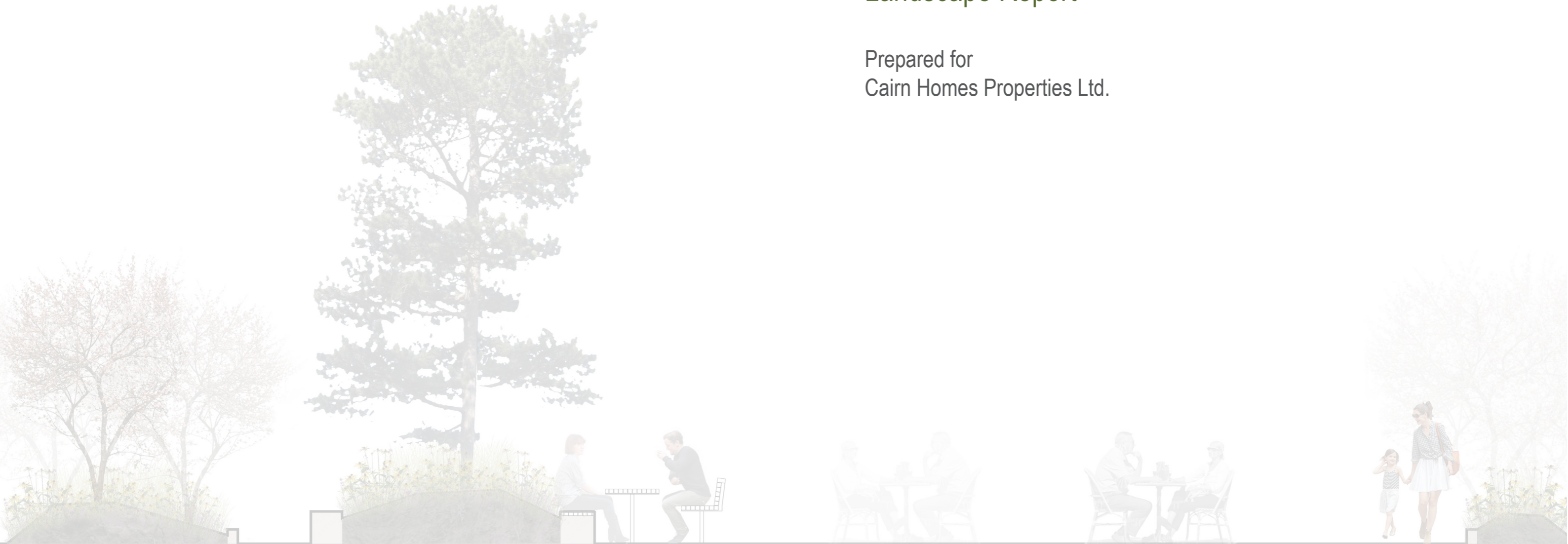


Parkside 4, Parkside, Dublin 13

Landscape Report

Prepared for
Cairn Homes Properties Ltd.



Prepared by:

Richard Jolly MILI & Andrew Davis

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1.0 Site Context

1.1 Site Location

The proposed development site is located north of Parkside Phase 2 along Parkside Boulevard. The land is associated with the former temporary school facilities and buildings, which have since been removed, of Belmayne Educate Together National School and St Francis of Assisi Primary School. The site currently contains a temporary gravel surface car park, areas of open space along with playground and car park surfaces associated with the former school buildings.

The site is in close proximity to the M1, M50, Dublin Airport, the DART station at Clongriffin and the Quality Bus Corridor (QBC) on Malahide Road. There are a number of local shops, parks and playgrounds within easy walking distance, including Clare Hall Shopping Centre.

To the north, south and west lies an existing residential housing estates. On the western boundary of the site is neighboured by a local park containing, an attenuation basin, playground and outdoor gym equipment. To the north, an existing stream, the Mayne River, forms the boundary of the site, dividing it from the residential lands of Castlemoyne beyond. The contiguous lands along the river form a wider accessible green space, the Mayne River Linear Park.

To the immediate east lies an area of derelict open spaces and to the north-east are farm lands under arable cultivation.



Aerial photograph of the site taken from Google Earth 2019.



Note: Red line line shown for illustrative purposes should not be regarded as planning boundary

1.2 Existing Site Condition

As mentioned previously, the site currently contains playground and car park surfaces associated with the former school buildings, and in the east, there is a temporary car park with loose stone surface.

The site is traversed by a number of pedestrian desire lines and informal paths with a more formal gravel path link connecting the development site via footbridge over the Mayne River to the local park land at Castlemayne to the north.

The river's floodplain covers a large portion of the lower lying areas of the development site and vegetation consists primarily of meadow grasses and ruderal plant species such as dock, ragwort and willow herb. Along and beside the stream bank there are a small number of copses comprising willow and some alder and in some areas brambles form dense thickets. In addition, Japanese knotweed has been surveyed in an area near the southern bank of this stream which has been marked on the Overall Landscape Plan and has been given a 7m radius designated exclusion zone. A treatment plan for the Japanese knotweed is in place; details of this treatment plan are included in the application documentation.

The Mayne River, approximately 1.5 wide, passes through the northern edge of the site flowing from west-to-east. The river joins an adjacent stream from the north at the north-east side where two pedestrian bridges provide access over the river. The stream exits the site in the east beneath an arched stone bridge passing under the Balgriffin Park road.

The levels on site fall from plateaued areas formed for the temporary school's construction at Parkside Boulevard down into the floodplain and stream bed and range from approx. +13.00 AOD in the south down to approx. +9.70 AOD in the north east.

The southern boundary, along Parkside Boulevard currently consists of an approx. 1.2m height bow-top railing with formal shrub planting along the footpath edge. The railing becomes approx. 1.5m high from the former temporary school's site until the junction with Balgriffin Park. Along the eastern boundary at Balgriffin Park there is a stone wall approximately 1.0m in height with a thicket of bramble and ivy along its length.



Existing Attenuation Basin & Playground to the West of the Development



River Embankments North of School



Existing park boundary at Parkside Boulevard.



River Bridge Crossing



Mayne River - facing west



Copse of beech trees on Mayne River edge - facing west



Existing Temporary Car Park



Gravel surface path - facing north

2.0 Landscape Strategy & Concept

2.1 Development Overview

The proposed development will consist of some 282 apartment units housed in four multi storey blocks over a parking basement. Aligned north to south perpendicular to Parkside Boulevard, the development blocks create three over podium courtyard gardens. The western and eastern most over podium garden will form communal open space for the development and will have gate-controlled access whilst the central courtyard is proposed as public open space and will provide access through the development to the Mayne River Linear Park.

The existing development lands within the river's flood plain will form part of the broader Mayne River Linear Park, the boundary of which will skirt along the north elevation of the proposed development with stepped access down from podium level. It is intended to create a riverside amenity within these lands by using a restrained design approach, incorporating a simple circulation route along the riverside and enhancing the river's riparian buffer with woodland and wetland planting in keeping with the existing riverside condition. This riverside walk within the Mayne River Linear Park lands of the development will connect with and form part of adjacent walking routes along the River Mayne, completing a chain of existing green infrastructural elements.

By providing this necessary link between existing neighbouring green infrastructure, the proposed Mayne River Linear Park enhancements will greatly improve the opportunities for outdoor leisure activities in the Clongriffin/Belmayne area whilst encouraging an engagement with nature.

2.2 Over Podium Public Open Space

The centrally located over podium public open space is intended to be a 'green finger' linking the Mayne River Linear Park via stepped access through the proposed development to Parkside Boulevard.

The southern end of the courtyard will feature specimen tree planting and a sitting out space in the context of the residential amenity building and gym. Generous planting beds will allow for soil mounding to achieve a layered planting palette with ornamental herbaceous species and grasses, clipped evergreen hedging

and small flowering trees.

At the northern end of the courtyard a seating area will allow elevated views over the park and step in this location will link to the park's internal circulation.

2.3 Communal Courtyard Gardens

Communal residential amenity will be provided for residents in the two private courtyard gardens to the east and west of the public open space, the courtyards will be a safe and secure space for residents with gate controlled access. Small incidental play areas in each courtyard will be surfaced with robust artificial lawn turf and provide a flexible play area, safe and over looked from the surrounding apartments.

While providing for emergency service vehicle access an attempt has been made to achieve a green as possible environment for the courtyard gardens. Privacy planting to ground floor terraces will provide apartment terraces separation from circulation and amenity areas.

Mature tree planting will be achieved in each courtyard with basement level tree pits allowing a feature large tree species to 'pop up' through the podium slab.

Bespoke seating elements and seating edges to basement vents and upstand planters will be a feature of the courtyards.

2.4 Public Park

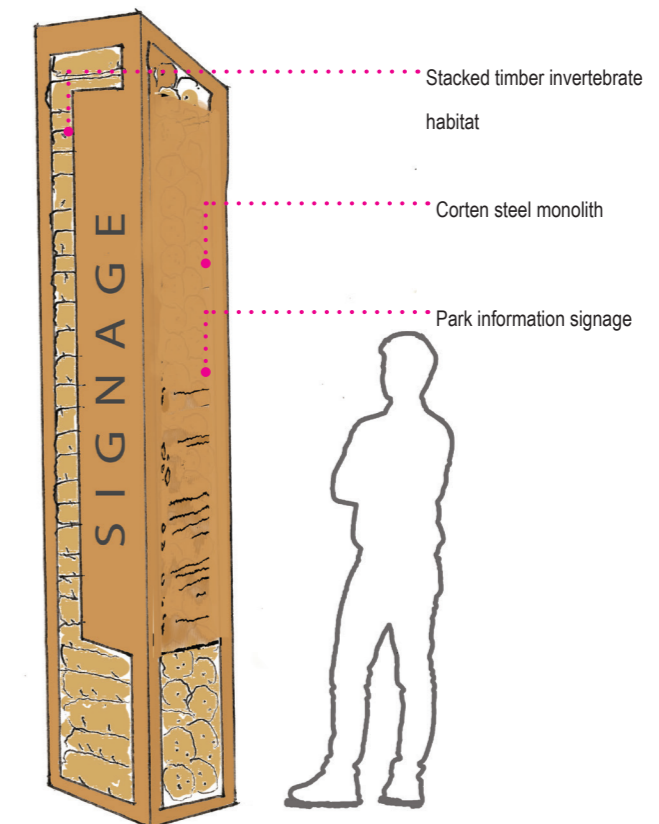
As part of this development it is intended to expand the Mayne River Linear Park. The park, which will be directly accessible from the proposed development, will also have connections to the surrounding green spaces. This includes connections with the neighbouring housing estate to the north, Castlemoyne, via the existing footbridge, and to the surrounding residential developments such as the previously delivered phases of Parkside. In addition, a new pedestrian link and crossing is proposed to the east of the development at Balgriffin Park, which will connect the Parkside section of the Mayne River Linear Park walk with the neighbouring permitted development along Marsfield Avenue/Balgriffin Park and its respective section of the Mayne River Linear Park walk.

As previously mentioned, the design strategy for the park will be to employ a restrained scheme; a simple circulation network will connect to surrounding pathways and bridge crossings with a riverside walk through wetland scrapes intended to provide an interesting walking route and engagement with nature.

The park will contain robust seating elements designed to undergo inundation during flood events such as the concrete seating terrace that will form an informal amphitheatre on the eastern side. In addition, a basketball half-court is proposed on this eastern side intended to promote active play and serve as an older children's hang-out.

A program of supplemental tree planting is proposed to complement the existing trees which will be retained; appropriate species such as willow, alder and birch will be selected with some formal parkland style trees such as horse chestnut at the entrance.

The entry point from Parkside Boulevard will feature a paved area with skateable elements and scooter track, island planter with specimen tree planting and seating walls, and a public art piece entrance feature proposed to incorporate a 'bug hotel' capacity while functioning as a entry marker and park signage.



