

Kiltiernan,
Dún Laoghaire–Rathdown

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Landscape Architects & Consultants



LANDSCAPE RATIONALE

June 2022



Kiltiernan Village SHD Application

Client: Liscove Limited

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NOTE: RATIONALE TO BE READ IN CONJUNCTION WITH LANDSCAPE DRAWINGS.

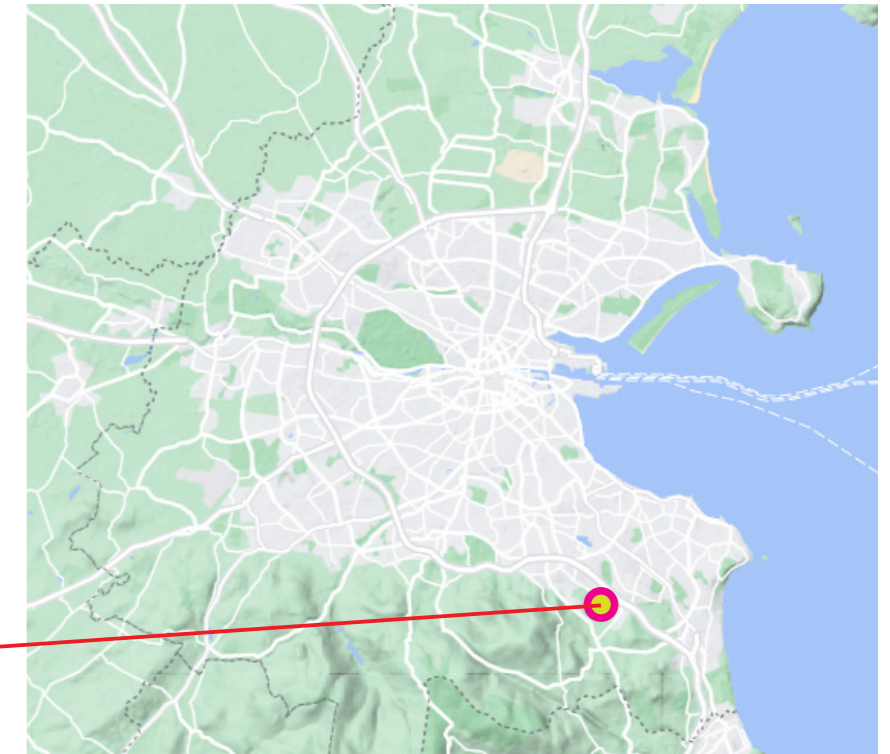
IMAGES AND DIAGRAMS FOR ILLUSTRATIVE PURPOSES ONLY.



SITE CONTEXT



Site Location



 Subject Lands

Liscove Limited intend to apply to An Bord Pleanála for permission for a strategic housing development at this c. 10.8 Ha site at lands at Wayside, Enniskerry Road and Glenamuck Road, Kiltarnan, Dublin 18 including a derelict dwelling known as 'Rockville' and associated derelict outbuildings, Enniskerry Road, Kiltarnan, Dublin 18, D18 Y199. The site is generally bounded by the Glenamuck Road to the north; Kiltarnan Farmers Market and the Sancta Maria residence to the north and west; a recently constructed residential development named "Rockville" to the north-east; the Enniskerry Road to the south-west; dwellingstothesouth; andlandsthatwillfacilitate the futureGlenamuckLinkDistributorRoadtotheeast.



Regional Planning & Development Objectives



- Subject Lands
- Liscove Lands
- Residential Developments - Built
- Residential Developments - Granted Perm / Under Construction
- DLRCC Proposed Park
- Sports Grounds
- Community





-  Subject Lands
-  Liscove Lands
-  Glenamuck Link Distributor Road
-  Glenamuck District Distributor Road
-  Local Roads
-  Motorway

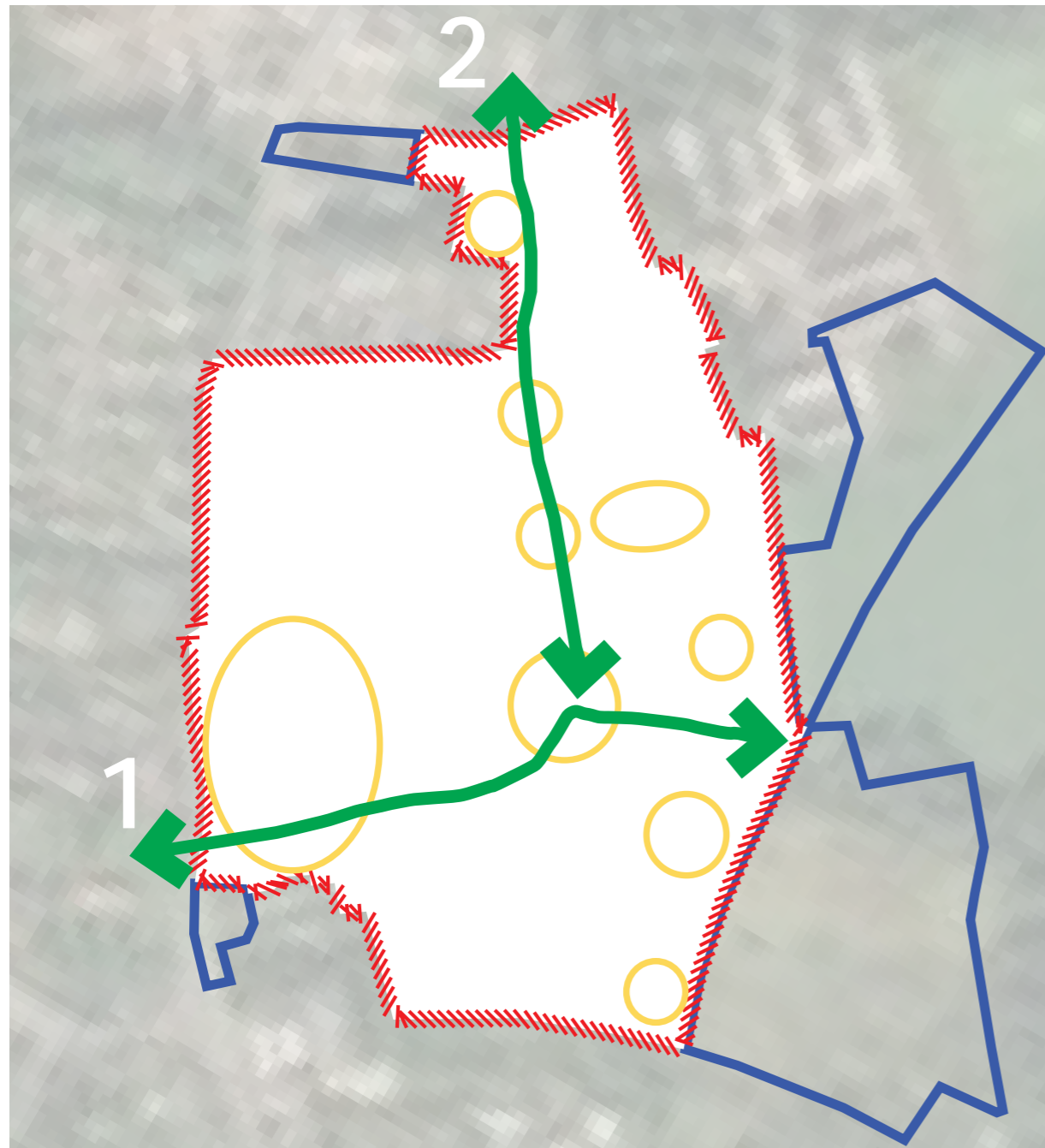




CONCEPT DEVELOPMENT



Initial Approach



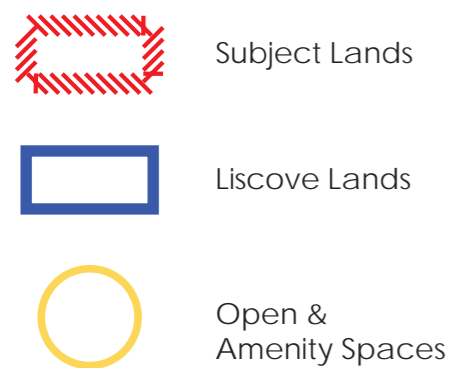
The site layout is informed by two prominent elements, the existing hedgerow/woodlands, and the existing/proposed road infrastructure.

Tree protection and enhancement are a key tenet of the proposed design, as such, the provision of open space has been configured to best employ existing tree species and groups of trees/hedgerows. The aim of this approach is to retain the biodiversity profile of the site, and utilize the existing flora as a design tool to:

- inform the site circulation and greenway links
- dictate open space allocation
- influence materiality, site furnishing, and play elements

In landscape terms the proposed development will have the following objectives:

- To provide a new landscape feature in the form of a housing development that will significantly enhance and retain the character of the area.
- Achieve an integrated network of safe pedestrian and cycle routes by utilising links through and along parks, open spaces and green corridors
- To create new landscape features that will complement and enhance the landscape;
- To renew and augment existing vegetation with planting suitable to the local and new proposed environment.



Green Route Path System

1. Dingle Way

Public Greenway Link. Sequence of high quality landscape nodes. Mature tree planting. Habitat creation.

2. Woodland Walk

Maintain Existing Habitat / Woodland. Habitat renewal. Central spine of development. Exercise & play areas.



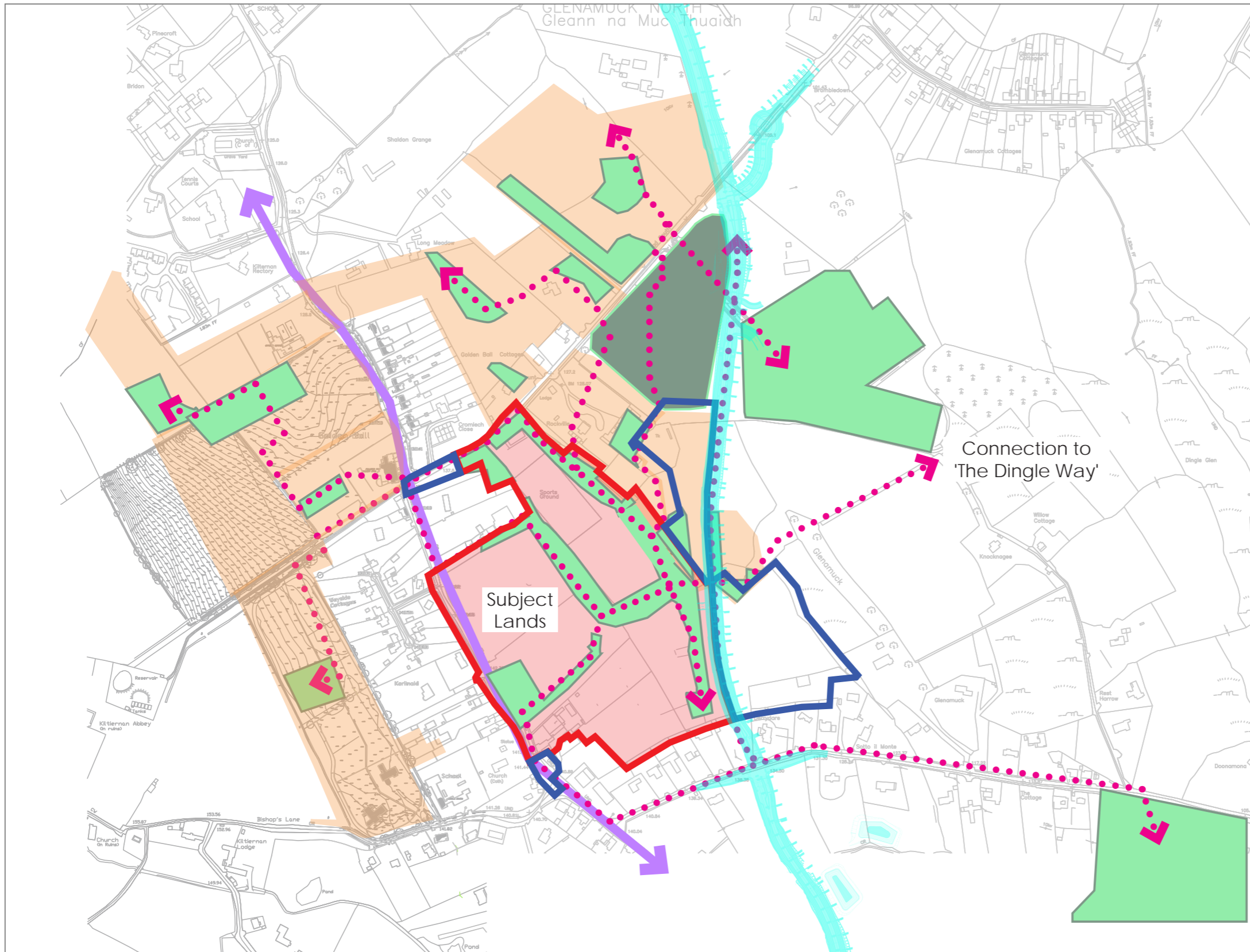
Road Infrastructure Parameters



Retained Existing Woodland

Site Circulation

Green Infrastructure Links

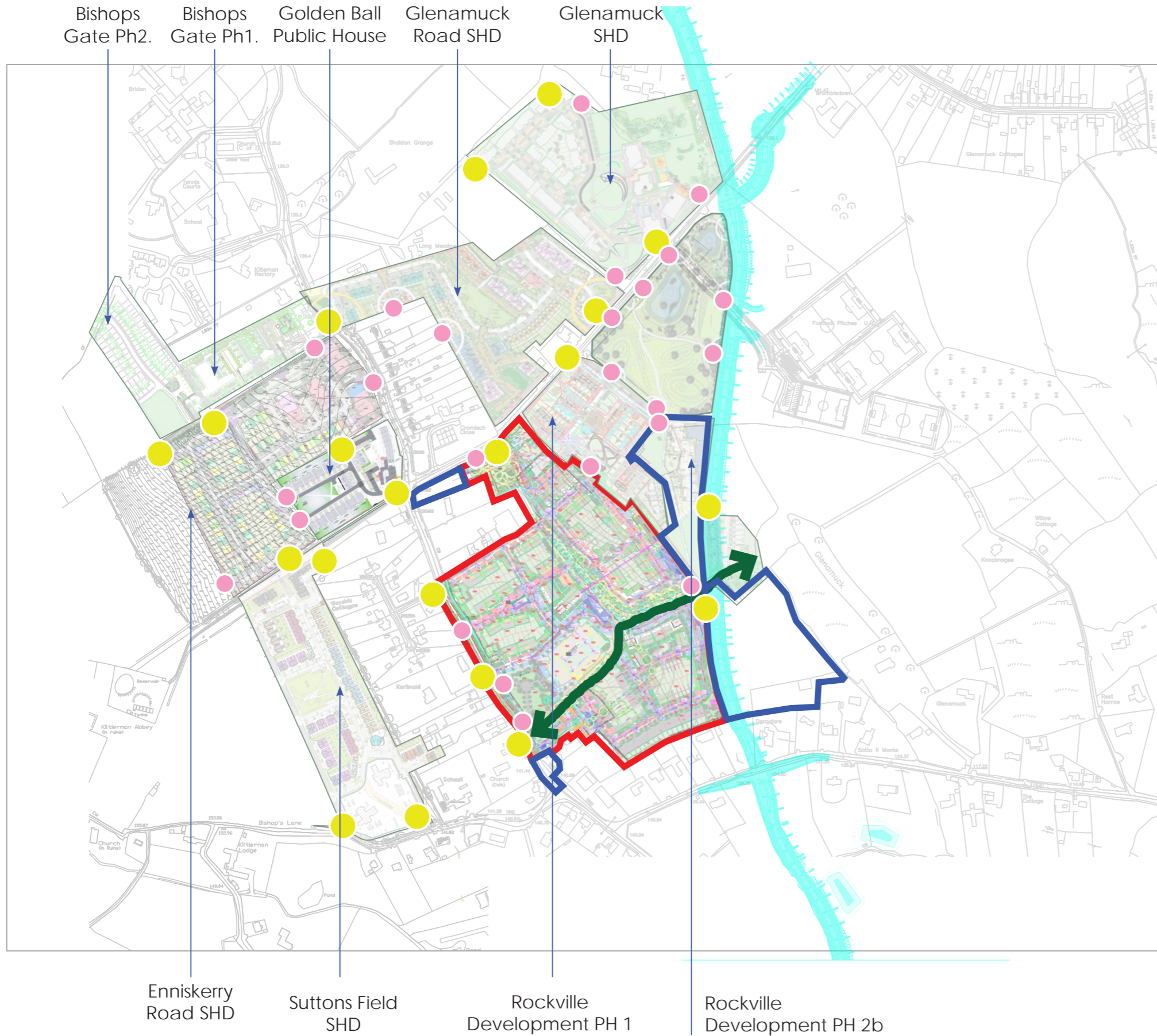


-  Subject Lands
-  Liscove Lands
-  Residential Developments
-  Green Open Space
-  DLRCC Proposed Park
-  Primary Green Infrastructure Links
-  Glenamuck Link Distributor Road
-  Enniskerry Road



Site Circulation

Connection Points



-  Subject Lands
-  Liscove Lands
-  Vehicular Links
-  Pedestrian Links
-  The Dingle Way
-  Glenamuck Link Distributor Road

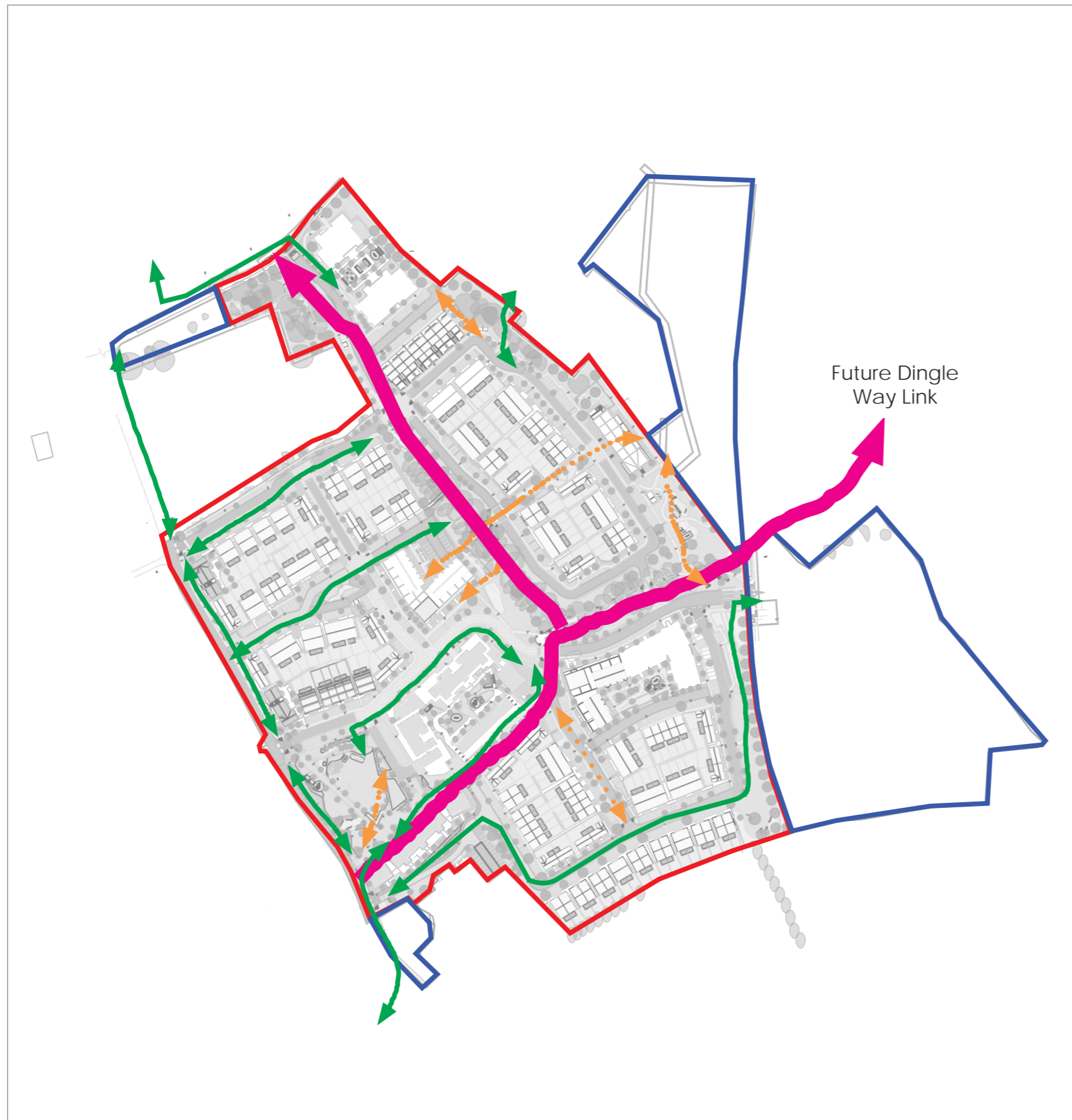
Adjacent Links






The development will provide vehicular access from Enniskerry Road and Glenamuck Road; vehicular access to the future Glenamuck Link Distributor Road; pedestrian links from Enniskerry Road and within the site to the neighbouring "Rockville" development to the north-east and a pedestrian/cycle route through the Dingle Way from Enniskerry Road to the future Glenamuck Link Distributor Road.



