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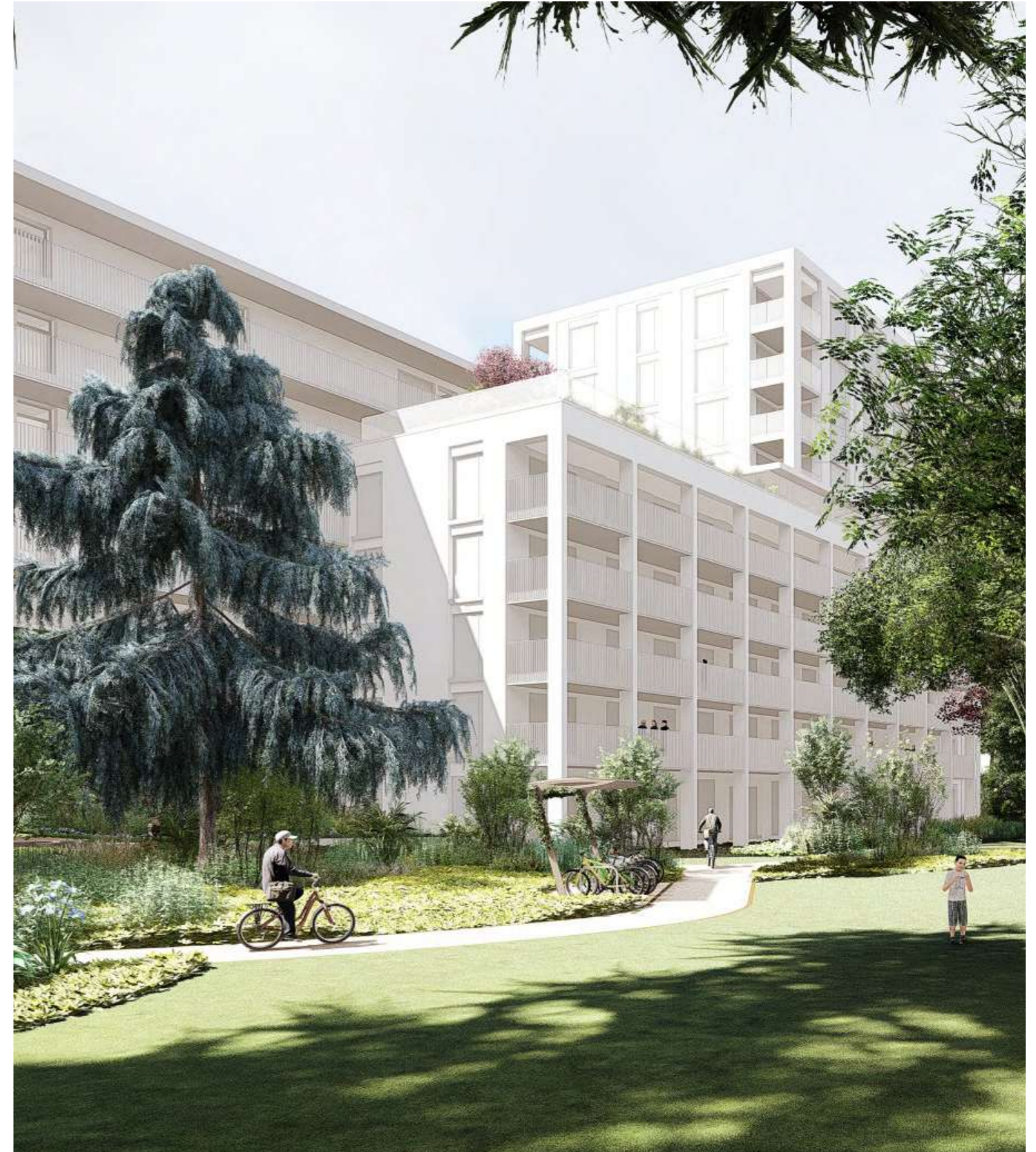
SANDFORD ROAD, DUBLIN 6

LANDSCAPE DESIGN STATEMENT

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For illustrative purposes only

INTRODUCTION

LANDSCAPE INTRODUCTION

The design philosophy for the proposed new residential scheme in Sandford aims to create a high-quality residential community with a splendid and unique, contemporary landscape design within a parkland setting which is cognisant of the historical context of the site and its notary buildings.



Image create by 3D Design Bureau

OVERARCHING AIMS, OBJECTIVES AND DESIGN PRINCIPLES

- » As part of the overall design philosophy, the design team have sought to ensure that the previously private lands are opened up and public access provided throughout the site, which has not existed before. The publicly accessible parkland benefits from a series of inter-connected amenity spaces strung along legible parkland walks which may be accessed easily by the existing neighbourhood community and future residents from the new site entrances. The layout of the site encourages walking throughout, with a hierarchy of connections, offering a range of routes to destinations and well-connected experiences
- » The project has aimed to create a new residential development that is interwoven with the existing landscape setting of the site through a series of connected landscape character areas.
- » The retained existing historical buildings occupying the site will be respectfully set within a new formal landscape setting, transitioning into more natural environments surrounding the newly proposed residential blocks.
- » The arboricultural report has allowed the team to identify trees of high, medium and low value in terms of aesthetics, standard of quality, shape, form, anticipated lifespan, ecology and amenity value. The higher quality trees form a key role in the character of the site and therefore have informed the design approach, which has subsequently informed the layout of the scheme, the proposed building positions and landscape design.
- » The parkland will form a new open space asset, and means of access, benefitting the local community as an alternative route for pedestrian movement along Milltown Road.
- » A series of defined landscape character areas will have a relationship to this architectural setting and public and residential use as the site is currently closed to the public.
- » A series of landscape characters are laid out which have specific relationships with the individual portion of the masterplan, building typology, architectural setting and public or private residential use.

INTRODUCTION

PLANNING POLICY- DUBLIN CITY DEVELOPMENT PLAN 2016-2022

The quality of our built environment is dependent not only on building design and street layout but also on smaller elements that can make an important contribution. Development proposals will be assessed both in terms of how they contribute to the achievement of the core strategy and related objectives, and also having regard to both qualitative and quantitative standards as set out in this section.

The Section 16.3 of Dublin City Development Plan 2016-2022 highlights that landscaping in the urban environment can have multiple advantages for citizens and can enhance quality of life, as well as providing an attractive visual context and contributing to a sense of place on the proposed development.

The tables on the following pages will explain as the requirements have been achieved and show within the proposed scheme.

16.3.1 Hard Landscaping	Response
<p><i>Hard landscaping</i></p> <p><i>Hard landscaping, including paving and street furniture, is an important element in defining the character of the spaces between buildings and public open spaces. Hard landscaping works can help to provide visual links, define and enclose space, and delineate public from private space. They can provide security to private areas, playspace for children, and also areas for sitting and relaxing. Hard landscaping can also help distinguish between areas for different transport modes.</i></p> <p><i>Material</i></p> <p><i>Materials must be appropriate, durable and of a good quality. Careful consideration must be given to the design of hard-surfaced areas including streets, squares, open spaces, paved areas, footpaths and driveways. The texture and colour of materials must be sympathetic to the locality and be an integral part of the design.</i></p> <p><i>Surface water management:</i></p> <p><i>Applications for substantial hard-surfaced areas must demonstrate methods of controlling and limiting surface water run-off consistent with sustainable development. These methods include use of permeable paving/surfaces, bio-retention areas, and swales (which should be maintainable), such that rainfall is not directed immediately to surface water drains. These methods can help reduce flooding and help mitigate the impacts of climate change</i></p> <p><i>Boundaries and street furniture:</i></p> <p><i>Walls, fences, metal railings and gates used to define spaces and their usage all impact on the visual character of the development. These should be selected so as to be an integrated part of overall design. Street furniture should be sited such that it does not provide an obstacle for people with disabilities.</i></p> <p><i>Reinstatement:</i></p> <p><i>Following underground or surface works, it is an objective of Dublin City Council to ensure the reinstatement of materials or the replacement with materials of similar style and quality.</i></p>	<p><i>Hard landscaping:</i> The proposed Hardscape palette indicated in this report will contribute to defining the character of the spaces between buildings and public open spaces. The changes in hard surface material will help to demarcate the use of the areas i.e sitting and relaxing space, play areas and shared surface. The distinction of different tones and finishes of paving which includes irregular shaped granite paving, clay brick paving and concrete block paving have been strongly related to future uses of the proposed shared surface ad pathways.</p> <p><i>Material:</i> The proposed materials will be appropriate and sympathetic to the local character of the area and be an integral part of the design. In addition to this also, the build-up of the paved area in the proximity of the retained trees will grant a specific build-up to ensure and guarantee the protection of the tree roots. Careful consideration has been given to the design, texture and colour of the materials of the streets, plaza, open spaces, paved areas, footpaths and driveways for example to ensure they will integrate with the design, which will assist in providing a high-quality living environment. All the landscaping materials such as clay brick paving and concrete block paving will have a good resistance to accidental damage and low maintenance characteristics.</p> <p><i>Surface water management:</i> The proposed landscape setting aims to provide substantial benefit to the urban drainage due to the large permeable areas that will be provided on site. The scheme aims to control and limit the surface water run-off throughout use of permeable paving/surfaces and rain garden and green roofs. For further detail refer to the Engineers Infrastructure Design Report.</p> <p><i>Boundaries and street furniture:</i> The site will become publicly accessible for all through the introduction of pedestrian links into the site and through openings in the boundary wall which will enhance legibility in the area and will emphasise the visual character of the development. The proposed opened portions of the boundary wall will replicate the existing and traditional pattern and material (low wall) which is characteristic of the immediate locality. All the proposed street furniture within the development has been stretegetically located to create gathering and relaxing areas accessible for all.</p> <p><i>Reinstatement:</i> Reinstatement of any trenches or excavations associated with provision of utility / drainage connections or provision of site access is to be carried out in accordance with the relevant utility providers and Dublin City Council requirements. Surface finishes are to be agreed with Dublin City Council’s Roads Section prior to final reinstatement.</p>

16.3.2 Soft Landscaping Including Trees	Response
<p><i>a) Existing trees and vegetation should be retained where possible See next section (16.3.3)</i></p> <p><i>b) For larger sites, including institutional lands, development proposals must take cognisance of the existing landscape character and quality</i></p> <p><i>c) Where a large site adjoins a green corridor, public open space or area of high ecological value, any new public open space on the site should be contiguous to same to encourage visual continuity and expansion of biodiversity; this can assist in expanding the green infrastructure network</i></p> <p><i>d) Landscaping works should be integrated with sustainable urban drainage systems such that landscaping plans may include associated biodiversity areas or wetlands which can reduce surface water run-off.</i></p> <p><i>e) Landscaping schemes should provide a hierarchy of different types of planting throughout the development in order to give visual variety. Green roofs, walls and permeable surfaces will be encouraged (see Chapter 10).</i></p>	<p>a) The scheme aims to retain a large number of the existing trees on the site. Due to the design layout and shape of the built form, a portion of existing trees will be removed and a large number of existing trees will be retained. The tree removal will allow the space along the eastern boundary in particular (which is currently overgrown and unusable) to be opened up into usable and high-quality public open space which is a significant gain for the area. The trees that will be removed will be also replaced by a significant number of large and medium size trees that will have a greater long term benefit to the local ecology and biodiversity.</p> <p>b) The softscape palette considers the aesthetic, functional ecological, and horticultural requirements. The form/colour helps to determine shapes and organize the space. The proposal softscape setting will enhance the character and quality of the site due to the good management of the trees and proposed shrubs. As noted above, the eastern boundary is currently very overgrown and unusable and thus the opening up of this space to provide high-quality public open space demonstrates that cognisance has been given to the existing landscape character and quality.</p> <p>c) The site is not adjoining any green corridor, public open space, and area with a high ecological value. The softscape setting will contribute and encourage the visual continuity and expansion of the biodiversity in the area and will assist in expanding the green infrastructure network and will connect and contribute to this green infrastructure network.</p> <p>d) The proposed landscape setting aims to provide substantial benefit to the urban drainage due to the large permeable areas that will be provided on site which can reduce surface water run-off. The site also considered the biodiversity value that certain areas will provide such as different wildflower mixtures meadow, rain gardens and understory shrubs within the woodland.</p> <p>e) The landscape scheme provides a planting concept with the following considerations:</p> <ul style="list-style-type: none"> -Colour/Size/ Texture/Shape will enhance the attractive views of the site. -Strategically located trees to create focal points. -Different planting species for different character areas will emphasise the sense of space and the transition of the areas. -The site will also propose a tapestry of green roofs that will aim to increase the local biodiversity. - The large portion of planting area will help to reduce surface water run-off. -The planting species provided has been approved by the ecologist involved. Majority of the species will be low maintenance characteristics. <p>It is envisioned that all planting of new vegetation will take place during construction in tandem with the construction of buildings; any trees or plants which, within a period of 5 years from the completion of the development, die, are removed, and that any which become seriously damaged or diseased are replaced in the next planting season.</p>

INTRODUCTION

PLANNING POLICY- DUBLIN CITY DEVELOPMENT PLAN 2016-2022

16.3.3 Trees	Response
<p><i>Existing trees and their protection</i></p> <p><i>The successful retention of suitable trees is a benchmark of sustainable development. Trees of good quality and condition are asset to a site and significantly increase its attractiveness and value....</i></p> <p><i>...A tree survey must be submitted where there are trees within a proposed planning application site, or on land adjacent to an application site that could influence or be affected by the development. Information will be required on which trees are to be retained and on the means of protecting these trees during construction works. Where development is proposed it is essential that existing trees are considered from the very earliest stages of design and prior to an application for planning permission being submitted. Root systems, stems and canopies, with allowance for future movement and growth, need to be taken into account in all projects...</i></p> <p><i>New Trees</i></p>	<p>Existing trees and their protection Existing trees on site informed and influenced the design team since the early days of the design process.</p> <p>The Tree Survey produced by CMK Horticulture&Arboriculture explains in detail the tree's characteristics. The condition of the trees are in moderate to good condition however the currently limited management of the trees on site to date has resulted in strong competition between trees. A detailed exercise has been taken into account to justify the removal of the trees. The CMK Arboricultural Assessment Arboricultural Impact and Tree Protection Strategy Report will explain in detail how the team will protect root systems, stems, and canopies, with allowance for future movement and growth. In addition to this, the build-up of the paved area in the proximity of the retained trees will grant a specific build-up to ensure and guarantee the protection of the tree roots. Please refer to CMK Arboricultural Assessment Arboricultural Impact and Tree Protection Strategy Report for further detail in relation to the Pre-Construction meeting/Tree works- Construction period and Post Construction.</p> <p>New trees A significant number of large and medium size new generation of trees will be provided on the site and these will have a greater long-term benefit to local ecology and biodiversity: pollinator friendly planting will be provided, including wildflower meadow, native trees and shrubs. Enhance the woodland by planting of native shrubs in the groundcover. Following the BS 8545:2014 all newly planted trees will be able to grow with vigour appropriate to the species and situation, in good health, to achieve the desired planting objectives.</p>

16.3.4 Public Open Space- All development	Response
<p><i>In order to progress the city's green infrastructure network, improve biodiversity, and expand the choice of public spaces available, the provision of meaningful public open space is required in development proposals on all zoned lands.</i></p> <p><i>For Z15 zoned lands the requirement will be 25% accessible open space and/or provision of community facilities.</i></p>	<p>Based on the Dublin City Council Development Plan 2016-2022, the masterplan shall set out a clear vision for the lands zoned Z15, to provide for the identification of 25% of the lands for open space and/or community facilities. The following pages will explain in detail how the 25% of public space have been provided. The Public Open Space provided in the scheme will contribute toward the city's green network: will provide a local park which will include dedicated play areas, gathering sitting areas, street furniture such as sheltered cycle stands, fitness trail and will create a new civic plaza. Majority of the areas identified as Public Open Space will be represented by green areas such as open lawn, wildflower meadow and shrubs buffering. The items will positively contribute to the water management of the area.</p>

ZONING OBJECTIVE Z15

Based on the Dublin City Council Development Plan 2016-2022, the masterplan shall set out a clear vision for the lands zoned Z15, to provide for the identification of 25% of the lands for open space and/or community facilities.

Total area within red boundary (Developable area)
c. c. 42,547 sq m (c. 4.26 ha.)

Public Open Space Required: 25% (10,636.79sqm)
Public Open Space Provided: 34.9% (14,848sqm)

The details relating to Green Infrastructure, Open Space & Recreation are set out in Chapter 10 of the Development Plan, and relevant sections are set out below:

10.5.3 Parks and Open Spaces

Parks and open spaces also require protection to meet the recreational and conservational needs of the city, and Dublin City Council is currently preparing 'Dublin City Parks Strategy' to guide this process.

At the larger scale, existing open spaces require protective measures and new spaces require sustainable planning.

It is the Policy of Dublin City Council:

.. GI10: To continue to manage and protect and/ or enhance public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.

.. GI12: To ensure equality of access for all citizens to the public parks and open spaces in Dublin City and to promote more open space with increased accessibility and passive surveillance where feasible. In this regard the 'Fields in Trust' benchmark for green/recreational space city wide shall be a policy goal and quality standards.

GI13: To ensure that in new residential developments, public open space is provided which is sufficient in quantity and distribution to meet the requirements of the projected population, including play facilities for children.

PUBLIC OPEN SPACE PROVIDED



Public Open Space excess 9.9% (4,212sqm)

INTRODUCTION- ZONING Z15, PUBLIC OPEN SPACE REQUIREMENT

Public open spaces can have a positive impact on both the quality of the environment as well as physical and mental well-being. Open space provides settings to meet, interact, exercise, and relax.

Through a review of advice and guidelines for the design of open space, the Sandford scheme aims to create an inclusive environment that can be used by all people, regardless of their age, disability, or ability.

For the purpose of this Planning Application, we have ensured that an exceptionally high standard of Public Open space is provided within the scheme. An exercise has been undertaken to demonstrate that the Zoning Z15 requirement has been fully met with a large portion of the scheme identified as Parkland and the Plaza. An additional area has been identified as a public open space located on the Northside of Block C and along the boulevard between Building A2 and B which serves to connect pedestrians and cyclists from Milltown Road, through the public plaza and out onto Sandford Road.

KEY PRINCIPLES APPLIED TO CALCULATE THE AMOUNT OF SPACE:

- » Public Open Space areas have been calculated only within the developable site area
- » The area identified as Public Open Space is identified as a unique zone.
- » Vehicular shared surfaces have been excluded from the public open space calculation.
- » Defensible spaces have been excluded from the Public Open Space calculation.
- » Public Open Space has been provided with high quality of design and suitable finishes for the character of the area.

BENEFITS AND CHARACTERISTICS OF THE PUBLIC OPEN SPACE:

The social value of open space lies in the opportunities it provides for social interaction, between different multigenerational, physical and cultural people. It can help facilitate the development of community ties and neighbourhood interaction. A public space provides an arena for the exchange of ideas, friendships and skills. Public space is especially important for young children as it gives them the opportunity to make friends and learn some of the rules of communal life and play.

- » Contribute to the overall attractiveness of the development
- » Be easy to access from all the areas of the development
- » Be easy to use for all the people
- » Has good lighting and passive surveillance
- » Is enjoyable to use all year around.

Public Open Space 25.8% (10,997sqm)

Parkland and Plaza



Active amenity open space



(Gym Station)

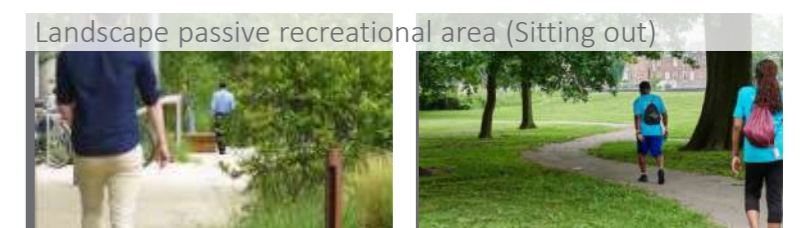


Play areas (Dedicated play area- play-on-the-way)

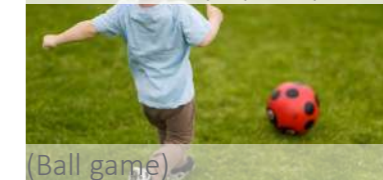


+ additional 9.9% (7.8% of Woodland glade + 1.3% of Boulevard) of Public Open Space

Woodland glade and Boulevard



Active amenity open space



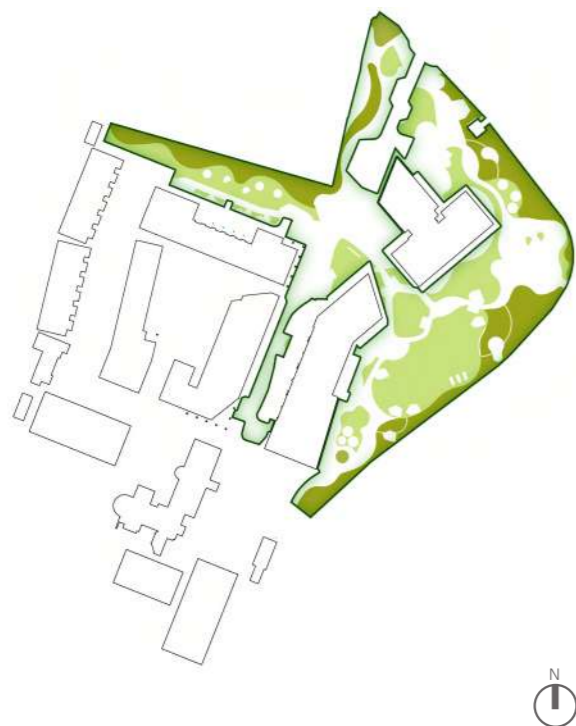
(Gym Station)



Play areas (Dedicated play area- play-on-the-way)



Open Lawn & Woodland glade



Passive Recreation Areas



- Gathering table
- Seating areas for enjoying the view of scenery
- Natural interpretation trail
- Pathway

Active Recreation Areas



- Designated walking route
- Jogging route
- Multigeneration fitness area

Play areas



- Play on-the way
- Dedicate play area
- Lawn



INTRODUCTION

PLANNING POLICY- DUBLIN CITY DEVELOPMENT PLAN 2016-2022

GREEN INFRASTRUCTURE, OPEN SPACE & RECREATION

10.5.1 Green Infrastructure

Green infrastructure is an interconnected network of green space that conserves natural ecosystem values and functions that also provides associated benefits to the human population. It is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. It incorporates green spaces (or blue if aquatic ecosystems are concerned) and other physical features in terrestrial (including coastal) and marine areas.

Dublin City Council will actively promote a green infrastructure strategy which draws on the Council's sustainability principles (see Appendix 23 on Green Infrastructure Guiding Principles). The strategy comprises a spatial strategic network to be delivered through local area plans and through the development management process.

Green infrastructure systems are spatially made of three different parts:

a) Core Areas which are the nuclei of the network and provide essential habitat for sensitive species

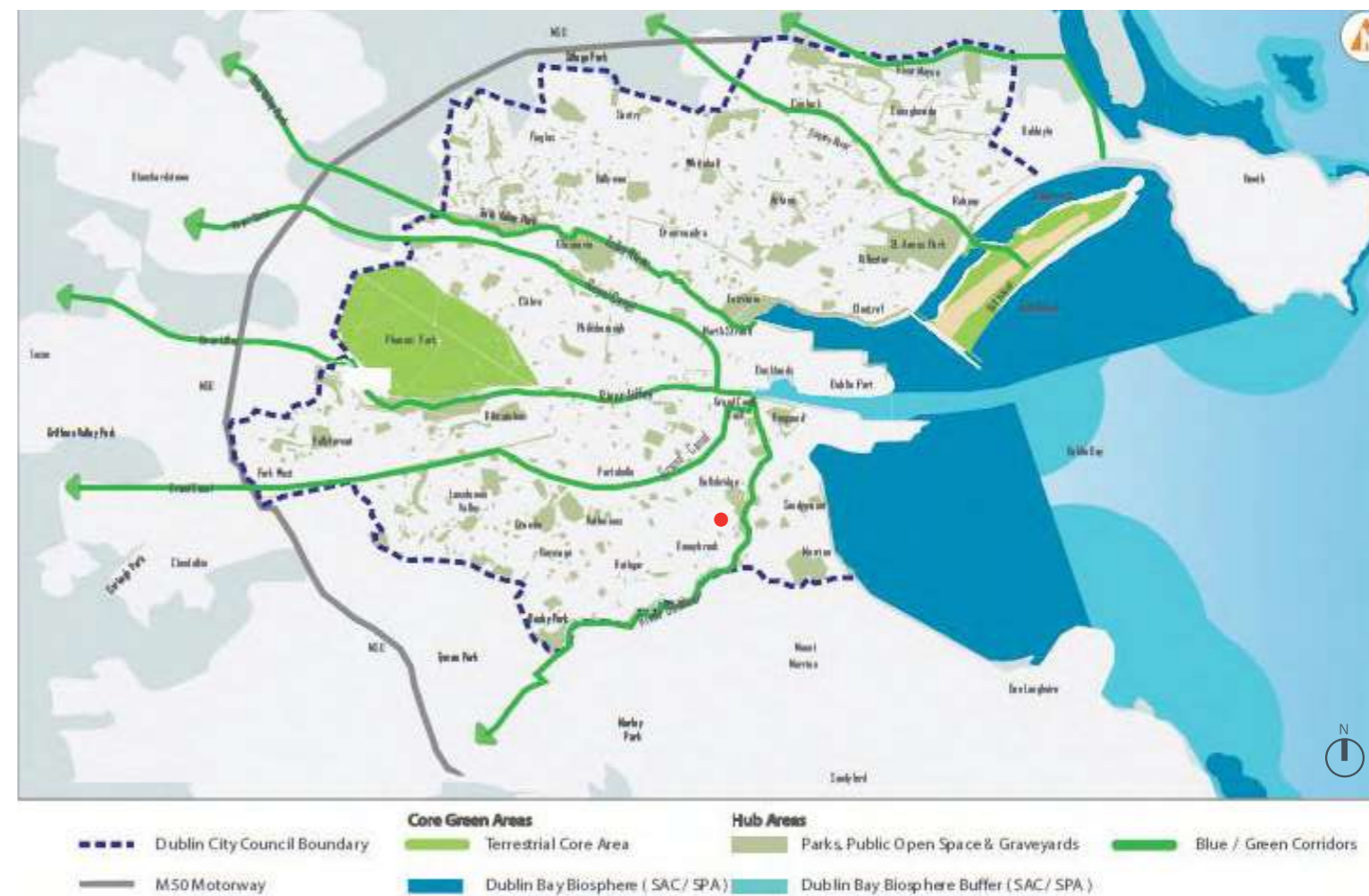
b) Hubs which are places buffering the core areas, and are made of the largest, least fragmented continuous areas of forest, wetlands, stream systems, or other native landscape types

c) Corridors are vital to maintain connectivity in the landscape and provide for animal movement, seed and pollen dispersal, and plant migration.

The Council recognises the benefits to the sustainability of the city and in terms of clean air and better water quality. Implementing green infrastructure features in urban areas creates a greater sense of community, strengthens the link with voluntary actions undertaken by civil society, and helps combat social exclusion and isolation. They benefit the individual and the community physically, psychologically, emotionally and socio-economically.

Green infrastructure creates opportunities to connect urban areas and provides appealing places in which to live and work. Through urban food production and community gardens, which are efficient tools to educate schoolchildren and engage the interest of young people in particular, it addresses the disconnect between the production and consumption of food and helps increase its perceived value.

STRATEGIC GREEN NETWORK



Dublin City development Plan 2016-2022, Written Statement, Fig.14

● Approximate site location

PLANNING POLICY- DUBLIN CITY DEVELOPMENT PLAN 2016-2022

The table below provided a response to the relevant Green Infrastructure Policy related in response to the Landscape proposal.

Relevant Green Infrastructure Policy	Response
<p>Policy GI1: To develop a green infrastructure network through the city, thereby interconnecting strategic natural and semi-natural areas with other environmental features including green spaces, rivers, canals and other physical features in terrestrial (including coastal) and marine areas.</p> <p>Policy GI3: To develop linear parks, particularly along waterways, and to link existing parks and open spaces in order to provide green chains throughout the city. Where lands along the waterways are in private ownership, it shall be policy in any development proposal to secure public access along the waterway.</p> <p>Policy GI4: To co-ordinate open space, biodiversity and flood management requirements, in progressing a green infrastructure network.</p> <p>Policy GI5: To promote permeability through our green infrastructure for pedestrians and cyclists.</p> <p>Objective GI01: To integrate Green Infrastructure solutions into new developments and as part of the development of a Green Infrastructure Strategy for the city.</p> <p>Objective GI02: To apply principles of Green Infrastructure development to inform the development management process in terms of design and layout of new residential areas, business/ industrial development and other significant projects.</p>	<p>Policy GI1: The site will form part of a Green Infrastructure Network throughout this part of the city and will join up to create a necklace with the existing identified areas open space defined of Open Space (Z9) and Environmental Amenity (Z12) within the Development Plan. In addition, the development will facilitate connections for the public through the site towards the Dodder Greenway route which will positively contribute to, and create linkages with, the surrounding strategic green network.</p> <p>Policy GI3: See the response for policy GI1. The site will contribute to the green infrastructure network in this part of the city and will provide public access to open space on a site that is currently closed up from the public.</p> <p>Policy GI4: Ref to page 9 and 148 of this report. For the purpose of this Planning Application , we have ensured that an exceptionally high standard of Public Open Space is provided within the scheme. An exercise has been undertaken to demonstrate that the Zoning Z15 requirement has been fully met with a large portion of the scheme identified as public open space. Careful list of planting has been selected in collaboration with the ecologist in order to provide the most suitable softscape layout and enhance the biodiversity of the area. SUDS measures are incorporated into development such as green roofs and permeable paving. Please also refer to the Engineers Flood Risk Assessment which concludes that the proposed development is appropriate for the site’s flood zone category and the sequential approach outlined in Planning System and Flood Risk Management Guidelines has been adhered to and the ‘Avoid’ principal has been achieved.</p> <p>Policy GI5: The public space concept is based on a principle that promotes social engagement, sustainability, site connectivity & permeability and a healthy lifestyle for the future residents and the public and various pedestrian and cycle links are provided through the site. The scheme will consolidate the neighbourhood and increase legibility for the wider community.</p> <p>Objective GI01: See the response for policy GI1. The development promotes and integrates green infrastructure and landscaping into the scheme. The scheme incorporates areas of publicly accessible natural and semi-natural open space that will form part of the Green Infrastructure of this part of the city, in particular through the retention of the existing trees and proposed areas of native planting and wildflowers.</p> <p>Objective GI02: A key feature of the scheme design is the retention and enhancement of the existing natural asset of the site, and opening the site up for the public to utilise.</p>

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Relevant Green Infrastructure Policy	Response
<p>Objective GIO4: To improve pedestrian and cycle access routes to strategic level amenities while ensuring that ecosystem functions and existing amenity uses are not compromised and existing biodiversity and heritage is protected and enhanced.</p> <p>Policy GI6: To support and implement the objectives of the National Landscape Strategy.</p> <p>Policy GI7: To continue to protect and enhance landscape, including existing green spaces through sustainable planning and design for both existing community and for future generations in accordance with the principles of the European Landscape Convention.</p> <p>Policy GI8: To protect and enhance views and prospects which contribute to the appreciation of landscape and natural heritage.</p> <p>Objective GIO9: To maximise managed access to key landscape and amenity areas of Dublin city.</p> <p>Policy GI9: To incorporate open space into the green infrastructure network for the city, providing a multi-functional role including urban drainage, flood management, biodiversity, outdoor recreation and carbon absorption.</p> <p>Policy GI10: To continue to manage and protect and/ or enhance public open spaces to meet the social, recreational, conservation and ecological needs of the city and to consider the development of appropriate complementary facilities which do not detract from the amenities of spaces.</p>	<p>Objective GIO4: Ref to page 31, 83 and 85 of this report. The scheme incorporates pedestrian and cycle routes through the areas of publicly accessible natural and semi-natural open space that will form part of the Green Infrastructure of this part of the city. Therefore the development will enhance existing amenity uses (currently non-existent at the site). The development includes planting of native shrubs as groundcover in the woodland which will provide habitat for mammals and breeding birds and strengthen the boundary woodlands function as a green infrastructure corridor. Measures are implemented to ensure that biodiversity is not compromised, including lighting designed to accommodate bats commuting and foraging in the area (refer to Biodiversity Chapter 8 in the EIAR report).</p> <p>Policy GI6: Through compliance with the DCC Development Plan Green Infrastructure Policies in support of the National Landscape Strategy, we will be supporting and implementing their objectives.</p> <p>Policy GI7 We are providing large public open spaces which will improve and enhance the current setting of the landscape which will be fully accessible for the existing community and future generations.</p> <p>Policy GI8: Refer to LVIA, which assesses viewpoints in the surrounding urban context. As part of the scheme multiple views have been provided into the existing site and the proposed public open spaces. The site will become publicly accessible through the introduction of pedestrian links into the site and through openings in the boundary wall which will enhance legibility in the area.</p> <p>Objective GIO9: The proposed development will enhance the landscape and amenity area available in this area of Dublin City.</p> <p>Policy GI9: Refer to page 17 of this report. The proposed landscape setting aims to provide substantial benefit to the urban drainage due to the large permeable areas that will be provided on site. The biodiversity of the area would increase due to a large number of retained existing trees and new trees generation provided. The woodland will be retained and enhanced by planting of native shrubs in the groundcover. Furthermore, the variety of outdoor recreation areas will offer a great opportunity to the future residents and the public to use the zone immersed in a lush green area. The open spaces and pedestrian/ cyclist links will contribute towards the green infrastructure network of the city and will include sustainable urban drainage systems and will promote sustainable modes of transport.</p> <p>Policy GI10: Refer to page 17-29-131 and 152 of this report. The strategic location of the site and the provision of high-quality public open space and permeable links will increase legibility for the wider community.</p>

Relevant Green Infrastructure Policy	Response
<p>Policy GI14: To promote the development of soft landscaping in public open spaces, where feasible, in accordance with the principles of Sustainable Urban Drainage Systems.</p> <p>Policy GI29: To adopt a pro-active and systematic good practice approach to tree management with the aim of promoting good tree health, condition, diversity, public amenity and a balanced age-profile.</p> <p>Policy GI30: To encourage and promote tree planting in the planning and development of urban spaces, streets, roads and infrastructure projects.</p> <p>Policy SC15: ‘To recognise and promote green infrastructure and landscape as an integral part of the form and structure of the city, including streets and public spaces.’</p> <p>Section 14.3: In relation to developing the city’s green infrastructure (G.I.), the co-operation of owners/occupiers of lands zoned Z6, Z9, Z12, Z14 and Z15 is sought towards progressing the GI network (see Chapter 10, Sections 10.5.1– Green Infrastructure and Chapter 16, Section 16.2 – Design, Principles and Standards). This shall include, as part of any re-development of the site, setting back of boundaries and/ or adequate provision for greenways in accordance with routes illustrated and any local area plan content.</p> <p>Section 16.3.3: The successful retention of suitable trees is a benchmark of sustainable development. Trees of good quality and condition are an asset to a site and significantly increase its attractiveness and value. They add a sense of character, maturity and provide valuable screening, shelter and privacy and will often have a useful life expectancy beyond the life of new buildings. Dublin City Council will consider the protection of existing trees when granting planning permission for developments and will seek to ensure maximum retention, preservation and management of important trees, groups of trees, and hedges.</p>	<p>Policy GI14: Refer to page 17 of this report.</p> <p>The nature of the proposed development including a large parkland where it will naturally allow for infiltration and subsequent evaporation of rainfall.</p> <ul style="list-style-type: none"> - Planting areas at podium level, both in the public realm and within communal courtyard areas, will allow for infiltration and subsequent evaporation of rainfall and reduce runoff to the drainage system. - Extensive green roof areas have been provided. <p>Policy GI29: Ref to page 105 of the of this report and Refer to CMK Arboricultural Assessment Arboricultural Impact and Tree Protection Strategy Report. Tree protection and enhancement was a key tenet of the proposed design. The trees that will be removed will be replaced by a significant number of large and medium size trees that will have a greater long-term benefit to local ecology and biodiversity in particular n°15 different species of trees will be planted in order to increase the biodiversity assett of the area.</p> <p>Policy GI30: See the response for policy GI29. Careful attention has been undertaken in order to provide the most suitable trees species of the new generation of trees on site. Some 238 No. new trees will be provided across the site. Refer to page 110 of this report.</p> <p>Policy SC15: The subject development will significantly contribute to the strategic green network in Dublin City. The provision of public open space representing 34.9% of the site area represents a key planning gain for this area of Dublin and the proposed pedestrian link will promote legibility and permeability through the site for pedestrians and cyclists. In addition, communal open spaces are provided for the future residents which will include a play area.</p> <p>Section 14.3: Ref to page 9 of this report. The development is proposed on land zoned Z15. The development will contribute towards the green infrastructure network particularly due to the large areas of public open space provided and pedestrian and cyclist links proposed through the site. A generous setback is provided from the northern and eastern boundaries where the large public park will be provided. The boundary treatment will provide glimpses into the site which will enhance legibility for the area.</p> <p>Section 16.3.3: Ref to page 105 of report . Tree protection and enhancement was a key tenet of the proposed design. The trees that will be removed will be replaced by a significant number of large and medium size trees that will have a greater long term benefit to local ecology and biodiversity. Some 238 No. new trees will be provided across the site.</p>

Relevant Green Infrastructure Policy	Response
<p>Section 23.11 (Appendix 23): The zoning objectives set out general requirements for open space provision and contribution to green infrastructure in relation to institutional lands, outer suburban lands and large tracts of land with re-development potential zoned for enterprise and employment (Z15, Z12, Z6). For proposed development in these zones, potential applicants will be required to submit a landscape masterplan at the appropriate scale(s) and a green infrastructure strategy for the development to demonstrate how the proposal supports the City Green Infrastructure Network. Potential applicants should give consideration to connectivity, where it exists, with the current GI Network and how to ensure that this can be preserved and enhanced. In particular, adequate spatial planning and provision for corridors which can provide ecological function and strengthen the network will be required.</p> <p>For proposed developments in areas which are covered by local area plans, potential applicants should consult the GI Strategy within these plans. Potential applicants should refer to the City Biodiversity Action Plan to address local biodiversity issues in the proposed development. For sites adjacent to rivers, additional considerations, as stated above, concerning control of urban run-off, flood risk and maintenance of habitat corridors of the GI network, will need to be addressed in the green infrastructure strategy.</p> <p>As many of these land-use types include mature habitats, potential applicants should demonstrate retention of these, particularly those categorised as high priority in the City Biodiversity Action Plan (2015 – 2020), in any proposed development.</p>	<p>Section 23.11 (Appendix 23): Refer to drawing C0111 L100/ C0111 L1000.</p> <p>These landscape drawings demonstrate the green infrastructure strategy for the development and demonstrates the key publicly available pedestrian and cyclist linkages throughout the site, which will support the green infrastructure strategy of the city. New generation of trees, retained trees and selected planting aim to enhance the biodiversity of the site; planting of wildflower meadow and green roofs will provide habitat for pollinators, planting of native shrubs in woodland will enhance its function as a wildlife corridor providing habitat and cover for mammals and birds. Please refer to Biodiversity chapter in the EIAR report.</p>

PLANNING POLICY- DUBLIN CITY DEVELOPMENT PLAN 2016-2022

A number of objectives for the green infrastructure are applicable to Sandford scheme and have informed the design. Green Infrastructure Guiding Principles, Appendix 23.1, has been a key guidance during the design process of the scheme.

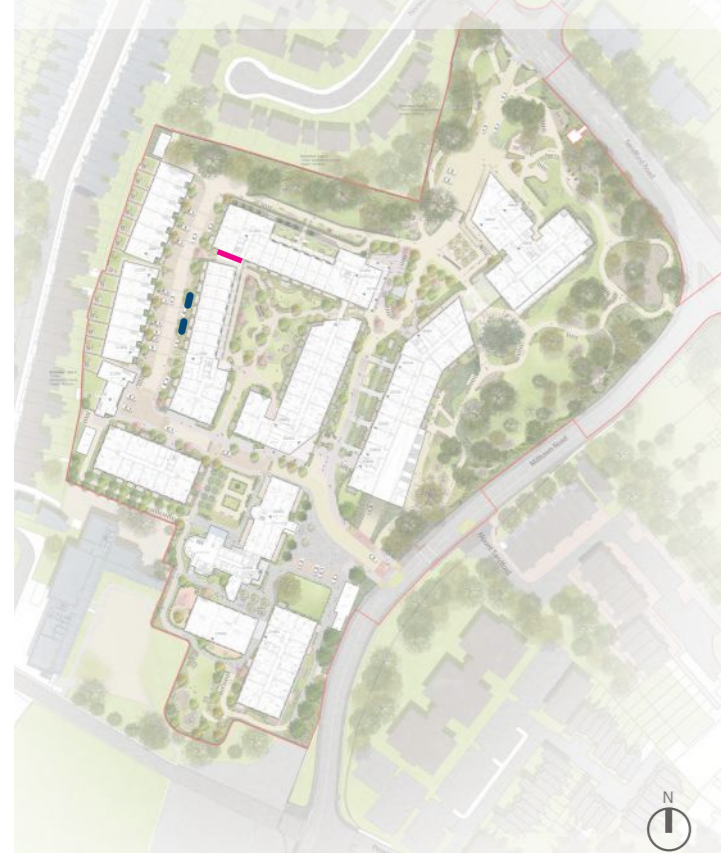
23.1 Guiding Principles for All New Development

The guiding principles relate to sustainable site design, sustainable buildings and green corridors. The overall emphasis is on best practice sustainable solutions and the relevant principles are as follows:

- 23.3 Sustainable Urban Drainage System (SUDS)
- 23.5 Green Roofs
- 23.6 Green Wall/Living Wall
- 23.8 Green Infrastructure Networks
- 23.11 Open Space Lands/Institutional and Community Lands/Large Tracts of Lands/Lands with Open Character

The Development Plan objectives applicable to the landscape design are showing on the diagrams below. For a detailed response to each objective applicable to the landscape design please refer to the dedicated page of this report.

Sustainable Urban Drainage System (SUDS)
Rain Gardens provided & Green Wall/ Living wall



● Rain Garden provided- Refer a page n°77 of this Report.
— Living wall provided- Refer a page n°125 of this Report.

Green Roofs



Refer a page n°136 of this Report.

Green Infrastructure Networks



↔ Key Route/ Desire lines Refer a page n°23 of this Report.

Open space lands & Lands with open character



Refer a page n°9 & 18 of this Report.

INTRODUCTION- COMMUNAL OPEN SPACE

COMMUNAL OPEN SPACE STRATEGY (COS)

In addition to the provision of public open space, communal open space for residents will predominantly be provided within the residential courtyards at the ground level and upper floor amenity terraces. The proposed landscape design follows a number of consistent principles that are designed to create a high quality living environment for residents of all ages as well as ensuring the adherence to the requirements in regards to the quantity and quality of communal amenity space. Based on the SOA received by the OMP architects, the quantum of the Communal Open Space required is **3,881sqm**.

Based on the distribution of the external spaces through the site the entire scheme provided **5,875 sqm** of COS, as clearly shown on the adjacent diagrams.

Based on the SOA

Communal open space required: 3,881sqm
Communal Open space Provided: 5,875sqm*

*Ramps, private spaces, unusable incidental space has been omitted from the calculation

Build-To-Sell

Sandford, Communal Open Space			
Unit Type	No. of Units	Sqm Per Unit	sqm Communal Space Required
Studio	11	4	44
One bedroom	9	5	45
Two bedrooms (3pers)	0	6	0
Two bedrooms (4pers)	32	7	224
Three bedrooms	15	9	135
Total	67		448

Build-To-Rent

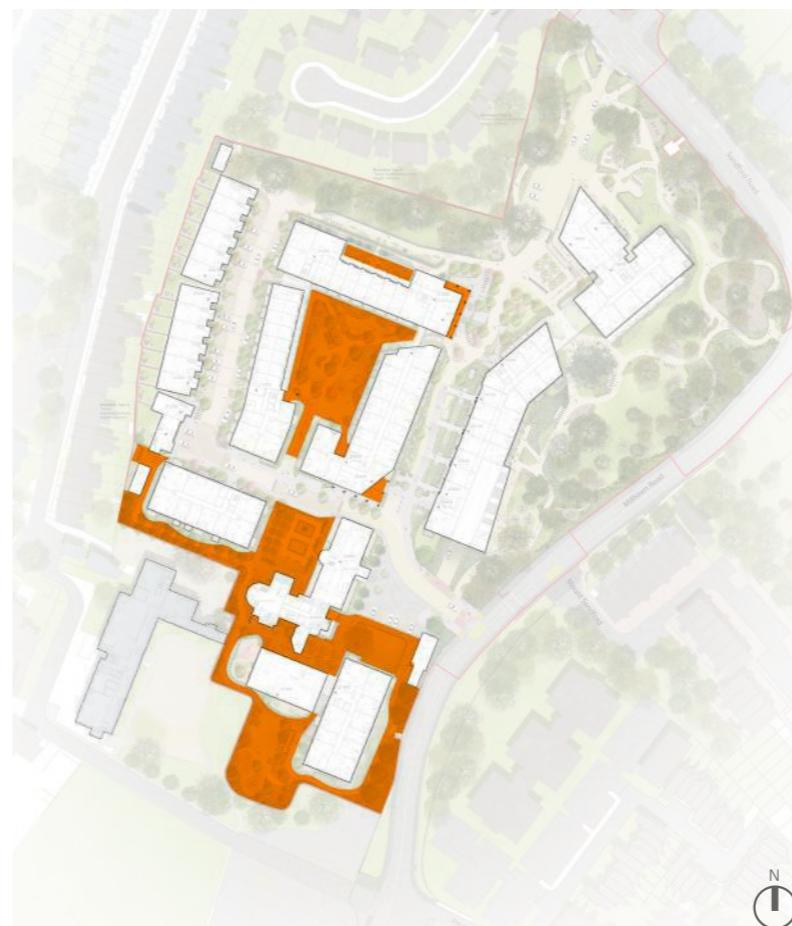
Sandford, Communal Open Space			
Unit Type	No. of Units	Sqm Per Unit	sqm Communal Space Required
Studio	88	4	352
One bedroom	262	5	1310
Two bedrooms (3pers)	31	6	186
Two bedrooms (4pers)	211	7	1477
Three bedrooms	12	9	108
Total	604		3433

Communal Open Space required

3881

GROUND FLOOR

communal open space provided



Ground Floor
communal open space provided

Communal Open Space provided: 5,444sqm

Private Open Space, crèche playground provided: 230sqm

COMBINE UPPER FLOORS

communal open space provided



Combine Upper Floors
communal open space provided

Communal Open Space provided: 431sqm

COMMUNAL OPEN SPACE PROVIDED IN THE WHOLE SCHEME **5,875sqm**

Ground Floor
Communal Open Space Provided
5,444sqm

+

Upper floors
Communal Open Space Provided
431sqm

COMMUNAL OPEN SPACE STRATEGY (COS)

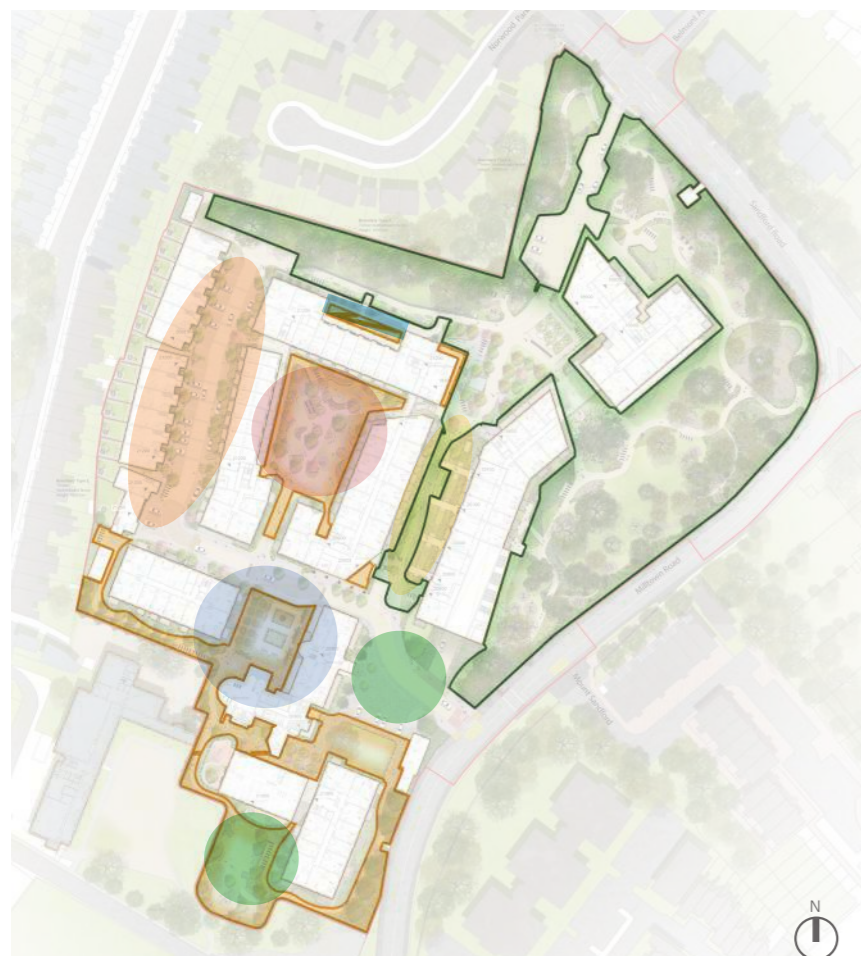
The proposed landscape setting offers a broad range of character areas to choose from and explore, in terms of both size and configuration. This variety will attract a wider range of users.

The character areas would be linked with a pathway that highlights and combines the communal open spaces incorporated within each character area.

The distribution of the communal open space between podium level and ground level have been carefully distributed in a way to provide a full distribution.

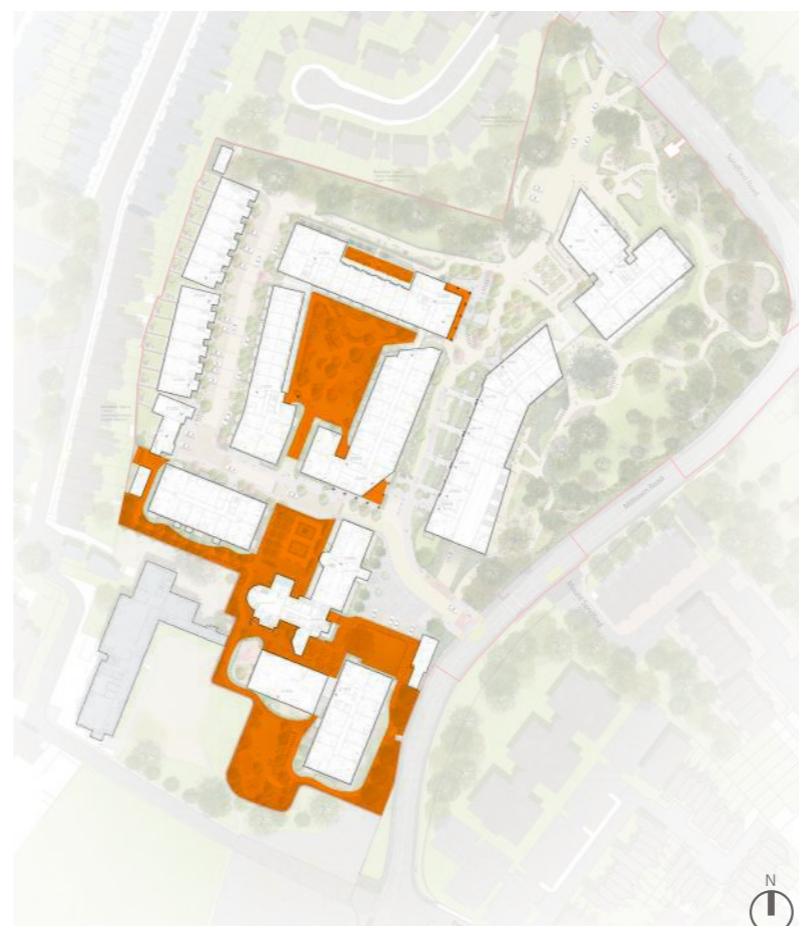
A detailed explanation of the differences uses of Communal Open Space will be demonstrated in the following pages.

