LAND PLANNING & DESIGN

CUNNANE STRATTON REYNOLDS

LAND PLANNING & DESIGN

Residential Development, St Anne Rd, Blarney, Cork

Landscape Design Rationale

PROJECT NO. 24213

March 2026

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LAND PLANNING & DESIGN

01. INTRODUCTION AND CONTEXT

INTRODUCTION & SITE CONTEXT

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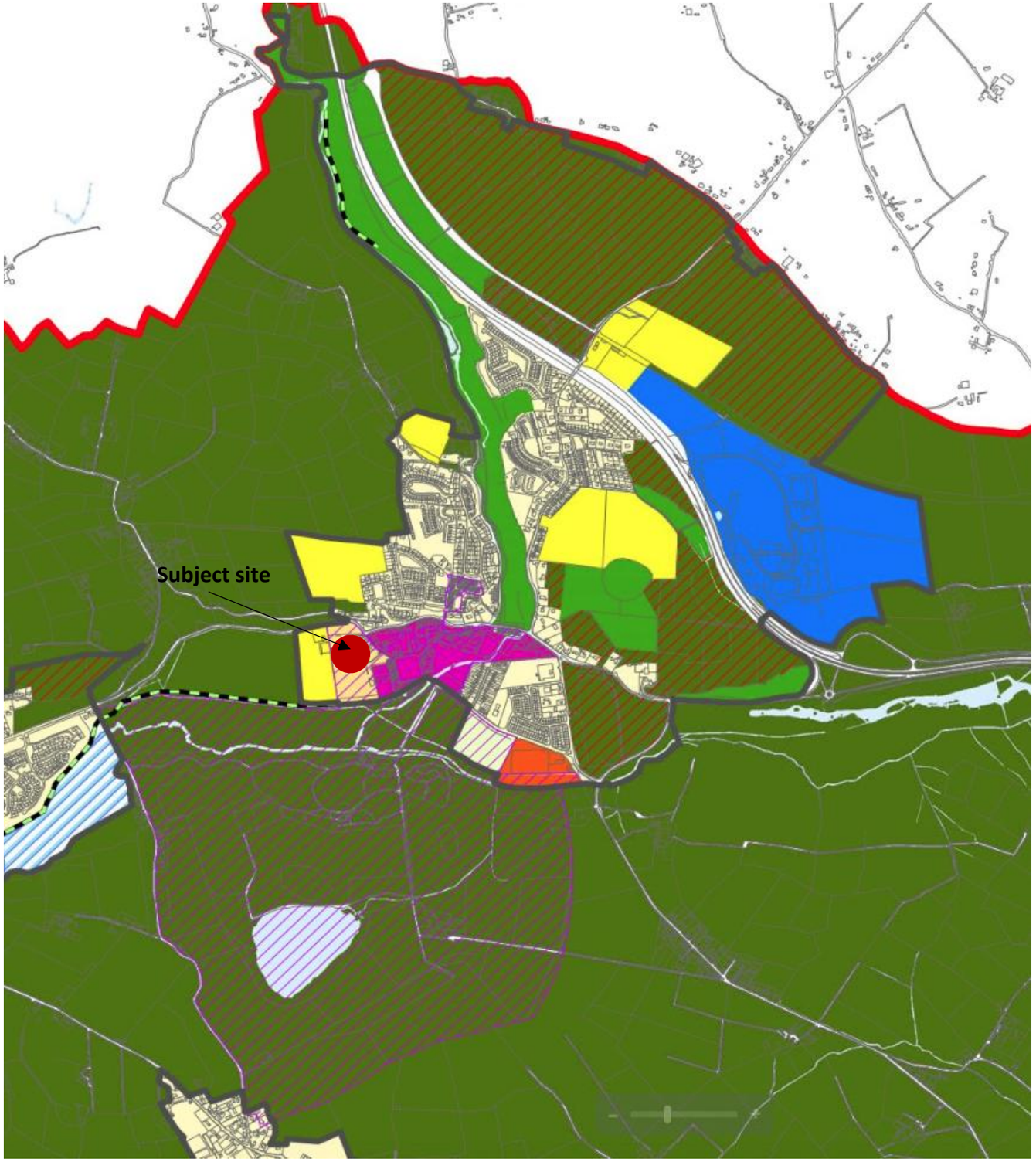
Regional Context

Subject site

N

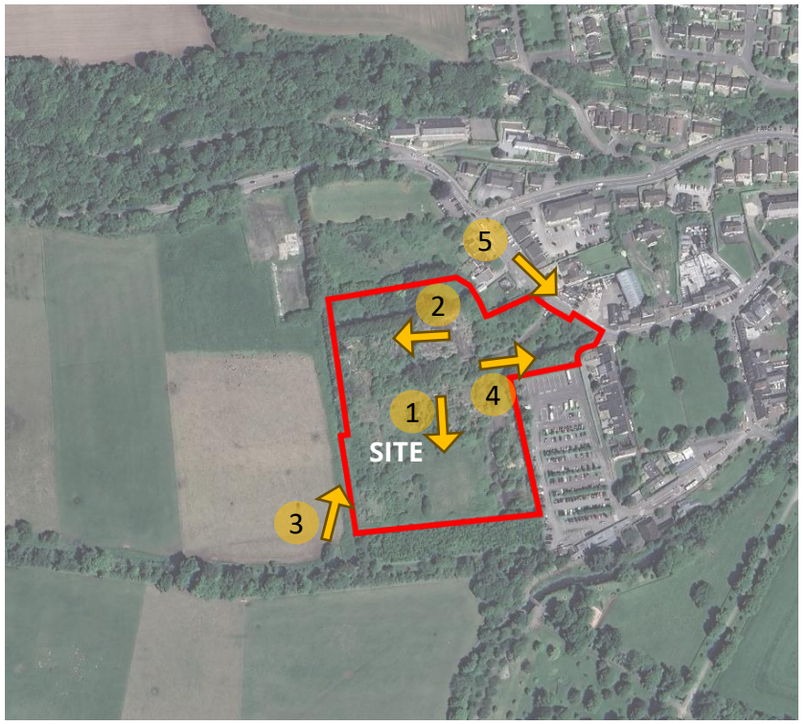
02. EXISTING SITE CONDITIONS / SITE ANALYSIS

ANALYSIS: DEVELOPMENT PLAN EXTRACT



Source: Cork City Development Plan 2022-2028

ANALYSIS: SITE PHOTOS



View 1

View 2

View 3

View 4

View 5

GREEN & BLUE INFRASTRUCTURE: KEY DEVELOPMENT PLAN OBJECTIVES

Based on the Cork County Development plan 2022-2028 Objective GI 14-3 all new developments require a green and blue infrastructure statement. Volume 1, Chapter 14 sets out a number of principles and themes as well as key components of Green and Blue infrastructure (GBI) which are summarized below and inform the site-specific GBI proposals for the subject site as outlined on page 14.

PRINCIPLES AND THEMES

Green infrastructure includes the integration of vegetation, trees, and open green spaces, while **blue infrastructure** focuses on sustainable water management through features such as streams, wetlands, swales, dry basins, and infiltration systems.
By combining these two strategies, any new development will promote sustainability, enhance biodiversity, support healthy ecosystems and neighbourhoods, and improve the overall quality of life for residents. Successful implementation will require thoughtful planning, collaboration with key stakeholders, and the use of innovative design solutions. These measures are central to creating sustainable, forward-thinking neighbourhoods that prioritise both people and nature.

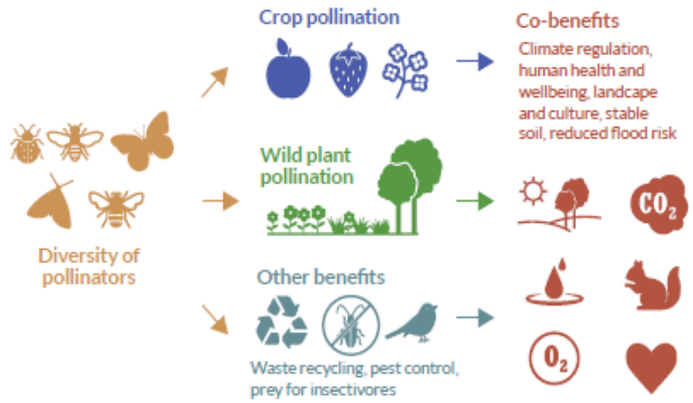
KEY COMPONENTS

Sustainable Urban Drainage Systems (SuDS) aim to manage stormwater effectively, minimize flood risks, and promote sustainable water management practices. By implementing a comprehensive SUDS strategy, the development site can enhance its resilience to extreme weather events, protect water resources, and create a more sustainable and environmentally friendly living environments. SuDS proposals must be developed appropriate to local site ground conditions.
SuDS components can make a significant contribution at to the biodiversity (ecological) value of an area (eg. rain gardens, swales, detention basins, trees). It is this biodiversity and ecology

SUDS EXAMPLES:
- Permeable Paving
- Rain Gardens
- Swales
- Infiltration Basins

SuDs example

Biodiversity in housing developments is crucial. It means a variety of plants, animals, and insects can thrive, creating a balanced environment. This diversity improves air quality, promotes pollination for gardens, and enhances residents' well-being. Preserving biodiversity ensures a healthier and more sustainable living space for everyone.
Enhance biodiversity is done by choosing native plant species that naturally belong to the area and including pollinator-friendly non-native species to attract bees and butterflies. This thoughtful landscaping promotes a thriving ecosystem, supports local wildlife, and contributes to the overall well-being of both nature and residents.

