University of Strathclyde Glasgow

Charles Huang Advanced Technology & Innovation Centre

HLM Architects

NORTH PLANNING & DEVELOPMENT

waterman

hulley & kirkwood consulting engineers

rlf Building Futures

Turner & Townsend

Welcome

Welcome

Welcome to the consultation on our proposals to develop a new **Charles Huang Advanced Technology & Innovation Centre** on land at High Street, Ingram Street and Shuttle Street, Glasgow.

A Proposal of Application Notice was submitted to Glasgow City Council in July 2022 and this signalled our intent to submit an application for planning permission.

This website is part of the pre-application consultation before a planning application is submitted to Glasgow City Council in November 2022.

We are inviting the local community and other stakeholders to review our emerging proposals before a planning application is submitted to Glasgow City Council. We would very much welcome your feedback and comments.

To assist, we have prepared a short feedback form to gather the views of those participating in the consultation. Your feedback will help to inform our eventual planning application submission to Glasgow City Council.

In addition, on **Monday 12 September 2022, between 3pm and 7pm,** we will be hosting a live online consultation event with members of the project team available to answer any questions that you may have.

Questions can also be posed via emailing ticzone-development@strath.ac.uk and we will respond as quickly as possible to any questions raised. Thereafter, this website will be available to provide feedback on the emerging proposals until F**riday 23 September 2022.**

Contact us at ticzone-development@strath.ac.uk

Project Background

Project Background

The University of Strathclyde is bringing forward proposals for a new Charles Huang Advanced Technology and Innovation Centre development, which will form part of Glasgow City Innovation District, Scotland's first Innovation District, transforming the way academia, business, industry and the City collaborate to bring a competitive advantage to Scotland.

The first phase of our project involves the development of a new building to be located to the east of the University's existing Technology and Innovation Centre (TIC) on land at Shuttle Street, College Street and High Street.

The proposed development will occupy a **key role in cultivating and nurturing Scotland's innovation community,** helping bring together researchers, academic administrators, entrepreneurs, public and private investors, and many other key stakeholders.

Central to the University's Innovation Strategy is the goal to escalate the impact and reach of the innovation ecosystem by creating new centres of expertise. The objectives of this particular project revolve around the further development of this eco-system based on "open innovation" by delivering facilities that will catalyse Glasgow City Innovation District which is anchored by the University.

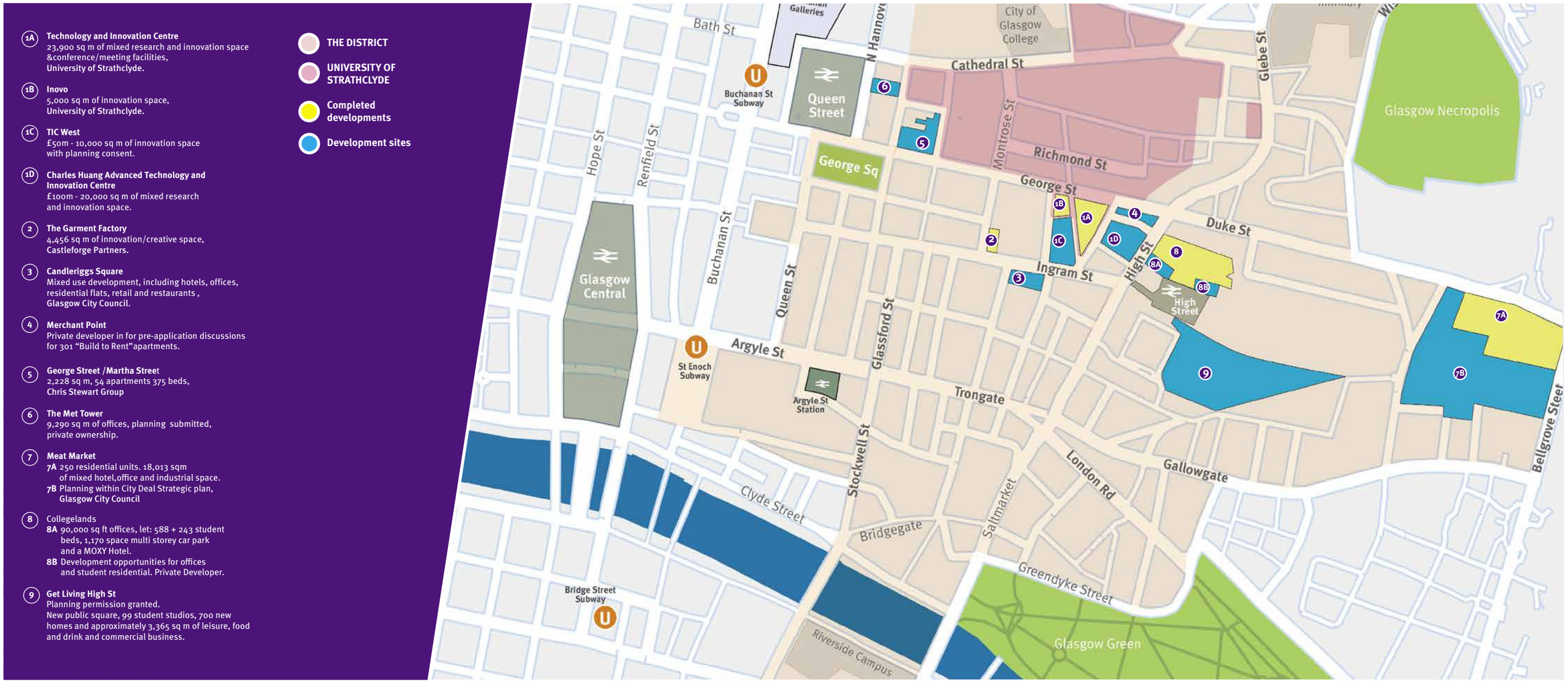
This will accelerate the impact of creativity and new ideas by crystallising an exciting, collocated community of industry, investors, and academics, that will support the growth of six new industry-led clusters – 5G & Advanced Communications, FinTech, HealthTech, Industrial Informatics, Quantum and Space, as well as the three existing cluster groups – Energy, Pharmaceutical Manufacturing, and Enabling Technologies.

Glasgow City Innovation District (GCID)

Glasgow City Innovation District

Glasgow City Innovation District (GCID) is a **hub for entrepreneurship, innovation, and collaboration,** and is transforming the way academia, business, industry, and the City collaborate to bring competitive advantage to Scotland. The model – which is recognised for improving productivity, creating jobs and attracting inward investment in several cities around the globe – brings together researchers and high-growth firms with technology and creative start-ups, to work side-by-side in vibrant, walkable innovation communities.

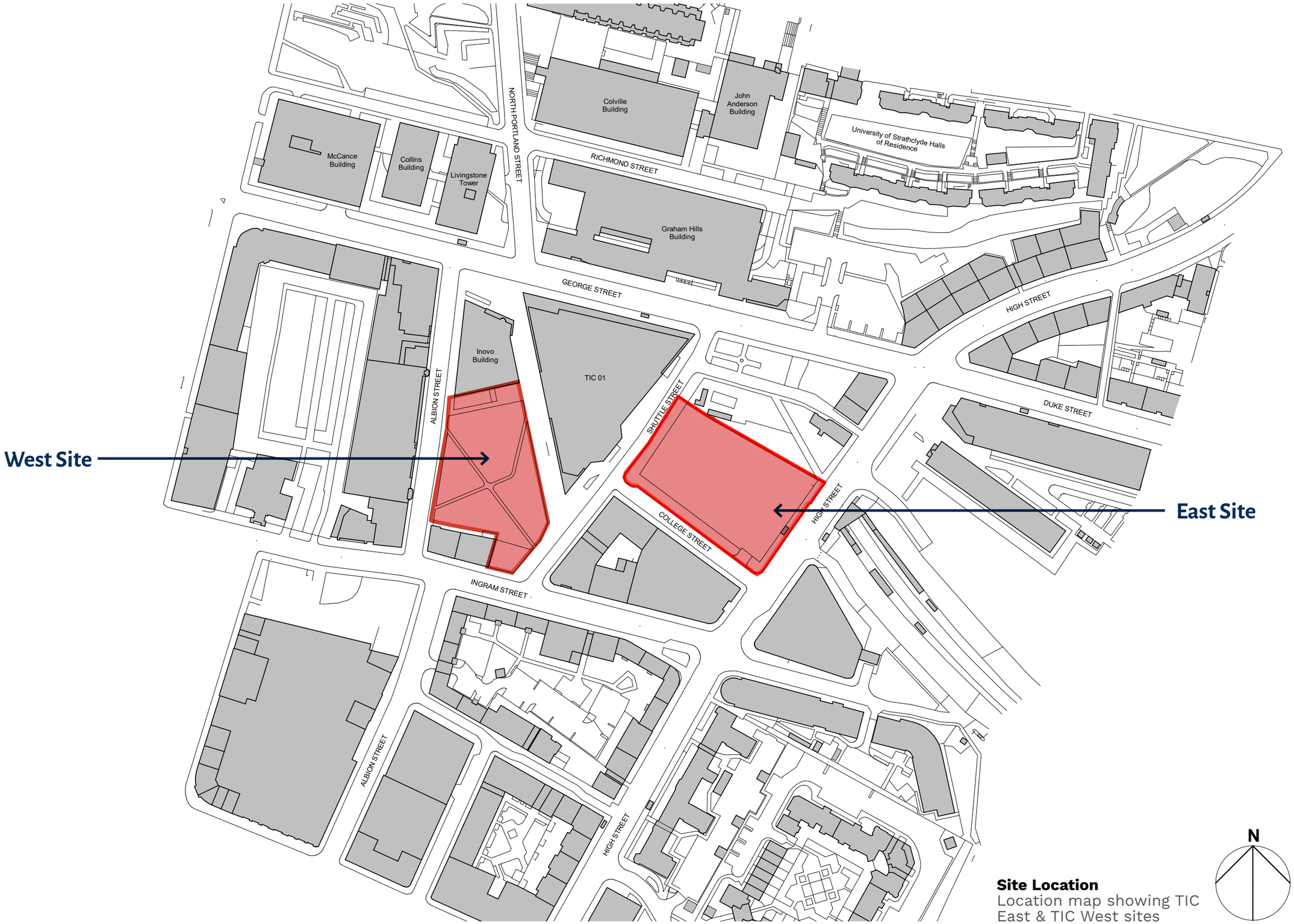
With its world-class skills and talent base, excellent transport links, and reputation as a desirable city to 'live, work, play, innovate', Glasgow is the ideal place to create a thriving community of companies, researchers and innovation support organisations. These are the key principles of a successful innovation district and underpin the proposed development.



