

Green Infrastructure Management Plan

Longmeadow Court, Newport

24th December 2025

Report Number. LB695/R01



Report No	Date	Revision	Author
LB695_R01	24.12.25	-	Andrew Laird (CMLI)

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Section 1: Introduction

Purpose

- 1.1 This Green Infrastructure Management Plan (GIMP) has been prepared by Laird Bailey Landscape Architects (LBLA) on behalf of Hale Group Ltd, for the proposed development at Longmeadow Court, Newport (hereafter referred to as the 'site'). The site is centred on OS grid reference ST 34317 87297.
- 1.2 The purpose of the GIMP is to provide details of measures to ensure the successful establishment and ongoing maintenance of the Green Infrastructure (GI) assets.
- 1.3 This GIMP should be read in conjunction with the approved application drawings and documents produced by Roundfield Limited:
 - Planting Plan (RF-076-200)
 - Planting Schedule (RF-076-500)
 - Landscape and Ecology Management Schedule (RF-076-502)
 - SUDS Maintenance Schedule (RF-076-503)

Scope of the Green Infrastructure Management Plan

- 1.4 This Landscape Management Plan is set out as follows:
 - Section 2: Sets out GI assets on site and identifies trends and constraints on the site that may influence management and monitoring and remedial responsibilities;
 - Section 3: Sets out the aims and objectives of management along with appropriate management options; and
 - Section 4: Sets out responsibilities and funding mechanisms to realise GI management.



Section 2: Green Infrastructure Assets and Future Management Pressures

- 2.1 This LMP is to be read in conjunction with details of proposed soft landscaping (see Roundfield Drawings RF-076-001 - General Arrangement Plan and RF-076-200 - Planting Plan).
- 2.2 The UK government defines GI as “a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.” This can include natural habitats ranging from grasslands, wetlands and woodlands to parks, open spaces, playing fields, street trees, rain gardens, allotments and private gardens. As such, all external soft landscape features across the site are considered GI Assets.
- 2.3 Existing GI features to be retained include two Alder (*Alnus cordata*) trees found along the southern boundary. All other external areas within the development are to be stripped and planted with new landscape features (refer to Planting Plan - RF-076-200).
- 2.4 GI features include:
- Native and ornamental trees;
 - Specimen shrubs;
 - Perennial and shrub planting beds;
 - Bio-retention areas and planters;
 - Rain Gardens;
 - Wildflower grasslands; and
 - Lawn (rear gardens).
- 2.5 Planting mixes have been developed to create a robust and resilient green infrastructure network. Over 50% of plants selected for the site are UK natives. Planting a high proportion of UK natives ensures climate resilience. Natives like *Corylus avellana*, *Prunus padus*, and *Ranunculus acris* are adapted to UK variability and resistant to common pests. Perennials like *Geranium sylvaticum* regenerate well after extreme weather events.
- 2.6 GI on site includes trees/shrubs for structure (*Alnus cordata* fixes nitrogen and stabilises wet soil), grasses/sedges for erosion control (*Molinia caerulea* and *Deschampsia cespitosa*), and flowers for pollinators (*Allium schoenoprasum* and *Digitalis purpurea*). These plants support biodiversity and water management.
- 2.7 Planting has been selected to relate to varying microclimates of the site with attention to the seasonal changes in bioretention areas and rain gardens. Many plants on site (*Lythrum*



salicaria, *Molinia caerulea* and *Luzula nivea*) prefer moist soils, ideal for South Wales' rainfall. Ferns like *Polystichum setiferum* and *Matteuccia struthiopteris* handle shade and damp areas well.

- 2.8 Plants like *Origanum vulgare* (aromatic oils deter pests) and *Echinacea purpurea* (resilient to mildew in humid areas) offer natural resistance to pests and diseases. The planting approach across the development optimises diversity and, in turn, reduces outbreak risks.

Management Trends and Constraints

- 2.9 Future management trends and constraints that may influence management include environmental and climatic conditions, invasive species risk and future failure of on-site drainage systems.
- 2.10 Landscape works have proposed a range of planting typologies and species types to manage future pressures from climate change, pests and diseases. Soil quality should be monitored and amended with additives as required, where nutrient requirements change. Future weather patterns should be monitored, and if found to have a significant adverse effect on planting, replacement planting should be introduced which thrives in the prevailing weather conditions. Management operatives should monitor GI features for pests and diseases, along with any invasive species on site, with appropriate actions taken at the earliest opportunity.
- 2.11 Sustainable urban drainage features are to be regularly maintained in line with the SUDS Maintenance Schedule (RF-076-503). Any failures of SUDS systems shall be promptly fixed to ensure functionality.
- 2.12 Management and maintenance operations will be monitored and reviewed annually on an ongoing basis and, where required, modified if the operations and frequencies set out do not deliver the required results or meet the specific aims and objectives. Management works are to be reviewed annually for five years on site, then every five years subsequently. Management/maintenance is to be reviewed following significant events such as drought, fire, gale, damage, etc. Remedial measures are to be identified with actions added to future management operations (including changes to planting specifications and replanting).

Robust financial and implementation barriers are to be installed as part of the development process. Newport City Homes Housing Association Limited are responsible for managing and implementing GI maintenance – details of which are contained in section 4.



