CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

PROPOSED RESIDENTAL DEVELOPMENT AT
GORDON PARK
KINGSWOOD
CO. DUBLIN

D01-21578
LANDSCAPE DESIGN STATEMENT

April 2022

Revised and reissued to address Further Information request from SDCC

3 Molesworth Place, Dublin 2
T: 01-6610419 E:info@csrlandplan.ie
www.csrlandplan.ie

LOCATION

The proposed site is located on the southside of Old Naas Road. The site about 3kms from Clondalkin, 4kms from Tallaght, and about 12kms from Dublin City Centre. The site is currently the home of Clondalkin Rugby Football Club.

The site is located in an excellent location. Within 1km of the site, there is Shamrock Rovers Football Club Academy adjacent to the site, Corkagh Park to the north and City West Business Park to the west & Sports Club.

The site has easy access to the R136 Cheerverstown Road, the N7 Naas Road and R838 Katharine Tynan Road. The Cheeverstown LUAS Station lies 1.2kms from the site, handy 15mins walk away.

INTRODUCTION

The site contains neatly laid out playing pitches in grass, a large car-park area and the existing club-house.

The grounds are well maintained and bounded by an old stone wall along much of the site frontage to the Naas Road (with some mature sycamore trees in the external verge), a mature hedrow along most of the eastern boundarys and a range of blockwork walls on other boundaries with adjacent residential areas.

A small number of feature pine trees are found along the northern boundary.

The grounds appear generally level despite a change in level of over 2m from north to south

LEGEND

- Tree line
- Trees of interest
- Memorial Tree
- Soft edge - Hedgerows & Trees
- Ditch
- Stream / River
- 95.0 Levels

EDGES

- Blockwork Wall
- Property Wall Edge
- Feature Stonewall and vegetation
- Residential Receptors - rear gardens facing site

SERVICES

- Main Access
- Secondary Access
- Underground Watermain (5m buffer on either side)
- Bus stops

Isolated tall tree visible from surroundings

Medium to large trees along Old Naas Road

Trees at the boundary

Tree row along the western boundary screening existing residence

Row of tall trees visible from surroundings

Memorial tree & plaque

Stream along eastern boundary

Matured vegetation along eastern boundary

Stone wall along Old Naas Road

Rear wall of residential property to west

Rear wall of residential property to west

Block work wall edge to existing neighbourhood to the south-east and existing gates to facilitate future access to and from Silken Park Avenue

Boundary wall along northern boundary with windows and openings facing the site

Partially fenced along eastern edge

Existing gates to facilitate future access to and from Silken Park Avenue

IMMEDIATE SURROUNDINGS

The proposed site's surroundings has a village character, with matured trees scattered along the Old Naas Road. 'Low stone walls' with rubble masonry can be found along the north-western boundary of the site along Old Naas Road and along opposite side of the road.

The same character and use of stone is reflected all the way along Old Naas Road in the form of stone walls, piers and elevational treatments.

Looking east from Old Naas Road

Looking west from Old Naas Road

Looking at Mulvany Bros Art Gallery entrance from Old Naas Road

Looking at Roadstone Group Sports Club from the site's eastern edge

Looking at Kingswood Hotel from Old Naas Road

Looking at Roadstone Group Sports Club from Old Naas Road

Looking at Kingswood Hotel Complex – use of stone and vegetation to reflect surroundings

Single-storey one-off dwelling to western corner of the site along Old Naas Road

Looking at Brownsbarn Wood from Old Naas Road

Use of stone, brick and slates at Brownsbarn Wood

Single-storey house along Naas Road, with stone walls and sloping roof

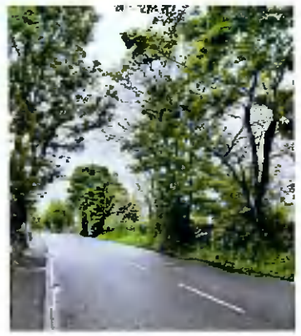
Brownsbarn Orchard Gated Residential complex laid in semi-circular plan

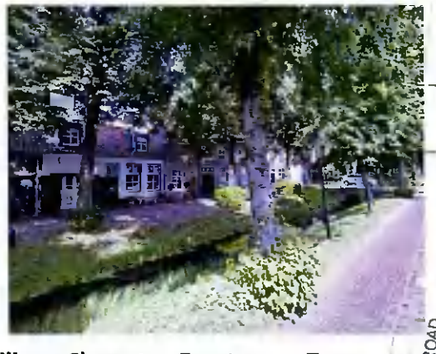
SURROUNDING BUILT- ENVIRONMENT

The surroundings predominantly consists of low-medium rise buildings.

The land-use pattern is mixed along the Old Naas Road. Along the northern / western side of Old Naas Road there is hospitality (Kingswood Hotel), business (Bill Griffin Car Motors, Architectural Salvage and Mulvany Bros Art) and there on it is predominantly residential.

