

5.0 Design Development

5.1 Design Concept & Massing

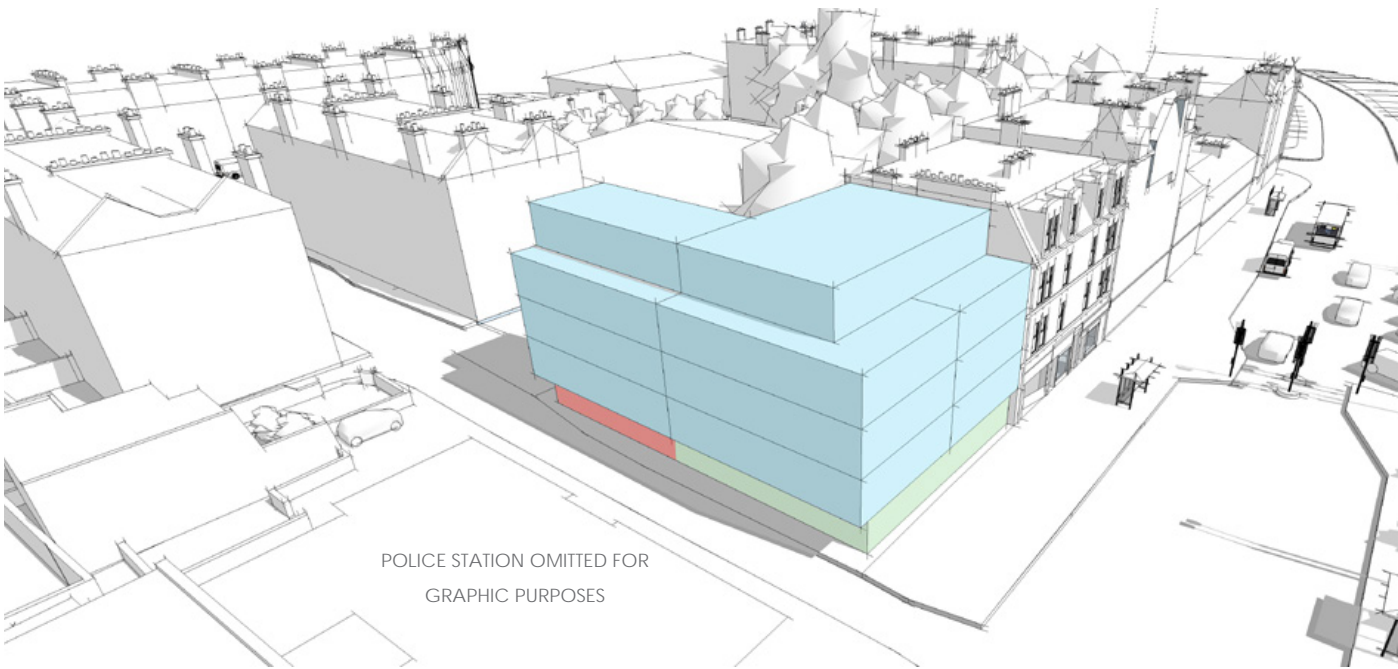
Proposed massing for 11 new apartments, 1 commercial unit and 1 retail unit.

When undertaking massing exercises for this project, it was apparent that the immediate context needed to be carefully considered to ensure the proposed building sits comfortably and had a positive impact on these building immediately next to the site. On the ground floor level we propose both commercial and retail units as this predominantly present along Portobello High Street. At the first, second, third and fourth floor level the use is solely domestic use are to be solely residential 1st to 4th floor. The upper penthouse floor is set back to reduce overshadowing and respect the roof-line of the adjacent tenement witnessed in our sun-path diagrams, later in this document.

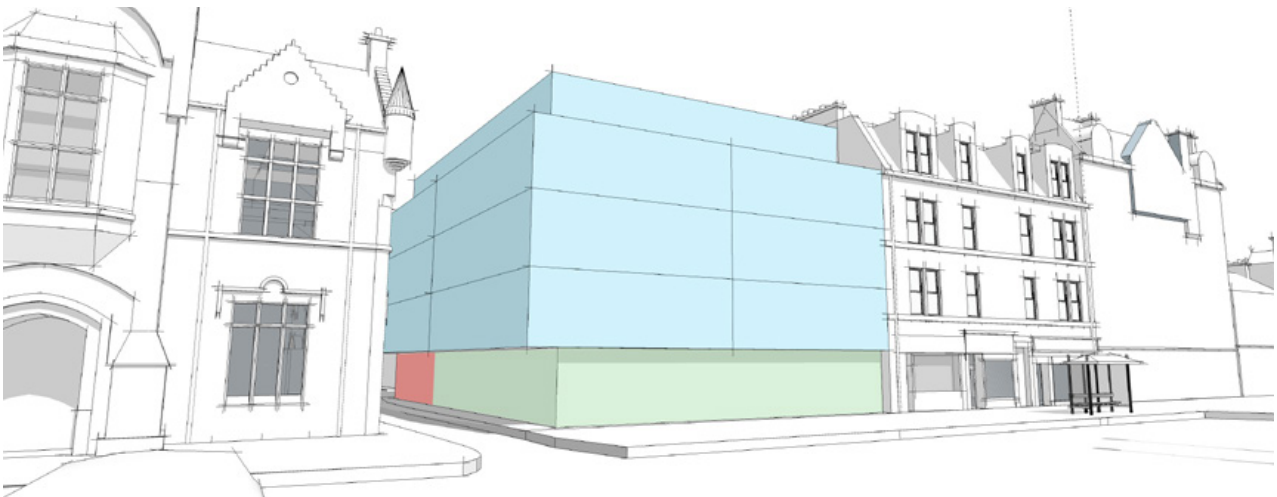
While the floor levels to not align with the traditional high floor to floor heights of traditional buildings the proposals tie in through continuity of use of the same natural stone material to the front facade and similar window proportions and rhythm as the neighbouring building. Through this approach the two adjoining buildings have a similar language and create a natural flow to the streetscape of the high street.

Due to recently amended Planning Policy, and the immediate proximity to public transport links such as bus routes on Portobello High Street - adjacent to the site - with links straight into Edinburgh City Centre and a short 20 minute walk to Brunstane overland train station, it is proposed that parking will not be provided. Bike stores are to be provided at ground floor with a minimum of 2 bikes per apartment to meet council requirements.

- Retail Unit
- Commercial Unit
- Residential



02 Aerial View Massing



01 5 Storey Massing, Street View, Portobello High Street



03 5 Storey Massing, Street View, Portobello High Street



5.0 Design Development

5.2 Massing Strategy

In developing the massing unit it was deemed critical to respond to the immediate context of the neighbouring tenement block and the police station.

01 Existing Situation

Single storey commerical units.

02 Demolition

Demolition of commerical units.

03 Responding to Surrounding Building Heights

The scale of the proposal is consistent with the tenement typology of the area. The set back top storey reduces the perceived massing.

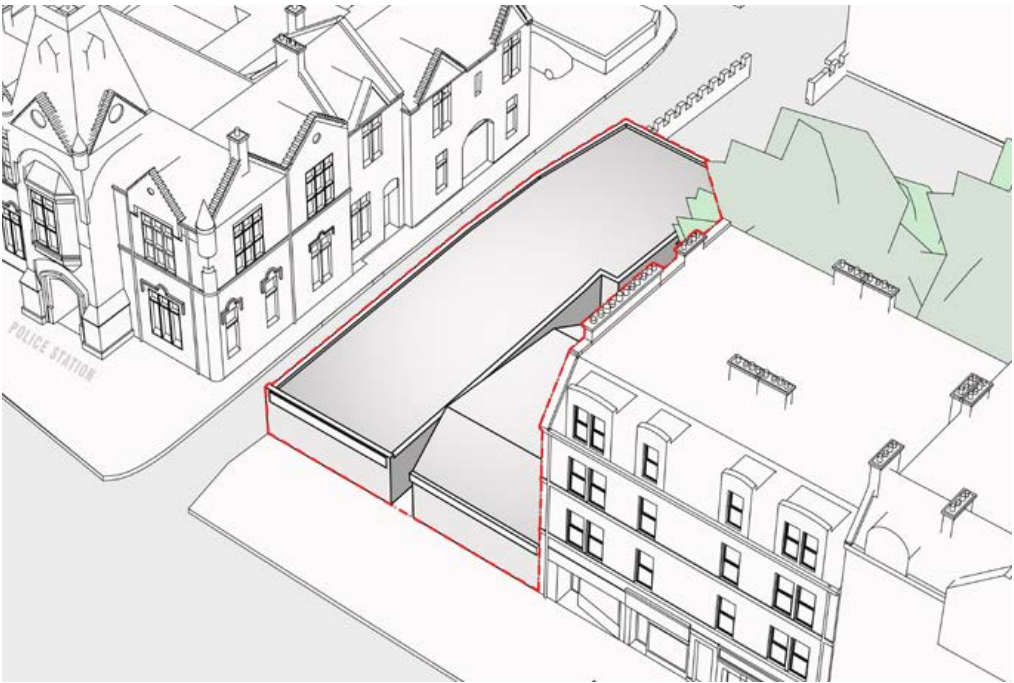
04 Removal & Reveal

Tilt & Reveal to listed Police Station. Opening public view from the West along Portobello High Street. Pitching of roof on top level to match residential block to the west.