Glasgow City Innovation District
GCID in the context of the wider city

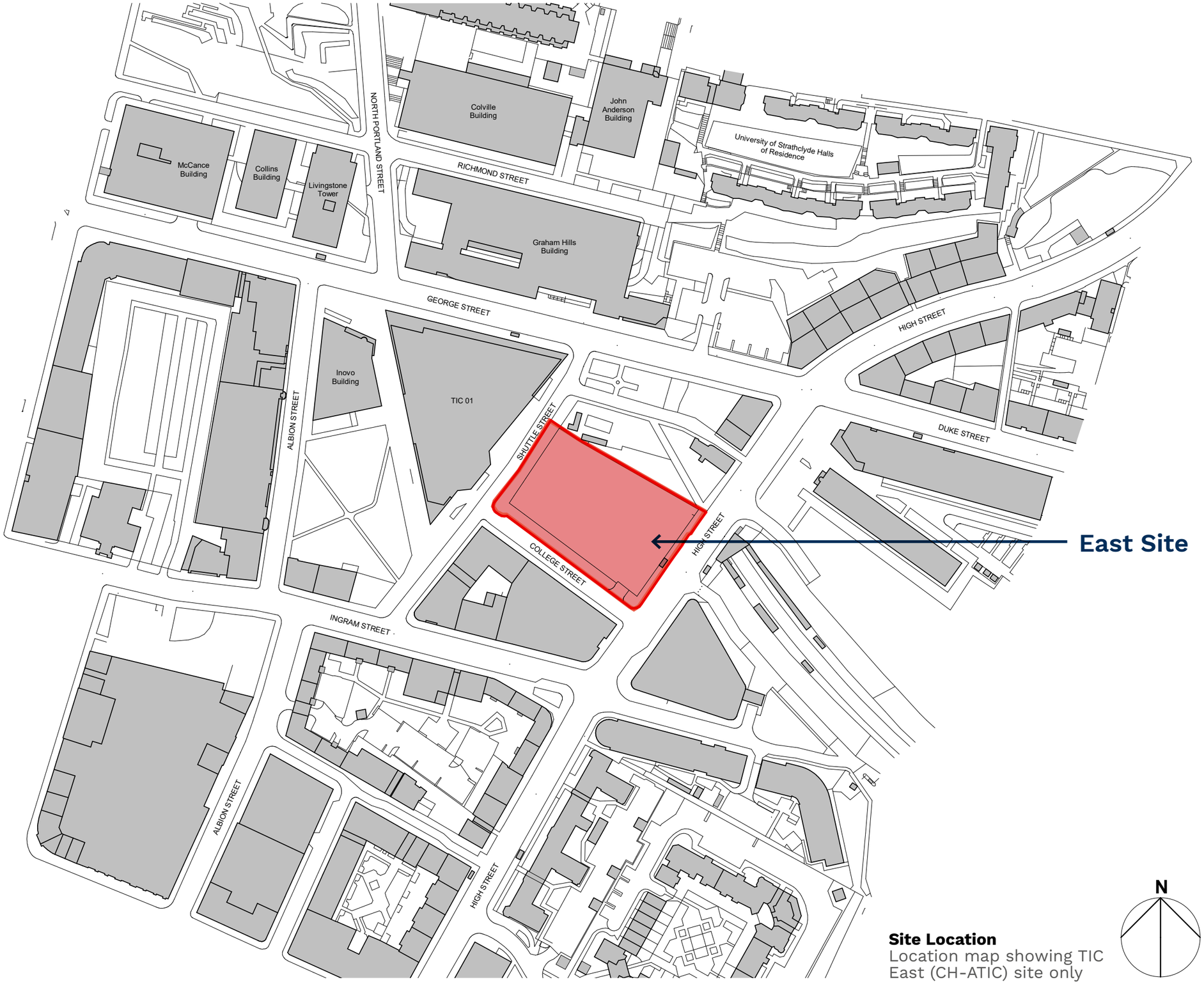
Site Location

Site Location



Site Location
Location map showing TIC East & TIC West sites

Site Location



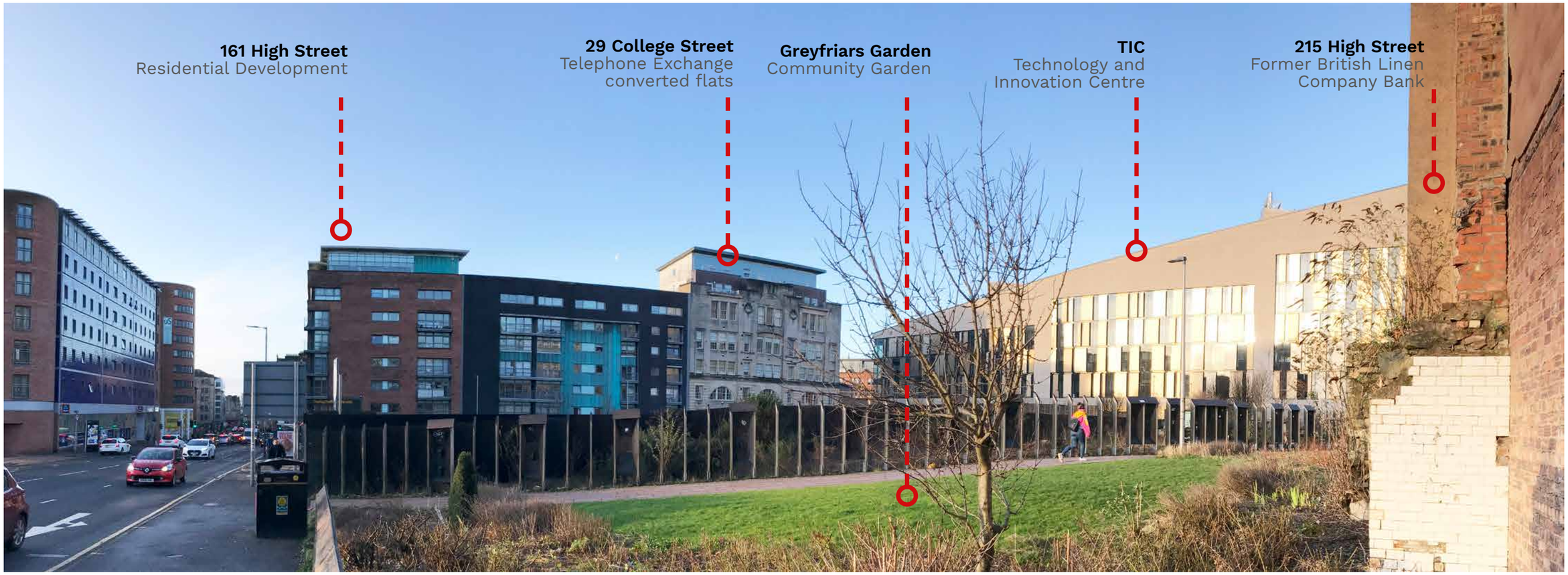
Site Location
Location map showing TIC East (CH-ATIC) site only

Site Context

Site Context

The proposal site occupies a strategic part of the city, offering the opportunity to extend the vibrant Merchant City eastwards, and creating a gateway into the city centre from the east. The site also lies opposite High Street Railway Station which has the potential to become an improved transport node, supporting development of the wider area.

The site also forms part of Glasgow Central Conservation Area, positioned between the established city grid geometry and that of the High Street. The surrounding area has a varied architectural character, offering the opportunity for a southwards, extension of the University campus, connecting the University into part of the city which has a historical association with education.



