



Gladman Developments Limited

**Bangor Road, Johnstown - Wrexham**

## LANDSCAPE MANAGEMENT PLAN

November 2023

**FPCR Environment and Design Ltd**

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] [mail@fpcr.co.uk](mailto:mail@fpcr.co.uk) [W] [www.fpcr.co.uk](http://www.fpcr.co.uk)

This report is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without the written consent of FPCR Environment and Design Ltd. Ordnance Survey material is used with permission of The Controller of HMSO, Crown copyright 100018896.

| Rev | Issue Status | Prepared / Date | Approved/Date   |
|-----|--------------|-----------------|-----------------|
| -   | First Issue  | RJC / 2.11.2023 | EAF / 2.11.2023 |
| A   | Second Issue | RJC / 7.11.2023 | EAF / 7.11.2023 |
|     |              |                 |                 |

CONTENTS

1.0 INTRODUCTION ..... 2

2.0 LANDSCAPE DESIGN OBJECTIVES..... 2

3.0 LANDSCAPE MANAGEMENT PROPOSALS..... 4

4.0 FIVE YEAR MAINTENANCE SCHEDULE ..... 20

5.0 SUMMARY ..... 24

Appendices

|            |                                                                                        |
|------------|----------------------------------------------------------------------------------------|
| Appendix A | Detailed Landscape and POS Proposals (Drawing Ref. 4355-FPCR-XX-XX-DR-L-0001-0004 P02) |
| Appendix B | Play Area Proposals (Drawing Ref 4355-FPCR-XX-XX-DR-L-0005 P02)                        |

## 1.0 INTRODUCTION

- 1.1 The following Landscape and Ecological Management Plan has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Limited. It sets out the proposed long-term landscape management approaches for the communal / public landscape areas associated with the residential development at Bangor Road, Johnstown, Wrexham,
- 1.2 The Management Plan has been prepared as a guide for the Management Company (or adopting local authority as appropriate) who is responsible for the long-term maintenance of the landscape areas. It sets out the management prescriptions to be adopted.
- 1.3 The Management Plan has been prepared in order to discharge condition 7 for planning application reference APP/H6955/A/15/3135730 (P/2013/0545) (Decision Notice 14.07.2021). The condition is worded as follows;  
“7:  
*As part of the Reserved Matters, a landscape management plan, to include the timing of the implementation of the plan, long term design objectives, management responsibilities, maintenance schedules and procedures for the replacement of failed planting for all landscape areas, other than for privately owned, domestic gardens, shall be submitted to and approved in writing by the Local Planning Authority. The landscape management plan shall be carried out in accordance with the approved details.”*
- 1.4 For this site it is not currently known who will adopt the SuDS. It has been assumed that it will be Wrexham County Borough Council. If the Council will not adopt the SuDS it has been proposed that a management company will adopt the infrastructure.
- 1.5 The detail of the landscaping for the communal / public areas of the site are provided at **Appendix A** (Detailed Landscape and POS Proposals - Drawing Ref. 4355-FPCR-XX-XX-DR-L-0001-0004 P02) and **Appendix B** (Play Area Proposals - Drawing Ref. 4355-FPCR-XX-XX-DR-L-0005 P02). The landscape areas outside of the areas defined on this plan will be conveyed to house owners as part of their gardens.
- 1.6 This Management Plan sets out the long-term design objectives and management tasks over a 10-year period and includes an initial 5-year maintenance schedule. All landscape areas and management regimes will be monitored by Gladman Developments Ltd to allow for an appropriate refinement or revision of the Plan, so long as the modifications are in accordance with the Key Objective and Overall Design Aims set out in Section 2.0.

## 2.0 LANDSCAPE DESIGN OBJECTIVES

### Key Objective

- 2.1 The key management objective is to maintain a quality, neat, tidy, safe, useable and attractive landscape setting to the development that incorporates sustainable drainage and enhanced opportunities for biodiversity through appropriate management of habitats on the site.
- 2.2 In order to achieve this, it will be important to monitor the efficacy of the Management Plan.

## Overall Design Aims

2.3 The overall landscape and ecological design aims are as follows:

- Conserve and enhance the **Retained Habitats** through appropriate low-intervention management and establish **New Habitats** of value to a range of faunal species / groups, maintaining and enhancing populations of protected / notable species identified within the Site.
- To establish visual and physical **Landscape Buffers** between the proposed new development and an area of aquatic and terrestrial habitat optimal for great crested newts *Triturus cristatus* (GCN).
- The proposed great crested newt receptor site will be placed in the south-western area of the site to support increased connectivity between the habitat in the site and the adjacent Johnstown Newt Site of Special Area of Conservation (SAC). The SAC lies immediately adjacent to the site and is designated due to its population of great crested newts.
- To provide publicly accessible and quality areas of **Informal Recreation** between the proposed housing and Bangor Road
- To provide safe, quality, and functional **Play** facilities; and
- **Sustainable Urban Drainage** to be an integral part of the open space.

## Guiding Management Principles

2.4 The guiding principles for each of the above five identified aims are set out below:

### Retained and New Habitats

- 2.5 Areas of grassland in the south of the site will be retained and subject to a long-term management regime to increase plant species diversity and benefit faunal species / groups such as Badgers, common reptiles, and invertebrates. In particular, the south-western area of the site has been devised as optimal habitat for great crested newts *Triturus cristatus* (GCN).
- 2.6 A watercourse, Aberderfyn Brook, flows across the site and is to be diverted through the wetland. This is to be buffered from the development footprint by a managed area of ecologically enhanced open space, including tussocky and herb rich grassland, new wetland features, tree and scrub planting.
- 2.7 This LMP is intended to be read in conjunction with the Ecology Management Plan prepared to discharge planning condition 20.

### Landscape Buffer

- 2.8 The development will be set back from Bangor Road beyond a green corridor, consisting of two distinct areas of open space, separated by an access road off Bangor Road.
- 2.9 The south-eastern area is an area of public open space and will include a SuDS feature with wetland grassland, with a mix of additional grasslands used across the area beyond the SuDS (flowering meadow and amenity grasslands). The area will include a play area. New standard tree planting and small tree groups are proposed, along with native hedgerow and native shrub planting.

- 2.10 The south-western area will be fenced off from public use to provide a reserve for the great crested newts, with a large number of small to medium sized ponds as suitable breeding habitat, together with extensive areas of tussocky and herb rich grassland, and wetland native scrub planting.

#### **Informal Recreation**

- 2.11 The south-eastern area of the site will be publicly accessible. A combination of mown grass paths and surfaced paths are proposed within this area. This southwestern area is not intended for general use and so does not have a footpath.

#### **Play**

- 2.12 An unfenced play area is located approximately 50 metres from the housing edge within the south-eastern area of the Public Open Space. Views are to be maintained between the properties and the play area to ensure natural surveillance is retained.
- 2.13 Play Area details are included at Appendix B.

#### **Sustainable Urban Drainage**

- 2.14 Further detail is provided within the Lees Roxburgh information accompanying the planning application.

### **3.0 LANDSCAPE MANAGEMENT PROPOSALS**

- 3.1 The design proposals for the landscape areas of the site are set out at **Appendix A**. Management principles are devised for the following landscape elements that are proposed or existing within the site.

1. Existing Woodland and Scrub Planting
2. Woodland and Wetland Native Scrub Planting
3. Individual Trees
4. Hedgerows
5. Ornamental Native Shrub
6. Grassed Areas
7. Wetlands
8. Play area
9. Footpaths and Paving
10. Street furniture and Boundary Treatment

- 3.2 The management approach for each component is defined below.

#### **1. Woodland**

#### **Existing Retained Woodland and Scrub Planting**

- 3.3 Any immediately necessary remedial management of existing trees and woodland on site will have been undertaken prior to the occupation of nearby properties in accordance with the recommendations of the detailed Tree Survey and Arboricultural Method Statement.

