

Doyle &
O'Troithigh
Landscape
Architecture

Landscape Design Report
Ballinderry Residential

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Project Ref 18-069
Client Consdorf Investments ICAV
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Landscape Design Development Report

Landscape Design development for the proposed residential development on lands at Ballinderry Road, Mullingar, Co. Westmeath.

Prospective Applicant Name: Consdorf Investments ICAV

1.0 Vision for the Landscape

The site which currently comprises of agricultural grassland is located on the south-eastern edge of Mullingar Town, Co. Westmeath, in close proximity to existing and established residential schemes. It is partly bounded by Ballinderry Road to the east, which provides direct access to the Town Centre. (Refer to Fig 1.0 and Fig 2.0 for Site Context.)

The proposed development consists of 130 no. dwellings including semi-detached houses, terraced houses, duplexes and apartments as well as a new east-west 'Link Street'. This proposed infrastructural landscape includes formal tree planting and incorporates cycle tracks and footpaths in accordance with the Development Framework for the Mullingar South Framework Plan as contained within the 'Mullingar Local Area Plan 2014-21'. Two new pedestrian / cyclist connections are also proposed along the northern site boundary providing access to the adjoining Chestnut Drive established residential development.

The design will facilitate not only new homes, but also opportunities to create a strong diverse community in Ballinderry. The scheme offers an accessible public realm where spaces offer opportunity to meet, play, reflect, walk, cycle, feel connected and safe.

The landscape proposal is designed with an emphasis on a sustainable approach responsive to climate change; including sustainable urban drainage, sustainable water harvesting and native planting, where appropriate, to encourage a weather resilient, biodiverse and robust landscape.

The proposal features a strong emphasis on streetscapes designed for pedestrian connectivity which interact with landscape amenity areas, incorporating landscape mitigating features. Focussed protection and enhancement of existing hedgerows, where feasible, has also been considered. The protection and development of a new landscape is central to ensure the long-term successful establishment of this Strategic Housing Development (SHD) at Ballinderry Road.

The landscape design development has been guided and influenced by the Ecology (AA Screening Report by Mr. Roger Goodwillie), Arboriculture (Tree Survey and Arboricultural Assessment by The Tree File) and Archaeological (Archaeological Impact Assessment by Archer Heritage Planning) appraisals of the site lands and surrounding environment.

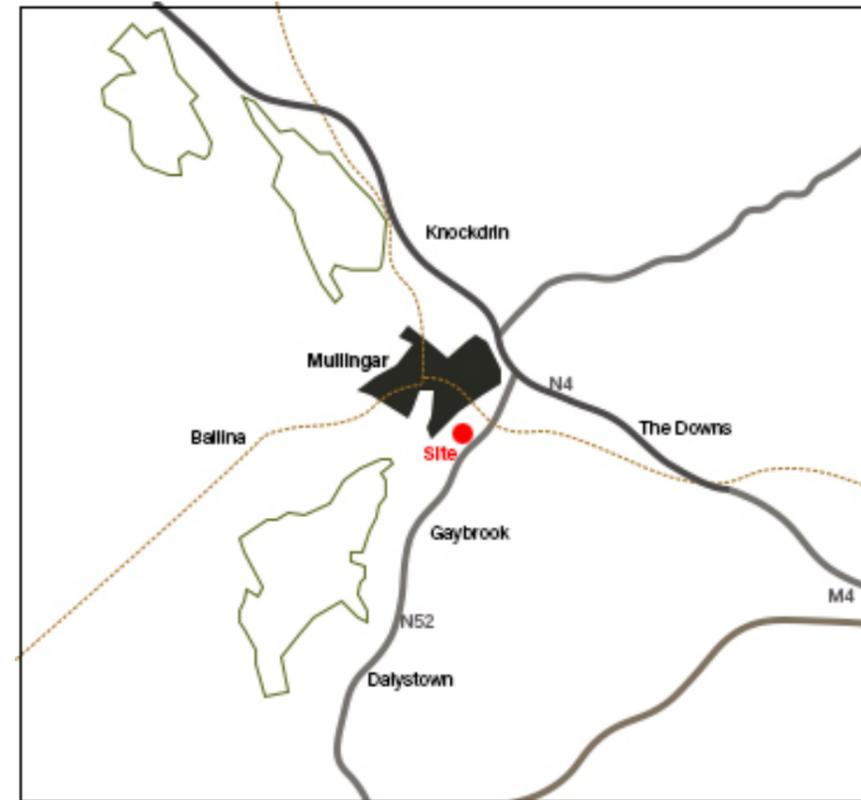


Fig. 1.0 - Site Context



Fig. 2.0 - Site aerial with 'red line' boundary

2.0 Landscape Tools

The design and layout of the public realm is essential in the creation of an appealing built environment for the scheme. It has been designed to offer unique character areas and sense of place with the use of a comprehensive set of cohesive and complimentary external hard and soft landscape finishes. Refer to Fig. 3.0 below for reference.

