

PROPOSED PART 8 RESIDENTIAL DEVELOPMENT

Basin View Flats, Dublin City – Dublin City Council

Landscape Report

October/ 2024

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BIODIVERSITY

Basin View Flats Part 8 Description

Notice is hereby given of the construction of 171 apartments at a site of c.1.64 ha at Basin Street Flats, Basin View, Dublin 8. The site is bounded by Basin Grove and St. James Primary School to the south; Luas light rail line and St. James' Hospital campus to the west, Basin Street Lower/Ewington Lane and Mary Aikenhead House Flats to the north and Basin View Street / Brandon Terrace to the east; which will consist of the following:

- The demolition of four existing Basin Street Flats residential blocks; Building 1 (nos. 20-43), Building 2 (nos. 44-67), Building 3 (nos. 68-91) and Building 4 (nos. 92-115), ancillary structures, boundary walls and railings and site clearance works and renovation of one existing Basin Street Flats block (Building 5 nos. 116-151);
- Construction of 171 no. apartment units in three apartment blocks (Block A, Block B and Block C) comprising 171 residential units (83 no. 1-bed, 71 no. 2-bed, 13 no. 3-bed and 4 no. 4 beds);
 - Block A ranges from 4- 8 storeys with 48 units (17 no. 1-bed, 28 no. 2-bed, 3 no. 3-bed)
 - Block B ranges from 4 -8 storeys with 81 units (28 no. 1-bed, 39 no. 2-bed, 10 no. 3-bed, 4 no. 4 bed)
 - Block C is 5 storeys (renovation block) with extension to western gable with 42 units (38 no. 1-bed, 4 no. 2-bed)
- 382 bicycle parking spaces;
- 55 car parking spaces, which includes provision of 51 residential and 4 non-residential car parking spaces (2 creche and 2 community, arts and cultural car parking spaces);
- Provision of a childcare facility of 294 sq.m. at ground floor of Block A;
- Provision of 1114 sq.m. community, cultural and arts space comprising 516 sq.m. internal space at ground floor of Block B and 598 sq.m. external space, which includes a 468 sq.m. amphitheatre and 130 sq.m. space located externally at Block B;
- Relocation of public open space to a new central area of 3767 sq.m. (in place of Oisín Kelly Park) and 2748 sq.m. of communal open space;
- Two vehicular access/ egress points are proposed from Brandon Terrace/ Basin View Street and from Basin Street Lower/ Ewington Lane;
- Existing bollards and line marking fronting Wee Tots Creche Pre-School and Fountain Youth Project at building 2A Basin Lane along Basin View/ Brandon

Terrace to be removed and replaced with paving, extension of kerb and flexible bollards;

- Boundary treatments, landscaping and public realm works, public lighting, site drainage works, new internal road layout, traffic calming raised table and pedestrian crossing points, footpaths, ESB substation and meter rooms, stores, bin and cycle storage, plant rooms; and
- All ancillary site services and development works above and below ground.

Landscape Design Aims and Objectives

To inform the landscape structure of the proposed residential development new a Landscape Masterplan was prepared which includes the relocation of the existing Oisín Kelly Park to form the heart of the new Basin View development. The landscape design provides a varied, accessible and permeable open space network for community use that as it matures will become a significant resource.

As the Covid pandemic has brought into sharp relief for people's health and well-being there is a community requirement for open, natural spaces, which facilitate exercise, recreation, and free play.

The proposed open space network provides for these flexible activities in a natural environment with inclusive access.

The design incorporates wildlife considerations in the retention/ protection/ management and reinforcement of existing trees. Existing trees on the site will be protected where possible in line with the objectives of the arboriculture assessments & Landscape Masterplan, and brought back into a managed state and reinforced with new planting.

Varied habitats are created for ecological connections and landscape visual amenity;

- Detention basins
- Bioretention tree planting pits within the residential street network
- Rain Gardens and Swales
- New tree planting
- Flexible amenity lawn areas

Management Structure

The landscape areas will be managed by the development management company for a period of 25 years.

Bird Season Restrictions

Vegetation clearance will take place outside the breeding bird season (i.e. the start of September to the end of February, inclusive) to avoid any potential impact on breeding birds. Where this seasonal restriction cannot be observed, a check for active nests will be carried out immediately prior to any site clearance and repeated as required to ensure compliance with Irish wildlife law. This will be carried out under the supervision of a qualified Ecologist.

Ecology

The open space landscape network has been designed to provide for ecological value in the area and this function will be enhanced in accordance with further recommendations from the Ecologist Consultant.

The three main design principles of landscape and biodiversity for this site are as follows.

- 1. Retention of existing ecological features.**
- 2. Biodiversity enhancement in the landscaping scheme.**
- 3. Biodiversity enhancement for fauna.**

These are outlined further in the biodiversity chapter below.

All Ireland Pollinator Plan 2021-2025

Planting and management of the landscape areas shall be undertaken in accordance with pollinator friendly management objectives as outlined in the “All Ireland Pollinator Plan 2021-2025 (Councils: Actions to Help Pollinators)” National Biodiversity Data Centre and will include interpretative signage highlighting the areas Managed for Wildlife. Varied grass cutting regimes will provide for a species richness within the grassland areas, especially in the context of their location in an urban area.