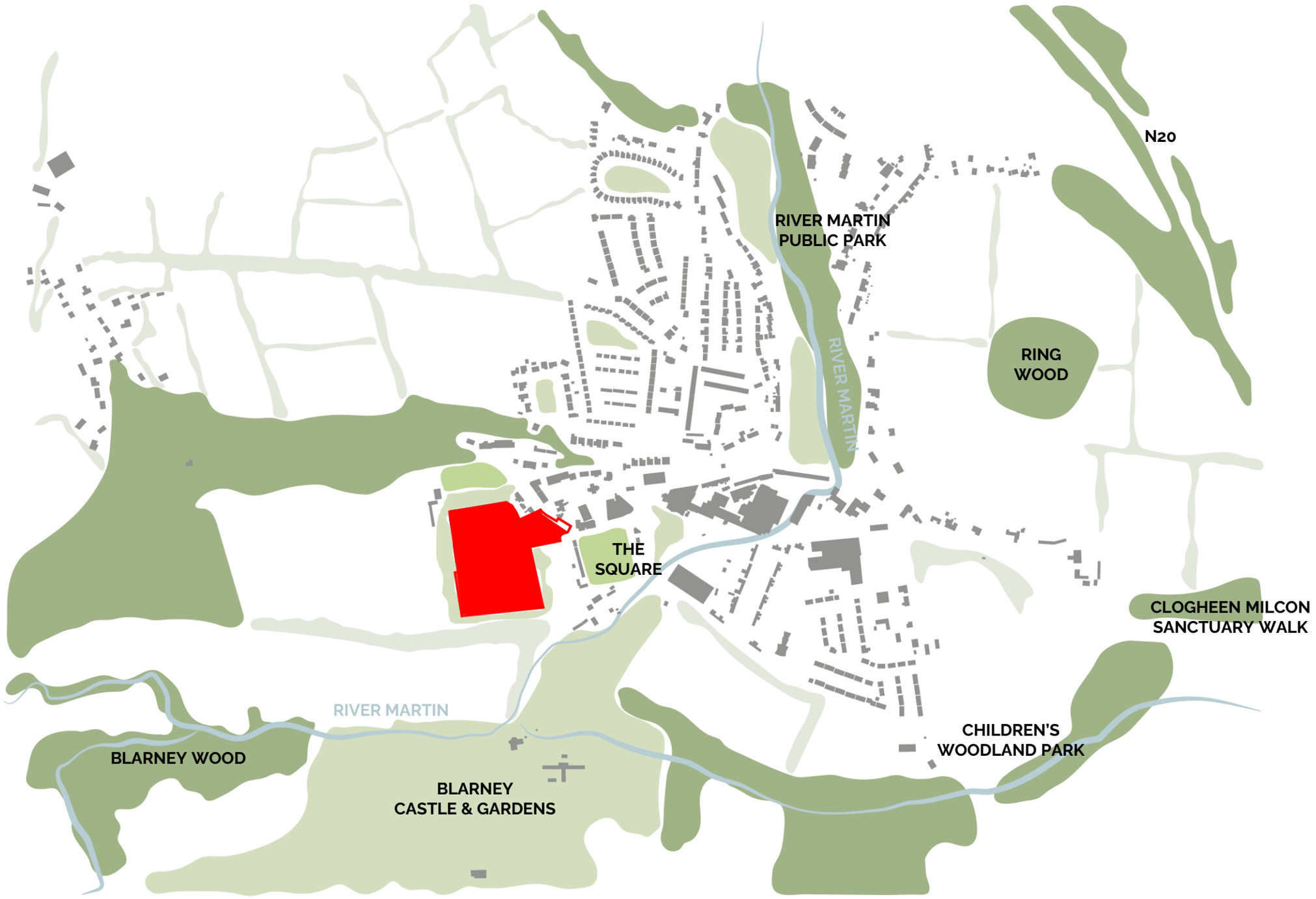


The benefits of protecting pollinators

Open spaces and recreation are integral components of green infrastructure in housing developments. Emphasizing the preservation of existing habitats and the establishment of new ones within amenity spaces is essential. This approach fosters biodiversity and enhances the overall ecological balance. Ensuring robust connectivity among all green spaces contributes to a cohesive and well-integrated environment. Beyond providing areas for leisure and physical activity, this systematic incorporation of green infrastructure elevates the quality of life for residents. It also underscores a commitment to sustainable urban planning, creating neighbourhoods that harmoniously blend with nature while offering residents accessible and thriving green environments.

Variety of use and function within open spaces

EXISTING GREEN & BLUE INFRASTRUCTURE (GBI): LOCAL AREA OVERVIEW



GREEN INFRASTRUCTURE CONTEXT

The proposed development, set within a rich tapestry of green and blue infrastructure, will have open space, biodiversity and nature-based solutions at its heart

woodland parkland public green spaces hedgerows

LAND PLANNING & DESIGN

04. DESIGN CONCEPT

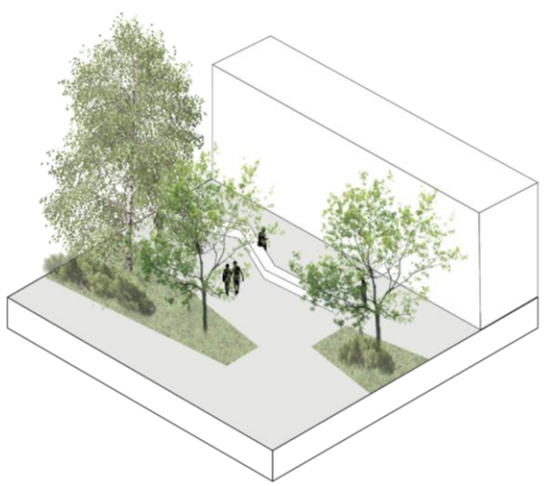
OPEN SPACES STRATEGY

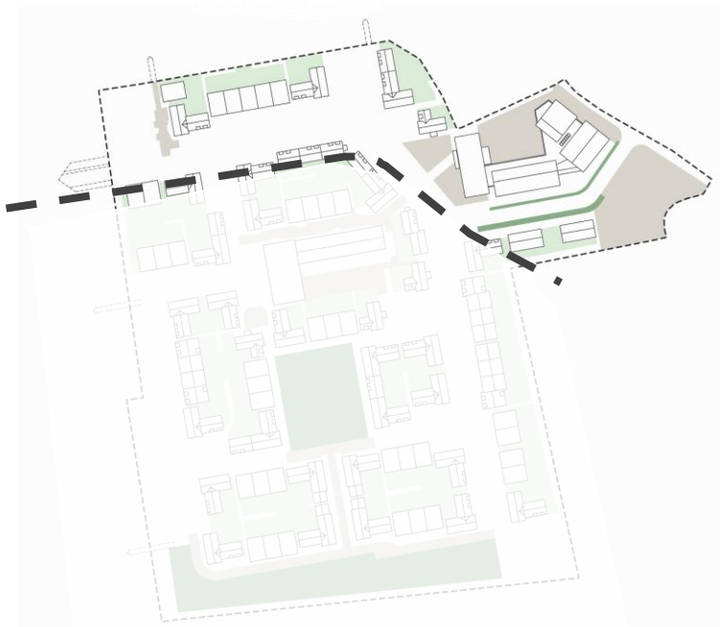
The masterplan establishes distinct spaces and defines their intended functions

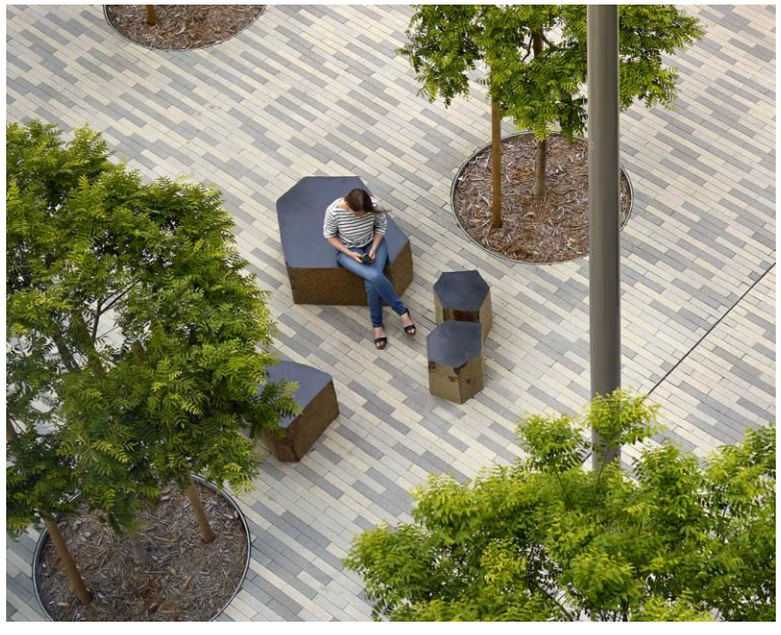
The Hearth Corner **Internal plazas** **Central Square** **Green Streets** **Private Gardens** **Woodland Walks**

DESIGN CONCEPT: LANDSCAPE CHARACTER TYPOLOGIES

River Rocks
- reflects the rocky terrain of Blarney and the River Martin, which flows through Blarney and has historically supported life in the village.

