CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

LARGE-SCALE RESIDENTIAL DEVELOPMENT - BOYNE RIDGE,
RATHMULLAN ROAD,
DROGHEDA, CO. MEATH

LANDSCAPE STRATEGY AND DESIGN REPORT
18306B-2-D01

June 2025

Gainsboro House, 24 Suffolk Street, Dublin 2
T: 01-6610419 E:info@csrlandplan.ie
www.csrlandplan.ie

Development Description

(i) demolition/removal of all existing farm buildings/structures, existing vehicular entrance off Rathmullan Road and associated hard standing on site; (ii) construction of a residential development of 249 no. units comprising 170 no. two-storey houses (including 37 no. two-bedroom houses, 111 no. three-bedroom houses and 22 no. four-bedroom houses), 16 no. three-storey duplex buildings (accommodating 16 no. one-bedroom and 16 no. two-bedroom units) and a mix of 8 no. three-storey and 3 no. four-storey apartments blocks accommodating a total of 22 no. one-bedroom and 25 no. two-bedroom apartments); (iii) construction of a new vehicular entrance and access road off Rathmullan Road with associated junction works and associated internal access road network with pedestrian and cyclist infrastructure; (iv) provision of a creche facility (411sq.m) with external play area and vehicular/bicycle parking area; and, (v) all ancillary site and infrastructural works, inclusive of removal of existing vehicular entrances, general landscaping and public open space provision, vehicular parking provision (396 no. spaces in total), bicycle parking, boundary treatments, foul/surface water drainage, attenuation areas, provision of pumping station, as necessary to facilitate the proposed development. Each house will be served by vehicular parking to the front and private amenity space in the form of a rear garden. Each duplex building will be served by vehicular parking to the front and private amenity space in the form of the form of balcony/terrace spaces to the rear. Each apartment block will have shared access to adjoining car parking bays with communal amenity space and bicycle/bin stores provided to the rear and each apartment will be provided with private amenity space in the form of a balcony or terrace. The development includes provision of a landscaped area of public open space to the north of the site, with 2 no. pedestrian/cyclist connections to Rathmullan Road which will be subsequently ceded to Meath County Council. The application is accompanied by a Natura Impact Statement (NIS) and an Environmental Impact Assessment Report (EIAR).

Note

This report has been prepared in consideration of the Landscape Drawings and Landscape Visual Impact Assessment and should be read in conjunction with the same.

The proposed development site is located on existing fields on the western fringe of Drogheda between the M1 and the Rathmullan Road. The total area within the red line boundary extends to 9.20 hectares, with the residential net site area being 6.92 hectares.

The site is bounded on the east by the Rathmullan Road where it lies adjacent to the Boyne River and its riverside walkway and cycleway. The site slopes steeply towards the young wooded valley sides that can be found along Rathmullan Road.

The county boundary between Louth and Meath lies immediately east of the site on the north-western edge of the Rathmullan Road. It peels off northeast across the River Boyne and east following the Rathmullan Road towards the town centre.

The landscape to the west of Drogheda rises to the north and the south away from the Boyne, the banks of which become increasingly wooded towards the edge of the town. The rise to the north of the river is steeper than that to the south. There is an identifiable change in the townscape of Drogheda between its traditional core and the newer estates built in the 20th century which extend for approximately 2km further west. Between the built edge of Drogheda and the M1 motorway, the lands are predominantly agricultural consisting of medium-large sized arable fields divided by hedgerows which in places have developed gaps over time and contain few hedgerow trees. To the west of the M1, the landscape becomes more traditionally rural and intimate in scale with newer development more scattered.

The site itself has two principal landscape characters, set within the context of the urban fringe of Drogheda, County Meath:

1. Worked arable fields and associated farm buildings - There are two clusters of farm buildings, the oldest of which is now derelict and is located at the junction of the Rathmullan Road and Sheephouse Road. The agricultural lands have been farmed intensively for centuries. The lands slope gently towards the river from south to north. The gradient gets much steeper to the north with the gradient of the wooded bank ranging from 24% to 50%. There is a topographical change of almost 26m across these large fields.

2. Young and naturalistic deciduous woodland on the steep slopes of the Rathmullan Road to the east of the site - This relatively narrow ribbon of land ranges from 25m to 35m in depth, is densely vegetated and provides a marker between the farmed landscape to the south and the ecologically rich Boyne River valley.

The majority of the site offers outward-facing views. These take in the rising fields towards Donore to the south, the very dominant and eye-catching Mary McAleese Boyne Valley Bridge to the northwest and the rising lands towards Tullyallen in the north. Views westward, beyond the bridge contain more rural elements and developments than views eastwards (both to the north and south). There are glimpses through vegetation adjacent to the site to the residential areas to the east. The northernmost field within the site is enclosed and views are enclosed by existing trees and landform.

The landscape, vegetation and amenity of the site is analysed over the following pages. The opportunities and issues presented by the existing landscape are identified. These inform Landscape Objectives, including the Green Infrastructure and Open Space Strategy. This landscape structure creates a network of green spaces and corridors – which in turn define the development strategy and the urban design approach.

Views of the Mary McAleese Bridge from the site

Woodland boundary bank with existing trail

Woodland boundary bank with existing trail

Site Location and Context.

Meath County Development Plan 2021-2027

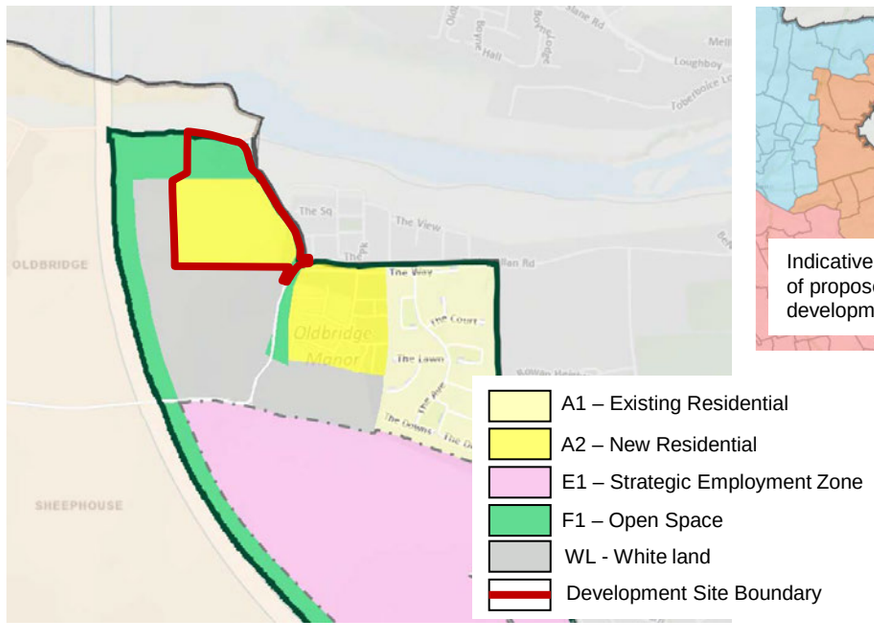
The zoning of the lands are governed by the relevant map for the Environs of South Drogheda in Meath County Development Plan 2021-2027 ("MCDP") until superseded by a Joint Urban Area Plan (UAP) to be jointly prepared by Meath County Council and Louth County Council. This rural area has a strong and recognizable urban influence (MCDP 2021-2027 Map 9.1 Rural Area Types – Development Pressure) and it is recognized as a Regional Growth Centre, which provides important large towns with capacity for sustainable growth.

The site is predominantly zoned as A2 New Residential Lands which aims, *"To provide for new residential communities and community facilities and protect the amenities of existing residential areas in accordance with an approved framework plan".* The northern part of the site is zoned under F1 Open space which aims, *"To provide for and improve open spaces for active and passive recreational amenities".*

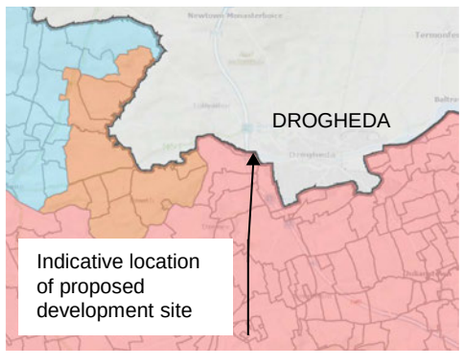
The proposed development is located on the urban fringe of Drogheda. Although the lands are zoned for residential use, the existing use is primarily agricultural. MCDP identifies three types of rural areas. According to Map 9.1 (Rural Area Types Development Pressure), the development site under review is categorised as a 'Rural Area Under Strong Urban Influence' (shown in pink).

Policy relating to Rural Areas Under Strong Urban Influence seeks, *"to facilitate the housing requirements of the rural community as identified while directing urban generated housing to areas zoned for new housing development in towns and villages in the area of the Development Plan"* (RD POL 2), while seeking to, *"protect areas falling within the environs of urban centres in this Area Type from urban generated and unsightly ribbon development and to maintain the identity of these urban centres."* (RD POL 3).

Excerpt from Meath County Council's Development Plan Map for Drogheda Southern Environs



Excerpt from Meath County Council's Development Plan Map - Rural Area Types



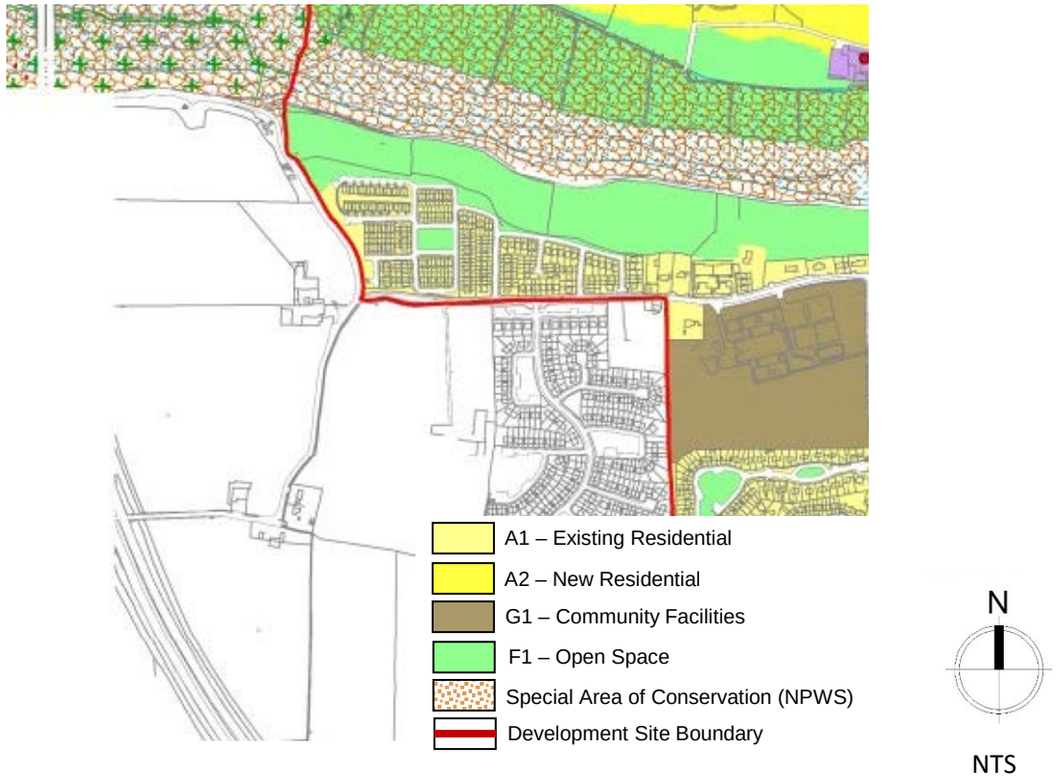
Louth County Development Plan 2021-2027

Louth County Council's latest development plans supersede the former Drogheda Town Council Development Plan 2011-2017. It recognises the role of Drogheda as an important regional growth centre and sets out several policy objectives regarding the future development of the town including: "*To manage the growth of Drogheda in a manner that will achieve the creation of a compact settlement with attractive and inclusive sustainable neighborhoods where there is a choice of affordable homes for all.*

The development plan also seeks to develop its existing green infrastructure and notably the environs of the River Boyne by "Developing a network of green areas throughout the town including the delivery of a greenway along the north and southern banks of the River Boyne stretching from Townley Hall to Baltray and Oldbridge to Mornington in County Meath while maintaining the integrity of the Boyne Natura 2000 sites."

The nearest zoned lands are the existing residential area and open space to the east of the Site.