Site Circulation

Connectivity Plan



-  Subject Lands
-  Liscove Lands
-  Pedestrian & Cycle Ways
-  Primary Links
-  Secondary Links

Connectivity

A key objective of the scheme is to reduce car dependency by providing high quality pedestrian and cycle networks. The provision of green infrastructure integrates the new development with the existing landscape, and allows the opportunity for future links subject to planning.

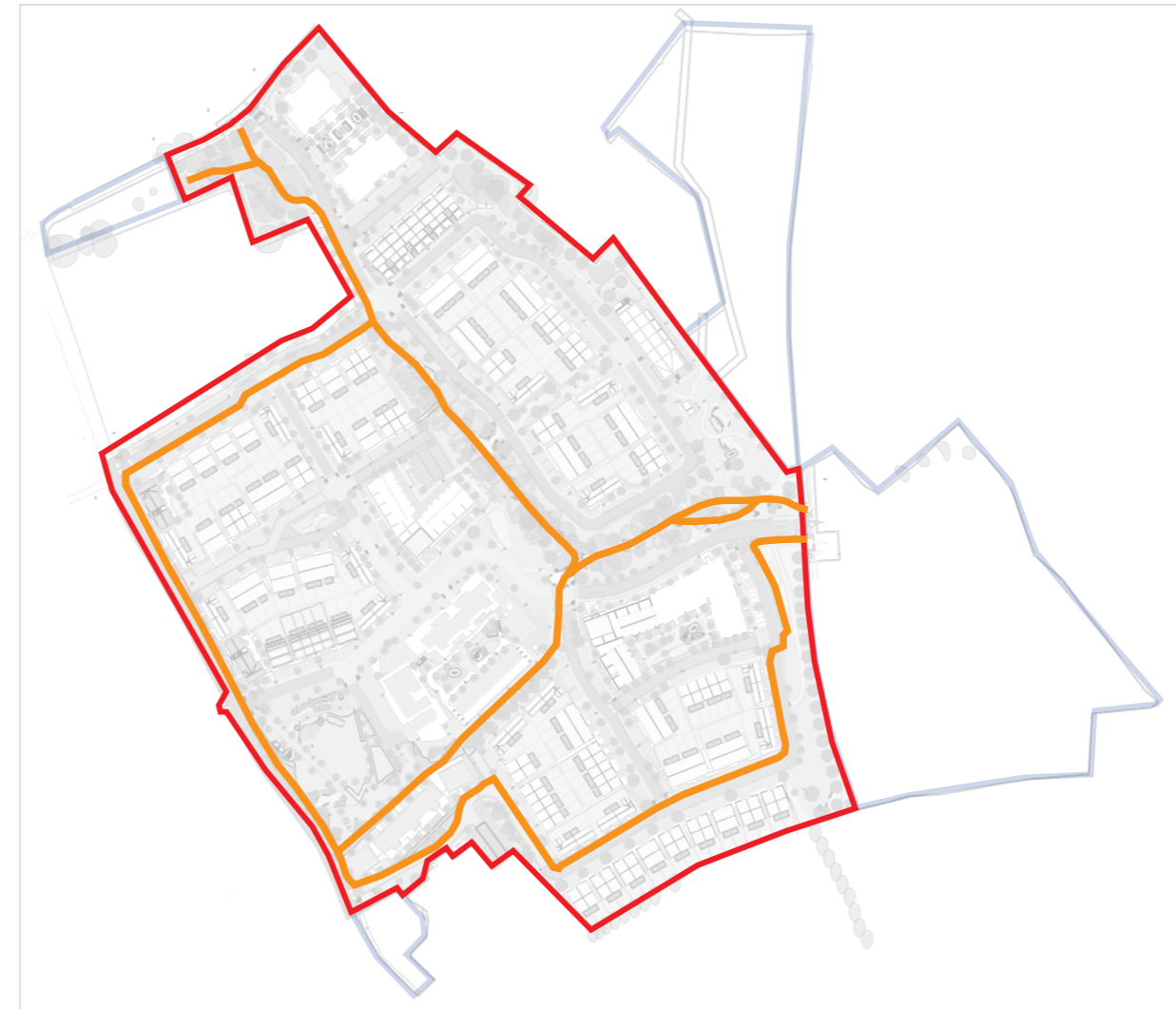
'The Dingle Way'

The Dingle Way is one of the prominent design features of the scheme that allows for the retention of existing mature trees, unifying the proposed series of green open spaces and urban plazas. This greenway is a crucial design feature in making this a livable community, enhancing the marketability of the scheme, improving the quality of residents' lives, and providing space for sustainable drainage.



Site Circulation

Connectivity Plan



— Pedestrian Routes

— Cycle Routes

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 landscape, and allows the opportunity for future links subject to planning.

The increased permeability of the development within it's context is important to connect residents to surrounding opportunities, providing a safe and convenient route for children, with landscaped nodes for informal recreation, exercise, and enjoyment of nature.



LANDSCAPE CHARACTER AREAS



Landscape Masterplan








Landscape Character Areas

The development also provides: pedestrian links from Enniskerry Road and within the site to the neighbouring "Rockville" development to the north-east and a pedestrian/cycle route through the Dingle Way from Enniskerry Road to the future Glenamuck Link Distributor Road; 678 No. car parking spaces including 16 No. mobility impaired spaces, 73 No. electric vehicle spaces, 1 No. car share space, 4 No. drop-off spaces/loading bays; motorcycle parking; bicycle parking; bin storage; the decommissioning of the existing telecommunications mast at ground level and provision of new telecommunications infrastructure at roof level of the Neighbourhood Centre including shrouds, antennas and microwave link dishes; private balconies, terraces and gardens; hard and soft landscaping; sedum roofs; solar panels; boundary treatments; lighting; substations; plant; and all other associated site works above and below ground.

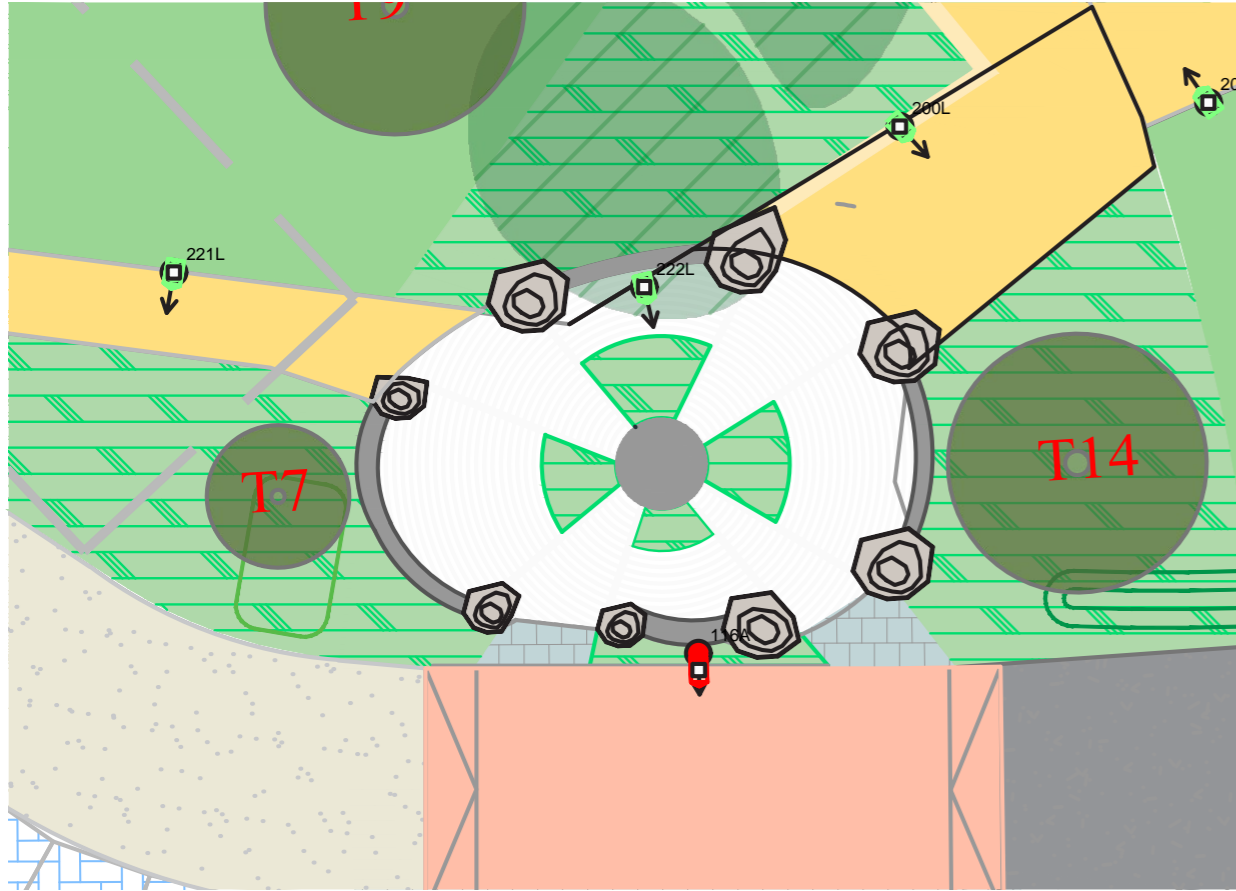
Plan



-  Mountains
-  Sea
-  Lead Mine
-  Market Quarter
-  Suggested Sculpture Locations



Focal Point

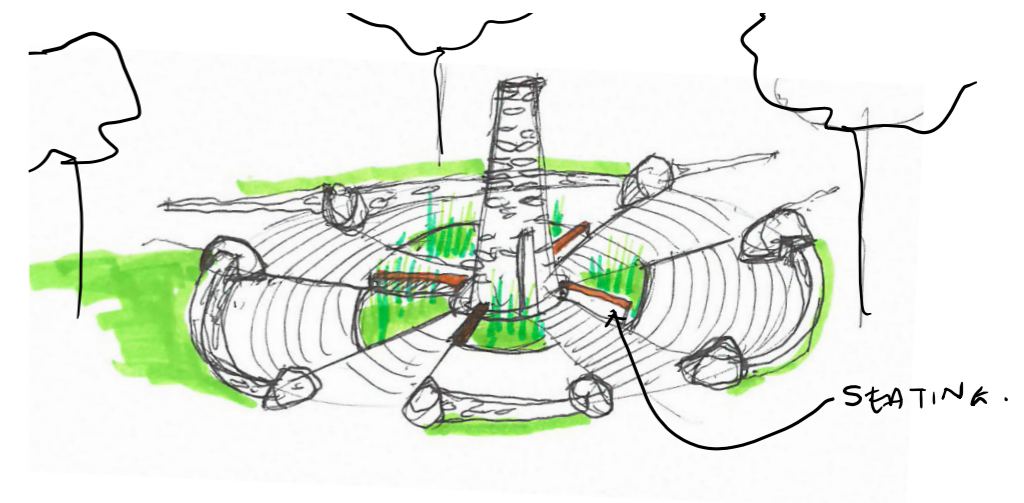
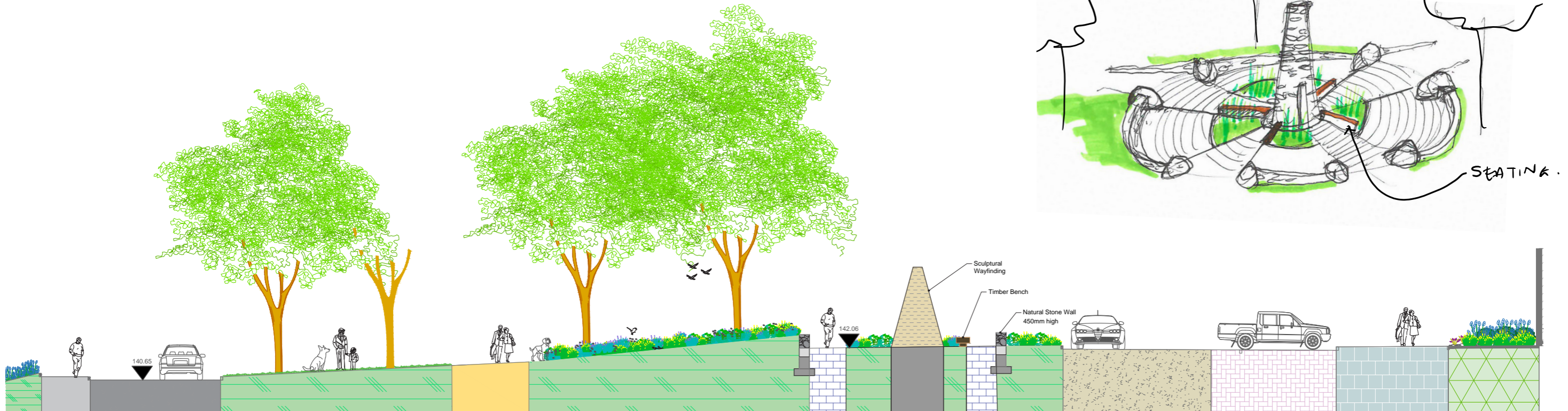


A central landscape focal point is proposed where the pedestrians will come to a decision node. A Proposed sculpture piece will be provided showing directions. Different paving to show the different characteristics of each quarter will be provided including:

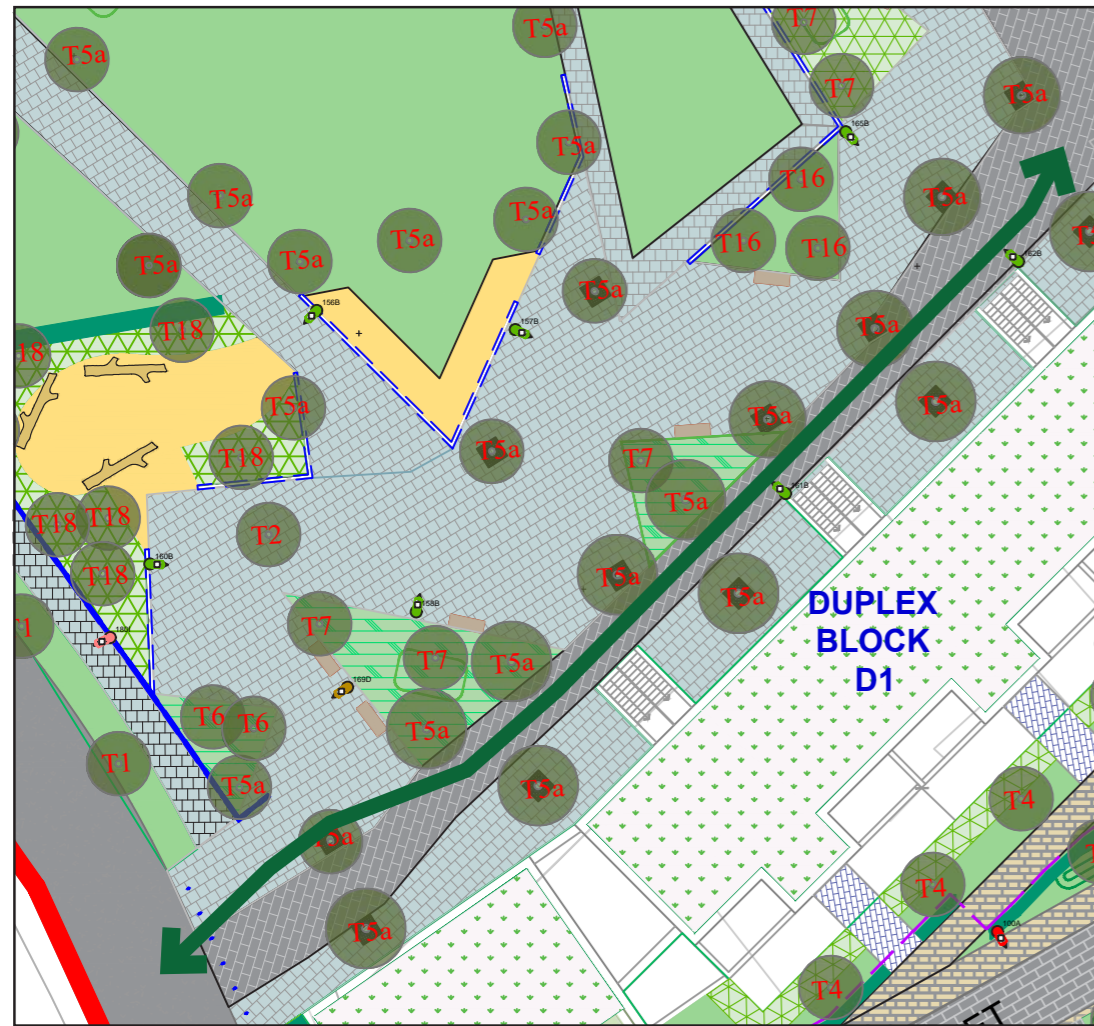
- The Sea
- Mountains
- Market Quarter
- Lead mine



Sculptural Wayfinding lit up at night



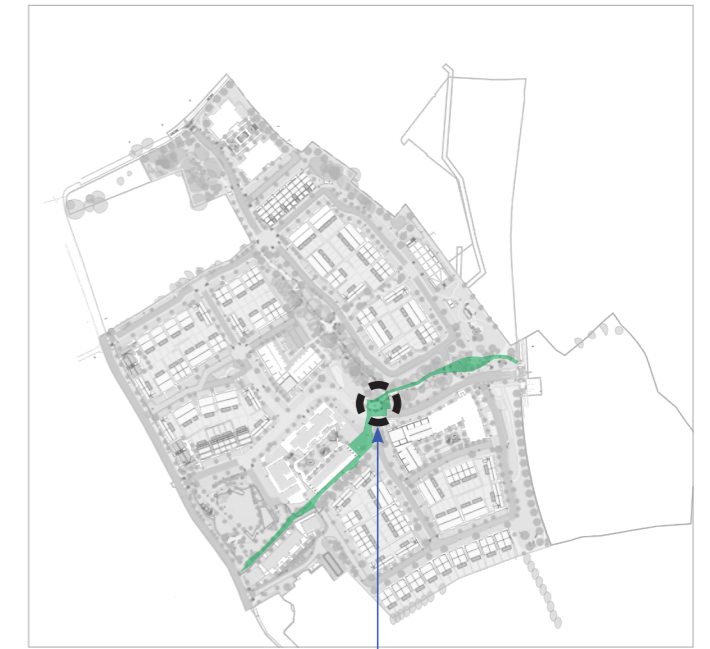
The Dingle Way



The Dingle Way acts as a link between each character area, and features a range of high quality landscape nodes. The Dingle Way caters for the recreational and amenity requirements of future residents and wider public within the subject lands. Areas of congregation, informal recreation, and exercise provide a varied experience along the greenway, creating a sense of place.

The Dingle Way will:

- Improve wider external linkages and corridors
- Enhance connectivity of wider strategic networks
- Enable long-term strategic expansion of urban areas
- Promote the development of Regional and local networks of hiking and walking routes/trails
- Be a waymarked green route
- Include a plaza area with Paving Flags and Paving associated with the character area theme: Mountain.



Central Landscape Node

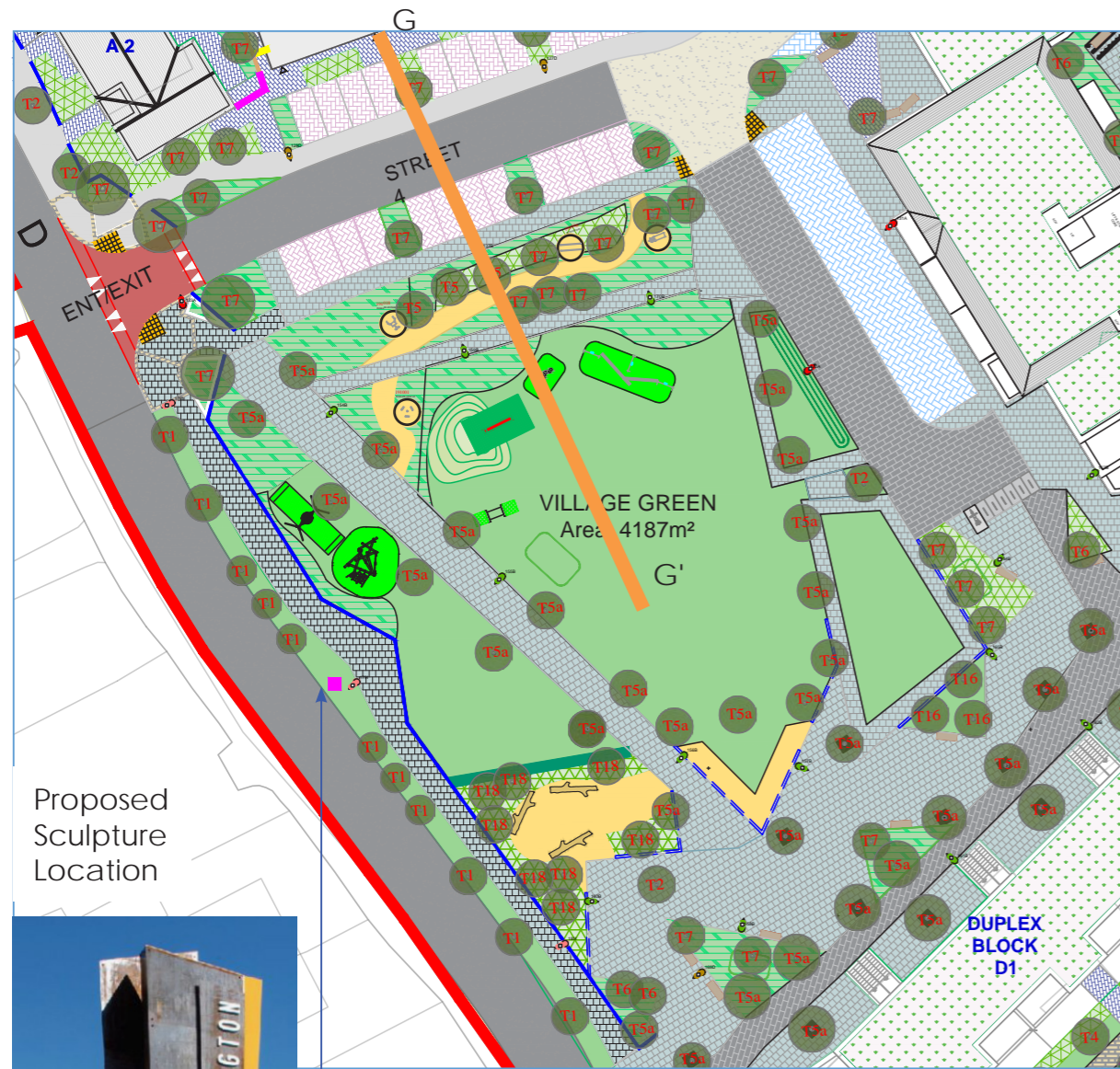
↔ The Dingle Way



Landscape Character Areas

1. Mountains

Village Green



The Village Green acts as a green focal point for the entire development, and is the primary open space in the 'Mountain' Character Area.

