



LANDSCAPE DESIGN STATEMENT

Greenfields Swords LRD, Co. Dublin

MAY 2026

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01 SITE ANALYSIS



Figure 1. Aerial view with site boundary highlighted in red

Source: Google Earth Pro

— Site boundary

— Site Area: 1.98 ha

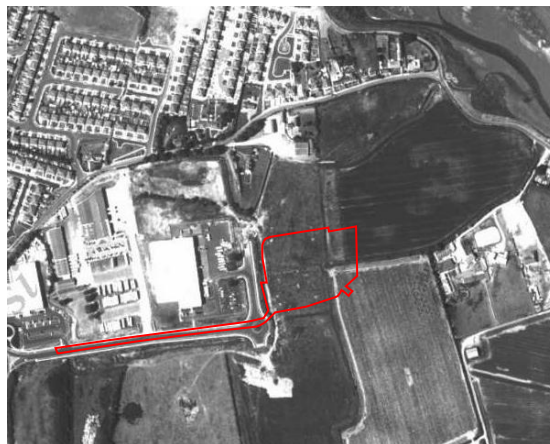
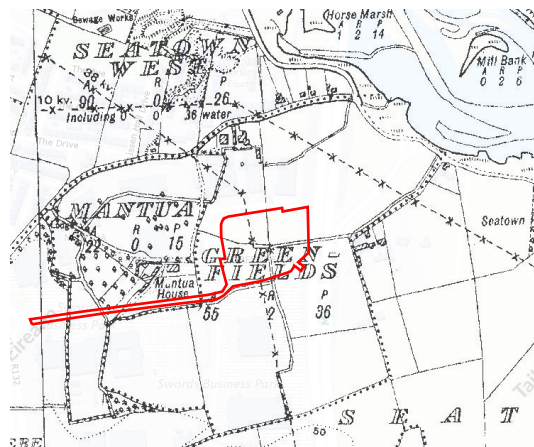


Figure 3. Aerial view – 1995
Source: GeoHive Map Viewer



Figure 4. Aerial view – 1996-2000
Source: GeoHive Map Viewer



Figure 5. Aerial view - 2002
Source: Google Earth Pro



Figure 6. Aerial view - 2006-2012
Source: GeoHive Map Viewer

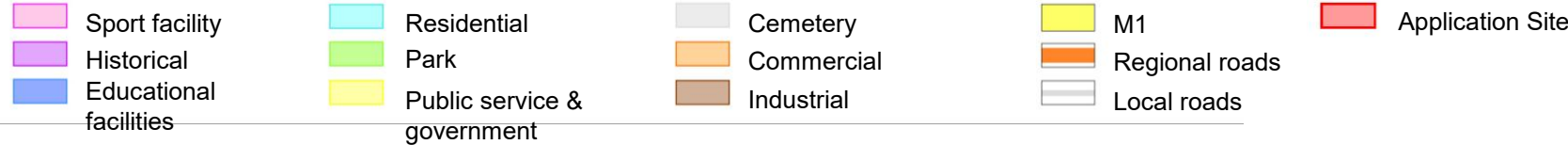
SITE LOCATION & CONTEXT

01 – SITE ANALYSIS



Figure 7. Aerial view with site boundary (red line)

Source: Google Earth Pro



The Site is strategically located on the eastern edge of Swords, immediately west of the M1 motorway on Mantua Road. The development has potential to be a visual landmark as a 'gateway' to Swords from the east and visible also from the M1 motorway.

There is direct access to the R132 road 400m to the east of the site providing access to Dublin Airport and the national road network (M50 and M1) beyond.

The lands in the immediate vicinity currently comprise mostly industrial type units to the north/ west/ south of the Site. There are residential areas further north and west.

Swords Caste and Saint Colmcille's National Schools are located south-west of the Site.



Figure 8. Aerial view with site boundary (red line)

Source: Google Earth Pro



Located on a greenfield site of open grassland and tree belts, the site topography is relatively flat, with a gentle fall from the south west (+6.98 to +5.2) to north east. A defunct dry ditch is located to the southeast of the site in an 'L' shape, the corner remnant of a former field. There is a belt of existing mature trees extending along the eastern flank of the site with a large grouping at the southwestern corner, possibly planted in order to provide screening to the site from the adjacent road.

A sterile strip of c. 7 metres extends along the eastern boundary of the site, beneath which runs an existing surface water pipe as well as electrical cables. Beyond this boundary is the embankment to the M1 motorway which is heavily planted with screening vegetation and trees.