AREAS RECOGNISED AS COMMUNAL OPEN SPACE WITHIN THE WIDER CHARACTER AREAS.



GROUND FLOOR

communal open space provided



COMBINE UPPER FLOORS

communal open space provided



KEY PRINCIPLES APPLIED TO CALCULATE THE AMOUNT OF SPACE:

Ground Floor

communal open space provided

The COS, at the ground level, quantum has been conservatively calculated, realistically in term of the space that could be in daily use, in addition to this other different aspects has been discounted, such as:

- Private Defensible space
- Private spaces
- Stepped areas
- Vehicular ramp which has been omitted from the calculation.
- Vehicular shared surface

Combine Upper Floors

communal open space provided

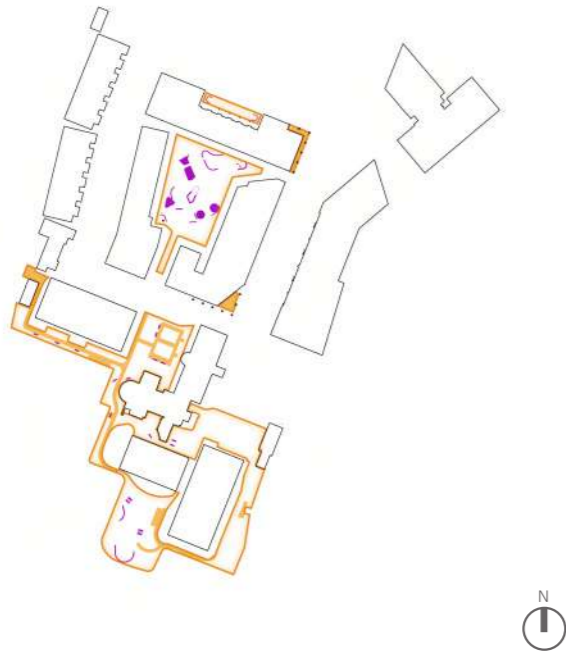
The COS at the upper floors discounted elements, such as:

- Private Defensible space
- Private spaces
- Raised Planters

INTRODUCTION- COMMUNAL OPEN SPACE

COMMUNAL OPEN SPACE-USABLE OPEN SPACE

Passive Recreation Areas



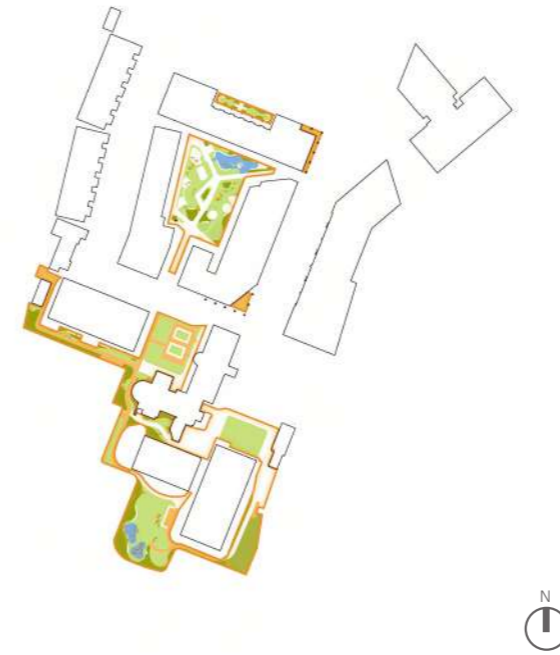
- *Gathering table*
- *Seating areas for enjoying the view of scenery*

Active Recreation Areas



- *Designated walking route*
- *Multigeneration fitness area*
- *Lawn*

Play areas



- *Play on-the-way*
- *Dedicate play area*
- *Lawn*

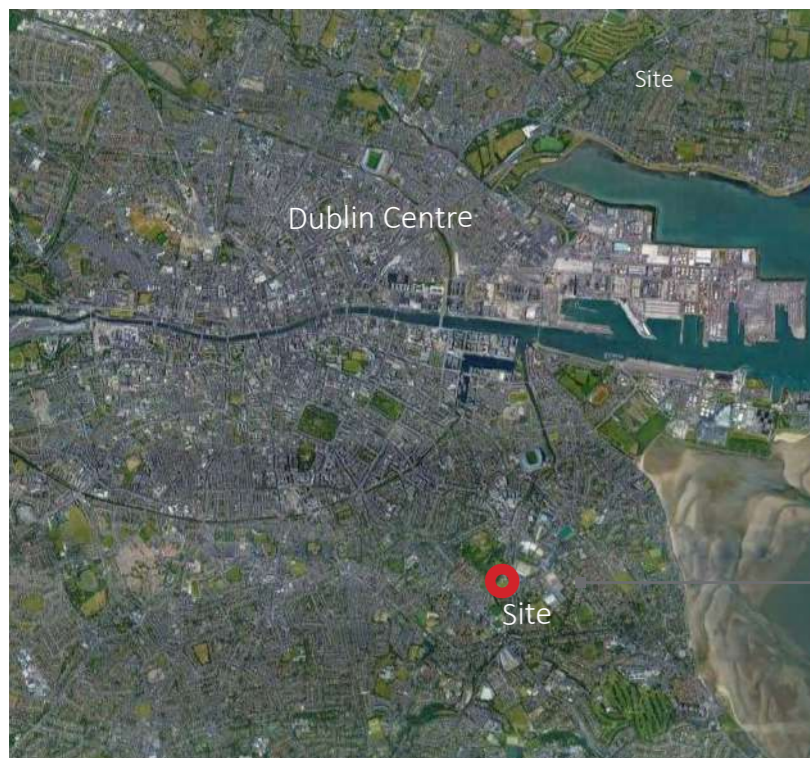


LOCATION

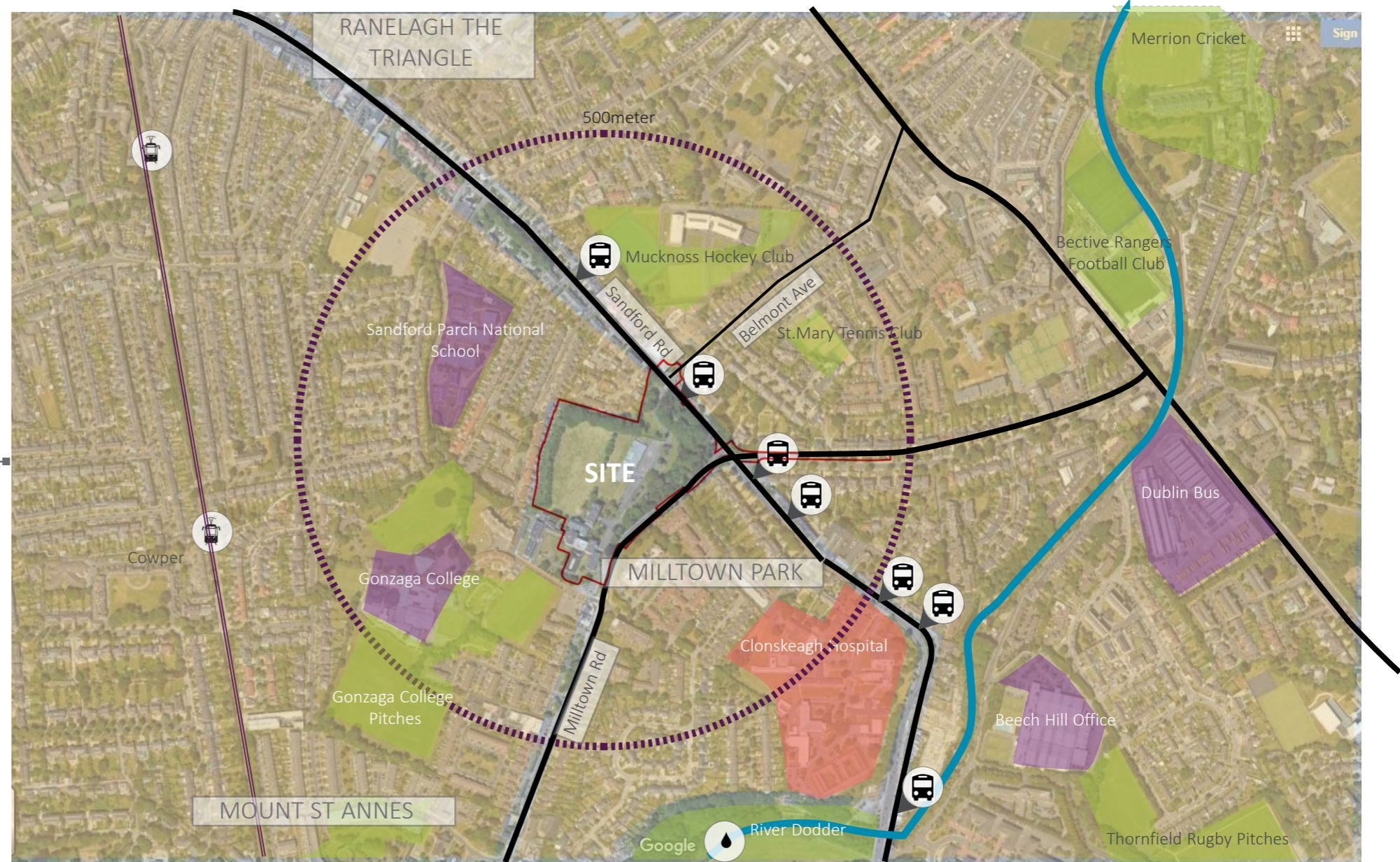
The adjacent diagram illustrates the local urban fabric and key districts surrounding the site. It also maps the existing road and transport connections showing how various connections are achieved for different modes of transport

SITE DRIVERS & KEY INFLUENCES:

In order to develop a suitable landscape solution for the scheme it is imperative to develop a full understanding of the site and the local area which has been developed with the architectural team in understanding the site and its context.



Site location within the wider context of Dublin.

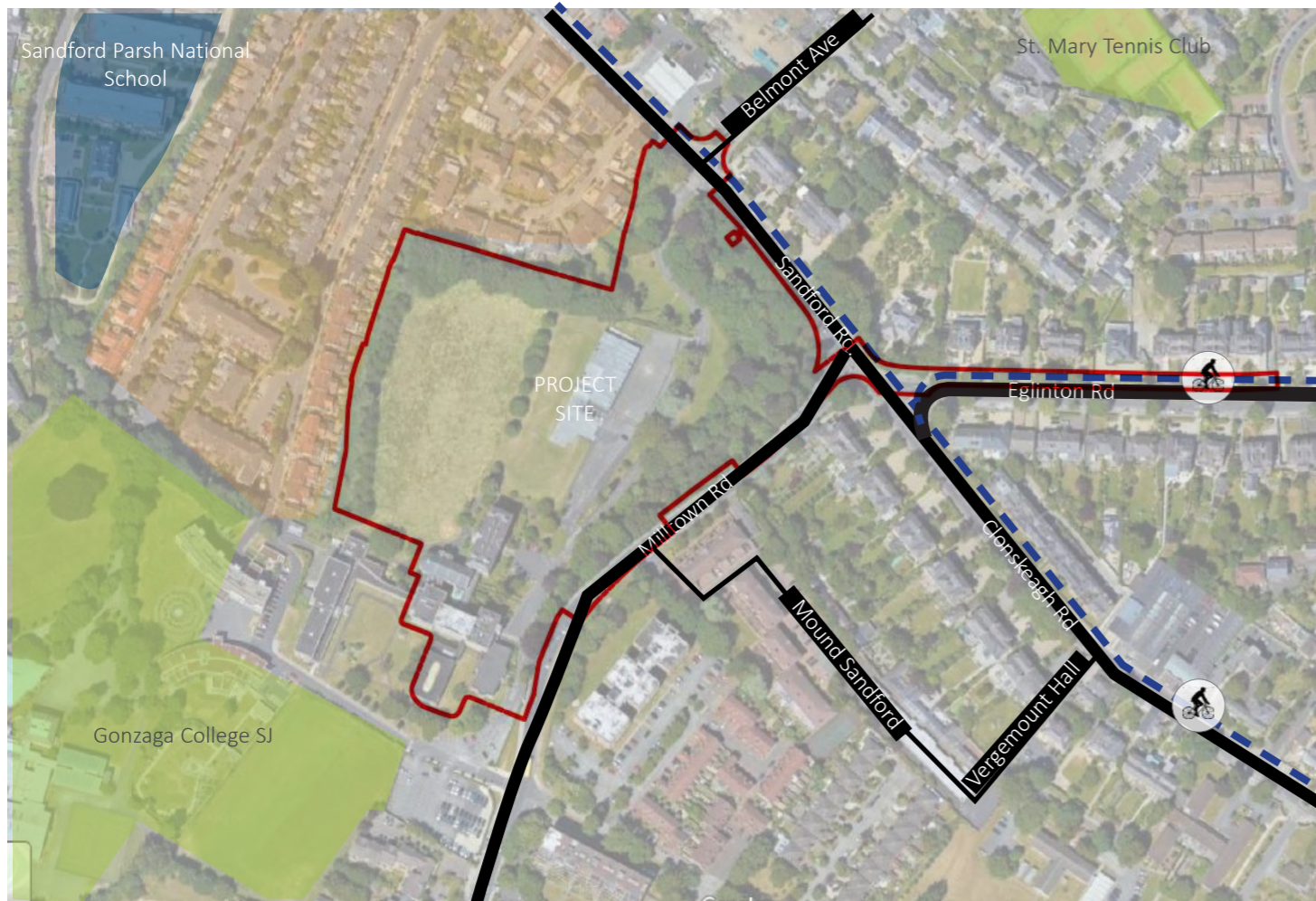


- Commercial/Educational Areas
- Hospital
- Residential Areas
- Green Area
- Neighborhood Vehicular Rd
- Existing River
- LUAS Lines- Station
- Bus stop

LANDSCAPE ANALYSIS

ADJACENT CONTEXT

The below diagram sets out the key factors drivers and which influence the site and the user experience.



- Commercial/ Educational | Areas
- Residential Areas
- Green Area
- Neighborhood Vehicular Rd
- Cycle Route



ADJACENT CONTEXT SUN PATH ANALYSIS

The below diagram depicts how the daily sun path influencing shade and aspect. According with the sun path the open spaces, podium and the terraces receive daylight and sunshine during the day which makes them a pleasurable outdoor space.

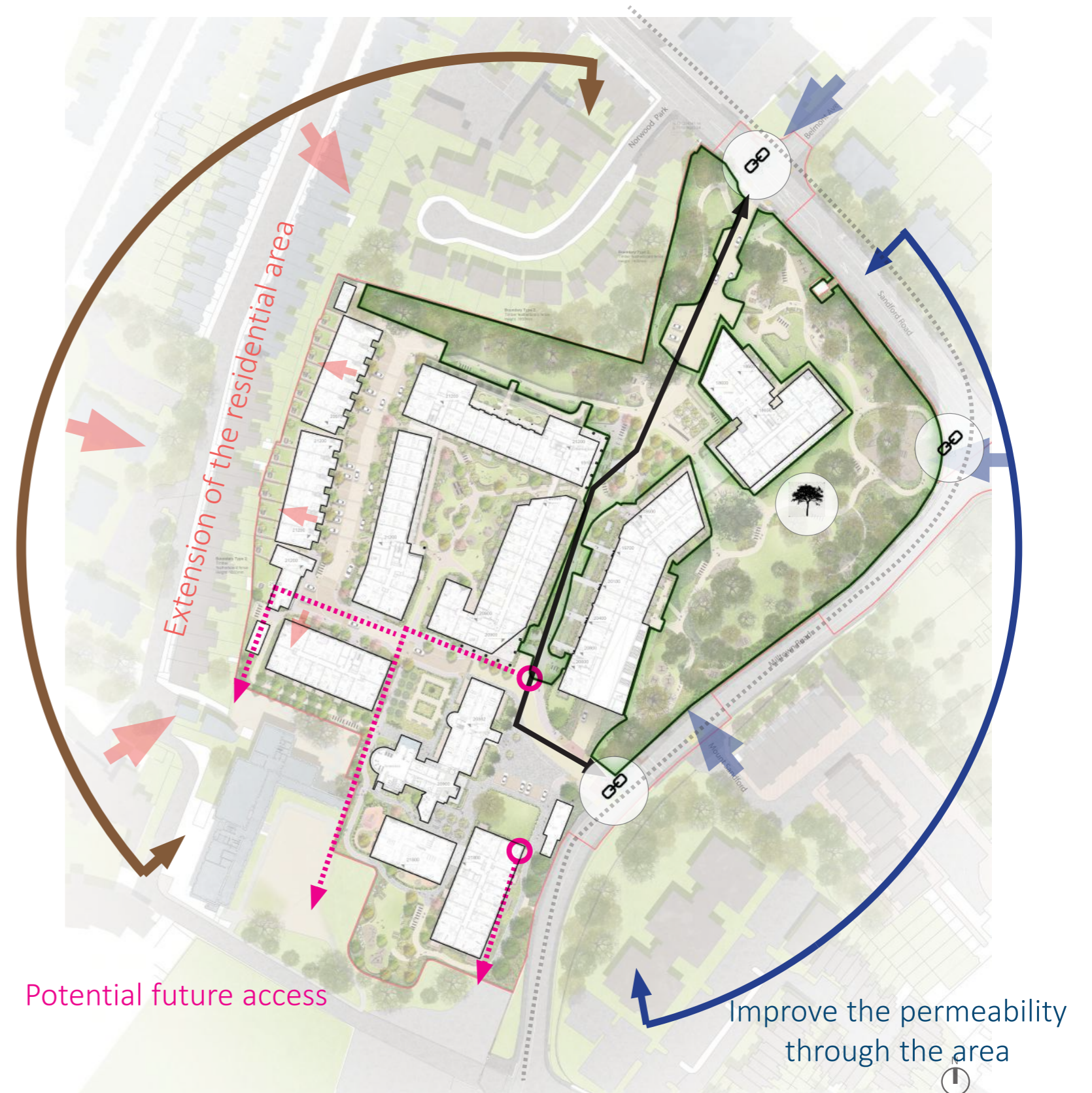


INITIAL CONCEPT AND POTENTIAL OF THE AREA

The conceptual diagram opposite identifies some of the potential opportunities of the site within its neighbouring urban context. These key concepts will drive the proposed design principles.



- » The existing woodland belt will have an unique opportunity to open up the land for public use for the first time in history. The area that runs behind the perimeter wall holds potential as a public space and amenity. The public space concept will be based on a principle that promotes social engagement, sustainability, site connectivity & permeability, and healthy lifestyle to the future residents; and perhaps to consolidate the neighbourhood and provide integration into the wider community.
- » The number of the existing local amenities and transportation links make the site an ideal location for residential use.
- » High quality trees form part of the character of the area.
- » Notable historic buildings such as Tabor House and the Chapel offer potential to become landmarks within the site; therefore, opening up access to the site which will promote awareness of their presence and stature; ultimately reinforcing the distinctive character of the local area.
- » This site proposes a new urban community using contemporary architecture and modern living approaches whilst embracing the existing 'leafy green' character of Sandford Road.



LANDSCAPE CONCEPT DIAGRAMS

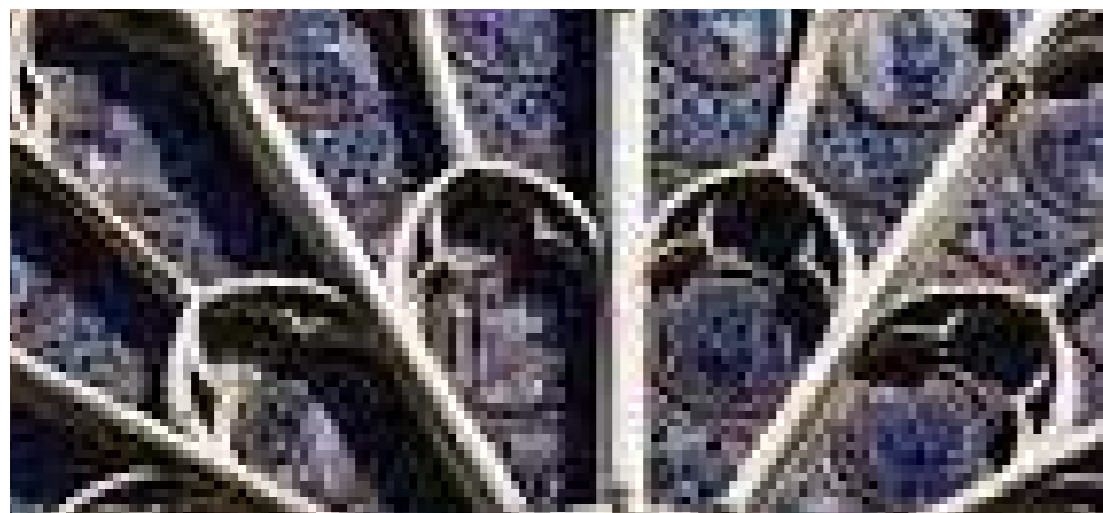
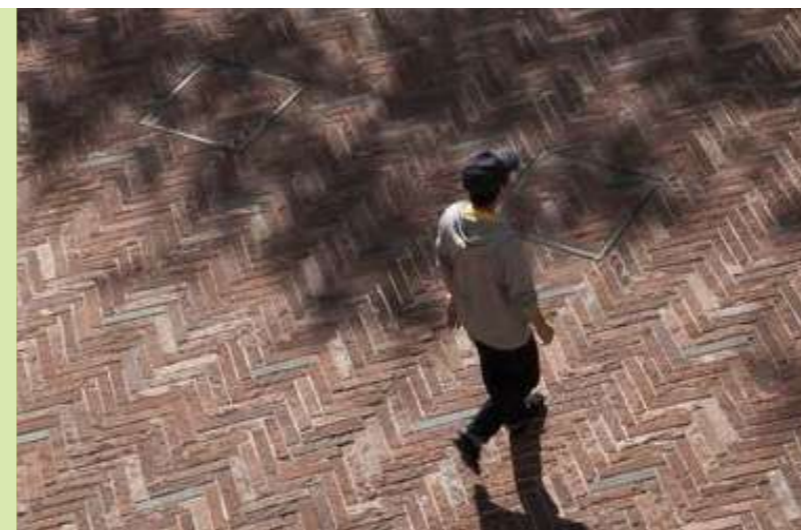
DECLINATION OF THE "ROSE WINDOWS"



"WAVES PLANTING"



FLOORING DECLINATION



DETAILS



CHARACTER AREAS

The following pages include details of the look and feel of each of the key landscaped spaces. Each has a distinct character, relative to the individual land use, which is intended to create a varied masterplan environment, offering spatial variety and areas of aesthetic interest within the scheme.

RESIDENTIAL STREETS

- "Home Zone" Street

PUBLIC OPEN SPACE

- Parkland
- Public Plaza
- Woodland glade
- Green Boulevard

COMMUNAL OPEN SPACE

- Residential courtyard
- Forecourt- Formal Historical Entrance
- Formal Food Garden
- Belvedere garden
- Wall garden



LANDSCAPE CONCEPT DIAGRAMS

PRECEDENTS

PUBLIC OPEN SPACE



GREEN BOULEVARD



RESIDENTIAL COURTYARD



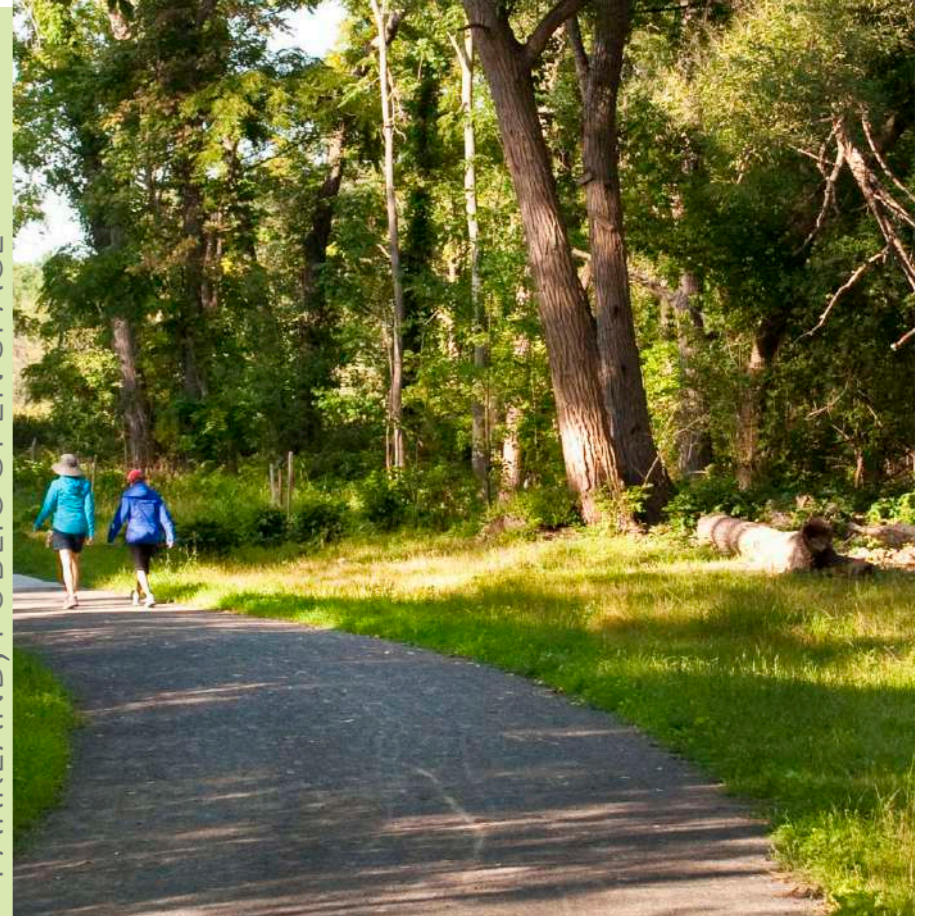
FORMAL HISTORIC AREA



FORMAL FOOD GARDEN



PARKLAND, PUBLIC OPEN SPACE



VARIETY AREA

Elements of contrast and variety in the built environment are critical to the creation of a 'sense of place'.

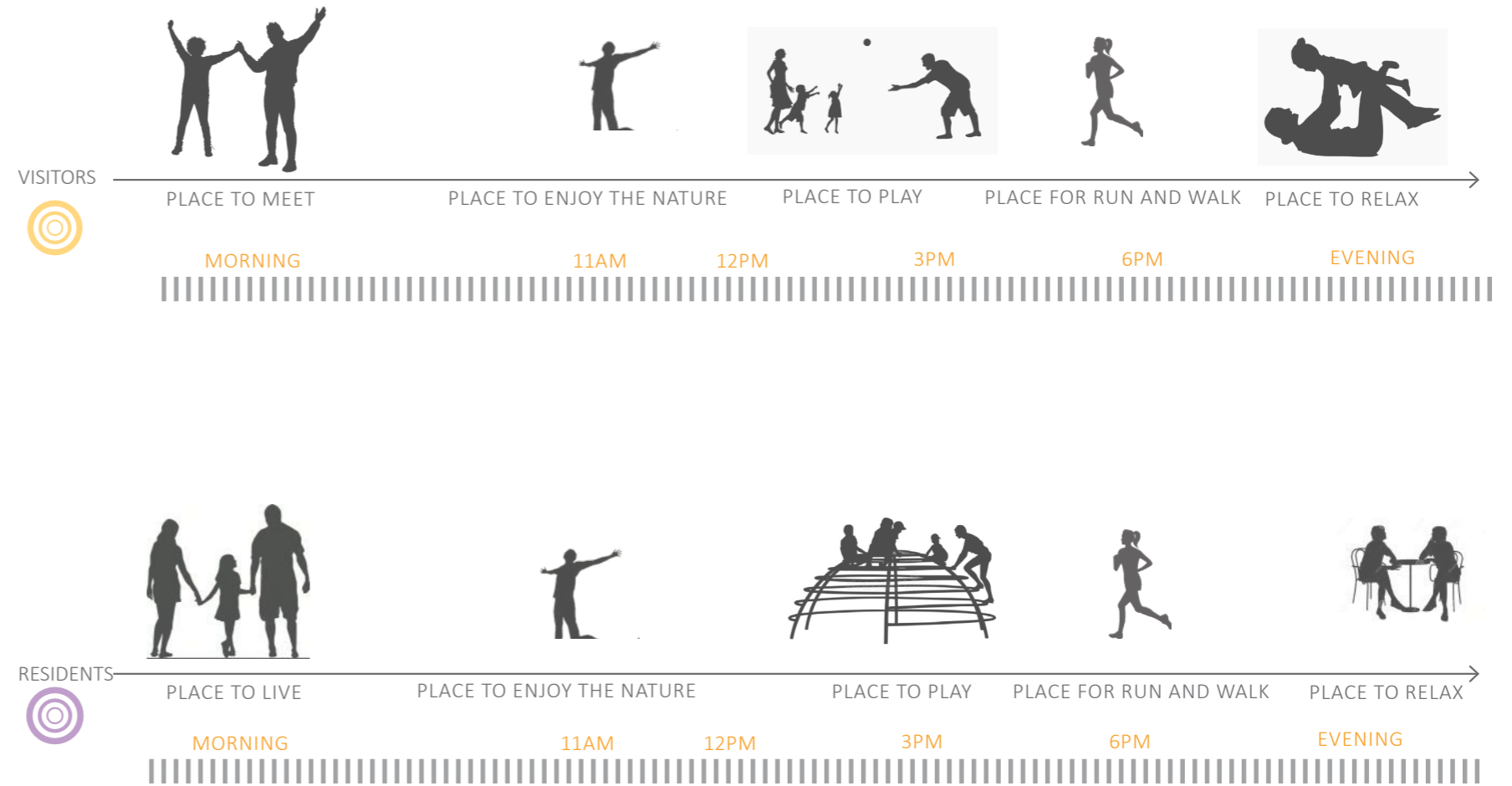
The layout below shows the hierarchy of character areas and their relationship to each other; collectively forming a network of interconnected amenity spaces. The nature of each of these spaces provide various spatial qualities amongst the architectural form of the development.



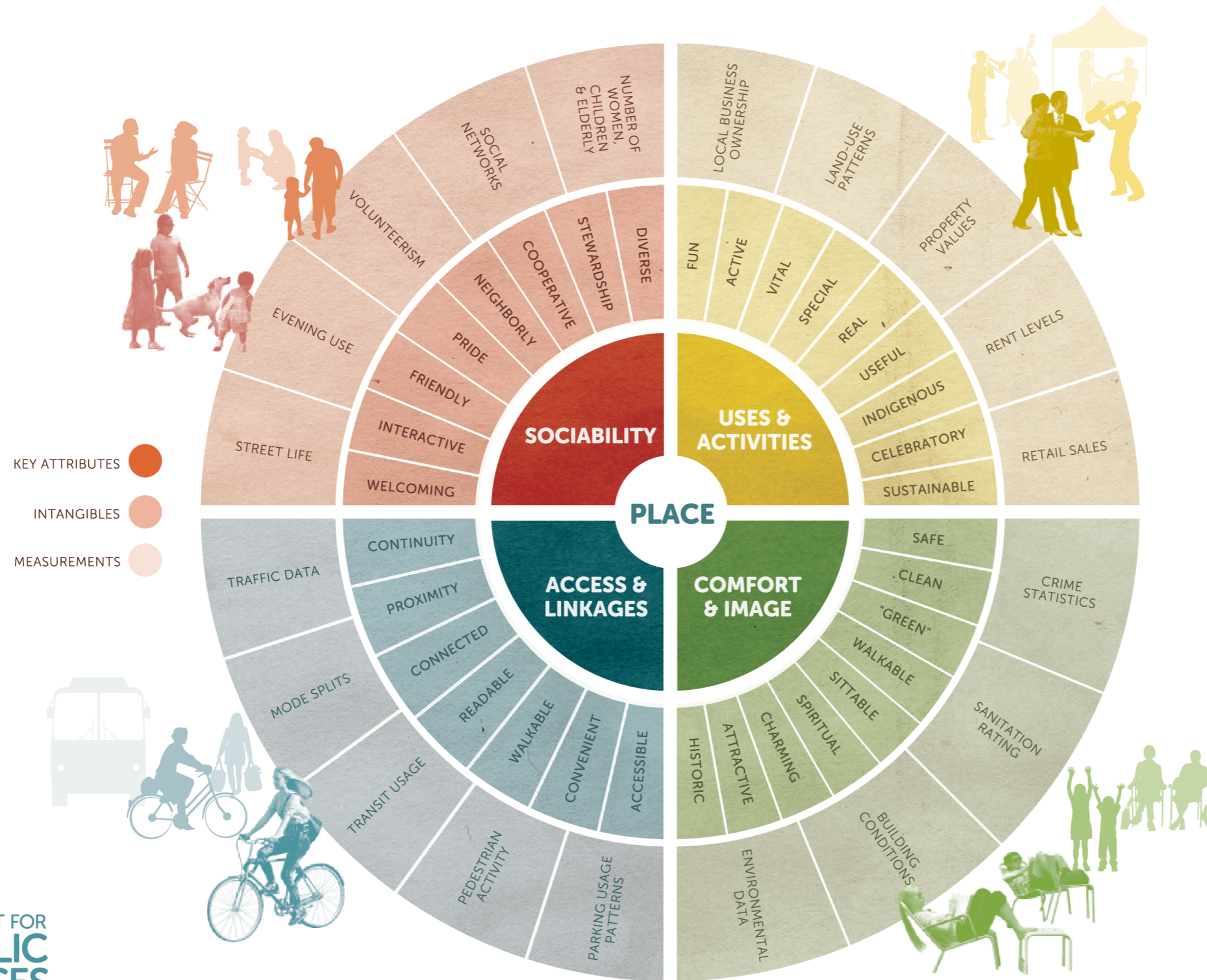
- Main Character area
- Secondary Character Area
- Visitors users
- Residential users

USERS

The timelines below illustrate how the programme of uses across the site may unfold for different user groups.



WHAT MAKES A GREAT PUBLIC REALM AROUND THE BUILDING?

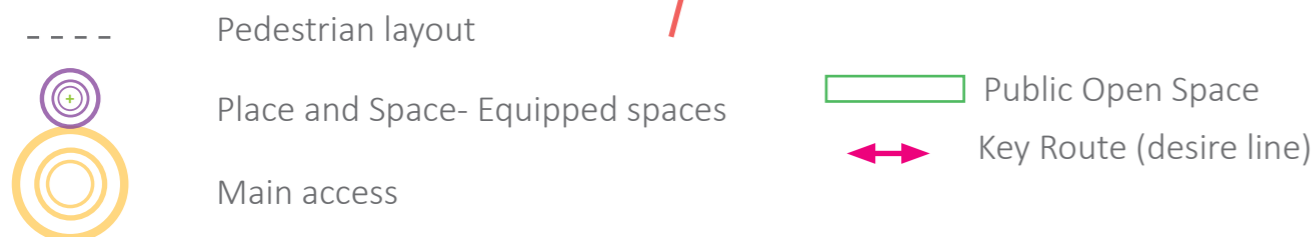
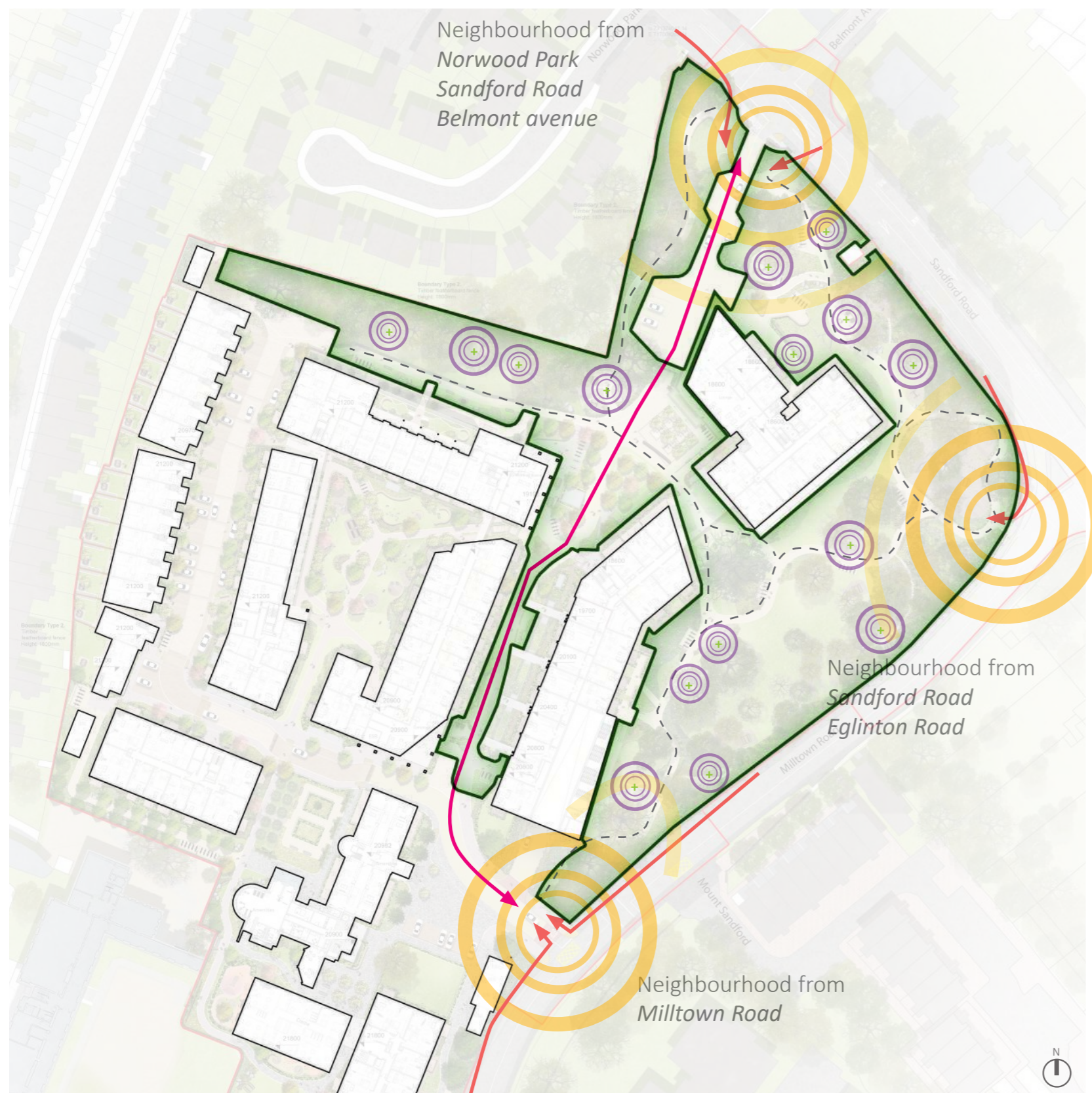


PLACE MAKING IS

- Community-driven
- Visionary
- Function before form
- Adaptable
- Inclusive
- Focused on creating destinations
- Context-specific
- Dynamic
- Trans-disciplinary
- Transformative
- Flexible
- Collaborative
- Sociable

PLACE MAKING IS NOT

- Top-down
- Reactionary
- A blanket solution or quick fix
- Exclusionary
- Car-centric
- One-size-fits-all
- Static
- Discipline-driven
- One-dimensional
- Dependent on regulatory controls
- A cost/benefit analysis
- Project-focused



We will have the unique opportunity to open up the land for public use for the first time in history. The existing woodland belt behind the perimeter wall holds potential as a public space and amenity adding significantly to the Green infrastructure in the area.

The public space concept will be based on a principle that promotes social engagement, sustainability, site connectivity & permeability, and healthy lifestyle to the future residents; and perhaps to consolidate the neighbourhood and provide integration into the wider community.

A legible, welcoming public open space setting will be the main character through natural features such as retained trees, site topography which will be supporting a strong sense of place and identity of the scheme.

The intent is to encourage residents and visitors alike to participate in outdoor activities and social gatherings, to gain exposure to nature, and to live healthy lifestyles aligned with the key principles of Green infrastructure.

As a principle, the landscape design will retain the essential open parkland character of the site. New sympathetic landscape interventions will enhance the natural aesthetic, quality and useability of the proposed landscape setting.

The overall landscape design focuses on creating a sustainable open environment that is durable in design and resilient to climate change and the demands of its new residents and future users.

The material selection will be driven by high-quality, durable materials that are fit-for-purpose and appropriate with the aesthetics of the palette.

PERMEABILITY AND LEGIBILITY OF THE PARKLAND

- » The legibility of the site is key to the success of the scheme. Clearly defined access points, a range of routes, strong visual connections, and reference points are proposed within the landscape structure.
- » The publicly accessible parkland benefits from a series of inter-connected amenity spaces strung along legible parkland walks which may be accessed easily by the existing neighborhood community and future residents.
- » The proposed network of connections throughout the site will improve the permeability and the relationship with the local area.
- » Three access points support the legibility of the site from the exterior. These will provide permeability and improve access for pedestrian, cycle, and vehicular users.
- » The layout of the site encourages walking throughout, with a hierarchy of connections, offering a range of routes to destinations and well-connected experiences.



ZONING MAIN ACTIVITIES



- | | |
|--|---|
| <ul style="list-style-type: none">  Gathering Area • Play on-the way • Formal planting • Seating area • Gathering table | <ul style="list-style-type: none">  Public Open Space • Gathering table • Seating areas • Play on-the way, • Informal planting • Designated walking route • Jogging route • Fitness station • Natural interpretation trail |
| <ul style="list-style-type: none">  Shared Surfaces • Formal planting • Car parking | |

CIRCULATION WITHIN THE SCHEME

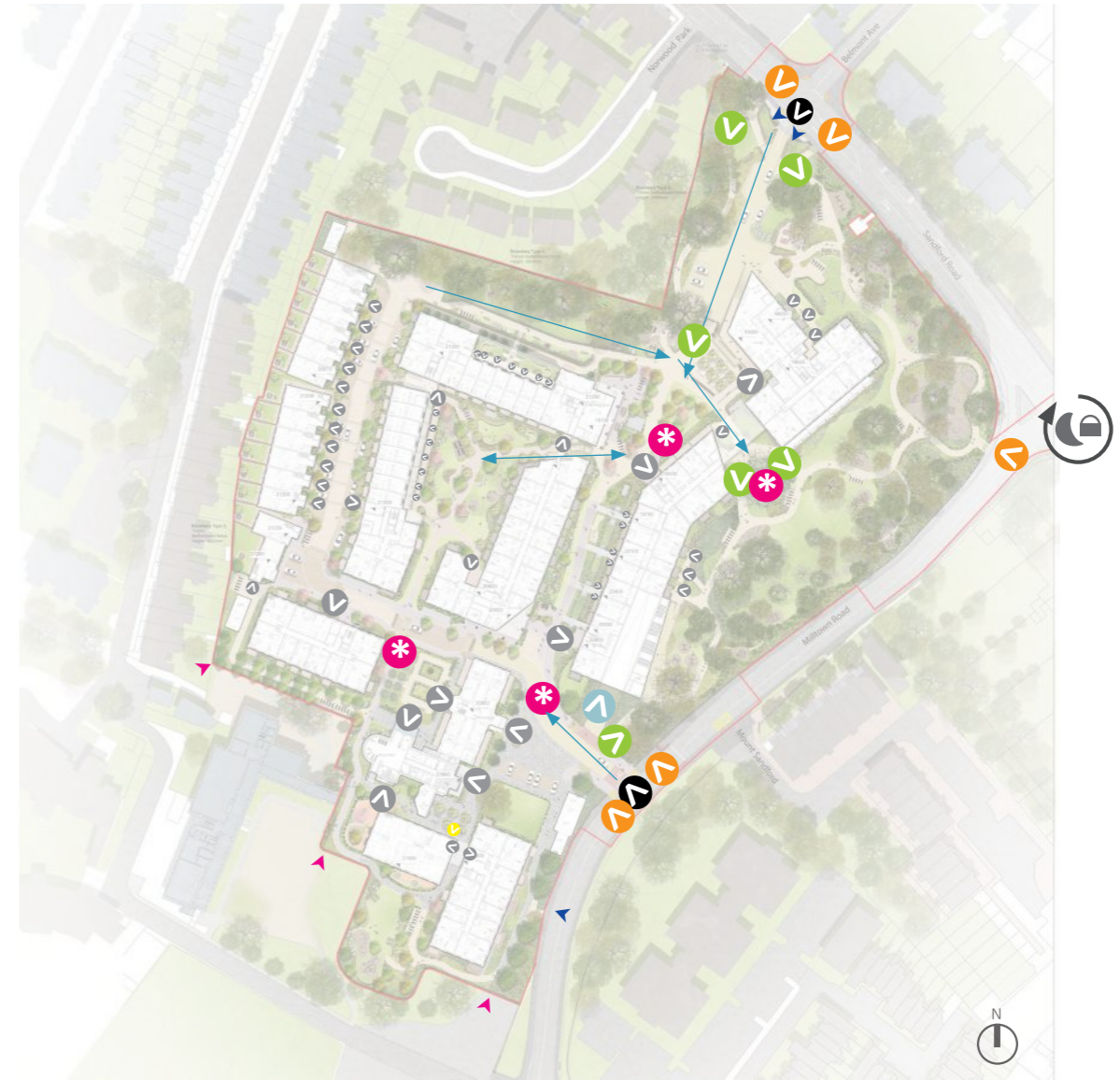


- | | | | |
|--|----------------------------------|--|---|
| | Existing Parkland | | Main Access |
| | Existing Chapel + Tabor House | | Pedestrian access |
| | Vehicular circulation | | Potential future connectivity |
| | Primary pedestrian circulation | | Existing gate |
| | Primary public open space walk | | (No access as not compliant to achieve a Disability Access Certificate) |
| | Secondary pedestrian circulation | | |



- Access will also be allowed from the junction of Sandford Rd and Milltown Rd by introducing a secure gate.

ACCESS AND VISUAL CONNECTION

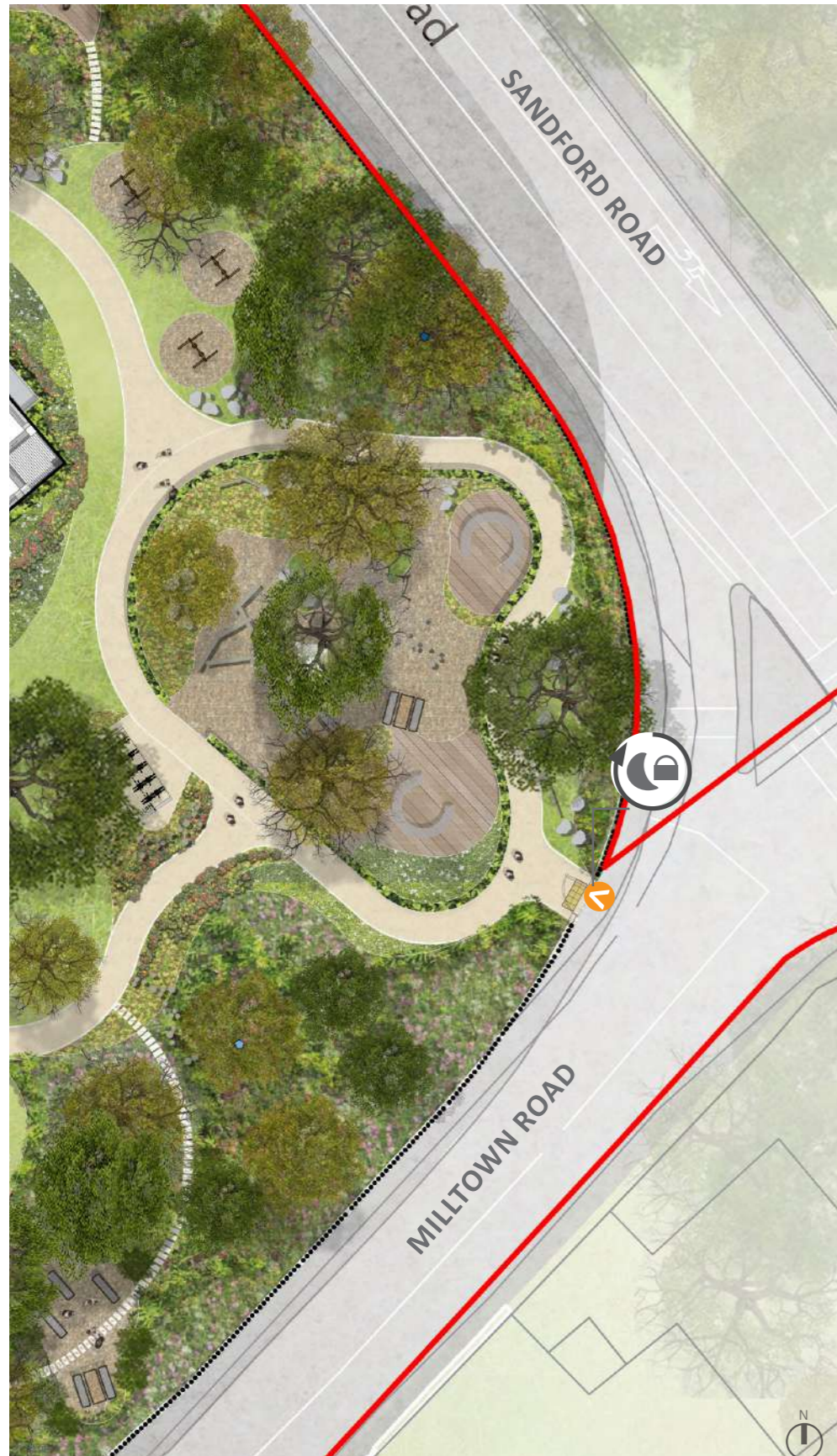


- | | | | |
|--|--|--|---|
| | Residential Blocks Access | | Basement parking ramp |
| | Access to the Public Open Space | | Potential future connectivity |
| | Pedestrian Access | | Existing Gate to remain |
| | Vehicular Access (Milltown Road-principal vehicular access and Sandford Road-secondary access) | | (No access as not compliant to achieve a Disability Access Certificate) |
| | Crèche access | | Focal Point |
| | | | Visual Connection |



- It's envisioned that the pedestrian gates at all entrances will be locked at night to reduce any risk of anti-social behaviour.
- All the pedestrian gates will be fob/controlled by residents access out of hours.
- During opening hours the gates will be held open.

ACCESS FROM SANDFORD/ MILLTOWN ROAD JUNCTION



CONCEPT DIAGRAM



CONTROLLED PEDESTRIAN GATE



The new access gate situated on corner of Milltown road and Sandford road will be design in such a way to ensure safety for children within the proposed play area and adjacent to the road.