The Village Green will serve as the primary relief to the urban scale of the adjacent Neighbourhood Centre, which incorporates a creche, office, medical, retail, convenience retail, and community centre.

A palette of high quality landscape materials has been suggested in order to enhance the pedestrian area. Changes of landform add interest and help delineate the different congregation spaces, with elements of natural play.

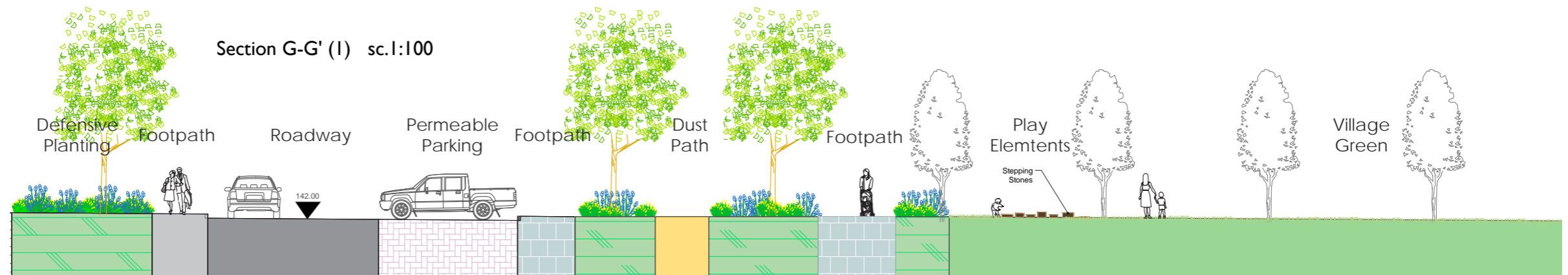
A variety of seating and gathering points are an integral part of the proposal. These attractive surface treatments are accompanied with natural and formal tree and shrub planting to soften the appearance of the areas, with proposed pollinator species used to bring biodiversity into this space.



Proposed Sculpture Location



Section G-G'

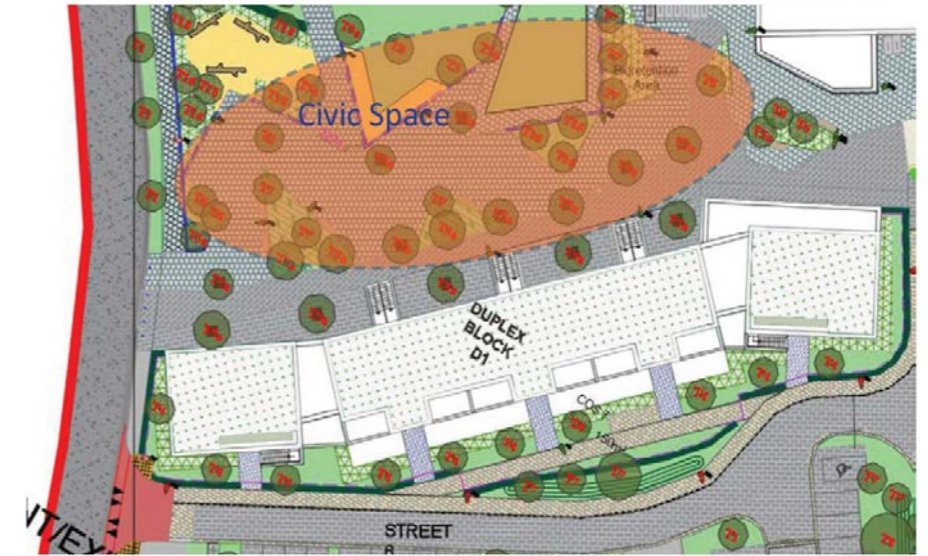


1. Mountains

Neighbourhood Centre



Civic Space



The Neighbourhood Centre, Dingle Way and Community Facility all come together at the Village Green. The intersection of these buildings and spaces is an important design node - providing a focal point and this forms part of the Objective of the LAP to function as the 'heart' of Kilternan.

This node may be seen as a civic space - in this it was appropriate to develop and reorder to provide passive supervision and activation along the Dingle Way. The reordering of the space involved removal of a small quantum of existing hedge and trees to provide an inviting plaza area. The reorganisation provides for new trees in keeping with the new proposed urban form and civic space.

To create a sense of place a range of materials have been employed, with stone walls, paving, tree planting and seating.



2. The Sea

It is proposed to utilise the existing tree lined pathway as a focal point in the development, creating a woodland walk. A series of breakout spaces will activate this linear route, and create multiple access points between different character areas. Passive oversight gives a sense of comfort and safety for the users, who are encouraged to play, exercise, and relax.



Existing Tree Lined Farm Pathway



Indicative Visualisation of the Pathway

Woodland Walk

- Encourage sustainable transport options
- Encourage and facilitate the development, design and management of high quality natural and semi-natural areas.
- Minimise impacts on locally important biodiversity in DLR.
- Enable habitat creation
- Increase the presence of people



Formal Paved Seating Area

Calisthenics Workout Area

Existing Trees

Raised Street Paving

Natural Play Space

Defensive Planting

Wildflower Meadow

↔ Pedestrian Link



9.3.1.3 Policy Objective OSR7: Trees, Woodland and Forestry
 It is a Policy Objective to implement the objectives and policies of the Tree Policy and the forthcoming Tree Strategy for the County, to ensure that the tree cover in the County is managed, and developed to optimise the environmental, climatic and educational benefits, which derive from an 'urban forest', and include a holistic 'urban forestry' approach.



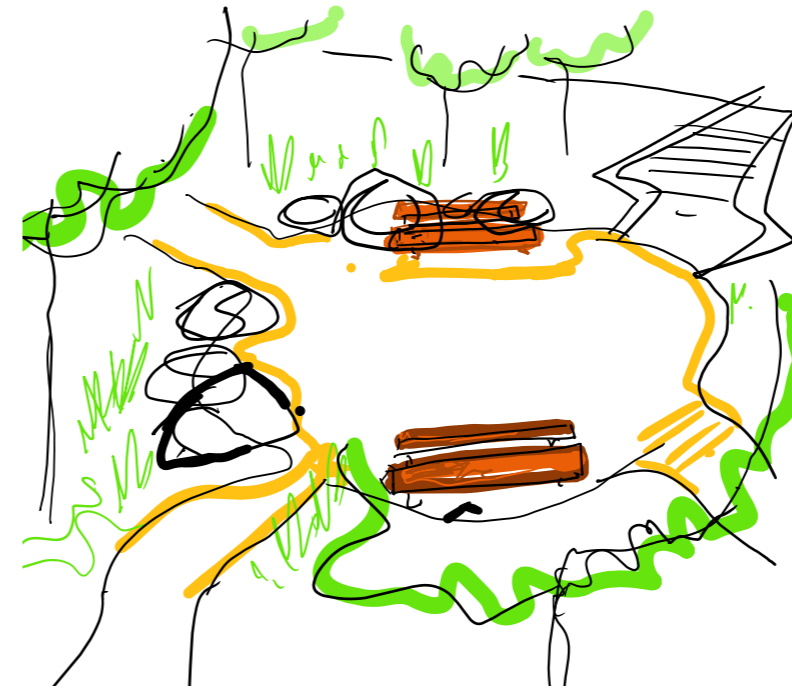
2. The Sea

The design intention is to increase the presence of people, encourage sustainable transport options, and enable habitat creation.

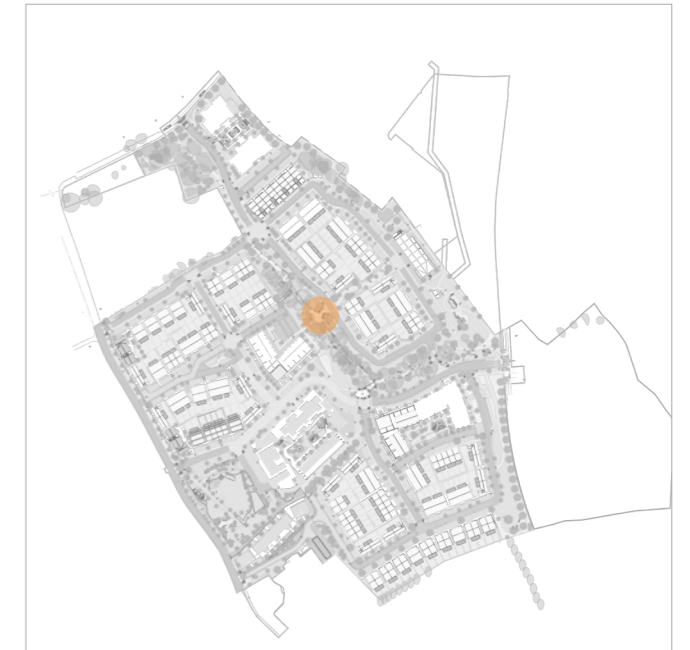
The natural break in the existing hedgerows creates an opportunity to create a Central Node in the Woodland Walk that allows the person to choose which direction they wish to proceed, either for the purpose of their journey or indeed for the smaller children who are exploring the woodland area.

It is also a meeting point of the various Character Areas and it is proposed to identify each area and allow for visual distinction offering the choice of route.

Woodland Walk - Central Node



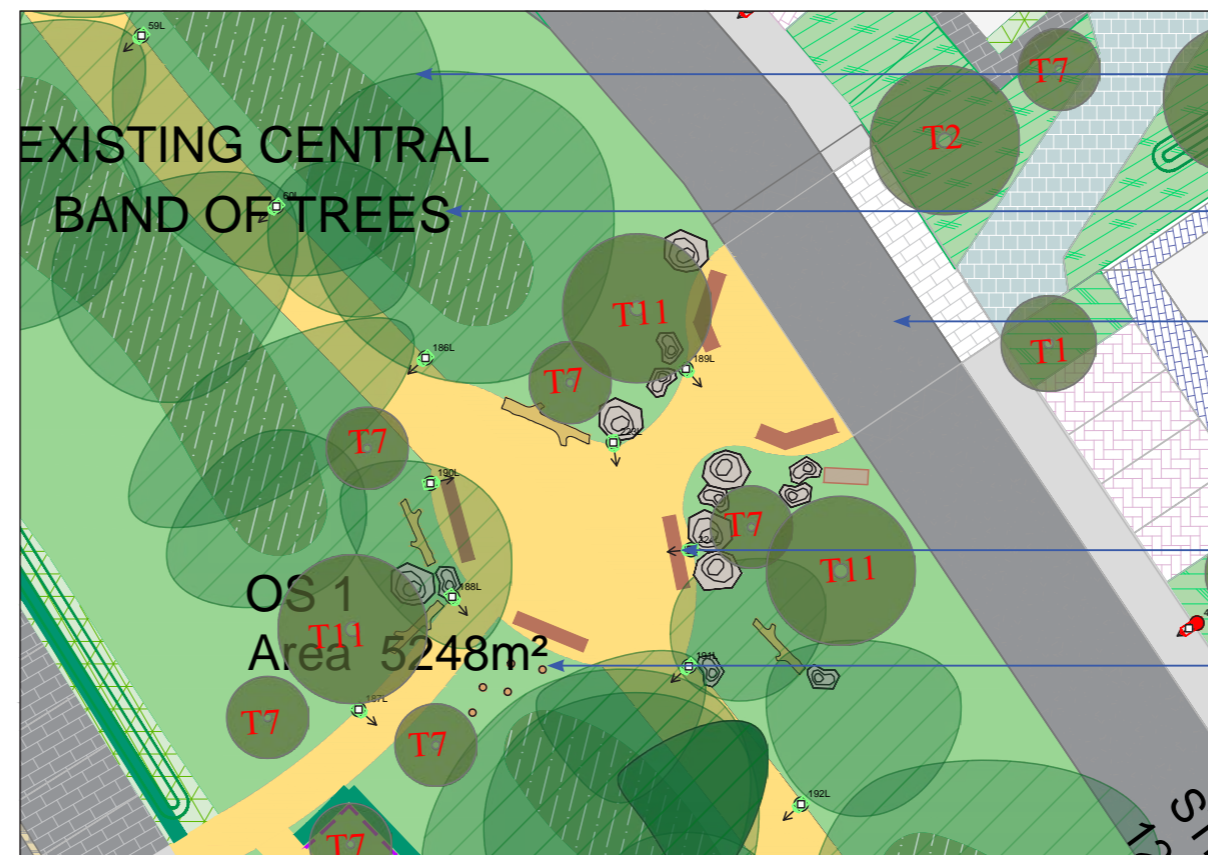
Indicative Visualisation



Use of existing logs as play equipment



Use of existing logs as seating

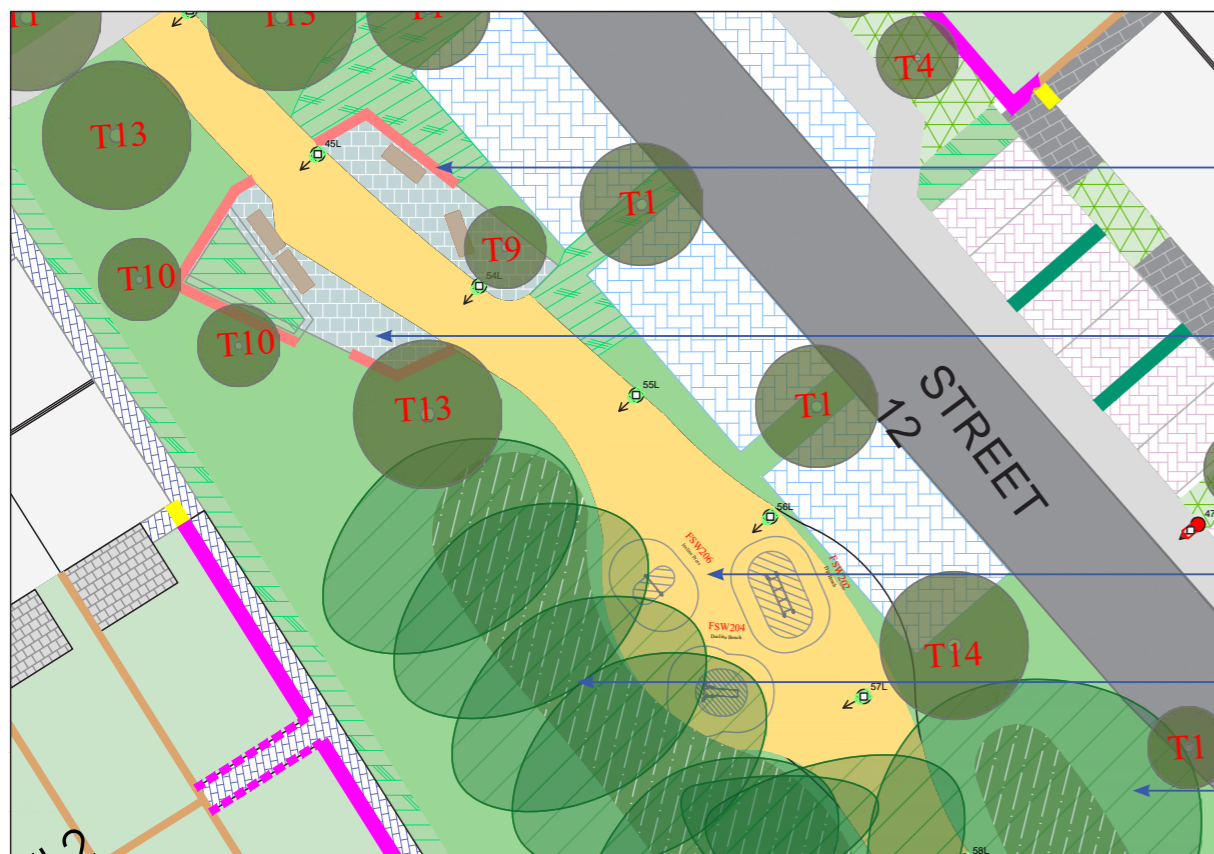


- Existing Trees
- Woodland Planting
- Raised Street Paving
- Rough timber seating
- Natural Play



2. The Sea

Woodland Walk - Breakout Space



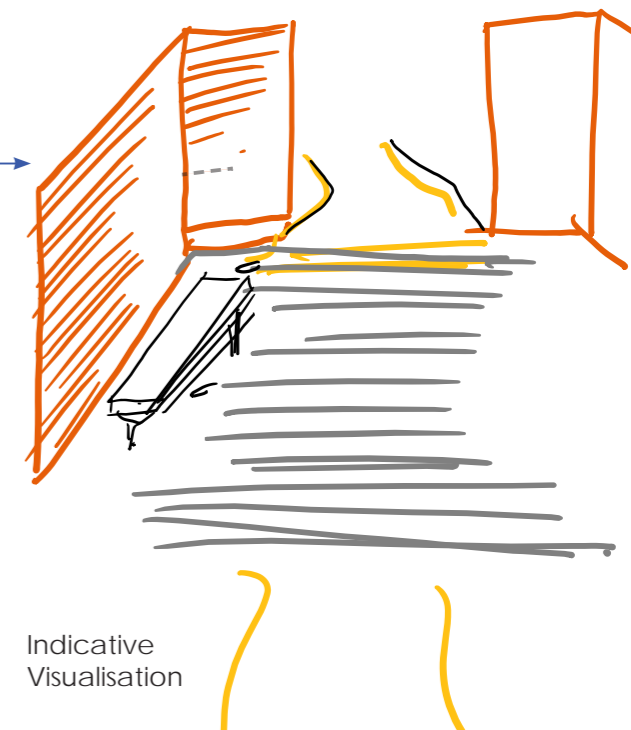
Corten Steel Screen Sculptures 2m high

Formal Paved Seating Area with timber bench seating

Calisthenics Workout Area

Woodland Planting

Existing Trees



Indicative Visualisation

- Unexpected breakout space set against natural woodland
- Encourage physical activity



Reference Image - Corten Steel Entrance



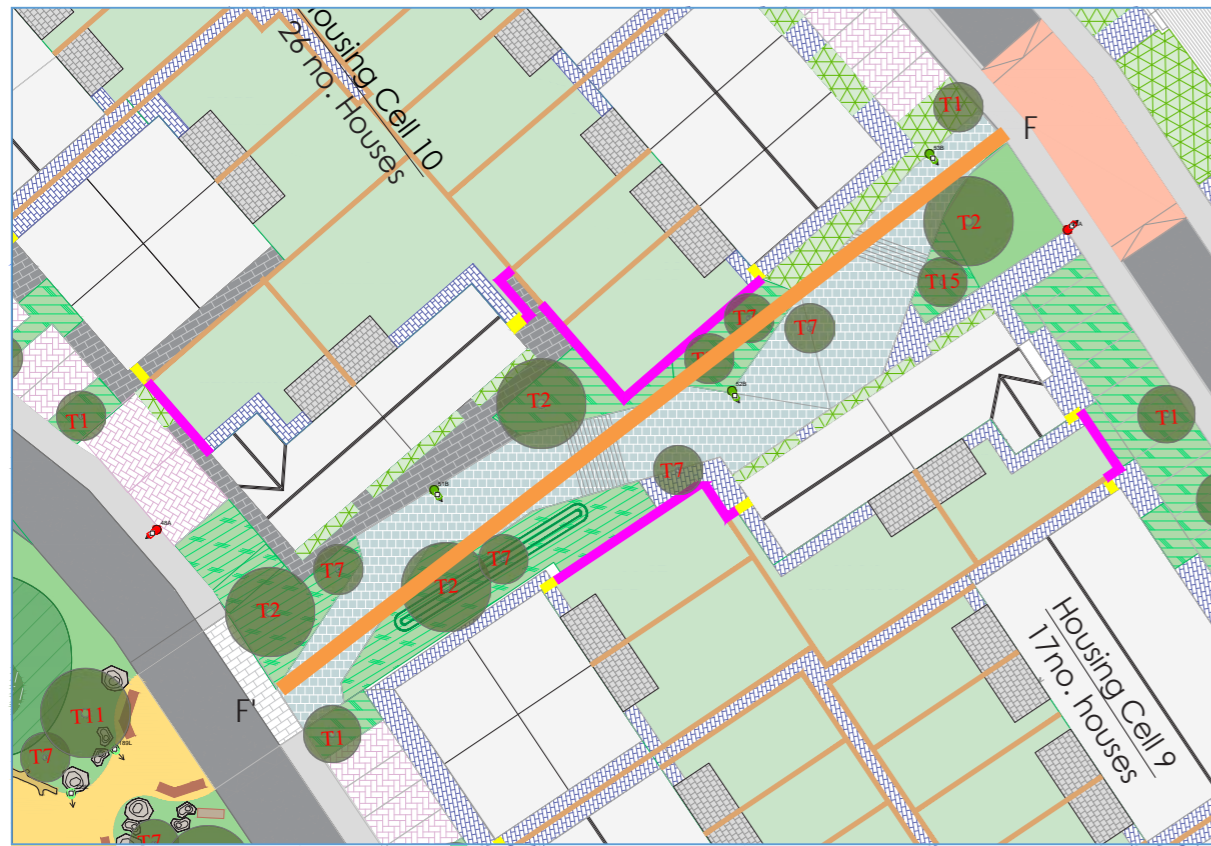
Reference Image - Calisthenics Equipment

9.3.1.1 Policy Objective OSR5: Public Health, Open Space and Healthy Placemaking
 It is a Policy Objective to support the objectives of public health policy including Healthy Ireland and the National Physical Activity Plan (NPAP) 2016, to increase physical activity levels across the whole population thus creating a society, which facilitates people whether at home, at work or at play to lead a more active way of life (consistent with RPO 9.16).