The motorway on the eastern boundary dominates the site visually and audibly due to its elevated position relative to the site.

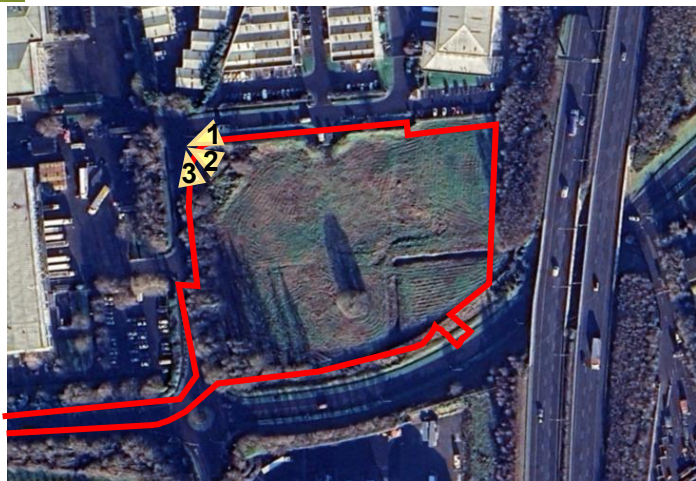


Figure 10. Photo's location
Source: Google Earth Pro



Photo 1. View to the northern boundary of the Site from Northwest (March 2025)



Photo 2. View to the centre of the site from Northwestern boundary (March 2025)



Photo 3. View to the existing hedgerows from Northwest (March 2025)



Figure 11. Photo's location
Source: Google Earth Pro



Photo 4. View to the northern boundary of the Site from Northeast (March 2025)



Photo 5. View to the southern boundary of the Site (March 2025)



Photo 6. View to the southeastern area of the Site (March 2025)



Figure 12. Location of the photos
Source: Google Earth Pro



Photo 7. View to the southern boundary of the Site from east (March 2025)



Photo 8. View to the eastern area of the Site from south (March 2025)



Photo 9. View near the eastern boundary of the Site to the northwest (March 2025)



Figure 13. Photo's location
Source: Google Earth Pro



Photo 10. View looking north (March 2025)



Photo 11. View looking northeast across the Site (March 2025)



Photo 12. View towards the southern boundary of the Site (March 2025)



Figure 14. Photo's location
Source: Google Earth Pro



Photo 13. View towards the southern boundary of the Site (March 2025)



Photo 14. View towards the southern hedgerow of the Site (March 2025)



Photo 15. View towards the southwestern corner of the Site (March 2025)



Figure 15. Photo's location
Source: GeoHive Map Viewer



Photo 16. Existing path along vegetation on the western boundary (March 2025)



Photo 17. Existing path along vegetation on the western boundary (March 2025)

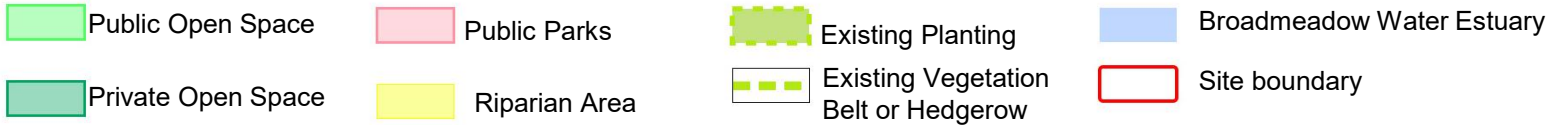


Photo 18. Existing path along vegetation on the western boundary (March 2025)



Figure 9. Green Infrastructure - Aerial view with site boundary (red line)

Source: Google Earth Pro



The Site benefits from a distinct setting, with clear separation from existing residential areas and public green spaces provided by the motorway corridor and surrounding industrial and retail development. Notwithstanding this, the Site is located in proximity to several large public open spaces towards the centre of Swords, as well as extensive natural green spaces to the east, offering opportunities for connectivity to a wider green infrastructure network.

Broadmeadow Estuary is located north-east of the Site east of the M1. Vegetation along the motorway effectively connects the site with the surrounding green infrastructure to the north of the site, which then connects under the motorway to the estuary.

