

Cooldown Commons Phase 3
Built to Sell Development

Housing Quality Assessment
June 2021



Contents

Section 01 - Executive Summary	04
Section 02 - Policy Overview	06
Section 03 - Compliance with Sustainable Urban Housing Design Standards:	
- Apartment Mix	07
- Apartment Design	08
- Apartment Floor Areas	09
- Dual Aspect Ratio's	10
- North Facing Apartments	13
- Floor to Ceiling Height	23
- Lift and Stair Cores	24
- Internal Storage	24
- Private Amenity Space	25
Section 04 - Compliance with Sustainable Urban Housing Design Standards:	
- Communal Facilities	27
- Access and Services	27
- Resident Support Facilities	28
- Resident Services and Amenities	28
- Refuse Storage	30
- Communal Amenity Space	32
- Security Considerations	36
- Children's Play	37
- Car and Bicycle Parking	38
Section 05 - Appendices	
Appendix A: Housing Quality Assessment	42
Appendix B: Planning Statistics for the Scheme	50
Appendix C: Apartment Type Drawings	52

The Design Team

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Daylight & Sunlight Analysis	Avison Young
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Engineer (Fire Consultant)	Jensen Hughes
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Waste Management	Byrne Environmental Consulting Ltd

Project Description

The proposed development will consist of the construction of 421 no. residential units within 9 no. blocks ranging in height from 1 – 13 storeys, retail/commercial/office units, residential amenity space, and open spaces along with all associated site development works and services provisions to facilitate the development including parking, bin storage, substations, landscaping and all services. A full description is provided in the statutory notices and in Chapter 3 of the EIAR.

Site Statistics	
Total Site Area	3.404 ha
No. of Units	421
Total Gross Area - Proposed	42001 m ²
Total Gross Area - Residential (inc. amenity)	40372 m ²
Total Gross Area - 'Other Uses'	954 m ²
Site Coverage	24%
Plot Ratio	1.23
Gross Density	124 units/ha
Total Public Open Space	4.394 m ²
Resident's External Amenity Space	6.088 m ²

01 Executive Summary

This Housing Quality Assessment forms part of a Strategic Housing Development application for a Build to Sell (BTS) residential development Cooldown Commons Phase 3, in Cooldown Commons, Fortunestown Lane, Citywest, Dublin 24

The proposed residential design is supported by high quality amenity spaces for residents along with, retail units and office space, all located at ground floor level.

The site is bounded by Fortunestown Lane to the south with the Cooldown Commons Phase 2 apartments to the west, Citywest Avenue to the north and the proposed future park (under construction) and residential housing development to the east.

The purpose of this document is to assess the residential element of the proposed development, including the amenity spaces and support facilities.



Figure 1 - View of proposed development from Fortunestown Lane LUAS stop

01 Executive Summary

In the current South Dublin County Council Development Plan 2016 2022 the site is zoned as RES N with the objective:

“To provide new residential communities in accordance with approved area plans”

The objectives of the overall scheme are to:

- Identify and mark the entrance to the Cooldown Commons Quarter at the Fortunestown LUAS stop to the south of the site
- Increase the density of living and add vitality to this growing neighbourhood centre
- Reinforce and promote the existing connections to the Citywest shopping centre
- Increase activity outside of working hours to promote maximum activity to the development
- Complete the public park to the existing Cooldown Commons Phase 2 development which is currently under construction

It will involve:

- Creation of a new public plaza to the south of the development
- Redesign of the existing western park to Cooldown Commons Phase 2 Development
- Seamless interconnection with Cooldown Commons Phase 2 development
- Enhancing pedestrian and cycle routes through the site to the surrounding neighbourhoods
- Completion on new ring road and reconnection to Cooldown Commons Phase 2 development
- Public Park connection to the proposed park to the east

Specifically, the scheme will deliver:

- Enhancement of urban edge to Fortunestown Lane
- Increased pedestrian activity at street level throughout the day and night
- Increased local amenities to serve the development and adjoining neighbourhoods
- Greater passive surveillance at street level to all roads and public open spaces
- Completed master plan for the applicant

lands and a new vibrant Cooldown Commons Residential Quarter

This Housing Quality Assessment provides a framework which quantifies each of the criteria required by the ‘Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities’ against the proposed development.

The ‘Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities’ specify planning policy requirements for:

- Apartment Floor Areas
- Dual Aspect Ratios
- Floor to Ceiling Height
- Lift and Stair Cores
- Internal Storage
- Private Amenity Space
- Security Considerations

The guidelines have been issued by the Minister for Housing, Planning and Local Government under Section 28 of the Planning and Development Act 2000 (as amended). Planning authorities and An Bord Pleanála are required to have regard to the guidelines and are also required to apply any specific planning policy requirements (SPPRS) of the guidelines, within the meaning of Section 28 (1C) of the Planning and Development Act 2000 (as amended) in carrying out their functions.

Accordingly, where SPPRS are stated in the guideline document, they take precedence over any conflicting, policies and objectives of development plans, local area plans and strategic development zone planning schemes. Where such conflicts arise, such plans should be amended by the relevant planning authority to reflect the content of these guidelines and properly inform the public of the relevant SPPR requirements.



Figure 2 - Close up of Block D4

02 Policy Overview

The Project Summary

The proposed development will provide:

- 421 residential units in total, (124 units per Ha)
- Scheme will be BTS.

The apartment mix comprises of:

- 126 no. 1 bed Apartments
 - 249 no. 2 bed Apartments
 - 10 no. 3 bed Apartments
 - 18 no. 3 bed Duplex Apartments
 - 18 no. 2 bed Apartments (own door)
- 555 m² internal communal facilities for residents
 - 6088 m² external amenity space comprising of:
 - 1930 m² western courtyard (blocks D2, D3, D4)
 - 2307 m² eastern courtyard (Block E1 and E2)
 - 1851 m² communal space for duplexes (F1,F2,G)
 - 4394 m² public open spaces:
 - Public Plaza to the South and Eastern Linear Public Park 2743 sqm
 - Western Public Park (Residential Square) 1043 m²
 - 1095 sqm of Ancillary Support facilities:
 - Retail/Commercial Unit at ground floor of D3 285 m²
 - Retail/Commercial Unit at ground floor of E1 182 m²
 - Retail/Commercial Unit at ground floor of E1 252 m²
 - Office Unit at ground floor of E1 376 m²
 - 181 secure designated underground car park spaces
 - 108 on street car park spaces
 - 330 secured bicycle parking spaces for residents in the basement and 200 spaces located at ground floor
 - 120 public car/bicycle spaces for ancillary support facilities users and staff



Figure 3 - View of western communal open space between Blocks D4, D3 and D2

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Apartment Mix

The mix of residential units within the entire scheme is outlined in the table below.

It is noted under the ‘Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities’ Specific Planning Policy Requirement, that residential schemes must satisfy specific BTS guidelines :

Planning Policy Requirement 1

Apartment developments may include up to 50% one-bedroom or studio type units (with no more than 20-25% of the total proposed development as studios) and there shall be no minimum requirement for apartments with three or more bedrooms.

Planning Policy Requirement 2

For all building refurbishment schemes on sites of any size, or urban infill schemes on sites of up to 0.25ha:

For schemes of 50 or more units, SPPR 1 shall apply to the entire development.

Planning Policy Requirement 3

Minimum Apartment Floor Areas:

Studio apartment (1 person) 37 sq.m

1-bedroom apartment (2 persons) 45 sq.m

2-bedroom apartment (4 persons) 73 sq.m

3-bedroom apartment (5 persons) 90 sq.m

The majority of all apartments in any proposed scheme of 10 or more apartments shall exceed the minimum floor area standard for any combination of the relevant 1, 2 or 3 bedroom unit types, by a minimum of 10% (any studio apartments must be included in the total, but are not calculable as units that exceed the minimum by at least 10%)

Planning Policy Requirement 4

In relation to the minimum number of dual aspect apartments that may be provided in any single apartment scheme, the following shall apply:

In suburban or intermediate locations it is an objective that there shall generally be a minimum of 50% dual aspect apartments in a single scheme.

Planning Policy Requirement 5

Ground level apartment floor to ceiling heights shall be a minimum of 2.7m and shall be increased in certain circumstances, particularly where necessary to facilitate a future change of use to a commercial use

Policy Requirement 6

A maximum of 12 apartments per floor per core may be provided in apartment schemes.

OVERALL APARTMENT BLOCK UNITS					
BLOCK	STUDIO	1 BED	2 BED	3 BED	
D1	0	31	41	0	
D2	0	17	39	0	
D3	0	16	48	0	
D4	0	4	46	10	
E1	0	28	42	0	
E2	0	30	33	0	
TOTAL	0	126	249	10	385.00
MIX	0%	33%	65%	3%	100%

OVERALL DUPLEX APARTMENT UNITS				
BLOCK	2BED GF	3BED OVER		
F1	6	6		
F2	6	6		
G	6	6		
TOTAL	18	18		36.00

TOTAL NUMBER OF UNITS	421.00
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PROPOSED PART V UNITS						
BLOCK	1 BED	AREA	2 BED	AREA	3 BED	AREA
F1	0	0	6	83.2	6	122.2
E2	15	49.9	15	78	0	0
TOTAL	15		21		6	
						42
						10%

TOTAL no of 10% increased in size apartments: 221 (52.5%)

Figure 4 - Total Apartment Mix Schedule.



Figure 5 - Aerial view of Cooldown Commons Phase 3

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Apartment Design

Apartment and multi-residential unit development design is constantly evolving and through learning from best practice around the globe, new forms of homes are being established that consider the emerging demographic household types and tenures.

There is now a greater need for studio, one bedroom, two bedroom and 3 bedroom apartments in the greater Dublin area.

The 2016 Census indicates that 1-2 person households now comprise a majority of households and this trend is set to continue, yet Ireland has only one-quarter the EU average of apartments as a proportion of housing stock. Ongoing demographic and societal changes mean the expanding categories of household that may wish to be accommodated in apartments include young professionals and workers generally and those families with no children.

The design and layout of unit types are also developing into open plan apartment layouts. These layouts are being made possible through the utilisation of a sprinklered fire prevention strategy which is becoming more and more common in new apartment developments.

The proposed layouts are being developed through consultation with fire consultant Jeremy Gardner Associates and are based on proven layouts.



Figure 6 - Block D4 to public park

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Apartment Floor Area

The proposed design offers a unique response to the contextual restrictions of this key site which results in a variety of differing unit types across the development.

We confirm that all units comply with the requirements of the Sustainable Urban Housing: Design Standards for New Apartments 2018, and a full schedule of all apartment areas is contained in Appendix A of this document with a plan layout of each apartment type included in Appendix C.

All individual habitable rooms, floor areas and room widths comply or exceed the design guideline requirements



Figure 7 - Typical Plan

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Dual Aspect Ratios

The scheme has been designed from the outset to provide good day light penetration into the individual apartment units, whilst simultaneously making considered efforts to protect the privacy and amenity of the adjacent properties. The proposed scheme also seeks to take advantage of the spectacular views across greater Dublin area at high level.

Location

The site is considered to be a town edge green field site and close to high quality public transport links so it is a requirement to achieve a minimum of 50% dual aspect in accordance with section 3.17 of the Design Standards for New Apartments 2018.