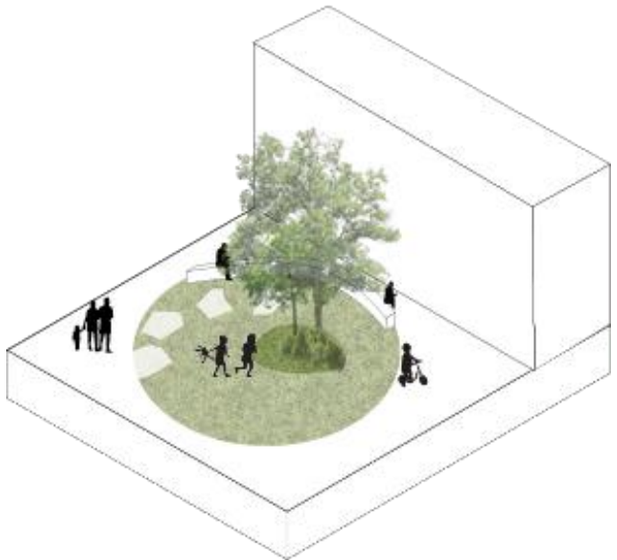


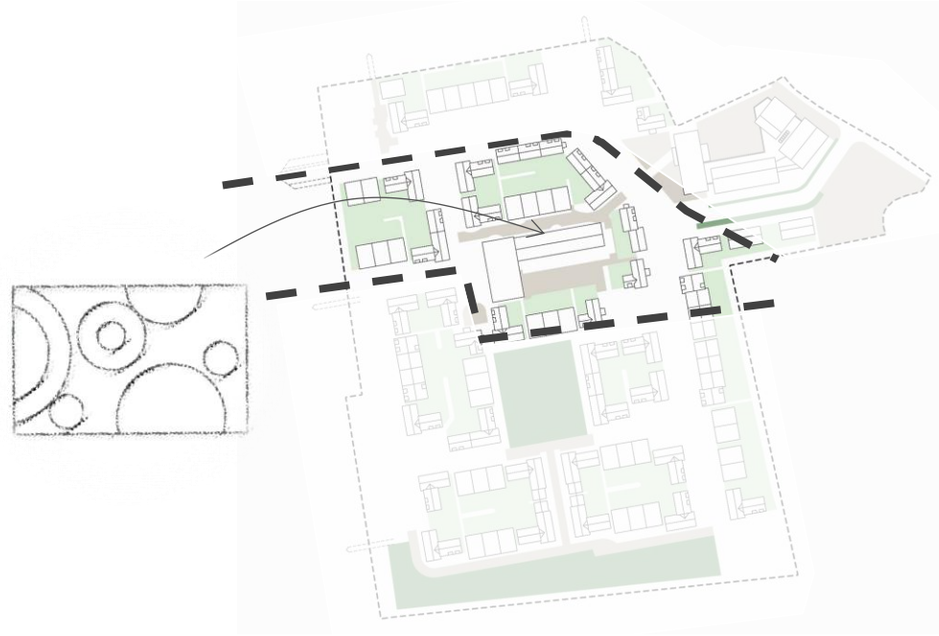


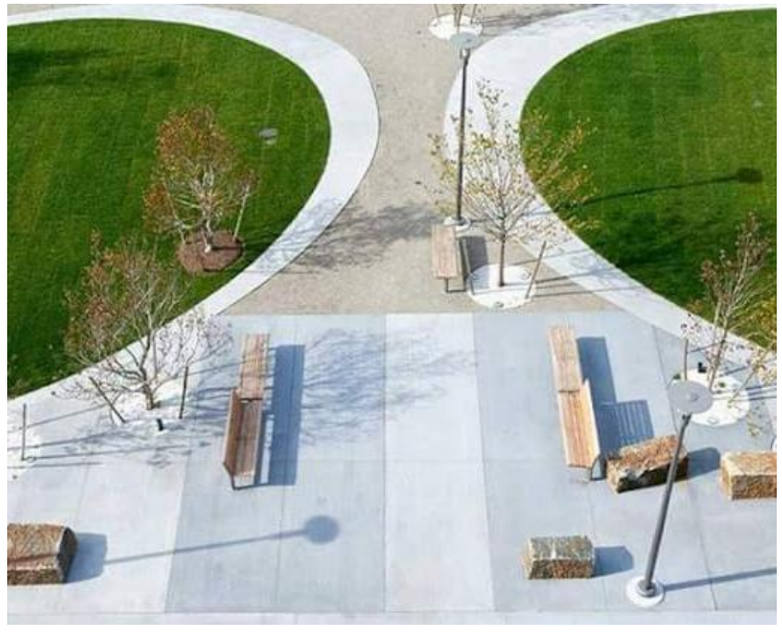


DESIGN CONCEPT: LANDSCAPE CHARACTER TYPOLOGIES

Wool Mills
Blarney became known for its wool and textile industries, particularly for producing high-quality Blarney Woollen Mills. The design reflects traditional wool spinning, which follows a circular motion, with wool being wound around circular bobbins and loops