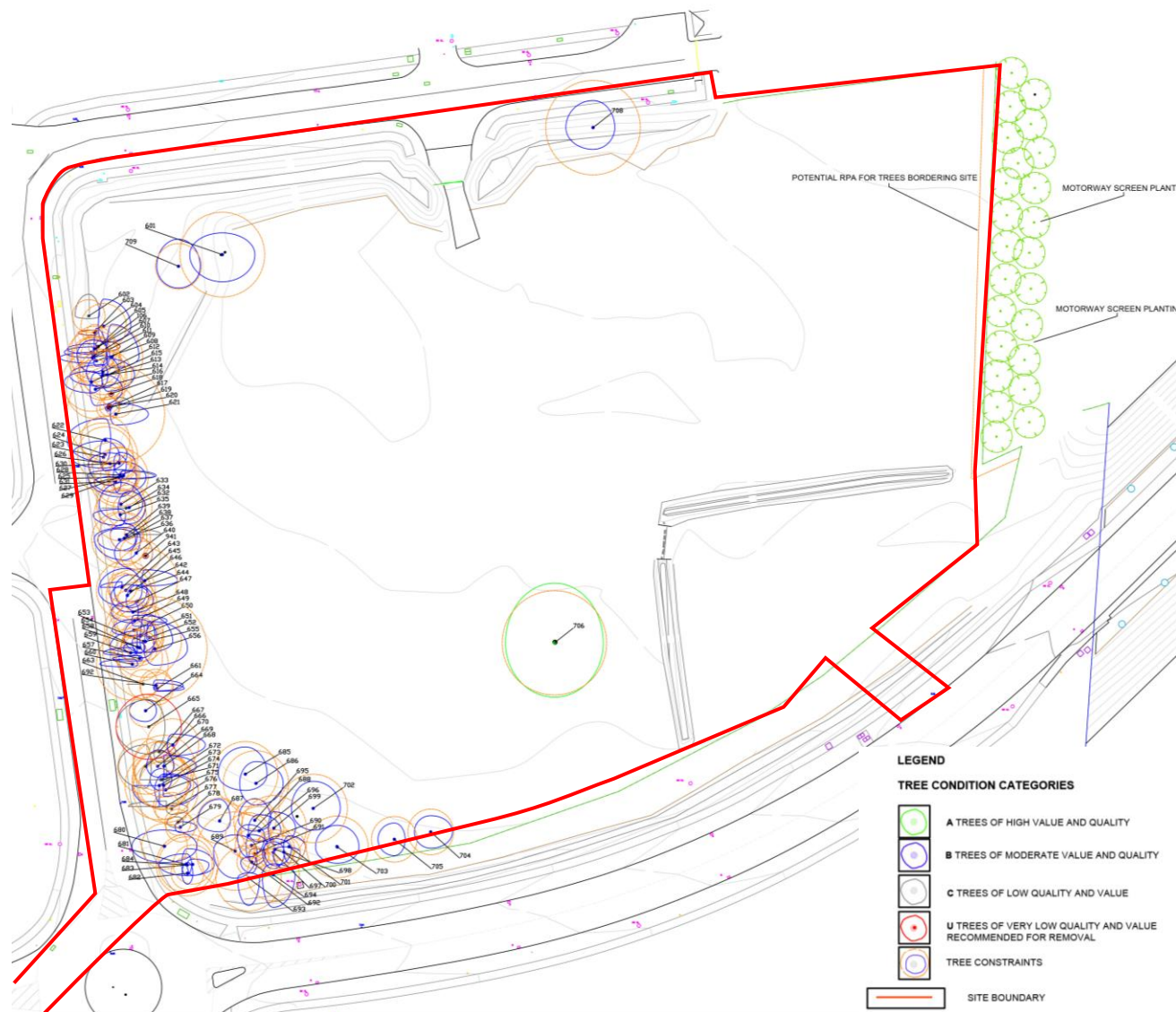
EXISTING TREES AND HEDGEROWS

01 – SITE ANALYSIS

A Tree Survey and Arboricultural Assessment & Impact Report has been carried out by CMK Urban Forestry Consultants in June 2025.

The central section of the site is dominated by one large willow tree (*Salix caprea*) with the vast majority of the remaining trees forming part of larger tree groups or belts on the site boundaries. The trees within the groups are a mixture of species typically planted for screening purposes and includes Italian alder (*Alnus cordata*), pedunculate oak (*Quercus robur*) and wild cherry (*Prunus avium*). More occasional self-seeded sycamore (*Acer pseudoplatanus*) are also included within the groups. Native shrubs such as elder (*Sambucus nigra*) and dog rose (*Rosa canina*) are scattered throughout and along the margins. There has been minimal maintenance or management of the woodland vegetation in recent years resulting in the woodland areas being dominated by alder with other species primarily forming the under-canopy. The shrub layer is mainly confined to the outer edges where sufficient light is available for growth.