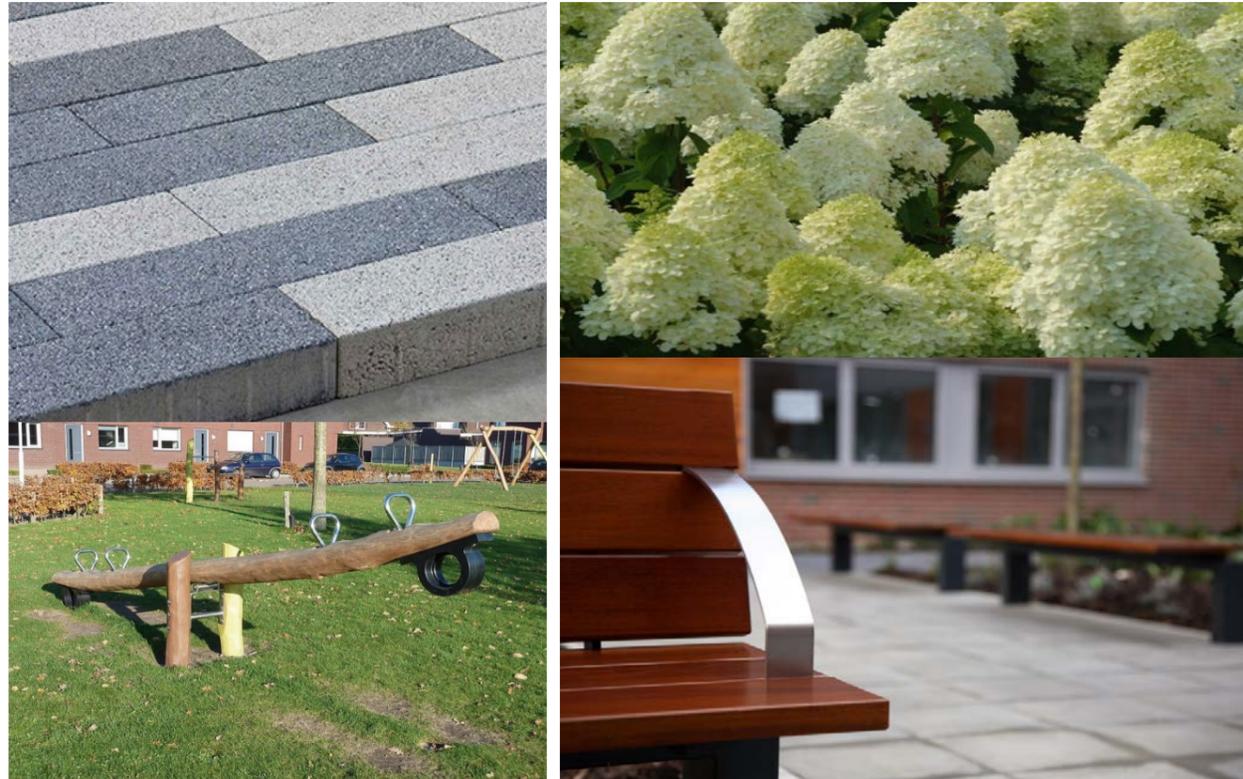


Fig 3.0 - Typical palette of external hard and soft materials

The use and mix of trees, shrubs and herbaceous plants have been considered in detail in order to be robust enough to establish, whilst still offering seasonal interest, movement and a focussed expression.

Native plant material has been considered, where appropriate, to improve the overall biodiversity of the site. Pollinator species have also been included which would be in line with the 'All-Ireland Pollinator Plan 2021-2025'. The Plan is a 'new five-year road map that aims to help bees, other pollinating insects and our wider biodiversity. It is about encouraging a better way of managing our whole landscape to permanently support our struggling biodiversity'.