Portobello High Street, street view, showing police station

- Site Extents
- Responding to neighbouring building height
- Remove
- Reveal



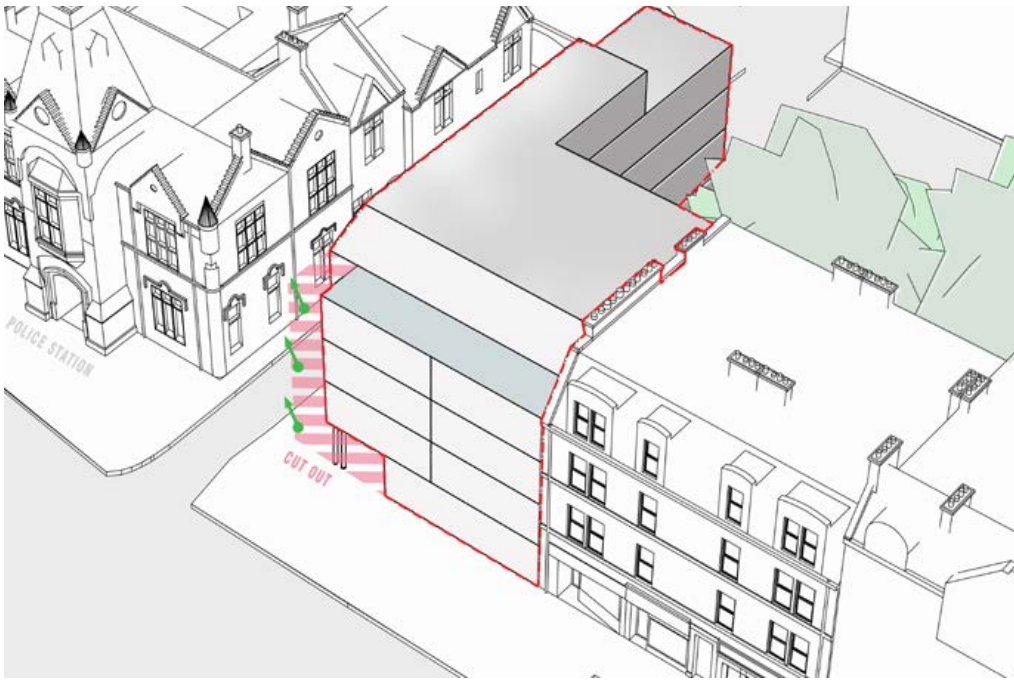
01 Existing



02 Demolition



03 Extruding & Stepping Back



04 Removal & Reveal

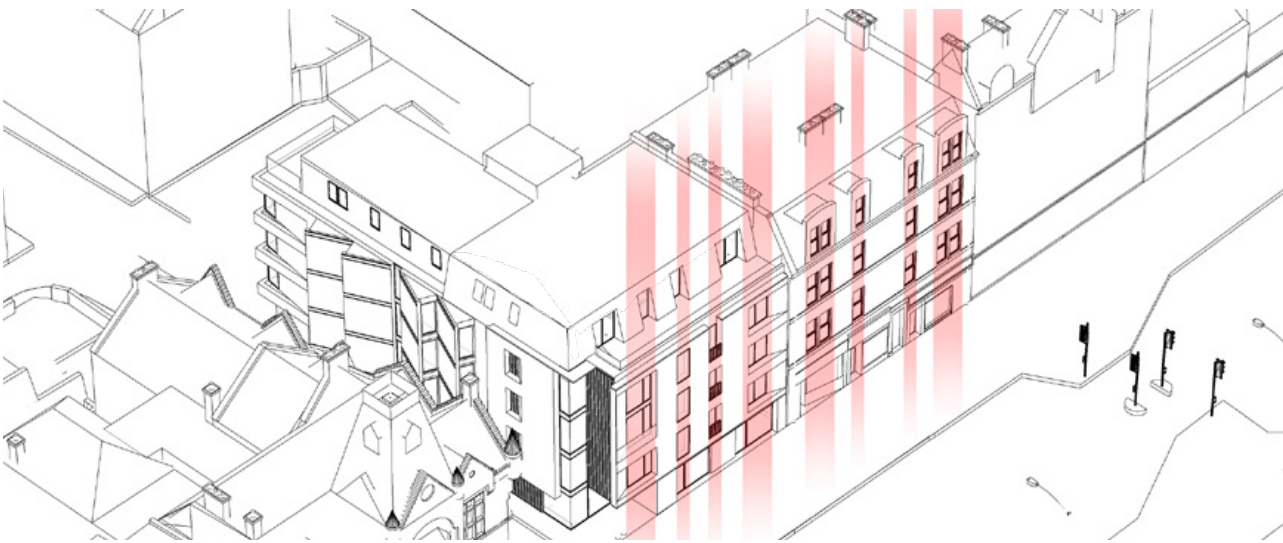


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5.3 Rhythm Strategy

In mirroring the existing residential block we looked to maintain the rhythm of the window arrangement and further keeping the conformity of the one larger window, then two smaller windows, then again a larger window (2,1,1,2).

To reduce the impact the proposed residential block would have on the listed police station the top floor of the proposed development has been set back sufficiently to ensure that a 45 degree sunlight angle of the police station gable windows are maintained