The proposed 1800mm height gate will be self-closing, which is an in-ground operator with adjustable closing rate and soft close feature ensures that the gate returns to the closed position after use preserving the integrity of the perimeter and prevents slamming and trapped fingers. In addition a magnetic lock will be introduced to ensure only adult pressure will be applied in order to open the gate.

Typical opening hours:

Winter 08:00am – 6:00pm
 Spring 08:00am – 6:00pm
 Summer 08:00am- 8:00pm



Controlled Pedestrian Access

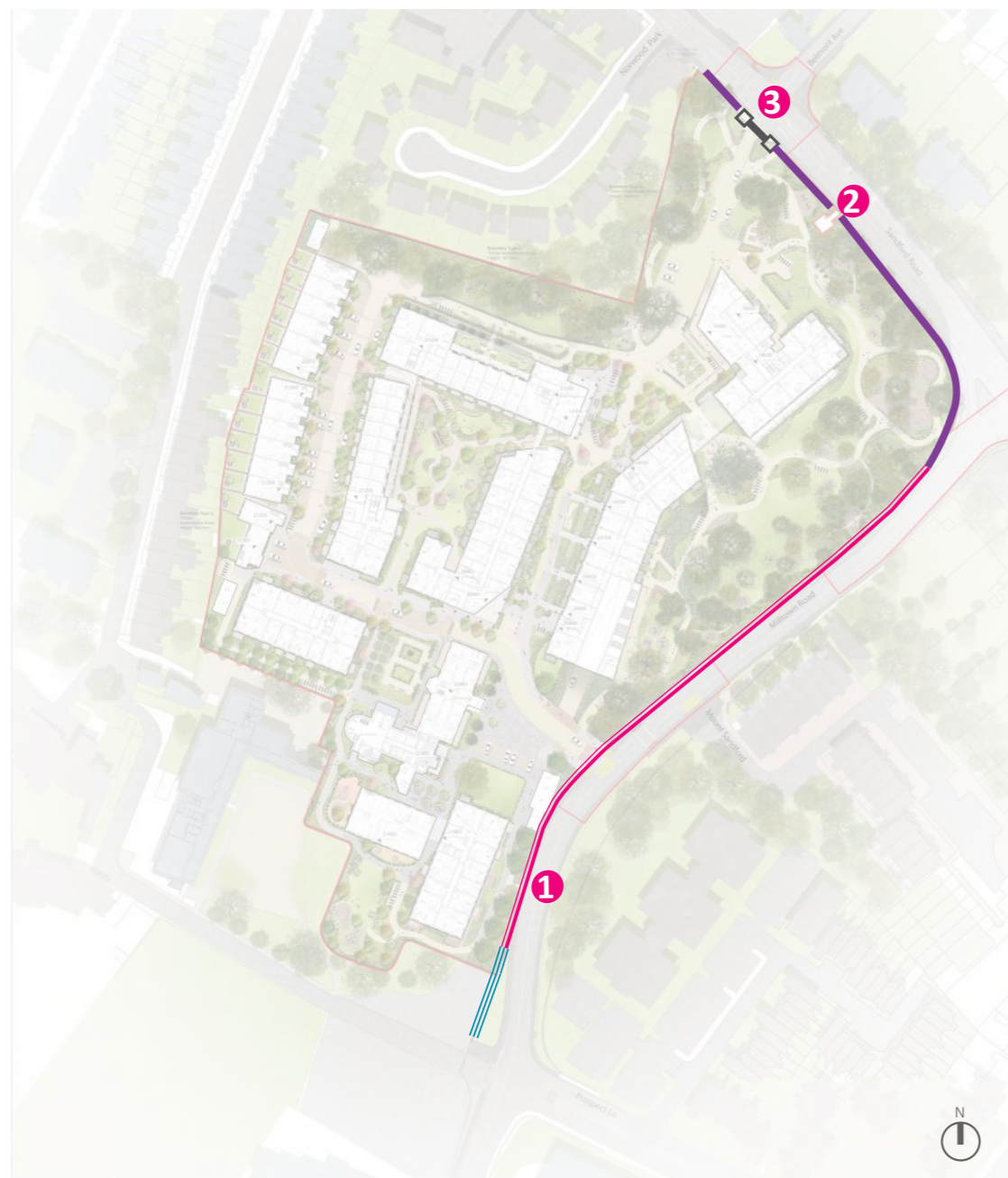






Evergreen hedge with perimeter fencing around the playground



EXISTING CONDITION OF BOUNDARY WALL

EXISTING CONDITION



-  Existing wall
-  Existing vehicular gate
-  Existing cement rendered wall
-  Existing upstand wall with railing
- 1** Existing pedestrian gate currently closed (and to remain closed as not DAC compliant)
- 2** Existing ESB gate (Out of the lands in the ownership of the applicant and/or landowner)
- 3** Existing vehicular/pedestrian gate on Sandford Road*

* Existing pedestrian gate will be retained and to remain closed as not DAC compliant (Picture n°3)



LANDSCAPE CONCEPT ANALYSIS -BOUNDARY TREATMENT

PROPOSAL BOUNDARY TREATMENT



- Application Site

- NORTH-EAST BOUNDARY**
- Existing wall to be retained
- Existing cement rendered wall
- Existing vehicular gate to be retained
- Proposed upstand wall with railing
- Existing upstand wall with railing
- Proposed pedestrian gate

- SOUTH BOUNDARY**
- Proposed Stone wall
- Proposed Pier

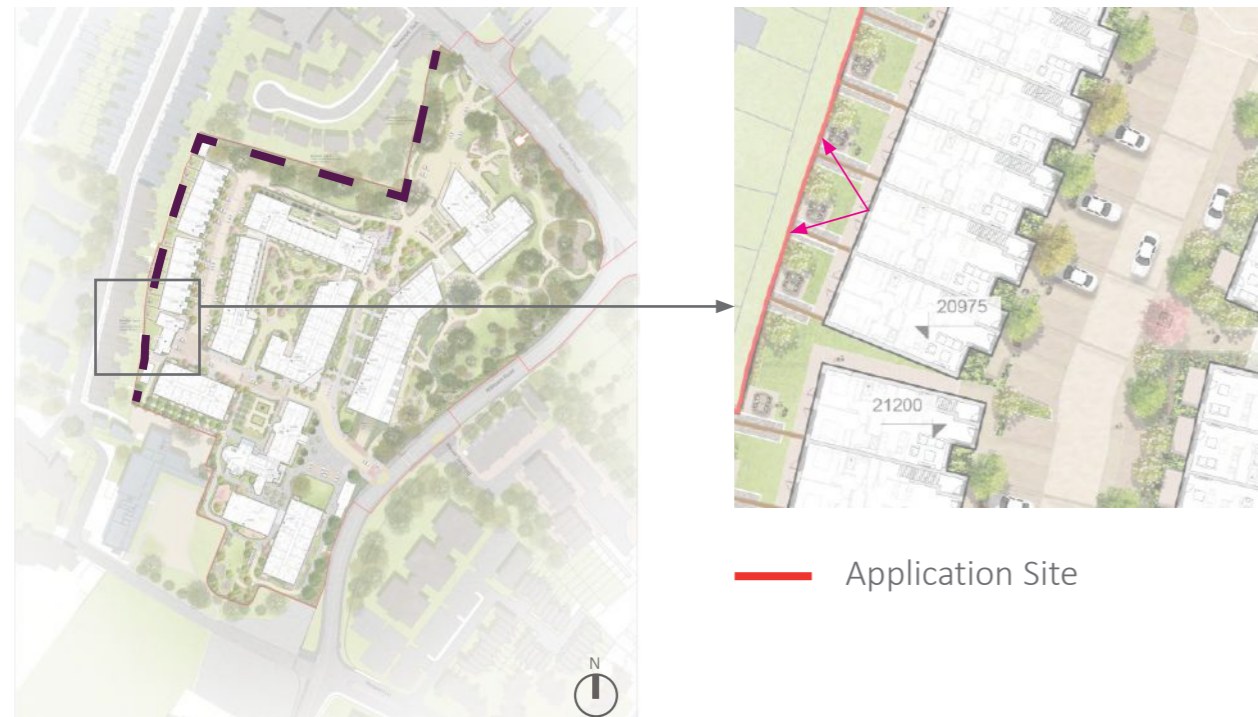
- WEST BOUNDARY**
- - - *Proposed Timber fence
(within the lands in the ownership of applicant and/or landowner)
- Pedestrian entrance
- Potential future connectivity

- ① Existing gate currently closed (and to remain closed as not DAC compliant)
- ② Existing ESB gate (Out of the lands in the ownership of the applicant and/or landowner)
- ③ Existing vehicular/pedestrian gate

— WEST BOUNDARY

*The proposed boundary treatment to the North Western boundary will consist of a 1.8m high timber fence with evergreen hedge planting to its base. The existing neighboring boundary will not be impacted in anyway.

WEST BOUNDARY PROPOSAL TREATMENT



— — — — Timber fence

— Application Site

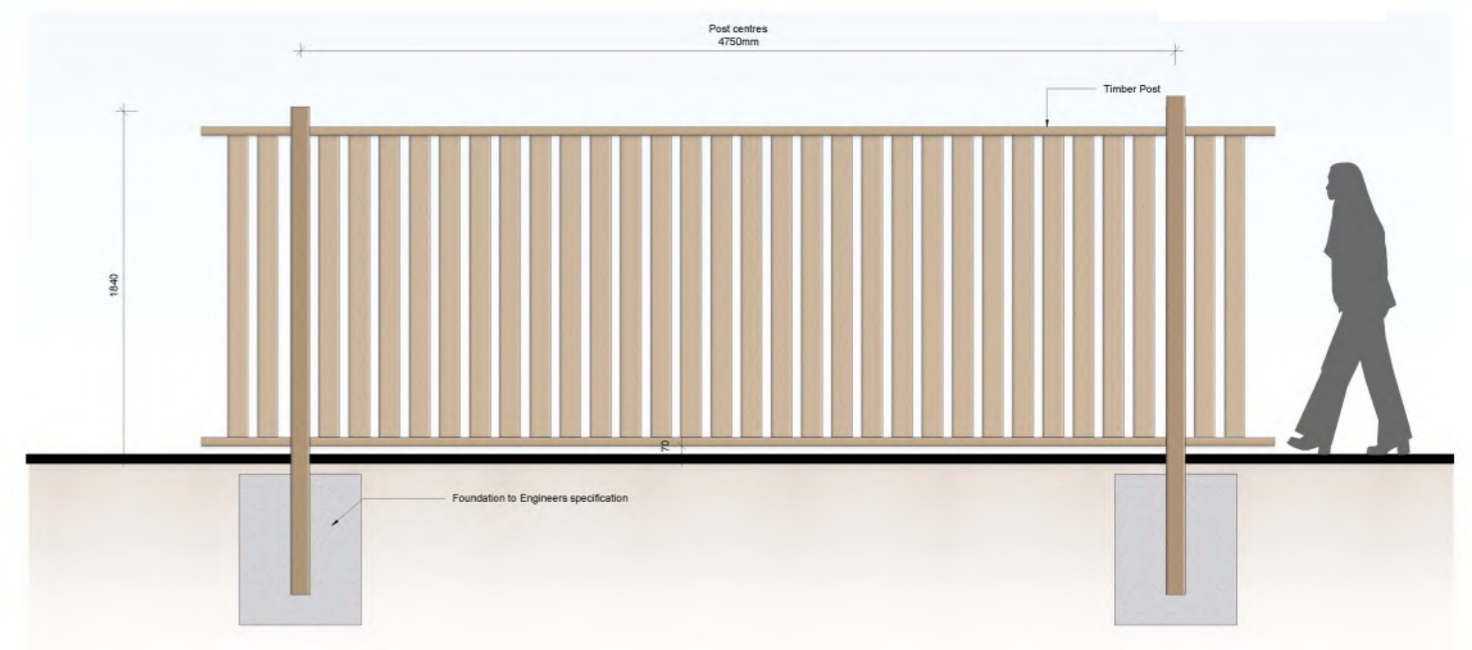
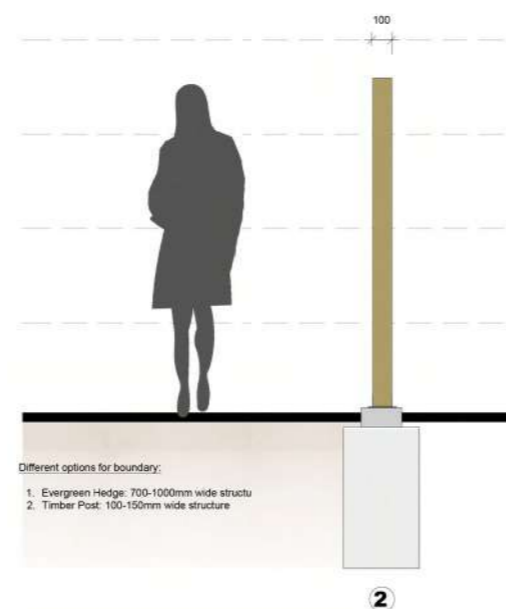
TYPICAL VISUAL WEST BOUNDARY- BACK BLOCK E



Note:

The proposed boundary treatment to the Western boundary will consist of a 1.8m high timber fence with evergreen hedge planting to its base. The existing neighboring boundary will not be impacted.

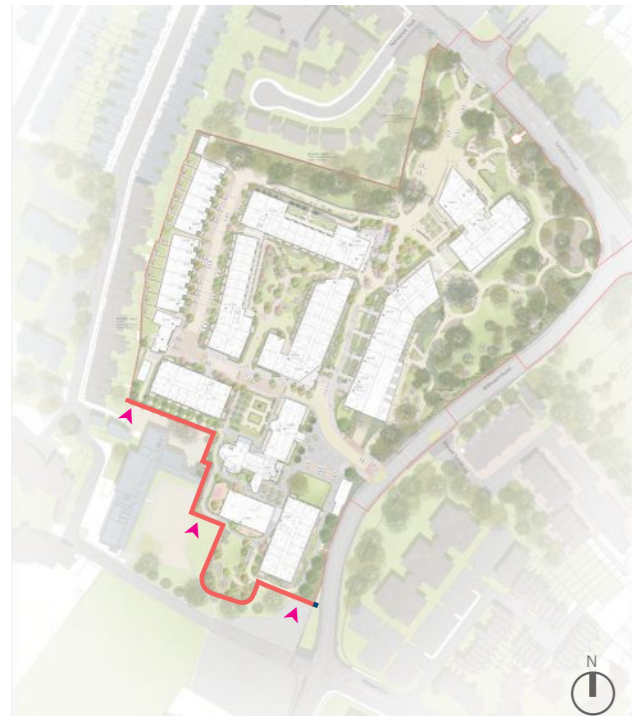
TIMBER FENCE, TYPICAL DETAIL



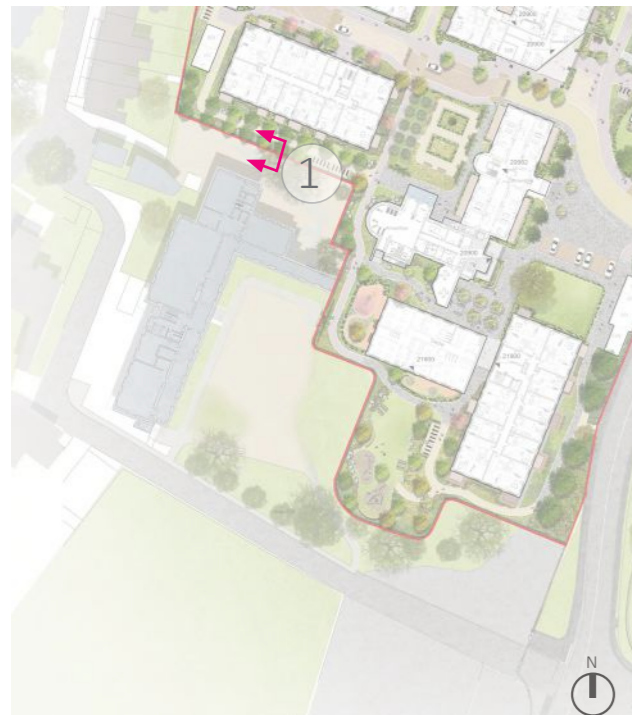
Refer to drawing: C0111 L2000

BOUNDARY TREATMENT

SOUTH BOUNDARY PROPOSAL TREATMENT



- Proposed Stone wall*
- ▶ Potential future connectivity
- Proposed pier



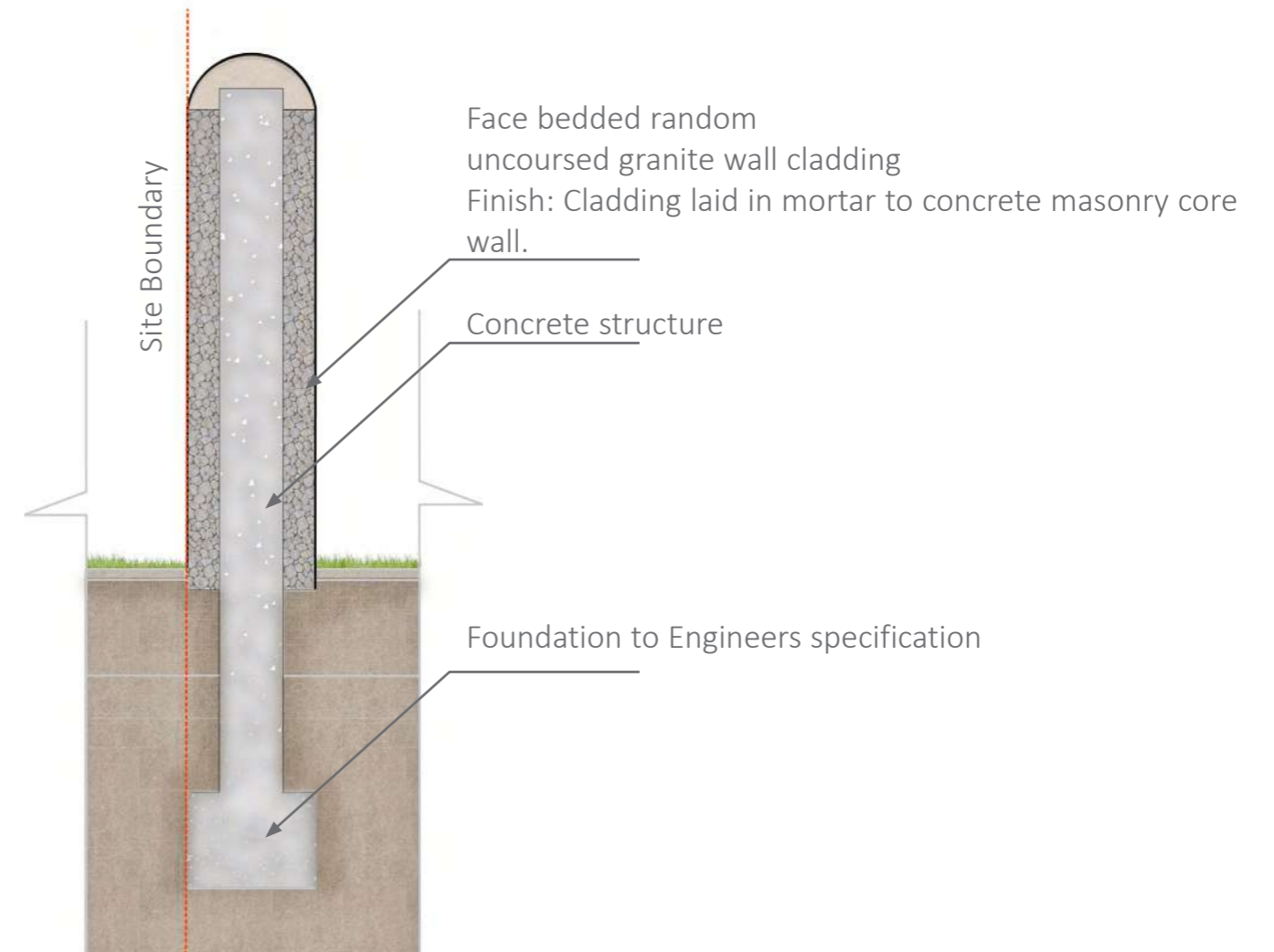
BOUNDARY WALL TYPICAL DETAIL



*New boundary face bedded random uncoursed granite wall cladding laid in mortar to concrete masonry core wall inclusive of angle ties. include for sloped stone coping bedded on mortar.

1. SECTION PROPOSED BOUNDARY WALL

Note:
The proposed boundary treatment to the Southern boundary will consist of a 2.4 m high uncoursed granite wall.
The neighboring lands will not be impacted.



SOUTH BOUNDARY PROPOSAL TREATMENT

- » Construction of the new boundary wall between the Applicant's lands and the Jesuits' remaining lands to separate the two site ownerships, face bedded random uncoursed granite wall cladding laid in mortar to concrete masonry core wall inclusive of angle ties. To include sloped stone coping bedded on mortar. Granite and mortar to Architects approval subject to agreement of submitted samples. The granite shall be Wicklow Granite with a relatively fine grain, matched in grain size and strength of the granite samples proposed, as agreed with the Architect by samples.
- » The granite shall be anchored to the concrete structure. Sizes of granite shall be as agreed with the Architect. The finish shall be as agreed with the Architect to match accepted sample. pointing colour shall be agreed with the Architect. Wall to be constructed as indicated on the architectural and landscape drawing'.
- » Construction of a new reinforced concrete pier, clad in stone to match existing roadside piers, connecting junction of the new random uncoursed granite wall to the existing wall and railings on the Milltown Road frontage. Flower bed and low-level hedging, lawn and trees to Jesuit side of new boundary wall



SPECIFICATION OF THE PROPOSED BOUNDARY WALL

PROPOSED WALL*

Height :2400mm
Finish: Face bedded random uncoursed granite wall cladding laid in mortar to concrete masonry core wall inclusive of angle ties. Include for sloped stone coping bedded on mortar.
To match others specification

PROPOSED PIER

Height: 2400mm
Finish: To be constructed of a core with Chinese Granite cladding to match existing

REFERENCE PICTURE



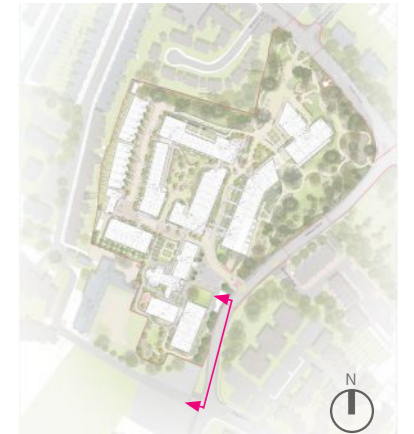
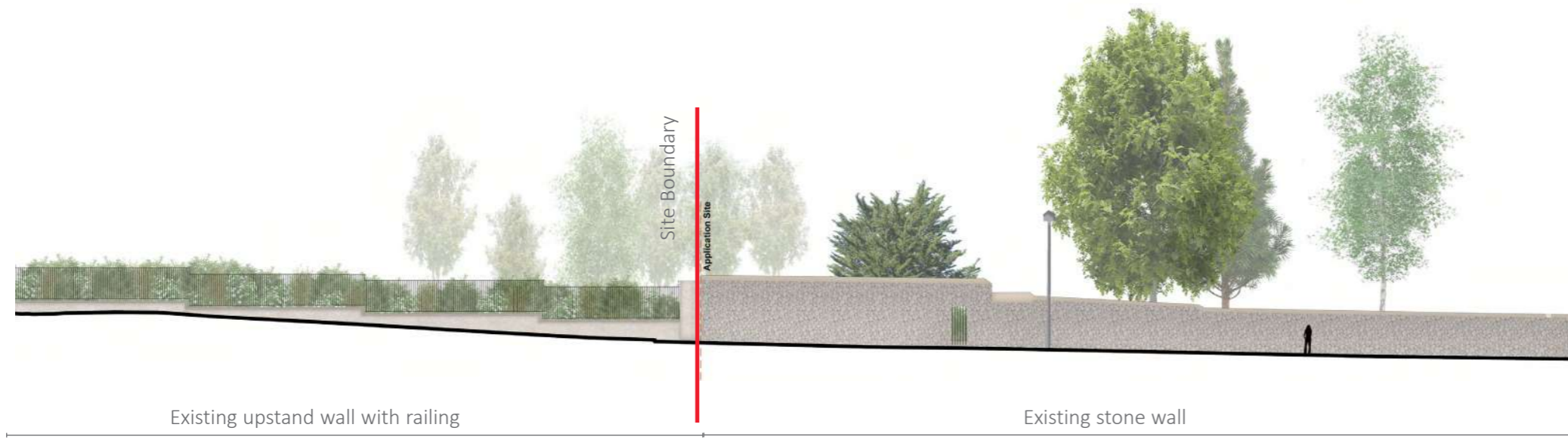
1. New boundary face bedded random uncoursed granite wall cladding laid in mortar to concrete masonry core wall inclusive of angle ties. include for sloped stone coping bedded on mortar.

2. New pier to be constructed of a concrete core with Chinese Granite cladding to match existing.

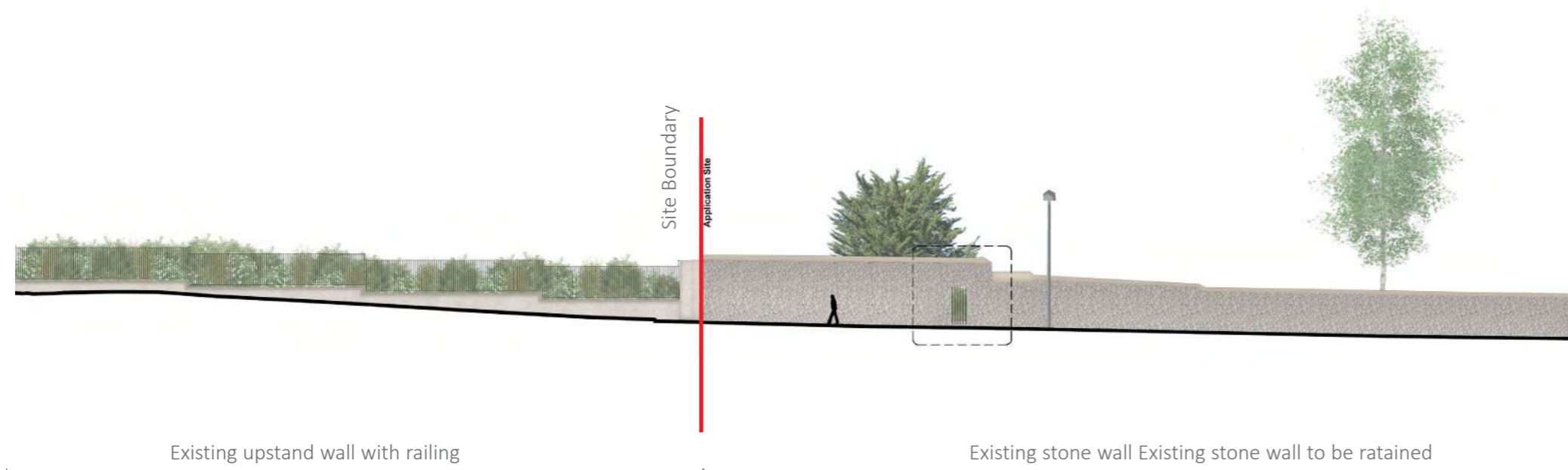
BOUNDARY TREATMENT-EXISTING WALL

EXISTING WALL -MILLTOWN RD.-ELEVATION 1

EXISTING CONDITION



PROPOSAL



Refer to drawing: C0111 L2001

BOUNDARY TREATMENT -EXISTING WALL



EXISTING WALL -MILLTOWN RD. ELEVATION 2, part. a

EXISTING CONDITION



PROPOSAL



“Note: Where railings are proposed, the existing wall will be removed and replaced with a 500mm high wall of salvage stone with capping and railings to approx 1900mm to tie into existing”

Refer to drawing: C0111 L2002

BOUNDARY TREATMENT-EXISTING WALL

EXISTING WALL -MILLTOWN RD. ELEVATION 2, part. b

EXISTING CONDITION



PROPOSAL



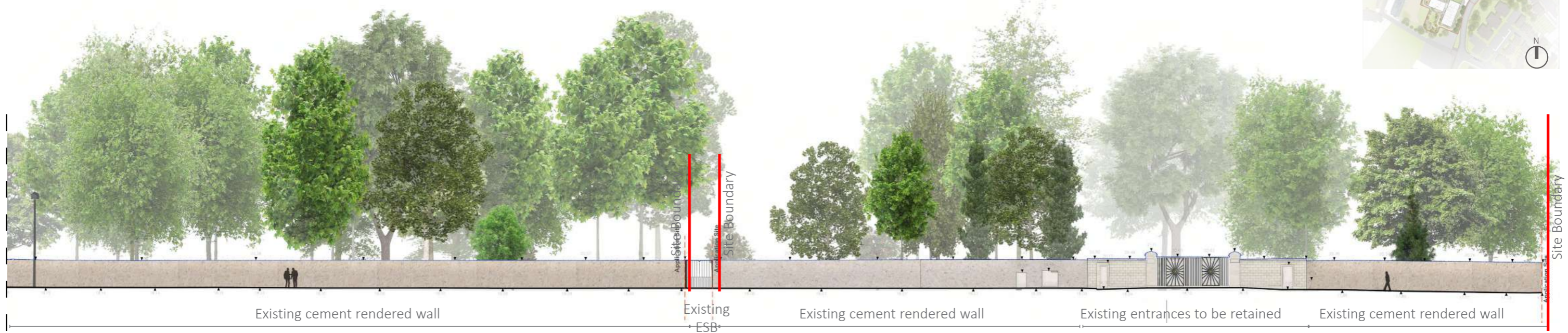
Note: Where railings are proposed, the existing wall will removed and replaced with a 500mm high wall of salvage stone with capping and railings to approx 1900mm to tie into existing.

Refer to drawing: C0111 L2003

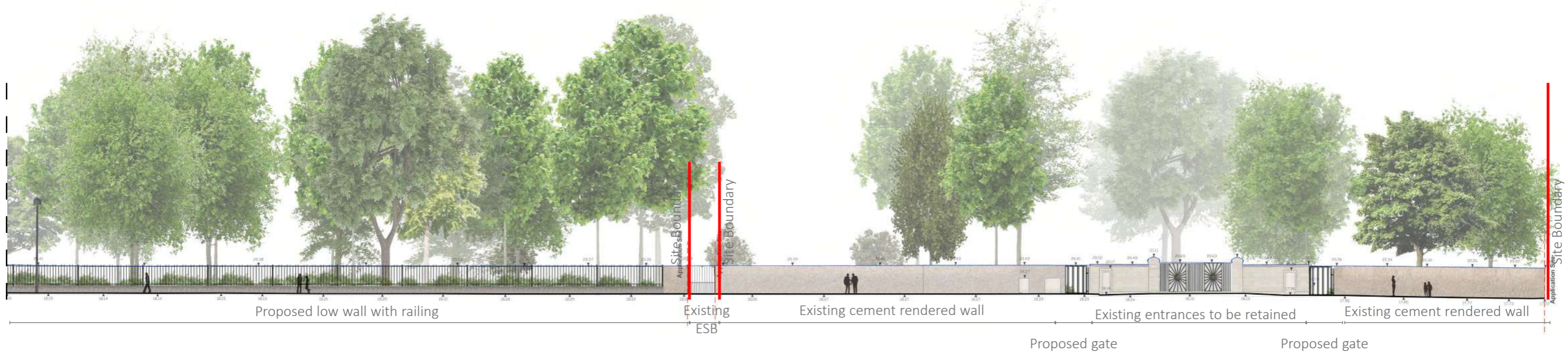
BOUNDARY TREATMENT-EXISTING WALL

EXISTING WALL - SANDFORD RD ELEVATION 3

EXISTING CONDITION



PROPOSAL



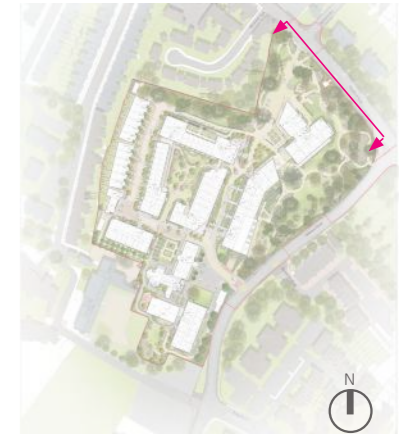
Note: Where railings are proposed, the existing wall will be removed and replaced with a 500mm high wall of salvage stone with capping and railings to approx 1900mm to tie into existing

Refer to drawing: C0111 L2004

BOUNDARY TREATMENT-EXISTING WALL

EXISTING WALL - SANDFORD RD ELEVATION 3

PROPOSAL



The section above shows the existing decorative vehicular and site pedestrian gates, characterized with flanking granite walls and piers that would be retained and integrated with two pedestrian gates currently closed (and to remain closed as not DAC compliant)

PRECEDENTS



BOUNDARY TREATMENT -EXISTING WALL

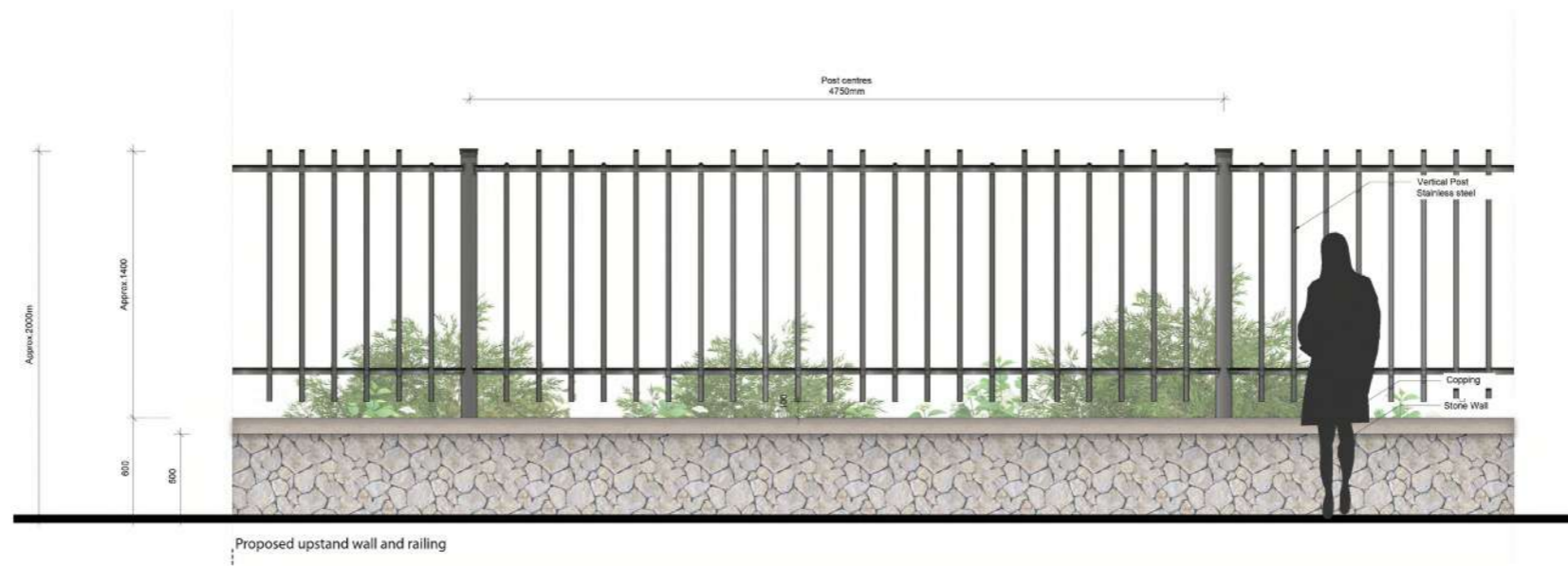


NORTH EAST BOUNDARY TREATMENT

PRECEDENTS

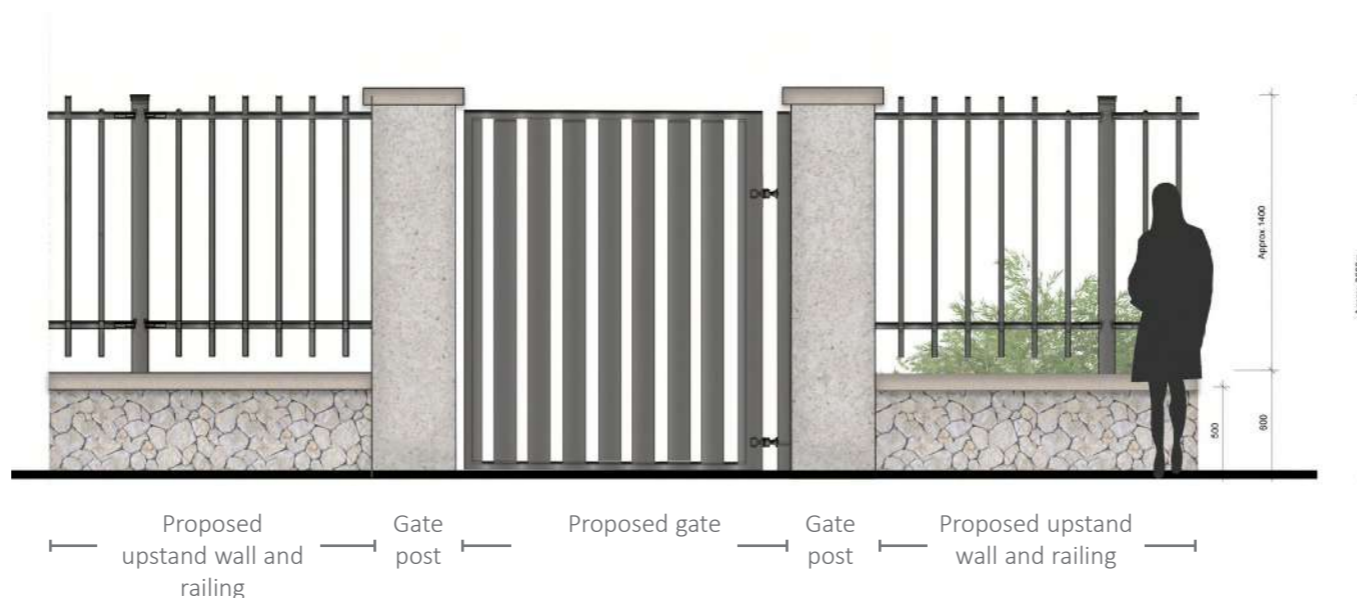


TYPICAL DETAIL
EXISTING CEMENT WALL REPLACED WITH UPSTAND WALL WITH RAILING



- Existing cement wall replaced with upstand wall with railing
- Proposed pedestrian gate

➤ PROPOSED PEDESTRIAN GATE, TYPICAL DETAIL

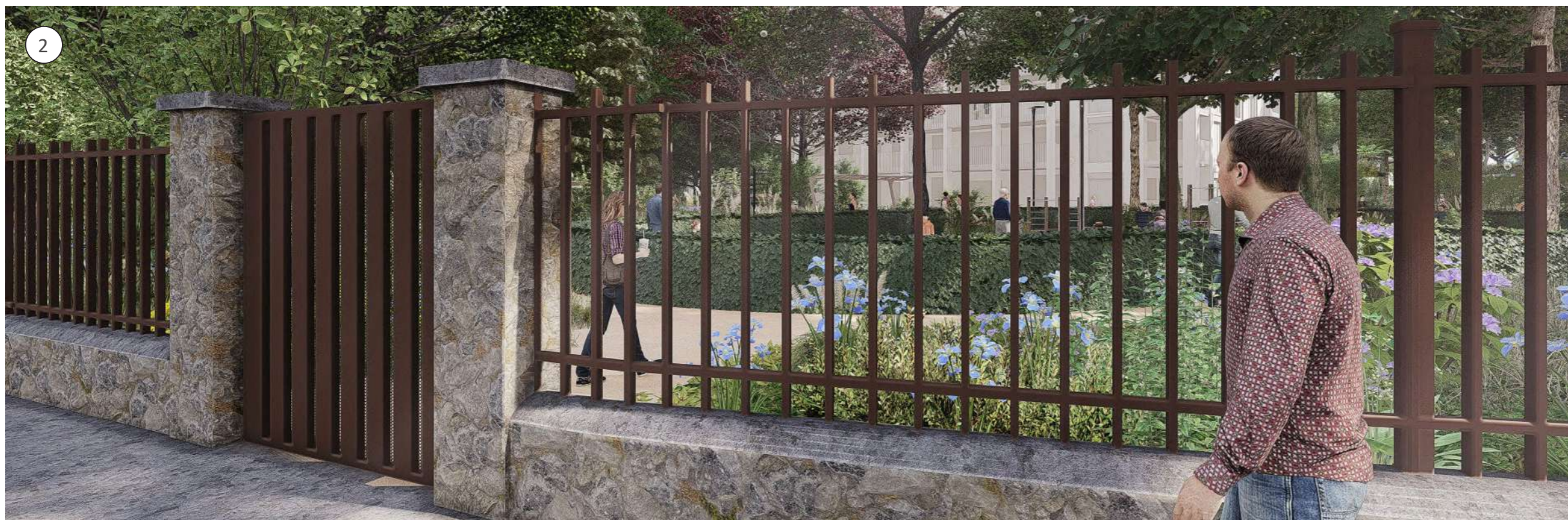
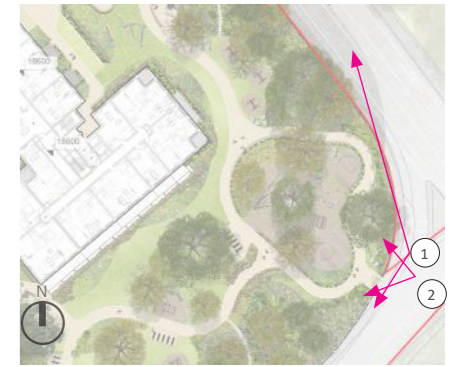


Note: Where railings are proposed, the existing wall will be removed and replaced with a 500mm high wall of salvage stone with capping and railings to approx 1900mm to tie into existing.

Refer to drawing: C0111 L2000A

BOUNDARY TREATMENT -EXISTING WALL

VISUALS



For illustrative purposes only

LANDSCAPE PROPOSAL

CHARACTER AREAS

CHARACTER AREA 1. - SHARED SURFACE AND PLAZA

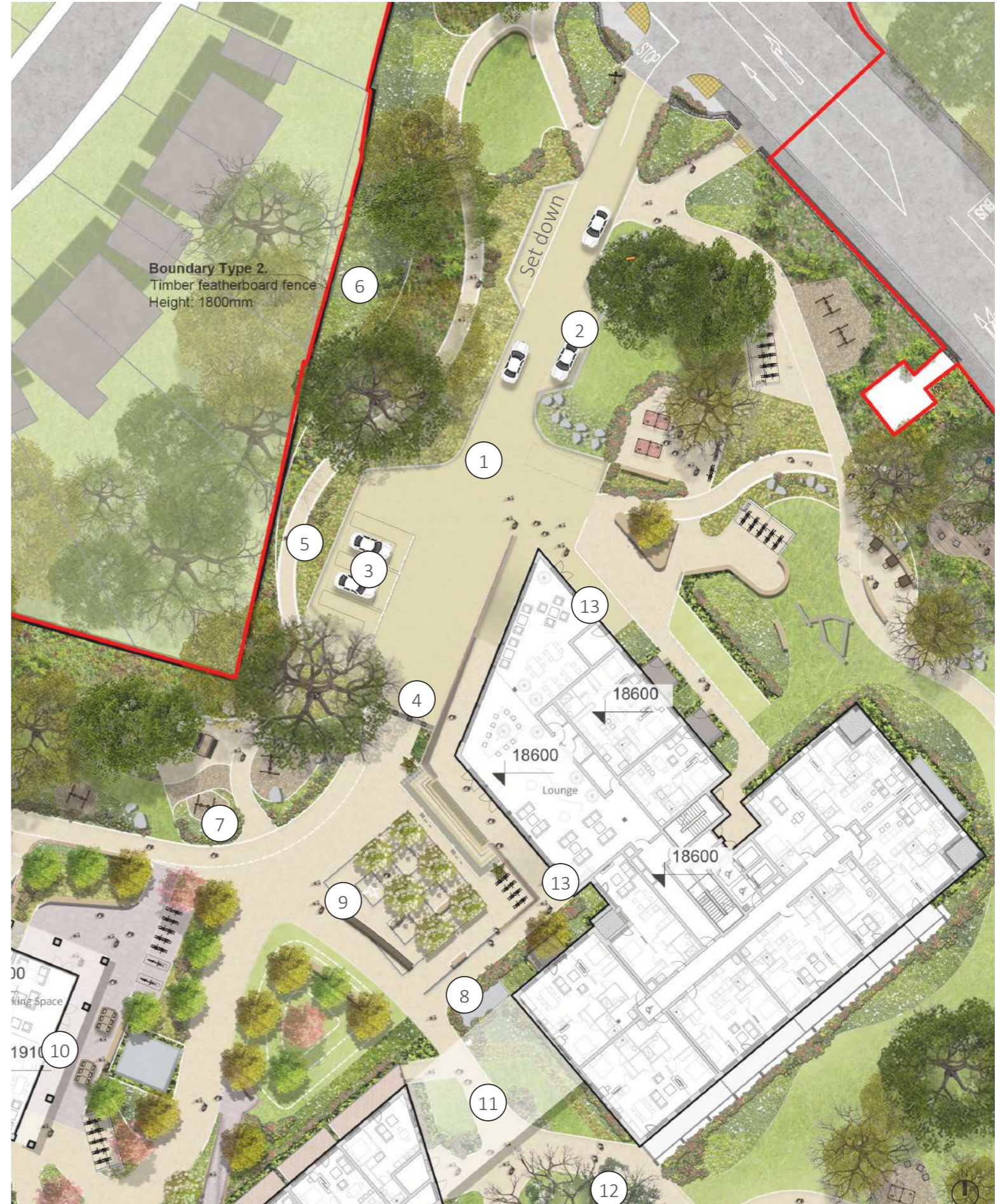
To the north of Block A1 is a key space within the development that creates a setting for the adjacent architecture. The space is more civic in its surrounding architecture- than the generally softer open space area- with areas of hard landscaping and raised planters creating a grove of trees in front of the grand building. Ground floor resident amenity uses open onto the space which will help to animate the public realm. As a design principle the plaza wouldn't allow any vehicle access.

The landscape design supports this via the creation of physical elements for social interaction and gathering, where residents and public users may occupy the space. The articulation of the architecture creates spectacular views through the archway back to the southern woodland and the existing majestic mature *Blue Cyprus Tree* which will aid wayfinding.

KEY ELEMENTS / CHARACTERISTICS:

- » Create a welcoming environment for people to relax within.
- » Creates physical and visual connections.
- » High quality hardscape material that are sympathetic to the building vernacular and materials.
- » Feature trees create a mid-layer of character and break-up the space, whilst also forming a focal point.
- » Active frontages face onto the space.

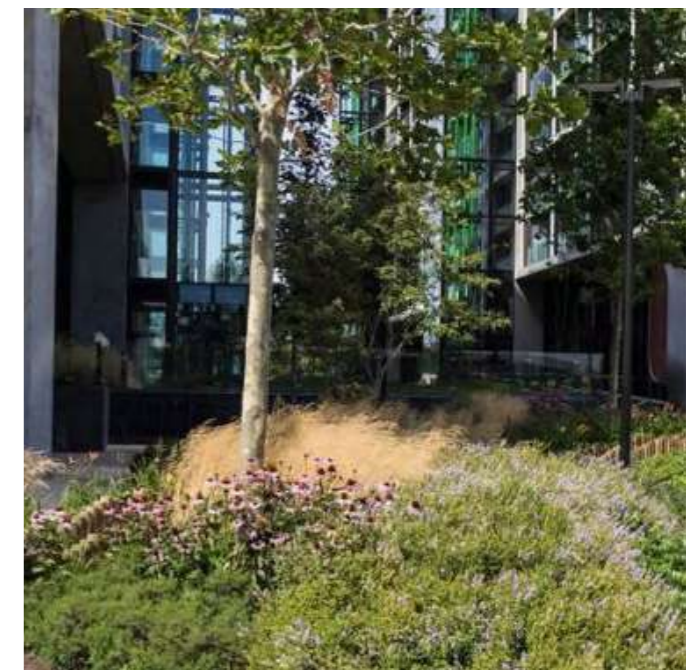
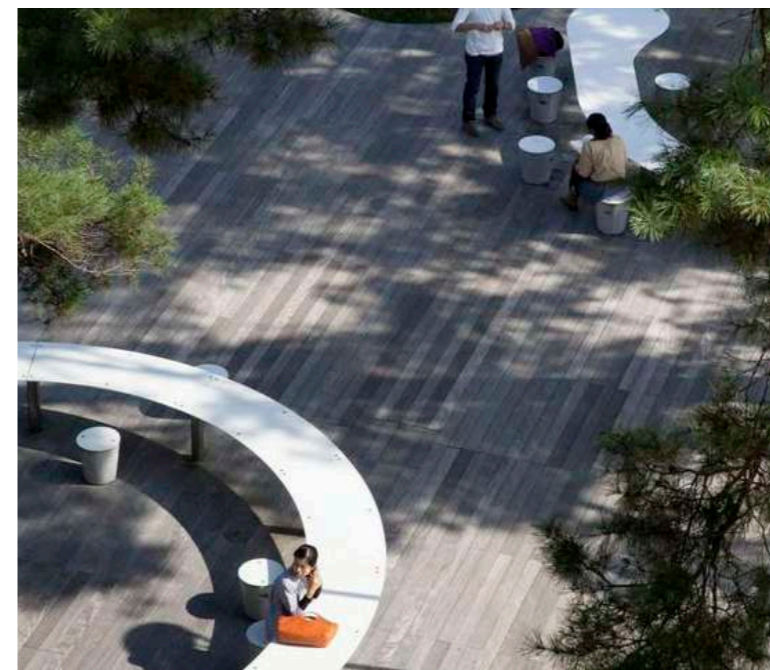
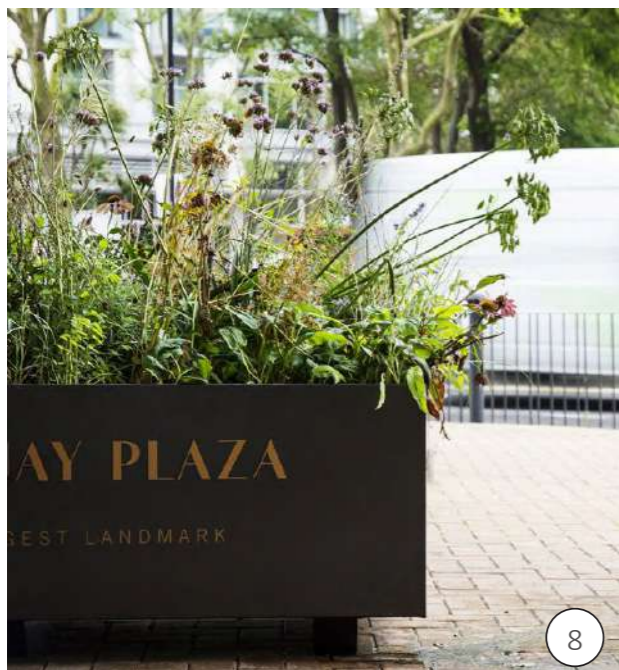
- | | |
|--|--|
| 1. Shared surface | 8. Open space with proposed feature trees |
| 2. Taxi set-down | 9. Art piece |
| 3. Disable Parking | 10. Resident Co-Working Space with Coffee Facility |
| 4. Controlled bollards | 11. Sheltered pedestrian link |
| 5. Separated Pathway | 12. Existing <i>Blue Cyprus Tree</i> |
| 6. Green buffer along the site perimeter | 13. Lobby entrance |
| 7. Seating area and equipped fitness station | |



CHARACTER AREAS

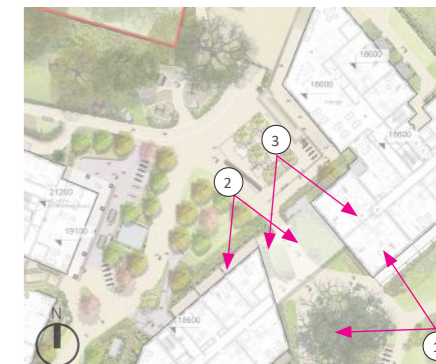


PRECEDENTS



CHARACTER AREAS- VISUALS

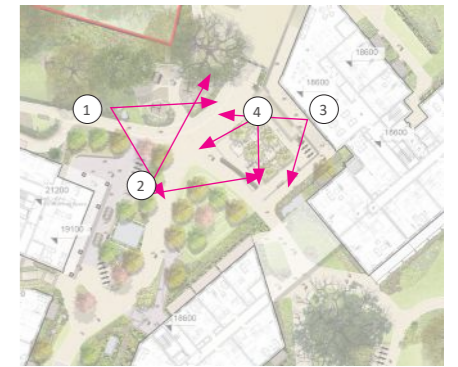
CHARACTER AREA 1. - SHARED SURFACE AND PLAZA



For illustrative purposes only

CHARACTER AREAS- VISUALS

CHARACTER AREA 1. - SHARED SURFACE AND PLAZA



For illustrative purposes only

CHARACTER AREAS

CHARACTER AREA 2. PUBLIC OPEN SPACE

The existing woodland is very overgrown and has not been maintained for many years. The vision is to open up this parkland, to allow both residents and the public to be able to enjoy this space.

