

DESIGN RATIONALE - LANDSCAPE ARCHITECTURE

Project: **KNOCKRABO PHASE 2**

Project no.: **Re.17**

Prepared on behalf of: **KNOCKRABO INVESTMENTS DAC**

Prepared by: **DFLA**

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ISSUED FOR: **INFORMATION/BILLING/PLANNING/TENDER/CONSTRUCTION**

1.0 Introduction

The objective of this report is to describe the proposed landscape and external works as part of Phase 2 of the proposed development at Knockrabo, Dublin. This report should be read in conjunction with documents issued and included in this submission by DFLA, O'Mahony Pike Architects, Tom Philips & Associates, Waterman Moylan Consulting Engineers, Arborist Associates and others.

As part of the pre-planning consultation process, DFLA presented and discussed proposals for the landscape, open space and planting strategies with Dun Laoghaire Rathdown County Council. Comments received were, where possible, incorporated into the design proposals.

DFLA visited the site on several occasions to date, in order to observe conditions on site, such as existing vegetation and structural conditions under foot, boundaries and other items which would have a bearing on the design process. DFLA have been involved in delivery of completed Phase 1 works.

Arborist Associates were commissioned before the design process of the extant permission began to carry out a Tree Survey and Arboricultural Impact Assessment in compliance with BS 5837:2012. These documents are included separately as part of this submission.

The following additional documents have been issued by DFLA as part of this submission :

No.	Scale	Size	Title
2001	1:500	A1	<i>Landscape Plan</i>
2002	1:500	A1	<i>Boundary Treatment Plan</i>
2100	1:100	A1	<i>Detail Area 01</i>
2400	1:100	A1	<i>Landscape Sections</i>
2501	1:20	A1	<i>Typical Landscape Details</i>
-	-	A4	<i>Landscape Visual Impact Assessment</i>

2.0 Landscape Appraisal

2.1 General

The overall site at Knockrabo comprise the Phase 1 development to the east (*DLRCC Planning Reg. Ref. number D13A/0689, An Bord Pleanála Ref. number PL06D.243799*) which has already been completed by the applicant, comprising 69 no. apartments in 4 no. buildings, and 50 no. houses, including a gate lodge which is a protected structure. The subject application comprises phase 2 of this development.

The site is located on the north side of Mount Anville Road and is an amalgamation of fragments of the large private suburban gardens associated with the former Knockrabo House and Cedar Mount House to the west. The lands were formally used by the Bank of Ireland as a sports ground and underwent extensive remodeling in the past to accommodate flat sports surfaces and built structures. The site is not visible from the road and is bounded on its southern edge (Mount Anville Road) by a stone boundary wall, a large coniferous hedge and mixed deciduous tree planting. There are, however, panoramic views to the north from within the site. The site slopes down to the north. The slope is generally uniform and gentle except at the extreme northern end of the site where the land falls away towards the 'Eastern Bypass' reservation.

Construction works have recently been completed on the eastern side of the lands, as part of Phase 1 of the proposed development. The project won the Irish Landscape Institute Awards 2020 Residential category.



Figure 1, 2 and 3: Works carried out as part of Phase 1 development: View of new streetscape and housing from site entrance (first image), view across public open space with completed new development in background (second image), view across new playground near a mature redwood tree retained as part of new public park.

2.2 Existing and Proposed Boundaries

The boundaries of the proposed Phase 2 development site vary in character. A boundaries plan, prepared by DFLA, has been included as part of this submission; refer to *Drawing 2002 Boundary Treatment Plan*. At the southern boundary, at Mount Anville Road and to the western end of the site, the existing stone boundary walls are proposed to be retained and made good where necessary. At the southernmost point of the site, a granite rubble wall and gates to conservation architect's detail are proposed as a vehicular entrance.

The site is bounded to the north by the unused lands reserved for the future construction of the 'Eastern Bypass' motorway. A 2.4m high round bar railing has been proposed there. The eastern boundary to Phase 2 will marry in with completed Phase 1 works (refer to figure 5).



Figure 4: View from the site to the north across the reservation for the 'Eastern Bypass'.



Figure 5: View from the site to the south looking along the edge of completed Phase 1 works.

3.0 Landscape Strategy

The proposed site strategy has been generated by DFLA, O'Mahony Pike Architects and Arborist Associates by locating proposed 'blocks' of residential development within the site to allow for the extension of the area of public open space to the north and an appropriate landscape treatment of the historic lands at Cedar Mount House to the west. Open spaces are designed around existing trees which are used to create a strong identity on site. Spaces are designed in such a way as to make them visible, identifiable, and easily accessible for residents and the wider community. Engineering requirements for drainage and utilities have also been integrated into the overall landscape strategy. The landscape architects worked closely with the conservation architects and have developed carefully considered landscape proposals around Cedar Mount House which have been carried through from the previously granted planning permission.

