



BNG Habitat Management & Monitoring Plan

Orchard Mews,
West End

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Report	Biodiversity Net Gain Assessment, Management and Monitoring Plan
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EXECUTIVE SUMMARY

Ecosupport Ltd. were commissioned by Macra Ltd to undertake a Biodiversity Net Gain Assessment at 'Orchard Mews, West End' and detail the results of this assessment within a Habitat Management and Monitoring Plan to satisfy the statutory requirements for developers to deliver a Biodiversity Net Gain (BNG) of at least 10% to ensure that habitats for wildlife are left in a measurably better state than they were before the development.

The purpose of this BNG assessment is to quantify the biodiversity value of the site prior to its development and the predicted value post development. This is measured in biodiversity units, calculated according to the habitats present based on their size, distinctiveness and condition. This enables the quantitative calculation of the predicted change in biodiversity value as a result of the proposed development, with the objective of achieving a net gain in biodiversity.

The methodology for the on-site condition assessment undertaken 09th April 2024 was carried out in line with Natural England Statutory Biodiversity Metric habitat condition assessment protocols and the assessment uses the Statutory Biodiversity Metric calculation tool to calculate biodiversity losses and gains.

Following the incorporation of the above measures into the DEFRA Statutory Biodiversity Metric, ***on site there is a net loss of -32.58% in area habitats (or -0.68 habitat units) and a net gain of 15.27% in linear habitats/hedgerows (or +0.06 hedgerow units) and the trading rules are not satisfied (Fig 9).*** As the targeted 10% net gain has not been achieved for area habitats, it will be necessary to purchase BNG units from an off-site provider (see **Section 4.4** below).

1.0 INTRODUCTION

1.1 Background

Ecosupport Ltd. were commissioned by Macra Ltd to undertake a Biodiversity Net Gain Assessment at 'Orchard Mews, West End' and detail the results of this assessment within a Habitat Management and Monitoring Plan.

The purpose of the Biodiversity Net Gain (BNG) assessment is to quantify the biodiversity value of the site prior to its development, and the predicted value post development. This is measured in biodiversity units, calculated according to the habitats present based on their size, distinctiveness and condition. This enables the quantitative calculation of the predicted change in biodiversity value as a result of the proposed development, with the objective of achieving a net gain in biodiversity.

This report will also address how habitats will be enhanced and created to achieve a net gain in biodiversity units and how these habitats will be managed and monitored for at least 30 years. The following points will be covered (DEFRA, 2024):

- How off-site gains and / or significant on-site enhancements will be managed, taking into account any legal restrictions and requirements,
- When and how habitats will be monitored,
- When and how monitoring results will be reported,
- When and how management proposals will be reviewed,
- How habitats will be restored if the management plan is not working.

This report should be read in conjunction with the associated PEA (Ecosupport Ltd., 2024).

1.2 Site Location and Description

The site comprises of a parcel of land to north-east of Westgate Mews, West End, Southampton, SO30 3RE (centred on OS grid reference SU 47362 14194). The north, east and west by residential dwellings and commercial properties, and the south by grassland associated with Utilia Bowl to the south-east (Fig 1).

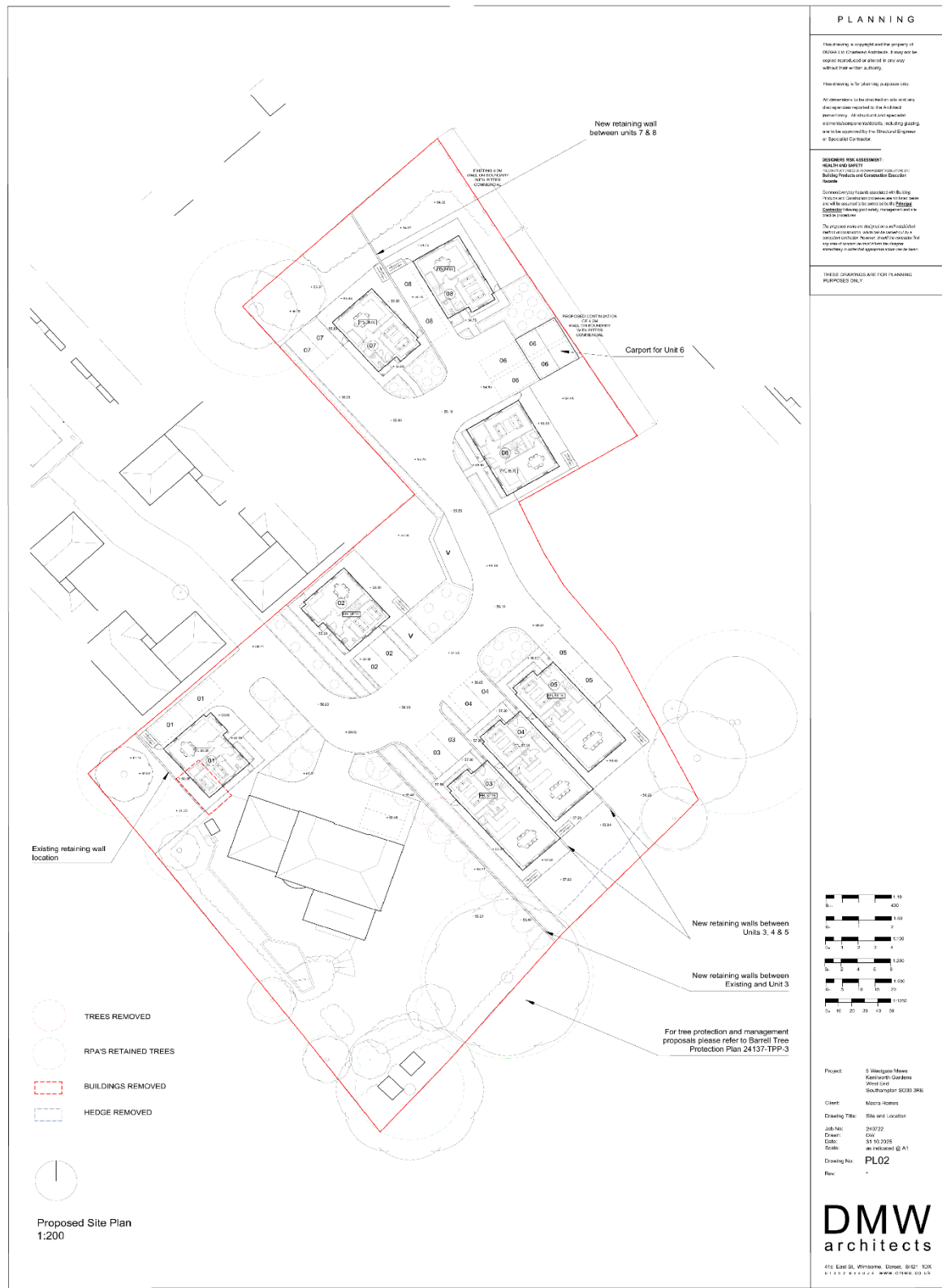
Figure 1. Approximate redline boundary of the site (Google Satellite, 2024).



