

# Proposed Apartments at Grange Road, Baldoyle, Dublin 13

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## GREEN INFRASTRUCTURE PLAN

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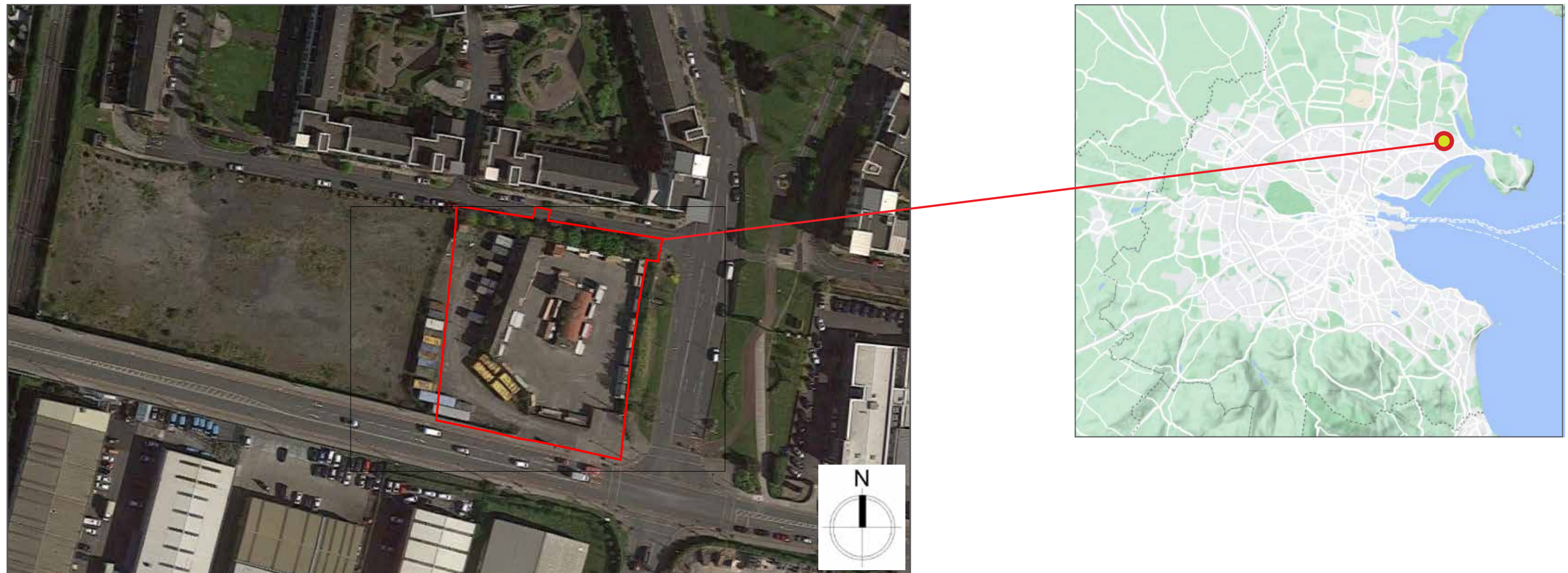
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## 1. CONTEXT

### Site Location



Subject Lands

Rondesere Limited intends to apply for a Planning Permission for a Large-Scale Residential Development (LRD) on a site at Grange Road, Baldoyle, Dublin 13.

The site is bounded to the north by Myrtle Road and existing residential development, by Grange Road to the south separating the subject site with Baldoyle Industrial Estate, by Longfield Road and Beshoff Motors Car Dealers to the east and an educational facility currently under construction on lands adjoining the west of the subject site.



Fingal Development Plan 2023-2029

The new Fingal Development Plan 2023 – 2029 was made on 22nd February 2023 and came into effect on 5th April 2023 following the issuing of the above request for Clarification of Additional Information on the 18th of January 2023, Planning Register Reference F22A/0204 - Decision Order No: PF/0500/23. The forthcoming Table addresses the consistency of the proposed development with the Green Infrastructure Objectives in the new Development Plan which are considered of relevance to the proposed development.