Proposals will seek to retain as much existing woodland vegetation as possible as well as the large Willow (*Salix caprea*) in the central part of the site. Tree removals resulting from development will be minimised insofar as possible.



02 CONCEPT



Initial Design Concept submitted to FCC during the Pre-Planning Meeting held in April 2025.



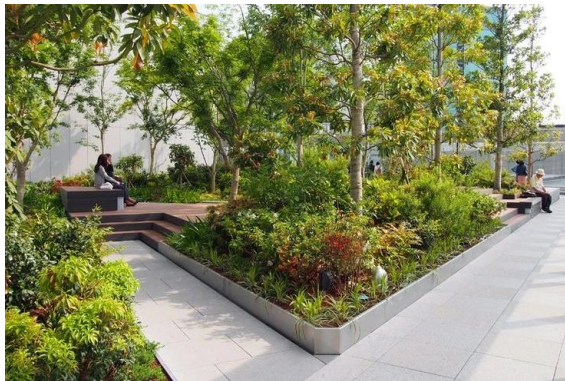
Revised Design Concept presented to FCC during the LRD Meeting held in December 2025.



The site is located within an area dominated by light industry and the M1 motorway to the east. To best integrate the site with its surroundings, we propose buffer zones in the east and south of the site. To the east the buffer is created by a parking area and SuDS feature that creates space between the motorway and the residential units. Residential buildings then form a barrier to the sheltered open spaces at the heart of the scheme.

A nature corridor wraps around the west south and east of the site – creating a green infrastructure link with the eastern boundary which then links to the estuary along the motorway corridor. The natural buffering to these edges of the site creates a transition between the residential area on the site and its non residential surroundings. It will also be activated as a loop walk for residents, connecting to the wider neighbourhood and connecting people with nature on their doorstep. The site proposes to act as a mini urban forest, providing greening at every opportunity including, perimeter walks, rooftops, courtyards, walls and gardens.

Within the heart of the site are more organised spaces defined by the form of the buildings, courtyard spaces for communal activities, manages as semi-private spaces for each block of residents. These areas will allow people access to a safe and familiar space for social interaction and play on their doorstep.





03 LANDSCAPE DESIGN

LANDSCAPE MASTERPLAN – ground floor

03 – LANDSCAPE DESIGN







Indicative image looking to the south-west area of the Site - Block E
(source: 3D Design Bureau)



Indicative image looking to the central area of the Site - Blocks A-C
(source: 3D Design Bureau)

The Landscape Strategy aims to create a coherent and self contained environment that caters for the needs of future residents of a high density scheme. The scheme has been designed with a focus on nature based amenity, to provide a high level of recreational and social provision within site boundaries while tying in to surrounding green infrastructure. The design adopts a nature based approach to amenity design and uses ecological design principles throughout.

The landscape masterplan sets out to provide an open, welcoming and well-connected compact neighborhood. Routes are legible and views are open and unobstructed with clear sightlines to entrances and destination points.

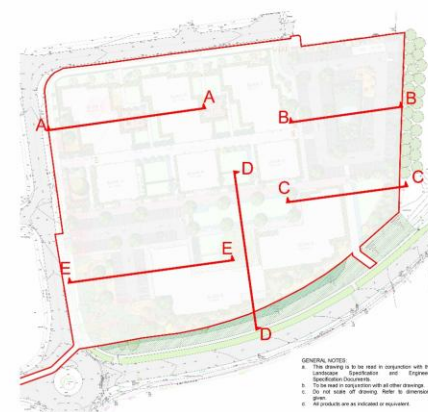
The strategy for softworks follows a principle of native, ecological planting towards site edges, with more intensive amenity planting within central courtyards. The edges of the site will function as ecological corridors, tying in with the wider green infrastructure of the area.