Site Context
Photograph showing site context and adjacent buildings

Planning Context

Glasgow City Development Plan
Extract

Planning Context

The Glasgow City Development Plan (CDP) was adopted by Glasgow City Council in 2017 and sets out the Council's planning policies for the Glasgow City area.

The Glasgow City Development Plan identifies the proposal site as a development opportunity which lies within Glasgow Central Conservation Area, and within a Strategic Economic Investment Location (SEIL) where development and use within the following key sectors is supported - business and financial services; green technologies; higher and further education; visitor economy.

As the site and its surrounds are safeguarded for the key sectors that are supported within the SEIL, the principle of our proposed development is fully compatible with the Glasgow City Development Plan.

Movement, Access & Transport

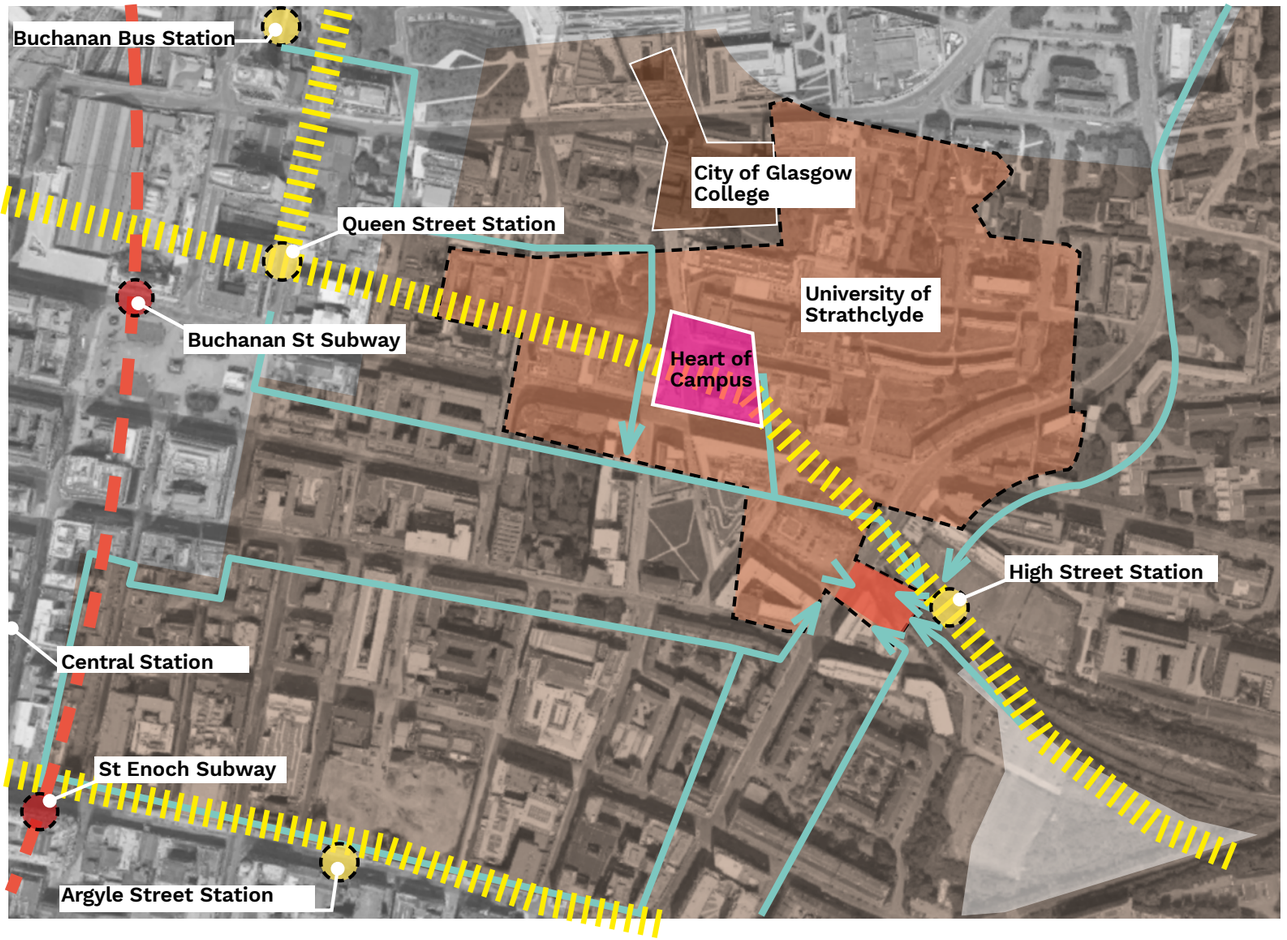
Movement, Access & Transport

Promoting travel by public transport and active travel is a key component of the project.

The site is highly accessible by public transport, located opposite High Street Station and within walking distance of Queen Street Station, Central Station and Argyle Street Station and Buchanan Street and St Enoch subway stations.

In addition, the site is also well served by multiple bus services, with bus stops on High Street, George Street and Ingram Street.

In terms of active travel, the proposed building will be supported by dedicated cycle parking provision, which will be safe, sheltered and secure, and will include shower, changing and storage facilities to support active travel.



Movement Access / Transport Diagram
Movement of people towards the CHATIC site

The Concept

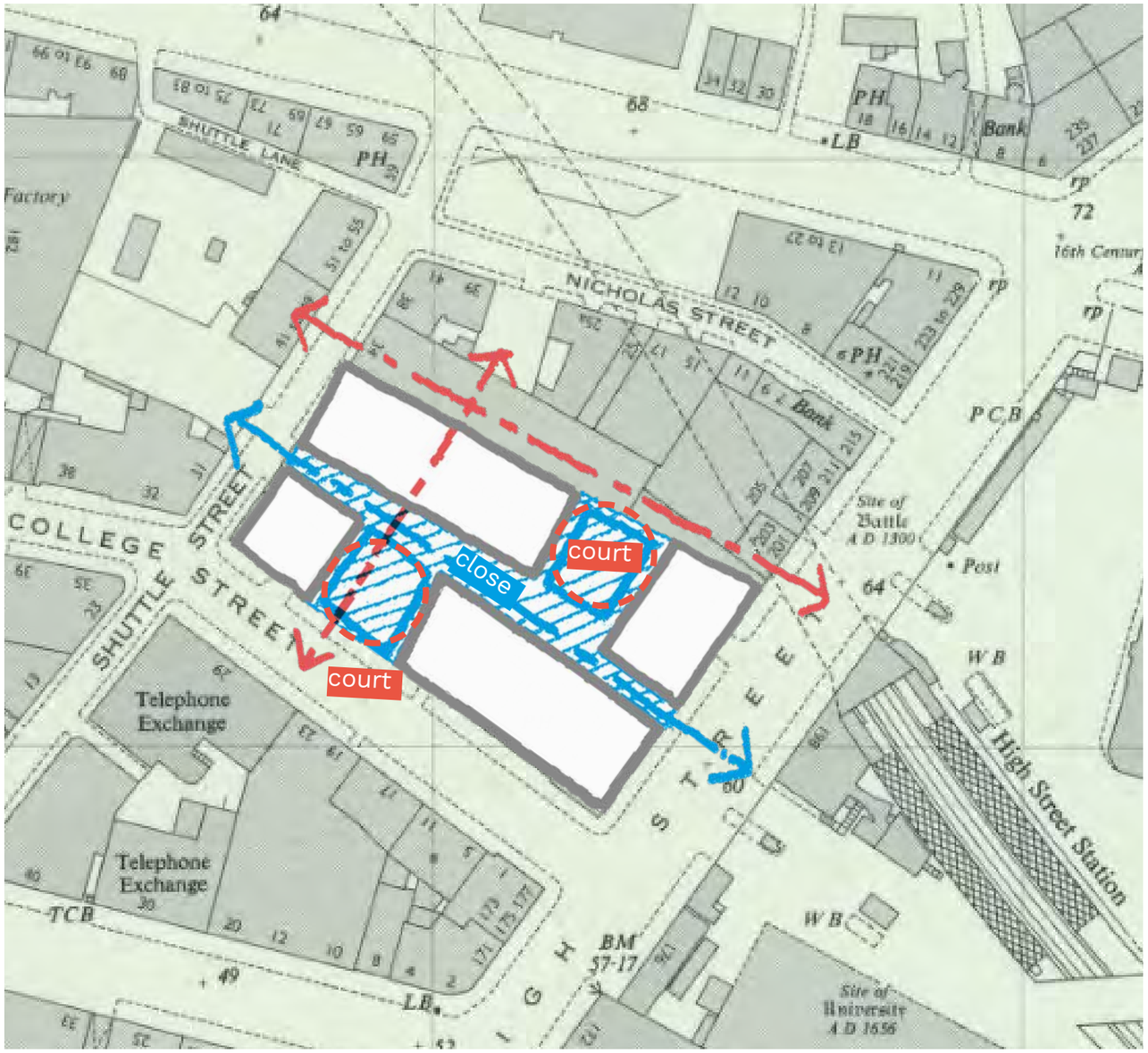
The Concept

The High Street was originally Glasgow's main street in medieval times and is the oldest and one of the most historically significant streets in Glasgow.