Section 3: Aims and Management Objectives

- 3.2 This GIMP is to be read in conjunction with details of proposed soft landscaping (see Roundfield Drawing No. RF-076-200).
- 3.3 Soft landscaping within the site is designed to:
- Create an attractive and appropriate setting for the new residential units, their occupants and visitors, providing all year-round amenity, interest and colour.
 - Create a strong and healthy soft landscape framework with planting to the perimeter of the site, permeating through the development. Including trees and plants selected to maximise biodiversity and connectivity;
 - Ensure SUDS features operate efficiently and effectively;
 - Ensure planting areas are managed appropriately to promote the growth of flowers, berries and general 'form' offering the maximum benefit of amenity/habitat for birds, small mammals, and insects;
 - Provide additional habitats for bats and nesting birds; and
 - Ensure absence of invasive species.
- 3.4 The soft landscape works within the public areas will receive post-installation management and maintenance. This will be undertaken by two separate companies, initially by the landscape contractor and then by the appointed management company, both appointed directly by Newport City Homes Housing Association Limited. All defects resulting from plant loss, disease, or failure to thrive will be replaced.
- 3.5 Appropriate management operations for achieving aims and objectives are contained within management, monitoring and remedial measures schedules for all GI features within the site. Reference should be made to Roundfield documents RF-076-502 (Landscape and Ecology Management Schedule) and RF-076-503 (SUDS Maintenance Schedule) for these operations and timings.
- 3.6 Set out below are the management objectives for the landscape works.

Prescriptions for Management Actions

Watering

- 3.7 Planted trees, shrubs and ornamental plants will be watered as necessary to ensure successful establishment (in accordance with BS8545:2014). In the event of restrictions being put in place by Statutory Undertakers, consult the manager for guidance on water use.



- 3.8 The timing and frequency of irrigation should take into account the prevailing weather conditions, soil moisture release characteristics, and the response of the tree species to water deficits or periods of prolonged soil saturation.
- 3.9 Monitoring is recommended if there are 10 consecutive days during the growing season at $\geq 25^{\circ}\text{C}$. Water should only be added if soil moisture probe/tensiometer values indicate that it would be appropriate to do so. Watering shall be carried out at 3-5 day and sufficient to ensure the survival of shrubs, trees and turf.
- 3.10 The management company shall provide means of watering shrubs, trees and grass areas (seeding and turf) from an approved source for the duration of the contract, as agreed with the Employer. The management company shall be responsible for determining such dry periods (through monitoring as stated above) and for notifying the employer, and the employer shall authorise the frequency of the required watering visits by the management company. Any plant failures due to drought, following failure to provide notification of dry periods (in the sole opinion of the employer), shall be replaced at the management company's own expense.

Trees

- 3.11 Trees are to be planted at their mature spacing. Trees should be inspected regularly for their condition, and tree surgery, such as crown lifting or dead wood removal, should be carried out as required for the health and safety of site users.
- 3.12 Trees should be installed in relation to BS 8545:2014 'Trees: from nursery to independence in the landscape'. Stakes should be inserted on the side of the prevailing wind so that the tree is blown away from the stake.
- 3.13 Double stakes should be equally spaced around the tree outside the root ball and secured to the trunk with a timber crossbar and tie.
- 3.14 Tree ties shall be checked regularly for rubbing and adjust if necessary. Constriction of the stem by ties happens very quickly, so fast-growing trees need frequent checking. After bad weather, check for abrasion and snapped stakes or ties.
- 3.15 In years 2 onwards, remove staking. If the tree has failed to establish well and the stakes are no longer required.
- 3.16 The ground in 1m diameter circle around the trees will be bark mulched to conserve moisture and reduce weed growth. This mulch is to be retained until there is cover under the trees with ornamental planting, ground cover planting, amenity grassland, native hedgerow, or wildflower meadow. This mulch will be topped up annually.
- 3.17 All weeds and grasses that self-seed around the base of the tree are to be removed.
- 3.18 Where trees are to be planted adjacent to existing planting, existing vegetation must be protected.



Ornamental Shrub and Herbaceous Perennial Planting

- 3.19 All shrubs and herbaceous planting are to be planted in pits twice the size of the pot in depth and width and backfilled with a 50-50 topsoil and shrub planting mix.
- 3.20 Plant material to conform to the National Plant Specification. All plant stock to originate from within the UK. Plant handling and plant operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Plant I-III.
- 3.21 All planting areas are to be evenly mixed at a ratio of 1:1 with approved topsoil and approved tree and shrub planting compost (Topsoil to BS 3882 (2007)). All shrub planting areas shall be cultivated to the full depths of 450mm (where depths allow). Weeds, rubbish and stones over 20mm gauge shall be removed (maximum stone content 20%). Any excess excavated material is to be taken off Site and disposed of by the contractor.
- 3.22 Soil additives are to be applied to all newly planting areas and to manufacturers' recommendations where appropriate. Testing should be carried out to inform requirements. Incorporate Enmag (6:20:10) granular fertiliser approx. 100g/m² to ornamental beds if required.
- 3.23 The ground around the existing and proposed shrubs will be bark mulched to conserve moisture and reduce weed growth. Ornamental Bark to consist of predominantly matured British Pine Bark with an even nominal particle size distribution of 5-35mm with 0% dust and fines and less than 5% wood content. The product shall be pest, disease and weed free and not have been treated with Methyl Bromide or any additives. The product shall have been tested in accordance with the requirements of BS 4790:1987, for fire resistance.
- 3.24 Shrubs and herbaceous planting should be maintained to ensure a weed-free condition through combined techniques, including by hand, herbicides, cultivation and mulching. Inspections should be carried out once a month.
- 3.25 To promote bushy, healthy growth and to maintain the required shape, prune or clip shrubs when necessary.
- 3.26 Trim back growth overhanging adjacent footpaths when required.