1.3 Development Proposals

Residential development of land for eight dwellings (Use Class C3), including associated landscaping, parking and infrastructure (**Fig 2**).

Figure 2. Proposed site layout (DMW architects, Job no. 240722, Drg no PL02, October 2025).



2.0 METHODOLOGY

The methodology for the assessment follows the Natural England Statutory Biodiversity Metric habitat condition assessment protocols and uses the Statutory Biodiversity Metric calculation tool to calculate biodiversity losses and gains (DEFRA, 2024).

2.1 Habitat Assessment

Habitats on site pre-development were identified in accordance with the categories specified for a UK Habitats survey using Habitat Definitions Version 2.0 (UKHab Ltd., 2023). This was chosen as an appropriate habitat categorisation system as it fits within the Statutory Biodiversity Metric calculation. The habitat definitions used were based on those identified during an updated walkover undertaken on the 9th April 2024 and reported within the PEA (Ecosupport Ltd., 2024). The PEA should be referred to for information on UKHab habitat classifications on site and plant species recorded.

A condition assessment, in line with the Statutory Biodiversity Metric Technical Annex 1, was carried out on site by Darla Brown BSc (Hons) (Project Ecologist with Ecosupport Ltd) on the 09th April 2024. The area of identified habitats is calculated in hectares (ha), ignoring linear features or ditches (the area is measured to the centre line of such features). The length of linear features is measured separately in kilometres (km). The dominant habitat type was selected, according to those defined by UKHab Ltd (2023). Where there was disparity between the UK classification for habitat type and those present within the Statutory Biodiversity Metric calculator tool, this was noted within the condition assessment tables.

2.2 Habitat Distinctiveness

Each habitat was assigned a score for distinctiveness, according to the Statutory Biodiversity Metric calculator tool (DEFRA, 2024). This ranged from Poor - High for most habitats, or Not Applicable (e.g. Developed Land – Sealed Surface). Using the tool, habitats were assigned a score based on their distinctiveness.

2.3 Habitat Condition

The condition of each habitat was assessed following criteria set out in the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024), which includes detailed assessment criteria for different habitats. Full results of the condition assessments can be found within **Section 3.0**. The condition of each habitat was assessed individually on site but, where the condition was found to be the same across several parcels, these were grouped together.

2.4 Strategic Significance

Each habitat was assigned a strategic significance in line with the Statutory Biodiversity Metric User Guide (DEFRA, 2024). The line of trees along the southern boundary has been identified as a network opportunity area by HBIC and as such as is considered to be an ecologically desirable location. All other habitats are not identified in the local strategy and therefore listed as 'area/compensation not in local strategy / no local strategy'.

2.5 Limitations

There were not considered to be any significant limitations on the results of the habitat survey with all areas of the site accessible, with the survey conducted within the optimal season for vascular flowering plants.

3.0 EXISTING HABITATS AND DEVELOPMENT PROPOSALS

3.1 Baseline Habitats

The habitats on site were categorised according to UK Hab Ltd. Habitat Definitions Version 2.0 (2023) as listed below (please refer to the **Pre-Development Baseline Habitats map appended** for information on the locations of these habitats on site):

- Built-up areas and gardens (u1) (secondary habitat codes: 828, vegetated garden comprising: 32, scattered trees, 108, frequently mown with 521, unmanaged patches) (**Fig 3 & 4**)
- Bramble scrub (h3d) (**Fig 5**)
- Non-native and ornamental hedgerow (h2b) (**Fig 6**)
- Other woodland; broadleaved (w1g) (secondary habitat code: 33, line of trees) (**Fig 7**)
 - ***NB As per the update from UKHab Version 1.1 to 2.0 Habitat Definitions (2023) – line of trees must now be classified under the ‘w – woodland and forest’ primary habitat code. Although it must be noted this habitat type does not fall under the definition of a ‘woodland and forest’ as is under the 25% land cover required. As such, this has been reflected in this BNG Assessment.***
- Buildings (u1b5) (**Fig 8**)

Figure 3. View of the unmanaged vegetated garden which was present within the northern portion of site (taken April, 2024).



