simpsonhaugh

CIS Tower, Manchester

Design and Access Statement | 01 May 2025

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1.0 Introduction

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EXECUTIVE SUMMARY

This Design and Access Statement has been prepared by SimpsonHaugh, with input from others, on behalf of Devonshire (CIS Tower) Limited and accompanies an application for full planning permission and listed building consent at the site known as the Co-Operative Insurance Society Tower (CIS Tower), on Miller Street in central Manchester (hereafter referred to as the 'Site').

For the purposes of this statement Devonshire (CIS Tower) Limited is referred to as the 'Applicant'.

The statement explains the design development process and describes the final proposals and amendments for the re-development of the site and existing Grade II listed building.

This document should be read in conjunction with the application drawings and other material submitted in support of the application.

THE PROJECT

The planning application relates to the redevelopment of an existing former HQ office building that is Grade II listed.

The description of development as stated on the application form for Full Planning Permission is as follows:

Planning permission for internal and external refurbishment of the CIS Tower for office accommodation on floors 1-23 (Use Class E c)); change of use to floor 24 and 25 from Use Class E c) (office) to Use Class E b) (F&B); change of use to basement and ground floor from Class E c) (office) to mixed uses (Use Class E a) (retail)/ Use Class E d) (gym) / Use Class E b) (F&B) / Sui generis (leisure); refurbishment of the external facade including replacement of the existing single glazed façade system and replacement of strip of solar panels on the service tower; removal of existing recreational space on the fifth floor and plant to facilitate the construction of a 3-storey extension to the Podium (Use Class Ec)) external alterations to ground floor façade including an alteration to the ground floor entrance lobby; creation of new entrances on Dantzic Street and on eastern elevation; hard landscaping and planting; removal of external signage; creation of 2x DDA parking spaces; new rooftop plant and screening at level 8; and other associated works.

The description of development as stated on the application form for Listed Building Consent is as follows:

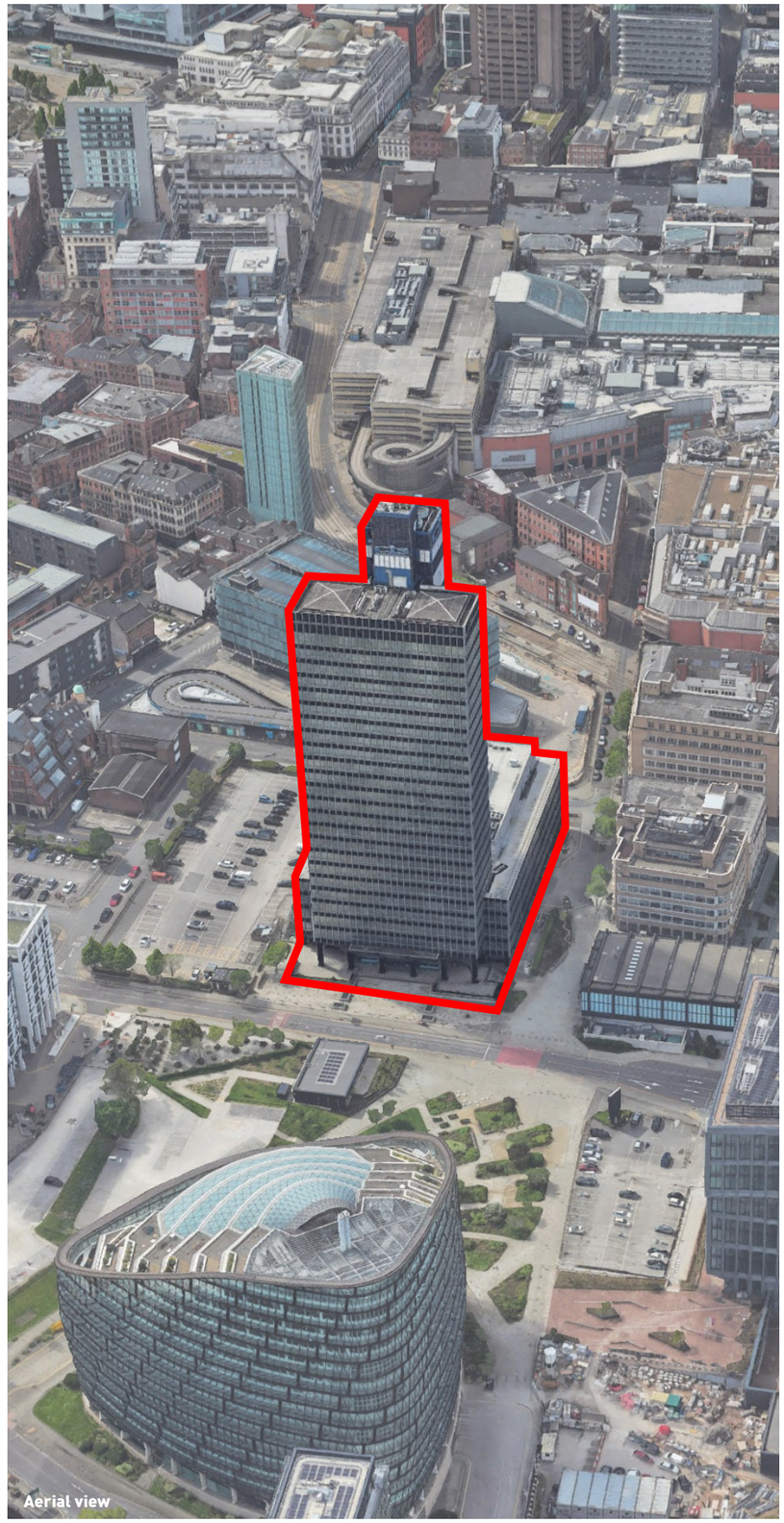
Listed Building Consent for the wholesale internal and external refurbishment, refurbishment of the external facade including replacement of the existing single glazed façade system and replacement of strip of solar panels on the service tower; removal of existing recreational space on the fifth floor and plant to facilitate the construction of a 3-storey extension to the Podium; external alterations to ground floor façade including an alteration to the ground floor entrance lobby; creation of new entrances on Dantzic Street and eastern elevation; alternations to the existing public realm; new rooftop plant and screening at level 8; hard landscaping and planting; removal of external signage; and associated works.

THE PROCESS

In developing the proposals, the Applicant has sought advice from a wide range of specialist consultants experienced in developing and delivering schemes of a similar nature to the proposals.

The proposals have been developed with input from a highly experienced and comprehensive team of specialist consultants, with contractor and supply chain input. The development and project team's intention is to deliver a unique project that revitalises and brings the existing building back into use; responds to up-to-date market demands and responds appropriately to the listed status of the existing building.

The Proposed Development has been subject to extensive pre-application consultation with the Local Planning Authority, statutory consultees, and local stakeholders. The involvement of statutory consultees at the pre-application stage has informed the design of the development, and changes to the scheme have been included where appropriate.



Aerial view

THE APPLICANT AND DESIGN TEAM

THE APPLICANT

The Applicant is Devonshire (CIS) Tower Limited, which is backed by Lenrose Ventures. Lenrose Ventures was founded by Jack Martin and James Moores and is a real estate investment, development and asset management group focused on UK commercial and residential property. The company has developed a track record for working in partnership structures to deliver complex projects and manage a diverse portfolio of residential, commercial, and mixed-use properties.

THE ARCHITECT

SimpsonHaugh was founded by Ian Simpson and Rachel Haugh in 1987 and has since compiled an impressive and diverse portfolio of award winning projects.

The practice originated from a shared belief in the power of high quality design to lead the regeneration of post-industrial cities and initiate new contemporary architectural identities. As the practice has grown, these original values have matured and been reinforced such that they remain the practice's guiding principles.

The underlying themes of urban renewal, sustainability and design excellence unite an otherwise diverse range of building functions and solutions. Similarly, the completed work demonstrates that the practice's regeneration objectives are equally valid whether applied to new buildings or to existing historic structures.

A recurring challenge of the practice's work has been the need to confront appropriate forms for emerging typologies. Its innovative solutions for public galleries, transport interchanges and high density living have both challenged normative design responses and contributed positive new precedents.

SimpsonHaugh has a wide range of experience from small rural primary schools to larger schemes such as One Blackfriars Road and Phase 1 Battersea Power Station in London, and Beetham Hilton Tower and Deansgate Square in Manchester. The thread that links all of our work is the desire for design excellence.

Examples projects that involve the repair, conservation, transformation and revitalisation of buildings of significance within an historic building environment include Manchester Town Hall Extension, Queen Elisabeth Hall, Manchester Museum (all completed) and consented proposals for Great Northern Warehouse.

SimpsonHaugh also have significant experience of the design and delivery of office accommodation of the highest quality, particularly in the Manchester market. This includes prime Grade A, BREEAM Excellent accommodation at No.1 Spinningfields and Two St Peter's Square; BREEAM Outstanding and NABERS 5* accommodation at 4 Angel Square and the multi-award winning Manchester Town Hall Extension project.

SimpsonHaugh have previously worked on a planning application for the existing building and site.

THE TEAM

The team that the Applicant has engaged to develop the proposals are:

Architect	SimpsonHaugh
Project Management	Colliers
Heritage Consultant	Stephen Levrant Heritage Architecture
Structural & Civil Engineer	Curtins
Building Services Engineer	Crookes Walker Consulting
Fire Engineer	Design Fire Consultants
Landscape Architect	Re-form Landscape Architecture
Facade Engineer	Ramboll
Sustainability Consultant	TFT Consultants
Vertical Transport Consultant	Cundall
Acoustic Consultant	Hann Tucker Associates
Transport & Waste Management	Curtins
Wind Microclimate	Arcaero
Cost Management	Gardiner & Theobald
Principle Designer	ORSA
Verified Views	OurStudio
Ecologist	Penny Anderson Associates



No.1 Spinningfields



4 Angel Square

DESIGN OBJECTIVES AND BRIEF

DESIGN OBJECTIVES

Devonshire (CIS Tower) Limited became custodians of The CIS Tower in 2017, purchasing the Grade II listed building from The Co-operative Group.

Having secured full planning and listed building consent in 2020 (MCC Planning Portal reference : 126118/FO/2020), the Covid pandemic halted progression and resulted in the permissions expiring.

During 2021, enabling strip out works were undertaken under separate permission on Levels 02, 03, 14 and 15; providing the Applicant and design team with surveys, results and further knowledge with regard to the existing building which have been utilised in the development of the proposals presented in this application.

The overarching brief objective has always been to secure the building's long term future through a comprehensive refurbishment that will bring the building up to current office and environmental standards.

Therefore the 2025 brief seeks to revisit the 2020 proposals in a post pandemic environment and an updated market context. This includes delivering best in class office accommodation and amenity space, and a focus towards net zero carbon development.

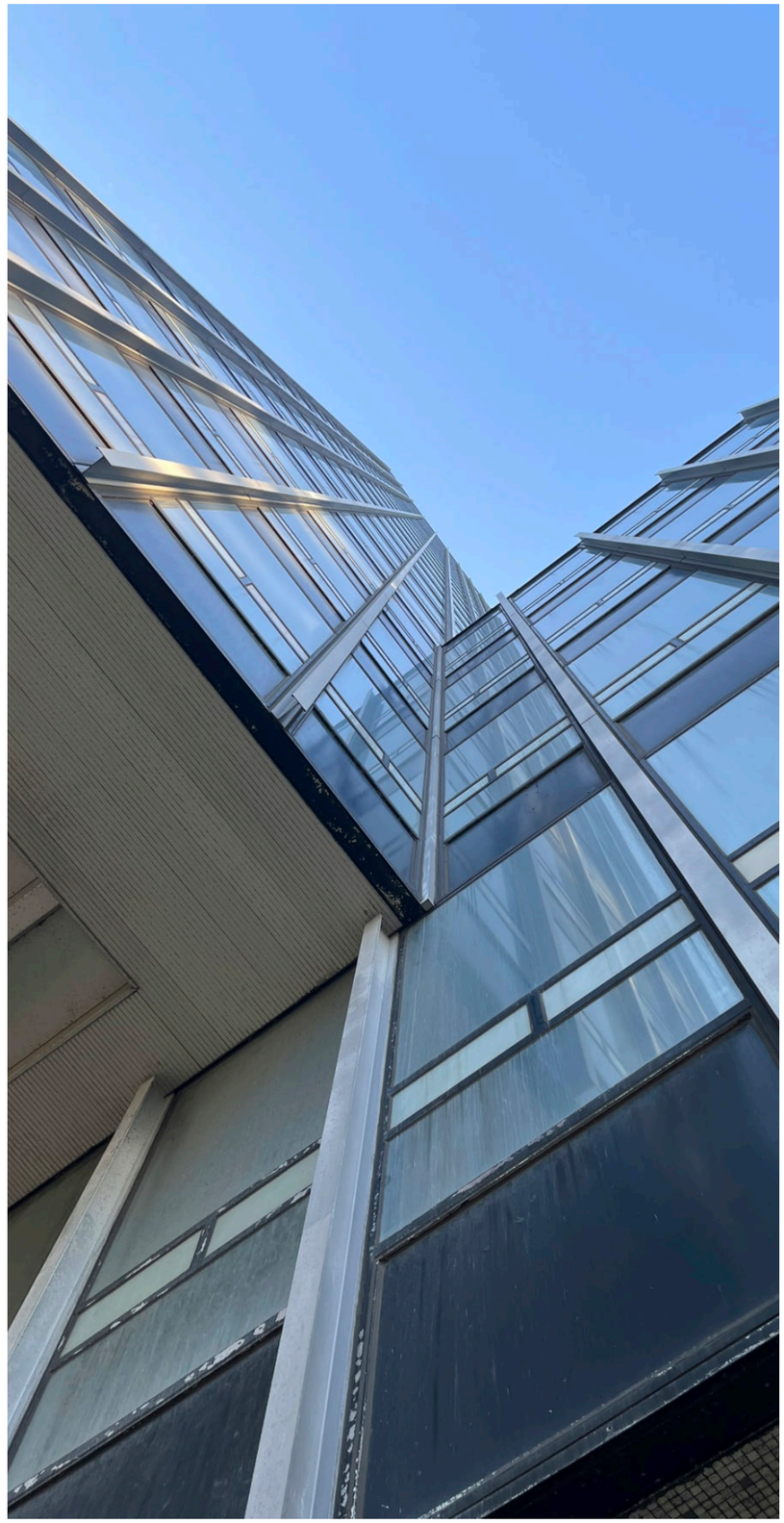
As part of this updated brief context, a key shift in the strategy to improve the building performance and internal environment entails the proposal of a new facade in lieu of the previously proposed facade refurbishment.

