus the associated BNG metric calculation spreadsheet.
- S.2. The soft landscape plan produced by Planit (**Drawing ref: 2643-PLA-XX-XX-DR-L-2001_S3_P06**) was used to determine the post-development calculations.
- S.3. The current draft proposals indicate the net gain of 0.14 biodiversity units in accordance with the Defra Metric 3.0, which equates to a percentage increase of 48.54% and a net gain of 0.02km of hedgerow length, which equates to 100% net gain in hedgerow value post-development.



Section 1: Background and Local/National Planning Policy

- 1.1. This briefing note has been prepared by Tyler Grange Group Ltd. on behalf of Manchester Life Development Company 3 Ltd. in relation to land off Jersey Street, Ancoats – centered on OS Grid Reference SJ 85273 98773 and hereafter referred to as 'the site'. It should be read alongside the Ecological Impact Assessment (13399_R07c)¹ plus the associated BNG metric calculation spreadsheet.
- 1.2. The site is located off Jersey Street, Ancoats with Rochdale Canal along the southern boundary and is located within a conservation area. It measures approximately 0.55 hectares and comprises amenity grassland, bare ground, buildings, poor semi-improved grassland, dense scrub, scattered shrub, scattered trees and hardstanding.
- 1.3. Biodiversity Net Gain calculations have been undertaken using soft landscape plan produced by Planit (**Drawing ref: 2643-PLA-XX-XX-DR-L-2001_S3_P06**).
- 1.4. The UK Government have developed The Environment Bill, which received Royal Assent on the 9th of November 2021, making it the Environment Act 2021. The Act mandates the requirement for all qualifying developments to achieve biodiversity net gain and in time it will therefore be a legal requirement for all developments to achieve a minimum of 10% net gain in biodiversity units relative to the site's baseline unit value. The two year grace period within the Act allows the creation of secondary legislation to underpin the requirement for 10% net gain and this is expected to be achieved in late 2023. The requirement for biodiversity net gain is increasingly being incorporated into national and local policy ahead of the secondary legislation, which will mandate the requirement for 10% net gain by November 2023.
- 1.5. The National Planning Policy Framework (NPPF) published July 2021, states that planning and decisions should contribute to and enhance the natural environment by, amongst others, "identifying and pursuing opportunities for securing measurable net gains for biodiversity".
- 1.6. Policies and Objectives within the Manchester Local Development Framework, Core Strategy Development Plan 2012-2027, adopted July 2017 (Adopted July 2012) that are relevant to BNG include:
 - Policy EN 10: *'Proposals will be supported that provide innovative solutions to improving the network of existing open spaces, increase accessibility to green corridors, and enhance biodiversity.'*
 - Policy EN 15: *'The Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given too...protected and priority species, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP).'*



- Policy DM 1: 'All development should have regard to the following specific issues...effects relating to biodiversity, landscape, archaeological or built heritage.'

1.7. Manchester City is also part of The Greater Manchester Combined Authority (GMCA). Draft policies in the GMCA's Places for Everyone (PfE) joint development plan (August 2021) DRAFT relating to Biodiversity/Trees and Landscape are:

- **Policy JP-G 2**, which relates to the protection, management and enhancement of the Green Infrastructure Network.
- **Policy JP-G 7**, which relates to the protection and enhancement of woodlands, increase in tree cover, encouragement of positive management, protection of trees and woodland during the construction phase and replacement of each tree lost with two new trees.
- **Policy JP-G 9**, which relates to the net enhancement of biodiversity and geodiversity.



Section 2: Methodology

- 2.1. The DEFRA Biodiversity Metric 3.0 was published on the 7th of July 2021. This calculator is used to “measure and account for biodiversity losses and gains resulting from development”. The calculator requires baseline data as well as information on habitats to be lost and created in order to calculate the total number of biodiversity units on a given site.