Along the eastern & southern side of Old Naas Road, there are the sports clubs (including the subject site), and there on predominantly residential.





Retained and reinforced Village Character Frontage – Trees and verge, Stone Wall and new Trees.

Woodland / Parkland Trees to Parking Area

Existing Trees & hedgerows removed as required

Communal Amenity Space with natural play area for toddlers

Existing hedgerow retained

Children Play Area (250sqm)

Public Open Space (0.258ha. / 11.3% of site area)

Open grassed kickabout space

Potential future pedestrian connection

Playground

Landscape Design Objectives

- *Create a distinctive and local village character*
- *Retain key existing features and boundaries (old walls, hedges , trees where feasible)*
- *Create tree lined streets and gradens to house frontages*
- *Create attractive and intimate scaled green spaces*
- *Integrate with surrounding developments /* areas through links and boundary treatments
- Ensure compliance with planning, amenity and other standards

Tree at junction to be removed

Incidental green space as gateway

Place-making – new housing responding to landscape context – Citywest Southern Lands.

Leyland Cypress trees to boundary to be removed

Link to Silken Park Avenue

GENERAL NOTES:
a. See Drawing 21578-2-104 for boundary treatment details
b. To be read in conjunction with all other drawings.
c. See architect's site layout plan for extent of site boundary line
d. Do not scale off drawing. Refer to dimensions given.
e. This drawing is for planning purposes only.
f. All products are as indicted or equivalent.

REV	DATE	AMENDMENT
H	12/04/22	Boundary line removed
G	05/04/22	Tree Sizes updated
F	04/04/22	Site Layout update
E	24/03/22	Site Layout update
D	12/11/21	Annotations
C	09/11/21	Annotations
B	02/11/21	Annotations
A	19/10/21	Pathway and legend updated

CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

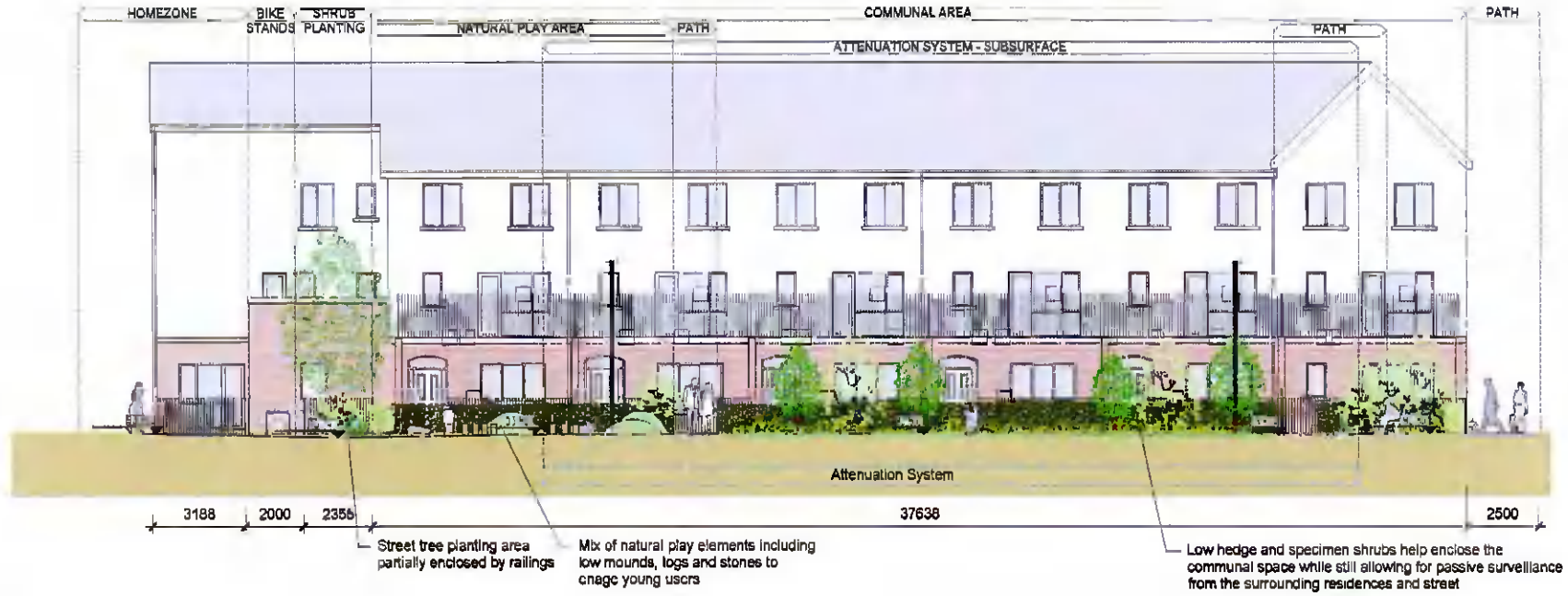
DUBLIN OFFICE
3 MOLESWORTH PLACE DUBLIN 2
TEL 01 661 0419 FAX 01 661 0431
E MAIL info@cartenplan.ie

PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT AT GORDON PARK	DATE: OCTOBER 2021
	SCALE: 1:500 @ A1
DRAWING: LANDSCAPE MASTER PLAN	DRAWN: RF CHECKED: DOL
	DRAWING NO: 21578-2-101

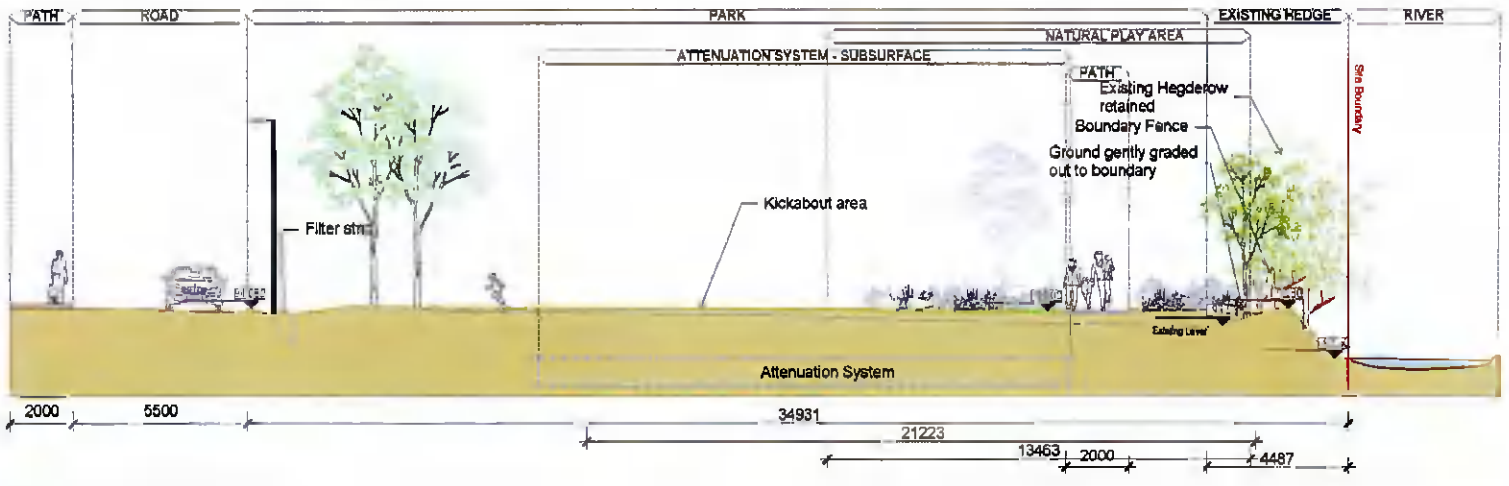
LANDSCAPE – ROAD FRONT AND OPEN SPACE SECTIONS & ELEVATIONS

Proposed RESIDENTIAL DEVELOPMENT at Gordon Park

ELEVATION A-A - OLD NAAS ROAD
SCALE: 1/200@ A1



SECTION B-B - OPEN SPACE 1 - COMMUNAL AREA NEXT TO DUPLEX
SCALE: 1/100@ A1



SECTION C-C - OPEN SPACE 2 - PUBLIC PARK
SCALE: 1/100@ A1

WESTERN END SECTIONS A-A and B-B
KEY PLANS NTS @ A1

EASTERN END SECTION C-C

GENERAL NOTES:

a. See Drawing 21578-2-101 for overall landscape plan proposals
b. To be read in conjunction with all other drawings.
c. See architect's site layout plan for extent of site boundary line
d. Do not scale off drawing. Refer to dimensions given
e. This drawing is for planning purposes only.

REV	DATE	AMENDMENT
E	12/04/22	Plan boundary line removed
D	04/04/22	Site layout amended
C	12/11/21	Roadside wall amended
B	09/11/21	Base map amended
A	18/10/21	Section labels amended

CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

DUBLIN OFFICE
3 MOLESWORTH PLACE DUBLIN 2
TEL 01 661 0419 FAX 01 661 0431
EMAIL info@cslandplan.ie

PROJECT: PROPOSED PRESIDENTIAL DEVELOPMENT AT GORDON PARK	DATE. OCTOBER 2021
	SCALE. 1:100 @ A1
	DRAWN DOL CHECKED: RF
DRAWING: ROADSIDE ELEVATION AND OPEN SPACE SECTIONS	DRAWING NO: 21578-2-201