Axometric Rhythm



Front Elevation Rhythm

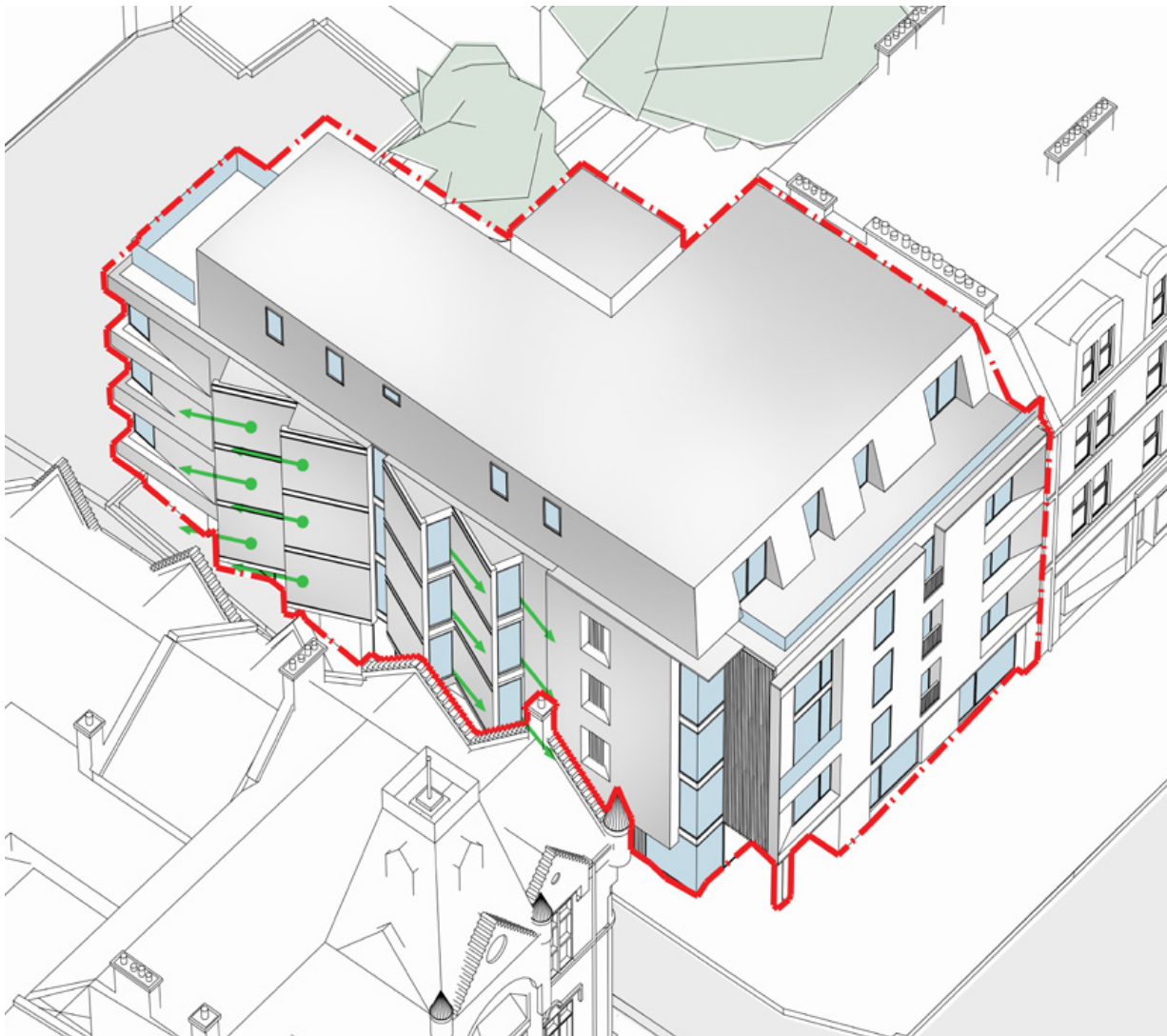
5.0 Design Development

5.4 Overlooking & Privacy Strategy



01 Overlooking Issue

Extruding the footprint to match the neighbouring residential accommodation and angling the facade to expose the listed police station dealt with some concerns. A concern was overlooking in to the station and the issue of privacy, and how to deal with this effectively and look for solutions to over come this concern.



02 Angling of Windows & Privacy

Angling of windows down beach lane towards Ramsey Place and Portobello High Street eliminates overlooking on to the police station. Only windows that are not to be angled away from the police station are bathroom/en-suite whereby the windows will be opaque.



6.0 Design Proposal

6.1 Use

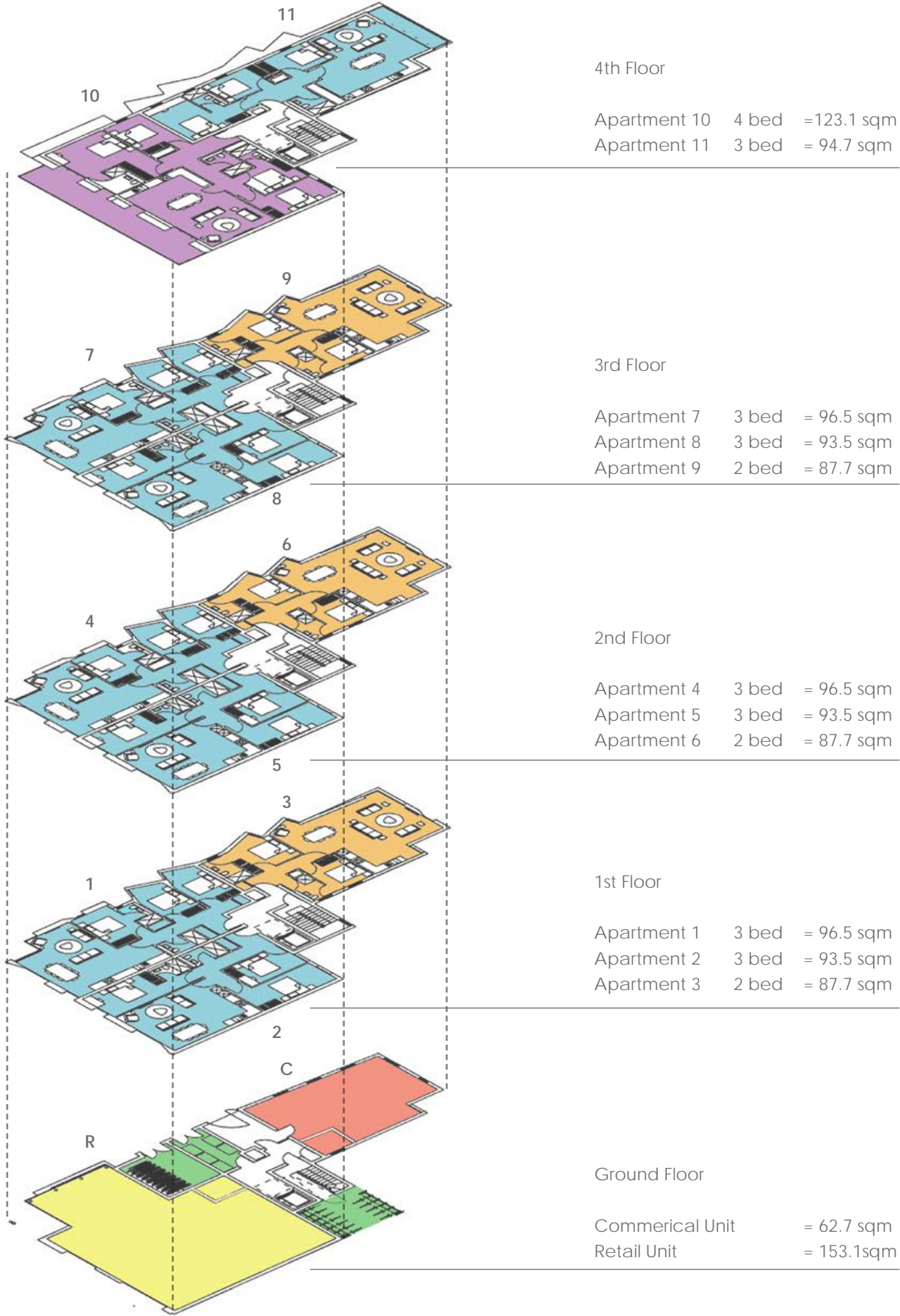
The proposal seeks to provide an appropriate density for a site located on Portobello High Street. The proposed use is 11 new apartments, 1 commercial unit and 1 retail unit.

There is a mix of two to four bed apartments to meet a range of housing needs. All apartments have been designed to exceed the areas set out by the Edinburgh Design Guidance on internal floors of 66m<sup>2</sup> - Two bedroom dwelling, 81m<sup>2</sup> Three bedroom dwelling & 91m<sup>2</sup> Three bedrooms or more with enhanced storage designed for growing families.

Apartment areas are noted on the diagram.

Apartment Type	Number	Percentage
2 Bedroom	3	27%
3 Bedroom	7	64%
4 Bedroom	1	9%

- 2 Bedroom
- 3 Bedroom
- 4 Bedroom
- Auxiliary
- Commerical
- Retail





6.0 Design Proposal

6.2 Context Section



01 Aerial View

- Site Section & Site Extents
- - - Reponding to neighbouring building Height



Site Extents

02 Site Section AA



Site Extents

03 Site Section BB



6.0 Design Proposal

6.3 Materials & Appearance

STONE

The proposed palette for the building uses a natural stone as the primary material. The choice of a natural stone material colours are in keeping with the stone masonry character of the high street.

ZINC CLADDING

The penthouse level will have a mansard roof to en suite the buildings roof form ties in with the adjacent buildings on the high street. To compliment the state roofs which are existing, the proposed mansard roof will be clad in anthracite zinc cladding for a high quality contemporary finish.

BRICK

The masonry element to the rear will be constructed of buff brick which will have similarities with the natural stone to the front facade. The form will be broken down with two types of brick bonds to subtly break down the mass further.

At ground floor level a dark engineering brick of stacked soldier course will create a plinth on which the rest of the building sits helping to break down the volume and create a human scale.

WINDOWS

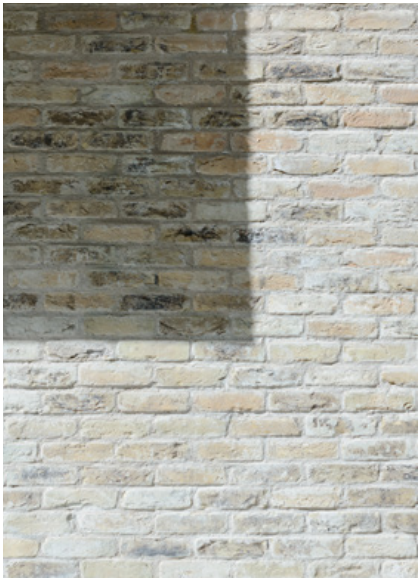
Windows will be aluminium framed double glazed panels. The frames will be dark grey RAL 7016.