The replacement of the photovoltaic panels remains beyond the parameters of the current brief on the basis of the works reflecting what is required to bring the building into optimum viable use. Future works to the photovoltaic panels remain deliverable beyond the proposals submitted within the application.

The aim of providing workspace to meet updated market demands and environmental standards is to provide an attractive working environment within a unique heritage asset; attracting multiple tenants that will bring life to the building and the neighbourhood.

THE BRIEF

- Provide a comprehensive refurbishment of the building to provide best in class office accommodation and meet up to date environmental standards;
- Respond positively and appropriately to the listed status of the building and the reasons for designation provided by Historic England;
- Restore artworks by both William Mitchell and Barry Daniels and retain them within the building in appropriately prominent locations;
- Provide an extension to the podium of the building to provide additional office accommodation to support the extensive refurbishment and renovation programme to deliver an economically viable and sustainable proposal. A viability exercise has been undertaken with an assessment provided to support this application;
- The enhancement and enlargement of the Entrance Hall of the building to a scale and presence commensurate with the size and prestige of the CIS Tower alongside improved access for all;
- Facilitate the transition of the building that was designed for a single tenant to a building which can accommodate multiple, independent tenancies in line the market and occupier demands;
- The introduction of retail and leisure uses at Ground and Basement 1 Level to offer complementary activity and amenity to that of the rest of the building and activate Dantzic Street, alongside the reconfiguration of the landscaping immediately around the building to support the introduction of new uses which will contribute to the ongoing success of the NOMA area as an important mixed use commercial led quarter;
- Removal of on-site parking and the introduction of cycle storage to encourage more sustainable travel behaviours;
- Replacement of the existing 'Weathermaster' perimeter heating system and the replacement of the façade to improve internal environmental conditions for building users and bring the building in line with modern day safety and operational performance standards;
- Working towards standards and accreditations such as BCO, BREEAM Excellent (Office), NABERS, WiredScore and WELL (Enabled);
- EPC A;
- Rebrand the CIS Tower to reflect the change in occupancy of the building as the CIS depart the building commences a multi-tenanted occupation;
- Review the external lighting provision for the building;
- Incorporate best in class communal office tenant amenities including communal external terraces;
- Incorporate a publicly accessible tower top restaurant and bar with dedicated access from ground floor



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CONSULTATION AND ENGAGEMENT

As part of the design development a programme of pre-application consultation was undertaken, with feedback received during these meetings being recorded by the design team and incorporated into the development of design proposals as appropriate.

The Site was previously subject to a full planning permission and listed building consent approved in March 2020 (LPA Ref. 126118/FO/2020 and 126119/LO/2020). The current scheme represents an evolution on these proposals, and follows the same broad principles. Consultation was undertaken prior to submission of the application in 2020, and the consultation undertaken prior to the 2025 submission therefore built on these previous discussions, and has largely been focused upon providing an explanation of the changes to the scheme since 2020.

The consultation process included engagement with Manchester City Council through several pre-application meetings throughout the design development process. During these meetings proposals have been presented to senior officers at Manchester City Council, including the planning officer and conservation officer for the application.

In addition, Historic England, the 20th Century Society, the Modernist Society, MCC Highways, Greater Manchester Police and MCC's Conservation Panel have been consulted in advance of the submission of this application, with presentations given by the design team on the emerging scheme as part of this consultation process.

Stakeholders generally expressed support for the project, welcoming the ambition to bring the CIS Tower back into active use. Much of the discussion centred on the extensive options analysis undertaken in relation to the refurbishment of the façade. This included presentation of the façade options matrix, alongside presentation of detail drawings of the existing and proposed façade systems.

Additional comments received during the consultation process related to:

- Requirement for the podium extension, alternative massing options explored as part of the design process, and strategy for relocation of the Barry Daniels artwork;
- Proposed restaurant at floors 24 and 25, and the proposed mix of retail, leisure and F&B at ground and basement levels (including ensuring sufficient servicing capacity to support these uses);
- Approach to tenant fit out, and agreement that this would be addressed through a Tenant Fit Out Guide

Please refer to the Statement of Consultation submitted as part of this application for further detail of pre-application discussions.



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2.0 Site and Context

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SITE OVERVIEW

The site is located on a key gateway in and out of the city centre, due to its location on the inner ring road. It is in a highly sustainable and accessible location due to the close proximity of some of Manchester's important transport hubs, with Victoria Station to the west and Shudehill Transport Interchange to the south.

An existing 1960s Grade II listed building sits on the site, formerly acting as a headquarters for The Co-Operative Insurance Society (CIS). It is read as part of a group, alongside the neighbouring Grade II listed New Century House and New Century Hall. This group, with other neighbouring listed buildings, collectively form the historic Co-operative estate.

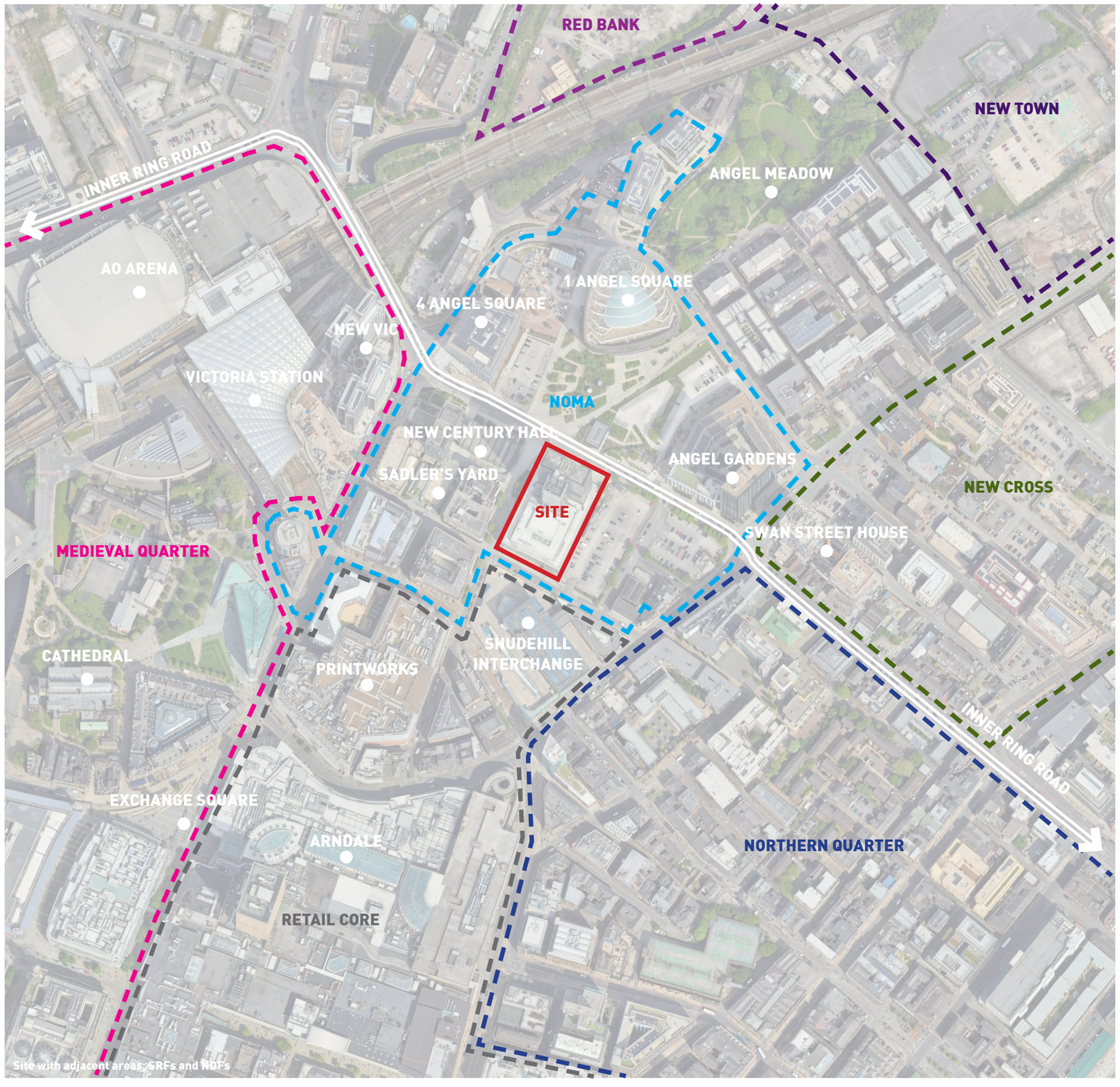
This estate is located within the 8.1 hectare NOMA neighbourhood, which forms a distinct area on the northern edge of Manchester city centre. The neighbourhood is bound by Corporation Street to the west, Angel Street to the north, Rochdale Road to the east and Balloon Street to the south. The CIS Tower is the tallest building within the neighbourhood, creating a prominent landmark in the north of the city.

NOMA is a place with community firmly at its heart. Providing homes, offices, shops, restaurants and bars around vibrant public realm; the intention is to create an innovative, commercially-driven and responsibly designed neighbourhood that offers outstanding connectivity and embraces its rich heritage.

The area has long been associated with The Co-operative since the early 1900s when the group owned, built and occupied the majority of the buildings in the area. In 2013, The Co-operative opened their new headquarters on the land to the north of Miller Street, a landmark building named One Angel Square, which is surrounded by high quality public realm. One Angel Square sits to the north of CIS Tower and is an important building in the context of promoting a distinctive and contemporary office quarter in this part of the city centre.

More recently, the inner ring road has seen further regeneration through office and residential schemes such as New Vic, 4 Angel Square, Angel Gardens and Swan Street House. New Century Hall reopened in 2022, following a refurbishment, bringing a food hall and music venue into the centre of the NOMA estate.

At a city level, to the north of the site are the New Cross, New Town and Red Bank neighbourhood development framework (NDF) areas which form part of the Northern Gateway strategic regeneration framework (SRF). This SRF looks to provide 15,000 new homes through significant regeneration works in the area. To the south and west of the site are the Northern Quarter, Retail Core and Medieval Quarter city centre regeneration areas. Broadly, there is also a conservation area that is associated with each of these areas, with the Shudehill Conservation Area creating a boundary to the south of the site.



SITE LOCATION

The site is bound by the inner ring road (Miller Street) to the north, Dantzic Street to the west, Hanover Street to the south and the Riga Street surface car park to the east.

On the site is the CIS Tower, a Grade II listed office building, completed by The Co-operative in 1962 as a headquarters for the Co-operative Insurance Society (CIS). It comprises of a 5 storey podium block, with a 25 storey office tower with a 30 storey service tower, 3 levels of basement with 2 additional mezzanines; fronted by a large plaza onto Miller Street.