Fingal CDP Policies/ Objectives	Design Response
<i>Policy GINHP3 – Greening of Developments Encourage measures for the ‘greening’ of new developments including the use of green roofs, brown roofs, green walls and water harvesting. Where feasible require new developments to incorporate greening elements such as green roofs, brown roofs, green walls, green car parking and SuDs (e.g. clean water ponds fed by rainwater via downpipes).</i>	Natural SUDS measures have been introduced to the development where appropriate including permeable paving, grasscrete pathways and swales in compliance with Policy CINHP3. This will contribute to the greening of the proposed development in addition to preserving and enhancing the site’s green and blue infrastructure.
<i>Objective GINHO15 – SuDS Limit surface water run-off from new developments through the use of appropriate Sustainable Urban Drainage Systems (SuDS) using nature-based solutions and ensure that SuDS is integrated into all new development in the County.</i>	It is proposed to incorporate a Storm Water Management Plan through the use of various SuDS techniques to treat and minimise surface water runoff from the site based on recommendations set out in the Greater Dublin Strategic Drainage Study (GDSDS) and in the SuDS Manual. This will include the use of permeable paving, grasscrete pathways and swales as part of the proposed development
<i>Objective GINHO21 - Integration of Green Infrastructure Avoid the fragmentation of green spaces in site design and to link green spaces /greening elements to existing adjacent green infrastructure / the public realm where feasible and to provide for ecological functions.</i>	The integration of green infrastructure and the avoidance of fragmentation of existing green spaces have been core early design considerations as part of the proposed development. As such, the proposed green infrastructure network of urban forest, various planting will provide connectivity routes and strong green borders across the wider context of the site.
<i>Objective GINHO26 – Re-wilding Continue to promote and support re-wilding and pollinator initiatives within the County.</i>	Extensive native pollinator planting is provided as part of the proposed development.



Other objectives of the Fingal Development Plan 2023-2029 relating to Development:

Objectives	Status
Objective DMSO125 – Management of Trees and Hedgerows Protect, preserve and ensure the effective management of trees and groups of trees and hedgerows.	✓
Objective DMSO127 – Use of Native Species in New Developments Require the use of native species where appropriate in new developments in consultation with the Council.	✓
Objective DMSO129 – Tree Selection Consider in tree selection the available rooting area and proximity to dwellings or business premises particularly regarding shading of buildings and gardens.	✓
Objective DMSO132 – Planting of Large Canopy Trees – Promote the planting of large canopy trees on public open space and where necessary provide for constructed tree pits as part of the landscape specification.	✓
Objective DMSO133 – Street tree Planting Plans - Street tree planting plans shall accompany developments over 50 units. Constructed tree pits will be required where trees are planted in hard surfaces and grass verges less than 1.2m wide. These plans will include the location of each constructed tree pit of a minimum rooting volume of 16 cubic metres, lamp standards and underground services. The location of tree planting in proximity to built features including footpaths must refer to BS5837:2012 Trees in relation to design, demolition and construction – Recommendations The width of grass verges where tree planting is proposed must be labelled on landscape plans.	✓
Objective DMSO134 – Planting along Distributor Roads Ensure new Distributor Roads or similar provide for grass verges of a minimum width of 2.4 metres to allow for avenue tree planting and where necessary provide for constructed tree pits as part of the landscape specification. Road verges shall be a minimum of 1.2 metres wide at locations where small canopy trees are proposed.	✓
Objective DMSO135 – Location of new Trees Where new trees are being planted, these will be located so they do not cause future interference to streetlights, typically trees shall be located so there is a distance of no less than 7m from the centre of the main stem to the lighting pole.	✓
Objective DMSO139 – Replacement of Removed Trees Ensure trees removed from residential areas are replaced, where appropriate, within the first planting season following substantial completion of construction works.	✓

## 2. GREEN INFRASTRUCTURE

### Masterplan



The proposed Large-scale Residential Development consists of the following;

- Demolition of existing, single storey, storage structures on the subject site.
- The construction of a residential development comprising of 120 no. apartment units within 1 no. block.
- The construction of a basement to be accessed off Myrtle Road with provision of c. 47 no. car parking spaces, including accessible spaces, electric vehicle charging points and residential visitor parking.
- Addition of 2 no. crèche drop off car parking spaces at surface level.
- Provision of 360 no. 'long stay' residential bicycle parking spaces at basement level together with additional 60 no. visitor bicycle parking spaces in secure locations at surface level.
- Provision of c. 1877 m<sup>2</sup> of open space to serve the development including green roof garden terraces between 5th and 10th floor level.
- Provision of a childcare facility and associated, secure, open play area (c. 117.1 m<sup>2</sup>).
- Provision of Café unit at ground floor level with associated outdoor seating area.