CORTEN STEEL

Moments of corten steel cladding and fins are used as a light material to break from the heavy forms. The angled windows to the side elevation will be clad in perforated aluminium cladding to create a feature of this element of the design on Beach Lane.



01 Natural Sandstone



02 Buff Brick



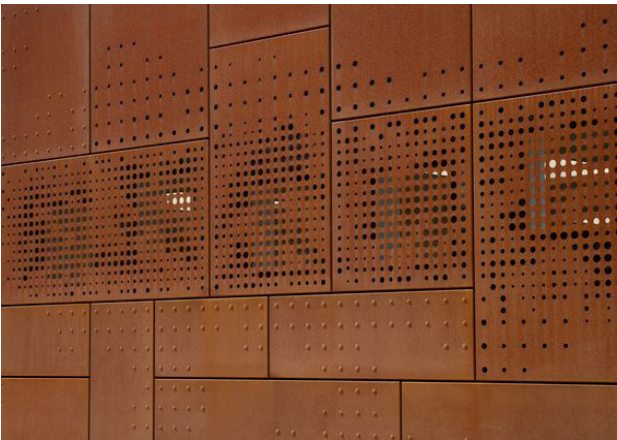
03 Dark Engineered Brick



04 Zinc Cladding



05 Render



06 Corten Steel



6.0 Design Proposal

6.4 Ground Floor

The building has been designed to ensure the front facade of the building is a shop front retail unit to maintain the character of the high street of Portobello.

Locating the stair and lift core centrally in the building ensures high street and beach lane are utilised to full potential to connect to the public realm. The bin stores have been discreetly located so that the inhabitants can access these internally and the bins can be collected and emptied from two different entrances.

The bicycle storage will be split between being stored internal and externally in the rear courtyard. Both spaces are secured and only accessible to the inhabitants.

The space to the rear will be utilised as a commercial unit accessible off an internal hallway minimising the number of access doors on beach lane.

Legend

- |                     |                                            |               |
|---------------------|--------------------------------------------|---------------|
| 1.1 Retail Unit     | 1.6 Elevator                               | 1.11 Communal |
| 1.2 Commercial Unit | 1.7 Internal Stacked Bike Store (12 Bikes) | Cleaner Store |
| 1.3 Entrance Lobby  | 1.8 External Bike Store (18 Bikes)         |               |
| 1.4 Communal Hall   | 1.9 Bin Store                              |               |
| 1.5 Stairwell       | 1.10 Services Shaft                        |               |



Ground Floor - 3D Internal Floor Plan



6.0 Design Proposal

6.5 Typical Floor 1st - 3rd

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The bicycle storage will be split between being stored internal and externally in the rear courtyard. Both spaces are secured and only accessible to the inhabitants.

The space to the rear will be utilised as a commercial unit accessible off an internal hallway minimising the number of access doors on beach lane.

Locating the stair and lift core centrally in the building and towards the rear allows the facades to the high street and beach lane to be maximised for residential use. This approach maximises the extent of natural daylight and ventilation for each of the units creating a comfortable and pleasant space to live in.

To prevent overlooking of the adjacent police station building the windows along Beach Lane have been angled so that the bedrooms either face to the South or to the North. These ‘angled wings’ create a feature on the beach lane elevation and the residential entrance the is located centrally below them creating a natural symmetry to this portion of the elevation.

Legend

1.4	Communal Hall	2.2	Kitchen	2.7	Bedroom 3
1.5	Stairwell	2.3	Dining	2.8	Bathroom
1.6	Elevator	2.4	Hall	2.9	J&J Bathroom
1.10	Services Shaft	2.5	Master Bedroom	2.10	Ensuite
2.1	Living	2.6	Bedroom 2	2.11	Storage



Living space have been prioritised to give a view over the high street to the South West. The living space of the unit to the North have been located to give a view North Eastwards towards Ramsay Place.

Bathrooms, En Suites and Kitchens have been stacked where possible to simplify the drainage of the building and a service riser has been located centrally off the common lobby to transfer services between floors

Typical Floor 1st to 3rd - 3D Internal Floor Plan



6.0 Design Proposal

6.6 Penthouse Floor 4th

The penthouse level contains two domestic units. A four bed unit facing the High Street and a three bed unit facing Ramsay Place.

Where possible bathrooms and kitchens have been stacked with the floors below to simplify the drainage strategy. Bathrooms and En Suites have been located away from external walls to maximise natural daylight and ventilation for bedrooms.

The top floor of the building has been set back from the building edge to minimise its appearance from street level and also to create private balconies. A mansard roof has also been designed along the high street and beach Lane edges so that the roof of the building ties in with the roofscape of the high street and maintain the character.

Legend

1.4	Communal Hall	2.1	Living	2.5	Master Bedroom	2.9	J&J Bathroom	2.13	Balcony
1.5	Stairwell	2.2	Kitchen	2.6	Bedroom 2	2.10	Ensuite		
1.6	Elevator	2.3	Dining	2.7	Bedroom 3	2.11	Storage		
1.10	Services Shaft	2.4	Hall	2.8	Bathroom	2.12	Bedroom 4		