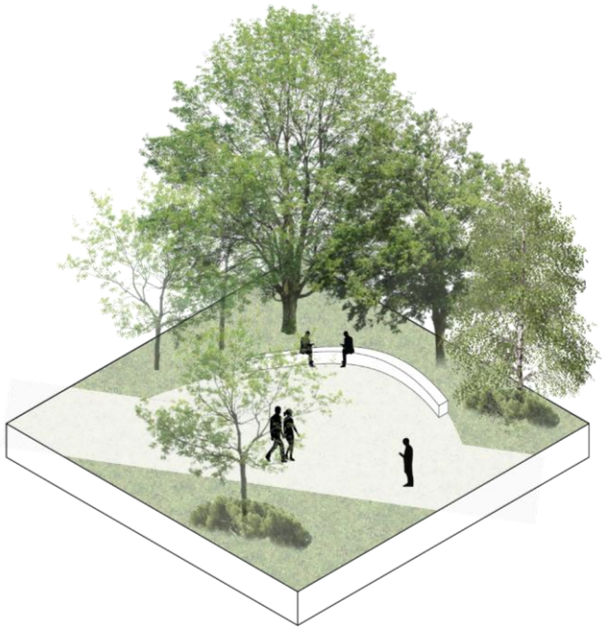




DESIGN CONCEPT: LANDSCAPE CHARACTER TYPOLOGIES

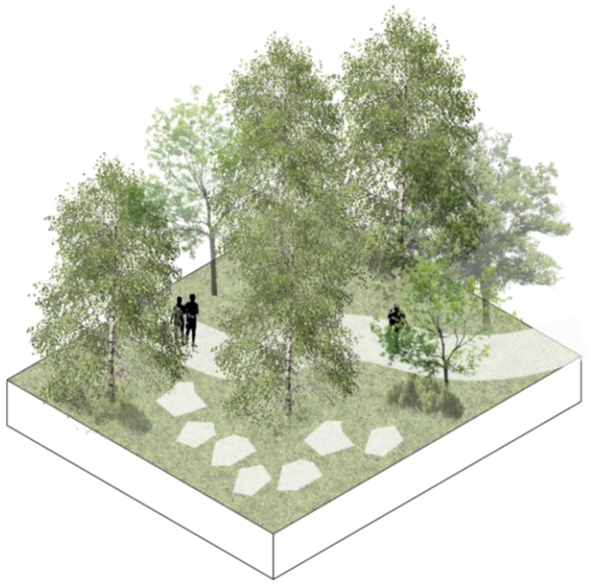
The Square

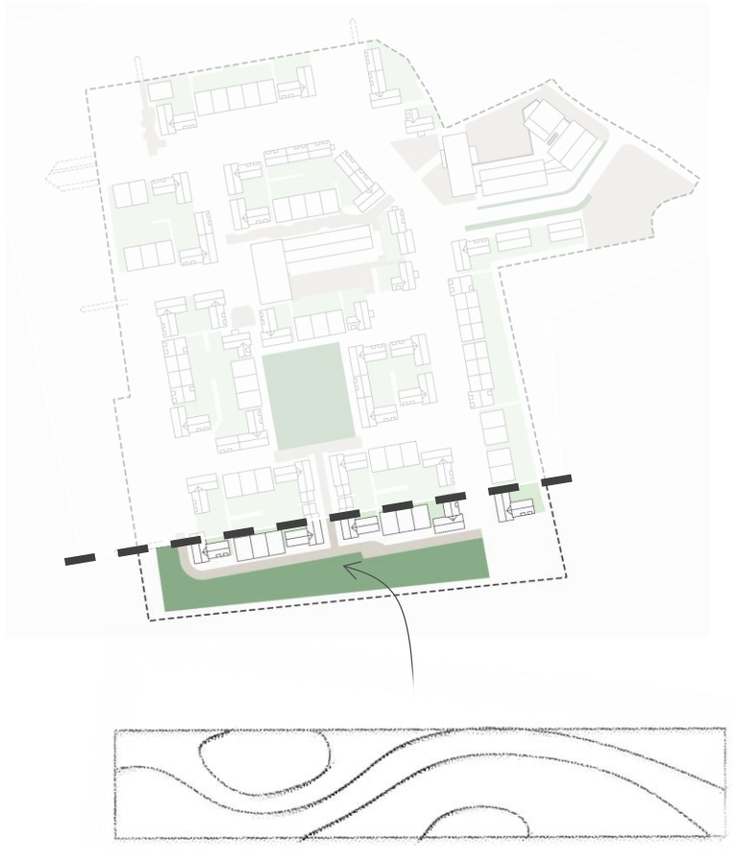
A well-preserved village green that serves as a central focal point for community life. Located at the heart of the development, it is open and easily walkable. This green space is one of the few of its kind in Ireland, contributing significantly to Blarney's unique character.

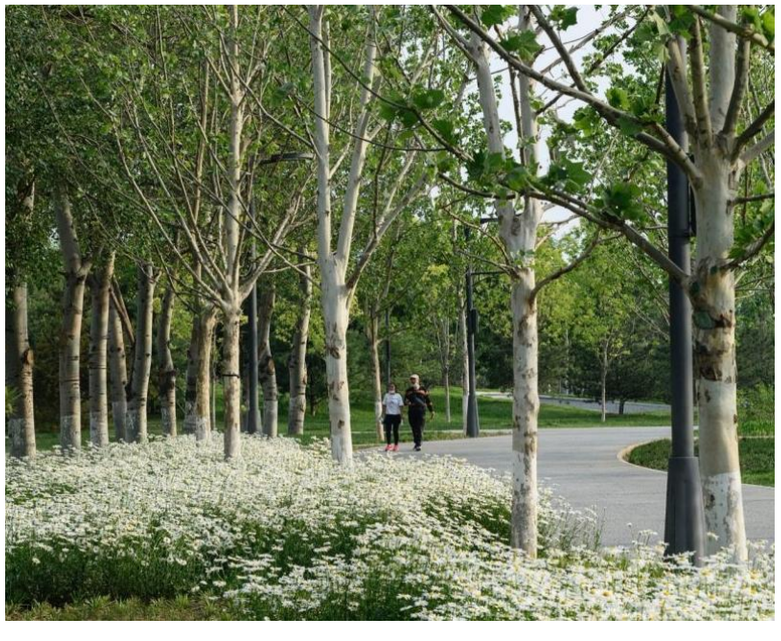


DESIGN CONCEPT: LANDSCAPE CHARACTER TYPOLOGIES

Woodland Glades: Reflecting Blarney's softly undulating terrain, where the castle sits elevated on rocky ground, overlooking the lower lands shaped by the river. These natural contours create a sense of movement and form an immersive green space that promotes community connection, physical health, and mental well-being







DESIGN CONCEPT: INSPIRING IMAGES

Neighbourhood amenity spaces for use by all age groups

Resting places along circulation paths

Natural Play

Optimising the use of site topography.

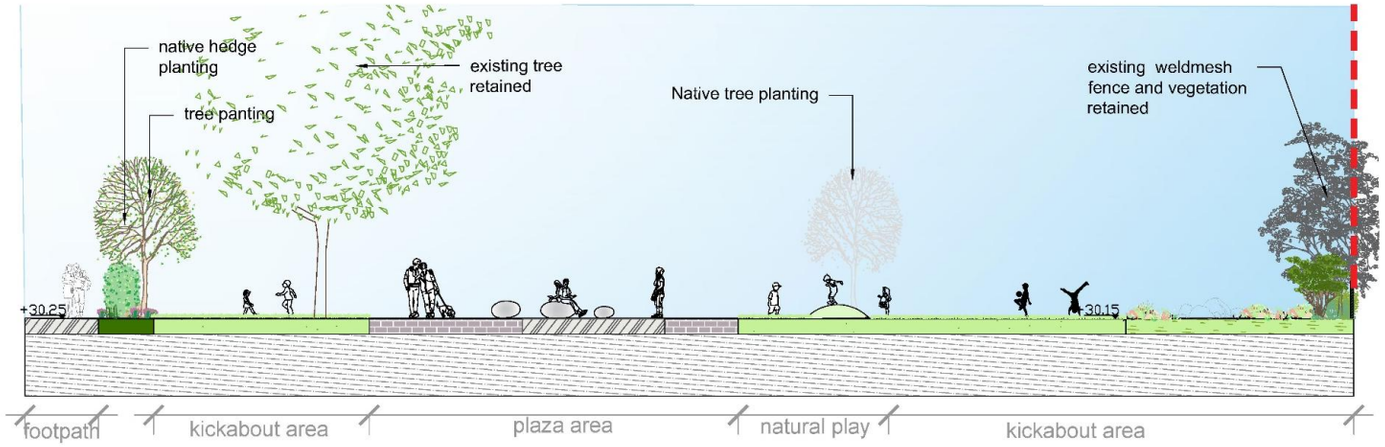
Biodiversity areas

Enhancing existing vegetation

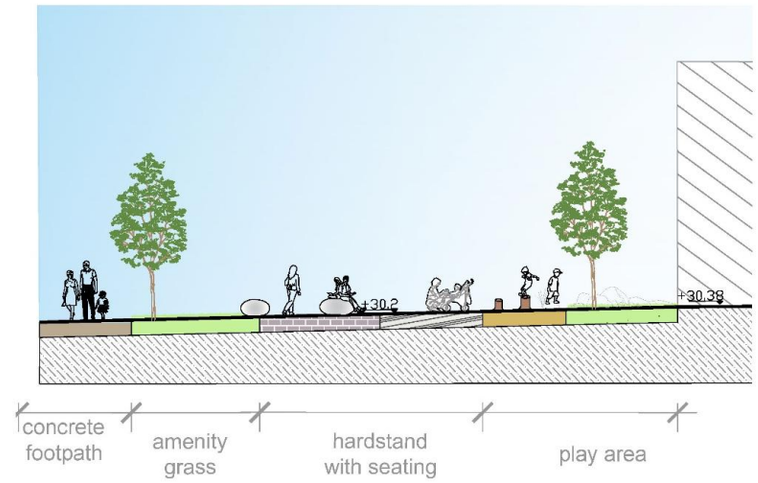
DESIGN CONCEPT: LANDSCAPE MASTERPLAN

Refer to Landscape Masterplan drg no 24213-2-101

DESIGN CONCEPT: SECTIONS THROUGH AMENITY SPACES



SECTIONS A-A, SCALE 1:100@A1



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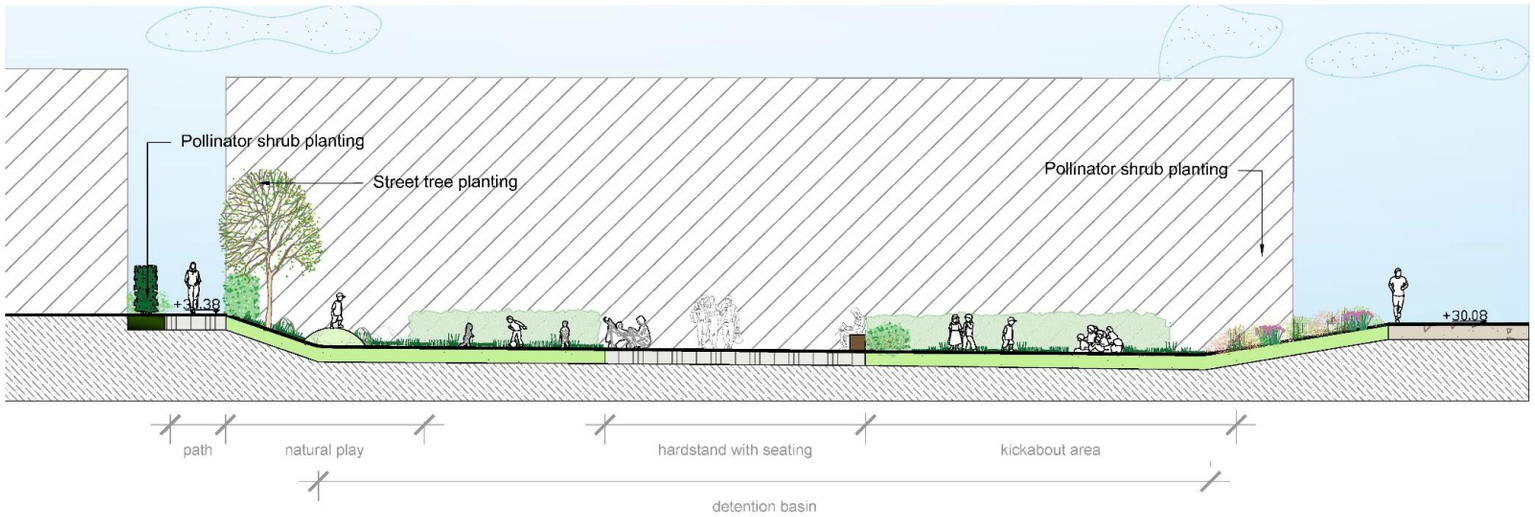