“Where there is a greater freedom in design terms, such as in larger apartment developments on greenfield or standalone brownfield regeneration sites where requirements like street frontage are less onerous, it is an objective that there shall be a minimum of 50% dual aspect apartments”

The combined apartment Blocks D1, D2, D3, D4, E1, E2, F1, F2, and G achieves the minimum standard of 50% within their own regard as per the table below, with the scheme as a whole achieving a dual aspect ratio of 59%. The diagram on this page shows a second-floor typical block plan and highlights the location of the dual aspect units on a typical floor.

The apartment layouts haven been carefully reviewed to establish the amount of daylight reaching each unit. Through an iterative process with Avison Young, who have acted as daylight and sunlight consultants for the project, each building and apartment has been optimised to achieve the minimum standards where possible.

ASPECT OF APARTMENTS - PER BLOCK							
	D1	D3	D4	E1	E2	F & G	
TOTAL	72	56	64	50	70	63	36
DUAL	24	32	32	48	42	35	36
%	33%	57%	50%	80%	60%	56%	100%

units	421
DUAL	249
%	59%

Figure 8 - Dual Aspect Ratio



Figure 9 - Typical floor layout showing dual aspect units

Dual aspect Unit

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards



Figure 10 - CGI of Courtyard space between block D2, D3 and D4

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards



Figure 11 - Typical plan of each building indicating the dual aspect views

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

North Facing Apartments

We have through careful consideration of the master plan and the relationship between Cooldown Commons Phase 2 to the west of Phase 3 endeavoured to remove all single aspect apartments from the development.

The apartment blocks have generally been aligned on a north-south axis thus presenting the optimum approach to ensure the maximum number of apartments will receive east-west daylight whilst minimising the number of apartments presenting to the north.

All apartments with a northern aspect are dual aspect and 2/3 bedroom types, no single aspect 1 bed north facing apartments are proposed within the development.

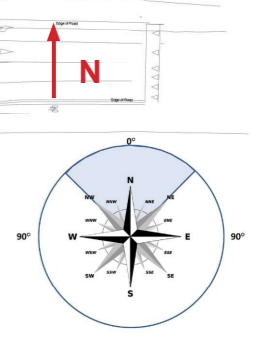
Where apartments have a predominantly northern aspect (Blocks D3 and E2 we have introduced a kink to the floor plan to facilitate increased daylight and views from the apartments. These apartments are also oversized with views to an internal courtyard (D3) and a new linear park (E2).

Where the masterplan required a block running east-west, aligned with the LUAS line to strengthen the urban edge of the development and prospect of the development to Cooldown Commons Phase 2 we have eliminated the single aspect apartments in Block E1 through the introduction of front to back apartments with views north to the linear park and south to the LUAS line.



Figure 12 - Typical floor layout showing single aspect units

- 1 Bed Single Aspect Unit
- Units with East/North & West/North Aspect
- 2 Bed Single aspect Unit



03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Dual Aspect Apartments

The apartment blocks have generally been aligned on a north south axis thus presenting the optimum approach to ensure the maximum number of apartments will receive east-west daylight whilst minimising the number of apartments presenting to the north which are all dual aspect.

Block D1

Block D1 is rectilinear in plan and utilises the 4 corners of the block for the location of the dual aspect apartments.

The punched windows on the northern and southern faces of the block are aligned logically with the dining area with the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room for the majority of the day.

The angle between the designated dual aspect windows to each apartment is 90 degrees.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application..



Figure 13 - Plan highlighting dual aspect apartments views in Block D1 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block D2

Block D2 is generally rectilinear in plan with a chamfered edge to the north-western corner and utilises the 4 corners of the block for the location of the dual aspect apartments.

The punched windows on the north eastern face and south western faces of the block are aligned logically with the dining area with the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room for the majority of the day.

The angle between the designated dual aspect windows to each apartment is 90 degrees.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application..



Figure 14 - Plan highlighting dual aspect apartments views in Block D2 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block D3

Block D3 is generally rectilinear in plan but kinked in the centre to enclose the courtyard to the surrounding blocks and with a stepped façade edge to the north-eastern corner and utilises the 4 corners of the block for the location of the dual aspect apartments.

The punched windows on the eastern face and south western faces of the block are aligned logically with the living room in the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room for the majority of the day.

The angle between the designated dual aspect windows to each apartment is 90 degrees except to the kink apartments.

The 2 bed apartment to the north has a restricted dual aspect to the courtyard but has been increased in size to 77.9 sqm to compensate.

The 2 bed apartment to the south of the block has an unrestricted to the LUAS and the adjacent communal open space. This apartment is also increased in size to 77.9 Sqm.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application..



Figure 15 - Plan highlighting dual aspect apartments views in Block D3 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block D4

Block D4 is generally rectilinear in plan and has a stepped façade edge to the south-western corner and utilises the 4 corners of the block for the location of the dual aspect apartments.

The punched windows on the north western face and south eastern faces of the block are aligned logically with the dining/living room in the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room for the majority of the day.

The angle between the designated dual aspect windows to each apartment is 90 degrees.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application..



Figure 16 - Plan highlighting dual aspect apartments views in Block D4 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block E1

Block E1 is rectilinear in plan with a strong façade edge to the eastern corner of the public plaza.

The building has been arranged on an east west axis provided a strong urban edge to the park and the LUAS line. The dual aspect apartments have been arranged on the four corners of the block plan with views to the public park, LUAS line and public plaza..

The punched windows on the northern face of the block are aligned logically with the dining/living room and bedroom areas within the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room in particular for the majority of the day. The full height windows are arranged on the west, south and east elevations again maximising the daylight to the living room spaces. The angle between the designated dual aspect windows to each apartment is 90 degrees.

In the centre of the block with have arranged 2 no apartments as to front to back to avoid north facing only units in this location. The apartments are 2 bed and oversized at 91.1 Sqm per unit.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application.



Figure 17 - Plan highlighting dual aspect apartments views in Block E1

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block E2

Block E2 is generally rectilinear in plan but kinked to enclose the communal open space and address the proposed public park to the east and utilises the 4 corners of the block for the location of the dual aspect apartments.

The punched windows on the north eastern face and western faces of the block are aligned logically with the dining/living room in the apartments thus maximising the use within the apartment and ensure good daylight levels with the living room for the majority of the day.

The angle between the designated dual aspect windows to each apartment is 90 degrees except at the kink apartment which is 57 degrees

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application.



Figure 18 - Plan highlighting dual aspect apartments views in Block E2 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block F1 & F2

Ground Floor Plan

At ground floor level the 2 bed apartments have views to the shared communal space and the adjacent street. The northern gable end to block F1 and the Southern gable end to Block F2 also have additional windows in the living room to offer views to the adjacent parks

First Floor Plan

At first floor level the 3 bed apartments have views to the shared communal space and the adjacent street. The northern gable end to block F1 and the Southern gable end to Block F2 also have additional windows in the living room to offer views to the adjacent parks

Second Floor Plan

At second floor level the dual aspect is achieved to the north east and south west elevations, with windows to each of the bedrooms looking over the communal open space and adjacent street.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application.



Figure 19 - Plan highlighting dual aspect apartments views in Block F1 and F2 .

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Block G

Ground Floor Plan

At ground floor level the 2 bed apartments have views to the shared communal space and the adjacent public park. The north eastern and south western gable ends to Block G also have additional windows in the living to the adjacent park and shared communal open space.

First Floor Plan

At first floor level the 3 bed apartments have views to the shared communal space and the adjacent public park. The north eastern and south western gable ends to Block G also have additional windows in the living to the adjacent park and shared communal open space.

Second Floor Plan

At second floor level the dual aspect is achieved to the north western and south eastern elevations, with windows to each of the bedrooms looking over the communal open space and adjacent park.

For further information on the dual aspect apartments refer to the Avis Young report on Daylight Analysis, which accompanies this planning application.



Ground Floor Plan



First Floor Plan



Second Floor Plan

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards



Figure 20 - Aerial view of new Cooldown Commons Quarter

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Floor to Ceiling Height

The Sustainable Urban Housing: Design Standards for New Apartment Guidelines 2018, section 3.21 requires a minimum floor to ceiling height of 2.4m. Where the ground floor units exist, they should look to achieve a minimum floor to ceiling height of 2.7m.

The following clearances are provided:

- Typical upper level apartments have 2.5m floor to ceiling height.
- The ground floor to all blocks meets and exceeds the minimum clearance required as follows: -
- Block D1 & D2 residential apartments have a 2.7m floor to ceiling heights. There are no ancillary uses in this block at ground floor of this building.
- Block D3 residential apartments have a 2.5m floor to ceiling heights. The retail unit in this block has a 3.375m floor to floor height.
- Block D4 has no residential apartments at ground floor level. The residential amenity facility in this block has a 4.950 m floor to floor.
- Block E1 has no residential apartments at ground floor level. The 2No. retail/commercial Units and office unit have a 4.050 m floor to floor level.
- Block E2 residential apartments have a 2.7m floor to ceiling height at GFL and 2.5m above. There are no ancillary uses in this block at ground floor of this building.
- Block F1, F2 and G residential apartments have a 2.7 m floor to ceiling heights. There are no ancillary uses in these block at ground floor of this building.

