

SHEPPARD ROBSON

March 2025
Design Development Supporting Document

Upper Brook Street PBSA

McLaren

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1.0 INTRODUCTION

1.1 Document Purpose

This report has been prepared by Sheppard Robson on behalf of McLaren Property Ltd, to support the Non-Material Amendment application for the purpose-built student accommodation scheme (PBSA) scheme (hereafter referred to as the 'Proposed Development') as part of the wider PBSA & SciTec development on the Upper Brook Street Masterplan – McLaren/Kadans (hereafter referred to as the 'Site').

This document is intended to supplement the information required by Manchester City Council Local Authority by summarising the design development from RIBA Workstage 2 to Workstage 3 and resulting amendments. It accompanies and supports the NMA application for the Upper Brook Street Masterplan – McLaren/Kadans.

This document should be read in conjunction with the supporting documents and drawings submitted as part of the application.

1.2 Executive Summary

Overview of Amendments

The project has been developing through Workstage 2 to Workstage 3 following the planning application and as part of this the project team have focused on project quality. Some principal design development actions are the primary drivers of amendment and can be summarised as follows:

- Building / Floor to Floor height discussion
- For quality, pre-cast facade
- Refined structural design
- MEP strategies
- Design Development

A high level summary of each element is captured below.

Building / Floor to Floor Heights

Further discussions with funders have indicated a move towards stipulating the use of A1 rated products for the external fabric only, an uplift from A2 or better. The consequence of this is an increase in the thickness of roof insulations and subsequently increases in parapets. The design team have challenged the design to explore opportunity to reduce the floor to floor heights by 1no. brick. This would enable the overall building height to be lowered, rather than increase and reduce the impact on the skyline.

Pre-Cast Facade

The design proposes a pre-cast facade solution due to the ability to utilise factory conditions for quality control and improve high level workmanship / health & safety. The design has developed with a specialist pre-cast facade manufacturer with a focus on quality detailing and working with the pre-cast design parameters, this is explained further in the facade section later in this document.

Refined Structural Design

The structural engineers have further enhanced the structural frame design to improve the efficiency of the frame and limit its internal spatial impact. The result of the refinement is a reduction in the extent of concrete and re-enforcement improving the sustainability. There is no outward impact from the structural amendments however the plans have been updated to reflect.

MEP Strategies

The MEP engineers have evolved the building services with a focus on sustainability and efficiency. Whilst the majority of these changes have no outward appearance the main impact has been a reduction of the ground floor plant area and roof level plant areas. This has enabled an increase in provision of student amenity.

The above sections along with detailed studies outline the proposed amendments along with a description.



2.0 PROJECT BACKGROUND

Text as per Planning DAS except additional text in magenta

2.1 Project Context

In September 2019, Deloitte LLP published a Strategic Regeneration Framework Guidance (SRFG) on behalf of Manchester City Council. The document identified a number of sites within Ardwick and the wider Oxford Road Corridor area suitable for redevelopment, and established a series of development principles to guide future development of these sites. Further detail regarding the SRFG and its recommendations can be found in Section 5.0 of this report.

Sheppard Robson were initially approached by McLaren Property in 2020 to review options for the masterplan of the Upper Brook Street site as identified within the SRFG.

Subsequently, in 2022 Sheppard Robson were appointed by McLaren Property and Kadans Science Partners to draw up proposals for the former Citroën garages and former Elizabeth Yarwood Court to the south of the Upper Brook Street site.

These proposals form part of a wider masterplan for the entire Upper Brook Street site. This masterplan has been drawn up collaboratively by the McLaren / Kadans design team alongside a team led by Property Alliance Group / Moda who are developing the remaining plots to the north of the SRFG site. Further detail regarding the wider masterplan can be found in Section 5.0 of this document.

The project achieved recommendation for approval at committee towards the end of 2023 with the formal notice received following following agreement of the Section 106 with reference 137399/FO/2023.

2.2 Project Vision

The project's aspiration is to create a world-class and sustainable development with best in class facilities supporting well-being, inclusivity and diversity of all.

The development is a vital part of the wider Upper Brook Street Masterplan and is envisaged as a strategic link between the neighbouring residential areas of Ardwick to the east and Manchester University to the west. The development will breathe new life into a previously forgotten corridor of land, making a positive contribution to the local community of Ardwick, while also contributing to and enhancing the local economy and attracting and retaining the best talent to the city.

The Upper Brook Street Masterplan – McLaren/Kadans of the wider Upper Brook Street Masterplan, is comprised of two separate buildings, Sci-Tech and PBSA, on adjacent plots with surrounding public realm and publicly accessible community uses to the ground floor. This Non-Material Amendment relates only to the PBSA scheme.

The adjacent image shows an early artist's impression of the Upper Brook Street Masterplan – McLaren/Kadans, as seen from Ardwick. This image is illustrative only and captures the overall design concept and the aspirational quality of the project vision.





3.0 PROPOSED DEVELOPMENT

Text as per Planning DAS

3.1 Use

The proposed development consists of two separate buildings set within a new, high quality public realm. The proposed development seeks to create an active ground floor, with publicly accessible spaces to encourage integration with the surrounding community.

Building 1 - Sci-Tech

The proposed building provides approximately 215,000ft² of combined laboratory and office space alongside support / ancillary accommodation. A central atrium rises up through the floor plates, housing informal breakout spaces and meeting rooms at each level, with forum seating at ground floor. The building also includes a publicly accessible café at ground floor, accessed from the public realm. Further detail on the design and development of the proposed Building 1 can be found in Section 7.0 of this document.

Building 2 - Purpose Built Student Accommodation (PBSA)

The proposed building provides 737 student bedrooms (288 studios and 449 cluster bedrooms arranged in a variety of cluster sizes), student amenities, management suite and supporting ancillary areas. The proposed PBSA scheme is arranged in two parallel building blocks, linked on the ground floor to form spaces for indoor and outdoor student amenities. The building also includes a commercial retail unit and community centre to the ground floor, both accessed from the public realm. Further detail on the design and development of the Building 2 can be found in the following sections of this document.

Public Realm

The proposed development also provides a significant amount of new public realm, designed as an extension to the existing public realm within Ardwick. The new public spaces aim to be welcoming and accessible to all, including a new east-west route connecting Ardwick with the University and the communities beyond. The route will provide an attractive and safe environment for walking and cycling, whilst providing opportunities for seating and external amenity space to support ground floor uses within both buildings. It has provisionally been referred to as Thorburn Walk in recognition of Thorburn Street which previously bisected the site.

3.2 Amount

The PBSA development is comprised of the following, noting a c.30sqm reduction in gross internal area from the planning quantum:

Building	Gross Internal Area (Planning)
Building 1 (Sci-Tech)	n/a
Building 2 (PBSA)	25,350m ² (25,380m ²)

Further detail regarding the quantum of development, including commercial / community use can be found in the detailed schedules of accommodation in Section 5.2 of this report.



Planning Application GF Plan

- Legend
- Office
 - Cluster Bedroom
 - Studio
 - Reception / Amenity
 - Management Suite
 - Community
 - Cycle Storage
 - Plant / Back of House



4.0 INTERNAL PLAN DESIGN DEVELOPMENT

4.1 General Arrangement

Ground Floor Plan

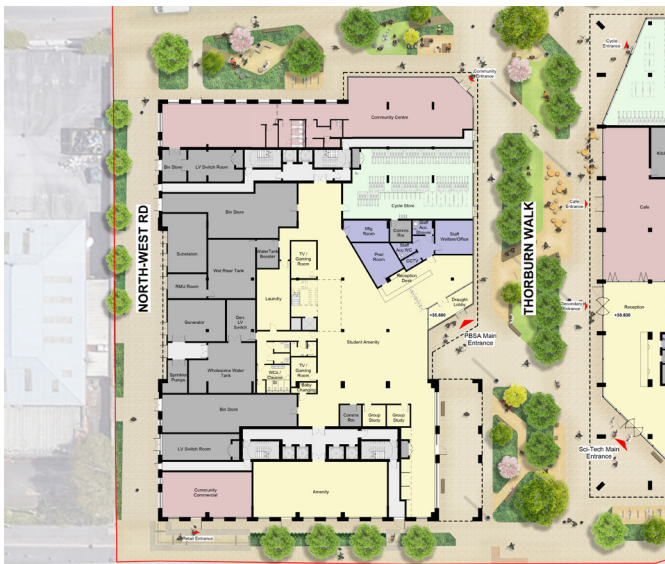
The ground floor principally remains as per the submitted drawings, the principal changes are limited to the following:

- Structural core refinement incorporated including reduction in lifts from 4no. to 3no. to Upper Brook Street block. Adjustment to reduce number and increase capacity to enable greater and more comfortable use.
- An additional door has been added to the lift lobbies to close in the event of a fire and ensure that at least one evacuation lift and escape stair are contained with separate lobbies, in line with the revised BS9991:2024.
- Back of house areas of plant reduced and rationalised to reflect the refined MEP design, resulting in minor relocation of service access doors
- Access to the amenity spaces on the Upper Brook Street elevation no longer accessed through core. Improves flow and reduces flows through residential space
- Design development to reflect pre-cast facade and detailed curtain walling design
- Inclusion of spandrel glazing to cycle store and plant areas
- Reconfiguration of reception back of house spaces to improve arrival zone

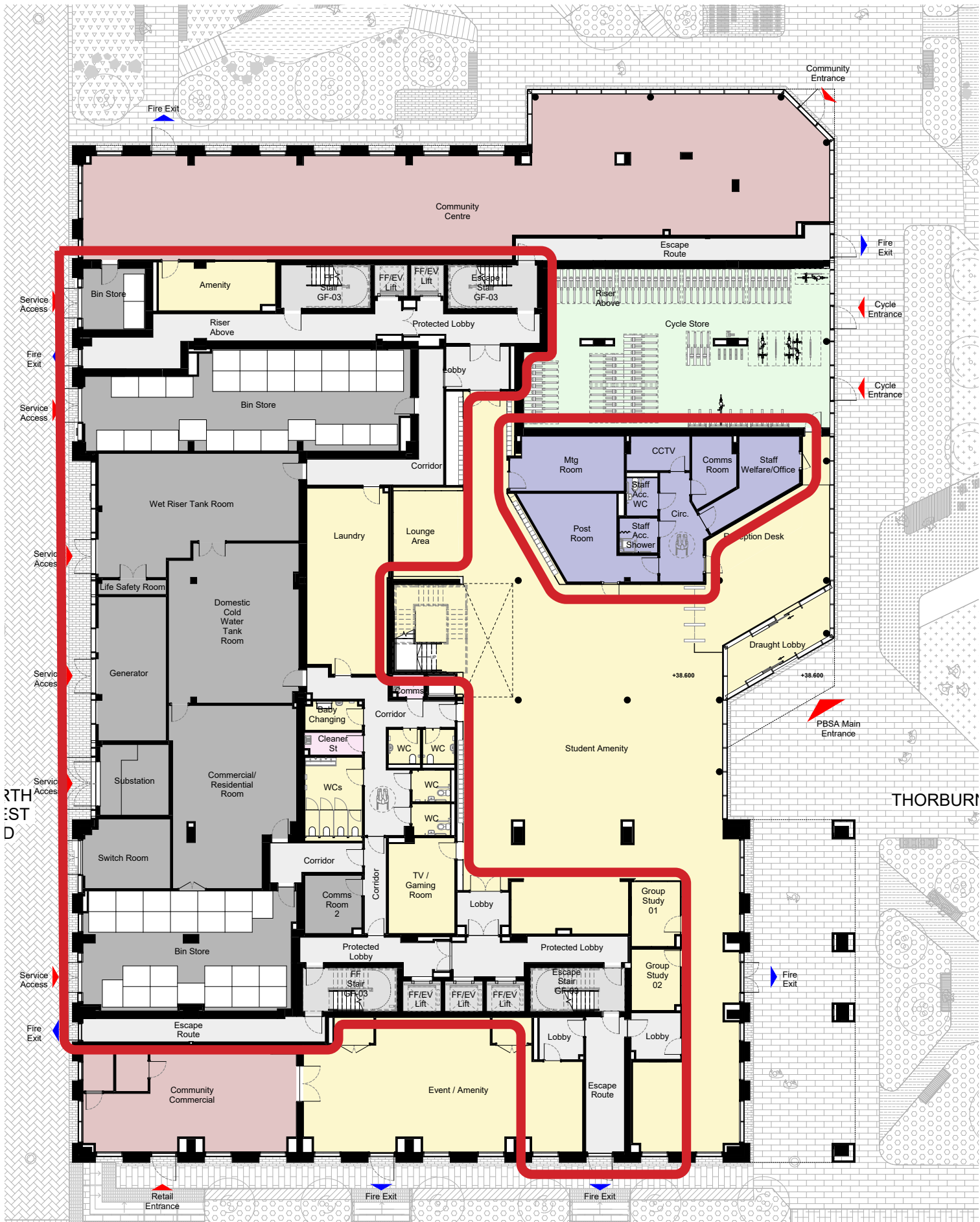
The ground floor updates have limited to no external visual impact and are focused on refining the internal configuration and are highlighted by the red outline on the adjacent plan.

Legend

- Student Amenity
- Management Suite
- Community Centre
- Cycle Storage
- Cores / Plant / Back of House



Planning Application GF Plan



Upper Floor Plans

Principally the floor plans have remained as per the submitted plans and have no external visual impact.