Baseline

- 2.2. An extended Phase I habitat survey of the site was undertaken by Tyler Grange in May 2021² (Plan **13399/P03**). The data obtained was used to determine the area of habitats currently on site (the ‘baseline’). Full habitat data is presented in the accompanying Ecological Impact Assessment (report ref. **13399/R07c**).
- 2.3. Areas of dense scrub and six of the scattered trees along Jersey Street along with the black poplar present on site are not subject to this BNG calculation as their removal forms part of the Manchester City Council Jersey Street Bridge Application (**Planning ref. 133406/VO/2002**). In addition, the vegetation present around the west of the warehouse building and the scattered scrub and trees along the Rochdale Canal boundary are also omitted from this calculation as their removal forms part of the Manchester Life Development Company 3 Ltd. vegetation removal application for the area³. These areas are identified on **Plan 13399/P13**.

Retained/replacement habitats

- 2.4. A landscape proposal has been produced by Planit I.E. Limited (ref. 2642-PLA-XX-XX-DR-L-2001/S3/P06), as shown in **Appendix 1**. This proposal has been used to determine the post-development habitats.
- 2.5. The calculator automatically assigns distinctiveness scores to each habitat, and the user inputs scores for condition, ecological connectivity, strategic significance and total area (in hectares).

Biodiversity Units

- 2.6. The information above was inputted into the calculator, to determine the number of biodiversity units at baseline and at post-intervention (i.e. habitat creation + retention). The calculator then uses all these data to produce the total net unit and percentage change.

³ To ensure area totals are complete within the metric, these habitats have been included but marked as ‘retained’ to ensure their loss is not incorporated within the results.



Section 3: Approach and Results

- 3.1. The site is proposed for the delivery of a residential development with ground floor commercial floorspace, and ancillary amenity space within an eight story building, cycle parking provision, hard and soft landscaping, access and servicing.
- 3.2. Full details regarding the composition of each habitat within the site are provided in the Ecological Impact Assessment (report ref. **13399/R07c**). The accompanying Defra metric spreadsheets also detail the areas of proposed habitat loss/creation associated with the site.
- 3.3. **Table 1** details the type and area of baseline habitats within the site, along with the Defra 3.0 Habitat classification that is used in the BNG metric and their value in accordance with this metric. The proposals include habitat creation within the site. **Table 3** details the proposed habitats and their associated biodiversity units. **Table 4** details the proposed hedgerows to be created.
- 3.4. Hedgerows require a separate metric calculation and are subject to a separate net gain requirement. Details of the hedgerow baseline and post-development values are given in **Table 2** and **4**.
- 3.5. Areas that are detailed in the landscape plan as 'hardworks' have been categorized as as 'Urban – Developed land; sealed surface' for use in the BNG metric. Hardstanding and buildings (present both in the baseline and post-intervention) do not hold any unit value in the BNG metric.
- 3.6. The baseline results along with the post-development results have been combined in Tables 1-4 with headline results shown in **Table 4** to give an overall result of 48.54% net gain in biodiversity value for habitats (which equates to 0.14 units) and a 100% net gain for hedgerows (which equates to a net gain of 0.02 hedgerow units and 0.02km of hedgerow).



Table 1 – Habitats currently within site, area and biodiversity values

Extended Phase One Habitat Type	Defra 3.0 Habitat	Condition and criteria	Area (ha)	Baseline Biodiversity Value (Units)	Post-development outcome
Amenity Grassland	Grassland – Modified Grassland	Moderate ✓ Scrub accounts for less than 20% of total grassland area ✓ Physical damage evident in less than 5% of total grassland area ✓ Cover of bracken less than 20% ✓ Cover of bare ground between 1-5% ✓ Absence of invasive non-native species, undesirables make up less than 5% of ground cover ✗ 6-8 species per m² ✗ Sward height is varied	0.062	0.12	Lost
Bare Ground	Urban – Artificial unvegetated, unsealed surface	✗ N/A - Other	0.095	0.00	Lost
Buildings, Hardstanding & Low Brick Structures	Urban – Developed land; sealed surface'	N/A - Other	0.117	0.00	Lost
Poor semi-improved grassland	Grassland – modified grassland	Poor ✓ Scrub accounts for less than 20% of total grassland area ✓ Physical damage evident in less than 5% of total grassland area ✓ Cover of bracken less than 20% ✗ 6-8 species per m² ✗ Sward height is varied ✗ Cover of bare ground between 1-5% ✗ Absence of invasive non-native species, undesirables make up less than 5% of ground cover	0.015	0.03	Lost
Scattered trees	Urban trees	Moderate ✓ More than 70% of trees are native species ✓ Little or no evidence of an adverse impact on tree health ✓ Management regime has encouraged micro habitat sites for fauna ✓ Trees are immediately adjacent to other vegetation ✗ Tree canopy is predominantly continuous (NA) ✗ More than 50% of trees are mature of veteran	NA in metric	0.13	Lost
Mature tree (Black Poplar hybrid)	Urban trees	Good ✓ More than 70% of trees are native ✓ More than 50% of trees are mature ✓ Little or no evidence of an adverse impact on tree health ✓ Management regime has encourage micro habitat sites for fauna ✓ Trees are immediately adjacent to other vegetation ✗ Tree canopy is predominantly continuous (NA)	NA in metric	0.15	Retained (<i>Lost as part of separate application</i>)
Total			0.53	0.28	