Wildflower Meadow Mix

- 3.27 Wildflower meadows are to be established in areas as shown on the Planting Plan and managed as follows:

First Year Management

- 3.28 Most of the sown meadow species are perennial and are slow to establish. Soon after sowing there will be a flush of annual weeds, arising from the soil seed bank. These weeds can look unsightly, but they will offer shelter to the sown seedlings, are great for bugs, and they will die before the year is out. Resist cutting the annual weeds until mid to late summer. Then cut,



remove and compost. Early August is a good time. This will reveal the young meadow, which can then be kept short by grazing or mowing through to the end of March of the following year. Dig out any residual perennial weeds such as docks.

Management Once Established

- 3.29 Meadow grassland is not cut or grazed from spring through to late July/August to give the sown species an opportunity to flower. After flowering in July or August take a 'hay cut': cut back with a scythe, petrol trimmer or tractor mower to c 50mm. Leave the 'hay' to dry and shed seed for 1-7 days then remove from site. Mow or graze the re-growth through to late autumn/winter to c 50mm and again in spring if needed.
- 3.30 Do not cut from spring through to late July/August to give the sown species an opportunity to flower.

Amenity Turf

- 3.31 Amenity turf areas will be provided to rear gardens and maintained until houses are occupied.
- 3.32 To give the grasses the best chance of thriving, the following steps should be taken:
- Do not mow the grass too short, especially during periods of prolonged dry or cold weather; and;
 - Do not clear fallen leaves in the autumn.
- 3.33 In periods of drought, some dieback of grass is likely. Watering is a solution to this but is often unsustainable. In some years it may be necessary to re-seed badly affected areas at the end of the season.
- 3.34 Moss should be accepted for shaded areas, but kept in check by raking, which is best done in spring when the grass is growing well so that the grass can quickly recover and grow into the gaps created by moss removal.
- 3.35 Most grass will be mown as required throughout the year, although the main mowing period is between March and October, during this period mowing should ideally be undertaken fortnightly.
- 3.36 All mowing should be undertaken in such a way as to cause as little disturbance to the public as possible and will be completed between 7.30am and 7.30pm, Monday to Saturday. After mowing, all grass shall be left in a clean, tidy, litter-free condition with adjacent pathways cleared if required. Dig out any residual perennial weeds such as docks.



SUDS Systems

- 3.37 Rain gardens, Bio-retention areas, and Bioretention planters should be maintained to ensure their amenity, functionality and efficiency. SUDS features should be monitored, kept clean, with planting monitored and replaced as required, should failure occur.
- 3.38 Regular maintenance should be undertaken to remove any litter and debris, with occasional maintenance to change filter media, remove sediment, oil, grease and floatables. Any defects or poor functionality of SUDS features should be addressed at the earliest convenience.
- 3.39 Planting and watering should be maintained in line with all other trees, shrubs and herbaceous areas.
- 3.40 Monitoring of SUDS features is critical to ensure they are functioning correctly and maintenance operations are fit for purpose. During the first 30 days after installation, sub-surface pre-treatment units should be visually inspected after every rainfall event. After this initial period, systems should be inspected at least every six months to verify the appropriate level of maintenance.



Section 4: Delivery of GI Management

Land Ownership and Funding Framework

- 4.1 The development is within the control of Hale Group Ltd, who are submitting the Planning Application. Newport City Homes Housing Association Limited will be responsible for implementing the landscape work and appointing a contractor to undertake works in relation to the application site.

Newport City Homes Housing Association Limited

Nexus House
Mission Court
Newport
NP20 2DW

- 4.2 The implementation of work required to create and manage the external works would be secured through a legal agreement (Section 106) linked to the planning application for the development site. The release mechanism, together with the finance required to manage the site, in perpetuity, would be established through the Section 106 and is required to be secured at the point at which the construction of the site has been completed.
- 4.3 The ongoing maintenance of the landscape within the site will be provided through a service charge levied on all the properties within the development site. This service charge will cover the costs of the landscape and infrastructure management/maintenance for the lifetime of the development.

Implementation

- 4.4 The responsibility for implementing the external works is held by Newport City Homes Housing Association Limited. Ongoing management and maintenance will be in the care of Newport City Homes Housing Association Limited, and the management company, which will be appointed by Newport City Homes Housing Association Limited.
- 4.5 The first 12 months' management is to be included within the landscape contract and be undertaken by the landscape contractor (appointed by Newport City Homes Housing Association Limited) to their own specification, with the sole purpose of ensuring that the soft landscape works are installed in accordance with the Green Infrastructure Management Plan and associated management schedules produced by Roundfields. The contractor will be responsible for replacing all defects within the first year on a like-for-like basis.
- 4.6 The appointed Contractor must provide details of all necessary insurances and certification to carry out the works specified in this management plan. It is the responsibility of the appointing authority to ensure that all submitted insurances and certificates are up to date and provide the appropriate level of cover for the specified works. Defects in the landscape are to be identified early and addressed promptly.



Appendices:

Appendix 1: Planting Plan (RF-076-200)

Appendix 2: Planting Schedule (RF-076-500)