3.4 The following management approach is required for all retained woodland on the site throughout the period of this Management Plan:

- Within publicly accessible areas, and especially within proximity of defined footpath routes, check trees annually and after major storms for necessary remedial works with works undertaken as advised by a suitably qualified tree person.
- All works will be undertaken according to best practice as set out in the relevant standards BS 5837 Trees in Relation to Design, Demolition and Construction – Recommendations in order to satisfy a duty of care and BS 3998 Tree Work – Recommendations and using qualified tree surgeons/or arborists.
- All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the main bird-breeding season (March - July inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds by a suitably qualified person.
- Arisings from tree works will where practical be used to create dead wood piles (suitable locations to be agreed with Gladman Developments Ltd and/or the management company) or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.
- Standing dead wood will be retained *in situ* where possible. Where it is not safe to retain this, the dead wood piles and recumbent logs will be created and placed throughout the woodland and at marginal areas, providing habitat for a range of fauna including saproxylic invertebrates and fungi, plants, small mammals, common reptiles and amphibians.

3.5 The Contractor should also review the Tree Information to ascertain whether there are any specific requirements for management of existing woodland on this site.

| Description of works                                                                                                                                                                             | Years Active with Priority |   |   |   |   |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                  | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Retained Woodland</b>                                                                                                                                                                |                            |   |   |   |   |      |
| Inspect woodland annually and after storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Retain or remove arisings from site as appropriate. | √                          | √ | √ | √ | √ | √    |

## 2. Woodland and Wetland Native Scrub Planting

- 3.6 The native scrub planting is undertaken in very small blocks within the site with purpose of providing some greening and softening of the development edge and to provide biodiversity interest. A wavy edge is required, and it will require periodically cutting back to prevent encroachment on the surrounding grassland areas. Long tussocky grassland will be allowed to develop at margins.
- 3.7 In years 1-5 the primary aim is to ensure successful establishment of plants, from year 6 onwards the aim will be to create a visually diverse, mature and natural looking tree / scrub group with priority given to retention of the best specimens.

- Plants to be maintained by suitable means, to prevent competition by weeds and grasses until planting has established.
- Plant protection to be regularly inspected and any damaged protection replaced.
- Plants found to be dead or dying within the first five years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
- Planting to be allowed to establish to natural canopy height, monitor for encroachment and cut back fringes as and when required (outside of the bird nesting season) to prevent encroachment on grassland and footpaths.
- After around 5 years once the plants have established remove canes and guards and/or rabbit proof fencing
- After 5-10 years selective thinning will be undertaken to allow for continued growth of a healthy tree group. Deciduous trees: canopy forming trees to be thinned by 25% over this period, aiming for final spacing's in all tree stands of 2-3 metres. Deciduous shrubs: to be progressively thinned over this phase with group coppicing to achieve structural diversity at an early stage. Groups of 5-15m<sup>2</sup> of one or several species to be selected for coppicing over a 10–15-year cycle.
- After 11-20 years further thinning for deciduous trees to comprise: canopy forming trees to be progressively thinned by 30% aiming for final spacing's in all tree stands of 3-4 metres. Deciduous shrubs: coppice a further 15% on a cyclical basis (3% per annum over a 5-year cycle); commence second coppicing cycle; selected small stands of shrubs can remain uncoppiced to develop into taller understorey.
- Pruning and tree works must be undertaken between 1<sup>st</sup> September to 1<sup>st</sup> March (September/October) to avoid the bird nesting/breeding season. If any nesting activity is found, all activity must cease, and advice sought from a suitably experienced ecologist.
- Arisings from tree works will where practical be used to create dead wood piles within or adjacent to hedgerows and woodland/scrub (suitable locations to be agreed with Gladman Developments Ltd) or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.
- Once established, after year 20 the tree/scrub groups will be managed using the same methods as set out for the 'Existing Retained Woodland' above.

| Description of works                                                                                                                                                                                   | Years Active with Priority |   |   |   |   |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|--------|
|                                                                                                                                                                                                        | 1                          | 2 | 3 | 4 | 5 | 6 - 10 |
| <b>Woodland and Wetland Native Scrub Planting</b>                                                                                                                                                      |                            |   |   |   |   |        |
| Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and replace dead or dying plants, application of fertiliser annually. | √                          | √ | √ | √ | √ | -      |
| Cut back fringes as and where required to prevent encroachment on footpaths and adjacent land uses. Remove arisings.                                                                                   | √                          | √ | √ | √ | √ | √      |
| Remove tree protection once plants have established (year 5 or sooner).                                                                                                                                | -                          | - | - | - | - | √      |

|                                                                                                          |   |   |   |   |   |   |
|----------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|
| Selective thinning, coppicing and pruning of trees and shrubs. Retain or remove arisings as appropriate. | - | - | - | - | - | √ |
|----------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|

### 3. Individual Trees

#### Existing Retained Individual Trees

- 3.8 The following management approach is required for all retained individual trees on the site throughout the period of this Management Plan:
- 3.9 Within publicly accessible areas, and especially within proximity of defined footpath routes, check trees annually and after major storms for necessary remedial works with works undertaken as advised by a suitably qualified tree person.
- 3.10 All works will be undertaken according to best practice as set out in the relevant standards BS 5837 Trees in Relation to Design, Demolition and Construction – Recommendations in order to satisfy a duty of care and BS 3998 Tree Work – Recommendations and using qualified tree surgeons/or arborists.
- 3.11 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the main bird-breeding season (1<sup>st</sup> March – 31<sup>st</sup> Aug inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds by a suitably qualified person. If at any time nesting activity is found, all activity must cease and advice sought from a suitably experienced ecologist.
- 3.12 Arisings from tree works will where practical be used to create dead wood piles (suitable locations to be agreed with Gladman Developments Ltd and/or the management company) or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.
- 3.13 Standing dead wood will be retained in situ where possible. Where it is not safe to retain this, the dead wood piles and recumbent logs will be created and placed throughout the woodland providing habitat for a range of fauna including saproxylic invertebrates and fungi, plants, small mammals, common reptiles and amphibians.

| Description of works                                                                                                                                                                | Years Active with Priority |   |   |   |   |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                     | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Retained Individual Trees</b>                                                                                                                                           |                            |   |   |   |   |      |
| Inspect trees annually and after storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Retain or remove arisings as appropriate. | √                          | √ | √ | √ | √ | √    |

#### New Standard Tree Planting

- 3.14 Individual standard trees and standard tree group planting within the open space areas will be maintained as follows.
- During establishment (the first 2 years after planting) the base of trees, circa 500mm radius, must be kept weed and grass free using suitable means.

- Water tree during establishment to field capacity if the tree is under stress during dry periods.
- Trees will be supported by double short stakes, or similar, during the establishment period and these can be removed after 2-3 years, unless there is soil or root movement when the tree is rocked. Stakes and ties to be regularly inspected and adjusted or replaced as necessary.
- Plants found to be dead or dying within the first two years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
- Throughout the management period grassland at basal areas should be left unmown to protect the trunk and root areas from machinery and to provide associated habitat diversity at the tree base for small mammals, birds and other local fauna.
- Within public areas, trees will be checked annually and after major storms for necessary remedial works with works undertaken as advised by a suitably qualified tree person.
- Pruning of dead, diseased or damaged branches should be carried out as appropriate to promote healthy growth and natural shape, and to favour a single central leading shoot.
- Arisings from tree works will where practical be used to create dead wood piles within or adjacent to hedgerows and woodland/scrub (suitable locations to be agreed with Gladman Developments Ltd and/or the management company) or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.

| Description of works                                                                                                                                                                                                                                     | Years Active with Priority |   |   |   |   |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                                          | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>New Standard Tree Planting</b>                                                                                                                                                                                                                        |                            |   |   |   |   |      |
| Ensure a 500mm radius around each tree is kept weed and grass free, inspect plant protection regularly and adjust or replace where damaged. Water during establishment to field capacity if tree is under stress.                                        | √                          | √ | - | - | - | -    |
| Replace dead or dying trees with like-for-like                                                                                                                                                                                                           | √                          | √ | - | - | - | -    |
| Remove tree protection once plants have established                                                                                                                                                                                                      | -                          | - | √ | - | - | -    |
| Inspect trees annually and after major storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Prune as required to achieve healthy growth and natural shape. Retain or remove arisings as appropriate. | √                          | √ | √ | √ | √ | √    |

#### 4. Hedgerows

##### Existing Hedgerows

- 3.15 Existing hedgerows will generally be maintained to their current height and form in order to safeguard their nature conservation value. Some exceptions may occur where a hedgerow has been coppiced during the construction works, in this instance the Management Plan will set out the height to which the hedgerow should be allowed to grow back to.

- Cut hedgerows on a 3-year rotational basis to promote an 'A-shaped' profile, with a third cut each time to allow the hedgerow to fruit and provide a foraging resource for faunal species.