As the land around the High Street was developed to accommodate Glasgow's growing population during the 19th Century, and as the demand for housing increased, buildings were built in close proximity to each other to accommodate as many people as possible. These buildings (or tenements) were often entered by a "close" which gave access to a common stair and the back court. During the 19th Century, this language of closes and courts developed westwards from the High Street.

It is this language of closes and courts that provides the framework and conceptual ideas for the site. This will anchor the proposal to its context, and to Glasgow, and allows for a modern interpretation and re-imagining of how this architectural language can be relevant for the 21st Century.

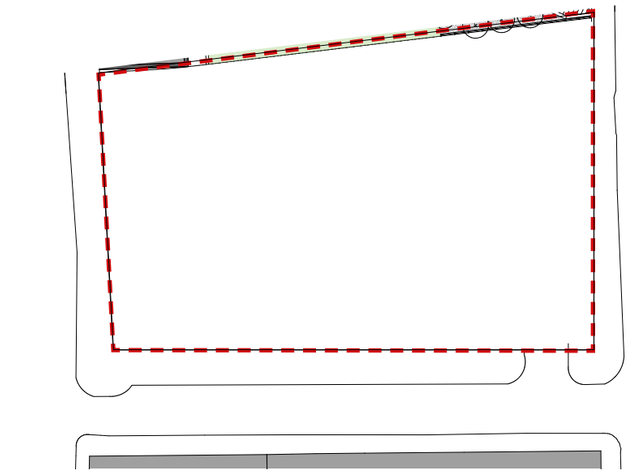
The architectural expression of the emerging proposals is a result of analysis of the proposed site and its context. The aspiration is to create a building which is contextual, and which will make a positive placemaking contribution to its immediate surrounds and the wider City.

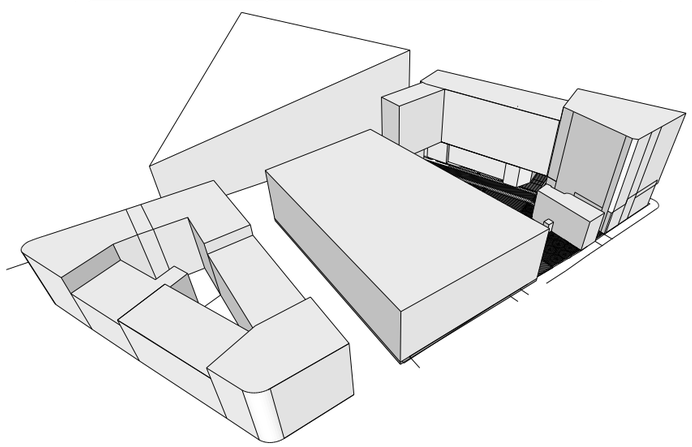


Concept Diagram
Closes & Courts

01. City Block

extent of the site

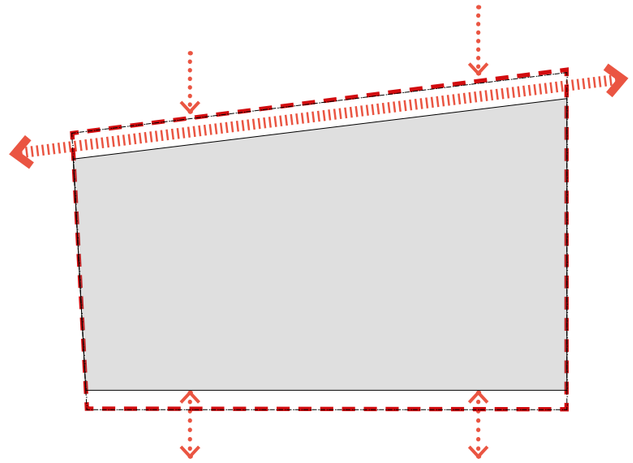


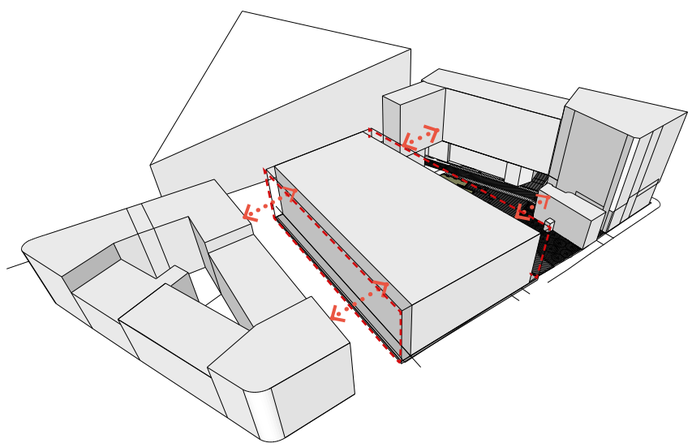


02. Perimeter

move the boundary of the new building envelope at the north perimeter of the site to allow a pedestrian route past the site between the proposed building and the community garden (to the north).

move the boundary of the new building envelope at the south perimeter of the site to minimse any overlooking issues of adjacent residential properties.

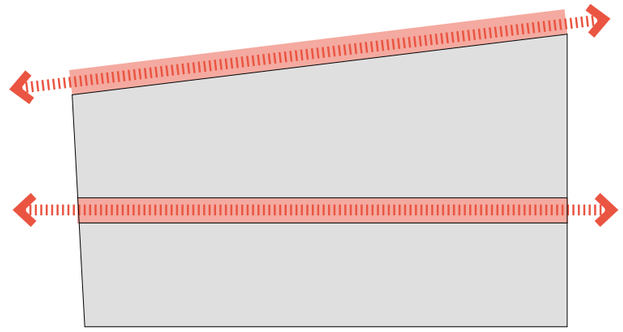


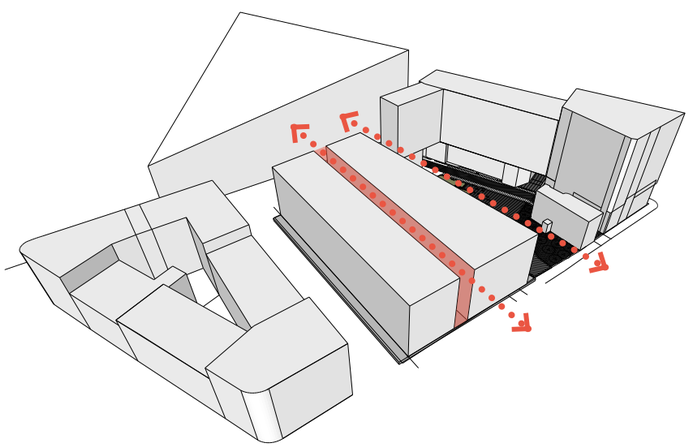


03. Close

create a pedestrian route through the site to the north between the proposed building and the community garden and re-establish College Lane.

drive a close through the middle of the site to create an internal street and provide circulation space to the new building.



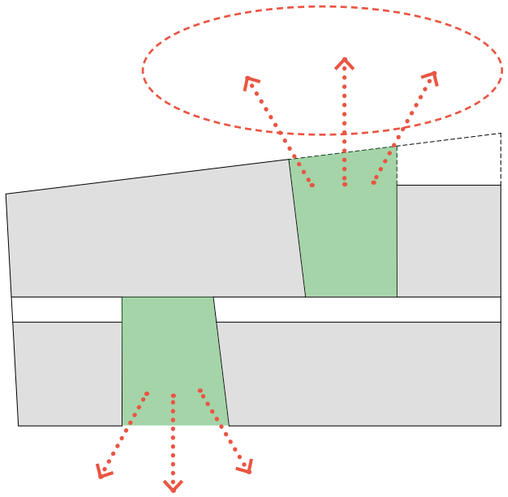


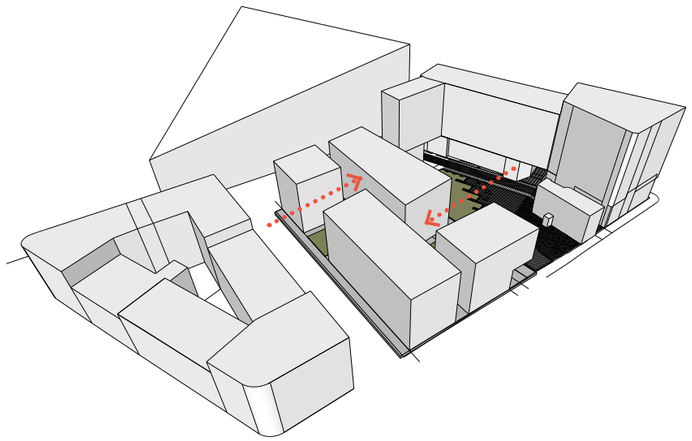
04. Courtyards

create 2 new courtyards:

one courtyard to the north to address the community gardens.

one courtyard to the south to provide new public realm.