2. The Sea

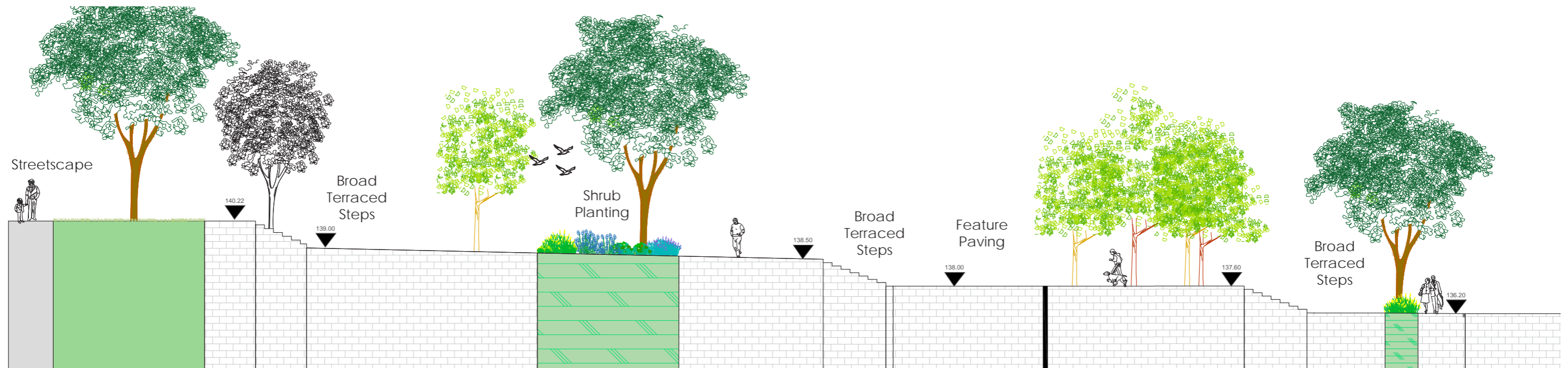
Urban Plaza



- Provides an attractive congregation point that fosters positive social interaction.
- Urban form of visual amenity
- Trees and congregation areas for neighbourhood use

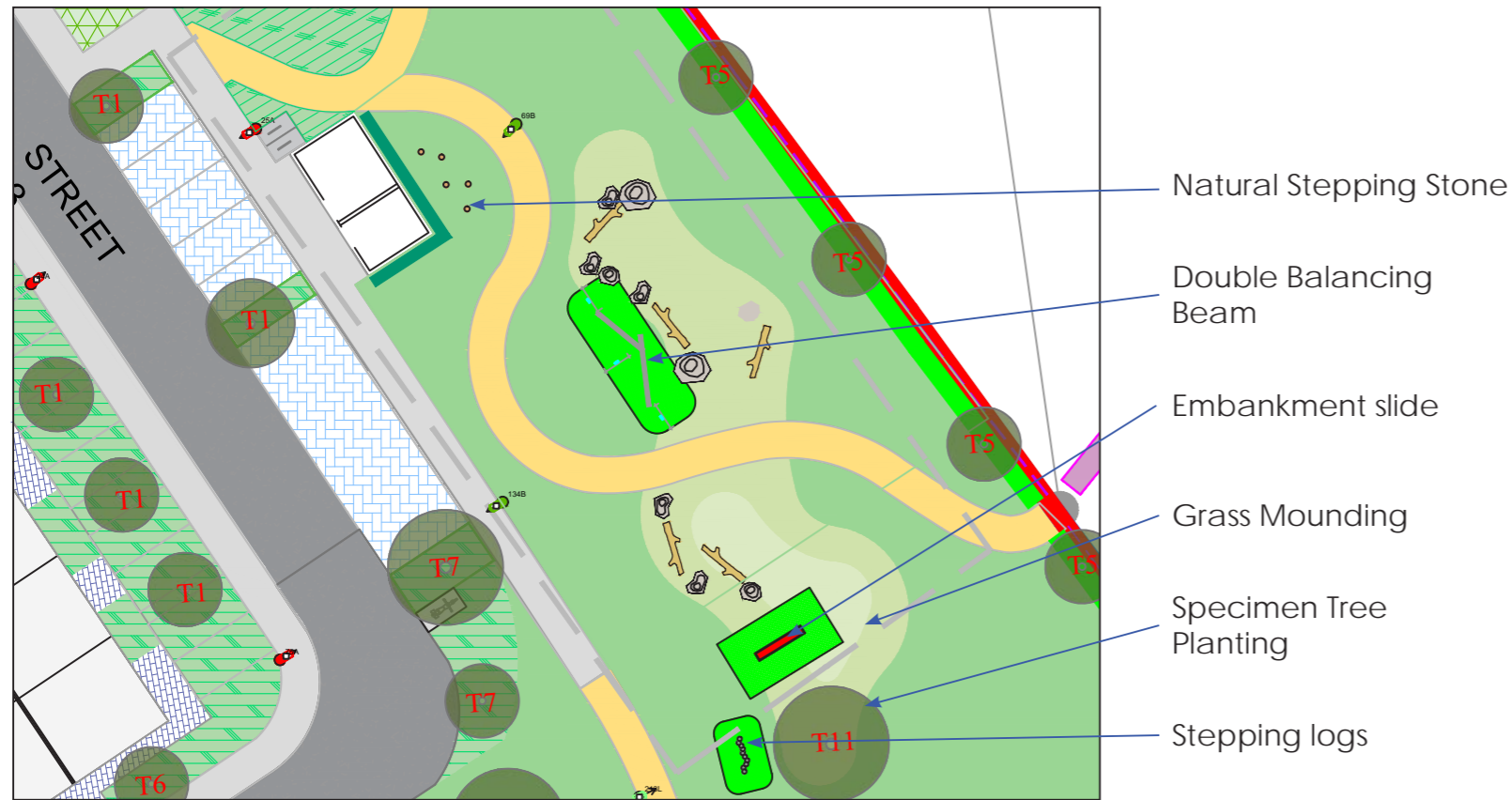


Section F-F'



2. The Sea

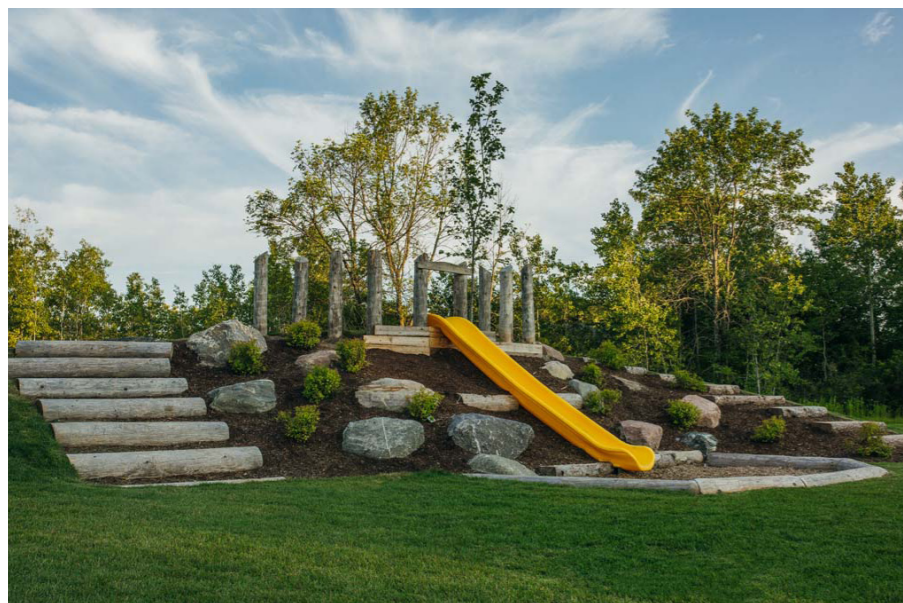
Natural Play Space



Natural playgrounds help children to develop other beneficial behaviours in addition to physical skills. These behaviours include social skills, cooperation, and the ability to solve problems. In addition, natural playgrounds stimulate a child's imagination and creativity more than a traditional playground. This design approach is more sustainable, adapting to the natural topography and environment.

This bespoke designed open space will appeal and evoke a wide range of children's emotions. Capabilities of play such as tumble, chase game. Extensive grass areas throughout the open space are ideal for kickabout and chasing games.

Gentle grass mounding provides a varied and interesting physical play environment.



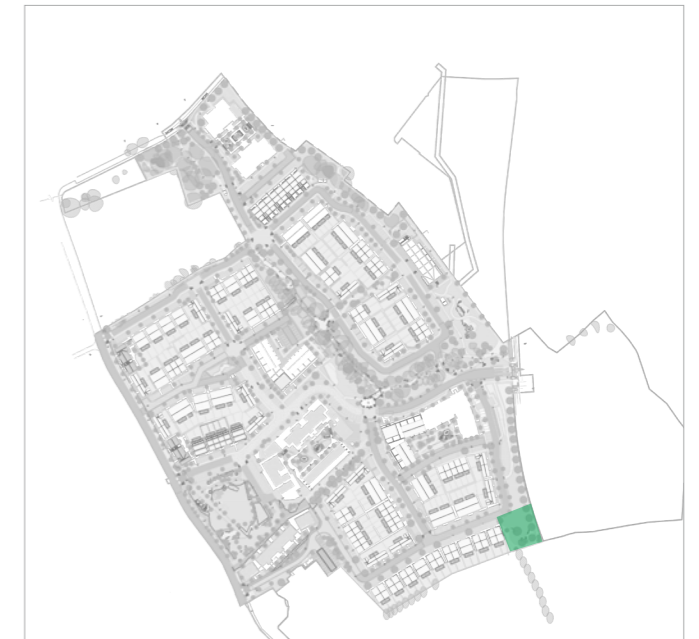
3. Lead Mine

Natural Play Space



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This bespoke designed open space will appeal and evoke a wide range of children's emotions. Capabilities of play such as tumble, chase game. Extensive grass areas throughout the open space are ideal for kickabout and chasing games. Gentle grass mounding provides a varied and interesting physical play environment.



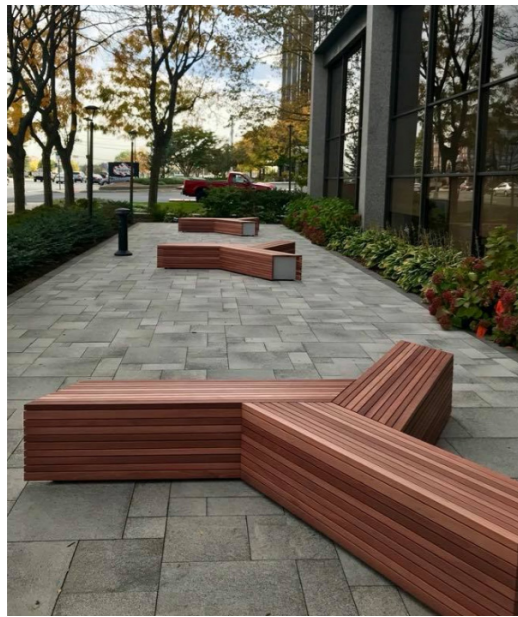
We are proposing a natural play area with a varied and interesting physical environment. A bespoke designed space that has gentle grass mounding, thus providing a change in levels. This provides a varied and interesting physical play environment.

In addition, natural playgrounds stimulate a child's imagination and creativity more than a traditional playground. They provide a more sustainable use of materials and blend in with natural environment and existing topography.

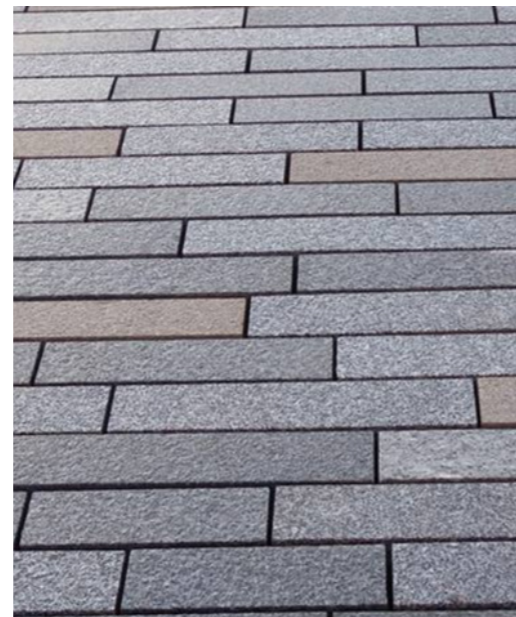


4. Market Quarter

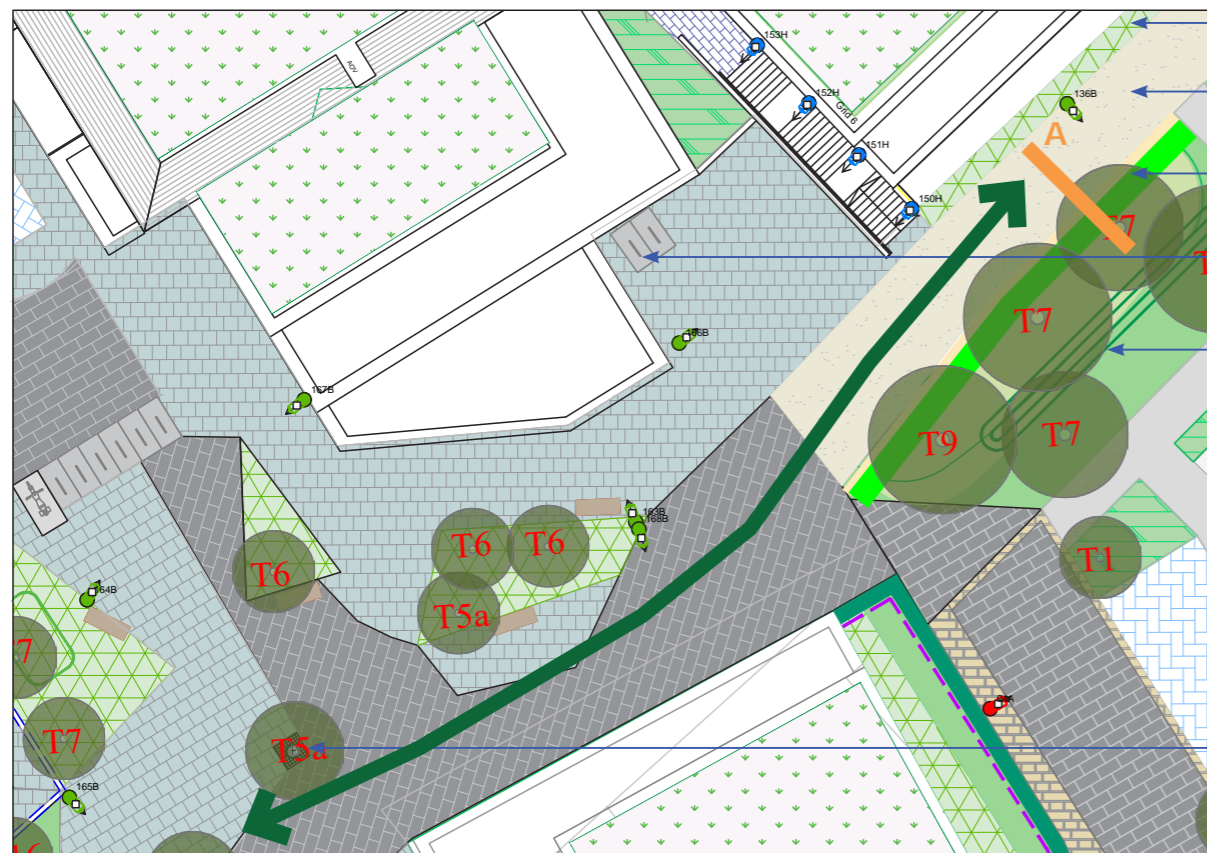
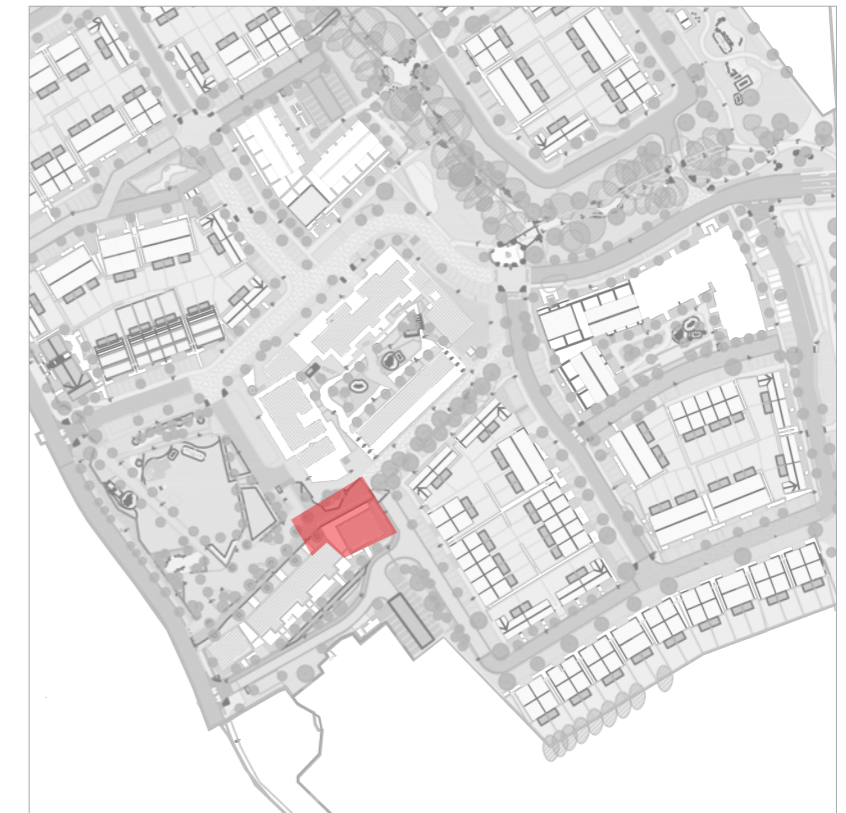
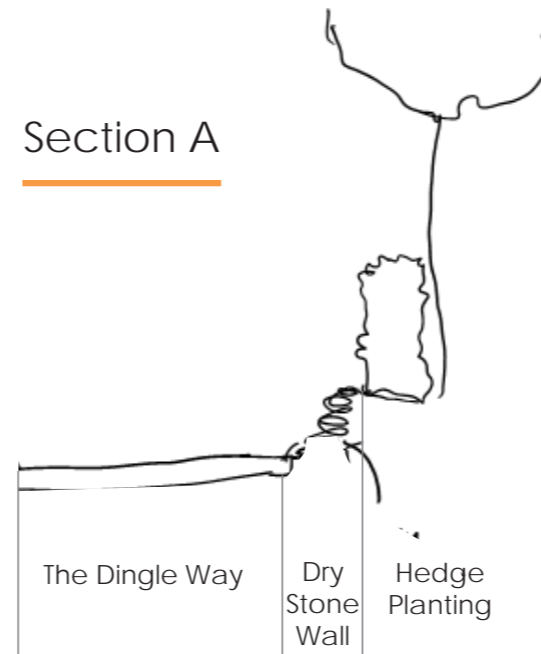
Community Centre