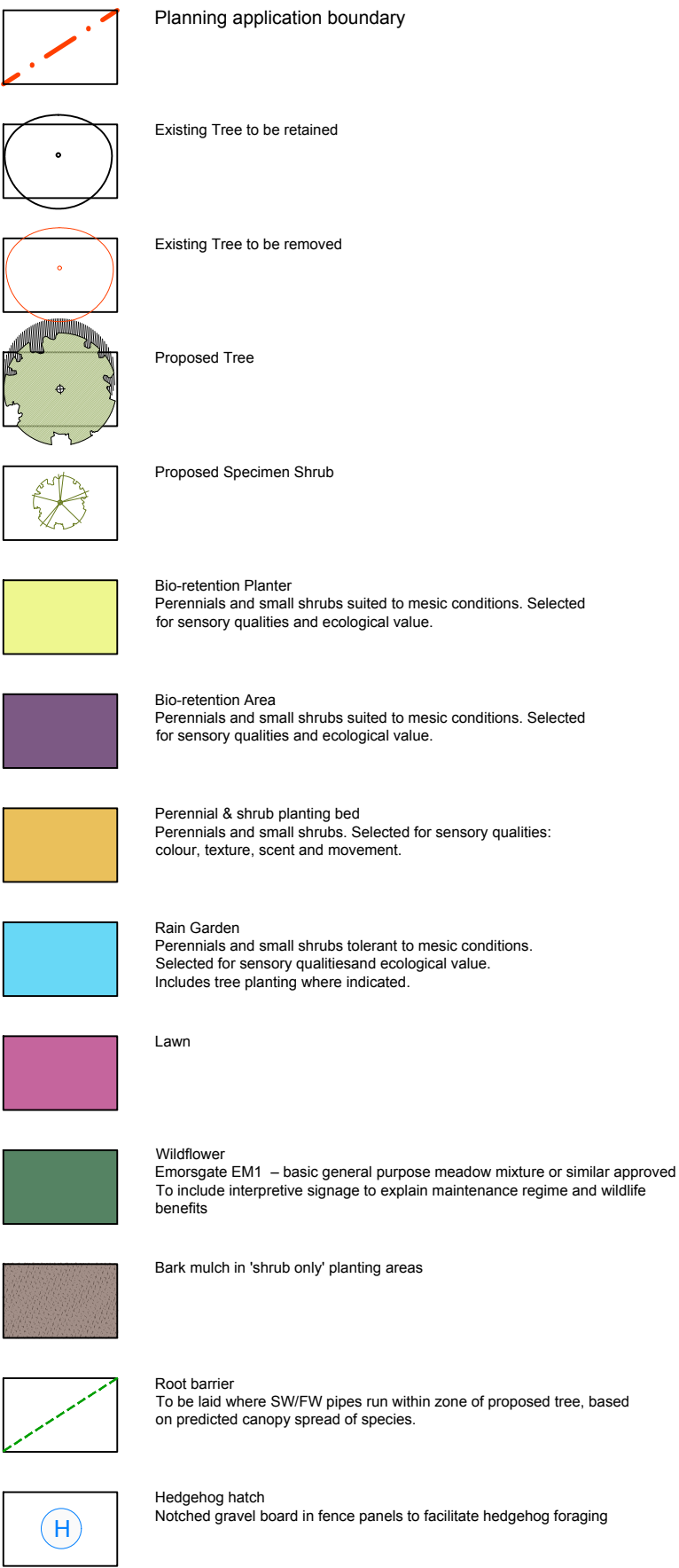
Appendix 3: Landscape and Ecology Management Schedule (RF-076-502)

Appendix 4: SUDS Maintenance Schedule (RF-076-503)



Appendix 1: Planting Plan (RF-076-200)





Existing trees to be retained:
T1 Alnus cordata
T2 Alnus cordata

All dimensions and sizes to be verified by the Contractor on site. Any discrepancies to be verified with the Landscape Architect before work proceeds. No dimensions to be scaled from this drawing. Contractors must work to figured dimensions. © This drawing is subject to copyright of Roundfield, in accordance with our standard terms and conditions. Where an Ordnance Survey Drawing is shown on this drawing, it is re-produced under Crown copyright ©. All rights reserved.

Revision History				
Rev	Date	By	Detail	
-	11.06.19	TB	Issued for planning	
A	18.09.19	TB	Ecological enhancements. Proposed Prunus serrula tree group amended to single tree to improve pedestrian splays	
B	29.04.20	TB	Amendments to SuDS and ecology proposals	
C	12.10.21	TB	Revised layout to accommodate DC/WW easement	
D	10.10.23	TB	Issued for SAB application	
E	29.02.24	TB	Revised for planning	

NOTES:

A. For General Arrangement Plan refer to RF-076-001

B. For Arboricultural info. refer to 'Tree Constraints Plan' and 'Tree survey' by Treescene

C. For bird and bat box locations refer to Landscape Design & Access Statement

D. For planting schedule refer to RF-076-501

E. Where pedestrian splays are required planting will be restricted to low level perennials and shrubs.

Project/Location
Longmeadow Court

Drawing title
Planting Plan

Drawing status
FOR PLANNING

Scale(s)	Date	Drawn	Checked
1:250 @A1	11.06.19	JL	TB

ROUNDFIELD

The Old Church School
Butts Hill
Frome
Somerset BA11 1HR

Client
Newport City Homes

Drawing number
RF-076-200

Revision
E

Appendix 2: Planting Schedule (RF-076-500)



Longmeadow Court

RF-076-501-A Planting Schedule

To be read in conjunction with the current revisions of Planting Plans RF-076-200
FOR PLANNING
29.02.24

ROUNDFIELD

RF-076-500-Planting Schedule (To be read in conjunction with the current revisions of Planting Plan RF-076-200)