SUDS integration for water management (are there nature-based suds solutions)

A coordinated approach within the landscape design has been taken to site services, in particular SUDS integration for water management and habitat creation.

Standards of Care

High standards will be maintained in all areas of service delivery.

High standards of care will be achieved by:

- a landscape maintenance specification
- maintenance works to be undertaken by trained staff members, providing on-site supervision of trainees
- providing Health & Safety training for staff
- proactive maintenance of hard landscape areas, play elements and seating
- a programme of tree works
- monitoring of standards of care
- working with local interest groups to ensure community ownership of the site
- updating risk assessments for operations by the landscape staff
- periodic review of standards and procedures
- perceptions of safety will be increased, and vandalism and other anti-social behaviour discouraged with additional natural surveillance by increasing circulation, overlooking from the residential development and maintaining open views across woodland areas.

Landscape design description

At the centre of the development is Oisín Kelly Park, a dynamic open space incorporating amenities for all age groups. It serves two buildings at the north of the site and one building at the south. This will be supplemented by a communal open space for each proposed residential building, providing community gathering and flexible recreation opportunities, as well as spaces to support the internal uses of the buildings, such as the creche and the community, culture and arts area.

The park is framed to the east by Basin View – a street which runs along the entire eastern site boundary – and to the west by a boundary wall to a Luas line. The wall is partially screened by four retained mature trees which are supplemented by proposed ones. The park is comprised of a number of different spaces with a range of intended uses. These include:

- An amphitheatre which references the history of the site and serves as part of the park's community, culture and arts space. The function of the space is as a flexible amenity lawn which can accommodate small social/community gatherings and events.
- A space to support a sculpture referencing the artist Oisín Kelly.
- A football / basketball area supported by bleacher-style seating to the north and west which are recessed into the slope in the landscape.
- A playground at the eastern end of the open space for younger age groups.
- Exercise equipment at the southern edge of the park for older age groups.

All three amenity spaces come together to form a cohesive network. They are designed to provide formal and informal recreative and active opportunities. SuDS features are a non-negligible aspect of the site strategy and will be incorporated into the landscape design as opportunity rather than constraint. For instance, the detention basins in the internal courtyards of Blocks A and B.

Proposed trees will have 2 metre clear stems to allow for unobstructed sight lines. The boundary of the open space is visually permeable to allow for passive surveillance and for views of the numerous amenities within Oisín Kelly Park.

Dublin City Basin

The proposed development is located on the site of the historic Dublin City Basin which was constructed in the early 16th century. References to the basin and its entrance gate have been incorporated into the landscape design. The outline of the basin is delineated in the paving throughout the site using contrasting band of limestone pavers.

Polished concrete walls and benches are also proposed around the site referencing the walls of the City Basin. These are used as boundary treatments to the west of the central open space as well as the northern entrance. The western entrance wall will have varying levels to allow for seating in various locations. This will pair with a fence to provide a more continuous boundary height at the western end of the park. The concrete walls and benches are repeated at the northern entrance which will include an entry feature inspired by the historic entrance gate to the City Basin, framing the proposed statue when viewed from the northern home zone. The entry feature will include an information panel explaining the history of the site and how it is represented in various locations throughout the site. A similar information panel will also be location at the northern entrance to the site, directly adjacent to the original City Basin entrance gate. This panel will provide the same information given at the park entrance, explaining the history of the site and the references to it in the landscape.

The proposal also includes a drinking water fountain at the eastern end of the park which is intended to reference the theme of water in the development.



Oisín Kelly Park

Renowned artist and sculptor Oisín Kelly grew up locally to the Basin View development site. His famous works include the *Jim Larkin* or “*Big Jim*” (1977) located on O’Connell Street, Dublin 1 and *The Children of Lir* (1964) in the Garden of Remembrance, Dublin 1.



Children of Lír (1964) © 2024 On This Day



Jim Larkin (1977) © Royal Irish Academy

The central park in the development is named after Oisín Kelly and serves as a relocation of the existing park which currently sits at the north of the site. Integral to the design of the park are references to the renowned artist by way of a space for a sculpture, etchings in furniture, and material choices.

The park facilitates the installation of a sculpture at the western side of the park. The proposed use of timber in the sculpture references Kelly's early work, as well as the fact that many speculate that timber was Kelly's favourite medium, although he is most known for his work in bronze. One of his most famous timber sculptures is *The Last Supper* (1962), located in the Church of Corpus Christi, Knockanure, Co. Kerry. The location chosen for the proposed sculpture in Oisín Kelly Park was informed by the desire for it to be visible from outside the park and to be located adjacent to the other community, culture and arts spaces.