A series of swales are proposed throughout the scheme to support the surface water management and sustainable urban drainage strategy developed specifically for the site. The planting within the proposed swales has been selected to ensure resilient wetland planting establishes well and offers variety throughout the seasons. A select number of wetland species which are already present on site and as referenced in the 'Appropriate Assessment Screening Report' (by Mr. Roger Goodwillie), have been included within the swale species mix. These include Lady's Smock (*Cardamine pratensis*), Sweet Grass (*Glyceria fluitans*) and Brooklime (*Veronica beccabunga*). Refer to supporting planting plans and Fig. 9.0

below for detailed reference of the same. By including species which are already present on the site lands, and which flourish in the local micro-climate; this is considered a practical and a respectful approach with regard to species selection.

It is proposed that much of the appropriate ornamental shrubs shall be under-planted with bulb species to offer 'flurries' of colour from early to late spring. Leaf colour, bark tone and berries shall all be considered for the scheme which allows for good contrast and again, seasonal variation. To the grass amenity areas, the planting of large swathes of bulbs through the open space areas will provide colour in early mid and late spring. This will reduce the grass cutting maintenance for a period of time when bulb planting is developing right through to senescence. This reduced mowing regime would also be encouraged under the previously referenced All-Ireland Pollinator Plan 2021-2025.

The landscape is designed to be comfortable, passively supervised, accessible, welcoming, sheltered and safe. The passive and active recreation open space areas will provide a high level of visual amenity while allowing for a seamless connection between this development and adjoining established communities.

The provision of a permeable landscape; offering pedestrian and cyclists alike with opportunity and visual variety and interest throughout the scheme is one of the core principals of the design.

The Landscape Palette:

Second to the core principal of design is the development of a palette of materials for hard and soft landscaping for the amenity areas and the streetscape.

We have developed a check list of both hard and soft landscape materials:

Hard works materials must;

- Allow for ease of movement for all users
- Be sustainable
- Enhance the space and not conflict with the building finishes
- Work and look attractive in both wet and dry conditions
- Have a long timeline appeal

Soft works plant materials must;

- Be suitable for the Irish climate
- Be non-invasive
- Collectively provide visual interest all year round
- Enhance bio-diversity and habitat creation
- Be disease resistant

By approaching the overall landscape design of the scheme at both macro and micro levels, the proposal for Ballinderry will provide a high level of amenity.

3.0 Landscape Proposals and Green Infrastructure

The existing trees and hedgerows pertaining to the site lands have been surveyed and reviewed in accordance with BS 5837:2012 by the Project Arborist (The Tree File). The completed survey and Arboricultural Assessment and associated drawings have been included in this application to An Bord Pleanála.

As part of the design development phase of the project, a collective and coherent approach has been undertaken by all members of the design team to facilitate the retention of a select number of suitable trees and hedgerows on site, where this approach has been considered appropriate.

With the 'cut and fill' proposals for the site, it is inevitable that there will be tree and hedgerow loss, however a site wide strategy in terms of appropriate compensatory planting has been considered. It is proposed that (part of) the peripheral hedgerows to the north and east of the site, are retained and enhanced as part of the overall scheme. This, in particular along the northern edge, will create a strong and reinforced boundary to the scheme and will mitigate in part against the loss of hedgerows and vegetation through the site lands. Refer to Fig. 4.0 below referencing the existing hedgerow to the north of the site lands. The retention and associated infill/augmentation of the select boundary hedgerows will provide opportunity to increase the site's biodiversity locally while improving linkages of green infrastructure and wildlife to connect with habitats in the surrounding environment. A supporting 'herb layer' shall also be included along the retained hedgerow to further enhance the local biodiversity and create new and diverse micro-habitats. Refer to Fig. 5.0 below for a typical example of a native hedgerow with supporting herb layer.

Further ecological compensatory measures are proposed as part of the scheme which include developing new compensatory woodlands / woodland edge mix where space allows, planting of flowering trees which are beneficial for pollinators, planting of diverse grass mixes within the open space areas, accommodating an appropriate 'herb layer' planting at the edge of retained hedgerows and the provision of bird boxes at appropriate locations. As part of the hedgerow removal works to facilitate the development, topsoil from the ditch line shall be salvaged and stored separately. This material shall be reused in the forming of berms for the new woodland zones. It is felt that the seed stock within the salvaged soil will include hedgerow species (such as *Viola* sp.); which potentially may flourish as part of the new planting arrangement.