Concept sketch: 'Bug Hotel' with information signage

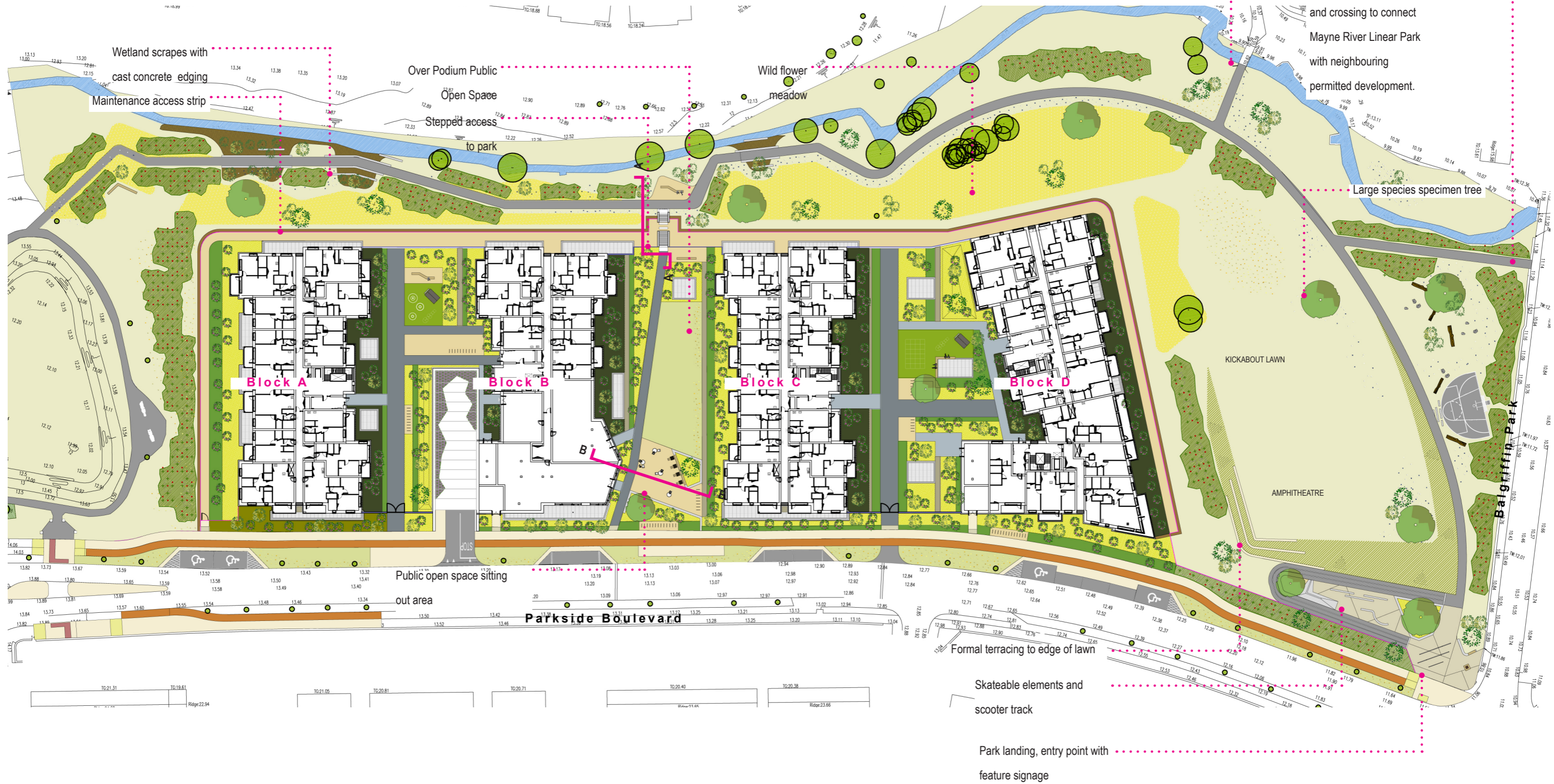
Parkside Phase 4 Wider Context



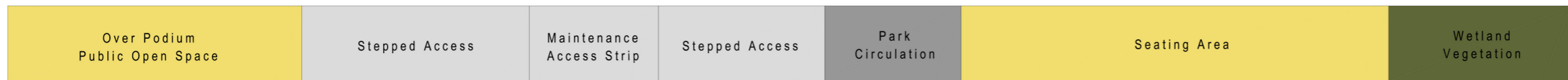
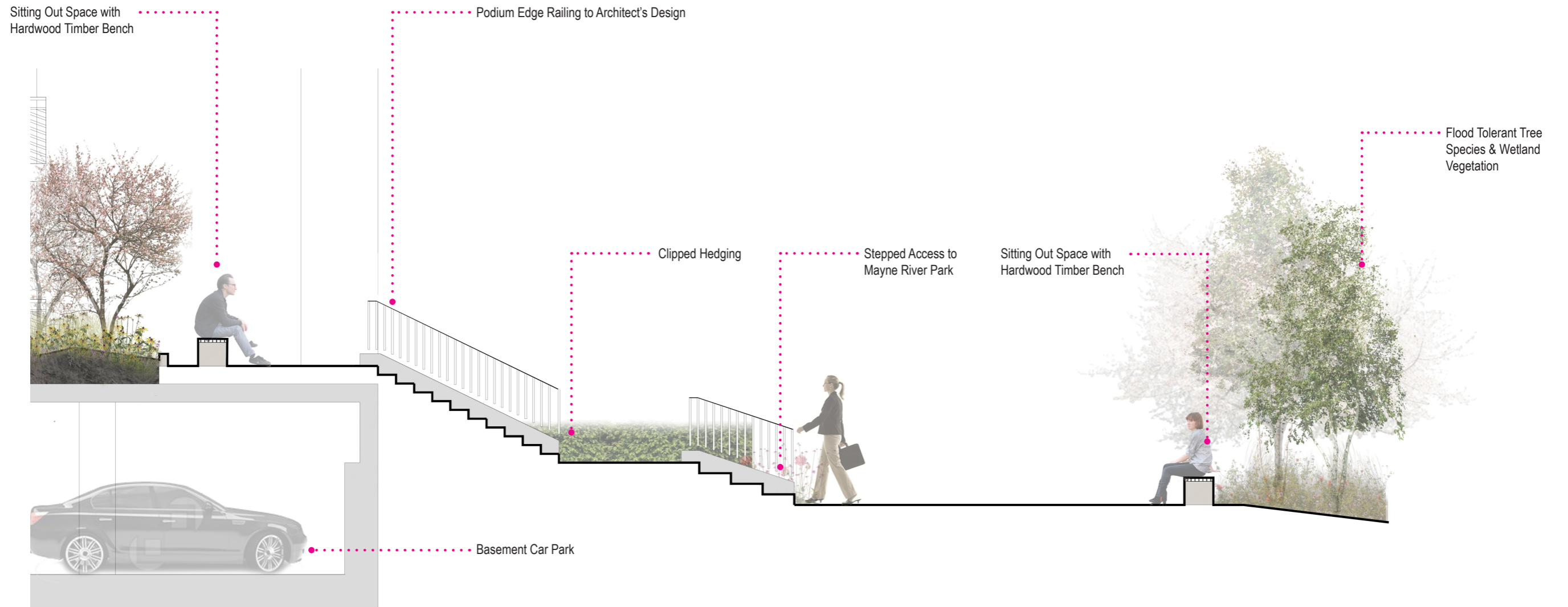
-  Playground
-  Passive Recreation
-  Sports Pitches
-  Skate Park
-  Sitting Out/Social Space
-  Green Link
-  Park Circulation
-  Mayne River Linear Park - River walk
-  Park entrances
-  Phase Boundaries
-  Civic Open space
-  Local Green space
-  National School
-  School Garden



Landscape Masterplan

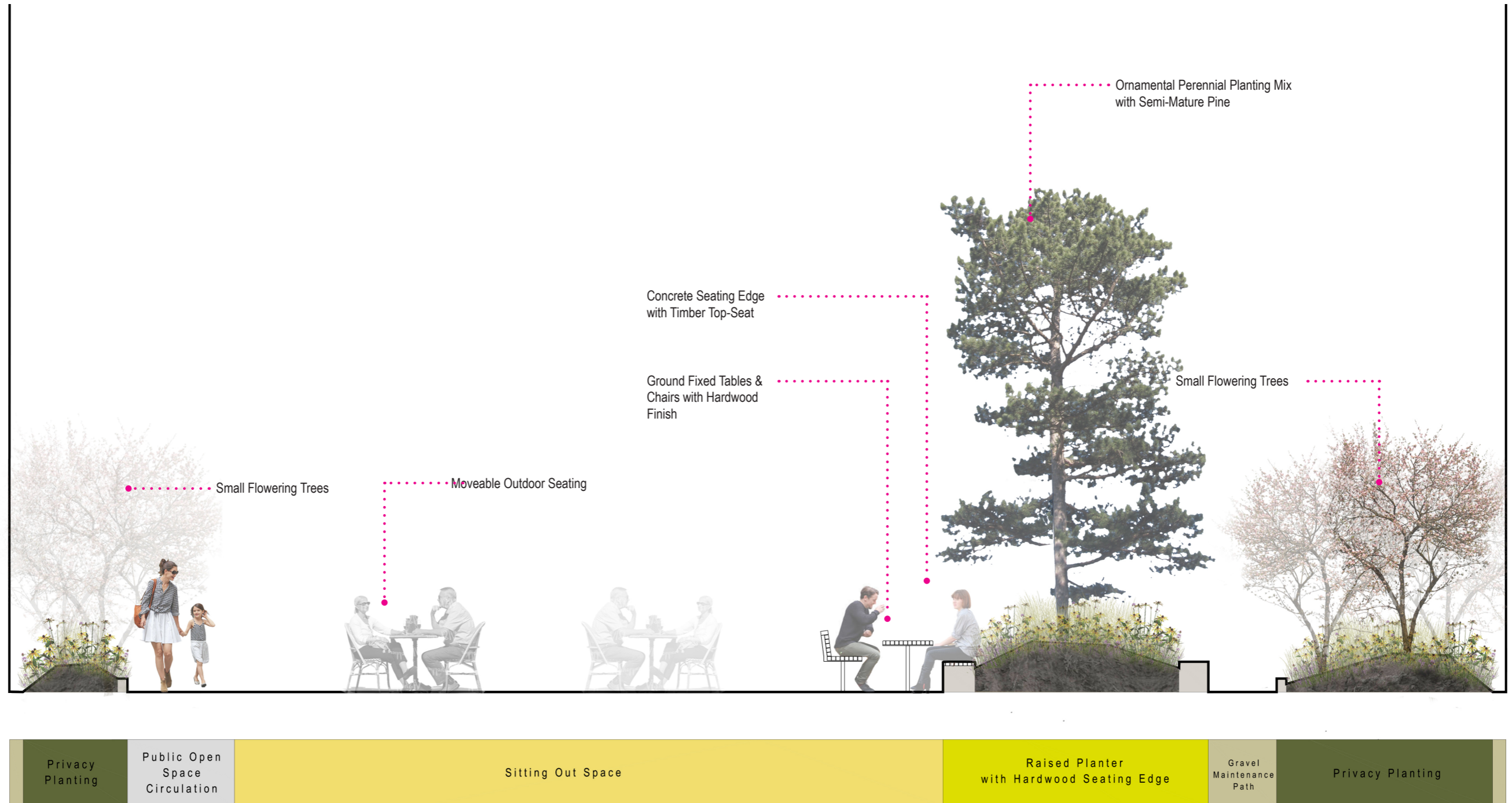


Landscape Sections: Mayne River Linear Park



A-A

Landscape Sections: Central Open Space



B-B

3.0 Park Proposals Precedent Images



Robust precast concrete bench seating



Parkland pathway



Natural play - balancing logs



Wetland scrape with marginal planting



Formal terraced lawn



Formed edge to wetland scrapes



Corten steel sculptural feature signage

4.0 Courtyards Proposed Hard Landscape Materials



Artificial lawn to courtyard play areas



Split face silver granite setts



Precast concrete block paving with reconstituted stone finish



Exposed aggregate concrete



Hard Binding Gravel



Timber Bench



Stainless Steel Sheffield Cycle Stand

5.0 Proposed Planting

5.1 Examples of Proposed Plants - Trees



Aesculus hippocastanum



Betula pendula



Pinus sylvestris



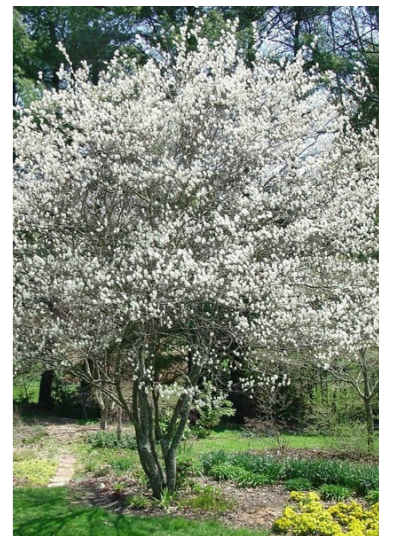
Quercus palustris



Salix sepulcralis chrysocoma



Alnus glutinosa



Amelanchier x grandiflora

5.2 Examples of Proposed Plants - Shade



Athyrium filix-femina



Rodgersia podophylla



Brunnera macrophylla



Astilbe chinensis

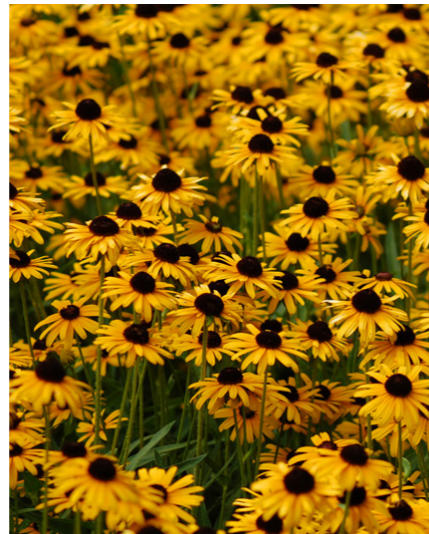


Alchemilla mollis

5.3 Examples of Proposed Plants - Ornamental Grass and Perennial Mix



Chionochloa flavicans



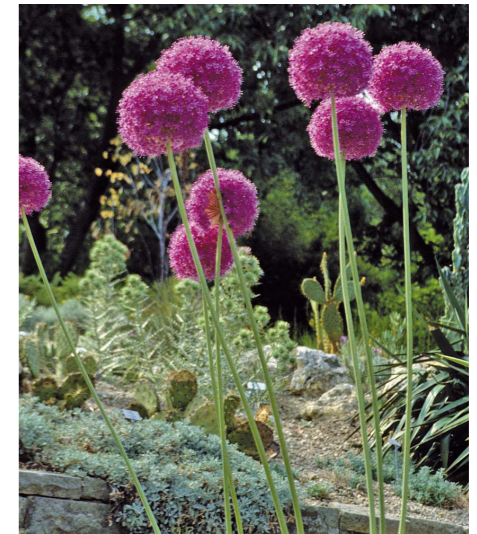
Rubeckia fulgida 'Goldstrum'



Libertia grandiflora



Verbena bonariensis



Allium 'Christophii'

5.4 Examples of Proposed Plants - Wildflower Meadow



Digitalis purpurea



Primula veris



Matricaria chamomilla



Papaver rhoeas



Prunella vulgaris



Centaurea nigra

5.5 Examples of Proposed Plants - Shrub Mix



Abelia x grandiflora



Concolulus cnoerum



Lavandula angustifolia



Hypericum 'Hidcote'



Rosmarinus 'Severn Sea'

5.6 Examples of Proposed Plants - Riparian Mix



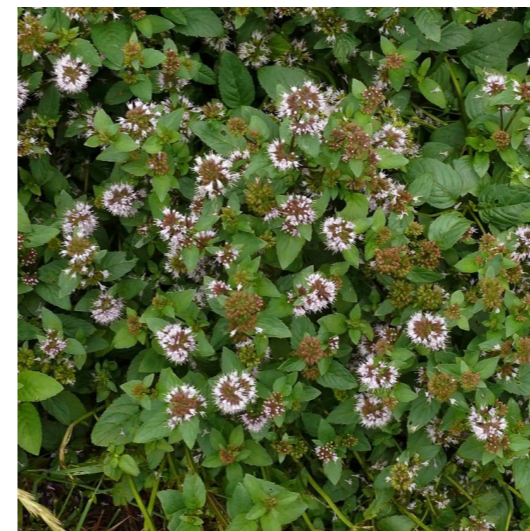
Phragmites australis



Carex nigra



Iris pseudacorus



Mentha aquatica



Carex disticha

5.7 Examples of Proposed Plants - Pergola Climbers Mix



Clematis montana 'Rubens'



Jasminum polyanthum



Wisteria sinensis

5.4 Proposed Planting Schedule

Specimen Feature Trees

Aesculus hippocastanum, 4 x tr., 30-35cm g., wrb, 4.0-5.0m h., 2.0m s.

Pinus sylvestris, 4 x tr., 30-35cm g., wrb, 4.0-5.0m h., 2.0m s.

Quercus palustris, 4 x tr., 30-35cm g., wrb, 4.0-5.0m h., 2.0m s.

Fagus sylvatica, 4 x tr., 30-35cm g., wrb, 4.0-5.0m h., 2.0m s.

Semi-Mature Trees

Pinus sylvestris, 4 x tr., 20-25cm g., wrb, 4.0-5.0m h., 2.0m s.

Quercus robur, 4 x tr., 20-25cm g., wrb, 4.0-5.0m h., 2.0m s.