Timber benches are placed surrounding the amphitheatre and sculpture space. These will include etchings of quotes and other relevant pieces of writing referencing Oisín Kelly and his work. For example:

“These things are not secrets but mysteries,”

Oisín Kelly told me years ago

In Belfast, Hankering after stone

That connived with the chisel, as if the grain

Remembered what the mallet tapped to know”

Seamus Heaney, “Glanmore Sonnets” from *Opened Ground*



Oisín Kelly, Last Supper, 1962, teak, Church of Corpus Christi, Knockanure, Co. Kerry. © Estate of Oisín Kelly



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1- Amphitheatre

The central open space includes a depressed area, which speaks to the history of the site and creates a sense of space using topography

The primary intention of this feature is to create a semi-enclosed flexible amenity lawn area. The proposed development is located on the site of the former Dublin Basin, which is referenced in the topography. The area is accessible via a set of steps on the eastern and western sides. Seating opportunities are provided around the edges of the space and are recessed into the side slopes. The depression will be framed by trees and shrubs, as well as low benches and signage referencing Oisín Kelly, from whom the park gets its name.



2- Basketball/football area

The central open space in Basin View accommodates a sports area on the western side of the site. It is offset from the western boundary wall to allow for the retention of 4 existing trees which, along with additional proposed trees, frame the sports area. It is comprised of a combined basketball hoop / football goal set in a delineated half basketball court.

Seating opportunities will be provided around the sports area to allow for viewing. Benches are recessed into the slope in the landscape which rises to the level of the retained trees. This will form a two-level bleacher-style seating arrangement at the northern and western sides.



3- Playgrounds

Various opportunities for play are offered around the scheme. There are two primary playgrounds: one in the eastern part of the central open space, and another in the courtyard of Block B. Some incidental play features are also dotted around the scheme such as small rockeries and timber logs for climbing and creative play.



4- Courtyards

Each of the proposed buildings in the development are supported by a communal open space courtyard. The aims of the courtyard spaces are to serve the residential communities, providing comfortable and attractive spaces for seating and play.

The courtyard of Block A contains the outdoor play area for the creche at the north of the building. This is supported by attractive paths through the space with incidental play opportunities and views of the detention basin.

Block B contains the largest internal courtyards and supports the internal community, culture and arts space with an attractive and flexible outdoor seating area. The paths through the courtyard are informed by the desire lines through the space and create area for planting and SuDS around the perimeter.

The Block C courtyard forms the southern boundary of the site with a line of large existing trees to be retained. The space contains a large amenity grassland area and one primary path in line with the southern façade of the building.



5- Existing vegetation and Arboriculture impact.

An Arboriculture assessment has been carried out by Charles McCorkrell Arboricultural Consultancy and is submitted as part of this application. This assessment has informed the landscape design. Existing Mature trees on site are retained where possible.

Planting Strategy

The general planting strategy throughout the scheme is for significant structure tree planting with 2 metre clear stems to provide a leafy canopy layer, softening the proposed buildings and a base layer of shrub planting to create low level seasonal interest and colour softening the hard surfaced areas, curtilage and car parking. Eye level between the two planting types is kept clear to maintain sight lines throughout the scheme.

Throughout the scheme, the planting palette is uplifted with edible trees and shrubs as part of the amenities provided for the future residents.

The priority is given to locally sourced and native planting, when appropriate, to enhance biodiversity and support local biome.

Open space structure trees

Native and naturalised tree species are to be planted within the amenity space to increase opportunities for native wildlife. The existing trees for retention are to be protected in order reduce the impact of the development on the existing biodiversity.

Proposed tree list (indicative):

- Sorbus aucuparia
- Quercus ilex
- Quercus robur
- Carpinus betulus
- Prunus padus
- Malus sylvestris

Part of the planting strategy is to integrate edible planting as part of the park's amenity.

Proposed tree list (indicative):

- Malus sp. – Heritage species
- Pyrus sp. – Heritage species
- Coryllus avellana -Hazelnut (shrub)
- Rubus idaeus – Raspberry (shrub)
- Vaccinum ssp Cyanococcus - Blueberry (shrub)
- Ribes uva-crispa – Gooseberry (shrub)

Street trees

Street tree planting will consist of species with fastigiate or neat forms suitable to the scale of the streetscape and those which will thrive in a streetscape environment. The trees will be integrated as part of the drainage strategy and implemented in detention tree pits. Therefore, the species selected along the local road will be adapted to this constraint. A selection of trees will be implemented along the access road that will vary in species, size, and shape to future proof the street planting in case an unknown disease to this date.

Proposed tree list (indicative):

- *Betula pubescens*
- *Betula utilis* 'Jaquemontii'
- *Alnus x Spahetii*
- *Pinus sylvestris*
- *Ulmus lutece*

Proposed tree list for SuDS tree pits:

- *Acer rubrum*
- *Acer freemanii*
- *Alnus cordata*
- *Gleditsia*
- Liquidamber
- *Platanus x hispanica*
- *Platanus orientalis*

Street tree planting is located to avoid impacts with street lighting. Street trees will be planted into a minimum of 1.2m³ topsoil (or to the requirements of the local authority parks department, whichever is greater), with the use of urban tree soils and topsoil loaded root cells to increase rooting areas outside the main tree pit area as necessary.

