MAYESTON HOUSING PROJECT

LANDSCAPE DESIGN

DESIGN REPORT FOR PLANNING APPLICATION

REDscape

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Site in 2021

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1.0 INTRODUCTION

Background

The proposed site for the development is a located in the townland of Mayeston, Poppintree, Dublin 11. The site is bounded on the north by the M50, to the west by a large public landscaped space, to the south by Mayeston Downs houses and to the south and south-east by Mayeston Green and Mayeston Downs, and to the east by Silloge Green Lane. The proposal is for a residential development of 119 no. residential apartment units and creche, arranged in 5 buildings varying in height from 3 storeys to 6 storeys.

The FCC-owned land on which the proposed buildings are located has an extent of 1.35ha, and falls approximately 2.2m from the north-west towards the south-east. The surrounding context is characterized by perimeter block apartment buildings and terraced 2-3 storey houses. There are no existing buildings on the site apart from ground floor slabs and a road which were partially constructed circa 2008 (FCC Planning Ref: FCC 06A/1348 and F07A/1423), before the works were abandoned. Some soil heaps remain on the site as part of these works. The main part of the site to the west is fully fenced off and the eastern part of the site is overgrown grass and scrub.

The intent is that the development will provide quality housing with a variety of units and communal amenity space. As a larger park and green area is located adjacent to the project area, the focus for the public realm concept will be to provide safe, local spaces for residents, to complement the existing green structure.

Site image with approximate indication of boundary

Images of existing situation

Images showing the entrance roads and surrounding green areas to the project area.


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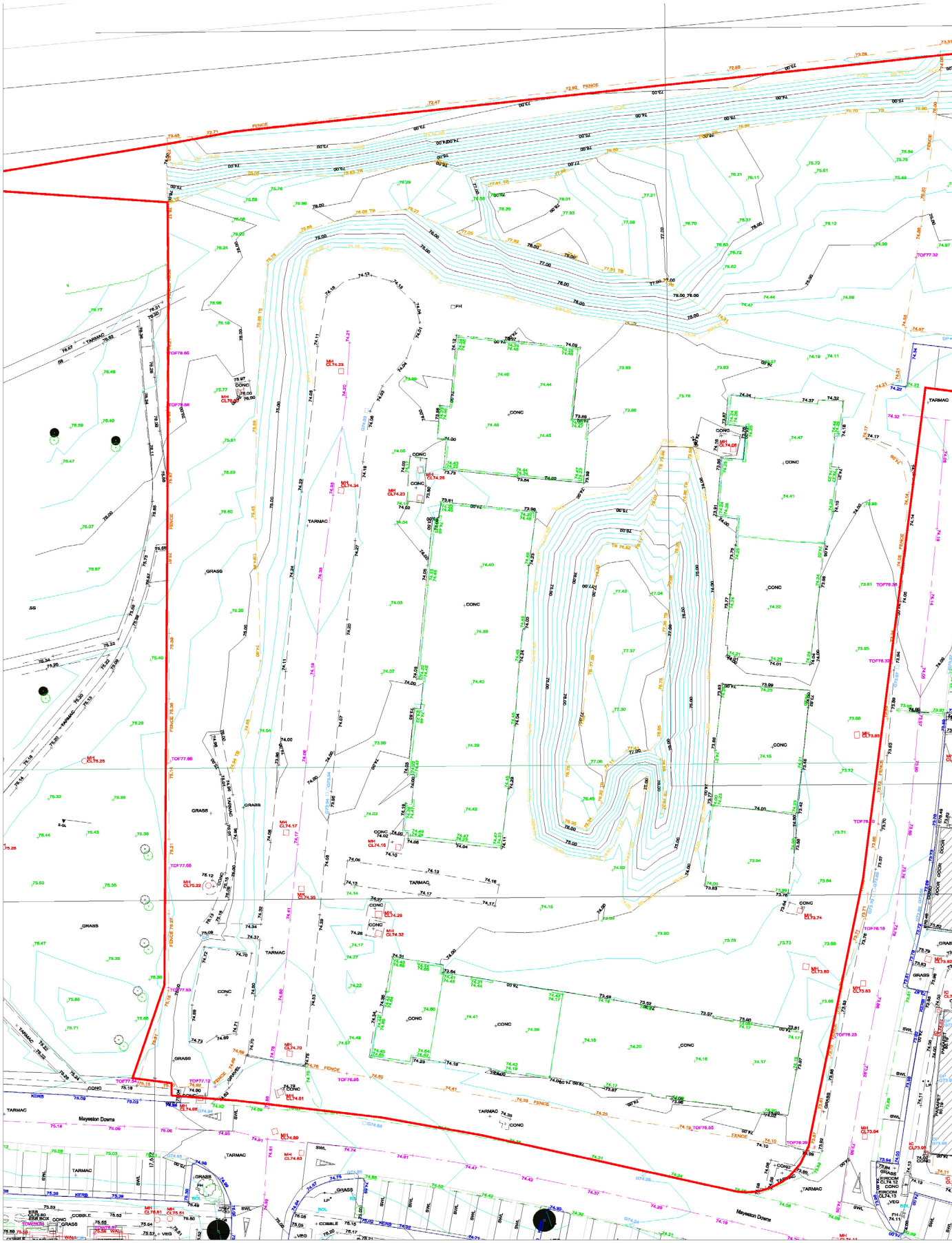
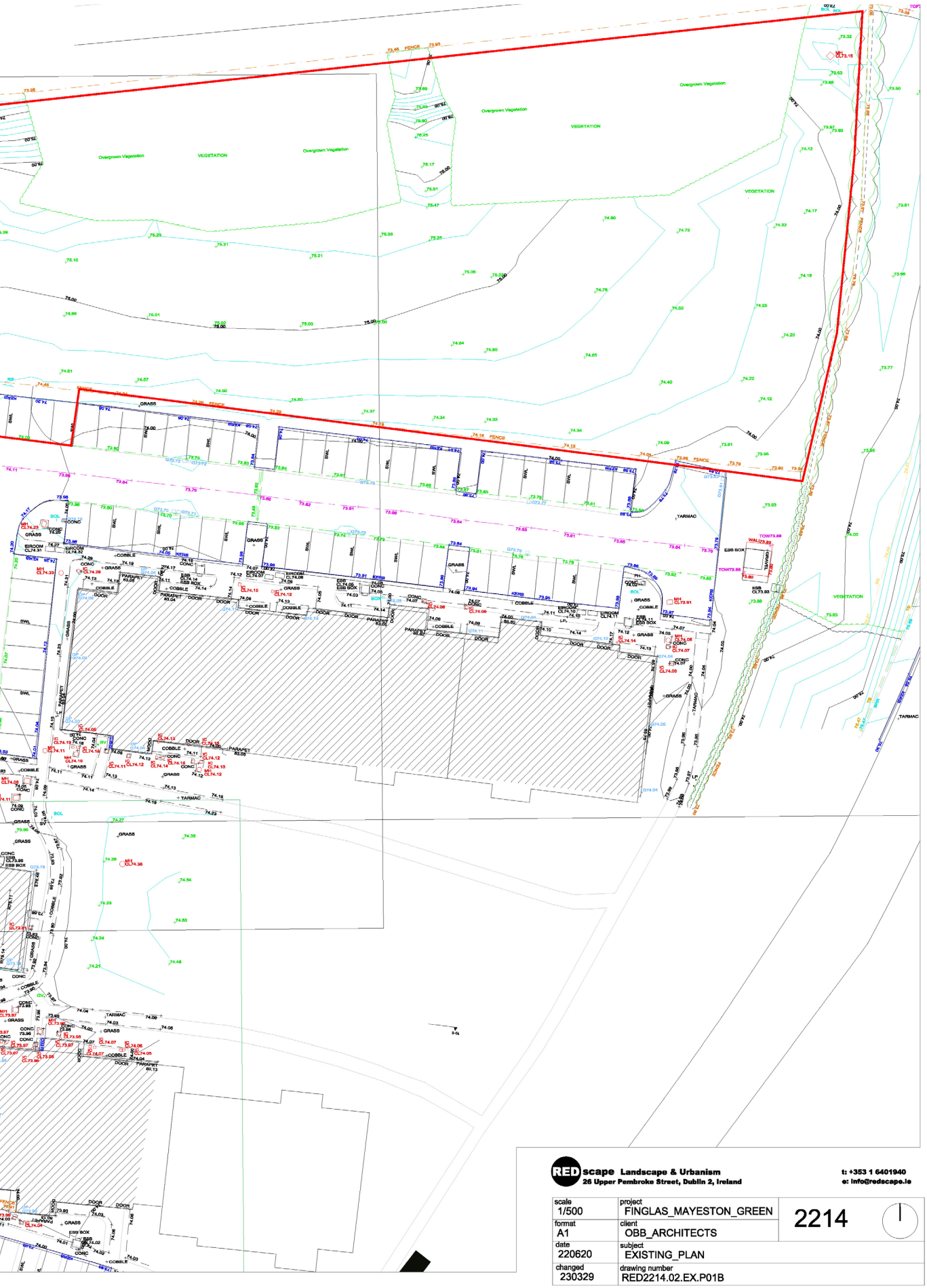
Existing site survey with boundary