Advanced Heavy Standard Trees

Prunus avium, 16-18cmg, 3 x tr., wrb, min., 4.0m h., 1.5m s.

Crataegus laevigata 'Paul Scarlet', 16-18cmg, 3 x tr., wrb, min., 4.0m h., 1.5m s.

Salix caprea, 16-18cmg, 3 x tr., wrb, min., 4.0m h., 1.5m s.

Salix sepulcralis var. *chrysocoma*, 16-18cmg, 3 x tr., wrb, min., 4.0m h., 1.5m s.

Betula pendula, 16-18cmg, 3 x tr., wrb, 4.5m h. min., 1.5m s.

Alnus glutinosa, 16-18cmg, 3 x tr., wrb, 4.5m h. min., 1.5m s.

Select Standard Trees

Alnus glutinosa, 10-12cmg, 2 x tr., br, min. 3.0m h., 1.0m s.

Betula pendula, 10-12cmg, 2 x tr., wrb, 3.0m h. min., 1.0m s.

Sorbus aucuparia, 10-12cmg, 2 x tr., br, min. 3.0m h., 1.0m s.

Salix caprea, 10-12cmg, 2 x tr., br, min. 3.0m h., 1.0m s.

Salix aurita, 10-12cmg, 2 x tr., br, min. 3.0m h., 1.0m s.

Salix cinerea, 10-12cmg, 2 x tr., br, min. 3.0m h., 1.0m s.

Small Flowering Trees

Amelanchier lamarkii, feathered, min 5 breaks, 2 x tr, wrb, 2.0-2.5m h. 1.5m s.

Magnolia 'Kobus', feathered, min 5 breaks, 2 x tr, wrb, 2.0-2.5m h, 1.5m s.

Prunus serrulata c vars, multi stem, min. 5 breaks, 2 x tr., wrb, 2.0-2.5m h., 1.5m s.

Crataegus laevigata 'Paul's Scarlet', feathered, min 5 breaks, 2 x tr., wrb, 1.5-2.0m h., 1.25m s

Clipped Evergreen Hedge

Buxus sempervirens

5 ltr.cg. planted at 500mm centres.

Clipped Hedge

Fagus sylvatica

All bare root whips or feathered 900-1200 high.

Planted in a double staggered row at 600mm centres.

Shrub Mix

Abelia x grandiflora

Choisya ternata

Cistus x hybridus c. vars

Convolvulus cnoerum

Hydrangea macrophylla c. vars

Hypericum 'Hidcote'

Lavandula angustifolia c.vars

Mahonia x media c. vars

Rosmarinus 'Severn Sea'

Rosa 'Flower Carpet'

Rosa rugosa c.vars

Sarcococca x confusa

All 2-5 ltr.cg. planted at 500mm centres.

Ornamental Perennial Mix

Allium 'Christophii'

Anemanthele lessoniana c. vars

Calamagrostis x acutiflora 'Karl foerster'

Chionochloa flavicans

Echinops ritro c. vars

Eryngium maritimum

Knautia macedonica

Libertia grandiflora

Molinia caerulea subsp. *Arundinacea*

Rubeckia fulgida 'Goldstrum'

Salvia nemerosa c. vars

Schizostylus coccinea c. vars

Sedum spectabile 'Auturm Joy'

Tulbaghia violacea

Verbena bonariensis

All 2-3 ltr.cg. planted at 300-500mm centres.

Shade Planting Mix

Rodgersia podophylla

Asplenium scolopendrium

Polystichum setiferum

Athyrium filix-femina

Sarcococca hookeriana

Brunnera macrophylla

Pulmonaria officinalis

Alchemilla mollis

Astilbe chinensis

All 2-3 ltr.cg. planted at 300-500mm centres.

Riparian Mix

Angelica sylvestris

Carex nigra

Caltha palustris

Ranunculus repens

Mentha aquatica

Festuca rubra

Carex disticha

Iris pseudacorus

Juncus effusus

Nasturtium officinale

Phragmites australis

All 2-3 ltr.cg. planted at 300-500mm centres.

Pergola Climbers Mix

Clematis montana 'Rubens'

Jasminum polyanthum

Wisteria sinensis

All 5 ltr.cg. planted at 300-500mm centres.

Bulbs Mix 1

Narcissus c. vars (3 approx.)

Planted as bulbs; top-size; sown in drifts of 12-15 bulbs per sqm

Bulbs Mix 2

Allium ursinum

Hyacinthoides non-scripta

Anemone nemorosa

Galanthus nivalis

Planted as bulbs; top-size; sown in drifts of 12-15 bulbs per sqm

Wildflower Meadow Mix

Lotus corniculatus
Medicago lupulina
Primula veris
Succisa pratensis
Euphrasia var.
Knautia arvensis
Lotus pedunculatus
Anthyllis vulneraria
Galium verum
Centaurea nigra
Origanum majorana
Ranunculus acris
Verbascum var.
Leucanthemum vulgare
Lychnis flos-cuculi
Silene dioica
Trifolium pratense
Plantago lanceolata
Rough Hawksbit
Leontodon hispidus
Prunella vulgaris
Hypericum perforatum
Angelica sylvestris
Daucus carota
Achillea millefolium
Agrimonia eupatoria
Rhinanthus minor
Orchidaceae var.
Glebionis segetum
Papaver rhoeas
Agrostemma githago
Centaurea cyanus
Matricaria chamomilla
Sown at a rate of 1.5grams/m²

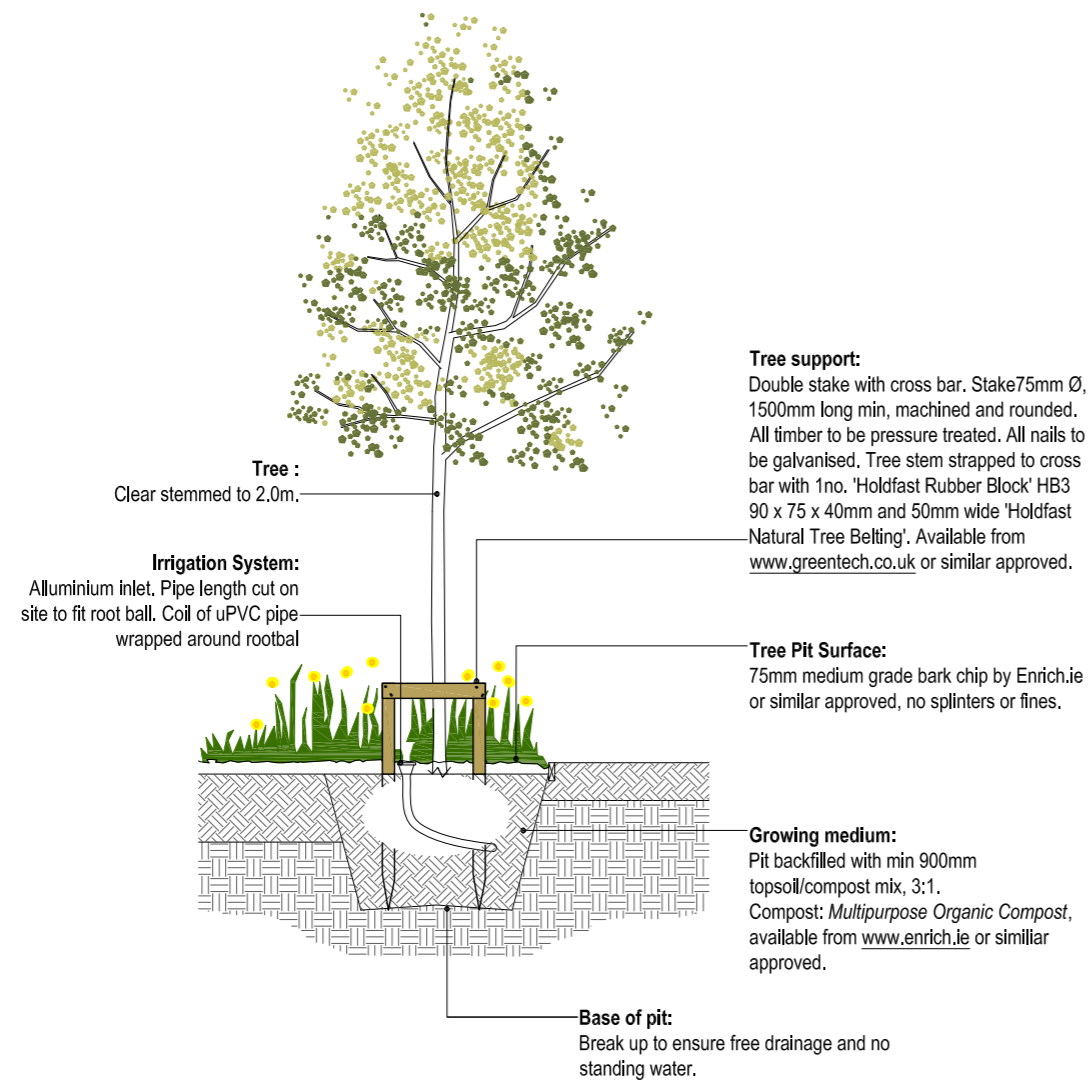
Grass Seeding

Festuca ovina 20%
Festuca rubra var. rubra 30%
Poa pratensis 15%
Festuca rubra subsp. commutata 20%
Agrostis capillaris 15%
Sown at a rate of 30-35grams/m²

Abbreviations

xtr.	number of transplants in nursery
h.	height
s.	spread
wrb.	wire root-balled
cmg.	girth of tree in centimeters measured 1m above ground
ltr cg.	plants supplied in 2 litre volume containers