Table 2 – Habitats proposed, area and biodiversity value

Extended Phase One Habitat Type	Defra 3.0 Habitat	Condition and criteria	Area (ha)	Baseline Biodiversity Value (Units)
Hardstanding (buildings and associated paths/roads)	Urban – Developed land; sealed surface	N/A - Other	0.497	0.00
Amenity grass-land (Turf)	Grassland – Modified grassland	Moderate ✓ Scrub accounts for less than 20% of the total grassland area ✓ Physical damage evident in less than 5% of total grassland area ✓ Cover of bare ground between 1% and 5% ✓ Cover of bracken less than 20% ✓ Absence of invasive non-native species, undesirables make up less than 5% of ground cover ✗ 6-8 species per m² ✗ Sward height is varied	0.020	0.07
Ornamental shrub	Urban – Introduced shrub	Poor – Automatically assigned in the metric	0.042	0.08
Scattered trees	Urban trees	Moderate ✓ More than 70% of trees are native species ✓ Little or no evidence of an adverse impact on tree health ✓ Trees are immediately adjacent to other vegetation ✗ Tree canopy is predominantly continuous (NA) ✗ More than 50% of trees are mature of veteran ✗ Management regime has encouraged micro habitat sites for fauna	NA in metric	0.30
Total			0.56*	0.42

*slight variations in total areas is due to rounding within the metric



Table 3 – Hedgerows proposed within site, area and biodiversity value

Extended Phase One Habitat Type	Defra 3.0 Habitat	Condition and criteria	Length (km)	Baseline Biodiversity Value (Units)
Hedgerows	Hedge Ornamental non-native	Poor – automatically assigned within the metric	0.021	0.02
Total			0.02	0.02

Table 4 – Headline results from Biodiversity Metric

On-site baseline	Habitat Units	0.28
	Hedgerow Units	0.00
On-site post – intervention	Habitat Units	0.42
	Hedgerow Units	0.02
Total net unit change	Habitat Units	0.14
	Hedgerow Units	0.02
Total net % gain	Habitat Units	48.54%
	Hedgerow Units	100.00%



Section 4: Habitat Creation

4.1. Areas of amenity turf, hedgerows, tree planting and hardstanding are proposed for the site.

- The areas of amenity turf to be created are detailed to be a Professional Lawns 'Swardsman Turf' seed mixture comprising 15-30% of fine leaved rye grass *Lolium perenne* and 15% smooth stalked meadow grass *Poa pratensis*.
- Ornamental shrub planting will be located throughout the site will have a mixed planting arrangement including diversity in size and a number of evergreens to provide year round shelter for fauna. Species mix will comprise of the following:
 - 10-50cm plants: Asarabacca *Asarum europaeum*, Bergenia '*Abendglocken*', bloody geranium *Geranium sanguinum* '*Album*', Spurge *Euphorbia amygdaloides robbiae*, Lily turf *Liriope muscari*, Japonica hybrid *Astilbe* '*Deutschland*'.
 - 50-100cm plants: snow rush *Luzula nivea*, common lady-fern *Athyrium filix-femina*, Plantain Lily *Hosta* '*Frances Williams*', Ostrich fern *Matteuccia struthiopteris*, deer fern *Blechnum spicant*, Japanese forest grass *Hakonechloa macra*.
 - 100cm planting: Soft caress *Mahonia eurybracteata ganpinensis*, *Prunus lusitanica*, *Sarcococca confuse*, Honorine Jobert *Anemone x hybrida*, Kew Green *Skimmia x confuse*, Rubella *Skimmia japonica*.
 - Bulb planting: wild garlic *Allium ursinum*, Eastern sowbread *Cyclamen coum*, snowdrop *Galanthus nivalis*, spring starflower *Ipheion uniflorum*, drooping star-of-Bethlehem *Ornithogalum nutans*, White splendour *Anemone blanda*.
- Tree composition will comprise red maple *Acer x freemanii* 'Armstrong', Japanese maple 'Osakazuki' *Acer palmatum* 'Osakazuki', service berry 'Robin Hill' *Amelanchier x grandiflora* 'Robin Hill', wedding cake tree *Cornus controversa* 'Variegata', honey locust skyline *Gleditsia triacanthos* 'Skyline', sweet gum moraine *Liquidambar styraciflua* 'Moraine'.