Raingarden and detention basin planting:

water mint (*Mentha aquatica*), water plantain (*Alisma plantago-aquatica*), lesser spearwort (*Ranunculus flammula*), meadowsweet (*Filipendula ulmaria*), marsh woundwort (*Stachys palustris*), purple-loosestrife (*Lythrum salicaria*), horsetail species (*Equisetum* spp), marsh pennywort (*hydrocotyl vulgaris*), sneezewort (*Achillea ptarmica*), wild angelica (*Angelica sylvestris*), marshmarigold (*Caltha palustris*), cuckooflower (*Cardamine pratensis*), wavy bitter-cress (*C. flexuosa*), hairy bitter-cress (*C. hirsuta*), common mouse-ear (*Cerastium fontanum*), sedge species (*Carex* spp), creeping bent (*Agrostis stolonifera*), red fescue (*Festuca rubra*), smooth meadow grass (*Poa pratensis*), rough meadow grass (*Poa trivialis*), marsh foxtail (*Aleopecurus geniculatus*).

LANDSCAPE MANAGEMENT STRATEGY

Maintenance should maximize the biodiversity potential of the site, providing new opportunities for expansion of (and cross-interaction between) habitats whilst also providing an attractive area of green open space with high amenity value. The open space network can be broken down into the following softworks planting types for maintenance:

Amenity Active Use Grassland

Objective: To produce a firm hard wearing sward with the appropriate cover of acceptable species, and adequate control of weeds, pests and diseases. The lawn is to be maintained to 40mm height to create a close mown turf for active and passive recreational use.

Operations:

Grass maintenance strips to be cut at 2-week intervals to a height of 40mm during the growing season of April to October. Grass cuttings to be broken down and spread evenly across the area and remain on site. Lightly roll Amenity Grass areas in spring and autumn annually to consolidate the soil. Carry out when ground conditions are appropriate when soil is moist but not waterlogged. Any settlements or local depressions should be made good.

Maintenance Grass Strip to All Pathways

Objective: To produce a firm hard wearing sward with the appropriate cover of acceptable species, and adequate control of weeds, pests and diseases to a width of 2m to both sides of all pathways. This maintenance strip is required to all footpaths. Mown grass edges to present a maintained appearance to the open space and prevent overhanging of tall grasses or planting encroaching upon the circulation network.

Operations: Grass maintenance strips to be cut at 4-week intervals to a height of 40mm during the growing season of April to October. Grass cuttings to be broken down and spread evenly across the area and remain on site.

Pollinator Friendly Grassland Area

Objective: These are areas for amenity use that are maintained to a higher level of 75mm and cut less frequently than general amenity grass areas. This is to create a different character to the woodland area and to promote biodiversity following the recommendations of the All Ireland Pollinator Plan 2021-2025.

Operations: Grass shall not be mown until the 15th of April. Thereafter grass shall be cut on a six-weekly rotation (5 cut and lifts per year). Second cut at the end of May, third cut in mid-late July to maximise growth of Clovers and other wildflowers, fourth cut at the end of August and the fifth cut after mid-October. Remove cutting arisings to off-site compost facility. Carry out when ground conditions are appropriate when soil is moist but not waterlogged. Any settlements or local depressions should be made good.

Meadow Grassland Areas

Objective: Meadow areas are to produce and promote a species rich meadow providing for increased biodiversity and different character areas to the park network.

Operations: Meadow areas shall be cut once a year in late September to a height of 75mm. Meadow areas that are cut should be left for 3-5 days so that insects can move to refuges as moisture content is lost from the cut areas. Meadow cuttings are then to be removed from site. As a general rule always remove 'cut' materials as most wildflowers will die if grass cuttings are not removed. If winters are mild meadow can be mown or topped between October and April if growth exceeds 250mm.

Grassland Slopes

Objective: Grassland slopes are general areas of grassland and areas where gorse or brambles should not be allowed to colonise on banks of the site.

Operations: Gorse, brambles, herbaceous and scrub growth to be cleared to ground levels of 75mm height. Grass cuttings to be broken down and spread evenly across the cut area to remain on site. Grassland slopes to be cut at the end of July and the end of September annually.

Woodland Planting Areas

Objective: Areas planted with trees and shrubs to promote and develop native deciduous and mixed woodland in the development. The woodland area protects and retains existing trees, provides habitat and seasonal interest in the park and provides an amenity space for community use.

Operations: Woodland planting areas to remain clear of weeds to a diameter of 1m circle around each plant planted. Achieved by a circle of mulch 75mm deep being maintained to the base of each tree planted. At all times, weed cover to be less than 5% and no weed to exceed 100 mm high. Check condition of stakes, ties, guys and guards. Replace broken or missing items. Adjust if necessary to allow for growth and prevent rubbing of bark. Review presence of rabbits within the woodland area and if risk of damage to juvenile planting is low remove spiral rabbit guards after three years all other guards to be removed after five years. Gently firm loosened soil around trees. Straighten leaning trees/ shrubs.

Frequency of checks: Every month or after periods of strong winds. Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools. A two-meter strip of unmown grass will surround all areas of woodland planting to form a buffer zone and to increase species biodiversity.

Hard Surfaces including: Insitu Concrete and Tarmac Pathways, Compacted Gravel and Paved Areas

Note: Paved areas that drain into grass areas/rain gardens, tree pits and planted areas avoid use of high concentrations of salt, detergent or soil-acting herbicides. Materials used in repairs should match the existing surface material specification, and be laid to the same depth as originally specified and, where applicable, to a similar degree of compaction.