Figure 4. View of the frequent mown vegetated garden which was present across the majority of site with scattered trees notable from this picture (taken April, 2024).



Figure 5. View of the Bramble scrub within the northern portion of the site (taken April, 2024).



Figure 6. View of the non-native and ornamental hedgerow habitat located along the north-eastern boundary of the site (taken April, 2024)



Figure 7. View of the line of trees habitat located along the northern boundary of the site (taken April, 2024)



Figure 8. View of the buildings located within the hedgerow on site (taken April, 2024)



3.2 Baseline Condition Assessment

The following tables provide detail as to the condition assessments undertaken of the non-linear (**Table 1**), trees (**Table 2**) and linear (**Table 3**) habitats present on site with reference to the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).

NB. The only habitat types which were subject to a condition assessment were Individual Trees and Line of Trees as it has all other habitats have predetermined conditions of 'Condition Assessment N/A' or 'N/A – Other' under current guidance within the Statutory Biodiversity Metric.

Table 1. Existing non-linear habitats present on site including details as to their condition and the condition assessment criteria that have been met / failed as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).

Habitat Type	Area (ha)	Condition	Condition Assessment Notes	Strategic Significance	Parcel Reference - Location Notes
Vegetated garden	0.392	Condition Assessment N/A	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area/compensation not in local strategy/no local strategy	Across the majority of the site.
Bramble scrub	0.003	Condition Assessment N/A	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area/compensation not in local strategy/no local strategy	In the northern portion of site, adjacent to small patches of unmanaged garden.
Developed land; sealed surface	0.056	N/A - Other	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area/compensation not in local strategy/no local strategy	Developed Land around the existing dwelling/access and patio and the building / container on site.
Individual Trees*	0.1506	Moderate	Condition assessment detailed in Table 2 .	Area/compensation not in local strategy/no local strategy	Individual scattered trees present throughout the site.

Table 2. Existing individual trees present on site and their condition assessment criteria that have been met / failed as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).

Condition Assessment Criteria		Trees present on site*						
		T2	T3	T4	T5	T6	T20	T21, 22
A	The tree is a native species (or at least 70% within the block are native species).	✓	✓	✓	X	X	X	X
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	✓	✓	✓	✓	✓	✓	✓
C	The tree is mature (or more than 50% within the block are mature).	✓	X	✓	X	X	✓	✓
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	✓	✓	X	✓	X	✓	X
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	✓	✓	✓	✓	✓	✓	✓
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	✓	✓	✓	✓	✓	✓	✓
Number of criteria passed		6	5	5	4	3	5	4
Good (Passes 5 or 6 criteria)		✓	✓	✓			✓	
Moderate (Passes 3 or 4 criteria)					✓	✓		✓
Poor (Passes 2 or fewer criteria)								
*Only medium, large, and very large trees to be removed within linear features are recorded here following the latest Statutory Biodiversity Metric Guidance which states for gardens "If any medium, large or very large trees within a hedgerow or 'rural' line of trees are being removed, record these in the area baseline as individual trees" (DEFRA., 2024)								

Table 3. Existing linear habitats present on site including details as to their condition and the condition assessment criteria that have been met / failed as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).

Habitat Type	Length (km)	Condition	Condition Assessment Notes	Strategic Significance	Parcel Reference - Location Notes
Line of Trees	0.058	Moderate	The lines of trees on site are mostly native, with a continuous canopy, and are of healthy condition. However, there is not a 6m naturally unvegetated strip on both sides due to different reasons (agricultural farming activities or gardens), and no ecological niches present (i.e. ivy, loose bark) as of the young age class of the trees. Specifically, criteria A, B, and E were met.	Location ecologically desirable due to identification as ecological network opportunity area	H1
Non-native and Ornamental Hedgerow	0.106	Poor	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area/compensation not in local strategy/no local strategy	H2

4.0 PROPOSED CREATED HABITATS & NET GAIN ASSESSMENT

4.1 On-Site Proposals

Following consultation with Macra Ltd, in order to minimise the loss of biodiversity on site, the following habitats are being retained, enhanced and created (please refer to the **Post-Development Layout appended** for information on the locations of these habitats). Tables have been provided as appropriate to indicate the targeted condition for each of the habitat types and which criteria will need to be met in order to achieve the desired condition.

Section 5.0 details the proposed planting and ongoing management required to ensure the stated condition criteria are met for each habitat type. This report (including planting and management specifications) has been prepared in conjunction with The Landscape Service.

NB. Should planting and management prescriptions need altering slightly when drawing up the detailed landscape strategy, this will first be approved by an ecologist to ensure the recommendations are in line with the Biodiversity Net Gain Assessment.

4.1.1 Non-Linear Habitats

Table 4 indicates those habitats due to be retained, enhanced and created on site with details provided, where appropriate, as to how the necessary condition criteria will be met.

Table 4. Non-linear habitats to be retained, enhanced and created on site including details as to the condition assessment criteria that must be met in order to achieve the targeted condition (the necessary planting and management required to achieve the stated condition criteria is detailed in **Section 5.0**).

Habitat Type	Action	Area (ha)	Target Condition	Condition Assessment Notes	Strategic Significance	Parcel Reference - Location Notes
Vegetated Garden	Retained	0.0765	Condition Assessment N/A	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Gardens retained around the existing dwelling (front/rear).
Developed Land; Sealed Surface	Retained	0.0471	N/A – Other	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Existing dwelling and hardstanding.
Individual Trees	Retained*	0.1054	Moderate	Individual trees will be retained in their current conditions in line with the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Scattered around the sites.
Modified Grassland	Created	0.0146	Poor	Modified grassland of poor condition will be created in line with the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024). Specifically, criteria C, F and G will be targeted for achievement with management implemented to minimise cover of scrub, bracken and invasive species.	Area not in local strategy.	Small grassland parcels throughout the site.