Section 5: Conclusion

- 5.1. The Defra 3.0 Biodiversity Metrics have shown that, the development proposals would result in a 48.54% net gain in the biodiversity value of the site post-development, which equates to 0.14 biodiversity units. In terms of hedgerow, the development would achieve a 100% net gain, or a net gain in 0.07km of hedgerow length.
- 5.2. In conclusion, this exercise has demonstrated that the development as proposed achieves a measurable net gain in biodiversity value.
- 5.3. A landscape ecological management plan (LEMP) will need to be produced via condition to detail how the units will be delivered through the creation and management of proposed habitats.



Appendix 1: Softworks Plan



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NOTES:

1. Do not scale from this drawing.
2. Always work to noted dimensions.
3. All dimensions are in millimetres unless otherwise stated.
4. All setting out, levels and dimensions to be agreed on site.
5. The dimensions of all materials must be checked on site before being laid out.
6. This drawing must be read with the relevant specification clauses and detail drawings.
7. Order of construction and setting out to be agreed on site.

KEY

SOFTWARES

Proposed Tree Planting
semi-mature single & multi stem trees
Refer to softworks schedule



Instant Hedging Planting
Prunus lusitanica 0.5m (H)
 4 RB plants per/lin m



Ornamental Planting
Allow for:
30% 5 litre pots at 6 per m²
70% 3 litre pots at 9 per m²

Cultivated amenity turf
Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
Seed mixture: [15-30% of fine leaved rye grass and 15% smooth stalked meadowgrass].
Supplier: Professional Lawns



No.	Label	Species	Common Name	Specification	Girth/Spacing (cm)	Height (m)	Clear Stem Height (m)	Pot
1	Ac	<i>Acer x freemanii</i> 'Armstrong'	Red Maple	Semi-mature 5x breaks	35-40	6-7	2	RB
4	Ap	<i>Acer palmatum</i> 'Osakazuki'	Japanese Maple 'Osakazuki'	Multi-stem 4x breaks		4-4.5		RB
4	Am	<i>Amelanchier x grandiflora</i> 'Robin Hill'	Service Berry 'Robin Hill'	Semi-mature 4x breaks	25-30	4.5-5	2	RB
2	Gc	<i>Cornus controversa</i> 'Variegata'	Wedding Cake Tree	6x breaks		3.5-4		RB
7	Cs	<i>Gleditsia triacanthos</i> 'Skyline'	Honey locust Skyline	Semi-mature 5x breaks	35-40	6-7	2	RB
6	Ls	<i>Liquidambar styraciflua</i> 'Moraine'	Sweet Gum 'Moraine'	Semi-mature 5x breaks	35-40	6-7	2	RB

S3-P06	23-03-22	Review and comment	AS	SAB
Revision	Date	Description	Drawn	Apprvd.

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Project Jersey Wharf, Ancoats
Manchester