Excerpt from Louth County Council's Development Drogheda Composite Map



Cultural Heritage designations

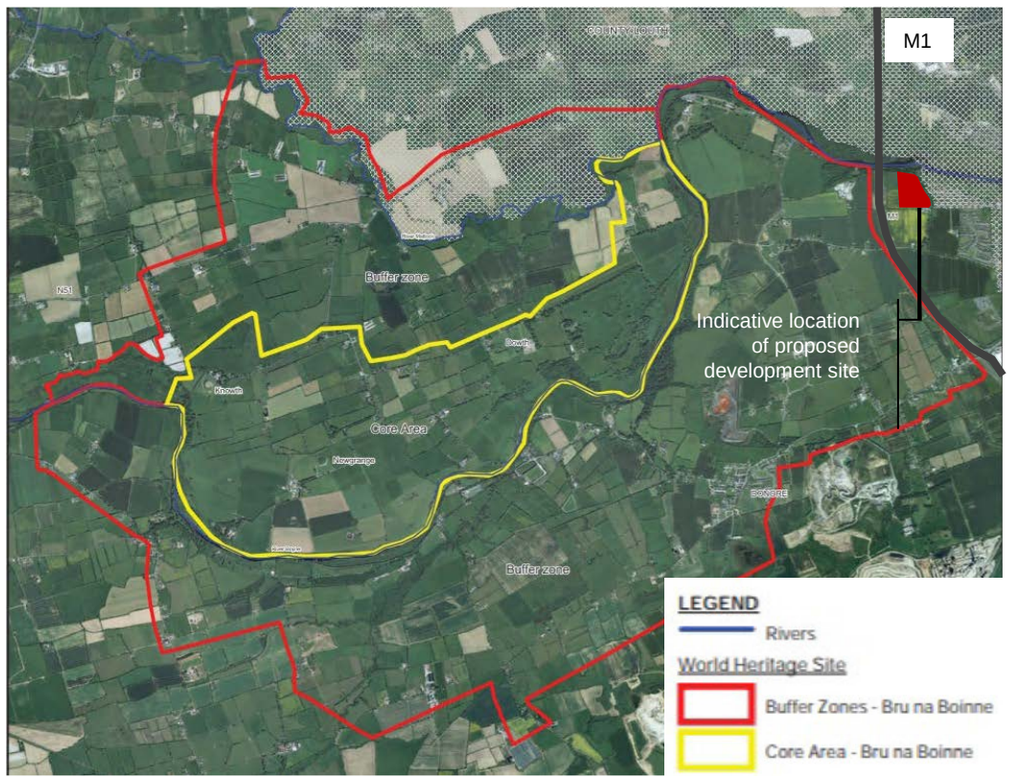
Three types of cultural designations are relevant to this site;

The World Heritage Site (WHS) of Brú na Bóinne,
The core World Heritage Site Area is 780ha and is mapped below. The centre of the WHS is located approximately 4km west of the site. The shortest distance between the site and the WHS Core Area is approximately 1.64km. There is a 2500ha buffer zone around the core area. The proposed development site is located approximately 130m east of the western boundary of the World Heritage Site Buffer Zone over the M1 motorway.

Architectural Conservation Areas (ACA's)
There are no ACA's in the immediate vicinity of the development site. Oldbridge Estate is the closest ACA to the site located approximately 1.26 km to the northwest of the development site.

Archaeological Sites and Monuments
Four records of National Monuments exist on the zoned site (see diagram overleaf). The National Monuments are not visible to the untrained eye and therefore do not contribute to landscape character and views. Archaeological advice has been detailed in a separate report which should be read in conjunction with this report.

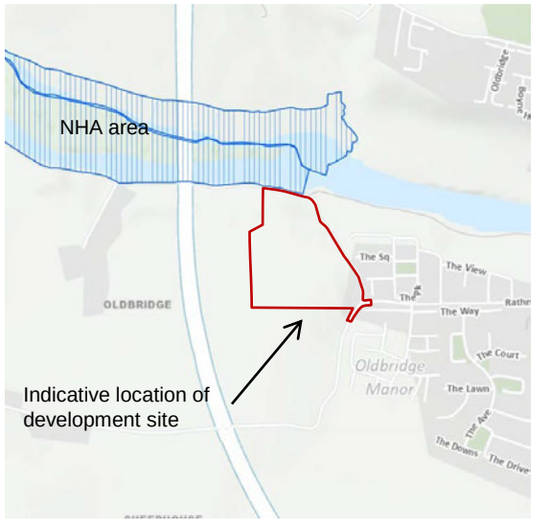
World Heritage Site Core and Buffer zone in relation to the site



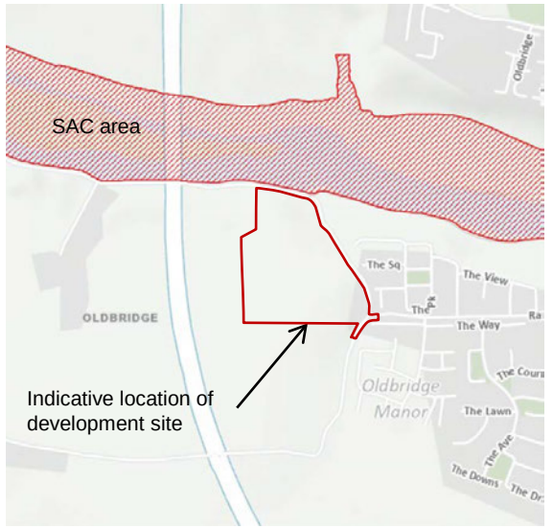
Natural Heritage designations

The River Boyne is a valuable natural and cultural asset. The northern boundary of the proposed development site abuts a Special Area of Conservation ("SAC") and a proposed National Heritage Area ("NHA") and is close to a Special Protection Area ("SPA") boundary.

The value of Green infrastructure, woodlands, trees and hedgerows are supported by the MCDP. It is noted that Meath is one of the least wooded counties in Ireland. Small and fragmented woodlands are located particularly along the lower stretches of the river Boyne as found in the northern are of the development site.



Diagrams from the development plan showing the location of Designated Sites



N

NTS

- Site boundary
- River Boyne
- Arable fields with a single crop
- Scrub
- Woodland
- Thick and dense hedgerows
- Sparse hedgerows
- Roads
- Dilapidated farm buildings and yards
- Farm gated access points
- Important junction
- Boyne River walkway
- Mary McAleese Bridge
- Key views
- Residential edge overlooking site
- Steep slopes
- Smells of the sea
- Indicative location of National Monuments
- Approximate location of Bronze Age features (courtesy of Archaeology Heritage Consultancy)

Summary of the landscape analysis

- Mary McAleese Boyne Valley Bridge is a dominant and attractive visual feature
- The motorway is noisy, even if it is not always visible from the proposed development site.
- The north of the site is steep, sheltered, biodiverse and influenced by the shape of the river and its valley
- The site has a cultural richness and has been settled and farmed through time
- The internal hedgerows are thick, but gaps in places
- The peripheral vegetation is strong and intact
- The character of the farm and residential cluster to the south-east is coherent
- The existing farm gateways could be used to access the site through the woodland without affecting the ecology of the site.
- Existing buildings are in a poor state of repair.

The Green Infrastructure plan for this development will draw upon that set out by Meath County Council's County Development plan. Key policies and objectives which relate to the site, include:

- To support and the inclusion of Green Infrastructure (GI) within new developments.
- To support the creation of healthy and sustainable communities that encourages and facilitates walking and cycling and general physical activity through design that promotes permeability and interconnecting spaces.
- To encourage retention of existing trees and hedgerows and mitigation of tree and hedgerow removed, and to promote the use of native planting species.
- To promote improved biodiversity, including within urban areas.
- To promote good amenity and recreational facilities in new developments.

The scheme will:

- Utilize the network of paths, roads and public open spaces and recreational facilities to create landscaped (GI) corridors, designed as effective corridors for pedestrians, cyclists and wildlife.
- Corridors have been located to link up open spaces within the proposed development and connect to the wider green infrastructure network across the adjoining development, town and the rural lands to enable healthy and sustainable communities.
- The proposals will seek to retain and enhance existing natural features along the boundary, wherever possible.
- All planting will be selected that is supportive of the All Ireland and Pollinator Plan.

Amenity walk and cycle <5m walk
Small equipped play area <5min walk
Leisure centre with swimming pool <15 min walk
Football pitches and sport centre <15 min walk
Large town park with playground < 30 min walk
Green spaces and corridor

The development of the landscape masterplan was shaped through an iterative and collaborative design process, guided by place-making principles and a strong emphasis on landscape-led planning. Early site layouts were critically assessed and refined to respond to the site's context, character, and the role of open space in shaping community identity.

The following key principles emerged through this process:

- **Neighbourhoods** are structured around open spaces that define their character and foster a strong sense of place.
- **Edges** are softened through generous tree planting and the retention of existing woodland wherever possible, preserving the site's natural character and enhancing ecological value. These green edges extend into the development along streets and corridors, reinforcing the landscape structure and providing a strong visual and environmental buffer.
- A network of **open spaces** provides accessible amenity spaces that are both destinations in their own right and integral to the wider movement framework.
- **Connections** across the site are logical, direct, and inclusive, supporting walkability and permeability.
- A variety of **play opportunities** are embedded throughout the development, encouraging active and imaginative use.
- Opportunities to reference **historical and cultural features** are explored to enrich the site's identity, including the use of a feature stone wall at the entrance, which draws inspiration from the iconic stonework of the Newgrange archaeological monument.
- Streets are designed as multifunctional spaces, contributing to **green infrastructure** and sustainable drainage.
- **A peripheral cycle route** offers an engaging journey through the changing landscape, punctuated by places to pause, play, and connect.

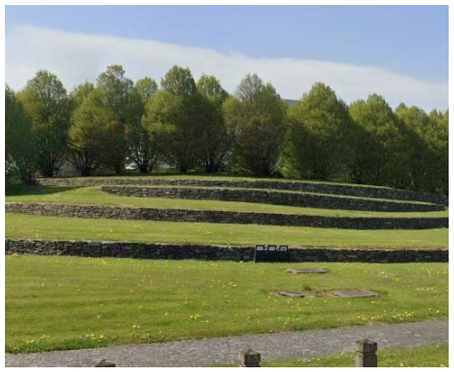
This evolving design approach informed the identification of a diverse range of open space typologies, including:

- Sloping Stepped Parkland
- Woodland Ring
- Central Park
- Pocket Parks
- Homezones

Gathering and seating spaces

Shared route meets park

Natural play spaces



Tier stone walls

The landscape masterplan is presented on the following pages.
First, the overall proposal is analysed according to proposed;

- Green Infrastructure
- Connectivity and Streets
- Public Open Space
- Play Provision

Following on from this, the masterplan is presented in more detail with accompanying detail on levels, materials and planting specification.

Sustainable Drainage System ("SuDS") integrated in the landscape to allow for efficient surface water drainage.

The existing woodland vegetation is retained as much as possible to preserve the natural habitat. A woodland train has been created to enrich the amenity space.

Local park offer proximity amenity space and create a green corridor in the development.

A place to play with equipment for young children and table tennis tables for teenagers and adults

A generous cycle path and footpath emphasises the vista northwest and the connections throughout the site.

Gentle slopes and ground mounding enhance the lawn area and the space usability.

Sculpted low stone retaining walls add to the vista to the Mary McAleese Bridge and create a landscaped usable open space as a feature entrance.

Western pocket park to provide a proximity amenity open space to all residents

Ref. to drawing 18306B-02-100 for full scaled masterplan drawing

Combining well-structured urban layout, direct routes and green infrastructure allows parks and open spaces to become an integral part of daily travel. It provides an active green network of landscapes benefit to people and ecology.

Pathways and streets are well-used when they provide a logical and safe way of getting people to where they want to go – their destinations. This development includes the following types of destinations:

- 2 no. major parks.
- 3 no. local parks.
- Equipped playground, and play experiences.
- A network of paths through out the site and linking to adjoining sites.
- A woodland ring to filter landscape into the development.
- A route to Drogheda via bus or the main roads
- Connections to the River Boyne walkway providing a riverside route to Drogheda and the Boyne Valley for pedestrians and cyclists.

The diagram to the right presents the proposed hierarchy of streets and routes along with the destination listed above. **Overall, the diagram represents a well-connected and structured place.**

The proposed characteristics of the streets are illustrated using photographs overleaf. The qualities of individual parks and spaces are described in this report.

SAFE PEDESTRIAN FRIENDLY GREEN STREETS

Indicative Paving Materials:

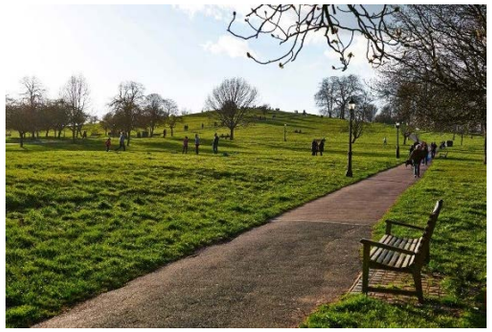
- Feature Paving to Public Plaza
- Parking Bays – Permeable block paving
- Cycleway – Tarmac to selected finish
- Roads – Tarmac to Engineers Detail
- Footpaths – Brushed concrete
- Informal paths – Rolled dust or brushed concrete

Connectivity Legend

- Periphery link roads
- Internal link road
- Local road
- Cycle routes
- Shared pedestrian and Cycle routes
- Pedestrian routes
- Woodland trail

Destinations Legend

- External links
- Potential future External links
- Kickabout area and Non-traditional / natural play experiences
- Play areas



Active Green Network and Open Spaces Provision

- **Boyne Valley Park**

Parkland with open grass slopes and groups of trees that direct views over the valley and towards the Mary McAleese Boyne Valley Bridge. Viewing platforms, play features, and naturalized water retention features make the most of topography and are embedded into the slope.
The area extending north into the area zoned as F1 has not been calculated towards the Public Open Space requirements.

- **Linear Park**

An active linear park that aligns views between the Boyne Valley Bridge and the main feature entrance. The featured stone walls shape the site and lead into the core of the development, featuring open areas and gathering spaces. Trees are located to highlight views toward the bridge and the houses uphill, and mowed areas are broken up by gentle planting and wildflower patches. A structured play equipment area has been incorporated into the central area of the development.

- **Pocket Parks**

A series of small pocket parks with trees, planting beds, benches, terraces and play features.

69176 Sqm A2 area – developable lands				
	Minimum POS needed	10377	Sqm	min 15%
Calculable Public open spaces	Public open spaces	10378	Sqm	15.03%
Communal open spaces	Duplex - communal open space	761	Sqm	
	Duplex / apartments	815	Sqm	
Landscaped areas excluded from calculations	Biodiversity woodland (Sloped)	934	Sqm	
	Incidental open spaces (smaller than 10m)	2324	Sqm	
	Bioretention areas	1192	Sqm	
	Park on F1 land	16123	Sqm	
		Total landscaped areas (minimum)		31700 sqm

Rathmullan Public Amenity Spaces

The open spaces within the site offers a wide range of usability for all different types of users. They have been strategically located to offer small amenity areas within a short distance from all the residents and larger gathering spaces at strategic locations.
In addition to public open spaces, the Duplex apartment and small apartment block feature reserved communal spaces within their premises.