The public realm / landscape components, which contribute to the character of the place can be categorised into the following:

- Provision for ecological corridors on site boundaries by retaining existing tree clusters where possible, also offering softening of views from key vantage points.
- Perimeter walking routes with access to nature through the protection and provision of ecological features such as bat boxes, bird boxes and log piles along nature paths.
- Provision of fully accessible routes linking all buildings, green spaces and facilities.
- Network of linked communal amenity spaces within a cohesive network of linked public green space.
- Maximising use of rooftop space by providing usable semi-private gardens and biodiverse green roof areas
- Provision of bioretention area in the central zone of the car parking (northeast)
- Provision of natural play on nature paths and more traditional play facilities with the courtyards in accordance with Fingal's Play Policy 'Space for Play'
- Rainwater management using nature based SuDS integrated into public open space.
- Incorporation of trees and tree pits in accordance with Fingal's Tree Strategy 'The Forest of Fingal', allowing sufficient rooting volume for trees in paved spaces sufficient setback for public lighting

LANDSCAPE SECTIONS A-A', B-B', C-C'





PUBLIC AND COMMUNAL OPEN SPACES

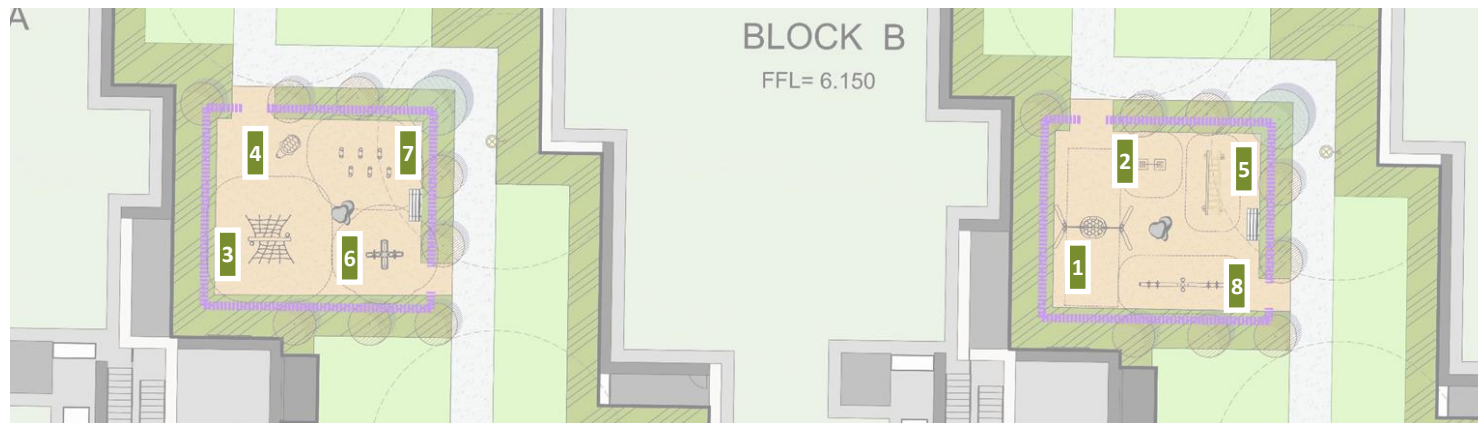
03 – LANDSCAPE DESIGN



The proposed development includes three Public Open Spaces (POS 1, POS 2 and POS 3), as illustrated in the figure on this page.

In addition, five Communal Open Spaces (COS 1, COS 2, COS 3, COS 4 and COS 5) are incorporated within the scheme.

COS 4 and COS 5 comprise roof gardens associated with Blocks D and E, respectively, providing secure and private communal amenity spaces for residents. These areas incorporate seating and green screening to enhance their amenity value and create attractive spaces for relaxation and social interaction.



No.1: Swing
Provider: VICI PLAY
Code: ROBINIA RB1423
Age Group: 3-12 years
Play Capacity (Users): 2



No.2: Pairs
Provider: Timberplay
Code: 9.15200
Age Group: 2+
Play Capacity (Users): 2



No.3: -
Provider: Timberplay
Code: 3.63320
Age Group: 2+
Play Capacity (Users): 2



No.4: 3D Turtle with tunnel
Provider: 4soft
Code: T1-07A-05
Age Group: 3+
Play Capacity (Users): 1, 3



No.5: -
Provider: VICI PLAY
Code: ROBINIA RB1286
Age Group: 3+
Play Capacity (Users): 3



No.6: -
Provider: VICI PLAY
Code: ROBINIA RB136
4Age Group: +3 years
Play Capacity (Users): 1



No.7: -
Provider: VICI PLAY
Code: ROBINIA RB1260
Age Group: +3 years
Play Capacity (Users): 1



No.8: -
Provider: VICI PLAY
Code: ROBINIA RB1352
Age Group: +3 years
Play Capacity (Users): 3

There are two equipped play areas proposed within communal open space areas:

(a) Courtyard Block A-B.

