

# JAMES BLAKE

A S S O C I A T E S

## LANDSCAPE MANAGEMENT AND MAINTENANCE PLAN

# Guide to the Management of Landscape at Berwick Green, Cribbs Causeway Parcels 5-7

REF JBA 21/205  
Rev A

ON BEHALF OF  
Taylor Wimpey South West (Bristol)

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## 1.0 INTRODUCTION

### 1.1 PURPOSE AND SCOPE OF DOCUMENT

- 1.1.1 The Management Plan shall be taken to include this document and any supporting plans, reports and specifications approved as part of the planning application for the residential redevelopment of land at Berwick Green, Cribbs Causeway, Bristol. This includes any documentation containing quantitative and qualitative information about the external areas of the site that will be useful to those responsible for managing and maintaining them.
- 1.1.2 The purpose of this document is to schedule all required maintenance regimes, operations and works necessary for the satisfactory management of the landscape in perpetuity. The Management Plan sets out the management aims and objectives for the site along with the specific management objectives for each landscape component, and the associated maintenance works required on an Annual and Occasional basis. The Annual Works are those works that will be required every year, such as watering, weeding and cleaning. The Occasional Works are those that will be required on an irregular or cyclical basis, such as repairs and renewals.

### 1.2 THE GROUNDS

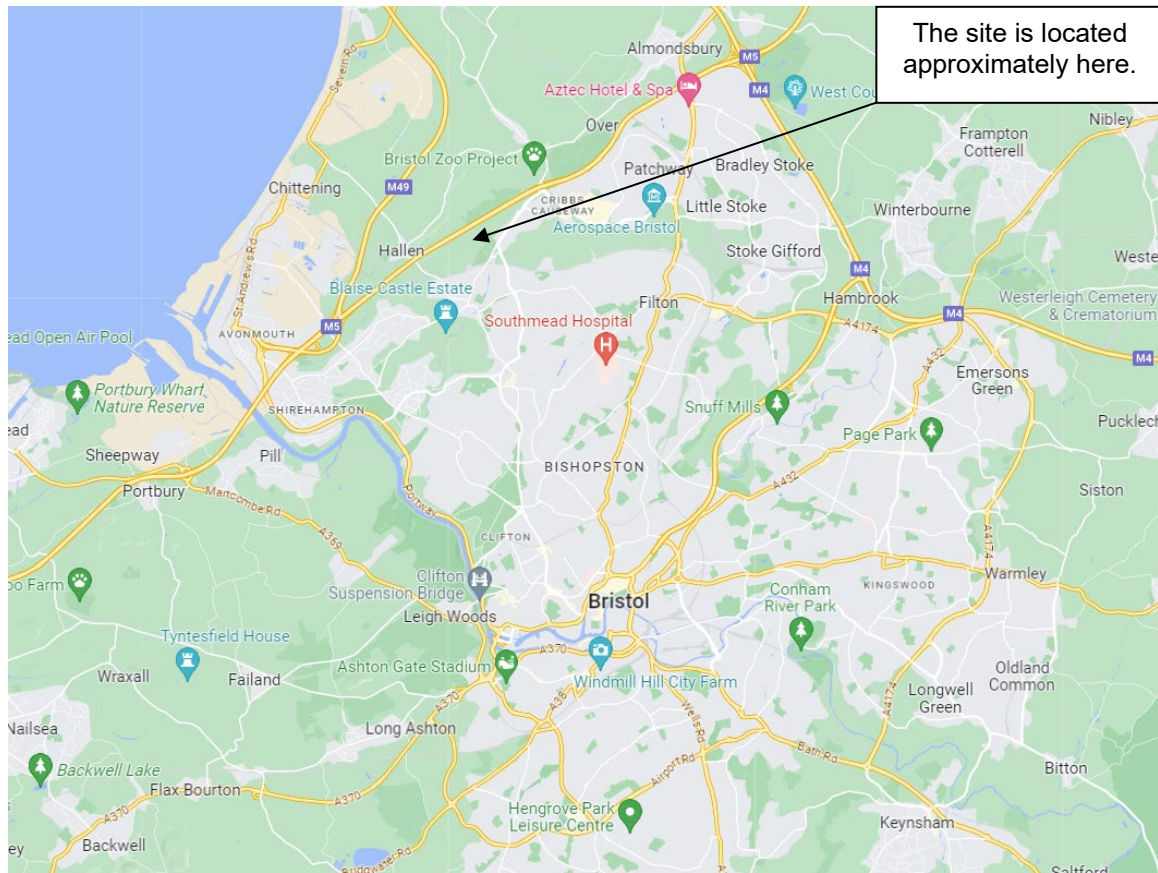
#### 1.2.1 Location

The site comprises the land south of the M5 and northeast of Berwick Drive, within the northwestern margin of Bristol. The land is bordered to the northwest by the M5 and newly planted trees, residential development to the northeast and south and by mature trees associated with Haw Wood to the west. Further to the southwest, the site is bordered by the grounds of Cribbs Sports and Social Club. See Fig's 1 and 2.

#### 1.2.2 Site Description and Development Proposals

The proposals for the site consist of residential development, together with parking areas, amenity areas and landscaping, with the provision of vehicular access from the northeast, leading on from Parcel 10. The northwestern boundary of the site is defined by the M5, the southwestern boundary is defined by Berwick Drive and Haw Wood and recent residential development to the east and southeast. All other vegetation is to be removed and replaced as part of a comprehensive detailed landscape scheme.

**Fig 1. Location plan: Road Map: Not to scale**



**Fig 2. Location plan: Site Boundary: Not to scale**



### 1.2.3 Management Plan Areas

The purpose of this management plan document is to ensure the appropriate management of the retained and proposed landscape areas on the site following the construction and completion of the development. The landscape areas include existing boundary vegetation along with all new planting (trees, hedges, shrubs and grass) and other hard or soft landscape components outside of private gardens.