KEY ELEMENTS / CHARACTERISTICS:

- » Enhance visual permeability into the proposed public open space, to ensure natural surveillance and a safe environment for all. The proposals will remove a section of the existing rendered wall and replace it with railings, to assist in reinforcing the perception of openness and a welcoming environment, whilst maintaining a physical boundary.
- » Natural play facilities specifically aimed at connecting children with nature will be focused within this area. There will also be an opportunity for adult engagement through natural gym equipment.
- » The public open space will provide feature lighting which will be limited and be set to turn off at an agreed curfew time in the evenings no later than 10:30pm to allow a safe and welcoming environment throughout the day and night when viewed from the road or from the residential blocks.
- » Seasonal planting plays an important role in the landscape design ensuring that colour, texture and attractive natural forms are provided throughout the biodiverse public open space all year round.
- » The proposals will clear out all undesirable, invasive or low-value planting to maximise sunlight penetration from the south into the proposed open lawn area, encouraging activity in the open ground, where more 'active play' and relaxation can take place while maintaining and preserving the good tree species that are present.



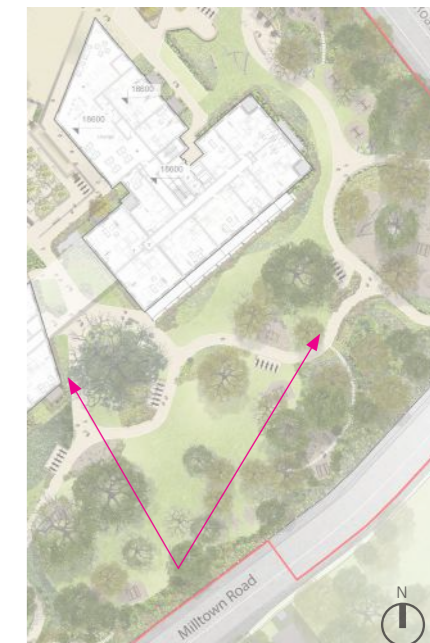
- | | |
|------------------------|-------------------------------------|
| 1. Sinuous walkway | 7. Pedestrian entrance |
| 2. Open lawn | 8. Existing <i>Blue Cyprus Tree</i> |
| 3. Dedicated play area | 9. Cycle parking |
| 4. Fitness area | 10. Lobby entrance |
| 5. Picnic table | 11. Own door access |
| 6. Play on-the-way | 12. Green buffer |
| | 13. Seating area |

PRECEDENTS



CHARACTER AREAS- VISUAL

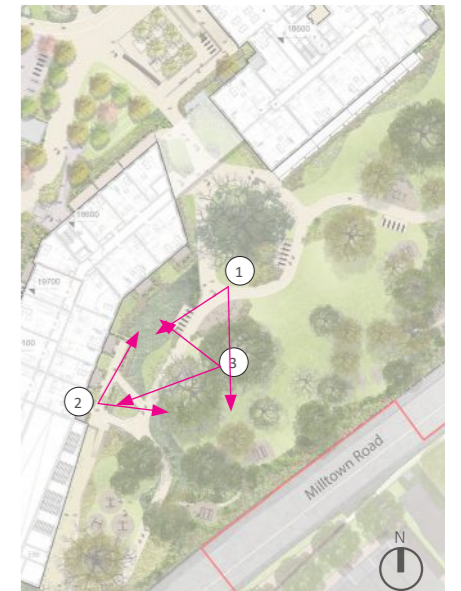
CHARACTER AREA 2. PUBLIC OPEN SPACE



For illustrative purposes only

CHARACTER AREAS- VISUALS

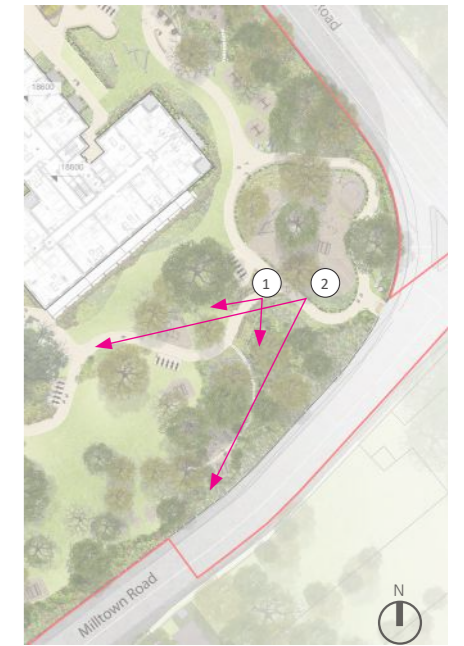
CHARACTER AREA 2. PUBLIC OPEN SPACE



For illustrative purposes only

CHARACTER AREAS- VISUALS

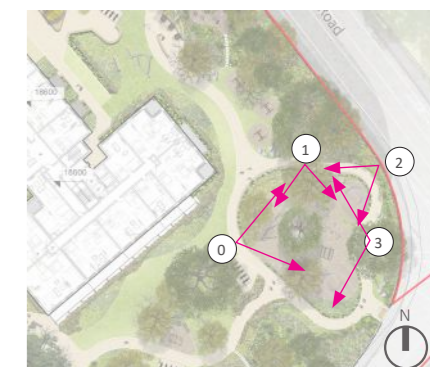
CHARACTER AREA 2. PUBLIC OPEN SPACE



For illustrative purposes only

CHARACTER AREAS- VISUALS

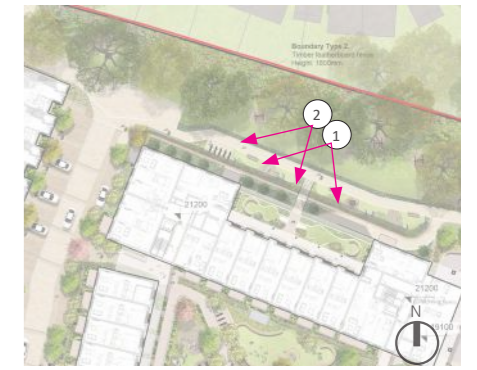
CHARACTER AREA 2. PUBLIC OPEN SPACE



For illustrative purposes only

CHARACTER AREAS- VISUALS

CHARACTER AREA 2. PUBLIC OPEN SPACE- BACK OF BLOCK C

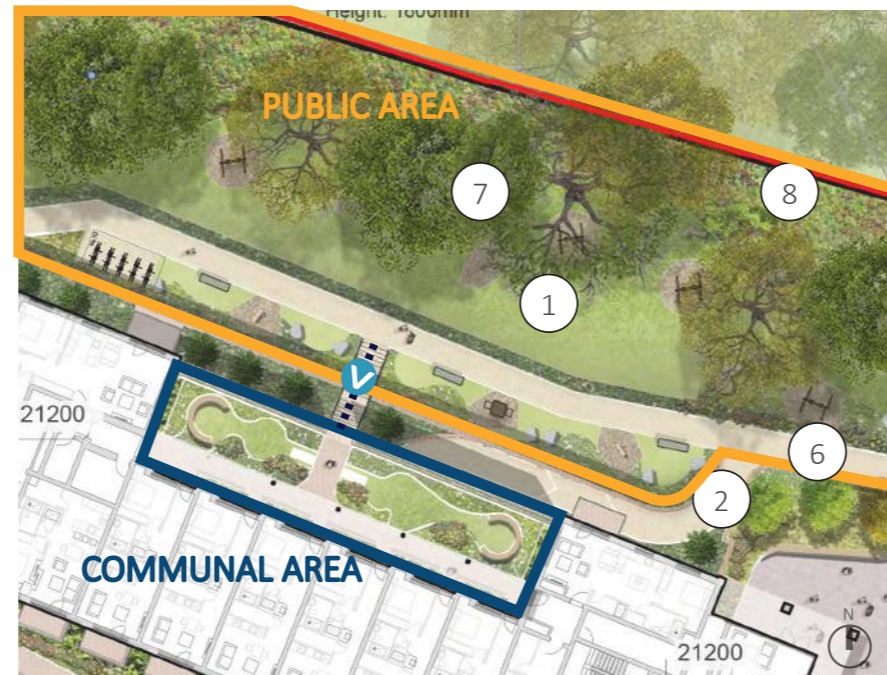


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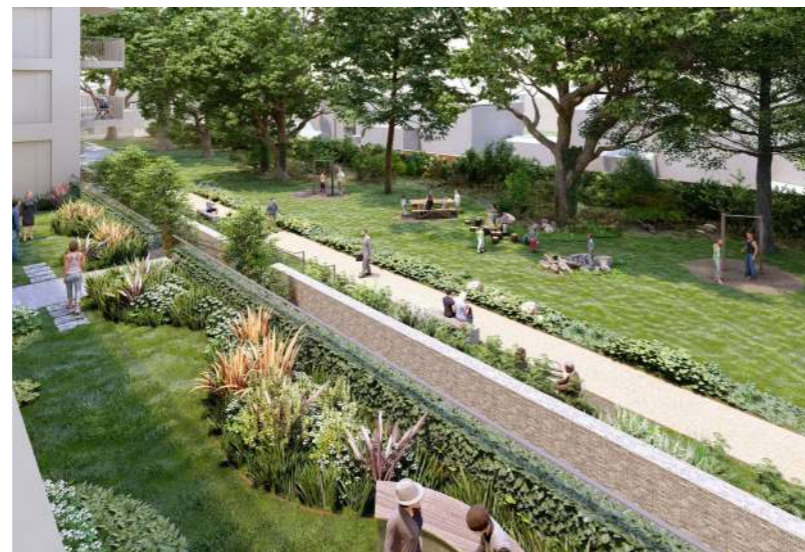
CHARACTER AREA 3. COMMUNAL BELVEDERE GARDEN

The Belvedere Garden sits in an elevated position below private residential terraces associated with the apartments. The garden overlooks the public open space with commanding views to the north and across to the existing trees lining the boundary of the site. The semi-private, communal space provides a passive recreation space for residents, which is accessed via a bridge-link in the public open space.

Plant species are tailored to the microclimate of the garden, where robust, shady species, of varying sizes and height are specified contributing to the more intimate, residential character; a contrast to the more public areas, below. Pockets of seating provide small gathering areas for peaceful relaxation amongst planting.



1. Public Open Space
2. Cycle ramp
3. Upstanding communal area
4. Seating area
5. Retaining wall
6. Public Footpath
7. Existing trees
8. Green Buffer
9. Defensible space



For illustrative purposes only

CHARACTER AREAS

CHARACTER AREA 4. FORECOURT FORMAL ENTRANCE

The main entrance from Milltown Road presents visitors with welcoming formal landscape setting in response to the refurbishment and reuse of the historical Tabor House and Chapel. The proposed formal forecourt space establishes a historic character, but will be constructed using contemporary materials and high-quality finishes. Four large Cypress trees are proposed which will frame the main entrance to Tabor House.

The existing Chapel will be reused and repurposed and a new open lawn creates an attractive setting with while formalised planting layouts frame the historic façade.

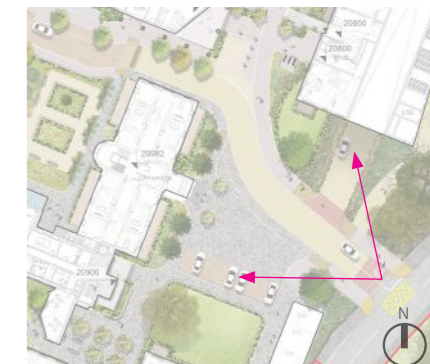
KEY ELEMENTS / CHARACTERISTICS:

- » Creating a leisure offer for the development's residents and external wider community.
- » Capturing the Historical View.
- » On entering through the new entrance you will be greeted with a view of Tabor house
- » The historical building of Tabor House is an element of heritage that enhances the intrinsic character of the area making it a unique and distinctive place.

- | | |
|-------------------------------------|---|
| 1. Vehicular carriageway | 9. Formal food garden |
| 2. Formal planting | 10. Parking |
| 3. Existing tree, Birch | 11. Existing pedestrian gate currently closed (and to remain closed as not DAC compliant) |
| 4. Tabor House entrance | 12. Shared pedestrian and cyclist route |
| 5. Potential future connectivity | 13. Raised table |
| 6. Existing tree, Western red cedar | 14. ESB Station |
| 7. Lawn | 15. Crèche area |
| 8. Vehicular Ramp | |



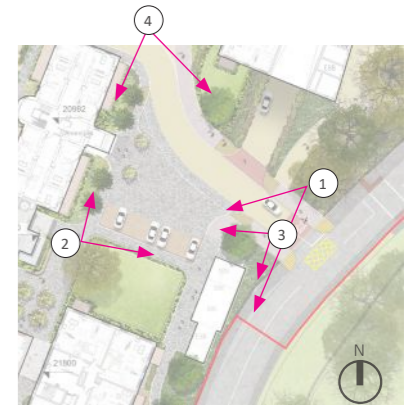
CHARACTER AREA 4. FORECOURT FORMAL ENTRANCE



For illustrative purposes only

CHARACTER AREAS-VISUALS

CHARACTER AREA 4. FORECOURT FORMAL ENTRANCE



For illustrative purposes only

CHARACTER AREA 5. FORMAL FOOD GARDEN

To the rear of Tabor House and the existing Chapel, an edible garden is proposed to be laid out in a formal arrangement, reminiscent of parterre gardens commonly found within heritage landscapes.

Low box species hedging will form the overall structure, supported by a variety of edible planting types ranging from fruit-bearing shrubs to fruit trees, such as apple, pear, and plum, supplemented with various edible herbs.

The character approach is to help maintain the integrity of the surrounding historical building, whilst allowing a pleasing transition through the public realm toward the more contemporary vernacular of the architectural residential blocks.

Behind the Chapel and Tabor house we are proposing a native wildflower meadow that will provide habitat for insects and foraging bats.

The lighting design adheres to the bat ecology zoning: the preserve wildflower garden to the west of Tabor House will have all lighting within it turned off during the summer months.

(See Pritchard Themis/ JBA Consulting reports for further information)



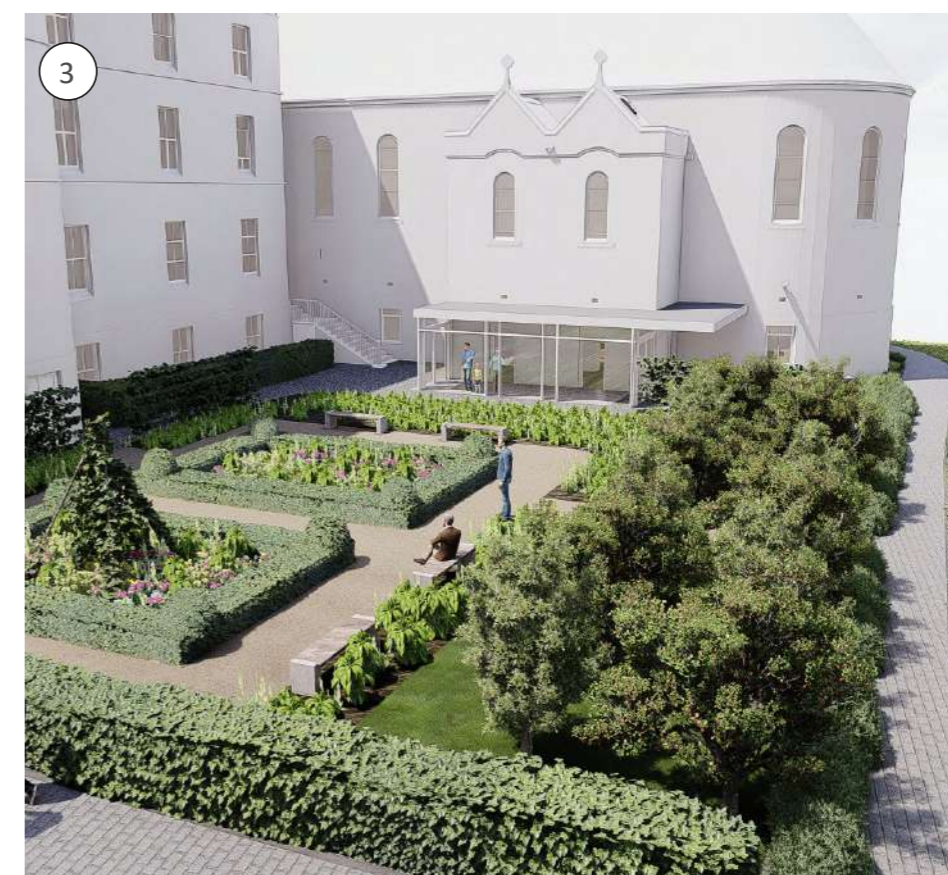
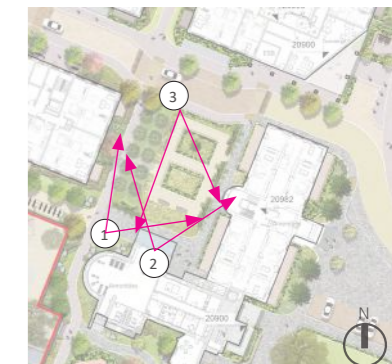
PRECEDENTS



1. Glazed Chapel entrance
2. Orchard
3. Formal garden surrounded by wildflowers meadows
4. Private terrace
5. Espalier trees
6. Tabor House entrance

CHARACTER AREAS- VISUALS

CHARACTER AREA 5: FORMAL FOOD GARDEN



For illustrative purposes only

CHARACTER AREA 6. CRÈCHE AREA

A childcare facility / creche is proposed for use by residents and the wider community as part of the development. The creche will provide approximately **230m²** of external play immediately outside the building.

The vision for the creche is to create a playful environment, that enables young children to engage with nature through play and exploration.

The focus for the creche landscape is the creation of safe playable external environment, which starts 'the next generation' on their path of discovery through nature whilst developing their physical and sensual abilities.

The facilities will cater for children to climb, balance and explore through a multi-layered, natural play area, comprising natural elements, play features and equipment and a varied experiential planting palette. Plant species are selected to enhance the senses through colour, sound, touch and smell. Additional features will engage youngsters with wildlife through the introduction of bug hotels and bird boxes in to the creche garden landscape.

The creche will be surrounded by a perimeter fence and planting to ensure a safe environment for children to experience.



1. Crèche entrance



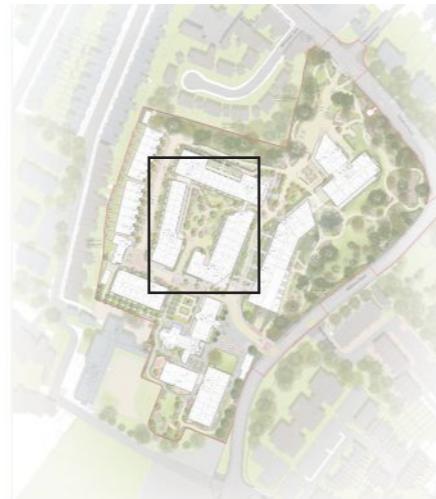
CHARACTER AREAS

CHARACTER AREA 7. RESIDENTIAL COURTYARD

A key element of the scheme is to offer inclusive design to the outdoor environment, with the creation of accessible communal spaces for all residents to enjoy. The residential courtyard offers this opportunity for social interaction and communication with other residents, in a lush green garden setting.

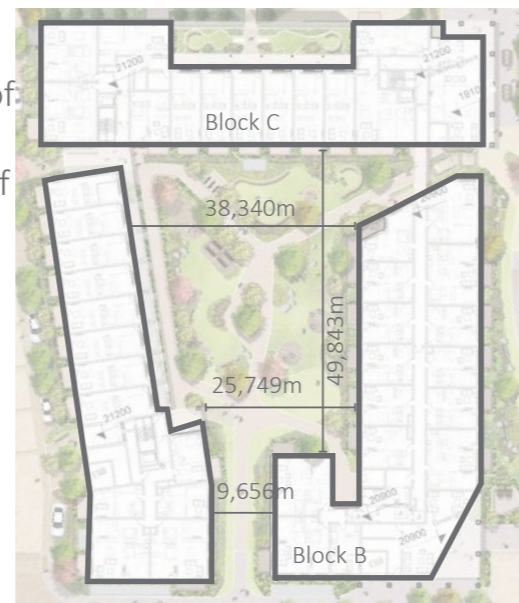
KEY ELEMENTS / CHARACTERISTICS:

- » Creation of a wonderful courtyard landscape at the heart of the surrounding architecture which capitalises on functional green space, directly outside residents' homes.
- » The landscape provides facilities and planting for all seasons to maximise the benefit of the open space for the future community.
- » Play facilities will be provided for active recreation, along with quieter spaces for reading and enjoying the communal, natural landscape, with your neighbours. Natural play will form a key role in the play strategy.
- » The green space will form a visually interesting backdrop for occupants within homes to enjoy from their windows. The planting will be selected and set-out to maximise visual interest, seasonal change, with attractive shapes, textures, and forms.
- » Visual connectivity with nature from internal spaces is important for mental health and wellbeing and the benefit of having doorstep greenspace provides immediate amenity and increases the intrinsic value of the development.
- » Along the perimeter of the courtyard, a 1.5m buffer of evergreen hedge and mixed planting will be provided, guaranteeing effective levels of passive supervision from the internal space toward the courtyard whilst affording the ground floor units privacy.
- » Own door access units on the west of Block C will be provided from the residential courtyard. This will benefit from an evergreen hedge defining the private space and guaranteeing the privacy for future residents.



1. Play area
2. Seating area
3. Defensible space
4. Lobby entrance
5. Play on-the-way
6. Basement ventilation
7. Lawn
8. Reinforced grass

COURTYARD DIMENSION:



PRECEDENTS



CHARACTER AREAS

CHARACTER AREA 7. RESIDENTIAL COURTYARD- LANDSCAPE SECTION

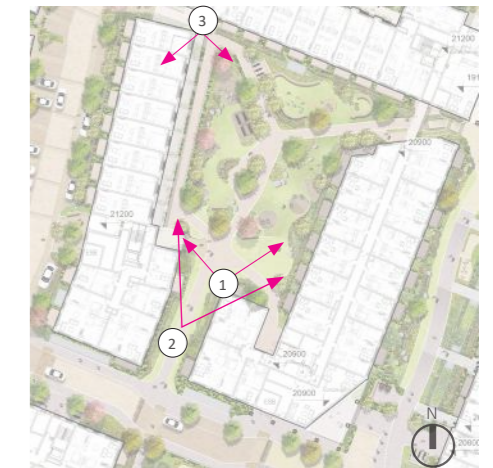


CHARACTER AREAS- VISUAL

CHARACTER AREA 7. RESIDENTIAL COURTYARD

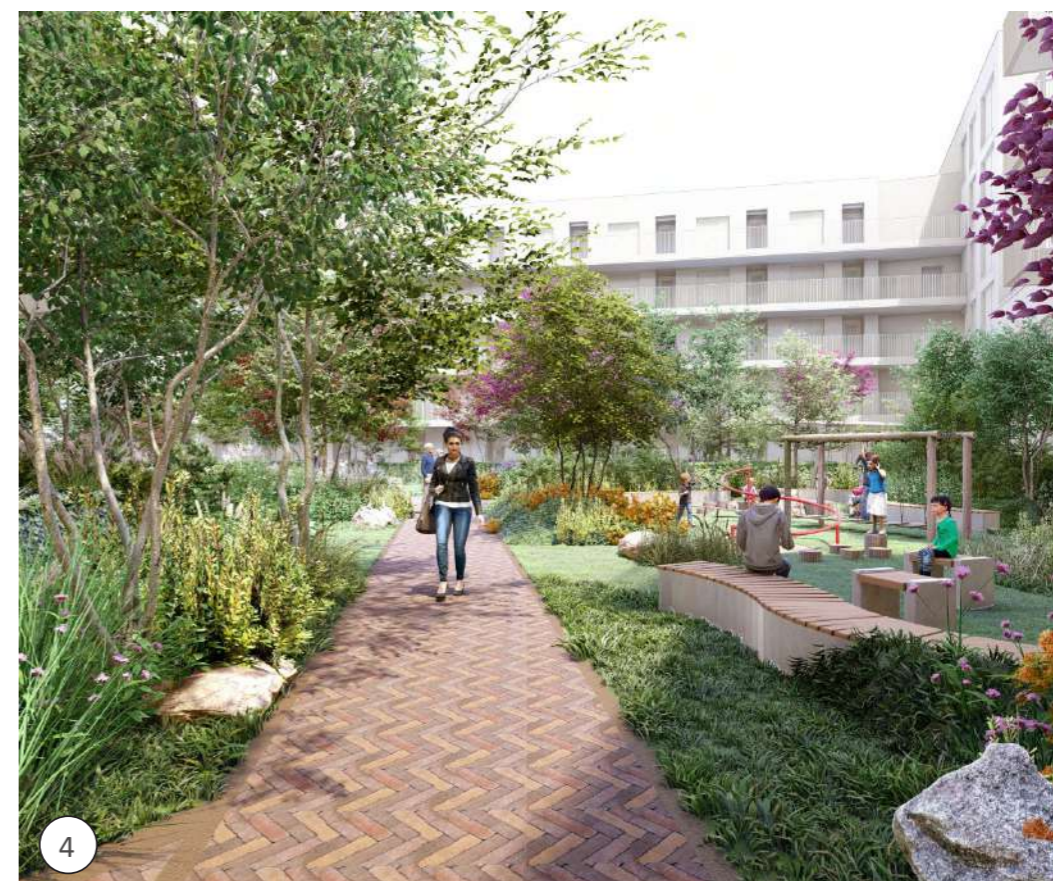
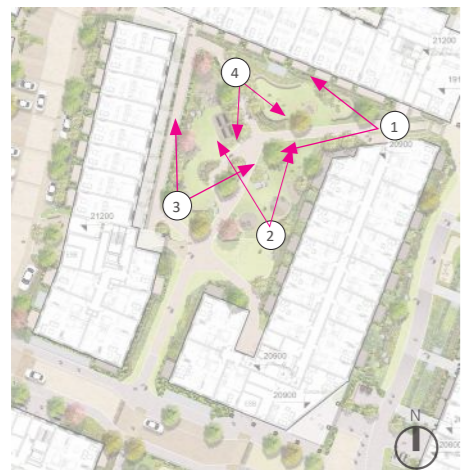


For illustrative purposes only



CHARACTER AREAS- VISUALS

CHARACTER AREA 7. RESIDENTIAL COURTYARD



For illustrative purposes only

CHARACTER AREA 8. RESIDENTIAL GREEN STREET

A key route in the public realm framework is the north-south link between the northern plaza and the southern historic forecourt. This forms an important shared connection (pedestrian and cycle) from Milltown Road up to Block A1 and onward to Sandford Road.

The landscape between blocks A and B will have the characteristic of a flowing, natural landscape with heavily planted, defensible spaces to the ground floor properties. The emphasis of the landscape is on soft landscaping with an avenue of trees and native shrub planting lining the route. The route will provide doorstep play directly outside homes with opportunities for pockets of play-on-the-way.

KEY ELEMENTS / CHARACTERISTICS:

- » A shared space / square with pedestrian priority forms the southern anchor to the green link.
- » A lush green environment with an inviting parkland character forming a wonderful address to residential homes.
- » Planting layouts will assist in wayfinding by selective types being positioned to highlight the entrances to each townhouse along the route.
- » A subtle suspended pathway structure bridges over a basement ventilation area, creatively integrating this within the landscape design to the east side of the street.
- » A range of shrubs and planting will provide seasonal attraction and clear views along the street providing also privacy to the apartments



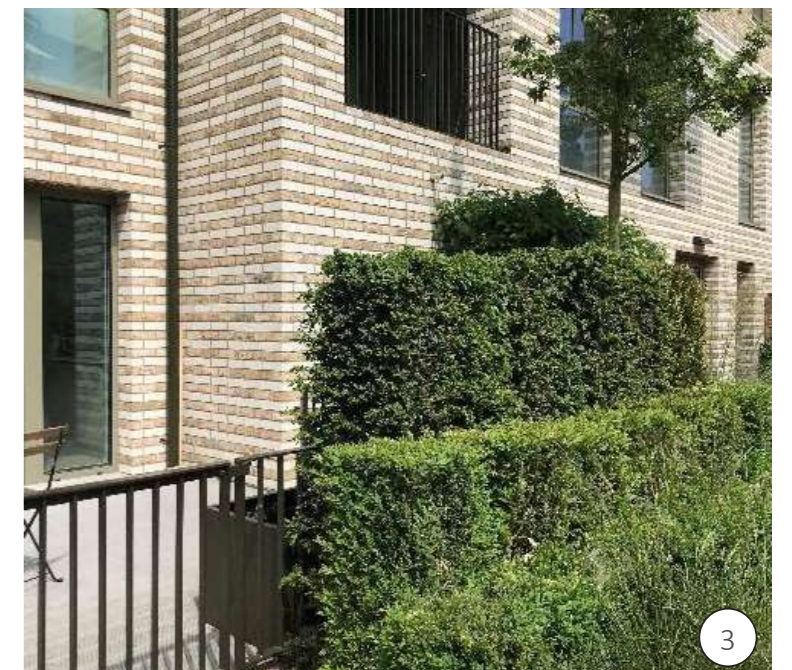
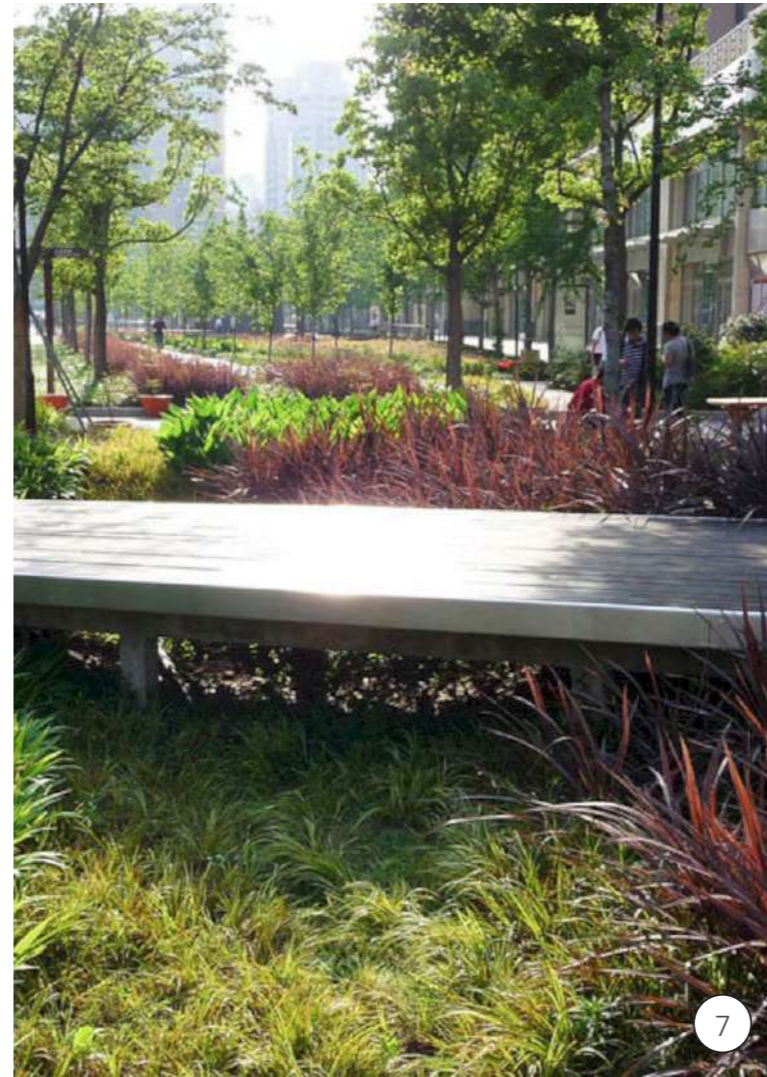
CYCLE ROUTE:



- | | |
|---------------------------|--|
| 1. Turning area | 7. Suspended bridge-residential access |
| 2. Main pedestrian street | 8. Ventilation grill |
| 3. Defensible space | 9. Play on-the way |
| 4. Sheltered cycle stands | 10. Seating area |
| 5. Active frontage | |
| 6. Lobby entrance | |

CHARACTER AREAS

PRECEDENTS



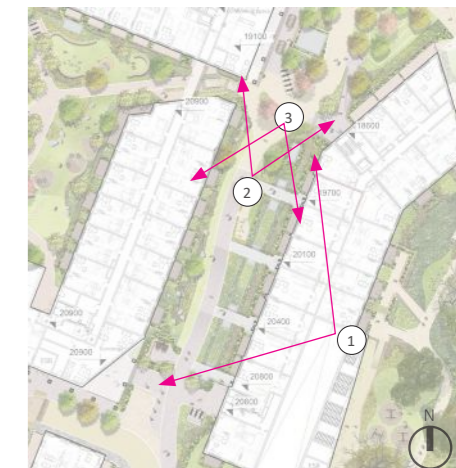
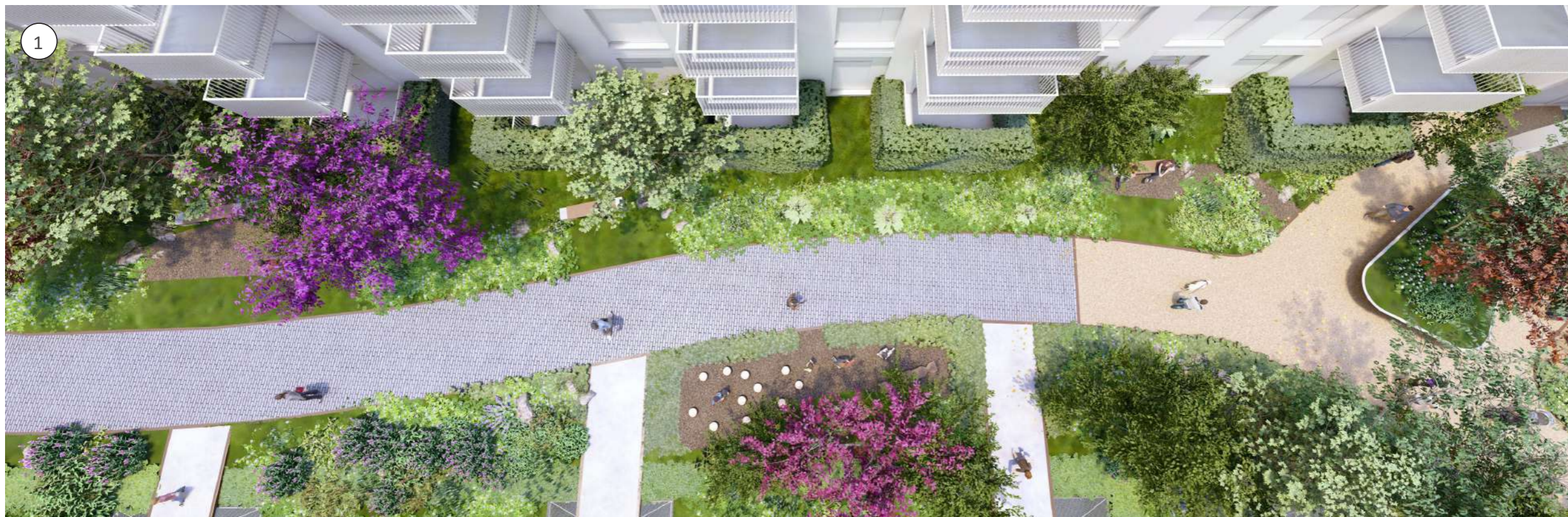
CHARACTER AREA 8. GREEN BOULEVARD



For illustrative purposes only

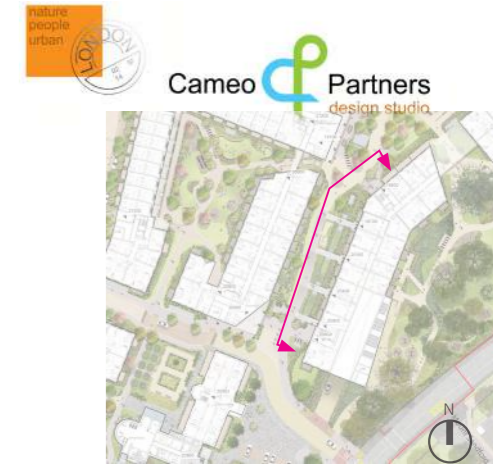
CHARACTER AREAS- VISUALS

CHARACTER AREA 8. GREEN BOULEVARD, VISUALS



For illustrative purposes only

CHARACTER AREAS- VISUALS



CHARACTER AREA 8. LANDSCAPE SECTION GREEN BOULEVARD



For illustrative purposes only

CHARACTER AREAS

CHARACTER AREA 9. "HOME ZONE" STREET

On the western edge of the scheme is a “home zone” area, which gives pedestrian priority to the street, whilst allowing vehicular access to homes.

Aspects of traffic calming are to be incorporated through the use and type of material, the placement of trees and planting, and the geometry and spaces within the streetscape rather than the use of bollards, gates and chicanes.

A sequence of spaces will be set-out within the ground plane, framed by various groups of trees. To the east side of the street rainwater gardens will be introduced as part of the SUDs strategy to capture surface run-off, whilst forming a semi-natural boundary and defensible edge to the ground floor homes.

More formalised arrangements of planting will be selected to structure the street and indicate residential entrances to the various blocks.



HOME ZONE "STREET" DIMENSION:



KEY ELEMENTS / CHARACTERISTICS:

- » SUDs principles play a role in the layout and design of the street typology.
- » Planting strategy to play multiple roles: Edible produce, Sensory, fragrant and visually appealing species.
- » Evergreen planting where appropriate to ensure privacy to the apartments throughout the year.
- » Defensible spaces to be formed by a soft landscape edge, merging the street and defensible spaces seamlessly.

1. Car parking for residents
2. ESB Access
3. Vehicular street- shared surface
4. Dedicated pedestrian street- shared surface
5. Existing trees
6. SUDs
7. Private rear garden
8. Ventilation grill
9. Sheltered cycle stands
10. Cycle stands
11. Lobby entrance

PRECEDENTS



CHARACTER AREAS- VISUALS

CHARACTER AREA9. "HOME ZONE" STREET , VISUALS



For illustrative purposes only

RAIN GARDEN

This page highlights the rain garden located along the "Home Zone Street".

The rain garden will be positioned in relation to the drainage strategy and principles Coordinated with project's Civil Engineers.

KEY ELEMENTS / CHARACTERISTICS:

- » Sustainable drainage systems (SUDs) mimic natural drainage processes to mitigate the impacts of on-site surface run-off from the various spaces within the development.
- » SUDs provide biodiversity and visual benefit and character at the area



For illustrative purposes only

PLANTS SPECIES



Aster spp,



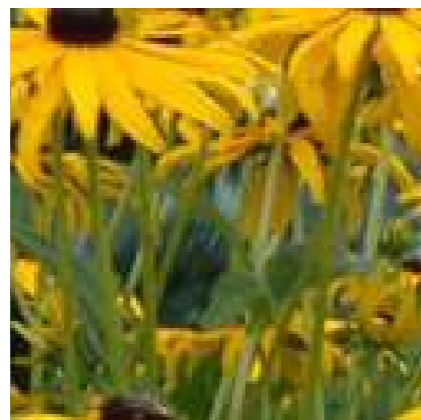
Helenium



Bergenia



Panicum variegatum



Rudbeckia binta



Osmunda regalis

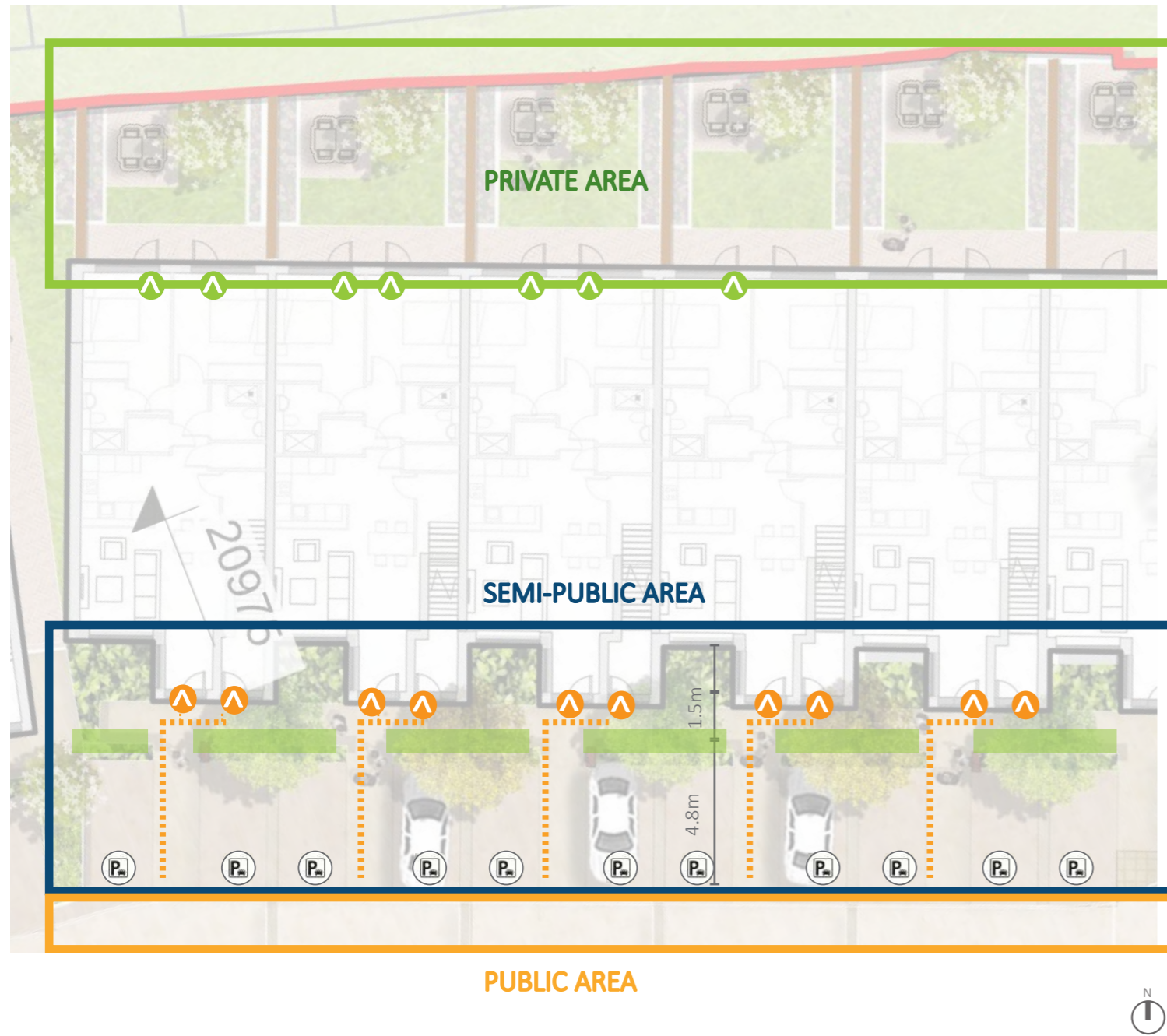


Source: WRT Design storm water management

CHARACTER AREAS

CHARACTER AREA 9. "HOME ZONE" STREET

BLOCK E/ TRANSITION BETWEEN SPACES



- Defensible space (evergreen hedge)
- Residential footpath
- > Dwellings Access
- > Private rear garden access
- P Residents' car parking



CHARACTER AREA 9. "HOME ZONE" STREET

The term 'Home Zone' is used to describe the western residential area of the scheme, where the street becomes an extension of the new community's living space, vehicles travel at walking pace and pedestrians using the street have equal status with vehicles.

The design of new residential street has been tailored to suit the proposed context and the aspiration for the community within the new development.

KEY AIMS:

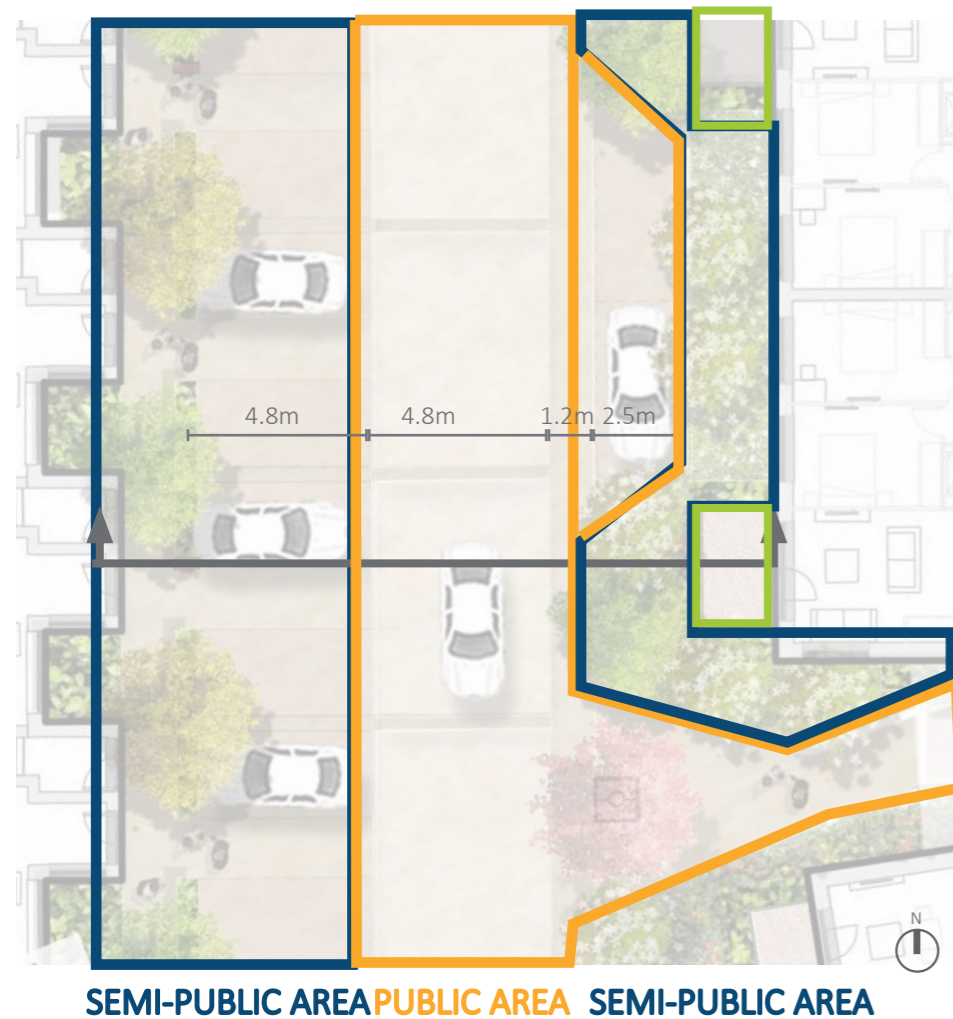
- » Encourage low vehicle speeds;

- » Create an environment in which pedestrians can walk, or stop and chat, without feeling intimidated by motor traffic;
- » Make it easier for people to move around;
- » Promote social interaction.
- » Role in providing an "informal" environment close to home
- » Simple and legible, comfortable and fully accessible design to the visually and physically impaired.