Fig 4.0 - Existing hedgerows to the northern portion of the site lands



Fig 5.0 – Proposed herb layer along reinforced/augmented hedgerow with native species.



Fig 6.0 - Planting with year round interest



Fig 7.0 - Bird box



Fig 8.0 - Planting with colour

The key objectives of the landscape proposals specific to this development are noted as follows:

- To provide a landscape scheme which delivers a high level of visual amenity and passive recreation for the residents all year round.
- To create an attractive, high quality landscape for the residents and their quality of life. Well-designed landscapes, especially in neighbourhoods contribute to an overall sense of well-being by providing places for people to meet for a walk, for collaboration or just to chat. People places are successful places.
- To ensure that the plant material proposed is suitable in terms of scale, species selection, on-going maintenance and overall longevity.

- To adopt a repetition and rhythm of plant species to ensure a cohesive style and an overall consistency.
- To adopt ecological compensatory measures for the scheme, including the objective to retain the northern and eastern boundary in part, which will provide a positive aspect to the landscape and offer significant ecological mitigation measures.

Ecological compensatory measures are proposed as part of the scheme including:

- A. The **planting of native species**, where appropriate
- B. Infilling and augmenting of **existing hedgerows** along the northern boundary; as well as the inclusion of an appropriate herb-layer along its extent.
- C. Inclusion of **swale areas** in the green open spaces which are designed to include native planting currently present on site. Species include *Cardamine pratensis*, *Glyceria fluitans* and *Veronica beccabunga*. (Refer to Fig. 9.0 below for reference)
- D. Planting of **semi-mature trees**, with many flowering varieties which are beneficial for pollinators. Refer to detailed planting plans provided for numbers/species proposed.
- E. Planting **diverse grass mixes**, including **naturalised bulb planting** and potentially managing key grass areas zones as meadows within the proposed green open spaces where appropriate.
- F. As part of the hedgerow removal works, **topsoil from the ditch line shall be salvaged** and stored separately. This material shall be reused in the forming of berms for the new native planting. We believe that the **seed stock and within the salvaged soil** will include hedgerow species (such as *Viola* sp.); which potentially may flourish as part of the new hedgerow arrangement.
- G. Inclusion of **bird boxes** to encourage nesting at appropriate locations.



Fig 9.0 – Swale planting to include *Cardamine pratensis*, *Glyceria fluitans* and *Veronica beccabunga* (which are species currently present on site).



Fig 10.0- Colour and variety – bulb planting



Fig 11.0 - Sustainable trees which are suited to the scale of the open space area

4.0 Open Space

The location and positioning of all open spaces have been considered in detail to create strong characterful amenity zones for the new community and unlock the permeability and green network both within and in the vicinity of the scheme. Refer to Fig. 12.0 and 15.0 below for reference.

As a general note, the following key elements have been considered as part of the open space detailed design and the protection and overall reinforcement of the sites Green Infrastructure:

- Connected pedestrian and cycle paths,
- Structural tree planting and meadow grass mixes with a diverse seed range,
- The development of 'herb layer' to the base of retained hedgerows to reinforce green infrastructure where appropriate,
- Naturalised bulb planting,
- Grass mounding to provide form and visual interest; and offer a sense of enclosure,
- Informal kick-about or multifunctional space,
- A variety of seating zones with good aspect and direct views to play areas,
- Formalised playgrounds - including callisthenic equipment and informal play for all age groups as well as opportunities for natural play,
- Inclusion of stationary exercise equipment at featured locations throughout the scheme,
- Opportunity for active and passive recreation,



Fig 12.0 – Proposed Open Spaces and Green network



Fig 15.0 – Landscape Masterplan (drawing reference LP-01-PP)



Fig 13.0 – ‘Opportunity’ to ‘link’ through proposed open spaces



Fig 14.0 - Integrated ‘Link Road’ cycle path

4.1 Main Entrance

The main entrance / arrival space is located to the eastern edge of the site and is accessed via the Ballinderry Road.

The proposed arrival point is characterful in nature where the scheme will receive a flanked low wall and railing arrangement with feature complimentary hedge planting. It is proposed that the entrance to the new link street will include two formalised planters planted with formal semi-mature clear stem trees and low ground cover, mono-style and contemporary planting with a formal evergreen edge.