- Cutting should occur during the winter months, between 1st September and 1st March in line with the agricultural industry- ideally late winter when the majority of fruit has been taken by local wildlife. Cutting should not be undertaken during severe frosts, or during the bird nesting season.
- Where hedgerows are outgrown and include trees, maintain as such and cut back periodically to prevent any overhanging of adjacent land uses that becomes a nuisance.
- Following pruning operations all significant arisings (cuttings), such as large branches should be removed from the site.

3.16 In existing hedgerows there may be sections of new planting undertaken within gaps. The management for this new planting should be undertaken as set out for new hedgerows below.

| Description of works                                                                                                                                                                                                  | Years Active with Priority |   |   |   |   |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                       | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Hedgerows</b>                                                                                                                                                                                             |                            |   |   |   |   |      |
| Cut once in winter after fruiting, third of hedge on 3 year rotational basis (outgrown hedgerows with trees to be cut back to prevent overhanging of adjacent land uses where applicable). Remove arisings from site. | √                          | √ | √ | √ | √ | √    |

### New Hedgerows

3.17 The following management approach is proposed for new hedgerows:

- Plants to be maintained by suitable means, to prevent competition by weeds and grasses until planting has established.
- Plant protection to be regularly inspected and any damaged protection replaced.
- Plants found to be dead or dying within the first two years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
- Until establishment formative pruning will be undertaken once annually to keep the hedgerow tidy.
- Allow new hedgerows adjacent to the residential edge (and possibly in other locations where natural surveillance is required) to establish to a height of 1-2metres. Cut once annually to a height of approximately 1 metres, with sides, ends and tops of the hedgerow pruned to an 'A' profile, where practicable and dependent on access, to achieve an appropriate shape and structure in relation to the height of the hedge.
- Allow new hedgerows that are proposed primarily to provide screening / biodiversity benefits, to establish to a height of 2 metres. Then cut 50% of the hedgerow on a 3-year rotation to a height of 1.5 metres on a rotational basis to allow the hedgerow to fruit and provide food for wildlife.
- Cut during the winter months, following fruiting during frost free periods. Cutting should not be carried out during the bird nesting season (1 March to 31August) unless supervised by a suitably qualified person. If any nesting activity is found, all activity must cease and advice sought from a suitably experienced ecologist.

- Standard trees within/adjacent to the hedgerow will be left uncut and managed in a similar way to standard trees in item 2. above.
- Following pruning operations all arisings should be removed from the site.
- Plant protection and any protective fencing will be removed once the hedgerow is established.

| Description of works                                                                                                                                                                         | Years Active with Priority |   |   |   |   |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                              | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>New Hedgerows</b>                                                                                                                                                                         |                            |   |   |   |   |      |
| Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and, undertake formative pruning to keep the hedgerow tidy. | √                          | √ | - | - | - | -    |
| Replace dead or dying plants                                                                                                                                                                 | √                          | √ | - | - | - | -    |
| Low hedges (formal): Cut entire hedgerow once annually in winter after fruiting. Remove arisings.                                                                                            | -                          | - | - | √ | √ | √    |
| Taller hedges (screening/biodiversity): Cut once annually in winter after fruiting, 50% of hedge each year on rotational basis. Remove arisings.                                             | -                          | - | - | √ | √ | √    |
| Remove plant protection once plants have established (end of year 3 or sooner), only remove protective fencing once the hedgerow is impenetrable (this may be after year 5).                 | -                          | - | √ | - | - | √    |

## 5. Ornamental Shrub Planting

3.18 Formal planting may be included within small areas of the site, these will be focal areas and therefore the aim is to maintain a neat, weed free appearance.

- Formal shrub planting will be kept weed free either by mechanical means or by use of mulch, applied at 50mm depth and kept regularly topped up.
- Water tree during establishment to field capacity if the plants are under stress during dry periods.
- Plants found to be dead or dying within the first two years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
- Once established plants to be pruned annually or bi-annually depending upon rate of growth as necessary to maintain a neat form and a low height (below 1metre), keeping plants free of adjacent hard surfaces and in good condition.

| Description of works                                                                                                                                       | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                            | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Formal Planting</b>                                                                                                                                     |                            |   |   |   |   |      |
| Weed control to prevent competition by weeds, application of fertiliser annually. Water during establishment to field capacity if plants are under stress. | √                          | √ | √ | - | - | -    |

| Description of works                                                       | Years Active with Priority |   |   |   |   |      |
|----------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                            | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| Replace dead or dying plants                                               | √                          | √ | - | - | - | -    |
| Formative pruning and cutting back of plants to maintain a neat, tidy form | -                          | - | - | √ | √ | √    |

## 6. Grassed Areas

- 3.19 The grassed areas of the site comprise amenity, meadow / conservation grassland, tussocky and herb rich grassland, and wet grassland.

### Amenity (short mown) Grassland

- 3.20 The amenity grassland relates to short mown grassland areas, which includes a 1-2 metre strip adjacent to roadsides, to each side of any footpaths provide through the open space, mown areas within the children's play and mown grass paths (2-3 metre wide).

- During the initial establishment the grassland should be mown when it reaches 75mm in height and cut to 40mm in height in the first year. The arisings (cuttings) from this first mow should be removed off site to encourage grassland establishment.
- Cutting frequency of up to 7 cuts during the growing season, with a final cut height of around 50mm. The first shall be undertaken by mid-April and mowing continued until October, approximately monthly.
- Arising (cuttings) shall be distributed evenly over the grassland areas and not formed into windrows.
- Re-sow worn grass areas (using an appropriate amenity grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required.

| Description of works                                                                                                   | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                        | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Amenity (short mown) Grass Areas</b>                                                                                |                            |   |   |   |   |      |
| During establishment mow only when the grass reaches 75mm height and cut to 40mm. Remove arisings from first mow only. | √                          | - | - | - | - | -    |
| Cut 7 times annually (April-October) to 50mm or lower. Distribute arisings evenly.                                     | √                          | √ | √ | √ | √ | √    |
| Re-sow worn patches and treat weeds with a suitable herbicide as required.                                             | √                          | √ | - | - | - | -    |

### Meadow / Conservation (Longer) Grassland

- 3.21 This is applicable to longer areas of grassland identified within the informal open space and / or that are to be managed specifically for ecological mitigation and enhancement purposes.
- Establishment of new (sown) grassland: Regular cutting when the grassland reaches 150mm in length (4-5 times) will be undertaken taken in the first half of Year 1 as the sward is establishing to reduce the number of coarse grasses and pernicious weeds.

- After the first year two grass cutting visits should be undertaken per year. Grass to be cut to a height of 50mm. This should be carried in late July and late September/early October.
- Where space permits a 4m buffer of uncut grassland will be left every other year along hedgerows and woodland adjoining open space areas to ensure dense tussocky structure develops.
- Prior to mowing a check will be made to ensure that no ground nesting birds are present. If present delay mowing until fledged.
- Arisings should be removed from the site no more than 10 working days after cutting.
- Re-sow any worn grass areas (using an appropriate grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required.

| Description of works                                                                                    | Years Active with Priority |   |   |   |   |      |
|---------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                         | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Meadow / Conservation (Longer) Grassland</b>                                                         |                            |   |   |   |   |      |
| During year 1 mow regularly (4-5 times) when the grass reaches 150mm height. Remove arisings by day 10. | √                          | - | - | - | - | -    |
| Two cuts annually to a height of 50mm. Remove arisings by day 10.                                       | -                          | √ | √ | √ | √ | √    |
| Re-sow worn patches and treat weeds with a suitable herbicide as required.                              | √                          | √ | - | - | - | -    |

### Tussocky and herb rich Grassland

- 3.22 Established grassland that is not mown or grazed each year will become rough and "tussocky" in character. This grassland type is not as diverse or attractive as meadowland, but once established requires minimal maintenance. This can form useful refuge habitat on corners and margins of a site.
- 3.23 Tussock grassland is not as diverse as meadow grassland; however dense tussocks establish a layer of thatch that provide valuable shelter and over wintering areas. In order to expedite this establishment, the tussock grassland areas will have minimal maintenance and will not require harrowing or the removal of arisings.

| Description of works                                                                                                | Years Active with Priority |   |   |   |   |      |
|---------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                     | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Tussocky and herb rich Grassland</b>                                                                             |                            |   |   |   |   |      |
| The tussock grassland areas will have minimal maintenance and will not require harrowing or the removal of arisings | √                          | - | - | - | - | -    |

### Wet Grassland

3.24 The areas of new grassland within the base of the new attenuation ponds and swales will experience occasional inundation. A wildflower grass seed mix suitable for wet conditions has been sown.