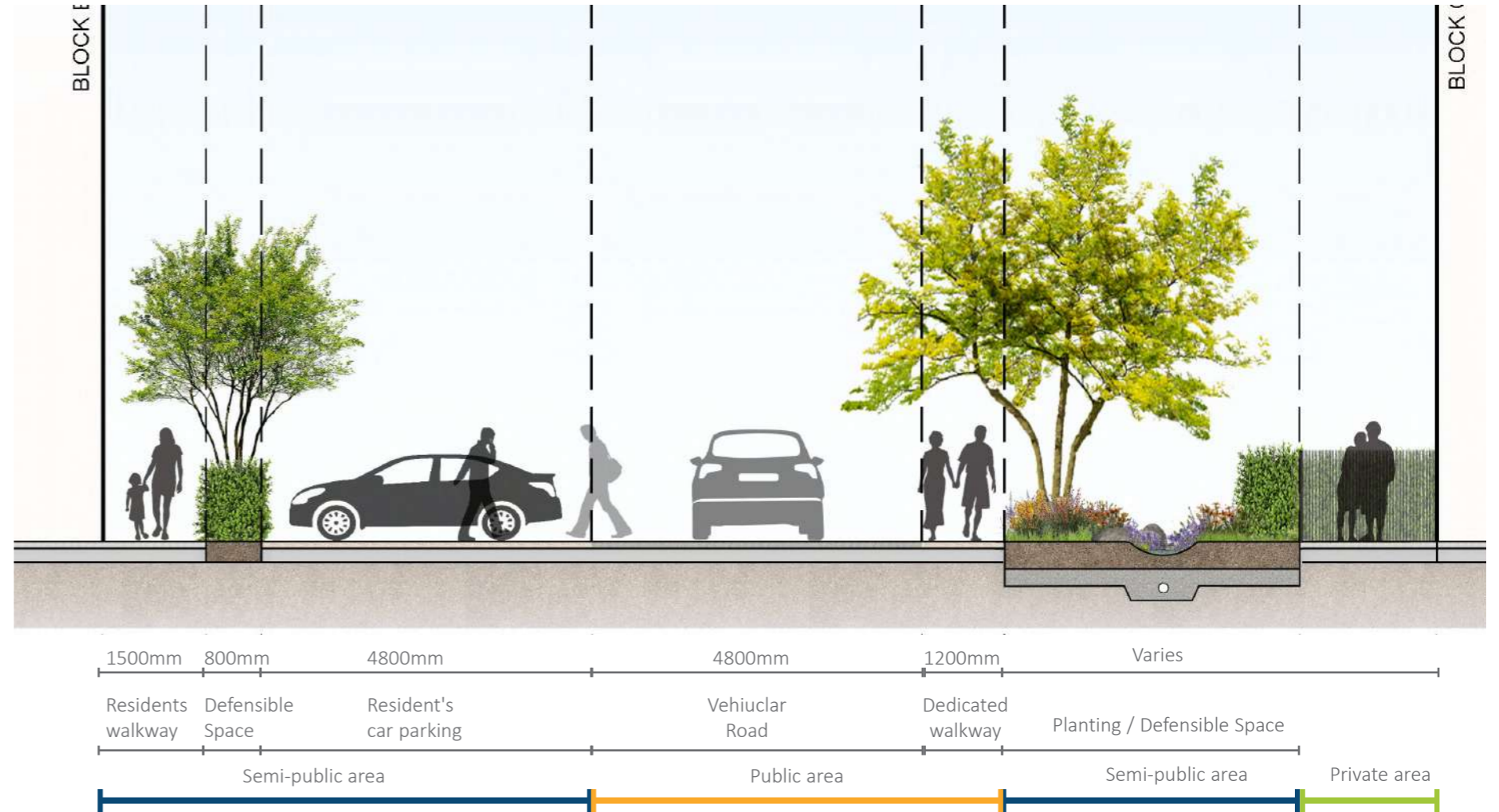
DESIGN AIM:

- » The hardscape surface changing material would minimize the "impression" of a carriageway.
- » Demarcation of uses through different tones of material and the layout appears pedestrianised to drivers and pedestrians alike encouraging pedestrians to use the centre of the space.
- » Flush kerb located adjacent to vehicular movement paths, are used at key locations, particularly pinching the vehicular entrance to the space, to communicate to drivers the sense of a pedestrian priority space.
- » The kerbed separation of footway and carriageway can offer protection to pedestrians

RESIDENTIAL STREET CONCEPT



SECTION



LANDSCAPE STUDIES

PROPOSED STREET NETWORK STRATEGY

A new site access junction is proposed on the R117 Milltown Road to service the proposed development. A signalised toucan crossing has also been designed adjacent to the site access also.

The Milltown Road access will act as the primary site access which leads to the basement car park.

This site access will accommodate the majority of vehicular traffic accessing and egressing from the subject site.

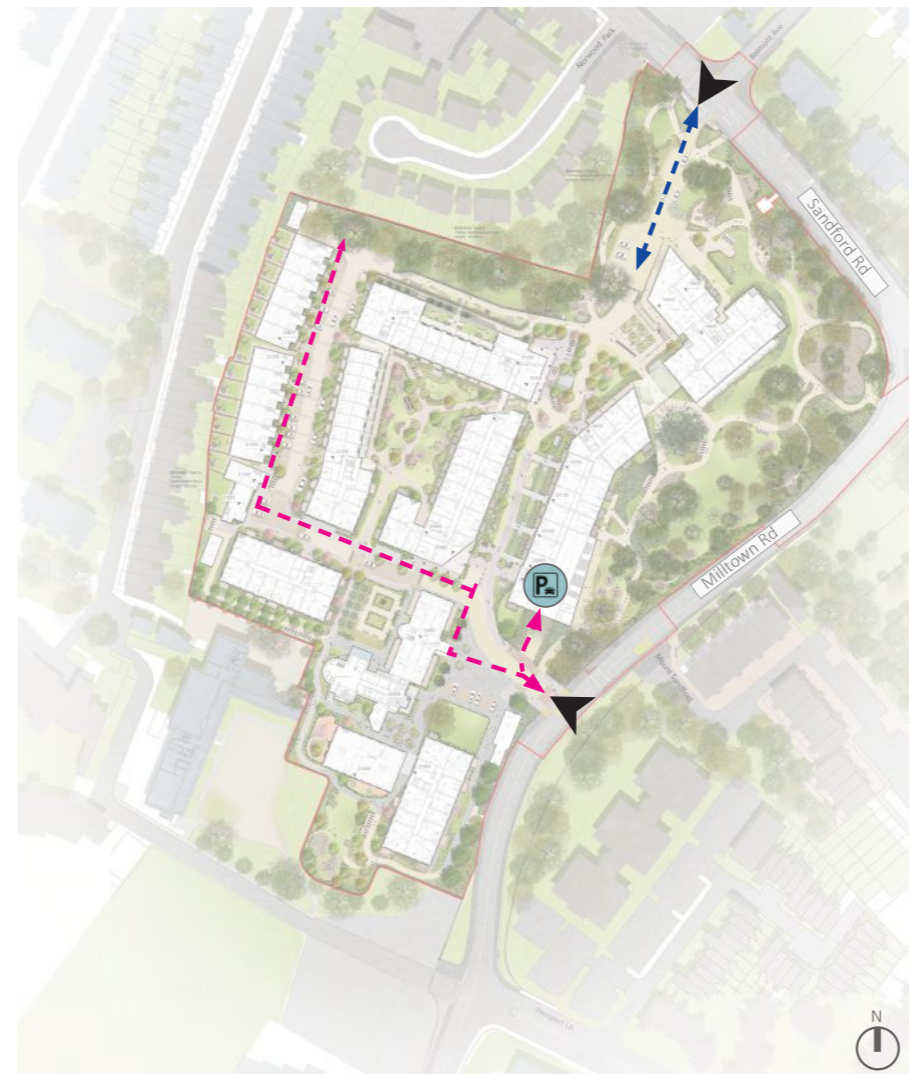
The junction has been sited so as to maximise visibility from the site access in both directions along Milltown Road (R117) whilst also ensuring approximately 110m separation from the existing access to the Jesuit's Milltown Park Facility/Junction with Prospect Lane.

The proposed shared surface will only be accessed by vehicles belonging to residents of Block E of the development, as the remainder of the development car parking will be located within the basement car park. Block E contains 28 no. duplex apartment units (14 no. 2-bed apartments and 14 no. 3-bed apartments), all of which will be Build to Sell (BTS). A trip generation exercise has been conducted to estimate of the likely traffic flows in and out of the proposed development (BTS) during the morning and evening peak hour periods using data from TRICS. Based on the analysis undertaken, the maximum number of vehicles using the shared space in the hour will be 8 no. vehicles.

The shared surface within the proposed development has been designed with reference to the Design Manual for Urban Roads and Streets (DMURS) and as such it has been ensured that vehicles will be driving at 20km/h or less to guarantee the safety of pedestrians and cyclists throughout the shared surface. This analysis also demonstrated that the majority (92 – 96%) of vehicular traffic from the Milltown Road site access uses the basement car park, accessible via a ramp adjacent to the site entrance rather than proceeding further into the development.

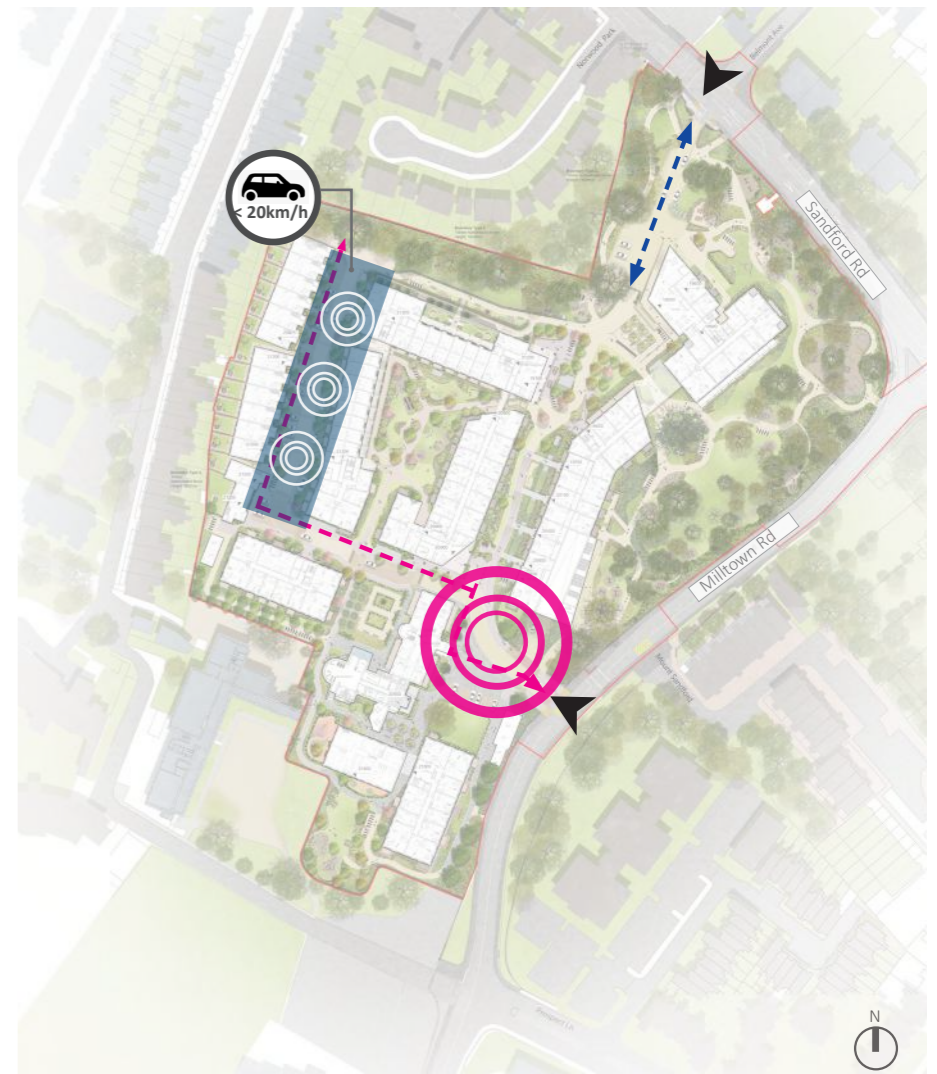
**Further detail can be found in Section 4 of the Traffic & Transport Assessment.*

VEHICULAR MOVEMENT



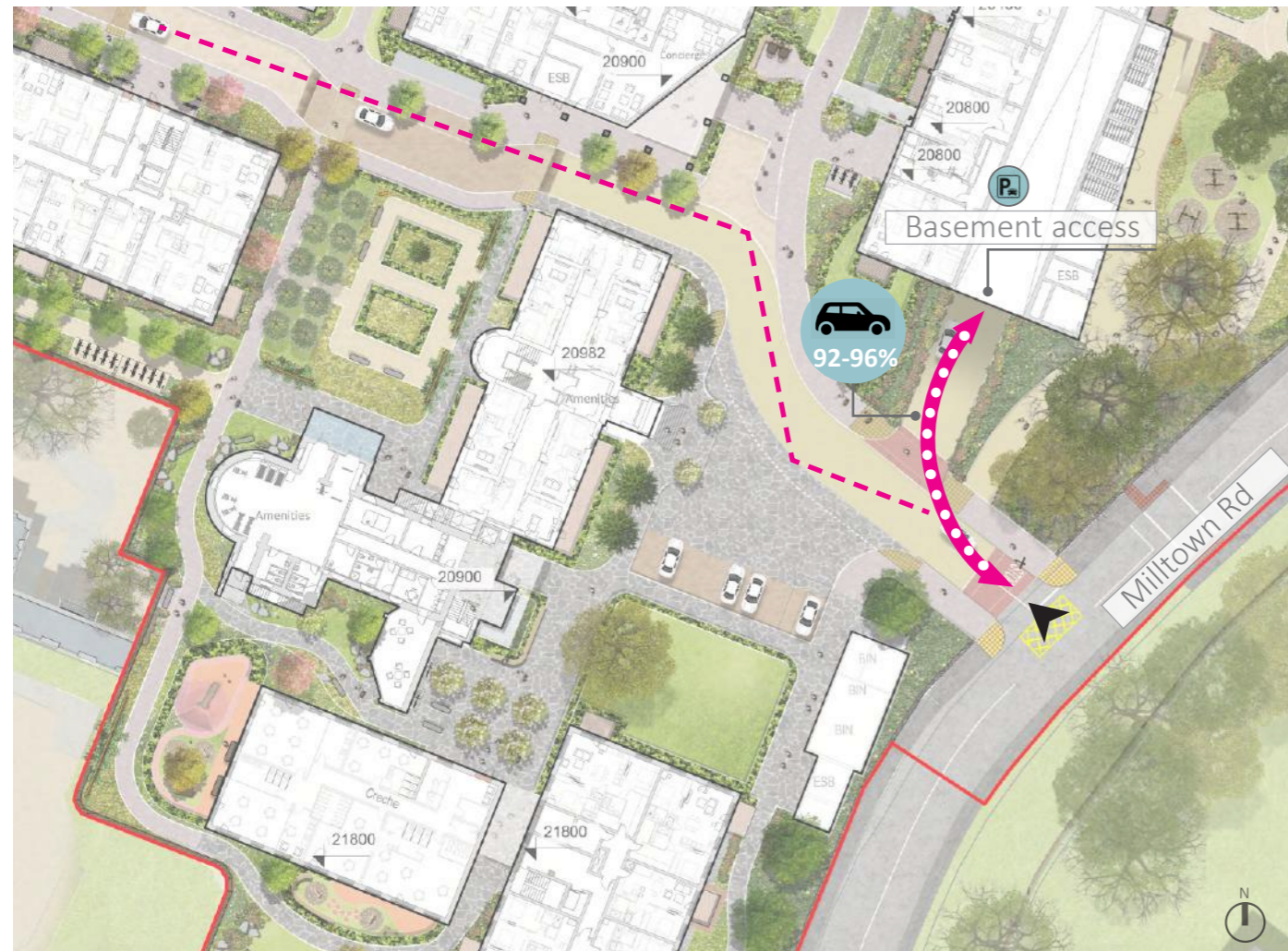
- Vehicular Circulation
- Vehicular Circulation
- Vehicular Access (*Taxi*
Emergency vehicles Deliveries)
- Basement access (accessible via a ramp)

TRAFFIC FLOW

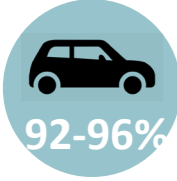





- Shared surface (between block C-E)
- Forecourt vehicular access area from Milltown Rd
- * vehicles will be driving at 20km/h or less to guarantee the safety of pedestrians and cyclists throughout the shared surface
- Majority of vehicular traffic
- Light vehicular traffic

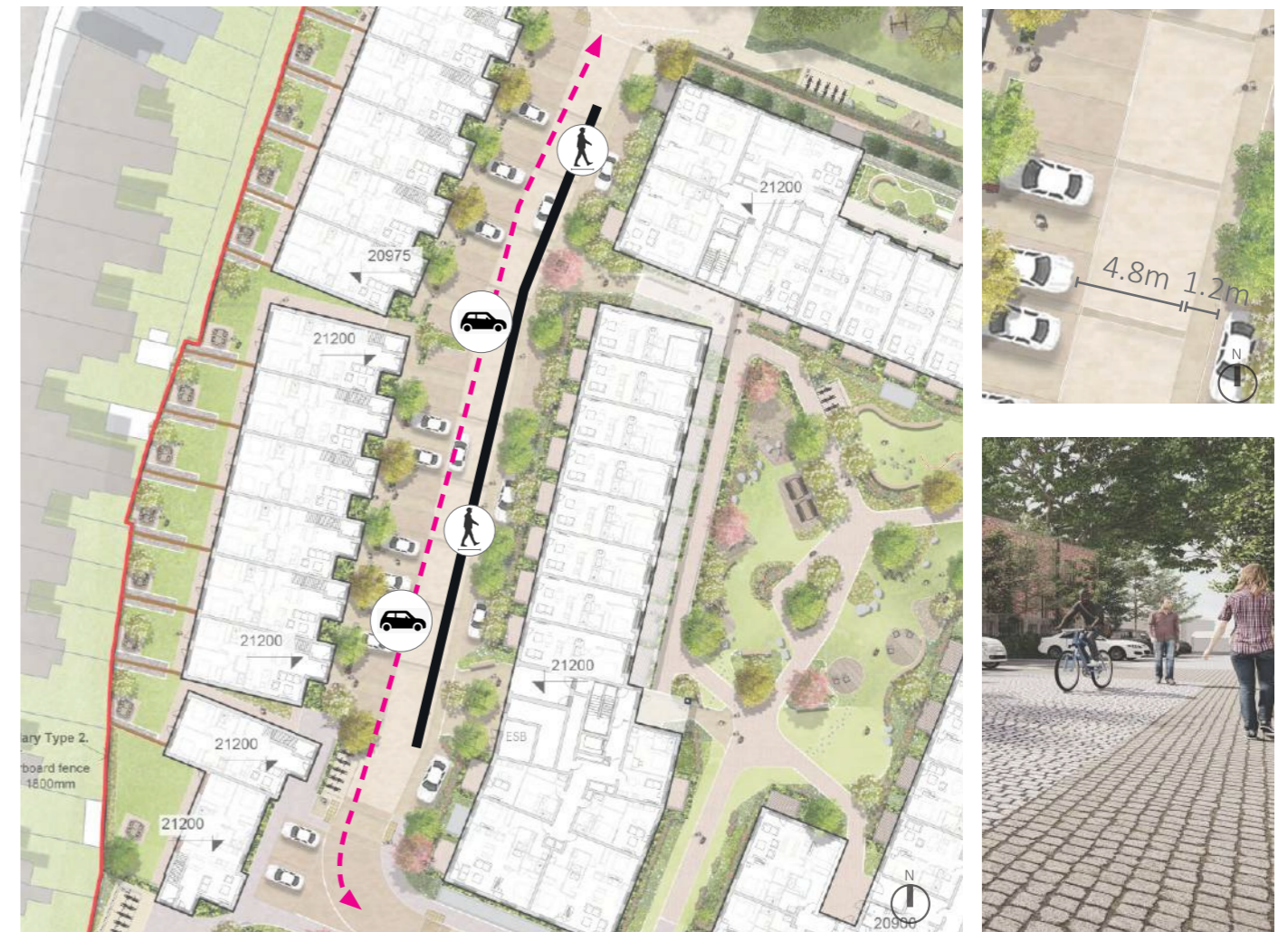
TRAFFIC FLOW- MILLTOWN RD. ENTRANCE






The basement vehicular ramp access will connect with the internal street network via a priority junction immediately east of the Milltown Road site access thereby decreasing the volume of traffic using the internal street network and creating an environment that is highly accessible, safe and attractive for pedestrians rather than being dominated by vehicular movements.

-  *Of vehicular traffic from the Milltown Road site access uses the basement car park (rather than proceeding further into the development)
-  Basement access (accessible via a ramp)
-  Vehicular movement via basement ramp
-  Vehicular movements

TRAFFIC FLOW- HOME ZONE, BLOCK E AND C



The shared surface area to the west of the subject site will be a 4.8m wide shared carriageway with a 1.2m buffer strip for pedestrian use if required but the low volume and speeds of traffic movements will render this section of the internal street network appropriate for shared use by pedestrians/cyclists and vehicles. This section of the proposed street network has been designed to place pedestrians and cyclists at the top of the hierarchy of road users in accordance with the principles of DMURS.

-  *Maximum number of vehicles using the shared space in the hour.
 -  1.2m buffer strip for pedestrian use
 -  4.8m wide shared carriageway
- * Refer to DBFL, Traffic and Transport Assessment.

ACCESS TO THE SITE ENTRANCE FROM SANDFORD ROAD



Shared surface principally for: Separated footway (2000mm)

- Taxi
- Emergency vehicles
- Deliveries
- Pedestrians

A shared route provides the main access for all users, with separate footpaths through parkland offering optional routes away from vehicle movements. (Vehicle numbers will be very low and infrequent.)



ENTRANCE FROM MILLTOWN ROAD



Principal Vehicular Access for: Shared pedestrian (3000mm)

- Residents
- Crèche users
- Visitors
- GoCar
- Emergency vehicles
- ESB Service Access
- Cyclist
- Pedestrians



ENTRANCE FROM SANDFORD/ MILLTOWN ROAD JUNCTION



Shared pedestrian (2000mm)

- Cyclist
- Pedestrians



LANDSCAPE STUDIES

VEHICULAR CIRCULATION CAR PARKING LOCATION



- Existing Parkland
- Existing Chapel + Tabor House
- Vehicular Circulation
- Vehicular Access
- Car parking
- Basement access, (accessible via a ramp)
- Disable Parking
- Set down

CAR PARKING PROVISION

- 31 No. Standard car parking
- 4 No. Disable Parking
- 4 No. Set-down Parking
- 5 No. GoCar
- 2 No. Taxi space
- 3 No. Crèche parking

49No. + 295No. = 344No.

Surface Car parking Basement car parking Overall parking spaces



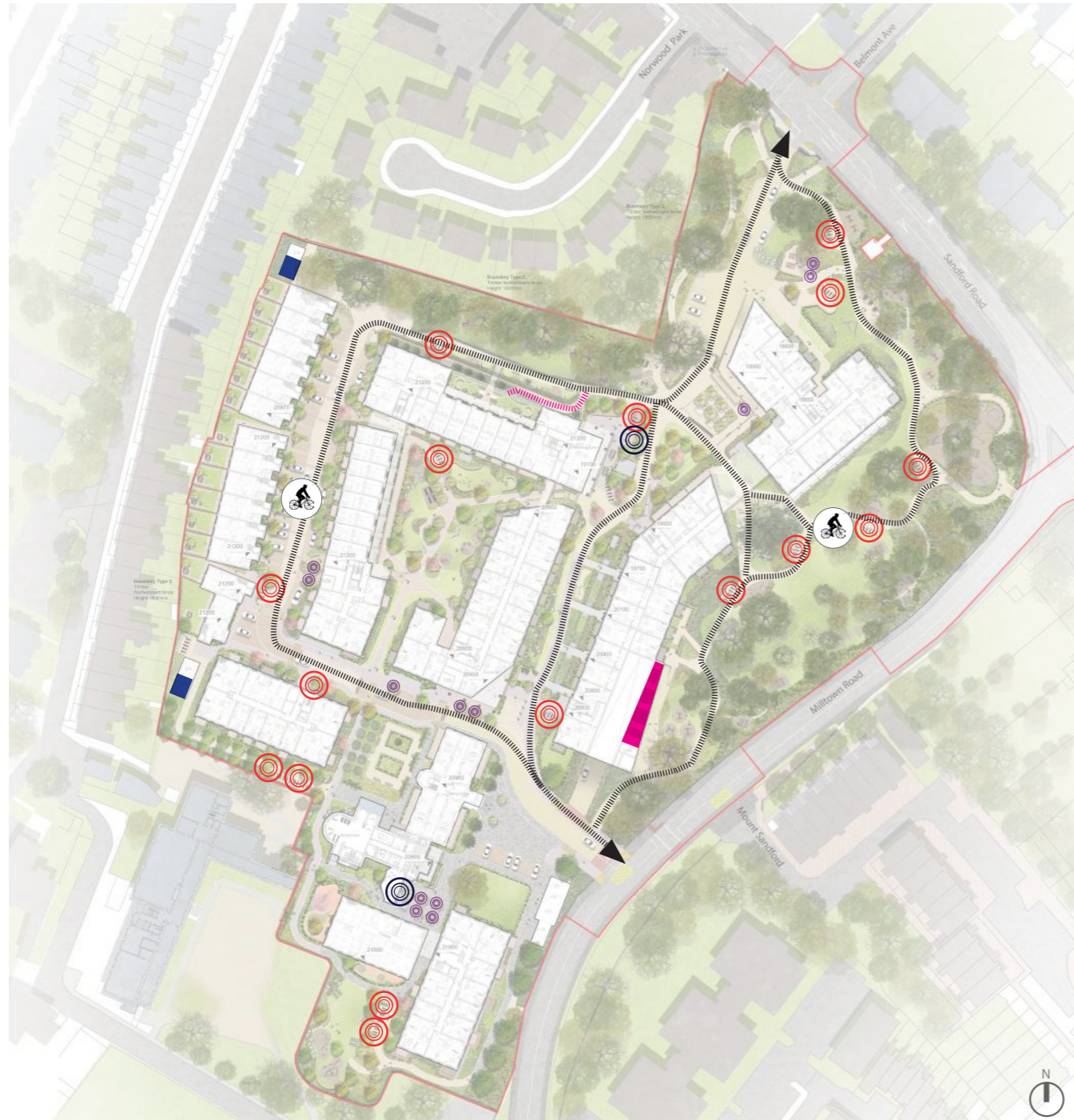
- 3No. Disable Parking
- 2No. Taxi set-down
- 2No. Set-down






- 3No. Standard Parking (for chèche users)
- 1No. Disable parking
- 2No. Set-down



CYCLE CIRCULATION AND CYCLE SPACE LOCATION



-  Proposed Cycle Route with wider area
-  Cycle ramp to the Basement
-  Bike storage at ground level (Double stacked, open access to visitors)
-  Bike storage at ground level (Single stacked, open access to visitors)
-  Standard sheffiled stands
-  Sheltered Standard sheffiled stands
-  Cargo bike stands

CYCLE PARKING PROVISION

Surface Level (All accessible by visitors/crèche)

Basement (secure spaces)

- 206 No.** Sheffiled stands (90No. sheltered by structure or by the overhang of buildings and 58 No. proximate to trees, including n°4 cargo spaces) + **1001No.** Double stacked and secure (secure spaces in the basement including 5 No. cargo. The spaces will be double stacked except for the cargo spaces)
- 114 No.** Double stacked, open access to visitors. The spaces are located in GF of A2 accessed from the parkland public open space
- 40No.** Single stacked, open access to visitors. enclosed to the north and south of Block E.

TOTAL PROVISION 1,361 NO. SPACES

360No.

At Surface (incl n° 4 cargo bike)

1001No.

At basement level (incl n° 5 cargo bike)

The accessibility to, and secure storage of, bicycles is a key concern for apartment residents and apartment proposals must respond accordingly to the requirements below in their design and provision of cycle storage facilities.

Provision, based on Apartment Guidelines :

A general minimum standard of 1 cycle storage space per bedroom/studio has been applied. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units.

PRINCIPLES APPLIED:

- » Residents' cycle parking should be in a secure and sheltered location.
- » Near the building.
- » Lockable cage or gated area.
- » Sheltered

LANDSCAPE STUDIES

TYPE OF CYCLE PARKING

Cycle parking must be usable by all, easily maintained and allow for both wheels of a bicycle to be locked to the stand. The size for a Sheffield stand is 700-800mm long by 750mm above ground. When provided in area open to the public, the first and last stands must be fitted with a tapping rail and reflective visibility bands for the benefit of the visually impaired.

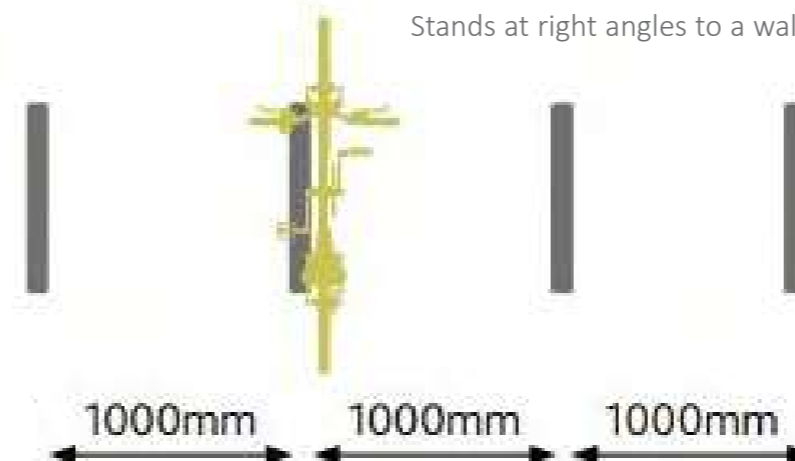
PRINCIPLES APPLIED:

- » Benefits of Sheffield stands:
- » Understood by users
- » Good support
- » Easy to use
- » Two bicycles can be locked to a stand
- » Accessible from both ends
- » Cost-effective
- » Low maintenance
- » Can lock both wheels

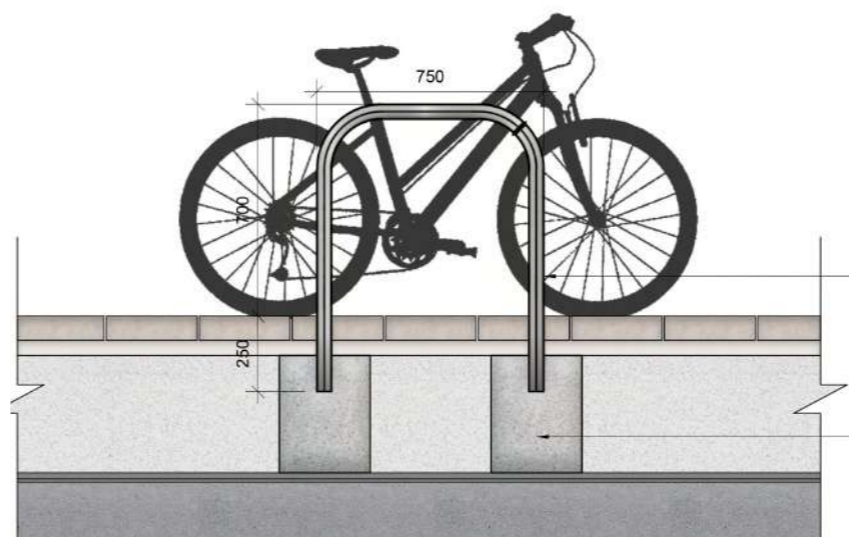
Furniture Type 2.: Cycle stands, sheffield
 Supplier: Marshalls or Similar Approved
 Size: 750x750x48.3 mm

SPACING IN BETWEEN SHEFFIELD STANDS

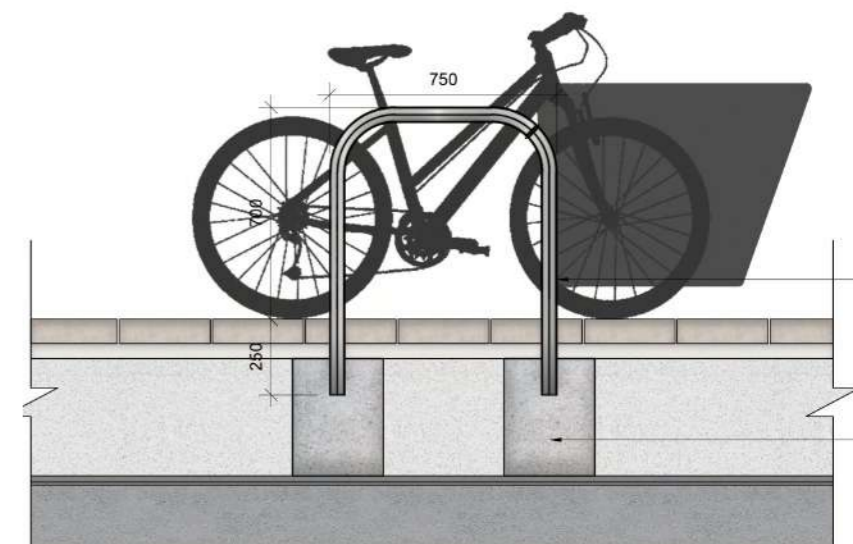
Stands at right angles to a wall



STANDARD CYCLE PARKING



CARGO BIKE PARKING



Cargo bike: Generally up to 2500mm long, 1000mm wide.



SHELTERED STRUCTURE



LANDSCAPE STUDIES

POTENTIAL FUTURE CONNECTIVITY

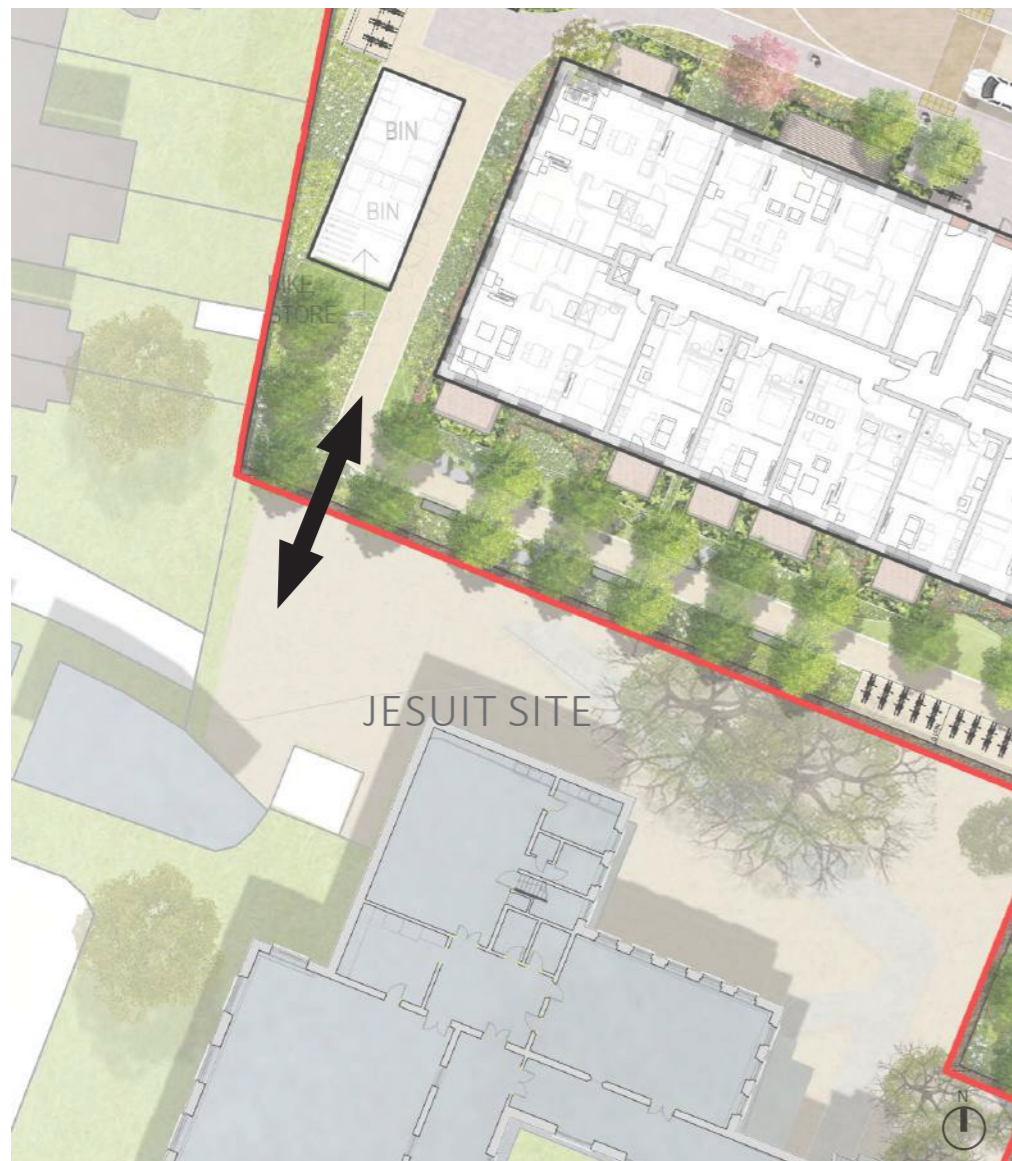
To the south of the Sandford Road site is a neighbouring area which may provide the opportunity for footpath connections to continue between the sites.

The design of Sandford Road makes provision for these future connections. It is anticipated that some form of gated access would be implemented.

↔ Potential future connectivity






BOUNDARY WALL/ POTENTIAL GATE, TYPICAL DETAIL

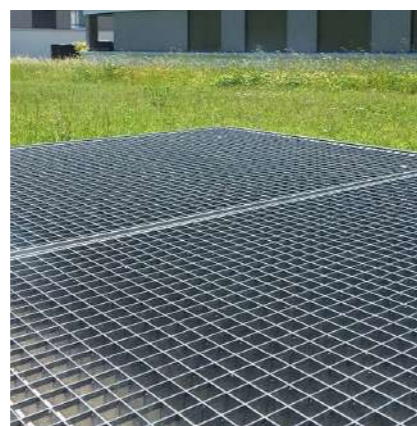


VENTILATION STRATEGY




Precedents ventilation grill


-  Elephant grill provided
-  Opening Area
-  Basement outline



VENTILATION REQUIREMENT

The courtyard has been designed with the idea to accommodate a certain amount of ventilation structures needed to guarantee the air circulation from the car parking located on the floor below.

 **Parking area (basement) dimension**
Parking Area 7,781 sqm

 **Ventilation grill provided**
Vent area: 251.44sqm



Opening Area on the back of Block C



DEFENSIBLE SPACE STUDIES



DEFENSIBLE SPACE PROVIDE AROUND THE GROUND DWELLINGS

This section of the report illustrates the various threshold across the scheme and how these will be addressed from a landscape perspective.

Private amenity space to ground floor units is typically located along the perimeter of blocks. The minimum width of this private zone is 1.5 metres, with additional hedge planting to maximise privacy. This planting will be a continuous defensible edge to the courtyard perimeter, which ensures privacy to all ground floor apartments. Generally, this takes the form of an hedge to provide a clear boundary definition between private and communal/public spaces.

The sections illustrate the various treatments of the defensible spaces as keyed-out on the plan opposite. The general approach has been driven by softscape arrangement, and the use of planting as key feature and defining element to the defensible edges. The aim has been to create a safe yet aesthetically pleasing buffer, that is functional, allowing residents to use the spaces, whilst ensuring residential privacy without compromising views from the internal spaces. The result introduces a range of shrub and herbaceous planting that offers seasonal change and interests, creates a natural barrier and offers an attractive outlook from within the apartments.

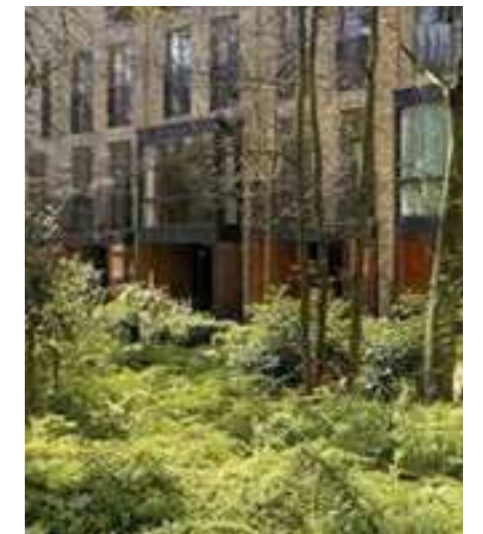
DESIGN PRINCIPLES:

- » Avoid direct views into private areas or dwellings.
- » Discourage people from congregating in front of private dwellings.
- » Create an attractive view from the internal space.
- » Increase the quality of the scheme with a strong relation between the internal and external environments.
- » Enhance bio-diversity

DEFENSIBLE SPACE TREATMENTS IN FRONT OF THE PRIVATE BALCONY



DEFENSIBLE SPACE TREATMENTS IN FRONT OF THE GROUND WINDOWS



DEFENSIBLE SPACE AT UPPER FLOORS

On the block A1, A2 and C, adjacent to the own access units located on the upper floors a set back of the building facade has been provided. This setback will accommodate the defensible space along the gantry corridor. An evergreen hedge within a raised planter will screen views into the units and provide privacy for the residents. An indicative section is shown on the right of the page.

TYPICAL DETAIL

- ↑ Dwellings access
- Evergreen hedge raised planter



PRECEDENT



FIRE TRUCKS MOVEMENTS



Refer to DBFL drawing: 190226-DBFL-RD-SP-DR-C-1002

PROPOSED REINFORCED GRASS SYSTEM

The scheme requires the fire tender route circulation to be as shown on the diagram. Predominantly where the fire tender would run through the residential areas, such as the boulevard between the Blocks A1 and B and the Courtyard within the Blocks B and C, a reinforced natural grass has been proposed. These areas, on podium, require trafficable reinforced natural grass in order to stabilize the ground where fire vehicles access is required. This allows a wider area of green space, rather than material such as block paving or plastic cellular paving.

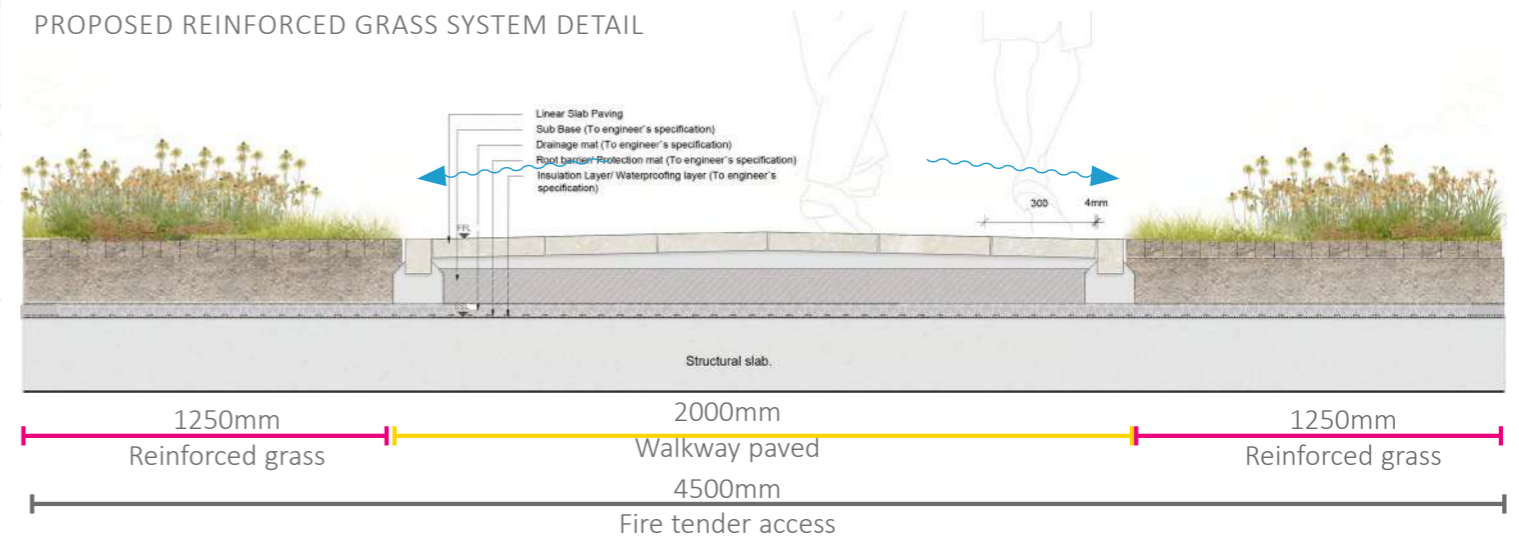
Typical build-up
Mesh element interlock with specially blended rootzone providing a grass reinforcement solution



KEY ELEMENTS / CHARACTERISTICS:

- » No visible structures or trip hazards
- » Aesthetically enhances the design

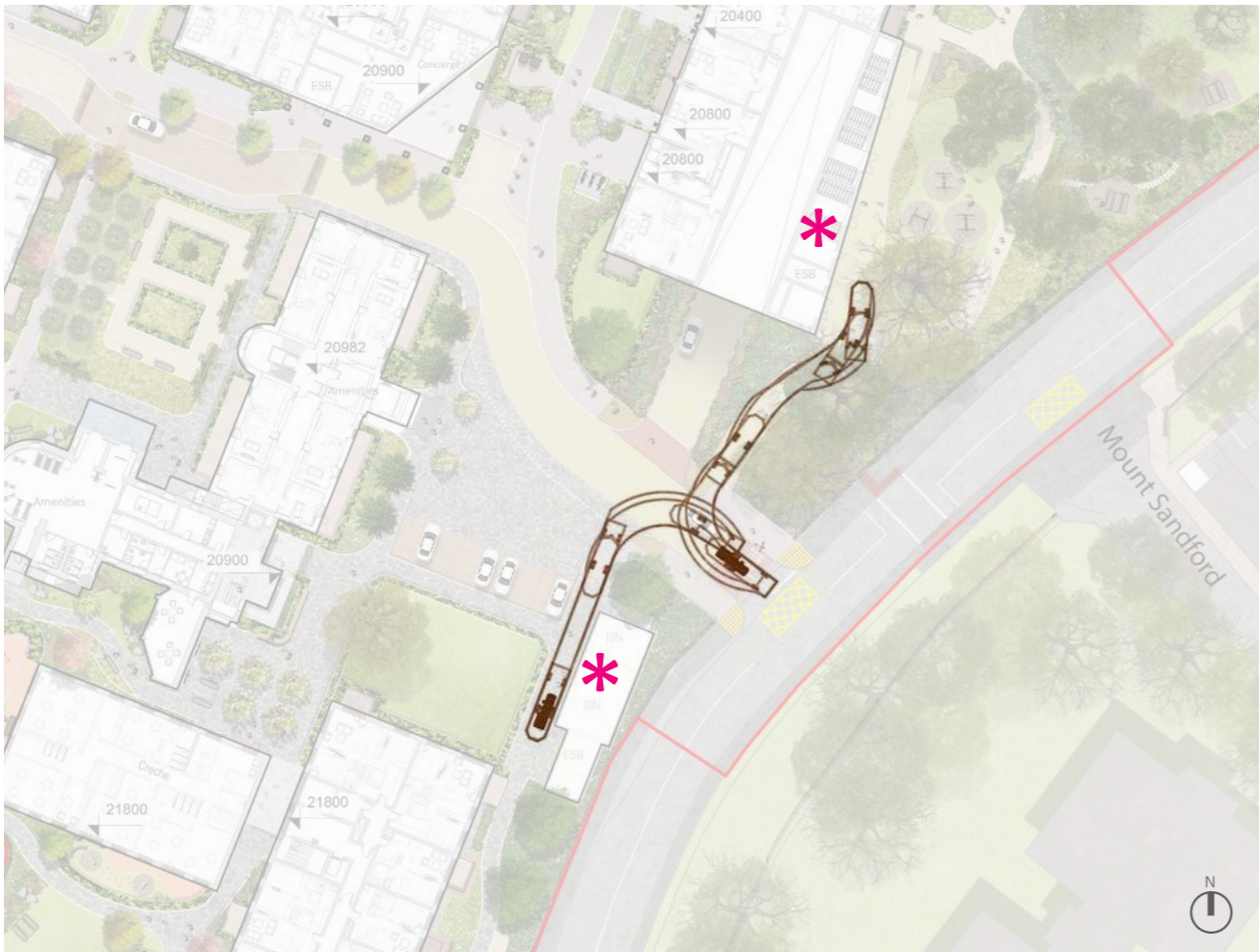
PROPOSED REINFORCED GRASS SYSTEM DETAIL



ESB MOVEMENTS



* ESB Location



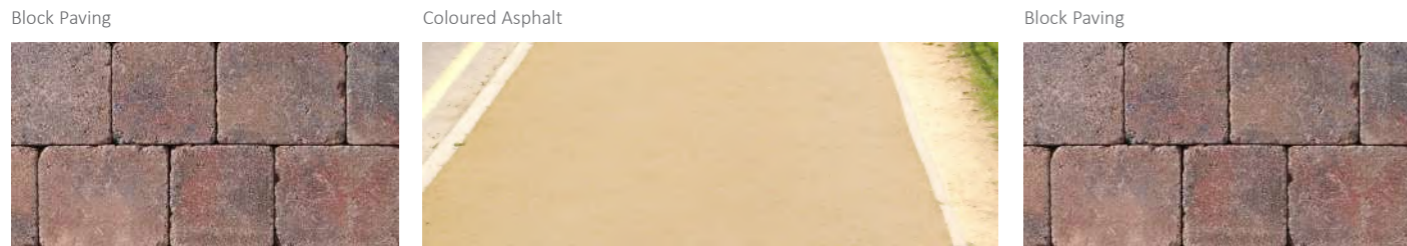
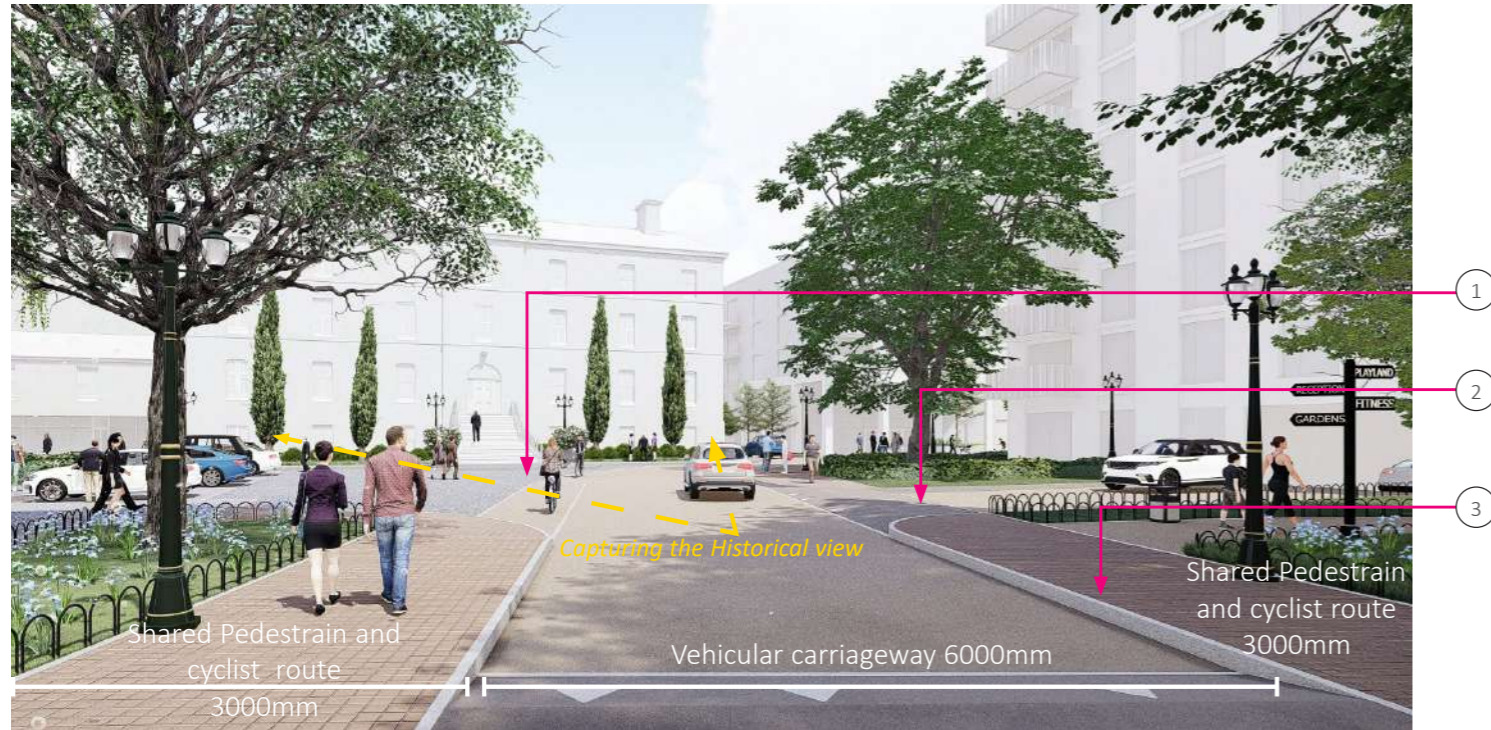
* ESB location

The ESBs location have been located at ground level.
 The access to the substation would be rich from Milltown Rd. Vehicular access would be allow at any time of day or night.
 The route provided is 3.5m width in order to facilitate the installation or replacement of heavy electrical equipment.