PUBLIC PARK PLAY AREA: TODDLERS + PRESCHOOL CHILDREN
SCALE: 1/100@ A1

COMMUNAL PLAY AREA: TODDLERS + PRESCHOOL CHILDREN
SCALE: 1/100@ A1

NATURAL PLAY AREA LOCATIONS PLAN - SCALE: NTS

Typical Natural Play Elements

No.1 Natural Elements: Grass hills for rolling down and running up

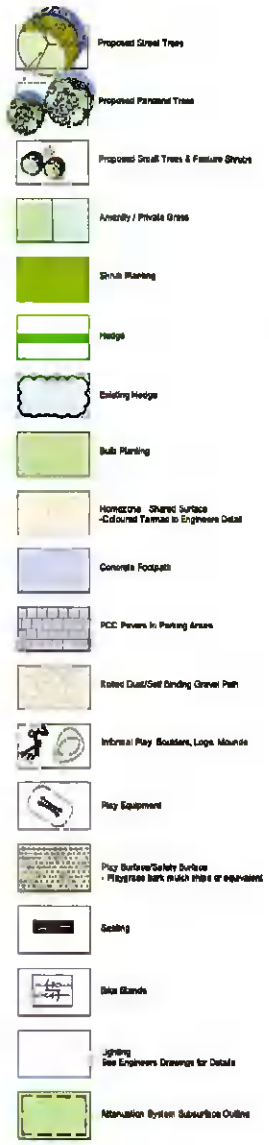
No.2 Natural Elements: Stepping logs for balancing

No.3 Natural Elements: Rocks for balancing

No.4 Natural Elements: Logs with bark for creative play and seating

No.5 Natural Elements: Logs logs for balancing

No. 6 KOMPAN NRG612 Wobble Bridge: Great for encouraging balancing



Play Facilities - Contractors Specialist Design

The playground will be provided by a specialist Design and Build Playground provider with appropriate experience and competency. Designs will reflect the specification below and design intent drawings provided opposite and be compliant with relevant health and safety standards. The contractor's specialist will provide layout proposals - plans and equipment specifications - reflecting the design intents and quality for the approval of the Landscape Architect.

Design proposals/intents

Play areas are shown in a number of areas across the site with proposed play equipment, including natural play elements, play / safety surfacing and general arrangement design intents. The Design intents for Play Areas 1 and 2 are shown on Dwg 21578-2-102 along with proposed play equipments and associated materials. These areas will contain play equipment for toddlers and children up to to 12 years of age.

The play equipment will help the children interact with one another, with some pieces requiring team work to use, which will help improve their social skills and help create friendships. Within these active play areas the emphasis of the various elements will be of natural play. Some mounding, stepping logs, coupled with boulders and fallen tree trunks will help create a varied and interesting physical environment. This will allow the children to use their imagination and help engage them in 'pretend play'.

Furnishings

Furnishings / equipment will be as scheduled on the drawings, and will consist of active pieces and passive play pieces and natural elements. The specialist's proposals must comply with the selection. Any variation must be equivalent in quality, character and function.

Appropriate safety surfaces addressing fall height requirements and general play use will be fitted where necessary to ensure the safety of the children.

Boulders where shown should be rounded Leinster granite boulders maximum 1m in height by 1-2m in length or width, 1-2 tonnes in weight. Boulders to be set in concrete to avoid movement.

Logs where shown to be salvaged oak or similar hardwood trunks: 3m long and 70-90cm in diameter. Laid on the ground or partly elevated (bridges, balancing, and sitting) but no higher than 1m above ground level and fixed to avoid rolling.

Stepping logs to be round Robinia (or equivalent) column fixed in concrete foundation in the ground to a range of above ground heights (300-500mm)

Grass Areas

Grass areas and associated landform will be gently contoured to facilitate mowing by ride-on mowers (1 4). Avoid steep mounds.

Safety Surface

Some of the playspace / areas will have a safety surface installed - Play grade bark chips or equivalent

Safety and Standards

All furnishings and surfaces within the playspace areas will be to BS EN 1176/BS:EN 1177 standards, while meeting RoSPA, NSC and other appropriate health and safety requirements

RoSPA Certification

The contractor is responsible for the inspection of the playground by a qualified RoSPA inspector and ensuring that the playground is certified by the inspector as safe to operate and will address any items recommended by that inspector.

General

All steel to be galvanised to a fine grade spangled finish to BS EN ISO1461:2009 (unless stainless)

GENERAL NOTES:
a. See Drawing 21578-2-101 for overall landscape plan proposals
b. To be read in conjunction with all other drawings.
c. See architect's site layout plan for extent of site boundary line
d. Do not scale off drawing. Refer to dimensions given.
e. This drawing is for planning purposes only
f. All products are as indicted or equivalent.