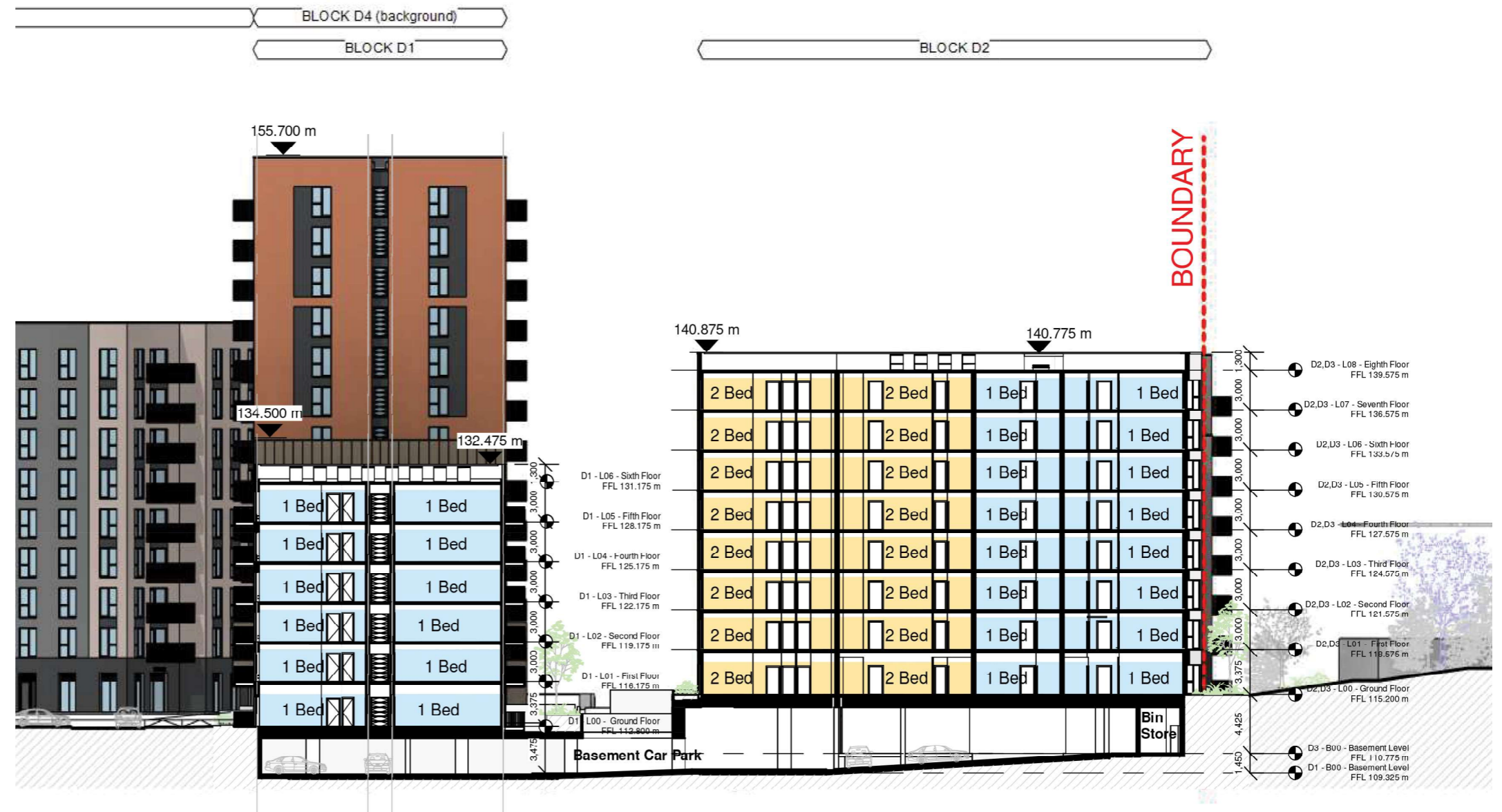


Figure 21 - Section indicating levels in Block D1 and D2

03 Compliance with Sustainable Urban Housing Design Standards: Apartment Design Standards

Lift and Stair Cores

All the apartment Blocks D1, D2, D3, D4, E1, and E2) within the maximum of 12 units per core as stated in the Design Standards for New Apartments.

All the apartment blocks have been reviewed by the project fire consultant (Jeremy Gardner Associates) and are in accordance with relevant statutory FSC requirements

Internal Storage

Storage requirements are provided entirely within the apartments. The storage provided exceeds that required for individual apartments as set out in Appendix 1 of the Sustainable Urban Housing: Design Standards for New Apartment guidelines 2018. The storage provided in each apartment is in addition to that provided in kitchen presses.

Where storage is provided in either bedrooms of living / dining / kitchen areas, it is space that is additional to the minimum aggregate floor areas for these room types. Individual storage rooms within an apartment do not exceed 3.5m².

NZEB (Nearly Zero Energy Building)

The entire development will comply with the latest Part L building regulations for NZEB. This will be achieved by a combination of factors including: improved fabric performance, low water usage, low air leakage and mechanical ventilation heat recovery. The heating system will consist of a combination of low & renewable energy technologies from the following: High Efficiency Condensing Gas Boilers, CHP, Air Source Heat pumps and PV. The final combination will be decided based on a detailed analysis using latest software from SEAI. The final BER for the apartments will all be A's.



Figure 22 - Typical plan with cores.

03 Compliance with Sustainable Urban Housing Design Standards: Apartments Design Standards

Private Amenity Space

It is a policy requirement of the Design Standards for New Apartments 2018 and SDCC Development Plan 2016-2022 that private open space in the form of balconies, winter gardens or patio areas.

'Where the apartment types do require balconies then the balconies should adjoin and have a functional relationship with the main living areas of the apartments. In certain circumstances, glass-screened 'winter gardens' may be provided. A minimum depth of 1.5m is required for balconies, in one usable length to meet the minimum floor area requirement'

Appendix 1 of the Sustainable Urban Housing Design Standards for New Apartments sets out the following minimum floor areas for private amenity space:

- Studio: 4sqm
- One Bed Apartment: 5sqm
- Two Bed (3 person) Apartment: 6sqm
- Two Bed (4 person) Apartment: 7sqm
- Three Bed Apartment: 9sqm

All the proposed apartments within the scheme have their own private amenity space in the form of balconies or terraces. The balconies, terraces and patios have all been arranged to afford an aspect to a significant public open space as follows:-

- Blocks D1 and D2 have views to the western public park and the western internal courtyard.
- Blocks D3 and D4 have views to the western internal courtyard and the new southern public plaza. Blocks D4 also share views to the eastern linear park, E1 also has views to the public plaza.
- Block E2, F2 and G share views north and south of the eastern linear park.
- Block F1, F2 and G also have terrace views to the eastern internal courtyard

Please refer to Section 04 of this report for analysis on the variety of resident support facilities and resident services and amenities.



Figure 23 - Typical plan highlighting views to open spaces

03 Compliance with Sustainable Urban Housing Design Standards: Apartments Design Standards



Figure 24 - View of public open space with block E1, E2 and D4 in the background

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Communal Facilities

This section of the report assesses the communal amenity elements of the development against the requirements of the Sustainable Urban Housing Standards for New Apartments listed below:

- Access and Services
- Communal Facilities
- Refuse Storage
- Communal Amenity Space
- Children's Play
- Bicycle Parking and Storage
- Car Parking

Access and Services

Access to all buildings will primarily be through the ground floor single point of entry, to provide a single point of access control for residents, visitors and service providers.

No user will have to pass through a secondary entrance to . Access their apartment. A Resident Services Manager will provide concierge and security services at the entrance of Block D4 through the day.

The primary access route for all residents is usable by everyone, including children, people with disabilities and other people. Within all the buildings all levels are served by lifts and stairs suitable for ambulatory disabled users.

The majority of the stairs benefit from being naturally lit with daylight reaching lift lobbies through glazed panels in the doors accessing the stairs.

Corridors are wide to allow two people pass as a minimum, with short lengths and widening at key locations for ease of use by those with wheelchairs or children's buggies.

Primary service risers are located in common areas for ease of access, no services transfer or run above ceilings of one apartment to reach another.

Service rooms are provide at the entrance point to each block to discreetly house the switch and meter ancillary rooms.



Figure 25 - Ground Floor Plan showing Residential Amenity and Commercial Amenities

- Retail
- Office
- Residential Amenities
- ➔ Access to communal spaces
- ➔ Active Frontage

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Resident Support Facilities

The residential amenity facility which will serve the entire development is located in the ground floor of Block D4 north of the public plaza and in the heart of the proposed development. The majority of the residents services and amenities are clustered on the ground floor of D4 in order to be conveniently located for all residents living within the development. The facility will include a concierge desk, and secure postal storage facilities as you enter from the main access core to the block

Resident Services & Amenities

An appropriately scaled range of resident services and amenities are provided to enhance the quality of living for occupants and to also assist in establishing a sense of community for the residents.

The majority of the service and amenity are provided on the ground floor of D4 where co-working are located at the front of the building facing onto the public street and plaza. This space will be flexible and will provide active frontage during the day, with users enjoying views towards the plaza.

A small kitchen / dining room with an adjacent multi purpose room with lounge, home cinema and games area for residents is provided within the facility. There are also a number of support office, storage space and toilets which will serve the amenity space. The lounge area also has direct access to a landscaped terrace which can be utilised by the residents for outdoor events and gatherings.

Commercial Amenities

In support of the residents of the development, and to serve the wider community who use the LUAS stop adjacent to the plaza, there will be local amenities to serve the development. 3No. Retail/Commercial Units, and Office Unit have all been provided to encourage use of the plaza and promote a vibrant hub to the heart of the new Cooldown Commons Residential Quarter.

The concentration of these functions together at the entrance and gateway to the development will result in greater usage by residents and a more communal atmosphere to the development.

OTHER USES' AREA NAME	sqm
BLOCK D4 RESIDENTIAL AMENITY	555
BLOCK D3 RETAIL AREA	285
BLOCK E1 RETAIL AREA	434
BLOCK E1 OFFICE AREA	376
BLOCK E1 PLANT	101

Figure 26 - Amenity Schedule

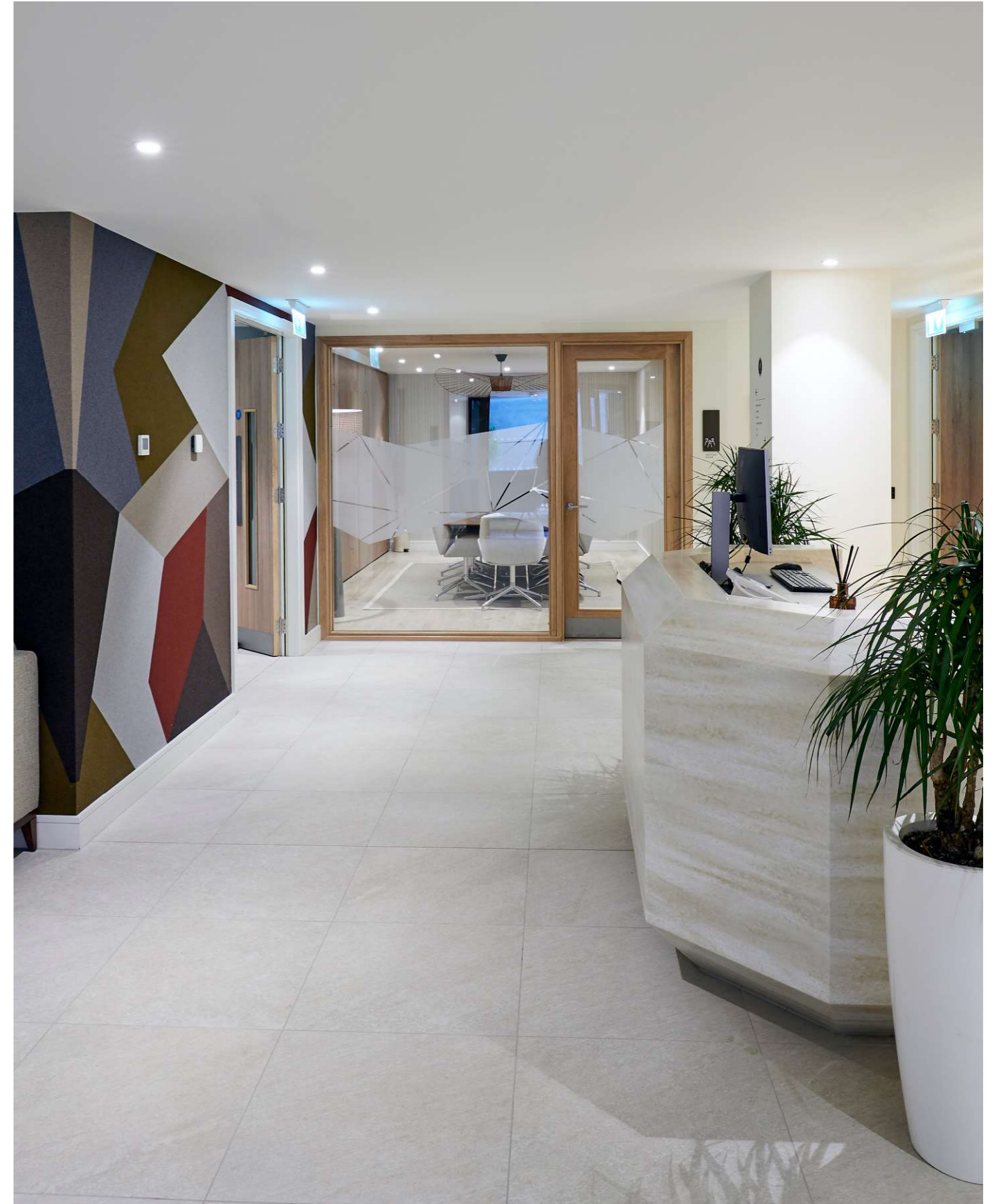


Figure 27 - Example of residential lounge

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities



Figure 28 - Example of informal meeting place

04 Compliance with Sustainable Urban Housing: Design Standards for New Apartments - Communal Facilities

Refuse Storage

Refuse storage shall be provided with the standards as set out in the Operational Waste Management Report Byrne Environmental Consulting Ltd.