4.2 ‘Central Open Space’ (Referenced as Open Space ‘A’)

The two largest open spaces Central Open Space (A) and Western Green (D) offer strong pedestrian connections and active frontages, with overlooking from the built environment ensuring a robust approach to scheme permeability, passive surveillance as well as play and exercise opportunities.

The ‘Central Open Space’ includes considered and potential desire lines throughout as well as south facing open grass areas which will provide a multifunctional space for play and kick-about. It also

comprises of combined formal play and an exercise zone including climbing frames for younger and old children and calisthenics equipment for general fitness also usable by older Children and adults. Refer to playground drawings (PG-01-PP to PG-03-PP inclusive) provided.

The inviting pathway network offers seating with good aspect. Tree planting proposed is of the clear stemmed variety to ensure inter-visibility throughout the open space.

The 'fit-active calisthenics station' include equipment such as a pull-down, a hip trainer, a sloped sit-up trainer and large jumping boxes. Refer to Fig. 16.0



Fig 16.0 - calisthenics exercise equipment

An integrated approach to sustainable urban drainage has been adopted in the form of swales are located and designed to store large amounts of run-off water from the roads with swales. These roadside swales are proposed at the north and southern end of the 'Central Open Space'.

It is proposed that these features shall be shallow vegetated infiltration channels which will be planted with wetland planting including some of the wetland species already existing on site. The swales shall incorporate a side slope in the order of 1:5 to aid maintenance which will also ensure that there is good visual integration within the overall design. Refer to Fig. 17.0 below for typical swale references.



Fig – 17.0 Road side swale treatment

Specimen tree planting including *Betula ertmani*, *Fagus sylvatica* and *Pinus sylvestris*, naturalised meadow areas and naturalised bulb planting throughout the space will ensure the greening and overall enhancement of this neighbourhood amenity. The planting has been designed to support a biodiverse flora and species mix with seasonal interest and appeal. Refer to supporting planting plan (drawing reference PP-01-PP) as provided for reference.



Fig 18.0 – The Western Green (Referenced as Open Space A and D respectively). Drawing reference LP-02-PP)

4.3 'Western Green' (Referenced as Open Space 'D')

The 'Western Green' (Refer to Fig. 12.0 and 18.0) is closely linked to the neighbouring 'Central Open Space' through pedestrian path connections. This open space is fully overlooked and offers a variety of circuitous path links within the central green which respond well to the built environment and potential desire lines.

Rest stops with seating along the path is proposed to encourage both relaxation and social interaction.

The space includes a formal play area for children of varying ages as well as calisthenics exercise equipment for older children and adult exercise. Refer to supporting playground equipment drawings (PG-01-PP to PG-03-PP inclusive) for further details.



Fig 19.0 Climbing structures for younger and older children

Specimen tree planting within the space, along with naturalised grass areas and bulb planting have been included to ensure an overall positive and welcoming space. Refer to supporting planting plan (drawing reference PP-01-PP) for detailed planting references.

4.4 'Nature Trail Park' (Referenced as Open Space 'C')

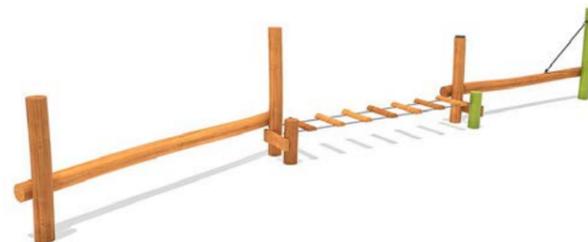
The proposed 'Nature Trail Park' is positioned along the northern boundary of the scheme. The location of this space is referenced in Fig. 18.0 & 22.0

This south facing, open aspect space is well overlooked through the location of the adjacent dwellings as this open space. It offer pedestrian connection with the adjoining established residential development of Chestnut Drive supporting permeability between the two schemes.

The northern boundary includes an existing section of tree and hedgerow planting scheduled for retention. The hedgerow will be infilled with similar and native species and improved as necessary to ensure its continued longevity. It shall also receive a localised 'herb layer' with an element of pollinator species to improve the biodiversity on the local landscape.



Fig 20.0 Balancing play equipment



The 'Nature Trail' includes natural play equipment such as balancing beams, stepping stones and boulders with reinforced rubberised matting aimed at younger children. Refer to Fig. 20.0 & 21.0 for reference. The natural play approach encourages creative play, social interaction and supports physical development.