### Proposed Landscape Design - Methodology

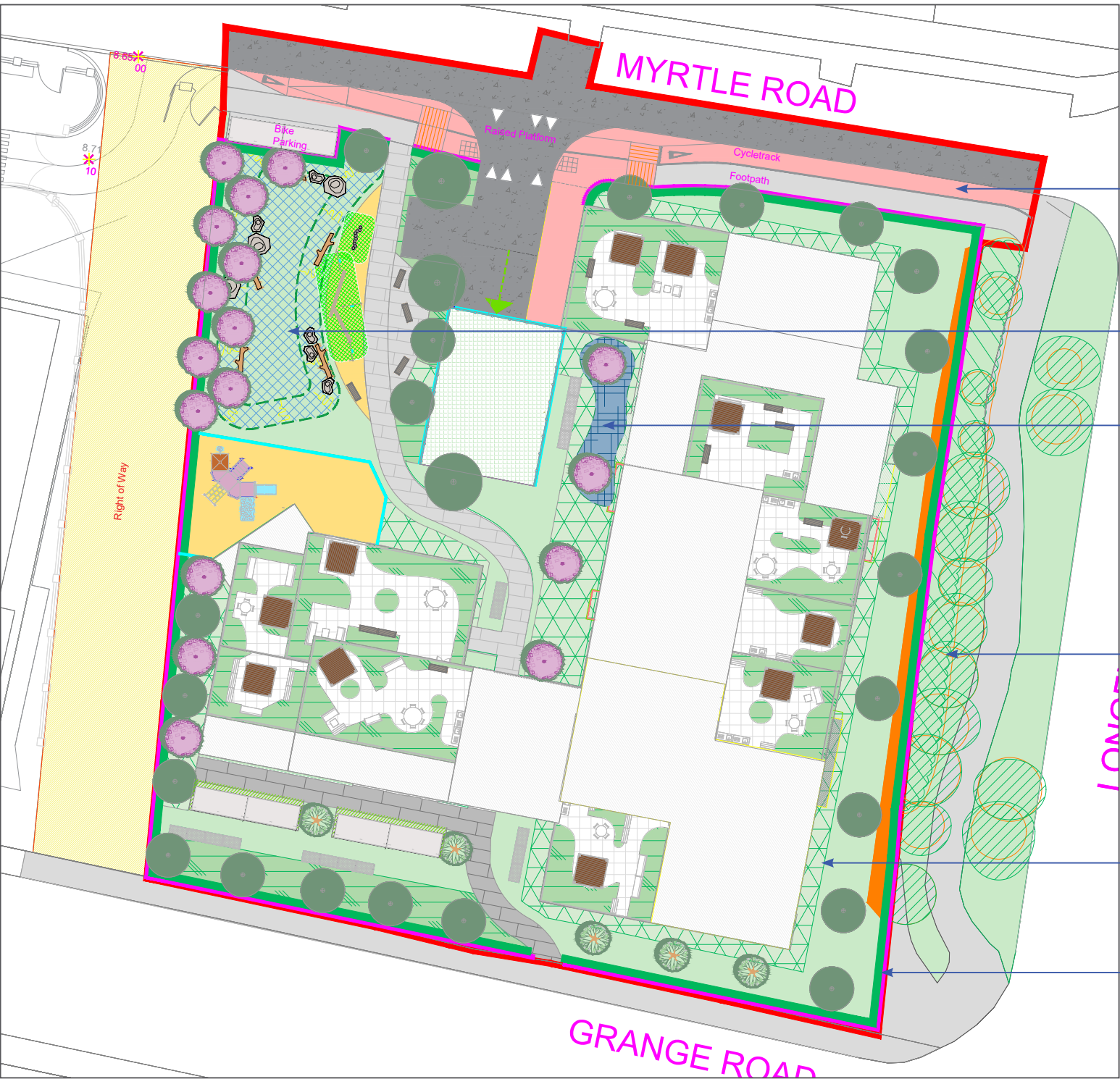
We have provided a comprehensive landscape design combining all elements, roads, and green spaces into one total. A combination of all elements, amenity, suds, and connectivity to create a unique environment.