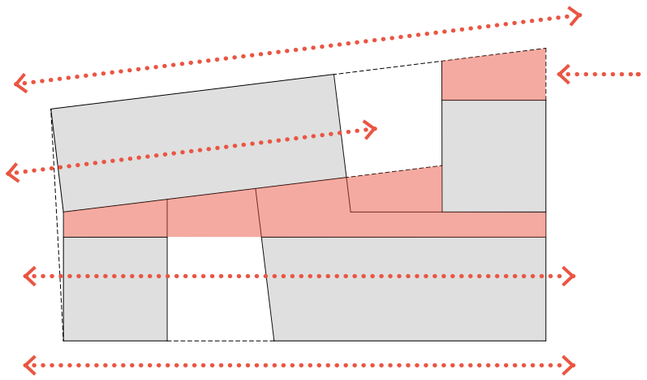


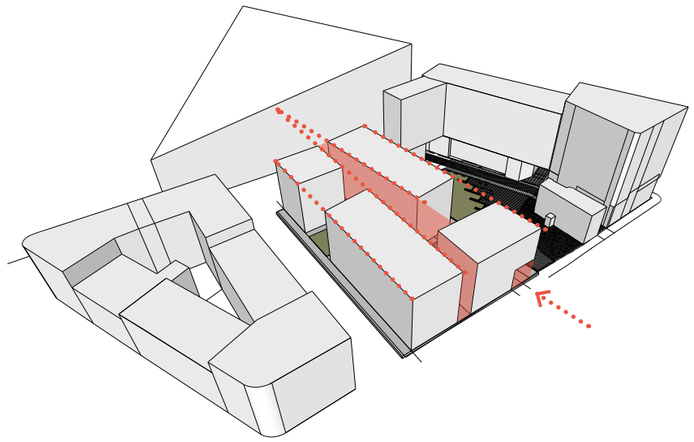


05. Geometry

adjust the geometry of the residual urban blocks to reflect the site geometry and help to open up the internal street.

create a recessed entrance on High Street to avoid the existing rail tunnel.

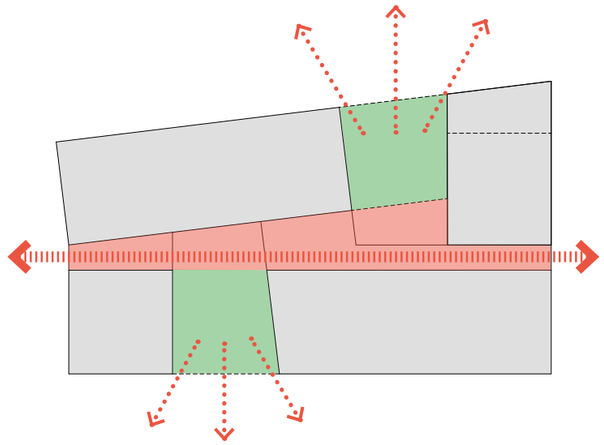


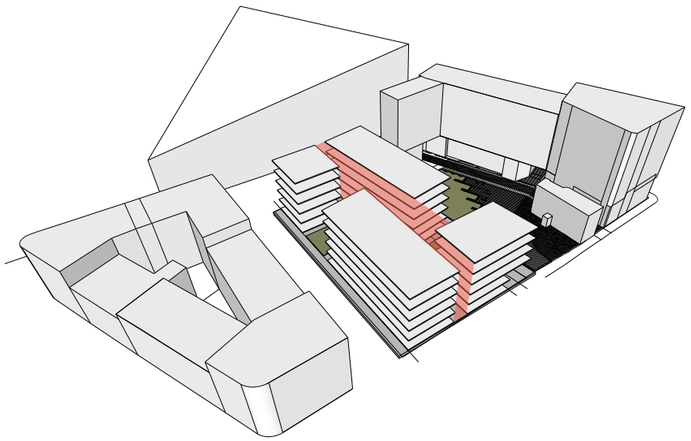


06. Floor Plates

the new floor plates create 4 blocks arranged around 2 courtyards and an internal street (close).

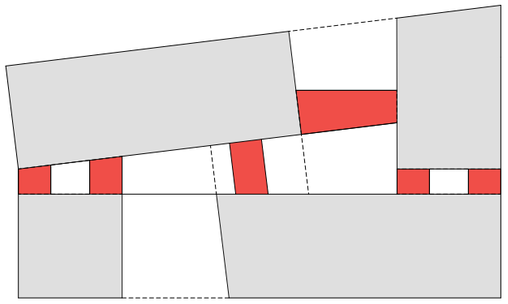
this can offer flexibility in the layout and use of the new building.

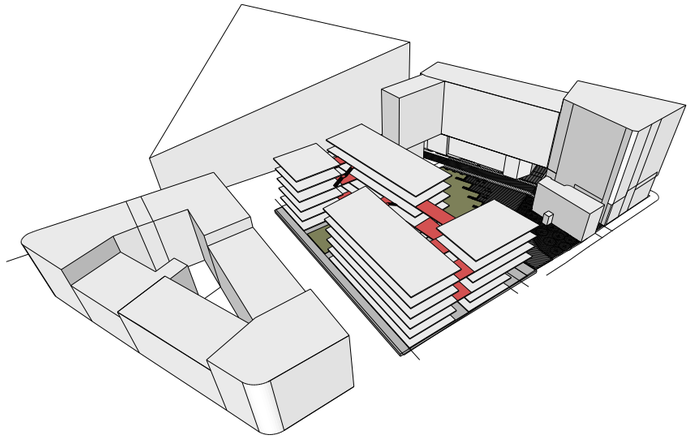




07. Connections + Collaboration

the residual “voids” created between the 4 new blocks can accommodate circulation, connections and collaboration space to animate the internal street, courtyards and elevations.

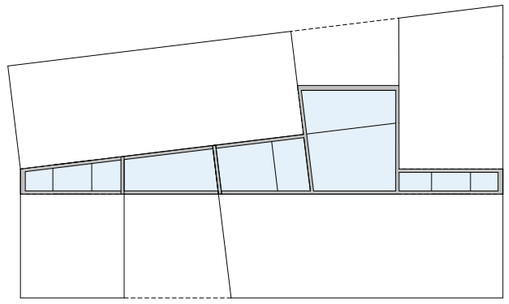


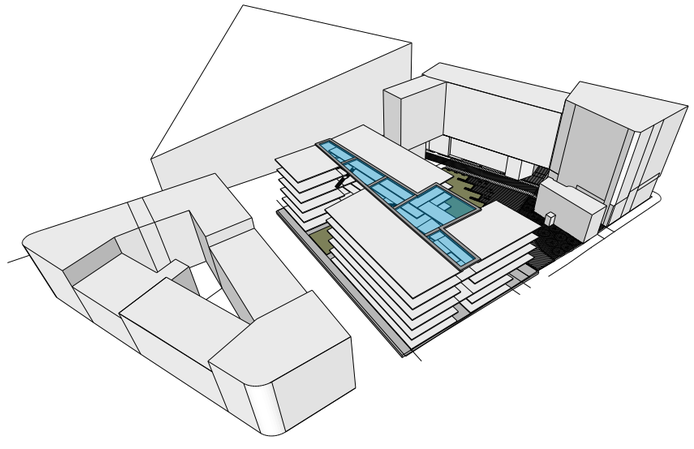


08. Active Courts + Closes

a new rooflight provides natural light to the new internal street from above, whilst the courtyards punctuate the internal street with further activity and engagement with the wider site.

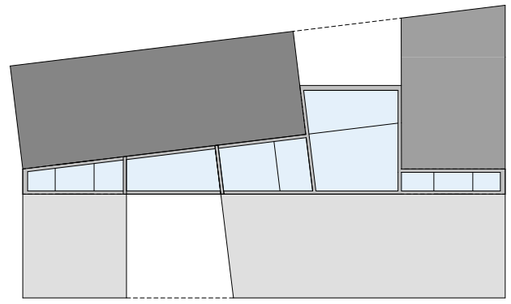
the new internal street and courtyards (and the spaces between) become animated.

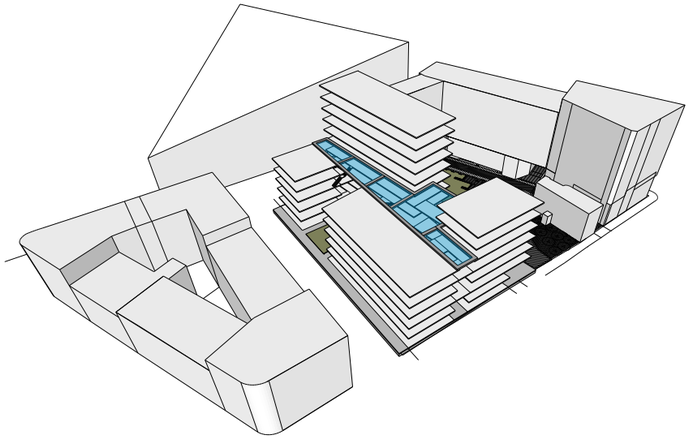




09. Massing / Tower

2 of the new blocks are increased in height to address their immediate context, adding further interest to the volume and massing of the new building.