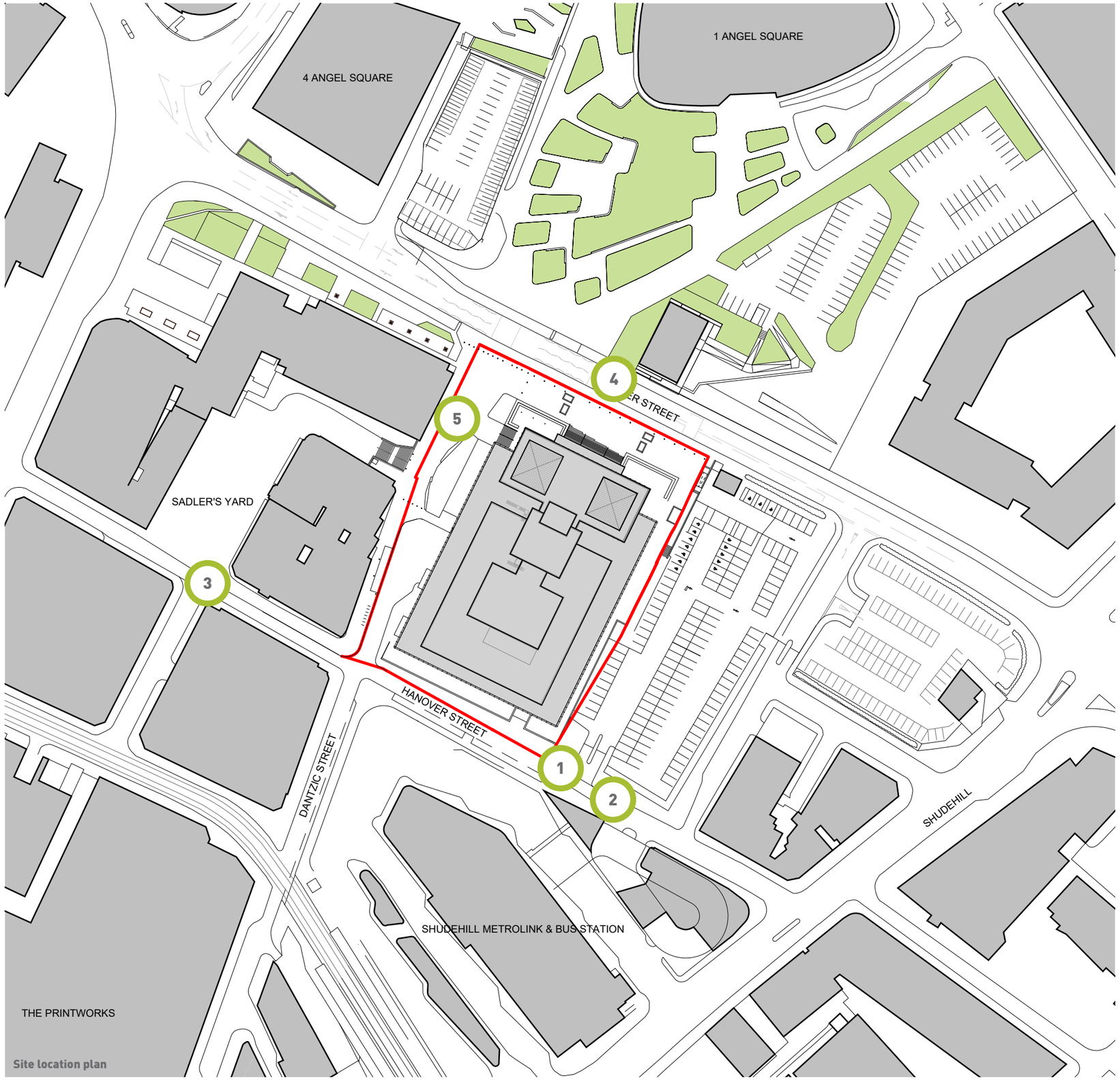
To the east is a neighbouring surface car park, which is earmarked as a future plot for 2no office buildings, within the NOMA SRF. To the south is the Shudehill Transport Interchange, which has a bus station, multi-storey car park and tram station. To the north is 1 Angel Square and associated public realm. New Century Hall, Redfern, Holyoake House and Dantzic buildings sit on the western side of Dantzic Street, all of which have a history with The Co-Operative and are also Grade II listed.

Sadler's Yard sits beyond these buildings as a public realm courtyard, surrounded by the remaining buildings of the listed estate.

The existing main entrance faces onto a plaza on Miller Street. The existing levels on Miller Street fall by circa 2m across the building width, resulting in a plinth arrangement with high walls edged in planters. Steps provide access, meaning that there are is no direct level access from street level. Hanover Street has a similar level change, however this is dealt by 'sinking' the building into the landscape and providing a bridge access point onto the ground floor mezzanine; with Level 01 effectively aligned with the external ground levels in this area. No access is provided on the east of the building and access is only provided for access, loading and deliveries on the southern end of Dantzic Street.

Photography of the site is provided overleaf, correlating with the annotated locations on the adjacent plan. These photographs demonstrate the differing nature of the four sides of the building; with Miller Street being an arterial one way traffic route and Hanover Street being a one way back street. To the flanks, Dantzic Street provides a pedestrianised space, whereas the east provides a surface car park.

The application site is circa 0.73 hectares in size.



Site location plan

SITE PHOTOGRAPHY



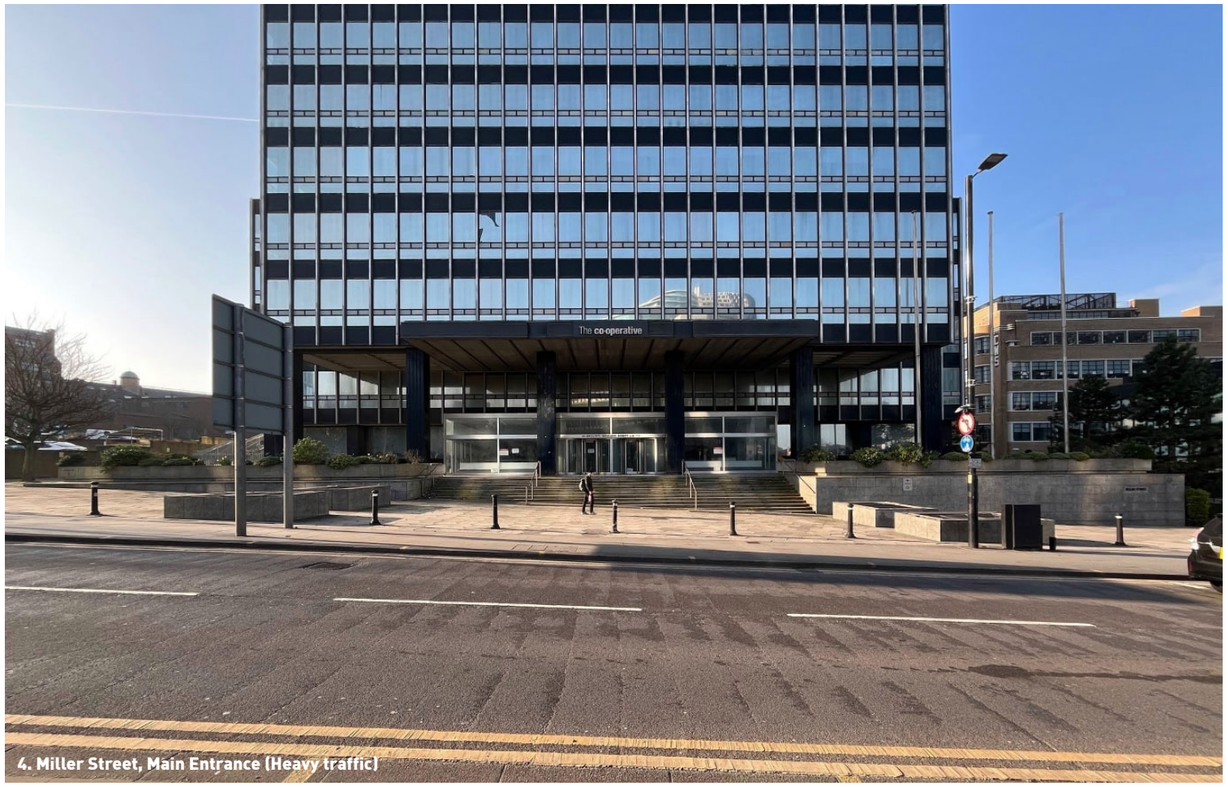
1. Hanover Street (Light traffic)



2. Riga Street (Car park)



3. Sadler's Yard public realm



4. Miller Street, Main Entrance (Heavy traffic)



5. Dantzic Street (Pedestrianised)

REGENERATION CONTEXT

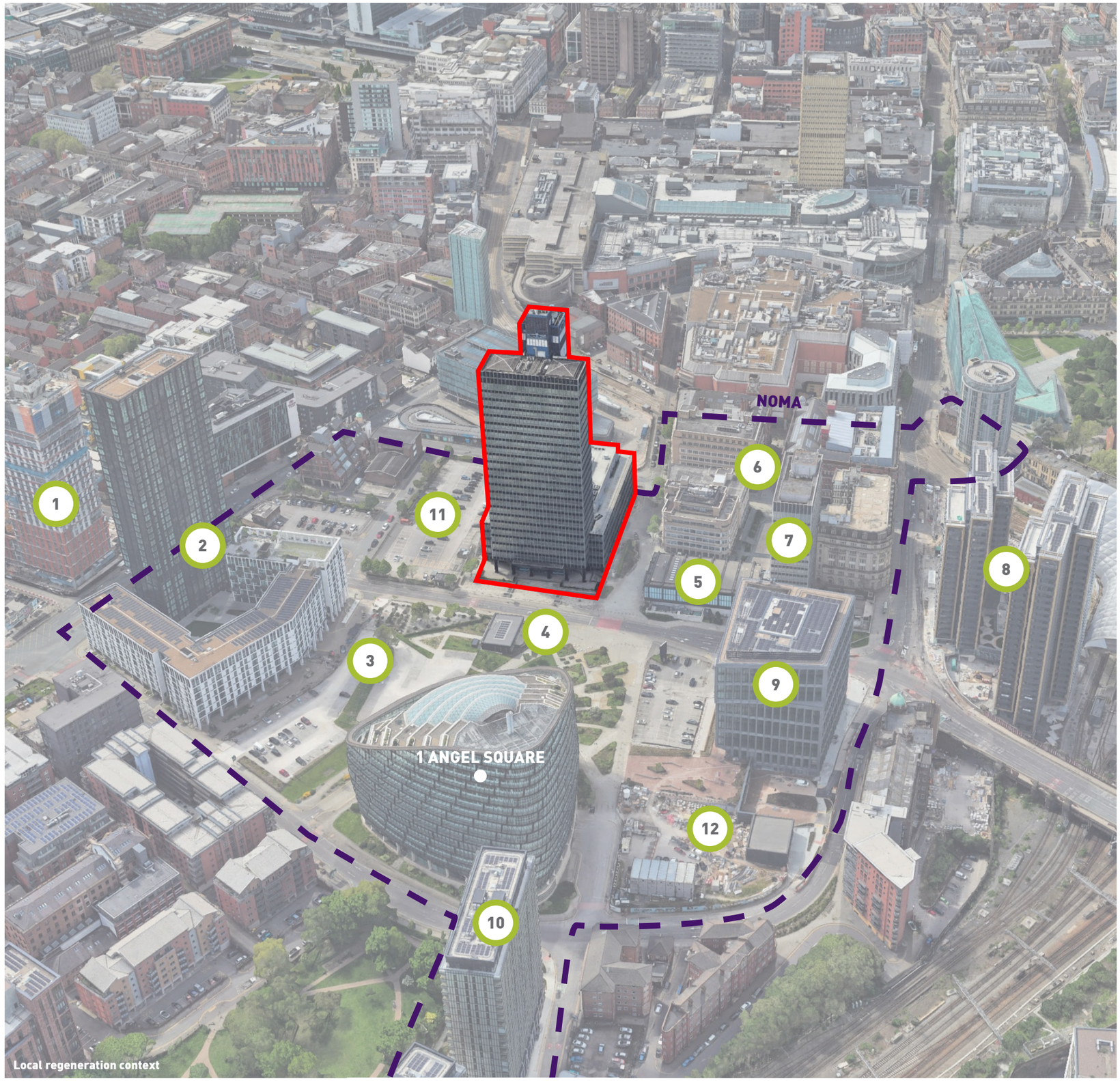
The NOMA estate consists of a range of plots which includes the listed estate alongside new build plots providing office and residential uses, and the CIS Tower plays a key role in the formation of an office 'hub'. 1 Angel Square sits as a focal point, as a result of its form and the generous public realm between the building and the inner ring road

The character and scale of Miller Street and the NOMA estate is reflective of its varied age and typology, with large scale contemporary buildings sat adjacent to low level heritage assets. The 1960's CIS Tower demonstrates an architectural shift within this range of buildings from the 1900's to the 2020's, with a scale akin to its contemporary neighbours an observable shift from 'bricks and mortar' towards high technology materials and processes.

Since the 2020 planning application, Miller Street and the area surrounding the CIS Tower has undergone significant redevelopment, with a number of schemes that had been permitted under the guidelines of the 2015 NOMA Strategic Regeneration Framework having now been delivered. The delivery of these schemes has attracted multinational tenants and Michelin starred restaurants alongside a new community of residents.

Key developments of the area are listed below and numerically highlighted on the adjacent image:

- 1. Swan Street House, 373 apartments (completed 2024)
- 2. Angel Gardens, 466 apartments (completed 2019)
- 3. Planning permission for 2 and 3 Angel Square; NOMA Plots M and N, (440,000sq ft Grade A Office)
- 4. NOMA Pavillion (completed 2022)
- 5. New Century Hall (completed 2022)
- 6. Sadler's Yard, Dantzic, Federation, Hanover, Redfern and Old Bank redevelopment
- 7. Hotel proposals for New Century House, 196 keys (released 2024)
- 8. New Vic, 520 apartments (completed 2024)
- 9. 4 Angel Square, 22,000sqm Grade A Office (completed 2023)
- 10. MeadowSide, 422 apartments (completed 2021)
- 11. Plot H (tbd); 8-10 storeys noted in NOMA SRF
- 12. Plot Q (tbd)



Local regeneration context

LOCAL LAND USE

The local land use is highly reflective of the NDF, SRF and city centre regeneration areas that surround the site.