Penhouse Floor 4th - 3D Internal Floor Plan



6.0 Design Proposal

6.7 Proposed Street Elevation



Front Street Elevation



6.0 Design Proposal

6.8 Proposed Street View



Portobello High Street, Proposal in Context



6.0 Design Proposal

6.9 Proposed Side Elevation



Side Elevation South East



6.0 Design Proposal

6.10 Proposed Street View



Portobello High Street, Proposal in Context



6.0 Design Proposal

6.11 Proposed Rear Elevation



Rear Elevation



6.0 Design Proposal

6.12 Proposed Long Section



RAMSEY PLACE

BEACH LANE

PORTOBELLO HIGH STREET

Long Section Perspective

6.0 Design Proposal

6.13 Proposed Section BB





6.0 Design Proposal

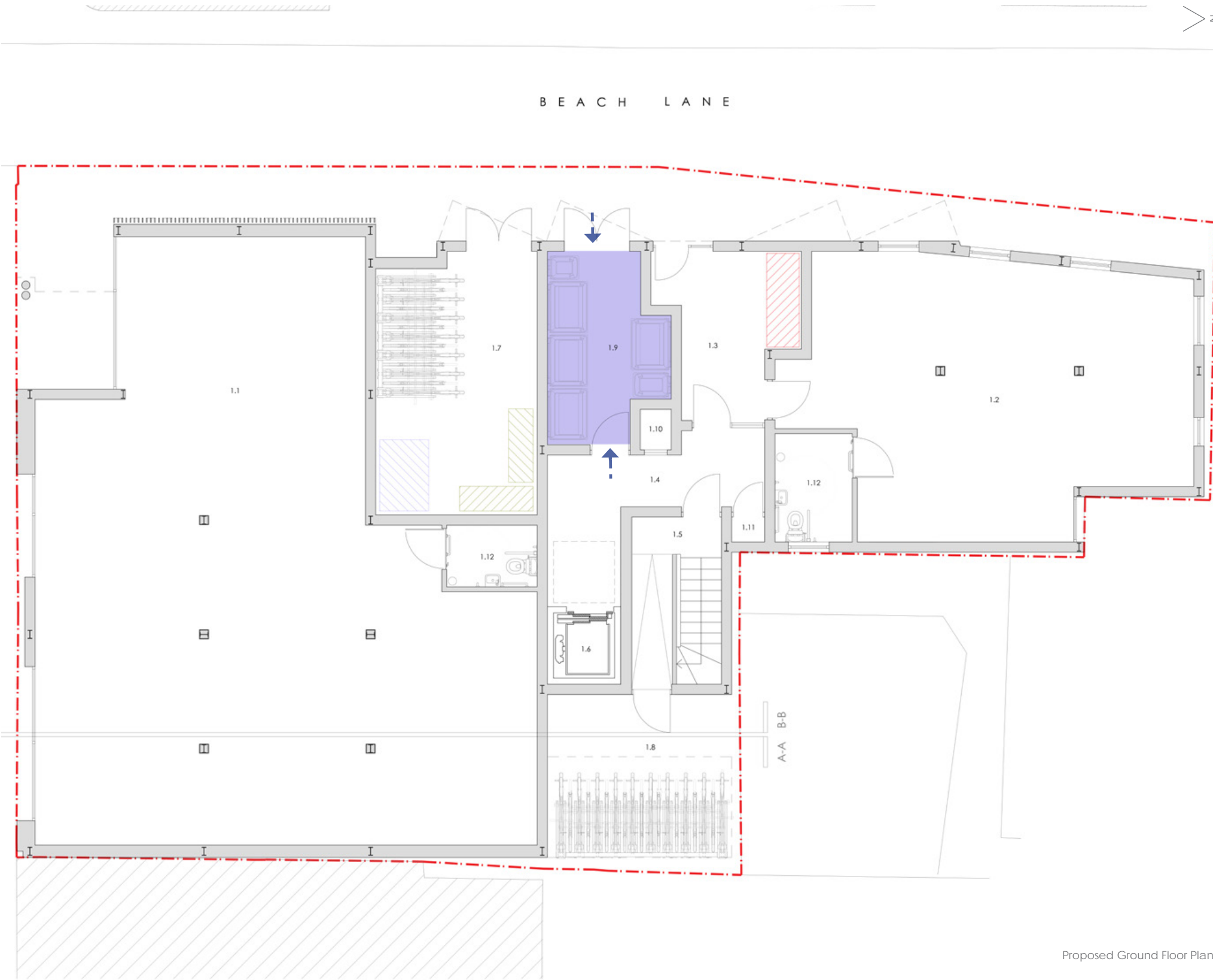
6.14 Recycling & Waste Management

The waste strategy is designed to make it easier for residents to recycle and limit the amount of material sent to landfills or incinerators. The proposed design is easily accessible for residents while also aiming to limit the impact on the public realm.

The store is located on the Mid West side of the site and can be directly accessed from Beach Lane. Within the bin store there are a variety of bin types for recycling and general waste in accordance with CEC requirements.

Proposed Bin Store Provisions:

Residential Waste	2 no. 1280L bins
Mixed Recycling	2 no. 1280L bins
Food Waste	1 no. 360L bins
Glass	1 no. 240L bins



Proposed Ground Floor Plan

6.0 Design Proposal

6.15 Cycle Storage

All apartment accommodation has access to dedicated cycle storage on the ground floor.

The cycle storage provision meets the requirements set out with in the Edinburgh Design Guidance.

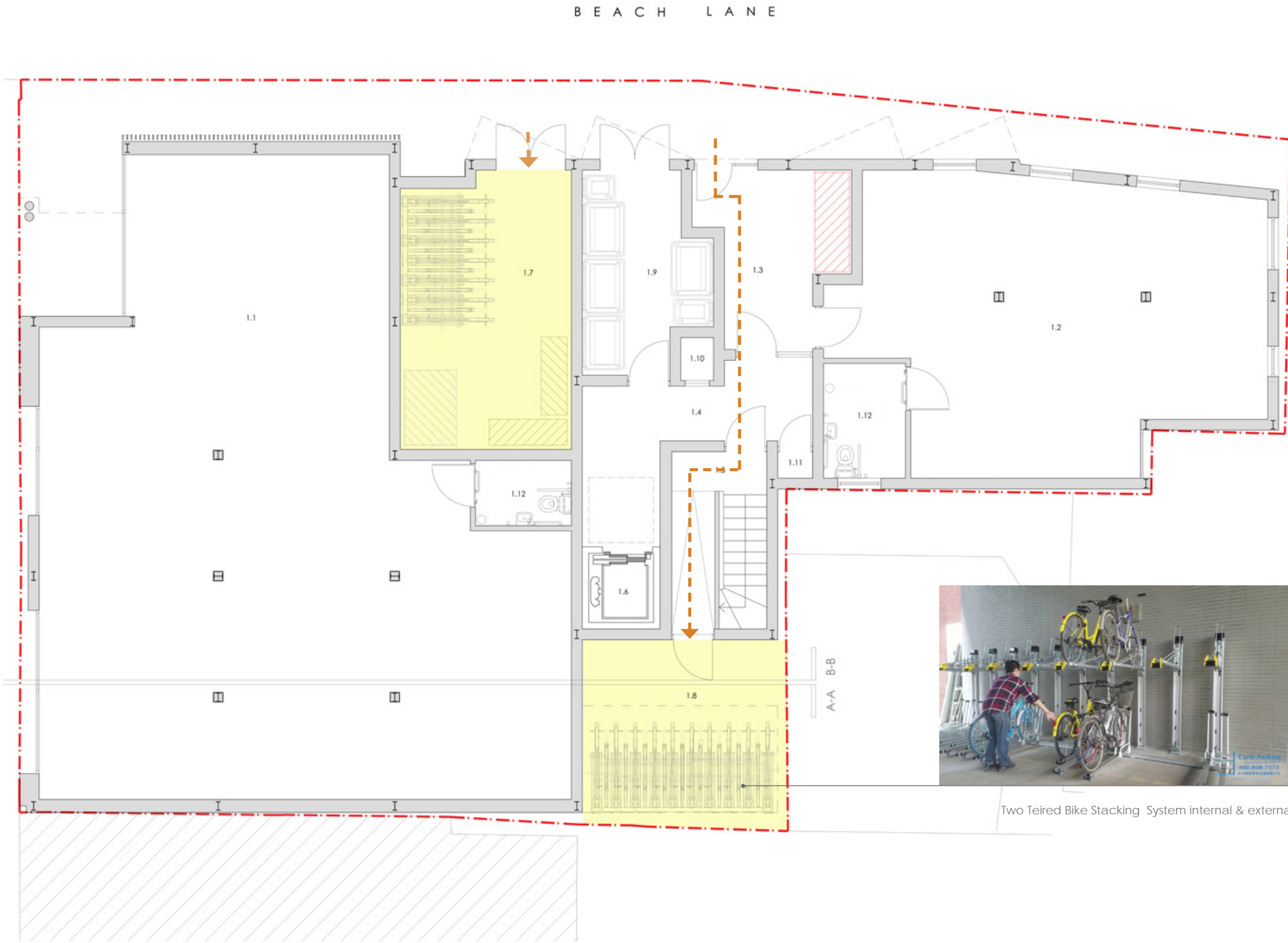
The proposed cycle storage provides is a two tier system accessed from two locations: first double door opening via beach lane and secondly, North East, via the entrance lobby from beach lane through the common stair.

Proposed cycle spaces required and provided:

Apartment	No.	Required per Apartment	Cycle Spaces Required
2 bed	3	2	6
3 bed	7	3	21
4 bed	1	3	3
Number of cycle spaces provided			30