Vegetated Garden	Created	0.0876	Condition Assessment N/A	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Gardens across site (front/rear).
Developed Land; Sealed Surface	Created	0.1241	N/A – Other	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Located throughout the site (roads, driveways etc.).
Developed Land; Sealed Surface	Created	0.0599	Moderate	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Forms the buildings on site.
Introduced Shrub	Created	0.0407	Condition Assessment N/A	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area not in local strategy.	N/A – Ornamental shrubs planted throughout the site.
*Individual Trees to be retained following the latest Statutory Biodiversity Metric Guidance which states for gardens “habitats which are recorded in the baseline and remain within a private garden may be recorded as retained” (DEFRA., 2024)						

4.1.2 Linear Habitats

Table 5 indicates those linear habitats due to be retained, enhanced and created on site with details provided, where appropriate, as to how the necessary condition criteria will be met.

Table 5. Linear habitats to be retained, enhanced and created on site including details as to the condition assessment criteria that must be met in order to achieve the targeted condition (the necessary planting and management required to achieve the stated condition criteria is detailed in **Section 5.0**).

Habitat Type	Action	Length (km)	Target Condition	Condition Assessment Notes	Strategic Significance	Parcel Reference - Location Notes
Line of trees	Retained*	0.058	Moderate	The line of trees will be retained in its current moderate condition in line with the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Location ecologically desirable due to identification as ecological network opportunity area	Line of trees on the southern boundary
Non-native and ornamental hedgerow	Retained*	0.044	Poor	No condition assessment required as per the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024).	Area/compensation not in local strategy/no local strategy	Non-native and ornamental hedgerow
Native Hedgerow	Created	0.035	Moderate	A native hedgerow of moderate condition will be created in line with the Statutory Biodiversity Metric Technical Annex 1 (DEFRA, 2024). Specifically, criteria A2, B1, B2, D1 and D2 will be targeted for achievement with management implemented to maintain a width of at least 1.5m, limit horizontal and vertical gappiness, remove invasive species and prevent damage.	Area/compensation not in local strategy/no local strategy	Central to the site (north to south)
*Linear features to be retained following the latest Statutory Biodiversity Metric Guidance which states for gardens “habitats which are recorded in the baseline and remain within a private garden may be recorded as retained” (DEFRA., 2024)						

4.2 Metric Calculation

Following the incorporation of the above measures into the DEFRA Statutory Biodiversity Metric, **on site there is a net loss of -32.58% in area habitats (or -0.68 habitat units) and a net gain of 15.27% in linear habitats/hedgerows (or +0.06 hedgerow units) and the trading rules are not satisfied** (Fig 9). As the targeted 10% net gain has not been achieved for area habitats, it will be necessary to purchase BNG units from an off-site provider (see **Section 4.4** below).

Figure 9. Screenshot of the 'headline results' output from the BNG assessment undertaken for the site using the DEFRA Statutory Biodiversity Metric.

FINAL RESULTS				
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-0.68		
	Hedgerow units	0.06		
	Watercourse units	0.00		
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	-32.58%		
	Hedgerow units	15.27%		
	Watercourse units	0.00%		
Trading rules satisfied?	No - Check Trading Summaries ▲			
Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	2.08	2.29	0.89
Hedgerow units	10.00%	0.36	0.40	0.00
Watercourse units	10.00%	0.00	0.00	0.00

4.3 Mitigation Hierarchy

The proposed habitat retention, enhancement and creation described in the above sections follows the Biodiversity Gain Hierarchy as detailed within paragraph 192 (a) of the National Planning Policy Framework (DLUHC, 2024). The below sections cover each of the elements of the hierarchy and how we have sought to address them in this scheme (as there is a need for off site credits):

- **Avoid:** The habitats of highest value have, where possible, been retained. This includes the majority of the individual trees and linear features on site. Further habitats could not be retained, due to the quantum of residential development that the site needed to deliver, combined with the fact that baseline habitats are mostly urban. Not achieving the number of residential units would have rendered the development unviable and prejudiced the Local Authority's ability to deliver much needed housing in the area.
- **Mitigate:** In order to mitigate the small loss of gardens on site, modified grassland has been proposed to the south east of the site, this is of a higher distinctiveness and will promote diversity.
- **Offset:** Given the nature of the development, it is not possible to deliver the full net gain on site while still delivering the housing numbers needed. Therefore, the remaining impacts will be offset through the use of an offsite compensation (see **Section 4.4** below). Therefore, the

Biodiversity Gain Hierarchy has been followed when addressing the BNG requirements for the site.

4.4 Off-Setting

Despite steps being taken to deliver BNG units on site (as described in **Section 4.3**), it has not been possible to achieve the necessary gain in habitat units and satisfy trading rules within the constraints of the site. Therefore, in order to deliver the targeted 10% biodiversity net gain, it will be necessary to purchase a total of 0.88 habitat units (comprising low distinctiveness habitat and medium distinctiveness scrub and individual trees) from an off-site BNG provider.

A summary of the results for the biodiversity assessment based on both the current onsite habitats and the current development proposals within this document are presented within **Fig 9**. Based on the assessment of the site prior to development and the impacts on the habitats present post development, the proposed plans were assessed as resulting in a total loss **of -32.58% habitat biodiversity units** (due to a limited scope of enhancement and habitat creation on site).