ROUNDFIELD

Climbers, specimen shrubs and Trees										
Species	Pot Size (L)	Height (cm)	Habit	Minimum No Of Breaks In Lower Third	Note ref.	Additional Notes		Qty.	Rate	Cost (£)
SPECIMEN SHRUBS										
Amelanchier alnifolia 'Obelisk'		80-100	Bushy	5	0			8	tbc	
Aronia arbutifolia 'Erecta'		80-100	Bushy	5	0			5	tbc	
Euonymous japonicus 'Jean Hughs'		50-80	Bushy	5	0			21	tbc	
Rosa rugosa		50-80	Bushy	5	0			8	tbc	
Sarcococca confusa		80-100	Bushy	12	0			9	tbc	
Cornus alba 'Sibirica'		80-100	Bushy	3	0			40	tbc	
Cornus sanguinea 'Midwinter Fire'		100-150	Multistem shrub	3	0			27	tbc	
Rosmarinus officinalis		50-80	Bushy	5	0			4	tbc	
Viburnum opulus		50-80	Bushy	5	0			4	tbc	
Trees										
Species	Code	Height (m) Girth (cm)	Habit	English Description	Note ref.	Additional Notes		Qty.	Rate	Cost (£)
Amelanchier × grandiflora 'Robin Hill'		18-20cm girth	Clear stem	Extra Heavy	0		Single staked	3	tbc	
Alnus cordata		18-20cm girth	Clear stem	Extra Heavy	0		Double staked	4	tbc	
Corlus avellana		2.5m high	Multistem	NA	0		Double staked	1	tbc	
Malus 'Evereste'		18-20cm girth	Clear stem	Extra Heavy	0		Double staked	1	tbc	
Prunus padus		18-20cm girth	Clear stem	Extra Heavy	0		Double staked	1	tbc	

0 - Location as shown on planting plan
ALL STOCK TO BE APPROVED IN THE NURSERY BY LANDSCAPE ARCHITECT

Revision	By	Date
Issued for SAB	TB	10.10.23
A -Revised for planning	TB	29.02.24

RF-076-500-Planting Schedule (To be read in conjunction with the current revisions of Planting Plan RF-076-200)

ROUNDFIELD

Turf / Wildflower					
Specification	Area m2	Additional Notes	Qty.	Rate	Cost (£)
Emorsgate EM1	628m2	Emorsgate EM1 – basic general purpose meadow mixture. Refer to planting plan	628		