- 1.2.4 All of the landscape and ecological areas of the site, except for private gardens, will be the subject of the Landscape Management Plan. The landscape areas subject to this Management Plan are set out in Appendix 6.1.

## 1.3 RECITALS

### 1.3.1 Parties Involved

- **The Developer:** Taylor Wimpey South West is responsible for the construction of this development. The developer will be responsible for the protection and management of existing landscape components through the construction phase and the implementation of the hard and soft landscape works in accordance with the planning drawings, including any contractual maintenance period associated with these works.
- **The Local Planning Authority:** This term (abbreviated to LPA) shall refer to Bristol City Council and its Planning and Landscape Officers who are involved in the process of the approval of landscape and other documentation.
- **The Adopting Organisation:** This is the organisation that will adopt ownership of the landscape areas and is therefore responsible for their management and maintenance including all landscape components and features within them. The Adopting Organisation for the site will be a Private Management Company to be appointed by the Developer. The Adopting Organisation shall also be taken to mean any employee or representative of the organisation in ownership of the grounds.
- **The Landscape Management Contractor:** the company who may be appointed by the Adopting Organisation to carry out the landscape maintenance works.

### 1.3.2 Status of the Landscape Management Plan

Prior to the commencement of development (or such other date or stage in development as may be agreed in writing with the LPA) a detailed long term Landscape Management and Maintenance Plan for all landscape areas shall be submitted to and approved by the LPA in writing. The plan shall include:

- Aims and Objectives;
- A description of Landscape Components;
- Management Prescriptions;

- Details of maintenance operations and their timing; and
- Details of the parties/organisations who will be maintain and manage the site, to include a plan delineating the areas that they will be responsible for.

The plan shall demonstrate full integration of landscape, biodiversity and arboricultural considerations. The areas of planting shall thereafter be retained and maintained in perpetuity in accordance with the approved Landscape Management and Maintenance Plan, unless any variation is approved in writing by the Local Planning Authority.

- 1.3.3 The LPA will approve this document as part of the planning process and this document therefore forms part of the approved planning documents. Management shall therefore be carried out in accordance with this document following completion of the implementation management plan (and any contractual maintenance periods associated with these works). This document will outline the minimum standard of maintenance to ensure a safe, comfortable, attractive, biodiverse and sustainable landscape is achieved in perpetuity.

1.3.4 **Supportive Information**

The document should be read in conjunction with the following planning documents:

- Detailed Soft Landscape Proposals Rev B, James Blake Associates, August 2023.