The majority of the biodiversity loss is due to the loss of individual trees and vegetated gardens habitat for developed land and buildings. The individual trees and vegetated gardens are to be replaced with parking areas and dwellings for the current development proposals. A total of -0.36 units of low distinctiveness habitat is to be lost to this (**Fig 10**). In addition, a total of -0.32 units of medium distinctiveness habitat (individual urban trees and scrub) will also be lost (**Fig 11**). To satisfy the trading rules, trees must be offset as a habitat group, as detailed in the next section below.

Figure 10. Screenshot of the total “low distinctiveness” biodiversity units lost taken from the BNG assessment undertaken for the site using The Statutory Biodiversity Metric.

Low Distinctiveness Summary				
Low Distinctiveness net change in units		-0.36 ▲		
Cumulative surplus of units		-0.36 ▲		

Low Distinctiveness				
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change
Cropland - Cereal crops	Cropland	0.00	0.00	0.00
Cropland - Horticulture	Cropland	0.00	0.00	0.00
Cropland - Intensive orchards	Cropland	0.00	0.00	0.00
Cropland - Non-cereal crops	Cropland	0.00	0.00	0.00
Cropland - Temporary grass and clover leys	Cropland	0.00	0.00	0.00
Cropland - Winter stubble	Cropland	0.00	0.00	0.00
Grassland - Modified grassland	Grassland	0.03	0.00	0.03 ✓
Grassland - Bracken	Grassland	0.00	0.00	0.00
Heathland and shrub - Rhododendron scrub	Heathland and shrub	0.00	0.00	0.00
Lakes - Ornamental lake or pond	Lakes	0.00	0.00	0.00
Sparsely vegetated land - Ruderal/ephemeral	Sparsely vegetated land	0.00	0.00	0.00
Sparsely vegetated land - Tall forbs	Sparsely vegetated land	0.00	0.00	0.00
Urban - Bioswale	Urban	0.00	0.00	0.00
Urban - Bare ground	Urban	0.00	0.00	0.00
Urban - Allotments	Urban	0.00	0.00	0.00
Urban - Facade-bound green wall	Urban	0.00	0.00	0.00
Urban - Ground based green wall	Urban	0.00	0.00	0.00
Urban - Ground level planters	Urban	0.00	0.00	0.00
Urban - Other green roof	Urban	0.00	0.00	0.00
Urban - Intensive green roof	Urban	0.00	0.00	0.00
Urban - Introduced shrub	Urban	0.07	0.00	0.07 ✓
Urban - Rain garden	Urban	0.00	0.00	0.00
Urban - Actively worked sand pit quarry or open cast mine	Urban	0.00	0.00	0.00
Urban - Sustainable drainage system	Urban	0.00	0.00	0.00
Urban - Vacant or derelict land	Urban	0.00	0.00	0.00
Urban - Vegetated garden	Urban	-0.46	0.00	-0.46 ▲
Woodland and forest - Other coniferous woodland	Woodland and forest	0.00	0.00	0.00
Coastal saltmarsh - Artificial saltmarshes and saline reedbeds	Coastal saltmarsh	0.00	0.00	0.00
Intertidal sediment - Artificial littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mud	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral muddy sand	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral mixed sediments	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral seagrass	Intertidal sediment	0.00	0.00	0.00
Intertidal sediment - Artificial littoral biogenic reefs	Intertidal sediment	0.00	0.00	0.00
Intertidal hard structures - Artificial hard structures	Intertidal hard structures	0.00	0.00	0.00
Intertidal hard structures - Artificial features of hard structures	Intertidal hard structures	0.00	0.00	0.00
Heathland and shrub - Other sea buckthorn scrub	Heathland and shrub	0.00	0.00	0.00
		-0.36	0.00	-0.36

Figure 11. Screenshot of the total “medium distinctiveness” biodiversity units lost taken from the BNG assessment undertaken for the site using The Statutory Biodiversity Metric.

Medium Distinctiveness Summary					
Medium Distinctiveness Units available to offset Lower Distinctiveness Deficit	0.00				
Medium Distinctiveness Broad Habitat losses to be offset by trading up	-0.32				⚠
Higher Distinctiveness Surplus Units minus Medium Distinctiveness Broad Habitat Deficit	-0.32				⚠
Cumulative surplus of units	-0.32				⚠

Medium Distinctiveness					
Habitat group	Group	On-site unit change	Off-site unit change	Project wide unit change	Cumulative broad habitat change
Cropland - Arable field margins cultivated annually	Cropland	0.00	0.00	0.00	0.00
Cropland - Arable field margins game bird mix	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins pollen and nectar	Cropland	0.00	0.00	0.00	
Cropland - Arable field margins tussocky	Cropland	0.00	0.00	0.00	0.00
Grassland - Other lowland acid grassland	Grassland	0.00	0.00	0.00	
Grassland - Other neutral grassland	Grassland	0.00	0.00	0.00	
Grassland - Upland acid grassland	Grassland	0.00	0.00	0.00	-0.01 ⚠
Heathland and shrub - Blackthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Bramble scrub	Heathland and shrub	-0.01	0.00	-0.01	
Heathland and shrub - Gorse scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hawthorn scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Willow scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Hazel scrub	Heathland and shrub	0.00	0.00	0.00	
Heathland and shrub - Mixed scrub	Heathland and shrub	0.00	0.00	0.00	
Lakes - Ponds (non-priority habitat)	Lakes	0.00	0.00	0.00	
Lakes - Reservoirs	Lakes	0.00	0.00	0.00	
Sparsely vegetated land - Other inland rock and scree	Sparsely vegetated land	0.00	0.00	0.00	0.00
Urban - Cemeteries and churchyards	Urban	0.00	0.00	0.00	0.00
Urban - Biodiverse green roof	Urban	0.00	0.00	0.00	0.00
Individual trees - Urban tree	Individual trees	-0.31	0.00	-0.31	-0.31 ⚠
Individual trees - Rural tree	Individual trees	0.00	0.00	0.00	0.00
Woodland and forest - Other Soot's pine woodland	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland, broadleaved	Woodland and forest	0.00	0.00	0.00	
Woodland and forest - Other woodland, mixed	Woodland and forest	0.00	0.00	0.00	
Intertidal sediment - Littoral coarse sediment	Intertidal sediment	0.00	0.00	0.00	0.00
Intertidal sediment - Littoral sand	Intertidal sediment	0.00	0.00	0.00	
Intertidal hard structures - Artificial hard structures with integrated greening of grey infrastructure (IGGI)	Intertidal hard structures	0.00	0.00	0.00	
		-0.32	0.00	-0.32	