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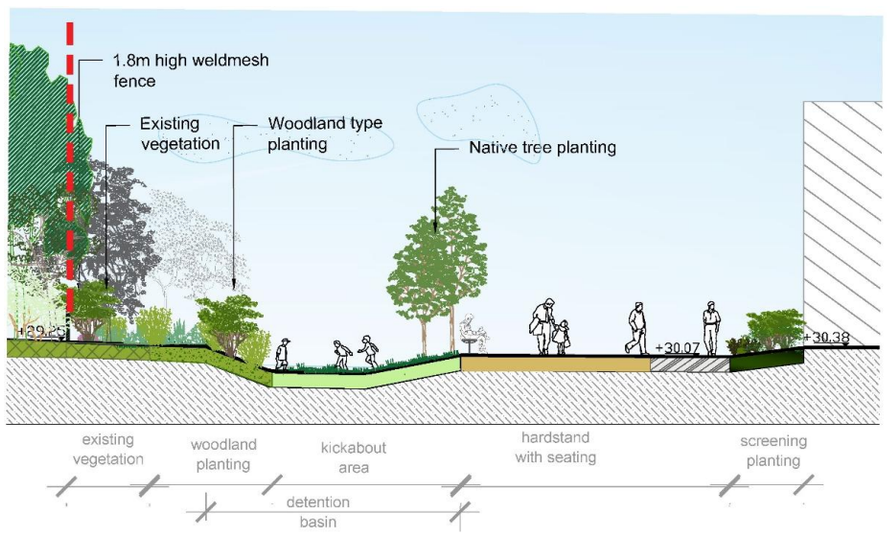

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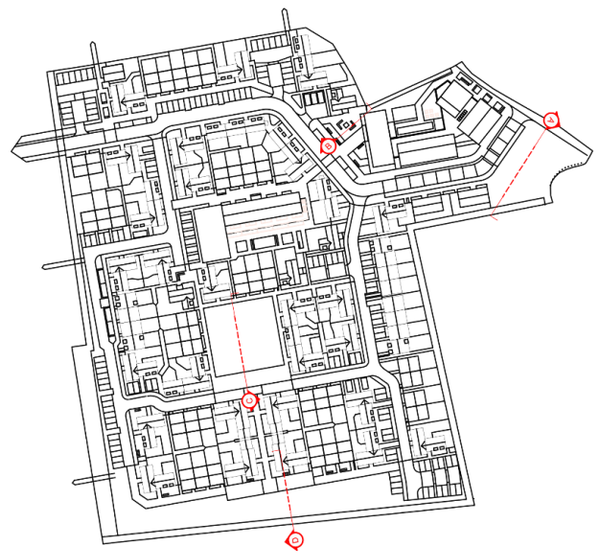


KEY MAP

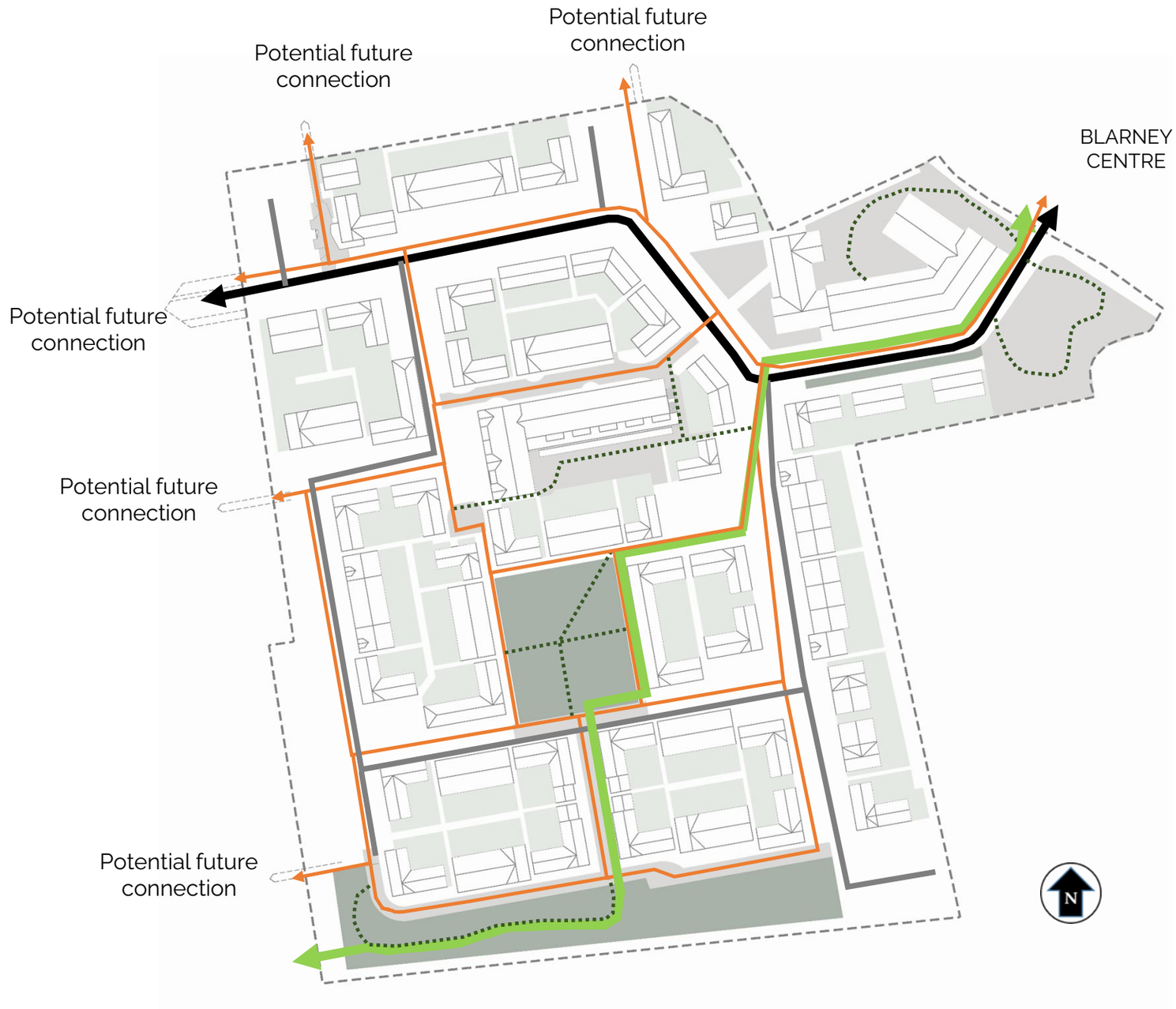
Refer to Landscape Sections drg no 24213-2-201

DESIGN CONCEPT: ACCESS & CIRCULATION

The proposed network of pedestrian paths will provide;

- Access to and from the main site entrance on St Annes Rd & The Square
- Futureproof access for all modes to future development sites on adjacent lands to the north and west.
- Access to the proposed footpath just outside the periphery of the development as indicated on the diagram adjacent.
- Direct & safe circulation to amenity spaces within the development
- A greenway connection extending from the south-western corner of the site through the development and tying into St Ann's Road.

The proposed footpath network will provide universal access for residents and visitors alike, thus, promoting inclusivity and a user-friendly environment.



The site is well-connected to local amenities via pedestrian and cycle links

main access road | residential street | pedestrian/cycle routes | amenity path | Green way

DESIGN CONCEPT: RECREATION AND AMENITY

The recreation and amenity strategy provides active and passive outdoor spaces with excellent passive surveillance as highlighted on the plan opposite and listed below;

1. Hard and soft breakout spaces within the curtilage of the apartment blocks.

2. Natural play areas featuring grass mounds, slopes, tree planting, and boulders, fostering imaginative play and adding visual interest and texture to the surroundings.