The Operational Waste Management Plan for the development has been prepared by Byrne Environmental Consulting Ltd with regard to the domestic waste management objectives of the South Dublin County Council Development Plan 2016-2022.

The objective of the Operational Waste Management Plan is to maximise the quantity of waste recycled by providing residents sufficient waste segregation at source infrastructure (3-bin systems in kitchens), waste reduction initiatives and waste collection and waste management information.

All communal waste storage areas shall be designed to accommodate a 3-bin system and shall include visible guidelines for residents on how to correctly segregate their wastes.

Each building will have access to their own respective bin store found in the following locations: -

- Basement Level (Blocks D1, D2, D3, D4)
- Ground Level (Blocks E1 and E2)
- Ground Level (Blocks F1, F2 and G)

The waste areas are easily accessed by residents, management staff and refuse collectors. Staff will bring the bins from the bin stores to a holding area adjacent off the main estate road in order to restrict disruption by waste trucks during collection. Please refer to Waste Management Report by Byrne Environmental Consulting Ltd

All the waste storage facilities will be adequately ventilated to minimize odours and potential nuisance from vermin/flies and ensuring the avoidance of nuisance for habitable rooms above. Waste storage issues have been considered at the initial apartment design stage to ensure access for all, including people with disabilities.



Figure 29 - Ground floor plan with waste storage locations highlighted

- Waste Stores
- ➔ Routes to Waste Stores

04 Compliance with Sustainable Urban Housing: Design Standards for New Apartments - Communal Facilities

The storage areas are located off lift cores in the basement and cores to the external landscaped spaces so that they are safe to use with good passive supervision, spacious enough for easy manoeuvrability and have good ventilation. Sufficient access and egress is provided to enable receptacles to be moved easily from the storage area to an appropriate collection point on the main estate road to the development.



Figure 30 - Basement Floor Plan with waste storage areas highlighted

- Waste Stores - Commercial
- Waste Stores - Residential
- ➔ Routes to Waste Stores
- Car parking entrance

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Communal Amenity Spaces

External communal amenity spaces for use by the residents of the scheme will be provided in a number of locations throughout the development. The required amount of communal amenity space for the resident is as follows: -

- Western Communal Courtyard and Residents Amenity Terrace= 1930m², which serves Blocks D1, D2, D3 and D4
- North/East Communal Courtyard = 1851m², which serves Blocks F1, F2 and G
- Eastern Communal Courtyard = 2307m², which serves Blocks E1 and E2
- Total = 6088m²

The above calculations show that a significant quantity required communal amenity is provided throughout the development to satisfy the required area.



Figure 31 - Proposed communal amenity spaces.

04 Compliance with Sustainable Urban Housing: Design Standards for New Apartments - Communal Facilities



Figure 32 - 3D View of Blocks F1, F2 and G amenity open space

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities



Figure 33 - 3D View of Block D2, D3 and D4 amenity open space

04 Compliance with Sustainable Urban Housing: Design Standards for New Apartments - Communal Facilities



Figure 34 - Eastern Public Park View showing the linear park link and Blocks E1 and E1 amenity open space

04 Compliance with Sustainable Urban Housing: Design Standards for New Apartments - Communal Facilities

Security Consideration

The design of the apartment blocks will provide occupants and their visitors with a sense of safety and security.

We have reviewed and integrated the requirements of 'secure by design' into the development to ensure more durable and robust design. Passive supervision is key to ensuring security on site and the designs have been enhanced to remove blind corners, ensure windows in gables have aspect in different directions and ensure entrances are well lit.

All access to the apartment blocks will be controlled with electronic fob through a single point of access located centrally off each Block.

Block D4, located at the heart of the development houses the main residential amenity facility and monitors all access to this block, and the surrounding blocks through CCTV.

Particular attention has been given to providing as much ground floor activation and animation as possible to the greatest proportion of facades as possible in order to provide passive surveillance and supervision through activity and movement of people in public and semi-public spaces. Blocks D3, D4 and E1 in particular have a direct relationship with the southern public plaza housing several amenities (3No. Retail/Commercial units, residential amenity and office) for public use thus ensuring and active façade monitoring the daily activity on the plaza.

Residential apartments at upper levels to all blocks also provide passive surveillance of all external public and communal open spaces, including the pedestrian green corridor which passes between blocks D4, D3 and D2 to access the western park.

The eastern communal space is monitored by the duplex apartments in Blocks F1, F2 and G.



Figure 35 - 3D View of Block D2, D3 and D4 amenity open space

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Children's Play Space / Sensory garden / Fitness Zone

There is one sensory garden space area (no 1, fig. 36) and one fitness zone (no 2, fig.36) provided within the open space of the proposed development.

There is also a playground (no 3, fig.36), located in the Western Residential Park, at the interface between the proposed development and the Cooldown Commons Phase 2 development, that is currently under construction.

No 1 - A sensory garden is proposed within gated communal open space, between duplex blocks (F1, F2, G), which in addition to stimulating the senses, will provide a calming space for future residents and biodiversity benefits, as it will be planted with pollinator-friendly species.

No 2 - Active recreational opportunities in form of a teenage/ all ages fitness zone are provided within proposed Eastern Local Park, linking between new Plaza and the Neighbourhood Park, that is currently under development.

No 3 - A play facility, as permitted under the current planning permission, will contain a variety of play equipment suitable for children between 3 and 12 years of age, such as log balancing beams, swings, climbing frame and slides. Bark mulch is to be used as the surface treatment to all the areas including the fall zones, which will be appropriate for the play facility's type of equipment and its location within this open space. The design intent for this Residential Park is to treat the space as one to ensure visual and spatial continuity and to maximise permeability between the two schemes.



Figure 36 - Map highlighting location of playgrounds/fitness areas



Figure 37 - Concept images

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Car and Bicycle Parking

The adjacency of the development to the existing LUAS stop and a number of bus stops, means that the option of minimising car parking can be followed.

The parking has been generally arranged in 2 areas within the development.

Ground Floor Level Surface Parking

There are 108 secure car park spaces located at ground floor level along access road, (96 car parking spaces for residents of Blocks E1, E2, F1, F2, G and visitors).

12 car parking spaces are provided for use by the commercial areas customers and staff, including LUAS and disabled set down.

There are 5 secure bike storage areas for 260 bicycle spaces, located in open space throughout the development and 120 visitor bicycle spaces provided.

Electrical Car Spaces

Electric car charging will be provided to 10% of the surface car parking spaces indicated. In addition an allowance will be made in the overall power capacity for future provision of electric car charging the basement car park.



Figure 38 - Ground Floor Plan highlighting vehicle and bicycle parking areas.

04 Compliance with Sustainable Urban Housing Design Standards: Communal Facilities

Basement Level

Car Parking Spaces

There are 181 spaces provided in the basement which have been generally arranged around the access cores to Blocks D1, D2, D3 and D4. There are 10 no disabled car parking spaces conveniently located adjacent to the access cores. These spaces are designated for Blocks D1, D2, D3 and D4 residents only. There is no visitor parking provided in basement.

Motor Bike Spaces

There are 13 no motor bike spaces which have been located throughout the basement.

Bicycle Parking

There are 5 secure bike storage areas for 330 bicycle spaces. The stores are arranged adjacent to the access cores to the blocks above.

A bike garage/service area will also be provided in each bicycle store.



- Basement car parking
- Basement bicycle parking
- Car parking entrance

05 Appendices



Figure 39 - Aerial view of the development

05 Appendix A - Housing Quality Assessment

05 Appendix A - Housing Quality Assessment

Block	Unit No.	Description	Level	Total Units Per Level	Unit Area (m ²)	Unit size require area (m ²)	Individual Enlargement Ratio IRF(%)	Number of Bedrooms	Bed Spaces	Aggregate Living Area (m ²)	Aggregate Living Area required (m ²)	Aggregate Bedroom Area (m ²)	Aggregate Bedroom Area required (m ²)	Storage (m ²)	Storage Required (m ²)	Dual Aspect	External Comunal Amenity Provided (m ²)	External Comunal Amenity Required (m ²)	Private (Terrace/Balcony) Space Provided(m ²)	Private (Terrace/Balcony) Space Required (m ²)	Total Open Space Provided per Apartment
F2	L01-02	3 BED HOUSE TYPE 2	First and Second Floor		122.5	90	36%	3	6	39.77	34	36.86	31.5	9	9	YES	14.46	9	25	9	39.2
F2	L01-03	3 BED HOUSE TYPE 2	First and Second Floor		122.5	90	36%	3	6	39.77	34	36.86	31.5	9	9	YES	14.46	9	25	9	39.2
F2	L01-04	3 BED HOUSE TYPE 2	First and Second Floor		122.5	90	36%	3	6	39.77	34	36.86	31.5	9	9	YES	14.46	9	25	9	39.2
F2	L01-05	3 BED HOUSE TYPE 2	First and Second Floor		122.5	90	36%	3	6	39.77	34	36.86	31.5	9	9	YES	14.46	9	25	9	39.2
F2	L01-01	3 BED HOUSE TYPE 1	First and Second Floor		125.8	90	40%	3	6	41.4	34	37.3	31.5	9	9	YES	14.46	9	25	9	39.2
F2 TOTALS				12	1240.48	978		30	60	427.27	384	383.48	335.4	90	90	12	173.52	96	342	96	363
G	GF-01	2 BED HOUSE TYPE 1	Ground Floor		85.3	73	17%	2	4	28.97	30	25.85	24.4	6.52	6	YES	14.46	7	41	7	21.3
G	GF-02	2 BED HOUSE TYPE 2	Ground Floor		85.7	73	17%	2	4	31.34	30	26.91	24.4	6	6	YES	14.46	7	41	7	21.3
G	GF-03	2 BED HOUSE TYPE 2	Ground Floor		85.7	73	17%	2	4	31.34	30	26.91	24.4	6	6	YES	14.46	7	41	7	21.3
G	GF-04	2 BED HOUSE TYPE 2	Ground Floor		85.7	73	17%	2	4	31.34	30	26.91	24.4	6	6	YES	14.46	7	41	7	21.3
G	GF-05	2 BED HOUSE TYPE 2	Ground Floor		85.7	73	17%	2	4	31.34	30	26.91	24.4	6	6	YES	14.46	7	41	7	21.3
G	GF-06	2 BED HOUSE TYPE 1	Ground Floor		85.3	73	17%	2	4	28.97	30	26.78	24.4	6.52	6	YES	14.46	7	41	7	21.3
G	L01-01	3 BED HOUSE TYPE 4	First and Second Floor		117.5	90	31%	3	6	41.89	34	32.61	31.5	9	9	YES	14.46	9	19.2	9	33.4
G	L01-02	3 BED HOUSE TYPE 5	First and Second Floor		114.5	90	27%	3	6	40.44	34	31.5	31.5	9	9	YES	14.46	9	19.2	9	33.4
G	L01-03	3 BED HOUSE TYPE 5	First and Second Floor		114.5	90	27%	3	6	40.44	34	31.5	31.5	9	9	YES	14.46	9	19.2	9	33.4
G	L01-04	3 BED HOUSE TYPE 5	First and Second Floor		114.5	90	27%	3	6	40.44	34	31.5	31.5	9	9	YES	14.46	9	19.2	9	33.4
G	L01-05	3 BED HOUSE TYPE 5	First and Second Floor		114.5	90	27%	3	6	40.44	34	31.5	31.5	9	9	YES	14.46	9	19.2	9	33.4
G	L01-06	3 BED HOUSE TYPE 4	First and Second Floor		117.5	90	31%	3	6	41.89	34	32.61	31.5	9	9	YES	14.46	9	19.2	9	33.4
G TOTALS				12	1206.4	978	ratio 52.5%	30	60	428.84	384	351.49	335.4	91.04	90	12	173.52	96	361.2	96	328.2
GRAND TOTALS				421	31460.56	27681		744	1488	15293.13	11860	9253.04	8833.2	2348.14	2232	249	6087.66	2751	3557.7	2751	9033.7