Objective: Tarmac pathways and steps throughout the area are to provide a solid surface for users of the open space to circulate. Maintain clean, even, consistent surfaces, safe for use by normal traffic in all weather conditions.

Hard surfaces to be kept free from the following:

- litter including autumn leaf fall,
- dust and accumulated grit,
- stains, e.g. oil or paint spillage,
- graffiti,
- weeds, moss and algae
- standing water

Operations: Arisings or cuttings to be removed from pathways after maintenance of planting. Surface of tarmac pathways to be clean, not slippery, build up of algae etc to be removed.

Tarmac –

If litter accumulates, increase the frequency of sweeping.

Where weeds colonise cracks and joints, remove and repair.

If moss and algae grow, treat by scraping or sweep.

Where the surface becomes uneven or there is a drainage problem, patch or replace to falls. Repair cracking and frost damage by raking out and repairing or replacing the surface. Potholes to be reinstated should be cut back to sound material, the sides cut vertically to a square/rectangular shape, painted with bitumen emulsion, and filled with new bitumen.

Furniture

Play Equipment

Objective: To provide opportunities to play and exercise within the open space network for individuals of all ages and abilities. Including opportunities for social interaction, physical activity, imaginative or intellectual stimulation, creative achievement, emotional and educational development.

Operations: A visual inspection is to be carried out when on site carrying out other maintenance works or at 2 week intervals whichever is more frequent, or immediately in response to reports or complaints from the public. This inspection must bring any defects to the immediate attention of the management company. As a general policy, equipment is repaired as soon as possible. Every twelve months a full ROSPA inspection shall take place using independent inspectors. This results in a full written report with a safety assessment and recommendations for action. The recommendations are acted upon immediately, or should they require large capital investment, they will be used as justification to support the application for funding.

Play equipment is repaired by the manufacturer/supplier other than routine replacements.

Stone mulch banding, dry stone walls

Objective: Provide an area on site for the collection of stones cleared from the site as part of soil preparation/excavations. Stone mulch bands provide refuge locations for eco-system invertebrates.

Operations: Any stones unveiled during maintenance practices to be positioned in these areas. Keep free of weeds, do not allow soil to enter areas. In advance of grass or meadow cutting replace dislodged stones back onto the areas.

Planting Seasons

- Bare Root Deciduous Stock: November to Mid March
- Rootballed Deciduous Stock: November to Mid March
- Rootballed Evergreens and Conifers: late September or October or between March and early May
- Container Grown Stock: Any time of the year
- Grass Seeding: Spring or Autumn – when the soil is still warm and there is the promise of rain.

No planting should take place during periods of frost, drought, cold drying winds or when soil is water logged, or when the moisture of the soil exceeds field capacity (the maximum amount of water that soil can hold).

Grass Seeding

Grass seeding should only be carried out at the correct season from late summer to mid autumn and in suitably calm but moist weather conditions. If the opportunity to sow grass in autumn is not possible sow seed in mid Spring, but only if there is the promise of rain as it is critical to provide the seed with sufficient water to prevent it from shriveling up and dying. Ideal growing conditions for grass seed to germinate is warm soil damp from rain. Seed should be cross sown in two directions at right angles to each other (half the seed to be used in each direction) to prevent striping.

Replacements

In September or each year, the Landscape Maintenance Team shall provide a list of all trees and plants that are dead, dying, vandalised or not growing in a vigorous condition. These are to be replaced during the November – December of the same year or for evergreens April/May of the following year. All plants shall be planted at the size as shown in the Planting Schedule.

All replacement planting shall be in accordance with the Specification/Planting Schedule.

Dead Plant Removal

Remove dead plants and dead parts of plants as soon as possible and replace plants within the appropriate planting seasons.

Topsoil

Topsoil should be clean, free from stones, perennial weeds, roots and other plant matter, sticks, sub soil or any waste, toxic, rotting or foreign matter. The soil should be fertile with a humus and fibre content and be of a medium texture having a pH value of between 6.0 and 7.5 (unless imported for specific wildflower meadow seeding areas. Imported topsoil should not contain stones greater than 40mm in size, nor have a total stone content exceeding 10 per cent by mass.

Topsoil should be spread evenly on formation levels. Grass areas and shrub/groundcover areas should have a minimum of 150mm and 450mm respectively, after firming. Stones should be removed up to 40mm in diameter.

Plant Material

All plants should be well grown, sturdy and bushy, according to type, and free from all disease and defects. All plants should be adequately hardened off prior to planting, where frost or cold winds may be a problem. This is particularly relevant to planting at the Dublin foothills.

- Shrubs should be bushy, well established nursery stock with a good fibrous root system.

- All trees should be full and well shaped, bark unmarked and have healthy root systems. Rootballed trees should be rootballed immediately when lifted at the nursery.
- The rootball should be suitable for the size of crown and the rootball should be flat bottomed.
- The rootball should be formed through regular transplanting; every 2-3 years minimum. The rootball should be wrapped in hessian and steel wire netting or other suitable and approved decomposable material. Trees should have a well defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown should be well shaped, balanced, of a form and habit natural for the species.
- All coniferous trees should be supplied rootballed or container grown, with a good fibrous root system. Trees should conform to specified height with well developed, uniform branching systems.