- During initial establishment the grassland should be mown, using equipment suitable for the ground conditions, when it reaches 150mm in length for the first year. The arisings from this first mow should be removed off site, to encourage grassland establishment.
- Once grassland has established this will be subject to different cutting regimes on a rotational yearly basis. It should be mown annually in September in dry conditions and arising removed, with a second cut in April only if necessary. This approach will then alternate. Any wet grassland that is directly adjacent to ponds or woodland should be cut once every 2 years.
- Arisings should be removed from site no more than 10 working days after cutting.
- Re-sow worn grass areas (using an appropriate grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required.

| Description of works                                                                                                                                                                                                                                                                                                                                                              | Years Active with Priority |   |   |   |   |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                                                                                                                                                                   | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Wet Grassland (base of SuDS)</b>                                                                                                                                                                                                                                                                                                                                               |                            |   |   |   |   |      |
| During initial establishment the grassland should be mown, using equipment suitable for the ground conditions, when it reaches 150mm in length for the first year. The arisings from this first mow should be removed off site, to encourage grassland establishment. Remove arisings by day 10.                                                                                  | √                          | - | - | - | - | -    |
| Once grassland has established this will be subject to different cutting regimes on a rotational yearly basis. It should be mown annually in September in dry conditions and arising removed, with a second cut in April only if necessary. This approach will then alternate. Any wet grassland that is directly adjacent to ponds or woodland should be cut once every 2 years. | -                          | √ | √ | √ | √ | √    |
| Re-sow worn grass areas (using an appropriate grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required                                                                                                                                                                                         | √                          | √ | - | - | - | -    |

### Grassland Generally

3.25 For *all* grassland types the Management Contractor should use appropriate machines in size, shape and method for the type of work involved. All litter, stones or other debris should be collected and removed by the Contractor immediately prior to grass cutting operations. Care

shall be exercised by the Management contractor to avoid damage when mowing or strimming around trees and hedges or other structures.

## 7. Wetlands

- 3.26 The management principles set out below should be read in conjunction with the principles set out within the Maintenance Plan for the attenuation areas (**Appendix A**). Maintenance of SuDs, existing waterbodies and watercourses on site will be undertaken by the adopting authority or Management Company as appropriate.

### Existing Watercourse

- 3.27 The following general management operations will be required:
- General maintenance checks should occur at monthly intervals, to check for any debris/fly tipping and debris should be removed as soon as possible.
  - Existing bank side vegetation will be managed to avoid encroachment and over shading of the open water. Half of the 'soft' bank side vegetation within the site will be cut (strimmed) annually, (on rotation) between August and mid-September to maintain a wildlife corridor. This needs to be timed in line with the GCN grassland management.
  - Invasive non-native weeds (such as Himalayan Balsam *Impatiens glandulifera*) associated with the watercourse will require specific management to control the prevalence of the species on site. Suitable chemical or physical control measures (hand pulling) will be employed annually in April / May targeting fresh growth, before the plants set seed. Any hand pulled plants will be stock piled on-site to decompose, preventing off-site introduction. Annual inspections of the bank sides will be undertaken to monitor for potential recontamination from sources upstream.

| Description of works                                                                                                     | Years Active with Priority |   |   |   |   |      |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                          | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Watercourse</b>                                                                                              |                            |   |   |   |   |      |
| Regular maintenance checks and debris removal.<br>Clear 50% of bankside vegetation annually during late summer / autumn. | √                          | √ | √ | √ | √ | √    |

### New and Existing Ponds

- 3.28 The following general management operations will be required for the ponds within the site boundary:

#### Existing Ponds

- General maintenance checks should occur at regular intervals, to check for any debris/fly tipping and debris should be removed as soon as possible.
- Any existing bank side vegetation should be managed to avoid encroachment and over shading of the open water. At least 50% of the water should be open and free from vegetation. If clearance is required only 1/2 of the bank side vegetation should be cleared and this should be carried out annually by hand during autumn outside of the breeding bird season

- Similarly, the bed of the waterbody will be regularly monitored to ensure that the pond area is generally clear of excessive weed growth, with no more than 60% cover. Arisings/removed weed growth will be left at the pond side for at least 48 hours to allow any invertebrates to return. Should algal blooms occur appropriate weed control measures should be undertaken. All clearance operations will be carried out by hand avoiding the great crested newt egg-laying season (works to be carried out between September-November)

#### New Ponds

- Once aquatic and marginal vegetation has been planted, the ponds should be monitored for the presence of species detrimental to establishment of plants and subsequent physical removal should be undertaken within the first five years. This would include control of blanket weeds (*Cladophora* sp. *Rhizoclonium* sp., *Enteromorpha* sp. & *Spirogyra* sp) and duckweed *Spirodela polyrhiza* & *Lemna* sp.
- At each maintenance visit the water level in the permanent ponds will be checked to ensure that an average level is maintained.
- Monitoring will include vegetation and the extent of cover and fauna, including the presence absence of fish and the population size-class of great crested newts. The necessity for future additional management prescriptions such as fish removal will depend on the results of monitoring.
- The ponds will also be monitored for the presence of Schedule-9 invasive plants and if present then appropriate action should be taken. New Zealand pygmy weed *Crassula helmsii* is known to be present in some ponds within the SAC. Other species of concern include water fern *Azolla filiculoides*, parrot feather *Myriophyllum aquaticum*, water primrose *Ludwigia grandiflora*, curly waterweed *Lagarosiphon major* and Carolina watershield *Cabomba caroliniana*.
- De-silting of ponds will only be done where absolutely necessary and should be carried out between November and February under the supervision of an ecologist to avoid disturbance to newts.

| Description of works                                                                                                                                                                                                                      | Years Active with Priority |   |   |   |   |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                           | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>New Ponds</b>                                                                                                                                                                                                                          |                            |   |   |   |   |      |
| Once aquatic and marginal vegetation has been planted, the ponds should be monitored for the presence of species detrimental to establishment of plants and subsequent physical removal should be undertaken within the first five years. | √                          | √ | √ | √ | √ |      |
| At each maintenance visit the water level in the permanent ponds will be checked to ensure that an average level is maintained.                                                                                                           | √                          | √ | √ | √ | √ | √    |
| Monitoring will include vegetation and the extent of cover and fauna, including the presence absence of fish and the population size-class of great crested newts. The necessity for future additional                                    | √                          | √ | √ | √ | √ | √    |

| Description of works                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| management prescriptions such as fish removal will depend on the results of monitoring.                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |   |   |   |   |      |
| The ponds will also be monitored for the presence of Schedule-9 invasive plants and if present then appropriate action should be taken. New Zealand pygmy weed <i>Crassula helmsii</i> is known to be present in some ponds within the SAC. Other species of concern include water fern <i>Azolla filiculoides</i> , parrot feather <i>Myriophyllum aquaticum</i> , water primrose <i>Ludwigia grandiflora</i> , curly waterweed <i>Lagarosiphon major</i> and Carolina watershield <i>Cabomba caroliniana</i> . | √                          | √ | √ | √ | √ | √    |
| De-silting of ponds will only be done where absolutely necessary and should be carried out between November and February under the supervision of an ecologist to avoid disturbance to newts.                                                                                                                                                                                                                                                                                                                    | √                          | √ | √ | √ | √ | √    |
| Description of works                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Years Active with Priority |   |   |   |   |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Ponds</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |   |   |   |   |      |
| Regular maintenance checks and debris removal. Vegetation management as required to maintain 50% open water. Clear 50% of bankside vegetation annually during autumn to be carried out by hand avoiding the great crested newt egg-laying season (works to be carried out Sept – Nov only and by hand)                                                                                                                                                                                                           | √                          | √ | √ | √ | √ | √    |

### New Attenuation Basin

- 3.29 The new attenuation basin will be predominantly dry and the base will be seeded with a wildflower grass seed mix that can tolerate wet ground conditions. This will be maintained as described for wet grassland in item 5. above.
- 3.30 Any permanently wet areas and the drainage function of the basin will be managed by the adopting SuDs authority or by the local authority (or Management Company) as public open space. Responsibilities comprise:
- Regular/monthly inspections.
  - Litter removal to prevent blockages/debris/fly tipping.
  - Maintenance of marginal vegetation around areas of open water. This includes removal of arisings from site.
  - Monitoring of channels and inlet, outlet and control structures (including after storm events), with remedial work as required to maintain water flows and prevent silt/vegetation build up. Hydrobrakes should be inspected every 6 months to ensure they are performing correctly.
  - Cutting back of any naturally colonising bank side vegetation as required.

