

CLOBURRIS CANAL EXTENSION

Landscape Maintenance and Management

March 2022

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LDĀ DESIGN

CLONBURRIS CANAL EXTENSION LANDSCAPE MAINTENANCE AND MANAGEMENT PLAN

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1 EXISTING SITE

1.1 Site Description

The area is denoted as Development Area 12 – Canal Extension, within the Clonburris Strategic Development Zone (SDZ), Planning Scheme, 2019. It has a 3.25ha gross development area (2.5 ha net area).

The site is located on lands adjoining the Bawnogue Road and Ashwood drive in Clondalkin, Clonburris, immediately to the north of the existing Ashwood residential area. The Fonthill Road (R113) is situated to the east of the site and a tarmac, lit path forms the east boundary. The 18th century Grand Canal is situated to the north. A proposed Natural Heritage Area, it hosts a rich variety of plant and animal species, including protected species and numerous mature tree species.

The site is an open, almost level area, comprising predominantly maintained species-rich grassland with a randomly spaced line of ash trees along the Bawnogue Road and the mixed, native species hedgerow and trees alongside the canal towpath. Groups of mixed, native trees and scrub understorey species are also located along the Fonthill Road and along Ashwood Road.

In addition to the main path connecting Bawnogue Road to the canal, to the east of the site, is a second tarmac path linking the canal path to Fonthill Road and numerous, informal routes cutting across the grass area.

A number of services cross the site; high-pressure gas main, telecoms, both below ground to the east of the site and the ESB overhead lines which run both north/south and east/west across the eastern half of the site.

2 DESIGN PROPOSALS

2.1 Overview

The proposals comprise residential development, with a range of residential unit types: 3- and 4-bedroom houses, duplex units, triplex units and 4-storey apartment buildings with associated parking spaces.

The concept is to create a soft-urban design of buildings sitting adjacent to a parkland setting. The development will add quality to the locality through new pedestrian routes and amenity for children, adults and the elderly, creating a sense of place enjoyed by the neighbouring community.

2.2 Landscape Principles

The landscape proposals support the development masterplan by creating a high-quality setting to the residential neighbourhood with considered streetscape design and locally accessible open spaces with high levels of legibility and ease of movement within and through the development and also connections with the wider canal-side park area and towpath. The high level of visibility through the site and from passive surveillance ensures good orientation and provides a safe environment for all users.

The streetscape design balances the need for practical use; road access, parking, pedestrian and cycle routes with an attractive tree-lined and planted character. The visual impact of the hard landscaped areas and parking are mitigated through the inclusion of columnar form street trees, underplanted with plant species providing year-round visual interest. These areas of street planting will also form part of the SuDs proposals, designed to take surface water run-off which will be directed to the SuDs features.

The planting proposals have also been carefully considered to denote and distinguish public and private areas, ensure privacy zones, deter loitering, create attractive back garden and communal areas, clearly denote the extent of the development, minimise anti-social behaviour, reduce visual and noise impacts from the Fonthill Road, create attractive play areas, including opportunities for natural and imaginative play and ensure that the development will make a positive contribution to the future Grand Canal park.

The landscape proposals have been co-ordinated with the street lighting design, services and drainage requirements. The SuDS features have been designed to ensure an attractive and positive feature to the development with integrated play elements and opportunities for increasing wildlife habitat and biodiversity; with organic shapes, variety of side slope gradients and inclusion of the smaller low-lying area to hold water year-round.

To ensure an enduring quality, residential development the selection of hard and soft landscape elements have been carefully considered for durability, quality, ease of replacement (if necessary) and to minimise the maintenance burden and operations.

Existing Trees

Where possible, existing trees have been retained. The trees along the Grand Canal and adjacent to Fonthill Road are not affected by the proposed development.

A number of the trees to the south boundary, between the existing Ashwood residential development and new development and trees along Ashwood Drive will be retained and incorporated as part of the proposals.

This will ensure immediate setting and place between the new and existing developments and also maintain a level of screening.

Street Planting

The residential streets and shared public areas, within the residential areas, will primarily consist of a mix of medium sized, columnar, ornamental street trees with shrub planting to provide year-round interest and ensure attractive place making. At key locations the inclusion of larger species will add additional interest, focal reference points and connectivity of scale with the surrounding wider park and framework planting. This will particularly be the case to create a strong, green link between Ashwood Drive and the park area, around the SuDS features.