## 2.0 AIMS AND OBJECTIVES OF THE LANDSCAPE MANAGEMENT PLAN

### 2.1 AIMS

2.1.1 The principal aims of this Landscape Management Plan are to secure a coordinated and high standard of landscape management for the landscape areas within the site, to ensure the successful integration of the residential development with the surrounding landscape and to protect and enhance nature conservation interests in accordance with the design objectives in the approved planning documents. This will include the appropriate maintenance of existing retained, and proposed landscape components.

### 2.2 OBJECTIVES

2.2.1 The main objectives of the Landscape Management Plan are as follows:

- **To maintain landscape character:** To protect and conserve the existing landscape character and screening function of existing vegetation, and to incorporate locally indigenous species within screening/structural landscape areas, to provide an attractive and robust landscape setting for the buildings on the site and reinforce local distinctiveness;
- **The sustainable management of existing vegetation:** To retain existing trees, hedgerows and other vegetation that are worthy of retention, and to enhance their character, composition and age structure through positive management with consideration to long-term viability and health and safety;
- **To achieve a high standard of maintenance:** To take measures to ensure the successful establishment and growth of new structural and incidental planting and to take appropriate long-term management measures to ensure the satisfactory appearance and sustainability of vegetation. To ensure that landscape components are replaced, augmented and/or improved over time as appropriate;
- **To maintain and enhance biodiversity:** To protect and enhance the nature conservation interest of both existing and new habitats and to ensure the adoption of management practices that enhance the biodiversity value of the site. To fulfil all legal requirements in relation to the protection and management of ecological features and the protection and management of target species including bats and reptiles;
- **To ensure health and safety:** To uphold the duty of care that all landscape components are safe and that all reasonable steps are taken to minimise risk of injury and damage to people and property; and
- **To provide a mechanism or monitoring and review:** To ensure that management practices are monitored and where necessary reviewed on an annual basis in accordance with changing site circumstances and the views of key stakeholders (Adopting Authority, resident's representatives and LPA).

## 3.0 SPECIFIC ELEMENTS REQUIRING MANAGEMENT AND MAINTENANCE

### 3.1 LANDSCAPE AREAS AND LANDSCAPE COMPONENTS

3.1.1 The landscape areas subject to this Landscape Management Plan include the following components:

- Proposed tree planting;
- Proposed amenity grass; and
- Hard landscape areas.

3.1.2 The information includes a description and specific management objectives for each component along with the annual and occasional management regimes required.

3.1.3 The extent and location of areas to be managed is shown on the Landscape Management Areas Plan in Appendix 6.1.

### 3.2 PROPOSED TREE PLANTING

#### 3.2.1 Description

- New tree planting is incorporated into the proposed development within front gardens, parking areas and public open space to provide landscape structure and amenity value. Such tree planting will define focal points, enclose streets and spaces and soften the built form.

#### 3.2.2 Management Objectives

The management objectives for new tree planting is to:

- Ensure the satisfactory establishment and growth of new tree planting typical of the respective species;
- Promote conditions so that trees are healthy and safe; and
- Ensure continuity of the design approach and amenity value of tree planting.

#### 3.2.3 Annual Works

- General tree maintenance during establishment:** Check all trees for firmness and stability in the ground. Check and adjust tree ties, replacing if necessary. Top up bark mulch levels where necessary around the base of new trees, using the same or similar product to that previously supplied to maintain an approximate depth of 50mm to reduce competition from weeds and retain soil moisture. Where trees are in grass areas, remove weed growth by hand and retain a circle of bark mulch (approximate radius of 500mm) to aid mowing and prevent damage to the main stem. All trees shall be fertilised using a suitable and approved liquid feed (N10:P15:K10) at a rate of 60g/m<sup>2</sup> during early May and again in late September. Prune back any diseased or rotten wood (including the removal of main stems



and limbs) back to sound wood as required. Remove all cut material from site.

- ii) **Watering trees:** Water trees during dry periods (being any period without substantial rainfall for 14 days or more), until trees are successfully established. Water at a rate of 25 litres per tree position into watering tubes. Apply water at a frequency of once per fortnight from April to the end of September (to a maximum of 15 visits). Increase watering frequency during any continuous hot weather lasting more than 7 days. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water. The Landscape Management Contractor shall be responsible for any tree failures or excessive die back from drought stress during the management contract.