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2.0 DESIGN

Encouraging active use of the public realm improves the quality of life for all residents.

Visual of inner courtyard (Source: OBBA)

Landscape design concept

Two existing green areas, Mayeston Park and Mayeston Green are located adjacent to the proposed development and offer significant space for outdoor activities. The principal objectives of the landscape design for the project area are to complement the existing green structure with high quality communal amenity space and a public open space and to contribute to the sustainability of the proposed development with sustainable urban drainage.

The design offers multiple uses to different age groups. It is based on the following design themes; car free amenity, child friendly spaces, natural play, amenity routes, active travel, community based spaces and food production.

1. Communal amenity space

The design includes the following components;

A green courtyard (for all ages)
The main courtyard has been designed as a traffic free, large green space to facilitate excellent sunlight penetration at all times of the year. This is a general space for passive amenity.

Natural Play area and play route (2-7 years)
Within this space a natural play area, stepping stone bridge and natural play equipment (swing bridges, poles) are proposed for this eco informed setting to offer a play route.

Seating (teenagers/ all ages)
Several benches for outdoor seating are located around the central courtyard to enjoy the sunniest spots. Concrete steps are integrated into the grassed slope to offer an informal gathering place for residents in one of the sunniest spots.

Food production (all ages)
A space has been allocated near block B and D as potential sites for community food production. This site is semi enclosed, public, and near an entrance with social supervision and considered suitable for collective initiatives.

Creche outdoor space (children to 4 years)
An outdoor creche space is provided.

Parking for bikes (all users)
A range of parking options for bikes are provided, including indoor parking and outdoor parking. See architect's drawing

Enclosed communal garden (all ages)
A communal enclosed garden with seating and an ornametnal tree is provided for block E.

General Description

The main courtyard has been designed as a traffic free, large green space to facilitate excellent sunlight penetration at all times of the year, as demonstrated in the sunlight studies prepared. It is overlooked by the dwellings in the project. Within this space a natural play area with stepping stone bridge and informal seating areas are proposed for this eco informed setting. The setting for the courtyard can be maintained to become more extensive over time, if so desired by the residents and maintenance. Boundary treatments are described in Architect's drawings.

Sustainable urban drainage

The central green area is sunken to provide a dry swales as part of the SUDS strategy. Storm water runs off via pathways and flows to a north south collector located at the centre of the green courtyard. The collector is detailed as a dry stone rill with steel edges, which curves through the inner courtyard. The intention it to raise an awareness of the drainage concept and demonstrate how suds can become a visible, valued feature in the public realm.
The (dry) swale is planted with grass and pollinators and several varieties of trees (some native) for all your round visual interest, biodiversity, and occasional shade. Zones along the centre of the swale areas to be extensively maintained with zones of bioswale vegetation parallel to the collector. This vegetation can tolerate occasional inundation, as the water level can rise to 0.5m height for short periods within the swales. Permeable concrete pavers are proposed in the majority of the hard landscaped areas. Tree pits will also be designed to buffer water in

wet periods and store water in dry ones. The tree pits are proposed with a minimum of 20m3 per tree for all trees planted in hard standing or semi permeable paving.

Edges, privacy and social protection
It is proposed to close off the courtyard with gates and railings but the combination of the clear thresholds to the space and the supervision by ground and upper floor dwellings will assist in creating a safe secure space. Ground level apartments have private gardens or terraces which are enclosed with hedges. These can be privately maintained by the residents with a recommended height of 1.2m. The proposed hedges have a mixed species planting, chosen for biodiversity, security (thorns) and the ability to fix carbon. The crèche garden at the southern end of the site, will be enclosed by a beech hedge in combination with a railing.

Green parking area
The parking area to the north of the site has been designed as a green parking area, with grasscrete parking spaces in combination with porous macadam to slow run off and buffer water. A layer of trees has been proposed for the parking areas to mitigate the effects of particle pollution from the M50 and offer some marginal reduction in noise levels. The green concept is extended to the storage facility for bikes where stacked parking has been proposed in secure buildings with sedum roofs. Runoff from the roof will flow via ground level drain to swale, which flows to an attenuation basin in the nearby park.

Play and pleasure
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.

The central green area has a natural play area consisting of a felled tree, in combination with several wooden play elements that bridge the collector section of the swale. This forms part of a play route through the central space. Several benches for outdoor seating are located around the central courtyard. Concrete steps are integrated into the grassed slope to offer an informal gathering place for residents in one of the sunniest locations.