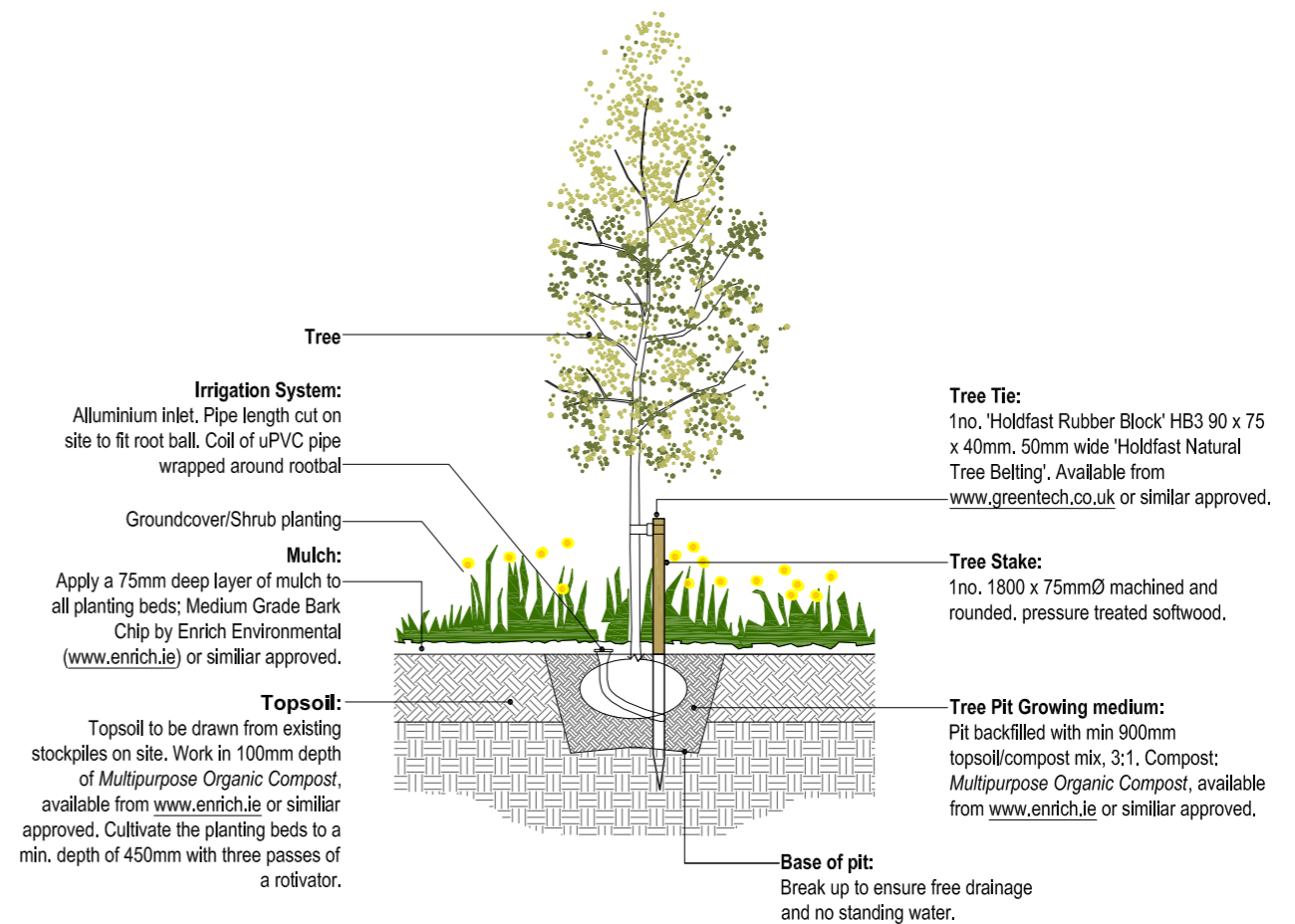
6.0 Soft Landscape Details



Semi-mature and Heavy Standard tree planting in soft landscape

scale 1:50

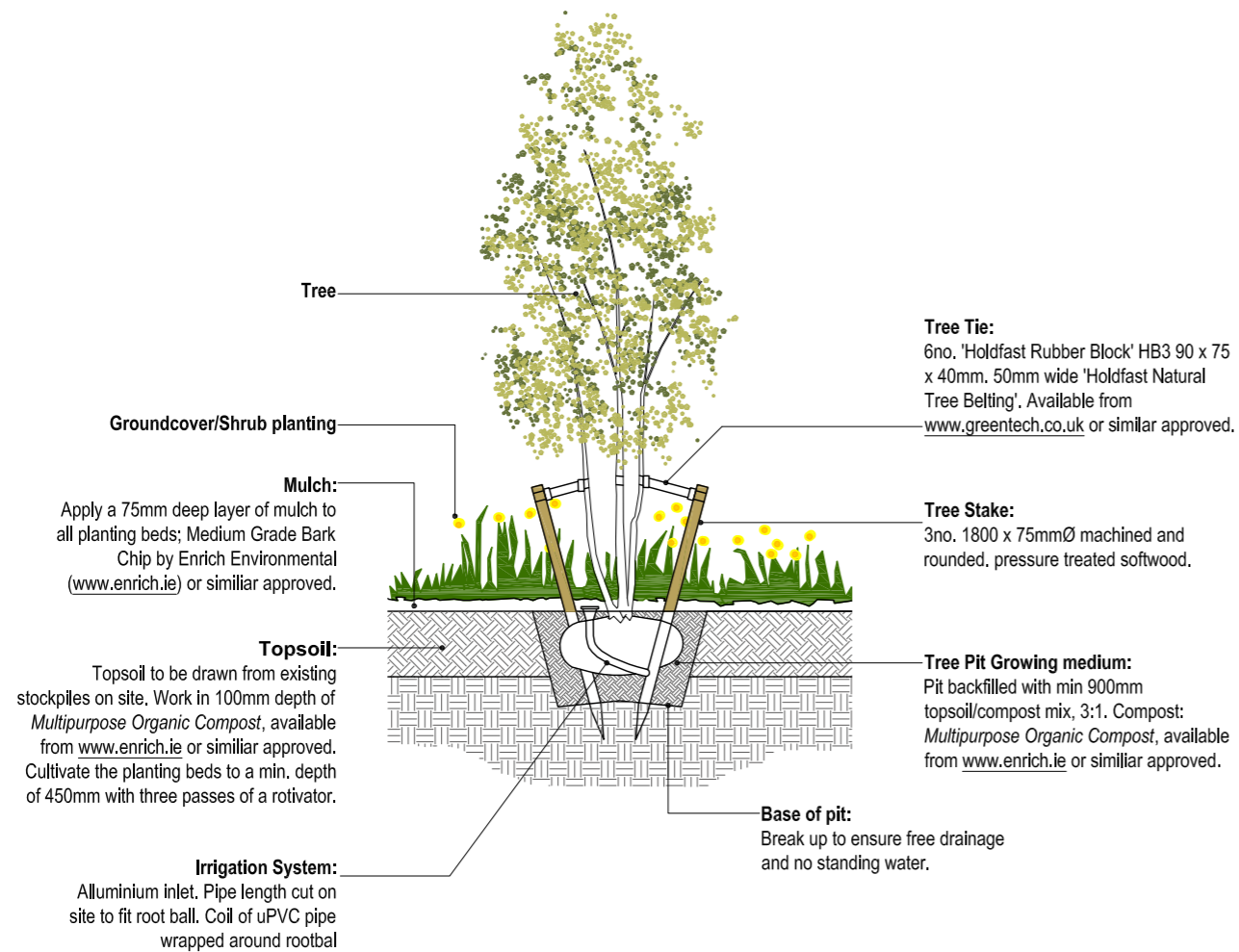
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Standard and Feathered Tree Planting in soft landscape

scale 1:50

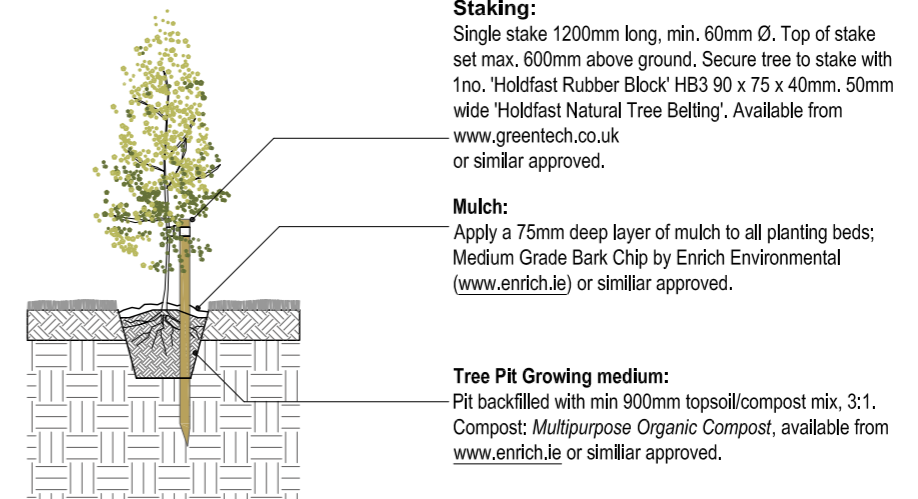
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Multi-stem Tree Planting

scale 1:50

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Feathered Tree Planting - 1500-2000mm high

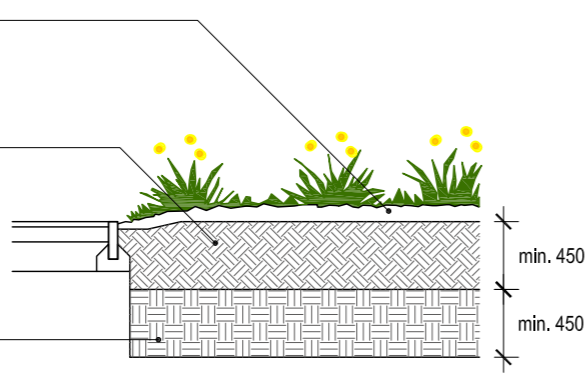
scale 1:50

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Mulch:
Apply a 75mm deep layer of mulch to all planting beds;
Medium Grade Bark Chip by Enrich Environmental
(www.enrich.ie) or similar approved.

Topsoil:
Topsoil to be drawn from existing stockpiles on site.
Work in 100mm depth of *Multipurpose Organic Compost*, available from www.enrich.ie or similar approved. Cultivate the planting beds to a min. depth of 450mm with three passes of a rotivator.

Subsoil:
Rip subsoil to a depth of min. 750mm from finished surface. Min. depth of subsoil 450mm.

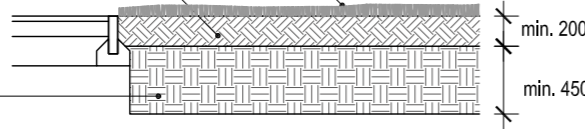


L a w n

Grass Seeding:
Area to be grass seeded. Grade 2, Mixture: 80%
Fescue species, 20% Brown top bent.

Topsoil:
Topsoil to be drawn from existing stockpiles on site.
Cultivate grass seeding areas to a min. depth of
300mm with three passes of a rotivator.

Subsoil:
Rip subsoil to a depth of min. 600mm from finished
surface. Min. depth of subsoil 450mm.



G r a v e l t r i m b u i l d i n g f a c a d e s

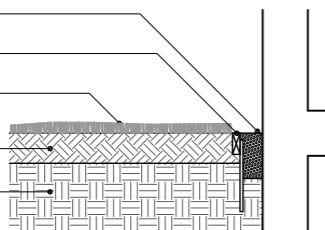
Gravel trim:
min. 300mm depth layer of 10-20mm
washed and graded pebble.

Timber edging: see adjacent detail

Soft landscape

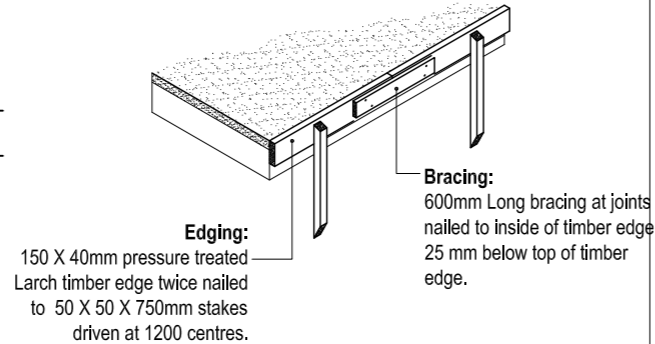
Topsoil

Subsoil



NOTE:

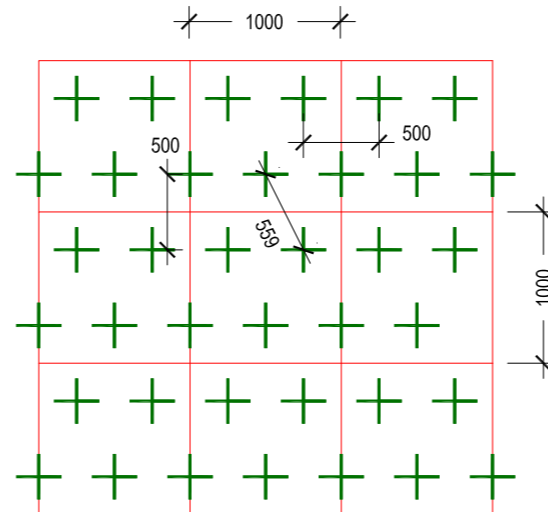
- All timber to be pressure treated Larch.
- Double stakes at change of direction and corners.
- All nails to be twice galvanised.



Groundcover planting beds, lawn and gravel trims

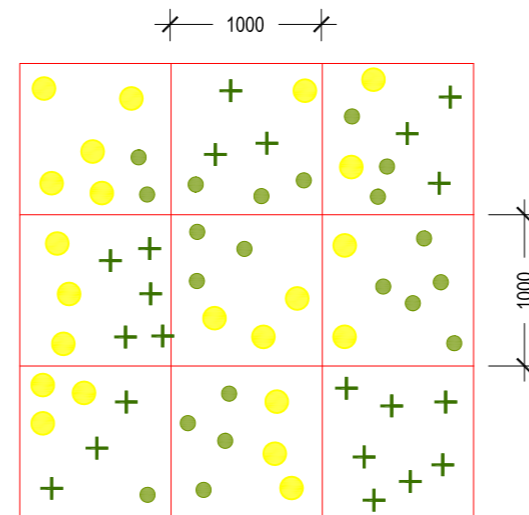
scale 1:50

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Clipped shrubs:
Density of plants typically 4 per sqm, all 2ltr cg. min.

Clipped Planting - Taxus, Buxus

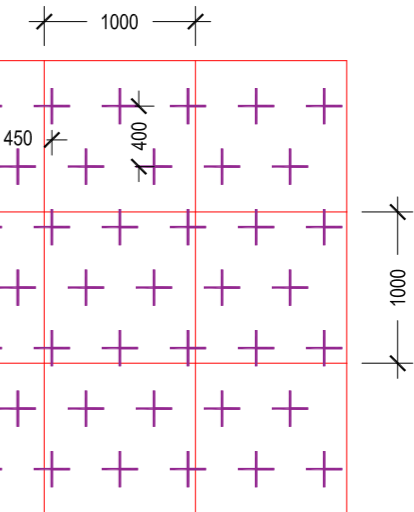


Groundcover - mix of grasses and perennials:
Density of plants typically 7 per sqm, all 2ltr cg. min.
Plants to be mixed randomly in clumps of 3-9.

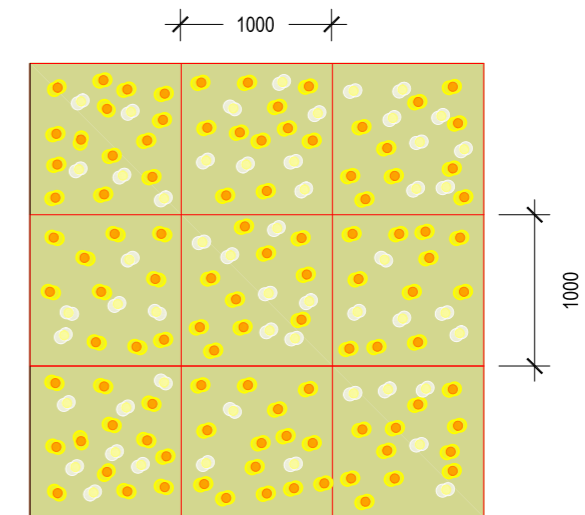
Groundcover Mixes

Setting out - clipped shrub planting, groundcover planting and bulbs

scale 1:50



Groundcover shrubs:
Planted at 5 per sqm, all 2ltr cg. min.



Density of bulbs typically 15-20 per sqm.

Bulb drifts in grass

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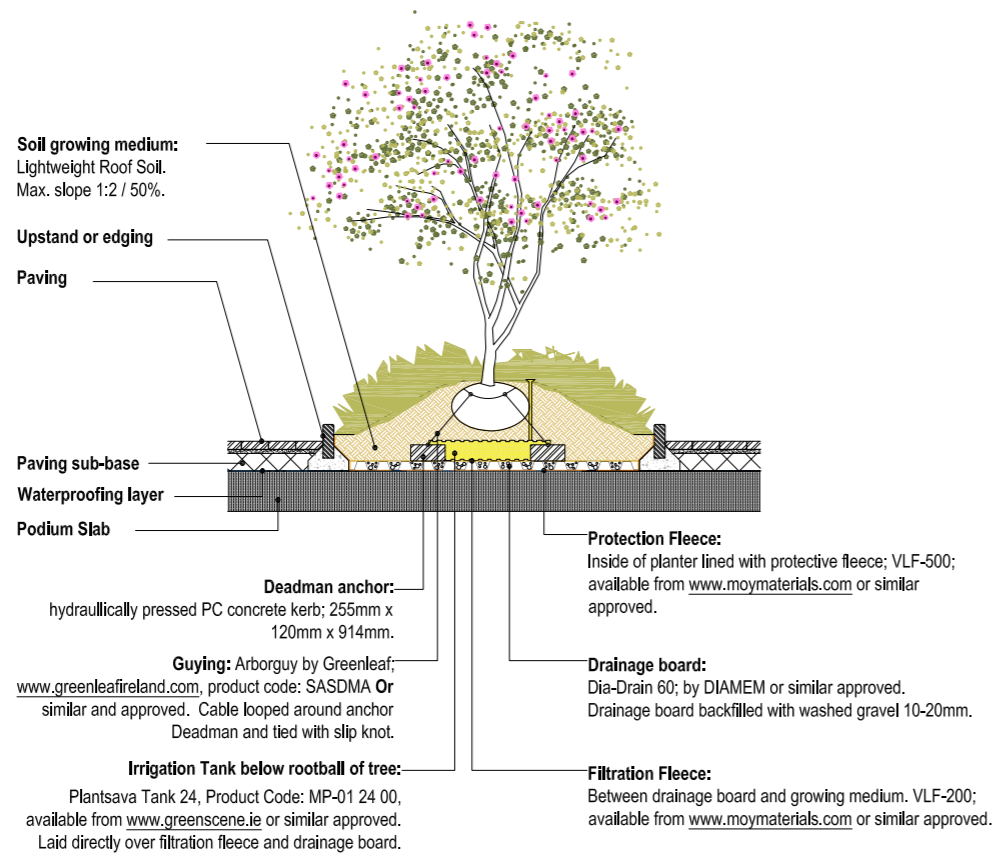
NOTES ON SOIL GROWING MEDIUM:

Lightweight Roof Soil by Enrich.ie

- 25% General Purpose Compost or similar and approved peat free soil ameliorant:
- 10% LECA:
- 65% virgin premium grade free draining sandy loam with pH 5.5-7.8, (55% SAND, 30% SILT, 15% CLAY, to BS 3882).
- Finely screened with no lumps
- Grain size 0-20mm
- Dry weight $\geq 0.9\text{g/cm}^3$
- Saturated Weight $\geq 1.2\text{g/cm}^3$
- pH 6.9-7.9
- Organic Content 10-25% by mass
- Permeability 25%
- Peat free
- Produced to BS 3882 quality standard.