- Possible major vegetation maintenance and watercourse channel works at 15-20years.
- Making good of any damage to surrounding landscape areas.
- File records of visits / repairs. Consult with the EA if action is required for cleaning inlets/outlets i.e., if ponds performance will be affected whilst undertaking tasks.

3.31 Easements have been incorporated into the landscaping layout to allow access to the pond and for maintenance vehicles to operate where needed.

| Description of works                                                                                                                                                                       | Years Active with Priority |   |   |   |   |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                            | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>SuDS Generally</b>                                                                                                                                                                      |                            |   |   |   |   |      |
| Regular/Monthly inspections, remove litter/debris, invasive / colonising vegetation and silt build up as necessary. Inspect hydrobrakes every 6months. Record visits / repairs undertaken. | √                          | √ | √ | √ | √ | √    |

## 8. Play area

3.32 The Equipped Children's Play Area should be maintained and managed as a safe, secure and clean environment and made available for public use. The following maintenance operations are required:

- Signage should be installed to communicate to users/residents, a contact number for maintenance issues, which will be the Management contractor.
- A regular inspection of play equipment (at every site maintenance visit) and a general maintenance check/record of all equipment, surfacing, fencing, furniture, gates and associated fittings, nuts, bolts and plugs will be undertaken in accordance with manufacturers recommendations and ROSPA guidance. Particular attention should be paid to the safety of the play features, with all fixings and platforms secure and all individual play equipment sound and operational. Damaged equipment should be cordoned off immediately and rectified / replaced, as soon as reasonably practicable.
- A general litter clearance and sweep of the area should be undertaken at every maintenance visit. This will include emptying of any litterbins and the removal of litter, glass, stones, and any other debris from the play surface.
- An annual Risk Assessment should be carried out for the Play Area(s), with an annual inspection carried out by an independent inspector. Quarterly operational inspections should be recorded by a qualified person employed by the management contractor (such as a member of the Register of Play Inspectors) in accordance with the Register of Play Inspectors Guidance Notes.

| Description of works                                                                                                                                           | Years Active with Priority |   |   |   |   |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Play Area</b>                                                                                                                                               |                            |   |   |   |   |      |
| Install signage                                                                                                                                                | √                          | - | - | - | - | -    |
| Undertake a regular litter clearance and inspection of play equipment, fencing and surfaces at every site visit and cordon off immediately then repair/replace | √                          | √ | √ | √ | √ | √    |

| Description of works                                                                                                                          | Years Active with Priority |   |   |   |   |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                               | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| damaged equipment as soon as is practicable.<br>Record quarterly operational inspections. Annual risk assessment by an independent inspector. |                            |   |   |   |   |      |

## 9. Footpaths and Paving

### 3.33 Maintenance to be undertaken to ensure footpaths within public areas remain clean, tidy and safe for use:

- All hard surfaces within the landscape areas should be maintained in a clean and tidy appearance free from weeds and litter, and this will include a general sweep, and occasional spray of surfaces.
- Self-binding gravel paths should be checked quarterly and after periods of excessive rainfall; any areas of wear that may become a safety concern should be repaired.

| Description of works                                                                                                    | Years Active with Priority |   |   |   |   |      |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                         | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Footpaths and Paving</b>                                                                                             |                            |   |   |   |   |      |
| Undertake regular checks, maintenance and repairs as necessary to ensure footpaths remain clean, tidy and safe for use. | √                          | √ | √ | √ | √ | √    |

## 10. Street furniture and Boundary Treatment

### 3.34 The following maintenance operations are required for items of street furniture (bins, signage and seating) and boundary treatment (fencing and gates) within public areas:

- These should be regularly inspected as necessary, ensuring that they are in a safe and usable condition and in a good state of repair. Repairs should be carried out as necessary and any significant damage should be repaired immediately or in certain instances replaced. Repairs/replacement should be carried out as soon as practicable. In the interim, items which could cause a hazard to residents/users should be taped off with warning tape or similar.
- Allowance should be made for all street furniture to be regularly cleaned of graffiti, dirt etc, so that they are in a usable condition and of an attractive appearance.
- Litter bins and dog bins will be provided at appropriate locations within the development. These will be emptied at regular intervals to be determined based upon the level of use.

| Description of works                                                                                                                                   | Years Active with Priority |   |   |   |   |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                        | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Street Furniture and Boundary Treatment</b>                                                                                                         |                            |   |   |   |   |      |
| Undertake regular checks, maintenance and repairs as necessary to ensure furniture and boundary treatment remains safe, in a usable condition and in a | √                          | √ | √ | √ | √ | √    |

| Description of works                                                                      | Years Active with Priority |   |   |   |   |      |
|-------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                           | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| good state of repair. Empty litter and dog bins at intervals appropriate to level of use. |                            |   |   |   |   |      |
| Remove post and wire fence once hedgerow has established. Estimated to be year 4.         |                            |   |   | √ |   |      |

### Other Requirements

#### Encroachment

- 3.35 The management contractor will notify Gladman Developments Ltd and/or the management company should any properties encroach on maintenance land as soon as this is observed e.g. introduction of private gates onto planting areas / additional private access or fencing to landscaped areas. The management contractor will also ensure that accesses are kept clear for maintenance.
- 3.36 Litter picks and general litter clearance should be carried out on all landscape areas on a regular basis. This should include the play area(s), existing hedge/tree groups and new planting blocks. Litter picks should be undertaken at every visit to the site for maintenance operations. The overall objective is to ensure that all landscape areas are free from litter and fly tipping.

| Description of works           | Years Active with Priority |   |   |   |   |      |
|--------------------------------|----------------------------|---|---|---|---|------|
|                                | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Other</b>                   |                            |   |   |   |   |      |
| Litter pick on a regular basis | √                          | √ | √ | √ | √ | √    |

### Monitoring

- 3.37 The open space areas, including all new and existing habitats will be monitored every other year for the first five years, with monitoring decreased thereafter as appropriate. Management prescriptions will be amended as necessary to ensure the landscaping and associated habitats establish and maintain their quality over time and retain and expand the presence of fauna using these habitats.

| Description of works                                                                                                                                                                                 | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                      | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Monitoring</b>                                                                                                                                                                                    |                            |   |   |   |   |      |
| Monitor landscaping and habitats every other year for first five years and use results to inform future management for coming years. Reduce detailed monitoring to appropriate frequency thereafter. | -                          | √ | - | √ | - | √    |

#### 4.0 FIVE YEAR MAINTENANCE SCHEDULE

- 4.1 The following maintenance schedule summarises the maintenance operations to be carried out annually within the public areas for the first five years where applicable and indicates where the maintenance operations should be continued into future years (6-10). Cross reference should be made to the detailed descriptions within section 3.0.