#### 3.2.4 Occasional Works

- i) **Checking and removal of tree stakes and ties:** Review the need for tree stakes and ties annually for up to 6 years. Remove stakes and ties between 4 to 6 years after planting, but be sure trees are firm and stable. Stakes and ties removed shall be cut at ground level, below lowest grass height (to prevent snagging mower blades) or pulled from the ground and the post holes filled with suitable topsoil. If the tree is found to be weak or unstable after the stakes have been removed, then check the base of the tree for signs of rot. If rotten or unlikely to stabilise, remove the tree and replace. If the tree is free from rot or other cause of its instability, then re-instate a tree support, using 100mm diameter chestnut stake and single tie. The stake should be pushed into the ground with a post rammer, to a depth of 600mm and cut to one third the height of the tree. Fix the tree stem with a rubber tie and spacing device attached to at a point no more than 25-35mm below the top of the post, in order to prevent chaffing against the post in high winds. Remove old posts and ties and arisings and dispose off site.
- ii) **Long-term tree surgery works:** After 10-20 years of maintenance as above (or earlier if required), newly planted trees will reach semi-maturity and at this time may be in need of corrective surgery. Trees should become subject to the annual Arboricultural Assessment and any works recommended shall be carried out in accordance with paragraphs 4.2.3 and 4.2.4.
- iii) **Tree replacement and enhancement of tree cover:** Any tree that dies or is necessarily felled, but which is not removed as part of a programme of tree removals, shall be replaced with a tree of appropriate species and stock size. Such replacement shall be with a tree of either the same or similar species as those existing. The option for replacing with a different species is to allow some flexibility avoiding problems encountered with 'Same Species Disease' and to ensure sustainable tree cover in the interests of visual amenity. Possible damage to drainage/services and adjoining building foundations must be considered before choosing a

replacement tree species and location. Where alternative species are being considered, then the species should be suitable to the character of the location and adjoining trees. Once annually the site shall be considered for the need for any strategic replacement or enhancement planting, to broaden the age class of trees and tree groups, in the interests of the long-term sustainability of strategically important vegetation. Trees should be a minimum stock size of standards (10-12cm girth), and implemented and maintained in accordance with good horticultural practice. Replacement and enhancement planting is best undertaken during the planting season (November through to March inclusive).

### 3.3 PROPOSED AMENITY GRASS

#### 3.3.1 Description

- Areas of cultivated amenity grass are located across the open space and amenity areas.
- The mowing frequency will be related to the grass mix and function of the area. The height of the sward can be varied according to amenity and to ensure nature conservation benefits.

#### 3.3.2 Management Objectives

The management objectives for amenity grass areas will be to:

- To ensure the satisfactory establishment of the grass sward; and
- To maintain healthy and suitable grass areas appropriate to function and use.

#### 3.3.3 Annual Works

- Mowing and edging:** Amenity grass areas shall be mown in order to maintain the visual amenity of the area. Mowing frequency and height shall be adjusted the function and use of each area. All grass shall be mown initially with a rotary mower once during the spring (mid-March), to a height of 50mm and thereafter using a cylinder mower, collecting the arisings each time, and removing off site. Soft edges between grass areas and planting beds shall be kept free from grass by cutting the grass with a 'half moon' edging tool to ensure a neat, clean-cut finish once per year at the start of the growing season. The edge of paving and shrub beds shall be kept free of grass using strimmers or edge clippers once per month during the growing season.
- General lawn care:** Apply an approved turf fertilizer, selective weed killer and moss retardant in May and September, applying strictly in accordance with the manufacturer's instructions, Control of Pesticide Regulations, COSHH Regulations and product COSHH sheet in suitable weather conditions. Otherwise amenity grass areas shall be weeded either by hand or (especially persistent weeds) herbicide treated in order to maintain the visual amenity of the area (refer to paragraph 4.6.3).
- Watering amenity grass areas:** During the first 3 years following initial seeding or following re-seeding operations, water amenity grass areas during periods of extreme drought (2 or more weeks without substantial rainfall) to a maximum of 15 occasions. After establishment continue to

water only if deemed to be required. To aid the natural establishment of grass areas, only water where unavoidable, where the grass is going brown and appears to be suffering from severe drought stress. When watering, water to field capacity (minimum 20L/m<sup>2</sup>) in the morning or in the evening to reduce water evaporation, when the water is more likely to reach the roots. The Landscape Management Contractor shall be entirely responsible for varying the frequency of these visits according to climatic conditions and for contacting the Adopting Organisation and agreeing the timing of any additional watering visits if required and where restrictions are placed on the use of water, sources and costs of obtaining second class water.