BACKFILLING GROWING MEDIUM GENERALLY:

- Fill in to required area for planting, saturate the growing medium with water and leave for 24 hours prior to any planting works.
- Top-up growing medium to take account of consolidation. Allow 50mm above finished level for gradual soil settlement.



Typical detail of roof garden planting bed

scale 1:50

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NATIVE TREE CLUMP PLANTING

Feathered / Selected Standard Trees:

Over storey and dominant species:

70%	Silver Birch	<i>Betula pendula</i>
10%	Scots Pine	<i>Pinus sylvestris</i>
10%	Wild Cherry	<i>Prunus avium</i>
10%	Oak	<i>Quercus robur</i>

10-12cm. g, 3.0-3.5 m h., br.

Under storey and minor species, planted in clumps to the edge of woodland groups:

50%	Hazel	<i>Corylus avellana</i> , whip, 600-900mm h., br.
25%	Holly	<i>Ilex aquifolium</i> , feathered, 1500-1800mm h., br.
25%	Geulder Rose	<i>Viburnum opulus</i> , whip, 600-900mm h., br.

BULB PLANTING:

Bluebell	50%	<i>Hyacinthoides non-scriptus</i> ,
Wood Anemone	25%	<i>Anemone nemorosa</i> ,
Wild Garlic/Ransoms	25%	<i>Allium ursinum</i> ,

planted as bulbs, top size, 7 per sqm.

NOTES ON MANAGEMENT :

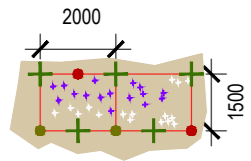
Year 1 + 2

Maintain planting beds weed free using a systemic herbicide: Glyphosate or similiar approved. 1 spray during the growing season, post May and/or when bulb foliage has died back.

Ensure all tree stakes and ties are secure. Ensure all staked trees are upright and adjust if necessary.

Year 3

Remove all tree stakes and ties and Chestnut Pale Fencing.



7.0 Boundary Details



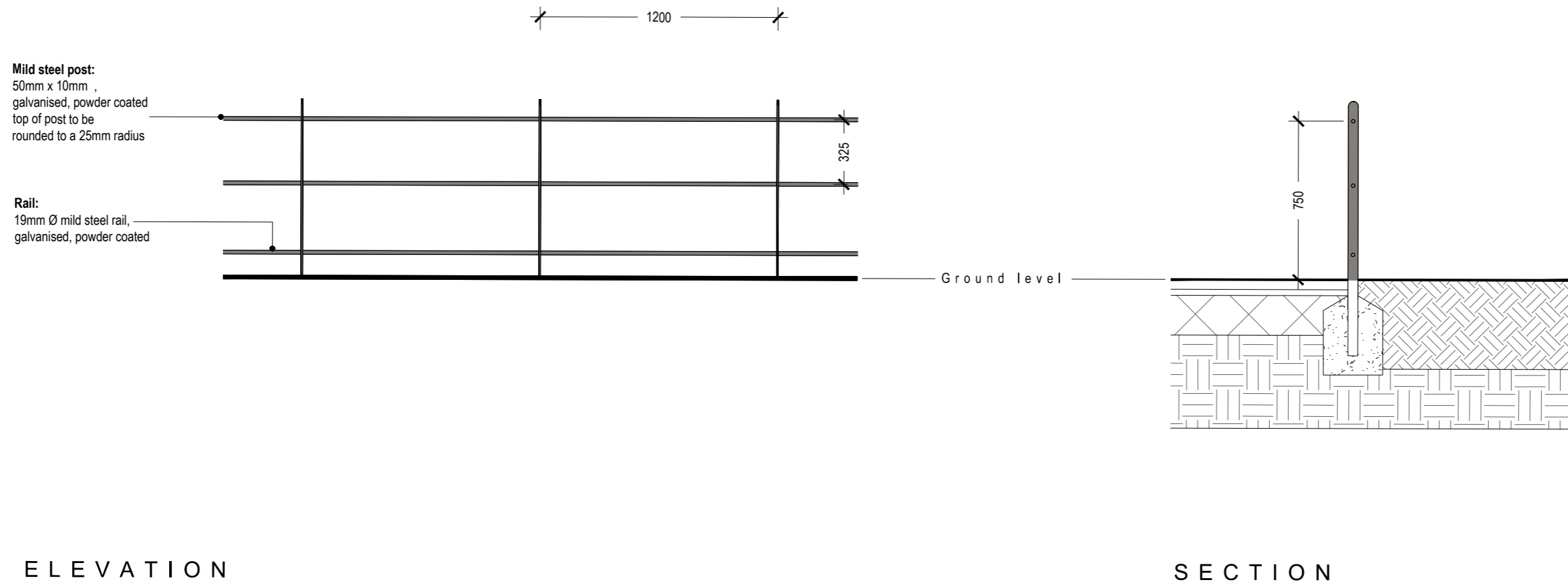
Boundary Treatments Plan
scale 1:1000

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NOTES ON RAILINGS:

All mildsteel to be hot-dip galvanised and powder coated to a select RAL.

All bolts and fixings to be hot-dip galvanised/stainless steel.



Boundary Detail 01
0.75m Estate Railing
scale 1:25

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8.0 Soft Landscape Specification

Q28 Topsoil and soil ameliorants

To be read with Preliminaries/ General conditions.

SYSTEM OUTLINE

- 115 SOIL SYSTEM FOR GRASS SWARDS FOR ALL GRASSED AREAS
- Composition:
 - Soil: Imported topsoil to BS 3882.
 - Ameliorants: Sanitized and stabilized composted materials.
 - Accessories: None.
- 125 GREEN ROOF GROWING MEDIA SYSTEM TO INTENSIVE GREEN ROOF
- Composition:
 - Topsoil: Imported topsoil from a specified source.
 - Ameliorants: as per specified product.
 - Accessories: as per specified product.
- 135 PLANTING BED SOIL SYSTEM FOR EXTERNAL PLANTING
- Composition:
 - Topsoil: Imported topsoil to BS 3882.
 - Ameliorants: Sanitized and stabilized composted materials.
 - Accessories: None.
- 145 PLANT PIT BACKFILLING SOIL SYSTEM FOR EXTERNAL PLANTING
- Composition:
 - Topsoil: Imported topsoil to BS 3882.
 - Ameliorants: Organic materials and Sanitized and stabilized composted materials.
 - Accessories: None.
- 155 MULCHING AND TOP DRESSING SYSTEM For external planting beds and tree pits
- Composition:
 - Material: Fine grade bark mulch.
- ### PRODUCTS
- 300 PREPARATION MATERIALS GENERALLY
- Purity: Free of pests and disease.
 - Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
 - Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - Corrosive, explosive or flammable.
 - Hazardous to human or animal life.
 - Detrimental to healthy plant growth.
 - Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
 - Objectionable odour: None.
 - Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

- 310 MATERIALS NOT PERMITTED
- Materials: Peat and Products containing peat.
- 315 IMPORTED TOPSOIL TO BS 3882 FOR EXTERNAL CONTAINER PLANTING, GRASS SEEDING, TURFING, PLANTING BEDS AND TREE PITS
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
 - Standard: To BS 3882.
 - Classification: Multipurpose.
 - Soil textural class to BS 3882, Figure 1:
 - Any class;
 - Clay loam; or
 - Sandy loam.
 - Source: Submit proposals.
 - Product reference: Submit proposals.
- 345 AGGREGATES FOR SITE MADE TOPSOIL
- Source: Contractor's choice.
 - Product reference: Submit proposals.
 - Reference, description and grading:
 - Sand: Coarse grained, sharp sand with neutral pH.
 - Grit: 2 mm single size pea shingle.
 - Crushed materials: Not required.
 - Other aggregates or particles: Light expanded clay aggregate.
 - Recycled content: 10% (minimum) to BS EN ISO 14021.
- 360 SANITIZED AND STABILIZED COMPOSTED MATERIALS CERTIFIED TO PAS 100 FOR SITE MADE TOPSOIL
- Standard: In accordance with PAS 100.
 - Source: Submit proposals.
 - Product reference: Enrich Compost.
 - Horticultural parameters:
 - pH (1:5 water extract): 7.0-8.7.
 - Electrical conductivity (maximum, 1:5 water extract): 200 mS/m.
 - Moisture content (m/m of fresh weight): 35-55%.
 - Organic matter content (minimum): 25%.
 - Grading (air dried samples): 99% passing 25 mm screen, and 90% passing: 10 mm screen mesh aperture.
 - Carbon:Nitrogen ratio (maximum): 20:1.
 - Texture: Friable.
 - Objectionable odour: None.
 - Compost Certification Scheme certification: Required.
 - Declaration of analysis: Submit.
 - Additional analyses: Not required.
 - Samples: Supply 5 kg sample before ordering.

EXECUTION

- 610 TOPSOIL ANALYSIS
- Soil to be analysed: Imported topsoil.
 - Soil analyst: Submit proposals.
 - Samples: Collect in accordance with BS 3882.
 - Submit:
 - Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.
 - Additional analysis: Not required.
 - Report detailing soil analyst's recommendations.
- 620 IMPORTING TOPSOIL
- Give notice: Before stripping topsoil for transfer to site.
 - Notice period: 7 days.
- 625 SAMPLE LOADS FOR IMPORTED TOPSOIL
- Deliver to site a sample load: of 5 kg.
 - Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads.
 - Notice period: 7 days.
- 630 DOCUMENTATION FOR IMPORTED TOPSOIL FOR PLANTING BEDS
- Timing: Submit at handover.
 - Contents:
 - Full description of all soil components.
 - Record of source for all soil components.
 - Record drawings showing the location and depth of all soils by type and grade.
 - Declaration of analysis: in accordance with BS 3882, clause 6 and Table 1.
 - Number of copies: Three.
- 635 DOCUMENTATION FOR COMPOST AND COMPOSTED MATERIALS FOR COMPOST
- Timing: Submit at handover.
 - Contents:
 - Full description of all compost components.
 - Record of source for all compost components.
 - Analyst's report for each test carried out.
 - Declaration of compliance: in accordance with PAS 100 and BSI PD CR 13456.
 - Quality Compost Protocol certification: Not required.
 - Number of copies: Three.
- 640 DOCUMENTATION FOR PREPARATION MATERIALS FOR IMPORTED SOIL IMPROVERS
- Timing: Submit at handover.
 - Contents:
 - Full description of all components.
 - Record of source for all components.
 - Analyst's report for each test carried out.
 - Supplier's declaration of compliance with BSI PD CR 13456.
 - Number of copies: Three.
- 650 NOTICE
- Give notice before:
 - Setting out.
 - Spreading topsoil.
 - Applying herbicide.
 - Applying fertilizer.
 - Visiting site during maintenance period.
 - Period of notice: 2 weeks.
- 655 MECHANICAL TOOLS
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 660 GRADING SUBSOIL FOR
- GRASSED AREAS;
 - WILDFLOWER AREAS;
 - ORNAMENTAL PLANTING BEDS;
 - AMENITY PLANTING AREAS; and
 - WOODLAND PLANTING AREAS
 - Standard: In accordance with BS 8601.
 - General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
 - Areas of thicker topsoil: Excavate locally.
 - Avoid compaction.
 - Excess subsoil: Remove.
- 665 SUBSOIL SURFACE PREPARATION FOR
- GRASSED AREAS;
 - WILDFLOWER AREAS;
 - ORNAMENTAL PLANTING BEDS;
 - AMENITY PLANTING AREAS; and
 - WOODLAND PLANTING AREAS
 - Standard: In accordance with BS 3882.
 - General: Excavate and/ or place fill to required profiles and levels, as section D20.
 - Loosening:
 - When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth:
 - Light and noncohesive subsoils: 600 mm.
 - Stiff clay and cohesive subsoils: 600 mm.
 - Rock and chalk subgrades: Lightly scarify to promote free drainage.
 - Wet conditions: Do not loosen subsoils.
 - Stones: Immediately before spreading topsoil, remove stones larger than 50 mm.
 - Remove from site: Arisings, contaminants and debris and Builders rubble.
- 670 INSPECTING FORMATIONS
- Give notice: Before spreading topsoil for areas to receive landscape planting.
 - Notice period: 7 days.

- 675 PREPARATION OF UNDISTURBED TOPSOIL
- Standard: In accordance with BS 4428.
 - Grading and cultivation: To suit cultivation operations specified in Q30.
 - Hard ground: Break up thoroughly.
 - Clearing: Remove visible roots and large stones with a diameter greater than 50 mm.
 - Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
 - Fallow period (minimum): Two months.
 - Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.
- 680 SURPLUS TOPSOIL TO BE RETAINED
- Generally: Spread and level on site:
 - Locations: As directed by Landscape Architect.
 - Protected areas: Do not raise soil level within root spread of trees that are to be retained.
- 685 SURPLUS MATERIALS TO BE REMOVED
- Topsoil removal from site: Topsoil remaining after completion of all landscaping work.
 - Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- 690 TOPSOIL STORAGE HEAPS
- Location: Contractor's choice.
 - Height (maximum): 1.0 m.
 - Width (maximum): 2.0 m.
 - Formation: Loose tip and shape from the side only, without running machinery on the heap at any time.
 - Protection:
 - Do not place any other material on top of storage heaps.
 - Do not allow construction plant to pass over storage heaps.
 - Prevent compaction and contamination, by fencing and covering as appropriate.
- 700 GRADING OF TOPSOIL
- Topsoil condition: Reasonably dry and workable.
 - Contours: Smooth and flowing, with falls for adequate drainage.
 - Hollows and ridges: Not permitted.
 - Give notice: If required levels cannot be achieved by movement of existing soil.
- 705 HANDLING TOPSOIL
- Standard: In accordance with BS 3882.
 - Aggressive weeds: Give notice and obtain instructions before moving topsoil.
 - Plant: Select and use plant to minimize disturbance, trafficking and compaction.
 - Contamination: Do not mix topsoil with:
 - Subsoil, stone, hardcore, rubbish or material from demolition work.
 - Other grades of topsoil.
 - Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
 - Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit less 3%, to BS 1377-2.
- 710 SPREADING TOPSOIL ON GRASSED AREAS and WILDFLOWER AREAS
- Standard: In accordance with BS 3882.
 - Temporary roads/ surfacing: Remove before spreading topsoil.
 - Layers:
 - Depth (maximum): 150 mm.
 - Gently firm each layer before spreading the next.
 - Depth after firming and settlement: 200mm.
 - Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.
- 710A SPREADING TOPSOIL ON SHRUB & PERENNIAL PLANTING BEDS
- Standard: In accordance with BS 3882.
 - Temporary roads/ surfacing: Remove before spreading topsoil.
 - Layers:
 - Depth (maximum): 150 mm.
 - Gently firm each layer before spreading the next.
 - Depth after firming and settlement: 450mm.
 - Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.
- 710B SPREADING TOPSOIL ON TREE PITS
- Standard: In accordance with BS 3882.
 - Temporary roads/ surfacing: Remove before spreading topsoil.
 - Layers:
 - Depth (maximum): 150 mm.
 - Gently firm each layer before spreading the next.
 - Depth after firming and settlement: 1000mm.
 - Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.
- 715 LOOSE TIPPING OF TOPSOIL
- Standard: In accordance with BS 3882.
 - General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.
- 718 FINAL CULTIVATION FOR GRASS SEEDING & EXTERNAL PLANTING GENERALLY
- Compacted topsoil: Break up to full depth.
 - Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
 - Depth: 150 mm.
 - Particle size (maximum): 15 mm.
 - Timing: After grading and fertilizing, and within a few days before seeding.
 - Weather and ground conditions: Suitably dry.
 - Surface: Leave regular and even.
 - Levels: 25 mm above adjoining paving or kerbs.
 - Undesirable material brought to the surface:
 - Remove visible weeds.
 - Remove roots and large stones with any dimension exceeding 50 mm.