Boyne Valley park
It extends from the Boyne greenway, following the woodland band to connect to the feature entrance.
The area extending north into the area zoned as F1 has not been calculated towards the Public Open Space requirements.

- Main Playground Area
- Bio retention area for natural play opportunities
- Running trail
- Exercise equipment
- Biodiverse rich grassland
- Recreational lawn
- Gathering spaces and picnic areas
- Kickabout areas

Mary McAleese park
A linear park that led from the main feature entrance to the core of the development

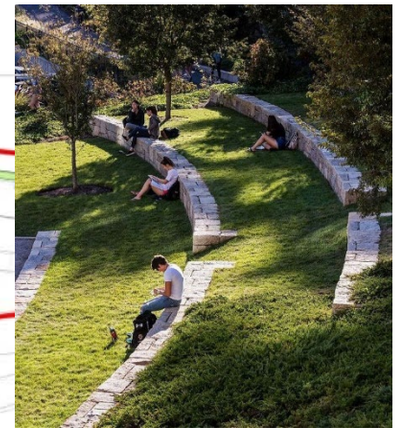
- Junior play area <8 years
- Table tennis for teenagers and adults
- Gathering space
- Kickabout area
- Recreational lawn
- Walks opportunities

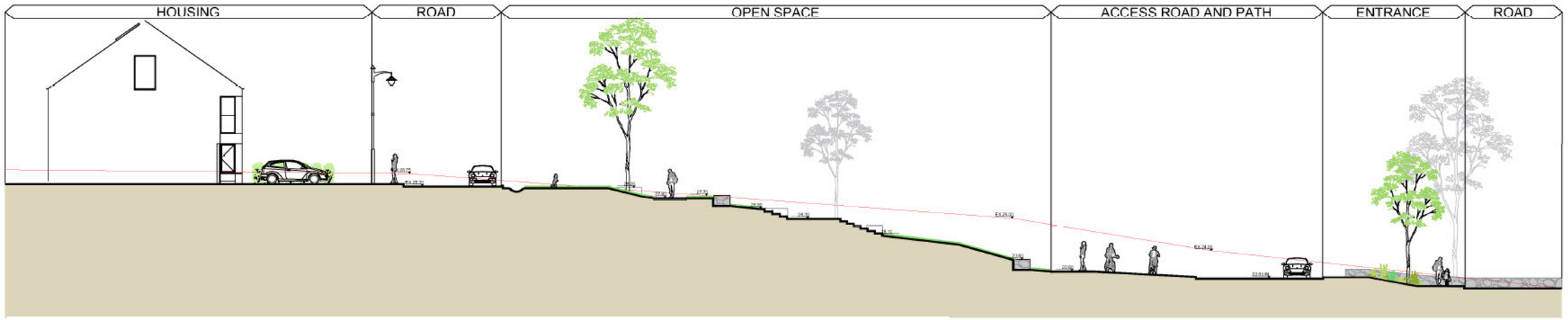
Local parks

- Incidental natural play
- Amenity space
- Walks opportunities

Feature entrance – Character area

The addition of low feature walls help mitigate the considerable level change at the site entrance by creating a usable enhanced space for residents to enjoy. The walls have been designed to create a strong visually appealing entrance to the development.





Ref. to drawing 18306-02-201 for full entrance sections

CGI concept view of feature entrance

Mary McAleese – Feature entrance park

Gathering space
Enclosed seating area provides a space for teenager and adults for socializing and gathering while enjoying the outdoor space and the surroundings.

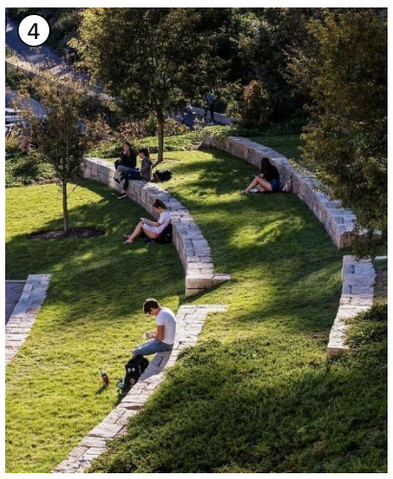
Kickabout space and feature ground mounding
- A space for running and playing opportunities for children and adults.
- Opportunity for lounging, relaxing and gathering

Bike parking and cycling space
- Cycling lane and bike rack spaces to encourage cycling.
- Flat even surface to provide safe cycling opportunities for all ages.

Located at the entrance of the development, this linear open space serves both as a landscaped buffer for the residential area and as a multifunctional recreational zone. Its elongated shape not only guides visitors toward the heart of the development but also functions as a green corridor, enhancing ecological connectivity and promoting biodiversity within the site.

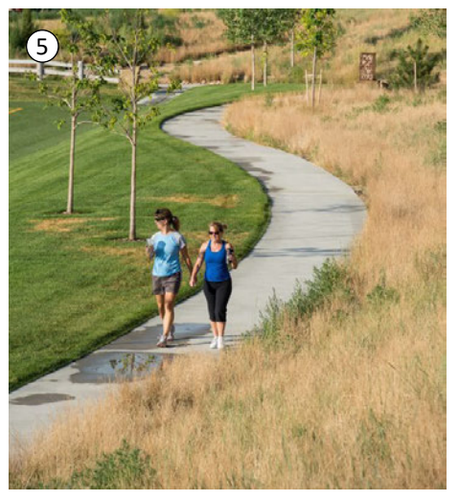
A key feature of the park are the prominent stone walls, which help define the space while creating a visually appealing landscape and a strong, welcoming entrance. This element also enhances the functionality of the open space by offering various opportunities for use.

Several primary functions and activities have been thoughtfully integrated into this area to maximize its usability and appeal.



Features walls
The stone wall offer casual seating and gathering opportunities .
Informal play area that stimulate balance, climbing and jumping

Amenity walks
Meandering path offers walking and jogging opportunity while providing accessible connection throughout the landscape.



Mary McAleese - Central park

Sunken lawn area on seasonal water attenuating area

- Kickabout space, running and playing opportunities
- Opportunity for lounging, relaxing and gathering

Table tennis and gathering space

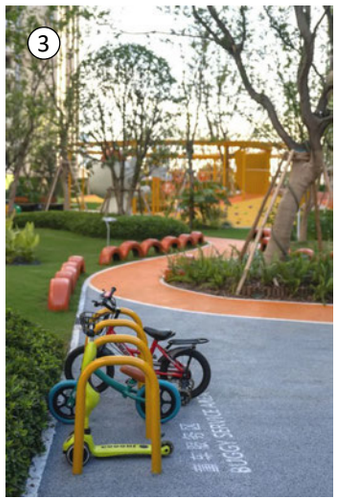
- Table tennis provides a space for teenagers and adults. It provides a solid equipment for sport and double up as table, and works well as socializing space.

Natural fenced play area

- Opportunities for natural play activity and creative play
- Natural play equipment and inclusive design

At the heart of the development, the central open space is designed primarily to foster community interaction and social engagement. It provides a welcoming and inclusive environment that supports a variety of informal and structured activities, encouraging residents of all ages to gather, play, and connect.

A key feature of this space is the sunken lawn, which acts as a nature-based solution for temporary water attenuation—managing surface water during heavy rainfall while remaining dry and usable for most of the year. The overall design integrates naturalistic elements and planting that enhance the ecological value of the space, while also contributing to its visual appeal and recreational function.



Bike parking and cycling space

- Cycling lane and bike rack spaces to encourage cycling.
- Flat even surface to provide safe cycling opportunities for all ages.

Picnic area

- Picnic table offers a gathering space and can be used for a number of activities, outdoor dining, cards and board games, chatting and socializing.

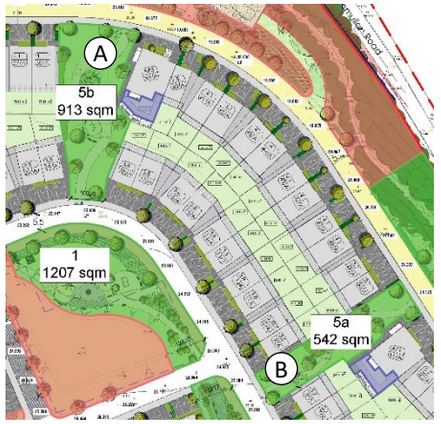
Local parks

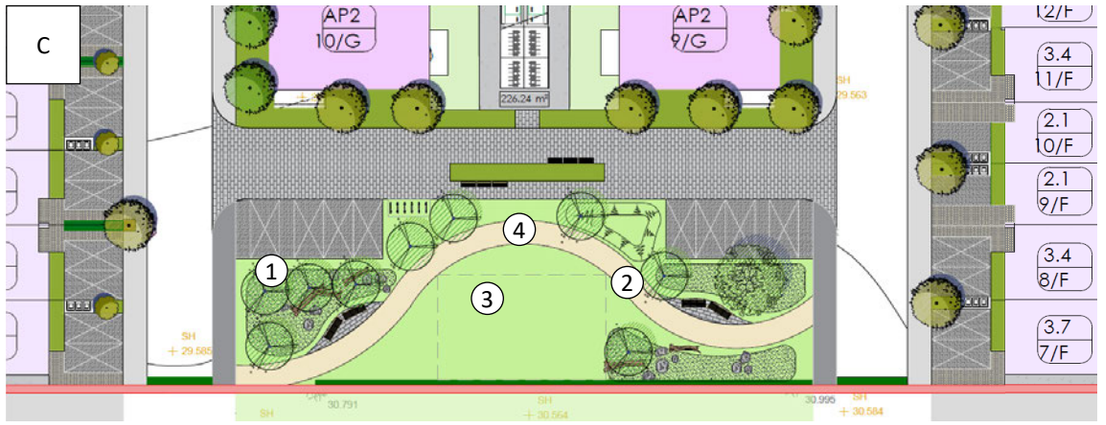
The development includes three local parks strategically distributed to provide accessible amenity space in close proximity to residents. These pocket parks are designed to support everyday use and foster a sense of community by offering informal spaces for relaxation, play, and social interaction.

In addition to their recreational function, the parks contribute to the site's green infrastructure by enhancing connectivity between different areas of the development. Acting as green corridors, they support ecological continuity and promote walkability throughout the site. Their simple yet effective design includes open lawn areas, pathways, natural play elements, seating, and a mix of tree and understory planting, creating inviting and multifunctional spaces that respond to both environmental and social needs.

Natural play elements

- Opportunities for natural play activity and creative play



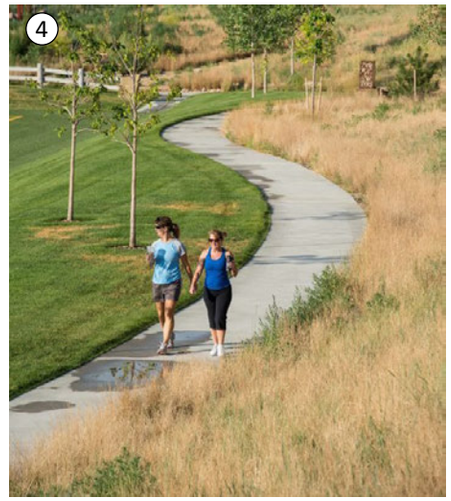


Gathering space

- Enclosed seating area provides a space for teenager and adults for socializing and gathering while enjoying the outdoor space and the surroundings.

Open Lawn

- Lawn areas opportunity for lounging, relaxing and gathering
- Kickabout space and space for children for gather and play together.



Amenity walks

- Meandering path offers walking and jogging opportunity while providing accessible connection throughout the landscape.

Communal open space

This dedicated communal open space serves the residents of the apartment and the duplex, offering a shared outdoor environment that supports everyday use and neighbourly interaction. Similar in character to the local parks, it provides a mix of lawn, natural play elements, seating, and planting, all arranged to create a welcoming and accessible setting.

At its centre, a small plaza acts as a focal point and gathering space, encouraging informal socialising and community events. The design promotes a sense of ownership and belonging among residents, while also contributing to the wider green network of the development through its planting and permeability.

Open Lawn
- Lawn areas opportunity for lounging, relaxing and gathering
- Kickabout space and space for children for gather and play together.

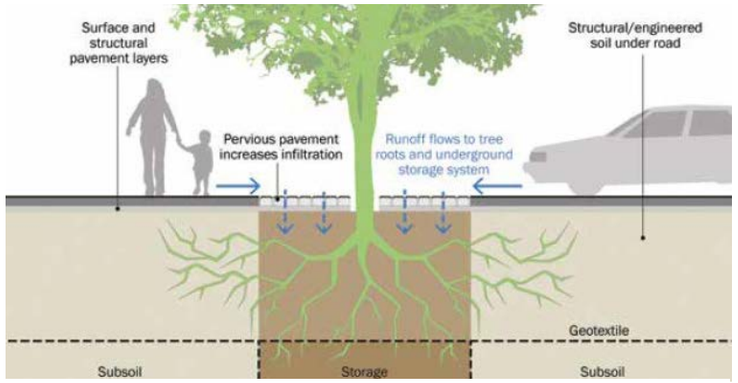
Table tennis and gathering space
- Table tennis provides a space for teenagers and adults. It provides a solid equipment for sport and double up as table, and works well as socializing space.

Gathering space
- Enclosed seating area provides a space for teenager and adults for socializing and gathering while enjoying the outdoor space and the surroundings.

Natural play elements
- Opportunities for natural play activity and creative play
- Natural play equipment and inclusive design

Bike parking and cycling space
- Cycling lane and bike rack spaces to encourage cycling.
- Flat even surface to provide safe cycling opportunities for all ages.

Bioswale sketch



Street tree pits incorporated into SuDS system, (*fig. The SuDS Manual, CIRIA, 2015)*

The drainage proposals across the scheme are designed to seamlessly fit into the wider landscape design through the surface level basins. These spaces have been designed to be incorporated into the usable landscaped spaces and add to the visual amenity. Informal/natural play elements are proposed within the basins along with swathes of meadow and verge planting to incorporate the Sustainable Drainage System ("SuDS") and biodiversity inclusion as spaces for play. All attenuation areas have been coordinated with the drainage engineer's design as detailed in drawings RAT-WMX-PH2-00-DR-C-P451 and RAT-WMX-PH2-00-DR-C-P452 by Waterman Moylan. Trees will be planted no closer than 1m from underground tanks and pipes.