Area: 101 square meters

(a) Courtyard Block B-C

Area: 101 square meters

The play areas are designed to act as instigator of interactive play rather than a director of what that play will be and to inspire the imagination. It includes elements that invoke and entice children to play.

These areas are permanently fenced and gated. These spaces generally will include a small toddler play space.

Key objectives:

- Secure spaces with controlled access
- Accessible age-appropriate play
- Robust finishes and equipment
- Accessible and inviting
- Areas for seating, socialising in small groups



04 HARD LANDSCAPE AND BTP

BOUNDARY TREATMENT PLAN

04 – HARD LANDSCAPE AND BTP



Boundary Type 1
1.1m High Vertical Bar Metal Railing



Boundary Type 2
1.2 m High Estate Metal Railing Fence



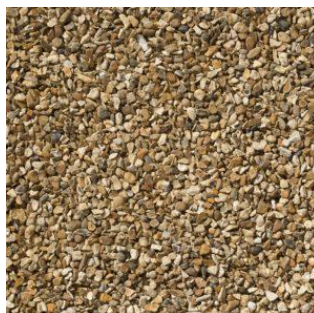
Boundary Type 3
1.2m Bow top railing with Access Gate /
Communal Garden



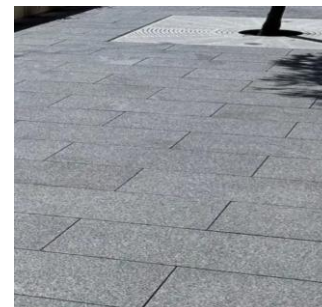
Permeable Block
Paving
/ Parking Bays



Tiger Mulch /
Informal Play Area



Compacted Gravel /
Informal Path



Granite Paving/
Main Footpath

A simple robust palette of materials is envisaged and used creatively to form well functioning and robust / sustainable and beautiful residential places. Hard landscape surface are chosen for slip resistance and to be free draining.



Concrete Aggregate
Path (buff colour)
/ Informal Path



Seating - Standard bench
timber & steel



Cycle Stands



Composite Timber
Deck/ Roof Garden

NOTE:
All materials are designing to a high standard, be robust and withstand a long life, as well as meet the CE standard.



05 SOFT LANDSCAPE

Semi Mature Feature Trees (native) –
typically 20-25cm girth 5-6m ht:



Quercus petraea

Large Trees - typically 16-18cm girth 5-6m ht



Alnus glutinosa



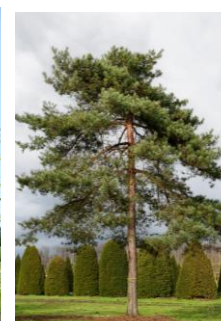
Tilia cordata
'Greenspire'



Corylus columna



Fagus sylvatica



Pinus sylvestris



Quercus robur

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



Acer campestre
'Elsrijk'



Betula pendula



Betula pubescens



Prunus avium



Pyrus calleryana
'Chanticleer'



Sorbus aucuparia

Planting Strategy:

The primary objectives of the planting design are to reflect the existing character of the site and surroundings. Species were selected from the All-Ireland Pollinator Plan 2021-2025 and 'Our Trees' as well as other native and naturalized species to ensure biodiversity on site is maximized and plant selection is appropriate to the site and the wider ecological network. Wildflower meadow areas are allocated for natural regeneration using existing seed-beds.

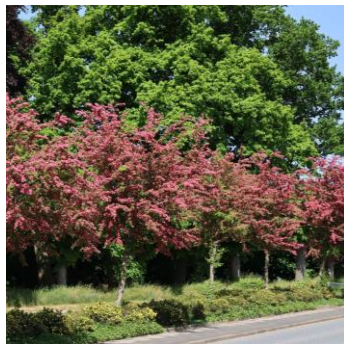
Native species are selected for trees, hedgerows and shrub planting on site edges and Green Infrastructure areas. Rainwater management using nature-based SuDS measures with appropriate plant species selected for these conditions.