The 'Nature Trail Park' also proposes sustainable urban drainage, similar to the 'Central Open Space' in the form of a swale / wetland area with marginal wetland planting along the southern edge. This allows the directing and infiltration of rain fall run-off from the road into the planted green open spaces.



Fig 21.0 Boulder features incorporated into natural play

4.5 'Oval Pocket Park' (Referenced as Open Space 'B')

This is a western facing pocket park located at the eastern edge of the scheme (Fig 18.0 and 23.0). The open space includes a footpath arrangement which connects outward to the scheme where it considers envisaged natural desire lines.

The central circuitous footpaths offer opportunity for pedestrians, small children learning to ride a bike within a backdrop of native planting offering visual interest and appeal. Refer to fig. 22.0 below. This space also includes a variety of seating locations as well as a slightly raised lawn space which will add interest and visual appeal.

The 'Oval Pocket Park' will provide a positive amenity for future residents as well as being part of the pedestrian link from the scheme entrance to the north-western edge of the scheme including supporting linkages to Chestnut Drive.



Fig 22.0 A safe space to learn

4.7 Greening of the 'New Link Road' and Streetscapes

The proposed 'Link Road' provides an opportunity to not only serve the proposed development, but also possible future developments to the west in line with 'Development Framework for the Mullingar South Framework Plan'. The 'Link Road' will provide a formal green 'avenue' streetscape with clear stem tree planting, grass medians and planted swales offering visual appeal and structural impact.

It is proposed that the internal access roads will receive specimen trees suited to streetscape development including *Acer platanoides*. 'Columnare', 'October Glory', *Carpinus betulus* 'Frans Fontaine' and *Prunus* 'Sunset Boulevard'. Refer to enclosed planting plan (drawing reference PP-01-PP) for further detailed references. Size, seasonal interest, colour and variation has been considered in choosing tree species for these locations. Supporting shrub planting will be included along these routes to ensure an overall unified approach is adopted.

The tree planting has been coordinated with proposed site lighting in accordance with requirements set out by Westmeath County Council. Planting to the front of the dwellings shall comprise of a mix of shrub, hedging and amenity lawns. The shrub planting will be structural in nature; whilst herbaceous planting will provide seasonal interest and colour.

4.8 Planting Programme

Planting on site will commence with the completion of each stage of the works and as a result the programme is closely tied to construction operations. Ground preparation will precede planting and will include weed clearance and soil amelioration where necessary.

The planting will largely be carried out during the dormant period from November – March, with grass seeding carried out from April – September. An 18 month defects liability and landscape maintenance period will be set in place for all plant material with plant failures being replaced in the following planting season. Plant materials selected for this residential scheme follow a detailed planting plan to be prepared.

5.0 Response to Key Landscape Issues raised by An Bord Pleanála

The following key landscape related items were raised by An Bord Pleanála. A detailed response below has been provided below in an effort to alleviate any concerns raised.

ABP Comment No. 1 – 'Further consideration/justification of the documents as they relate to the horizontal alignment of proposed Link Street, overall design of the street, and design of cycle infrastructure, against the Design Manual for Urban Road and Streets 2013'.

The proposed aligned link road (refer to description in 4.7) is providing an opportunity to not only serve the proposed development, but also future proposed developments along the western boundary. It is a formal green streetscape with clear stem tree planting, grass medians and planted swales to the Central Open Space. It will offer a formalised setting in the local landscape with strong visual appeal.

ABP Comment No 2 – 'Further consideration/justification of the documents in relation to surface water management and in relation to Flood Risk Management, in accordance with the Guidelines for Planning Authorities on the Planning System and Flood Risk Management issued by the Department of the Environment, Heritage and Local Government in November 2009'.

In order to support changing weather patterns with measures for climate adaptation sustainable urban drainage / swales have been proposed in the Central Open Space A and the Nature Trail Park C. These drainage elements have been designed with the Project Engineer to ensure these features work well visually and technically within the scheme.

These swales been designed and located to take run-off water from the adjacent road. They are shallow channels able to store, convey and infiltrate run-off. They will be vegetated with appropriate planting species, including species from the existing site which will provide amenity when the swale is both wet and dry.

ABP Comment No. 3 – 'Further consideration of the Urban Design Manual – a Best Practice Guide in particular criteria no. 6 Distinctiveness and no. 7 Layout in the design of the proposed dwellings and creation of character areas; overlooking and activation of open spaces; and consideration of connections to adjoining lands to the west'.