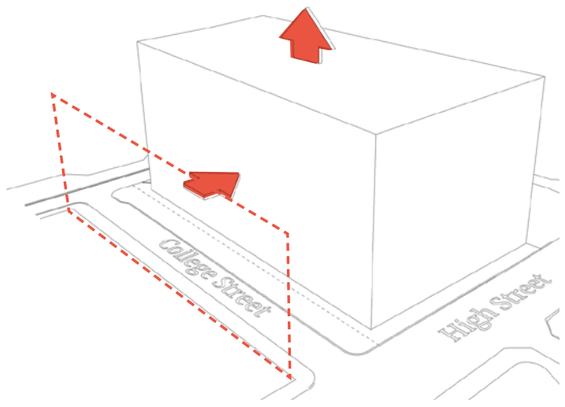
Layout

Layout

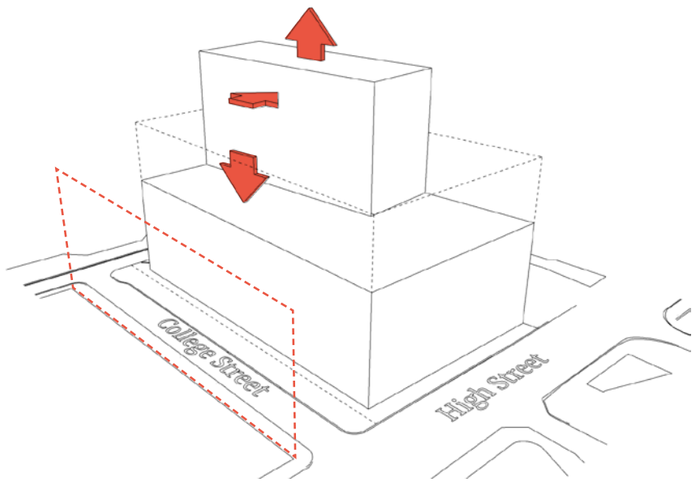
The scale and massing of the building responds to the surrounding context. The building is proposed to be set back 18m from adjacent residential properties on College Street and has developed into two architectural forms – a low-level podium and a higher tower element situated to the north-west corner to collectively accommodate the overall 20,000 sqm in the brief. The programme for the building is organised and distributed between the podium and tower element, and this addresses a number of design issues:

- The low-level podium responds to the adjacent residential buildings on College Street / High Street and is of a similar scale and height.
- The ground floor level and first floor level of the podium accommodates the public use of the building and commercial areas, with views up to the research and development areas higher up within the podium.
- The upper levels of the podium accommodate the collaborative research space.
- The tower accommodates the specialist laboratories, stacked on top of each other which facilitates efficient mechanical and electrical service distribution vertically within the tower.
- The tower element allows the 20,000 sqm of the brief to be accommodated whilst minimising the height and impact of the lower podium block (which occupies the majority of the site).

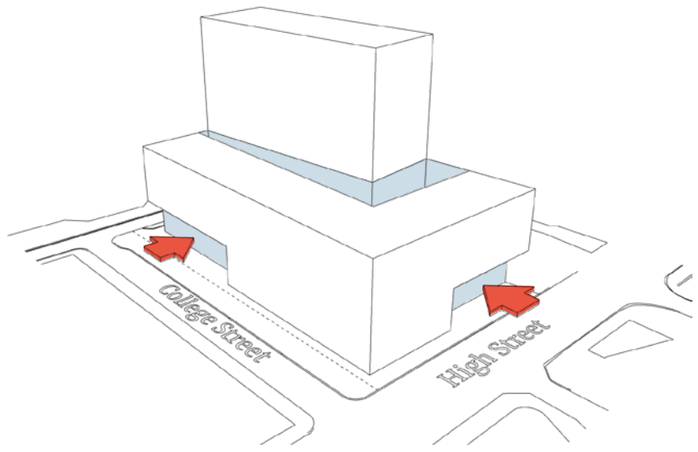
The massing of the podium block is broken down and articulated further to accommodate the two entrances to the building – one located to the north-east (off High Street) and the other to the south-west (on College Street / Shuttle Street). These are located on opposite corners of the building to gather and organise the various pedestrian approaches to the building, whilst facilitating a route through the building, encouraging permeability and providing active frontages.



Urban Block



Massing (Podium + Tower)



Entrance

Circulation

Forum

Cafe / Commercial

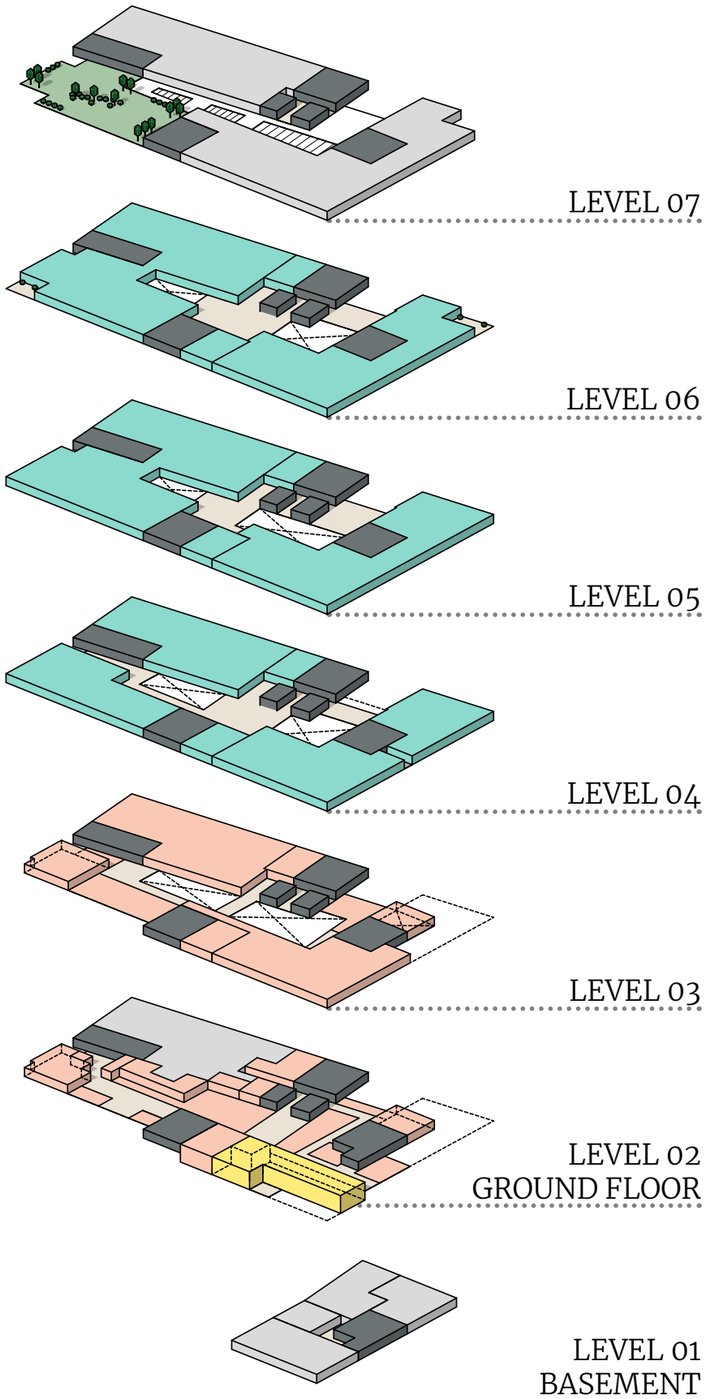
Research

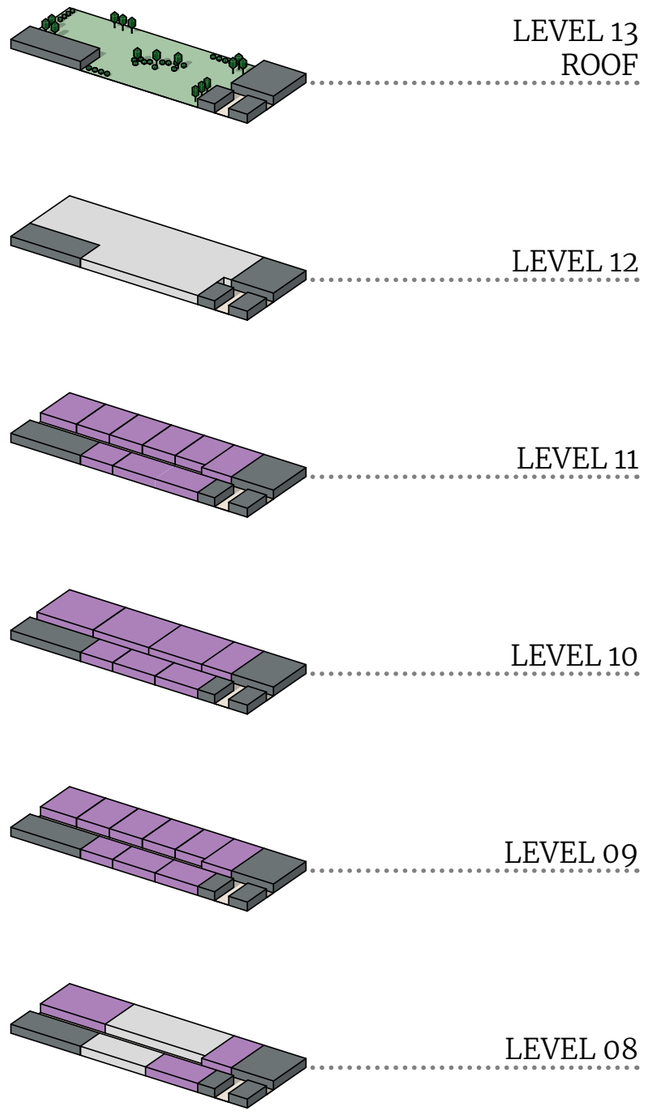
Laboratories

Core (including stairs / lifts / risers)