The following components contribute to the landscape strategy:

1. Improved permeability throughout the site for pedestrians and cyclists;
2. Extended public open space to the north of the site, to form continuous parkland with public open space of Phase 1 development;
3. A safe environment which is available to future residents but is also a positive addition to the public realm of the wider area;
4. Integration of functional landscape and external works such as parking and defensible space within the overall strategy;
5. Substantial and realistic retention of existing trees;
6. Native planting to assist with the biodiversity metric of the site post-development;
7. Retention of significant site boundaries, protected structures and substantial existing walls within the site;
8. Facilitation of the possible future taking-in-charge of the public areas of the development by the local authority.

3.1 Permeability

The main vehicular entrance to the overall development at Knockrabo forms part of the Phase 1 works. Additionally, accessible public pedestrian and cycle connections from Mount Anville Road have also been provided. The proposed Phase 2 development builds on this strategy. The integration of the existing entrance to Cedar Mount House will aid overall site connectivity. The general site strategy also includes two east-west public open spaces, one at the southern end of the site and one at the northern end, both ensuring full permeability across the site.

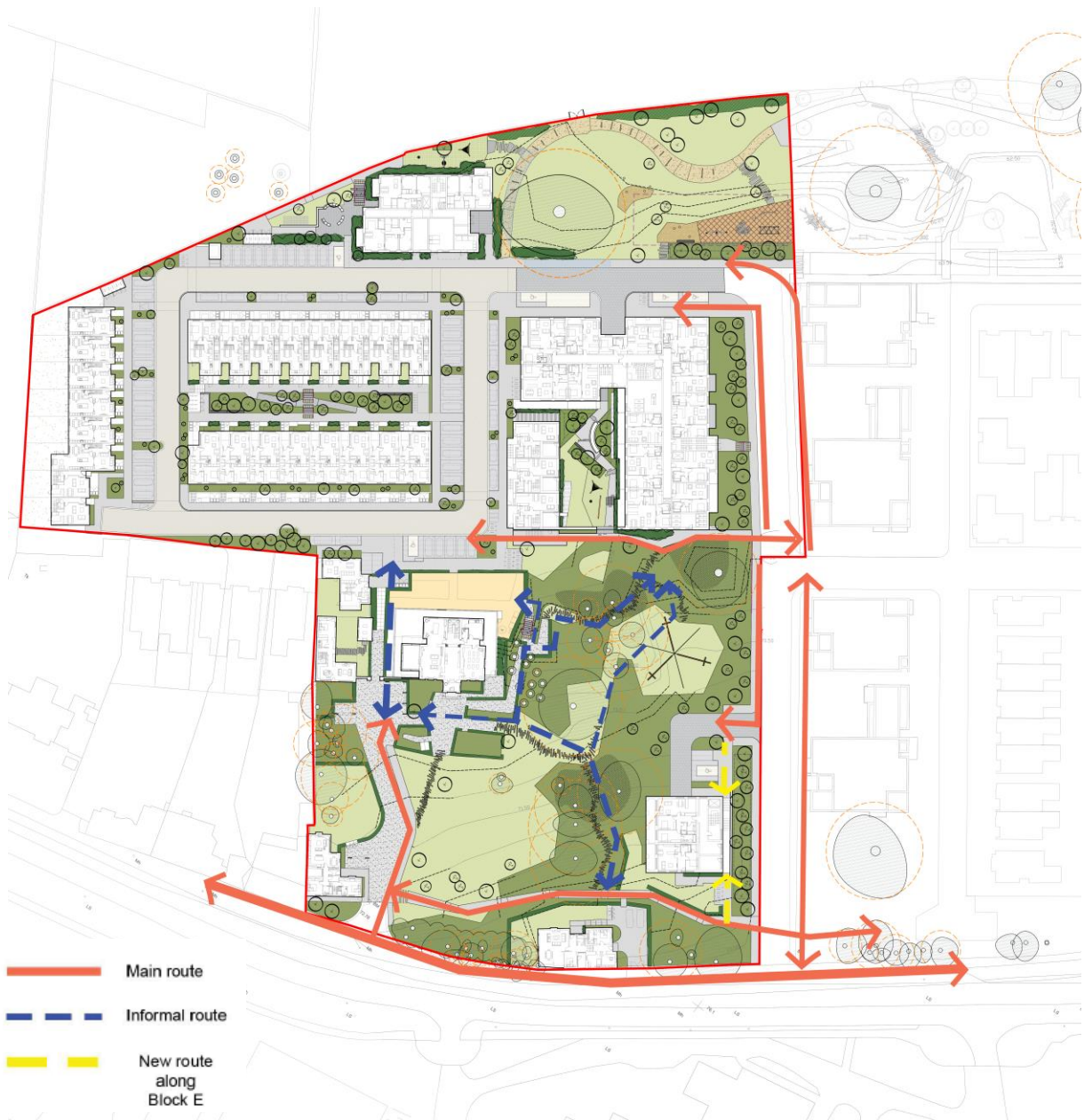


Figure 6: Diagram illustrating hierarchy of the proposed routes



Figure 7: Diagram illustrating potential future connection from the proposed application

3.2 Diverse Range of Open Space, Recreational & Play Facilities

The public open space located in the northern end of the site forms part of a more substantial landscape which extends beyond the site boundary to include views out to the reservation for the 'Eastern By-pass'. A range of play equipment and other recreational facilities have already been provided as part of Phase 1. The proposed public open space as part of Phase 2 is an extension of that. It provides a generous area of informal recreation and play for the residents. The play proposals are based on principles set out in *Ready Steady Play, A National Play Policy*. The main public open space is a 'play landscape' with kick-about area, ramps, steps, seating and formal play equipment, designed to work with the slope of the site. The space is designed as adventurous, semi-natural and informal. The play equipment is not fenced off but is equipped with impact absorbing surface where required for fall heights and is designed and manufactured in accordance with standards EN 1176 and EN 1177. Impact absorbing surface is proposed to mimic bark. The public open space is fully accessible and passively overlooked from adjacent residential units. The public open space gets full sun from the east, south and west. Seating is proposed for panoramic views to the north. Seating for children is also located around tree trunks and clustered along pathways.



Figure 8: Illustrations of completed Phase 1 playground which will form part of the northern linear park within the project.