Paving for flexible spaces
A light-coloured concrete paving with natural stone topping has proposed to form a consistent surface throughout the project area.

2. Public open space - Class 2
The design includes the following components;

Grassed areas with picnic table
The grassed area offers green spaces next to the buffer zone to the M50 and have flexible use.

Informal play for 6 -12 years
Within the grassed area is an informal play area with stepping stones , leading to stacks of stone or concrete flags for informal climbing. These are not to exceed 90cm in height.

Pollinator garden
A pollinator garden is located next to block E.

General Description
This part of the site is a wrap-round grassed area, to block E which offers a green space next to the buffer zone to the M50. It links the existing residential area tothe south, with a walking route around the eastern periphery of the residential zone to tie in with Mayeston Green and St Margaret's Road. A pollinator garden, play area are located within the public open space.

Block E offers a level of social supervision to the north, which is to facilitate a play area for older children. The planted tree area along the M50 is to be strengthened with new planting, offering a narrow, habitat corridor along the M50.

3. Private outdoor areas
The design includes the following components;

Private amenity areas
These areas are enclosed with hedges of 1.2m, and are indicated in the GI plan. See open space provision diagram.

Creche outdoor space
An outdoor creche playing area is provided. See open space provision diagram.

Boundary treatments are described in Architect's drawings.

Open space provision

Communal Amenity Space, 1998sqm

The Sustainable Urban Housing: Design Standards for New Apartments 2022 outlines a requirement below for communal amenity space for apartments as set out below:
1 bed – 5 sqm
2 bed 3 person – 6 sqm
2 bed 4 person – 7 sqm
3 bed – 9 sqm

Based on the unit count and mix proposed, there is a minimum requirement of 746 sqm for the development, outlined below:

1 bed apartment 39	195 sqm
2 bed 3 person apartment 33	198 sqm
2 bed 4 person apartment 35	245 sqm
3 bed 5 person apartment 12	108 sqm

A total of 1,998 sqm communal amenity space is provided in the project, in two spaces. The main communal amenity space is the central courtyard accessible to all residents including Block E (1,867 sqm), and a secondary communal amenity space is directly to the south of Block E (131 sqm). The total provision is just under 2.5 times the minimum requirement and all the space provided is accessible, secure, sheltered, usable and achieving excellent sunlight standards. Play and seating areas are proposed to cater for all levels of mobility and accessibility. The daylight studies submitted confirm that the courtyard and Block E communal amenity space will receive good sunlight penetration during all seasons. All site curtilage areas will be overlooked by habitable rooms for passive surveillance, and outdoor lighting will ensure a safe and friendly environment.

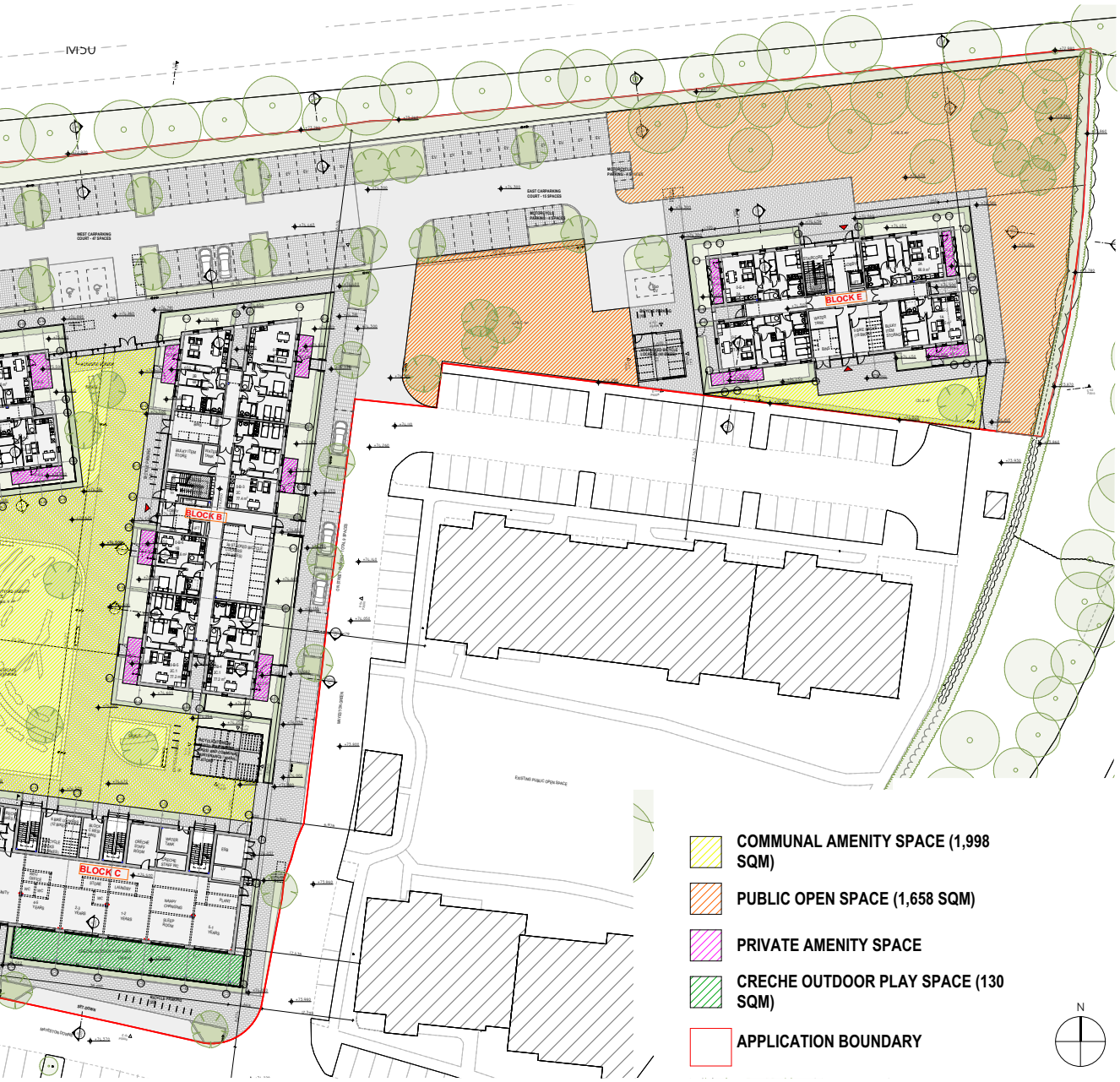
The grassed areas to the courtyard are shaped to provide natural swales as part of the SUDS strategy. Permeable concrete pavers are proposed in most of the hard landscaped areas and native tree planning is proposed for visual interest, biodiversity and occasional shade. The courtyard will have controlled access via gates, but if the proposal allows the intention is that these will remain open during daytime and that the combination of the clear thresholds to the space and the supervision by ground and upper floor dwellings will assist in creating a safe secure space at these times.