As a result, there is a distinct office neighbourhood which is supported by residential communities; both of which are mutually supported by retail and leisure functions. The city centre transport hubs support the areas residents and commuters.

The city grain is generally that of large and tall buildings, reflective of the city centre location. The intertwined historic fabric can be noted in the form of a smaller, lower and tighter grain.

The site is also well located with regard to green spaces and public realm, given the city centre location.



Local land use

LISTED BUILDING CONTEXT

The CIS Tower does not fall within a Conservation Area, although three Conservation Areas are in close proximity or immediately adjacent to the site. These are the Cathedral Conservation area; the Shudehill Conservation Area; and the Smithfield Conservation Area.

The CIS Tower itself is Grade II listed (listing number 1270494) and there are many other statutory listed buildings in close proximity of the site, as shown in the adjacent diagram.

The building was first listed in 1995 with references to its architectural, interior design, artistic and design interest; alongside reference to Gordon T. Tait of Sir John Burnet, Tait & Partners and George S. Hay of the Co-Operative Wholesale Society (CWS) architectural department as the architects. The group value is also highlighted, with the listing entry noting:

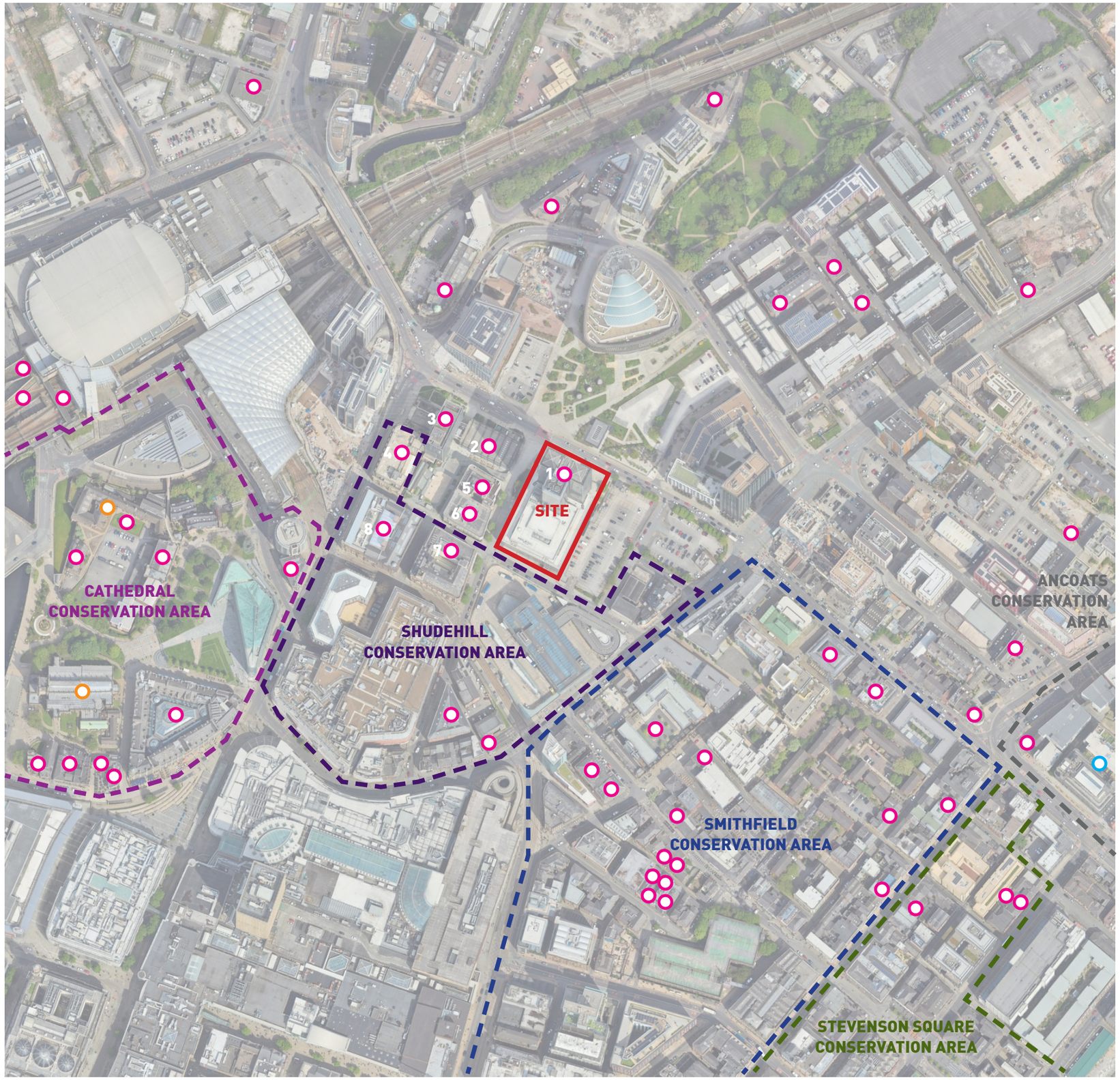
> *"(T)he CIS Building forms an important group with the neighbouring Grade II listed New Century House and its attached conference hall on Corporation Street; the buildings being designed by the same architects and built as a single scheme for the Co-operative group. Together the buildings share a strong visual, contextual and stylistic relationship with one another and form impressive skyline features within Manchester city centre"*

Key neighbouring listed buildings are listed below and numerically highlighted on the corresponding adjacent image. These buildings collectively form the listed estate that is associated with The Co-Operative. The buildings are varied in character and represent the design style and technologies of their time;

- 1. CIS Tower, Grade II, 1962
- 2. New Century Hall, Grade II, 1963
- 3. New Century House, Grade II, 1963
- 4. Old Bank, Grade II, 1928
- 5. Redfern, Grade II, 1937
- 6. Holyoake House, Grade II, 1911
- 7. Dantzic, Grade II, 1942
- 8. Hanover, Grade II, 1909

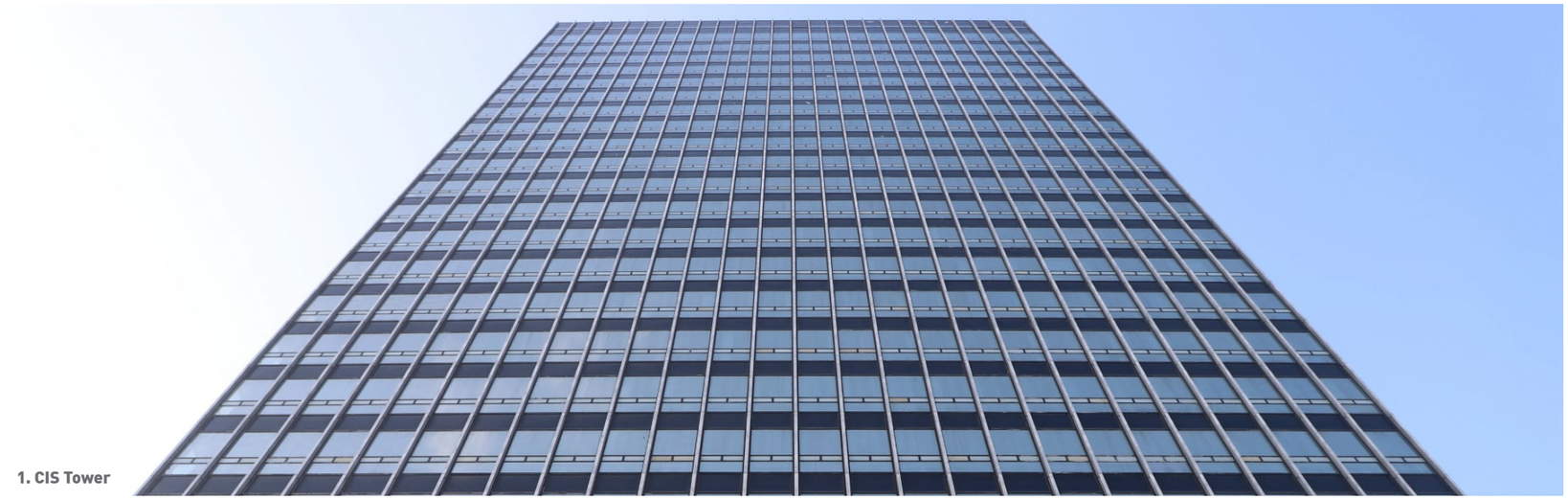
Overleaf, the above buildings are shown in photographs.

Further information on the listing and existing building is provided within following sections in this document and heritage based reports included with the planning submission.



Grade II listed
Grade II* listed
Grade I listed

LISTED BUILDING CONTEXT



1. CIS Tower



2. New Century Hall



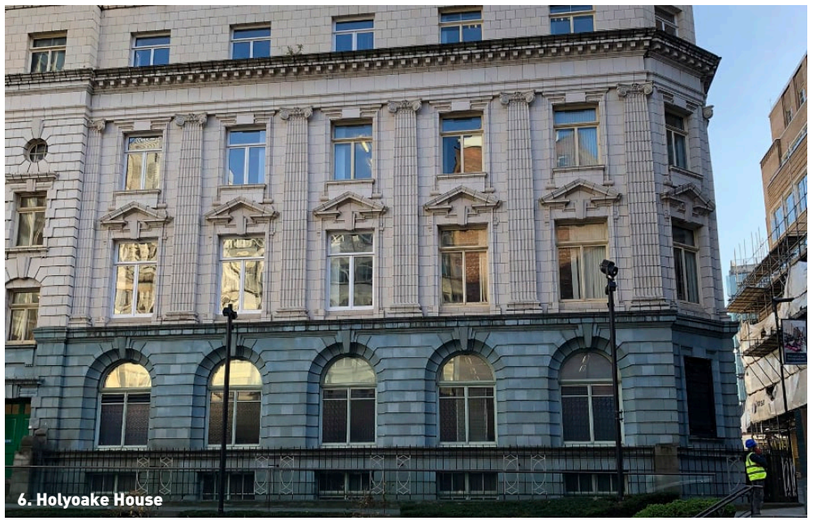
3. New Century House



4. Old Bank



5. Redfern



6. Holyoake House



7. Dantzic



8. Hanover

HERITAGE SIGNIFICANCE

HERITAGE SIGNIFICANCE SUMMARY

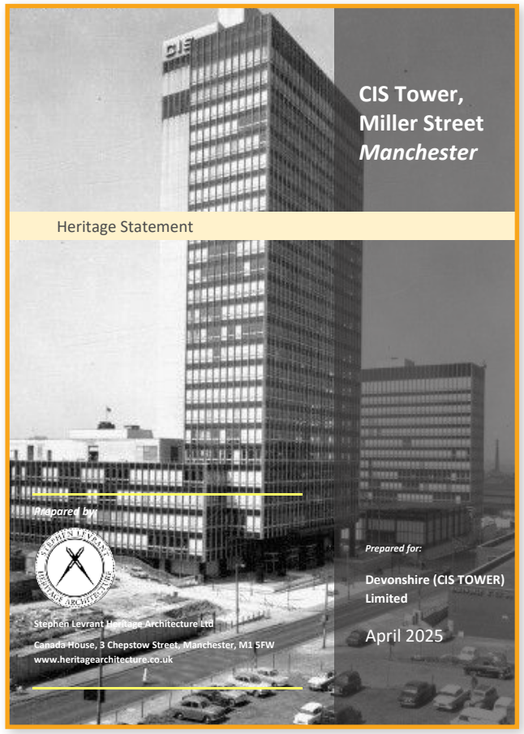
The 2020 planning documents included a 'Heritage Statement' produced by Stephen Levrant Heritage Architecture Ltd, which provided a significance appraisal. This statement is part of a suite of documents that included morphological plans within them. The continued heritage led approach and unchanged heritage significance means that the documents remain relevant guidance for the scheme and revisions are submitted with these proposals.