These minor amendments are highlighted by the red outline adjacent and can be seen in more detail on the later pages showing typical layouts to each block.

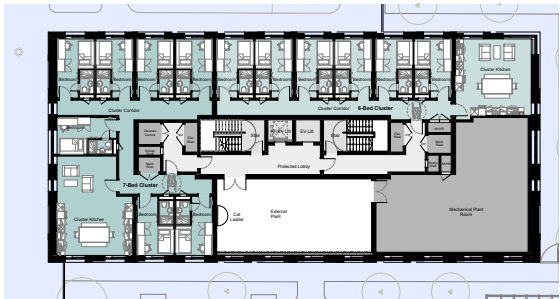


Planning Application Typical Upper

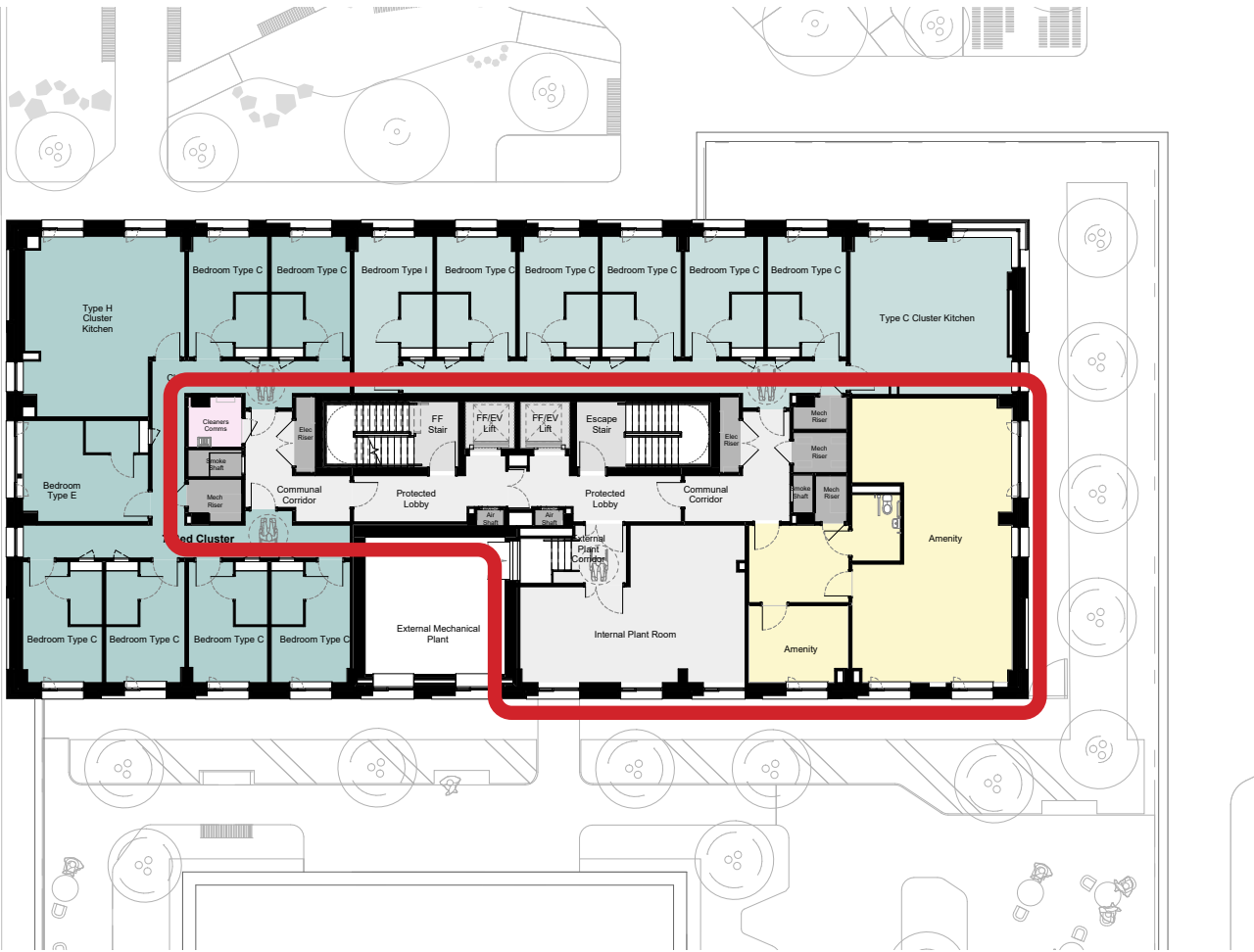


Typical Top Floor(s) Plan

Further to the building services design both internal and external plant areas to the upper floors have been reduced, with the majority of internal plant space now incorporated to the ground floor. This has enabled additional amenity space to the top floor of each block. The resulting visual amendment is to reduce the plant/louvred windows to the amenity area and integrated glazed windows. This reduces the louvred zone to a small discreet central section of the elevation and improves the overall appearance.

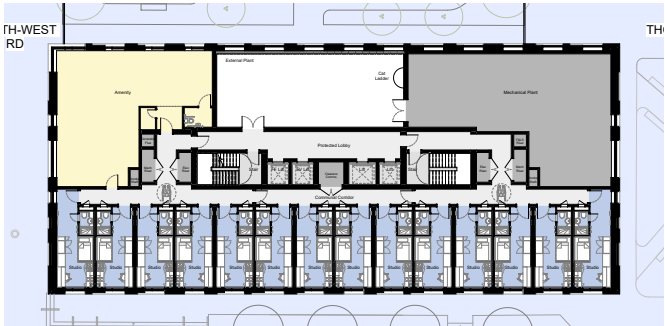


Planning Application Lv08 Plan

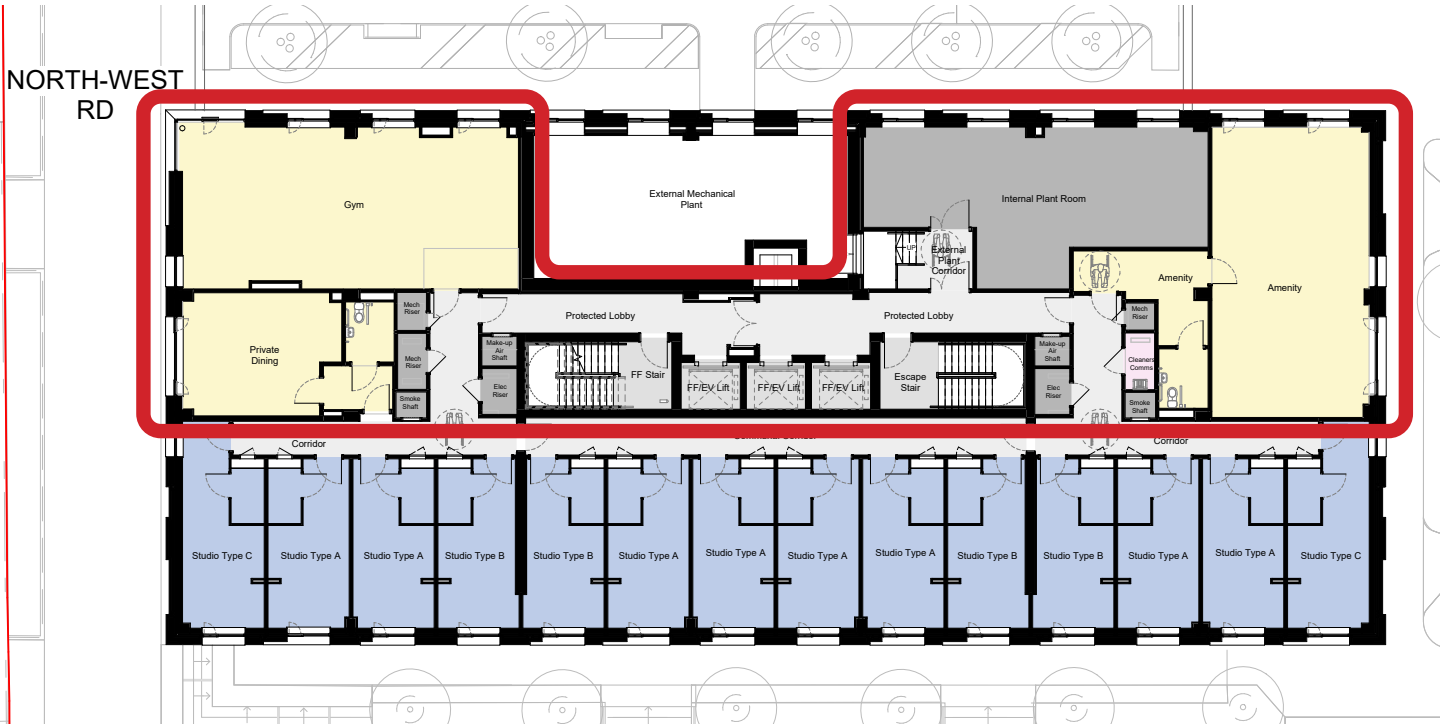


Legend

- Cluster Bedroom
- Studio
- Enlarged Studio
- Cores / Plant / Back of House



Planning Application Lv22 Plan



4.2 Typical Layouts

Typical Floor Layout

The principal floor layouts have remained unchanged from the approved plans with the amendments limited to refinements. The primary amendments relate to the more efficient and amended structural frame. The result of the structural amendments have improved the core efficiencies to both blocks. The structural amendments have been incorporated to improve the efficiency of frame performance and consequentially improved the sustainability of the design by reducing the extent of concrete and reinforcement.

In addition to the frame the main amendment is the increase in the lift capacities, which have been increased to improve their functionality and passenger comfort (KCR increase from 8ppl to 10ppl and UBS from 8ppl to 13ppl). The capacity increase to the Upper Brook Street block has enabled a reduction in 1no. lift (number of fire fighting and evacuation lifts as previous) and a further improvement on the core efficiency, the result of which is a small increase to the size of the end cluster kitchen amenity. Additionally, a door has been added to the lift lobbies to close in the event of a fire and ensure that at least one evacuation lift and escape stair are contained with separate lobbies, in line with the revised BS9991:2024.

Further review of the plans identified a concern in relation to the cluster kitchen location to the KCR whereby fire escape passed across the kitchen. As such the kitchen has been relocated to the far corner of the plan to avoid escaping past improving the fire escape route.

The plan amendments have no visual outward impact on the appearance of the design and submitted plans. The following page demonstrates a typical Upper Brook Street plan.