The Communal Amenity Space adjacent Block E is a south-facing space with low noise levels. It is protected by perimeter hedges and a pedestrian gate, with seating and planting for occasional shade. The space has passive surveillance and lighting to create a safe secure space for the residents.

Open space diagram. Source OBB

Public Open Space (P.O.S.), 1658sqm

The FCC Development Plan requires that 12% of the site is provided as Public Open Space. The proposal allows for 1,658 sqm of Class 2 Public Open Space, which is 12.3% of the overall site area. The POS is provided to the centre and north-east of the site, in two connected zones. The central location of the smaller zone will be useful for all local residents, and is designed as an open flexible green space with wildflower planting for visual interest and biodiversity, and with street lighting and with good passive surveillance from roads and apartments. The second larger zone to the north-east of



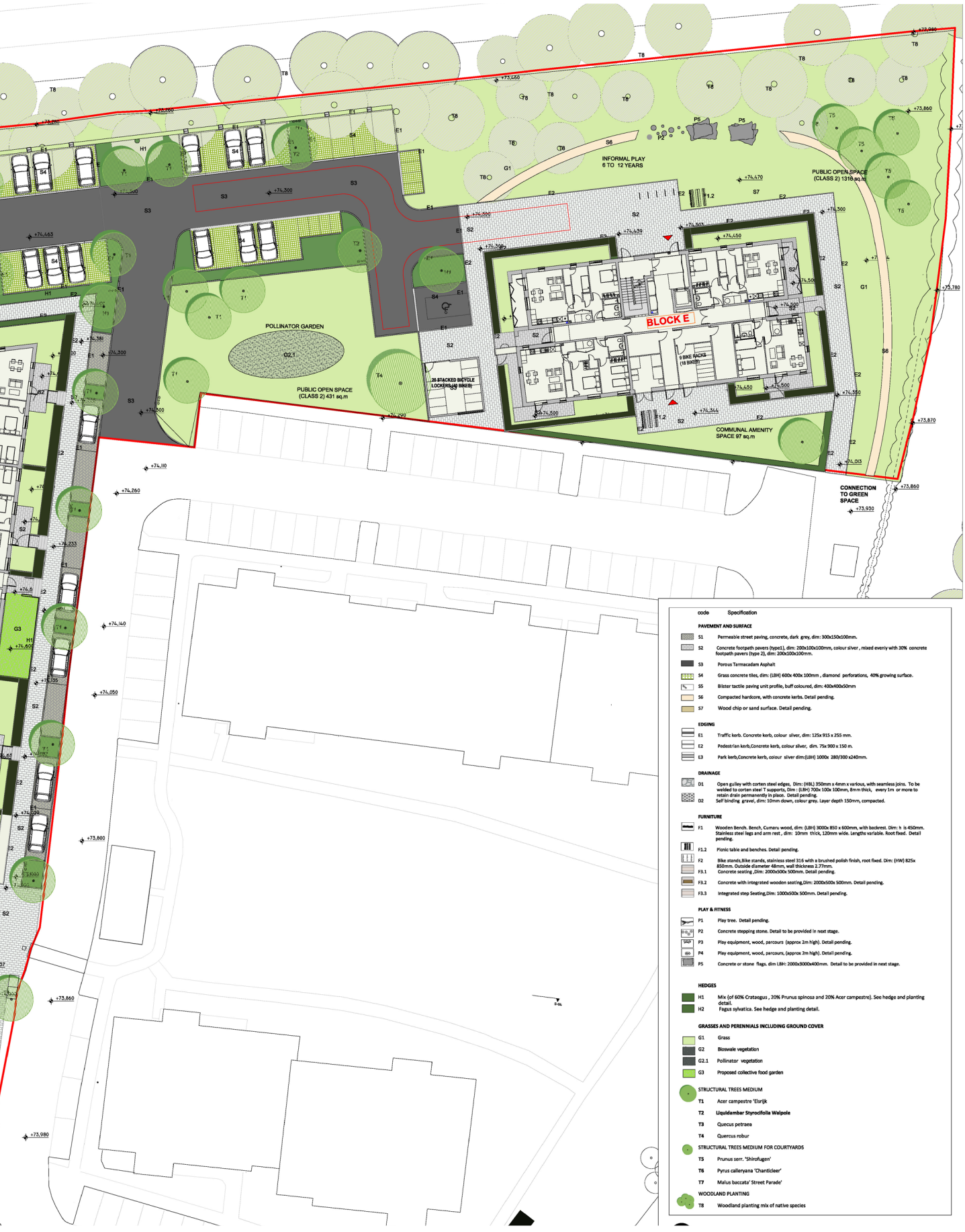
the site is adjacent Silloge Lane, which has the potential to facilitate a future connection between the subject site and Silloge Lane and to the FCC-owned lands to the east, which have potential to be used as amenity spaces. Natural play provision is included to this area for older children. It is also worth noting the immediate adjacency of the large park to the west, which is a very pleasant, well-maintained, and popular open space.