SMALL TREES & FEATURE SHRUBS

Small Trees - typically 12-14cm girth 2-3m ht:



Arbutus unedo



Crataegus monogyna 'Paul's Scarlet'



Malus sylvestris



Prunus serrulata

Feature Shrubs – multi stem, 2-3 brks, 2.5-3m ht:



Amelanchier lamarkii



Cornus kousa



Corylus avellana



Sambucus nigra



Viburnum opulus

Feature Shrubs – 12-14cm girth, 150-175cm ht, RB:

Clipped Hedge:



Prunus lusitanica



Carpinus betulus



Luzula nivea



Dryopteris filix-mas



Iris pseudacorus



Geranium macrorrhizum



Kniphofia 'Royal Castle'



Nepeta racemosa



Deschampsia cespitosa



Origanum 'Rosenkuppel'



Alchemilla mollis



Achillea 'Paprika'



Primula veris



Rudbeckia fulgida var deamii



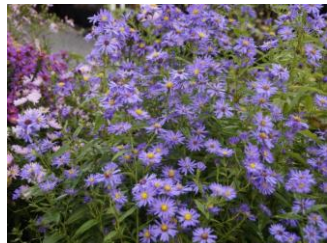
Lythrum salicaria 'Robin'



Euphorbia hyberna



Geranium m. 'Czakov'



Aster novi-belgii



Carex sp.



Ceanothus 'Blue Mound'



Rosmarinus officinalis



Ajuga reptans 'valfredda'



Lavendula angustifolia 'Blue Cushion'



Rudbeckia fulgida 'Goldsturm'



Ceanothus 'Gloire de Versailles'



Centaurea montana



Erica spp.



Miscanthus spp.



Santolina cham. 'Nana'



Stipa spp.



Hedera helix 'Hibernica'



Pinus mugo



Sarcococca spp.



Picea abies procumbens



Potentilla spp.



Rosa 'Rhapsody Blue'



Rosa canina



Rosa 'Noaschnee'



Spirea japonica 'Firelight'



Alisma plantago-aquatica



Angelica sylvestris



Caltha palustris



Hypericum elodes



Juncus effusus



Lobelia dortmanna



Lythrum salicaria



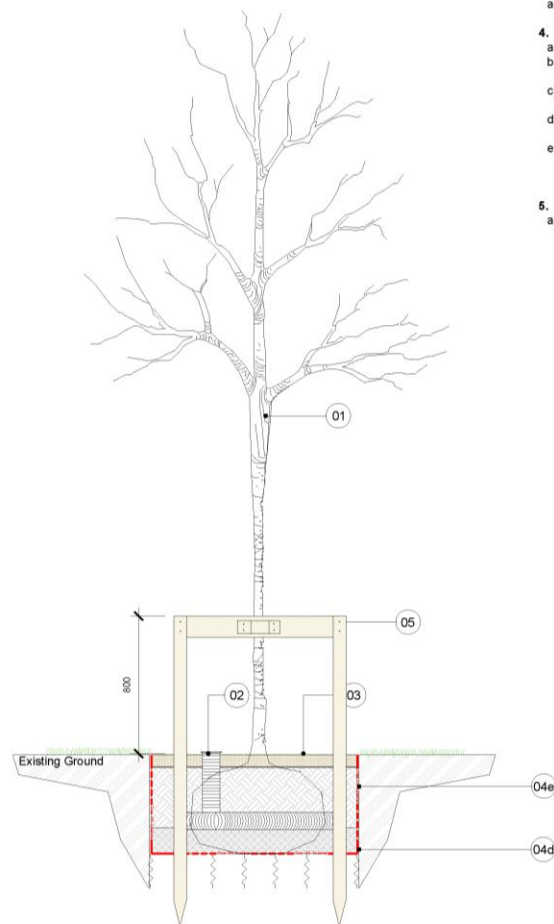
Myosotis scorpioides



Osmunda regalis

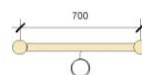


Veronica beccabunga



NOTES

1. Tree to have a clear stem height of 2200mm.
2. **Irrigation**
 - a) 100mm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.
3. **Mulch**
 - a) 75mm bark mulch in 1200mm Ø circle to base of trunk.
4. **Tree Pit**
 - a) Size, 1200x1200x500mm. Excavation to depth of rootball.
 - b) Remove the specified depth of topsoil and set aside for reuse.
 - c) Scarify sides, break up base of pit to a depth of 200mm and incorporate a soil ameliorant into base.
 - d) Back fill pit with subsoil allowing 425mm for topsoil and mulch layers.
 - e) Back fill pit with topsoil mixed with soil ameliorants in 150mm firmed-in layers. All planting to receive a minimum of 25lt water per m² immediately after planting.
5. **Tree Support**
 - a) 75mm diameter stakes pressure treated driven 1000mm below ground 800mm above ground with specified biodegradable adjustable tie affixed to tree & stake.