| Description of works                                                                                                                                                                                              | Years Active with Priority |   |   |   |   |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                   | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Existing Retained Woodland and Scrub Planting</b>                                                                                                                                                              |                            |   |   |   |   |      |
| Inspect woodland annually and after storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Retain or remove arisings from site as appropriate.                  | √                          | √ | √ | √ | √ | √    |
| <b>Woodland and Wetland Native Scrub Planting</b>                                                                                                                                                                 |                            |   |   |   |   |      |
| Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and replace dead or dying plants, application of fertiliser annually.            | √                          | √ | √ | √ | √ | -    |
| Cut back fringes as and where required to prevent encroachment on footpaths and adjacent land uses. Remove arisings.                                                                                              | √                          | √ | √ | √ | √ | √    |
| Remove tree protection once plants have established (year 5 or sooner).                                                                                                                                           | -                          | - | - | - | - | √    |
| Selective thinning, coppicing and pruning of trees and shrubs. Retain or remove arisings as appropriate.                                                                                                          | -                          | - | - | - | - | √    |
| Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and replace dead or dying plants, application of fertiliser annually.            | √                          | √ | √ | √ | √ | -    |
| <b>Existing Retained Individual Trees</b>                                                                                                                                                                         |                            |   |   |   |   |      |
| Inspect trees annually and after major storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Retain or remove arisings as appropriate.                         | √                          | √ | √ | √ | √ | √    |
| <b>New Standard Tree Planting</b>                                                                                                                                                                                 |                            |   |   |   |   |      |
| Ensure a 500mm radius around each tree is kept weed and grass free, inspect plant protection regularly and adjust or replace where damaged. Water during establishment to field capacity if tree is under stress. | √                          | √ | - | - | - | -    |
| Replace dead or dying trees with like-for-like                                                                                                                                                                    | √                          | √ | - | - | - | -    |
| Remove tree protection once plants have established                                                                                                                                                               | -                          | - | √ | - | - | -    |
| Inspect trees annually and after major storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Prune as                                                          | √                          | √ | √ | √ | √ | √    |

| Description of works                                                                                                                                                                                                            | Years Active with Priority |   |   |   |   |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                 | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| required to achieve healthy growth and natural shape. Retain or remove arisings as appropriate.                                                                                                                                 |                            |   |   |   |   |      |
| <b>Existing Hedgerows</b>                                                                                                                                                                                                       |                            |   |   |   |   |      |
| Cut once annually in winter after fruiting, 50% of hedge each year on rotational basis (outgrown hedgerows with trees to be cut back to prevent overhanging of adjacent land uses where applicable). Remove arisings from site. | √                          | √ | √ | √ | √ | √    |
| <b>New Hedgerows</b>                                                                                                                                                                                                            |                            |   |   |   |   |      |
| Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and, undertake formative pruning to keep the hedgerow tidy.                                    | √                          | √ | - | - | - | -    |
| Replace dead or dying plants                                                                                                                                                                                                    | √                          | √ | - | - | - | -    |
| Low hedges (formal): Cut entire hedgerow once annually in winter after fruiting. Remove arisings.                                                                                                                               | -                          | - | - | √ | √ | √    |
| Taller hedges (screening/biodiversity): Cut once annually in winter after fruiting, 50% of hedge each year on rotational basis. Remove arisings.                                                                                | -                          | - | - | √ | √ | √    |
| Remove plant protection once plants have established (end of year 3 or sooner), only remove protective fencing once the hedgerow is impenetrable (this may be after year 5).                                                    | -                          | - | √ | - | - | √    |
| <b>Ornamental Shrub Planting</b>                                                                                                                                                                                                |                            |   |   |   |   |      |
| Weed control to prevent competition by weeds, application of fertiliser annually. Water during establishment to field capacity if plants are under stress.                                                                      | √                          | √ | - | - | - | -    |
| Replace dead or dying plants                                                                                                                                                                                                    | √                          | √ | - | - | - | -    |
| Formative pruning and cutting back of plants to maintain a neat, tidy form                                                                                                                                                      | -                          | - | - | √ | √ | √    |
| <b>Amenity (short mown) Grass Areas</b>                                                                                                                                                                                         |                            |   |   |   |   |      |
| During establishment mow only when the grass reaches 75mm height and cut to 40mm. Remove arisings from first mow only.                                                                                                          | √                          | - | - | - | - | -    |
| Cut 7 times annually (April-October) to 50mm or lower. Distribute arisings evenly.                                                                                                                                              | √                          | √ | √ | √ | √ | √    |
| Re-sow worn patches and treat weeds with a suitable herbicide as required.                                                                                                                                                      | √                          | √ | - | - | - | -    |
| <b>Meadow / Conservation (Longer) Grassland</b>                                                                                                                                                                                 |                            |   |   |   |   |      |
| During year 1 mow regularly (4-5 times) when the grass reaches 150mm height. Remove arisings by day 10.                                                                                                                         | √                          | - | - | - | - | -    |

| Description of works                                                                                                                                                                                                                                                                                                                                                              | Years Active with Priority |   |   |   |   |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                                                                                                                                                                   | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| Two cuts annually to a height of 50mm. Remove arisings by day 10.                                                                                                                                                                                                                                                                                                                 | -                          | √ | √ | √ | √ | √    |
| Re-sow worn patches and treat weeds with a suitable herbicide as required.                                                                                                                                                                                                                                                                                                        | √                          | √ | - | - | - | -    |
| <b>Tussocky and herb rich Grassland</b>                                                                                                                                                                                                                                                                                                                                           |                            |   |   |   |   |      |
| Minimal maintenance, with no harrowing or removal of arisings                                                                                                                                                                                                                                                                                                                     |                            |   |   |   |   |      |
| <b>Wet Grassland (base of SuDS)</b>                                                                                                                                                                                                                                                                                                                                               |                            |   |   |   |   |      |
| During initial establishment the grassland should be mown, using equipment suitable for the ground conditions, when it reaches 150mm in length for the first year. The arisings from this first mow should be removed off site, to encourage grassland establishment. Remove arisings by day 10.                                                                                  | √                          | - | - | - | - | -    |
| Once grassland has established this will be subject to different cutting regimes on a rotational yearly basis. It should be mown annually in September in dry conditions and arising removed, with a second cut in April only if necessary. This approach will then alternate. Any wet grassland that is directly adjacent to ponds or woodland should be cut once every 2 years. | -                          | √ | √ | √ | √ | √    |
| Re-sow worn grass areas (using an appropriate grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required                                                                                                                                                                                         | √                          | √ | - | - | - | -    |
| <b>Existing Watercourse</b>                                                                                                                                                                                                                                                                                                                                                       |                            |   |   |   |   |      |
| Regular maintenance checks and debris removal. Clear 50% of bankside vegetation annually during late summer / autumn.                                                                                                                                                                                                                                                             | √                          | √ | √ | √ | √ | √    |
| <b>Existing Ponds</b>                                                                                                                                                                                                                                                                                                                                                             |                            |   |   |   |   |      |
| Regular maintenance checks and debris removal. Vegetation management as required to maintain 50% open water. Clear 50% of bankside vegetation annually during autumn.                                                                                                                                                                                                             | √                          | √ | √ | √ | √ | √    |
| <b>New Ponds</b>                                                                                                                                                                                                                                                                                                                                                                  |                            |   |   |   |   |      |
| Once aquatic and marginal vegetation has been planted, the ponds should be monitored for the presence of species detrimental to establishment of plants and subsequent physical removal should be undertaken within the first five years.                                                                                                                                         | √                          | √ | √ | √ | √ |      |
| At each maintenance visit the water level in the permanent ponds will be checked to ensure that an average level is maintained.                                                                                                                                                                                                                                                   | √                          | √ | √ | √ | √ | √    |

| Description of works                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| Monitoring will include vegetation and the extent of cover and fauna, including the presence absence of fish and the population size-class of great crested newts. The necessity for future additional management prescriptions such as fish removal will depend on the results of monitoring.                                                                                                                                                                                                                   | √                          | √ | √ | √ | √ | √    |
| The ponds will also be monitored for the presence of Schedule-9 invasive plants and if present then appropriate action should be taken. New Zealand pygmy weed <i>Crassula helmsii</i> is known to be present in some ponds within the SAC. Other species of concern include water fern <i>Azolla filiculoides</i> , parrot feather <i>Myriophyllum aquaticum</i> , water primrose <i>Ludwigia grandiflora</i> , curly waterweed <i>Lagarosiphon major</i> and Carolina watershield <i>Cabomba caroliniana</i> . | √                          | √ | √ | √ | √ | √    |
| De-silting of ponds will only be done where absolutely necessary and should be carried out between November and February under the supervision of an ecologist to avoid disturbance to newts.                                                                                                                                                                                                                                                                                                                    | √                          | √ | √ | √ | √ | √    |
| <b>SuDS Generally</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |   |   |   |   |      |
| Regular/Monthly inspections, remove litter/debris, invasive / colonising vegetation and silt build up as necessary. Inspect hydrobrakes every 6months. Record visits / repairs undertaken.                                                                                                                                                                                                                                                                                                                       | √                          | √ | √ | √ | √ | √    |
| <b>Play Area</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |   |   |   |   |      |
| Install signage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | √                          | - | - | - | - | -    |
| Undertake a regular litter clearance and inspection of play equipment, fencing and surfaces at every site visit and cordon off immediately then repair/replace damaged equipment as soon as is practicable. Record quarterly operational inspections. Annual risk assessment by an independent inspector.                                                                                                                                                                                                        | √                          | √ | √ | √ | √ | √    |
| <b>Footpaths and Paving</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |   |   |   |   |      |
| Undertake regular checks, maintenance and repairs as necessary to ensure footpaths remain clean, tidy and safe for use.                                                                                                                                                                                                                                                                                                                                                                                          | √                          | √ | √ | √ | √ | √    |
| <b>Street Furniture and Boundary Treatment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |   |   |   |   |      |
| Undertake regular checks, maintenance and repairs as necessary to ensure furniture and boundary treatment remains safe, in a usable condition and in a good state of repair. Empty litter and dog bins at intervals appropriate to level of use.                                                                                                                                                                                                                                                                 | √                          | √ | √ | √ | √ | √    |
| Remove post and wire fence once hedgerow has established. Estimated to be year 4.                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |   |   | √ |   |      |