4.4.1 Trading Rules

In order to satisfy the trading rules, a total of 0.89 biodiversity units is required to be provided off-site or secured via biodiversity credits (**Fig 12**). At least 0.31 units of this must be individual trees and 0.01 units of scrub in order to satisfy the trading rules as above.

Figure 12. Screenshot of the total biodiversity units required in order to achieve the minimum 10% gain taken from the BNG assessment undertaken for the site using The Statutory Biodiversity Metric.

Unit Type	Target	Baseline Units	Units Required	Unit Deficit
Habitat units	10.00%	2.08	2.29	0.89
Hedgerow units	10.00%	0.36	0.40	0.00
Watercourse units	10.00%	0.00	0.00	0.00

4.4.2 Biodiversity Credits & Spatial Risk Multipliers

As above, 0.89 biodiversity units are required, which will include at least 0.31 units of this must be individual trees and 0.01 units of scrub. This can be provided through independent habitat banks, such as the Environment Bank, which are typically more economical. Statutory Biodiversity Credits should only be used as a last resort option where there are no other local schemes available.

If compensatory habitat cannot be provided nearby, spatial risk multipliers are applied to off-site habitat compensation, as shown in **Table 6**. For example, if compensation must be provided Outside, twice as many credits would be required to meet the site requirements. Therefore, up to 1.78 credits may be required depending on the compensation credit areas available.

Table 6. Spatial risk scores and descriptions (as reproduced from Table 9 of the Statutory BNG user guide)

Spatial risk category and score	Area and hedgerow modules
Within (1.0)	Compensation is within Local Planning Authority (LPA) boundary or National Character Area (NCA) of impact site
Neighbouring (0.75)	Compensation is outside LPA or NCA of impact site, but within neighbouring LPA or NCA
Outside (0.5)	Compensation is outside LPA or NCA of impact site and outside neighbouring LPA or NCA

5.0 HABITAT MANAGEMENT

This section provides an outline of the habitat management prescriptions to create and enhance the proposed habitats within the site to meet the desired condition criteria for the purposes of delivering biodiversity net gain. It is anticipated that a comprehensive management plan for the delivery of off-site habitat units will be prepared following the finalisation of offsetting schemes.

5.1 Protection of Retained Habitats

All of the habitats to be retained will be protected from damage during the works. The line of trees and hedgerow on site will be fenced using Heras fencing or similar to prevent access by machinery. Where large mature trees are present, they will be protected using standard arboricultural tree protection measures which include protection of the canopy and prevention of root compaction.

No vehicles will enter the protective ring fencing and no materials will be stored within their circumference. All protective fencing must be in place prior to any construction machinery arriving on site, before any works on site get underway, and will remain in place until all work is completed. This will minimise the level of disturbance within the ecological buffer zones during the works and ensure the habitats and any wildlife species that may be using them are protected.

5.2 Modified Grassland

5.2.1 Proposed Planting

Areas of modified grassland are being created across site, adjacent to the main access road or forming small areas of public open space. This grassland is set to be reinforced and will be seeded with Emorsgate EL1 – Flowering Lane Mixture *or similar (as approved by an ecologist)*.

5.2.2 Management

The sowing of these seeds will be completed either during the Spring (March-May) or the late Summer (August-October) when the temperatures are warm, and the ground is dry. The seed must be surface sown at an even distribution throughout the entire landscaped area.

Given the formal location of this grassland, it is expected to be regularly maintained to a height of 30-50mm during April to August and 50-70mm for the remainder of the year.

First year management: During the first year the grassland areas must be regularly maintained to 40 – 60mm every 7 – 10 days to prevent the establishment of weeds. Dig out any residual perennial weeds such as Dock (*Rumex* spp.). All arisings must be taken from site to prevent the addition of too many nutrients into the soil. If necessary, glyphosate-based weed killer can be used to spot treat any areas with dense patches of Nettles or Bramble

Management Once Established: Once the seed is established after the first year, regular mowing is still expected which will result in a shorter sward height however grass should not be cut lower than 30mm. It is encouraged that mowing is relaxed from **late June** to permit flowering herbaceous species, although mowing may be relaxed earlier in the year to allow Cowslip (*Primula veris*) to flower between **April to May**. Relaxed mowing will ensure important sources are available for pollinating species including bees, butterflies and beetles.

Furthermore, targeted scrub, Bracken and invasive plant removal should also be carried out as needed to prevent encroachment into the grassland. This would be focused along site boundaries.