- 720 FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT
- In relation to adjoining paving, kerbs or hard surfaces: 25 mm above .
 - In relation to dpc of adjoining buildings: Not less than 150 mm below.
 - In relation to adjacent grass areas: 50 mm above.
 - Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
 - Sportsfields: To even levels and within the following permitted deviations:
 - From levels or gradients shown on drawings: ± 75 mm.
 - From line between boning rods 30 m apart: ± 25 mm.
 - Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
 - Adjoining soil areas: Marry in.
 - Thickness of turf or mulch: Included.
- 730 GREEN ROOF GROWING MEDIUM INSTALLATION
- Handling: Minimize.
 - Conditions: Handle in the driest condition possible. Do not handle or install when wet or frozen.
 - Layers:
 - Depth (maximum): 150 mm.
 - Sequence: Gently firm each layer before spreading the next.
- 810 APPLYING COMPOST TO IMPORTED OR SITE SOURCED TOPSOIL FOR EXTERNAL PLANTING
- Application rate for trees and shrubs: 50 mm thick.
 - Timing: Apply prior to cultivation.
 - Application rate for grass: 25 mm thick layer.
 - Timing: Apply prior to cultivation.
 - Application rate for planters: 50 mm thick layer.
 - Timing: Apply prior to cultivation.
 - Other requirements: Submit 5kg sample before ordering.
- 825 APPLYING FERTILIZER TO PROPOSED GRASS AREAS TO SEEDED AREAS EXCEPT WILDFLOWER MEADOWS
- Application: Before final cultivation and three to five days before seeding/ turfing.
 - Coverage:
 - Spread evenly, in transverse directions.
 - Rate: 70 g/m².
- 830 APPLYING TOP DRESSING TO GRASS SEEDING
- Rate: 2-4 kg/m².
 - Timing: Apply prior to cultivation.
- 845 APPLYING LOOSE MULCH FOR PLANTING BEDS AND TREE PITS IN SOFT LANDSCAPING
- Timing: Immediately after planting.
 - Preparation: Water soil thoroughly.
 - Coverage of mulch (minimum):
 - Planting beds (depth): 75 mm depth.
 - Trees: 75 litres per tree position, 75 mm depth.
 - Container planting: 75 mm depth.
 - Finished level of mulch: 30 mm below adjacent grassed or paved areas.

COMPLETION

- 910 APPLYING MAINTENANCE FERTILIZER TO GRASS SWARDS TO ALL GRASSED AREAS EXCEPT WILDFLOWER MEADOWS
- Duration: Carry out the following operations from completion of seeding/turfing until the end of the rectification period.
 - Time of year: During April and May.
 - Application: Evenly spread, carefully incorporating below mulch materials.
 - Rate: To manufacturer's recommendations.
- 920 APPLYING MULCH
- Timing: At end of the rectification period.
 - Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
 - Planting beds: Re-mulch.
 - Depth (minimum): 75 mm.
 - Trees: Remulch.
 - Depth (minimum): 75 mm.
 - Container planting: Remulch.
 - Depth (minimum): 75 mm.

Q30 Seeding/turfing

To be read with Preliminaries/General conditions.

GENERAL INFORMATION/REQUIREMENTS

- 115 SEEDED AND TURFED AREAS
- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
 - Appearance: A closely knit, continuous ground cover of even density, height and colour.
- 120 CLIMATIC CONDITIONS
- General: Carry out the work while soil and weather conditions are suitable.
- 145 WATERING
- Quantity: Wet full depth of topsoil.
 - Application: Even and without displacing seed, seedlings or soil.
 - Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing.
- 150 WATER RESTRICTIONS
- Timing: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.
- 160 NOTICE
- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Preparing seed bed.
 - Seeding or turfing.
 - Visiting site during maintenance period.
 - Period of notice: 1 week.
- 170 SETTING OUT
- Boundaries: Mark clearly.
 - Delineation: In straight lines or smoothly flowing curves as shown on drawings.

PREPARATION

- 210 HERBICIDE FOR LAWNS
- Type: Suitable for suppressing perennial weeds.
 - Timing: Allow fallow period before cultivation.
 - Duration: As manufacturer's recommendation.
- 250 SOIL REQUIREMENTS
- Type:
 - Seeded areas: Soil for grass swards, as section Q28.
 - Turfed areas: Soil for grass swards, as section Q28 .
 - Reinforced grass areas: As section Q28.

- 290 PREPARATION FOR HYDRAULIC SEEDING
- Clearance: Remove rubbish, and stones with any dimension exceeding: 50 mm.
 - Herbicide:
 - General weeds: Selective contact herbicide.
 - Pernicious weeds: Selective hormone herbicide.
 - Grading: Smooth, flowing levels.
 - Cultivation: Ensure grass roots can penetrate substrate.
 - Finished surface: Ribbed or rough textured.
 - Reinforcement: As specialist contractor's recommendation.
 - Fixing: As specialist contractor's recommendation.

SEEDING

- 311 GRASS SEED FOR LAWNS
- Supplier: Submit proposals.
 - Mixture reference: 'Utility/Play' mix by Coburns.
 - Application rate: 34-50 g/m².
- 319 QUALITY OF SEED FOR ALL GRASSED AREAS
- Freshness: Produced for the current growing season.
 - Certification: Blue label certified varieties.
 - Standard: EC purity and germination regulations.
 - Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
 - Samples of mixtures: Submit when requested.
- 322A QUALITY OF WILDFLOWER SEED FOR WILDFLOWER MEADOWS
- Standard: Seed to be sourced from a Department of Agriculture, Food and the Marine registered seed grower and harvester.
 - Germination testing: Not required.
 - Freshness of seed: Produced for the current growing season.
 - Samples: Submit when requested.
- 330 SOWING
- General: Establish good seed contact with the root zone.
 - Method: Manually broadcast, raked and rolled.
 - Distribution: As instructed by seed supplier.
- 335 GRASS SOWING SEASON
- Grass seed generally: April to October.
- 336 WILDFLOWER SOWING SEASON
- Wildflower seed generally: March to May or August to October.
- 340 PRE-EMERGENT HERBICIDE FOR LAWNS
- Standard: Pesticide Safety Directorate approved.
 - Application rate: In accordance with manufacturer's written recommendation.
 - Timing: Immediately after sowing.

350 TURF EDGING TO SEEDED AREAS ADJACENT TO PAVEMENT

- Standard: To BS 3969, with no perennial ryegrass.
 - Seed mix: Similar to seeded area.
- Timing: Before sowing.
- Preparation: Rake back a 750 mm wide margin around prepared seed beds.
 - Level of seed bed: Married in with turf.
- Placement: Single row laid end to end and trimmed to a line.
- Watering: On completion.

352 EDGES TO SEEDED AREAS ADJACENT TO PLANTING BEDS AND TREE PITS

- Timing: After seeded areas are well established.
- Edges: Clean straight lines or smooth curves.
 - Mulch and soil: Draw back to permit edging.
- Arisings: Remove.
- Completion: Respread soil and mulch.

TURFING

405 CULTIVATED TURF FOR LAWNS

- Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
- Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent.
- Properties of soil used for turf production: Peat-free, well drained sandy loam.

420 DELIVERY AND STORAGE

- Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
- Frosty weather or waterlogged ground: Do not lift turf.
- Delivery: Arrange to avoid need for excessive stacking.
- Stacking height (maximum): 1 m.
- Dried out or deteriorated turf: Do not use.
- Certification:
 - Standard: To BS 3969.
 - Declaration: Species mix, including percentage of specified species.

423 INSPECTION OF TURF FOR LAWNS

- Sampling method: To BS 3969.
- Give notice: Before lifting turf.
 - Period of notice: 1 week.

430 TURFING GENERALLY

- Time of year: To be agreed.
- Timing of laying:
 - Spring and summer: Within 18 hours of delivery.
 - Autumn and winter: Within 24 hours of delivery.
- Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
- Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
- Jointing: Laid with broken joints, well butted up. Do not stretch turf.
- Edges: Whole turfs, trimmed to a true line.
- Adjusting levels: Remove high spots and fill hollows with fine soil.
- Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
- Dressing, brushed well in to completely fill all joints: Mulching and top dressing system, as section Q28.
- Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

440 TURFING ON BANKS EXCEEDING 30° SLOPE

- Turf configuration: Diagonal or horizontal.
- Securing turfs:
 - Fixings: Pointed softwood pegs, 200 mm long x 25 mm square.
 - Frequency of fixings: Each turf.
- Removal of fixings: Not required.

450 TRIMMING TURF

- Newly planted tree pits: Neatly cut away around individual trees.
 - Diameter: 1200 mm.
 - Tree pit surface: Respread existing mulch.

PROTECTING/CUTTING

530 FIRST CUT OF GRASSED AREAS

- Timing: When grass is reasonably dry.
 - Height of initial growth: 75 mm.
- Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove
- Height of first cut: 50 mm.
- Mower type: Contractor's choice.
- Arisings: Remove from site.

550 AREAS NOT TO BE CUT

- Do not cut:
 - Meadow grass containing wildflowers.

- 565 **TIMBER/ PLASTICS EDGINGS**
- Material: Pressure treated softwood board.
 - Size: 150 mm x 38 mm.
 - Fixings: Nailed.
 - Pegs: 50 mm x 50 mm x 450 mm long.
 - Centres: 1200 mm.
 - Installation height: Flush.
 - Curved boards: Closely spaced vertical grooves cut in the back to achieve smooth flowing lines.
 - Preservative treatment: As section Z12 and Wood Protection Association commodity specification C4.
 - Type: To provide a 15 year service life.

- 590 **CLEANLINESS**
- Soil and arisings: Remove from hard surfaces.
 - General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

MAINTENANCE

- 610 **FAILURES OF SEEDING/TURFING**
- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
 - Defective materials or workmanship: Areas that have failed to thrive.
 - Exclusions: Theft or malicious damage.
 - Method of making good: Recultivation and reseeding/ returfing.
 - Timing of making good: The next suitable planting season.

- 620 **MAINTAINING LAWNS**
- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
 - Maximum height of growth at any time: 100 mm.
 - Preparation: Before each cut remove all litter and debris.
 - Cutting: As and when necessary to a height of 50 mm.
 - Arisings: Remove.
 - Bulb planting areas: Do not cut until bulb foliage has died down.
 - Trimming: All edges.
 - Arisings: Remove.
 - Weed control: Substantially free of broad leaved weeds.
 - Method: Application of a suitable selective herbicide.
 - Stones brought to the surface: Remove regularly.
 - Size: Exceeding 25 mm in any dimension.
 - Areas of settlement: Make good.
 - Watering: As clause Q30/145.

- 650 **MAINTAINING GRASSED AREAS WITH PERENNIAL WILD FLOWERS**
- Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
 - Preparation: Before each cut remove all litter and debris.
 - Height and frequency of cut in first growing season:
 - Time of first cut: June/ July.
 - Height of first cut: 100 mm.
 - Frequency of subsequent cutting (minimum): Every 6-8 weeks until autumn.
 - Height of growth permitted (maximum): 100 mm.
 - Height and frequency of cut in second growing season:
 - Time of cut: October, March and August.
 - Height of cut: 100 mm.
 - Trimming: All edges.
 - Arisings: Remove.
 - Watering: When instructed.

Q31 External planting

To be read with Preliminaries/General conditions.