#### 3.3.4 Occasional Works

- i) **Replacement of failed turf:** Small areas of dead, dying or failing grass shall initially be made good through changes to the mowing regime or through temporary protection of high wear areas using temporary fencing or similar. Larger areas of degradation may require re-cultivating and reseeded. Cut out sections of distressed and failing or dead areas of turf using a suitable turf-stripping machine or for small areas by hand. Supply and lay new turf of a suitable standard and lay flush with existing sward, filling any cracks and top dressing with a 70:30 ratio mix of sand and screened topsoil. This sand/soil mix shall also contain grass seed of the same or similar species to the turf. For more wholesale degradation of the turf sward, the entire area will require to be re-seeded. Cultivate or power-harrow the affected area until a fine tilth is achieved (removing stones greater than 20mm) and grade until level with adjoining areas. Apply a pre-seeding fertilizer at a rate of 70g/m<sup>2</sup> and seed with a general amenity seed mix such as "EG22" Mix by Emorsgate Seeds or other equal and approved, raking until the seed is a few millimetres below the surface. Water thoroughly and maintain the soil in a moist condition, removing stones, weeding and mowing until the grass is established.

### 3.4 HARD LANDSCAPE AREAS

#### 3.4.1 Description

- A range of hard landscape areas will be incorporated into the development layout including footpaths and shared car parking areas.

#### 3.4.2 Management Objectives

- To ensure that hard landscape surfaces are safe and comfortable to use and are clean from litter and other debris.

#### 3.4.3 Annual Works

- i) **General cleanliness:** All paved surfaces shall be swept monthly to ensure that they are clean, tidy and free from dust, litter and debris (removing all arisings off site). Increase sweeping to fortnightly in autumn when leaves are falling.
- ii) **Condition of paved surfaces:** All hard landscape surfaces and edgings shall be inspected monthly checking for mechanical damage, vandalism,

settlement, frost heave, staining, litter and debris or any other defect. Any such defects shall be documented and a corrective methodology agreed with the Adopting Authority and implemented as appropriate by the Landscape Management Contractor.

#### 3.4.4 Occasional Works

- i) **Repairs and renewals:** Where scheduled inspection detects paved areas are in need of replacement, extension or alteration to their original intended function or to minimise risk of injury, then such repair and/or renewals should be effected immediately. Remove defective paving, through excavation and make good base and sub-base materials as required, re-use salvageable paving units, and relay paving, buying in new products to replace any that are damaged or defective. Where there is differential settlement or the units wobble, or are not firmly bedded, jointed or pointed, ensure that the units are relayed firmly, re-bedding, jointing and where appropriate pointing, all to match the bonding pattern existing on site.

## 4.0 IMPLEMENTATION, MONITORING AND REVIEW

### 4.1 IMPLEMENTATION


- 4.1.1 A Private Management Company will be established for the site to undertake all management aspects relating to the external landscape areas that lie outside of private residential gardens.
- 4.1.2 The Private Management Company will coordinate all management of the site in perpetuity in accordance with this Landscape Management Plan and the accompanying maintenance schedules. A representative of the Private Management Company will be appointed as the main point of contact for residents, relating to the management of the site.
- 4.1.3 The Private Management Company may employ a Landscape Management Contractor to carry out general maintenance operations. Specialist Contractors may be used on an as needs basis to complete specialist operations and/or occasional works.
- 4.1.4 The Private Management Company may also appoint from time to time consultants to provide specialist advice, monitoring or to undertake a watching brief in relation to particular aspects of this site or specific maintenance operations. This may include suitably qualified ecologists, arboriculturists, landscape architects, engineers and/or health and safety executives.
- 4.1.5 All works, materials and operations will be in accordance with relevant legislation, British Standards, Regulations (including the CDM Regulations) and Codes of Practice.