5.3 Hedgerows

5.3.1 Proposed Planting

A native hedgerow will be planted along the center of the site (north to south), species will comprise of:

- Hawthorn (*Crataegus monogyna*),
- Hazel (*Corylus avellana*),
- Hornbeam (*Carpinus betulus*),
- Holly (*Ilex aquifolium*),
- Guelder Rose (*Viburnum opulus*),
- Alder Buckthorn (*Frangula alnus*),
- Wild Cherry (*Prunus avium*),
- Crab Apple (*Malus sylvestris*),
- Elder (*Sambucus nigra*),
- Dogwood (*Cornus sanguinea*),
- Privet (*Ligustrum vulgare*),
- Dog Rose (*Rosa canina*).

5.3.2 Hedgerow Management

The most favourable approach to managing hedgerows for the benefits of biodiversity is to encourage minimal interference and ensure when there is any cutting, it does so after autumn fruiting (so late winter is preferable). The key points of the management prescriptions will therefore be as follows (adopting recommendations as outlined within Bright and MacPherson 2002):

- Cutting will be done on a 3-year cycle (part of the hedges on site cut during the first year, another part of the hedges cut during second year and no cutting during the third year), to provide sustained foraging opportunities across the site every active season. Hedgerows will be allowed to develop into a tall, dense, bushy structures and maintained at a height of 3 – (preferably 4) meters.
- A proportion of hedges (at least 30%) should be left to grow for at least 7 – 10 years.
- Not all hedgerows should be cut in any one year, so some heavy fruiting hedges are always present. Flails should not be used if possible meaning management works will likely involve cutting using hand tools
- Coppicing or laying should be used to manage any of the hedgerows on site which become gappy or sparse
- If the size of the hedgerow needs to be reduced, avoid cutting the top and cut one side.

Targeted removal of invasive species will be carried out as necessary.

5.3.3 Monitoring

Annual monitoring will take place of the newly planted hedgerow for the first 3 years, with bi-annual monitoring between 4-10 years. This will be carried out by a suitably experienced ecologist during late winter – early spring of each year. These monitoring visits will assess the general health of the hedgerow and determine if any remedial action is required (some of which are outlined below such as replacement planting or altering the frequency of cuts).

5.3.4 Replacement

Any plants that are removed, die or become seriously damaged or defective during the 10- year monitoring period of planting shall be replaced like for like in the next planting season.

If hedgerows become very thin, coppicing of selected plants / laying of short lengths of hedgerow may be required and will be beneficial to promote vigorous, dense regrowth. Such works must be undertaken during the period October – February to avoid the breeding bird season.

5.4 Compliance Check

A compliance visit will be completed by a suitably qualified ecologist once the construction phase of the development has been completed. The check will be conducted annually for the first 5 years post-completion, and every 5-years thereafter until year 30. The compliance check will be carried out during a suitable time of year and in suitable weather conditions. The ecologist will check the condition of all of the habitats on site to assess if they have been achieved and make an assessment if any recommended changes are required to management.

On completion of the visit, a Biodiversity Net Gain (BNG) monitoring report will be compiled, including the following:

- Assessment of habitats against the objectives defined in this management plan;
- Any presence of target species noted during the compliance check;
- Date stamped photographic evidence taken from fixed monitoring points, of which will be the central point of each land parcel per habitat type as listed in **Section 4.0**, during the first compliance check after the construction phase;
- Detailed site notes including a condition assessment for each habitat type listed in **Section 4.0** (where appropriate) using the condition criteria within the Technical Annex 1 (DEFRA, 2024);
- Detailed specific recommendations on management actions to promote growth and establishment of target species / habitats including timescales for undertaking actions (if required) and marked site plans to show the actions;
- Management of the above recommended actions must be carried out in the next phase and report of any details;
- Each BNG monitoring report will be written up in accordance with the BNG Habitat Monitoring Report template provided by Natural England (2023) and will be sent to the LPA.

5.5 Safeguarding

The developer and project manager will be responsible for briefing all site personnel of the ecological sensitivities of the site and implementing the habitat enhancement, creation and management measures outlined within **Sections 4.0 & 5.0**. If any protected species are encountered during the

construction works, it will be the responsibility of the project manager to cease works and immediately contact an ecologist for advice.

5.6 Post-Construction Habitat Creation

Table 7 below depicts the indicative timings associated with the habitat creation and enhancements to be undertaken after all construction works on site have been completed. This is considered to be year 1 of the management plan. For those activities that can be undertaken at any time of year, the earliest possible time is recommended.

5.7 Management Responsibilities

Macra Ltd will assume responsibility for the management and maintenance of the newly created and retained habitats. When required, responsibility will include ensuring all management works are completed and qualified ecologists, arborists or landscape managers are contracted, etc. If the land is to be transferred, the new landlords shall bear responsibility for the management and maintenance of habitats within their curtilage. If not, the responsibility shall remain with Macra Ltd. All management works as described above will need to be secured by a Section 106 agreement for the site that will legally oblige Macra Ltd or other agreed party to carry out the works. An annual management timeline of all habitats has been provided in **Table 7** and management works should continue in perpetuity.

A formal review process will be implemented when objectives and management recommendations are not reached / roles and responsibilities are not fulfilled as agreed. The details of this formal review process are as below:

- A suitably qualified ecologist will visit the site to conduct the compliance check (detailed in **Section 5.4**);
- The compliance check will include the write up and submission of a BNG Habitat Monitoring report;
- The ecologist will review the success for BNG that the previous recommendations or management actions have for the target species / habitats;
- The project manager is contacted by the ecologist and is informed of the recommendations or management actions which have not been fulfilled to identify what or who is responsible;
- The BNG Habitat Monitoring report will include a section addressing any raised issues identified during the compliance check;
- The BNG Habitat Monitoring report is submitted to the LPA for review and comment.