TP1 Standard tree pit Double stake
SCALE: 1:25@A3

Double stake detail



06 LANDSCAPE SPECIFICATIONS & MAINTENANCE

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 weeds from the site. Weeds shall include: Himalayan Balsam, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other aggressive weeds identified by the Department of Environment. For the removal of scheduled invasive species such as Japanese Knotweed, Giant Hogweed and other scheduled species, 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 | Trees 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.

1.12 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

- 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 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: Backfill with fine sand up to 400mm below the proposed ground level. Then fill with 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.

1.19.2 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.

1.19.3 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.

1.26 Grass and Meadow Seeding

1.26.1 Herbicide Application

- Do not use unless agreed in advance for scheduled invasives.

1.26.2 Seedbed cleaning before sowing

Operations: by hand or mechanical means only.

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 administering 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.

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 site. Weeds shall include Ragwort, Thistle, Dock, Common Barberry, Male Wild Hop and Spring Wild Oat, or any other noxious species identified by the NPWS. For the removal of scheduled invasive 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 c.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.

2.1.2 Amenity Grass Areas

Amenity grass areas shall achieve an even cover of vegetation of uniform height and colour comprising predominantly grass species. Unless otherwise agreed with the landscape architect no more than 30% of the grass areas shall contain dicotyledonous (dicots) species (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 c.14 days during the growing season, (throughout the period of March to October), 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 undesirable weed species in lawns, shall be removed by prior agreement only. Native broad-leaved herbs/weeds are generally accepted in lawn areas. Weed infestations shall be reviewed in the context of the aesthetic and amenity functioning of the grass and if necessary controlled or eradicated following agreement with the landscape architect.

2.1.3 Meadow Grass

Meadow grass cutting will occur twice in the first year in spring once grass has established and in August/September to improve growth. There after it can be cut once annually. Cut grass should be removed from site to prevent the effects of mulching.

Weed Control

Areas of invasive and noxious species in meadow grass areas to be removed by hand.

2.1.4 Swales

Planting to be kept well-weeded in the first year. Once good vegetation cover is achieved, the annual need for weeding will be reduced. Leave growth standing through winter Cut back in Spring if necessary. Use stems as a mulch. Water upon establishment and in exceptionally dry periods.

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.

2.1.5 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 only. Saplings shall be removed from all planting areas on emergence or immediately after to prevent establishment.

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.

2.7 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.

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 surface of all planting pits is to be kept free of weeds during the maintenance period by hand weeding of annual weeds.

2.8. 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.

2.9 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.

Areas of natural scrub as indicated on the maintenance plans shall be contained by trimming back once per year. 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.

2.10 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, car parks, footpaths as well as woodlands and tree canopies.

2.11 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.

This programme is a guideline and greater frequency may be required, times of operation may be adjusted on approval of the landscape architect.

MAINTENANCE REQUIREMENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lawn grass cutting			*	**	**	**	**	**	**	**	*	
Edging to lawn grass areas				*			*			*		
Wildflower Meadow cut			*								*	
Fertiliser applications to lawn grass												
Hedge pruning/cutting	*											
Tree pruning	*											
Stake firming, collar & tie adjustment	*											
Stake removal on existing standard trees (years 3-5)	*											
Defect/Failure replacements	*	*									*	*
Mulch top-up to tree circles/squares						*				*		
Weeding to shrubs & hedgerow				*			*			*		
General weed control			*	*	*	*	*	*	*	*	*	
Watering of new tree planting				*	*	*	*	*	*			
Trimming of scrub areas	*											
Weed control of scrub areas				*								
Litter clearance/pick up	**	**	**	**	**	**	**	**	**	**	**	**

The logo for CSR Land Planning & Design is centered on a white square. It features the letters 'CSR' in a large, bold, sans-serif font. Below 'CSR' is the text 'Land Planning & Design' in a smaller, lighter sans-serif font. At the bottom of the white square, there are several thin, wavy lines in a light green color, suggesting a landscape or terrain.

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