0 - Location as shown on planting plan

ALL STOCK TO BE APPROVED IN THE NURSERY BY LANDSCAPE ARCHITECT

Revision	By	Date
Issued for SAB	TB	10.10.23
A -Revised for planning	TB	29.02.24

Herbaceous, perennials, grasses, sub shrubs & bulbs. Note: plants to be set out on site by landscape architect.																																								
Species	Pot Size	Area A						Area B								Area C								Area D						Qty.	Rate (£)	Cost (£)								
		Notes	% of Total	x/m²	Qty.						Notes	% of Total	x/m²	Qty.						Notes	% of Total	x/m²	Qty.																	
					A1 Area	A1	A2 Area	A2	A3 Area	A3				B1 Area	B1	B2 Area	B2	B3 Area	B3				C1 Area	C1	C2 Area	C2	C3 Area	C3	D1 Area				D1	D2 Area	D2	D3 Area	D3			
STRUCTURAL/Framework PLANTS					22.5		27.5		25.0					100.45		98.59		95.65				239.25		5.95		245.87				57.54		32.78		104.27						
Santolina chamaecyparissus	3	b,8	10	5	2.25	11	2.75	14	2.50	13				0.00	0	0.00	0	0.00	0	b,8	3	5	7.18	36	0.18	1	7.38	37			0.00	0	0.00	0	0.00	0	111	tbc		
Panicum Northwind	2				0.00	0	0.00	0	0.00	0	a,5,9	5	5	5.02	25	4.93	25	4.78	24	a,5,9	3	5	7.18	36	0.18	1	7.38	37	a,5,9	5	5	2.88	14	1.64	8	5.21	26	196	tbc	
Polystichum setiferum	3	a,6	15	5	3.38	17	4.13	21	3.75	19	a,6	10	5	10.05	50	9.86	49	9.57	48	a,6	5	5	11.96	60	0.30	1	12.29	61	a,6	6	5	3.45	17	1.97	10	6.26	31	385	tbc	
SEASONAL/Theme PLANTS			25								15									11								11												
Allium schoenoprasum	Bulb				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	c,7	1	50	2.39	120	0.06	3	2.46	123			0.00	0	0.00	0	0.00	0	246	tbc		
Amsonia 'Blue Ice'	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b,4,7	4	5	9.57	48	0.24	1	9.83	49			0.00	0	0.00	0	0.00	0	98	tbc		
Dianthus carthusianorum	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b,4,7	4	5	9.57	48	0.24	1	9.83	49			0.00	0	0.00	0	0.00	0	98	tbc		
Echinacea purpurea 'Magnus'	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b,7	3	5	7.18	36	0.18	1	7.38	37	b,7	7	5	4.03	20	2.29	11	7.30	36	142	tbc	
Geranium sylvaticum	2	b,6	5	10	1.13	11	1.38	14	1.25	13				0.00	0	0.00	0	0.00	0	b,6	3	6	7.18	43	0.18	1	7.38	44			0.00	0	0.00	0	0.00	0	126	tbc		
Heleborus orientalis 'White Lady'	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b,6	5	8	11.96	96	0.30	2	12.29	98			0.00	0	0.00	0	0.00	0	196	tbc		
Lythrum salicaria	2				0.00	0	0.00	0	0.00	0	b,2	2	5	2.01	10	1.97	10	1.91	10				0.00	0	0.00	0	0.00	0	b,2	5	5	2.88	14	1.64	8	5.21	26	78	tbc	
Matteuccia struthiopteris	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	a,6	4	5	2.30	12	1.31	7	4.17	21	39	tbc	
Molinia caerulea	2				0.00	0	0.00	0	0.00	0	a	5	3	5.02	15	4.93	15	4.78	14	a	5	3	11.96	36	0.30	1	12.29	37	a	5	3	2.88	9	1.64	5	5.21	16	147	tbc	
Narcissus Mount Hood	Bulb	c,7	5	100	1.13	113	1.38	138	1.25	125	c,7	0.5	100	0.50	50	0.49	49	0.48	48	c,7	1	100	1.20	120	0.03	3	1.23	123			0.00	0	0.00	0	0.00	0	768	tbc		
Narcissus Tete-a-tete	Bulb	c,7	5	100	1.13	113	1.38	138	1.25	125	c,7	0.5	100	0.50	50	0.49	49	0.48	48				0.00	0	0.00	0	0.00	0			0.00	0	0.00	0	0.00	0	522	tbc		
Salvia nemorosa 'Caradonna'	2	b,7	8	10	1.80	18	2.20	22	2.00	20	b,7	7	5	7.03	35	6.90	35	6.70	33	b,7	8	5	19.14	96	0.48	2	19.67	98			0.00	0	0.00	0	0.00	0	360	tbc		
Sanguisorba officinalis 'Red Thunder'	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	a,5,7	2	3	1.15	3	0.66	2	2.09	6	12	tbc	
Geranium Rozanne	2				0.00	0	0.00	0	0.00	0	b,2,6	5	5	5.02	25	4.93	25	4.78	24				0.00	0	0.00	0	0.00	0	b,2,6	5	5	2.88	14	1.64	8	5.21	26	122	tbc	
Tiarella cordifolia	2				0.00	0	0.00	0	0.00	0	b,2,6	7	6	7.03	42	6.90	41	6.70	40				0.00	0	0.00	0	0.00	0	b,2,6	5	6	2.88	17	1.64	10	5.21	31	182	tbc	
GROUND COVER PLANTS			23								27									34								33												
Ajuga reptans 'Catlin's Giant'	2	b,6	5	10	1.13	11	1.38	14	1.25	13	b,6	10	7	10.05	70	9.86	69	9.57	67	b,6	5	5	11.96	60	0.30	1	12.29	61	b,6	4	10	2.30	23	1.31	13	4.17	42	444	tbc	
Carex divulsa	2				0.00	0	0.00	0	0.00	0	b,6	4	5	4.02	20	3.94	20	3.83	19	b,6	5	6	11.96	72	0.30	2	12.29	74	b,6	4	5	2.30	12	1.31	7	4.17	21	245	tbc	
Carex 'Ice dance'	2	b,4	2	6	0.45	3	0.55	3	0.50	3	b,4	10	6	10.05	60	9.86	59	9.57	57	b,4	14	6	33.50	201	0.83	5	34.42	207	b,4	10	6	5.75	35	3.28	20	10.43	63	715	tbc	
Deschampsia cespitosa	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b	5	5	11.96	60	0.30	1	12.29	61	b	5	5	2.88	14	1.64	8	5.21	26	171	tbc	
Galium oderatum	2	b,6	5	10	1.13	11	1.38	14	1.25	13	b,6	4	5	4.02	20	3.94	20	3.83	19	b,6	5	5	11.96	60	0.30	1	12.29	61	b,6	4	5	2.30	12	1.31	7	4.17	21	258	tbc	
Luzula nivea	2				0.00	0	0.00	0	0.00	0	a,2	2	6	2.01	12	1.97	12	1.91	11				0.00	0	0.00	0	0.00	0	a,2	5	6	2.88	17	1.64	10	5.21	31	94	tbc	
Origanum vulgare	2	a,1,7	5	10	1.13	11	1.38	14	1.25	13	a,1,7	6	6	6.03	36	5.92	35	5.74	34	a,1,7	5	6	11.96	72	0.30	2	12.29	74	a,1,7	2	6	1.15	7	0.66	4	2.09	13	314	tbc	
Persicaria affinis 'Darjeeling Red'	2	b,6	10	14	2.25	32	2.75	39	2.50	35	b,6	6	10	6.03	60	5.92	59	5.74	57	b,6	3	10	7.18	72	0.18	2	7.38	74	b,6	6	10	3.45	35	1.97	20	6.26	63	546	tbc	
Sesleria autumnalis	2	a,7	25	8	5.63	45	6.88	55	6.25	50	a,7	8	5	8.04	40	7.89	39	7.65	38	a,7	5	5	11.96	60	0.30	1	12.29	61	a,7	8	5	4.60	23	2.62	13	8.34	42	468	tbc	
FILLER PLANTS			52								50									47								48												
Aquilegia vul. 'Munstead White'	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	b,7	2	7	4.79	33	0.12	1	4.92	34			0.00	0	0.00	0	0.00	0	69	tbc		
Foeniculum vulgare	2				0.00	0	0.00	0	0.00	0				0.00	0	0.00	0	0.00	0	a,7	2	5	4.79	24	0.12	1	4.92	25			0.00	0	0.00	0	0.00	0	49	tbc		
Verbena bonariensis	2				0.00	0	0.00	0	0.00	0	a,8	3	5	3.01	15	2.96	15	2.87	14	a,8	3	5	7.18	36	0.18	1	7.38	37	a,8	3	5	1.73	9	0.98	5	3.13	16	147	tbc	
Digitalis purpurea 'Alba'	2				0.00	0	0.00	0	0.00	0	a,6	5	5	5.02	25	4.93	25	4.78	24	a,6	1	5	2.39	12	0.06	0	2.46	12	a,6	5	5	2.88	14	1.64	8	5.21	26	147	tbc	
			0								8									8								8												
			100								100									100								100												

Appendix 3: Landscape and Ecology Management Schedule (RF-076-502)