Access

Cycle Storage



Proposed Ground Floor Plan



6.0 Design Proposal

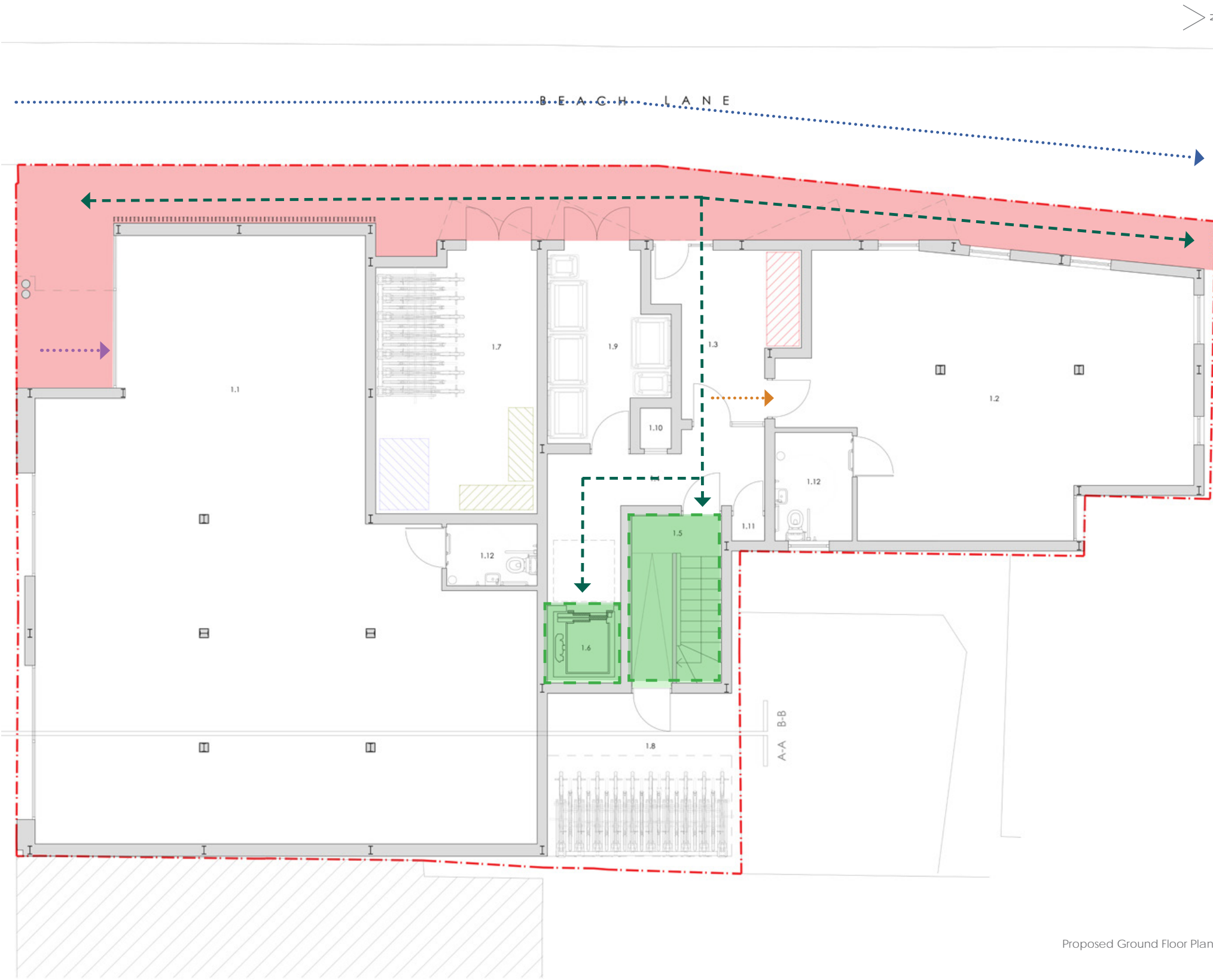
6.16 Accessibility

The route within and around the have been considered to ensure the building is accessible to all. Ensuring public safety a new public pathway has been introduced along beach lane. This also provides pedestrian access to the apartments on the upper levels via a central stairwell and lift.

- Introduction of New public pathway
- Communal Entrance to Apartments
- Access to Retail Unit
- Access to Commercial Unit
- Vechical Route
- Stair & Lift access to upper levels



Existing photo of Beach Lane, currently building built hard against site boundary with existing emergency escape doors leading directly onto road, promoting traffic hazard.



Proposed Ground Floor Plan

6.0 Design Proposal

6.17 Amenity Space

Edinburgh is celebrated for its green spaces with the highest proportion of public parks and gardens of any Scottish city.

With the site being surround by a number of public spaces such as Portobello High Street, Portobello Beach, Rosefield Par, Brighton Park and Portobello Golf Course. With the number of open public spaces in close proximity it is hoped this compensates for the reduced area of amenity space on the site.

The penthouse floor apartments 10 & 11 have balcony spaces with the floor plans being set back from the 3rd floor.

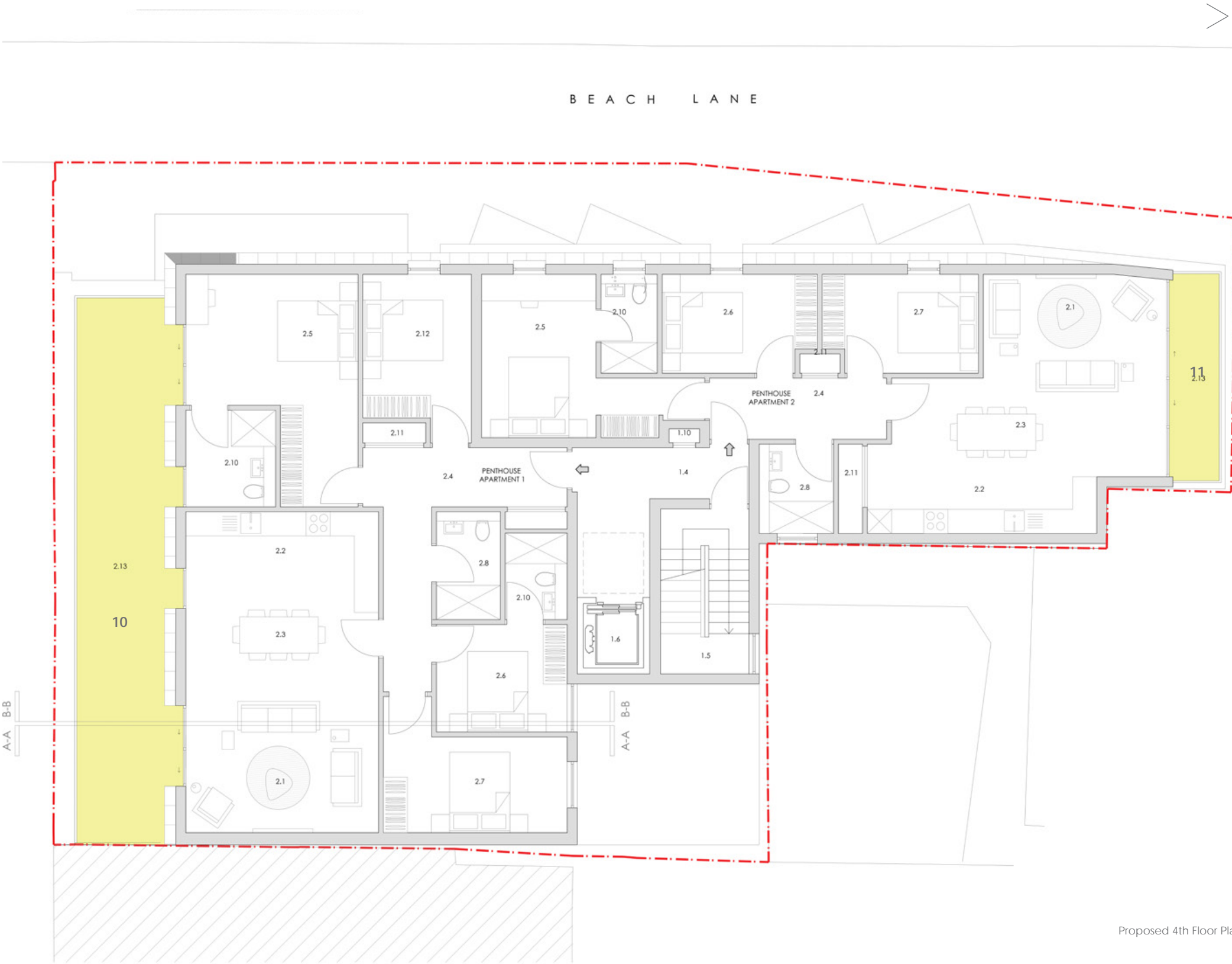
Proposed Balconies:

Apartment No.	Floor	Balcony sqm
10	4	30.5 sqm
11	4	6.7 sqm

Private Balconies / Terrace



Due to the nature of the site location to the rear of the site backing on to a commercial car park, is viewed as not an attractive amenity space to promote. As noted in section 2.2 public spaces, there are a number of public green spaces within close proximity of the site along with Portobello Beach.