### 4.2 PROCESS FOR MONITORING AND REVIEW

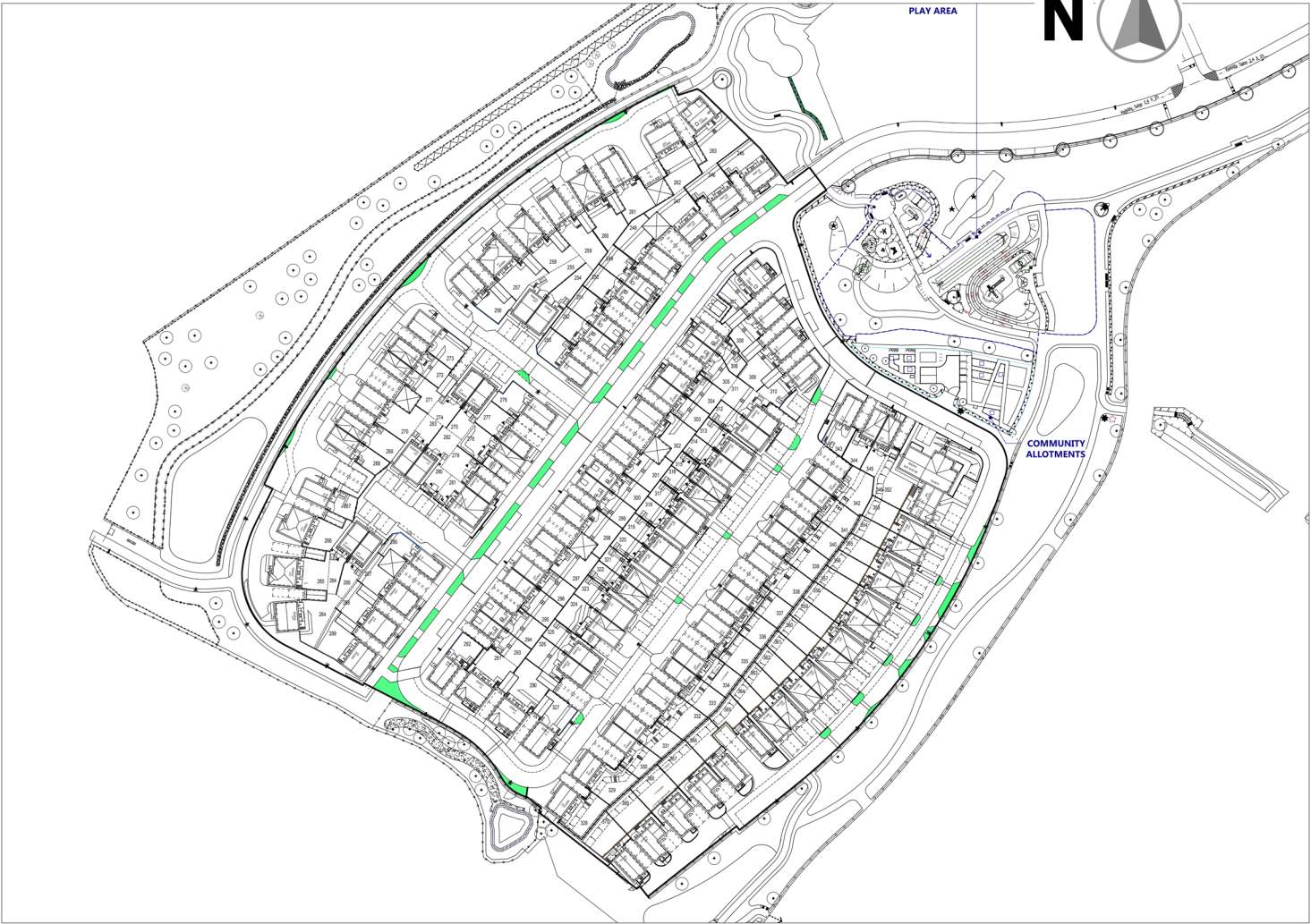
- 4.2.1 The Landscape Management Plan and maintenance schedules will be monitored and assessed for their effectiveness on an annual basis for the first five years following the completion of the development.
- 4.2.2 Each annual review will be coordinated and completed by a suitably qualified representative of the Adopting Authority. The review will include advice from specialist consultants as required (such as a qualified Arboriculturist and ecologist), the Landscape Management Contractor and other stakeholders including representative(s) from the LPA and local residents.
- 4.2.3 **To this end the review may include (as appropriate):**
- Specialist reports - advising on particular aspects such as protected species, general silvicultural husbandry and health and safety issues;
  - Records or attendance sheets demonstrating the maintenance work undertaken; and
  - A walk over assessment of the landscape areas to assess landscape components and their condition, and the need for enhancement including minutes.