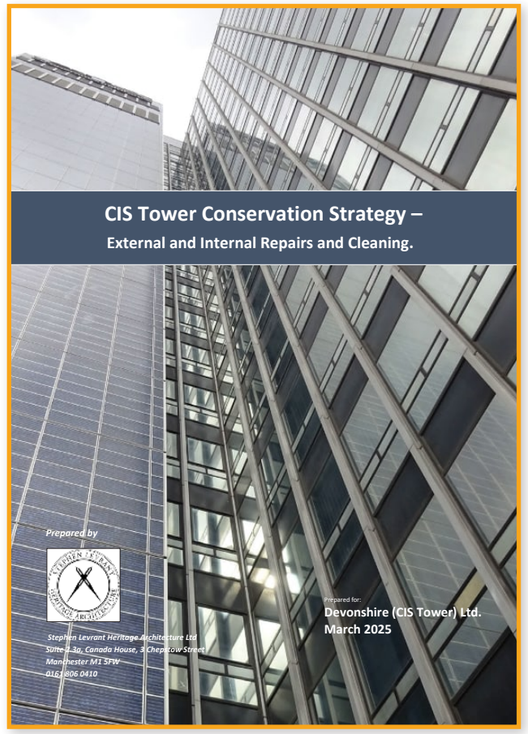
The interiors have been extensively altered since it was completed and the heritage significance remains primarily focused on the architectural value; as is noted by the Heritage Statement:

> *'The extent of fabric change to the interiors since 1962 means that the significance of the CIS Tower remains primarily focused on its architectural interest as a "strikingly elegant and sophisticated design" characterised by its "imposing scale and massing" and its design interest which used, "state of the art construction techniques" and "carefully selected external materials"'*

REASONS FOR DESIGNATION (AS HISTORIC ENGLAND LISTING)

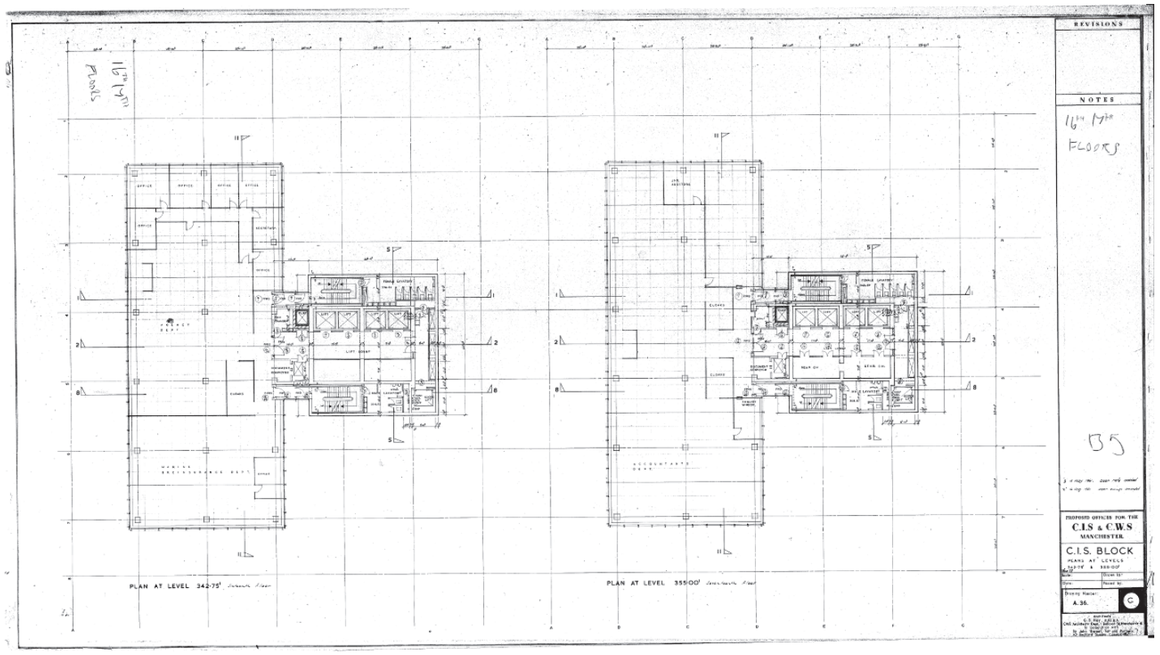
- Architectural interest: it has a strikingly elegant and sophisticated design inspired by Skidmore, Owings & Merrill's Inland Steel Building in Chicago (1956-8), which together with its imposing scale and massing, is highly successful in conveying, as originally intended, the status and prestige of the CIS and the wider Co-operative movement, and the strength of the financial community within Manchester;
- Design interest: the CIS Building employs state of the art construction techniques and features for its date; for instance, it was one of the first large commercial buildings in England to be air-conditioned. Other key design features include its use of carefully selected external materials, such as glass curtain walling with black vitreous enamelled-steel panels and anodised aluminium mullions, which were specifically chosen to withstand air pollution;
- Architect: it was designed by Gordon T. Tait of Sir John Burnet, Tait & Partners, along with George S. Hay of the CWS; both of whom are notable architects with listed buildings to their name;
- Interior interest: the interior was designed by Professor Misha Black and Alexander Gibson of the Design Research Unit (DRU), one of the most significant post-war design practices in Europe, and despite some later alteration many original features survive, particularly on the two executive level floors, which display the use of high quality materials, such as teak and cherry veneer panelling and doors with blue-green coloured, roughcast-glass vertical side lights;
- Artistic interest: the interior is enhanced by artwork designed and carried out by notable mid-C20 artists, including a massive, brightly-coloured plastic laminate mural in the former recreation room by Barry Daniels of DANAD Design Associates, and a striking 30ftx12ft abstract sculptured fibreglass mural by the renowned artist and sculptor, William G. Mitchell that dominates the entrance hall;
- Group value as noted on prior page.

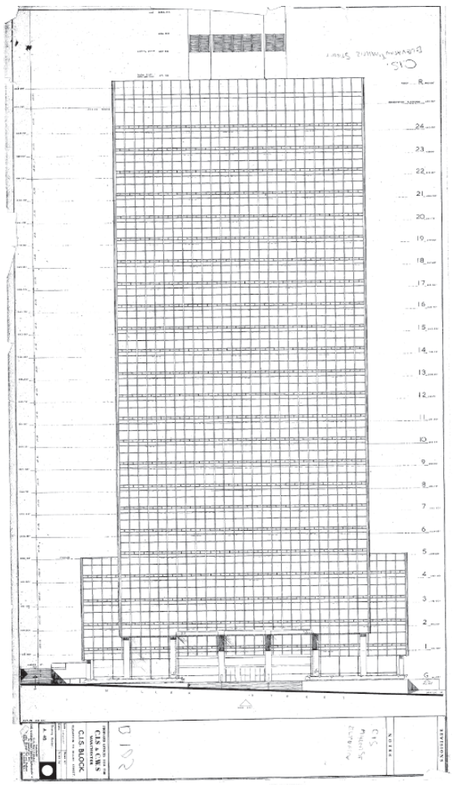






Heritage assessment documents





Original building plans and Miller Street Elevation

ORIGINAL BUILDING DESIGN OVERVIEW

OVERVIEW

The CIS Tower is one of the most recognisable and well-known buildings on the Manchester skyline. Designed by G. S Hay, A.R.I.B.A of the CWS Architect's Department in association with Burnet, Tait and Partners in 1959, construction commenced in 1959 and was completed in 1962 at a cost of £4m. The design of the building was meant to reflect the CIS values and commitment to excellence in accommodation for their staff and clients. The building was exclusively occupied by The Co-Operative from completion until 2020.

Efforts were not spared to materialise the CIS's aim for high quality design and use of technology of the time. The team of architects visited the United States and Canada to inspect buildings similar to the skyscraper envisioned. The building is particularly inspired by the Inland Steel Building in Chicago, which was amongst the buildings inspected by the design team on the research trip. Architectural and engineering periodicals at the time marvelled at the incorporation of the most up-to-date office equipment.

When the building was being planned the CIS General Manager set out three general aims;

- To add to the prestige of the Society and the Co-operative Movement;
- To improve the appearance of the City of Manchester, and;
- To provide first-class accommodation for staff

As a result, the building exhibits the use of state of the art technology for the time and forward thinking amenity provision; within considered interiors that include large format artworks.

The CIS Building comprises of a 5 storey podium block, with a 25 storey office tower adjoined by a 30 storey service tower; which creates a clear 'served' and 'serving' diagram. There are 3 levels of basement accommodation with 2 additional mezzanines. The tower itself is a steel and concrete frame, curtain-walled in glass with black finished aluminium framing and enamelled steel spandrel panels, and silver finished hiduminium feature 'T' rails. This palette for the exterior was chosen over concrete or stone, which became dirty quickly in Manchester's atmosphere. The service tower, constructed of reinforced concrete, was originally clad in grey 20mm x 20mm vitrified mosaic tesserae. These were installed by five men, who in twelve months applied 14 million inch square mosaic pieces to the tower. In total, there were 25 million tiles across the fabric of the building. The service tower was later clad in 2005 with photovoltaic panels and at the time was the largest photovoltaic scheme in Europe and is described in later sections of this report.

The podium structure and accommodation sits on top of a war bunker, which partly explains the entrance and tower addressing Miller Street and effectively turning its back on the city to the south. This arrangement is also befitting of the importance of Miller Street as an arterial route and the rise of the car.

At the time of construction, it was Britain's tallest office block; providing accommodation for 2,500 staff. It was also the tallest building in Northern Europe at the time of opening at 120 metres tall.



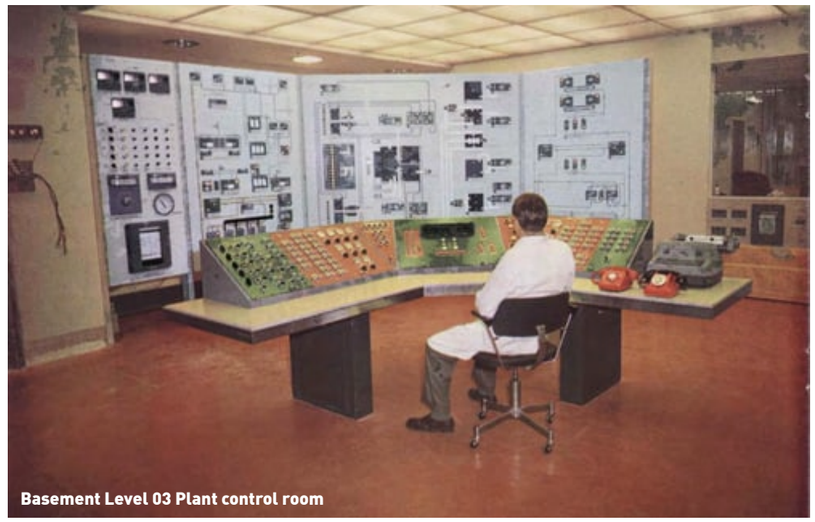
Office floor plate



Elevated view from Miller Street



View from Nicholas Croft



Basement Level 03 Plant control room

ORIGINAL BUILDING DESIGN OVERVIEW

STRUCTURE

The existing super structure of the CIS Tower is split into two distinct systems, with the tower structure differing to that of the lower podium structure. The tower structure is formed from a steel frame with a hybrid pre-cast and in-situ concrete floor. The steel beams are either encased in either plasterboarding or concrete. The perimeter beams that support the cladding are encased in concrete, with the main floor support beams utilising hollow plaster encasement. The steel columns are all encased in concrete and are in-set from the perimeter leaving a small section of the floorplate cantilevering to support the façade.

The podium structure is formed from a traditional reinforced concrete frame. The floor appears to be a two-way spanning concrete slab supported from band beams that span in between the columns. The columns appear to be slightly inset around the perimeter following a similar principle to the tower.

INTERIORS

The interiors were praised at the time as being some of the best in the country. The Entrance Hall features a mural by William Mitchell in fibreglass and within the former ballroom on Level 05 is a brightly coloured laminate mural by Barry Daniels of DANAD Design Associates; both of whom are noted by Historic England as "notable mid-C20 artists".

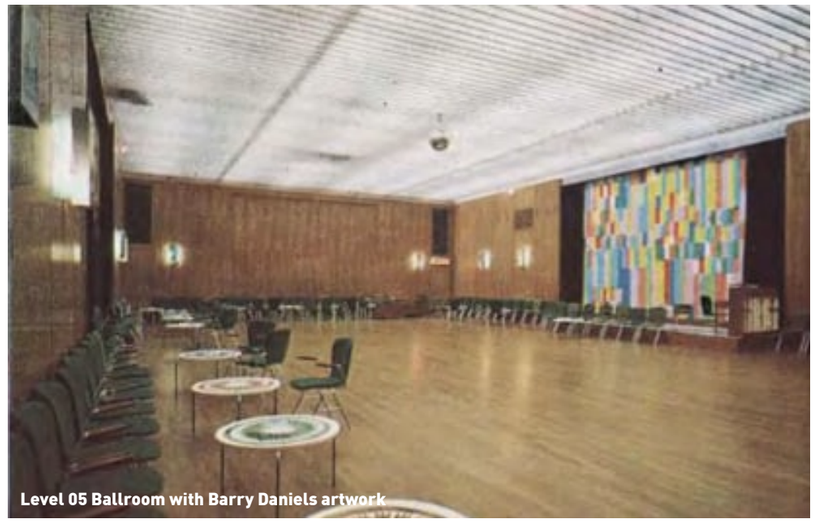
Professor Misha Black and the Design Research Unit, deemed one of Europe's "most significant post-war design practices", designed the interiors including the Executive Suite in teak veneer on Level 23, and the Executive Dining Rooms in cherry veneer on Level 24. The design style chosen for the typical offices was an early example of Bürolandshaft in the United Kingdom.

Level 25 was originally a Viewing Gallery and was an open-plan space used for observing the city and relaxing. The perimeter incorporates a horizontal ribbon window and the space is top lit by two large skylights.


Level 23 Executive Boardroom


Level 24 Executive Dining Room


Level 25 Viewing Gallery


Level 05 Ballroom with Barry Daniels artwork


Basement Level 01 Canteen



Entrance Hall and William Mitchell artwork

EXISTING BUILDING OVERVIEW

The interior of the building has been heavily altered over the course of its use as a functioning office building for 60 years. Many internal alterations have occurred before and after the listing of the building.

Loss of fabric includes original partitions and furniture designed for the building by the Design Research Unit.