SuDS LEGEND

- Drainage Pipes (see engineers' drawings for full drainage proposals)
- Swale feature
- Underground Attenuation Tank
- Surface Attenuation Basin
- Street trees

Play Space – From Play to Communal Amenity

Play is how children explore, learn, and make sense of the world around them. As Maria Montessori famously said, play is "the work of the child."

Currently, the nearest large playground suitable for older children is located 1.8 km away at The Ramparts Park. However, newly equipped play areas have been developed within 300m, in the Oldbridge Manor development on the opposite side of Rathmullan Road. While smaller parks exist within other housing estates in the wider area, much of the open space in older residential estates consists of grassland without any dedicated play facilities.
In line with the MCDP development plan, the proposed play area will be a minimum of 100 m² and located at least 25m from the nearest residential dwelling. The playground facilities included in this proposed development will significantly enhance local play provision, offering a high-quality play space close to the new residential units.

The play area is designed to encourage natural, imaginative play rather than dictate how children should play. It will feature varied and engaging topography, hiding spots, trees, grassy areas, and soft safety surfaces. The space will challenge children physically—through running, jumping, rolling, climbing, and balancing—and emotionally, offering opportunities to feel powerful or powerless, scared or confident, and in or out of control. It will promote freedom of choice, spontaneity, and play without rigid rules.

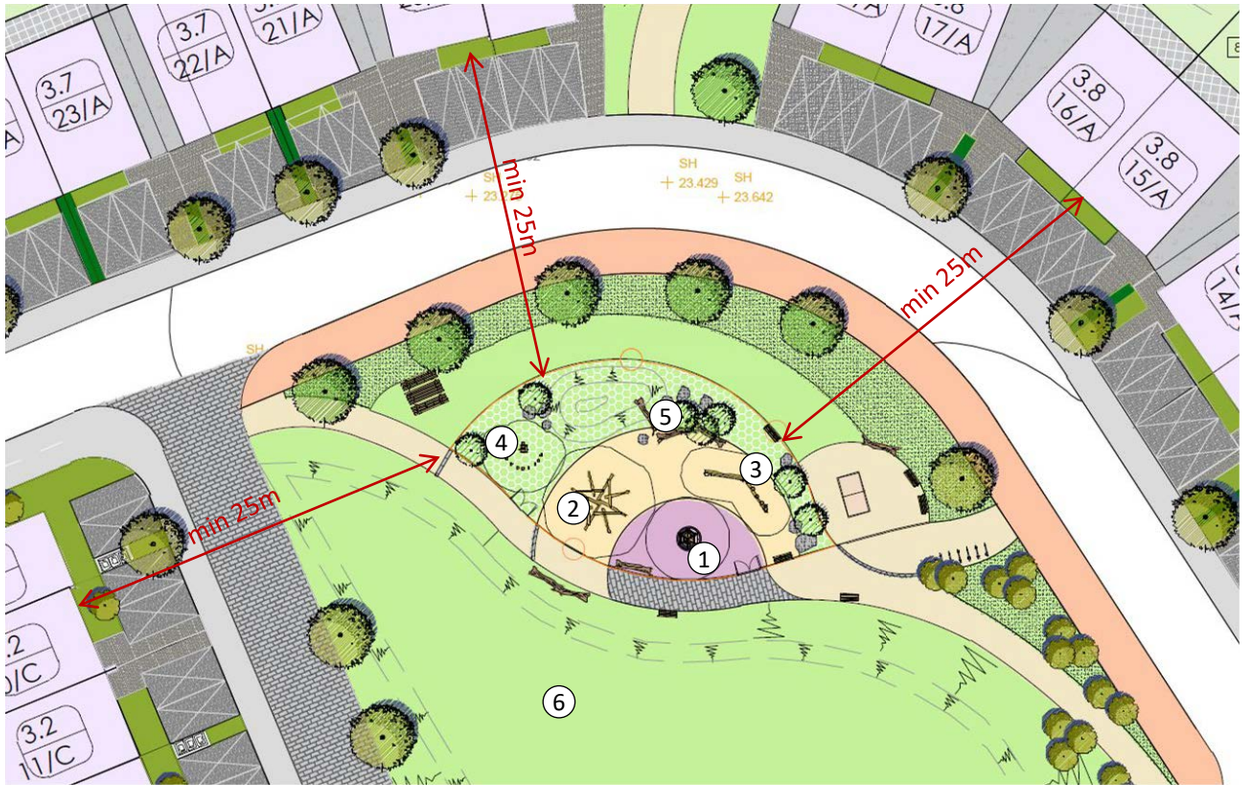
Furnishings & Surfaces:
The play area will include a mix of natural and structured elements, as illustrated in the accompanying images. One section will feature natural logs and balancing elements, while another will offer more traditional play equipment, ensuring a diverse range of play experiences for different age groups and preferences. Surfaces will include engineered wood chips, grass, and rubber to ensure durability, accessibility, and safety.

Safety:
All equipment and surfaces will comply with ISEN 1176 (Playground Equipment) and ISEN 1177 (Impact Attenuating Playground Surfacing) of European standards for playground safety, as well as meet the requirements of The Royal Society for the Prevention of Accidents (RoSPA), the National Safety Council (NSC). The design is informed by the principles of Ready, Steady, Play! and NAPS, LEAPS and NEAPS to ensure a safe, inclusive, and enriching play environment.





Central Play Area Strategy



Natural play elements have been integrated with structured play equipment to ensure a diverse range of play experiences for different age groups and needs.

This combination encourages both imaginative and physical engagement, supporting inclusive play opportunities that promote social interaction, creativity, and developmental growth across a broader spectrum of users.