REV	DATE	AMENDMENT
D	11/04/22	Boundary line removed
C	04/04/22	Site layout updated
B	08/11/21	Image labels amended
A	19/10/21	Pathway and legend updated

CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

DUBLIN OFFICE
3 MOLESWORTH PLACE DUBLIN 2
TEL 01 661 0419 FAX 01 661 0431
EMAIL info@csrland.ie

PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT AT GORDON PARK	DATE: OCTOBER 2021
	SCALE: AS SHOWN @ A1
DRAWING: PLAY AREA DETAILS	DRAWN: RF CHECKED. DOL
	DRAWING NO: 21578-2-102

Street Trees & SUDS

The originally submitted landscape scheme showed all trees along streets within the curtilage of private houses. Communal semi-public trees were located within the Communal Gardens and Public Open Space – both to be maintained by the management company but in localised areas. In order to provide a wider distribution of public and / or communal trees along streets the following interventions are proposed

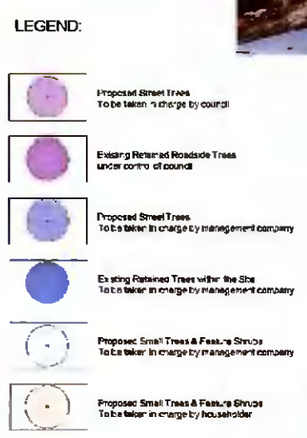
1. A number of build-outs have been created along the western and southern streets to accommodate 4 street trees and provide local chicanes to calm traffic. These trees will be taken in charge by the local authority and will be constructed with structural tree soil providing a SUDs function.
2. 7 no trees originally in large planted areas in private front gardens will be railed off and brought into the public domain to be maintained by the management company – See precedent example to the right in Iveagh Gardens in Crumlin and details below. These trees will also be part of the SUDS system.

Drawing No 21578/2/105 illustrates trees to be taken in charge publicly and by the management company and the resulting communal street trees structure that would be a permanent feature of the scheme. The introduction of the tree pits, bioretention area, and filter strips coupled with the previously proposed SuDS features such as permeable paved driveways and infiltration trenches have generated sufficient additional surface water storage on the site to allow the footprint of the sub-surface attenuation tanks in the public open space to be reduced by circa 20%.

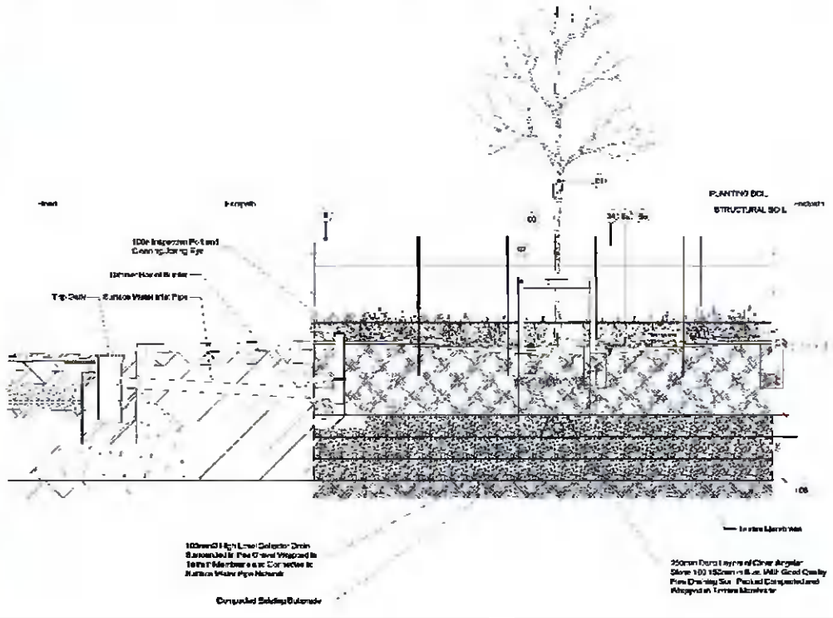
Railed street trees inside footpath – Iveagh Gardens Crumlin

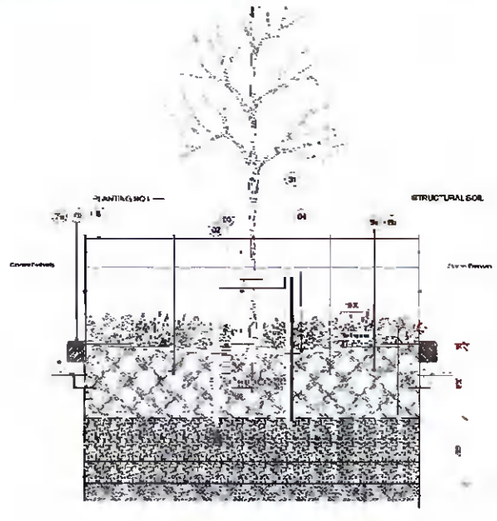
Communal Tree and garden with railing – integrated into the public street . See Drawing No 21578/2/701