Parkland and Public Realm Trees, Shrub Planting and Hedgerows

Predominantly native tree and shrub species will be included within the park areas to ensure seasonal interest through form, colour and texture but also ensure enhancement and continuity of habitat corridors and biodiversity.

The majority of the trees will be laid out in informal groups, in keeping with the generally informal nature of the park design. However, the trees and hedges defining the play facilities and boundaries with the adjacent residential areas will have a more formal character to identify the subdivision of these spaces.

The proposed groups of native woodland and scrub areas will be the primary mechanisms for creating the subdivision of spaces and the different character areas within the park.

Comprising native shrub and small to medium tree species, these proposed groups will be designed to optimise the range of habitats:

- a range of sizes: small, medium and large groups
- a range of planting densities: some with and some without glades.
- differing edge treatments: tree edge, shrub edge, grass edge, bog and marginal planting
- a variety of combinations of plant species to create subtly different habitat characteristics.

SuDs Features

The size of the SuDs features, which will be generally dry, meet the drainage requirements but have been designed with informal edges and a variety of slope gradients to ensure they have a pleasing, natural look with a variety of planting and grass mixes and are accessible via the informal path network ensuring a positive contribution to the public realm, backdrop to the development and include opportunities for informal play area.

Grassed Areas

Three types of grass mix and a variety of maintenance regimes will be used to complement and reflect the range of characters and habitat areas within the development site area.

A hard-wearing mix, with a finer sward and good colour and capable of withstanding the rigours of intense use, and a regular mowing regime will be used for the front and back gardens and grassed communal areas.

Open areas will be seeded with a species-rich grass mix suitable for neutral soils giving enhanced colour and interest to the grass sward as well as being supportive of pollinator species, to improve habitats and biodiversity.

The SuDS feature edges and damp low-lying areas will be seeded with an aquatic marginal native species seed mix to support the proposed marginal and aquatic plant species, further enriching the waterside habitats and ensuring naturalistic edges.

3 LANDSCAPE MAINTENANCE AND MANAGEMENT PLAN

3.1 Purpose

Planned maintenance and management operations are needed for both 'soft' planted and 'hard' paved areas, which may well require amendment as the planting matures and the use of the site changes.

The purpose of the Landscape Maintenance and Management Plan for this development will ensure:

- an appropriate and attractive setting for the new development.
- the establishment of a high-quality landscape with a variety of character areas and wildlife habitat areas.
- a varied and attractive recreational facility.
- a successful establishment and the long-term health of the new planting; and
- wildlife potential is optimised by conserving and enhancing existing and managing the newly created habitats in a sustainable manner.

4 MAINTENANCE REQUIREMENTS

4.1 General Maintenance

The maintenance and management of the landscaped areas for the development are likely to be divided into the management of the communal areas, public open areas, and the landscaping in relation to the roads.

The maintenance and management clauses that follow are annual establishment maintenance items and would commence after the end of the Defects Liability Period as defined within the Main Contract. These items would be required to be undertaken each year (unless otherwise stated) and should be undertaken by a suitably qualified and experienced Landscape Maintenance Contractor.

The Landscape Maintenance Contractor will be required to produce a Schedule of Works, setting out proposed dates of all items of works, to be submitted to the Client, for approval prior to any works being carried out.

The following establishment maintenance items are an indication of the actions required to ensure an attractive, co-ordinated and sustainable setting and park facility for the residential development areas.

It is recommended that the annual programme of works is reviewed every 2 years, to ensure maintenance items remain appropriate as the planting matures, with individual Items being removed or incorporated, as deemed necessary.

A suggested list of Annual Maintenance operations is included in Appendix 1.

Workmanship - all work is to be carried out to the highest standard in accordance with current good practice guidelines in horticulture and executed by workmen qualified to carry out the particular maintenance requirements, especially with regards to arboricultural work, the timing of grass cutting and weed control operations, and the formative or remedial pruning/shaping of trees and shrubs.