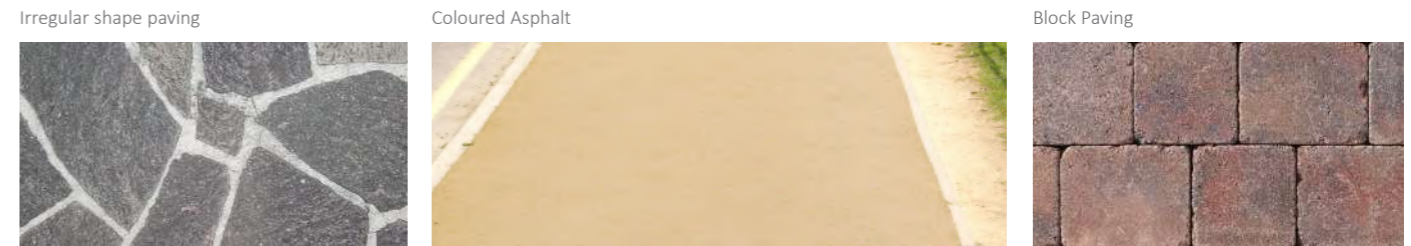
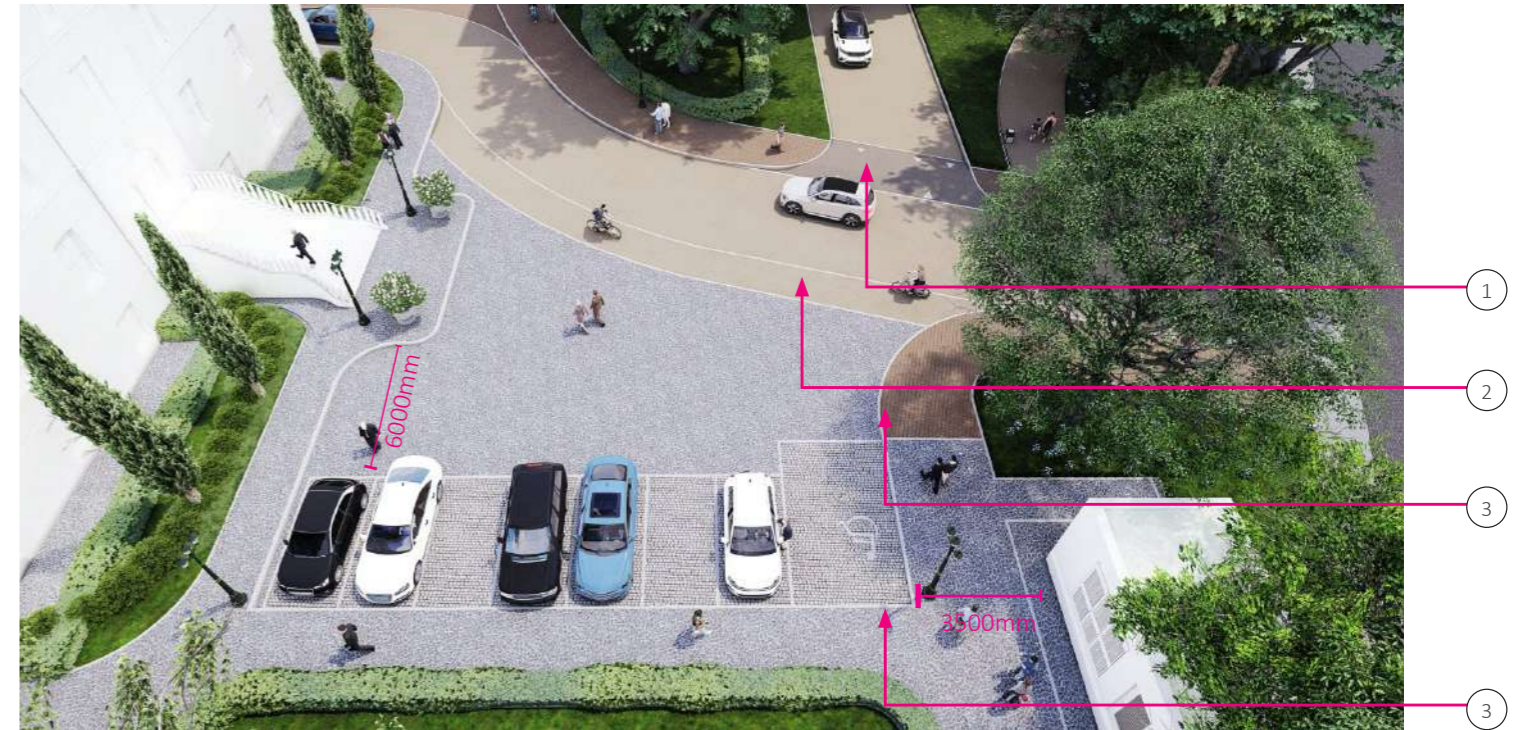
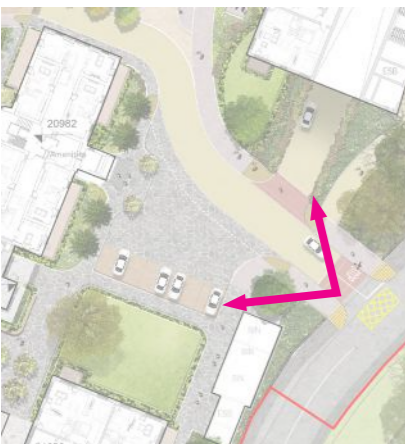


1. Dropped kerb
2. Raised kerb
3. Change in surface materials(highlight demarcation of pedestrian zone through paving materials)
4. Raised Table/Pedestrian Crossing

TABOR HOUSE STREET STUDIES



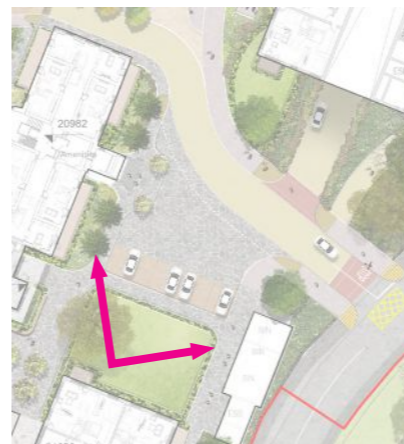
1. Highlight demarcation of pedestrian zone through paving materials
2. Raised Table/Pedestrian Crossing
3. Raised kerb



1. Raised Table/Pedestrian Crossing
2. Highlight demarcation of pedestrian zone through paving materials
3. Raised kerb

CAR PARKING PROVISION

- 3No.** Car parkings (Crèche users)
- 1No.** Disable Parking
- 2 No.** Set-down Parkings



HARDSCAPE STRATEGY

HARDSCAPE STRATEGY

This diagram has been developed to outline the types of pavings proposed for the scheme.

The hard landscape elements had been carefully selected to enhance the space.

High quality elements will help to create a positive, inclusive and inspiring environment, where people feel comfortable to walk through, sit, contemplate and enjoy the landscape setting.



- PT1
- PT2
- PT3
- PT4
- PT5
- PT6
- PT6a
- PT7
- PT8
- PT9
- PT10
- PT10a
- PT11
- PT12
- PT13
- PT14
- PT14a
- PT17

PAVING PALETTE

Paving Type 1. Product: Concrete Block Paving

Supplier: Tobermore or Similar Approved
Size/Colour: 240x160x80mm/Heather or s.a



Paving Type 2. Product: Concrete Block Paving

Supplier: Tobermore or Similar Approved
Size/Colour: 240x160x80mm/Golden



HARDSCAPE STRATEGY

PAVING PALETTE

Paving Type 3. Product: Ground Concrete Flags.
Supplier: TBC
Size/Colour: 450x450x63mm/Silver grey



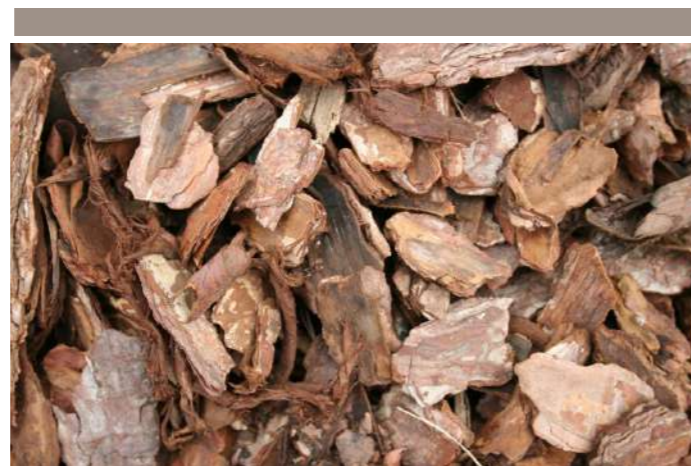
Paving Type 6a. Product: Colored asphalt with red chipping
Supplier: Duracolour or Similar Approved
Colour: Red or Similar Approved



Paving Type 4. Product: Self Binding Gravel
Supplier: Breedon Aggregates
Colour: Golden Amber Gravel



Paving Type 7. Product: Play Woodchip mulch
Supplier: TBC



Paving Type 5. Product: Netlon Advanced turf, Reinforced grass
Supplier: ABG or Similar Approved



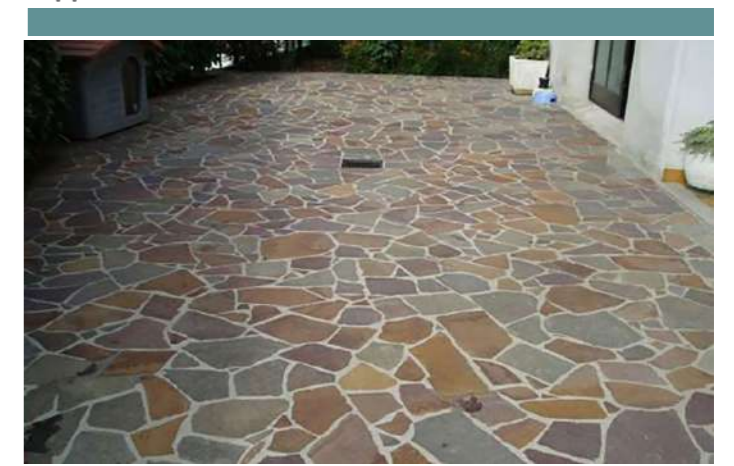
Paving Type 8. Product: Timber decking
Supplier: TBC
Colour: TBC



Paving Type 6. Product: Colored asphalt
Supplier: Duracolour or Similar Approved
Colour: Beige



Paving Type 9. Product: irregular shaped granite paving
Laying pattern: Opus Incertum
Colour: Mid grey
Supplier: TBC



PAVING PALETTE

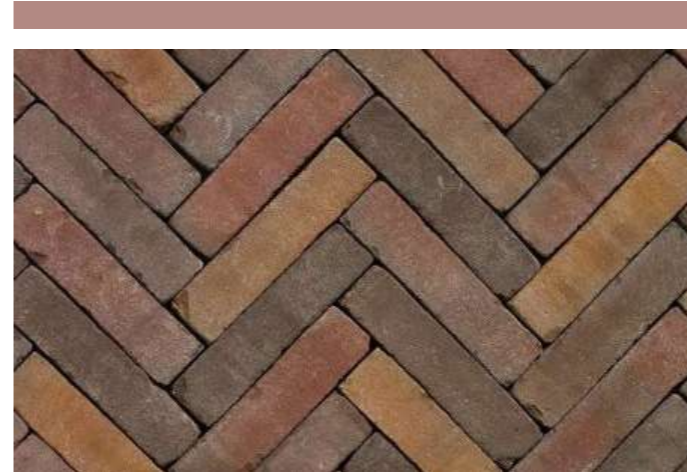
Paving Type 10. Product: Concrete Block Paving
 Supplier: Tobermore or Similar Approved
 Size/Colour: 240x160x80mm/ Bracken



Paving Type 10a. Product: Concrete Block Paving
 Supplier: Tobermore or Similar Approved
 Size/Colour: 240x160x80mm/ Cedar



Paving Type 11. Product: Clay Brick Paving
 Supplier: Wienerberger or Similar Approved
 Colour: Red



Paving Type 12. Product: Blister Tactile Paving
 Supplier: Tobermore or Similar Approved
 Size: 400x400x50mm. Colour: Buff



PT12a: Tactile Paving
 To Engineers specification



Paving Type 13. Product: Wet pour safety surface
 Supplier: TBC & Colour: Varies



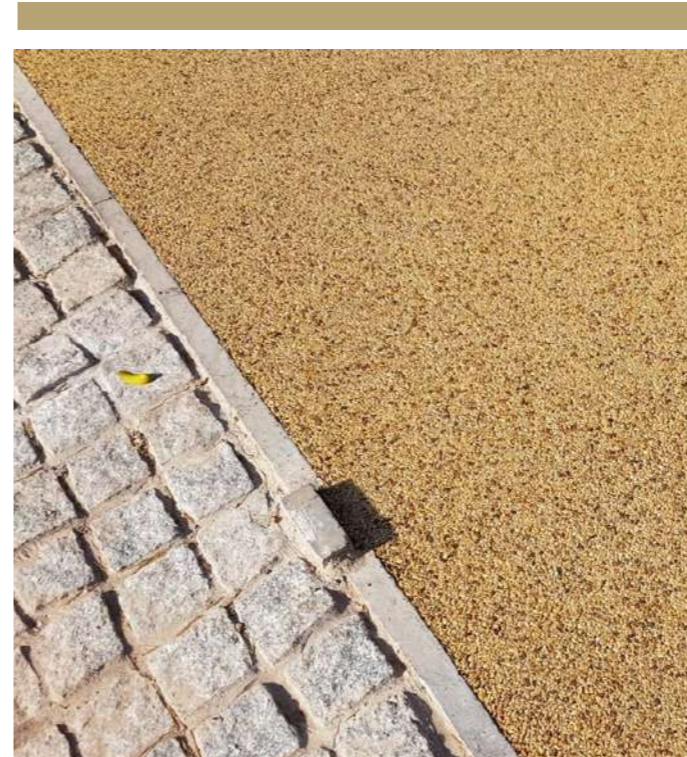
Paving Type 14. Product: Natural Stone Stepping Stone
 Colour: Buff
 Size: Approx 400-800x80mm
 Supplier: TBC



Paving Type 14a. Product: Stepping Stone
 Colour: TBC
 Size: Approx 300-600x80mm
 Supplier: TBC



Paving Type 15. Product: Granite Setts
 Size/ Colour: 100x100x80mm/ Silver grey
 Supplier: TBC

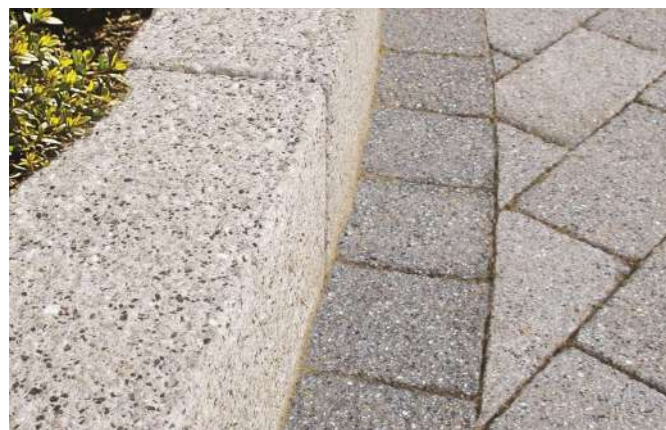


Paving Type 17. Product: Gravel
 Supplier: CED or Similar approved
 Colour: TBC



EDGING PALETTE

Edge Type 1. Product: Conservation Kerb
Supplier: Marshalls or Similar Approved
Size/Colour: 145x255x915mm./Silver Grey



Edge Type 2. Product: Flush Conservation Kerb
Supplier: Marshalls or Similar Approved
Size/Colour: 125x150x450mm./Silver Grey



Edge Type 3. Product: Drop Conservation Kerb
Supplier: Marshalls or Similar Approved
Size/Colour: 255x100x915 /Silver Grey



Edge Type 4. Product: Aluminum Edging
Supplier: Kinley or Similar Approved
ExcelEdge AluExcel 75mm Edging, flexible.

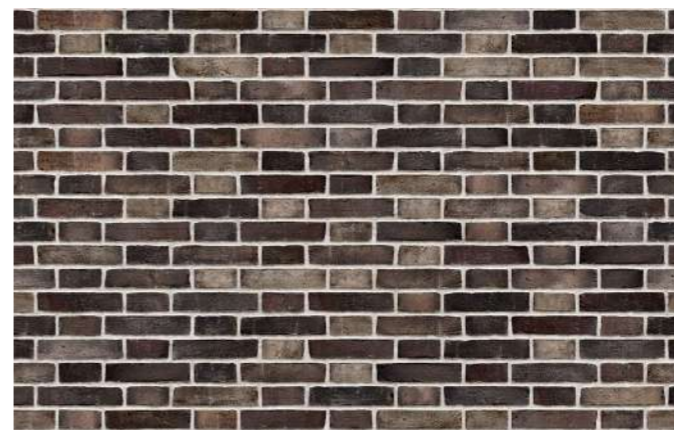


Edge Type 5. Product: Timber edge
Pressure treated softwood
Size: 50x150mm, flush
Supplier: TBC

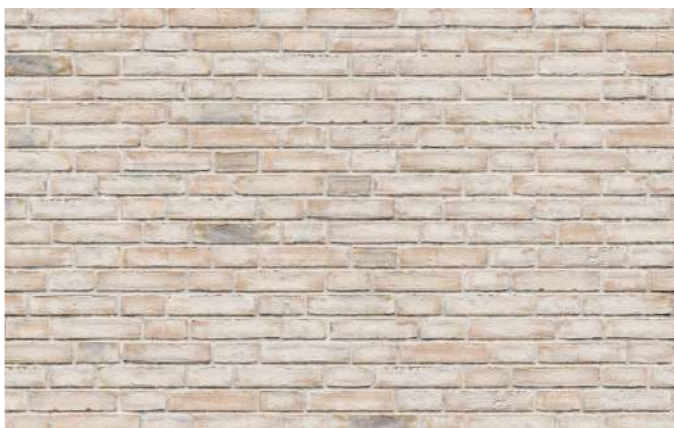


LOW WALLS

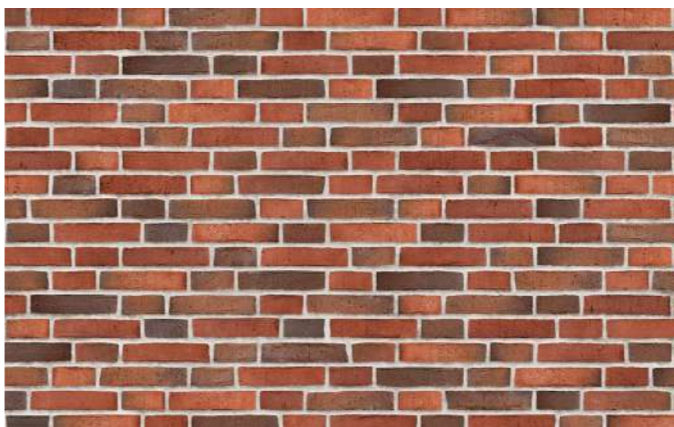
Wall Type 1. Product: Retaining Wall (Staircase)
Brick clad retaining wall.
To match architectural brickwork



Wall Type 2. Product: Retaining Wall (Back Block C)
Brick clad retaining wall.
Colour: To match architectural brickwork.
To engineers specification



Wall Type 3. Product: Retaining Wall (Plaza)
Colour: To match architectural brickwork.
Height: Varies
To engineers specification

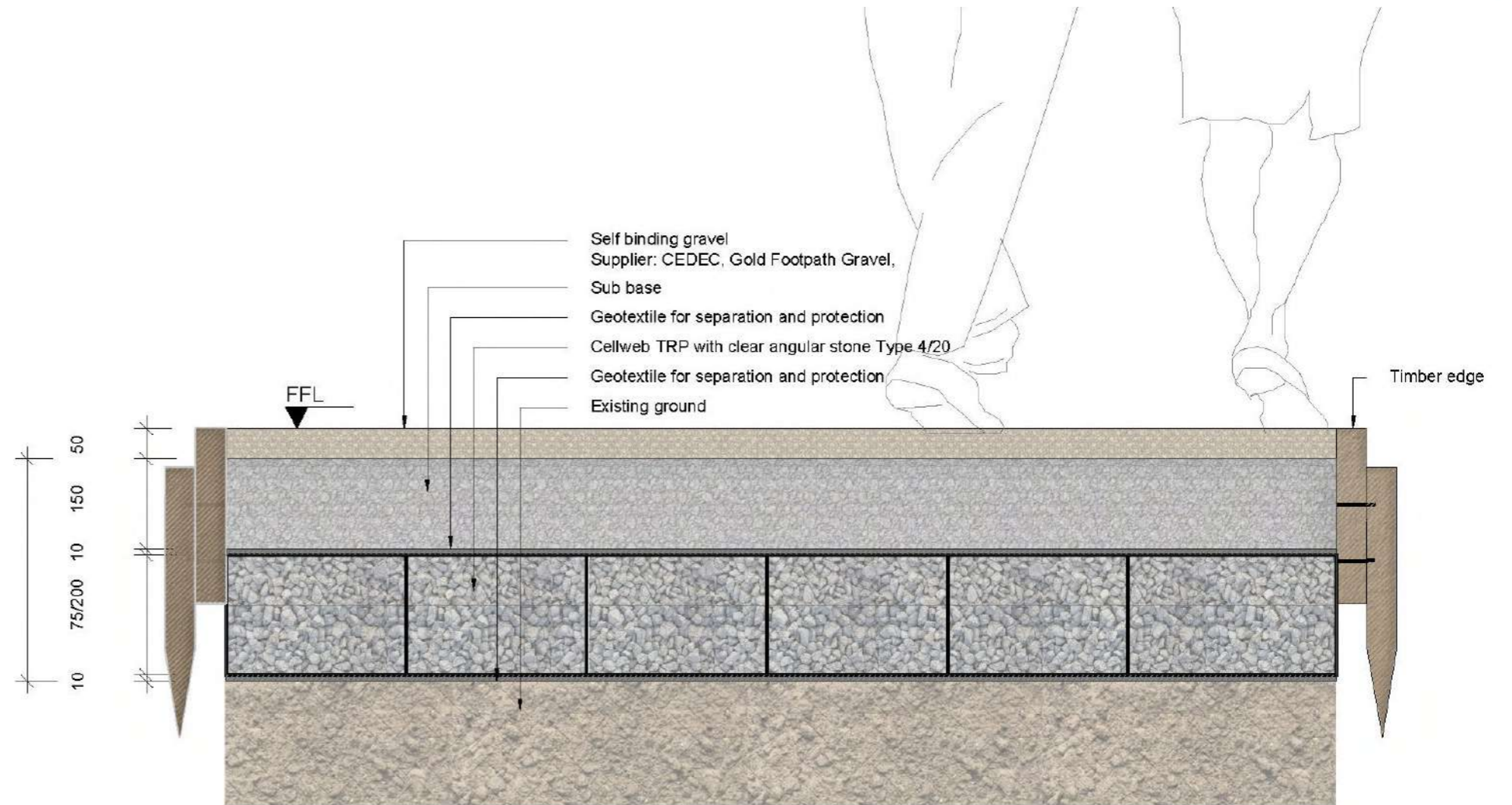


HARDSCAPE STRATEGY

HARDSCAPE STRATEGY WOODLAND AREA



To engineers specification





















HARDSCAPE STRATEGY

FURNITURE STRATEGY

Furniture and features are carefully selected to enhance the space without cluttering the garden. Through careful spatial planning, the selected furniture and features will enrich the space and provide opportunities for residents to enjoy the space and feel connected with the surroundings.

The design and placement of elements will respond to the architecture through sympathetic, appropriate and consistent materials, textures and scales. High quality elements will help to create a positive, inclusive and inspiring environment, where people feel comfortable to walk through, sit, contemplate and enjoy the landscape setting.

KEY:

-  FT0: Elephant Grill
-  FT1: Recessed tree grill
-  FT2: Cycle stands
-  FT2a: Sheltered structure
-  FT3: Cube Seat
-  FT4: Picnic table
-  FT5: Handrail
-  FT6: Removable Bollards
-  FT7: Curved bench
-  FT8: Bench
-  FT9: Chain link fencing
-  FT9a: Garden border fence
-  FT10: Mild Steel Railing
-  FT11: Vertical structure
-  FT12: Children play equipment
-  FT13: Fitness equipment
-  FT14: Table with chairs
-  FT15: Ornamental Rocks



FURNITURE STRATEGY

Furniture Type 0: Elefant ventilation grill

Size: Varies
Material: Mild Steel (PPC)
Supplier: Kent or Similar Approved



Furniture Type 3. Cube seat

Size: 500x500x450mm
Material: Reconstituted concrete
Colour: Etched Grey
Supplier: TBC



Furniture Type 1: Recessed tree grill

Supplier: GreenBlue Urban or Similar Approved
Size: 1200x1200mm.
Material: /Stainless Steel



Furniture Type 4. Picnic table

Size: 1900x2000m,
(Table Height 665mm- Seating Height 425mm)
Material: Treated Natural Wood
Supplier: TBC



Furniture Type 2.: Cycle stands

Product: Sheffield
Supplier: Marshalls or Similar Approved
Size/Material: 750x750x48.3m
(HxLxW)/Stainless Steel
Size: 750x750x48.3 mm



Furniture Type 5. Handrail to steps

Mild Steel to match architectural balustrades
Colour: To match architecture balustrades



Furniture Type 2a.: Sheltered structure for cycle stands

Supplier: TBC



Furniture Type 6: Removable Bollards

Product: GEO
Size/Material: 102x1100 mm.316 stainless steel body & cap.



HARD LANDSCAPE STRATEGY

FURNITURE STRATEGY

Furniture Type 7: Curved bench

Supplier: Rought&Ready or Similar Approved
 Colour: IFC Hardwood
 Size: 500x Variesx 700mm



Furniture Type 8: Bench

Notional only. Client to confirm preferred product



Furniture Type 9. Garden border fence

Height: max. 300mm
 Supplier: TBC



Furniture Type 10: Mild Steel Railing

Colour& Design to match Architectural balustrade
 Heights: FT10a 1500mm FT10b 1100mm



Furniture Type 11. Vertical structure, support for espalier trees

Material: Timber
 Supplier: TBC



Furniture Type 12. Children play equipment

Refer to the following pages
 Supplier and equipment: Varies



Furniture Type 12. Fitness equipment*

Refer to the following pages
 Supplier and equipment: Varies



Furniture Type 13. Table with chairs

Notional only. Client to confirm preferred product.



Furniture Type 14. Ornamental Rocks

Material: Granite
 Size: Approx:1000x1000x 500mm
 Supplier: TBC



Furniture Type 15. Raised planter Edge

Material: Mild Steel (PPC)
 Height: 450mm
 Supplier: Logic or Similar Approved



SOFTSCAPE STRATEGY

SOFTSCAPE STRATEGY

EXISTING TREE

The tree survey, produced by CMK Horticulture & Arboriculture, explains in detail the trees included in the existing site and the current condition of the trees.

The species mix over the site is quite diverse with plantings and self-seeded specimens distributed over the site. The main concentration of trees is located to the east of the site bordering Milltown Road. The trees in this area are a mixture of native, naturalised and exotic species. There has been limited management of the trees in this area to date with the result that there is strong competition between trees.

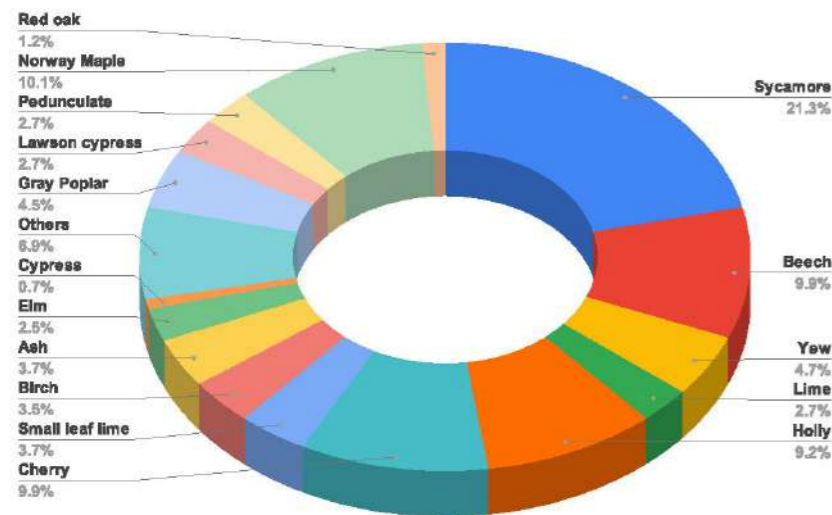
Our aim is to retain as many trees as possible without losing the site's natural biodiversity and character.

A total of 404 trees were identified and assessed.

TREE CATEGORY BREAKDOWN

Category	Number	% of total
A	23	5.6%
B	206	51.1%
C	150	37.1%
U	25	6.2%

TREE SPECIES BREAKDOWN



*Please refer to Arboricultural Assessment Arboricultural Impact and Tree Protection Strategy Report.

CURRENT CONDITION



View of the Site from Milltown Rd.



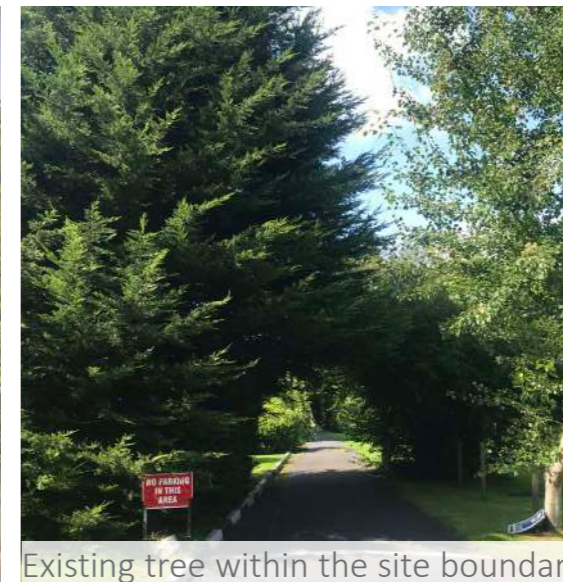
View of the Site from Sandford Rd.



A double line of alternating limes and cherry cultivars on Cherryfield Avenue Lower.



Entrance View of the Site from Sandford Rd.

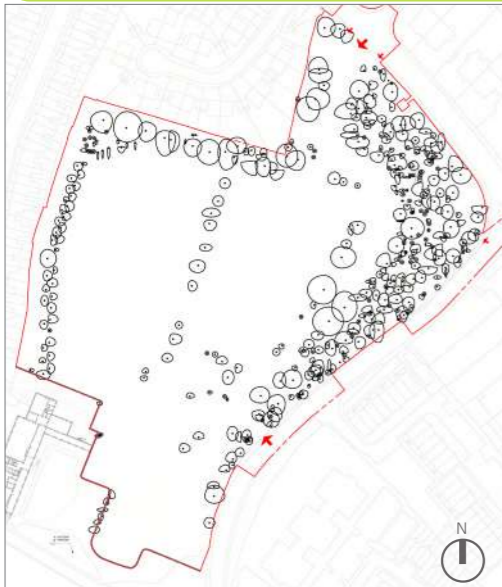


Existing tree within the site boundary



Atlantic blue cedar (#110).

EXISTING TREES

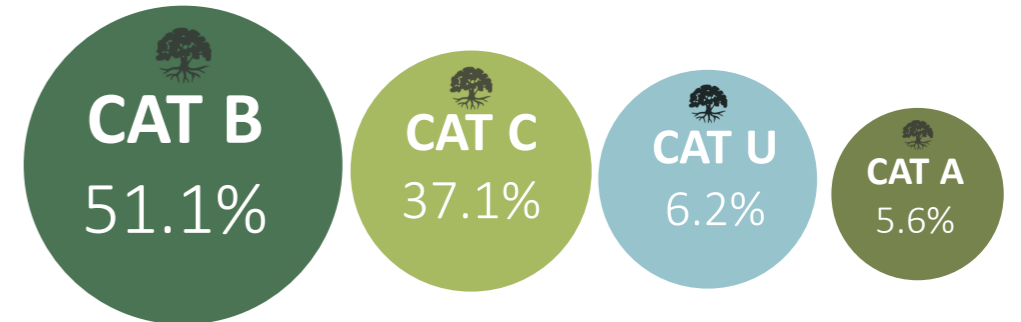


404no.
existing trees



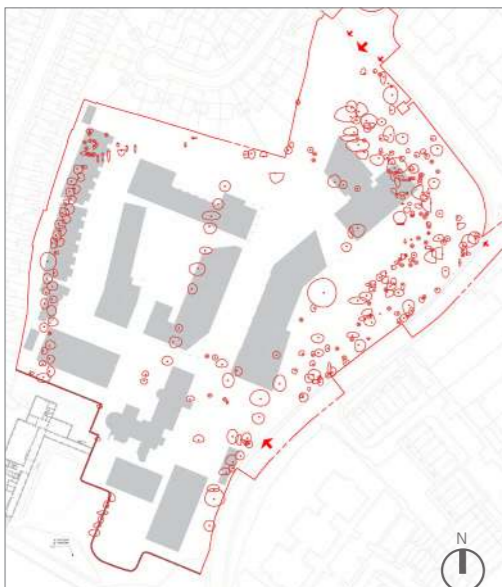
A total of 409 trees were identified and assessed.

- The condition of the trees is generally moderate to good
- Relatively high spread within categories B and C.
- The main concentration of trees is located to the east of the site bordering Milltown Road.



Note: % of the total number of the existing trees

REMOVAL TREES

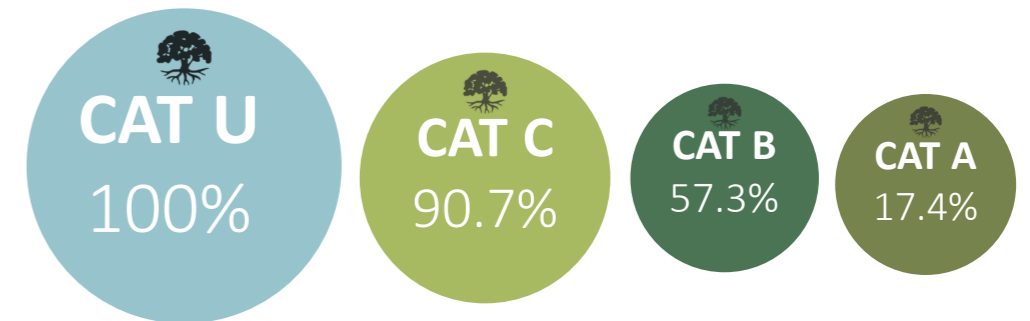


283no.
Removal trees



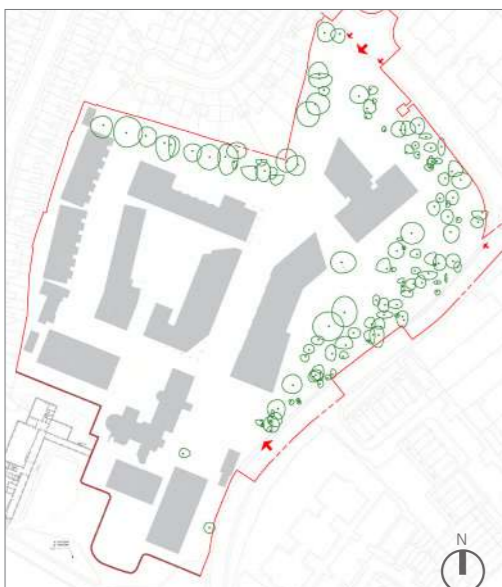
A total of 288 trees will be removed in the area.

- Only 4 category A trees will be removed
- The removal of trees will be most pronounced on the western boundary and within the central section of the site where the main footprint of the development is located.



Note: % of the total in category

RETAINED TREES

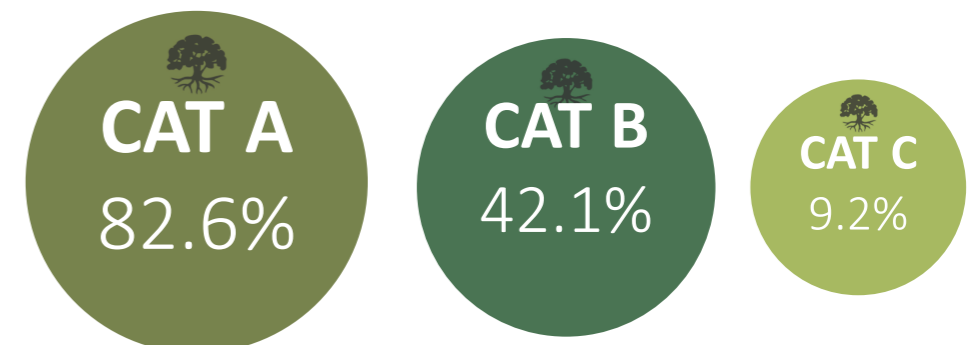


121no.
Retained trees



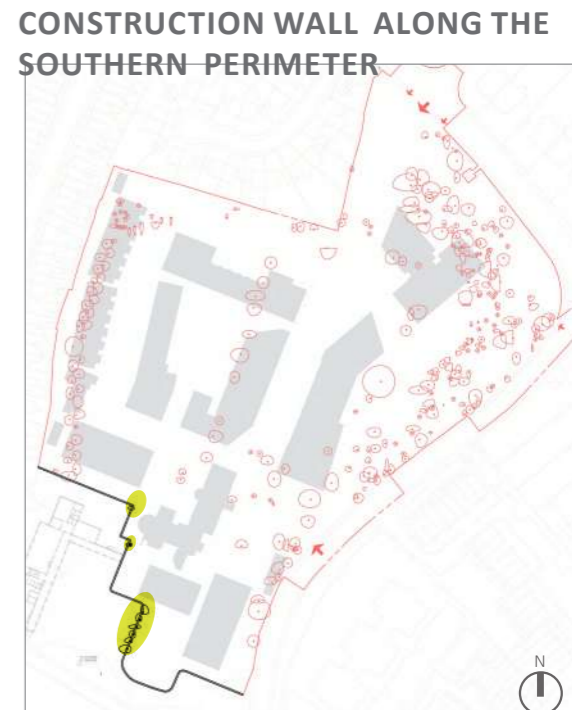
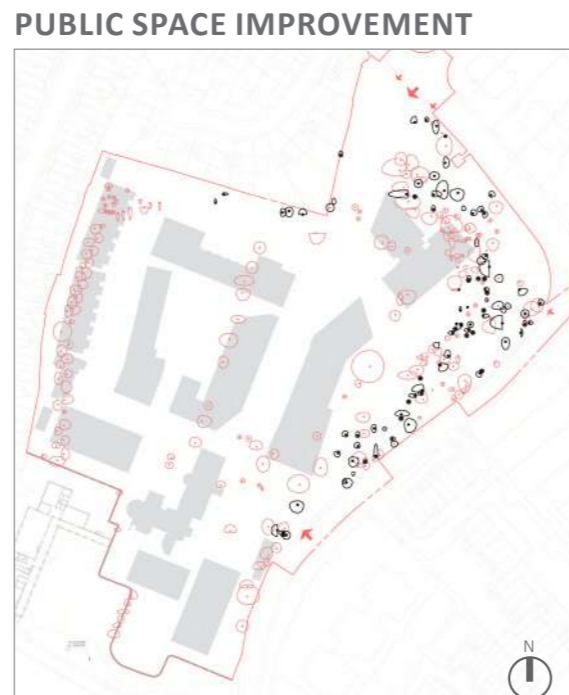
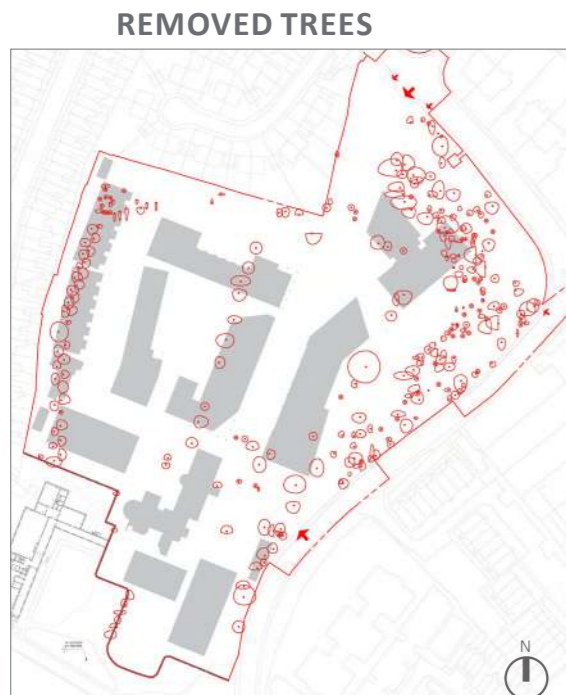
A total of 121 trees will be retained at the site.

- The higher value trees will also be retained on the northern boundary with this section of the site essentially linking to the open space area to the east creating a sylvan edge to both boundaries.
- To improve the quality and usability of the open space areas to the north and east of the site the poor-quality category C** trees are recommended for removal.



Note: % of the total in category

REMOVED TREES TO FACILITATED THE DEVELOPMENT.



Category U trees and Category C trees of very high density, which is the result of limited management interventions, restricts light from penetrating the canopy thereby reducing the diversity potential of the ground flora and also the areas overall habitat and recreational potential.

The plan shows the direct impact of the proposed development will necessitate the removal of 50.5% of the existing category B & C trees and a single category A tree. Design and position of the building block has been influenced by existing trees layout.

The plan shows the underground services proposed in relation with the existing trees. The location of the services have taken in consideration the suitable location in order to have a less impact on the existing trees in the area.

This plan shows trees impacted by the construction of the southern wall.



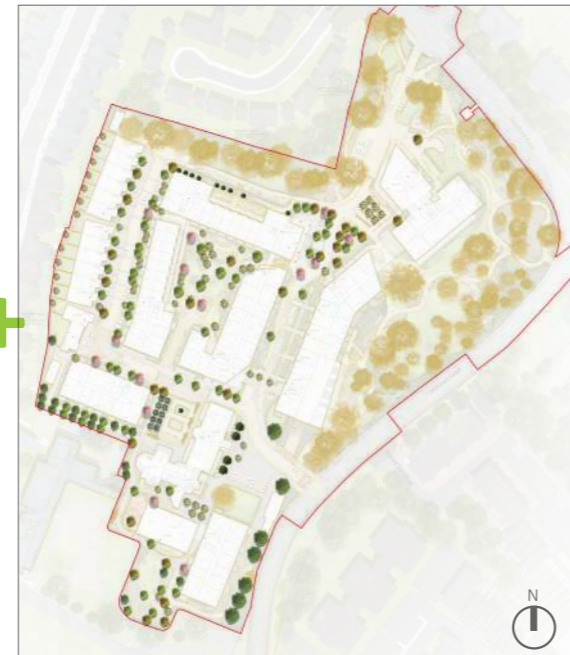
Note: These figures are expressing from the total effected by cause (109, 113, 53, 13)

TREES STRATEGY AT SANDFORD DEVELOPMENT

RETAINED TREES



PROPOSED TREES



+



121no.
Retained trees

+



238no.
large multi-stem and large shrubs are proposed across the development overall.



121+238no.

Trees /large multi-stem and shrubs will be represent the Sandford soft strategy layout

Tree protection and enhancement was a key tenet of the proposed design. The trees that will be removed will be replaced by a significant number of large and medium size trees that will have a greater long term benefit to local ecology and biodiversity. Our design will include native species trees and shrubs. Ground cover and understory layer will be set out to maximise local habitats for roosting birds and mammals. Proposed planting will be set-out to encourage and support the local bee and insect families. This too will include planting which supports berry, nuts etc for other mammals.

PROPOSED TREES SPECIFICATION



238no.

large multi-stem and large shrubs are proposed across the development overall.



approx. **28.06** tonnes/CO₂ per year.
Proposed tree absorb CO₂ at a rate of 260pound/CO₂ per tree each year

SUMMARY TABLE

EXISTING TREES	404 No.
TREES TO BE REMOVED	283No.
TREES TO BE RETAINED	121No
PROPOSED LARGE SHRUBS/MULTI STEM TREES	238No.
















TREE STRATEGY

A variety of trees have been selected to enhance the characteristics of the scheme.

The following page illustrate these in more detail with key species.

A total of 238no. large multi-stem and large shrubs are proposed across the development overall.

Large shrubs- Trees species proposed

-  *Betula pubescent* (30No.) deciduous
-  *Liquidambar styraciflua* (38No.) deciduous
-  *Corylus avellana "Red majestic"*(19No.) deciduous
-  *Amalanchier "Price William"* (55No.) deciduous
-  *Acer griseum* (14No.) deciduous
-  *Carpinus betulus "Lucas"* (8No.) deciduous
-  *Cupressus sempervirens* (4No.) evergreen
-  *Magnolia kobus* (6No.) deciduous
-  *Espalier trees* (10No.)
-  *Malus "evereste"* (10No.) deciduous
-  *Fraxinus excelsior* (5No.) deciduous
-  *Taxus baccata* (2No.) evergreen
-  *Prunus avium* (10No.) deciduous
-  *Quercus rubur* (4No.) evergreen
-  *Sorbus aucuparia* (23No.) deciduous

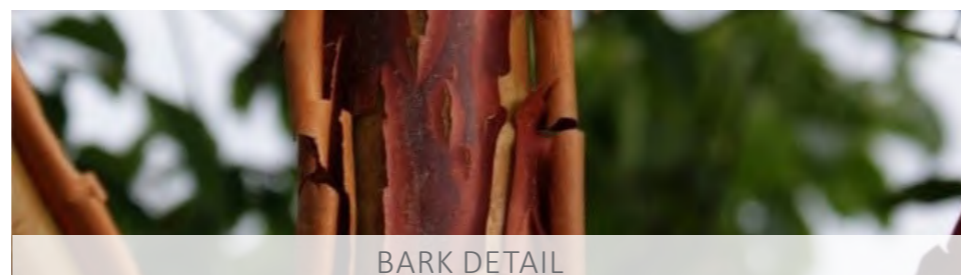


TREES SPECIES

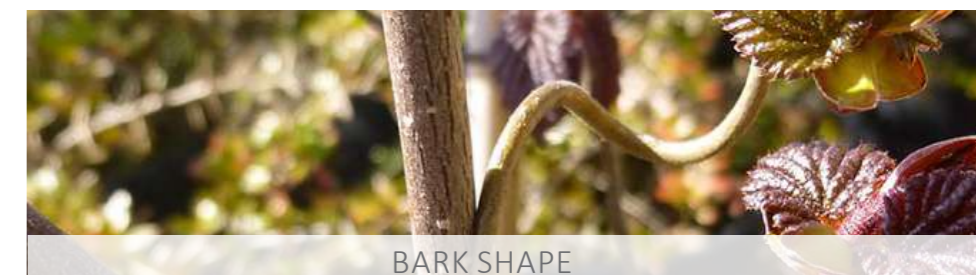
Small multi-stem trees, with 2-2.5m clear stem



SPRING FLOWERS



BARK DETAIL



BARK SHAPE



DETAIL OF FRUIT



AUTUMN COLOUR



AUTUMN CATKINS



SUMMER COLOUR



SPRING COLOUR



BARK COLOUR



SUMMER COLOUR



SUMMER COLOUR



AUTUMN COLOUR



Amelanchier "Prince William"

Amelanchier Prince William is a deciduous small tree or shrub with large star shaped pure white flowers in March to April and June. Produces small dark reddish purple fruits after flowering

Ultimate height: 4-6 meters
 Ultimate spread: 3-5meters
 Time to ultimate height: 8-12years



Acer griseum

Is a small spreading deciduous tree with attractive peeling, papery chestnut-brown bark. Leaves with 3 leaflets, downy and whitish beneath, turning brilliant red and orange in autumn.

Ultimate height: 4-6 meters
 Ultimate spread: 3-5meters
 Time to ultimate height: 8-12years



Corylus avellana 'Red Majestic'

Corylus 'Red Majestic' is a beautiful small tree which is known for its unique twisted shoots.

Ultimate height: 4-6 meters
 Ultimate spread: 3-5meters
 Time to ultimate height: 8-12years

SOFTSCAPE STRATEGY

TREES SPECIES

Medium/large trees



BARK TEXTURE



BARK TEXTURE



BALD DETAIL



AUTUMN COLOUR



LEAF DETAIL



ALL YEAR LEAF DETAIL



SUMMER COLOUR



AUTUMN COLOUR



SEASONAL COLOURS



ALL YEAR COLOUR



Betula pubescens

Downy birch is an elegant medium-sized deciduous tree with slender drooping twigs. Bark white, becoming black and rugged at base. Leaves ovate, yellow in autumn. Flowers in catkins.

Ultimate height: 12 meters

Ultimate spread: 8 meters

Time to ultimate height: 10-20 years



Liquidambar styraciflua "worplesdon"

'Worplesdon' is a broad-crowned medium-sized deciduous tree with five-lobed, maple-like leaves which turn to deep orange and yellow in autumn.

Ultimate height: 12 meters

Ultimate spread: 8 meters

Time to ultimate height: 10-20 years



Cupressus sempervirens

Cupressus sempervirens is a medium-sized coniferous evergreen tree with a conic crown with level branches and variably loosely hanging branchlets. It is very long-lived, with some trees reported to be over 1,000 years old.