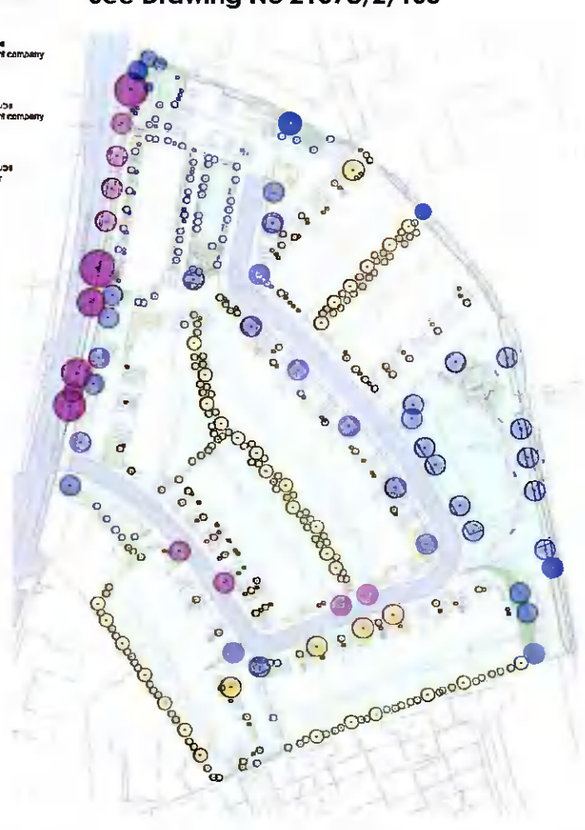
Visual of Railed Communal Tree and Garden Area



Communal and Managed Trees
See Drawing No 21578/2/105







LANDSCAPE – BOUNDARIES

Proposed RESIDENTIAL DEVELOPMENT at Gordon Park

KEY - EXISTING AND INDICATIVE BOUNDARY TREATMENT IMAGES


Existing Stone Wall Along Roadside


Estate Railings


Existing Block Wall on Southern Boundary


Tree Pit Estate Railings


Existing Hedgerow on Eastern Boundary


Concrete Post and Timber Panel Fencing


Concrete Block Wall with Brick Cladding


Timber Post and Rail Fencing with Mesh

BOUNDARY TYPES LEGEND

WALLS

BW1	Concrete Block Wall faced with brick cladding to match building finish	Height - 2000mm
BW2	Concrete Block Wall faced with stone	Height - 2000mm
BW3	Concrete Block Wall to rear of gardens	Height - 2000mm
BW4	Existing roadside stone wall retained	Height - wall: up to ~1500mm
BW5	Existing block wall to rear of houses along boundary	

FENCES & RAILINGS

BF1	Back garden side boundaries - Concrete post and timber panel infill	Height - 1800mm
BF2	Timber Post and Rail with mesh screen to rear	Height - 1200mm
BF3	(a) BF1 timber panel fence on raised supports (b) Fence reduced along front garden length	Height - 1800mm Height - 1200mm
BF4	Estate railings to Duplex (first floor levels)	Height - 1500mm
BF5	Estate railings to communal area, open space and houses boundaries next to open space	Height - 1200mm
BF6	Estate railings to street trees planting areas	Height - 1200mm
BF7	Retained existing palisade fencing next to adjoining housing estate along the site's southeastern boundary	
BF8	Retained neighbouring property's existing chain link fencing along the site's southwestern boundary	
BF9	Retained neighbouring property's existing timber panel fence up against the site's northern boundary	

GENERAL NOTES:
a. To be read in conjunction with all other drawings.
b. See architect's site layout plan for extent of site boundary line
c. Do not scale off drawing. Refer to dimensions given.
d. This drawing is for planning purposes only
e. All products are as indicted or equivalent.

REV	DATE	AMENDMENT
D	11/04/22	Boundary line removed
C	04/04/22	Revised Layout
B	09/11/21	Revised Annotations
A	18/10/21	Revised Boundary Types

CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

DUBLIN OFFICE
3 MOLESWORTH PLACE DUBLIN 2
TEL 01 661 0419 FAX 01 661 0431
EMAIL info@csrlandplan.ie

PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT AT GORDON PARK	DATE:	OCTOBER 2021
	SCALE:	1:500 @ A1
DRAWING: BOUNDARIES TREATMENT	DRAWN:	RF
	CHECKED:	DOL
	DRAWING NO:	21578-2-104

LEGEND:

Existing Trees to be retained (subject to arborist's advice)

Trees and hedge to be removed

Proposed Street Trees

Proposed Parkland Trees

Proposed Small Trees & Feature Shrubs

SERVICES

Outline of Wayleave for existing 400ß watermain

Proposed Surface Water Sewer

Propose Infiltration Trench

Road Side Filter Strips with Subbase Storage and infiltration to ground where possible.