These areas combine to create a robust Green infrastructure which offers betterment in terms of biodiversity enhancement & public amenity.

The open spaces will provide for habitat to enhance site wide biodiversity.

### Drainage - Natural SUDS Measures

Proposals have been developed to inform the strategic drainage network across the development. The SUDs provision comprises of a large detention basins, bioretention raingardens, and avenue tree planting.



Cycle Path

Dry Detention Basin will help increase sustainable water treatment.

Bioretention Raingarden

Retained Hedgerow/Trees

Buffer planting

Proposed hedgerow to be planted along public road boundary



The landscape design will provide for the following;

1. Support an increase in species and new habitats in and around the new Development.
2. Provide a variety of open space areas with a range of habitats.
3. Be equipped to cope with the effects of climate change and weather events, this includes the integration of Suds into the landscape design.
4. The landscape design has been developed to fit into the landscape setting and the surrounding context.

The proposed landscape design seeks to use native landscape materials in a high development low impact way, i.e. the use of natural materials, planting (native pollinator) to achieve a sustainable landscape that will increase the range of species and or improve the existing landscape habitat on site. The sustainable nature of the design requires it to be used by both nature and people, based on the following principles;

1. Connectivity – A well-connected green space that can serve both humans – amenity and nature – biodiversity.
2. Multifunctionality, Provision of a number of ecosystems within the development.
3. Integration – Interactions and links between grey and green infrastructure, Suds interventions. Liaise with the consulting Engineers on drainage.
4. Diversity – Enhancing the existing environment as a sustainable landscape design.
5. Applicability – Considers if the proposals are realistic, that were developed by the design team . I.e. if the solutions to sustainable issues are adaptable to the site or not.
6. Continuity – Sustainable, the landscape proposals must be realistic and useable into the future. A level of monitoring and periodic evaluation may be required. This would be seen in terms of maintenance and management.



Strong Green Buffer





- Primary Route
- Secondary Route
- Pedestrian / Cycle Route

Connectivity

A key objective of the scheme to reduce car dependency by providing high quality pedestrian and cycle networks. The provision of green infrastructure integrates the new development with the existing greenway.

The increased permeability of the development it's context is important to connect residents to surrounding opportunities.