3. Kick-about spaces.

4. Communal spaces for relaxation and socialising/ community events.

5. Seating areas including stepped amphitheatre-style features integrated into localised natural contours and embankments.

Proposed green infrastructure elements will also enhance the outdoor experience adding seasonality and a sense of connectivity with nature.

LEGEND

- Public amenity space
- Communal area= 494 m2
- Plaza area with seating
- Play/seating area
- Natural play area

Recreation & Amenity Diagram

DESIGN CONCEPT: PASSIVE SUPERVISION

Active surveillance is integral to ensuring the safety, security, and favourable utilisation of public open spaces within the development.

This design principle has been configured to ensure that outdoor spaces are readily observable from the apartments. By strategically arranging the layout and orientation of these spaces, residents benefit from unobstructed views facilitating natural visibility and supervision.

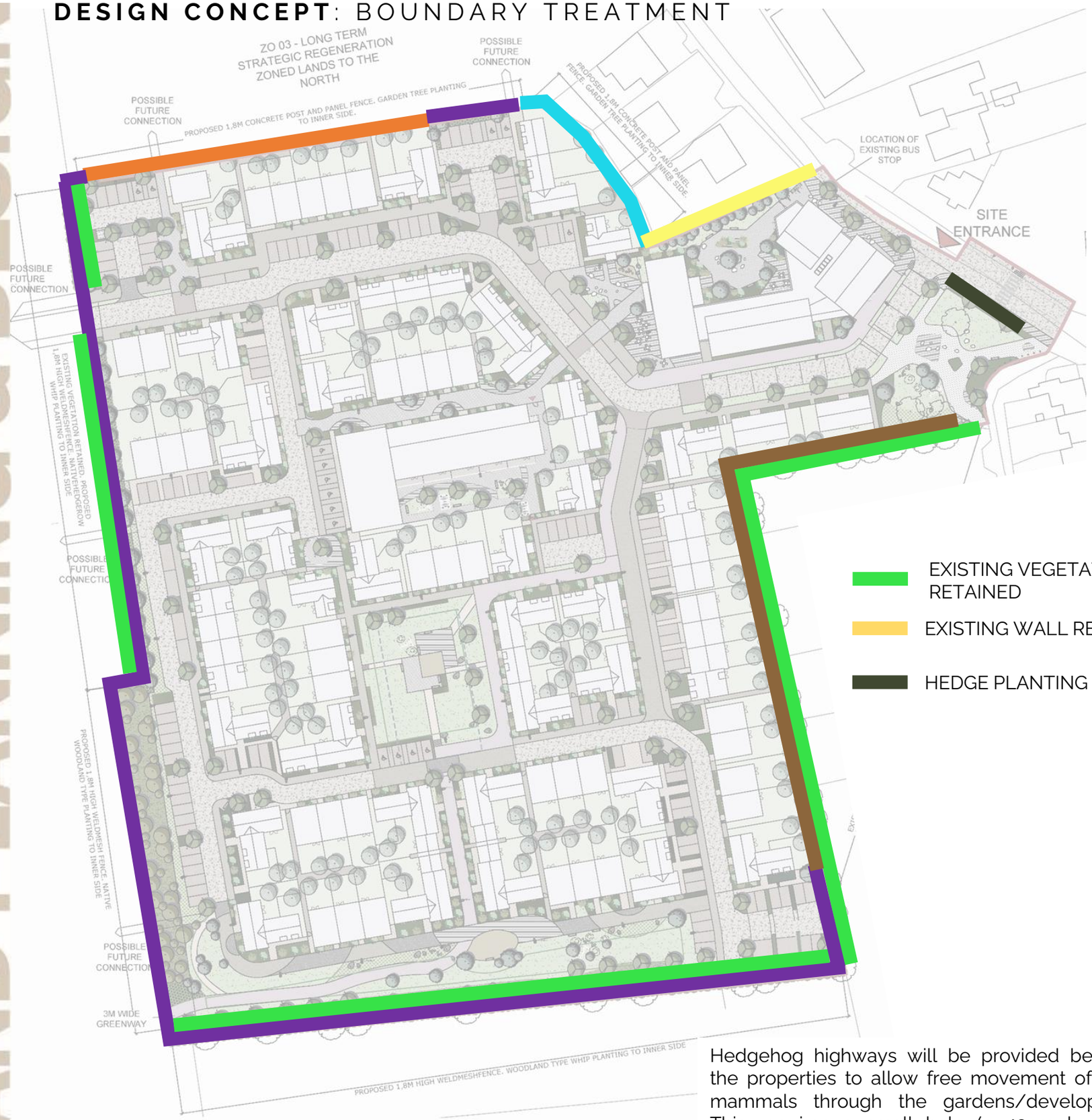
This design strategy cultivates a robust sense of community, as residents are more inclined to engage with public spaces when they can easily monitor activities. Additionally, direct oversight serves as a deterrent to antisocial behaviour, fostering a safe and inviting environments.

Passive Surveillance of Open Spaces Diagram

PUBLIC OPEN SPACE CATEGORISATION (in Response to CCC Query)

CCDP Open Space Standard	Overall percentage of Public Open Space within the entire site boundary is **15%**				
Age-appropriate play areas and recreational routes within Public Open Space	**Open Space 1:** • Toddlers • Juniors • Teenagers • Older users	**Open Space 2:** • Toddlers • Juniors • Teenagers • Older users	**Open Space 3:** • Toddlers • Teenagers • Older users	**Open Space 4:** • Toddlers • Juniors • Teenagers • Older users	**Open Space 5:** • Teenagers • Older users
Open space hierarchy	Small Park 7 % od overall site	Pocket park/square 4 % od overall site	Pocket Park/Plaza 1.1% od overall site	Pocket Park/Plaza	Pocket Park/Plaza

DESIGN CONCEPT: BOUNDARY TREATMENT



Refer to Landscape Masterplan drg no 24213-2-102

EXISTING VEGETATION RETAINED

EXISTING WALL RETAINED

HEDGE PLANTING

Hedgehog highways will be provided between the properties to allow free movement of small mammals through the gardens/development. This requires a small hole (c. 13cm by 13cm square) to be included at the base of garden fencing to provide passage for Hedgehogs along the boundary of development site.

LEGEND

1.8m high block wall

proposed 1,8m high weldmesh fence

Concrete posts and concrete panel fence, 1.5 m high, with a 0.3 m high semi-transparent timber panel on top, facing the inner side of the laneway.

1.8 m high concrete post and panel fence

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03 GREEN AND BLUE INFRASTRUCTURE STRATEGY

GREEN & BLUE INFRASTRUCTURE STRATEGY: PROPOSED SETTLEMENT LEVEL NETWORK STRATEGY

GI Components:

- The provision of safe and healthy recreational spaces throughout the site
- Preservation and Enhancement of Existing Boundary Vegetation: Maintain and improve the site's existing plant life to preserve its ecological value while enhancing its visual appeal.
- Planting of Native and Pollinator-Friendly Species: Introduce native trees and shrubs that promote pollinator activity and contribute to long-term site objectives, including space definition, natural screening, and seasonal visual interest.