Legend

Cluster Bedroom

Studio

Enlarged Studio

Cores / Plant / Back of House

6

6 Bed Cluster

7

7 Bed Cluster

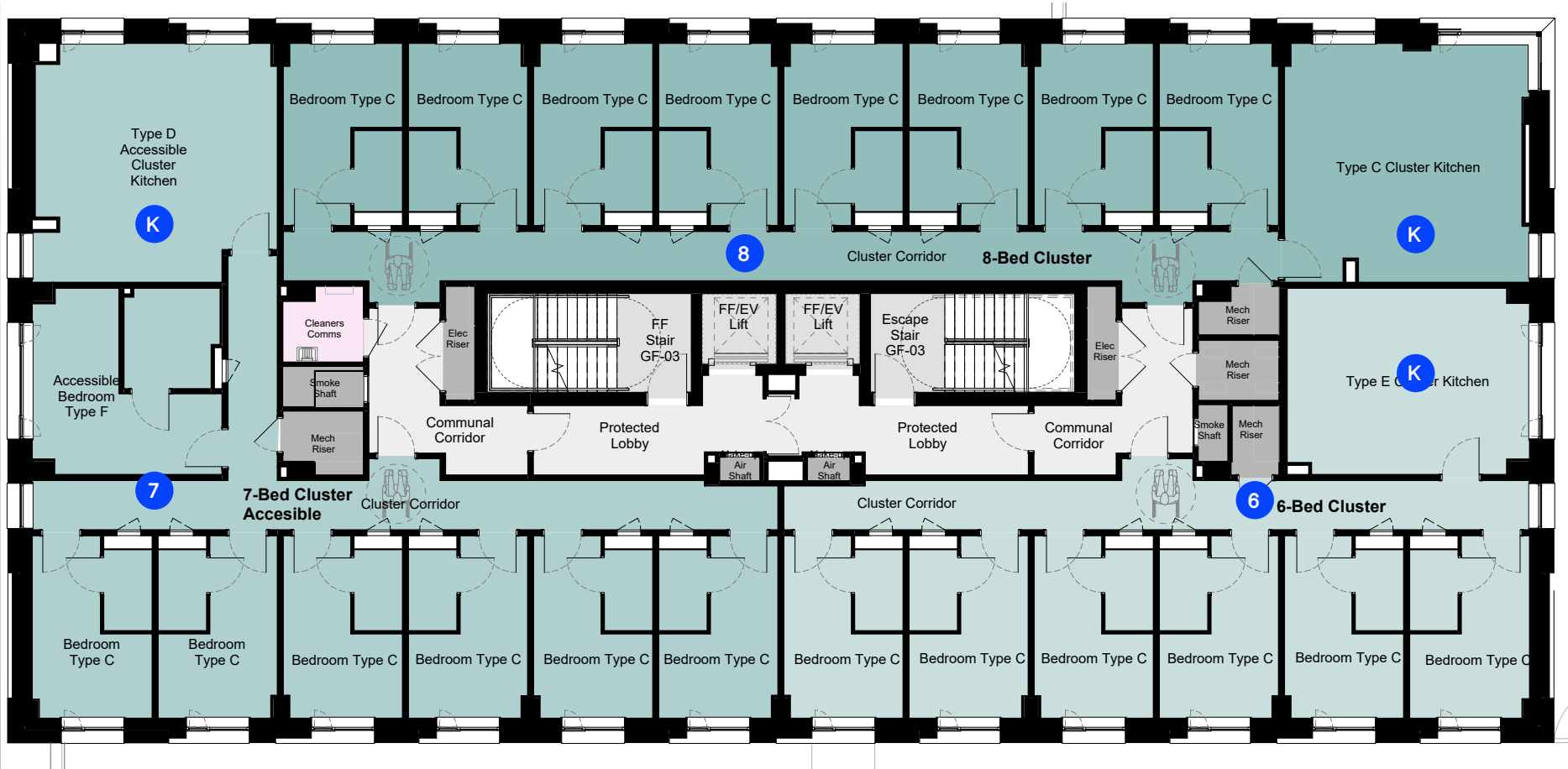
8

8 Bed Cluster

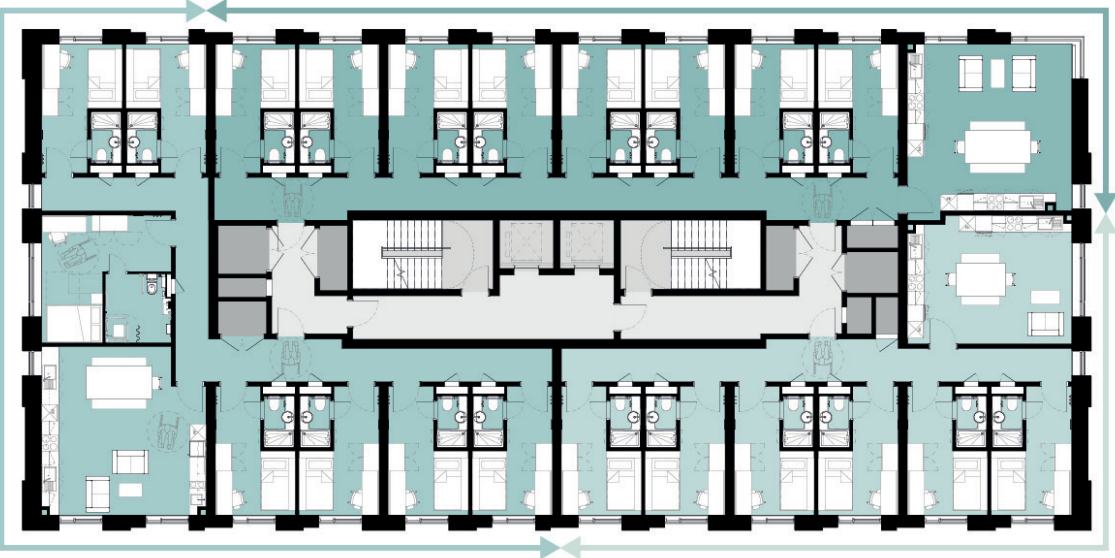
K

Kitchen

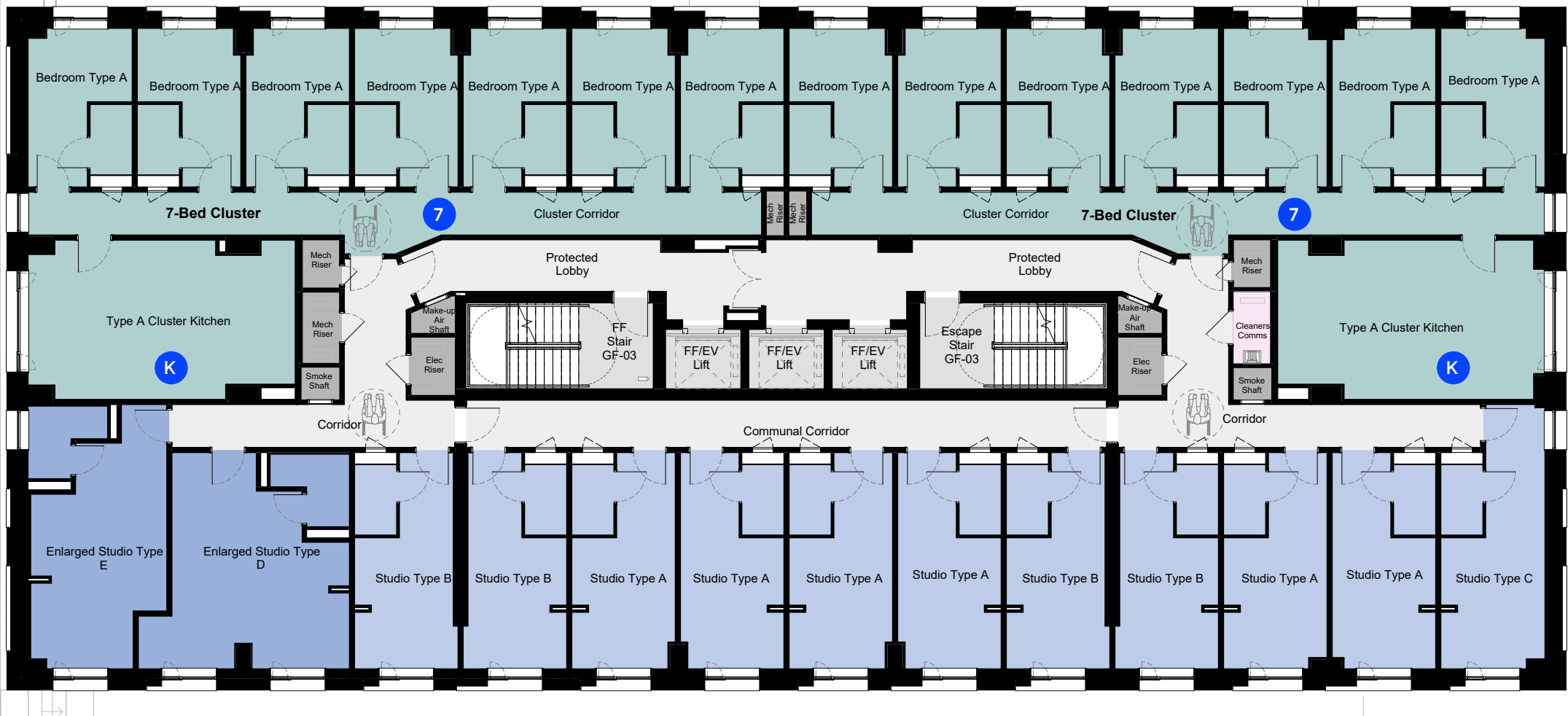
Typical Floor Plan - Kincardine Road



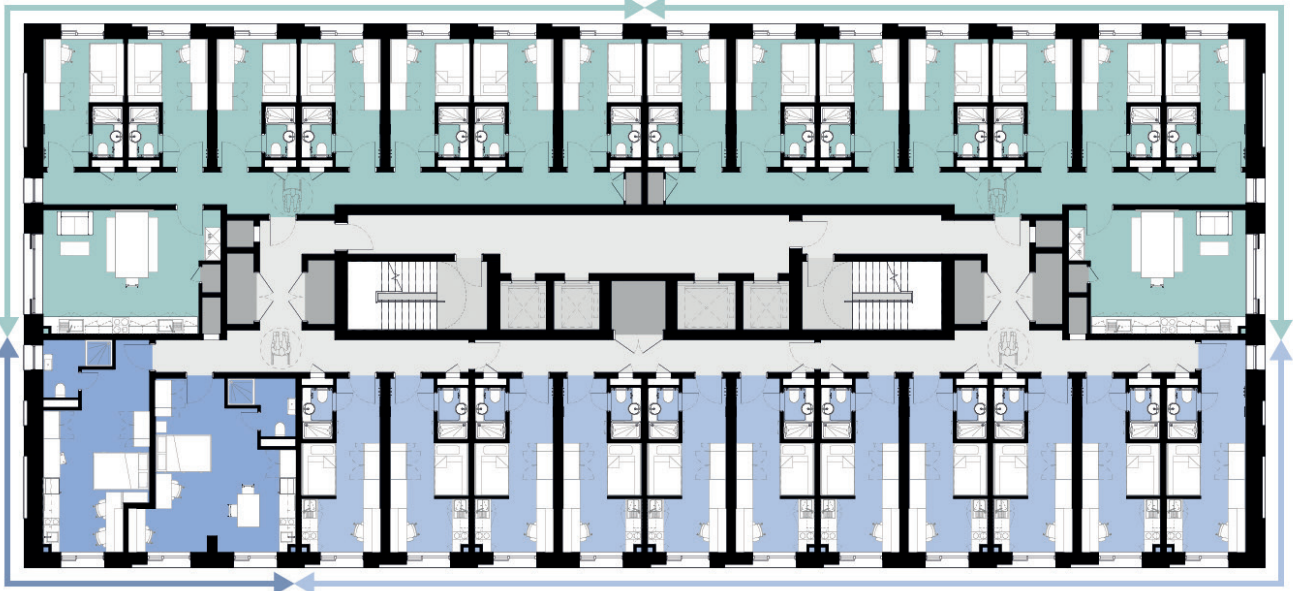
Typical Floor Plan - Kincardine Road (Approved)



Typical Floor Plan - Upper Brook Street Block



Typical Floor Plan - Upper Brook Street Block (Approved)



5.0 FACADE DESIGN DEVELOPMENT

5.1 Overview

Following the committee approval the project has commenced with the detailed design development with a focus on delivering a high quality scheme. A key element of the design development has been the agreement with the client to deliver the project through a pre-cast facade solution due to the noted quality advantages of such systems albeit it with a cost premium. The following pages discuss the design development beginning with an extract from the submitted Design and Access Statement to outline the background to the external design. The key design development can be summarised as the following elements:

- For quality, pre-cast design criteria incorporated
- Focus on design details to maximise the project quality, notably minimising movement joints and panel joints to create a seamless facade.
- Refinement of design to add architectural layering and quality detailing
- Reduction in floor to floor heights and subsequent overall building height reduction
- Removal of generator flue at high level
- Amenity block elevations provided for design clarity
- Marginal relocation of service access doors

The amendments are described in further detail on the following pages.



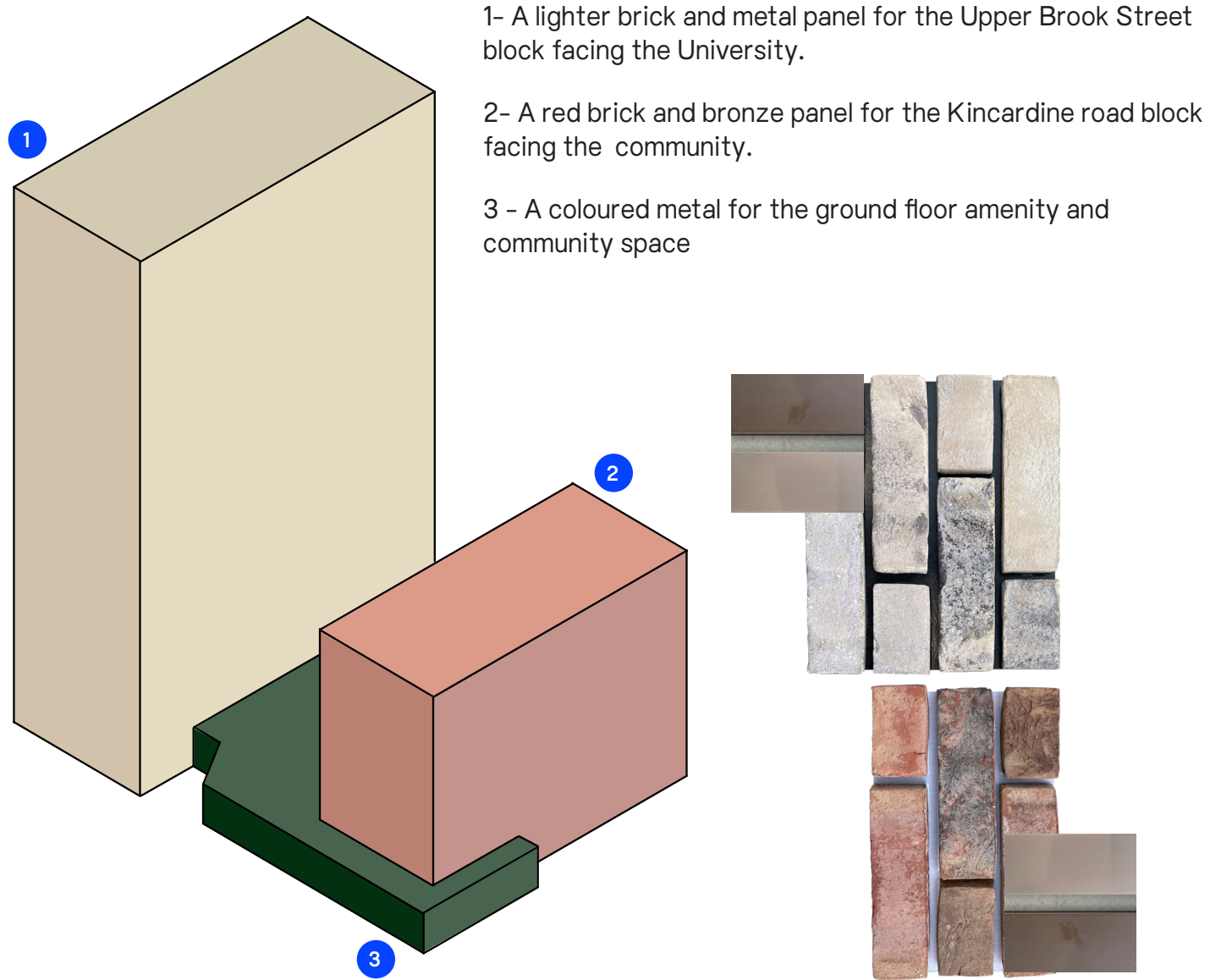
Text as per Planning DAS
Facade Materiality - Brick Tone

From exploring the range of materials within the site’s historical and residential context, it was agreed that a brick building would be the most suitable response to its surroundings.