① Carousel

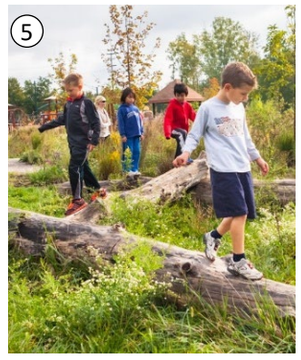
② Crawling pyramid

③ Double balance beam

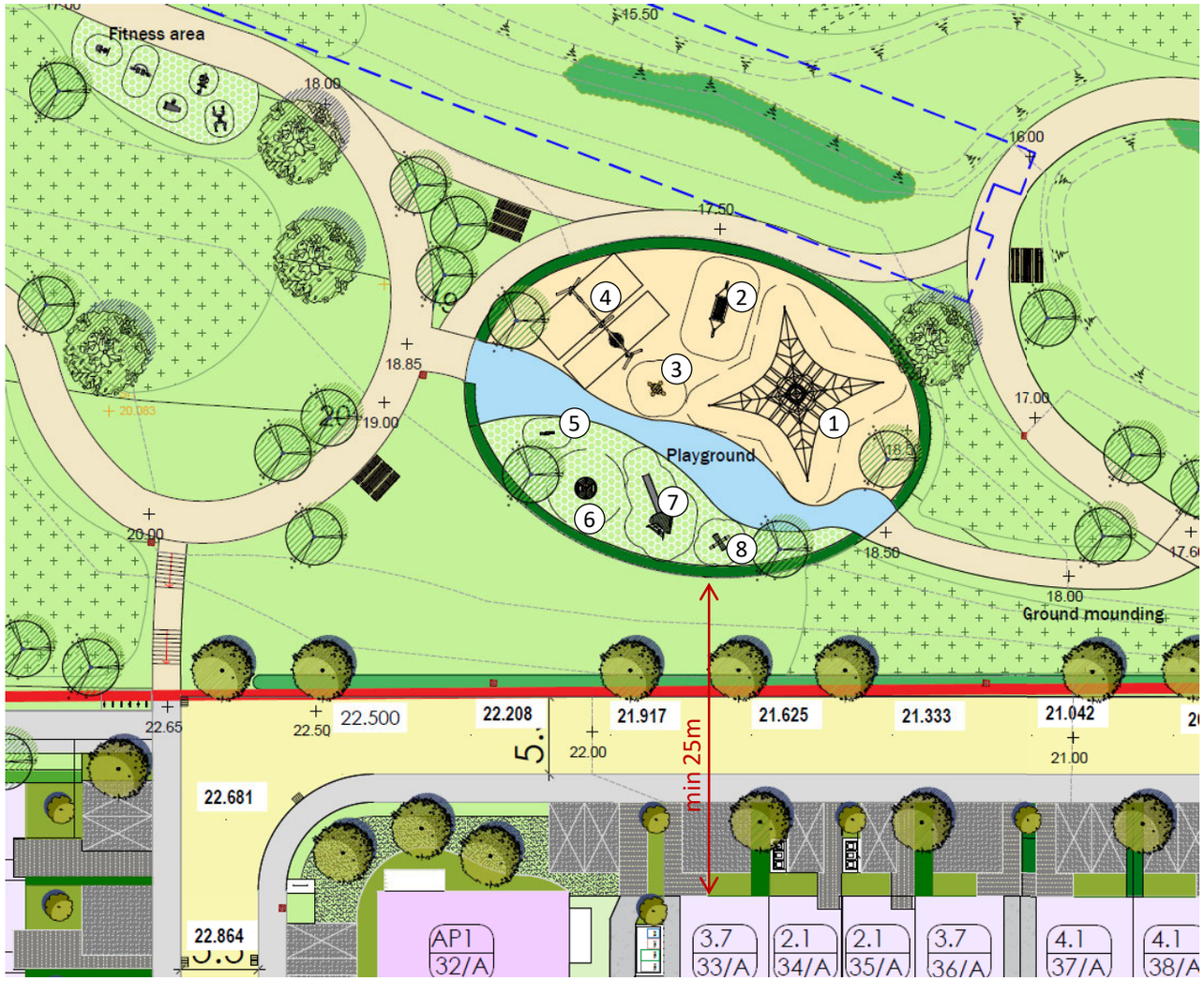
④ Fairytale throne

⑤ Natural play elements

⑥ Kickabout space in sunken lawn



Main Park Play Area Strategy



① Tree climbing

② Hammock

③ Children's table

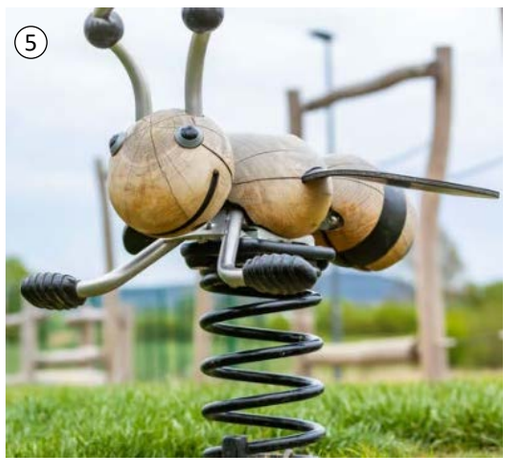
④ Swing combination

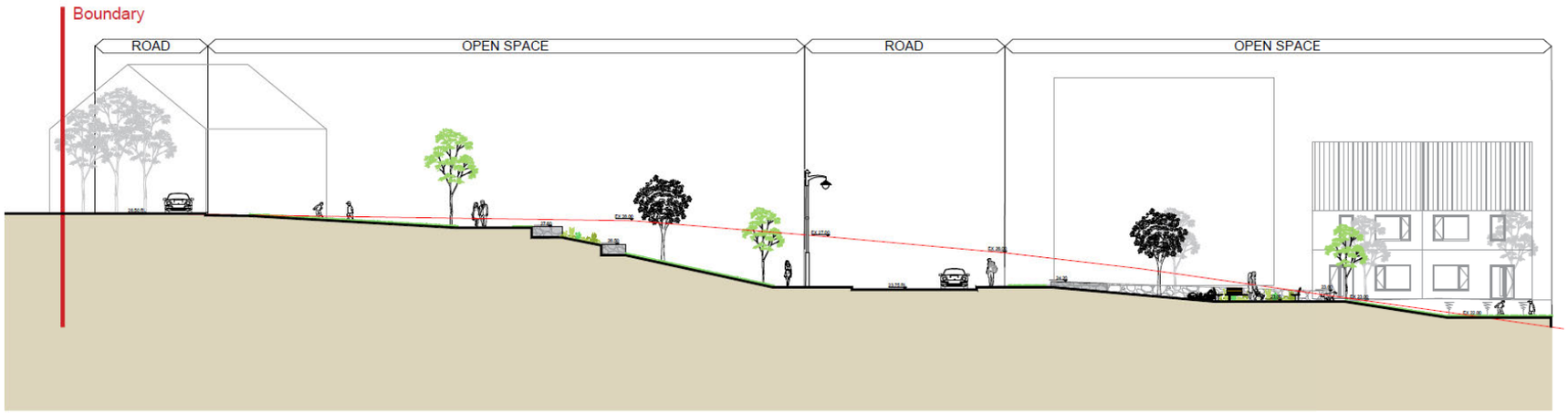
⑤ Bee springer

⑥ Carousel

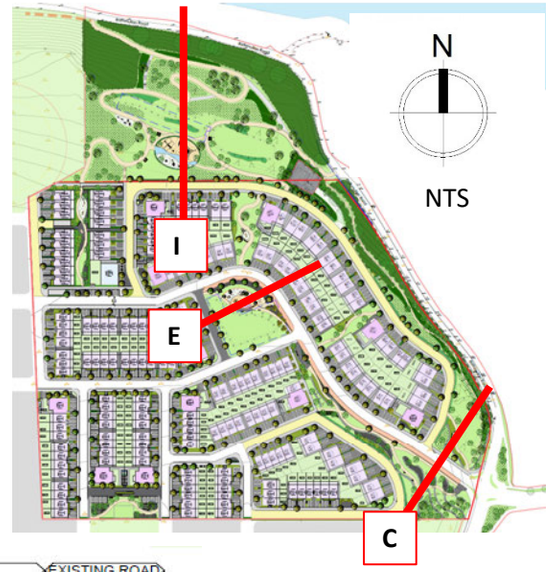
⑦ Tower Slide

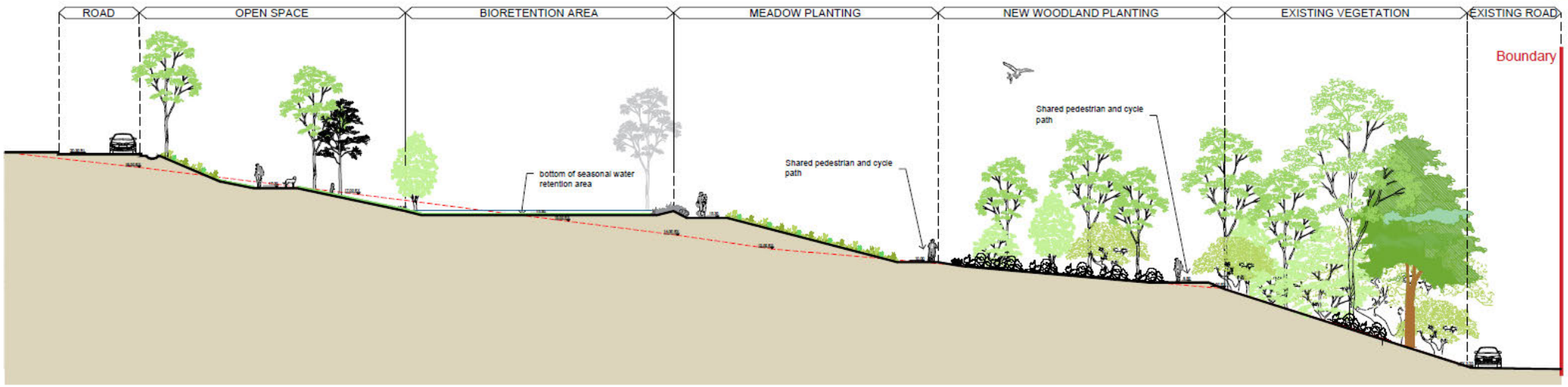
⑧ Butterfly seesaw



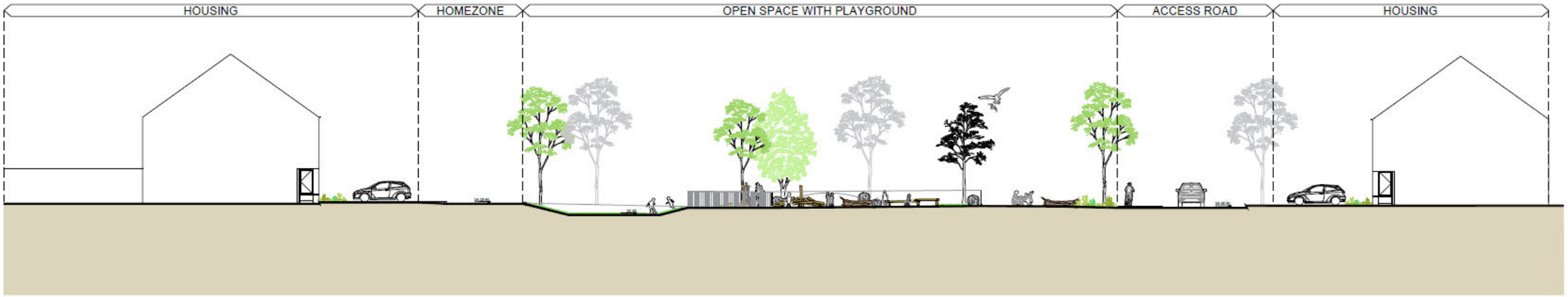


C SECTION
SCALE: 1:200@A1



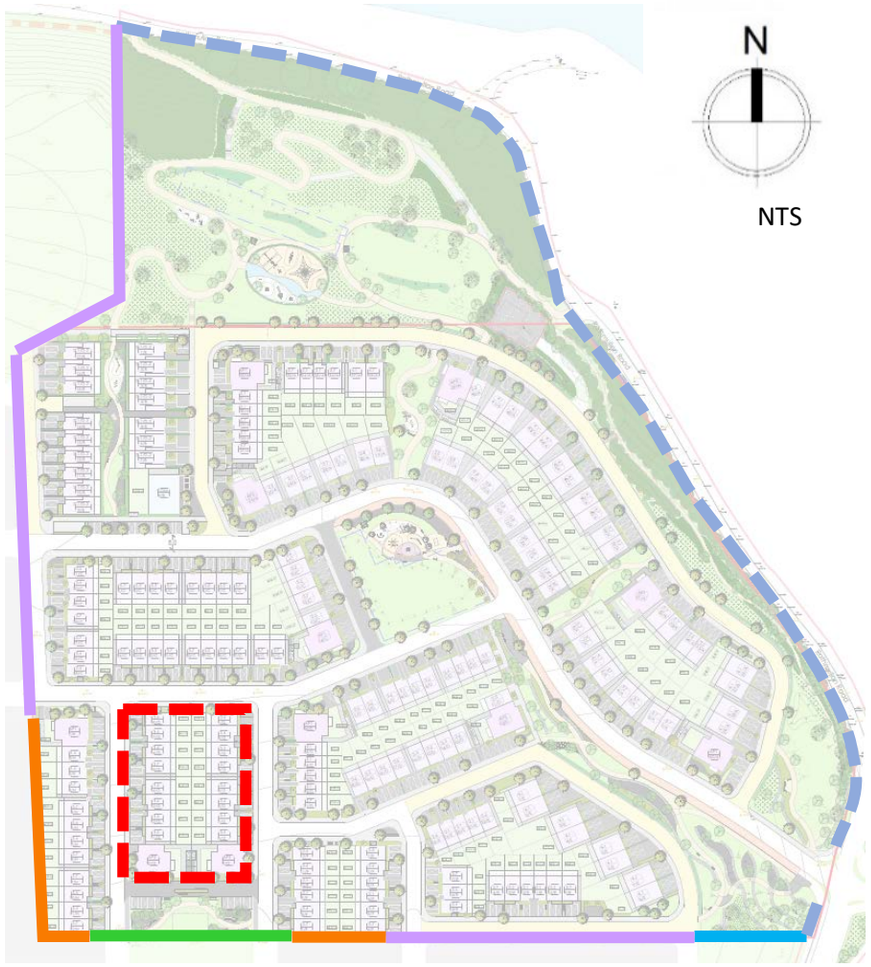


I SECTION
SCALE: 1:200@A1



E SECTION
SCALE: 1:200@A1

See drawing no. 18306-2-201 for scaled versions of these sectional elevations. And additional sections



The following diagram and extract from the Landscape masterplan illustrate the strategy for dealing with the outer boundary and provide an example of the internal boundary treatment. The boundary strategy have been designed following the MCDP requirements and standards.

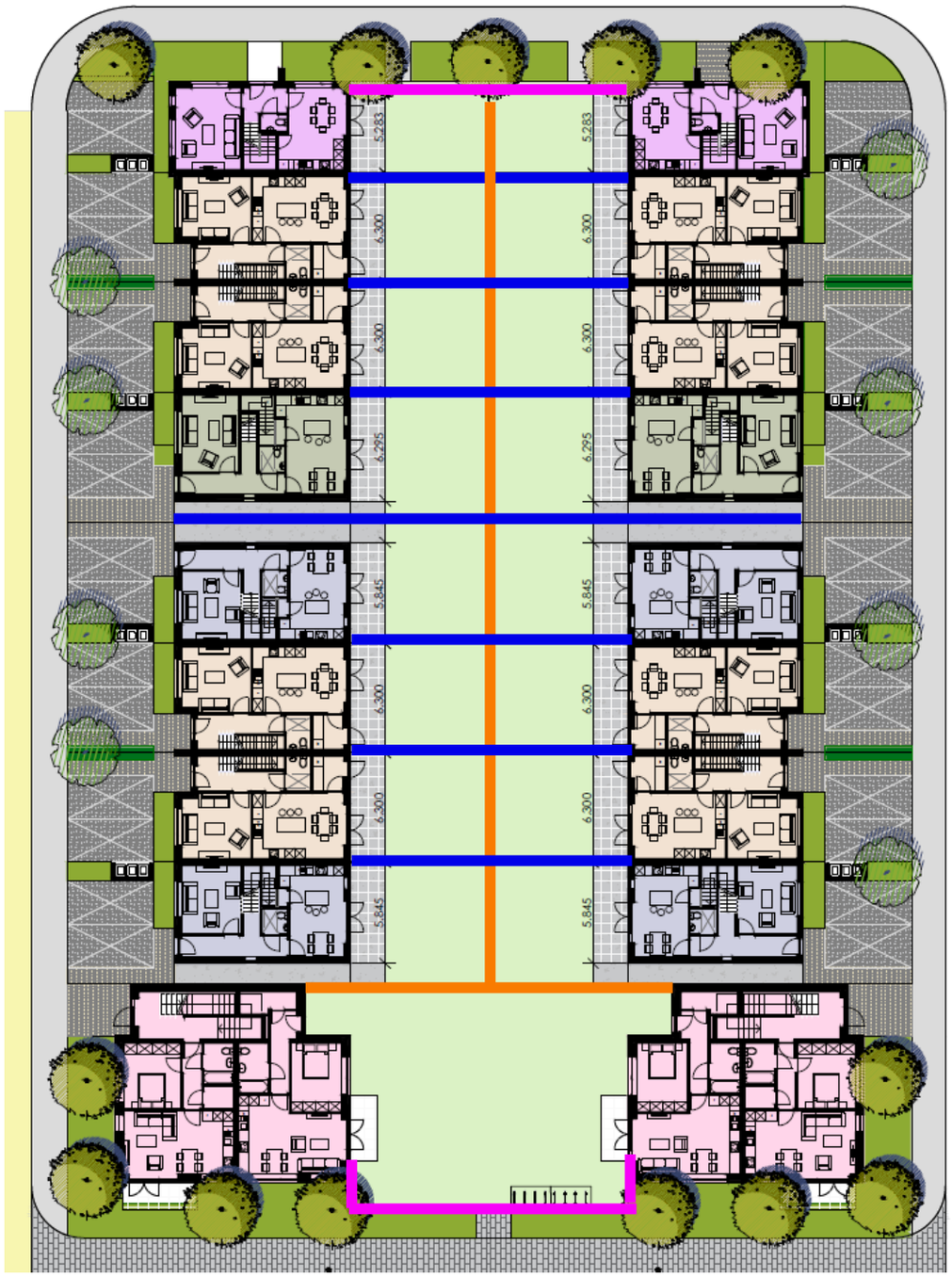
B1 – Boundary wall
Block and render 2000mm hight wall

B2 - Fence
1.2m hight timber and post rail fence with hedgerow planting

B3 - Fence
1.2m hight timber and post rail fence with existing hedgerow retained

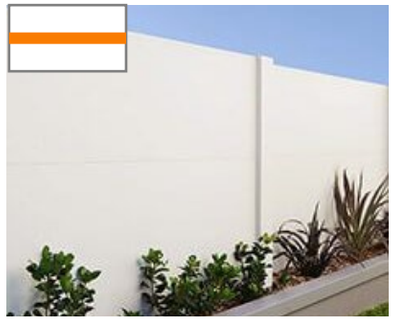
B4 – Open boundary
Boundary left open, section of low retaining stone wall to be retained and made good

B5 – Retaining wall
Retaining wall to tie levels in with the with zone land



B6 - Internal garden boundary:
1800mm concrete post and panel fence

B7 - Rear Garden gable end wall:
2000mm high block wall with brick finish, on the public side, to match building and rendered on the inside. Brick capping.



B8 - Retailing spine wall between rear gardens
2000mm high block and render wall

All materials will be designed to a high standard, be robust and withstand a long life, as well as meet the CE standard.

Circulation Surfaces and Public Realm details

Brushed concrete.

Rectangular concrete PC paviors – lightly textured, light grey colour

Self binding gravel in warm, pale tone.

Details

Washed concrete finish for added grip

Self binding gravel edged with poured concrete strips – 120mm wide and polished

Brushed concrete footpath

Concrete setts – granite effect

Concrete flags – granite effect

Bat box -

Furniture

Bins & Bollards

Steel bike stands – angular form

Seating - timber & steel

Stone wall with natural appeal

Concrete and timber bench

VEGETATION RETAINED LEGEND

- Existing Hedgerows and Vegetation Retained (6498 Sqm)
- Existing Trees / group of trees retained and managed (11 No.)
- Existing Woodland Removed (840 Sqm)
- Existing Hedgerows Removed (387 LinM)
- Existing Trees Removed (3 No.)
- Tree protection fence to be installed prior construction and to be kept in place until completion of works

Retention of the existing mature tree cover and hedgerows forms a crucial component of the overall landscape strategy and reflects a key objective of the Meath County Development Plan. Preserving as many existing hedgerows and trees as possible supports the continuity of green infrastructure, maintaining ecological corridors that are vital for habitat connectivity and biodiversity. This retention strategy, in conjunction with the proposed development, will enhance local biodiversity and contribute positively to the wider network of ecological links in the surrounding area. The Vegetation Retention Diagram presented should be read in conjunction with the Tree Survey Report.

Parkland Trees (native / naturalised) – typically 16-18cm girth 4-6m ht:

Pinus radiata

Quercus petraea

Prunus avium 'Plena'

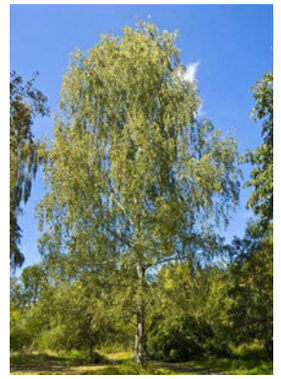
Pinus sylvestre

Fagus sylvatica

Street Trees – typically 16-18cm girth 4-6m ht:

Tilia cordata

Acer campestre



Betula pedula

Small to Medium Trees – typically 14-16cm girth 3-4m ht:

Malus Evereste

Pyrus calleryana 'Chanticleer'

Sorbus aucuparia

Amalanchier Lamarkii

Typical Swale planting:

*Actaea racemose**

*Butomus umbellatus**

*Iris pseudocorus**

*Lythrum salicaria**

*Filipendula vulgaris**

Typical Low Shrub and perennial planting – typically 2L pot size at 4/sq.m:

Aster novi-beigi

Salvia superba

Carex spp.