05 Appendix B - Planning Statistics for the Scheme

05 Appendix B - Planning Statistics for the Scheme

OVERALL APARTMENT BLOCK UNITS

BLOCK	STUDIO	1 BED	2 BED	3 BED	
D1	0	31	41	0	
D2	0	17	39	0	
D3	0	16	48	0	
D4	0	4	46	10	
E1	0	28	42	0	
E2	0	30	33	0	
TOTAL	0	126	249	10	385.00
MIX	0%	33%	65%	3%	100%

OVERALL DUPLEX APARTMENT UNITS

BLOCK	2BED GF	3BED OVER	
F1	6	6	
F2	6	6	
G	6	6	
TOTAL	18	18	36.00

TOTAL NUMBER OF UNITS	421.00
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PROPOSED PART V UNITS

BLOCK	1 BED	AREA	2 BED	AREA	3 BED	AREA
F1	0	0	6	83.2	6	122.2
E2	15	49.9	15	78	0	0
TOTAL	15		21		6	

OTHER USES' AREA NAME	sqm
BLOCK D4 RESIDENTIAL AMENITY	555
BLOCK D3 RETAIL AREA	285
BLOCK E3 RETAIL AREA	434
BLOCK E1 OFFICE AREA	376
BLOCK E1 PLANT	101

CARPARK

CARPARK UNDERGROUND (incl. 9 disable)	181
CARPARK ON-GRADE (incl. 8 disable)	108
ALOCATED FOR APARTMENTS	38
ALOCATED FOR DUPLEX UNITS (incl VISITORS)	59
ALOCATED FOR RETAIL D3	5
ALOCATED FOR OFFICES E1	2
ALOCATED FOR THE COMMERCIAL / CAFÉ	2
ALOCATED FOR LUAS SETDOWN	2
on-grade sum	108
TOTAL NUMBER OF CARPARK SPACES	289

CARPARK FACTORS

APARTMENTS	219 SPACES /	385 APT UNITS	=	0.57
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DUPLEX UNITS

DUPLEX UNITS	59 SPACES /	36 APT UNITS	=	1.64
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BIKE PARKING

	BASEMENT	SURFACE	TOTAL
LONG TERM	330	200	530
SHORT TERM		120	120
	330	320	650

ASPECT OF APARTMENTS - PER BLOCK

	D1	D2	D3	D4	E1	E2	F & G
TOTAL	72	56	64	60	70	63	36
DUAL	24	32	32	48	42	35	36
%	33%	57%	50%	80%	60%	56%	100%

STATISTICS

SITE AREA	3,404 ha
units	421
DENSITY	124 units/ha

TOTAL GROSS AREA - PROPOSED	41,991.0
TOTAL GROSS AREA - RESIDENTIAL (incl. amenities D4)	40,270.0
TOTAL GROSS AREA - 'OTHER USES'	1,196.0

SITE COVERAGE	24%
PLOT RATIO	1.23
FOOTPRINT AREA	8,046 sqm

D1 - Apartment Block

LEVEL	STUDIO	1 BED	2 BED	3 BED	Dual Aspect
0	0	6	6	0	4
1	0	5	7	0	4
2	0	5	7	0	4
3	0	5	7	0	4
4	0	5	7	0	4
5	0	5	7	0	4
sum	0	31	41	0	24

D2 - Apartment Block

LEVEL	STUDIO	1 BED	2 BED	3 BED	Dual Aspect
0	0	3	4	0	4
1	0	2	5	0	4
2	0	2	5	0	4
3	0	2	5	0	4
4	0	2	5	0	4
5	0	2	5	0	4
6	0	2	5	0	4
7	0	2	5	0	4
sum	0	17	39	0	32

D3 - Apartment Block

LEVEL	STUDIO	1 BED	2 BED	3 BED	Dual Aspect
0	0	2	3	0	2
1	0	2	7	0	4
2	0	2	7	0	4
3	0	2	7	0	4
4	0	2	7	0	4
5	0	2	7	0	4
6	0	2	5	0	5
7	0	2	5	0	5
sum	0	16	48	0	32

D4 - Apartment Block

LEVEL	STUDIO	1 BED	2 BED	3 BED	Dual Aspect
0	0	0	0	0	0
1	0	2	5	0	4
2	0	2	5	0	4
3	0	0	5	1	4
4	0	0	5	1	4
5	0	0	5	1	4
6	0	0	3	1	4
7	0	0	3	1	4
8	0	0	3	1	4
9	0	0	3	1	4
10	0	0	3	1	4
11	0	0	3	1	4
12	0	0	3	1	4
sum	0	4	46	10	48

E1 - Apartment Block

LEVEL	STUDIO	1 BED	2 BED	3 BED	Dual Aspect
0	0	0	0	0	0
1	0	4	6	0	6
2	0	4	6	0	6
3	0	4	6	0	6
4	0	4	6	0	6
5	0	4	6	0	6
6	0	4	6	0	6
7	0	2	3	0	3
8	0	2	3	0	3
sum	0	28	42	0	42

E2 - Apartment Block (including Part V units)

LEVEL	STUDIO	1 BED	2 BED	1B PartV	2B PartV	3 BED	Dual Aspect
0	0	3	1	3	2	0	5
1	0	2	2	2	3	0	5
2	0	2	3	2	2	0	5
3	0	2	3	2	2	0	5
4	0	2	3	2	2	0	5
5	0	2	3	2	2	0	5
6	0	2	3	2	2	0	5
sum	0	15	18	15	15	0	35

F1 - Duplex Apt (PART V)

GF APT - 2Bed	6
DUPLEX OVER GF APT - 3 Bed	6
Part V F1	12

F2 - Duplex Apt

GF APT - 2Bed	6
DUPLEX OVER GF APT - 3 Bed	6

G1 - Duplex Apt

GF APT - 2Bed	6
DUPLEX OVER GF APT - 3 Bed	6

	ALL
units	421
DUAL	249
%	59%

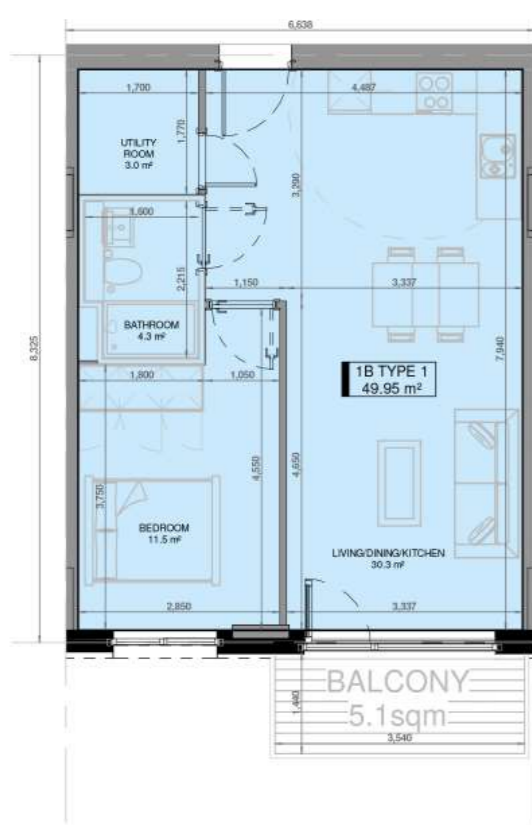
	NO DUP
units	385
DUAL	213
%	55%

	sqm
BIKE SHELTERS ON SURFACE	180
BIN STORES	120
PLANT	225
sum	525

	sqm
TOTAL PUBLIC OPEN SPACE	4,394 12.91%
RESIDENT'S EXTERNAL AMENITY SPACE	6,088 17.88%

05 Appendix C - Apartment Type Drawings

05 Appendix C - Apartment Type Drawings



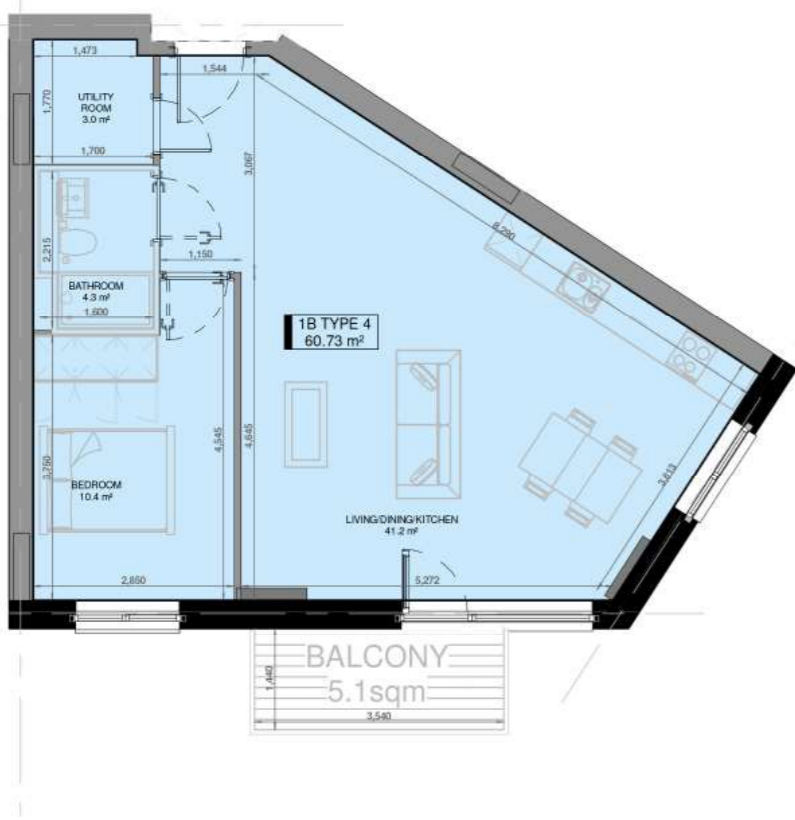
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1 : 100