Proposed 4th Floor Plan



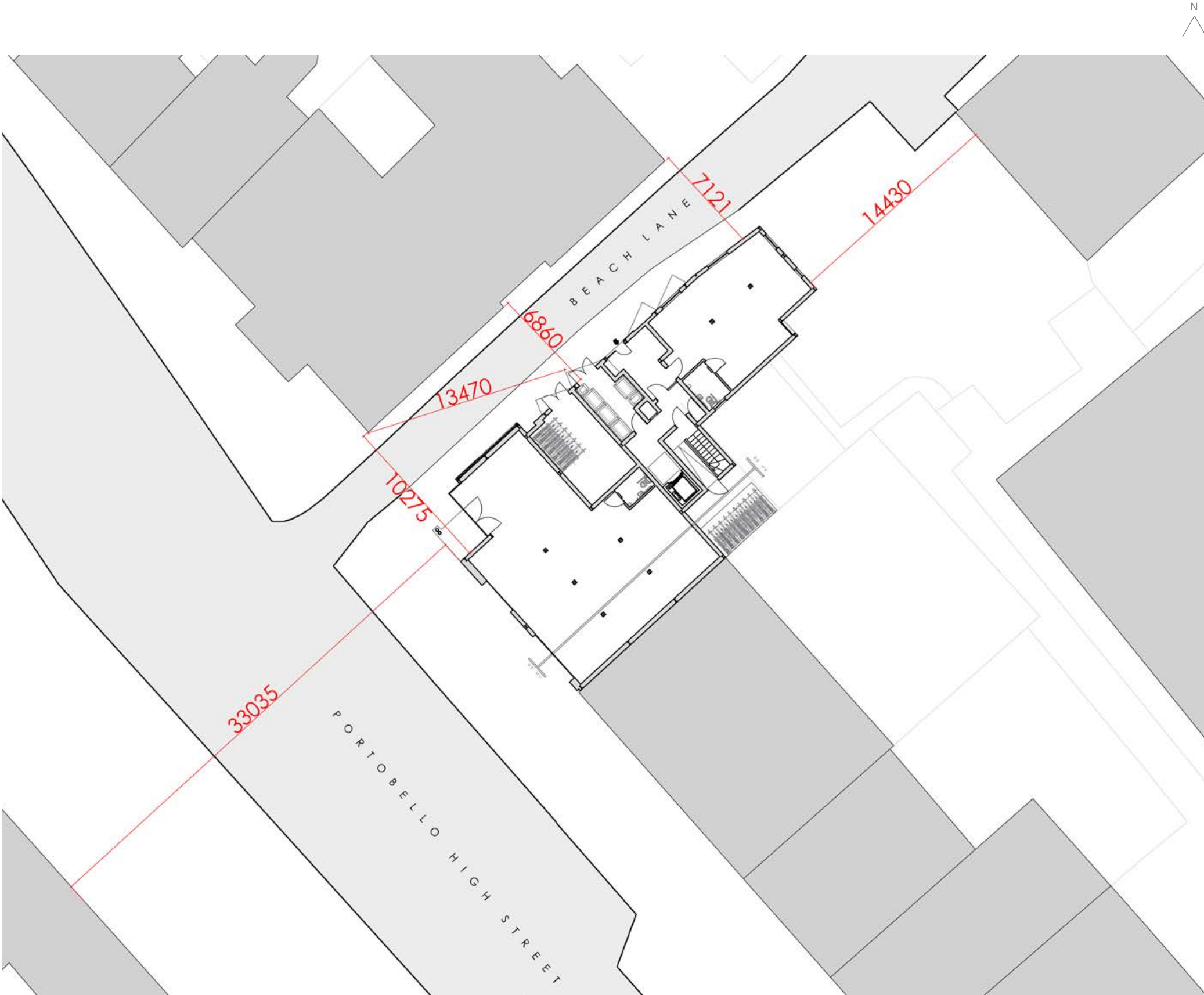
6.0 Design Proposal

6.18 Privacy

The commercial & residential accommodation is sufficiently distanced from neighbouring properties to minimise overlooking and privacy issues. The diagram opposite highlights the separating distances between buildings.

By stepping the building inward along beach lane this has aided in increasing separation between buildings.

To the upper floors windows have been angled away from the police station towards Portobello High Street & Ramsey Place to deter from overlooking concerns.



Site Plan/Ground Floor Plan

6.0 Design Proposal

6.19 Sustainability

At Block Nine Architects, our core strategies involve the design and construction of sustainable projects and the belief that as architects and designers, we have a great responsibility to the environment and delivering environmentally sound buildings without compromising function or aesthetic.

Working closely with our client, from the onset the aspirations for our project on Portobello High Street have been to exceed the minimum sustainable standards and deliver a development that will provide a future-proofed living environment for the end-user.

Integrated Design Considerations

The proposed apartments will incorporate easy-to-use systems that will enable the end user to understand the operation and maintenance of the dwellings and will allow full sustainability benefits to be realised over the building's whole lifetime. These will include:

- Gas Heating (with ability to easily transition to ASHP at a later date)
- Photovoltaics (concealed on flat roof) with green roof system
- High performance double glazing
- Low voltage/ energy efficient lighting throughout
- Water efficient sanitary fittings throughout
- Sufficient waste & recycling storage

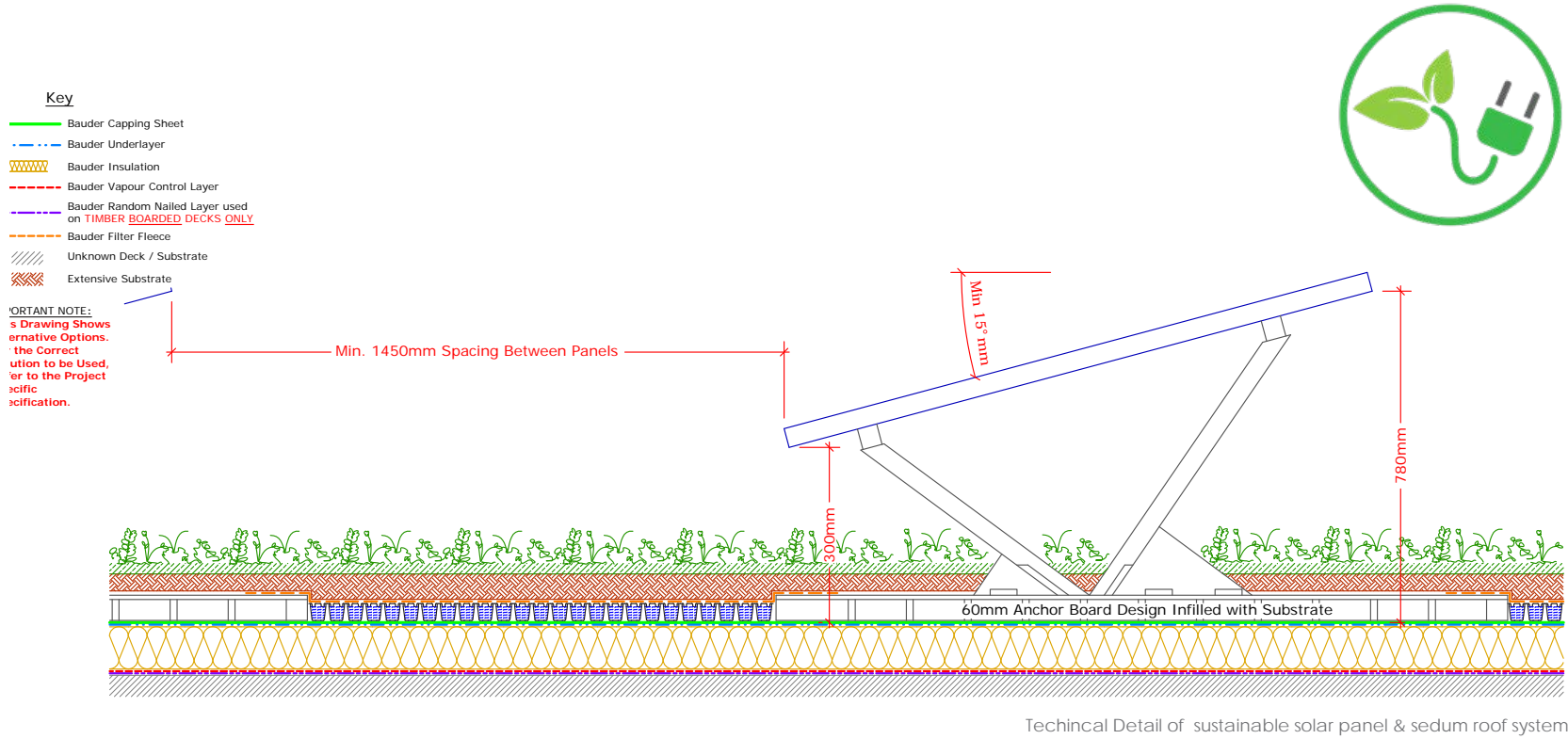
Furthermore, the building will have a well-designed envelope that will maintain internal comfort levels. Naturally ventilated, the open-plan nature primary living spaces will also help facilitate air movement through the properties.

SUDS

Sustainable drainage solutions have been considered integral to the development, with a number of measures proposed to efficiently manage the flow of rainwater. A Surface Water Management Plan also accompanies this submission prepared by Harley Haddow

Engineering Design

We engaged with a number of consultants at an early stage to produce a sustainable project for our client. When engaging with mechanical engineering consultant we sought to deliver a scheme that could use sustainable systems but would not have a negative impact on the conservation area.