Lavendula augustifolia

Hypericum "Hidcote"

Calamagrostis Karl Foerster

*Knautia macedonica**

Pennisetum alopecuroides

Hedges – 60-90cm bushy at 3/lin.m:

Fagus slyvatica

Taxus baccata

Typical Medium Shrub planting typically 3L pot size at 3/sq.m or individual specimens :

Choisya ternata

Cornus sanguinea

Frangula alnus

Rosa Noaschee

*Hebe 'Mrs Winder'**

Salix spp.

Hedgerow Mix – 60-90cm at 5/lin.m:

Ilex aquifolium

Crataegus monogyna

Prunus spinosa

Soft Landscape Aim and Objectives

The primary aim of the planting scheme is to enhance biodiversity and support the pollinator plan through the strategic use of native species alongside a diverse range of other species and varieties. This approach will foster a rich and varied ecosystem, benefit local wildlife and contribute to environmental sustainability.

Biodiversity Enhancement: By incorporating a mix of native and non-native species, the scheme aims to create a dynamic and resilient landscape. This diversity will attract a wide range of pollinators and other beneficial organisms, promoting ecological balance.

Pollinator Support: The selection of plant species will be guided by their ability to support pollinators, such as bees and butterflies. This will help in maintaining healthy pollinator populations, which are crucial for the pollination of many plants and crops.

Visual Impact: Trees and plants will be arranged in small groups of the same species, creating visually appealing clusters. Larger trees will serve as landmarks and focal points, enhancing the aesthetic value of the landscape.

Structured Planting: Large avenues of trees will be established, featuring rows of trees of the same species. At road junctions and in connection with open spaces, different varieties will be introduced to add visual interest and variety.

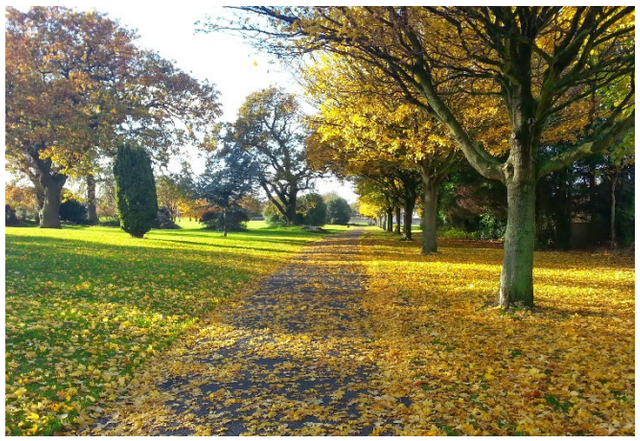
Meadow and woodland planting

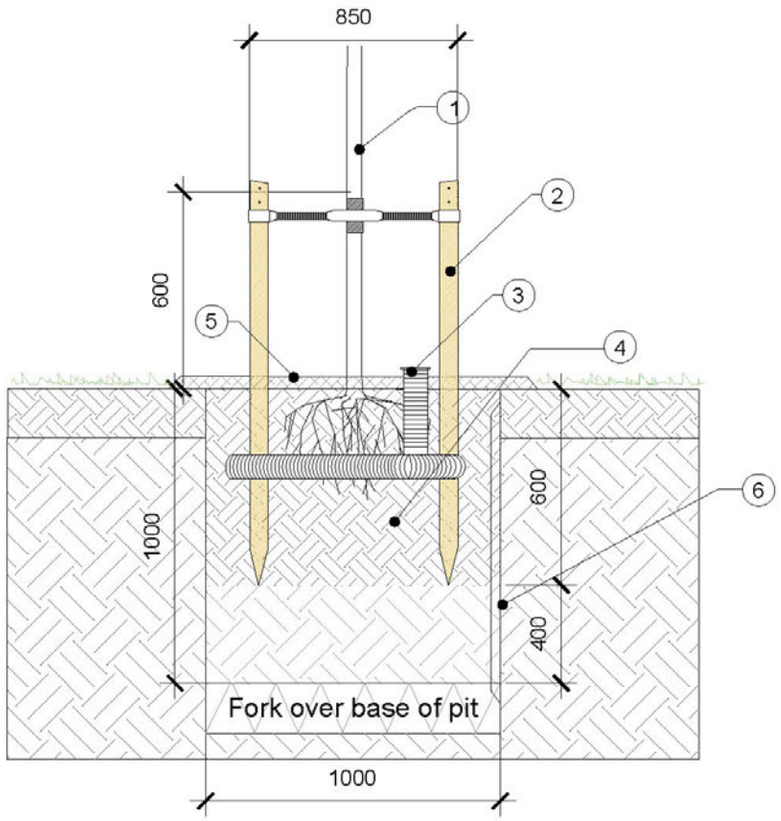
A significant portion of the parkland zone will be dedicated to meadow and wildflower planting, with new woodland areas introduced to reinforce the site boundaries and enhance biodiversity. Wildflower mixes are proposed at the corners of the apartment blocks and within open spaces, offering early-season pollinator support, visual interest, and reduced maintenance requirements.

All wildflower and meadow seed mixes will be of Irish provenance to prevent the introduction of non-native species. Seeds should be sourced from *Design by Nature* to ensure ecological integrity and suitability for the local environment.

The wildflower areas will be managed in accordance with guidance provided by *Design by Nature*. Long-term maintenance will follow a single annual mowing regime, to be carried out between September and October each year.

The parkland meadow seed mix will be dominated by Lolium perenne and/or Lolium multiflorum, and will include cereals such as *Avenula pratensis, Avena fatua, Avenula pubescens*, and *Panicum miliaceum,* along with *Brassica napus*. Mowing of the meadow grassland should only occur at the end of winter (late February to early March), with all thatch removed to maintain habitat quality.

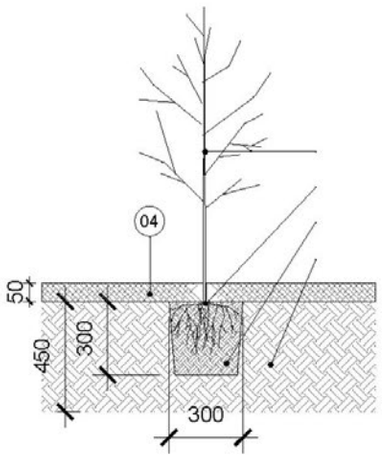




NOTES

1. Tree to have a clear stem as indicated on planting plan.
2. 2no. 75mm diameter stakes pressure treated driven 1000mm below ground 400 - 600mm above ground, with specified biodegradable rubber strap around wire at tree and nailed to 100x30x950mm crossbar. Locate stakes 475mm from tree trunk.
3. (for 14+cm girth trees) 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering and capped.
4. Tree pits to be min. size 1000 x 1000 x 1000mm, or 150mm beyond rootball. Remove the full depth of topsoil and set aside for reuse. Scarify sides and back fill pit with 400mm depth of subsoil in 200mm layers and lightly firmed in. Incorporate a soil ameliorant into base and back fill remainer of pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25 lt water per m2 immediately after planting.
5. 50mm medium grade bark mulch in 800mm dia circle to base of trunk.
6. Root barriers are to be used when electrical, gas, oil or media service ducts are within 600mm of the tree stem, or when water, sewer, storm service pipes are within 1000mm of a tree stem. Type: 600-1000mm deep flexible ribbed plastic root barrier to be placed along the side of the tree pit facing the services. Seams to be sealed with root proof tape to stop root penetrating through gaps.

Tree Pit Detail – In Grass/Shrub areas
Scale: 1:25 @ A3



NOTES:

1. Proposed Shrub/Whip.
2. Excavate pit 300 x 300 x 300mm, fork over base to 150 mm depth and scarify walls of whip pit prior to planting. Backfill with topsoil with ameliorant incorporating as per specification, Lightly firming in layers of 150 mm. Water with 3lt of water immediately after planting.
3. 450mm topsoil.
4. 50mm, 6mm medium grade bulk mulch
5. Min. 300mm subsoil below planting

Planting Pit Detail for Shrubs/Whips
Scale: 1:25 @ A1/ 1:50 @ A3

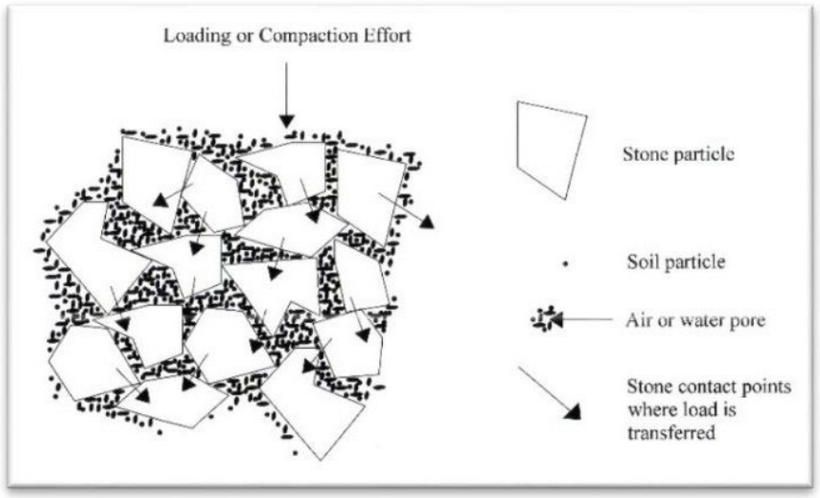
Homezone detail.

As an example of the strategy put in place, this street extract from the masterplan illustrates trees in paved private areas. In order to promote a healthy tree growth, where space at the surface is tighter (less than 1.0m in width), the introduction of constructed tree pits works more efficiently if coupled with permeable surfaces.

Structural Soil, is a two-part system comprised of a rigid stone that meets engineering requirements for a load-bearing paving base, and a quantity of uncompacted soil that supports tree root growth. Residual voids in the soil also provide aeration and also water routes and storage facilitating the tree to provide SUDs functions.

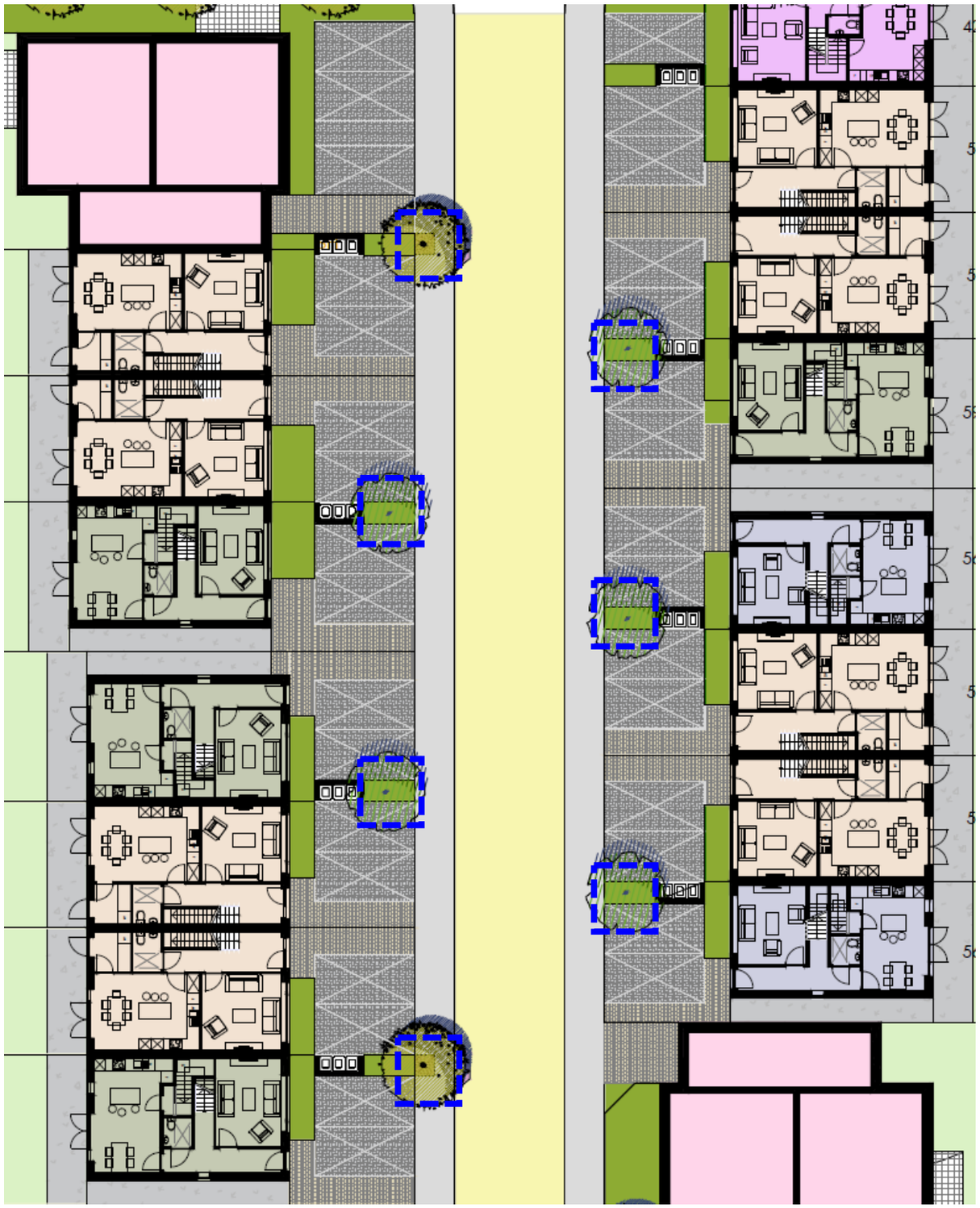
Depending on the expected size of the tree, 16m3 should be considered for the constructed tree pit to be installed subject to localised constraints. Pits can create links to adjacent soft areas to allow tree roots to extend to adjacent soil areas.