- 4.2.4 The review should identify any changes to site conditions and circumstances, whether the aims and objectives of the Landscape Management Plan are being met, and where identified changes are need to existing management practices and timeframes. Furthermore, any strategic enhancements, including new planting should be identified and priorities established for undertaking these works.
- 4.2.5 Within 1 calendar month of the review, a revised Landscape Management Plan shall be produced (if appropriate), and circulated to stakeholders. Within 5 years of the completion of the site, then the revised document shall be submitted to the LPA as a non-material amendment to the previously approved Landscape Management Plan.
- 4.2.6 After the first five years the Landscape Management Plan will be reviewed every five years, or as required to ensure the satisfactory management of the landscape in perpetuity.

### 5.0 APPENDICES

 Areas to be managed

#### 5.1 MANAGEMENT AREAS PLAN (Not to Scale)



### 5.1 SCHEDULE OF MAINTENANCE OPERATIONS

Maintenance Operation	Number of Visits (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					Total number of visits per year	Additional Comments
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov –Dec (8 weeks)		
<b>GENERAL</b>							
Collection and removal of litter and other debris	Once per month	Once per month	Once per month	Once per month	Once per month	12	All hard and soft areas. Cart away litter/debris and remove off site to licensed tip.
<b>PAVING</b>							
Inspection and sweeping	Once per month	Once per month	Once per month	Once per month	Once per fortnight while leaves dropping	14	Document any defects, recommend methodology and carry out remedial works as required.
<b>SOFT WORKS</b>							
Spot herbiciding	Once in late March		Once in late June, once in mid-August	Once in mid-October		4	To occur at approximately 6 week intervals only if required.
Watering		Once per fortnight	Once per fortnight	Once per fortnight		15	Water once per fortnight from April to September until trees/plants/grass areas are established. Watering frequency should be adjusted by the Landscape Management Contractor depending on climatic conditions. Increase watering during hot and dry weather until plants have established.



Maintenance Operation	Number of Visits (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					Total number of visits per year	Additional Comments
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov – Dec (8 weeks)		
Fertilising trees		Once in early May		Once in mid-September		2	Fertilize new trees and planting, once in early May and once in late September. Use a slow release product, ideally granular.
Checking, adjusting, replacing or removing tree stakes and ties	*	*	*	*	*	12	At each visit as required
Pruning trees	Optimum time for Buddleia & Cornus				Optimum time for most species	1	As required to sound horticultural practice between October and March. Cut back grasses in spring.
Cutting amenity grass areas	Only if required from start of growing season	Once every fortnight	Once every 3 weeks	Once every fortnight	As required to finish of growing season	12-15 times per year	Mowing frequency to be adjusted according to climatic conditions and use. Reduce frequency to every 21 days in hot and dry weather.
Edging lawns and amenity grass areas		Once per month	Once per month	Once per month		7	Re-profile and edge shrub beds at start of growing season with half moon tool, then trim or cut margins with edging shears throughout growing season.

Maintenance Operation	Number of Visits (to be dependent on season – where not dependent on season, if appropriate, the timing shall be agreed between the Adopting Organisation and the Contractor. Indicative timings are shown with a *)					Total number of visits per year	Additional Comments
	Jan – March (13 weeks)	April – June (13 weeks)	July – Aug (9 weeks)	Sept – Oct (9 weeks)	Nov – Dec (8 weeks)		
General lawn care		Once		Once		2	Apply a fertiliser, selective weed killer and moss retardant in May and September.
Replacement of tree planting	*				Optimum time for most species	1	As required. To include enhancement planting.
Replacement of amenity grass				Optimum time		1	As required.
Scrub clearance						1	As required and informed by the ecologist and Arboriculturist

## 5.2 Indicative Pruning Schedule for Plants

Plant Species	Pruning dates	Pruning amount	Crown raising	Additional Comments
<i>Betula pendula</i>	Dec/Jan	n/a	every 5 years	Thin by 50% in year 15
<i>Sorbus aucuparia</i>	Dec/Jan	n/a	Every 5 years	Thin at 15 years