Mechanical

Radiators within each property are to be oversized for a lower  $\Delta T$ . This will allow for simpler transition from a Gas heating solution to a potential ASHP heating type solution in the future. The pipework alongside the radiators will similarly be sized with the future ASHP switch in mind. This will ensure when the switch does occur that minimal disruption occurs within each unit and the required work is reduced.

The building has the required plant space to accommodate a centralised ASHP solution when the transition is required.

Electrical

The building will be supplied with fibre (FTTP) communication connections to ensure the tenants will have the required infrastructure for high speed internet access.

For power, the building will be allocated a larger electrical load to incorporate the potential future centralised ASHP heating solution. This will ensure the power network has the capacity required for the site to implement a centralised ASHP when the change happens.

The building will have  $\geq 100m^2$  of solar panels on the roof to offset the gas heating solution and provide long term green power for the property, in line with the energy strategy. The follow page outlines the placement of these panels and how they will not be viewed from street view.

Sustainable Construction

At the onset of the project on site, the Main Contractor will be asked to provide a Site Waste Management Plan.

At their core, the plans will include arrangements for monitoring and reporting on resource use including the type and quantity of waste. They will identify the individuals responsible for resource management, types of waste generated, resource management options and appropriate, licensed contractors.

SWMPs should provide a structured approach to management and recycling on site as well as reducing costs of waste management. They should also make it easier to comply with laws on materials and waste.



6.0 Design Proposal

6.20 Sustainability - Solar Panel Placement



01 Solar Panel Placement shown to flat roof. Location of panels have been setback from the street edges of Portobello High Street & Beach Lane.

02 Portobello High Street, solar panels cannot be viewed from street level

03 Ramsey Place, solar panels cannot be viewed from street level

04 Portobello High Street, solar panels cannot be viewed from street level





6.0 Design Proposal

- 6.21 Sun Path Analysis
- Existing & Proposed
  - 9am - 11am
  - 23rd September
  - Autumn Equinox 2022

The Edinburgh design guidance advises that all new buildings should be spaced out so that reasonable levels of daylight to existing buildings are maintained.

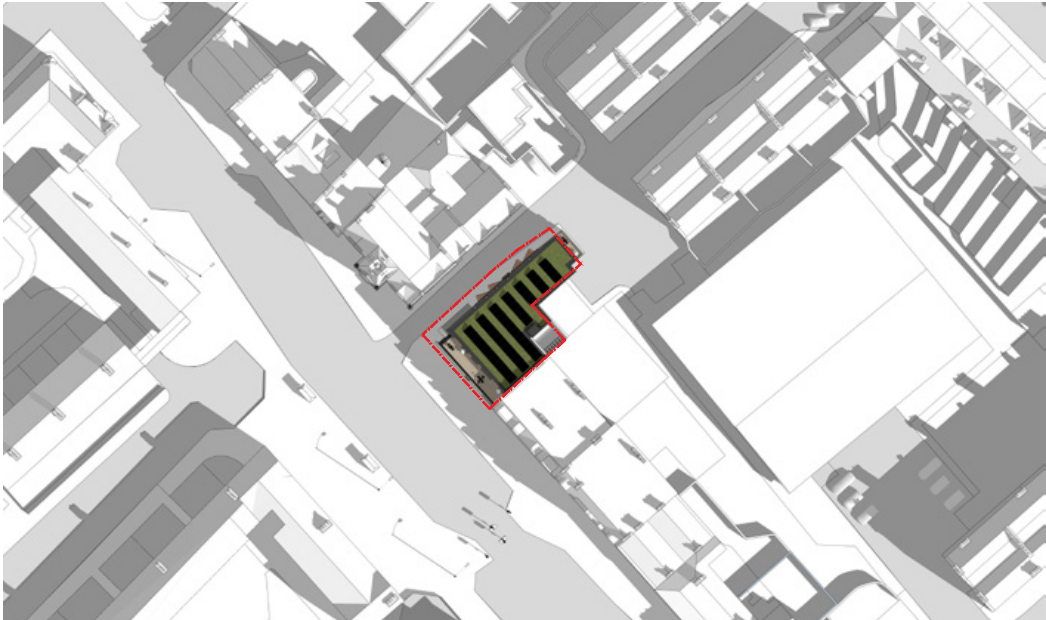
The access to sunlight was paramount in our design process to ensure the windows of side elevation of the police are not overshadowed significantly.

By stepping the proposal in from the road side of beach lane and the upper penthouse floor being stepped further back this has reduced the overshadowing impact.

Presented are the comparison between the existing and proposed scheme from 9am through to 4pm on the autumn Equinox.



01 Existing 9 AM



02 Proposed 9 AM



03 Existing 11 AM



04 Proposed 11 AM

 Site boundary



6.0 Design Proposal

- 6.22 Sun Path Analysis
- Existing & Proposed
  - 2pm - 4pm
  - 23rd September
  - Autumn Equinox 2022



01 Existing 2 PM

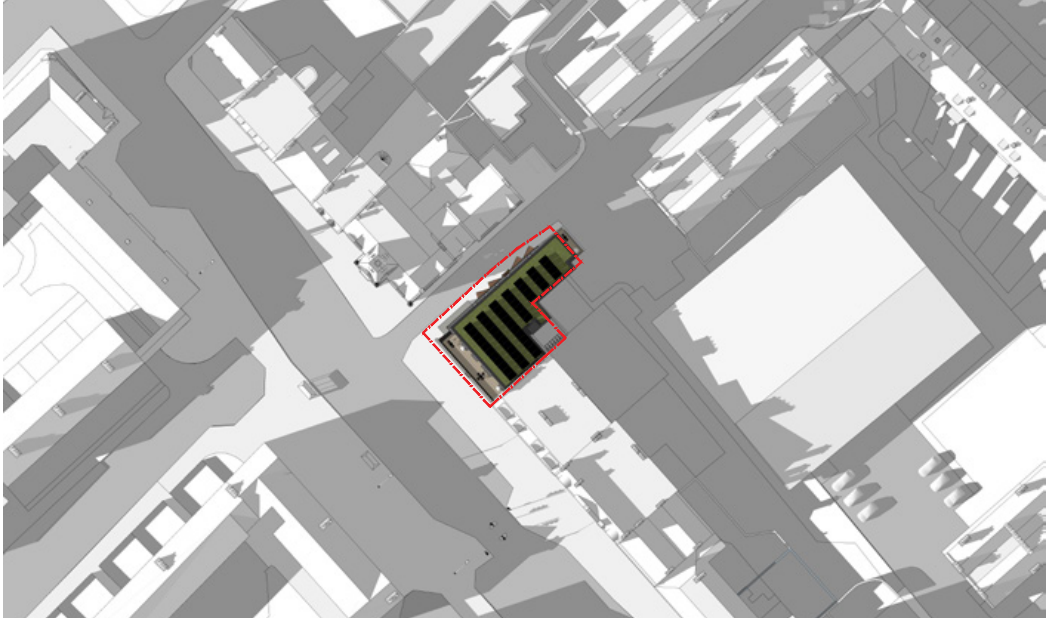


02 Proposed 2 PM



Site boundary

03 Existing 4 PM



04 Proposed 4 PM



6.0 Design Proposal

6.23 Precedents

For the purposes of further conveying our material and architectural concept for the design proposals, we have included a selection of architectural precedents which best represent our approach.

The examples on this page are relevant examples, all UK based, of the use of sandstone and brick in a contemporary manner, as well as window size and placement.



01 Dunfermilne Carnegie Library, Dunfermilne



02 Batesman's Row, London



03 Westerlea Garden, Edinburgh



04 Wallace Gardens, Edinburgh



05 Marionville Road, Edinburgh



06 Hereford Building, London



6.0 Design Proposal | 6.24 Proposed Street View





6.0 Design Proposal | 6.25 Proposed Street View





7.0 Block Nine Architects

Previous Works

Block 9 Architects, have carried out works on a number of residential projects throughout Edinburgh and the Lothians. We have experience of working in conservation areas and understand wholly these areas of special architectural and historic interest, the character or appearance of which it is desirable to preserve and enhance.

The two project (right) are recently completed by Block Nine Architects. These are examples of contemporary design within a conservation areas in the Edinburgh area. We also have experience on flatted developments.

The ambition for this project is to introduce high quality materials that complement the existing character and setting of the conservation area. These include honed sandstone, anthracite zinc, buff and engineered brick in various bounds



Inverleith Terrace, Conservation Area: Inverleith



Kilburn High Road, London



Bruntsfield Terrace, Conservation Area: Merchiston and Greenhill