Reinstatement - damage or disturbance to soil structure, planting, grass swards, fencing, hard landscaping, structures or buildings: Reinstatement is to be done to the original condition.

Disposal of arisings - unless specified otherwise, dispose of arisings as follows:

- Biodegradable arisings: generally take to a suitable recycling / composting centre. Arisings from final cut, each year, to be placed in agreed locations to form or enhance invertebrate and amphibian habitats, particularly places for overwintering, but not within identified flood zones;
- Grass cuttings: all arisings generally to be removed from site. Arisings from final cut - collect and spread/place as described above;
- Tree roots and stumps: these can be left insitu, unless instructed to remove;
- Shrub and tree prunings: generally take to a suitable composting centre. Agreed quantities of branches of native tree and shrub species can be retained and placed to create habitat piles at suitable locations, but not within identified flood zones.

Litter and non-biodegradable arisings: collect, bag and take to appropriate tip.

Litter - extraneous rubbish not arising from the contract work: Collect and remove from site.

Protection of grass – if necessary, protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.

Cleanliness - remove all soil and arisings from hard surfaces. Leave the works in a clean, tidy condition after any maintenance operations.

4.2 Grassed Areas

Three different grass mixes are proposed for the site, with varying mowing regimes to optimise the grassland biodiversity and also to suit the maintenance requirements of the site. They are:

- Hardwearing mix, i.e. communal gardens and shared back court areas
- Species-rich Mix, i.e. general park areas and public realm areas.

- Wetland Mix, i.e. to SuDS feature edges

The areas of wildflower and species-rich grasslands will have been prepared as follows to achieve the required grass character areas.

Topsoil will have been stripped, where required, but any subsequent re-growth of pernicious perennial weed species such as nettles, docks, ragwort and creeping thistle will have been treated with a non-selective, systemic herbicide (e.g. *glyphosate*). Areas that have not been disturbed will be lightly scarified to break up the ground surface. All areas will then be over-seeded in either spring or autumn, with the specified wildflower/grass mix at a rate of 3-5g/m² bulked-up with sharp sand to facilitate spreading.

Cutting of Hardwearing Mix areas:

- Cut between 16 and 20 times between end of March and beginning of October
- Height of cut: 20-25mm – remove arisings directly after first and last cuts of the mowing season.

Cutting of Species-rich Mix areas:

- 4 per annum.
- Height of cut: 40mm – remove all arisings about a week after cutting.
- Time of autumn cut: late September to early October.

Cutting of Wetland areas:

- 2 per annum, once in spring and again in autumn.
- Time of spring cut: late March / early April
- Time of autumn cut: late September to early October
- Height of cut: 40mm. Leave arisings after the autumn cut, for 1-2 weeks, to allow seeds to drop through for next generation of germination, before removing arisings.

Nettles – these can be retained, but managed, as these plants are important for many species of butterfly/caterpillar. Nettles are acceptable at scrub planting edges but should be removed from path edges and open grass areas.

Control of notifiable, injurious and non-native weeds – (e.g. Japanese Knotweed, Giant Hogweed, Himalayan Balsam) the landowner and / or the Local Council will be notified and an appropriate course of action will be put in place.

Fertiliser – is not to be applied to the Species-rich Mix grassed areas or the Wetland mix areas. A slow-release type fertilizer may be applied to the Hardwearing Mix areas if establishment is slow, or areas are becoming worn.

Establishment inspection – check annually, particularly in areas seeded on un-disturbed ground for first 5 years and then every 3 years, to determine establishment. If required, scarify areas and over-seed with the original specified seed mix or plant with suitable wildflower plugs of the desired species.

To assist with maintaining the grassed areas and eradicating the need for spraying chemicals, all items such as bollards, streetlights, signage poles etc. placed in grassed areas will have a concrete collar around their base to prevent weeds germinating and to act as a mowing strip. Where fencing is located within grassed areas there will be a concrete strip underneath to prevent weed growth and to act as mowing strip.

4.3 Public Realm / Parkland Trees

Trees will be planted generally as heavy standards or extra-heavy standards with some semi-mature specimens in key locations.