Plant / Storage / Back of House

Roof Garden



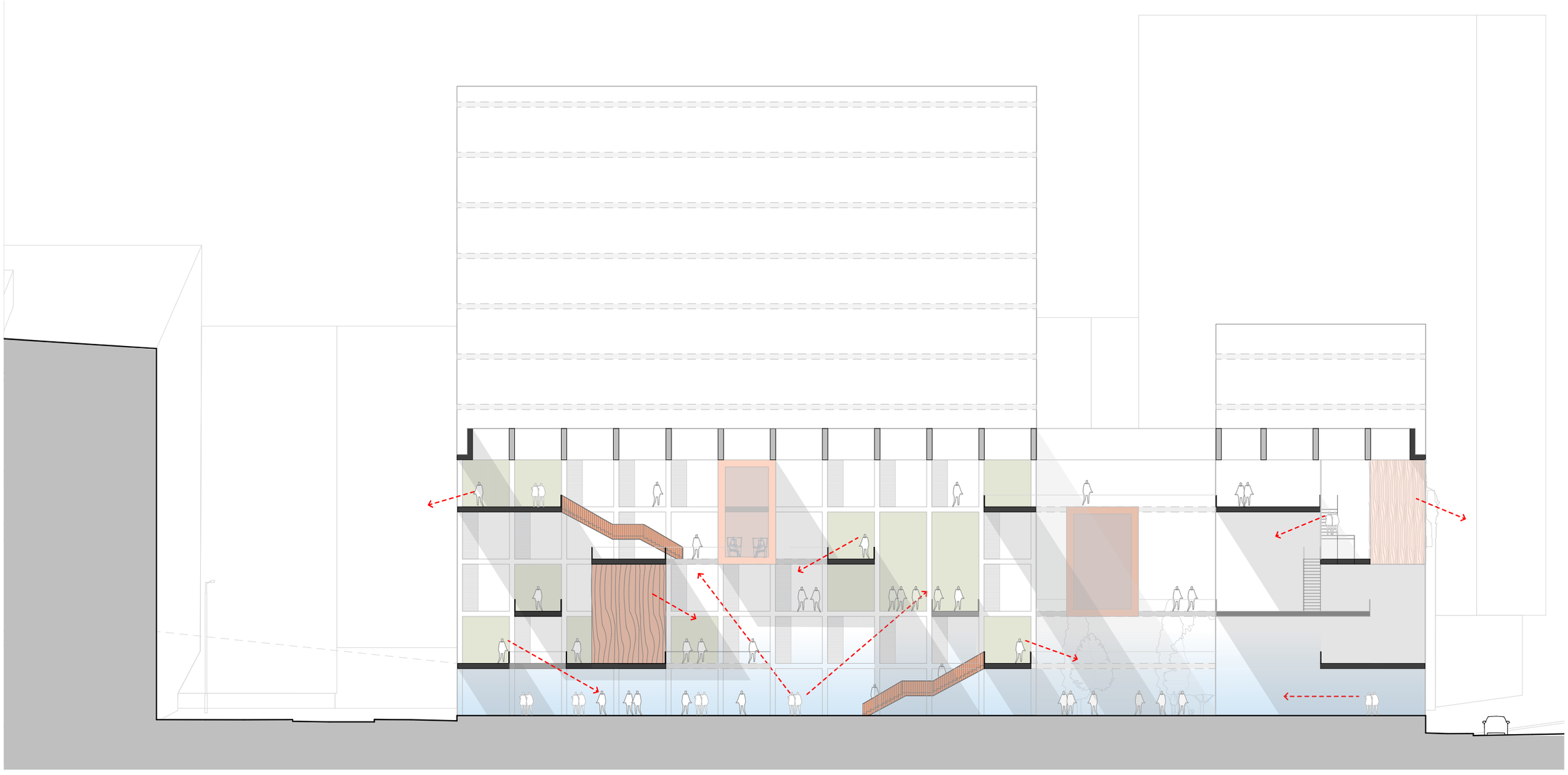


Exploded Axonometric
Arrangement of Floors

Layout

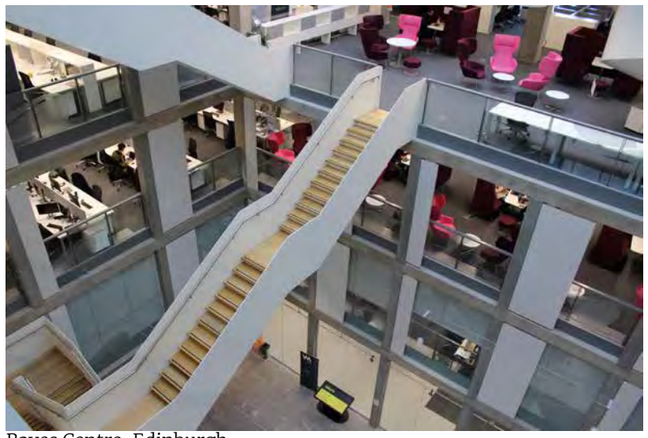
The diverse nature of the proposed accommodation requires a dynamic architectural response, allowing the proposals to accommodate and express the different internal activities. A key design driver for the building is that the layout facilitates collaboration and interaction between different groups from staff to students and industry collaborators. The building will provide approximately 20,000 sqm of floorspace.

The emerging architecture promotes views up and into the building, allowing for a greater understanding of, and engagement with the multiple activities taking place within it.



Conceptual Section
Atrium

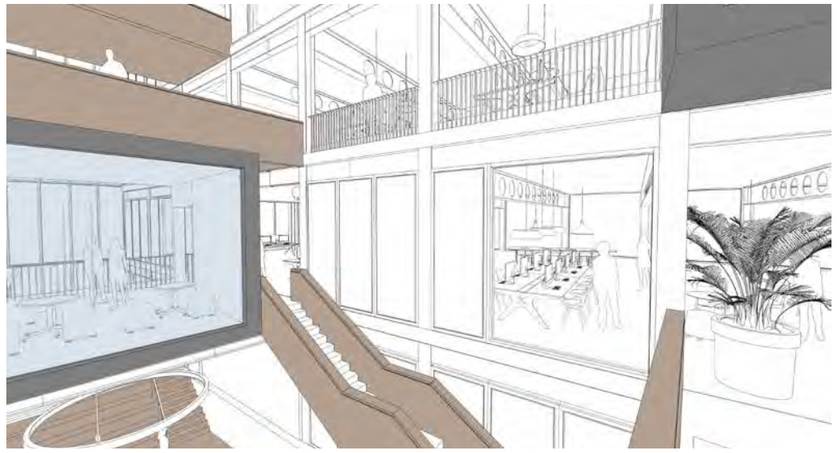
Cedar ING Offices, Netherlands - Benthem Crouwel Architects + Hofman Dujardin
(photo: Matthijs van Roon)

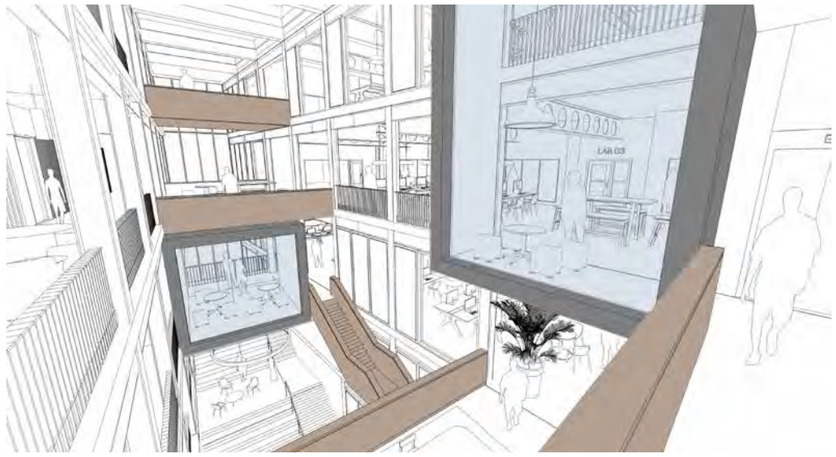


Bayes Centre, Edinburgh
(photo: HLM)

Melbourne School of Design - John Wardle Architects and NADAAA
(photo: Peter Bennetts)

Precedent Images





Internal Views
Atrium

Facade + Materials

Façade & Materials

The façade strategy is driven by a response to the early contextual analysis, language and materiality of traditional Glasgow buildings with glazing ratios, shading and depth all defined by the response to Passivhaus criteria.