The open space to the south end of the site links Knockrabo House in the eastern corner to Cedar Mount House in the western part of the site. The proposed public open space with significant tree planting facilitates permeability and pedestrian and cycle access, as well as providing additional opportunities for informal recreation and play.

An additional large area of open space is proposed in and around the grounds of Cedar Mount House. The landscape architects have coordinated with the conservation architects in order to ensure that an adequate setting is provided for the house as per the previously permitted application. In order to provide the right transition between the various landscape typologies and phases on site, a series of small gardens were proposed around the immediate perimeter of the house. These are proposed to be of herbaceous borders and clipped hedges varying in height. The overall masterplan takes account for this as the public open space extends eastwards and surrounds block E. Along with existing trees, several new trees have been proposed in order to evoke the character of a historic boundary. Visible from the gates at Mount Anville Road, the dense tree planting creates an attractive backdrop for the historic building and proposed new buildings.



Figure 9: Design development sketch showing the main design considerations of the landscape strategy around Cedar Mount House.

Additionally, a communal courtyard is proposed to the south west of block F and between housing units, north of Cedar Mount House. The spaces created by the footprint of the proposed buildings form a large attractive terrace for the residents to look out on and enjoy. The block F courtyard will tie in with the public open space to south, as seamless 'extension' of the public open space facilitating a range of informal play opportunities and other activities for users. The communal space between the housing units offers a dense planted buffer within the linear strip. Refer to figure 9 for allocation of public, communal and private open space throughout site layout.

Private open space is provided to the front and rear of the proposed duplex units. All units at ground floor are provided with defensible space. All private space is separated from streetscape and public open space using discrete hedge, groundcover and railing boundary treatments.



Figure 10: Private front curtilage as part of Phase 1, showing hedging, groundcover and wall boundary treatments.



Figure 11: Diagram of open space type and location within site layout.

3.3 Integration of Functional Landscape

The landscape strategy incorporates the full range of functions required by the proposed development. These include circulation, parking, commercial and emergency vehicles, use of 'no-dig' solutions for the protection of trees, the specific and tailored routing of drainage and services in relation to Root Protection Areas (RPA), including micro-boring and the range of boundary treatments required to provide privacy for residents while at the same time maximising the benefits that arise for residents from living in a high quality environment.