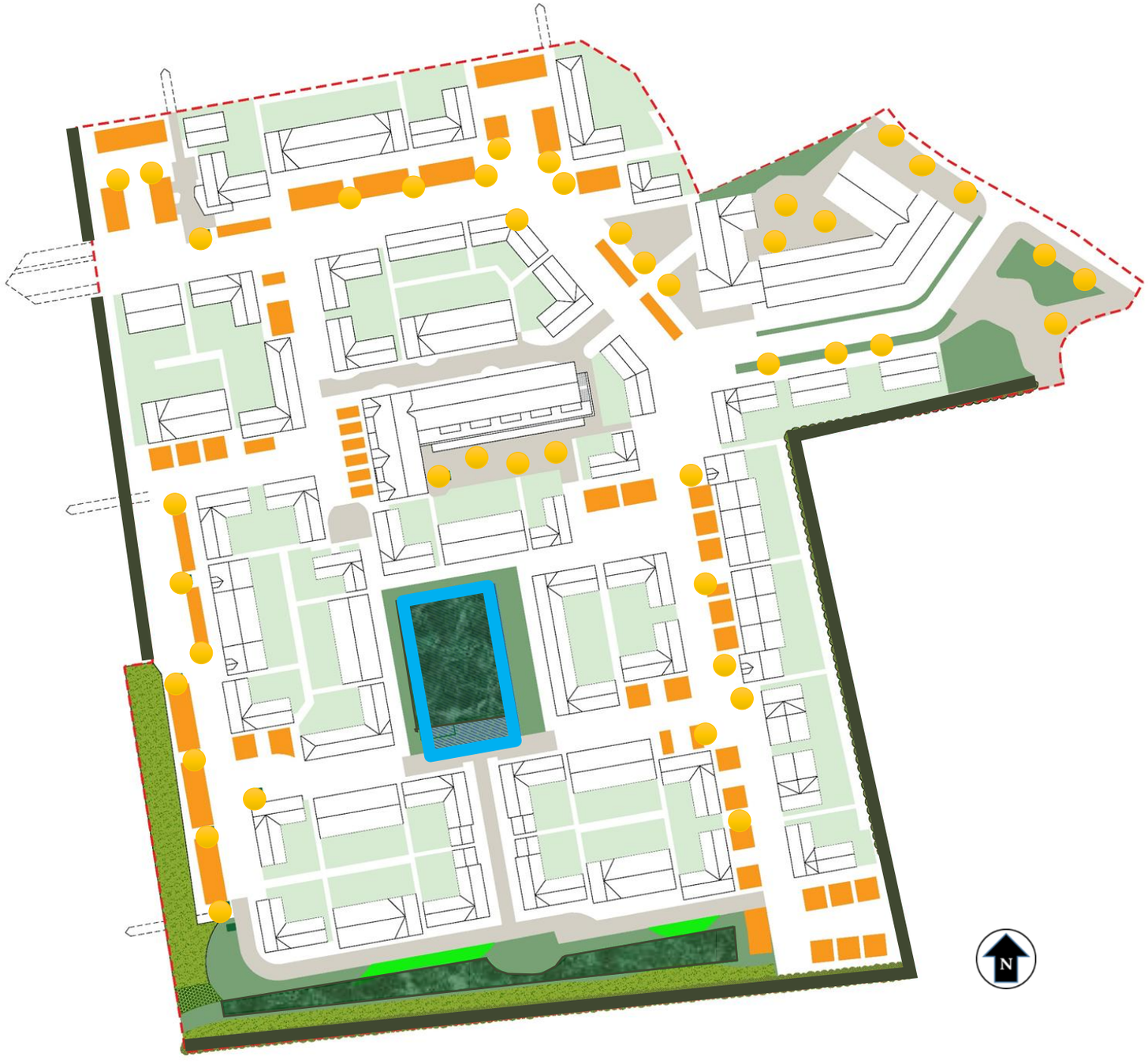
BI Components

Whenever feasible on the site existing trees, and hedgerows along the peripheral boundary will be retained. This conservation effort will aid in the conveyance and treatment of surface water runoff produced on the site.

For details on SuDS measures refer to engineers' report and drawings.

SuDS measures include:

- Underground attenuation
- Soaking Tree Pits
- Permeable paving
- Dry Basin

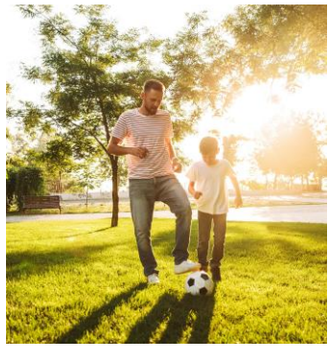


Settlement Level Green & Blue Infrastructure Strategy Diagram

LEGEND

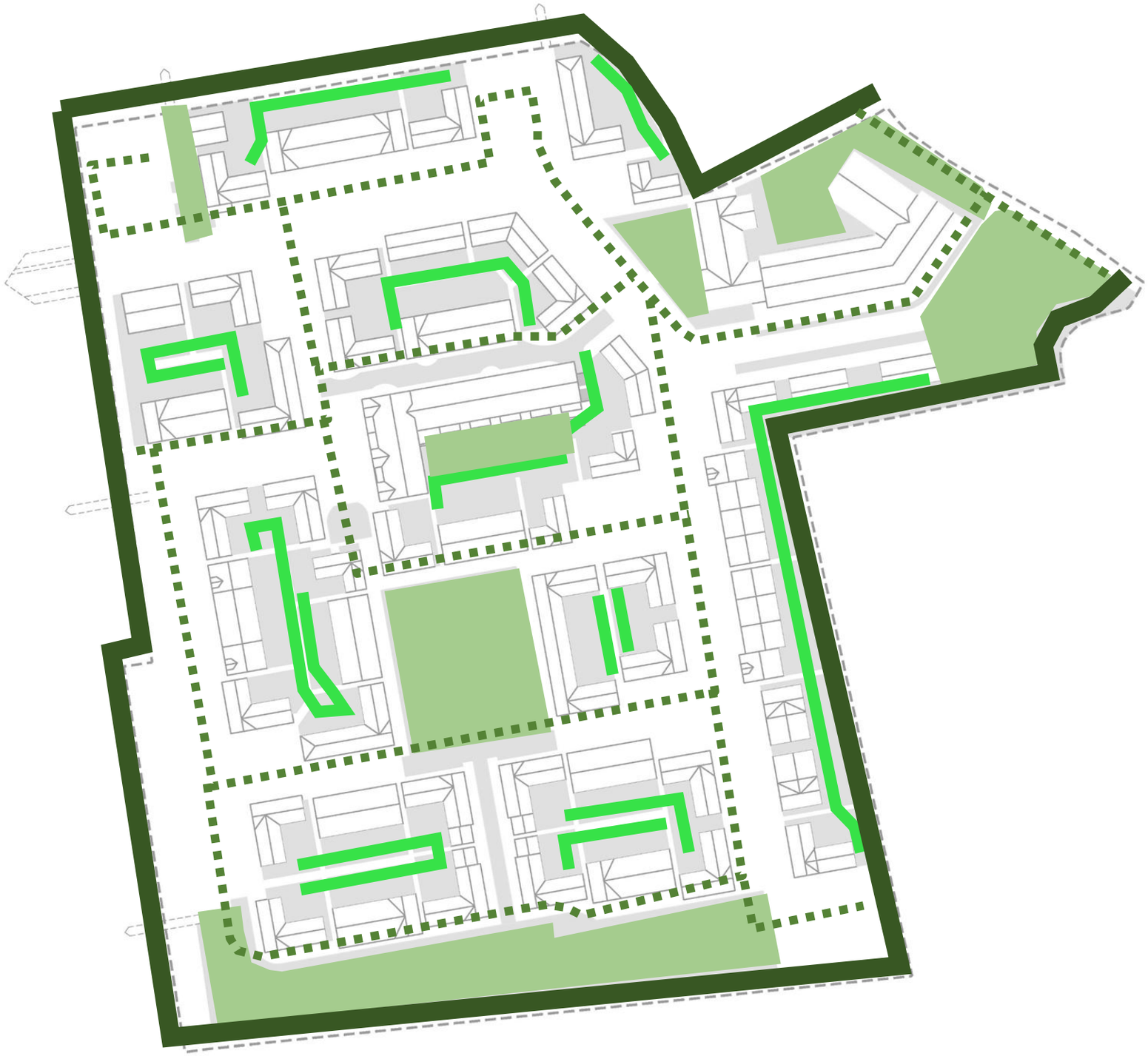
- Underground attenuation
- Permeable paving
- Soakaway tree pit
- Dry basin
- Amenity grass
- Private gardens
- Woodland type planting
- Tree planting
- Existing boundary vegetation retained
- Wildflower Meadow

GREEN AND BLUE INFRASTRUCTURE: RECREATION & AMENITY WITH INTEGRATED NATURE-BASED SUDS -Precedent Examples



The integration of green and blue infrastructure will foster healthier, more resilient communities, reduce environmental impact, and contribute to a more engaging environment for all.
Depressions in the open spaces for nature-based SuDS allow opportunity for integrated natural play and exploration outside flood events.

GREEN AND BLUE INFRASTRUCTURE : PLANTING STRATEGY



Boundary Planting

Private Garden Planting

Street Planting

Public Open Space Planting

GREEN AND BLUE INFRASTRUCTURE STRATEGY : PROPOSED PLANTING TYPOLOGIS

LEGEND

- NATIVE TREES
- STREET TREES
- GARDEN TREES
- NATIVE HEDGEROW WHIP PLANTING
- WOODLAND TYPE WHIP PLANTING
- EXISTING VEGETATION TRIMMED BACK AND RETAINED

GREEN AND BLUE INFRASTRUCTURE STRATEGY : PROPOSED PLANTING TYPOLOGIS

1

Back Garden Trees

2

Open space-Native tree planting

3

Native Woodland and Screening Tree Planting

VEGETATION

Combination of multiple layers to create diversity and variation in space
Trees and Multi-steam trees, Shrubs, Ground cover and Flowers, Natural elements

DESIGN CONCEPT: TREES

STREET TREES

Pyrus Calleryana Chanticleer

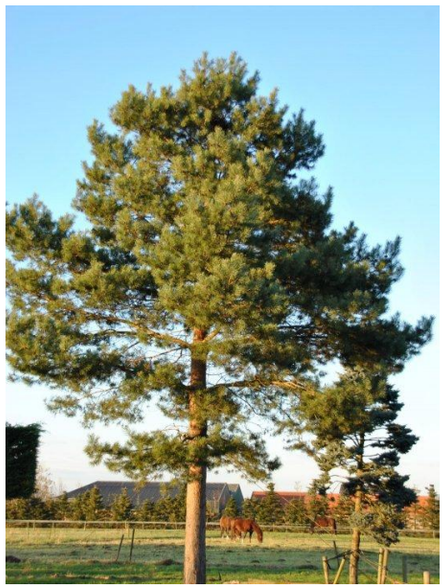
The proposed design utilizes trees to provide structure throughout the site. These would all be native species, delivering significant biodiversity and pollinator benefits.