Reference Image - seating



Feature Paving



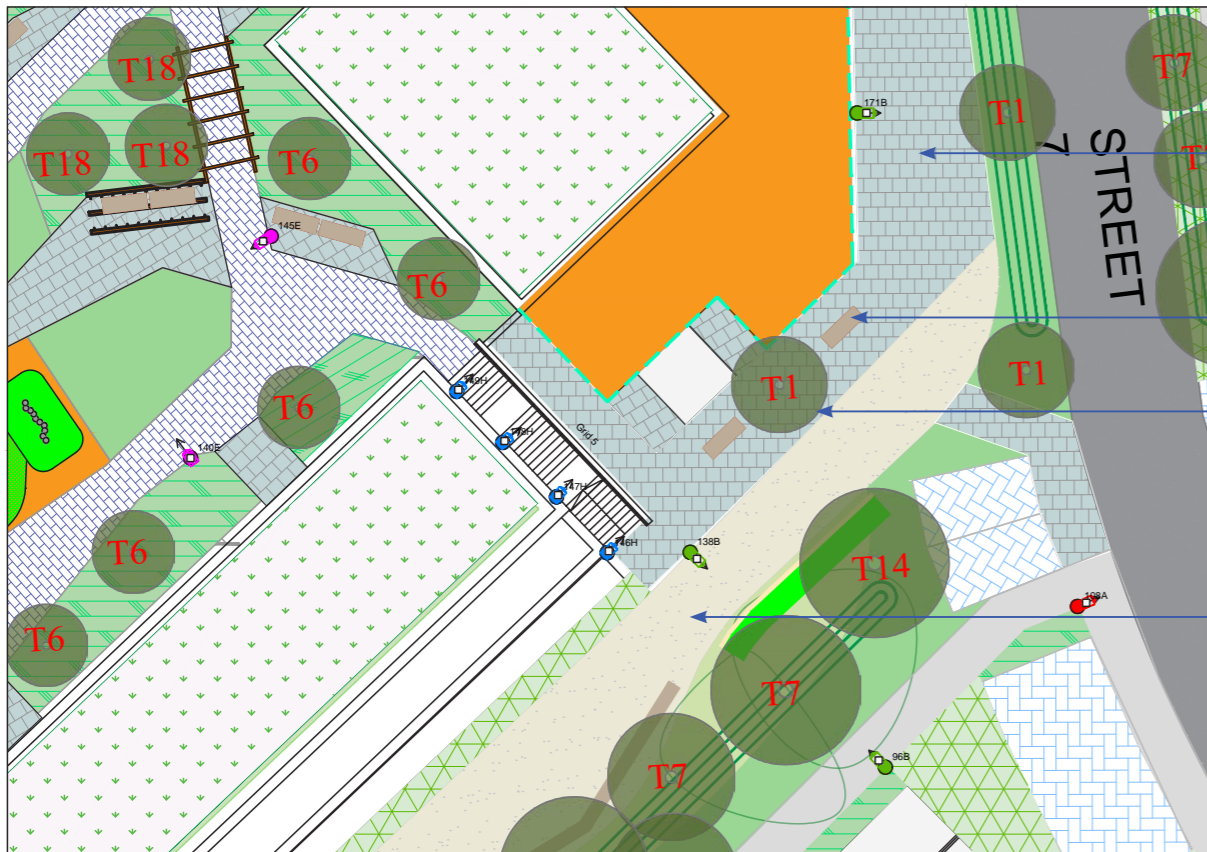
- Defensive Planting
- Beige Tarmac
- Dry Stone Wall
- Bicycle Parking
- Proposed Specimen Tree Avenue
- ↔ The Dingle Way
- Tree Pit Planting

- Provides an attractive congregation point that fosters positive social interaction.
- Legible access points
- Passive oversight creates a sense of comfort and safety for the greenway users
- Encourages relaxation, exercise, and social interaction
- Increase the presence of people
- Encourage sustainable transport options
- Tree pits and defensive planting enable habitat creation

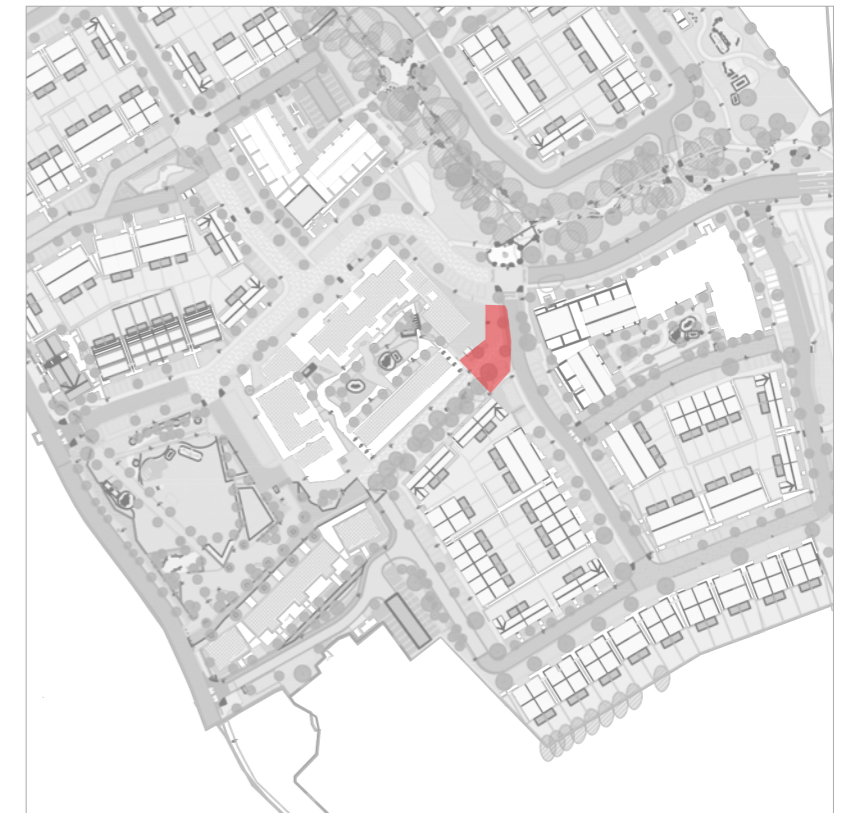


4. Market Quarter

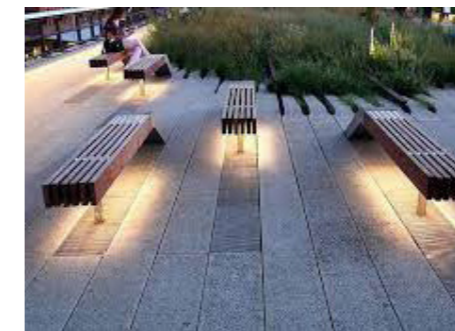
The Dingle Way - Central Plaza



- Feature Paving
- Seating Area
- Tree Pit Planting
- Beige Tarmac



- Community Focal Point
- In ground Uplighting
- Seating Areas



Uplighting



Reference Image - Tree Pit



Reference Image - Rough timber seating



Beige tarmac



Feature Paving



DESIGN PROPOSAL



Arboricultural Impact

Trees & Hedgerows Removed



EXISTING TREES

186no. (within redline boundary)

A total of 218 trees were identified and assessed. 12 hedgerows (Cat C) and 1 tree line (Cat C)

The condition of trees is generally moderate to good, with the main concentration of higher quality trees located in the centre and north of the site.

The percentage of trees refers to trees within the red line only.



% of the total number of the existing trees

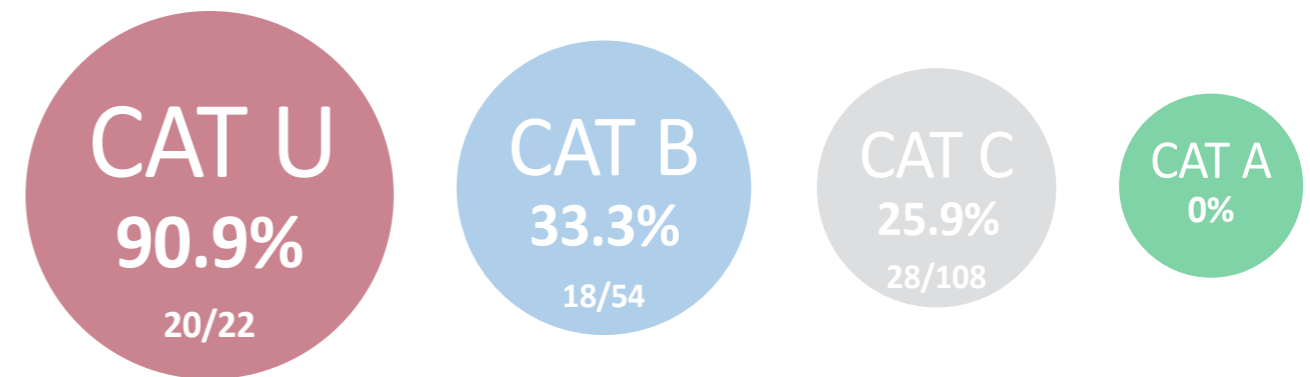


REMOVAL TREES

66no.

A total of 66 (35.5%) of the 186No trees will be removed at the site, many of which have been highlighted for removal due to poor condition.

A further 4 hedgerows have been identified for removal, and approximately 66m of another hedge, plus a scrub/nursery stock area.



% of the total in category



Arboricultural Impact

Trees & Hedgerows

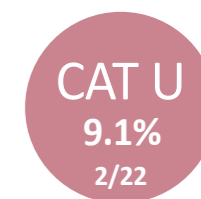
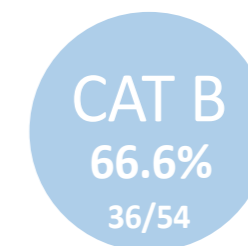
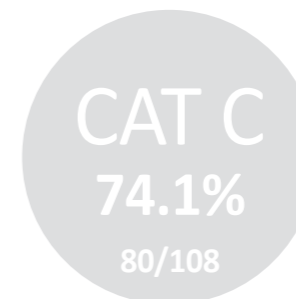


RETAINED TREES

120no.

A total of 120 trees will be retained at the site

Tree protection and enhancement are a key tenet of the proposed design. The main concentration of retained trees are located across the central open space. 'The Dingle Way' and pedestrian/cycle links will benefit from the mature and natural setting, with places of rest and play to enjoy along the way.



% of the total in category



PROPOSED TREES

659no.

A total of 659 trees are proposed at the site

Street Trees / Front Garden 14-16cm

- Tilia Tomentosa 'Brabant'
- Pyrus calleryana 'Chanticleer'
- Carpinus betulus 'Fastigiata'
- Sorbus aucuparia
- Tilia cordata 'Greenspire'

Front Garden 12-14cm

- Amelanchier lamarckii

Multistemmed Trees 12-14cm

- Prunus avium 'Plena'
- Malus 'John Downie'^
- Betula utilis var. jaquemontii

Open Space 14-16cm / 20-25cm

- Betula pendula
- Pinus sylvestris
- Alnus glutinosa
- Quercus robur 'Koster'
- Quercus robur
- Aesculus hippocastanum
- Fagus sylvatica
- Prunus avium



Road Network

Typology & Materials

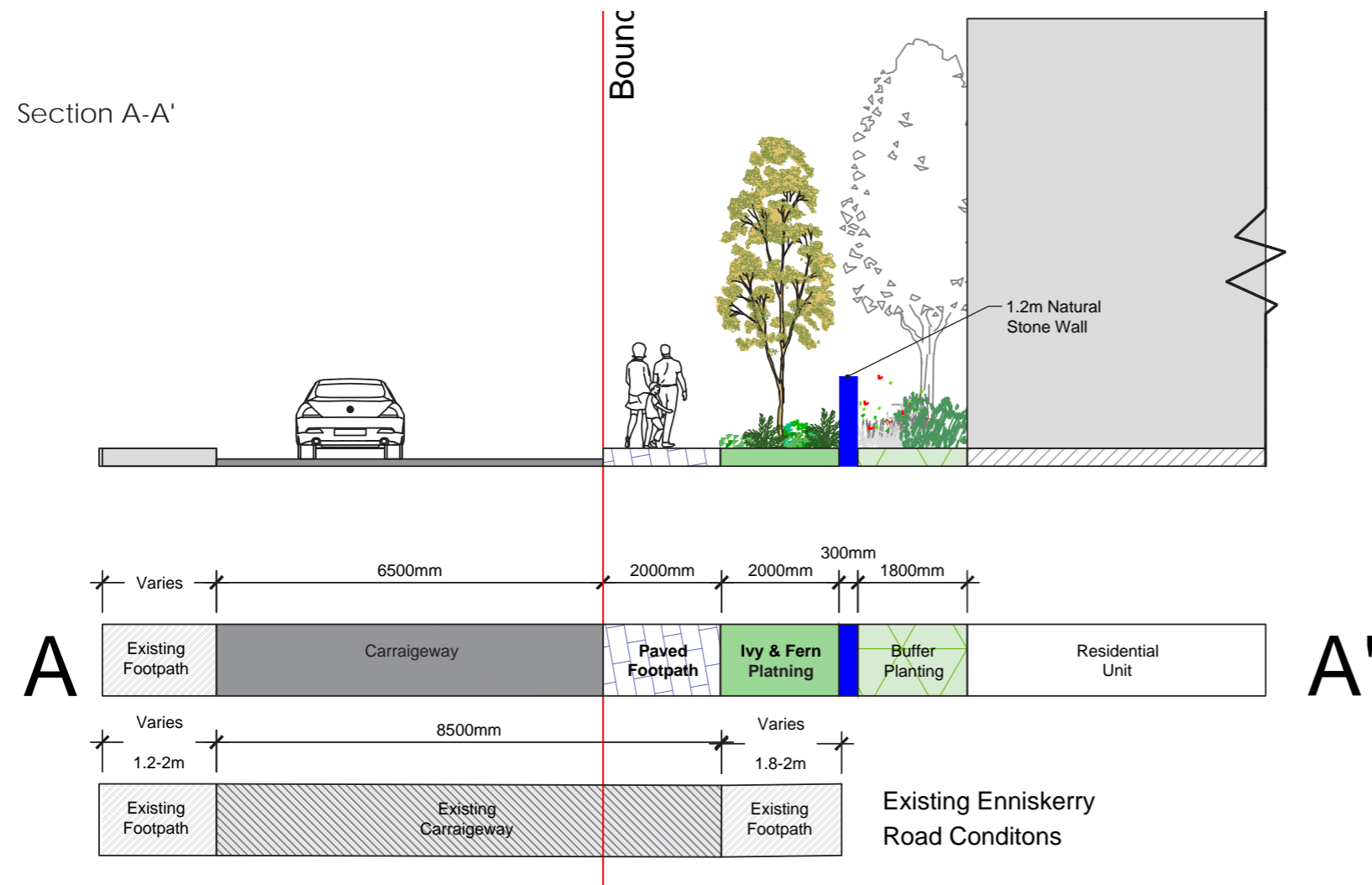


-  Local Street - primary distribution, road / path delineation of surfaces
-  Homezone - pedestrian priority, shared surface, road /path same surface treatment
-  Paved Streetscape - spatial delineation, pedestrian priority, shared surface
-  Beige Tarmac
-  Permeable Paving / Surface

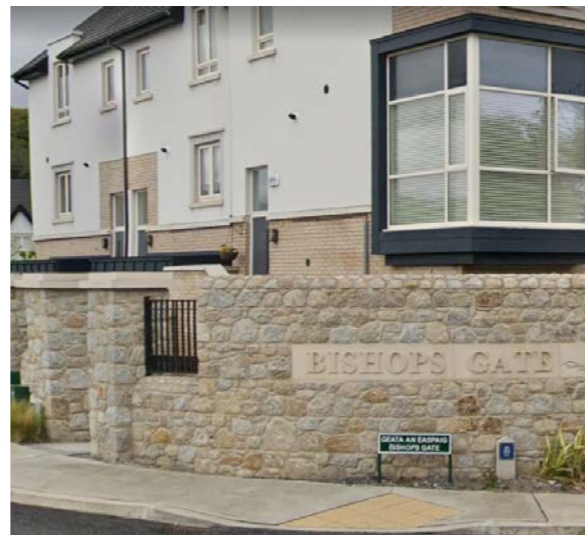
Street Hierarchy

The street network for the proposed development aims to provide a permeable street layout that emphasises pedestrian priority and clearly defined street typologies.

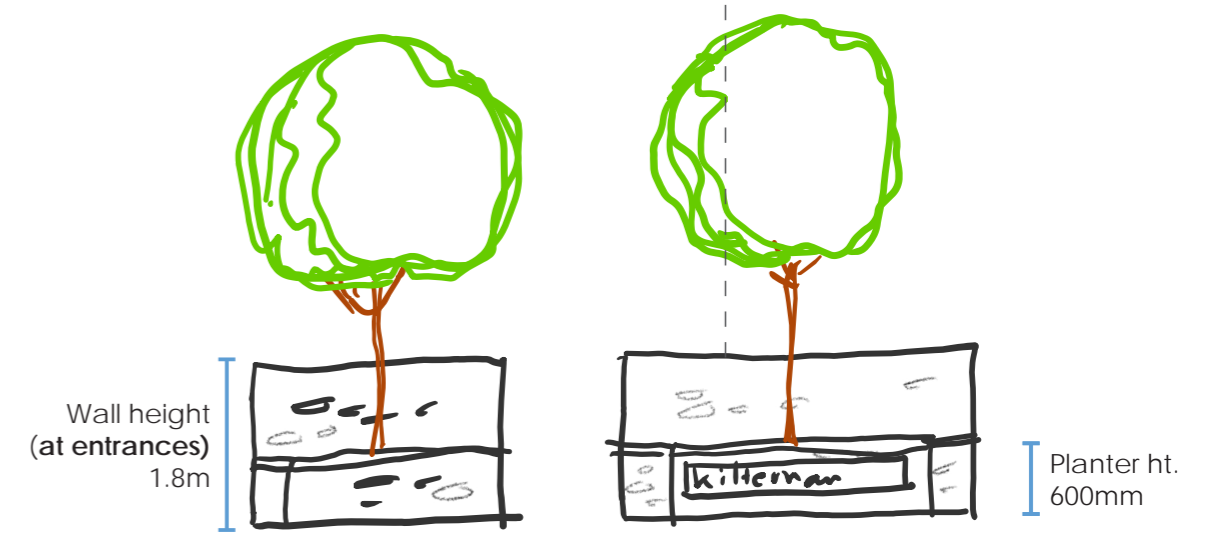
Street trees and horizontal deflection will limit traffic speeds and increase pedestrian comfort, while defensive planting define individual residential units.



Existing streetscape character defined by low stone wall



Reference Image



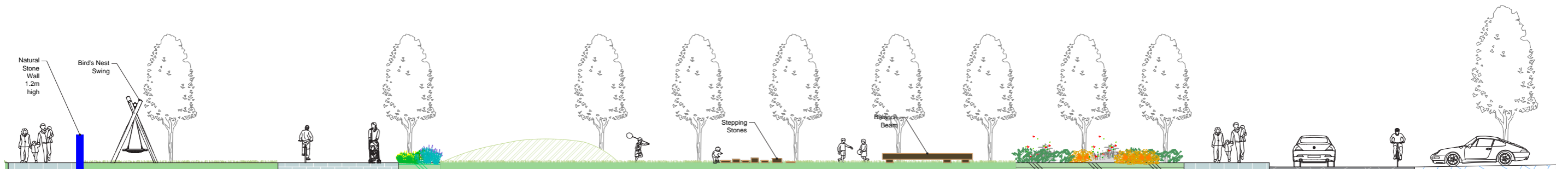
Pedestrian Entrance



Streetscape character defined by specific tree species, creating a sense of place.