The idea of treating the two blocks with the same brick material but allowing the colour to reflect the immediate context was explored.

From this idea grew the option of a grey brick to the Upper Brook block facing the university and a red tone brick to the Kincardine block facing the community.

This concept was developed and tested with various tones of brickwork to the Upper Brook Street block. It was agreed that the most successful variation was a buff brick to the Upper Brook Block and a red brick to the Kincardine Block.



Brick Details

The brick detailing has been given careful consideration to ensure a high quality finish whilst enhancing the performance of the building.

As part of the design development and integration of a pre-cast facade the focus has been on design quality.

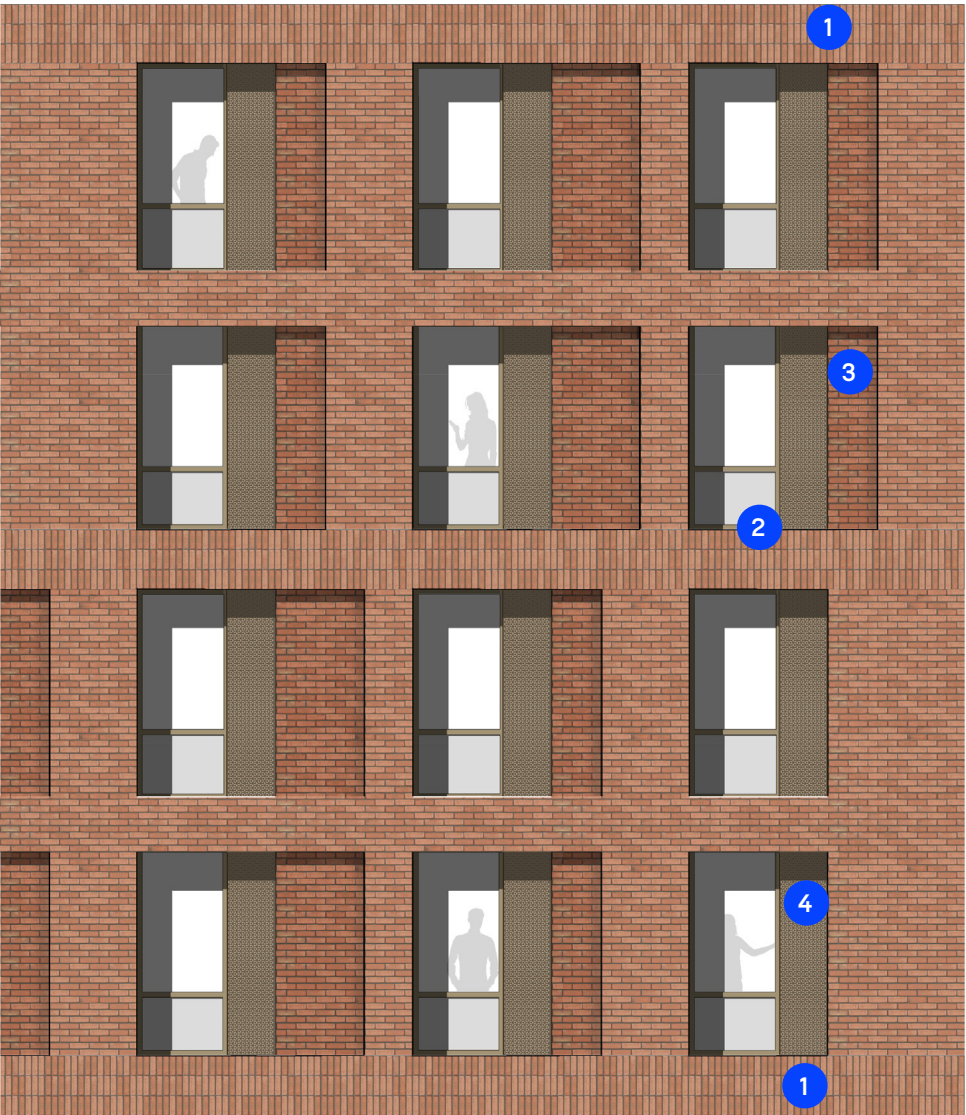
Working with masonry and / or pre-cast requires the integration of movement joints (in the case of pre-cast as panel joints). The primary focus of the design development has been limiting their visibility. Studies of precedent indicate locating joints within reveals or soldier courses offer the most discreet positioning of joints.

As such the panellisation has been carefully considered to locate joints within the reveals to conceal, where possible. In addition, it is proposed to utilise a strip of soldier coursing below every window; this combined with aligning the reveals widths to the soldier coursing enables the joints to run seamlessly through the facade. It is also felt that this element of additional soldier coursing adds a further layer of architectural refinement. Further studies of the windows identified an opportunity to remove the transom to the glazed section of window to simplify and heighten the aesthetic quality of the window design.

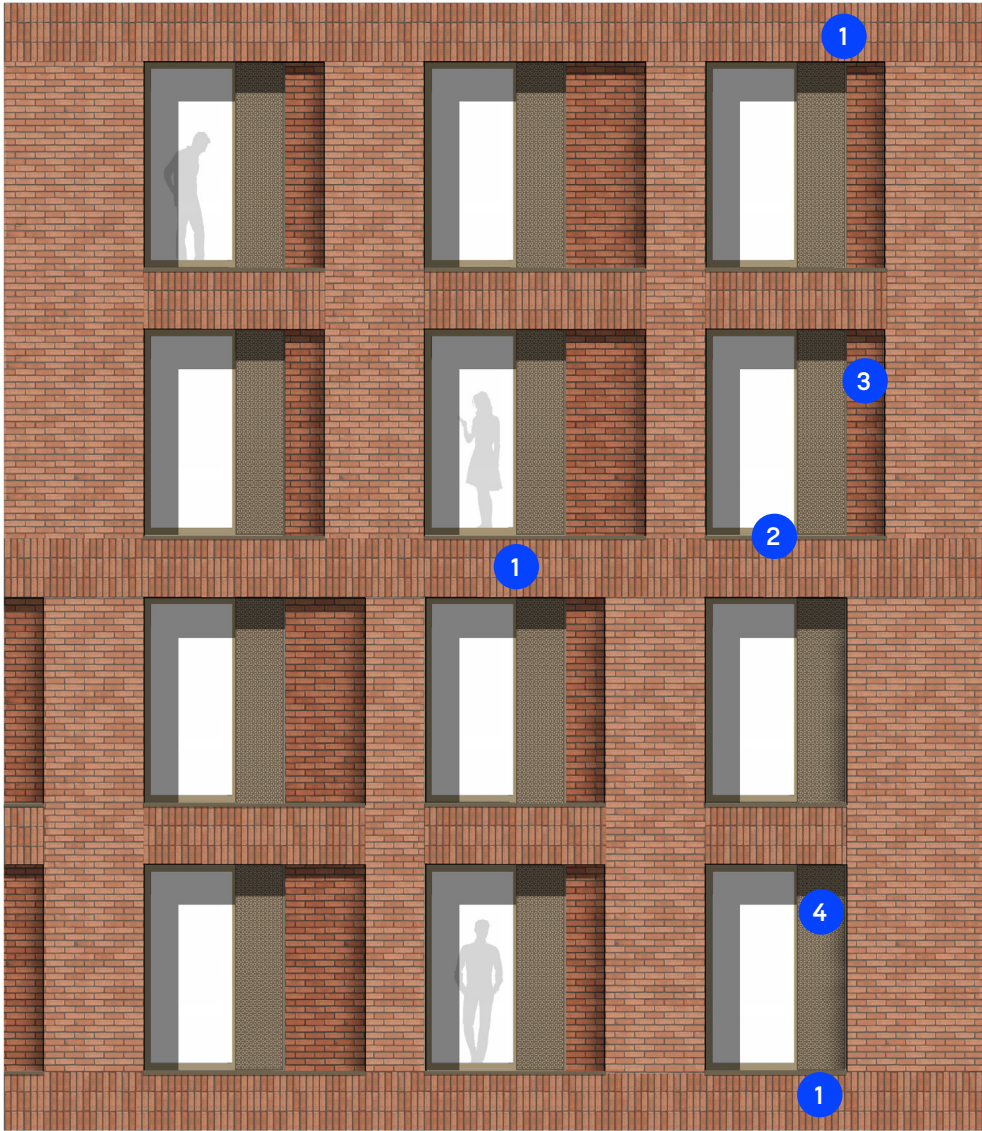
The lower adjacent images demonstrate how quality design detailing can discreetly hide panels joints (left hand image) compared to the right hand image where the panellisation is prominent.

Beyond this the facade to the larger elevations has principally evolved as per the approved elevations.

Planning Bay Study



Refined Bay Study



Successful / discreet joint locations

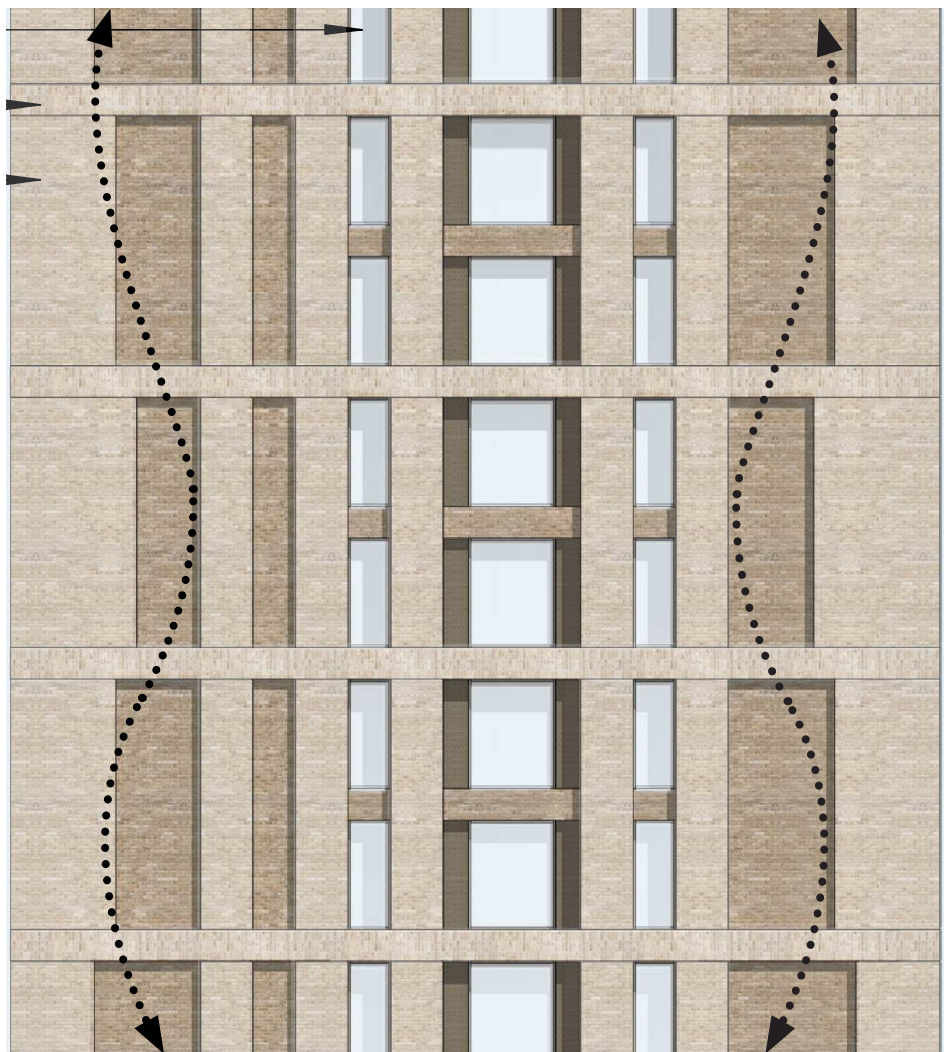
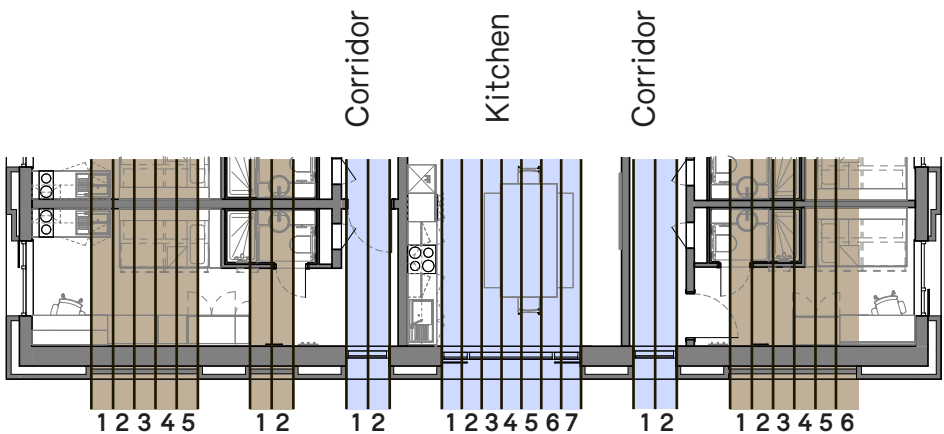