| Description of works                                                                                                                                                                                 | Years Active with Priority |   |   |   |   |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---|---|---|---|------|
|                                                                                                                                                                                                      | 1                          | 2 | 3 | 4 | 5 | 6-10 |
| <b>Other</b>                                                                                                                                                                                         |                            |   |   |   |   |      |
| Litter pick on a regular basis                                                                                                                                                                       | √                          | √ | √ | √ | √ | √    |
| <b>Monitoring</b>                                                                                                                                                                                    |                            |   |   |   |   |      |
| Monitor landscaping and habitats every other year for first five years and use results to inform future management for coming years. Reduce detailed monitoring to appropriate frequency thereafter. | -                          | √ | - | √ | - | √    |

## 5.0 SUMMARY

- 5.1 This report provides information on the landscape design objectives/aims behind the resultant philosophy for the management of the communal/public open space areas. It sets out the management principles for each of the key elements of the landscape areas to be managed, before describing the management operations required in order to maintain a quality, neat, tidy, safe, useable and attractive landscape setting to the development.
- 5.2 It is envisaged that the Gladman Developments Limited appointed landscape contractor would carry out initial maintenance operations i.e., for a period of 12 months following practical completion of the landscape capital works contract for the public areas. Subsequently a specialist landscape management contractor would be appointed to undertake the required landscape management operations.
- 5.3 At any reviews, which are undertaken, findings and recommendations arising may be provided to Gladman Development Limited for approval. Should the Landscape Management Plan be the subject of a planning condition, these would then be submitted to the Local Planning Authority for comment and any agreed changes to the management plan can then be put into effect.

## APPENDIX A: Detailed Landscape and POS Proposals



Planting Schedule

WOODLAND PLANTING

| Qty | Latin Name         | Common Name              | Height    | Form              | Metres | %  |
|-----|--------------------|--------------------------|-----------|-------------------|--------|----|
| 5   | Acer campestre     | Field maple              | 250-300cm | Selected Standard | 2      | 1  |
| 5   | Betula pubescens   | Dowry Birch, White Birch | 350-400cm | Heavy Standard    | 2      | 1  |
| 44  | Cornus sanguinea   | Common dogwood           | 60-80cm   | Whip              | 2      | 10 |
| 88  | Corylus avellana   | Hazel, Cobnut            | 80-100cm  | Whip              | 2      | 20 |
| 67  | Crataegus monogyna | Common hawthorn          | 80-100cm  | Whip              | 2      | 15 |
| 23  | Ilex aquifolium    | Holly                    | 40-60cm   | Whip              | 2      | 5  |
| 5   | Malus sylvestris   | Crab Apple               | 300-350cm | Selected Standard | 2      | 1  |
| 44  | Malus sylvestris   | Crab apple               | 60-80cm   | Whip              | 2      | 10 |
| 3   | Prunus avium       | Geau, Wild cherry        | 250-300cm | Standard          | 2      | 1  |
| 2   | Prunus avium       | Geau, Wild cherry        | 250-300cm | Standard          | 2      | 1  |
| 44  | Prunus padus       | Bird cherry              | 60-80cm   | Whip              | 2      | 10 |
| 23  | Salix alba         | White willow             | 60-80cm   | Cutting           | 2      | 5  |
| 5   | Sorbus aucuparia   | Mountain ash or Rowan    | 250-300cm | Standard          | 2      | 1  |
| 67  | Sorbus aucuparia   | Rowan                    | 60-80cm   | Whip              | 2      | 15 |
| 23  | Viburnum opulus    | Gelder rose              | 60-80cm   | Whip              | 2      | 5  |
| 448 |                    |                          |           |                   |        |    |

WOODLAND EDGE PLANTING

| Qty | Latin Name         | Common Name     | Height   | Form    | Metres | %  |
|-----|--------------------|-----------------|----------|---------|--------|----|
| 64  | Cornus sanguinea   | Common dogwood  | 60-80cm  | Whip    | 2      | 10 |
| 129 | Corylus avellana   | Hazel, Cobnut   | 80-100cm | Whip    | 2      | 20 |
| 129 | Crataegus monogyna | Common hawthorn | 80-100cm | Whip    | 2      | 20 |
| 32  | Ilex aquifolium    | Holly           | 40-60cm  | Whip    | 2      | 5  |
| 64  | Malus sylvestris   | Crab apple      | 60-80cm  | Whip    | 2      | 10 |
| 64  | Prunus padus       | Bird cherry     | 60-80cm  | Whip    | 2      | 10 |
| 32  | Salix alba         | White willow    | 60-80cm  | Cutting | 2      | 5  |
| 96  | Sorbus aucuparia   | Rowan           | 60-80cm  | Whip    | 2      | 15 |
| 32  | Viburnum opulus    | Gelder rose     | 60-80cm  | Whip    | 2      | 5  |
| 642 |                    |                 |          |         |        |    |

WOODLAND EDGE PLANTING

| Qty | Latin Name        | Common Name    | Height  | Form | Metres | %  |
|-----|-------------------|----------------|---------|------|--------|----|
| 64  | Acer campestre    | Field maple    | 60-80cm | Whip | 1      | 25 |
| 64  | Corylus avellana  | Hazel, Cobnut  | 60-80cm | Whip | 1      | 25 |
| 52  | Viburnum opulus   | Gelder rose    | 60-80cm | Whip | 1      | 20 |
| 39  | Cornus sanguinea  | Common dogwood | 60-80cm | Whip | 1      | 15 |
| 25  | Ligustrum vulgare | Common privet  | 60-80cm | Whip | 1      | 10 |
| 13  | Sambucus nigra    | Common elder   | 60-80cm | Whip | 1      | 5  |

AMENITY PLANTING

| Qty | Latin Name                       | Common Name          | Height   | Container Size | Rate/Plants m² |
|-----|----------------------------------|----------------------|----------|----------------|----------------|
| 50  | Carex oshimensis 'Evergold'      | Oshima kan suge      | 20-30cm  | 5L             | 3              |
| 67  | Cornus sanguinea                 | Common dogwood       | 60-80cm  | 5L             | 3              |
| 34  | Euonymus fortunei 'Silver Queen' | Spindle Silver Queen | 30-40cm  | 5L             | 3              |
| 34  | Hebe rakaiensis                  |                      | 20-30cm  | 5L             | 3              |
| 118 | Spiraea japonica 'Goldflame'     | Japanese spiraea     | 30-40cm  | 5L             | 3              |
| 34  | Viburnum opulus                  | Gelder rose          | 80-100cm |                | 3              |
| 337 |                                  |                      |          |                |                |