Road Side Tree Pits with Sub-Surface Storag and infiltration to ground where possible

Bio Retention Area with Surface Water Store and infiltration to ground where possible.

Proposed Attenuation System

SERVICES

Proposed Foul Sewer

IC Proposed Foul Inspection Chamber

Existing Foul Sewer

Proposed Surface Water Sewer

Proposed Filter Drain

Existing Watermain

Proposed Watermain

H Hydrant

SV Sluice Valve

AV Air Valve

SCV Scour Valve

DB Boundary Box

BM M Meter

Existing Watermain and Buffer

Proposed Attenuation System

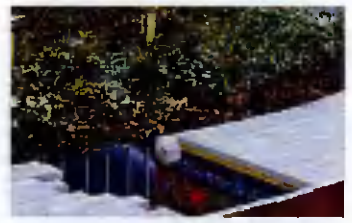
LIGHTING

Proposed Street Lighting on 6m column with exclusion zone

Proposed Ducting

Proposed MidI Pillar

Proposed Cable Access Chamber



Service Protection - Illustrating protection of services from root penetration

NOTE.
Main services laid in carriageway as shown Connections to houses can be adjusted at detailed design to avoid conflict with tree position where necessary

Where services are required to run in close proximity to tree locations, protective measures will be installed in compliance with service providers requirements.

As well as specifications in regard to the robust quality of ducts and pipe work this may involve the installation of root barriers between services and tree locations to prevent roots interfering with the services and / or future excavations interfering with the tree roots.

GENERAL NOTES:

a. See Drawing 21578-2-101 for overall landscape plan proposals
b. To be read in conjunction with all other drawings.
c. See architect's site layout plan for extent of site boundary line
d. Do not scale off drawing. Refer to dimensions given
e. This drawing is for planning purposes only.
f. All products are as indicted or equivalent.

REV	DATE	AMENDMENT
D	12/04/22	Boundary line removed
C	04/04/22	Updated layout
B	12/11/21	Minor update to lighting
A	19/10/21	Updated path and lighting

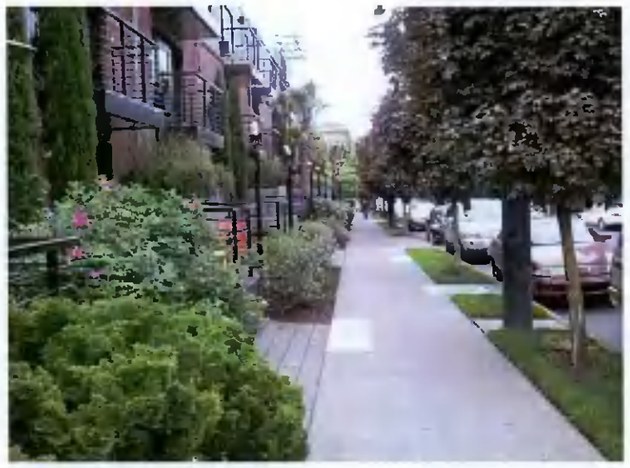
CUNNANE STRATTON REYNOLDS
LAND PLANNING & DESIGN

DUBLIN OFFICE
3 MOLESWORTH PLACE DUBLIN 2
TEL 01 661 0419 FAX 01 661 0431
EMAIL info@cslandplan.ie

N

PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT AT GORDON PARK	DATE:	OCTOBER 2021
	SCALE:	1:500 @ A1
DRAWING: LANDSCAPE AND SERVICES COORDINATION	DRAWN:	RF
	CHECKED:	DOL
	DRAWING NO:	21578-2-103

A simple robust palette of materials is envisaged, used creatively to form well functioning and robust / sustainable and beautiful residential places.



Concrete pavements and trees in grass verges, Planting islands between paved driveways in private gardens

Rolled gravel / dust paving.

Road surface variations – tabled areas in coloured asphalt.

Seating to public spaces.

Bike store with sedum green roof

Natural elements throughout playgrounds.

Street & Parkland Trees (native / naturalised) – typically 18-20cm to 20-25cm girth 4.5-6m ht:


Pinus sylvestris


Quercus petraea


Corylus colurna'


Alnus glutinosa


Fagus sylvatica

Street Trees – typically 18-20cm girth 4.5-6m ht:


Tilia cordata


Acer campestre


Betula pedula

Small to Medium Trees – typically 14-16cm to 16-18 girth 3-5m ht:


Pyrus calleryana 'Chanticleer'


Sorbus aucuparia


Sorbus aria "Lutescens"

Typical Low Shrub planting to private gardens – typically 2L pot size at 4/sq.m:


Aster novi-beigii


Berbaris 'Amstelveen'


Carex spp.