Management Zone/Type	Operation	Approval Required	Annual Frequency	Timing												Years									
				J	F	M	A	M	J	J	A	S	O	N	D	1	2	3	4	5	6	7	8	9	10
1.0 EXISTING TREES																									
1.1 Existing Trees Tree T1 & T2: Alnus cordata	Conditions Inspections		Alternate years																						
	Dead wood removal * ●		Alternate years																						
	Surgery	NCH/LPA/NE*	As required																						
● Dead wood/standing deadwood to be retained on																									
2.0 NEW ECOLOGICAL AREAS																									
2.1 Wildflower meadow Ajacent to public footpathon southern site boundary	Mowing <100mm		As required																						
	Verge areas <75mm																								
	Mowing -annual cut		x1																						
	Weed control - non-chemical		As required																						
	Reinstatement		As required																						
	Remove litter		As required																						
2.3 Hibernacula & deadwood piles	Checked for hibemacula for use	Residents																							
	Remove litter		As required																						
2.4 Bat and bird box inspections	Checked for use	Residents	-																						
3.0 AMENITY LANDSCAPE AREAS																									
3.1 Newly planted trees For additional management notes refer to RF-076-200 Planting Plan	Check and adjust ties/guards		x2																						
	Weed control - 1m diameter		Continous																						
	Remove guards (plastic)		-																						
	Remove guards (steel)		-																						
	Top up gravel mulch		x1																						
	Pruning formative		x1																						
	Replacements	LA	As required																						
	Thinning	LPA	Rotational																						
			10% / year																						
3.2 Ornamental Shrub and herbaceous perennial Planting	Weed control		Continous																						
	Top up mulch		x1																						
	Fertilizer		x1																						
	Pruning & trimming		x2 *																						
	Thinning	LPA	x1																						
	Replacement planting	LA	x1																						
4.0 Monitoring & Review *Management works to be reviewed annually on site with LPA, then every 5 years subsequently. Management/maintenance to be reviewed following significant events such as drought, fire, gale, damage etc.	Annual inspection	LPA	x1 - years 1 - 5																						
			5 years																						

Approvals

NCH - Newport City Homes
LA - Landscape Architect
LPA - Local Planning Authority

Others

NE - Natural England may need to approve any operation which would affect protected species (Bats, Badgers, Dormouse).

REVIEW DATES			
Year 1		Year 2	
Year 3		Year 4	
Year 5		Year 10	

Appendix 4: SUDS Maintenance Schedule (RF-076-503)



LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Pre-treatment systems

No.	Required Action	Frequency	Rate	Total
1	Regular maintenance			
1.1	Removal of litter and debris	Six monthly.		
2	Occasional maintenance			
2.1	Change of filter media	As required.		
2.2	Removal of sediment, oil, grease and floatables	As required.		
3	Remedial action			
3.1	Replacement of malfunctioning parts	As required.		
4	Monitoring			
4.1	Inspect for evidence of poor operation	Six monthly.		
4.2	Inspect filter media and establish appropriate replacement frequencies	Six monthly.		
4.3	Inspect sediment accumulation rates and establish appropriate removal frequencies	Monthly during first half year of operation, then every six months		
			Total	
5	Notes			
5.1	Proposed pre-treatment devices include silt traps and diffuser boxes.	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Pre-treatment systems

No.	Required Action	Frequency	Rate	Total
5.2	This table gives some generic guidance. Where proprietary systems are installed, maintenance requirements should be obtained from the manufacturer and followed at all times. A routine inspection programme should be established for each unit. This should be based on the volume or load of the contaminants of concern, the frequency of releases of contaminants, and the nature of the area being drained. During the first 30 days after installation, sub-surface pre-treatment units should be visually inspected after every rainfall event and the amount of deposition measured to give the operator an idea of the expected rate of sediment deposition. After this initial period, systems should be inspected at least every six months to verify the appropriate level of maintenance. During these inspections, the floating debris and solids should be removed and the sump cleaned out using a conventional sump vacuum cleaner. In most situations, the units should be cleaned out at least annually. Litter picking at site should be frequent, as rubbish is detrimental to the operation of the facility and the appearance of the site. Frequent street sweeping in the catchment area of a filtration system increases the time interval in which the sedimentation facility has to be cleaned out and reduces the amount of fine suspended solids that can potentially clog the filter media.	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Water butts

No.	Required Action	Frequency	Rate	Total
1	Regular maintenance			
1.1	Cleaning of tank, inlets, outlets, gutters, withdrawal devices and roof drain filters of silts and other debris.	Annually (or following poor performance).		
2	Occasional maintenance			
2.1	Replacement of any filters.	As required		
3	Remedial action			
3.1	Repair of erosion damage, or damage to tank.	As required		
4	Monitoring			
4.1	Inspection of the tank for debris and sediment build up.	Annually (or following poor performance).		
4.2	Inspection of inlets, outlets and withdrawal devices.	Annually (or following poor performance).		
4.3	Inspection of areas receiving overflow, for evidence of erosion.	After extreme storms.		
4.4	Inspection of roof drain filters.	Annually (or following poor performance).		
			Total	
5	Notes			
5.1	n/a	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Pervious pavements

No.	Required Action	Frequency	Rate	Total
1	Regular maintenance			
1.1	Brushing and vacuuming.	Three times/year at end of winter, mid-summer, after autumn leaf fall, or as required based on site-specific observations of clogging or manufacturers' recommendations.		
2	Occasional maintenance			
2.1	Stabilise and mow contributing and adjacent areas.	As required.		
2.2	Weeding.	As required.		
3	Remedial action			
3.1	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving.	As required.		
3.2	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users.	As required.		
3.3	Rehabilitation of surface and upper sub-structure.	As required (if infiltration performance is reduced as a result of significant clogging).		
4	Monitoring			
4.1	Initial inspection.	Monthly for three months after installation		
4.2	Inspect for evidence of poor operation and/or weed growth. If required take remedial action.	3-monthly, 48 h after large storms.		