Play Provision, 482sqm

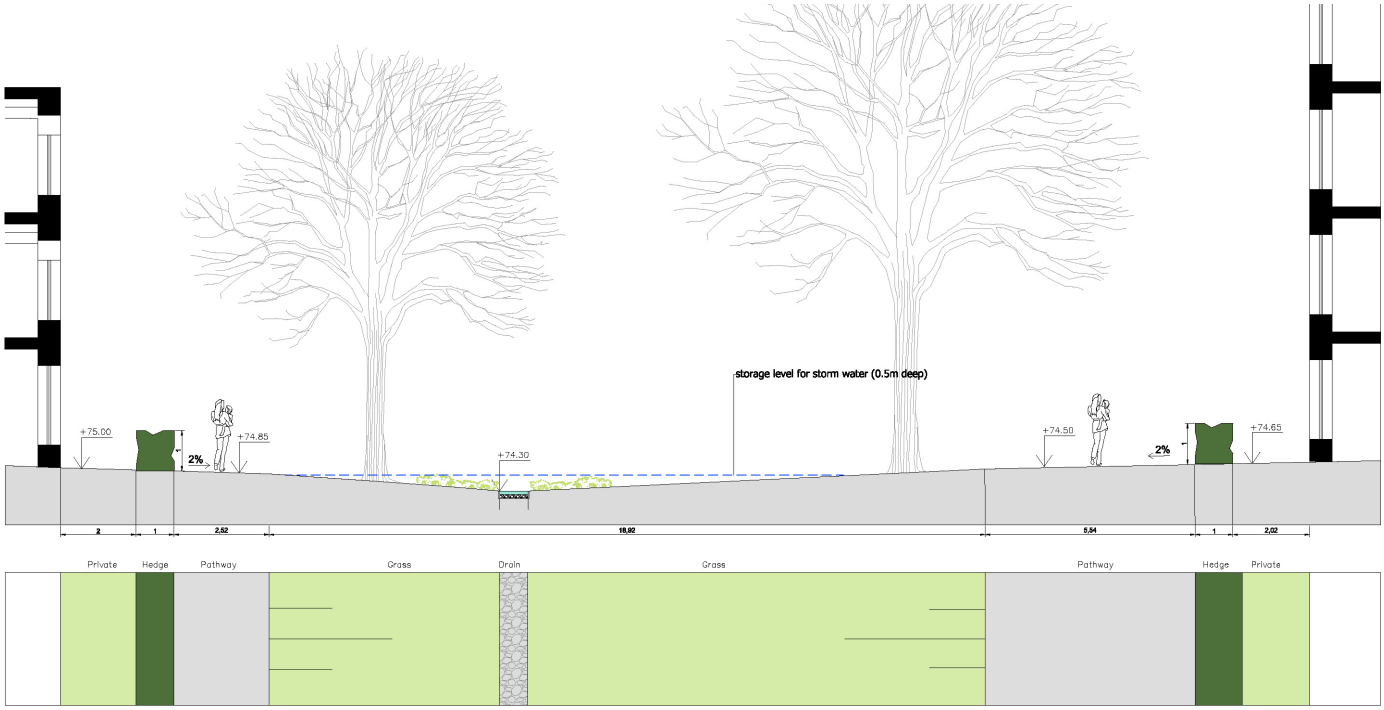
The proposal allows for a play space provision of 482 sqm which is greater than the minimum requirement of 476sqm outlined in Space for Play - a Play Policy for Fingal. The main play space is located centrally in this development in a courtyard, including Natural Play elements. The design of the main play area is in line with guidance in Sustainable Urban Housing: Design Standards for New Apartments 2022, which specifically notes that "the perimeter block with a central communal open space is particularly appropriate for children's play, especially if access from the street is controlled." Additional natural play provision of 115sqm is located to the north east of the site, for older children. The existing open space directly adjacent the subject site also has a playground, approx. 130m from the site.

Visual of inner courtyard, looking towards the M50. (Source: OBBA)

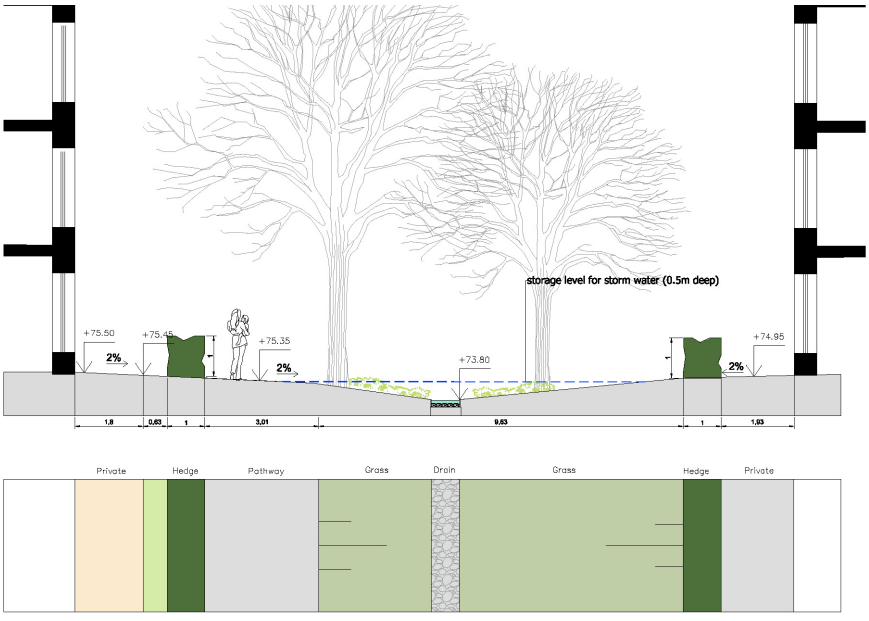
Landscape Plan


INFORMAL PLAY
6 TO 12 YEARS
PUBLIC OPEN SPACE
(CLASS 2) 1319 sq.m
POLLINATOR GARDEN
G2.1
PUBLIC OPEN SPACE
(CLASS 2) 431 sq.m
BLOCK E
9 BIKE RACKS
(18 BIKES)
20 STACKED BICYCLE
LOCKERS (40 BIKES)
COMMUNAL AMENITY
SPACE 97 sq.m
CONNECTION
TO GREEN
SPACE
code Specification
PAVEMENT AND SURFACE
S1 Permeable street paving, concrete, dark grey, dim: 300x150x100mm.
S2 Concrete footpath pavers (type1), dim: 200x100x100mm, colour silver , mixed evenly with 30% concrete footpath pavers (type 2), dim: 200x100x100mm.
S3 Porous Tarmacadam Asphalt
S4 Grass concrete tiles, dim: (LBH) 600x 400x 100mm , diamond perforations, 40% growing surface.
S5 Blister tactile paving unit profile, buff coloured, dim: 400x400x50mm
S6 Compacted hardcore, with concrete kerbs. Detail pending.
S7 Wood chip or sand surface. Detail pending.
EDGING
E1 Traffic kerb. Concrete kerb, colour silver, dim: 125x 915 x 255 mm.
E2 Pedestrian kerb,Concrete kerb, colour silver, dim. 75x 900 x 150 m.
E3 Park kerb,Concrete kerb, colour silver dim:(LBH) 1000x 280/300 x240mm.
DRAINAGE
D1 Open gulley with corten steel edges, Dim: (HBL) 350mm x 4mm x various, with seamless joins. To be welded to corten steel T supports, Dim : (LBH) 700x 100x 100mm, 8mm thick, every 1m or more to retain drain permanently in place. Detail pending.
D2 Self binding gravel, dim: 10mm down, colour grey. Layer depth 150mm, compacted.
FURNITURE
F1 Wooden Bench. Bench, Cumaru wood, dim: (LBH) 3000x 850 x 600mm, with backrest. Dim: h is 450mm. Stainless steel legs and arm rest , dim: 10mm thick, 120mm wide. Lengths variable. Root fixed. Detail pending.
F1.2 Picnic table and benches. Detail pending.
F2 Bike stands,Bike stands, stainless steel 316 with a brushed polish finish, root fixed. Dim: (HW) 825x 850mm. Outside diameter 48mm, wall thickness 2.77mm.
F3.1 Concrete seating ,Dim: 2000x500x 500mm. Detail pending.
F3.2 Concrete with integrated wooden seating,Dim: 2000x500x 500mm. Detail pending.
F3.3 Integrated step Seating,Dim: 1000x500x 500mm. Detail pending.
PLAY & FITNESS
P1 Play tree. Detail pending.
P2 Concrete stepping stone. Detail to be provided in next stage.
P3 Play equipment, wood, parcours (approx 2m high). Detail pending.
P4 Play equipment, wood, parcours, (approx 2m high). Detail pending.
P5 Concrete or stone flags. dim LBH: 2000x3000x400mm. Detail to be provided in next stage.
HEDGES
H1 Mix (of 60% Crataegus , 20% Prunus spinosa and 20% Acer campestre). See hedge and planting detail.
H2 Fagus sylvatica. See hedge and planting detail.
GRASSES AND PERENNIALS INCLUDING GROUND COVER
G1 Grass
G2 Bioswale vegetation
G2.1 Pollinator vegetation
G3 Proposed collective food garden
STRUCTURAL TREES MEDIUM
T1 Acer campestre 'Elsrijk
T2 Liquidambar Styraciflolia Walpole
T3 Quecus petraea
T4 Quercus robur
STRUCTURAL TREES MEDIUM FOR COURTYARDS
T5 Prunus serr. 'Shirofugen'
T6 Pyrus calleryana 'Chanticleer'
T7 Malus baccata' Street Parade'
WOODLAND PLANTING
T8 Woodland planting mix of native species