Section B-B'



Road Network

Homezone / Pedestrian Priority



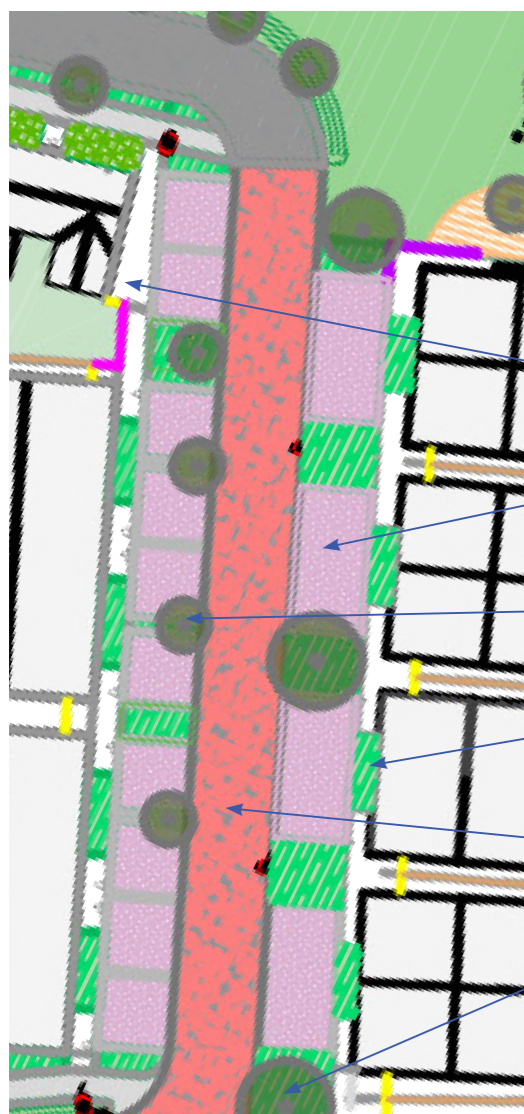
Homezone Shared Surface



Homezone Shared Surface



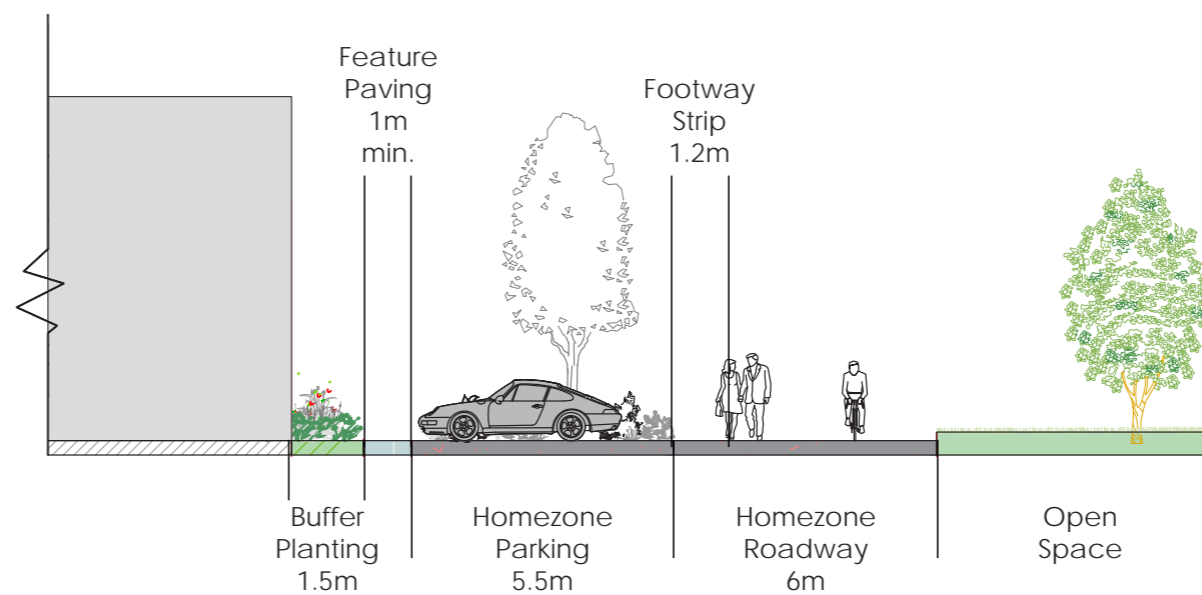
Homezone Locations



Quieter streets with homogeneous shared surface providing pedestrian priority (6m width) with kerb delineation.

Shared street provision: pedestrians and cyclist share carriageway with vehicles in low traffic speed and low traffic volume environment

Indicative Section



Road Network

Homezone



Homezone Shared Surface



Homezone Shared Surface



Reference Image - Swale Planting



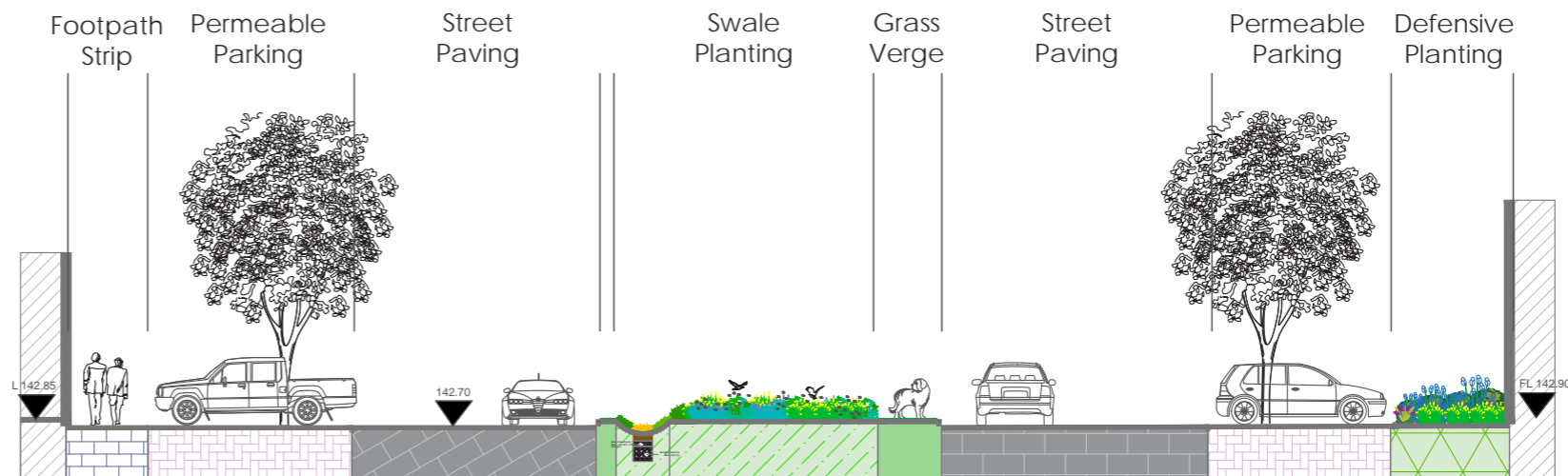
Pedestrian Priority Locations



- Residential Boundary
- Swale Planting
- Street Tree
- Cobble Paving
- Street Paving
- Specimen Tree Planting
- Defensive Shrub Planting
- Permeable Parking

Quieter streets with shared surface providing pedestrian priority (4.8m + 1.2m footway strip on one side to provide a 6m width)


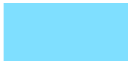





Shared street provision: pedestrians and cyclist share carriageway with vehicles in low traffic speed and low traffic volume environment



Open Space

Hierarchy



-  Parkland / Habitat Buffer
Typified by retention of trees, proposed tree planting, pedestrian & cycle paths.
-  Urban Plaza
-  Plaza Open Space
-  Communal
-  Private Gardens
-  Green Buffer
-  Dingle Way

Public Park / Open Spaces

A range of high quality Public Open Spaces have been proposed to cater for the recreational and amenity requirements of future residents and wider public within the Plan lands.

The Public Open spaces have been developed with proposed extensive path systems that are organic in style. We have proposed native woodland tree planting, native transplants & a wild flower meadow mix to help create a natural habitat area.

In addition, each unit has been provided with private open space and access to high-quality communal open space.

Open Space

Hierarchy



-  Village Green - Public realm, village focal point, congregation areas, formal play spaces and recreation
-  Woodland Walk - recreation, play space, habitat renewal, retention of existing trees, pedestrian & cycleway
-  Dingle Way - Greenway connectivity
-  Landscape Area - Tree planting, habitat renewal, parkland tree planting - Existing and Proposed Trees
-  Pocket Park - Seating congregation, paths, informal play
-  Community Centre - Social congregation, active street front, rest areas
-  Linear Park - Natural play, visual amenity, SUDS area (not included in calculations)



Open Space

Categories



- Public Open Space - 18,879 m²
- Communal Open Space - 2,934 m²
- Private Space - 13,335 m²
- Public Realm - 4,291 m²
- Dingle Way - 1,572 m²

Total Proposed Public Open Space (17.5%) 18,879 m²
 Total Required Public Open Space (15%) 16,144 m²

Communal Open Space Required - 1,589 m²
 Communal Open Space Proposed - 2,934 m²

Note: Areas designated for attenuation do not contribute to the above totals.



Open Space

Public Open Space Areas



Public Open Space - 18,879 m²

Note: Areas designated for attenuation tanks do not contribute to the above total.

- O.S.1 - 5,248m²
- O.S.2 - 4,508m² (Village Green)
- O.S.3 - 1,985m²
- O.S.4 - 903m²
- O.S.5 - 1,247m²
- O.S.6 - 313m²
- O.S.7 - 984m²
- O.S.8 - 959m²
- O.S.9 - 2,732m²

Total Proposed Public Open Space (17.5%) 18,879 m²
 Total Required Public Open Space (15%) 16,144 m²



Dingle Way - 1,572m²
 The Dingle Way is an important public amenity within the development. To include it in the POS calculations would result in 20,451m² (19%)



Communal Open Space - 2934 m²
 See Page41 Communal Open Space - for Quantities.

Note: Outline is indicative only, please refer to landscape drawings for further detail.



Open Space

Communal Open Space Areas



Communal Open Space - 2934 m²

C.O.S.1	- 187m2	A1 - Duplex
C.O.S.2	- 128m2	A2 - Duplex
C.O.S.3	- 160m2	Block B1 - Duplex
C.O.S.4	- 140m2	Block C - Duplex
C.O.S.5	- 225 m2	Block D - Duplex
C.O.S.6	- 323 m2	Block B2 & B3
C.O.S.7	- 150 m2	Block D1 - Duplex
C.O.S.8	- 980 m2	Neighbourhood Centre
C.O.S.9	- 641 m2	Block C & D Apartment

Communal Open Space Required - 1,589 m²
 Communal Open Space Proposed - 2,934 m²

Defensive areas of 1.5m in depth excluded from Communal Calculations.

Note: Areas designated for attenuation do not contribute to the above totals.

Note: Outline is indicative only, please refer to landscape drawings for further detail.



Play Amenity

Location Plan



Play Space	59.2 m ²
Play Space	59.2 m ²
Calisthenics Space -	118 m ²
Natural Play Space -	472 m ²
Play Space	85 m ²
Total Play Amenity	Structured Play Space - 765.4 m²
Natural Play Space -	600 m²
Calisthenics Spaces -	178 m²
Total -	1543.4m²
Creche Play Space -	191 m²
	<small>Excluded from Overall Amenity Calculations</small>
Public Play/Amenity	
Structured	384m ²
Natural Play	600 m ²
Callisthenic	178m ²
Total	1162m²
Communal Play Amenity	
Structured	381,4m ²

Characteristic of Proposed Play Space

Experiencing a range of emotions

This bespoke designed open space will appeal and evoke children's emotions.

Capabilities of play such as tumble ,chase game. Extensive grass areas throughout the open space are ideal for kickabout and chasing games.

Playing with identity

Role play, Places to hide in the natural elements of open space.

Movement

Tree planting and gentle grass mounding are ideal places to hide. These changes in levels are suitable for jumping and running down gentle hills. Some Wooden seating areas could be suitable for climbing. Proposed playground located in open space will accommodate climbing.

Stimulation of the five sense

Natural elements throughout open space provide quiet places, dark and bright areas that appeals to a child senses. Sensory and textured plants planted throughout the space will appeals to the senses.

Experiencing change in the natural and built environment.

Experiencing the seasons The contrast between open space and paving provide opportunities to learn and play. Natural elements in open space such as trees will allow Children to experience changes in seasons.

Social interactions

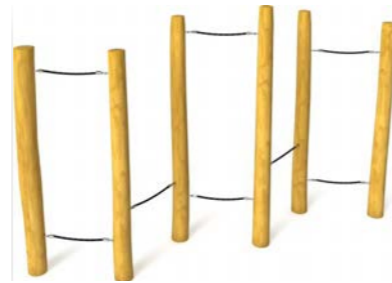
Meeting points and a number of seating areas will encourage social interaction.

Play Amenity

Natural Play Elements

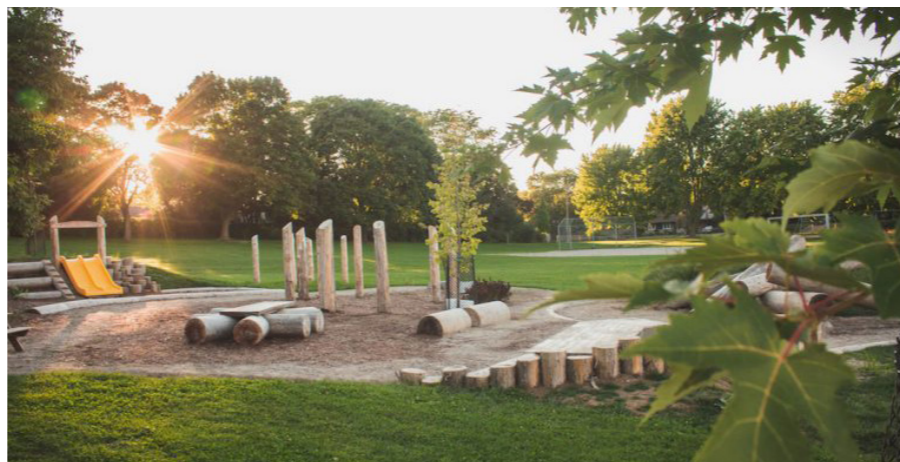
Junior Play - Under 5 years of age

All surfaces manufactured and installed to EN 1176 and all play equipment manufactured and installed to EN1177



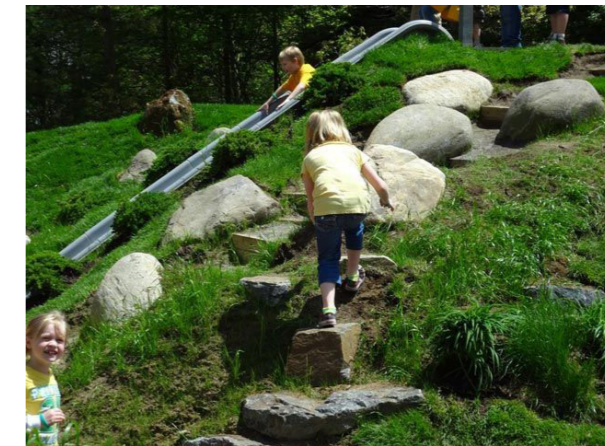
Junior Play - Over 6 years of age

All surfaces manufactured and installed to EN 1176 and all play equipment manufactured and installed to EN1177.



Natural Play Equipment

Natural playgrounds help children to develop other beneficial behaviors in addition to physical skills. These behaviors include social skills, cooperation, and the ability to solve problems.



Boundary Treatment Plan



Retaining Butt Wall & Railing
1.8m high



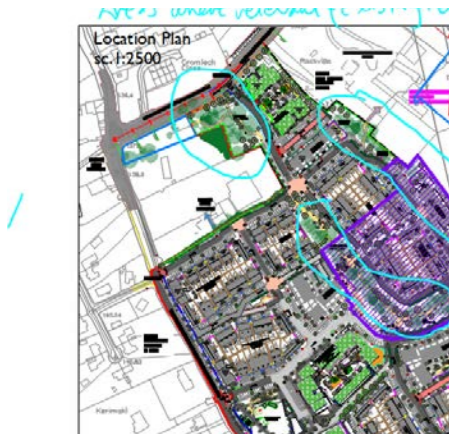
Stone Wall Pier
Varies in Height according to wall &/or Railing



Open Space Wall - Natural Stone
450mm high



Dry Stone Wall



Streetscape Feature Wall
1.2m high



Granite Feature Wall
2m high



Gabion Wall



Boundary Treatment Plan



Native Hedge Planting █



Structural Hedge Planting █



Timber Post and Rail Fence █ █ █



Residential Boundary Fence
Timber Panel & Concrete Post Fence █



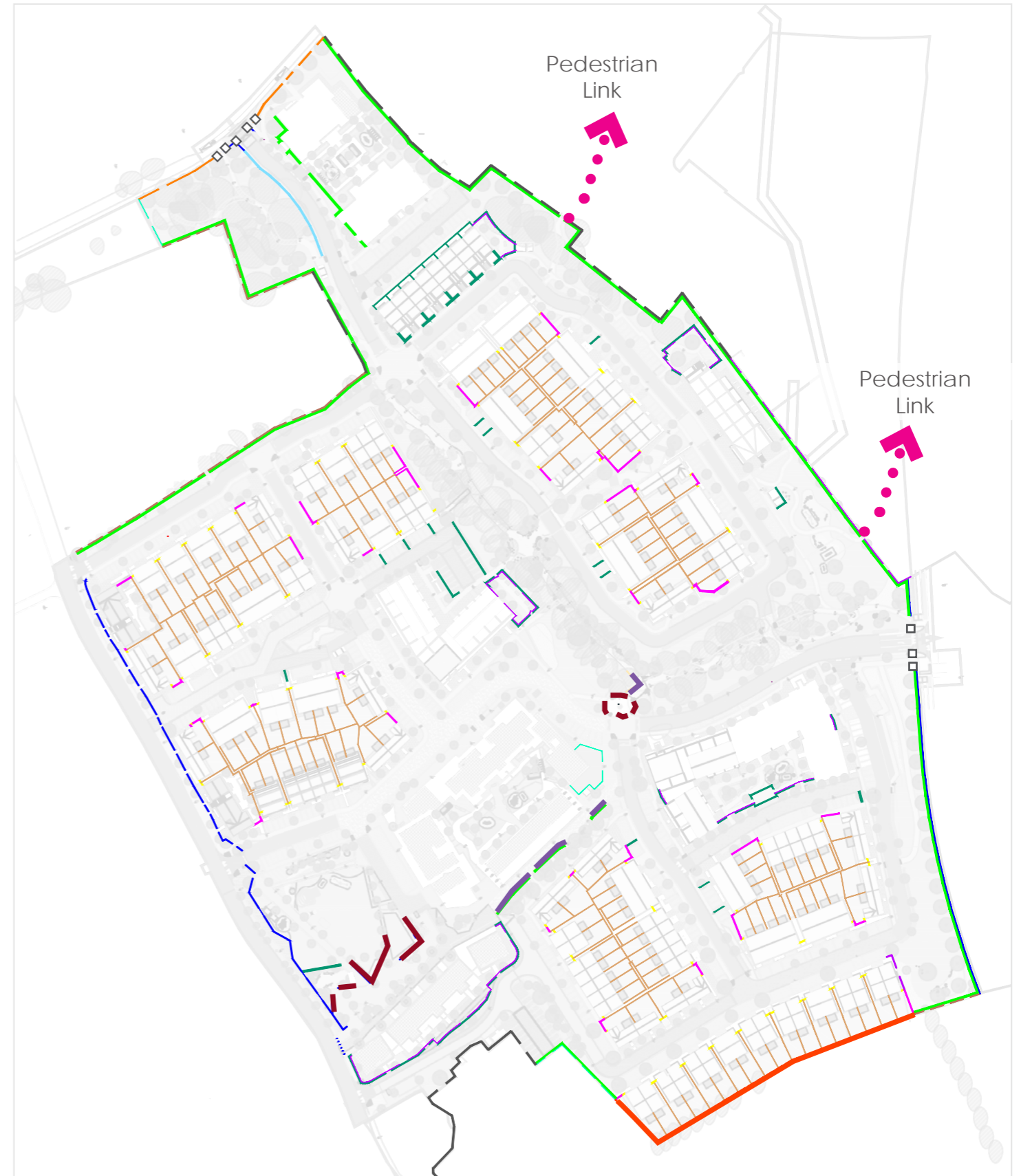
Parkland Railing █ █ █



Double Sided Panel
Timber Fence █



Tongue & Grooved
Spruce Gate █



LANDSCAPE FEATURES



Proposed Planting

Retained & Enhanced Biodiversity



- Existing Trees Retained
- Proposed Trees - 659no.
- Proposed Swale Planting
- Proposed Wildflower Planting
- Proposed Hedgerow
- Landscape Attenuation Areas

GLDR

Retention and enhancement of biodiversity ensures that the natural, cultural, and health requirements of communities are integrated into, and not compromised by, the new development.

This green infrastructure strategy follows an overarching strategy of protecting, creating, enhancing, and connecting the natural heritage and biodiversity value of the lands.

The provision of trees, along with shrub, wildflower, and bulb planting, thread through and around the built environment, connecting with one another. This will maximise the environmental benefits and habitat creation.