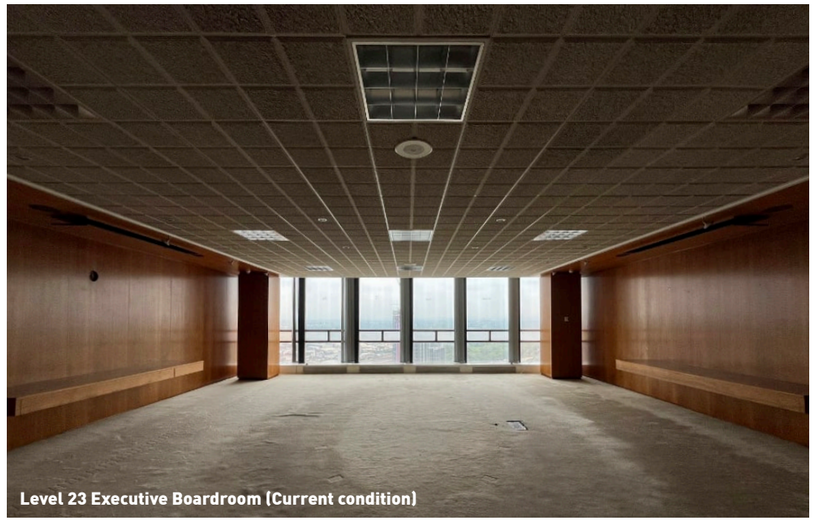
The building has also seen many unsympathetic additions and amendments to the building, including within historically sensitive areas such as the ground floor Entrance Hall, the Level 05 Ballroom, Executive Dining Floor on Level 24 and the Level 25 Viewing Gallery. As can be seen in the adjacent imagery, over time, many spaces have also been repurposed from their original intended use, with the Level 05 Ballroom and Level 25 Viewing Gallery being used as office spaces most recently.

Generally, throughout the building the ceiling and flooring finishes can be observed as having been replaced over time.

In addition to the above points, there are original building components that by virtue of their age have seen significant wear and tear such as the lift lobby doors.

As is typical with a building of this period, asbestos is known to be present within the building and this has been confirmed by an appropriately accredited surveyor. Other deleterious materials such as lead paint are also anticipated.

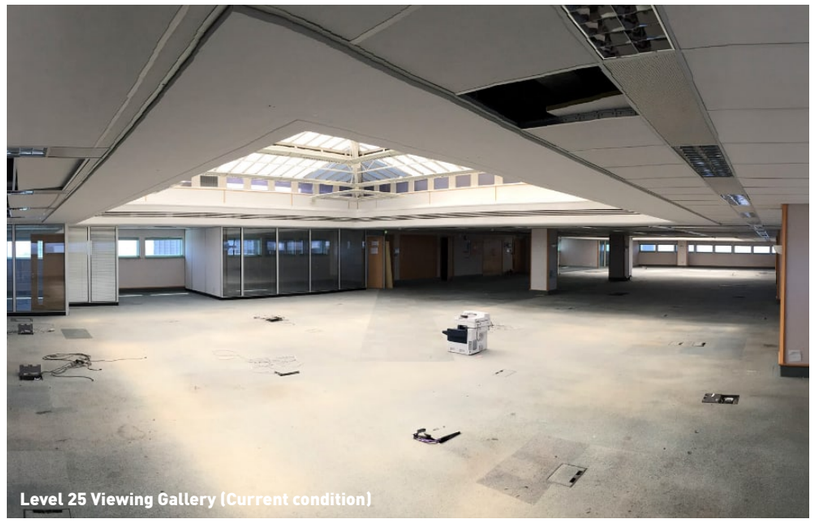
These spaces are further reflected upon in the following chapter of this document, whereby the existing condition and subsequent proposals are described per floor.



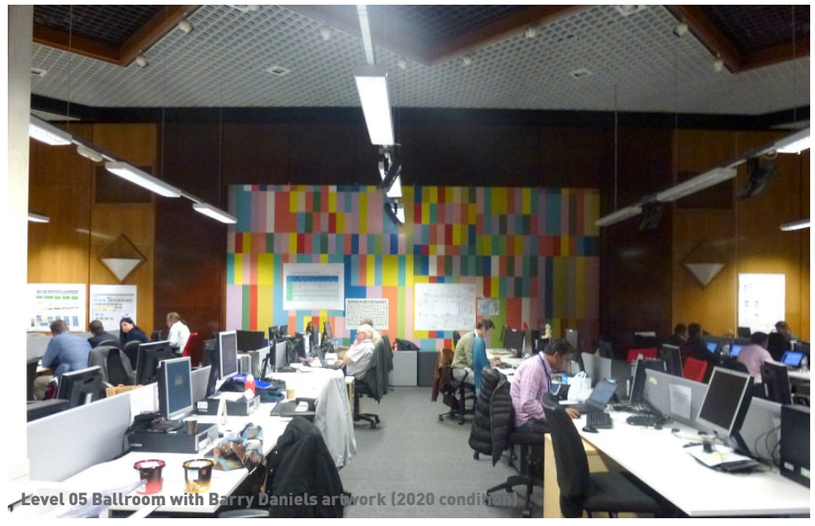
Level 23 Executive Boardroom (Current condition)



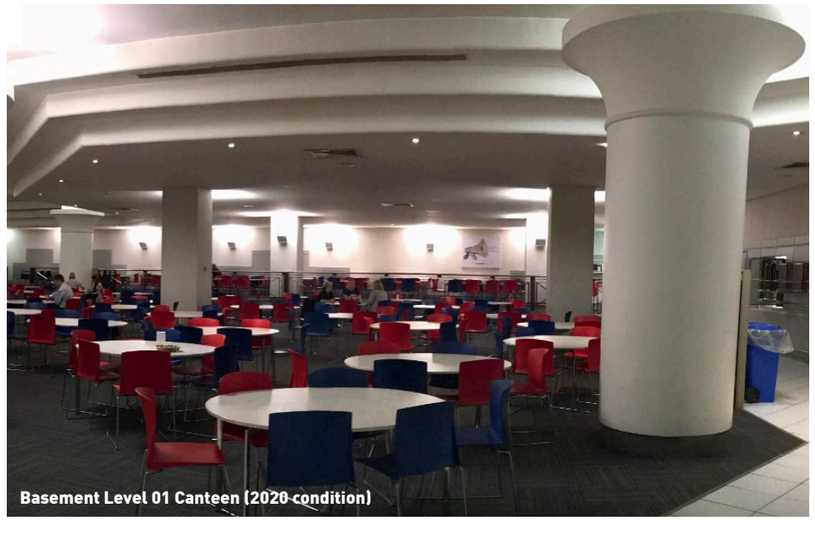
Level 24 Executive Dining Room (Current condition)



Level 25 Viewing Gallery (Current condition)



Level 05 Ballroom with Barry Daniels artwork (2020 condition)



Basement Level 01 Canteen (2020 condition)



Entrance Hall and William Mitchell artwork (2020 condition)

EXISTING BUILDING OVERVIEW

The exterior of the building is now demonstrating its age and elements have exceeded their intended design life. Materials and finishes are beginning to degrade as a result, with paint finishes peeling and flaking. The perspex panels within the privacy band showing colour changes as a result of UV exposure.

As with the interior of the building, marked changes to the exterior can be observed from amendments that have occurred over time.

For example, a large photovoltaic (PV) panel installation was placed on top of the service tower mosaic tiles in 2005; following a 2002 inspection that resulted from continued debonding of the tiles. The debonding of the tiles was a health and safety issue, with tiles falling and blowing across the area.

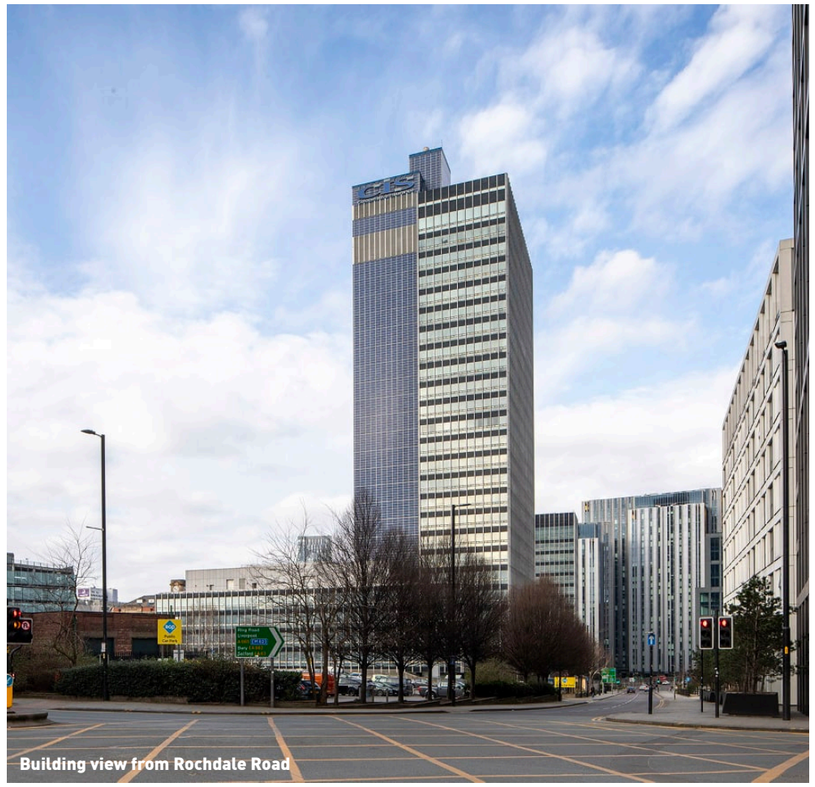
At the time, the installation was the largest in Europe and the substructure was designed in a way to retain the mosaic tiles in place, with the tiles held in place by a stainless steel mesh.

In addition to the general deterioration of the facade and the PV installation, a reflective solar film has been installed to the internal face of the office glazing. This film heavily detracts from the original transparency of the curtain wall and is also now showing signs of failure and debonding.

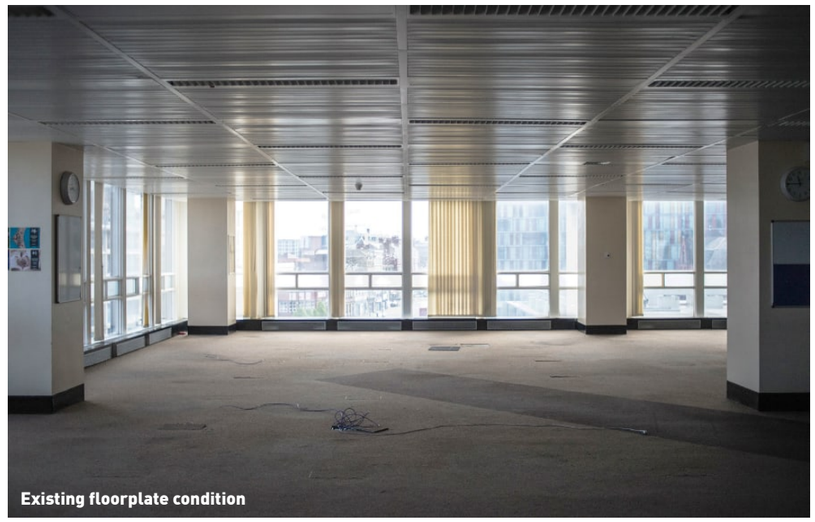
As a whole, the facade performance and health and safety performance is significantly beyond that of current expected building regulations and standards; with the use of non-thermally broken facade profiles and single glazing that provides no safe breakage or protection from falling features.

With regard to the office floor plates, the typical floors contain non-original fit out in terms of blinds, ceilings and flooring. The perimeter 'Weathermaster' system that previously provided space heating is beyond its design life and the enclosure is known to contain asbestos. Levels 02-03 and 14-15 have been stripped of all of these elements and the building structure exposed, as a result of the 2020 enabling works that were undertaken.

The facade and office spaces are further reflected upon in the following chapter of this document, whereby the existing condition and subsequent proposals are described.