Planting Preparation

The proper preparation of the ground, the quality of plants and materials, and good planting techniques are essential for proper plant growth and establishment, ensuring minimal loss of plants and ease of maintenance. Where the project requires earthworks such as the formation of subsoil levels and topsoiling works it is important that it is done in the right way to avoid compaction, so that the best conditions are available for planting.

If topsoil is stockpiled on site it should be stored in mounds of maximum height 1.5m constructed so that they shall shed water and not puddle. Care should be taken that no trafficking of placed topsoil and no mixing of topsoil and subsoil take place. Any Topsoil stockpiles should be kept weed free.

The areas for planting should be prepared prior to planting by ensuring that the subsoil is free draining and well cultivated and suitable for topsoiling. The aim of cultivation is to produce a well-drained and textured soil suitable for plant growth.

All areas to be planted or seeded should be cultivated to a minimum depth of 450mm or deeper if needed. Areas where obvious compaction has occurred should be ripped to allow adequate drainage.

Subsoil should be placed in layers not exceeding 150mm in depth.

To create the best growing environment for the planting in subsoil a combination of actions were applied to each planting pit. Any future planting works into subsoil should follow the following these principles:

- The pits should be dug prior to delivery of plants so that the trees are out of the ground for as short a time as possible.
- Planting to be into pits which are excavated 200mm deeper and 300mm greater in diameter or 1/3 greater depth and diameter than the root size (whichever is greater)
- The plant must be planted to the same level relative to top of soil as that grown in the nursery.

- The sides and bottom of the planting pits are to be thoroughly broken up by forking to alleviate compaction and to facilitate drainage.
- When planting on slopes ensure that an area made by a 0.3m diameter circle from the centre of each plant is level (horizontal) at the ground surface upon completion of backfilling.
- The backfill or soil placed back in around the plant roots will comprise of broken up (to a loose friable state) soil removed to form the planting pit. Large solid soil / clay clods larger than 50mm will be rejected and deficiencies made up with topsoil.
- Bare root stock to be dipped in root dip gel containing sufficient species of mycorrhizae for the tree or shrub being planted, water holding gel and bio-stimulant.
- 100mm bark mulch to be applied to surface for weed suppression and water retention

Planting Seasons

- Bare Root Deciduous Stock: November to Mid March
- Rootballed Deciduous Stock: November to Mid March
- Rootballed Evergreens and Conifers: late September or October or between March and early May
- Container Grown Stock: Any time of the year
- Grass Seeding: Spring or Autumn – when the soil is still warm and there is the promise of rain.

No planting should take place during periods of frost, drought, cold drying winds or when soil is water logged, or when the moisture of the soil exceeds field capacity (the maximum amount of water that soil can hold). Grass Seeding Grass seeding should only be carried out at the correct season from late summer to mid autumn and in suitably calm but moist weather conditions. If the opportunity to sow grass in autumn is not possible sow seed in mid Spring, but only if there is the promise of rain as it is critical to provide the seed with sufficient water to prevent it from shrivelling up and dying. Ideal growing conditions for grass seed to germinate is warm soil damp from rain. Seed should be cross sown in two directions at right angles to each other (half the seed to be used in each direction) to prevent striping. Replacements In September or each year, the Landscape Maintenance Team shall provide a list of all trees and plants that are dead, dying, vandalised or not growing in a vigorous condition. These are to be replaced during the November – December of the same year or for evergreens April/May of the following year. All plants shall be planted at the size as shown in the Planting Schedule. All replacement planting shall be in accordance with the Specification/Planting Schedule.

Works near Existing Trees and Softworks

When developing near existing trees, ground levels, especially under their canopies should remain unchanged. Most roots are found in the top 600mm of soil. They often grow out further than the trees height. The majority of these roots can be thin in diameter. Some species of trees can tolerate a small increase in level – generally up to 75mm but since most of the roots occur in the top 600mm of soil, raising the ground level can reduce the air available to the root zone and change the feeding of the tree by these roots and lead to the demise of the tree.

Paths of underground service runs should avoid the tree root spread of existing trees and if this is unavoidable then any excavations should be carefully done by hand and services ducting placed through the roots by hand.

Ideally no roots should be severed, so where construction is of necessity within the root spread, damage must be minimized by careful routing of services, with any excavation carried out by hand to allow larger roots to remain undamaged. No root over 25mm in diameter should be cut; they can be left bridging a trench while pipes or cables are laid. Smaller roots should be cut cleanly by hand. Pipes and cables can be passed through or under root systems that have been given minimum disturbance by hand digging. If services cannot be routed clear of trees, they can be laid below the root run level, at about 1.2m or greater depth.

When back-filling trenches, the correct sequence of topsoil above subsoil should be observed.

Services

No digging below 300mm depth using powered machinery will be permitted near to known sub-surface pipe and infrastructure locations. In all other areas the depth restriction will be 600mm deep.

Tree Surgery and Emergency Tree Works

A tree survey condition report on the condition of the existing trees on site has been undertaken. Any recommendations should be implemented by qualified personnel in compliance with British Standard B.S. 3998: 1989 ‘Recommendations for tree work.’