Proposed Tree Planting Street Trees / Front Garden 14-16cm

- Acer campestre 'Elsrijk'
- Carpinus betulus 'Fastigiata'
- Tilia cordata 'Greenspire'
- Pyrus calleryana 'Chanticleer'
- Sorbus acuparia

Front Garden 12-14cm

- Amelanchier lamarckii

Open Space 14-16cm / 20-25cm

- Betula pendula
- Alnus glutinosa
- Quercus robur
- Fagus sylvatica
- Pinus sylvestris
- Quercus robur 'Koster'
- Aesculus hippocastanum
- Prunus avium

Multistemmed Trees 12-14cm

- Prunus avium 'Plena'
- Betula utilis var. jaquemontii
- Malus 'John Downie'^
- Betula pendula 'multistem'

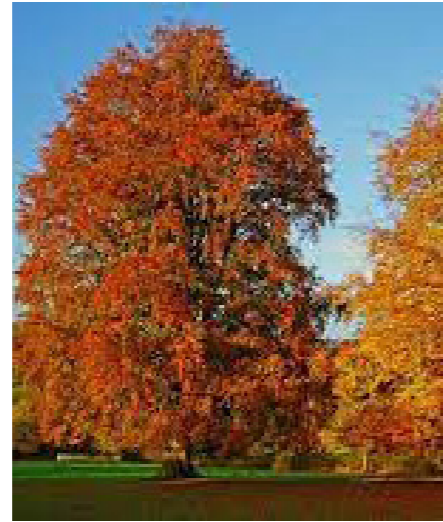


Proposed Planting

Street and Open Space Trees



Quercus robur 'Koster'



Fagus sylvatica



Betula jacquemontii
multi stem



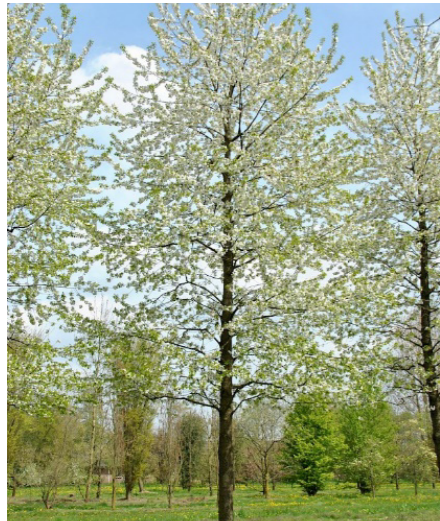
Malus domestica



Aesculus hippocastanum



Pinus sylvestris



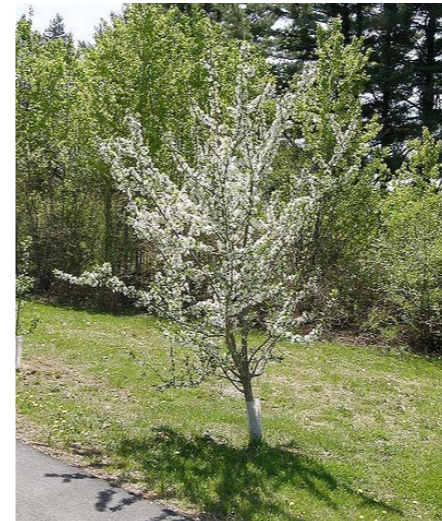
Prunus avium



Betula pendula



Amelanchier lamerkii



Prunus domestica



Sorbus aucuparia



Quercus robur

Note: Planting shown throughout rationale are mature and are not indicative of size that shall be planted first.



Proposed Planting

Shrubs - To Private Spaces



Persicaria affine



Bergenia cordifolia



Libertia grandiflora



Aucuba japonica



Miscanthus sinensis



Prunus 'Otto luyken'



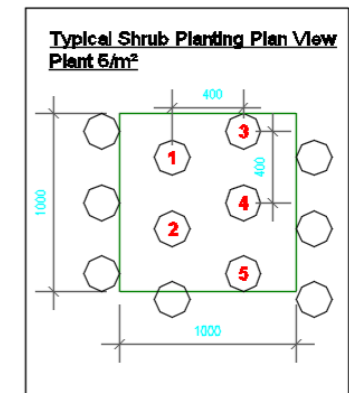
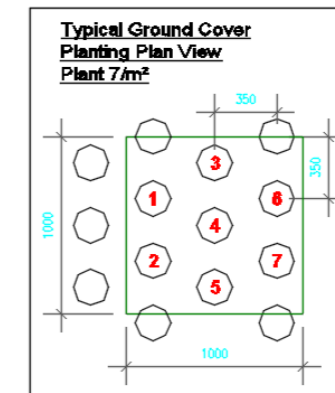
Lavandula angustifolia



Hypericum hidcote



Astelia 'Silver Spear'



Agapanthus 'Blue Giant'



Kniphofia 'Royal standard'



Nerine bowdenii



Sedum spectabile



Landscape Features

Proposed Planting

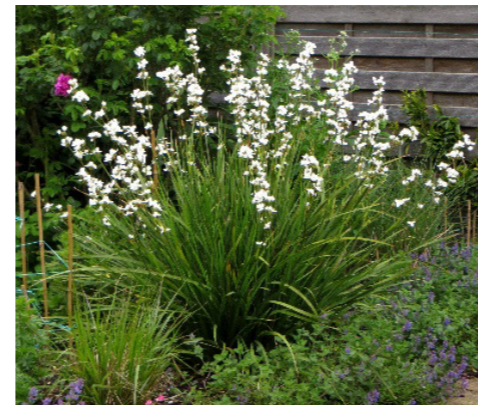
Defensive Planting



Aucuba japonica



Bergenia cordifolia



Libertia grandiflora



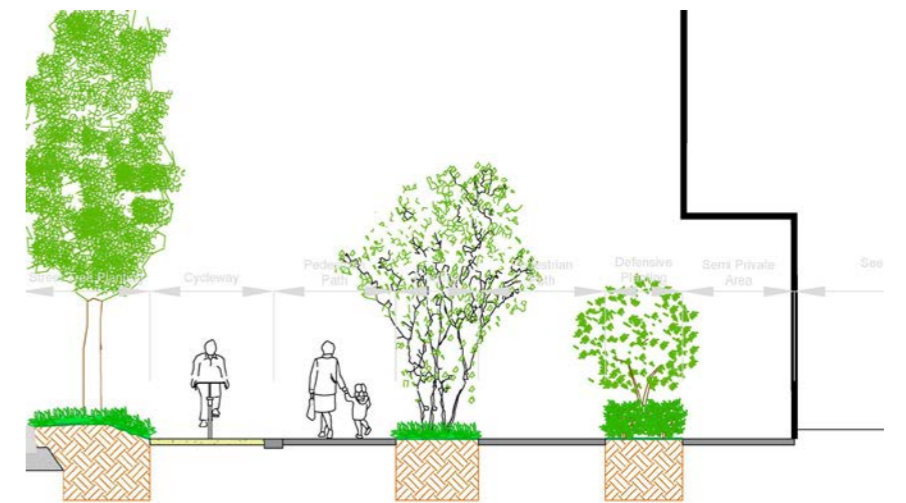
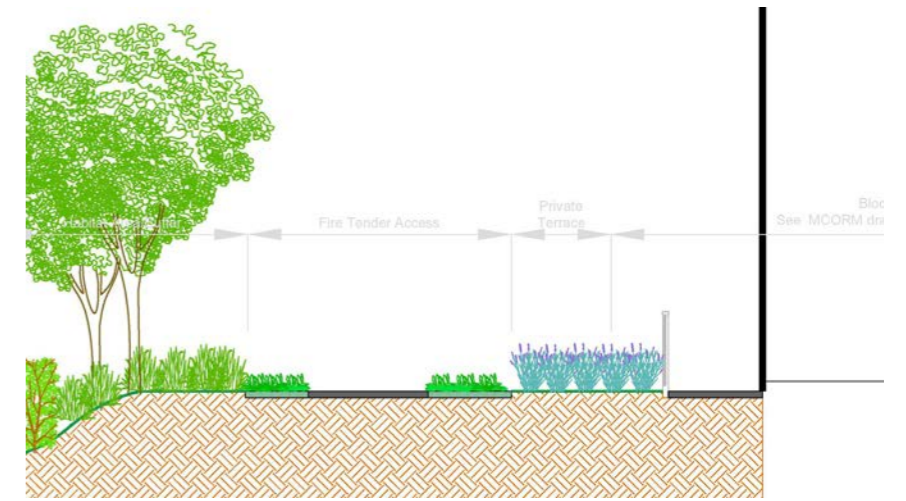
Lavandula angustifolia



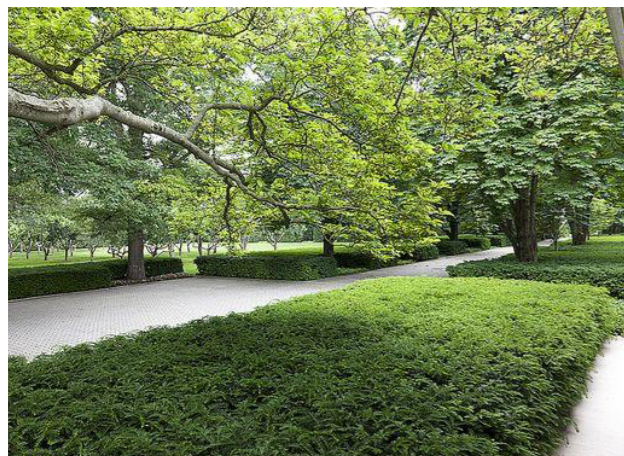
Hypericum hidcote



Miscanthus sinensis



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.



Proposed Planting

Hedgerows

H1 - Hedgerow Planting Detail

Hedge mix
60-90mm

100% *Prunus lusitanica*

50 x 50 stake tied with a single rubber gut tie.
2 rows @ 500mm centres -400mm apart,



Private Space Hedegrow
Noise Barrier



Hedge Type 1 Mix
Prunus lusitanica Hedge



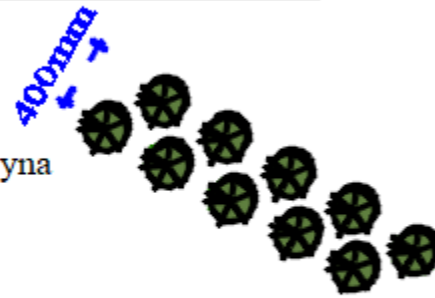
Elaeagnus ebbingei

H2 - Hedgerow Planting Detail

Hedge mix
60-90mm

Crataegus monogyna
Prunus spinosa
Ilex aquifolium

50 x 50 stake tied with a single rubber gut tie.
2 rows @ 500mm centres -400mm apart,



Public Park Hedgerow



Hedge Type 2 Mix
Crataegus monogyna



Viburnum opulus



Hedge Type 2 Mix
Prunus spinosa



Corylus avellana



Hedge Type 2 Mix
Ilex aquifolium



Rosa cania

Landscape Features

Proposed Planting

Wildflower Mix



Ribwort plantain
Plantago lanceolata



Red clover
Trifolium pratense



Bird's-foot trefoil
Lotus corniculatus



Bulbous buttercup
Ranunculus bulbosus



Meadow buttercup
Ranunculus acris



Lady's-bedstraw
Galium verum



Cowslip
Primula veris



Oxeye daisy
Leucanthemum vulgare



Yellow Rattle
Rhinanthus minor



Common knapweed
Centaurea nigra



Common sorrel
Rumex acetosa



Burnet saxifrage
Pimpinella saxifraga



Autumn hawkbit
Leontodon autumnalis



Rough hawkbit
Leontodon hispidus

Note: The Wildflower Meadow will need to be cut once in Autumn (Late August/Early September) with a tractor and mower. Leave the mowings for a few days to allow seed to drop to the ground. Then it should be baled and bales removed.



Hard Landscape Palette

Features

Furniture Palette



Wooden seating
53no.



Existing logs as seating
10no.

Play Equipment Palette



Calisthenics Equipment

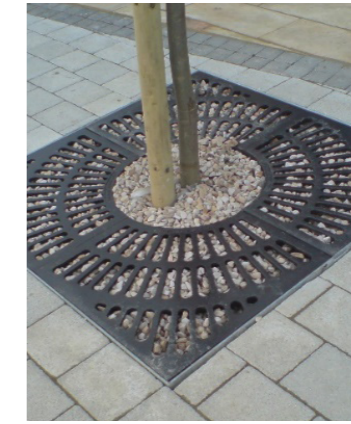
- incline press
- decline bench
- dip bench
- in shape step up
- inshape hyperextension
- inshape situp



Play Equipment

- Wooden Log 15no.
- Stepping logs 4no.
- Balance Beam 2no.
- Mound & Slide 2no.
- Bird's nest
- Rope nest swing

Elements Palette



Tree Pit Grilles
7no.



Corten Steel Screens
3no.



Landmark Totems



Hard Landscape Palette

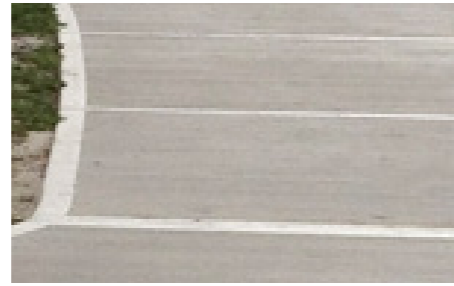
Surfaces

Surface Palette

In-situ Surfaces



Coloured Chip in SMA



Brushed Concrete with trowel edge finish (streets)

Paths

Surfacing for high impact areas across the development



Ballylusk Dust Path (Woodland Walk)



Beige tarmac

Paving Palette

Feature Paving

Light coloured flags to maximum light within courtyards w/ contrasting paving blocks



Graphite Paving



Feature Paving



Permeable Parking Pavers



Cobble Paving (feature areas & paving trim)



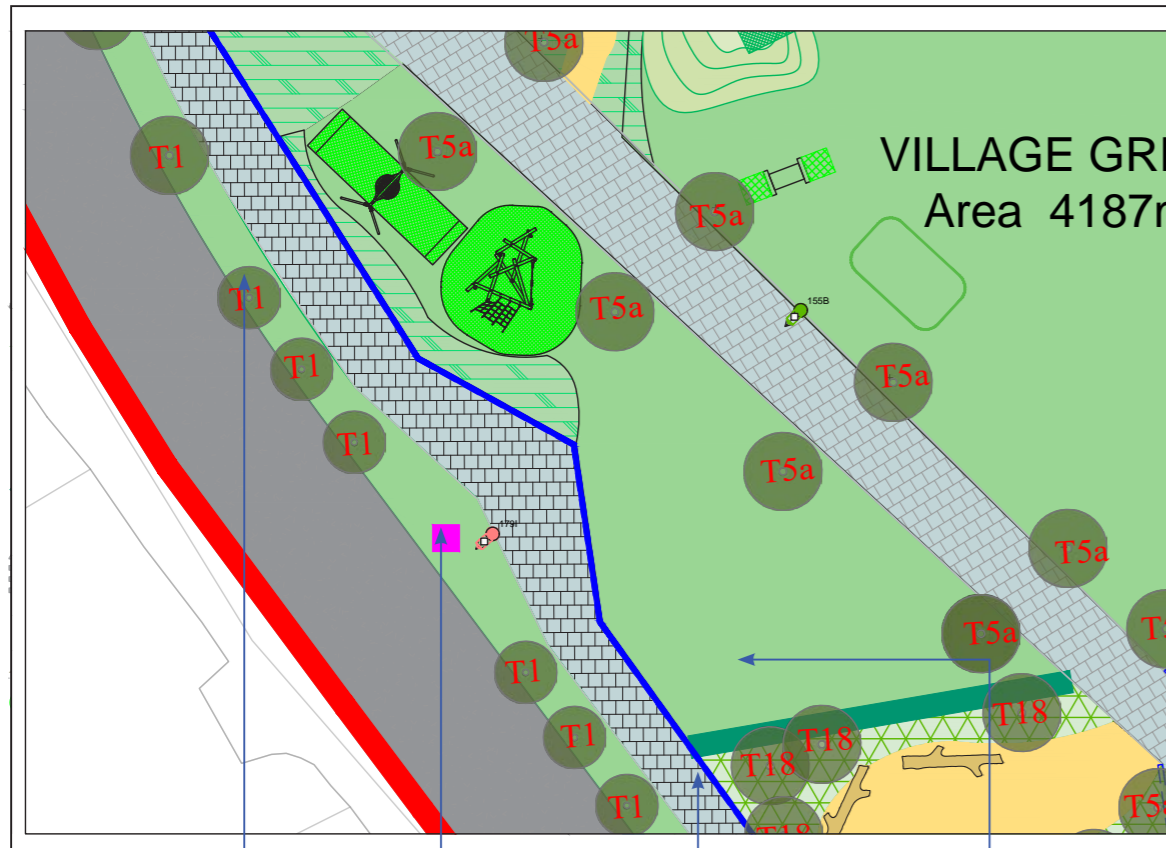
Homezone / Pedestrian Priority Shared Surface