GENERAL INFORMATION/ REQUIREMENTS

- 112 **SITE CLEARANCE GENERALLY**
- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
 - Stones: Remove those with any dimension exceeding 50 mm.
 - Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
 - Vegetation: Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings.
 - Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
 - Additional requirements: none.
- 118 **SOIL CONDITIONS**
- Soil for cultivating and planting: Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
 - Frozen or snow covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.
- 120 **CLIMATIC CONDITIONS**
- General: Carry out the work while soil and weather conditions are suitable.
 - Strong winds: Do not plant.
- 125 **TIMES OF YEAR FOR PLANTING**
- Deciduous trees and shrubs: Late October to late March.
 - Conifers and evergreens: September/ October or April/ May.
 - Herbaceous plants (including marginal): September/ October or March/ April.
 - Container grown plants: At any time if ground and weather conditions are favourable.
 - Watering and weed control: Provide as necessary.
 - Dried bulbs, corms and tubers: September/ October.
 - Colchicum (crocus): July/ August.
 - Green bulbs: After flowering in spring.
 - Wildflower plugs: Late August to mid November or March/ April.
 - Aquatic plants: May/ June or September/ October.
- 130 **MECHANICAL TOOLS**
- Restrictions: Do not use within 100 mm of tree and plant stems.
- 146 **WATERING**
- Quantity: Wet full depth of topsoil.
 - Application: Even and without damaging or displacing plants or soil.
 - Frequency: As Soft Landscape Pricing Schedule.
- 150 **WATER RESTRICTIONS**
- General: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.
- 160 **NOTICE**
- Give notice before:
 - Setting out.
 - Applying herbicide.
 - Applying fertilizer.
 - Delivery of plants/ trees.
 - Planting shrubs.
 - Planting trees into previously dug pits.
 - Watering.
 - Visiting site during maintenance period.
 - Period of notice: Two weeks.
- 170 **SOIL REQUIREMENTS**
- Type
 - Planted beds: Planting bed soil system, as section Q28.
 - Tree pits, shrub pits and other backfilling: Plant pit backfilling soil system, as section Q28.
 - External container planting: Container planting growing media system, as section Q28.
 - Mulch applied after planting: Mulching and top dressing system, as section Q28.
- 200 **PLANTS/ TREES - GENERAL**
- Condition: Materially undamaged, sturdy, healthy and vigorous.
 - Appearance: Of good shape and without elongated shoots.
 - Hardiness: Grown in a suitable environment and hardened off.
 - Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - Budded or grafted plants: Bottom worked.
 - Root system and condition: Balanced with branch system.
 - Standard: The relevant parts of BS 3936.
 - Species: True to name.
 - Origin/ Provenance: Irish Grown.
Definition: Origin and Provenance have the meaning given in the National Plant Specification.
- 216 **PLANTS/ TREES - SPECIFICATION CRITERIA**
- Name, forms, dimensions and other criteria: To the relevant part of BS 3936.
- 225 **BULBS/ CORMS/ TUBERS**
- Condition: Firm, entire, not dried out or shrivelled.
 - Health: Free from pests, diseases and fungus.
 - Handling: Remove from packaging immediately.
 - Storage: Permitted only when necessary.
 - Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
 - Duration: Minimum period.
 - Temperature: 18-21°C.
- 235 **CONTAINER GROWN PLANTS/ TREES**
- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
 - Plants: Centred in containers, firmed and well watered.
 - Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
 - Hardiness: Grown in the open for at least two months before being supplied.
 - Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

- 246 LABELLING AND INFORMATION
- Standard: To BS 3936.
- 255 PLANTS/ TREES RESERVED AT SUPPLIER'S PREMISES
- Types/ Species: As plant schedule.
 - Predelivery inspection: Give notice.
 - Labelling: Identify inspected plants/ trees as reserved for use on this project.
- 260 PLANT/ TREE SUBSTITUTION
- Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering: Submit alternatives, stating:
 - Price.
 - Difference from specified plants/ trees.
 - Approval: Obtain before making any substitution.
- 265 PLANT HANDLING, STORAGE TRANSPORT AND PLANTING
- Standard: To CPSE 'Handling and establishing landscape plants'.
 - Frost: Protect plants from frost.
 - Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
 - Plant packaging: Black polyethylene bags.
 - Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.
 - Planting: Upright or well balanced with best side to front.
- 280 TREATMENT OF TREE WOUNDS
- Cutting: Keep wounds as small as possible.
 - Cut cleanly back to sound wood using sharp, clean tools.
 - Leave branch collars. Do not cut flush with stem or trunk.
 - Set cuts so that water will not collect on cut area.
 - Fungicide/ Sealant: Do not apply unless instructed.
- 285 PROTECTION OF EXISTING GRASS
- General: Protect areas affected by planting operations using boards/ tarpaulins.
 - Excavated or imported material: Do not place directly on grass.
 - Duration: Minimum period.
- 290 SURPLUS MATERIAL
- Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings: Remove.
- PLANT CONTAINERS**
- PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS**
- 300 HERBICIDE TO CLEAR EXISTING VEGETATION
- Locations: All planting areas.
 - Type: Suitable for suppressing perennial weeds.
 - Timing: Allow fallow period before cultivation.
 - Duration (minimum): As manufacturer's recommendation.
- 512 TREE PIT IRRIGATION AND VENTILATION ACCESSORIES
- Locations: As drawing 18KE01-DR-670.
 - Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
 - Type: Perforated plastics irrigation pipe with inlet.
 - Pipe diameter: 60 mm.
 - Ring diameter: 900 mm.
 - Inlet: Black plastics, with cap or cast aluminium where indicated.
 - Installation:
 - Pipe: Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
 - Top cap of inlet: Protruding slightly above finished surround level.
 - Backfill material: Carefully compact in layers.
- 535 TREE STAKES
- Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - Preservative treatment: Use pressure treated timber stakes.
 - Stake size (minimum): 75 mm diameter.
 - Stake length (minimum): 1800 mm.
- 546 SINGLE VERTICAL STAKING FOR Trees as indicated drawing 18KE01-DR-670
- Staking:
 - Position: Close to tree position on windward side.
 - Driving: Vertically at least 300 mm into bottom of pit before planting.
 - Backfilling: Consolidate material around stake.
 - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
 - Height of stakes: Cut off to approximately 600 mm above ground level.
 - Ties: Product Reference - SRC Tree Strap 38mm.
 - Number of ties: One.
 - Tying: Secure tree firmly but not rigidly to stake with ties. Prevent tree from touching stake using spacer blocks or cushions if required.
 - Position: Top tie within 25 mm of top of stake and additional ties equally spaced along the stake.
 - Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.

- 550 DOUBLE STAKING FOR Trees as indicated drawing 18KE01-DR-670
- Staking:
 - Position: Either side of tree position and perpendicular to wind direction.
 - Driving: Vertically at least 300 mm into bottom of pit before planting.
 - Backfilling: Consolidate material around stake.
 - Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
 - Height of stakes: Cut off to approximately 600 mm above ground level.
 - Horizontal bracing: Timber cross bar, 75 mm x 38 mm x 900 mm.
 - Fixing: Firmly fix using nails on windward side of tree and as close as possible to the stem without making contact with the bark. Position cross bar horizontally and 25 mm from top of stakes.
 - Ties: Product Reference - SRC Tree Strap 38mm available from www.landscapedepot.ie.
 - Tying: Secure tree firmly but not rigidly to cross bar. Prevent tree from touching cross bar using spacer blocks - product reference: SRC Cushion 38mm available from www.landscapedepot.ie.
 - Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
 - Nails for fixing cross bars: To BS 1202-1, galvanized round wire, minimum 75 mm long and 3.75 mm gauge.

576 TREE PIT SURFACING - LOOSE FILL

- Surfacing material: Mulch, as section Q28.
- Area: Full extent of tree pit surface.
- Depth: 75 mm.
- Watering: Water soil thoroughly before laying.
- Installation: Ensure the base of the tree stem is kept free from loose filled material.

WOODLAND/ MATRIX/ BUFFER ZONE PLANTING

600 WOODLAND WORK GENERALLY

- Services: Check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding.
- Safety: Comply with Arboriculture and Forestry Advisory Group Safety leaflets.

625 CULTIVATION

- General: Rotary cultivate to full depth of topsoil.
- Consolidation: Leave for two months.
- Soil within root spread of trees to be retained: Do not plough or cultivate.

680 SETTING OUT

- Planting density: As drawing 18KE01-DR-671.
- Layout: Random groups of no less than 3 or more than 7 of the same species, ensuring that no three plants are aligned in any one direction.

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

710 MAINTENANCE

- Duration: Carry out the operations in the following clauses from completion of planting until the end of the rectification period.
- Frequency of maintenance visits: In accordance with the agreed maintenance schedule.

720 FAILURES OF PLANTING

- Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
 - Exclusions: Theft or malicious damage after completion.
 - Rectification: Replace with equivalent plants/ trees/ shrubs.
- Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- Timing of making good: During the next suitable planting season.

740 CLEANLINESS

- Soil and arisings: Remove from hard surfaces and grassed areas.
- General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

750 PLANTING MAINTENANCE GENERALLY

- Weed control: Maintain weed free area around each tree and shrub.
 - Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - Keep planting beds clear of weeds: By maintaining full thickness of mulch.
- Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
- Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
- Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
- Trees: Spray crown when in leaf during warm weather.
 - Timing: After dusk.
- Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - Broken or missing items: Replace.
 - Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
 - Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - Ties: Adjust to accommodate growth and prevent constriction or abrasion.
 - Damage to bark: Cut back neatly with sharp knife. Prevent further damage.
 - Frequency of checks: In accordance with the agreed maintenance schedule.
- Watering: In accordance with the agreed maintenance schedule.

760 PLANTING MAINTENANCE - PRUNING

- General: Prune to promote healthy growth and natural shape.
 - Dead, dying, diseased wood and suckers: Remove.
 - Timing: In accordance with the agreed maintenance schedule.
 - Trees: Favour a single central leading shoot.
- Arisings: Remove.

780 MAINTENANCE INSTRUCTIONS

- General: Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

790 FINAL MULCHING

- Timing: At end of the maintenance period.
- Watering: Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- Planting beds: Remulch.
Depth (minimum): 75 mm.
- Trees: Remulch.
Depth (minimum): 75 mm.

Q35 Landscape maintenance

To be read with Preliminaries/ General conditions.

GENERALLY

105 MAINTENANCE OBJECTIVES

- Location: All planting beds.
 - Duration: 18 months.
- Aims: Enhanced landscape quality and Improved landscape visual amenity.
- Restrictions: Refer to the agreed maintenance schedule.
- Results: Refer to the agreed maintenance schedule.

110 NOTICE

- Give notice before:
 - Application of herbicide.
 - Application of fertilizer.
 - Watering.
 - Each site maintenance visit.
- Period of notice: 2 weeks.

130 REINSTATEMENT

- Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinststate to original condition.

140 CONTROL OF MAMMALIAN PESTS

- Specialist firms: Submit proposals.
 - Method: Submit proposals.

152 PERFORMANCE CRITERIA FOR CONTROL OF INVASIVE PLANT SPECIES

- Specialist firms: Submit proposals.
- Species: Japanese knotweed.
- Location: Whole site.
- Requirement: Less than 10% cover.
 - Timing: As detailed in Local Biodiversity Action Plan.

155 WATERING

- Supply: Potable mains water or rainwater from storage tank.
- Quantity: Wet full depth of topsoil .
- Application: Do not damage or loosen plants.
- Compacted soil: Loosen or scoop out, to direct water to rootzone.
- Frequency: As necessary for the continued thriving of all planting.

160 WATER RESTRICTIONS

- General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

- 170 DISPOSAL OF ARISING
- General: Unless specified otherwise, dispose of arisings as follows:
 - Biodegradable arisings: Remove to recycling facility.
 - Grass cuttings: Remove to recycling facility.
 - Tree roots and stumps: Remove from site.
 - Shrub and tree prunings: Remove to recycling facility.
 - Litter and nonbiodegradable arisings: Remove from site.
- 180 CHIPPING OR SHREDDING
- General: Not permitted on site.
- 190 LITTER
- Extraneous rubbish not arising from the contract work: Collect and remove from site.
- 195 PROTECTION OF EXISTING GRASS
- General: Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.
- 197 CLEANLINESS
- Soil and arisings: Remove from hard surfaces.
 - General: Leave the works in a clean, tidy condition at completion and after any maintenance operations.
- GRASSED AREAS**
- 210 MAINTENANCE OF GRASSED AREAS
- General: Maintain turf in a manner appropriate to the intended use.
 - Soil and grass:
 - Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
 - Waterlogging and compaction: Prevent.
 - Damage: Repair trampling, abrasion or scalping.
 - Ornamental lawns: Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
 - Edges: Neat and well defined, in clean straight lines or smooth flowing curves.
 - Litter and fallen leaves: Remove regularly to maintain a neat appearance.
- 220 GRASS CUTTING GENERALLY
- Before mowing: Remove litter, rubbish and debris.
 - Finish: Neat and even, without surface rutting, compaction or damage to grass.
 - Edges: Leave neat and well defined. Neatly trim around obstructions.
 - Adjoining hard areas: Sweep clear and remove arisings.
 - Drought or wet conditions: Obtain instructions.
- 226 TREE STEMS
- Precautions: Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
 - Operations close to stems: Complete using hand tools.
- 235 BULBS AND CORMS IN GRASSED AREAS
- Before flowering: Do not cut.
 - Interval between end of flowering and start of grass cutting (minimum): 6 weeks.
- 250 LEAF REMOVAL
- Operations: Collect fallen leaves.
 - Special requirements: None.
 - Disposal: Remove from site for recycling.
- 255 FIRST CUT OF ALL GRASSED AREAS
- Height of initial growth: 75 mm.
 - Preparation:
 - Debris and litter: Remove.
 - Stones and earth clods larger than 25 mm in any dimension: Remove
 - Height of first cut: 50 mm.
 - Mower type: Contractor's choice.
 - Arisings: Remove.
- 270 MOWING ROUGH GRASSED AREAS
- Grass height: Maintain between 50 and 75 mm.
 - Arisings: Spread evenly over cut areas.
- 272 MAINTAINING GRASSED AREAS WITH PERENNIAL WILD FLOWERS
- Preparation: Before each cut remove litter and debris.
 - Height and frequency of cut in first growing season:
 - Time of first cut: March/ April.
 - Height of first cut: 75 mm .
 - Frequency of subsequent cutting (minimum): Every 6–8 weeks until autumn.
 - Height of growth permitted (maximum): 150 mm.
 - Height and frequency of cut in second growing season:
 - Time of cut: October, March and August.
 - Height of cut: 75 mm.
 - Trimming: All edges.
 - Arisings: Remove.
 - Watering: As schedule and when instructed.
- 275 CUTTING SUMMER FLOWERING WILD FLOWER MEADOWS
- Times of year/ Frequency of cutting: July and September.
 - Height of cut: 75 mm.
 - Arisings: Leave for 2–3 days after cutting then remove.
- 285 TOP DRESSING
- Location: All lawns.
 - Timing: Following scarification and aeration.
 - Material: Compost/ sand/ loam mix.
 - Supplier: Submit proposals.
 - Product reference: '80/20 Fine Turf Top Dressing' by Pitchcare Ireland.
 - Declaration of analysis: Submit.
 - Additional analyses: Not required.
 - Samples: Supply 5 kg sample before ordering.
 - Application rate: 2-4 kg/m².
- 295 SPIKING
- Location: All lawns where waterlogging occurs, to be used as an initial remediation measure. Where problems persist see clause 307.
 - Timing: As necessary to relieve compaction and waterlogging.
 - Operations: Aerate the soil and improve surface water penetration.
 - Depth (minimum): 100 mm into soil.