Highly visible joint locations

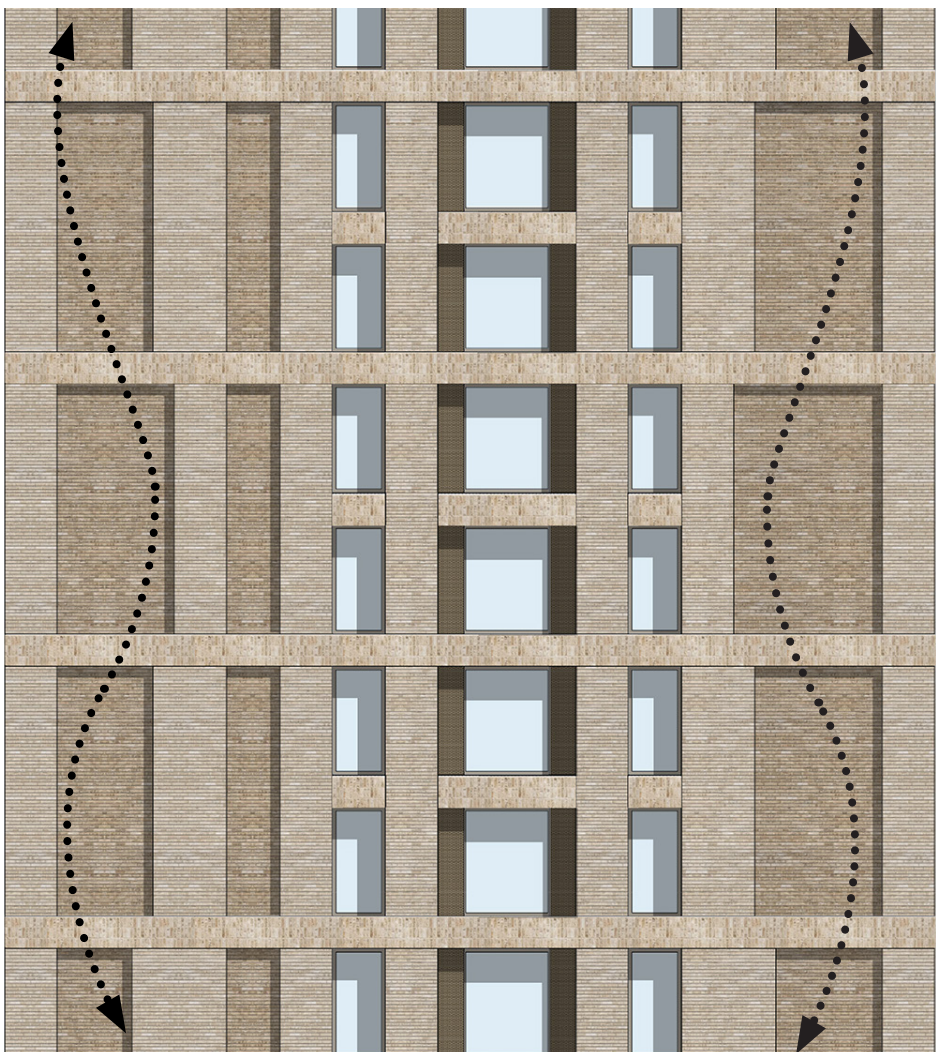
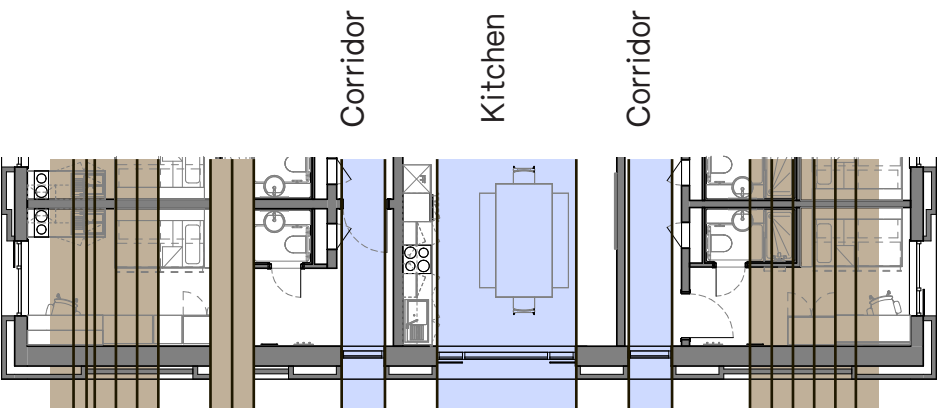


- 1 Soldier course Brick head with metal perforated vent. Metal finish to match decorative panel
- 2 Metal cill
- 3 Brick Reveal
- 4 Metal sill finish to match decorative panels
- 5 Fixing at regular centres to be confirmed with colour matched countersunk heads driven through perforations in decorative panel.

Planning Bay Study



Refined Bay Study



Facade Pattern Language

The same approach and pattern has been applied to all four main façades emphasising their equal importance on the site, in order to create a united visual ‘flow’ across all façades.

Short Elevation Composition

In response to the change of nature of the short elevations, a composition has been developed which incorporates the recessed brick bays to provide relief to areas where glazing is not required.

The concept of a wave form and varying of the recess pattern has been retained to the short elevations. As part of the design development the wave pattern has been refined to enable the pre-cast panels joints to be concealed on the corners to avoid a vertical seam to the building. The refinement is focused on maintaining quality detailing.



Height Reduction Study

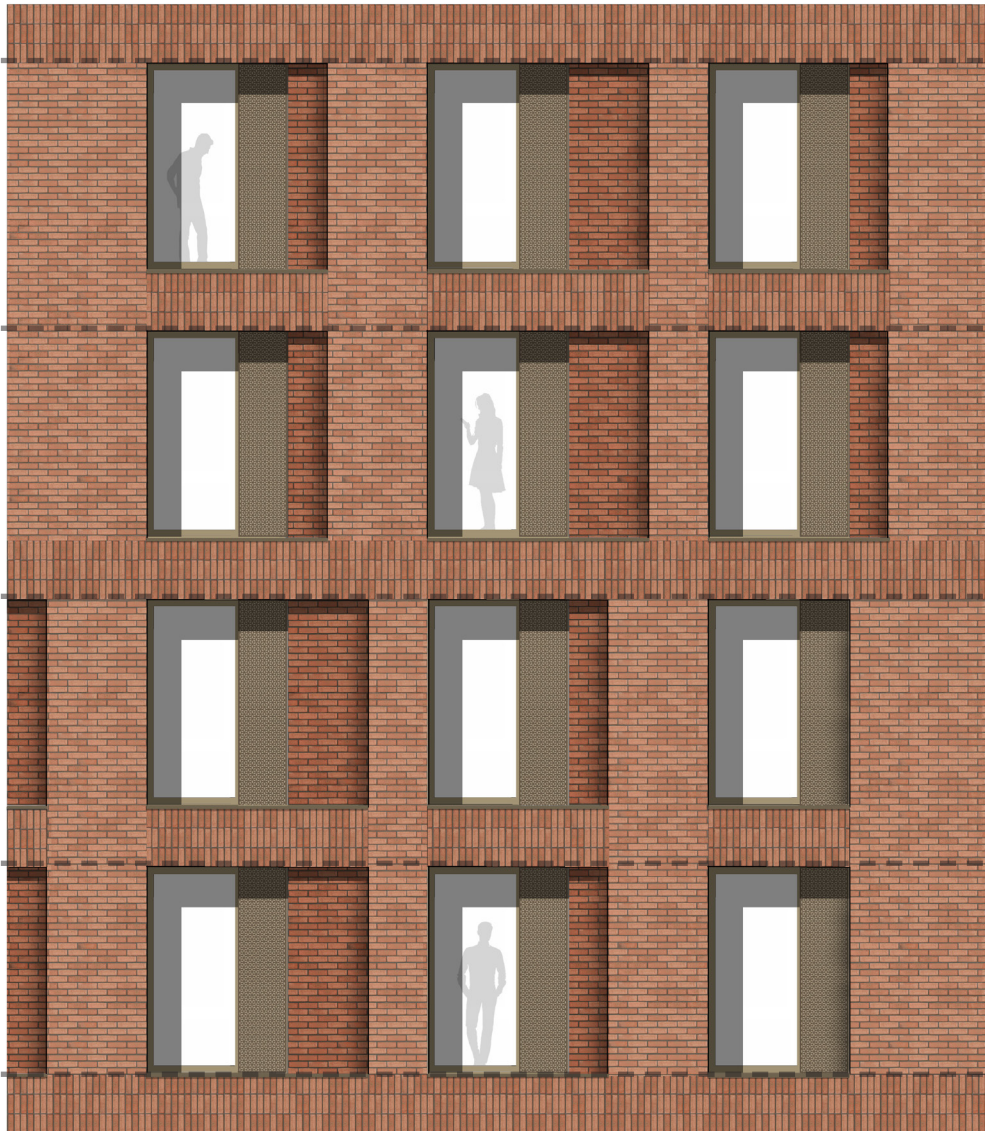
As discussed earlier wider funding drivers have put pressure on the building height, notably the requirement for A1 rated insulation required to inverted roofs increasing their overall build up.

The design team have challenged the design to explore opportunity to mitigate and to reduce the floor to floor heights by 1no. brick. This would enable the overall building height to be lowered, rather than increase and reduce the impact on the skyline.

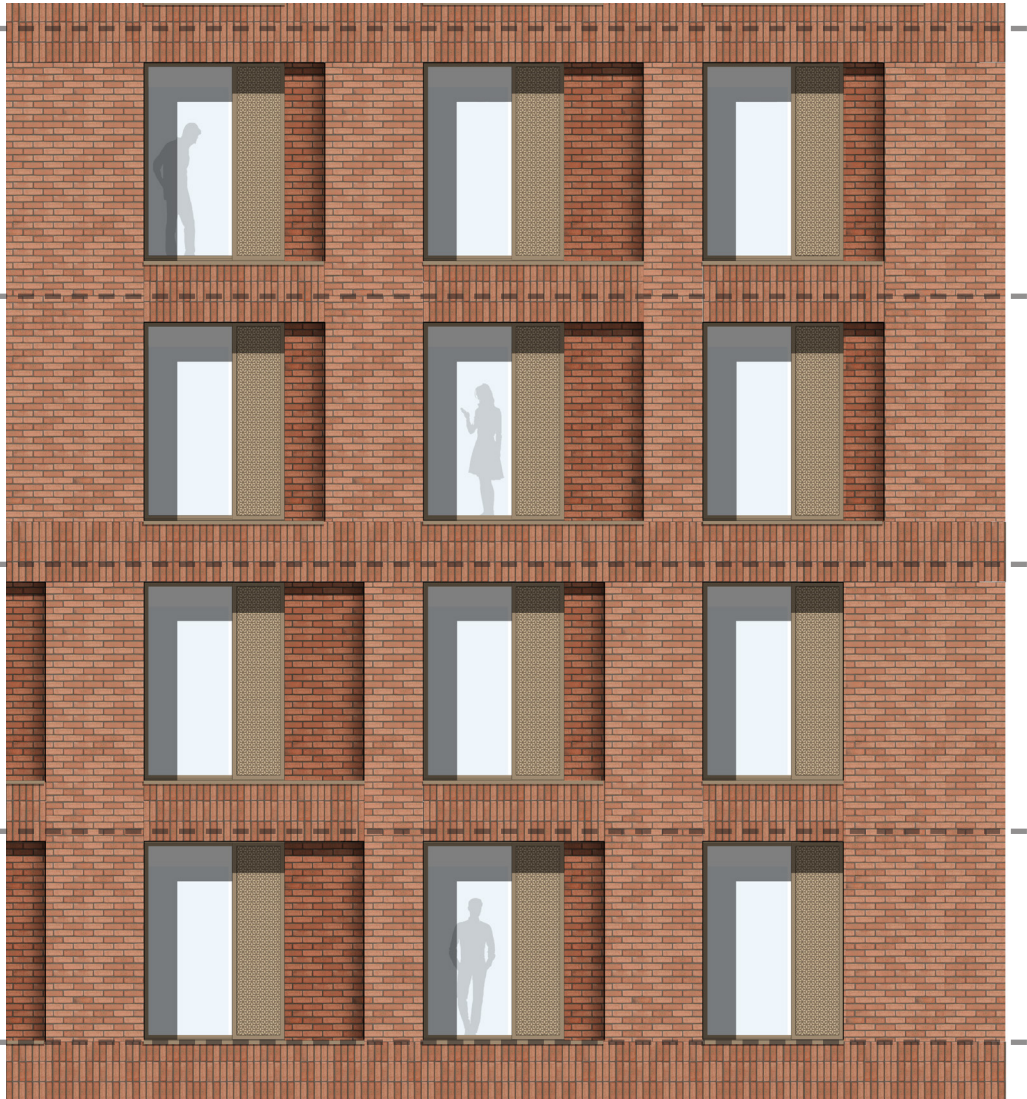
The strategy requires further design team interrogation however the reduction would be actioned as a slice through the window location. This would retain the 3no. brick soldier course retain the wider detail quality and has been tested with the window to ensure it retains the overall window proportion quality.