2 1 Bed Type 2
1 : 100



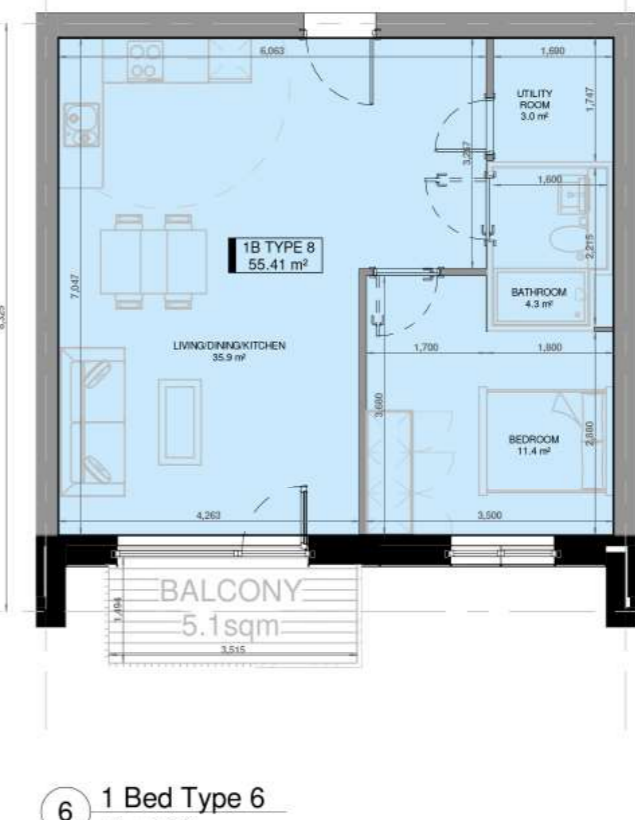
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1 : 100