Following this initial tree condition survey, trees seen to be in good condition should undergo regular visual safety inspections. A visual inspection should be carried out as part of the routine maintenance works on site coupled with specific visits following storm events or periods of very heavy rain.

Trees should be reviewed for dead wood in the canopy, storm damage, decline in vigor in the crown or damage caused following other maintenance practices.

In addition to regular visual surveys of the existing trees a professional tree condition survey should be undertaken by a suitably qualified arboricultural consultant every 3 years producing a report on condition of trees.

Any recommendations should be implemented by qualified personnel in compliance with British Standard B.S. 3998: 1989 ‘Recommendations for tree work.’ Any wind damaged

trees or trees requiring emergency works should be made as safe as possible and contact made with the management company.

An annual inspection of the trees will establish and programme restorative/remedial pruning, and in order to prevent an aging tree stock, some new trees will be planted to reinforce the existing tree planted structure.

Scheduling of works

Pre-construction tree works will follow that outlined below

- Remedial works to trees being retained throughout the site as per the Tree Survey document.
- The erection of tree protection fencing

Protected Tree Zone.

The 'Protected Tree Zone' should under no circumstances be used for storage of materials, equipment, or site debris. No fires should be lit within the Protected Tree Zone, or equipment washed or cleaned.

Code of Practice for the preservation of trees.

The Code of Practice will be brought to the attention of all site personnel including Contractors, Sub-Contractors and Engineering Specialists associated with works on site. All operations to be in accordance with BS 5837 Trees in Relation to Construction (2005). The management company should purchase and make available on site a copy of the above.

The Arboricultural Contractor will:

- Submit a full method statement containing machinery to be used, removal of wood etc to the CA.
- Carry out works to the most up to date arboricultural practices available e.g. BS 3998. Recommendations for tree work (as amended).
- Undertake work only with suitably qualified operatives in constant consultation with the Site Arborist.
- Trees identified for removal will be section felled in wooded areas so as not to damage remaining trees.

Control of dogs

It is recommended that dogs should be kept on a lead when walking the path network within the open spaces, except for in the designated dog park to prevent disturbance to wildlife. Signage should be erected to encourage public cooperation. This may help to reduce disturbance impacts to bird species.

Introduction

The aim of this chapter is to describe aspects of the landscaping scheme that are intended specifically for biodiversity. It includes the retention of existing features, biodiversity enhancements included in the landscaping scheme and biodiversity enhancements for fauna.

This document should be read in combination with the Ecological Impact Assessment for the development, which provides information on the baseline condition of the site.

Green and Blue Infrastructure

The proposed landscape design aims to strengthen the value of the site as a place for delivering green/blue infrastructure whilst protecting and enhancing the natural/built and cultural assets of the site.

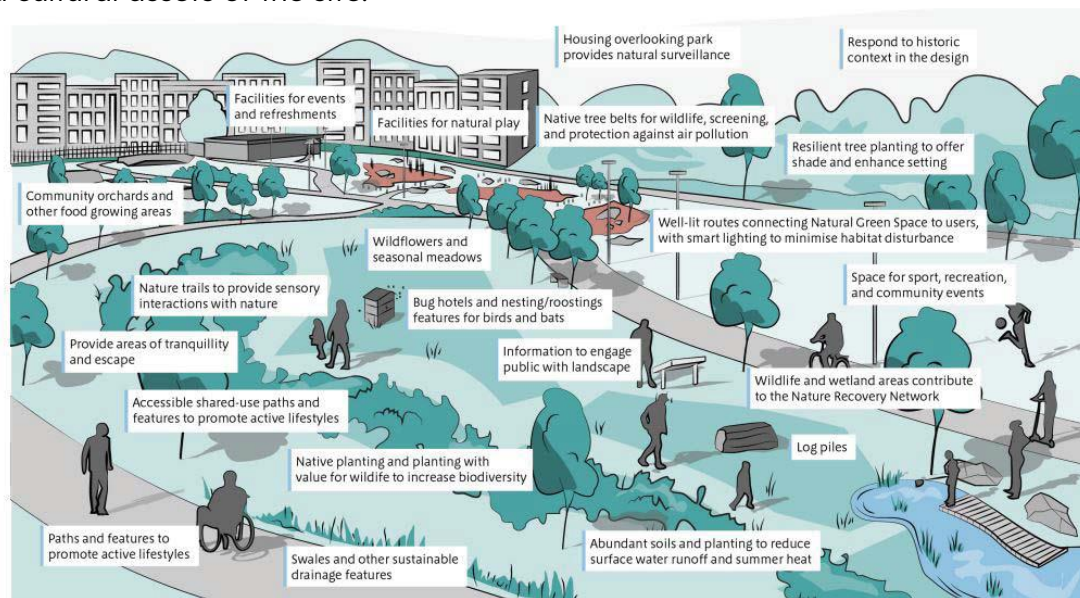


Figure Extract from “Green Infrastructure Planning and Design Guide” published by Natural England

Green Infrastructure is designed and managed to provide and facilitate the following:

- High quality open spaces which provide health and social benefits for people through the provision of formal and informal nature-based play areas, safe and attractive areas and routes for meeting with a variety of seating areas for socialising and relaxing, accessible walking and cycling routes facilitated.
- Opportunities and space for contact with nature, which is considered essential for good health and wellbeing and to promote community cohesion.
- Adaptation to the impacts of climate change and flooding.
- Space for biodiversity (nature and wildlife) to flourish
- A sense of place and local distinctiveness.
- Features are multifunctional, they are designed to benefit people and wildlife.