SuDS - Open Space



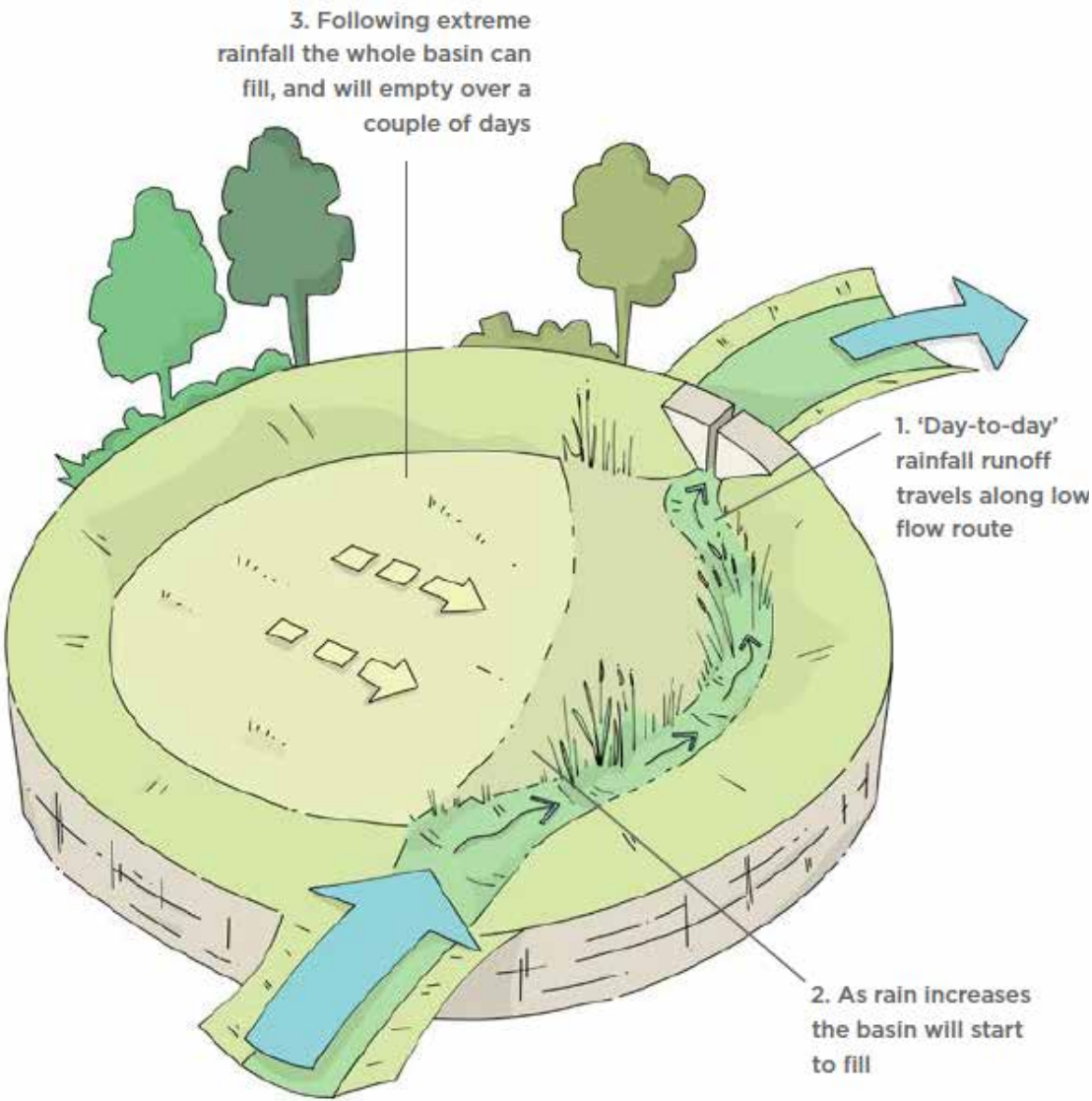
Dry Detention Basin will help increase sustainable water treatment.