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Pervious pavements

No.	Required Action	Frequency	Rate	Total
4.3	Inspect silt accumulation rates and establish appropriate brushing frequencies.	Annually.		
4.4	Monitor inspection chambers.	Annually.		
			Total	
5	Notes			
5.1	Pervious surfaces need to be regularly cleaned of silt and other sediments to preserve their infiltration capability. Experience in the UK is limited, but advice issued with permeable precast concrete paving has suggested a minimum of three surface sweepings per year. Manufacturers' recommendations should always be followed. A brush and suction cleaner, which can be a lorry-mounted device or a smaller precinct sweeper, should be used and the sweeping regime should be as follows: 1 End of winter (April) – to collect winter debris. 2 Mid-summer (July/August) – to collect dust, flower and grass-type deposits. 3 After autumn leaf fall (November). Care should be taken in adjusting vacuuming equipment to avoid removal of jointing material. Any lost material should be replaced. Note experience suggests that the above maintenance regime is rarely carried out on many sites	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Pervious pavements

No.	Required Action	Frequency	Rate	Total
5.2	The likely design life (or period before pavement rehabilitation is required) has yet to be established for the UK. However, it should be no different from standard paving assuming that an effective maintenance regime is in place to minimise risks of infiltration clogging. If reconstruction is necessary, the following procedure should be followed: 1 Lift surface layer and laying course. 2 Remove any geotextile filter layer. 3 Inspect sub-base and remove, wash and replace if required. 4 Renew any geotextile layer. 5 Renew laying course, jointing material and concrete block paving. The reconstruction of failed areas of concrete block pavement should be less costly and disruptive than the rehabilitation of continuous concrete or asphalt porous surfaces due to the reduced area that is likely to be affected. Materials removed from the voids or the layers below the surface may contain heavy metals and hydrocarbons and may need to be disposed of as controlled waste. Sediment testing should be carried out before disposal to confirm its classification and appropriate disposal methods.	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Bioretention areas / Rain gardens

No.	Required Action	Frequency	Rate	Total
1	Regular maintenance			
1.1	Litter and debris removal.	Monthly (or more frequently for aesthetic reasons).		
1.2	Mulching – remove and replace.	Annually.		
1.3	Pruning and trimming of trees/shrubs – recycle back into mulch.	2 years.		
1.4	Spiking, scarifying and thatch removal.	N/A - no turf proposed		
2	Occasional maintenance			
2.1	Watering of plants.	As required.		
2.2	Weeding.	As required (probably annually).		
3	Remedial action			
3.1	Removal of damaged or silt covered vegetation to a depth 50 mm below original design level.	As required.		
3.2	Treatment of diseased trees.	As required.		
3.3	Treatment and restoration of eroded areas.	As required.		
3.4	Re-turfing.	N/A - no turf proposed		
3.5	Reinstatement of design levels, restoration or improvement of infiltration and silt removal.	As required.		
4	Monitoring			
4.1	Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly/after large storms.		
4.2	Inspect infiltration surfaces for ponding. Record dewatering time of the facility to determine if maintenance is necessary.	Monthly, or when required.		
4.3	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies.	Half yearly.		
4.4	Test planting soil for pH – if adjustment is necessary, amalgamate with appropriate substances.	Annually.		
			Total	

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Bioretention areas / Rain gardens

No.	Required Action	Frequency	Rate	Total
5	Notes			
5.1	Adequate access must be provided for all bioretention areas for inspection and maintenance, including the appropriate equipment and vehicles.	n/a	n/a	n/a
5.2	When found necessary, infiltration in the facility should be restored or improved by removing silt or damaged vegetation and reinstating design levels. Damaged or siltcovered vegetation should be removed to a depth 50 mm below original design level and cultivated to a fine tilth. Infiltration rates can also be affected by the build-up of "thatch". Details on techniques for infiltration surface rehabilitation and thatch management are provided in Chapter 22 of the SUDS maual (C697). Any re-turfing that is required should be done using turf of a quality and appearance to match the existing sward.	n/a	n/a	n/a
5.2	Sediments excavated from pre-treatment devices that receive runoff from residential or standard road and roof areas are generally not toxic or hazardous material and can be safely disposed of by either land application or landfilling. However, consultation should take place with the environmental regulator to confirm appropriate protocols. Sediment testing may be required before sediment excavation to determine its classification and appropriate disposal methods. For industrial site runoff, sediment testing will be essential. In the majority of cases, it will be acceptable to distribute the sediment on-site if there is an appropriate safe and acceptable location to do so.	n/a	n/a	n/a

LONGMEADOW COURT

RF-076-503 SUDS Maintenance Schedule 10.10.23

Geocellular storage

No.	Required Action	Frequency	Rate	Total
1	Regular maintenance			
1.1	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.		
1.2	Debris removal from catchment surface (where may cause risks to performance)	Monthly		
1.3	Where rainfall infiltrates into blocks from above, check surface of filter for blockage by silt, algae or other matter. Remove and replace surface infiltration medium as necessary.	Monthly (and after large storms).		
1.4	Remove sediment from pre-treatment structures.	Annually, or as required.		
2	Occasional maintenance			
2.1	Repair/rehabilitation of inlets, outlet , overflows and vents	As required.		
3	Remedial action			
3.1	Replacement of malfunctioning parts	As required.		
4	Monitoring			
4.1	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually and after large storms.		
			Total	
5	Notes			
5.1	Regular inspection and maintenance is required to ensure the effective long-term operation of below ground modular storage systems.	n/a	n/a	n/a
5.2	Maintenance is largely concerned with stopping debris entering the system, as once it builds up inside there is no easy way to remove it without costly interventions	n/a	n/a	n/a