They will each provide amenity for the residents in their vicinity as well as for the wider community. Refer to figure 25.0 for reference. All open spaces have been described in full as per items 4.2 to 4.6 inclusive above.



Fig 25.0 - Individual character spaces and green network

Open Space – ‘Central Open Space’ (Referenced as Open Space A):

Open Space Hierarchy Level 1: The ‘Central Open Space’ shall provide the dominant green amenity space within the scheme. It proposed to include large play and exercise areas as well as an attractive and green public realm for movement and social interaction.

- Open and overlooked within the heart of the scheme.
- Play areas with climbing frames for younger and older children.
- Exercise areas with callisthenic equipment for older children and adults.
- The space links through a short path to the other large open space ‘Western Green’ D.
- It includes infiltration swales with wetland planting for climate adaptation.
- Formal planting along the edge to the road and tree clusters within the central grass area.
- Pathway network with rest stops and seating.
- Opportunities for kick-about in the grass areas.
- Well overlooked from adjacent dwellings.
- Ecological features include mixed variety of tree species, native shrub planting and swale vegetation.

Open Space – ‘Western Green’ (Referenced as Open Space D):

Open Space Hierarchy Level 2: The ‘Western Green’ is the sister-space of the Central Open Space providing largely similar amenities such as large play and exercise areas as well as an attractive and green public realm for movement and social interaction.

- Play areas with climbing frames for younger and older children.
- Exercise areas with equipment for older children and adults.
- Open and overlooked open space which along with the Central Open Space A is within the heart of the scheme.
- Connecting network of paths and rest-stops with good aspect.
- Well overlooked by adjacent dwellings.
- Seating and opportunities for socialising within the community

Open Space – ‘Nature Trail Park’ (Referenced as Open Space C):

Open Space Hierarchy Level 3: The ‘Nature Trail Park’ is a local neighbourhood park while also a green pedestrian network link. It will form an attractive and green local public realm for neighbourhood play, movement and social interaction.

- Significantly larger than the original design proposed lodged at pre-application stage
- Connecting east-west path linking movement within the scheme.
- Natural pieces of play equipment.
- Pedestrian link to the adjacent Chestnut Drive for permeability with adjoining estate.
- Swale area with wetland planting including species already in the existing on site.
- Biodiverse native hedge planting as infill to the existing hedgerow along with a suitable herb layer.
- Well over-looked by proposed built development

Open Space – ‘Ballinderry Pocket Park’ (Referenced as Open Space E):

Open Space Hierarchy Level 4 The Ballinderry Pocket Park is a local neighbourhood park which is part of the larger green network while also offering a green amenity to the residents in the adjacent dwellings.

- Ecological native shrub planting along the southern and eastern boundary.
- Kickabout area on the grass.
- Overlooked by local neighbourhood.
- Tree and shrub planting to screen the overhead powerlines and the sub-station.
- Incorporation of below ground attenuation.

Open Space – ‘Oval Pocket Park’ (Referenced as Open Space B):

Open Space Hierarchy Level 4 (similar to the Ballinderry Pocket Park): The Oval Pocket Park is a local neighbourhood park which is part of the larger green network while also offering a green amenity to the residents in the adjacent dwellings.

- A circular path for learning to cycle with desire lines connecting to the rest of the scheme.
- Strong local amenity with proposed tree planting and seating.
- Ecological native shrub planting along the eastern
- A local neighbourhood park, overlooked by surrounding built development.
-

ABP Comment also including - Details of the proposed materials and finishes to the scheme. Particular regard should be had to the requirement to provide high quality and sustainable finishes.

The scheme is designed to support climate adaptation, maximise its green surface areas including grass and shrub areas supporting the creation of biodiverse microclimates as well as helping to absorb large amounts of rainfall.

As noted above, second to the core principal of design is the development of a palette of materials for hard and soft landscaping for the amenity areas and the streetscape. We have developed a check list of both hard and soft landscape materials:

Hard works materials must;

- Allow for ease of movement for all users
- Be sustainable
- Enhance the space and not conflict with the building finishes
- Work and look attractive in both wet and dry conditions
- Have a long timeline appeal

Soft works plant materials must;

- Be suitable for the Irish climate
- Be non-invasive
- Collectively provide visual interest all year round
- Enhance bio-diversity and habitat creation
- Be disease resistant

The logo consists of the letters 'D&' stacked above 'O'T' in a white, sans-serif font, set against a dark grey square background.

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