Bioretention Raingardens



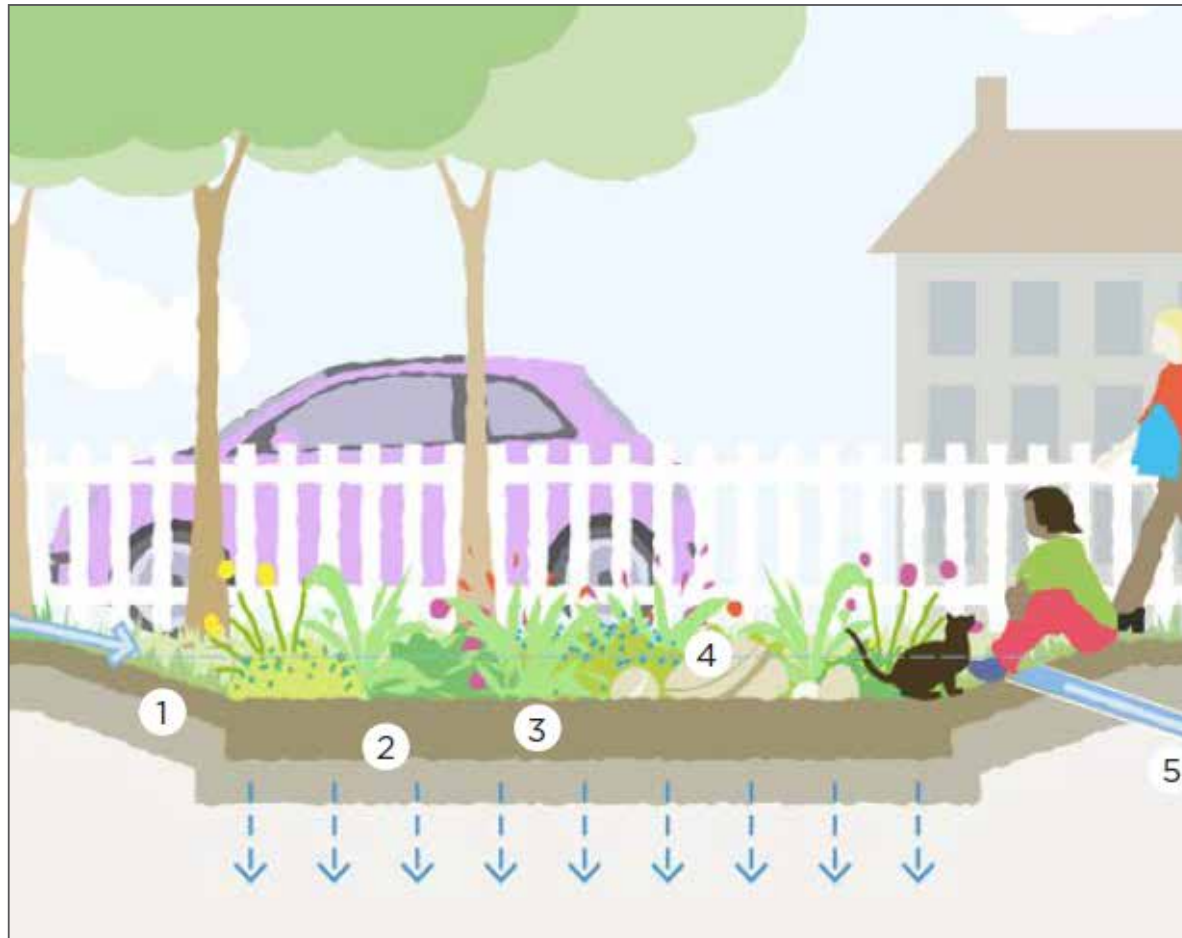
SuDS in Public Open Space

The following graphic demonstrates how levels within a basin can be adapted to ensure that most of the basin is available for play during the majority of rainfall events. As further surface runoff is stored water will encroach gradually up the slope, until the full storage capacity of the basin is utilised.





## SUDs - Bioretention Raingarden



Raingardens are designed to collect and manage reasonably clean water from roofs and low pollution risk drives and pathways. They are generally installed where community or private maintenance is available to upkeep these attractive features.

Key aspects of raingarden design include:

1. gentle side slopes with water collected at the surface
2. a free-draining soil, sometimes with an underdrain to avoid permanent wetness
3. a minimum of 450mm improved topsoil with up to 20% coarse compost
4. garden plants that can tolerate occasional submersion and wet soil – this includes most garden plants other than those particularly adapted to dry conditions
5. an overflow in case of heavy rain or impeded drainage.