INDIVIDUAL TREES

| Qty | Latin Name                             | Common Name                   | Height    | Form           | Root Conditi | Clear Stem | Girth   |
|-----|----------------------------------------|-------------------------------|-----------|----------------|--------------|------------|---------|
| 17  | Acer campestre 'Elsrijk'               | Field maple 'Elsrijk'         | 350-425cm | Heavy Standard | RB           | Min. 200cm | 12-14cm |
| 19  | Acer campestre 'Street Wise'           | Field maple 'Streetwise'      | 350-400cm | Heavy Standard | RB           | Min. 200cm | 12-14cm |
| 15  | Ainus glutinosa                        | Alder                         | 350-400cm | Heavy Standard | RB           | Min. 200cm | 12-14cm |
| 4   | Amelanchier arborea 'Robin Hill'       | Amelanchier                   | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 3   | Betula pendula                         | Silver birch                  | 300-350cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 6   | Betula pubescens                       | Dowry Birch, White Birch      | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 10  | Liquidambar styraciflua 'Lane Roberts' | Sweet gum                     | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 1   | Magnolia 'Galaxy'                      | Galaxy Magnolia               | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 2   | Prunus 'Snow Goose'                    | Flowering cherry 'Snow Goose' | 350-400cm | Heavy Standard | RB           | 175-200cm  | 12-14cm |
| 2   | Prunus 'Spire'                         | Flowering cherry 'Spire'      | 350-400cm | Heavy Standard | RB           | 175-200cm  | 12-14cm |
| 6   | Salix alba                             | White willow                  | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 4   | Salix fragilis                         | Crack willow                  | 350-400cm | Heavy Standard | RB           | 175-200cm  | 12-14cm |
| 8   | Sorbus aucuparia                       | Mountain ash or Rowan         | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 9   | Tilia cordata                          | Small-leaved lime             | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 7   | Tilia cordata 'Greenspire'             | Small-leaved lime             | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 11  | Tilia cordata 'Rancho'                 | Small-leaved lime             | 350-400cm | Heavy Standard | RB           | Min 200cm  | 12-14cm |
| 124 |                                        |                               |           |                |              |            |         |

WET WOODLAND EDGE PLANTING

| Qty  | Latin Name       | Common Name              | Height   | Form       | Metres | %  |
|------|------------------|--------------------------|----------|------------|--------|----|
| 1382 | Ainus glutinosa  | Common Alder             | 80-100cm | Transplant | 5      | 15 |
| 2303 | Betula pubescens | Dowry Birch, White Birch | 60-80cm  | Transplant | 5      | 25 |
| 1382 | Salix alba       | White willow             | 60-80cm  | Cutting    | 5      | 15 |
| 1844 | Salix fragilis   | Crack willow             | 60-80cm  | Cutting    | 5      | 20 |
| 2303 | Salix pentandra  | Bay willow               | 60-80cm  | Cutting    | 5      | 25 |
| #    |                  |                          |          |            |        |    |

MIXED NATIVE HEDGEROWS (planted double staggered, 5 plants lin/m)

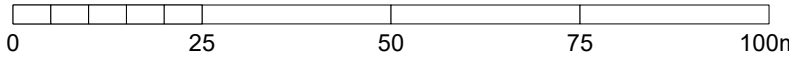
| Qty  | Latin Name         | Common Name     | Height   | Form | Root Conditi | %  |
|------|--------------------|-----------------|----------|------|--------------|----|
| 1183 | Cornus sanguinea   | Common dogwood  | 60-80cm  | Whip | BR           | 20 |
| 1183 | Corylus avellana   | Hazel, Cobnut   | 60-80cm  | Whip | BR           | 20 |
| 1183 | Crataegus monogyna | Common hawthorn | 60-80cm  | Whip | BR           | 20 |
| 296  | Ilex aquifolium    | Holly           | 60-80cm  | Whip | BR           | 5  |
| 296  | Prunus spinosa     | Blackthorn      | 60-80cm  | Whip | BR           | 5  |
| 592  | Viburnum opulus    | Gelder rose     | 80-100cm | Whip | BR           | 10 |
| 4733 |                    |                 |          |      |              |    |

BULB PLANTING

| Qty  | Latin Name                | Common Name | Rate/Plants m² | %  |
|------|---------------------------|-------------|----------------|----|
| 1232 | Crocus vernus             | Crocus      | 20             | 50 |
| 616  | Narcissus 'Cheerfulness'  |             | 20             | 25 |
| 616  | Narcissus pseudonarcissus | Daffodil    | 20             | 25 |

NOTES

This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.



KEY

- Site Boundary
- Existing Vegetation to be Retained
- Gas Main Easement
- Overhead Pylons
- Public Right of Way
- Proposed Wetland Scrub Planting
- Proposed Woodland Scrub Planting
- Proposed Scrub Planting
- Proposed Individual Tree
- Proposed Native Hedge
- Proposed Amenity Planting
- Proposed Bulb Planting
- Great Crested Newt (GCN) Pond
- Proposed Wetland Meadow Mix  
(to be Emergent E222 Strong Lawn Grass Mixture or similar approved)
- Proposed Flowering Lawn Mix  
(to be Emergent E21 Flowering Lawn Mixture or similar approved)
- Proposed Amenity Lawn Mix  
(to be Emergent E210 Tussock Grass Mixture or similar approved)
- Proposed Tussock Mixture  
(to be Emergent E210 Tussock Grass Mixture or similar approved)
- Proposed Newt Bridge
- Proposed Hibernacula
- Proposed Fence with Gate

Note: For Detailed notes on Specification see sheet 0004

|     |            |                           |     |     |
|-----|------------|---------------------------|-----|-----|
| P02 | 07/11/2023 | Amedned ponds within GCN. | SDO | EAF |
| P01 | 02.11.2023 | First Issue.              | SDO | EAF |
| rev | date       | description               | dm  | chk |

client  
Gladman Developments LTD

project  
Bangor Road, Johnstown

drawing title  
General Arrangement

masterplanning  
environmental assessment  
landscape design  
urban design  
ecology  
architecture  
arboriculture

FPCR Environment and Design Ltd  
Lockington Hall  
Lockington  
Derby  
DE74 2RH

t: 01509 672772  
e: mail@fpcr.co.uk  
w: www.fpcr.co.uk

|                     |           |            |                                  |
|---------------------|-----------|------------|----------------------------------|
| scale<br>1:500 @ A1 | dm<br>SDO | chk<br>EAF | date created<br>02 November 2023 |
|---------------------|-----------|------------|----------------------------------|

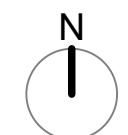
|                        |              |              |
|------------------------|--------------|--------------|
| project number<br>4355 | status<br>S3 | issue<br>P02 |
|------------------------|--------------|--------------|

document number  
4355-FPCR-XX-XX-DR-L-0001



NOTES

This drawing is the property of FPCR Environment and Design Ltd and is issued on the condition it is not reproduced, retained or disclosed to any unauthorised person, either wholly or in part without written consent of FPCR Environment and Design Ltd.



KEY

- Site Boundary
- Existing Vegetation to be Retained
- Gas Main Easement
- Overhead Pylons
- Public Right of Way
- Proposed Wetland Scrub Planting
- Proposed Woodland Scrub Planting
- Proposed Scrub Planting
- Proposed Individual Tree
- Proposed Native Hedge
- Proposed Amenity Planting
- Proposed Bulb Planting
- Great Crested Newt (GCN) Pond
- Proposed Wetland Meadow Mix  
(to be Emongate EMB Meadow Mixture for Wetland or similar approved)
- Proposed Flowering Lawn Mix  
(to be Emongate EL1 Flowering Lawn Mixture or similar approved)
- Proposed Amenity Lawn Mix  
(to be Emongate EG22 Strong Lawn Grass Mixture or similar approved)
- Proposed Tussock Mixture  
(to be Emongate EG10 Tussock Grass Mixture or similar approved)  
50% Created Tussocky Grassland 50% Retained Bare Ground Mosaic see Mitigation Strategy for details.
- Proposed Newt Bridge
- Proposed Hibernacula
- Proposed Fence with Gate

|     |            |                           |     |     |
|-----|------------|---------------------------|-----|-----|
| P02 | 07/11/2023 | Amedned ponds within GCN. | SDO | EAF |
| P01 | 02.11.2023 | First Issue.              | SDO | EAF |
| rev | date       | description               | dm  | chk |

client  
Gladman Developments LTD

project  
Bangor Road, Johnstown

drawing title  
Detail Landscape Plan  
(Sheet 1 of 3 - GCN Reserve)

scale  
1:500 @ A1

project number  
4355

document number  
4355-FPCR-XX-XX-DR-L-0002

masterplanning  
environmental assessment  
landscape design  
urban design  
ecology  
architecture  
arboriculture

FPCR Environment and Design Ltd  
Lockington Hall  
Derby  
DE74 2RH

t: 01509 672772  
e: mail@fpcr.co.uk  
w: www.fpcr.co.uk

|                |        |       |                  |
|----------------|--------|-------|------------------|
| scale          | dm     | chk   | date created     |
| 1:500 @ A1     | SDO    | EAF   | 02 November 2023 |
| project number | status | issue |                  |
| 4355           | S3     | P02   |                  |