Sections



Section A



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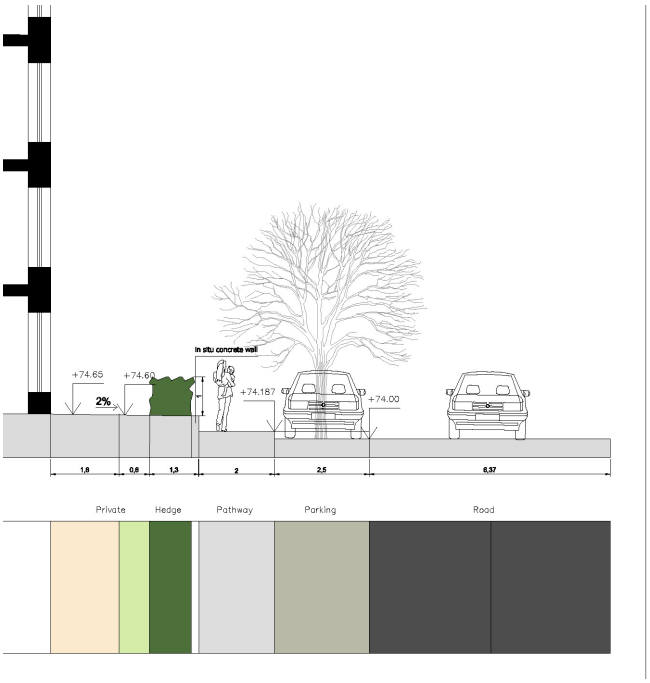
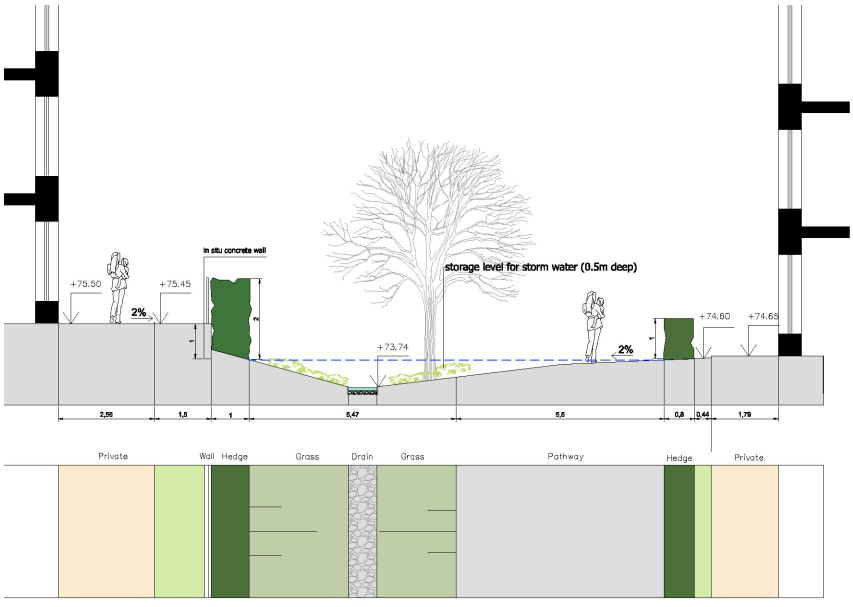
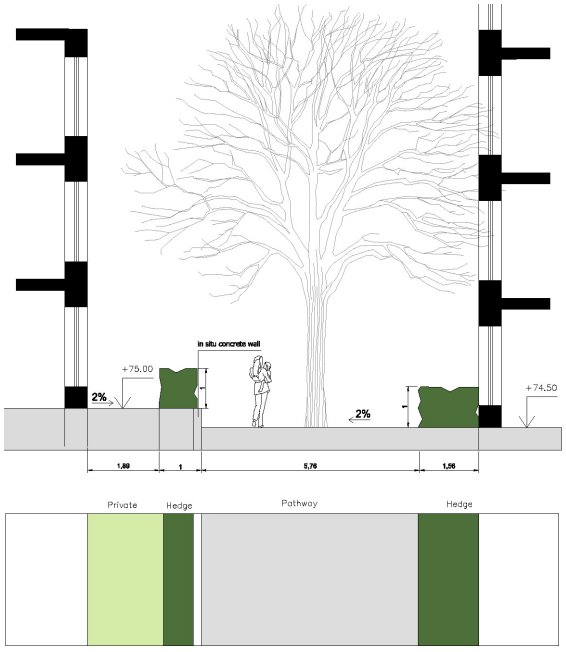