Table 7. Schedule of habitat retention, enhancement and creation works to be carried out in first year (as per **Sections 4.0 and 5.0**).

General Activity	Specific Activity	Dates / Timing	Description
Habitat Retention (Section 5.1)	Installation of Heras fencing for protection	Anytime (Pre-commencement)	Heras fencing to be erected along the retained habitats to prevent these areas from being damaged during works.
Habitat Creation Modified Grassland (Sections 5.2)	Planting	Ideally Autumn or Spring	Establish the grassland through sowing of Emorsgate EL1 – Flowering Lawn Mixture
	Year 1 Management	Routinely as required	- Control annual weed growth by regular mowing throughout the first year to minimise competition and weed seed production. - If necessary, glyphosate-based weed killer can be used to spot treat any areas with dense patches of Nettles or Bramble.
Habitat Creation Native Hedgerow (Sections 5.3)	Planting	Late Autumn	- Prepare ground by removing all weeds and digging a strip approx. 60-90cm wide. - Plant with a minimum of 5 native shrub species. - For the enhancement of the existing tree lines, targeted planting will be undertaken within the understory to infill the existing gaps within this feature.
	Year 1 Management	Winter i.e. October - February (outside of bird nesting season)	- Begin 3 year cutting cycle of existing hedge in which a portion of the hedges on site are cut in the first year, another portion in the second year and no cutting in the third year. - Use hand tools and avoid the use of flails.
	Year 1 Monitoring	Late Winter – Early Spring	- Hedgerows will be inspected by a suitably experienced ecologist to assess the general health of the hedgerow. - Remedial action will be taken as necessary. - Any plants that are removed, die or become seriously damaged will be replaced like-for-like in the next planting season.

5.8 Years 2 – 30 Management / Monitoring Table

Once the initial works covering the first year of management / monitoring have been completed as outlined in **Table 7**, the longer-term management objectives for the ecological features on site will need to be implemented (which have been outlined in detail in the above sections). **Table 8** below provides an overview of the actions required and the timings of when they should be complete (covering years 2– 30 post construction).

Table 8. Schedule of monitoring and management in Years 2 – 30 for all habitats (as per **Sections 4.0 and 5.0**).

General Activity	Specific Activity	Dates / Timing	Description
Modified Grassland (Section 5.2)	Years 2-30 Management	Relaxed mowing to allow Cowslip to flower (April to May) Relaxed mowing (Late June – early August) Year round (remaining management)	- The grassland will be subject to regular mowing to a height of no shorter than 30mm (30-50mm) during April to late June, and continued in early August. The grassland will remain at 50-70mm for the remainder of the year. - It is encouraged that mowing is relaxed from late June to permit flowering herbaceous species, although mowing may be relaxed earlier in the year to allow Cowslip (<i>Primula veris</i>) to flower between April to May. Relaxed mowing will ensure important sources are available for pollinating species including bees, butterflies and beetles.
	Removal of undesirable species	Winter i.e. October - February (outside of bird nesting season)	Targeted scrub, bracken and invasive species removal will be carried out as necessary.
Hedgerows (Sections 5.3)	Years 2-30 Management	Winter i.e. October - February (outside of bird nesting season)	- Continue the 3 year cutting cycle. - A proportion of hedges (at least 30%) should wherever possible be left to grow for 7-10 years. - Maintain a height of 3-4m wherever possible. - Use hand tools and avoid the use of flails. - Use coppicing or laying to fill gaps. - If hedgerow size needs to be reduced (e.g. in more formal areas), avoid cutting the top and cut only one side.
	Monitoring	Late Winter – Early Spring Annually in Years 1-3 Bi-annually in Years 4-10	Suitably qualified ecologist will assess the health of the hedgerow and recommend any necessary remedial action

	Replacement Planting	Late Autumn ideally, in suitable weather (for planting) Winter i.e. October - February (outside of bird nesting season) (for coppicing / laying)	- Removed, dead or damaged specimens will be replaced like for like in the next planting season. - Coppicing / laying will be used to gap up / thicken any thin hedgerows.
Compliance Check (Section 5.4)	Monitoring report	Annually for the first 5 years, then every 5 years until year 30 Must be conducted during a suitable time of year and weather conditions	- A report will be produced detailing assessment of habitats against criteria stipulated in Section 4.0 and any necessary remedial actions or adjustments to ongoing management. - The report will be submitted to the LPA. - Any necessary actions must then be completed prior to the next compliance check.

6.0 REFERENCES

DEFRA (2024) *Creating a habitat management and monitoring plan for biodiversity net gain*. Available at: <https://www.gov.uk/guidance/creating-a-habitat-management-and-monitoring-plan-for-biodiversity-net-gain>

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UKHab Ltd. (2023). *The UK Habitat Classification – Version 2.0*.

6.0 APPENDIX

Appendix A – BNG Baseline Habitats Map

Appendix B – BNG Post-Development Layout



Legend

- Site Boundary
- Built-up Areas and Gardens
- Bramble Scrub
- Developed Land
- Buildings
- Line of Trees
- - - Ornamental Hedgerow
- Individual Trees



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Map	Pre Development Map (BNG)
Site	Orchard Mews
Client	Macra Ltd
Date	11/12/2025

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Legend

- Site Boundary
- Modified Grassland
- Built-up Areas and Gardens
- Introduced Shrub
- Developed Land
- Buildings
- Line of Trees
- Ornamental Hedgerow
- Individual Trees



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Map	Post Development Map (BNG)
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Site	Orchard Mews
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Client	Macra Ltd
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Date	11/12/2025
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