The adjacent images highlight the potential height / visual difference. The height variations are summarised below each option.

Refined Bay Study



Refined & Reduced Height Bay Study



Workstage 3 Heights

	Stage 2/ Planning	Stage 3 (A1 Insulation impact)	Potential Reduction (Change)
UBS Parapet	110.300	110.495 (+0.195)	108.920 (-1.575, -1.380 from planning)
UBS Stair Overrun	111.900	112.340 (+0.440)	110.710 (-1.650, -1.190 from planning)
KR Parapet	68.300	68.495 (+0.195)	67.970 (-0.525, -0.330 from planning)
KR Stair Overrun	69.900	70.340 (+0.440)	69.775 (-0.600, -0.125 from planning)
Level 1 parapet	44.200	44.600 (+0.400)	44.600 (400mm from planning due funder guarding requirement)

Height Reduction Study - UBS Elevations

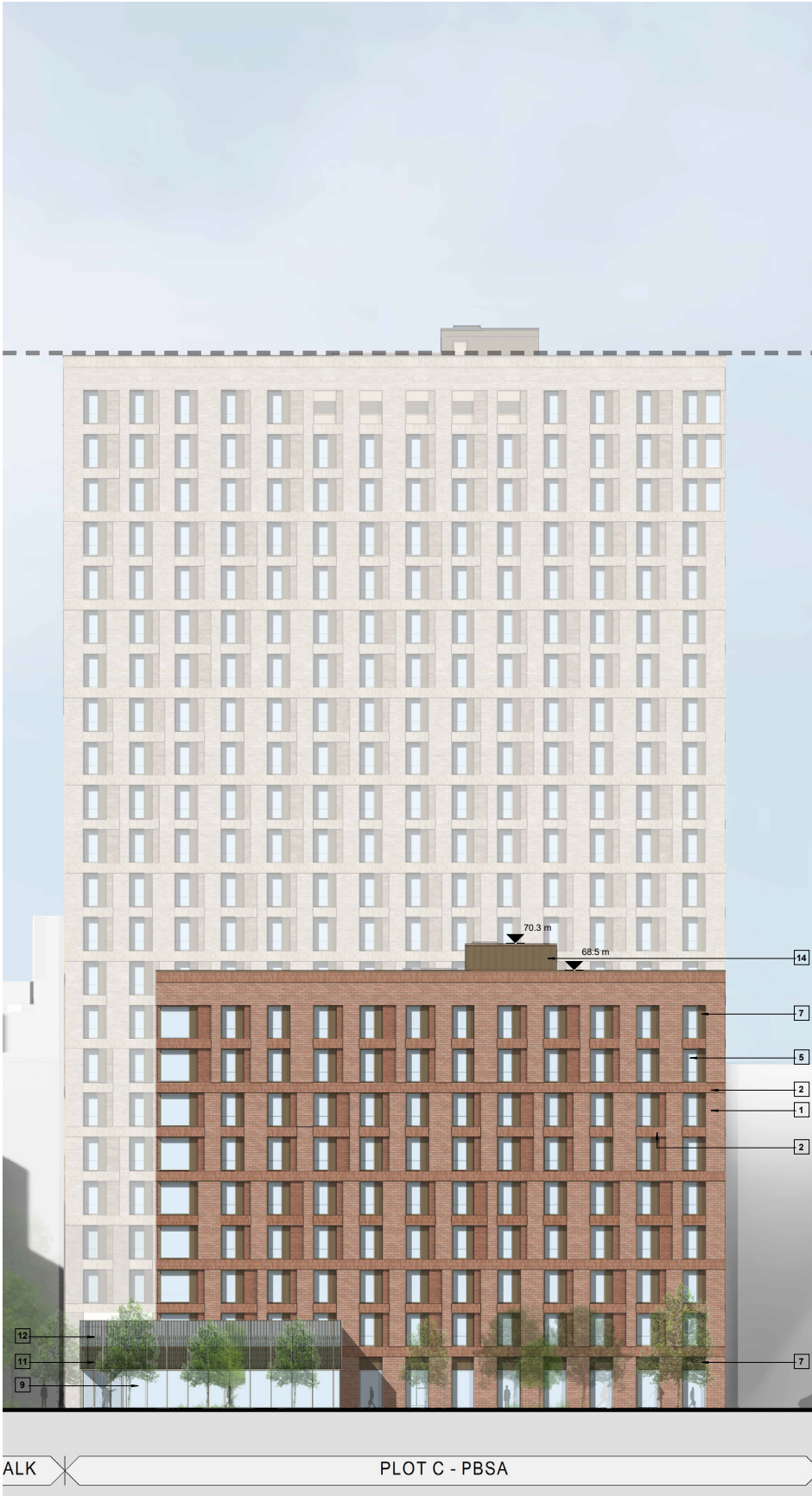
The adjacent image demonstrate the potential reduction to the UBS blocks along with a wider site / masterplan section on the following page.



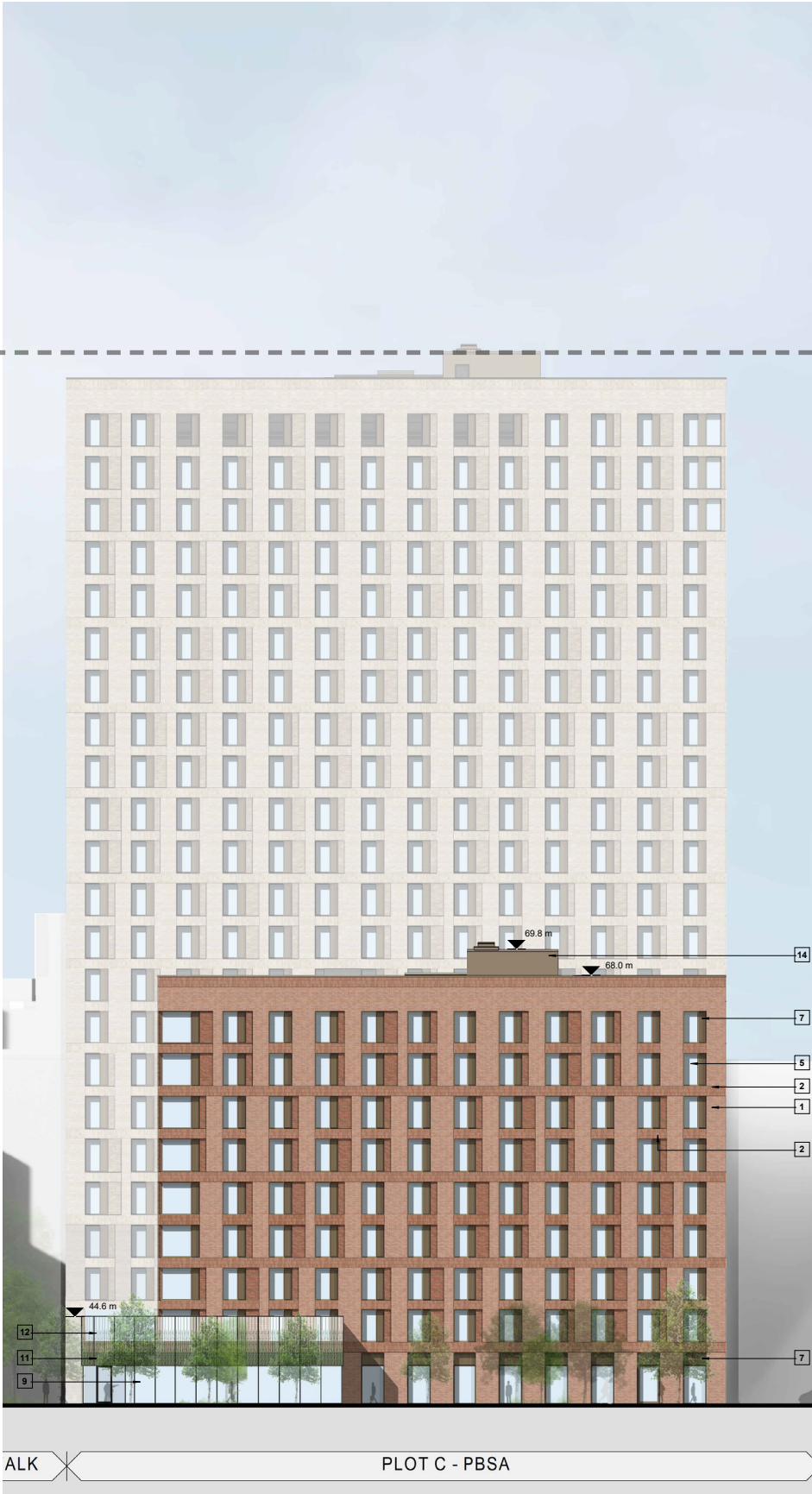
Height Reduction Study - Side By Side

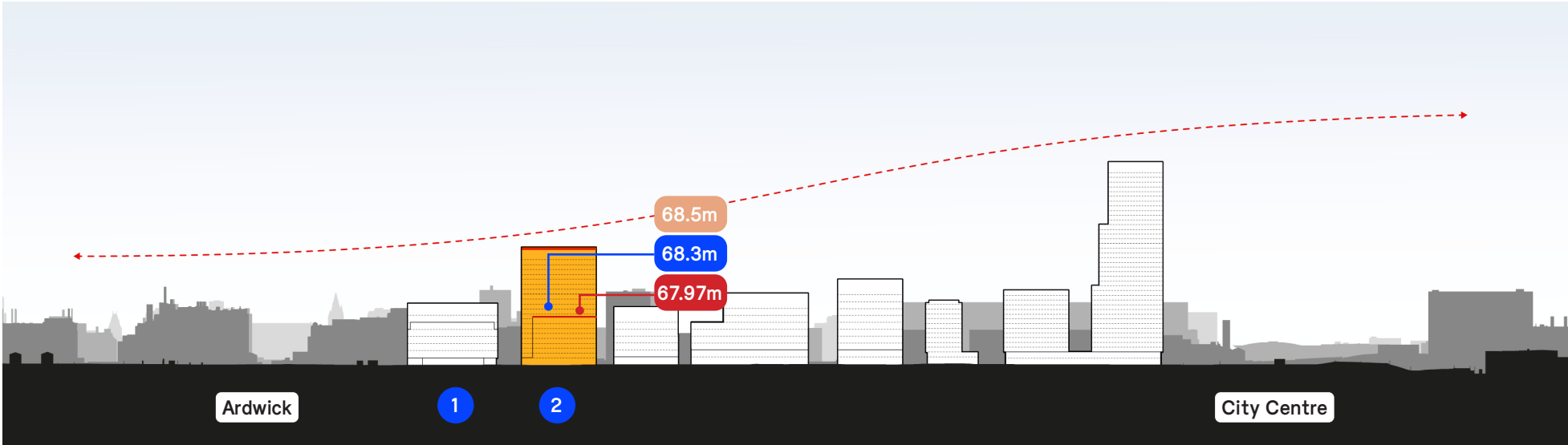
The adjacent image demonstrate the potential reduction to the UBS blocks with side by side elevations