Section B

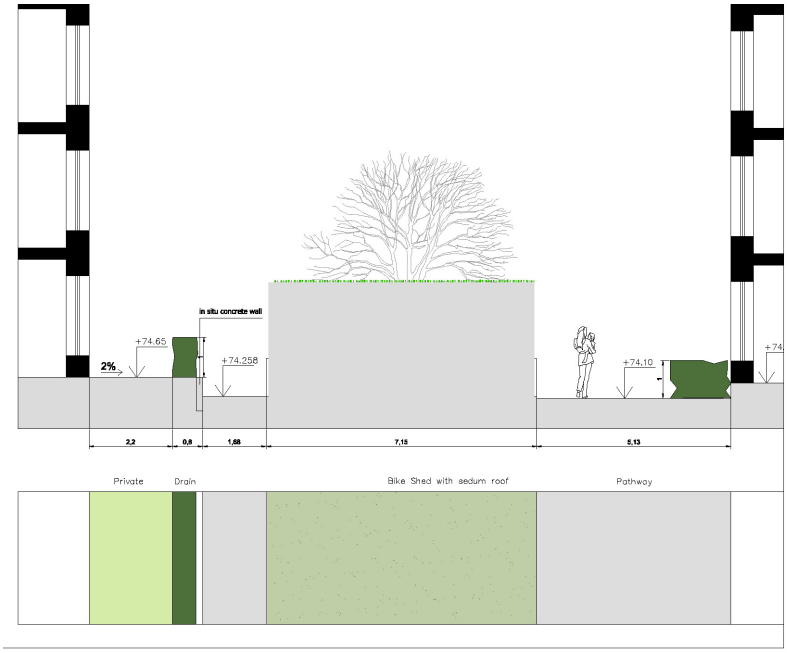


Section D

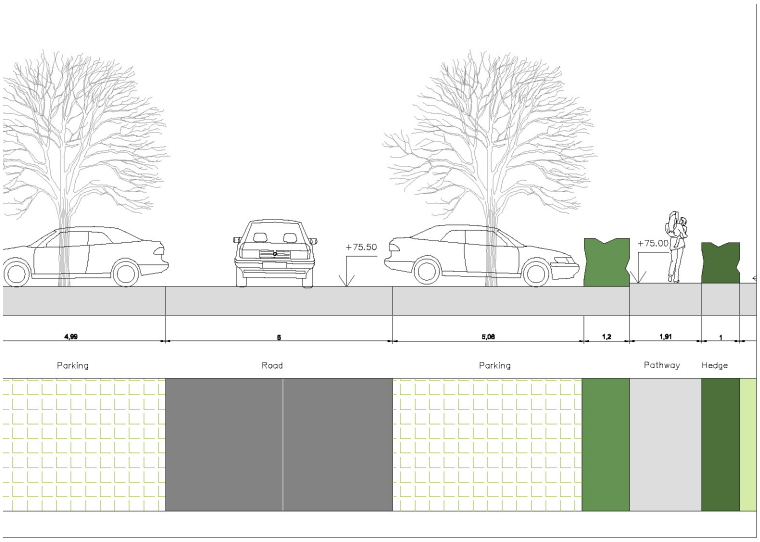
Sections



Section E



Section F



Section G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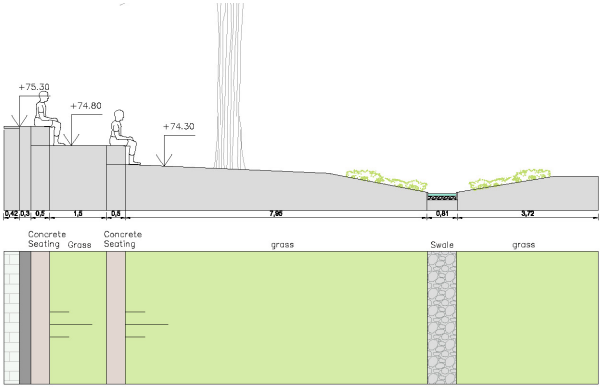
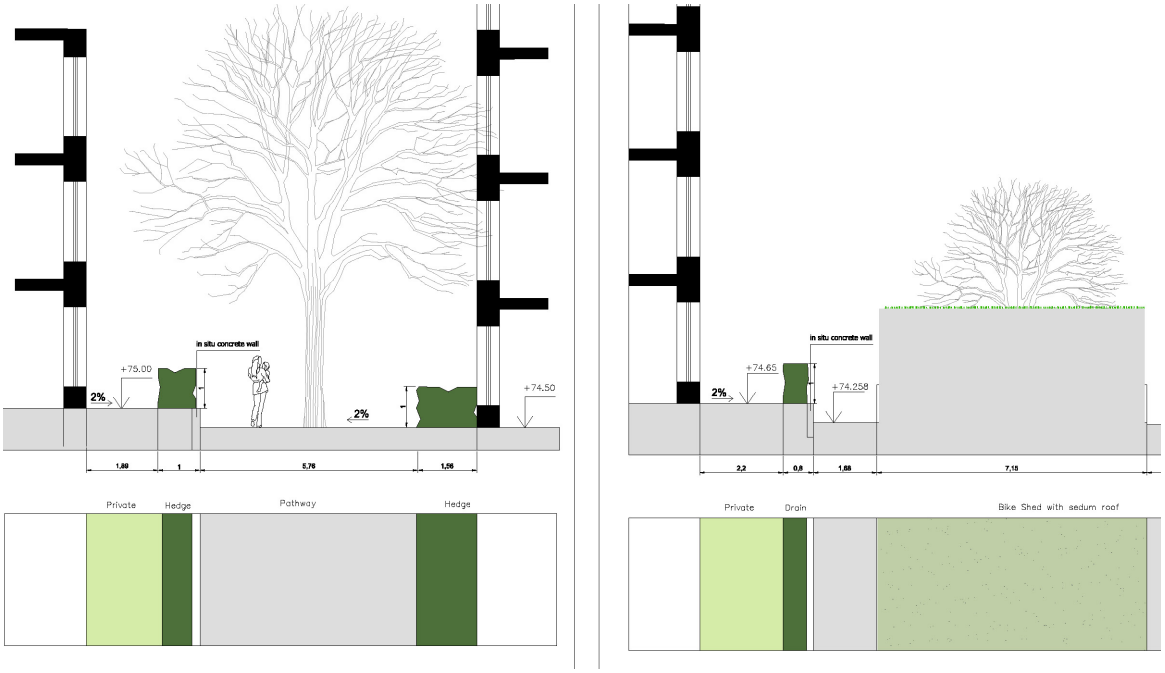

+75.30
+74.80
+74.30
Concrete Seating
Grass
Concrete Seating
grass
Swale
grass

Section H



Section E

For additional sections to show boundary treatment, see Architect's drawings.


A
B
C
D
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H

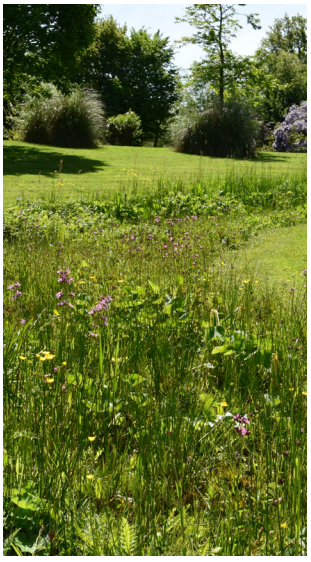
Public realm precedents for public open space and communal amenity space

Wadi or swale

The central green area is sunken to provide a dry swales as part of the SUDS strategy. Storm water runs off via pathways and flows to a north south collector located at the centre of the green courtyard. The collector is detailed as a dry grit rill with steel edges, which curves through the inner courtyard. The intention it to raise an awareness of the drainage concept and demonstrate how suds can become a visible, valued feature in the public realm.