Landscape Features

Landscape Treatments

Landscape Totem



Prunus avium tree planting

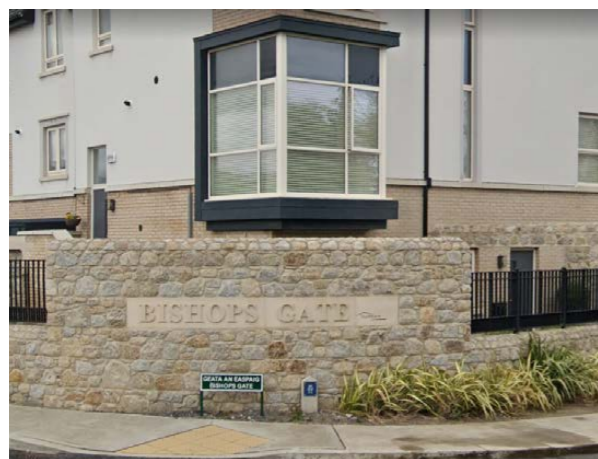
Totem Location

Granite Boundary Wall

Betula pendula tree planting



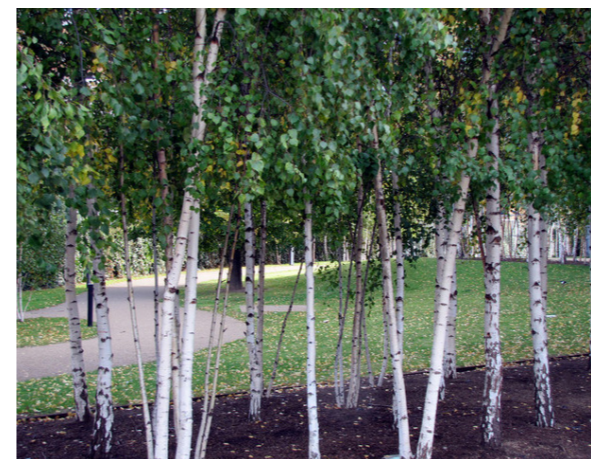
Typical Examples of Landmark Totems



Reference Image - Granite Wall



Prunus avium street tree planting



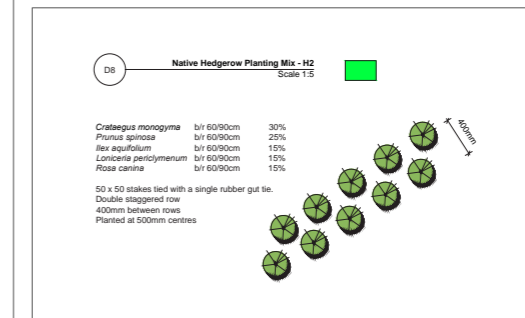
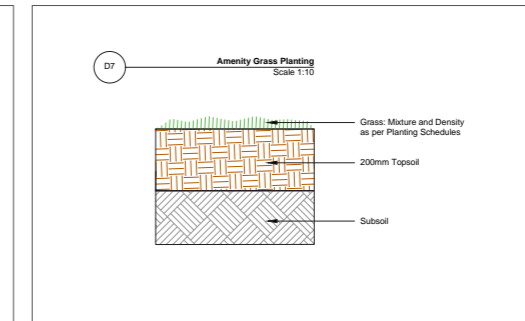
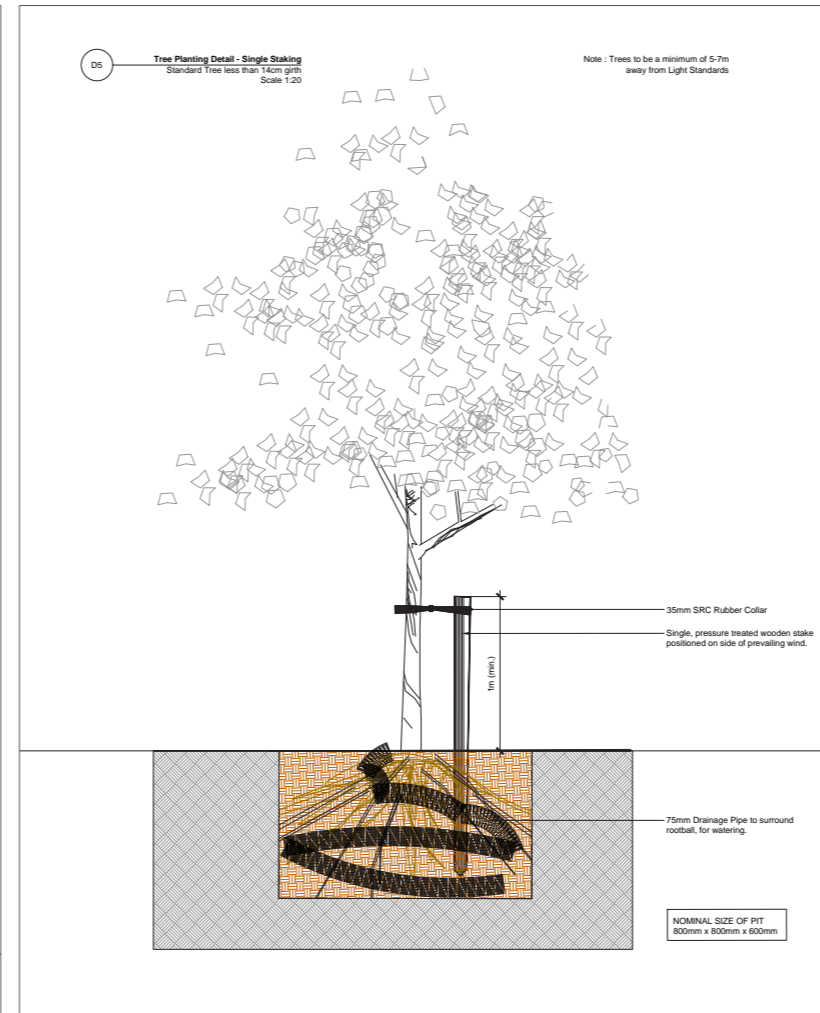
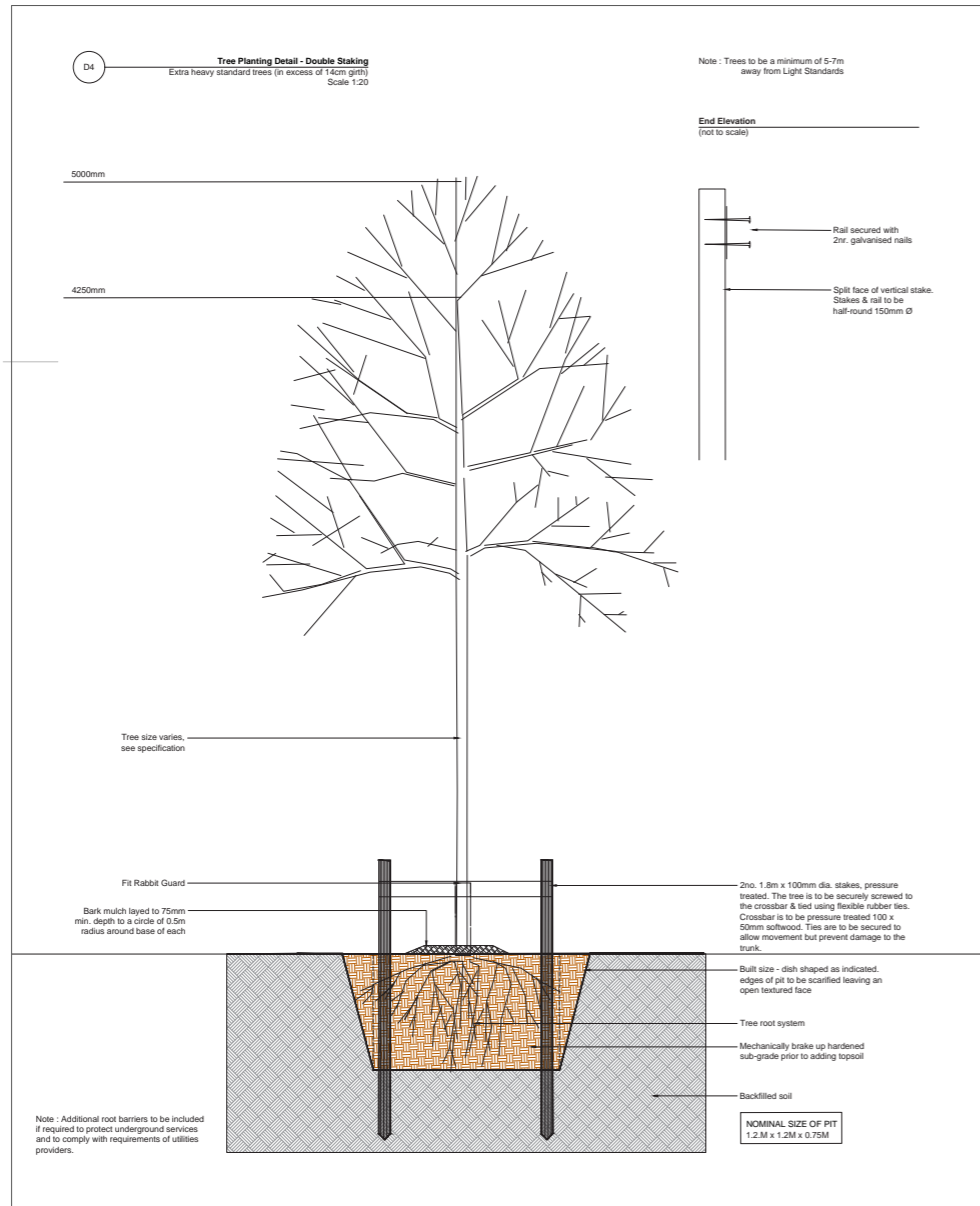
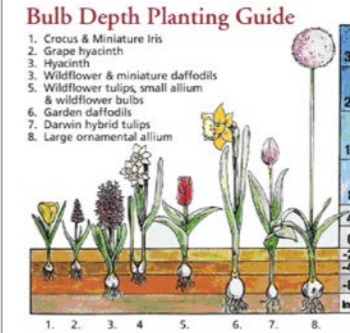
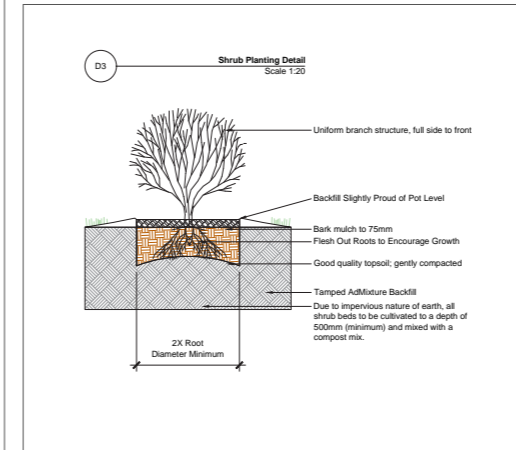
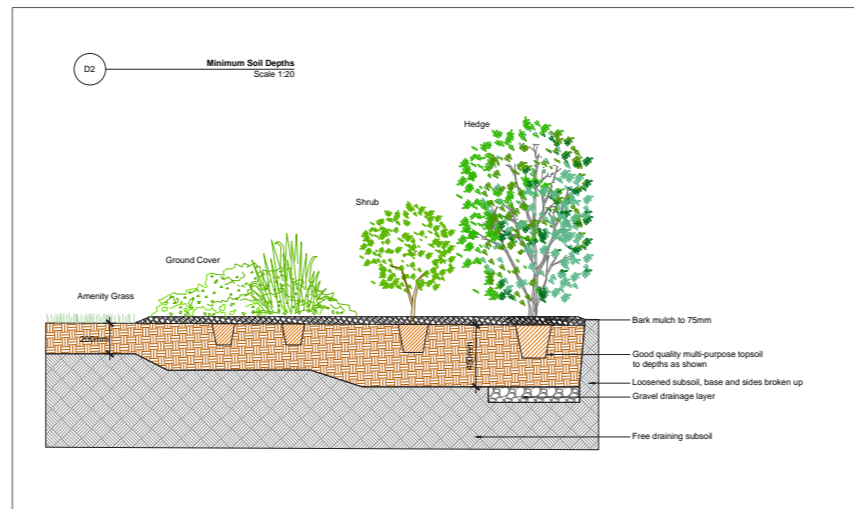
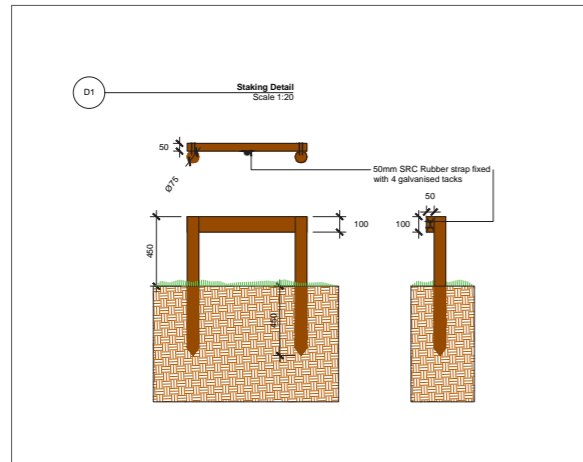
Betula pendula Tree Planting



DETAILED DESIGN



Soft Landscape Planting Details



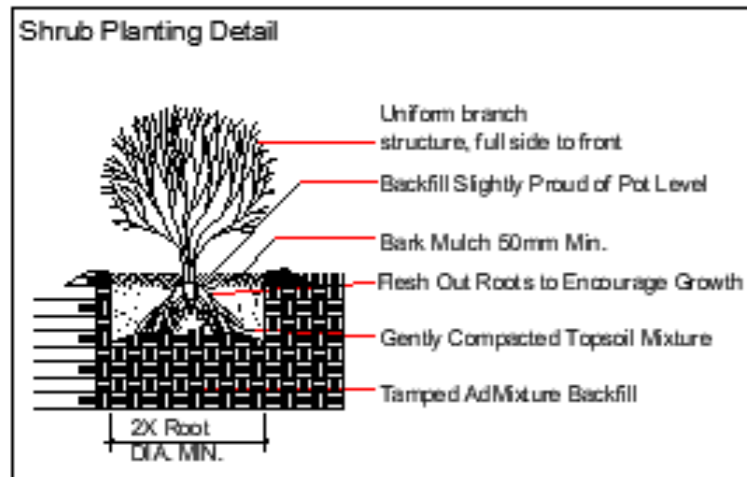
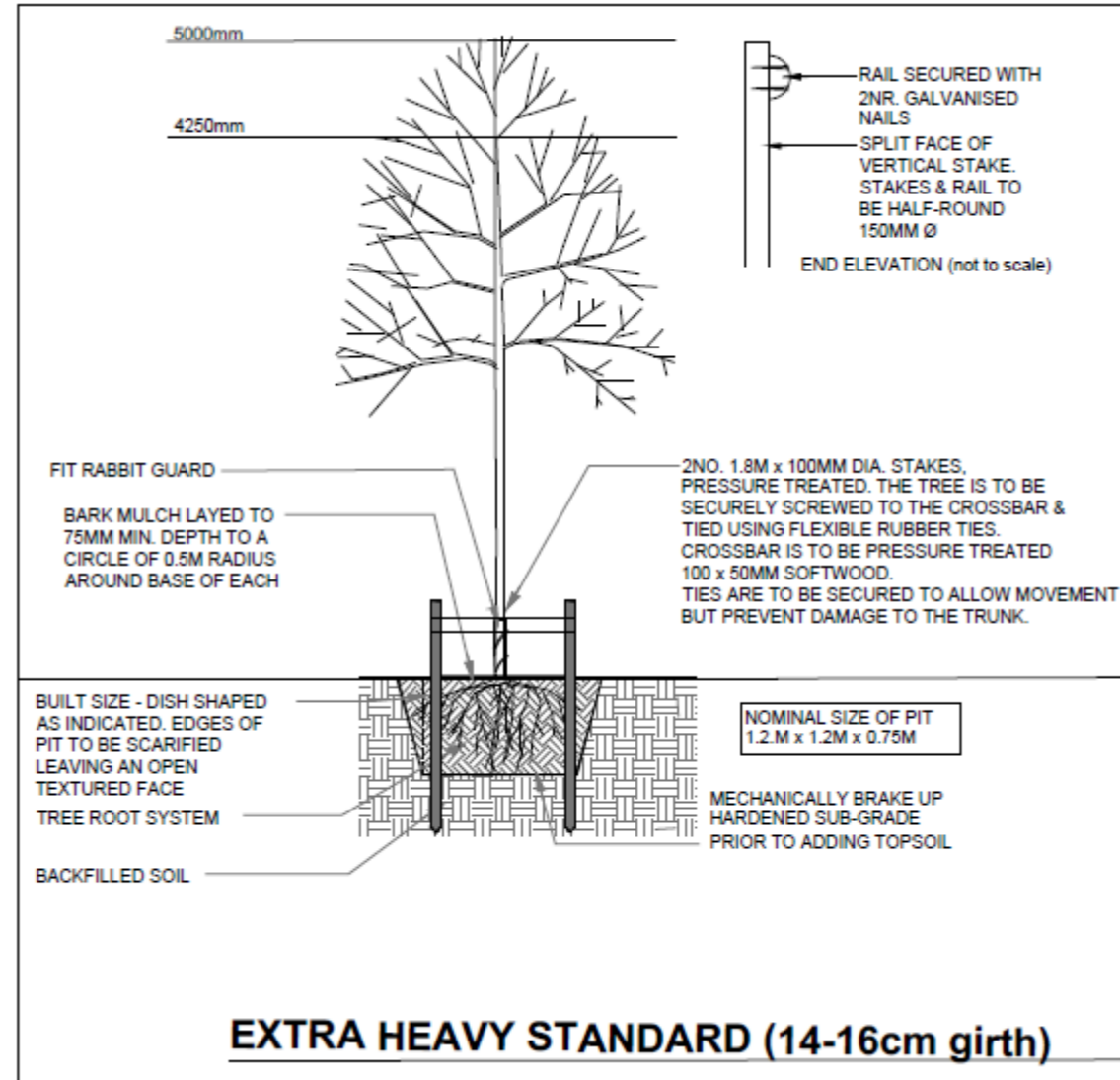
SCHEDULE OF IMPLEMENTATION:

1. ALL TREE AND HEDGEROW PLANTING IS TO BE CARRIED OUT DURING THE FIRST WINTER SEASON, I.E. NOVEMBER TO FEBRUARY INCLUSIVE.
2. ALL LAWN AREAS ARE TO BE PREPARED AND SEEDED DURING THE GROWING SEASON, I.E. APRIL TO OCTOBER INCLUSIVE.
3. ALL CONTAINERISED SHRUB PLANTING MAY BE CARRIED OUT AT ANY TIME OF WHEN SOIL IS NOT FROZEN, WATERLOGGED OR EXCESSIVELY DRY.

PLANTING NOTES:

ALL TREES, SHRUBS AND HEDGEROW PLANTS SHALL COMPLY WITH BS 3936, SPECIFICATION FOR NURSERY STOCK. ALL PRE-PLANTING SITE PREPARATION, PLANTING AND POST PLANTING MAINTENANCE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF BS 4428 (1989) CODE OF PRACTICE FOR GENERAL LANDSCAPE OPERATIONS (EXCLUDING HARD SURFACES).





ALL NEW TREE PLANTING SHALL BE POSITIONED IN ACCORDANCE WITH THE REQUIREMENTS OF TABLE 3 OF BS 5837: 2005 TREE IN RELATION TO CONSTRUCTION: RECOMMENDATIONS, WHICH SPECIFIES MINIMUM DISTANCES BETWEEN NEW PLANTING AND STRUCTURES.



Drainage

SUDS



-  Attenuation Tanks
Note: Not included in open space quantum
-  Swale Locations
-  Bio-Retention
-  Swale Tree Pit Locations

Tank 1
1,010m²

Tank 3
400m²

Tank 2
750m²

Tank 6
80m²

Tank 4
250m²

Tank 5
65m²



Drainage

Swale SUDS



Swale provides temporary storage for storm water & reduces peak flows.



Typical swale in dry weather

We propose a new habitat to create a varied & interesting landscape. It shall take into account the current conditions & shall be implemented with native flora, ie. trees & plants & wildflower meadow.



Typical swale in wet weather

Suggested Wild-Flower Mix

Common knapweed *Centaurea nigra*
 Ribwort plantain *Plantago lanceolata*
 Red clover *Trifolium pratense*
 Bird's-foot trefoil *Lotus corniculatus*
 Bulbous buttercup *Ranunculus bulbosus*
 Meadow buttercup *Ranunculus acris*
 Lady's-bedstraw *Galium verum*
 Cowslip *Primula veris*
 Oxeye daisy *Leucanthemum vulgare*
 Yellow rattle *Rhinanthus minor*
 Common sorrel *Rumex acetosa*
 Burnet saxifrage *Pimpinella saxifraga*
 Autumn hawkbit *Leontodon autumnalis*
 Rough hawkbit *Leontodon hispidus*

Suggested Lowland Meadow Grasses

Crested dog-tail *Cynosurus cristatus*
 Common bent *Agrostis capillaris*
 Sweet vernal-grass *Anthoxanthum odoratum*
 Red fescue *Festuca rubra*
 Smooth meadow-grass *Poa pratensis*

Suggested Wetland/Marsh Mix

Marsh bedstraw *Galium palustre*
 Greater bird's-foot trefoil *Lotus pedunculatus*
 Sneezewort *Achillea ptarmica*
 Valerian *Valeriana officinalis* (tall)
 Purple loosestrife *Lythrum salicaria* (tall)
 Hemp-agrimony *Eupatorium cannabinum* (tall)
 Marsh violet *Viola palustris*
 Angelica *Angelica sylvestris* (tall)
 Water mint *Mentha aquatica*
 Marsh marigold *Caltha palustris*
 Ragged robin *Silene (Lychnis) flos-cuculi*
 Gypsywort *Lycopus europaeus*
 Meadowsweet *Filipendula ulmaria* (tall)

PROPOSED MARGINAL PLANTING

The following marginal plants are to be certified native origin, to be collected as either seed or rootstock from the wild & introduced into the wetland area Stream Area.

Yellow flag iris (*Iris pseudacorus*),
 Marsh marigold (*Caltha palustris*),
 Water plantain (*Alisma plantago-aquatica*),
 Water forget-me-not (*Myosotis scorpioides*),
 Brooklime (*Veronica beccabunga*),
 Bogbean (*Menyanthes trifoliata*),
 Ragged robin (*Lychnis flos-cuculi*).



Drainage

Extensive Green / Sedum Roof

- The root system: Sedum has very shallow roots, a key requirement for an extensive green roof, considering the modest depth of the substrate layer.
- Sedum is also drought-resistant
- Sedum needs relatively little nutrients and maintenance compared to other types of plant
- Sedum is very resilient to diseases and insects
- Sedum is also very adaptable: due to its capacity to adapt its metabolic system in periods of drought, it can survive in extremely dry conditions where other types of plants would die. And furthermore, Sedum recovers remarkably quickly as soon as water becomes available again.



Green Roof/Sedum Roof



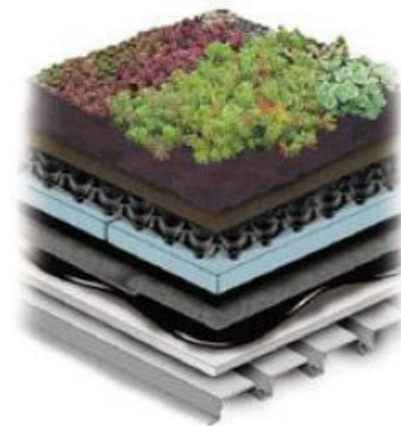
Proposed Green Roof Location

Extensive Green Roof Total
2,703m²



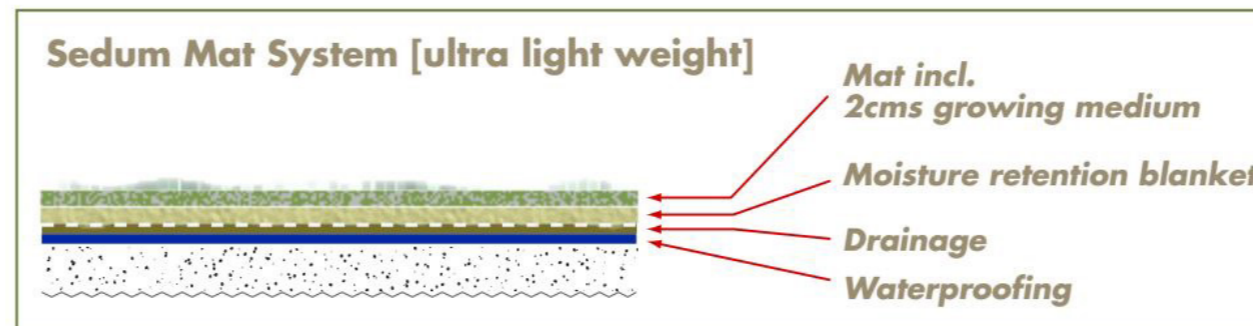
Option 1.

- Extensive Vegetation (Sedums, etc.)
- Growing Media
- Filter Fabric
- Moisture Retention / Drainage Panel
- Insulation
- Root Barrier
- Protection Course and Capillary Break
- Waterproofing Membrane (hot rubberized asphalt depicted)
- Substrate (concrete deck depicted)



Option 2.

- Extensive Vegetation (Sedums, etc.)
- Growing Media
- Filter Fabric
- Moisture Retention / Drainage Panel
- Insulation
- Root Barrier
- Protection Course and Capillary Break
- Waterproofing Membrane (hot rubberized asphalt depicted)
- Substrate (metal deck with gypsum board depicted)



Drainage

Intensive Green Roof

Checklist for Intensive Green Roof

- Mixed Shrub Planting
- Seating
- Planters
- Geotextile
- Soil
- Gravel
- Lighting
- Drainage & irrigation membrane
- Paving flags & pedestals
- Isolating roof membrane
- Glass balustrade

Dimensions

Fully customizable H/W/D
Material Thickness: 3 / 4 / 5mm

- Stainless steel and aluminum with powder coating;
- All RAL colors possible;
- Aluminum / Weathering steel internal elements.



Richard Brink (DE) Raised Bed Modular System, or similar approved



Omos 's59.2'

- Bead blasted 316 stainless steel;
- Iroko hardwood w/ micro porous stain;
- LxWxH 1860x629x819mm



Integrated Seating Streetlife 'Mobile Green Isles'



Proposed Green Roof Location



Intensive Green Roof Total
2,849m²