Stage 3 Height

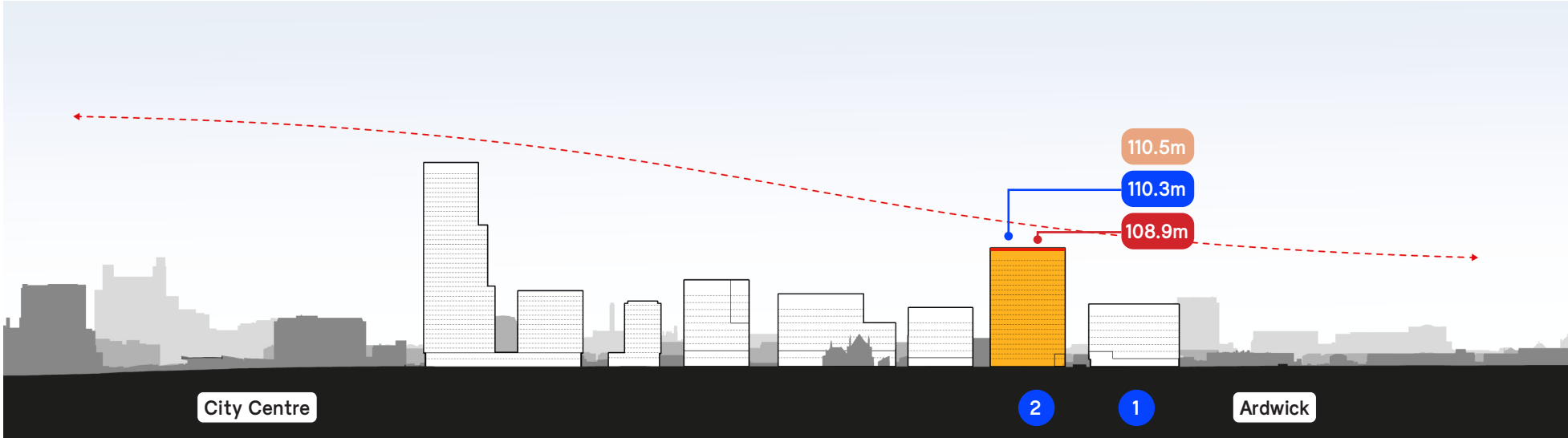


Potential Reduction Height

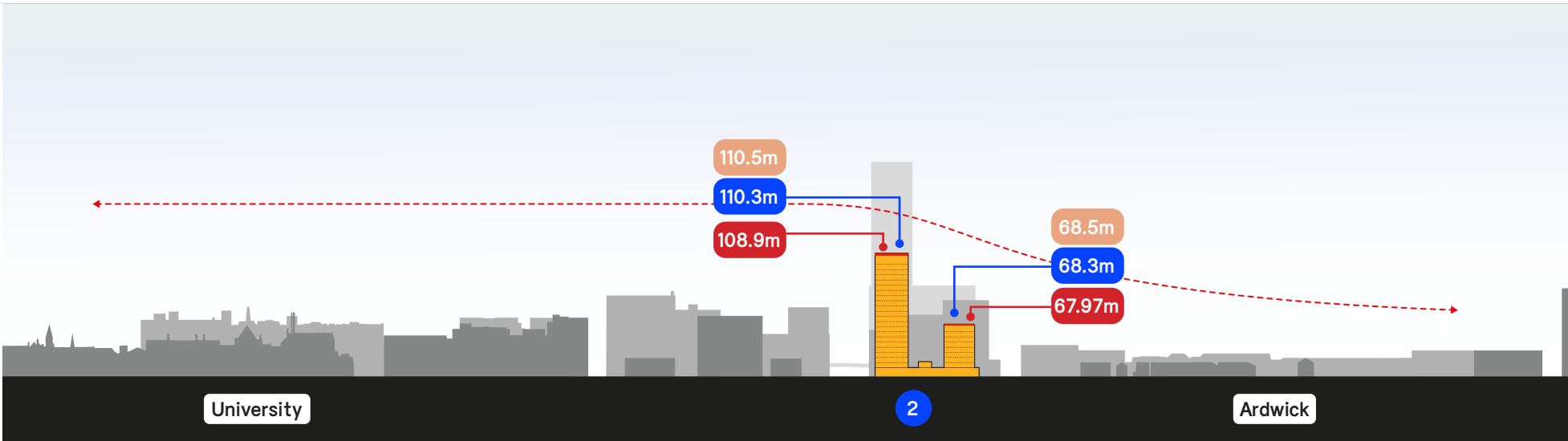




Kincardine Road Streetscape



Upper Brook Street Streetscape



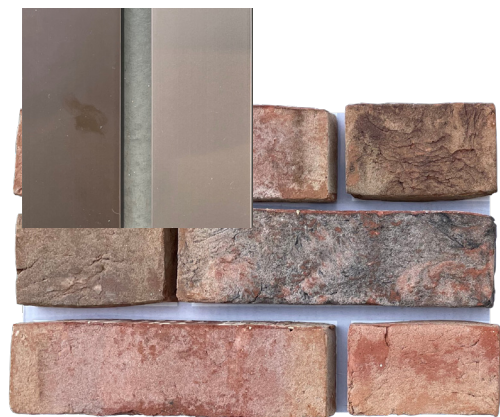
Thorburn Walk Streetscape

Legend

- 1 Sci-Tech
- 2 PBSA
- XX Planning Building Height (AOD)
- XX A1 Material Building Height (AOD)
- XX Proposed Reduced Building Height (AOD)
Heights shown to principal parapets excl. stair overruns etc.

Kincardine Block Material Palette

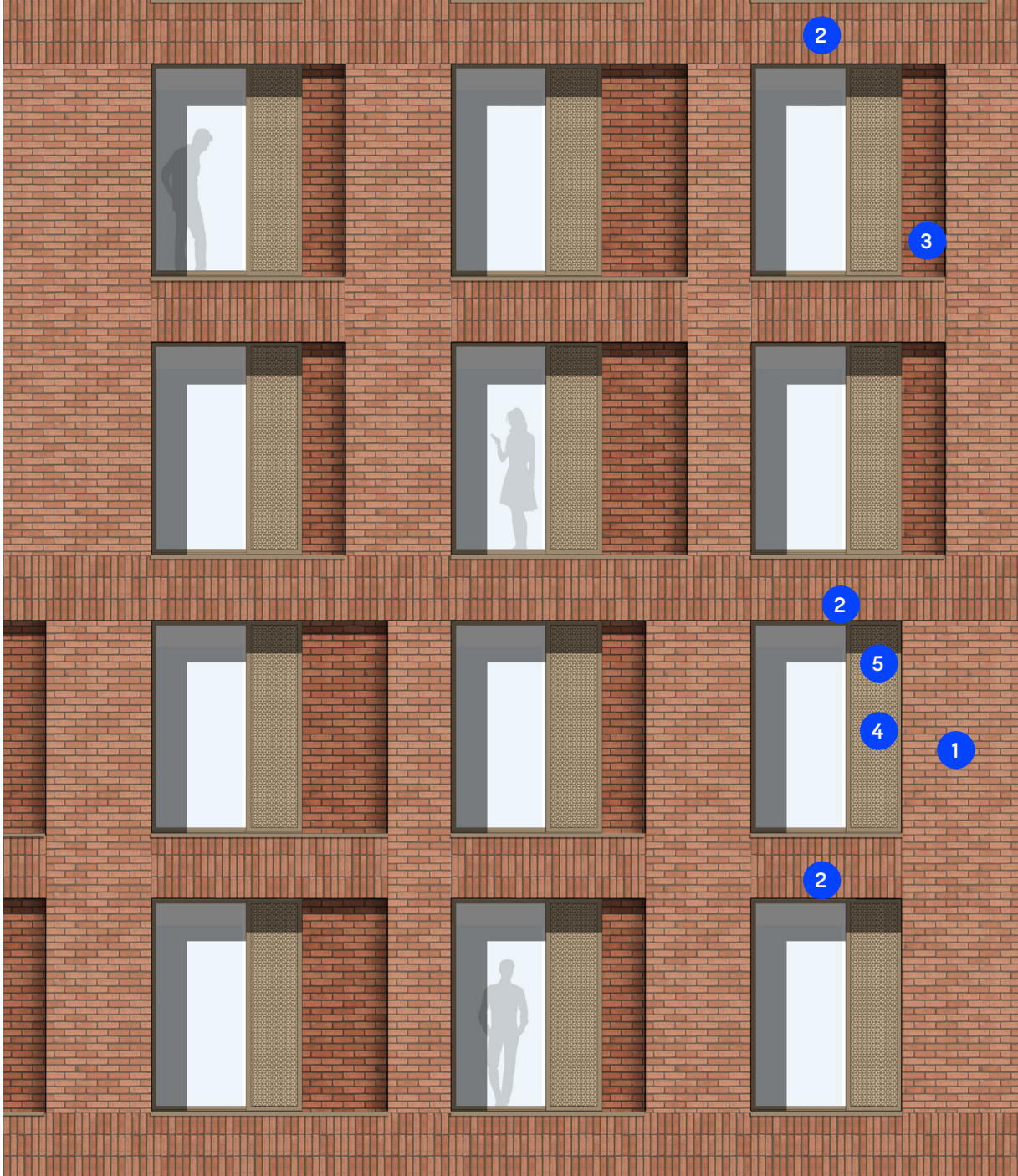
- 1. Red brick primary material
- 2. Horizontal three brick soldier course brick banding in red brick to every second floor.
- 3. Brick Reveals
- 4. Purge panel mesh in mid bronze metal, solid purge panel in lighter bronze
- 5. Vent panel mesh in mid bronze metal

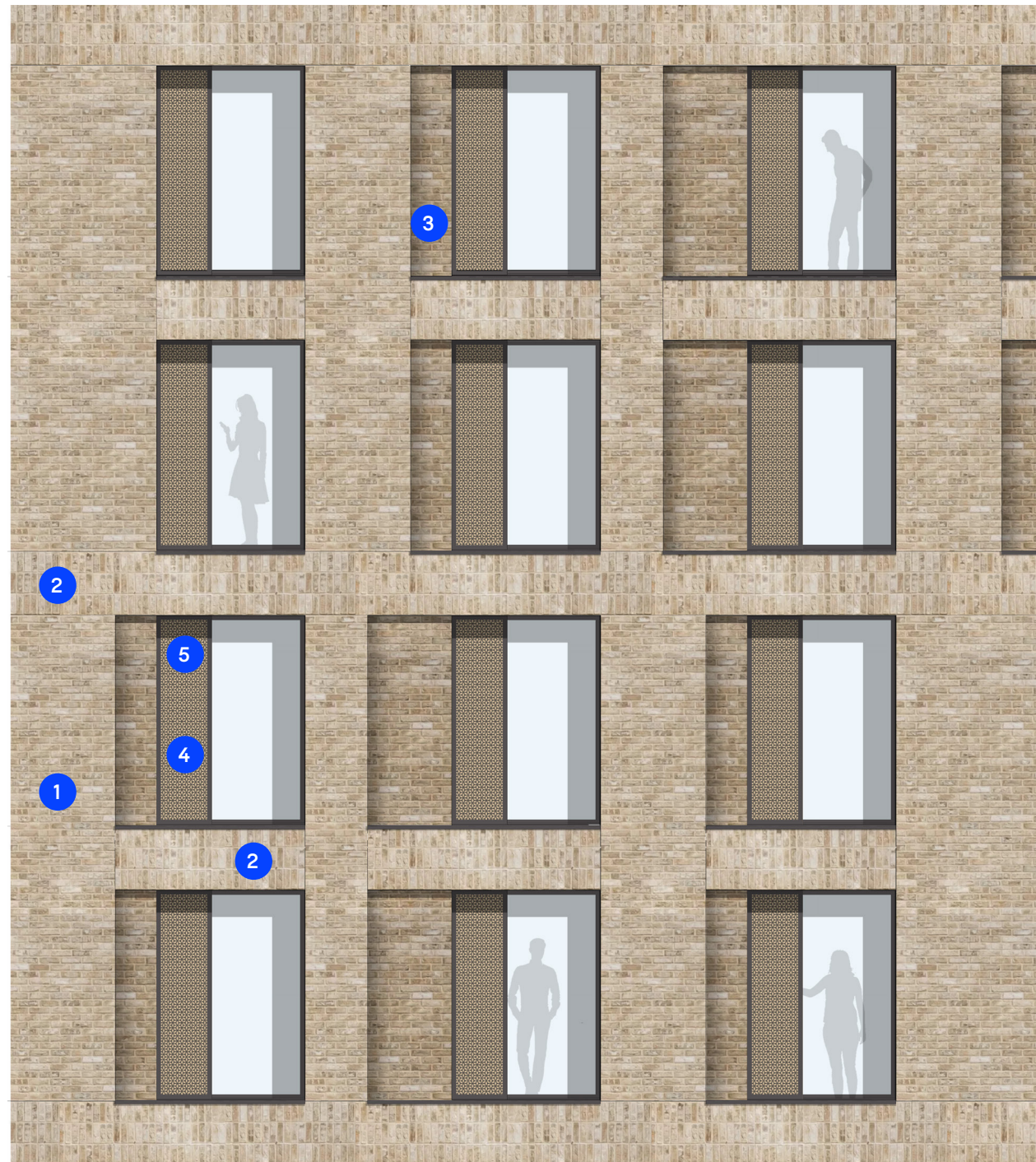


Brick and metal material swatches



Vent and Purge panel mesh pattern





Vent and Purge panel mesh pattern

Upper Brook Block Material Pallet

1. Buff brick primary material
2. Horizontal three brick soldier course brick banding in buff brick to every second floor.
3. Brick Reveal
4. Purge panel mesh in Dark bronze metal, solid purge panel in mid bronze
5. Vent panel mesh in Dark bronze metal