The (dry) swale is planted with grass and several varieties of trees (some native) for all your round visual interest, biodiversity, and occasional shade. Zones along the centre of the swale areas to be extensively maintained with zones of bioswale vegetation parallel to the collector. This vegetation can tolerate occasional inundation, as the water level can rise to 0.5m height for short periods within the swales.

G2 Wadi with bioswale vegetation



D1, gravel drain with steel edges will be filled with a fine grade grit.

Temporary ponding in wadi

Stepping stones

Natural play & play equipment

The swale area has a natural play area consisting of a felled tree in combination with wooden play elements laid over the collector section of the swale.

Several benches for outdoor seating are located around the central courtyard to enjoy the sunniest spots. Concrete steps are integrated into the grassed slope to offer an informal gathering place for residents in one of the sunniest spots.

Informal play

Steppings stones and stacked flagstones offer additional informal play opportunities near Block E.

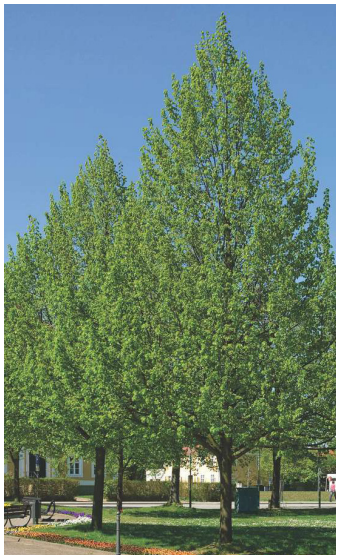
Examples for wooden parcours play equipment

Examples for natural play elements

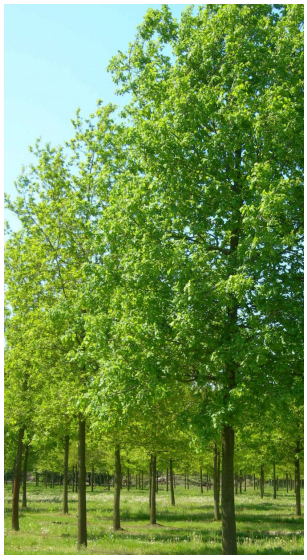
Example: Play stack with flagstones

Trees

A palette of trees have been selected to offer year round colour and diversity. Larger formal trees have been selected for the entrance road to match the scale of the buildings. In the internal courtyards, smaller trees, with seasonal colour are proposed. Tree pits with 20m3 of structural soil and at least 1 aeration and water inlet are required for all trees planted in half open or hardstanding. A check in the next phase will be carried out in line with the Fingal Tree Strategy, to establish the need for tree pits.



T1



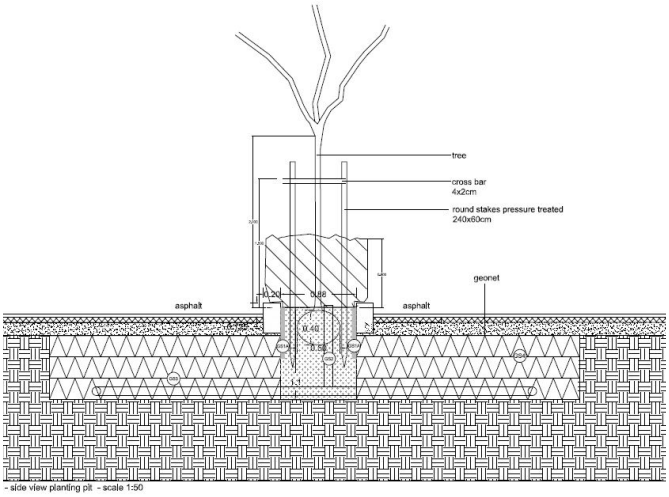
T2

T3

T4

T5

T6



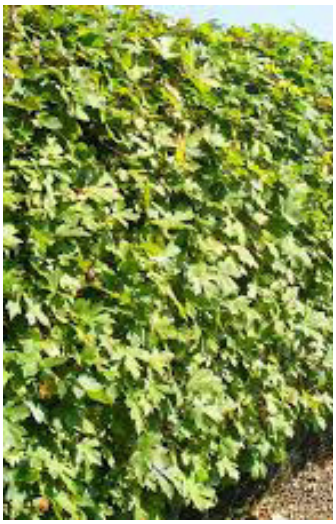
Tree pit detail with 20m3 of structural soil for trees in half open and in hard standing.

Hedges

Ground level apartments have private gardens or terraces which are enclosed with hedges. These will be privately maintained by the residents with a recommended height of 1.2m. The proposed hedges have a mixed species planting for biodiversity, security (thorns) and the ability to fix carbon. The crèche garden at the southern end of the site, will be enclosed by a beech hedge in combination with a railing. The western boundary will require a low railing in combination with the proposed hedge and will be worked out in the detailed design. Boundary treatments are shown in the architect drawings.

H1

H1



H2

H2

Bulbs

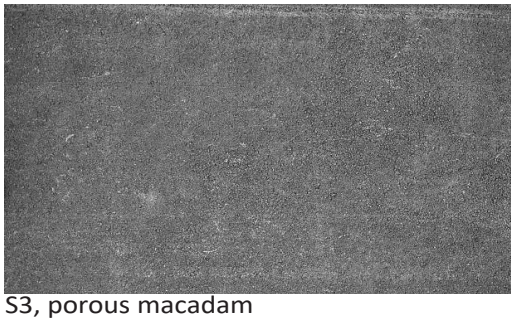
Perennial bulbs mixes can be planted into existing turf and have been proposed to enhance seasonal colour in the park. They are low in maintenance.

G3

Green parking

The parking area to the north of the site has been designed as a green parking area, with grasscrete parking spaces in combination with porous macadam to slow run off and buffer water. A layer of trees has been proposed for the parking areas to mitigate the effects of particle pollution from the M50 and offer some marginal reduction in noise levels.

S4, grasscrete



S3, porous macadam

Sedum roof

The green concept is extended to the storage facility for bikes where stacked parking has been proposed in a secure transparent building with a sedum roof. Runoff from the roof will flow via ground level drain to swale, which flows to an attenuation basin in the nearby park.

G3, sedum roof

Example of stacked bike parking

Lighting

The street lighting plan for streets and footpaths shows the proposed treatment for lighting.

Surface Materials

A light-coloured concrete paving with natural stone topping has proposed to form a consistent surface throughout the project area. A similar paving also been proposed for on street parking areas to visually reduce the width of the carriageways encouraging drivers to reduce speeds. A speed of 30kph for the entrance street to the parking is recommended.

S1, Concrete street pavers, light grey

S2, Concrete pedestrian pavers, light grey

S1, Concrete street pavers, dark grey

Furniture

A series of elements for the public realm have been selected to be robust and low maintenance. Wooden benches will offer a comfortable place to sit and encourage social interaction. Bike stands offer a no-nonsense easy way to park.

F1, bench

F2, bike stands