4 1 Bed Type 4
1 : 100

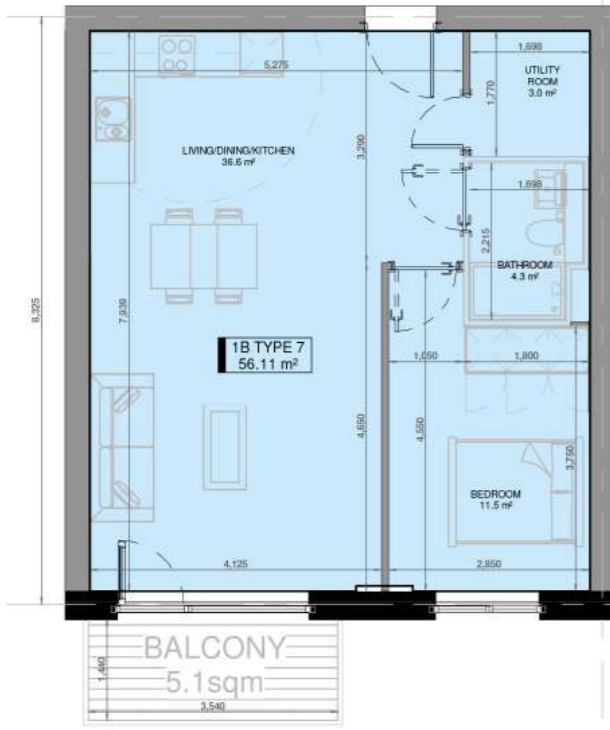


5 1 Bed Type 5
1 : 100

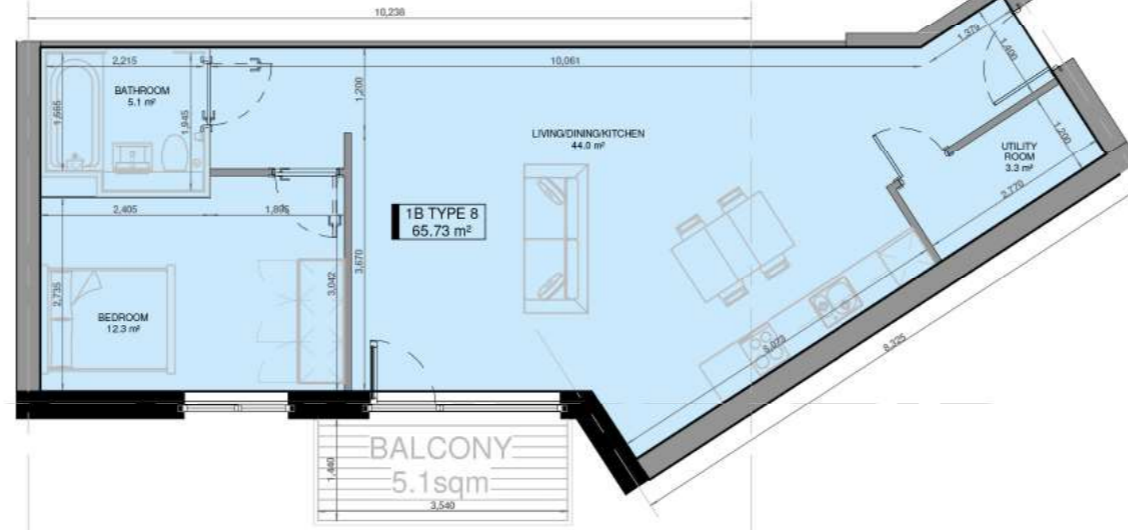


6 1 Bed Type 6
1 : 100

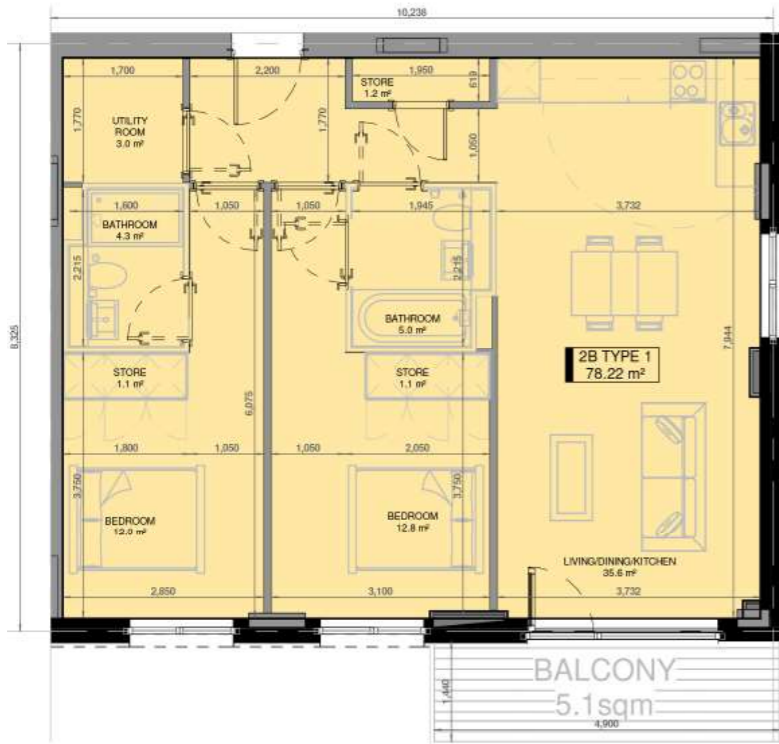
05 Appendix C - Apartment Type Drawings



7 1 Bed Type 7
1 : 100



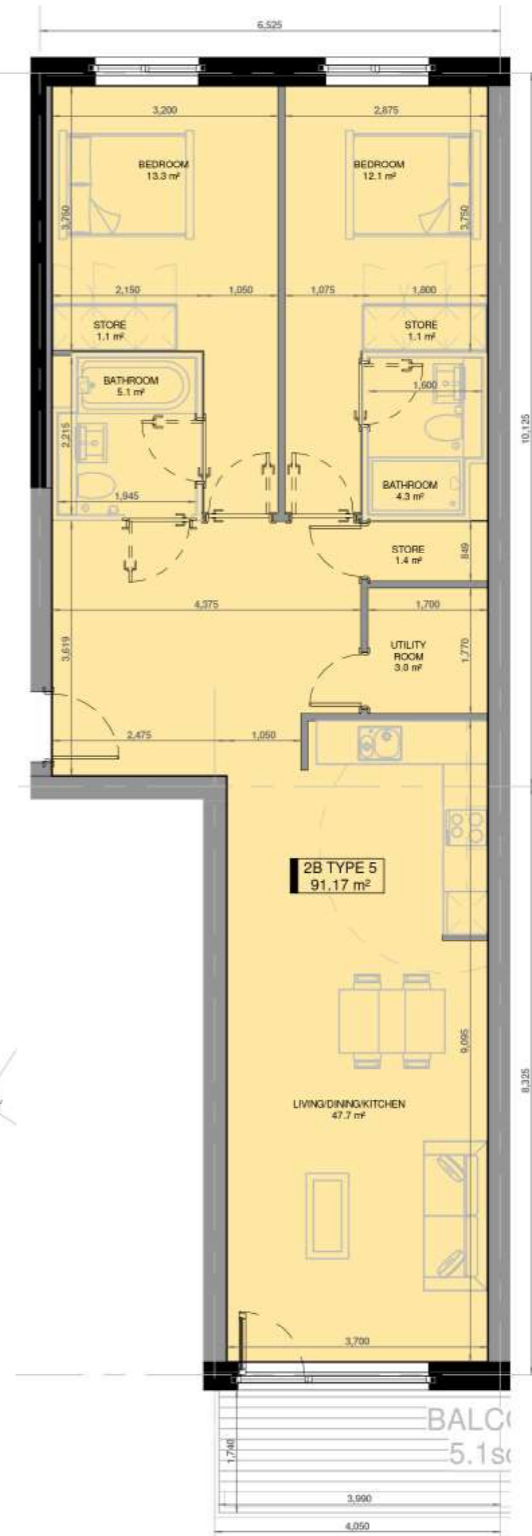
8 1 Bed Type 8
1 : 100



9 2 Bed Type 1
1 : 100

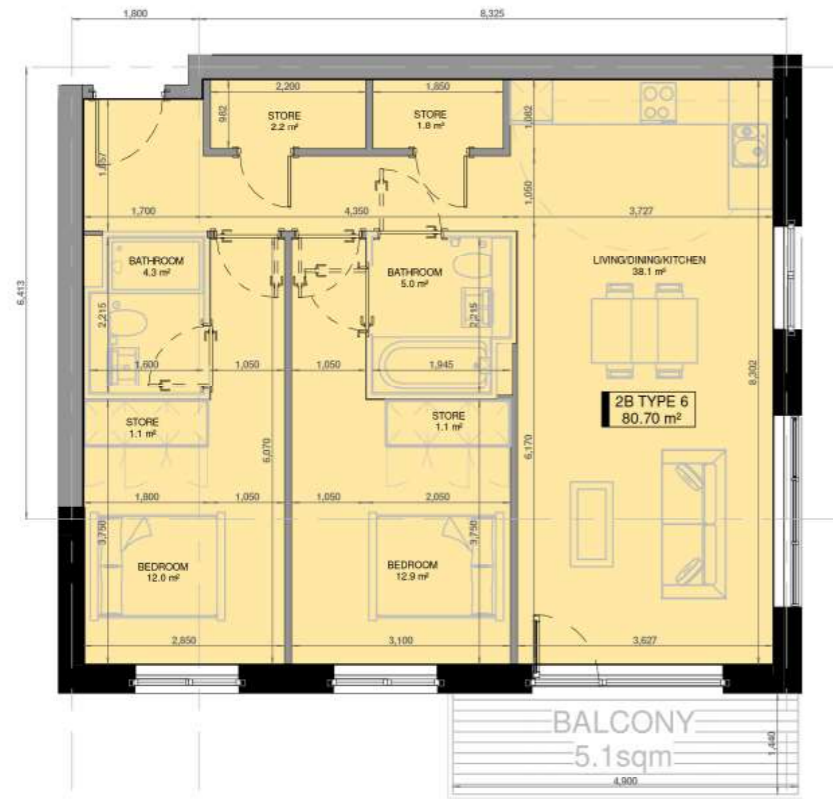


12 2 Bed Type 4
1 : 100

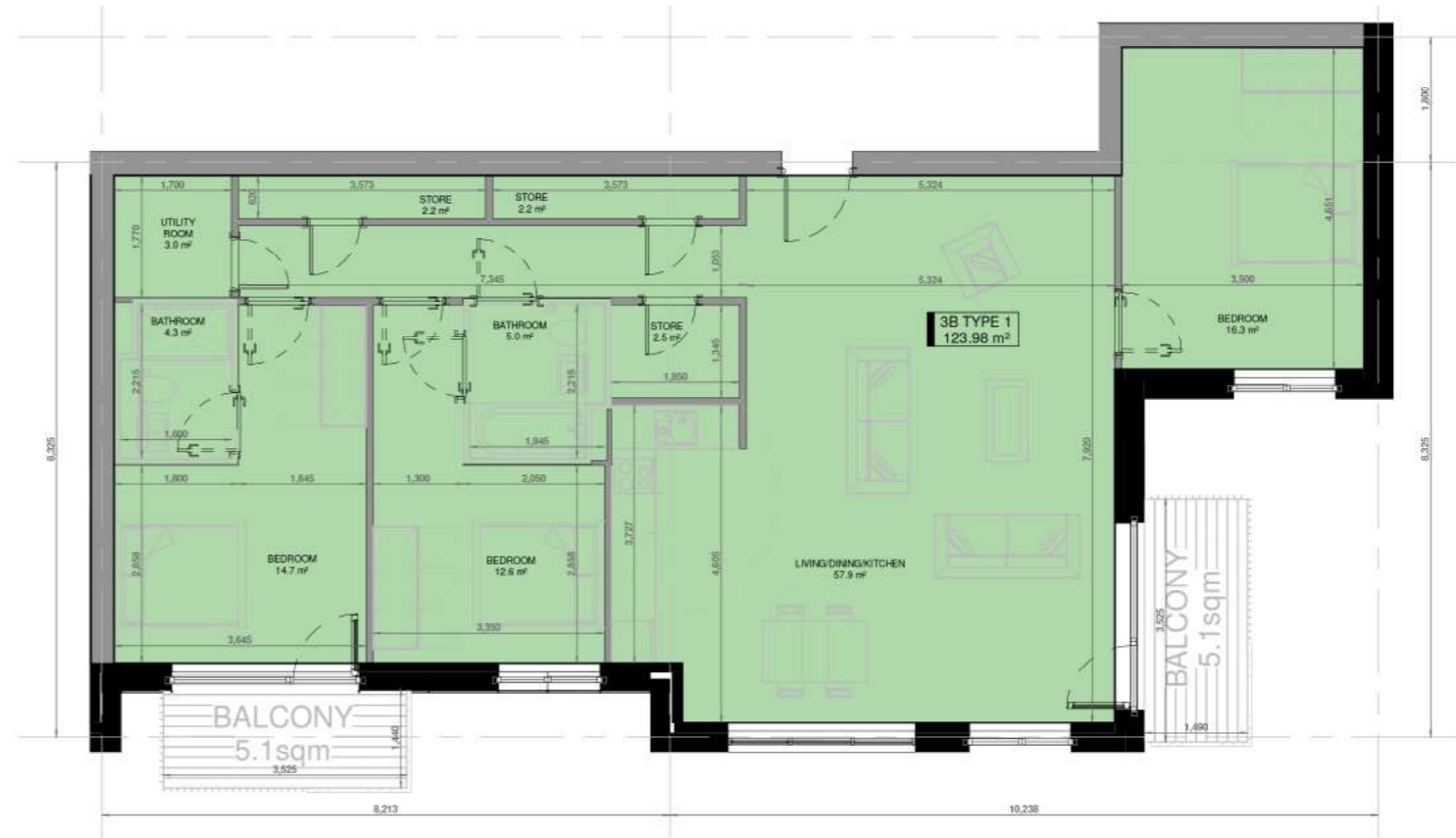


13 2 Bed Type 5
1 : 100

05 Appendix C - Apartment Type Drawings

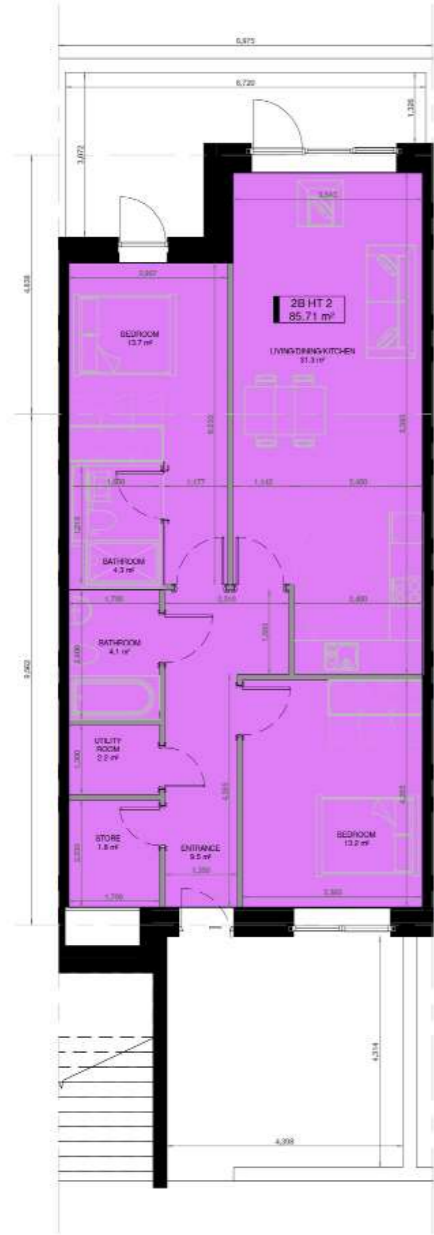


14 2 Bed Type 6
1 : 100



15 3 Bed Type 1
1 : 100

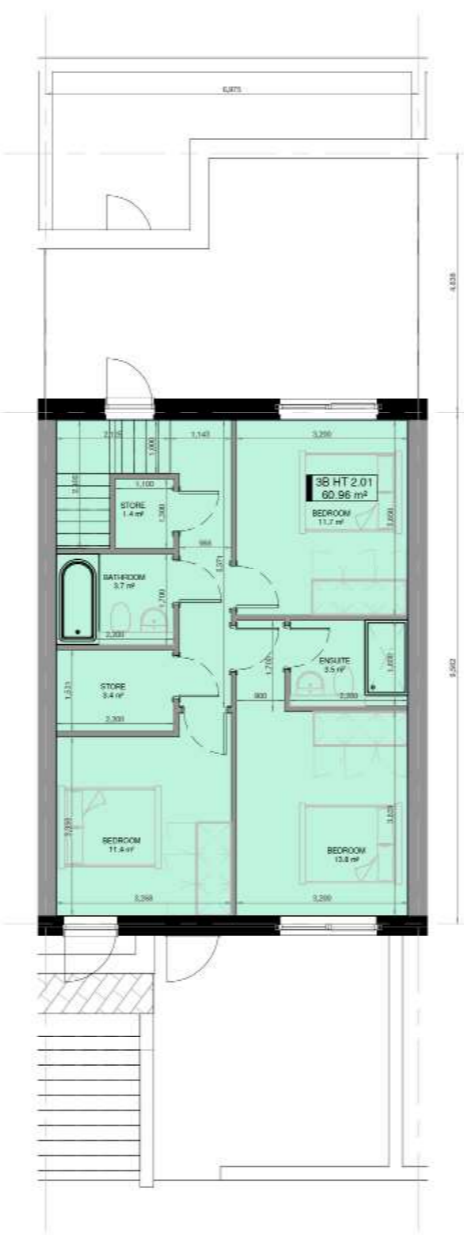
05 Appendix C - Apartment Type Drawings



2 2 Bed House Type 2
1 : 100

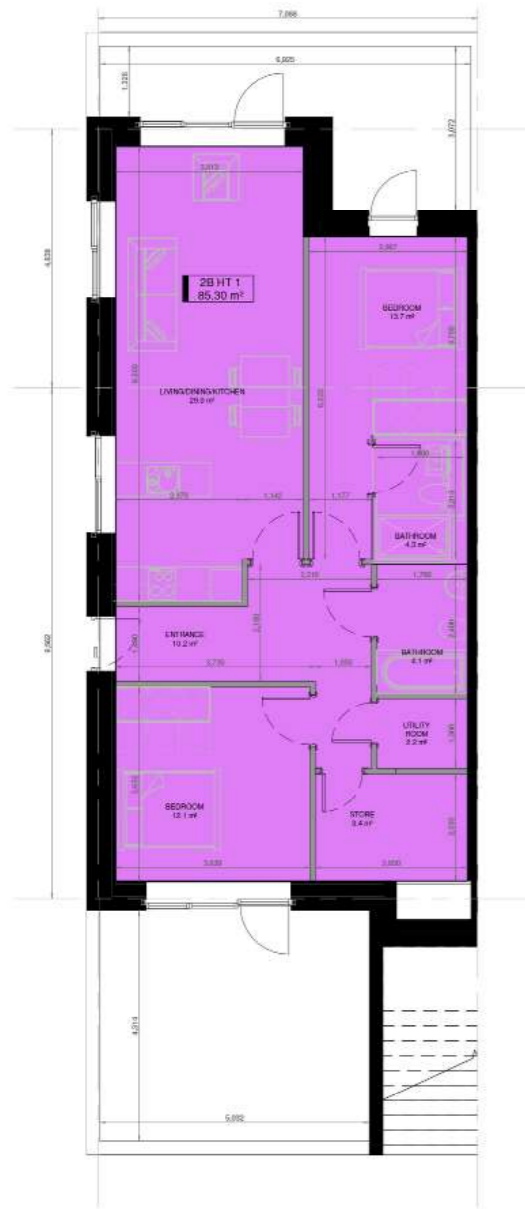