The drawing to the right with rectangles outlined with a blue dashed line illustrates the strategy in plan to accommodate structural soil tree pits in private areas (driveways).

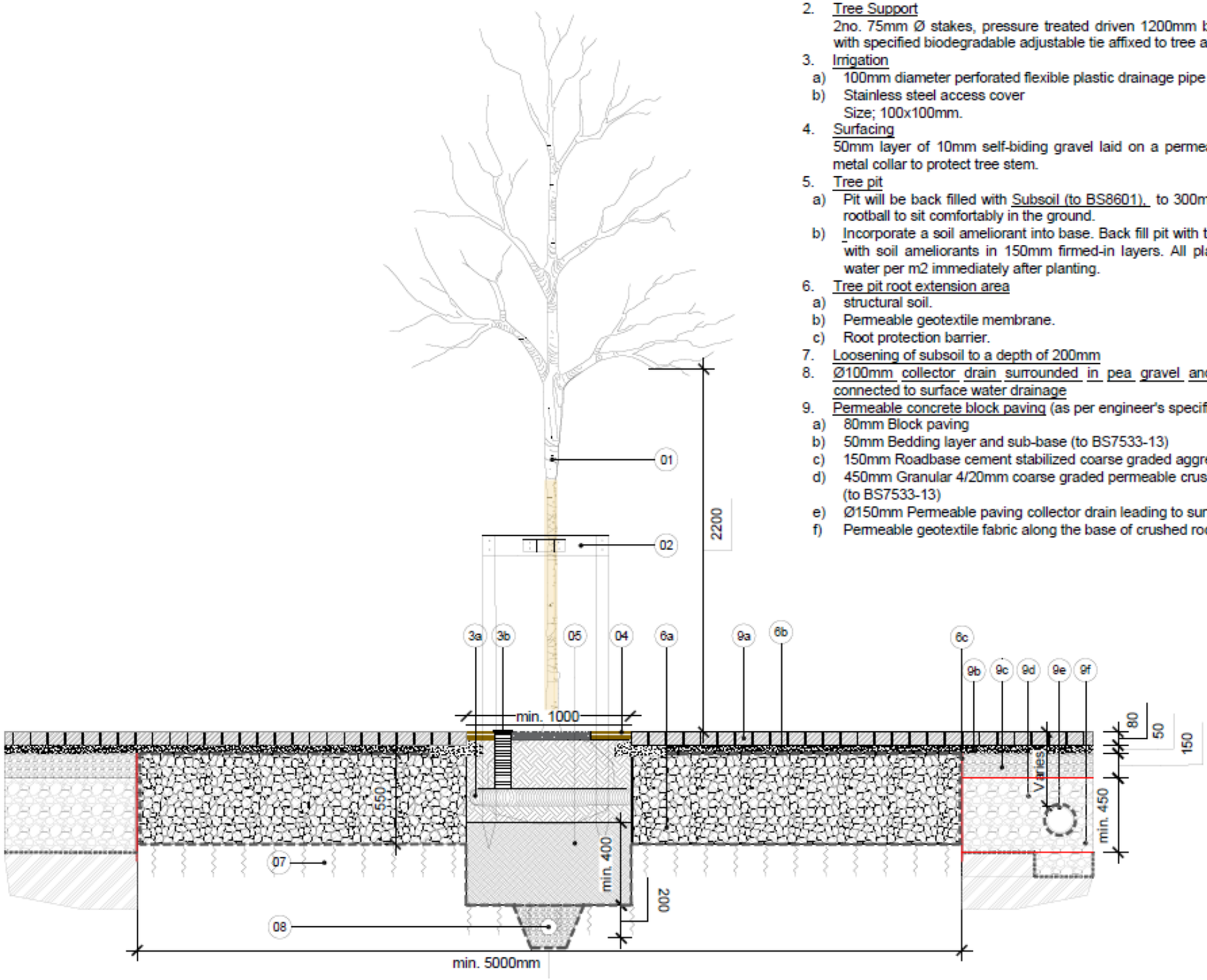


The landscape scheme shows all trees Structural soil concept diagram.

Structural Soil is designed to provide increased soil volumes for tree roots under pavements. It can and should be used under preferably permeable and expandable surfaces, parking areas, and low-use vehicular roads where water can permeate through the paving porous joints and infiltrate into the structural soil below.



Root extension area for tree pit in permeable driveway



NOTES

1. Tree to have a clear stem height of 2200mm (refer to drawing no. 18306A-2-D01 for Soft Landscape Specifications and drawing no. 18306A-2-100 for Landscape Materials and Planting Specification).
2. Tree Support
   2no. 75mm Ø stakes, pressure treated driven 1200mm below ground, 800mm above ground with specified biodegradable adjustable tie affixed to tree and stake.
3. Irrigation
   a) 100mm diameter perforated flexible plastic drainage pipe positioned as shown around rootball.
   b) Stainless steel access cover
      Size; 100x100mm.
4. Surfacing
   50mm layer of 10mm self-biding gravel laid on a permeable geotextile membrane. Ø400mm metal collar to protect tree stem.
5. Tree pit
   a) Pit will be back filled with Subsoil (to BS8601), to 300mm depth or to a level that allows the rootball to sit comfortably in the ground.
   b) Incorporate a soil ameliorant into base. Back fill pit with topsoil (sany loam to BS3882), mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lt water per m2 immediately after planting.
6. Tree pit root extension area
   a) structural soil.
   b) Permeable geotextile membrane.
   c) Root protection barrier.
7. Loosening of subsoil to a depth of 200mm
8. Ø100mm collector drain surrounded in pea gravel and wrapped in geotextile fabric and connected to surface water drainage
9. Permeable concrete block paving (as per engineer's specifications)
   a) 80mm Block paving
   b) 50mm Bedding layer and sub-base (to BS7533-13)
   c) 150mm Roadbase cement stabilized coarse graded aggregate
   d) 450mm Granular 4/20mm coarse graded permeable crushed rock (to BS7533-13)
   e) Ø150mm Permeable paving collector drain leading to surface water drainage
   f) Permeable geotextile fabric along the base of crushed rock layer

Soft Landscape Specification, Maintenance and Management

INTRODUCTION

This document sets out the proposed maintenance and management plans for the establishment and ongoing maintenance of the landscape element of the proposed development. There will be a minimum 18 months defects period on all soft landscape works implemented. Thereafter the landscaping will be maintained in perpetuity consecutive 12 months periods.

1.0 SOFT LANDSCAPE WORKS SPECIFICATIONS

1.1 Site Clearance Generally

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 25mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life, in accordance with current Safety, Health and Welfare at Work (Construction) Regulations 2013.
- Vegetation: remove all weed growth.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.
- Existing vegetation: Clearence of existing vegetation must not take place during the bird nesting season (1st March to 31st August), in accordance with Section 40 of the Wildlife Act 1976.

1.2 Weed Control

Remove all noxious and undesirable weeds from the sit. Weeds shall include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Climate, Energy and Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Climate, Energy and Environment.

1.3 Standards

In preparing the landscaping, supplying plants and maintaining the landscaping, the following standards are to be adhere to:

- BS 3882 Specification for topsoil and requirements for use
- BS 3936-1 to 10 Specification for the supply of nursery stock
- NPS National Plant Specification
- BS 3998 Tree Works: Recommendations
- BS 4428 Code of Practice for general Landscape Operations
- BS 5837 Tree in relation to Construction
- BS 7370-1 to 5 Grounds Maintenance
- BS 8545 Trees: from nursery to independence in the landscape- recommendations
- BS 8601 Specification for subsoil and required use
- BS EN 1722-9 Fences Specification for mild steel - low carbon steel - fences with round or square verticals and flat horizontals
- RoSPA Standards for safety for play and exercise equipment.

The latest publications for each document are to be used.

1.4 Soil Conditions

- Soil for cultivating and planting: Moist, friable and do not plant if 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.

1.5 Climatic Conditions

- General: Carry out the work while soil and weather conditions are suitable.
- Strong winds: Do not plant.

1.6 Times of year for planting

- Deciduous trees and shrubs: Late October to early March.
- Evergreens/Conifers: October/November or Feb/ March.
- Container Grown plants: Any time of years.

1.7 Mechanical Tools

Restrictions: Do not use within 100mm of tree and plant stems.

1.8 Watering

- Quantity: Wet full depth of topsoil.
- Application: Even and without damaging or displacing plants or soil.
- Frequency: As necessary to ensure establishment and continued thriving of planting.

1.9 Preparation, Planting and Mulching Materials

General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

1.10 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.
- Species: True to name.

1.11 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.

1.12 Labelling And Information

General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:

- Full botanical name.
- Total number.
- Number of bundles.
- Part bundles.
- Supplier's name.
- Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification categories and BS 3936.

1.13 Plant/ Tree Substitution

Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering. Submit alternatives, stating the price and difference from specified plants/ trees. Obtain approval before making any substitution.

1.14 Plant Handling, Storage Transport and Planting

- Standard: To HTA '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.
- Planting: Upright or well balanced with best side to front.

1.15 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.

1.16 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.

1.17 Surplus Material

Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, pruning's and other arising's: Remove.

1.18 General Planting/Seeding

- Planting shall be carried out within the contract period but not during periods of frost, drought, cold drying winds or when the soil is waterlogged, or when the moisture of the soil exceeds field capacity.
- All containers and protective coverings including biodegradable coverings to root systems shall be removed prior to planting. Roots, except for emergent vegetation, shall be teased out from the root-ball, spread evenly and not twisted.
- All plant material shall be planted upright or placed so as to be well-balanced. Extreme care is to be taken to avoid damage to the root system, stem and branches when planting. The plant shall be positioned such that after planting the original soil mark on the stem is at finished ground level.
- Following completion of planting, grass seeding and turf laying, the soil over the whole of the planted, seeded or turfed area shall be sufficiently watered to achieve its field capacity.
- On completion of planting, watering and mulching, all areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.
- For shrub and transplant pit planting, notch planting and ordinary planting, the plant positions shall be set at equal centres in order to obtain a natural dense cover when mature. For notch and pit planting, plants shall be planted in parallel lines. Planting positions in each row shall be staggered with the previous row.
- Finely-broken backfill material shall be carefully spread around roots and root trainers of all plants and the plants given slight shake to ensure that all interstices/ gaps are filled with soil, which shall then be consolidated by heeling. Careful filling and heeling shall continue as necessary at 150mm layers.

1.18.1 Mulching

Newly planted shrub areas shall be mulched immediately after planting to a depth of 50mm or in accordance with the details indicated on the drawing. Mulch shall be coarse chipped tree bark, composted for 2-4 months. Particle size 25-75mm diameter. No Fines.

1.18.2 After Planting & Mulching

- Watering: Immediately after planting, thoroughly and without damaging or displacing plants or soil.
- Firming: Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.
- All areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.

1.19 Tree Planting

Attached in the appendix are typical tree planting details for this site.

1.19.1 Tree Pits

- Sizes: at least 300mm greater than rootball in all directions.
- Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
- Pit bottoms: With slightly raised centre. Break up to a depth of 100mm.
- Pit sides: Scarify.

1.19.2 Semi-Mature Trees

- Standard: Prepare roots and transplant to BS 8545.
- Planting shall be carried out by positioning the tree in the centre of the pit closely against the tree stake and spreading the tree roots to their fullest extent.
- Backfilling material: Previously prepared mixture of topsoil excavated from pit and additional compost as required.
- Immediately following planting, trees with stakes shall be secured with tree ties. Tree ties shall be fixed so that movement of the tree shall not cause damage or abrasion to the bark, top tie to be 50mm below top stake.

1.19.3 Staking Generally
Softwood, peeled chestnut, larch or pine, straight, free from projections and large or edge knots and with pointed lower end. Adjustable rubber ties to be fixed to all trees and at the correct size for the tree.

1.19.4 Mulch Circles/Squares
All existing trees/newly planted trees within open grass areas or grass verges shall have 50mm depth mulch circle/square of a maximum 1m diameter or as allowed by verge width.

1.20 Shrub Planting
- All shrubs are to be pit planted. General pit dimensions are to be wide enough to accommodate roots when fully spread and 75mm deeper than root system.
- Break up base of pit to a depth of 150 mm, incorporating soil ameliorant/ conditioner at 50 g/m².
- Pits to be backfilled with previously excavated material. Backfilling to be done in layers of 150mm depth; at each stage the filling to be firmly consolidated.
- Soil ameliorants can be premixed with the soil applied or mixed in during planting.
- Soil ameliorants to consist of an approved compost at 10L per m2; and 150g/m2 of 10:10:10 NPK slow release fertilizer, or as approved.
- All shrub areas to be finished, with 75mm of medium grade bark mulch.

1.21 Hedgerow Planting
- Preparation: Dig trench to 500mm width for single staggered row, ensuing pit base is broken up 100mm deeper than plant rootball.
- Ameliorants: Compost at 10lt/m2 and 10:10:10 NPK slow release fertiliser at 150g/m2.
- Planting: Mix in soil ameliorants with excavated topsoil, or if there is poor topsoil then mix in with imported new topsoil. Firm down topsoil lightly in layers of 150mm by treading.
- Additional Requirements: If there is no existing fencing or barrier, install a protective fence to stop people walking through it until hedge is established. If there is livestock adjoining hedge install a stockproof fence or electrical fence 1m from hedge line until hedge is established.
- Prior to new growth cut the hedge back by 300mm to encourage new growth from base.

1.23 Removing Trees and Shrubs
- Identification: Clearly mark trees and hedges to be removed.
- Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.

1.24 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.
- Defects Period: 5 years.