- 300 SCARIFYING
- Location: All lawns.
 - Timing: October or November, before top dressing.
 - Operations: Relieve thatch conditions and remove dead grass.
 - Depth (maximum): 25 mm into soil.
 - Arisings: Remove.
- 305 HARROWING
- Location: All lawns.
 - Timing: October or November, after top dressing.
 - Operations: Aerate soil and remove worm casts.
 - Type of harrow: Chain harrow or drag mat.
- 307 HOLLOW TINING
- Location: Where drainage problems persist on recreational lawn areas.
 - Timing: As necessary to relieve compaction.
 - Depth: 100 mm.
- 310 RE-FORMING GRASS EDGES
- Location: Where damage occurs.
 - Edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.
- 320 LEVELLING HOLLOW AND BUMPS IN TURF
- Standard: To BS 7370-3, clauses 12.4 and 12.5.
- 325 RELIEVING SURFACE COMPACTION IN TURF
- Standard: To BS 7370-3.
 - Method: Spiking.
 - Top dressing: Medium to fine sand.
 - Depth: 2-3 mm.
- 330 SELECTIVE HERBICIDE
- Location: All lawns.
 - Herbicide: Suitable for suppressing perennial weeds.
 - Areas not to be sprayed: Bulb and corm planted areas when in leaf.
- 345 CONTROL OF JAPANESE KNOTWEED
- Operations: Spot treat in June and September during suitable weather conditions and when plants are growing vigorously.
 - Herbicide: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.
 - Application: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.
 - Arisings: In accordance with the Environment Agency 'Managing Japanese knotweed on development sites. The knotweed code of practice'.
- 350 FERTILIZER - SPRING APPLICATION
- Type: Organic.
 - Application rate: 60 g/m².
- 375 PEST CONTROL
- Location: Ornamental lawns.
 - Treatment: Fungicide.
 - Manufacturer: Submit proposals.
 - Product reference: Submit proposals.
 - Timing: As manufacturer's recommendation.
- 381 REINSTATEMENT OF WORN OR DAMAGED LAWNS
- Worn or damaged areas: Make good by returfing or reseeding:
 - Returfing standard: To BS 7370-3, Clause 12.2.
 - Reseeding standard: To BS 7370-3, Clause 12.6.
 - Turf or seed: To match existing in appearance and quality.
 - Protection and watering: Provide as necessary to promote successful germination and/ or establishment.
- FLOWER BEDS/ SEASONAL BEDDINGS**
- 460 BEDS OF PERENNIALS OR PERENNIALS AND ANNUALS
- Plant supports: Stake and tie plants using bamboo canes and flower canes where required.
 - Length: To suit plant height.
 - Maintain throughout the growing season.
 - Gaps in planting: Refill by replanting.
 - Watering:
 - New plants: Before and after planting out.
 - Ongoing: As necessary for the continued thriving of all planting.
 - Operations at end of growing season:
 - Trim: Older flowering stems of herbaceous perennials.
 - Remove: Redundant plant supports, litter, debris and arisings.
 - Cultivate: Fork over the soil, taking care not to cause undue disturbance to plants.
 - Top dress: Apply fertilizer at a rate of 60 g/m².
- 470 FLOWER BEDS GENERALLY
- Operations:
 - Remove: Dead flower heads, fallen leaves, litter and debris.
 - Weeds: Thoroughly hand weed.
 - Cultivate: Lightly hoe.
 - Trim: Clip grass edges.
 - Fungicide: Not required.
 - Insecticide: Not required.
- SHRUBS/TREES/HEDGES**
- 500 ESTABLISHMENT OF NEW PLANTING
- Duration: 18 months.
 - Weed control:
 - Method: Keep planting beds clear of weeds by maintaining full thickness of mulch.
 - Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
 - Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
 - Watering: In accordance with the agreed maintenance schedule.

- 510 TREE STAKES AND TIES
- Inspection/ Maintenance times: As scheduled and immediately after strong winds.
 - Stakes:
 - Replace loose, broken or decayed stakes to original specification.
 - If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
 - Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
 - Where chafing has occurred, reposition or replace ties to prevent further chafing.
 - Removal of stakes and ties: When instructed.
 - Fill stake holes with lightly compacted soil.
- 515 TREE GUY WIRES
- Inspection/ Maintenance times: Immediately after strong winds.
 - Operations:
 - Replace or resecure loose or missing guy wires.
 - Adjust to suit stem growth and to provide correct and uniform tension.
 - Removal: When instructed.
- 520 REFIRMING OF TREES AND SHRUBS
- Timing: After strong winds, frost heave and other disturbances.
 - Refirming: Tread around the base until firmly bedded.
 - Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.
- 535 TREE GRILLES
- Operations: Lift grilles, remove weeds, adjust levels as necessary and lightly compact. Refit grilles, refill interstices and lightly compact to correct level.
 - - Material for making up levels and refilling: Horticultural grit.
- 537 NESTING WILD BIRDS
- Survey: Before starting hedge or tree work during the period of February to August (inclusive), carry out a survey by a qualified ecologist and submit report.
 - Accidental disturbance: Report immediately.
- 540 PRUNING GENERALLY
- Pruning: In accordance with good horticultural and arboricultural practice.
 - Removing branches: Do not damage or tear the stem or bark.
 - Wounds: Keep as small as possible and cut cleanly back to sound wood.
 - Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
 - Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
 - Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
 - Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
 - Disease or infection: Give notice if detected.
 - Growth retardants, fungicide or pruning sealant: Do not use unless instructed.
- 545 PRUNING OF EXCESSIVE OVERHANG
- Timing: As instructed.
 - Operations: Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
 - Special requirements: None.
- 550 PRUNING OF EXCESSIVE HEIGHT
- Timing: As instructed.
 - Operations: Remove excessive height As instructed.
- 555 PRUNING TREES AND SHRUBS
- Standard: To BS 7370-4.
 - Special requirements: Growth retardants not permitted.
- 570 FORMATIVE PRUNING OF YOUNG TREES
- Standard: Type and timing of pruning operations to suit the plant species.
 - Time of year: Do not prune during the late winter/ early spring sap flow period.
 - Young trees up to 4 m high:
 - Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader.
 - Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
 - Whips or feathered trees: Do not prune.
 - Operatives: Approved specialist contractor.
- 575 PRUNING ORNAMENTAL SHRUBS
- General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
 - Suckers: Remove by cutting back level with the source stem or root.
- 580 PRUNING FLOWERING SPECIES OF SHRUBS AND ROSES
- Time of year:
 - Winter flowering shrubs: Spring.
 - Shrubs flowering between March and July: Immediately after the flowering period.
 - Shrubs flowering between July and October: Back to old wood in winter.
 - Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.
- 600 TRIMMING RAPIDLY ESTABLISHING HEDGES
- General: Allow to reach planned height as rapidly as possible.
 - Form: Trim back lateral branches moderately.
- 605 TRIMMING SLOWLY ESTABLISHING HEDGES
- Operations:
 - Timing: Cut back hard in June and September to encourage bushy growth down to ground level.
 - Form: Allow to reach planned dimensions only by gradual degrees, depending on growth rate and habit.

- 610 TRIMMING TAPERING ESTABLISHED HEDGES
- Time of year: Trim once in July or August.
 - Operations:
 - Form: Trim carefully and neatly to regular line and shape, with the width at the top less than that at the base.
 - Trim: Remove current growth rather than old wood.
 - Tools/ Cutting: Suitable mechanical cutters.
- 611 TRIMMING NONTAPERING ESTABLISHED HEDGES
- Time of year: Trim once in July or August.
 - Operations:
 - Form: Trim carefully and neatly to regular line and shape with vertical sides.
 - Trim: Remove current growth rather than old wood.
 - Tools/ Cutting: Suitable mechanical cutters.
- 620 REMOVAL OF DEAD PLANT MATERIAL
- Operations: At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.
- 625 CLIMBING PLANTS
- Pruning: Remove excess growth, to ensure that signs, light fittings, doors and windows are kept clear at all times.
 - Insecure growth: Attach to supporting wires or structures using Stainless steel wire.
 - Supporting structures: Check and repair as necessary.
- 635 REINSTATEMENT OF SHRUB/ HERBACEOUS AREAS
- Dead and damaged plants: Remove.
 - Mulch/ matting materials:
 - Carefully move to one side and dig over the soil, leaving it fit for replanting.
 - Do not disturb roots of adjacent plants.
 - Replacement plants:
 - Use pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
 - Additional requirements: None.
 - Dressing: Slow release fertilizer:
 - Type: Organic.
 - Application rate: As manufacturer's recommendations.
- 645 WEED CONTROL GENERALLY
- Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high.
 - Adjacent plants, trees and grass: Do not damage.
- 650 HAND WEEDING
- General: Remove weeds entirely, including roots.
 - Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.
 - Completion: Rake area to a neat, clean condition.
 - Mulch: Reinstate to original depth.
- 655 WEED CUTTING BY HAND OR MACHINE
- Undesirable grass, brambles and herbaceous growth: Cut down cleanly to a maximum height of 25 mm.
 - Herbicides: Remove arisings before application.
- 657 HERBICIDE TO KILL REGROWTH
- Type: Suitable foliar acting herbicide to kill regrowth.
 - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
- 665 WEED CONTROL WITH WINTER HERBICIDE
- Type: Suitable residual soil acting herbicide.
 - Time of year: Unless otherwise agreed, complete before end of March.
 - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
- 670 WEED CONTROL WITH SUMMER HERBICIDE
- Type: Suitable foliar acting herbicide.
 - Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
- 680 SOIL AERATION
- Compacted soil surfaces:
 - Prick up: To aerate the soil of root areas and break surface crust.
 - Size of lumps: Reduce to crumb and level off.
 - Damage: Do not damage plants and their roots.
- 685A SOIL LEVEL ADJUSTMENT
- Level of soil/mulch at edges of beds: Reduce to 25 mm below adjacent grass or hard surface.
 - Arisings (if any): Spread evenly over the bed.
- 690 MAINTENANCE OF LOOSE MULCH
- Thickness (minimum): 75 mm.
 - Top up: Twice per year.
 - Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
 - Weeding: Remove weeds growing on or in mulch by hand weeding.
- 700 SNOW REMOVAL FROM SHRUBS/ TREES
- Standard: To BS 7370-4.
 - Plants subject to snow removal: As instructed.
 - Timing: Within 24 hours of snowfall.
- 705 WINTER LEAF REMOVAL
- Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.
 - Arisings: Remove to recycling facility.
- TREE WORK**
- 810 TREE WORK GENERALLY
- Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
 - Protection: Avoid damage to neighbouring trees, plants and property.
 - Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
 - Removing branches: Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
 - Appearance: Leave trees with a well balanced natural appearance.
 - Chain saw work: Operatives must hold a Certificate of Competence.
 - Tree work: To be carried out by an approved member of the Arboricultural Association.

- 815 ADDITIONAL WORK
- Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.
- 820 PREVENTION OF WOUND BLEEDING
- Standard: To BS 3998.
- 825 PREVENTION OF DISEASE TRANSMISSION
- Standard: To BS 3998.
- 830 CLEANING OUT AND DEADWOODING
- Remove:
 - Dead, dying, or diseased wood, broken branches and stubs.
 - Fungal growths and fruiting bodies.
 - Rubbish, wind blown or accumulated in branch forks.
 - Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
 - Other unwanted objects, e.g. tree houses, swings.
 - Climbing plants Ivy where instructed.
- 835 CUTTING AND PRUNING GENERALLY
- Tools: Appropriate, well maintained and sharp.
 - Final pruning cuts:
 - Chainsaws: Do not use on branches of less than 50 mm diameter.
 - Hand saws: Form a smooth cut surface.
 - Anvil type secateurs: Do not use.
 - Removing branches: Do not damage or tear the stem.
 - Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
 - Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible. Large branches: Remove only with prior approval.
 - Remove in small sections and lower to ground with ropes and slings.
 - Dead branches and stubs: When removing, do not cut into live wood.
 - Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
 - Disease or fungus: Give notice if detected. Do not apply fungicide or sealant unless instructed.
- 840 CROWN REDUCTION/ SHAPING
- General: Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.
 - Operations: Reduce crown by 15%.
- 845 CROWN LIFTING
- Clearances: Remove branch systems to give clearance.
 - Height: 2.5 m above footpaths.
 - Removing branches: Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.
- 850 CROWN THINNING
- Removing branches: Remove inward growing, crossing, rubbing, dead and damaged branches.
 - Thinning: Selectively remove secondary and small live branch growth evenly throughout the crown.
 - Quantity: 20 %.
 - Cutting: Make no cuts of more than 50 mm diameter.
 - Branches: Cut back to lateral or sublateral buds or branches without leaving stumps.
 - Appearance: Leave a uniform and well balanced structure of branches and foliage.
- 855 CUTTING TREE ROOTS
- Excavating: Use hand tools only.
 - Protected area: Do not cut roots within an area which is the larger of:
 - The branch spread of the tree.
 - An area with a radius of half the tree's height, measured from the trunk.
 - Outside protected area: Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
 - Cutting:
 - Cutting: Make clean smooth cuts with a hand saw.
 - Wounds: Minimize. Avoid ragged edges.
 - Finishing: Pare cut surfaces smooth with a sharp knife.
 - Backfilling:
 - Protection: Cover cut roots with clean sharp sand.
 - Material: Backfill with original topsoil.
- 860 REMOVING TREES, SHRUBS AND HEDGES
- Standards: To BS 3998 and Health & Safety Executive (HSE)/ Arboricultural and Forestry Advisory Group Safety Leaflets.
 - Existing services: Check for below and above ground services. Give notice if they may be affected.
 - Shrubs and smaller trees: Cut down and grub up roots.
 - Tree stumps:
 - Treatment: Remove mechanically to a minimum depth of 300 mm below ground level.
 - Removal by winching: Give notice. Do not use other trees as supports or anchors.
 - Protection: Avoid damage to neighbouring trees, plants and property.
 - Work near retained trees: Where tree canopies overlap and in confined spaces generally, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
 - Filling holes:
 - Material: Use as-dug material and/ or imported soil as required.
 - Finishing: Consolidate and grade to marry in with surrounding ground level.
- 865 BARK DAMAGE
- Wounds:
 - Do not attempt to stop sap bleeding.
 - Bark: Remove ragged edges using a sharp knife.
 - Wood: Remove splintered wood from deep wounds.
 - Size: Keep wounds as small as possible.
 - Liquid or flux oozing from apparently healthy bark: Give notice.

870 CAVITIES IN TREES

- Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice.
- Water filled cavities: Do not drain.
- Sound wood inside cavities: Do not remove.
- Cavity openings: Do not cover.

HARD LANDSCAPE AREAS/FENCING

900 SNOW CLEARANCE

- Clearance: When instructed.
- Deicing: To footpaths.
 - Material: Rock salt to BS 3247.
 - Timing: When freezing precipitation is forecast.
 - Application rate: Spread evenly at a rate of As manufacturer's recommendations.

910 HARD SURFACES AND GRAVEL AREAS

- Herbicide: Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
- Hard surfaces: Remove litter, leaves and other debris.
- Surface gutters and channels: Remove mud, silt and debris.
- Drainage gullies: Empty traps and flush clean.
- Gravel areas: Rake over. Remove weeds, litter, leaves and debris, and level off.
- Repairs to flexible bituminous pavings: In accordance with the original paving specification or BS 7370-2, clause 4.12.
- Stain removal: In accordance with BS 7370-2, table 4.

915 PAVING SEALANT

- Type: Clear solvent based polymer sealer.
- Manufacturer: Adseal.
 - Product reference: Heavy Duty Sealer.
- Application method: Spray.
 - Coats: Two coats applied at right angles to each other.
 - Coverage: 5-9 m²/L.

920 FENCING

- Fences: Inspect and repair to maintain protection against stock.

930 GRAFFITI REMOVAL

- Method: Chemical poultice.
- Subsequent treatment: Not required.
 - Finish: n/a.



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