Building view from Rochdale Road


Existing floorplate condition


Typical facade condition



Existing entrance condition


Stripped out floorplate

BUILDING USE

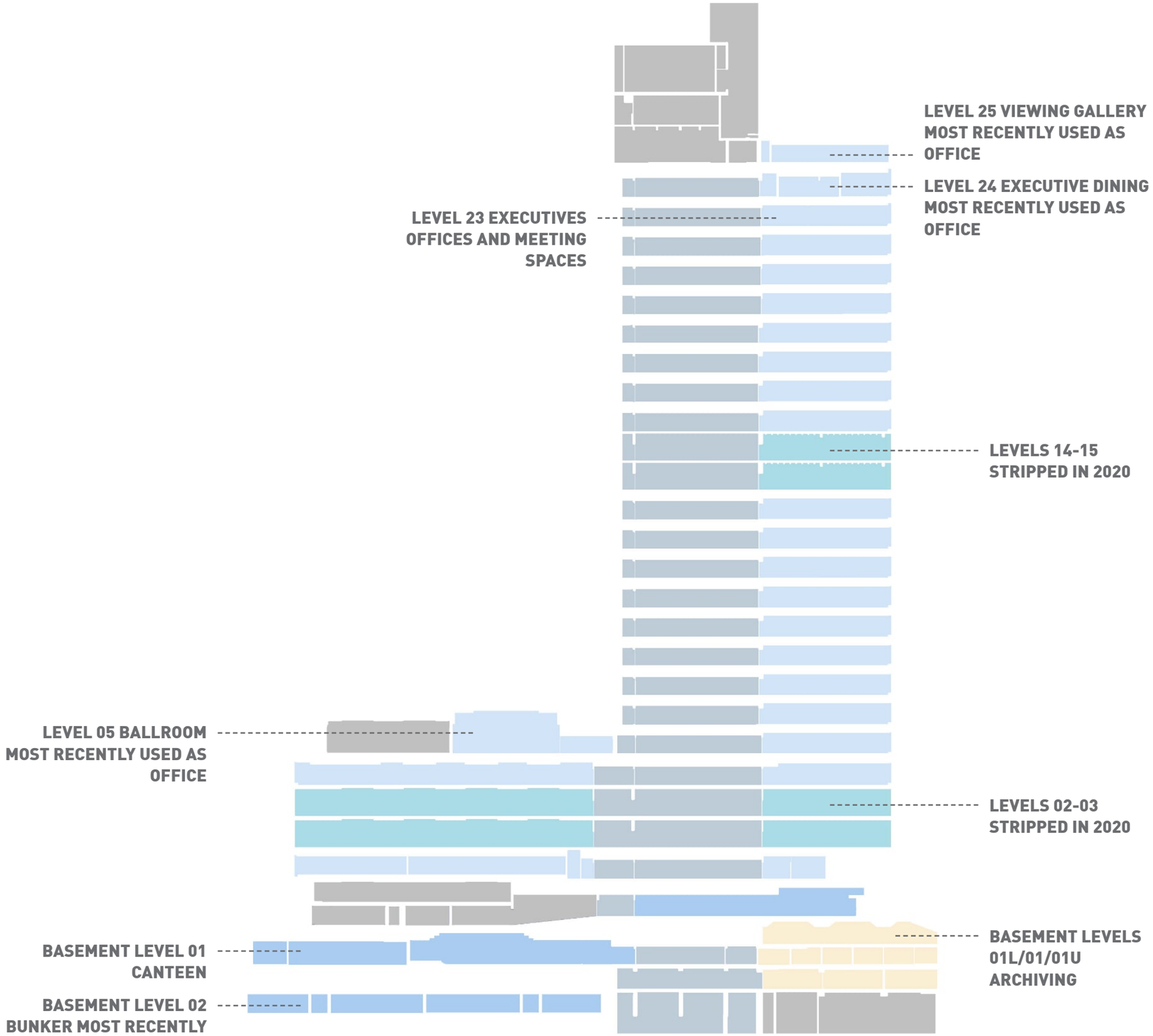
The building was previously occupied by a single tenant and the building was designed to a specific brief for that tenant/owner. The building has been adapted over its lifespan, however many original design features and spaces still exist within the building that reflect its original intended use, including:

- large area of back of house spaces (including a post room);
- archiving spaces
- a large canteen located at Basement Level 01;
- a Ballroom and Bar at Level 05;
- Executives Offices and Meeting Rooms at Level 23, including the Boardroom;
- Executives Dining Rooms and Kitchen at Level 24;
- a Viewing Gallery at level 25

However, many of these spaces have been repurposed beyond their original intended use, for example:

- the Ballroom and Bar at Level 05 being most recently used as office space;
- the Executives Dining Rooms at Level 24 being most recently used as office space;
- the Viewing Gallery at level 25 being most recently used as office space;
- the Basement Level 02 bunker being most recently used as a staff gym

In addition to this, in 2020, Levels 02-03 and 14-15 were stripped as part of an enabling works package to provide additional surveys and to enable exploration works. These four floors therefore exist as a shell currently.



Existing building use section with key spaces and changes noted

1960S STREETSCAPE

The original ground floor and landscape design is very 'urban' in character and in keeping with the modernist style of the wider scheme.

Materially the streetscape is very hard and this can appear austere in comparison to contemporary public realm design approaches.

As a sign of the times, the external environment can also be read as being vehicle focussed, with pedestrian access limited to perimeter pavements.

The 1960's historic mapping demonstrates Miller Street and Dantzic Street as being the dominant roads, providing rationale for the main and service entrance locations; with Hanover Street providing access to the executives car park. The mapping also highlights the original island site nature of the building, with the previous existence of Amber St.

The nature of Dantzic Street in particular has developed significantly over time, as demonstrated overleaf.



View of Dantzic Street (south)



Hanover St corner looking north



1960 Ordnance Survey Map



View of Dantzic Street (north)



Original plinth detail

EXISTING STREETSCAPE

The existing streetscape and ground floor treatment are reflective of incremental changes to a design that initially responded to a car focussed environment and the design style of the time. The design is based around plinth arrangement. Whilst having a strong design rationale initially, the inherent level change and hard edges create a disconnection with surrounding users. Elements of urban greening and street furniture were subsequently introduced to soften the Dantzic Street edges in 2015.

Reflective of the original single tenant and internal layout, original site context and changes over time; a large amount of inactive facade can be observed on Dantzic Street. Active facades are only found towards the entrance area, addressing Miller Street.

The Miller Street and Dantzic Street plinth edge and topographical level changes, glazing treatments, basement ventilation and access shafts, and planters all contribute to the lack of connectivity between the ground floor uses and pedestrians.

The Hanover Street and eastern facades are largely inactive as a result of level changes and the nature of the spaces behind them.

Pedestrian movement use is currently restricted to linear movement, with specific locations of access onto the plinth via stairs. Movement is intended to be around the building and plinth.

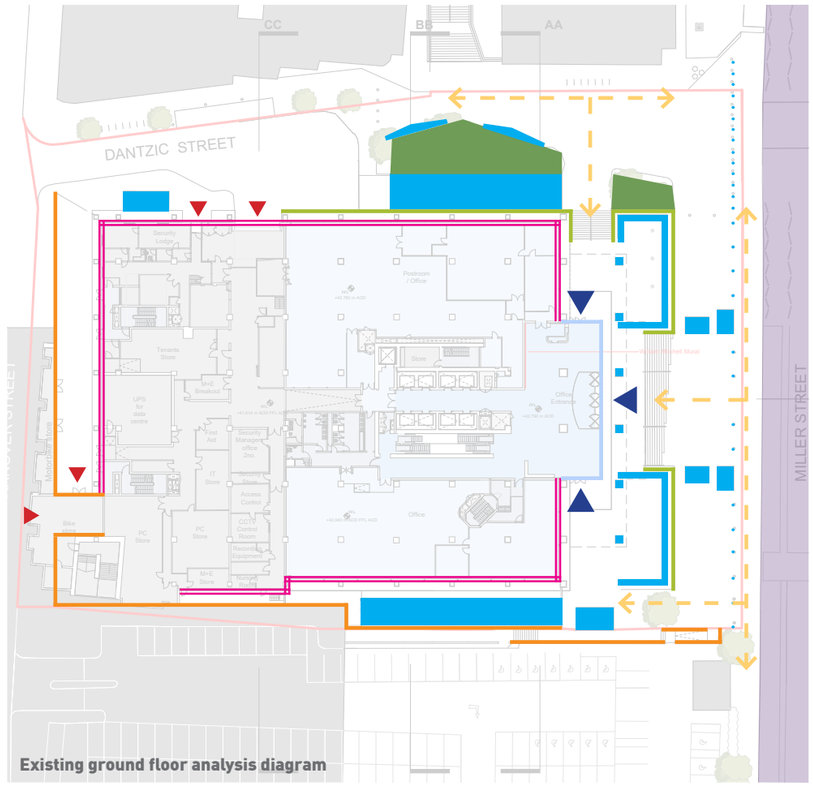
The Dantzic Street and Hanover Street corner, along with the eastern access point on Miller Street provide level access and the least amount of obstruction. These points provide an opportunity to introduce activity and connectivity in these locations, with a design solution required to the hard corner of Dantzic Street and Miller Street.



Existing plinth corner condition



Dantzic Street plinth access point



Existing ground floor analysis diagram

- Main Entrance
- Deliveries/secondary entrance (inc. mezz)
- Planting
- Obstruction of street furniture
- Main road
- Active facade
- Fencing and level change
- Inactive facade
- Plinth edge and topographical level change
- Movement



Existing Dantzic Street inactive facades

SITE ACCESSIBILITY

The CIS Tower is very well connected and served by a range of public transport modes, as summarised below.

ACCESSIBILITY BY ROAD
The building has excellent transport links and is highly accessible, albeit local building access is determined by one-way routes. It is located directly adjacent to the city's inner ring road. Miller Street and Angel Street, to the north of 1 Angel Square, are both multi-lane one way streets.

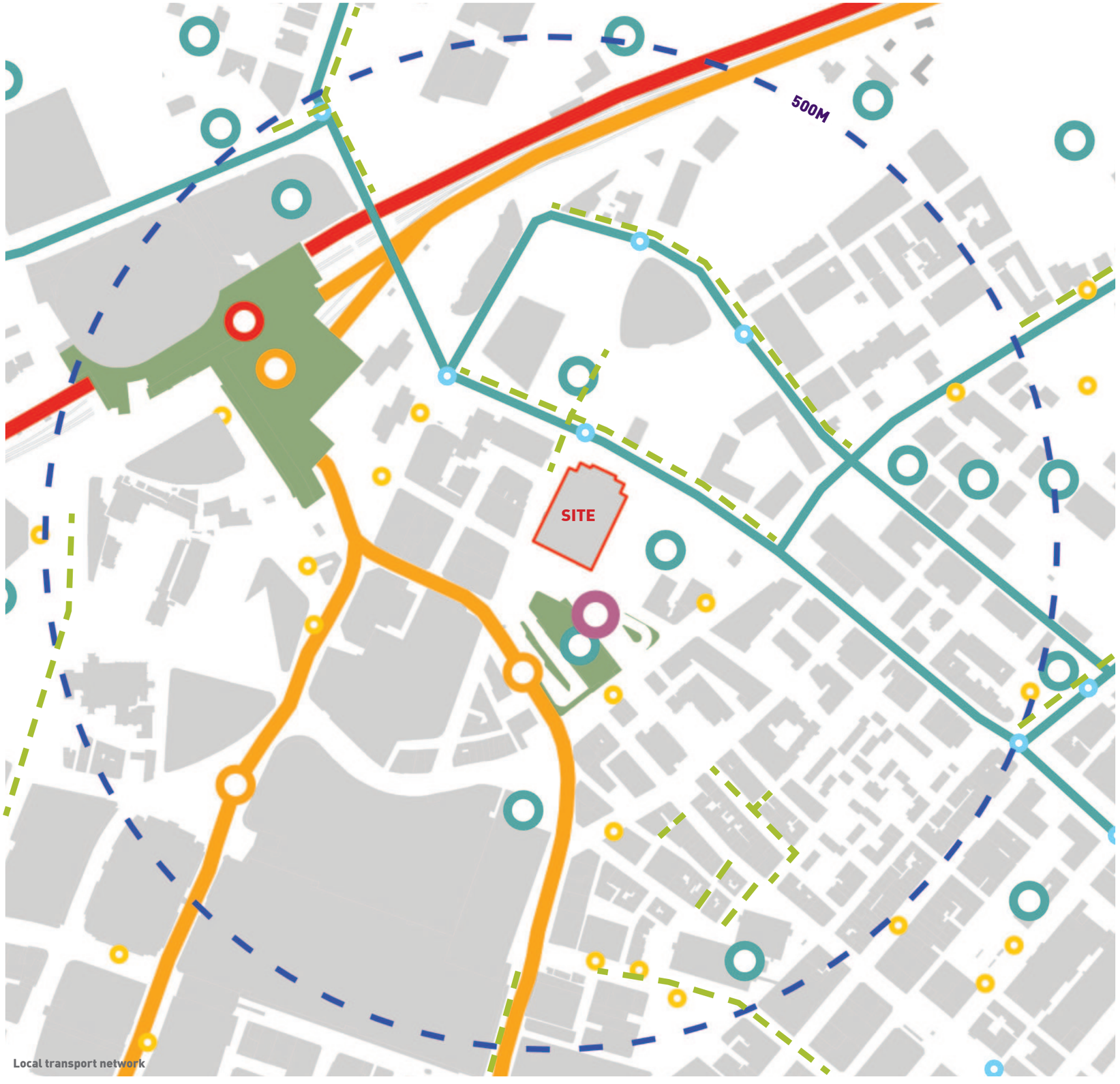
ACCESSIBILITY BY TRAIN, METROLINK AND BUS
Victoria Station is within 500m of the building, with links to the National Rail network and also the Metrolink tram network. Shudehill Transport Interchange is adjacent, located to the south and provides links to the local bus and Metrolink tram network. There are also many bus stops along Corporation Street which host services to Stockport, Oldham, and Bury.

CAR PARKING
There are a number of publicly accessible car parks within the area including the surface car park immediately adjacent to the CIS Tower.

ACCESSIBILITY BY CYCLE
The site is served locally by shared pedestrian and cycle pavements on Miller Street and Dantzic Street. To the north, on Angel Street, exists a segregated on road cycle lane. To the south, a significant area of 20mph speed limit roads provide an environment that enables safer north-south cycle travel.

As part of the Beeways scheme, a route across Ancoats will provide east-west connectivity from Rochdale Road in Autumn 2025. This is alongside improvement works to Route 86 within the Northern Quarter, the High Street proposed enhancements and segregation works on Deansgate; all of which promote cycle use across the city. National Cycle Routes 6 and 66 can also be accessed to the south and east of the city centre.