Raingarden



Raingarden Planting

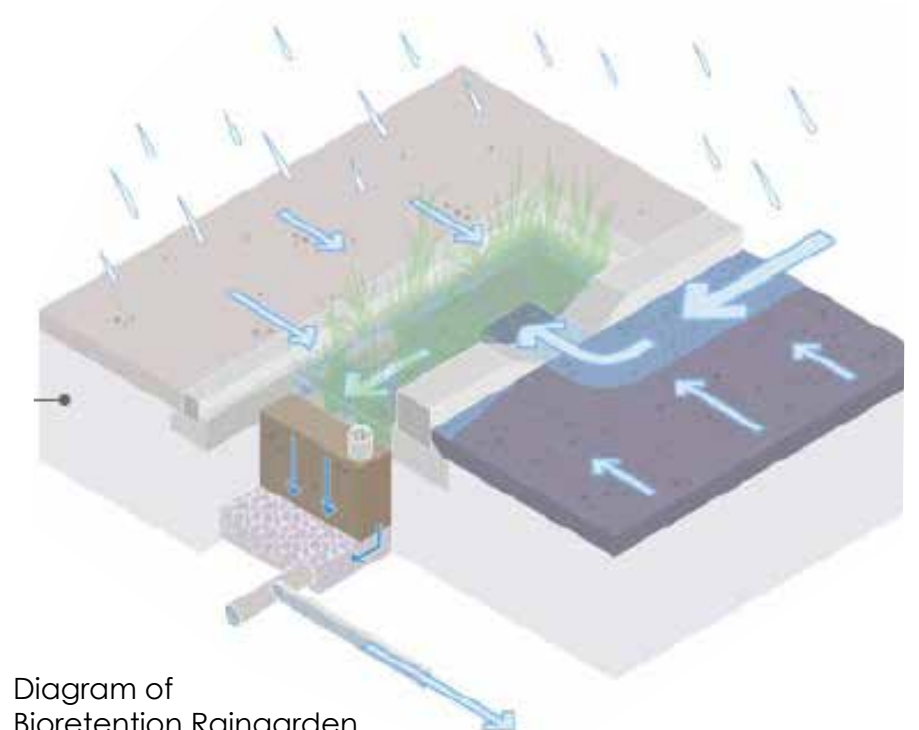


Diagram of  
Bioretention Raingarden

Arboricultural Impact



RETAINED

Existing Trees and Hedgerows to be retained, and augmented where necessary with native species



REMOVED

Existing Trees and Hedgerows to be removed to facilitate the proposed development

Retention and protection of mature vegetation and established hedgerows will ensure there is minimal impacts on biodiversity and it will allow the existing hedgerows their continued function as a wildlife corridors for the area.



Proposed Street & Open Space Trees



Carpinus betulus 'fastigiata'



Betula pendula jacquemontii multi stem



Proposed Trees Planting Location



Acer palmatum 'Sango  
Kaku'



Betula jacquemontii



Pyrus Chanticleer



Quercus palustris





Allium Purple Sensation



Perovskia atriplicifolia



Miscanthus sinensis



Astelia 'Silver Spear'



Libertia grandiflora



Lavandula angustifolia



Proposed Shrub  
Planting Location



Prunus 'Otto luyken'





Defensive Buffer Planting



Aucuba japonica



Bergenia cordifolia



Lavandula angustifolia



Hypericum hidcote



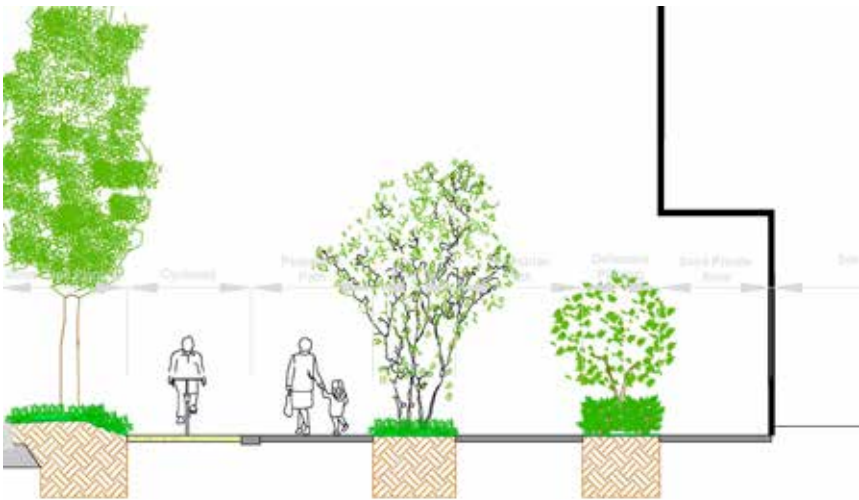
Miscanthus sinensis



Libertia grandiflora



Proposed Shrub Planting Location



Defensive space is provided between private patios, apartments and public open space across the scheme. These are planted with low shrub planting, large shrubs and small trees. Similarly the same treatment is used within the communal courtyards between private patios, apartments and communal open space.