6 3 Bed House Type 2.00
1 : 100

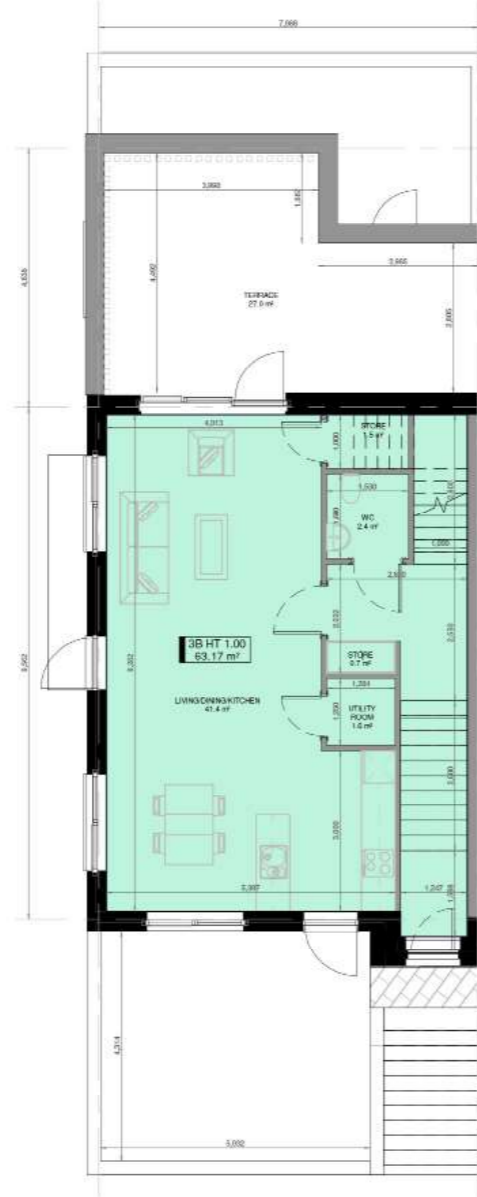


7 3 Bed House Type 2.01
1 : 100

05 Appendix C - Apartment Type Drawings



1 2 Bed House Type 1
1 : 100



4 3 Bed House Type 1.00
1 : 100



5 3 Bed House Type 1.01
1 : 100

05 Appendix C - Apartment Type Drawings



3 2 Bed House Type 3
1 : 100

3 2 Bed House Type 3
1 : 100

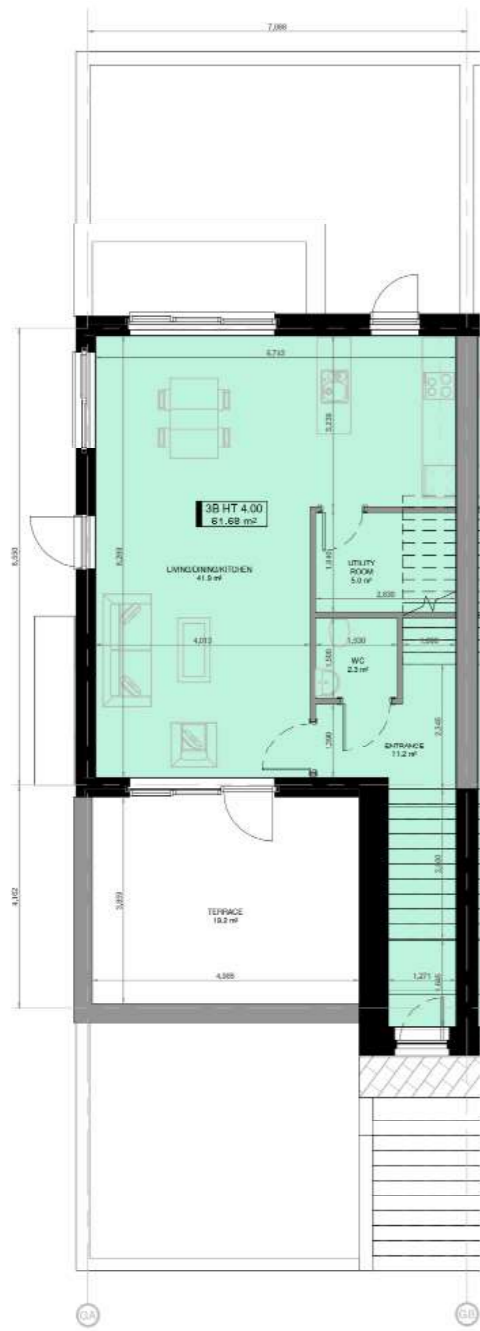


8 3 Bed House Type 3.00
1 : 100

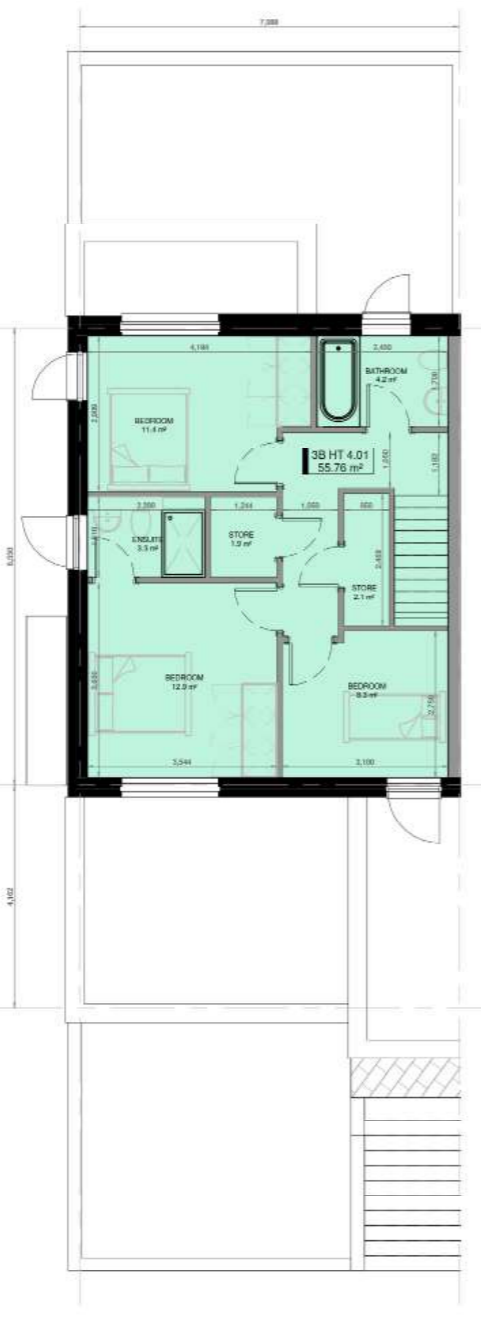


9 3 Bed House Type 3.01
1 : 100

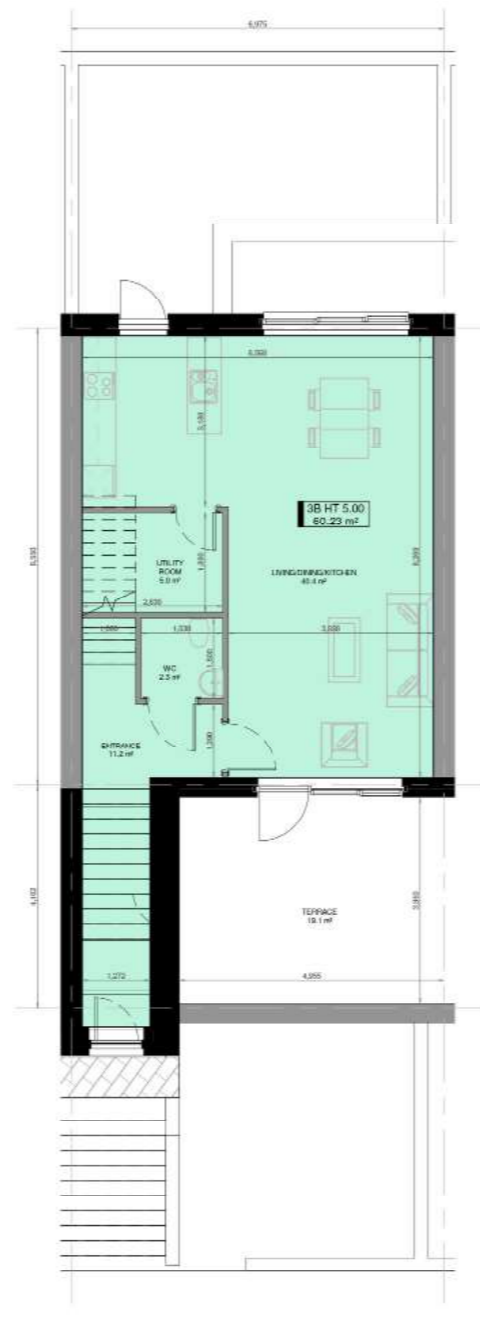
05 Appendix C - Apartment Type Drawings



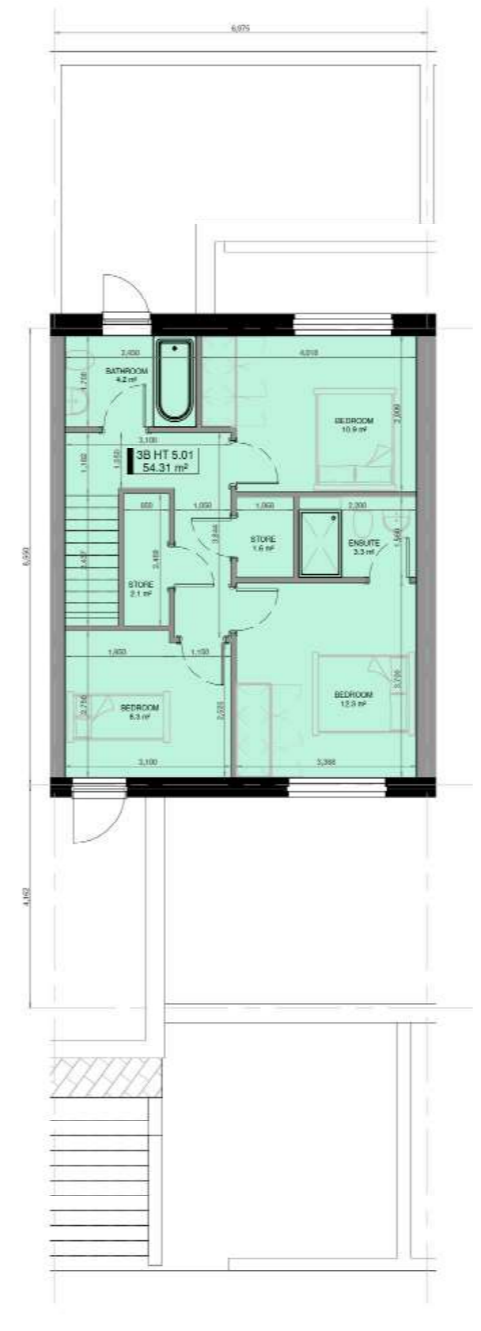
10 3 Bed House Type 4.00
1 : 100



11 3 Bed House Type 4.01
1 : 100



12 3 Bed House Type 5.00
1 : 100



13 3 Bed House Type 5.01
1 : 100