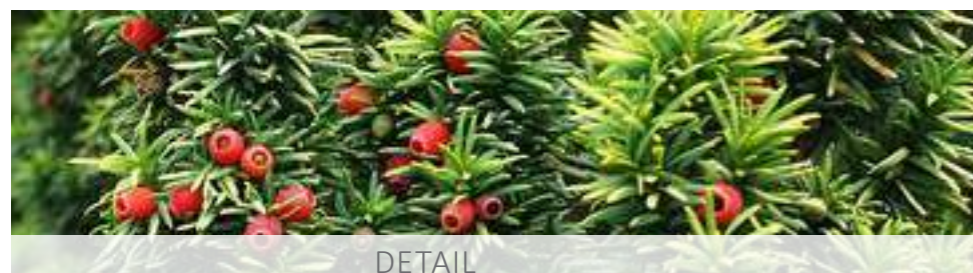
Ultimate height: 25meters

Ultimate spread: 4 meters

Time to ultimate height: 20-30years

TREES SPECIES

Medium/large trees



DETAIL



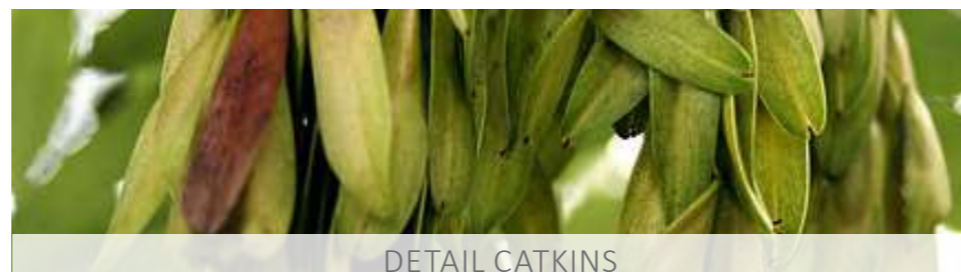
DETAIL



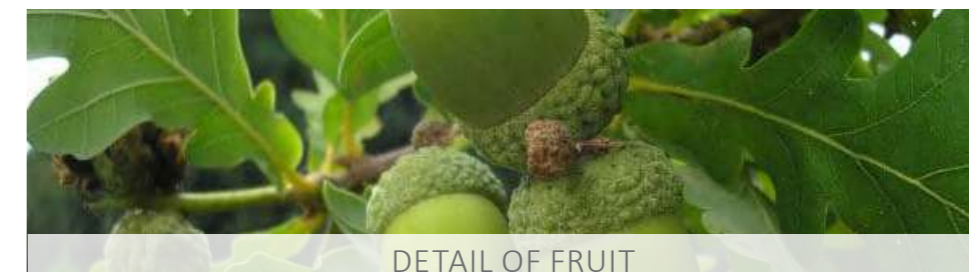
LEAF DETAIL



DETAIL



DETAIL CATKINS



DETAIL OF FRUIT



LEAF DETAIL



LEAF DETAIL



AUTUMN COLOUR



SUMMER COLOUR



SUMMER COLOUR



AUTUMN COLOUR



Taxus baccata

Taxus are small evergreen trees or large shrubs of rounded habit, with dense, linear leaves, insignificant flowers and, on female plants, conspicuous fleshy red arils surrounding the solitary seeds

Ultimate height: 3-4meters
 Ultimate spread: 1-5meters
 Time to ultimate height: 10-15years



Fraxinus excelsior

F. excelsior is a vigorous deciduous tree to 25m, with pale brown bark, dark green, pinnate leaves and small deep purple flowers, followed by conspicuous bunches of winged fruits in late summer and autumn

Ultimate height: +12 meters
 Ultimate spread: 8meters
 Time to ultimate height: +10years



Quercus rubur

Q. rubur is large, long-lived deciduous tree. Oak species also have an important ecological role, as they support insects and their acorns provide a valuable food source for many birds and mammals. The canopy of oaks allows a fair amount of light to pass through, permitting a diverse and enriched understory

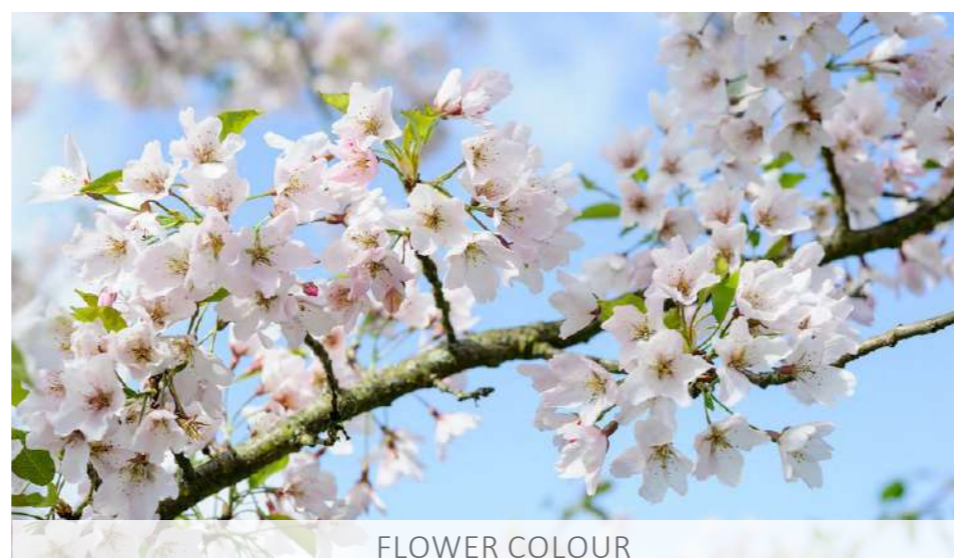
Ultimate height: +12 meters
 Ultimate spread: 8meters
 Time to ultimate height: +10years

ESPALIER TREES



Malus "evereste"

Produce an abundance of remarkably large, sweetly fragranced, white cup-shaped flowers in the springtime, opening from vibrant red flower buds that gradually fade to a beautiful pink as the new foliage also unfurls.



Pyrus communis

Pyrus are deciduous trees or shrubs with oval leaves and scented white flowers in spring.



Tilia europaea 'Pallida'

Is a large deciduous tree. The base of the trunk often features burrs and a dense mass of brushwood. The leaves are thinly hairy with tufts of denser hairs in the leaf vein axils

TYPICAL SOFT LANDSCAPE SECTIONS ON PODIUM AND TERRACES

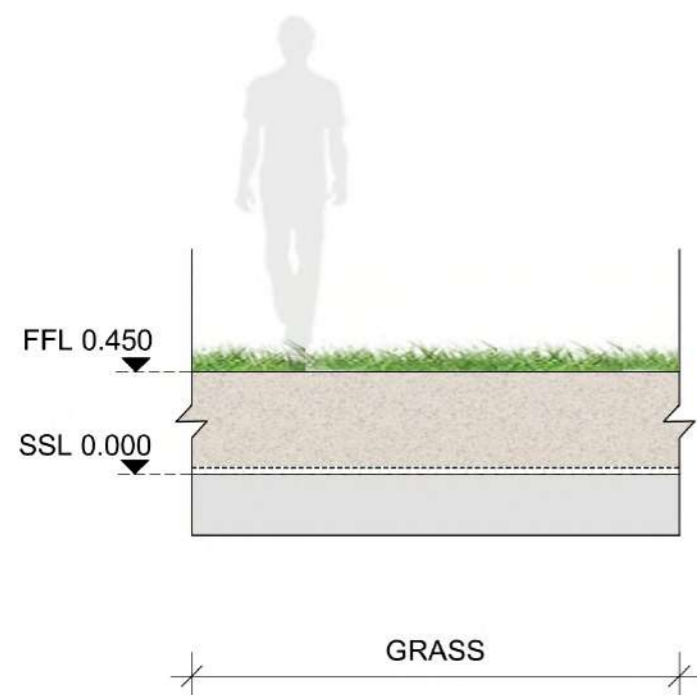


More than 50% of the garden will be built on the slab of the parking area below ground. Whilst this may seem challenging to maintain a healthy and working landscape, it is perfectly possible as long as the minimum required soil depth is provided for the plants.

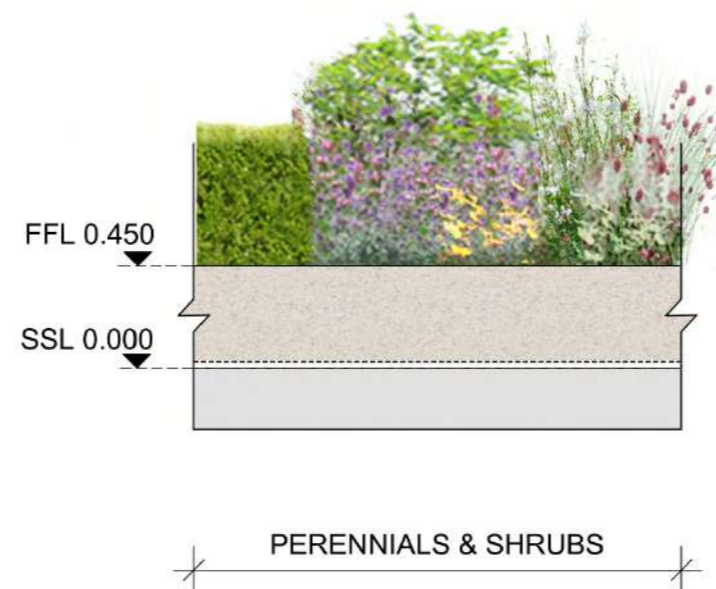
A wide range of plants will do very well in this area. The key for podium planting, as in any traditional

border design, is to choose the right plant for the situation. As a general rule, with 150mm, it is possible to grow amenity turf, given appropriate irrigation and regular feeding. With 300mm of growing medium, a good range of small shrubs and herbaceous perennials will be perfectly happy, and there is always the option of localised mounding over areas with extra structural support for smaller trees.

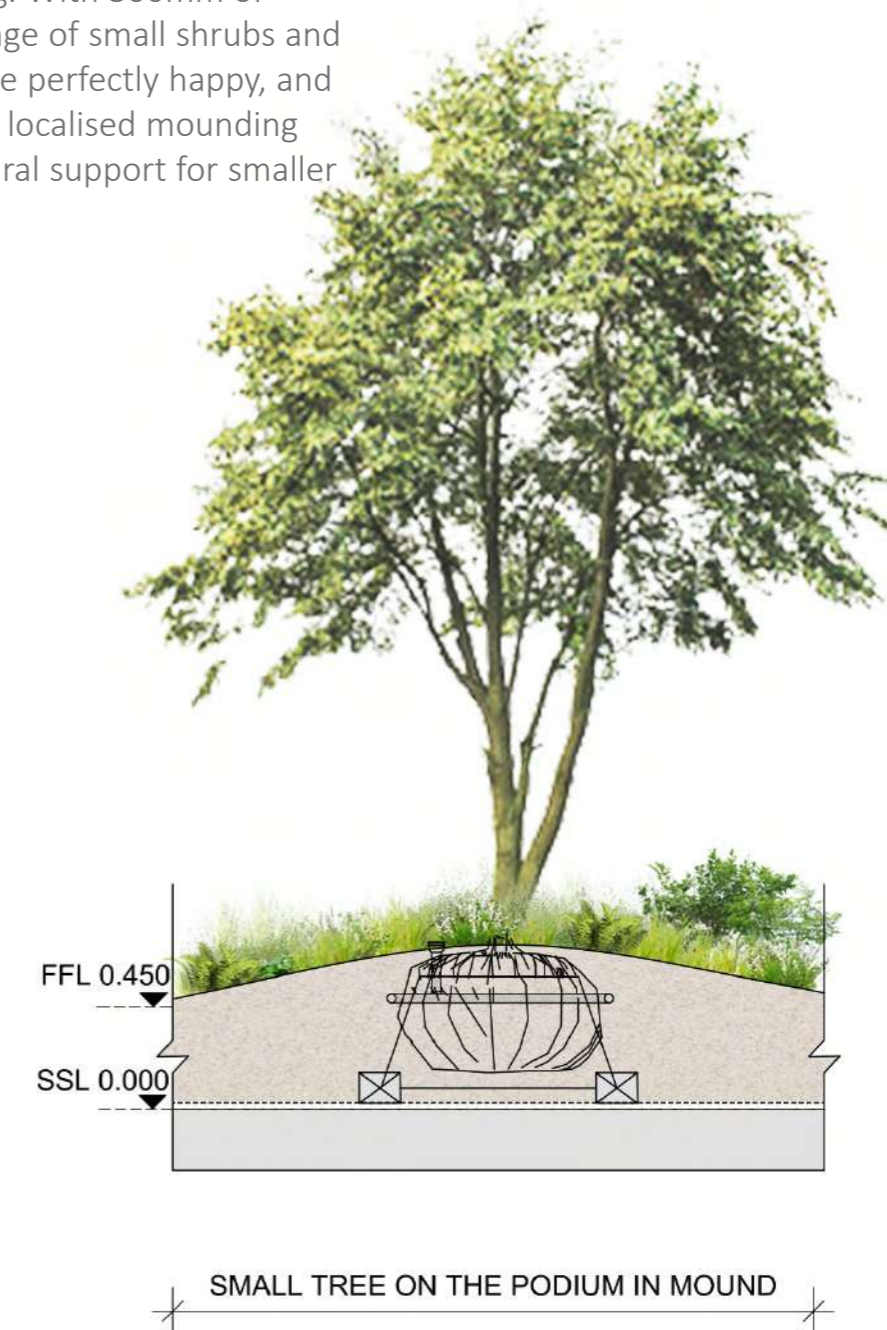
— Basement outline



Preferred soil depth for amenity lawn: 450mm.



Preferred soil depth for small shrubs and herbaceous planting: 450mm.
For larger shrubs: 600mm.

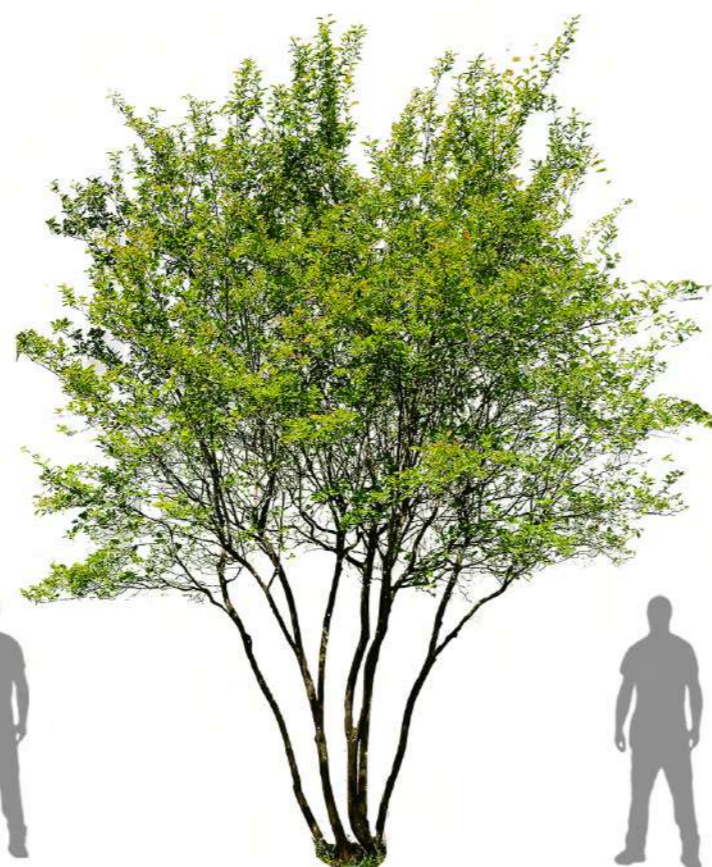


Preferred soil depth for small multi stem trees which do not grow higher than 3-4 meters: Min. 750-800mm.
For larger trees: minimum 1000mm.

PLANTING TYPES



Clear stem, semi-mature tree has a single, upright, clear stem up to 2-2.5m from the ground before the canopy starts. These type of trees are proposed along the main pedestrian and vehicular routes and in key landscape areas. The required height of the multi-stem trees is: 3.5-4 m.



A multi-stem tree: has multiple stems, branching from the ground. The cloud-like canopy starts around 1.5-2m above ground. These type of trees were used to achieve privacy and help separate the residential and retail areas. They also help mark the key locations in the landscape, such as entrances and access points. The required height of the multi-stem trees is: 3-3.5 m.



Herbaceous planting has no persistent woody stems above ground. These plants grow fast and produce flowers and many seeds in a short period of time. They have an important role in the biodiversity, because they can provide habitat and food for wildlife. The height of the proposed herbaceous planting is approx. 0.3- 1.3 m.



Ground covers provide protection of the topsoil from erosion and drought. In an ecosystem, the ground covers forms the layer of vegetation below the shrub/herbaceous layer. The height of the proposed perennial planting is approx. 0.1- 0.3m.



The shrub palette are used as separation between the different functions in the urban realm. In addition they have an important role in the biodiversity, because they can provide habitat and food for wildlife. The required height for the proposed shrubs is: 0.8- 1.5m.



Clipped shrubs are used to give privacy and help separate the areas. The required height for the proposed hedges is: 1- 1.5m.

TREE TYPOLOGIES & SIZES

To help communicate the type of trees proposed in the scheme this section sets out examples of the stock sizes currently proposed. The final sizes and specification subject to detail design post planning.

It is important to note the height and root ball sizes of proposed single stem trees varies according to the girth and species selection. The dimensions given are a rough guide only.

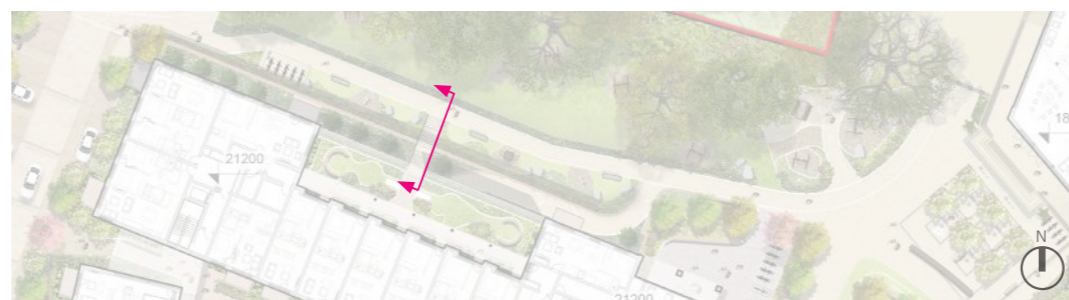
1. Girth 16-18 cm.
Root ball size approx 50cm diameter x 50cm deep.
Heights vary- approx 4.0-5.0 m.
2. Girth: 20-25 cm.
Root ball size approx 80 cm diameter x 50 cm deep.
Height of plant: approx 5.0-6.0 m.
3. Girth: 35-40 cm (on the right).
Root ball size approx 110 cm diameter x 70 cm deep.
Height of plant: approx 7.0-8.0 m.
4. Girth: 70-80 cm
Root ball size: approx 180 cm diameter x 80 cm deep.
Height of plant: approx 8-10 m.

(Note: Photos of tree sizes taken from Deepdale tree's website.)



SOFTSCAPE STRATEGY

TREE SPECIES PROPOSAL ON THE LOWER GROUND OF BLOCK C



Carpinus betulus "Lucas"

- Narrow conical shape
- Evergreen specie
- Interesting foliage color in autumn
- Suitable for all soil types
- Wind tolerant
- Suitable for wet soil
- Resistant to frost

TREES IN RELATION TO DESIGN DEMOLITION AND CONSTRUCTION BS 5837:2012

This section is designed to outline the procedures which will be undertaken to effectively retain trees free from adverse construction impacts for the duration of the construction period on the site.

Pre-construction meetings/tree works

- » An on-site meeting will be held if required, with all relevant parties; including the Developer and or his Agents, Site Arborist and Local Planning Authority
- » Remedial works to trees throughout the site where indicated as necessary within the Tree Works Schedule. All works will be undertaken to BS 3998 2010 Tree Work and/or to current best practice.
- » Erection of tree protection fencing as per recommendations contained within BS 5837:2012 Trees in relation to design, demolition and construction
- » Recommendations. Tree protection to be erected under supervision of Site Arborist prior to main construction works being undertaken on site (*refer to drawings Tree Protection TSAN001 107 to TSAN001 109 inclusive*).

Construction period

- » The Site Arborist shall monitor tree protection. The Site Arborist shall specify any necessary remedial works to trees which may arise due to construction works.
- » The Main Contractor shall carry out any instructions made by the Site Arborist with regard to the protection of retained trees and ensure where necessary that these instructions are followed by any sub-contractors.

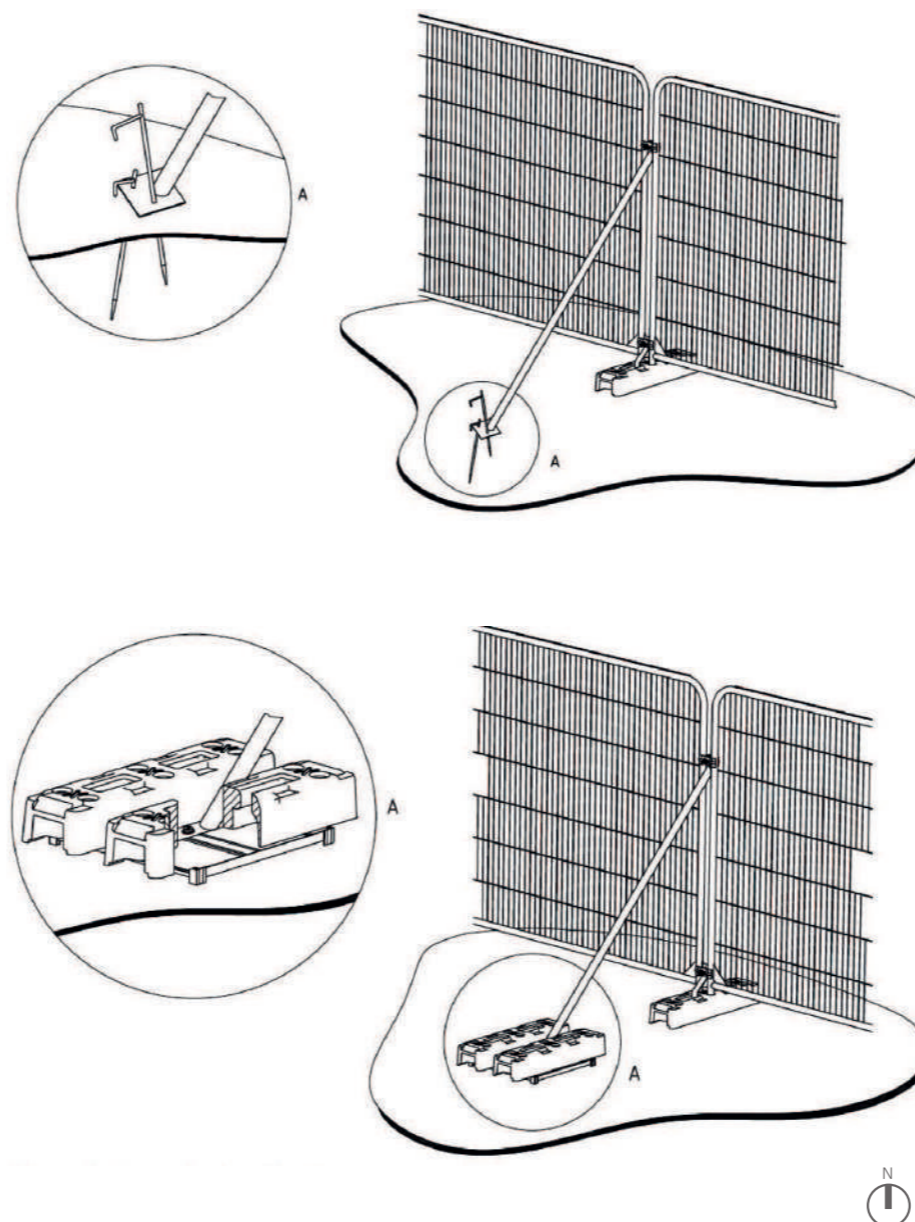
Post construction works will consist of:

- » Re-survey of retained trees and the implementation of measures contained with the survey document.

In order to guarantee the retention of the existing trees the Contractor should take all precautions to ensure that any trees which are not required to be taken down under the contract shall remain undisturbed and undamaged. All works to trees and all operations adjacent to trees should be undertaken in accordance with the Code of Practice. The Contractor must appoint a qualified arboricultural contractor to undertake all tree works

EXAMPLES OF ABOVE-GROUND STABILIZING SYSTEM

STABILIZER STRUT WITH BASE PLATE SECURED WITH GROUND PINS



subject to approval by the Consulting Arborist. The Contractor shall undertake no works to trees unless instructed by the Contract Administrator. All works on or within the Construction Exclusion Zone are to be supervised by the site arborist. Five working days notice of intention to undertake works to be given.

A number of specimen trees will be retained in close proximity to proposed buildings. These include a mature well-developed Atlantic blue cedar (*Cedrus atlantica* 'Glauca') (#110). It has been retained following extensive discussions between the project arboriculturist and the design team and has become an integral element of the proposed development.

The building layout and associated services have been designed to be sympathetic to the tree and it's need for adequate canopy and root clearance.

EXAMPLES OF STABILIZING SYSTEM AROUND THE *Blue Cyprus Tree*



— — — — — Approx. Stabilizer strut

*Please refer to Arboricultural Assessment Arboricultural Impact and Tree Protection Strategy Report.

PLANTING STRATEGY

This diagram has been developed to outline the types of planting proposed for the scheme.

Planting is an important consideration as it softens build form, humanises space, mitigates the micro climate and provides a seasonal sense of place.

The planting has been developed with the following considerations:

- » The use of tree, shrub and perennial planting to enhance the design by responding to the articulation of space in opening vistas, defining and hiding views.
- » Planting to be appropriate to setting.
- » Species selection to elevate local biodiversity levels.

A variety of plantings have been selected to enhance the characteristics of the scheme.

The following page illustrate these in more detail with key species.



EVERGREEN HEDGE & SHRUBS

EVERGREEN HEDGE



- 1 *Euonymus japonicus*
- 2 *Crataegus monogyna*

MIX A-Woodland



1. *Acradenia frankliniae*
2. *Corylus avellana*
3. *Hawthorn crataegus monogyna*
4. *Sambucus nigra*
5. *Syringa vulgaris*
6. *Viburnum opulus*

7. *Lonicera periclymenum*

SOFTSCAPE STRATEGY

PLANTING STRATEGY

MIX B-Courtyard



1. *Briza media*
2. *Deschampsia cespitosa*
3. *Miscanthus 'Adagio'*
4. *Miscanthus 'Kleine Fontaine'*
5. *Miscanthus 'Purpurascens'*
6. *Miscanthus 'Starlight'*

7. *Molinia caerulea*
8. *Panicum 'Hanse Herms'*
9. *Panicum 'Shenandoah'*

1. *Anemone hybrida 'Honorine Jobert'*
2. *Borago officinalis*
3. *Centaurea cyanus*
4. *Centranthus ruber*
5. *Dianella tasmanica*

6. *Lavandula x intermedia 'Sussex'*
7. *Leucanthemum vulgare*
8. *Rosmarinus officinalis 'Foxytail'*
9. *Verbena bonariensis 'Lollipop'*

GROUND COVER

MIX D



MIX E-Planting for deep shade



1. *Galium odoratum*
2. *Hyacinthoides*
3. *Liriope muscari*
4. *Polypodium vulgare*
5. *Pratia pedunculata*
6. *Vinca minor f. alba 'Gertrude Jekyll'*

7. *Geranium macrorrhizum*

1. *Blechnum spicant*
2. *Cardamine trifolia*
3. *Dryopteris erythrosora*
4. *Geranium macrorrhizum*
5. *Hakonechloa macra*
6. *Liriope muscari*

7. *Luzula nivea*
8. *Myosotis sylvatica*
9. *Polystichum aculeatum*
10. *Pratia pedunculata*
11. *Pulmonaria longifolia*
12. *Vinca minor f. alba 'Gertrude Jekyll'*

SOFTSCAPE STRATEGY

PROPOSED HERITAGE WILDFLOWER. TRADITIONAL IRISH WILDFLOWER MEADOW MIXTURE

PUBLIC OPEN SPACE

PROPOSED HERITAGE LAWN- Woodland



Medium height mixture of wildflowers that are typical of many meadows that once grew in Ireland

Mixture Specifications:

pH range: Suits mid range soils neutral Ph.

Aspect: Sunny

Life Cycle: Contains Cornfield Annuals, Perennials and Biennials

Height Range: 40cm- 120cm

Flowering Period: May to September.

Fertility Range: Will grow on any soil, the less fertile the soil, the less cutting will be required.

Wintergreen: Moderate

Source: Sandro's Irish Wildflower Conservation Grade Seed Mixture



1. Lady's Bedstraw
2. Common Bird's Foot Trefoil
3. Cat's Ear
4. Red Clover
5. White Clover

6. Cowslip
7. Common Daisy
8. Common Dandelion
9. Harebell
10. Autumn Hawkbit

11. Rough Hawkbit
12. Black Medick
13. Common Mouse-Ear
14. Field Pansy
15. Wild Pansy

16. Hoary Plantain
17. Selfheal
18. Common Speedwell
19. Germander Speedwell
20. Thrift

21. Wild Thyme
22. Kidney Vetch
23. Yarrow
24. Yellow-Rattle

LIVING WALL- PROPOSED STEEL CABLE TRELLIS SYSTEM

A living wall solution has been proposed adjacent to the Western courtyard entrance of Block C.

This is a simple low-impact construction solution comprising a wire trellis system fixed to the building façade, which allows for climbing and trailing plant species without the implication to cover a large portion of the architectural façade. Further detail will be implemented on the following stage.

A green façade encourages urban biodiversity within the development. Climbing plants can provide nesting habitats for birds and can be important sources of food for them. Insects and bees will also be attracted.

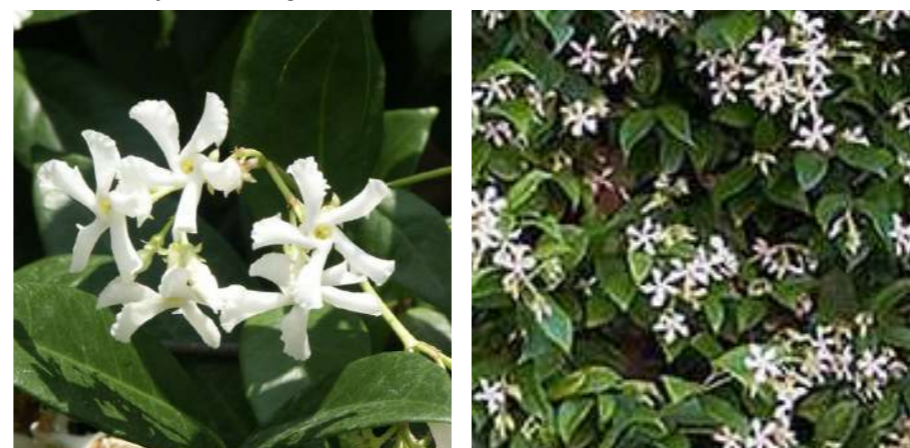
In addition to that, the living façade will create an attractive view for future residents that will approach the access along the residential street and from the residential courtyard addition value to the amenity space.

KEY ELEMENTS / CHARACTERISTICS:

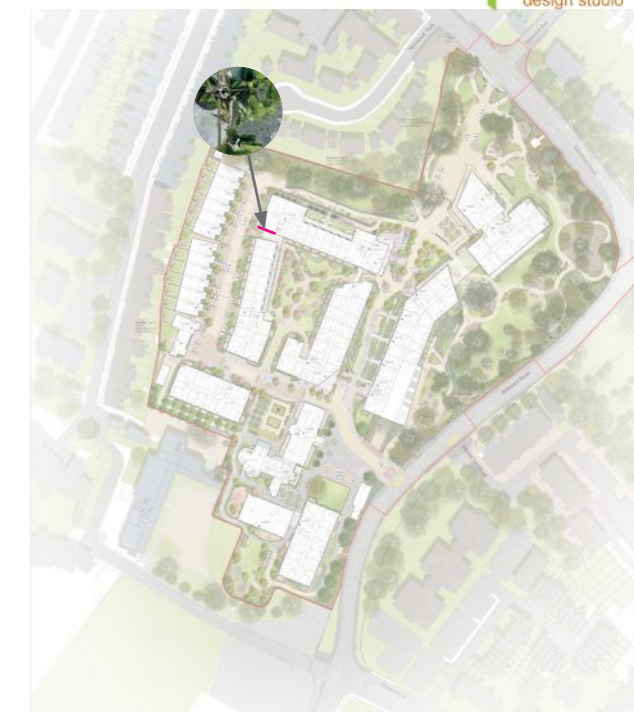
- » Aesthetically upgrade the courtyard access
- » Contribute to ecology condition

CLIMBER PLANT SPECIES

Trachelospermum jasminoides



Clematis Armandii



PLAY STRATEGY

WHY PLAY IS MATTERS

Play is essential to children and young people's physical, social and cognitive development.

Outdoor play is particularly valuable as it provides unique opportunities to experience the elements and because of the sense of well-being and enjoyment that being outdoors can bring. Access to the outdoors also gives children more space to move freely and run around.

Play spaces also have particular social value for parents and carers of young children, as places for both adults and children to meet informally, taking away some of the pressure of individual childcare responsibilities.

POLICY FOR PLAY

The importance of play is reflected in a growing body of policy documents that support children's right to play. In order to provide adequate recreation and play facilities that satisfy local needs, the following objectives shall apply:

Specific Objectives:

Based on Apartment Guidelines:

'The recreational needs of children must be considered as part of communal amenity space within apartment schemes. Experience in Ireland and elsewhere has shown that children will play everywhere. Therefore, as far as possible, their safety needs to be taken into consideration and protected throughout the entire site, particularly in terms of safe access to larger communal play spaces. Children's play needs around the apartment building should be catered for:

- Within the private open space associated with individual apartments;

- Within small play spaces (about **85 – 100 sq. meters**) for the specific needs of toddlers and children up to the age of six, with suitable play equipment, seating for parents/guardians, and within sight of the apartment building, in a scheme that includes **25 or more units with two or more bedrooms**; and

- Within play areas (**200–400 sq. meters**) for older children and young teenagers, in a scheme that includes **100 or more apartments** with two or more bedrooms.'

The Apartment Guidelines also note the following:

'The perimeter block with a central communal open space is particularly appropriate for children's play, especially if access from the street is controlled. The landscape design and orientation of play areas can contribute significantly to their amenity value. However, the noise from courtyard play areas can diminish residential amenity, particularly in smaller schemes, and designers must find solutions which balance all the factors involved.'

Source:

"Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities",

APPROACH

The overall design aspiration for the scheme is to make the communal areas child friendly through the provision of well located, well designed spaces that are accessible. The proposed **parkland** located on the East side of the scheme, is a key driver in the design and there are informal opportunities for 'playable' and 'social' space throughout the landscape and creative play is encouraged through the incorporation of a number of different elements within these spaces.

PRINCIPLES APPLIED

- Provide 'bespoke' areas
- Play area located in the proximity of each building (see Approach by age group)
- Promote natural elements (Complies with the relevant British (BS) or European (EN) Standards)
- Provide a wide range of play experiences
- Create accessible area to both disabled and non-disabled children
- Provide low cost maintenance area

APPROACH & AMOUNT BY AGE GROUP

Play opportunities are targeted towards and provided for the following age groups.

The following categories and age groups are only indicators and should be considered fluid as to which age they encompass.

Infants & Toddlers (0-5y / 100m movement radius): Play spaces for this age group will be provided as part of doorstep-play, where the play spaces are provided as part of each development block.

Provided area: approx. 100sqm for each block

Older children and young teenagers (6-11 / 400m movement radius): The play of older children and young teenagers is characterised by first unsupervised forays into the public realm. While communal amenity spaces allow for an easily accessible play environment, equipped play areas in the public space.

Provided area: approx. 400sqm

PLAY STRATEGY

PLAYABLE SPACES

The play space provision for the new residents is an important part of the landscape design. The space must be both safe and stimulating for younger children without detracting from the aesthetic appeal of the space for adults. The strategy is to immerse this play space within the landscape, so it feels part of the overall composition, rather than a designated play area within the residential garden.

- 1502sqm

 Total dedicated and equipped play area provided in the whole scheme*
 *Lawn excluded from the calculation
- 319sqm

 Total equipped Play areas provided in the Communal Open Space*
 *Lawn excluded from the calculation
- 1183sqm

 Total equipped and dedicated play area provided in the Public Open Space*
 *Lawn excluded from the calculation

- Crechè area (Private space enclosed by fence)
- Dedicated play area
- Equipped play area for toddler (0-5y)
- Equipped Play area for older children and young teenagers (6-11y)
- Public Open Space
- Communal Open Space



Once the **Public Open Space** has been made safe and secure, the design intent is to introduce a designated play area of approximate **400m²** with natural play equipment.

In addition, further small locations (approximately 50m² each) will be introduced for external well-being, fitness and exercise along the area designed as public open space.

Residential communal courtyards

Offer opportunities to play within a safe and enclosed designed landscape which offers informal oversight from residential buildings.

The enclosed courtyard between Block B and C provide a safe environment for children to explore and express themselves offering free and minimally structured play in combination with the natural surveillance from the surrounding buildings.

The sensory rich courtyard environments encourage exploration conveying a sense that there is a lot to explore.

Playable structures in combination with material provide a wide range of play experiences from active and constructive to social play. The spaces will allow access for all.

The proposed path network provides access for all as well as helps children develop way finding skills and could be used for scooting and running.

Playspaces will be a combination of non-prescriptive playable spaces that incorporate simple elements such as changes in level and connecting to areas of soft landscaping and planting with more formal play comprised of carefully considered fixed equipment for children from 0-5 years of age.

Dedicated Public Play Areas

The overall design aspiration for the scheme is to make the public space child friendly through the provision of well located, well designed spaces that are accessible.

Pedestrian priority is a key driver in the design and there are informal opportunities for 'playable' and 'social' space throughout the landscape and creative play is encouraged through the incorporation of a number of different elements within these spaces.

Incidental play opportunities in the public open space will be provided in a number of locations.

Secure fencing and gates screened by low evergreen hedging will contain the space and is combined with herbaceous planting to provide a range of sensory experiences, visually through seasonal interest provided, and physically through the range of textures of different plants and their scents. There will be spaces for quiet contemplation as well as open space to play, creating a range of experiences for children to enjoy.

The palette employed in this space is in keeping with the overall design language of the proposals and may include balancing poles and slides, that are integrated into the existing landscaping surrounding.

The benefits of playing in nature are almost infinite:

- » Allow children to explore and **express themselves** offering free and minimally structured play.
- » The sensory rich of the environments encourage exploration conveying a sense that there is a lot to explore (e.g.. botanical advisor, botanical trail etc...)
- » Playable structures in combination with material and level changes provide a wide range of play experiences from active and constructive to social play. The spaces are gender neutral and allow access for all.

The residential courtyard and the residential street, both offer opportunities to play within a safe and enclosed landscape, which offers informal oversight from residential buildings (Block B/C ,Block B/A2, A1 and F).

- » Combination of non-prescriptive playable spaces (i.e simple elements such as changes in level and smooth surfaced paths connecting to areas of soft landscaping carefully considered fixed equipment for children from 0-5 years of age).
- » The palette employed is in keeping with the overall design language of the proposals Include small swings, balancing poles and slides, that are integrated into the overall courtyard landscaping.

PLAY STRATEGY

COMMUNAL OPEN SPACE- PLAY PROVISION



- Logs promoting creative physical play such as balancing jumping and co-ordination skills
- Large sculptural seating to encourage social interaction as well as physical play through climbing and hiding.
- Hard landscape areas could be used for scooting and running.

- Planting beds provide sensory interest
- Landscape mounds, level changes to create informal open performance spaces
- Grass spaces to encourage physical play
- Path networks provide access for all as well as help children develop way finding skills



- Formal and informal gathering opportunities along textural planting
- Proposed tree offer gathering opportunities providing shade and shelter
- Stepping stones & logs promoting creative physical play such as balancing jumping and co-ordination skills
- Sculptural balancing structures to encourage physical play through climbing + balancing

PLAYABLE SPACES-PUBLIC OPEN SPACE

The sinuous layout of the parkland open space lends itself to the integration of landscape features that mark important points along its length and also help to structure the experience for pedestrians between Sandford Road and Milltown Road.

Below the broad canopies of the existing trees, a series of amenity interventions are proposed, nestled within planting, that cater for the needs of children and adults alike.

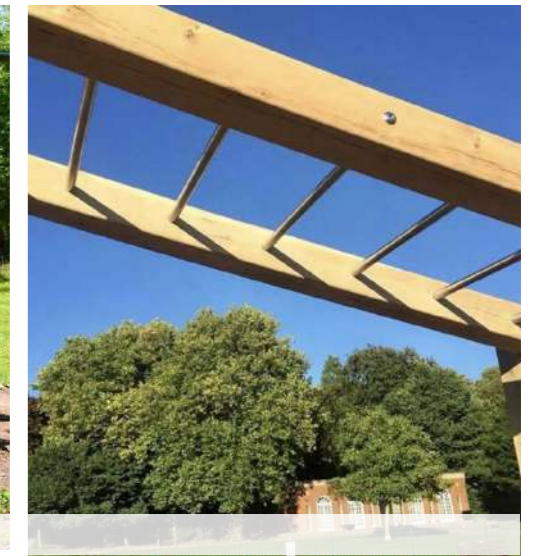
The overall play strategy for the Sandford scheme, sets out a main dedicated play area in the north-east corner of the site, an open lawn for active recreation, and several smaller play interventions along the pathways. These are in the form of equipment based and natural play with play-on-the-way features embraced by planting and natural materials.

The proposed understorey planting will be structured to create 'moments' within the parkland where incidental play, seating and fitness equipment are sited. These pockets of amenity will feel part of the overall parkland but will be laid out to feel more intimate and semi-private so that users have the opportunity for passive recreation without being disturbed by the main activity spaces.

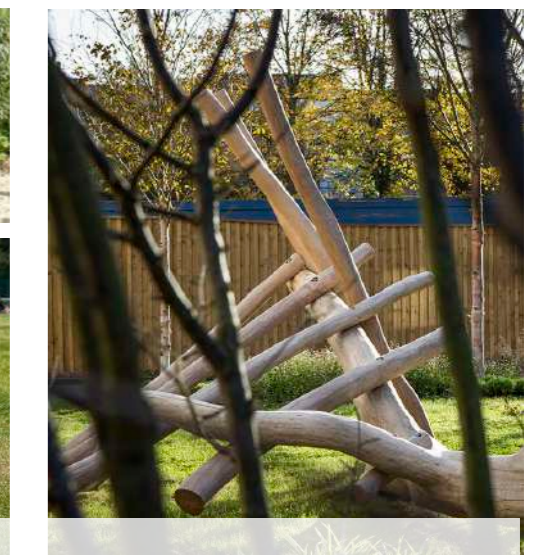
Proposed materials are selected from a palette of natural materials rather than man-made elements to enhance the parkland aesthetic. Play elements are selected for their quality of design, having sculptural qualities and architectural forms, that are high quality elements, vandalism-resistant and low maintenance.



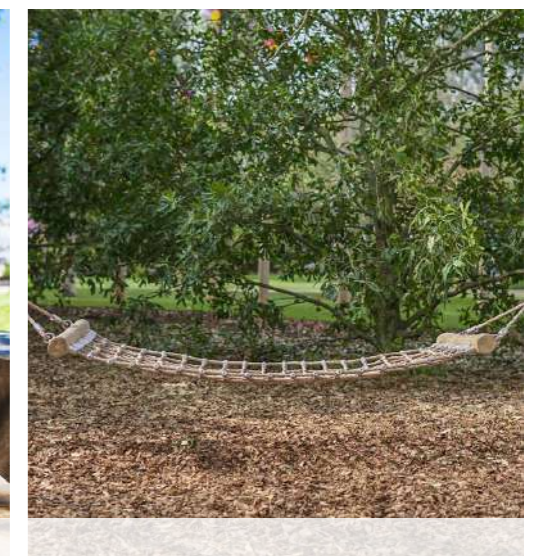
FITNESS AREA



DEDICATED PLAY AREA



PLAY ON-THE-WAY

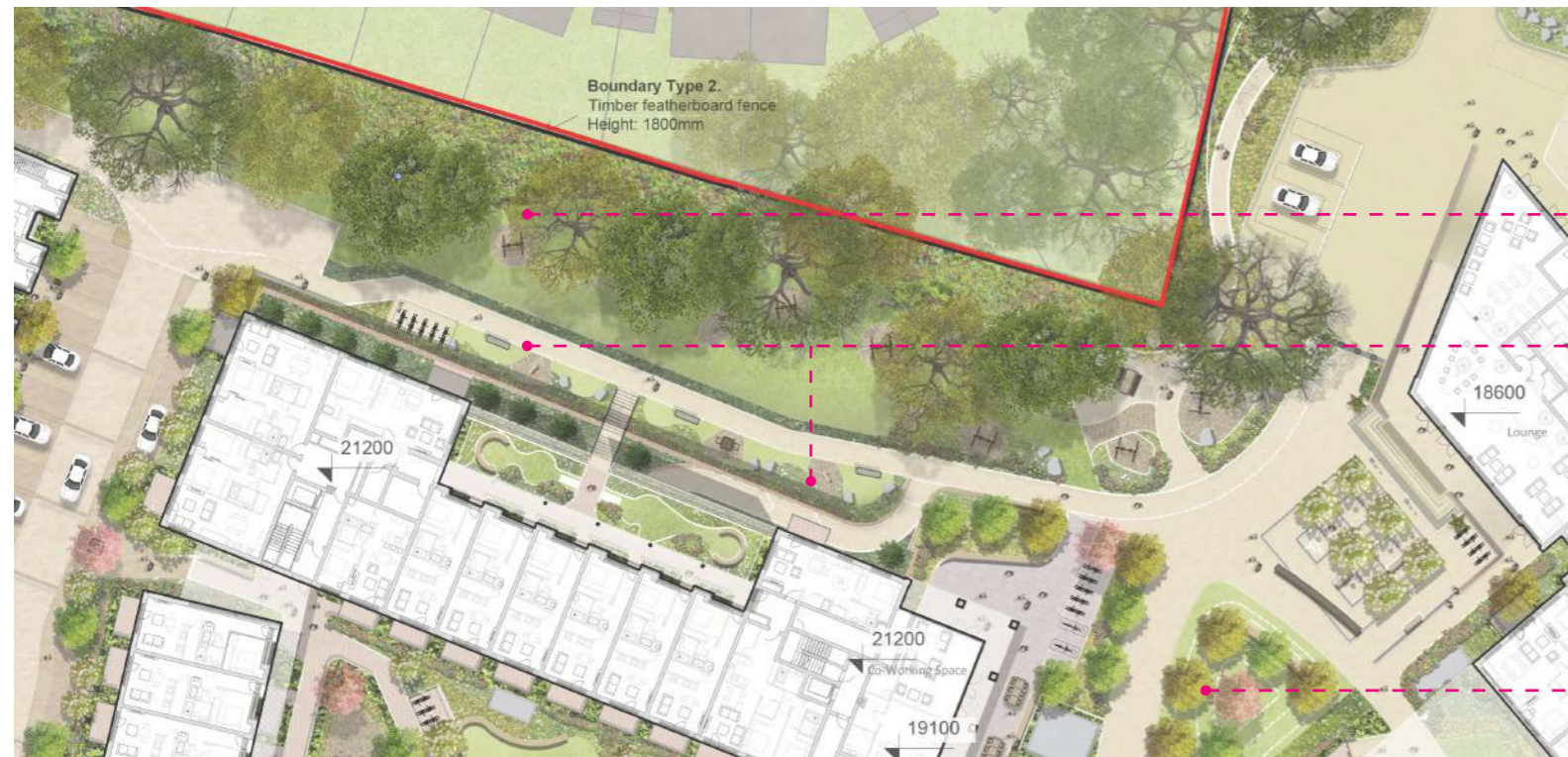


STRUCTURED "MOMENTS"

-  Fitness area
-  Play on the way
-  Dedicated play
-  Open Lawn

PLAY STRATEGY

PUBLIC OPEN SPACE-PLAY PROVISION



Existing tree offer gathering opportunities providing shade and shelter.
Stepping stones & logs promoting creative physical play such as balancing jumping and co-ordination skills.

Landscaped mound for informal open performance spaces



Logs promoting creative physical play such as balancing jumping and co-ordination skills

Planting beds provide sensory interest

Existing tree offer gathering opportunities providing shade and shelter.

Path networks provide access for all as well as helping children to develop way finding skills

Grass spaces to encourage physical play e.g running, playground games/
Landscaped mound for informal open performance spaces

Informal gathering opportunities along textural planting

PLAYABLE SPACES

NON-PRESCRIPTIVE PLAYABLE SPACES

*



Sensory play-
Nature + Touch + Scent



Stepping stones offer informal seating opportunities
As Physical play-balancing



Landform offer a variety of landscape
Free play- rolling + climbing



Free play- Improve way finding skills

PUBLIC OPEN SPACE
NATURAL FORM PLAYSPACE WITH
INTEGRATED PLAY FEATURE

*



Physical play-
Balancing+Jumping



Educational play-
Exploring the nature



Social play-
Interaction together



Potential of re-use trunk
Step in log- balancing

INCIDENTAL PLAY
OPPORTUNITY WITHIN THE
OVERALL SCHEME

§



Interactive play-
Water play



Free Play-
Running



Changing levels
Accidental play



Textural changes to the paving offer opportunities
for creative play

PLAY STRATEGY

PLAY EQUIPMENT / PLAY ON THE WAY

Play Equipment 1. Product: Boulders
Glacial boulders with slip resistant rounded surface.
Size: 0.5-1.5 m, height maximum 0.6 m.
Supplier: Playdale or similar approved



Play Equipment 2. Mound and landform



Play Equipment 3. Product: Logs and tree trunks
Supplier: Playdale or similar approved



Play Equipment 4. Product: Log Walk
Product: Adventure Trail- Log Walk
Supplier: Playdale or Similar Approved



Play Equipment 5. Product: Scramble climber
Supplier: Playdale or Similar Approved



Play Equipment 6. Wobble Board
Supplier: Playdale or Similar Approved



Play Equipment 7. Product: Stilted Balance Beams
Supplier: Playdale or Similar Approved



Play Equipment 7a. Grasshopper Play Sculpture
Supplier: Handmadeplaces or Similar Approved



PLAY EQUIPMENTS/ DEDICATED PLAY AREAS

Play Equipment 8. Product: Monkey Bars
Supplier: Playdale or Similar Approved

Play Equipment 9. Twisted Climber- Intertwine Supplier:
Playdale or Similar Approved



Play Equipment 10. Log climbing frame
Supplier: Earthscape or Similar Approved

Play Equipment 11. Log Playground adventure
Supplier: Earthscape or Similar Approved



Play Equipment 12. Swing
Supplier: Earthscape or Similar Approved

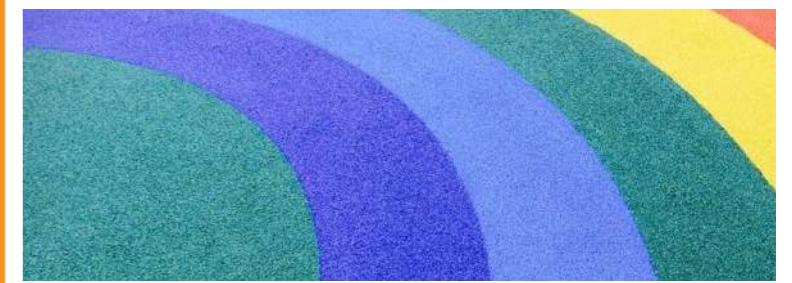


HARDSCAPE PROPOSED

Paving Type 7. Product: Play Woodchip mulch
Supplier: TBC



Paving Type 13. Product: Wet pour safety surface
Supplier: TBC
Colour: Varies



UPPER FLOOR
AMENITY TERRACES

UPPER FLOOR AMENITY TERRACE



COMBINED ROOF PLAN

The scheme aims to maximize the potential for each of the roof spaces, by providing a range of applications depending upon the context and outlook in tandem to plant requirement.

As part of the communal amenity space calculations, there are four proposed amenity terraces for the residents on blocks A1, B, and C.

In addition, a tapestry of biodiverse roofs is proposed surrounding the plant and solar panel areas which will be designated for biodiversity enhancements and will form part of the overall SUD's strategy.