Brick and metal material swatches

5.2 Elevations
Kincardine Road Elevation



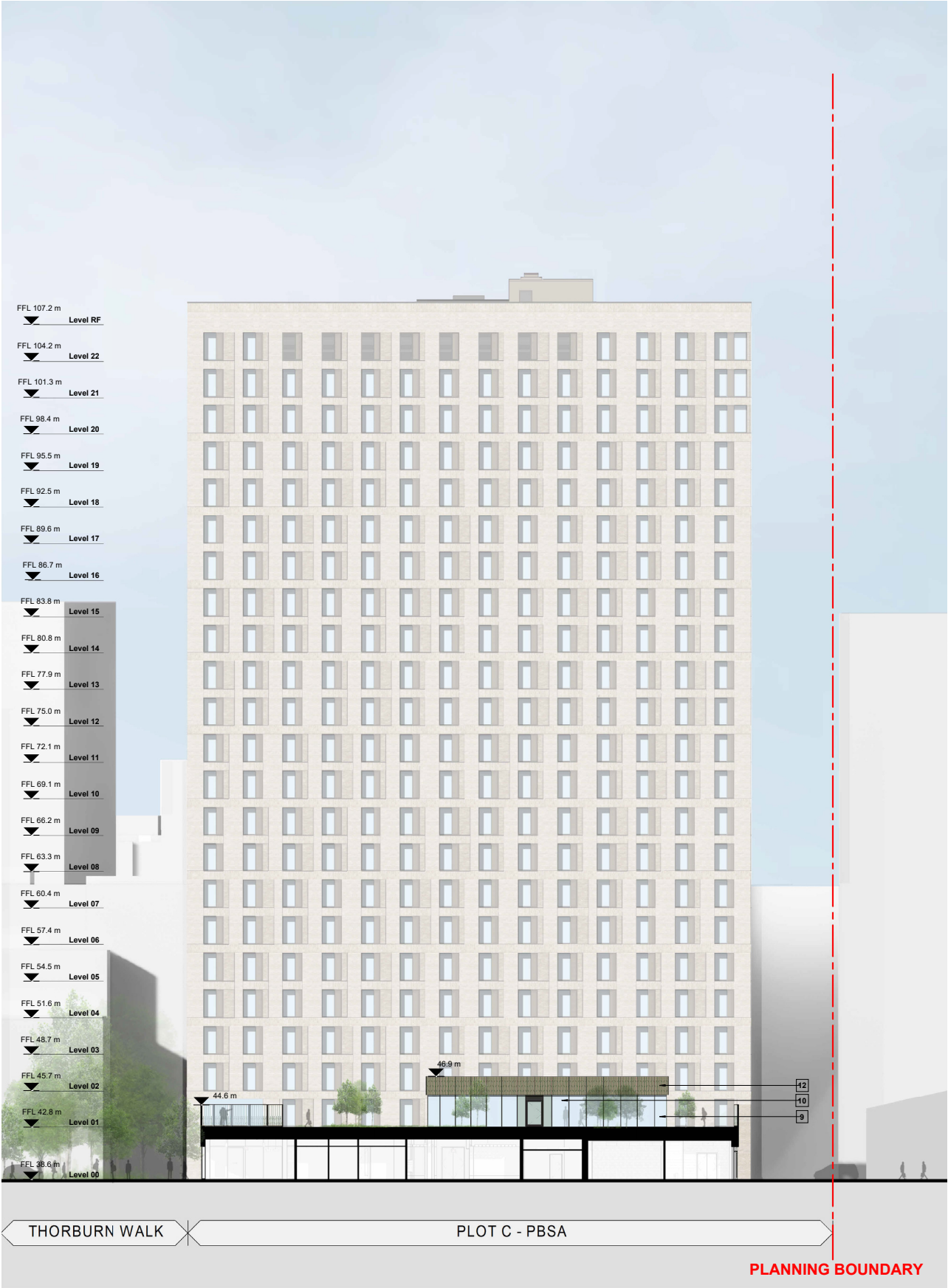


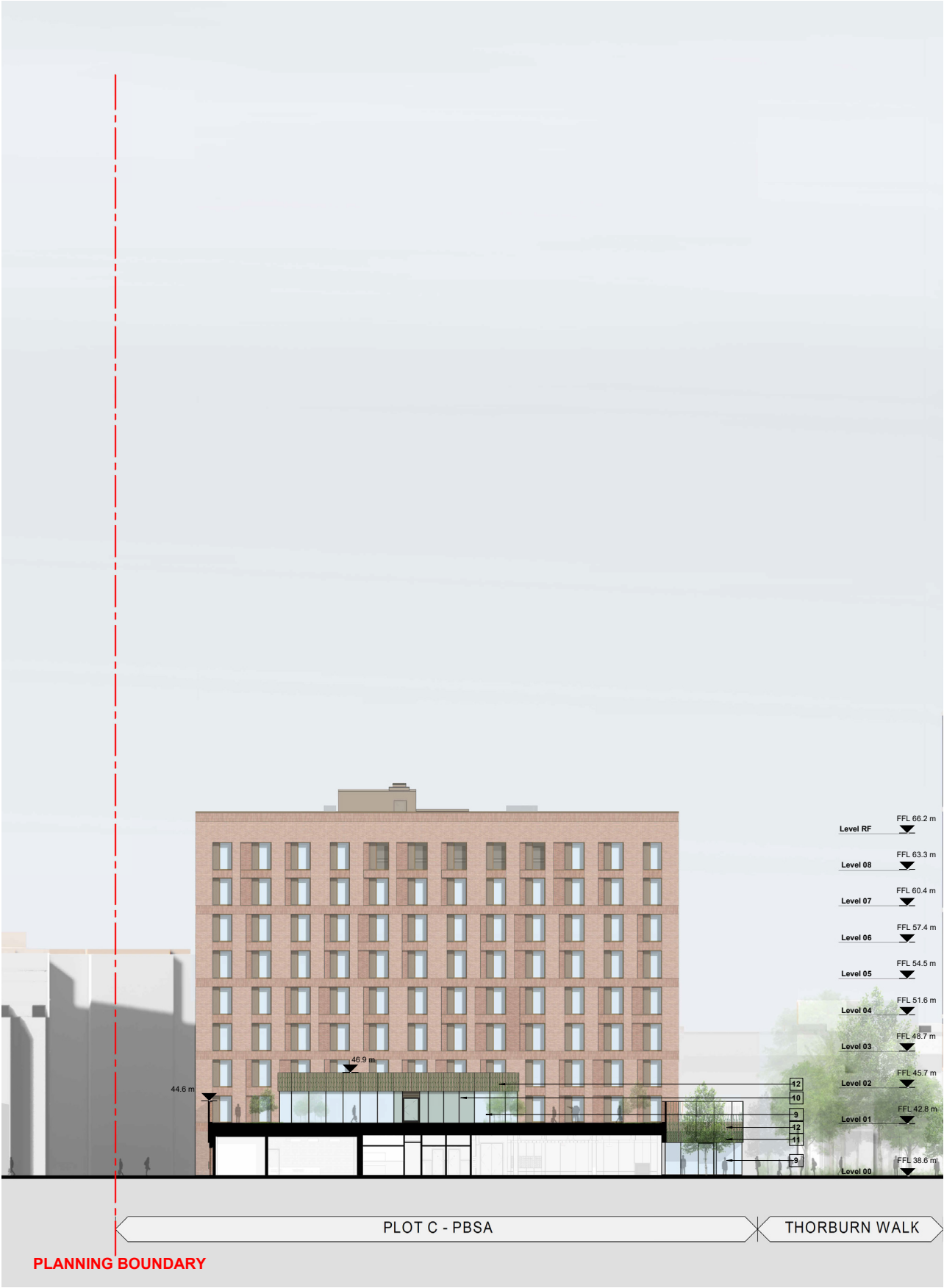
Thorburn Walk Elevation (East)





Amenity Pod Elevation (North)





5.3 Amount

Area Schedule

The overall Gross Internal Area of the proposed development is 25,349m², a reduction of c.30sqm from the submitted scheme.

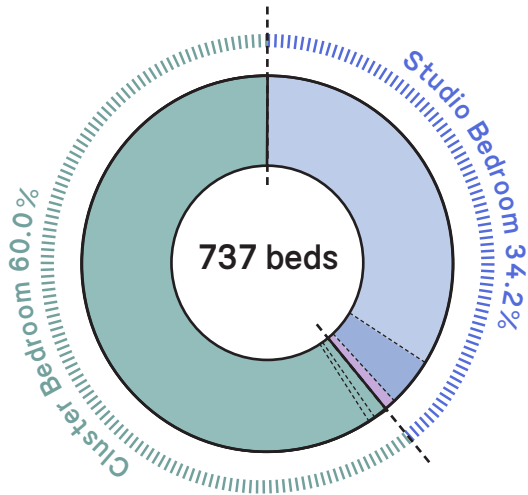
The GIA figures have been developed during the design process to meet the client’s needs and to accommodate the occupant’s requirements.

Level	Residential (m²)	Residential (m²)	Amenity / BoH	Subtotal (m²)	Community (m²)	Total (m²)
	Upper Brook Street	Kincardine Road	m² (inc. Plant)	PBSA		
23 (Roof)			13.60	13.60		13.60
22	473.81		263.63	737.44		737.44
21	816.42			816.42		816.42
20	816.42			816.42		816.42
19	816.42			816.42		816.42
18	816.42			816.42		816.42
17	816.42			816.42		816.42
16	816.42			816.42		816.42
15	816.42			816.42		816.42
14	816.42			816.42		816.42
13	816.42			816.42		816.42
12	816.42			816.42		816.42
11	816.42			816.42		816.42
10	816.42			816.42		816.42
9	816.42		12.88	829.30		829.30
8	816.42	457.04	143.48	1,416.94		1,416.94
7	816.42	640.13		1,456.56		1,456.56
6	816.42	640.13		1,456.56		1,456.56
5	816.42	640.13		1,456.56		1,456.56
4	816.42	640.13		1,456.56		1,456.56
3	816.42	640.13		1,456.56		1,456.56
2	816.42	640.13		1,456.56		1,456.56
1	703.87	640.13	110.19	1,454.20		1,454.20
0			1988.19	1988.19	373.33	2,361.52
	17,506 (76sqm reduction WS2 = 17,584)	4,938 (36sqm reduction WS2 = 4,974)	2,532 (81sqm increase WS2 = 2,451)	24,976 (33sqm reduction WS2 = 25,009)	373 (6sqm reduction WS2 = 379sqm)	25,349 (39sqm reduction WS2 = 25,388)

Planning values shown in red

Accommodation Schedule

The number of beds and cluster configurations remain as per the submitted scheme. A total of 737 beds are provided in the student accommodation distributed across a variety of 5-8 bedroom clusters, three cluster bedroom (standard, accessible and enlarged/convertible) types and 3 different types of studios (standard, accessible and convertible). All standard bedrooms are provided with en-suite bathroom pods.



Legend

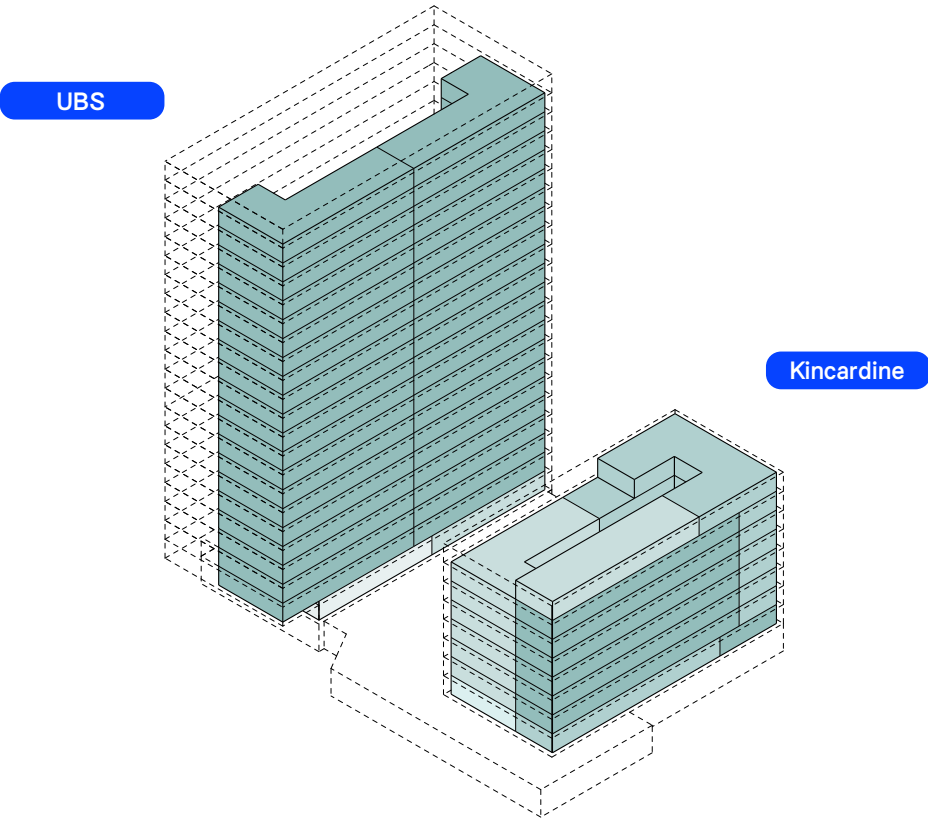
- Cluster Bedroom
- Studio
- Accessible Studio
- Enlarged Studio

	Upper Brook Street	Kincardine Road	Total	Proportion
Studio	252 (252)	0	252	34.2%
Accessible Studio	8 (8)	0	8	1.1%
Enlarged Studio	28 (28)	0	28	3.8%
Cluster Bedroom	290	152 (153)	442 (443)	60.0%
Accessible Cluster Bedroom	0	1	1	0.1%
Enlarged Cluster Bedroom	0	6 (5)	6 (5)	0.8%
Total	578	159	737	

Planning values shown in red

Cluster Sizes

	UBS	Kincardine Road	Total
4-Bed	1	0	1
5-Bed	0	1	1
6-Bed	1	7	8
7-Bed	40	8	48
8-Bed	0	7	7
Total	42	23	65



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