Betula pendula

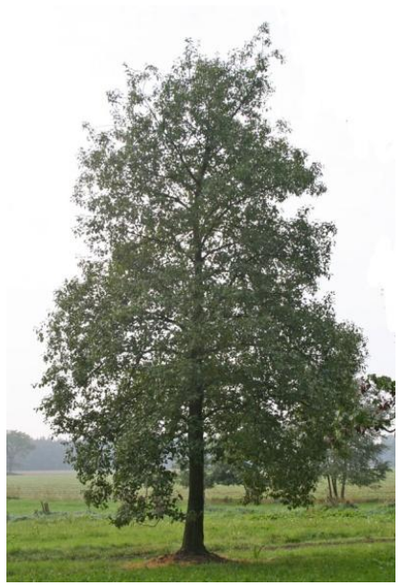
Sorbus aucuparia

OPEN SPACE TREES

Quercus petraea



Pinus sylvestris



Alnus glutinosa

DESIGN CONCEPT: HEDGEROWS, SHRUBS, GROUNDCOVER, AND PERENNIALS

POLLINATOR ORNAMENTAL HEDGE @ 3/m

Sarcococca confusa

Viburnum tinus 'Eve Price'

Eleagnus pungens 'Maculata'

NATIVE HEDGEROW PLANTING MIX

Crataegus monogyna

Prunus spinosa

Sambucus nigra

Euonymus europaeus

BULBS AND PERENNIALS

Potential species mix: Anemone nemorosa, Geranium robertianum, Hyacinthoides non-scripta, Muscari 'Blue Spike', Oxalis acetosella, Primula vulgaris, Viola riviniana, Colchicum sp., Crocus sp., Galanthus nivalis, Salvia sp., Anemone × hybrida, Anemone hupehensis, Aster sp., Chrysanthemum sp., Dahlia sp., Helleborus sp., Rudbeckia 'Goldstrum' Calamagrostis 'Karl Foerster', Stipa 'Ponytails' .

The proposed design features shrub planting to designate different areas, soften edges, and create inviting spaces. These would be fully native species, enhancing biodiversity throughout the site. Supplementing the more structural shrubs and trees would be pollinator-friendly bulbs and perennials, as well as a differential mowing regime in grassed areas to encourage native wildflowers.

DIFFERENTIAL MOWING REGIME

A differential mowing regime can allow for both reduced maintenance needs, with less intensive and extensive mowing throughout the site, and enhanced biodiversity. By mowing fewer areas and mowing less often, native grasses and wildflowers can flower and set seed, creating more rich ecological processes throughout the site. This can also create attractive patterns within the landscape to further user interest.

DESIGN CONCEPT: Materials and Finishes

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

Open Space Hard Surfaces

Open Space Pathways

Feature seating

LAND PLANNING & DESIGN

05. MAINTENANCE & MANAGEMENT

INTRODUCTION

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

1.0 SOFT LANDSCAPE WORKS SPECIFICATIONS

1.1 Site Clearance Generally

- General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
- Stones: Remove those with any dimension exceeding 25mm.
- Contamination: Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life. In accordance with current 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 — Trees: from nursery to independence in the landscape- recommendations
- BS 8601 — Specification for subsoil and required use
- BS EN 1722-9 with — Fences Specification for mild steel - low carbon steel - fences round or square verticals and flat horizontals

The latest publications for each document are to be used.

1.4 Soil Conditions

- Soil for cultivating and planting: Moist, friable and do not plant if waterlogged.
- Frozen or snow-covered soil: Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

1.5 Climatic Conditions

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

1.6 Times of year for planting

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

1.7 Mechanical Tools

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

1.8 Watering

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

1.9 Preparation, Planting and Mulching Materials

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

1.10 Plants/ Trees - General

- Condition: Materially undamaged, sturdy, healthy and vigorous.
- Appearance: Of good shape and without elongated shoots.
- Hardiness: Grown in a suitable environment and hardened off.
- Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants: Bottom worked.
- Root system and condition: Balanced with branch system.
- Species: True to name.

1.11 Container Grown Plants/ Trees

- Growing medium: With adequate nutrients for plants to thrive until permanently planted.
- Plants: Centred in containers, firmed and well-watered.
- Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
- Hardiness: Grown in the open for at least two months before being supplied.
- Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

1.12 Labelling And Information

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

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

1.13 Plant/ Tree Substitution

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

1.14 Plant Handling, Storage Transport and Planting

- Standard: To HTA 'Handling and Establishing Landscape Plants'.
- Frost: Protect plants from frost.
- Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- Planting: Upright or well balanced with best side to front.

1.15 Treatment of Tree Wounds

Cutting: Keep wounds as small as possible.

- Cut cleanly back to sound wood using sharp, clean tools.
- Leave branch collars. Do not cut flush with stem or trunk.
- Set cuts so that water will not collect on cut area.
- Fungicide/ Sealant: Do not apply unless instructed.

1.16 Protection of Existing Grass

- General: Protect areas affected by planting operations using boards/ tarpaulins.
- Excavated or imported material: Do not place directly on grass.

Duration: Minimum period.

1.17 Surplus Material

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

1.18 General Planting/Seeding

- Planting shall be carried out within the contract period but not during periods of frost, drought, cold drying winds or when the soil is waterlogged, or when the moisture of the soil exceeds field capacity.
- All containers and protective coverings including biodegradable coverings to root systems shall be removed prior to planting. Roots, except for emergent vegetation, shall be teased out from the root-ball, spread evenly and not twisted.

  All plant material shall be planted upright or placed so as to be well-balanced. Extreme care is to be taken to avoid damage to the root system, stem and branches when planting. The plant shall be positioned such that after planting the original soil mark on the stem is at finished ground level.
- Following completion of planting, grass seeding and turf laying, the soil over the whole of the planted, seeded or turfed area shall be sufficiently watered to achieve its field capacity.
- On completion of planting, watering and mulching, all areas shall be left tidy and weed-free and shall be maintained in a tidy and weed-free state until completion of the works.
- For shrub and transplant pit planting, notch planting and ordinary planting, the plant positions shall be set at equal centres in order to obtain a natural dense cover when mature. For notch and pit planting plants shall be planted in parallel lines. Planting positions in each row shall be staggered with the previous row.
- Finely-broken backfill material shall be carefully spread around roots and root trainers of all plants and the plants given slight shake to ensure that all interstices/ gaps are filled with soil, which shall then be consolidated by heeling. Careful filling and heeling shall continue as necessary at 150mm layers.

1.18.1 Mulching

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

1.18.2 After Planting & Mulching

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

1.19 Tree Planting

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

1.19.1 Tree Pits

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

1.19.2 Semi-Mature Trees

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

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

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

1.20 Shrub Planting
- All shrubs are to be pit planted. General pit dimensions are to be wide enough to accommodate roots when fully spread and 75mm deeper than root system.
- Break up base of pit to a depth of 150 mm, incorporating soil ameliorant/ conditioner at 50 g/m^2.
- 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.

1.26 Grass Seeding

1.26.1 Herbicide Application
- Type: Suitable for suppressing perennial weeds and existing grass.
- Glyphosate and other controlled chemical pesticides will not be used under any circumstances.
- Suitable herbicide use to the instruction of a registered professional user.
- Timing: Allow fallow period before cultivation.
- Duration: As manufacturer's recommendation.

1.26.2 Seedbed cleaning before sowing
Operations: Herbicides as per registered professional user 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 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 Fertiliser 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/m^2, 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 Glyphosate-free herbicide according to a registered professional user and manufacturer's instructions. Areas of invasive and noxious species in the lawn or areas, shall be mechanically removed or spot sprayed by a registered professional user.

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 mechanically removed. Glyphosate and other chemical pesticides will not be used under any circumstances unless otherwise instructed by a registered professional user. 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-free herbicide 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 accepted method 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 mechanical weeding of annual weeds and 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.

Weed control around trees bases and in shrub areas will be achieved by mulches and mulch top ups only. 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 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.

2.10 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, 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).

2.11 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 the defect period 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						*				*		
Weed control to tree mulch circles				*			*			*		
Weed control to shrubs & hedgerow				*			*			*		
Watering of new trees (or after 3 weeks of no rain)				*	*	*	*	*				
Trimming of scrub areas												*
Weed control of scrub areas				*					*			
Weed control to footpaths, cycle paths.				*								
Litter Clearance/pick up	***	***	***	***	***	***	***	***	***	***	***	***