Ceanothus 'Blue Mound'


Spirea japonica


Lavendula augustifolia


Hypericum "Hidcote"

Hedges – 60-90cm bushy at 3/lin.m

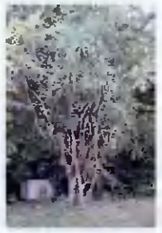

Fagus slyvatica

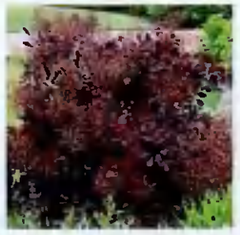

Prunus lusitanicaa

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

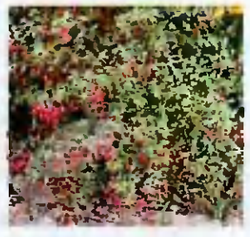

Choisya ternata


Cornus sanguinea


Cordyline australis


Continus coggygria

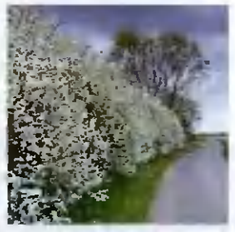

Rosa Noaschee


Fuchsia "Riccartonii"

Hedgerow Mix – 60-90cm at 5/lin.m:


Ilex aquifolium


Crataegus monogyna


Prunus spinosa

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 Health and safety legislation.
- Vegetation: remove all weed growth.
- Large roots: Grub up and dispose of without undue disturbance of soil and adjacent areas.

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 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.

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 recommendations	Trees: from nursery to independence in the landscape-
• BS 8601	Specification for subsoil and required use
• BS EN 1722-9 round or	Fences Specification for mild steel - low carbon steel - fences with 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. 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.

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 EEuropean Federation of Green Roof Associations, (EFB), or equivalent, and in accordance with the drawings provided.

26. Grass Seeding

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. 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 shall be filled out and returned each month. Details of the performance standards are outlined below.

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 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 shall 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 shall not be carried out during excessively wet or waterlogged conditions. Contractor to inform administrative authority if conditions are unsuitable.

Fine-Cut Mowing

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

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

Fertilizer

Approved fertilizer shall 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 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

2.1.2 Amenity Grass Areas

Amenity grass areas shall 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 shall contain dicotyledonous (dicots) weeds, except clover. Grass cutting shall 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 shall be cut using a cylinder mower, otherwise a rotary mower shall be used. Unless excessive or unsightly, or likely to cause a nuisance or damage to the sward, arisings shall be spread evenly over sward areas collected.

Lawn grass cutting shall 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 shall 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, shall be spot sprayed.

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

Fertilizer

Approved fertilizer shall 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 shall be applied in May of each year and Autumn/Winter fertiliser of NPK ratio 3:12:12 shall be applied in October of each year to all fine cut grass areas.

2.1.4 Edging and Strimming

Grass edges along pathways, planting borders, roadways, trees, lampposts, signs and any other obstacle shall be kept neat and tidy at all times.

Between the months of March and October inclusive edging shall be carried out to all areas of grass abutting isolated/ specimen trees or shrub borders or mulch circles. These areas shall 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 shall be a max. width of 150mm and shall be maintained using a hand strimmer. Large areas of desiccated/ burnt off grass are not permitted. Strimming shall be carried out a min. of 12 times per year.

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

2.1.5 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.

2.1.6 Failed areas

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

2.2 Shrub Planting

Shrub areas shall be kept litter and weed free, particularly of perennial weeds. Healthy growth shall 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 shall be contained with 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 shall 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 shall be done when needed.

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

Groundcover plants shall 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 shall 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 Glyphosate or approved equivalent. Saplings shall be removed from all planting areas on emergence or immediately after to prevent establishment.

Specific weed control operations shall 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 shall 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 shall 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 shall be returned to the planter on a weekly basis.

Mulch shall 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 shall 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 shall be replaced.

A 1m-diameter mulch circle/square shall 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 shall 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 shall 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 shall 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 shall be thinned by no more than 10%, removing only the weaker tree specimens. Thinning shall be carried out as directed onsite by administrative authority.

Woodland areas shall 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 shall be contained by trimming back once per year. The contractor shall spray the perimeter of the scrub areas with a contact herbicide to control noxious weeds. This shall be carried out 2no. times per annum.

All clearance operations within woodland and scrub areas shall 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.

2.09 Litter Clearance/Pick-up

The contractor shall maintain all areas free from litter. This shall mean 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 shall 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 shall 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 shall 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 landscape architect.

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	***	***	***	***	***	***	***	***	***	***	***	***