3.4 Retention of Existing Trees

The Tree Survey and Arboricultural Impact Assessment, prepared by Arborist Associates, are included separately in this submission. All trees on site have been surveyed in accordance with BS 5837:2012. The survey identifies one tree on the subject site which is recorded within the Tree Register of Ireland (Tree number 0996). It is located in the large public open space to the north of the Phase 2 development. Efforts have been made to retain as many existing trees as possible. Minimal impact on all existing trees to be retained will also be ensured when carrying out works on site. Additionally, a substantial schedule of new trees is proposed, to replace the existing trees removed and to improve the species mix and the proportion of native species.

BS 5837:2012 calls for a realistic assessment of the viability of retaining trees in the context of proposed construction. The British Standard has been used here to rigorously assess the stock of existing trees and to make recommendations which are realistic and represent a fair assessment of the quality and long-term viability of the trees on site. The retention of trees is allied to the proposals for new tree planting which will provide a more diverse age profile across the site and which is in line with good arboricultural, horticultural and ecological practice. Particular attention has been paid to trees located on boundaries with minimal removal of trees at Mount Anville Road. The finished floor levels of the buildings and the levels of the roads have all been designed to maximize tree protection. 'No-dig' solutions and Cellweb is proposed for any minor construction of landscape surfaces or ramps within the Root Protection Area (RPA) of trees to be retained.

3.5 Taking-In-Charge

All public open space and streetscape is designed to a standard such that, if required, it will be acceptable for the purposes of taking-in-charge in the future. Private space is delineated from shared-private and public. Drainage of private space is designed to function separately from shared-private and public space, and vice-versa.

4.0 Planting

Drawing 2001 *Landscape Plan*, prepared by DFLA includes a detailed schedule of proposed planting and illustrates the location and extent of mown grass, managed long grass, reinforced grass, low groundcover, hedge and tree planting as well as existing trees to be retained.

4.1 Tree planting

Tree species are selected for longevity, suitability to local soil conditions and microclimate, biodiversity (native species) and where required suitability to close proximity to residential buildings. Proposed tree sizes range from semi-mature (35-40cm girth), to extra heavy standards and multi-stemmed trees. A total of 188 new individual trees are proposed in order to compensate for the removal of existing trees and to improve the species mix and the proportion of native species. Typical species are illustrated on the following pages.



Figure 12: Illustrating a selection of proposed native tree species. Left: *Alnus glutinosa* (alder) (canopy); Centre: *Sequoiadendron giganteum* (giant redwood) (semi-mature); Right: *Quercus petraea* (sessile oak).



Acer palmatum 'Osakazuki' (Japanese maple) (autumn colour)



Prunus subhirtella 'Autumnalis' (Cherry)
(summer, in the nursery)



Prunus subhirtella 'Autumnalis' (Cherry) (winter)

Figure 13: Illustrating a selection of proposed exotic tree species.

4.2 Hedge, Groundcover and Bulb Planting

Low planting is utilized to make and reinforce sub-spaces within the larger landscape spaces, for visual screening, defensible space, visual interest, ecological purposes and to guide or direct people's movement. The low planting is conceived as subtle layering of greens within the open spaces. The planting is layered as follows; lowest - bulb planting, groundcover planting, highest - clipped hedge planting.



Carpinus betulus (hornbeam)

Figure 14: Typical species for low clipped vegetation, or boundary treatment with fencing.



Figure 15: Species for shade groundcover – native & exotic including *Dianella*, *Luzula*, *Dryopteris* and *Asplenium*.



Figure 16: Typical groundcover under tree canopy



Helleborus spp.



Hemerocalis sp



Luzula sylvatica



Dianella nigra.



Dryopteris filix- mas



Asplenium scolopendrium

Figure 17: Typical individual groundcover species.

5.0 Hard Landscape Materials & Furniture

The selection of hard landscape materials is determined by function but also to provide a cohesive palette of materials throughout. Materials are chosen for durability, but where practical are proposed to be constructed in a way which is sensitively integrated with lawn and soft landscape, in order to minimise the impact of hard landscape surfaces. Primary vehicular, pedestrian and cycle circulation is proposed as a durable, limited range of neutral materials with robust construction. Typically, in the home zone area, a 5.5m wide carriageway with a 2m wide footpath is proposed, with the roads in bituminous macadam and all other roads in a selected coloured asphalt. Self-binding gravel and large format reconstituted stone slabs are proposed for pedestrian routes in open space. Natural stone paving is used in the landscape around Cedar Mount House.



Figure 18: A range of paving details: concrete steps in grass (left), natural stone paving detail with bespoke courtyard gates (right).



Figure 19: Integrating paving and soft landscape: (left) natural stone in lawn, (right) reinforced grass using 'Checker Block' concrete modular product.