1.25 Green Roofs
Due care is to be taken when planting in gardens to ensure no damage occurs to the waterproof membranes. All planting is to be laid over a green-roof system that complies with the European Federation of Green Roof Associations, (EFB), or equivalent, and in accordance with the drawings provided.

1.26 Grass Seeding

1.26.1 Herbicide Application
- Type: Suitable for suppressing perennial weeds and existing grass.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation

1.26.2 Seedbed cleaning before sowing
Operations: Kill pernicious weeds with selective contact herbicide.

1.26.3 Cultivation
- Compacted topsoil: Break up to full depth.
- Soil ameliorant/ Conditioner/ Fertilizer are to be used to boost late seeding only. The type to be used is to be agreed with the administrating body depending on the time of year and the condition of the soil.
- Tilth: Reduce topsoil to a tilth suitable for blade grading.
    - Depth: 75 mm.
    - Particle size (maximum): 20 mm.
- Material brought to the surface: Remove stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass, rubbish and debris.

1.26.4 Topsoiling
- Areas to be reinstated shall be top-soiled to a min. depth of 150mm.
- Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
- General: 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.

1.26.5 Grading
- General appearance to be achieved: A fine graded finish to bring the ground to a uniform and even grade at the correct finished levels with smooth, flowing contours.
- Topsoil condition: Reasonably dry and workable.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.
- Blade grading: May be used to adjust topsoil levels provided depth of topsoil is nowhere less than 150mm.
- Give notice: If required levels cannot be achieved by movement of existing soil.

1.26.6 Fertilizer for Seeded Areas

- Types: Apply both:
    - Superphosphate with a minimum of 18% water-soluble phosphoric acid.
    - A sulphate of ammonia with a minimum of 20% nitrogen.
- Application: Before final cultivation and three to five days before seeding/turfing.
- Coverage: Spread evenly, each type at 70 g/m², in transverse directions.

1.26.7 Final Cultivation

- Timing: After grading and fertilizing.
- Seed bed: Reduce to fine, firm tilth with good crumb structure.
- Depth: 50-100mm.
- Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
- Remove surface stones/earth clods exceeding:
    - Pastoral areas: 50mm.
    - Fine lawn areas: 10mm.
- Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

1.26.8 Grass Seed

- All seeds shall carry appropriate certificates.
- Seed shall be purchased fresh for each growing season and seed purchased impervious sowing seasons is not to be used.
- Seed shall be stored under non-transparent wrapping, off the ground, in a dry, shaded place, in well ventilated conditions under cover and shall be protected from vermin and contamination until required for use.
- No seeding shall take place until the seedbed is completed. All seeding shall be carried out within the sowing season.

1.26.9 Sowing

- General: Establish good seed contact with the root zone.
- Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- Distribution: 2 equal sowings at right angles to each other.
- Protection: fence off areas with suitable fencing to stop people or animals from trampling new growth.

1.26.10 Grass sowing season

Grass seed generally: April to June or August to November.

1.27 Cleanliness

After completion of all works remove all debris and waste material from site.

- 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.

2.0 MAINTENANCE

The maintenance programme will be organised on the basis of specific **performance standards** which must be met by the contractor at all times and will be the basis on which this contract will be assessed. Along with these performance standards a monthly report sheet will be filled out and returned each month. Details of the performance standards are outlined below.

Remove all noxious and undesirable weeds from the site. Weeds include: Ragwort, Himalayan Balsam, Giant hogweed & Japanese knotweed, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the Department of Environment. For the removal of certain species such as Japanese Knotweed a method statement is to be prepared and submitted to the Department of Environment.

Performance Standards and Maintenance Operations

2.1 Grassed Areas

2.1.1 Fine-Cut Grass Areas

Fine cut grass areas will achieve an even cover of vegetation of uniform height and colour, comprising predominantly of grass species. No more than 5% of the grass areas shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting will not be carried out during excessively wet or waterlogged conditions. Contractor to inform the administrative authority if conditions are unsuitable.

Fine-Cut Mowing

Where practical, fine grass areas will be cut using a cylinder mower, otherwise a rotary mower will be used. All grass clippings will be collected and removed off-site after each cut.

Lawn grass cutting will be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass will be kept at a maximum height of 50mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

Weed Control

Lawn grass areas will be treated using an approved selective herbicide according to manufacturer's instructions. Areas of invasive and noxious species in the lawn or areas, will be spot-sprayed.

Fertilizer

Approved fertiliser will be applied 2no. times per year to lawn areas if required due to poor grass growth/establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 will be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 will be applied in October of each year to all fine cut grass areas.

2.1.2 Amenity Grass Areas

Amenity grass areas will achieve an even cover of vegetation of uniform height and colour comprising predominantly of grass species. Unless otherwise agreed with the landscape architect no more than 15% of the grass areas will contain dicotyledonous (dicots) weeds, except clover. Grass cutting will not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

Amenity Grass Mowing

Where practical grass areas will be cut using a cylinder mower, otherwise a rotary mower will be used. Unless excessive or unsightly, or likely to cause a nuisance or damage to the sward, arisings will be spread evenly over sward areas collected.

Lawn grass cutting will be carried out every 10-14 days during the growing season, (throughout the period of March to October), but will need to be adjusted according to season's weather conditions. Grass will be kept at a maximum height of 75mm and minimum height of 35mm. A minimum of 24 cuts shall be carried out annually.

Weed Control

Areas of invasive and noxious species in lawns, will be spot-sprayed.

Weed infestations will be reviewed in the context of the aesthetic and amenity functioning of the grass and if necessary controlled or eradicated.

Fertilizer

Approved fertilizer will be applied 2no. times per year to lawn areas if required due to poor grass growth/establishment or yellowing. Spring fertilizer application of NPK ratio 9:7:7 will be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 will be applied in October of each year to all fine cut grass areas.

2.1.4 Meadow Grass (<u>to enable yellowhammer bird establishment</u>)

Mowing of the stand will only be undertaken at the end of winter (late February/early March) and the thatch should be removed.

2.1.5 Edging and Strimming

Grass edges along pathways, planting borders, roadways, trees, lampposts, signs and any other obstacle will be kept neat and tidy at all times. Between the months of March and October inclusive edging will be carried out to all areas of grass abutting isolated/ specimen trees or shrub borders or mulch circles. These areas will be maintained using a half moon tool or similar to maintain straight or curved defined line and shall be carried out a minimum of 2 - 3 times per year.

Mowing strips against permanent obstacles will be a max. width of 150mm and will be maintained using a hand strimmer. Large areas of desiccated/burnt off grass are not permitted. Strimming will be carried out a min. of 12 times per year.

Grass clipping and all arisings will be swept up and removed off-site.

2.1.6 Spring Bulbs in Grassed Areas

Only cut grassed areas populated by spring bulbs after the leaves of the bulbs have died down and/or yellowed completely. Initially reduce height by one third, followed by a 2-3 stage further reduction over two weeks to achieve desired grass height.

2.1.7 Failed areas

Areas of grass which fail or are damaged or worn will be reinstated by re-turfing or re-seeding in accordance with the original specification.

2.2 Shrub Planting

Shrub areas will be kept litter and weed free, particularly of perennial weeds. Healthy growth will be maintained to cover as much as possible of the planting area and allowing the individual plants to achieve as near as possible their natural form. With the exception of hedges, boxing or pruning to shapes is prohibited. Plants will be contained within designed planting areas and pruned to avoid obstructing pathways or sightlines. Climbers are to be pruned and tied into trellises as required, with two main inspections annually to check trellis system is intact and anchor points are secure.

2.3 Pruning

In general, pruning will be done only to enhance natural growth. Dead, damaged and diseased portions of the plant will be removed. All cuts shall be flush and clean, leaving no stubs or tearing of bark. All major pruning shall be done following flowering or during plant's dormant season. Emergency or minor pruning will be done when needed.

Pruning will be carried out to maintain proper size in relationship to adjacent plantings and intended function. Remedial attention and repair to shrubs will be provided as appropriate by season or in response to incidental damage.

Groundcover plants will be pruned as required to restrain perimeter growth to within planting bed areas where adjacent to walks and curbs. Tip prune selected branches of low growing shrub or groundcover masses to maintain even overall heights and promote fullness.

Certain plants, such as Cornus spp. will require heavy annual pruning in order to maintain healthy colourful stems and healthy leaves. All arising's from pruning shall be removed of site.

2.4 Weed Control

Planting beds will be maintained relatively weed free (no more than 10% of weed cover at maximum) by hand weeding or spot spraying any emergent weeds during the growing season with bio herbicide, the use of Glyphosate must be limited to only when strictly necessary. Saplings will be removed from all planting areas on emergence or immediately after to prevent establishment.

Specific weed control operations will be carried out a min of 9no. times per year, however it will be the contractor's duty to control weeds by hand weeding or other if weed cover exceeds 10% of the planting area.

2.5 Mulching

Shrub beds will contain a min. depth of 50mm bark mulch throughout the year. Contractor to top-up as 2 times per year or as appropriate to maintain depth. Mulch is not required in areas where plant foliage completely covers the soil surface, such that the soil is not visible through the foliage. The contractor will spot treat to remove emergent weeds as specified above but do not cultivate or incorporate the mulch into the soil. Any mulch outside of designated planting areas will be returned to the planter on a weekly basis.

Mulch will be uniform in colour and appearance, and free of leaves, sticks, or trash. Mulch may be chipped or shredded wood, bark. When replacing existing mulch, use a mulch product that is similar in appearance to that already at the site.

2.6 Tree Planting Care

Trees shall be maintained in a healthy, vigorous growing condition with a well-shaped framework for future growth.

2.7 New Tree Planting

Spring and autumn of each year during the maintenance period the trees, double-stakes, rabbit guards and ties will be checked and adjusted, the soil firmed, any dead wood removed back to healthy tissue and mulch adjusted to original levels. Any broken stakes or ties evident throughout the maintenance period will be replaced.

A 1m-diameter mulch circle/square will be maintained at the base of each tree located in open grass areas or grass verges. Top up bark mulch to 75mm where required and make good any mulch mats.

During the first growing season all standard trees / semi-mature trees will be watered at least five times during the growing season - in April, May, June, July and August unless otherwise directed by the Landscape Architect. During the second growing season trees will be kept well watered, particularly during June, July and August.

The edge of the mulch circle will be maintained in a neat and tidy condition as above.

The surface of all planting pits is to be kept free of weeds during the maintenance period by hand weeding of annual weeds, and spot application of translocated herbicide, (as per manufacturer's instructions), for perennial weeds to be carried out on three visits during the growing season.

2.9. Tree Stakes and Ties

Check tree stakes and ties on each maintenance visit. Repair, strengthen and adjust (loosen/tighten) to ensure optimum functioning and trees not being damaged by poor fixings. If trees no longer require stake/tie remove. Prior to handover, check all tree stakes and ties and remove those no longer required.

2.8 Woodland/Scrub Area Management

Woodland areas specified will be maintained in a healthy, vigorous condition and free from litter and noxious weeds throughout the year.

Certain areas of woodland may require thinning over the 5-year period. These areas will be thinned by no more than 10%, removing only the weaker tree specimens. Thinning will be carried out as directed onsite by administrative authority.

Woodland areas will be sprayed 3 times per year with a suitable contact herbicide. Contractor to ensure that no damage is caused to trees by herbicide application.

Areas of natural scrub as indicated on the maintenance plans will be contained by trimming back once per year. The contractor will spray the perimeter of the scrub areas with a contact herbicide to control noxious weeds. This will be carried out 2no. times per annum.

In consideration to the Habitat Report and the Wildlife Act 1976, all clearance operations within woodland and scrub areas will be carried out outside of the bird-nesting season to preserve the bird life in the area. This season extends from the 1st March to 31st August.

To enable yellowhammer bird establishment

Trim hedgerow margins only once every two to three years. Avoid trimming all the dense scrub margin in the same year. Where possible aim to establish this fringing habitat as a 10m strip bounding the dense woodland boundary.

2.9 Litter Clearance/Pick-up

The contractor will maintain all areas free from litter. This means the removal of all extraneous litter, rubbish and any other debris from all areas, which will include grass areas, planted areas, carparks, footpaths as well as woodlands and tree canopies.

Notwithstanding the above it is expected that the contractor and his staff shall take sufficient pride in the appearance of the site and that they would pick up all visible litter during every site visit.

In addition to removal of litter from footpaths, planted areas, etc., the contractor will make provision for the immediate (within 1 days of notification) arrangement for collection and removal of all extraneous matter which has been deliberately been deposited on site by persons known or unknown (fly-tipping).

2.10 Replacements

Any tree, hedge or shrub that is removed, uprooted, destroyed or becomes seriously damaged, defective, diseased, or dead will be replaced in the same location with another plant of the same species and size as that originally planted within 5 years after planting. All such replacements will be carried out in the first available planting season after the requirement to do so is recognised.

3.0 Maintenance Programme

This programme is a guideline only, and times of operations may vary on approval by the landscape architect.

In the table below, the mark * represents the frequency of the action required each month.

ONGOING REQUIREMENTS:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lawn grass cutting (Min 24 cuts)		*	**	**	***	***	***	***	***	**	**	
Edging to lawn grass areas				*			*			*		
Rough Grass							*					
Fertiliser application to lawn grass areas.					*		*			*		
Hedge pruning/cutting					*			*			*	
Shrubs pruning and feeding				*		*			*			
Weed control of hedge and shrub planting areas		*	*	*	*	*	*	*	*	*	*	
Tree pruning											*	*
Removal of tree stakes (3-5yr)				*								
Mulch top-up to tree circles/ squares						*				*		
Herbicide app. to tree mulch circles				*			*			*		
Herbicide app./weeding to shrubs & hedgerow				*			*			*		
Watering of new trees (or after 3 weeks of no rain)				*	*	*	*	*				
Trimming of scrub areas												*
Weed control of scrub areas				*					*			
Application of residual weed killer to footpaths, cycle paths.				*								
Litter Clearance/pick up	***	***	***	***	***	***	***	***	***	***	***	***