The key design principles of the amenity terraces are:

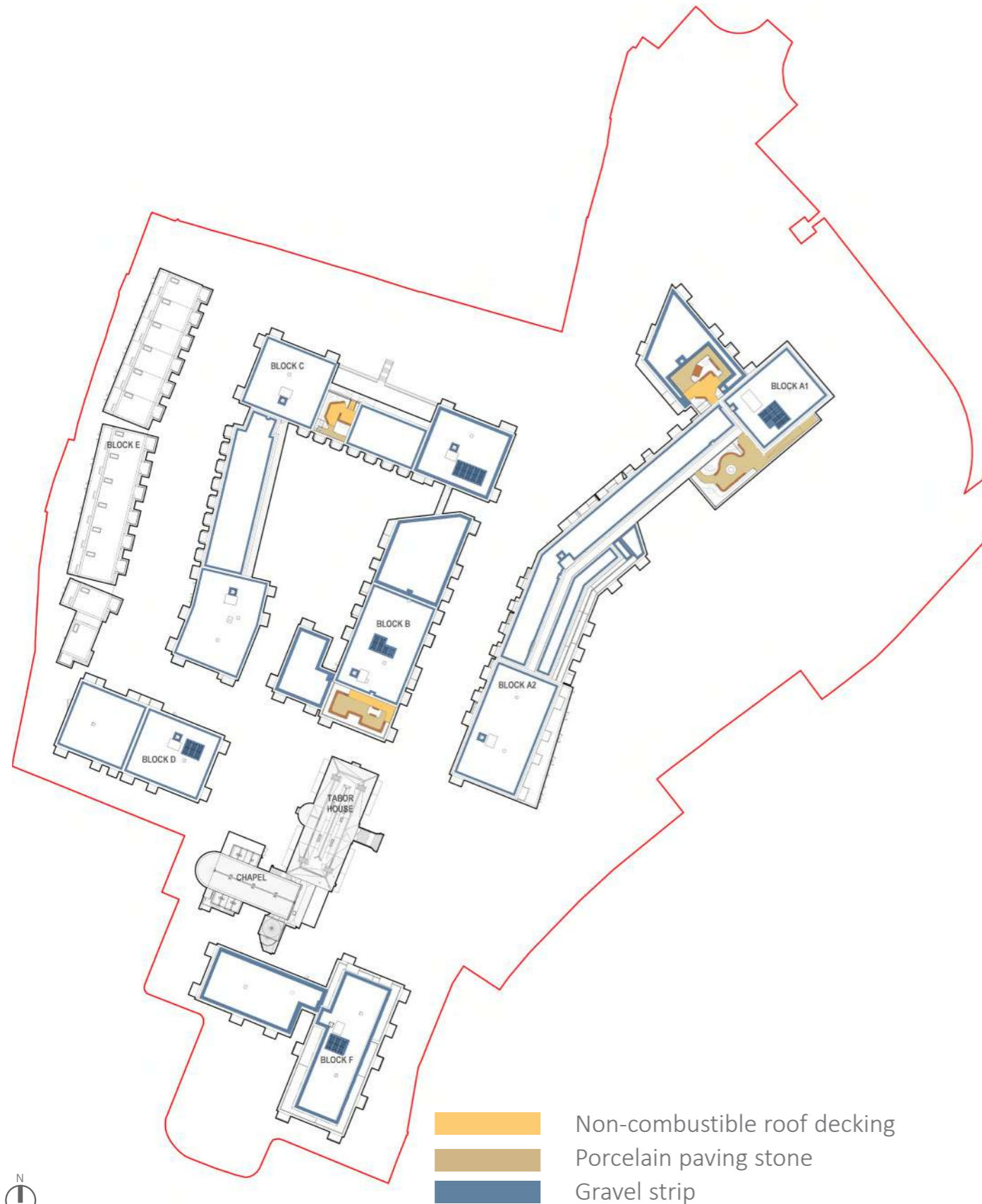
- Maximise useable outdoor space.
- Provide flexible space.
- Lightweight materials and plant medium.
- Provide ecological enhancements.

The principle build up of the biodiverse green roofs is shown on the diagram below. This is a typical proprietary system, which will be developed further based upon specific requirements to be established with engineers as part of the detail design process.



UPPER FLOOR AMENITY TERRACE

HARDSCAPE STRATEGY



Materials have been selected which are fire resistant to align with current building codes and best practice whilst not detracting from the high-quality aesthetic and contemporary design approach of the spaces. Materials define uses, routes, and spaces within these upper levels that are attractive and robust such as porcelain paving and composite decking surfaces.

Furniture Type 16: Porcelain paving stone

Supplier: Environbuild or similar approved
 Size/Colour: 600x600mm s.a/ Silver birch or s.a



Furniture Type 15: Non-combustible roof decking

Supplier: Environbuild or similar approved
 Size/Colour: 1200x600mm s.a/ Silver birch or s.a



Furniture Type 17: Gravel strip

Supplier: CED or Similar Approved
 Size/Colour: TBC

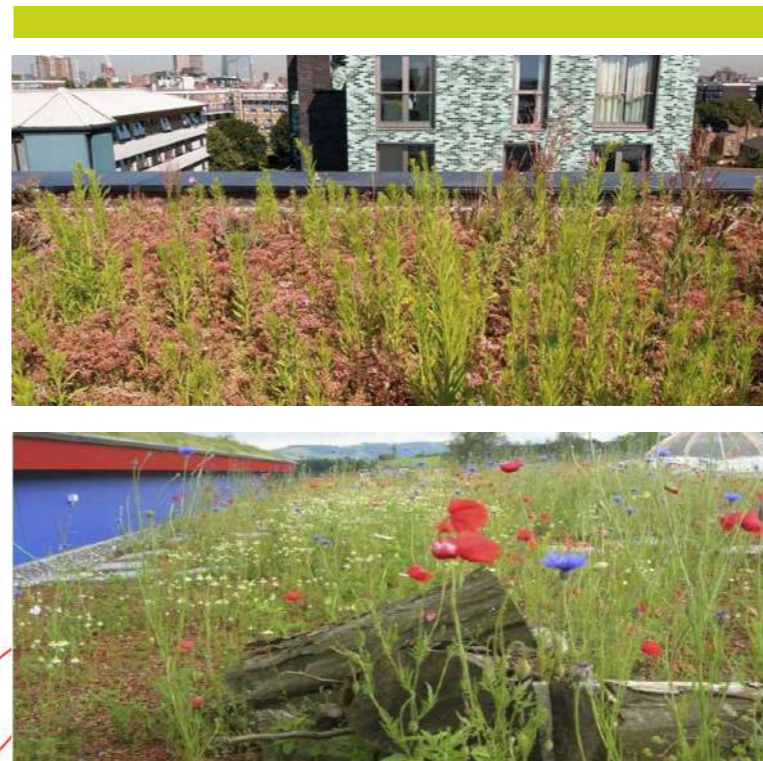


UPPER FLOOR AMENITY TERRACE

SOFTSCAPE STRATEGY



Biodiverse green roof



Evergreen Hedge



Planting and grasses



SOFTSCAPE STRATEGY

BIODIVERSITY GREEN ROOFS

Green roofs are proposed on the new buildings which will enhance biodiversity of the developed site and further connecting the green corridors within the site. The green roofs will be covered by native species which would also provide important foraging habitats for birds and bats.



Native Origin Irish Wildflower Seed Mixtures: Ecotype Range

Seed Mixture Specifications:

Origin: Native Irish Origin, Wildflower Seed Mixture. EC11

Aspect: Sunny or slightly shaded for part of the day.

Morphology:

Life Cycle: Annual / Biennial / Perennial.

Height Range: <2cm to >60cm

Flowering Period: April to August.

Source: Sandro's Irish Wildflower Conservation Grade Seed Mixture



1. Common Bent Grass
2. Burnet Saxifrage*
3. Centaury*
4. Wild Chamomile*
5. Corn Pansy*

6. Cowslip
7. Eyebright*
8. Lady's Bedstraw
9. Ox-eye Daisy
10. Red Bartsia*

11. Yellow Rattle*
12. Selfheal
13. Sheep's Bit Scabious
14. White Stonecrop
15. Blackstonia*

16. Fairy Foxglove
17. Sea Campion
18. Ivy Leaved Toadflax
19. Quaking Grass
20. Wall Pennywort

21. Storksbill*
22. Thyme (Wild)
23. Sweet Violet
24. Dog Violet
25. Allium carinatum

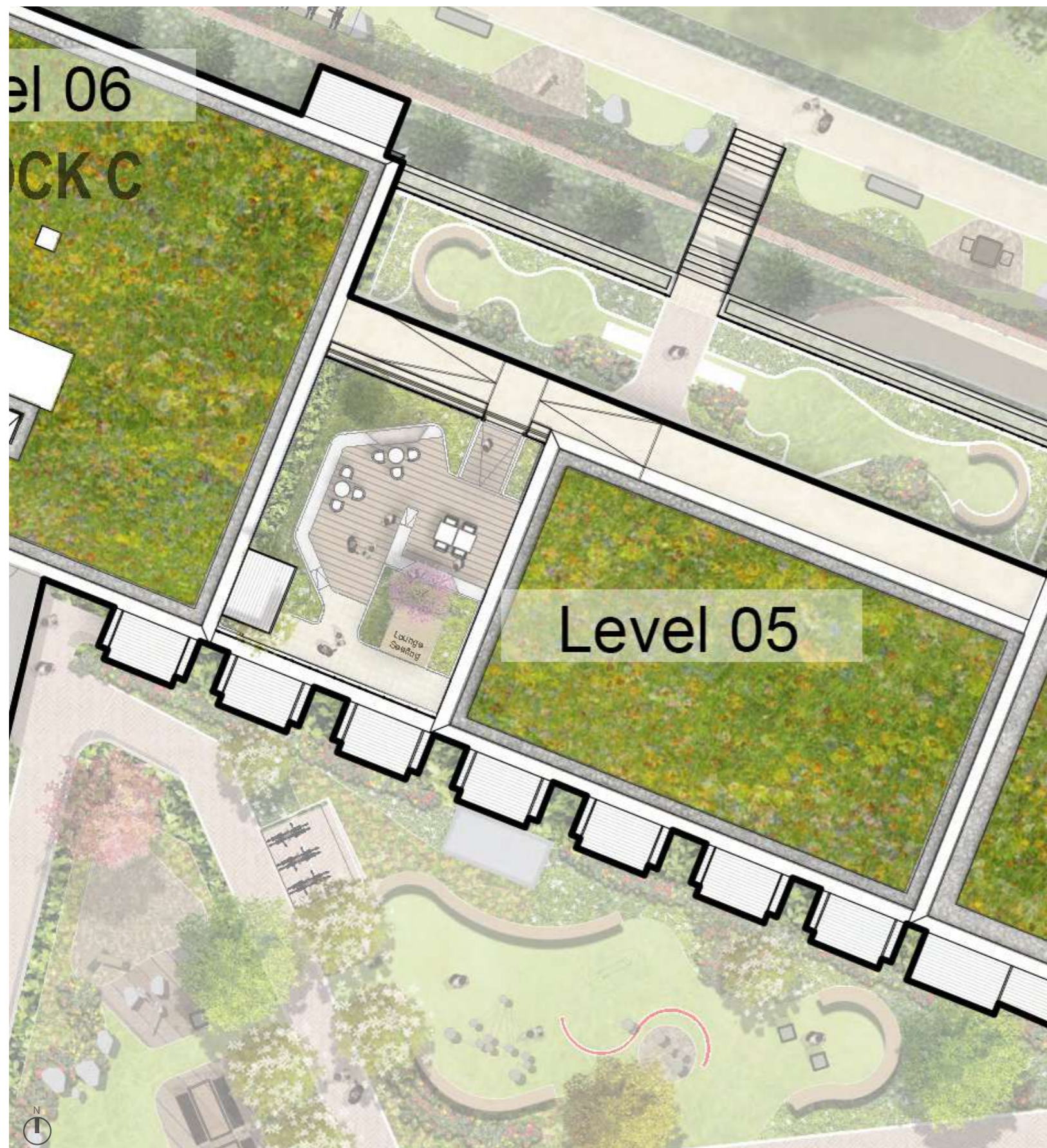
26. Harebell
27. Cat's Ear
28. Corn Spurry*
29. Fairy Flax
30. Lesser Yellow Clover or 'shamrock'*

Denotes a species that is either of diminished national geno-type or specific to only a few sites, or who's habitat is increasingly threatened, or the species is uncommon, rare, becoming rare, is endangered, reintroduced or saved from extinction.

In all cases, your purchase contributes to DBN's work of creating crops of Conservation Grade - Native Origin Wildflora. You help us to inform and pay land-owners to manage native species and to assist DBN in handing on our heritage for another generation

UPPER FLOOR AMENITY TERRACE

BLOCK C, 2ND FLOOR COMMUNAL TERRACE



The terrace located on the 2nd floor has the benefit of a view toward the residential courtyard and the existing trees located on the north side of Block C.

This space is orientated to accommodate good levels of daylight/sunlight penetration into those spaces.

The terrace has unique access to it from the gantry corridor that runs along the northern side of the block.

The design aims to maximize the usable outdoor space meanwhile providing privacy buffer to the adjacent units located to the west of the terrace through a dense strip of planting.

Lounge seating area and gathering table will enhance the opportunity to increase the social interaction of the residents.

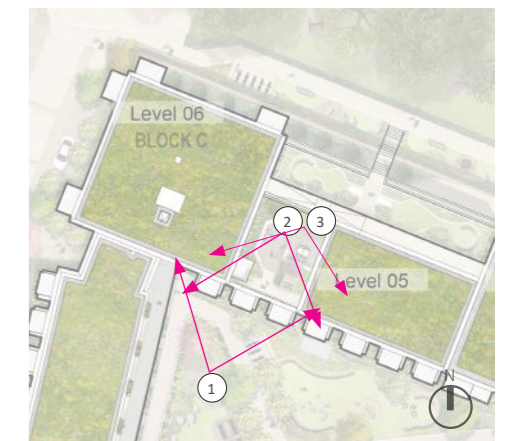


PRECEDENTS



UPPER FLOOR AMENITY TERRACE, VISUALS

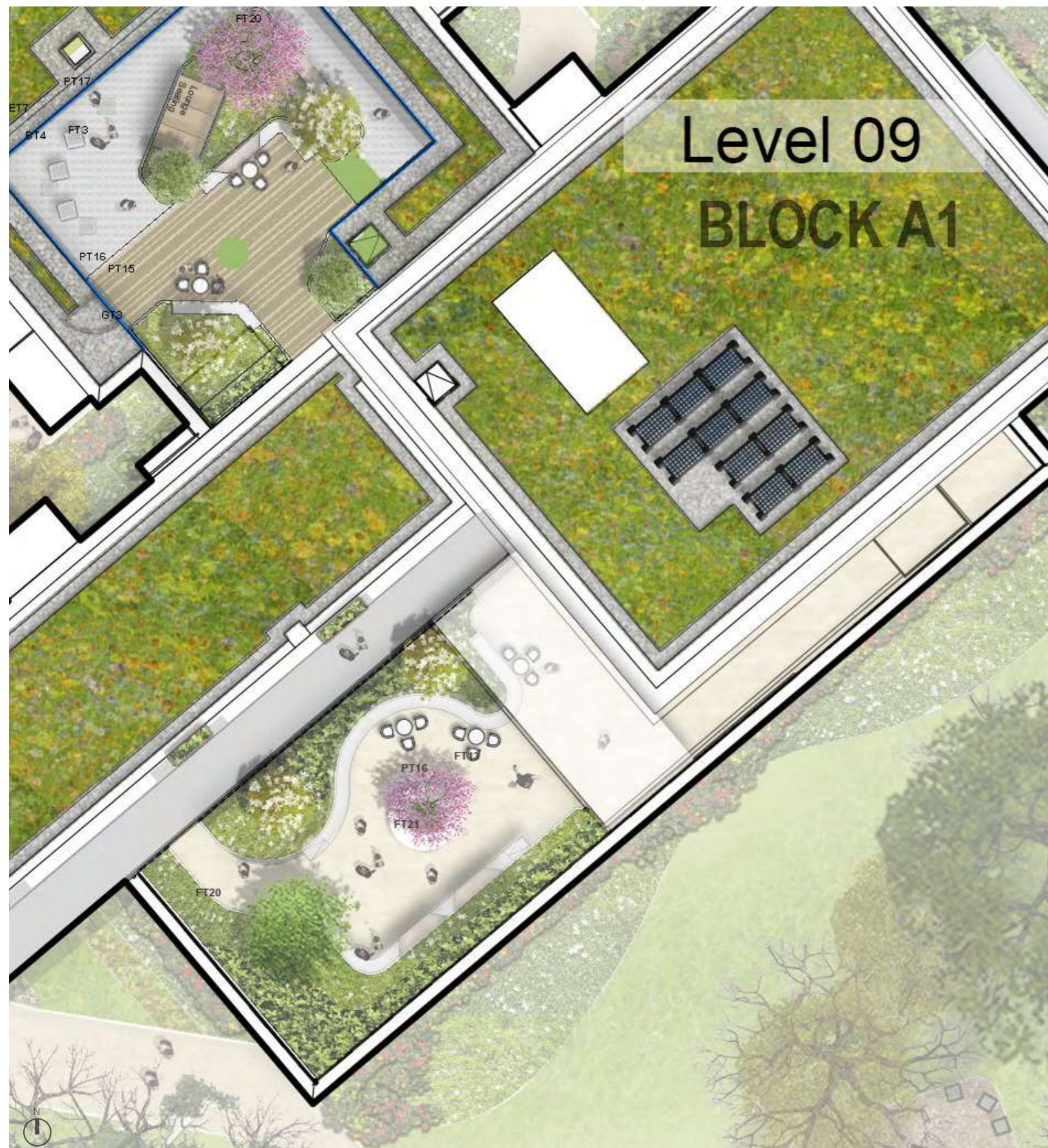
BLOCK C, 2ND FLOOR SHARED AMENITY TERRACE



For illustrative purposes only

UPPER FLOOR AMENITY TERRACE

BLOCK A1, 4TH FLOOR SHARED AMENITY TERRACES



Block A1 presents two amenity terraces on the 4th floor located on both the East and West sides.

Given the rooftop location, most of these spaces benefit from very good levels of daylight/sunlight quality and as such are useable most times in the year. The roof gardens can offer a variety of uses including outdoor seating, viewing deck.



PRECEDENTS



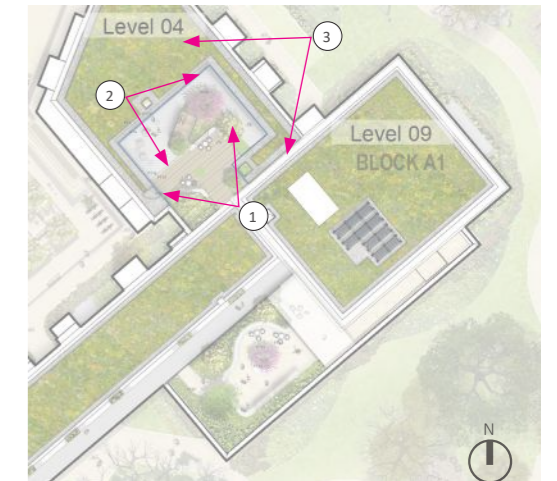
UPPER FLOOR AMENITY TERRACE, VISUALS

BLOCK A1, 4TH FLOOR SHARED AMENITY TERRACES



The approach to the design of the north west roof terrace is to create a place to encourage interaction between the internal and external spaces and their associated uses.

Adopting this approach has led to the creation of spaces that offer the user the opportunity to undertake different recreational activities upon the roof: seating areas for rest and relaxation and flexible open areas for outdoor walks, yoga, and contemplation of the surrounding area.



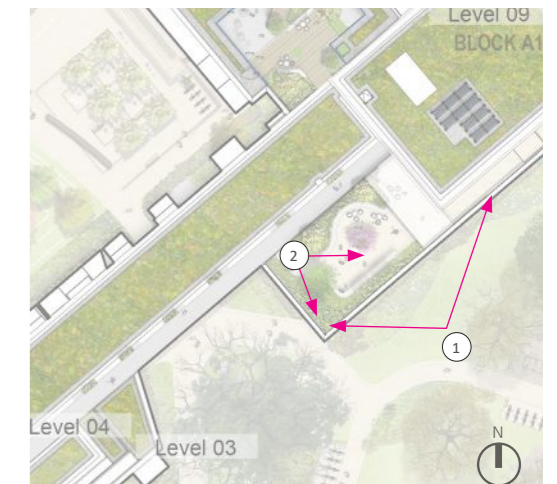
The design has been arranged to provide a visual connection with the immediate surrounding area, allowing views across the roof-space to the 'green' sedum located at the same level.



For illustrative purposes only

UPPER FLOOR AMENITY TERRACE, VISUALS

BLOCK A1, 4TH FLOOR SHARED AMENITY TERRACES



The south eastern terrace is the larger amenity terrace looking over the mature parkland setting. The terrace will relate to the internal lounge extending the amenity outside.

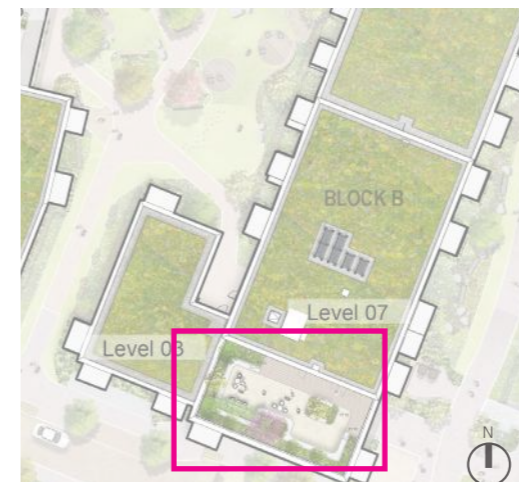
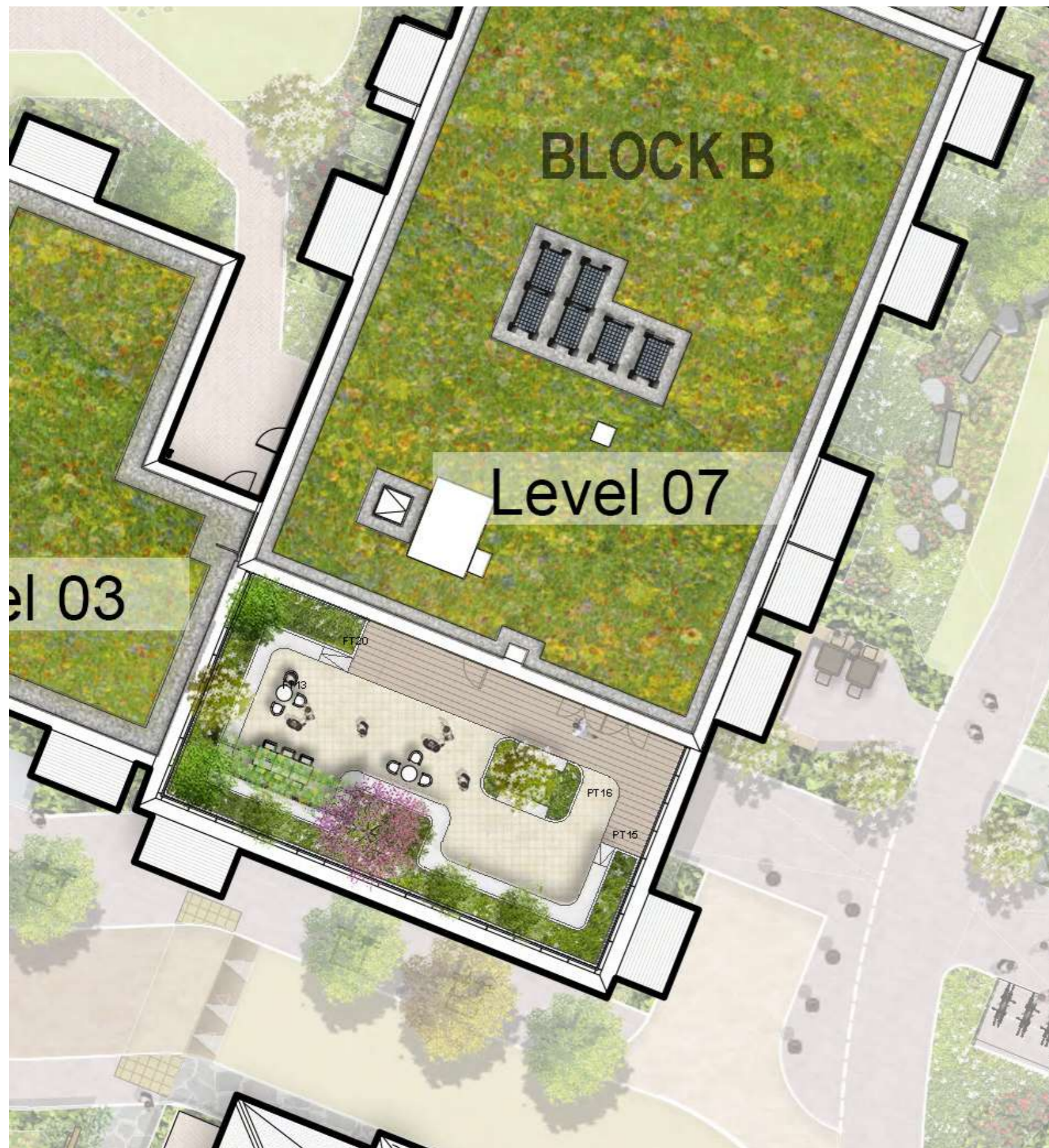
This terrace includes softer planting with perennials to create maximum seasonal change for the residents. A strategically placed planter of perennials, shrubs, and multi-stem trees along the outline of the terraces provides an interesting view from the dwellings located along the gantry corridor consisting of a large space where a long sinuous bench with green buffer provides privacy to the dwellings located along that facade. A circular raised planter that contains a tree will punctuate the "quiet" area for more intimate socializing for the residents. An oasis of evergreen grasses of all heights will be designed to give the space a natural feel.



For illustrative purposes only

UPPER FLOOR AMENITY TERRACE

BLOCK B, 5TH FLOOR SHARED AMENITY TERRACES



This terrace is located on the 5th floor of Block B facing south. A long seating feature surrounded by planting and trees will create an inclusive space. The proximity and the view of the retained Tabor House will enhance the view for this space.

The concept was to create a unique shared communal external space for all residents to enjoy.

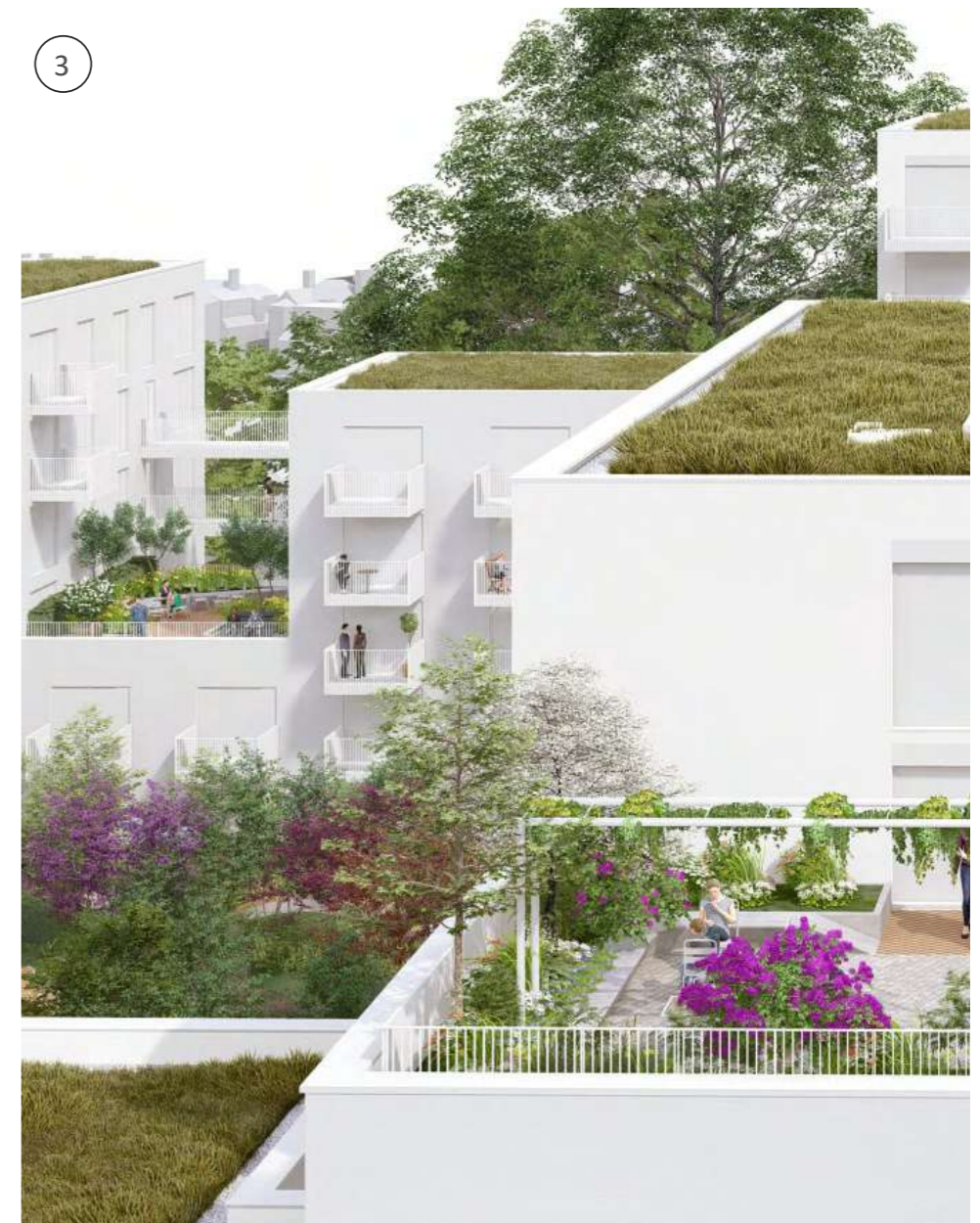
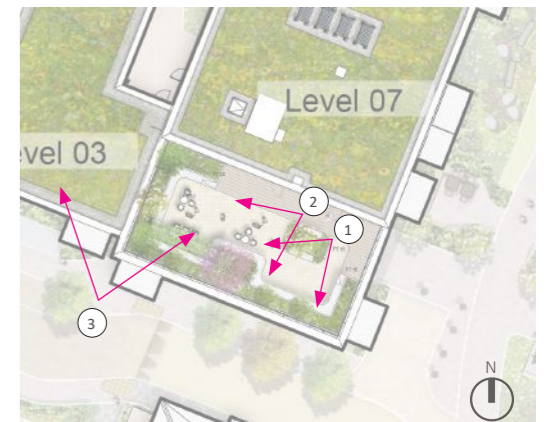
This space could be used for social interaction and communication between residents, set within a lush green garden. The external space sheltered below a pergola could accommodate an informal meeting and the opportunity for external dining.

PRECEDENTS



UPPER FLOOR AMENITY TERRACE, VISUALS

BLOCK B, 5TH FLOOR SHARED AMENITY TERRACES



For illustrative purposes only

SUSTAINABILITY DESIGN APPROACH

The scheme presents numerous opportunities to deliver ecological enhancements for the benefit of local people and biodiversity.

Some of these opportunities are:

- Wild flower meadows
- Biodiverse roofs
- Native planting
- Shelter for birds / bats
- Insect hotels
- Understory within the woodland

Other enhancements will also be adopted to maximise the opportunities the scheme brings, and to set a high benchmark for other developments.

The following pages set out some of the interventions we are incorporating to meet local biodiversity targets to ensure the equipment and habitat creation is correctly installed.

We have set out our proposal for the locations for the following interventions. These are in accordance with the ecological impact assessment, report (Biodiversity Chapter 8) produced by JBA Consulting..





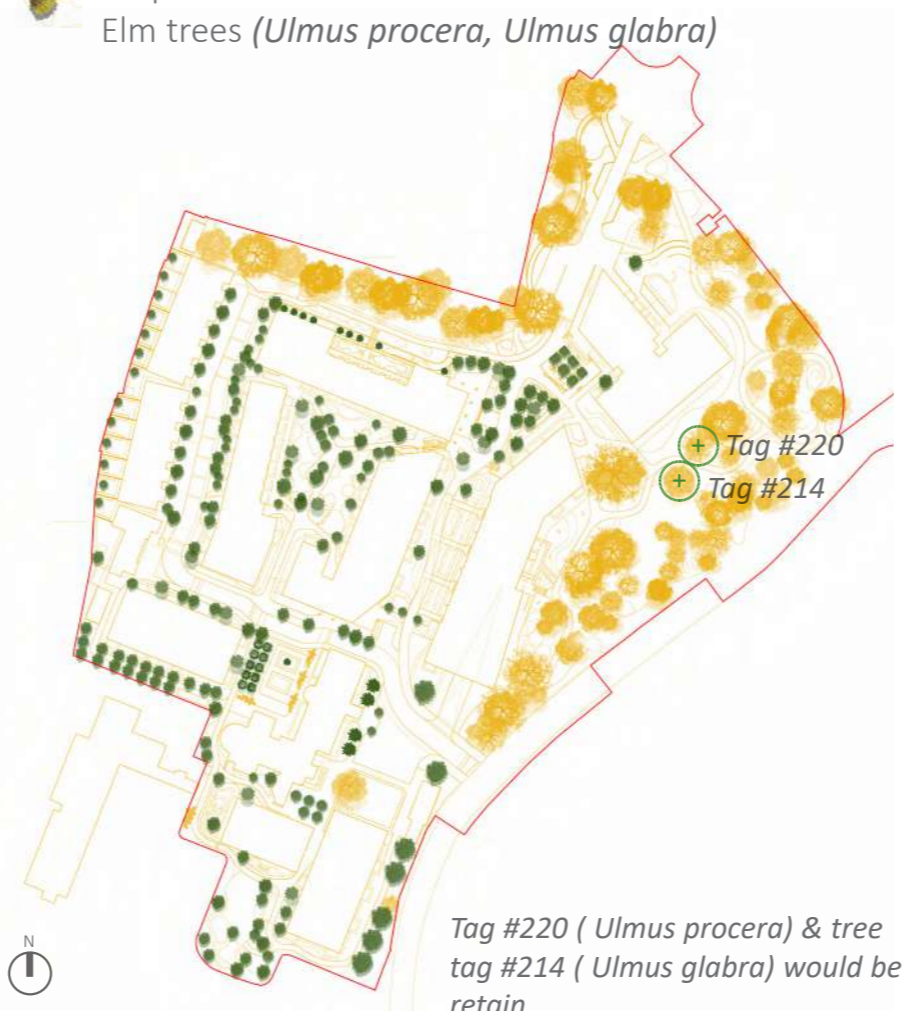
ELM TREES ON SITE

From consultation of the Pre-Planning application recommendations from Dublin City Council, one of the topics raised was the importance of retaining elm trees. Currently on site there are n°5 *Ulmus Procera* and n°1 *Ulmus glabra*.

Tree protection of this species has been a key tenet of the proposed design.

Tag #220 (*Ulmus procera*) & tree tag #214 (*Ulmus glabra*) would be retained trees present on site should be retained. However on the limited long-term potential due to Dutch Elm disease and that the elms removed will be replaced with trees with better long-term prospects, as advised by CMK.



-  Retained Existing tree
-  Proposed trees
- Elm trees (*Ulmus procera*, *Ulmus glabra*)



PROPOSED TREES

The higher value trees will also be retained on the northern boundary with this section of the site essentially linking to the open space area to the east creating a sylvan edge to both boundaries. The proposed tree layout aims to connect with the boundary woodland/trees, to provide green corridors throughout the site.

Plant native species, including native species existing on the area.




-  Retained Existing tree
-  Proposed trees



SUSTAINABILITY DESIGN

ECOLOGICAL ENHANCEMENT

The adjacent diagram shows the location of the proposed bat box, bird box and insect hotel has been developed in collaboration with JBAConsulting to maximise the benefits associated with this habitat type.

-  Bird Boxes
-  Insect Hotel
-  Bat Boxes

BAT DARK ZONE



JBA Consulting plan outlining dark zones and buffer zones across the site. Refer to Biodiversity chapter in the EIAR report.

The Lighting Report prepared by Pritchard Themis adheres to this survey with Dark Zone areas kept dark at night and buffer zones operating with a lower level of lighting than other vehicular and pedestrian routes.



BAT BOXES

The inclusion of bat boxes can help provide roosts for a variety of species. These boxes can be fabricated from a range of materials and positioned against building façades, fences and amongst tree planting.

In order to enhance the proposed development sites roosting potential for local bats, **3no.** bat boxes will be erected on suitable retained trees in suitable locations within the site. This will provide additional roosting opportunities for local bats, and recognises the degree of tree loss the proposed development requires.

An ecologist will advise on the location and position of any bat boxes to be installed, paying consideration to the aspect and height etc. that the bat box will be located at.

Coordination with the architects and the ecologist will be required if facade mounted boxes or rooftop roosts are to be adopted.



INSECT HOTELS

Insect hotels have been positioned in strategic locations across the scheme providing the perfect habitat for invertebrates such as bees and butterflies. The inclusion of these types of habitat will help cross pollination of the planting, help sustain other wildlife and provide an interesting educational tool for children living in the new development.

In order to enhance the proposed development **3no.** insect hotel will be erected on specific locations sunny place facing south, south-east within the site.

These can be creatively designed as focal points, or sculptural elements which may also provide connections for engagement with local school programmes or nature groups.



BIRD BOXES

In order to enhance the availability of nesting habitat for local populations of breeding birds, **4no.** bird boxes, of different designs, will be erected on suitable retained trees, in suitable locations.

Bird boxes provide a low-tech and effective way to encourage wildlife into the scheme. Positioned on buildings, within trees and on specially designed poles, these simple habitats provide visual interest and can echo the architectural styles seen throughout the development.

The use of birds and other wildlife to manage pests is a more environmentally friendly approach than the use of pesticides. By encouraging a healthy bird population resident can also benefit from the improved sense of well-being bird song can bring. As with the other ecological enhancements it is hoped the bird population on site can provide an educational resource for residents, and help achieve an appreciation for nature and the environment.

The adjacent images demonstrate the range of bird boxes available and how they are integrated with the style of the development.



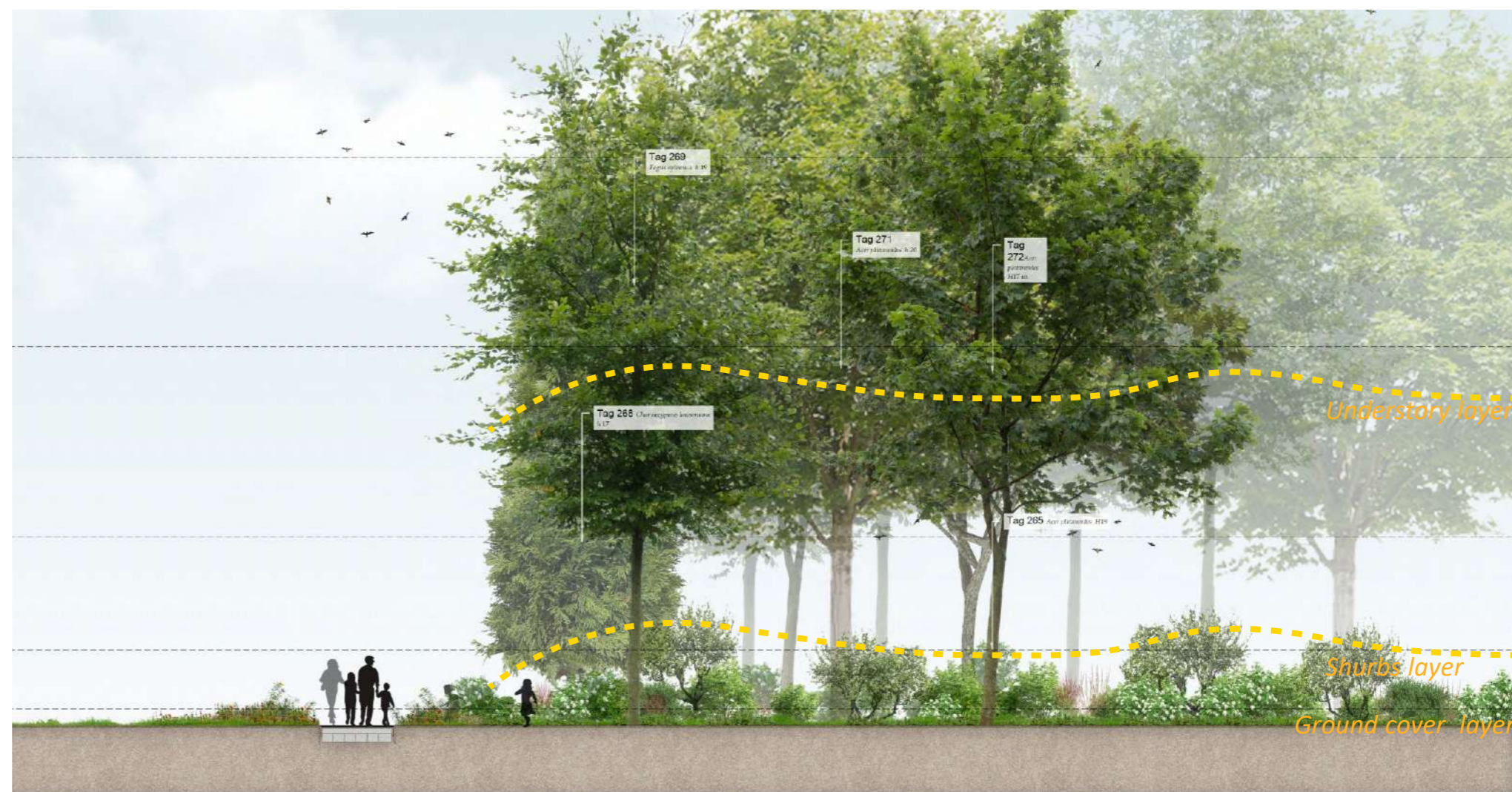
SUSTAINABILITY DESIGN

ECOLOGICAL ENHANCEMENT

UNDERSTORY SHRUBS

Plants are a keystone to the sustainable landscape and using native plants and edible plants is one of the simplest ways to promote a more ecologically sensitive landscape.

The east and north perimeter of the site contains multiple layers of existing large trees in the canopy layer, smaller trees and shrubs in the understory layer and groundcovers in the ground layer would be provided. In order to preserve the boundary woodland and enhance its function as a connecting habitat for wildlife in the wider area.



UNDERSTORY SHRUBS

Cornus sanguinea



Crataegus monogyna



Ilex aquifolium



Sambuco nigra



Viburnus Opulus



EXISTING GRASSLAND

To the back of Tabor House and the existing Chapel, a proposed formal, edible garden will be delivered.

A variety of natural produce ranging from fruit bearing shrubs, herb gardens and a variety of fruit trees, such as apple, pear and plum will be provided.

It has been stated that the existing grassland behind the Chapel and Tabor house is used by foraging bats in order to ensure that the habitat would be protected a specific mix of a native wildflower meadow would be planted in this area as it would provide habitat for insects, which is an important food source for bats.

BIRD ATTRACTING WILDFLOWERS



This mixture is ideal for Gardens, Schools, Farms, Estates and Parks, it is often placed to the back of a shorter wildflower meadow for long season effect as it is mid to tall height and requires 1 cut per year often in spring and NOT at the end of summer

Mixture Specifications:

pH range: Suits all soils.

Aspect: Sunny to light or semi shade, but not too shaded

Life Cycle: Contains Annuals, Biennials and Perennials.

Height Range: 120cm- 180cm

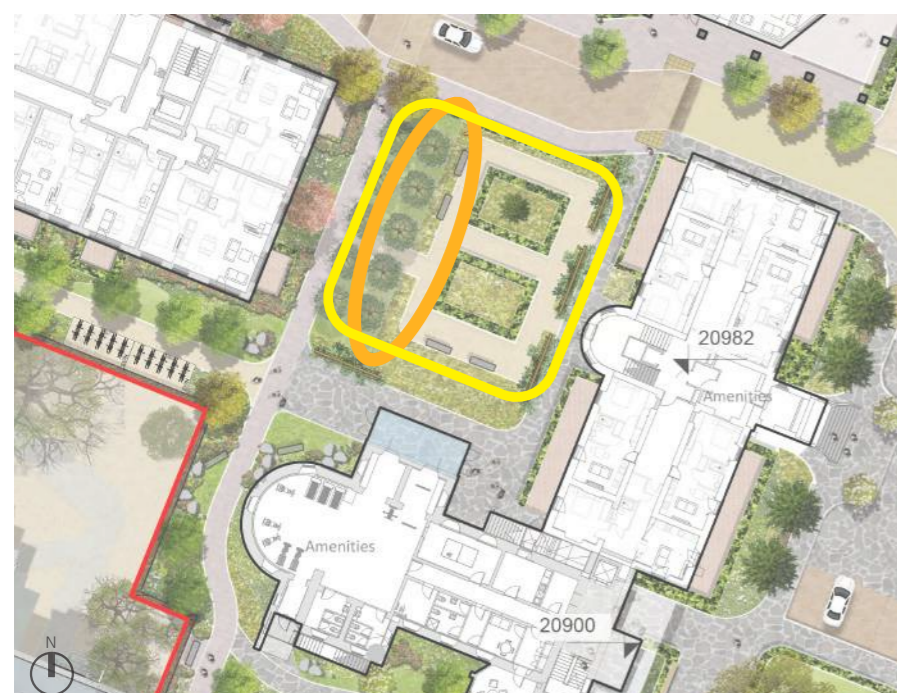
Flowering Period: May to September.

Fertility Range: Will grow on any soil, the less fertile the soil, the less cutting will be required

Wintergreen: Moderate

Source: Sandro's Irish Wildflower Conservation Grade Seed Mixture

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|-------------------------------|---------------------|----------------------|-------------------------|-------------------|
| 1. Lady's Bedstraw | 6. Cowslip | 11. Rough Hawkbit | 17. Selfheal | 23. Yarrow |
| 2. Common Bird's Foot Trefoil | 7. Common Daisy | 12. Black Medick | 18. Common Speedwell | 24. Yellow-Rattle |
| 3. Cat's Ear | 8. Common Dandelion | 13. Common Mouse-Ear | 19. Germander Speedwell | |
| 4. Red Clover | 9. Harebell | 14. Field Pansy | 20. Thrift | |
| 5. White Clover | 10. Autumn Hawkbit | 15. Wild Pansy | 21. Wild Thyme | |
| | | 16. Hoary Plantain | 22. Kidney Vetch | |



SUSTAINABILITY DESIGN

NATURAL INTERPRETATION TRAIL

Due to the character of the site and enhance the interaction between people and nature a Natural interpretation trial could be proposed within the shrubs buffer that runs along the park perimeter through signpost the impressive array of existing trees and highlight the species of bird and insects that will be attracted to forage and nest within the site.



APPENDIX

APPENDIX- EGLINGTON ROAD FOUL AND SURFACE WATER DRAINAGE UPGRADE

ARBORICULTURAL ASSSMENT

CMK Horticulture & Arboriculture have been commissioned to provide general descriptions of trees on Eglinton Road and assess what if any impacts works associated with a water connection to the proposed development of the former Jesuits lands on Milltown Road would have on these trees.

Extraction TSAN001 Appendix I Eglinton Road Arboricultural Assessment:

.. A total of 11 trees were examined along the southern side of Eglinton Road to determine if there is potential from proposed construction works to upgrade existing water and foul services to impact on the trees.

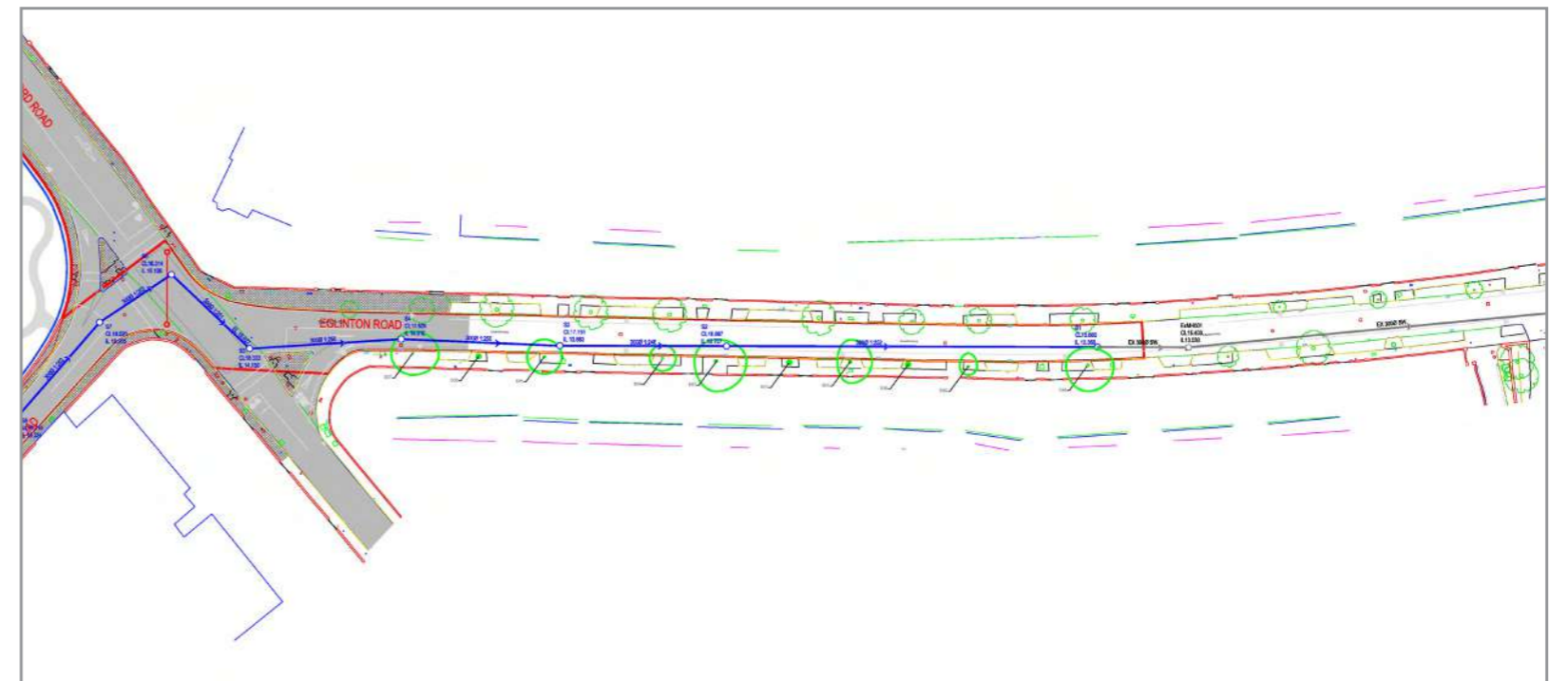
Relevant details such as crown spread, branch height clearance over road and current surface root / buttress damage to existing kerbs and paving were recorded. The trees are a mix of species ranging from young to early-mature and mature. The older trees are generally large and have been managed on a continual basis over the years..

The larger trees have caused paving heave in a number of instances which has been partially managed by placing tarmac over effected areas. ...

..Tree protection is to be provided by installing Heras fencing and a project arborist will be employed to monitor works for the duration of the project. A post-construction report will be provided by the project arborist detailing tree protection monitoring and all works relative to trees.



- | | | |
|---------------------------------|---------------------------------|-------------------------------|
| Tree number: 607- London plane | Tree number: 603-London plane | Tree number: 599-Elm cultivar |
| Tree number: 0000- London plane | Tree number: 000-London plane | Tree number: 598-London plane |
| Tree number: 605-Horse chestnut | Tree number: 601-Horse chestnut | |
| Tree number: 604-Lime cultivar | Tree number: 000-London plane | |



Source: Ref to drawing TSAN001 EGLINTON ROAD 110



THANK YOU



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