Org Title Softworks plan

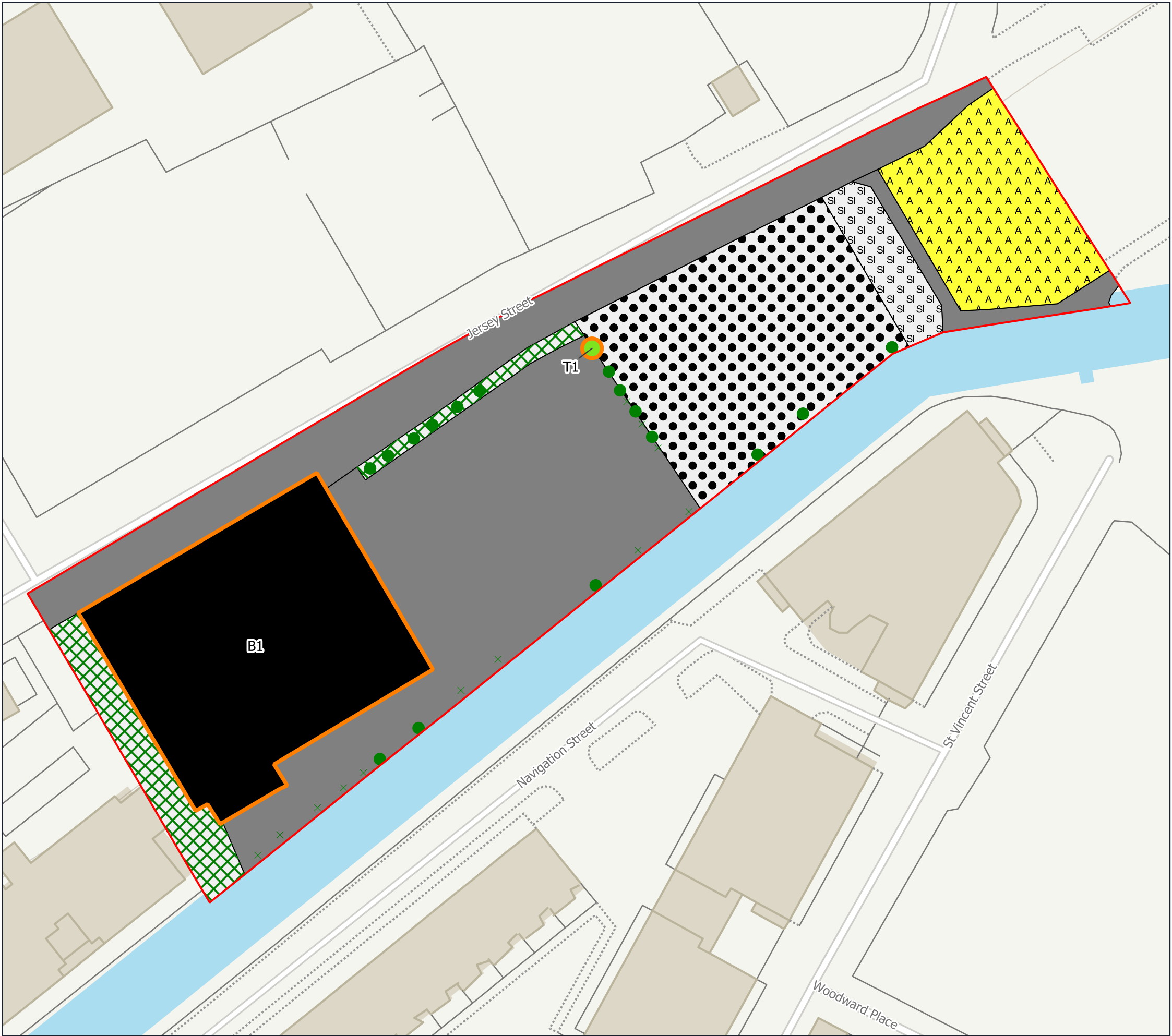
Created on	Created by	Approved by
05-10-21	AS	SAB

Scale	Size	Workstage
1:250	A1	STAGE 3

Drg No.	Suitability	Revision
2643-PLA-XX-XX-DR-L-2001	S3	P06

Plan: Plan 13306/P01: Habitat Features Plan





- Site boundary
- A2.1 - Scrub - dense/continuous
- B6 - Poor semi-improved grassland
- J1.2 - Cultivated/disturbed land - amenity grassland
- J3.6 - Buildings
- J4 - Bare ground
- Hardstanding
- Scattered shrub/scrub
- Scattered Trees
- Building - Moderate bat roost potential
- Trees - Moderate bat roost potential



Project	Manchester Life - Plot C
Drawing Title	Habitats Features Plan
Scale	As Shown (Approximate)
Drawing No.	13399/P03
Date	November 2021
Checked	SJC/NB



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