Biodiversity National Guidance

National Biodiversity Action Plan 2017-2021

Ireland's Vision for Biodiversity:

“That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.”

The Biodiversity Climate Change Sectoral Adaptation Plan. 2019. Department of Culture, Heritage, and the Gaeltacht.

“The Goal of this Plan is to protect biodiversity from the impacts of climate change and to conserve and manage ecosystems so that they deliver services that increase the adaptive capacity of people and biodiversity while also contributing to climate change mitigation”.

Action 4.4 “Co-design green spaces and wildlife refuges in cities and peri-urban areas with local communities to provide habitats for species under threat from climate change and to connect people to biodiversity”.

All Ireland Pollinator Plan 2015-2020 (Councils: Actions to Help Pollinators) NBDC

There are 7 key actions in the guidance document – all of which inform the planting design within the site:

- A: Identify and protect existing areas that are good for pollinators
- B: Alter frequency of mowing of grassy areas to allow more native plants to flower
- C: Pollinator friendly planting
- D: Provide wild pollinator nesting habitat: hedgerows, earth banks and hotels
- E: Reduce the use of pesticides
- F: Raise public awareness of pollinators
- G: Tracking progress and recognition for efforts

Protecting pollinators by planting and appropriately maintaining:

1. Flowering Native Hedgerows
2. Flowering margin of 0.5 to 2 metres around field edges
3. Low to zero pesticide inputs
4. Pollinator friendly trees
5. Wildflower meadow, flower rich pasture, cover crop, herbal ley

Planting and management of the planted areas shall be undertaken in accordance with pollinator friendly management objectives as outlined in the “All Ireland Pollinator Plan

2021-2025 (Councils: Actions to Help Pollinators)” National Biodiversity Data Centre and will include interpretative signage highlighting the areas Managed for Wildlife.

Ecology Design Elements

1. Retention of existing ecological features.

An Arboriculture assessment has been carried out for this site and submitted as part of this application. It outlines General tree descriptions, Arboriculture impact, impact of the development, tree protection, and has informed the landscape and biodiversity design of this project.

The Ecological Appraisal prepared by NM Ecology states that all habitats within the site are of negligible ecological importance. A large proportion of the site consists of buildings and artificial surfaces. There are internal roads and parking spaces, an asphalt soccer pitch, a basketball court and several playgrounds. None of these areas support any vegetation. There are several tree lines, almost all of which are composed of non-native species, small patches of scrub, amenity grassland and some localised patches of dry meadow.

Birds

Breeding Bird Season Restrictions

Any removal of vegetation, including trees within the site will take place outside the breeding bird season (i.e. the start of September to the end of February, inclusive) to avoid any potential impact on breeding birds. Where this seasonal restriction cannot be observed, a check for active nests will be carried out immediately prior to any site clearance and repeated as required to ensure compliance with Irish wildlife law. This will be carried out under the supervision of a qualified Ecologist.



Bird Box

2. Green Roof

Green roofs will be installed on the buildings with a minimum of 200mm lightweight intensive green roof soil

Green roof planting mix (indicative):

Common Knapweed, Greater Knapweed, Wild Carrot, Lady's Bedstraw, Field Scabious, Oxeye Daisy, Common Toadflax, Birdsfoot Trefoil, Musk Mallow, Hoary Plantain, Cowslip, Self Heal.

3. Biodiversity enhancement in the landscaping scheme.

Outlined above in the landscape proposals and the landscape masterplan submitted with this application.

These measures will compensate for some of the habitats removed during site clearance and create some features that are not currently present at the site providing a substantial biodiversity gain.

4. Biodiversity enhancement for fauna.

This would include swift / swallow nest boxes on the buildings (they need to be at least 5 m above ground level), other bird nesting boxes for finches, tits, etc. Suitable locations to locate swift bricks would be on the east-facing gable ends of Block A and Block C.

- Existing grassland enhanced to support invertebrate's habitat as a food source for birds
- Bird nest boxes of a variety of sizes/typologies will be installed.
- Swallow and Swift bricks to building structure
- House Martin nest structures to building structure
- Ground nesting bird habitat to Living Roof to building structure



Swift bricks

Native trees and pollinator friendly grasslands

Additional planting is recommended to greatly strengthen areas within the site for wildlife and biodiversity and to introduce green infrastructure across the site where feasible. In keeping with the recommendations of the All-Ireland Pollinator plan.

- Grasslands managed for invertebrates as a food source for the bats
- Night scented climbers and plants to attract food source for the bats
- Bat friendly lighting
- Bat boxes are proposed to be installed in locations and guidelines to Ecologist recommendations

Mammals

- Additional planting is recommended to strengthen areas within the site for wildlife and biodiversity and to introduce green infrastructure across the site where feasible.