The proposed façade treatment also further develops the form of the building as a podium + tower. The podium is conceived as a “solid” base, reflecting the site context and the traditional architecture of Glasgow.

In contrast, the tower is conceived as something lighter in character – a counterpoint to the solid podium base, and something that reflects the progress and innovation of the research within the building.

A simple palette of materials is proposed, that pick up on the tones and hues of the surrounding buildings. Large areas of glazing are also proposed to create an active frontage and to promote a building which connects to the surrounding public realm.

External Sketch View
from College Street/ Shuttle Street

Sustainability

Sustainability

The proposals are located within the Glasgow City Innovation District (GCID) which by definition will also seek to provide innovative solutions to the climate emergency.

The University has already set out a plan to engage with this challenge and to create a Climate Neutral Innovation District working and collaborating with 15 other stakeholders including Glasgow City Council, Scottish Water, Scottish Power, Wheatley Group, Climate Ready Clyde, Star Refrigeration, SPT, Sustrans etc to create a 100% renewable energy, transport, adaptation and wellbeing district.

The University's overall objective is to create a development that is climate neutral, climate resilient and socially inclusive and which acts as an exemplar of innovation and best practice. We want to create an exemplar development that responds to the climate emergency, to the University's climate change and social responsibility target, policy and plan and which reflects innovative design and construction methods.

In order to meet the University's ambition of a 'Climate Neutral Innovation District' this will require the deployment of 'at scale' infrastructure such as heat pumps, smart grids and systems that enable heat and power and transport flexibility for businesses and residents; smart streets where pedestrians are prioritised and that are accessible for all and which encourage active travel.

UN CLIMATE CHANGE CONFERENCE UK 2021
IN PARTNERSHIP WITH ITALY

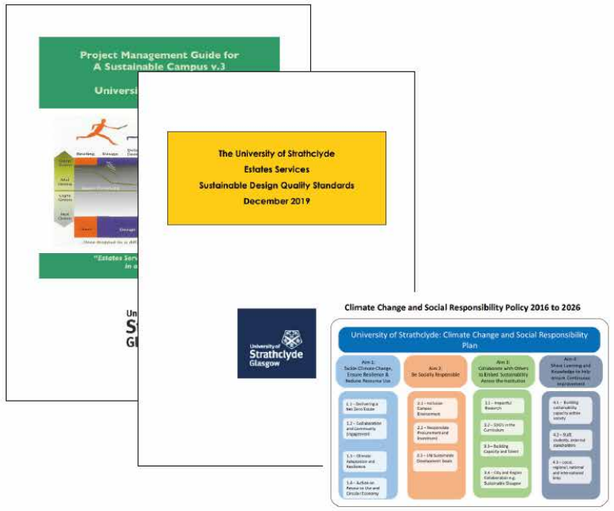
Sustainable Glasgow

Net Zero Scotland
Scottish Government

LET'S DO NET ZERO

WE ARE
SUSTAINABLE
STRATHCLYDE

Glasgow City Innovation District



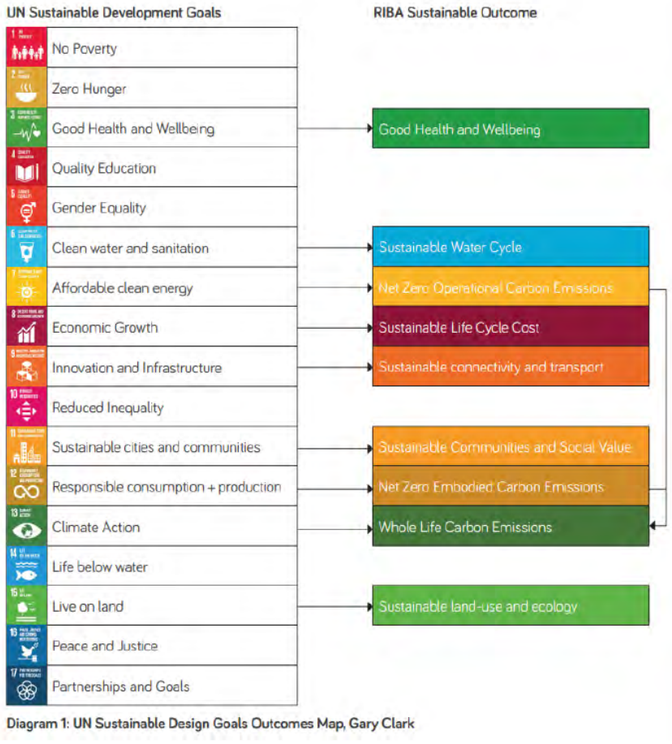
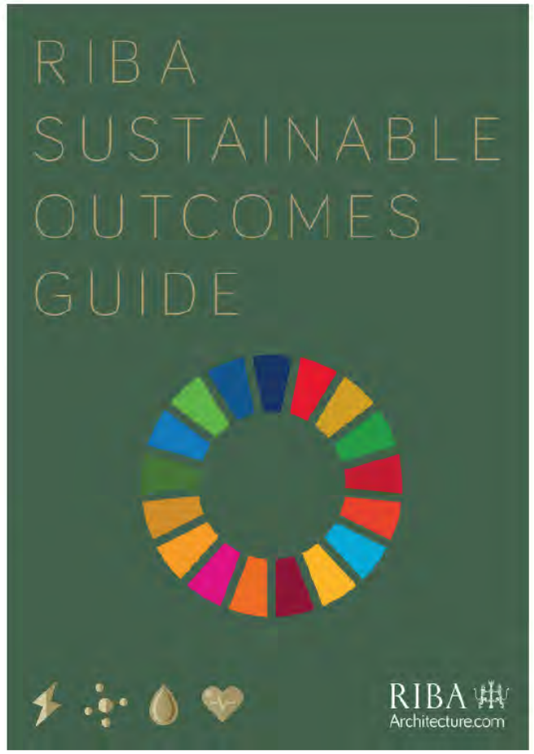


Diagram 1: UN Sustainable Design Goals Outcomes Map, Gary Clark



Passivhaus

The university considers Passivhaus buildings to be one element of this plan, and this project will deliver a building designed, constructed, and certified to Passivhaus standard, the leading international low energy design standard. The building will provide high levels of occupant comfort while using very little energy for heating and cooling by utilising the following Passivhaus criteria:

- Compact form and considered orientation
- Improved levels of fabric insulation with low u-values and minimal/ no thermal bridging,
- Optimised glazing areas, orientations, and performance levels (both thermal and solar) which aim to maximise the benefits of passive solar gain where appropriate and limit unwanted solar gain where necessary
- Reduced levels of air permeability to minimise uncontrolled heat gains or losses.
- The building will employ high efficiency, low energy plant and controls as well as integrating green renewable technologies such as air source heat pumps and solar PV.

In order to help mitigate against future climate change, the building will adopt solutions such as rain gardens, SUDS, rainwater harvesting, green roofs and green infrastructure that encourages biodiversity.

The building will also adopt the International WELL Building Standard to ensure the development has a clear focus on the health and wellbeing of its future occupants.

External Sketch View
from High Street

Passive House Institute

Programme & Next Steps

Subject to this consultation exercise and further discussions with Glasgow City Council and other stakeholders it is proposed to submit a **planning application in November 2022.**

This planning application will include supporting information on a range of subjects, including design, transport, ecology, drainage, built heritage, noise and visual impact. If our planning application is approved by Glasgow City Council, it is anticipated that work on-site would commence in 2023.

The project design team will take into account of all comments made during this consultation event as the proposals are developed further. A report will be prepared on this consultation exercise which will be submitted to Glasgow City Council in support of the planning application.

We welcome your comments on our proposals and we look forward to receiving your feedback.

Also, please remember that this is a pre-application consultation and you will have an opportunity to make formal representations to Glasgow City Council once a planning application has been submitted.

Ask a question

We welcome questions on the proposed development, which will be submitted via email to our project team. All questions will receive a response and our consultants will also be available on this website on **Monday 12th September 2022 from 3pm-7pm.**

E-mail us on ticzone-development@strath.ac.uk

Feedback Questionnaire

We would welcome your feedback in relation to the proposals and seek any comments you may have on the proposals.

We would seek comments to be submitted through the feedback questionnaire or via email to ticzone-development@strath.ac.uk by **23rd September 2022.**

As noted above, any comments made are not being submitted to Glasgow City Council. When the planning application is submitted, there will be an opportunity to submit formal representations to Glasgow City Council for their consideration.

Complete the questionnaire

University of Strathclyde Glasgow

HLM Architects

NORTH
PLANNING & DEVELOPMENT