Regular Maintenance Checks – to be carried out *quarterly* by a landscape architect or clerk of works, for the first 4 years to inspect the planting and quality of contractor maintenance:

- stakes: condition of ties etc
- firming up
- death / dieback
- formative and remedial pruning
- fertilising

Check growth / deaths – Check annually for the first 4 years. Replace weak / dead trees during the planting season (October to March). If, after this time, trees fail to establish at the desired rate, discuss options with the Contract Administrator.

4.4 Street Trees

Trees will be planted, as a minimum, as extra-heavy standards but with semi-mature trees in key locations.

Regular Maintenance Checks – to be carried out quarterly for the first 4 years to inspect the planting and then annually:

- stakes / guys: condition of ties etc. (remove at end of 4th year)
- firming up
- death / dieback
- formative and remedial pruning
- fertilising

Check growth / deaths – Check annually for the first 4 years. Replace weak / dead trees during the planting season (October to March).

Hedges

Trimming new ornamental hedges – sides to be trimmed carefully, once a year, for the first 3 years after planting and then as required to ensure a neat tidy appearance. Hedges are to be ultimately maintained at a height of 1.5m – 1.8m, depending on the species and location.

4.5 SuDS Features

The SuDS features will be planted with wetland grass mix and supplemented with native aquatic marginal and emergent plant species, to enhance appearance and provide additional water-edge habitats.

The regular maintenance operations, will include:

- grass cutting (as set out in 4.2 Grassed Areas)
- reduction in excessive plant growth / spread

Plant removal – excessive plant growth / spread and removal of any non-native species (that may have self-seeded) are to be cleared out annually in late summer / early autumn or as agreed dependent on species. Cut back, working from the centre, outwards to reduce mortality of small mammals and ground-dwelling birds. Carefully remove collected material and take to compost facility.

Fertiliser – fertilisers are not to be applied to surrounding grass areas or to marginal plant species.

Hard Landscaped Areas

All hard surfaces will require to be regularly maintained:

- Remove litter, leaves and other debris
- Surface gutters and channels: remove mud, silt and debris
- Drainage gullies: empty traps and flush clean.

5 MANAGEMENT

5.1 Objectives

Management of the external works will ensure that the key aims of providing an appropriate visual and physical setting for the local residents which will support a range of recreational activities as well as ensuring a range of thriving and diverse habitats. This will be achieved by overseeing and monitoring the regular maintenance operations.

The programme of works can be adjusted through the course of the year, if necessary, if conditions require this but should be reviewed not less than every 2 years to ensure the annual maintenance requirements are still appropriate as the landscape matures.

When undertaking the maintenance works, particularly the grass cutting, the contractor will need to be vigilant as to the presence of the wildlife on site - for example nesting birds, frogs, toads, newts, within the grass and avoid, as far as is practicable, causing injury or death.

6 APPENDIX 1 – Annual Maintenance Operations

CLONBURRIS CANAL EXTENSION - LANDSCAPE MAINTENANCE AND MANAGEMENT PLAN

Maintenance Programme - Operations per Annum												
Operation Month	J	F	M	A	M	J	J	A	S	O	N	D
Grassed Areas												
Litter/Leaf/Debris Removal	•	•	•	•	•	•	•	•	•	•	•	•
Fertiliser			•									
Soil Aeration / Spiking (alternate years)			•									
Edging General Areas			1			1			1			
Cut Hardwearing Areas			1	1	2	3	3	3	2	1		
Cut Species-rich Areas			1		1		1			1		
Cut Wet Meadow Mix			1							1		
Shrubs & Perennials												
Fertilise / Add Compost			•						•			
Hand Weeding			•	•	•	•	•	•	•			
Pruning - as appropriate for species	•			•		•				•		
Litter/Leaf/Debris Removal	•	•	•	•	•	•	•	•	•	•	•	•
Trees												
Fertiliser Application			•						•			
Checking Stakes, Ties, Guys etc		•		•		•		•		•		•
Pruning & Tree Surgery				•							•	
Remove guards, guys etc (end Year 4)	•			•		•				•		
Replacements												
Trees, shrubs & plants (if required)										•		
Grass- reseed/returf (if required)					• or		• or					
Pest Control												
If required				•								
Hard Paved Areas												
Debris / dirt removal	•	•	•	•	•	•	•	•	•	•	•	•

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