PEDESTRIAN ACCESS
Pedestrian infrastructure comprises of wide footways on both sides of Miller Street which are complete with dropped kerbs and tactile paving. Dantzic Street is partially pedestrianised adjacent to the building with just a service road for deliveries to the south section. There is a controlled crossing point of Miller Street and Dantzic Street, creating a good link to Angel Meadows.

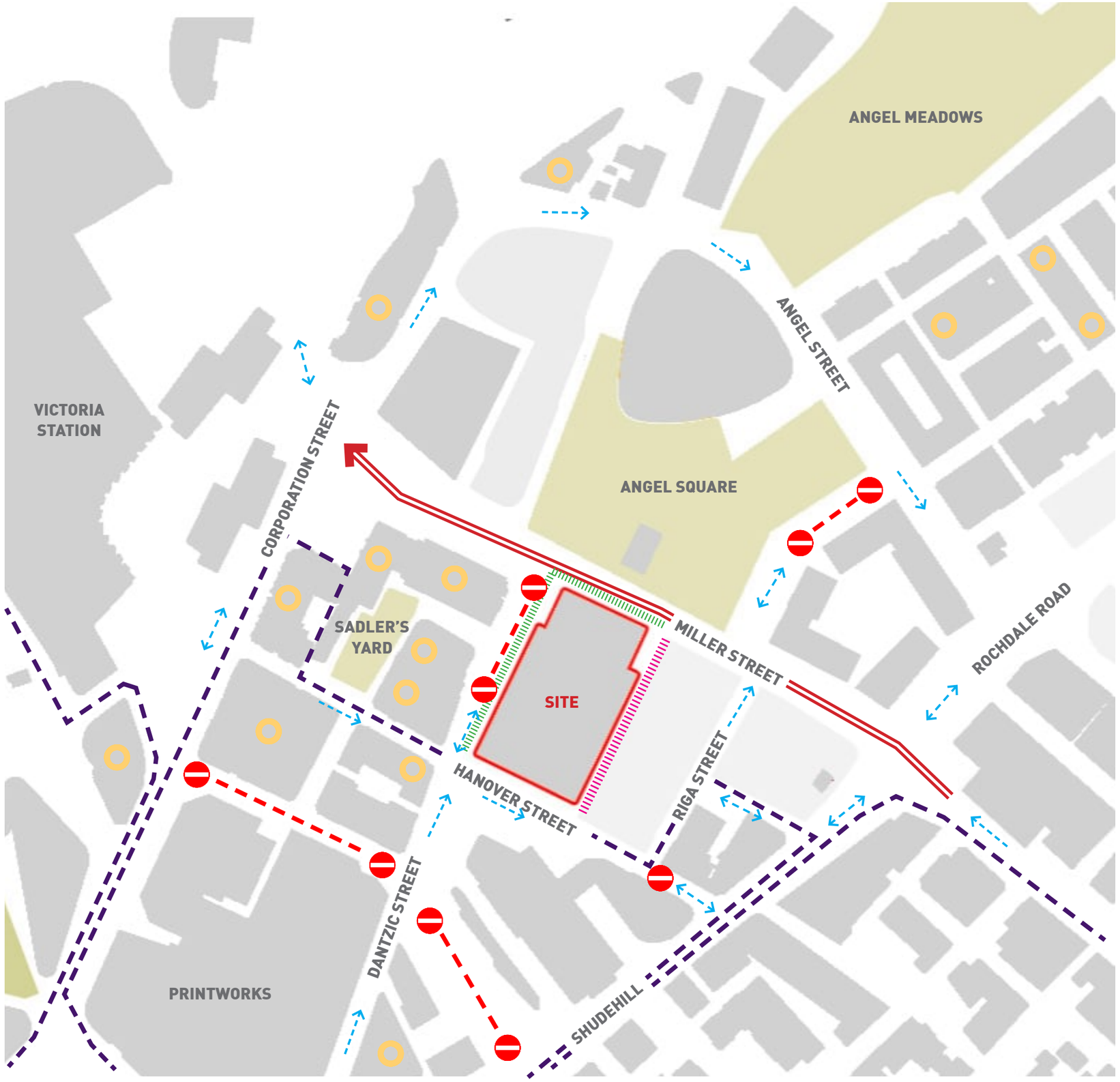


Local transport network

SITE CONSTRAINTS

The site has a number of site specific constraints, as demonstrated in the adjacent diagram. These constraints are summarised below:

- Miller Street provides a significant vehicular route in the form of the inner ring road. This is a one way route in this area. This route presents potential noise and pollution sources
- Vehicular access, with regard to deliveries, is via Hanover Street to the south of the building. This requires use of a specific one way route from Corporation Street to the west or Dantzic Street to the south. The north of Dantzic Street is pedestrianised
- A hard inactive edge is created by the existing plinth and internal arrangement, resulting in a lack of connectivity at street level
- Access is limited to the east with regard to the boundary condition with the adjacent car park. Consideration of this is required with regard to the ongoing maintenance of the building
- A number of listed heritage assets exist within the immediate area as previously noted, along with 3no Conservation Areas. Any work will need to take these relationships into account



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SITE OPPORTUNITIES

The site presents a number of unique opportunities with regard to the redevelopment of the existing building; taking advantage of 'lessons learnt' from the existing building and the development of the surrounding context. Equally, many of the constraints create an opportunity or design response. These opportunities are summarised below:

- Creation of active frontages to Miller Street and Dantzic Street, which are not present in the existing condition, due to the prior single tenant needs and streetscape
- Maximise the multiple directions of approach that now serve the building
- Use of the Dantzic Street pedestrianised public realm, to create links with this space, the building, Sadler's Yard and Angel Square; promoting pedestrian focussed regeneration
- Promotion of routes and links between the Northern Gateway and the city centre via the site, through an improved streetscape and ground floor offer
- Utilise the south of Dantzic Street to provide publicly accessible disabled parking, on the basis of the building being free of car parking
- Use of Hanover Street to provide delivery and servicing access, and to remove access to the existing loading bay in relation to the pedestrianisation of Dantzic Street
- Additional massing and accommodation to sympathetically make benefit of the south facing aspect and unobstructed low level roofscape to the south



Pedestrianised public realm
Possible parking area
Creation of links to key public realm
Maximise links to north and south
Creation of active frontages
Multi direction approach routes
Sun path

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3.0 Design Overview

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OVERVIEW AND PRIOR APPLICATION

The CIS Tower was designed during the 1950s for a single occupier and a specific brief that manifests itself in a way that was bespoke to the operation of that business. This includes a large canteen located within Basement Level 01 and other amenity spaces such as the Level 05 Ballroom. Given the building was completed 63 years ago, the accommodation reflects that era and most original building components are beyond their intended design life. During the building's life, there have also been many alterations that are often piecemeal or unsympathetic, which have degraded the original character.

The 2020 full planning and listed building consent sought to undertake a full refurbishment of the building to secure its long term future. The scheme broadly aimed to:

- adapt the building to accommodate multiple tenants
- provide an extension to the office provision via a podium extension
- refurbish the facade with replacement glazing and spandrels, alongside refurbishing of existing finishes
- refurbish key elements of heritage significance, including 2no artworks and the interiors of Levels 23 and 24
- extend the undersized Entrance Hall to provide a space with a more appropriate scale
- revitalise the streetscape and public realm alongside ground floor remodelling, including active frontages and new uses
- provide an internal environment in line with modern expectations
- provide an updated fire strategy and improved compartmentation
- remove deleterious materials

The building was seen as four buildings in one, with the podium providing large format, high density floor plates; the typical tower floor plates providing typical density accommodation; the upper tower floor plates (Levels 23-25) providing a unique heritage setting and panoramic views; and the ground and basement levels providing complementary accommodation to the office floor plates and the surrounding neighbourhood.

The 2025 submission continues to follow a heritage led approach and the same broad principles, with the following key changes:

- updated designs for the office accommodation, to suit a post-pandemic market and up-to-date environmental expectations
- a replacement facade to aid in the achievement of these expectations and to secure the long term future of the building
- inclusion of a publicly accessible bar and restaurant tenancy on Levels 24 and 25
- inclusion of a communal external terrace, a business lounge and a co-working space on Level 07

This chapter sets out these proposals, alongside narratives from the 2020 application



2020 visualisation from Miller Street



2020 visualisation from Corporation Street

AREAS OF HERITAGE SIGNIFICANCE

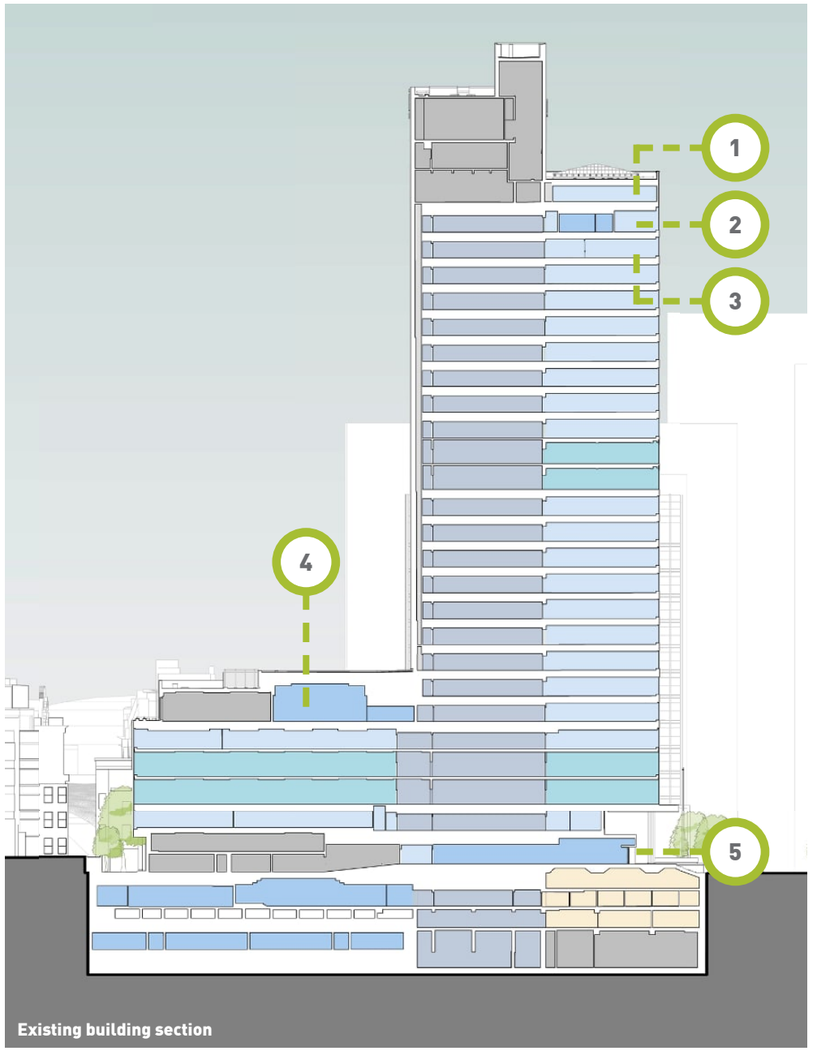
The below existing building section highlights specific areas of accommodation that are of heritage significance.

Levels 25, Level 05 and the Entrance Hall are shown in their original condition, for context, given the extent of change that these spaces have undergone over time. Levels 23 and 24 are shown in their current condition, given their relative completeness as original elements.

These areas and items are all considered within the context of the new proposals, as discussed further in this chapter and overleaf.



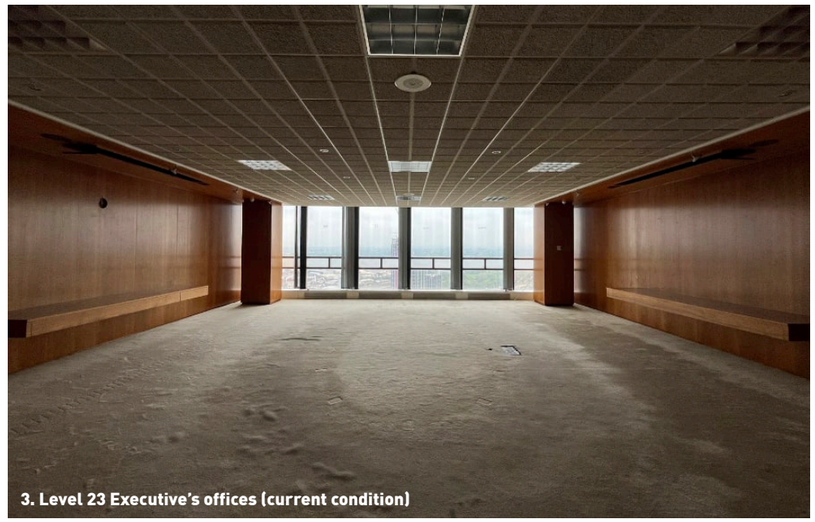
1. Level 25 Viewing Gallery (original condition)



Existing building section



2. Level 24 Executive's dining floor (current condition)



3. Level 23 Executive's offices (current condition)



4. Level 05 Ballroom (original condition)



5. Entrance Hall (original condition)

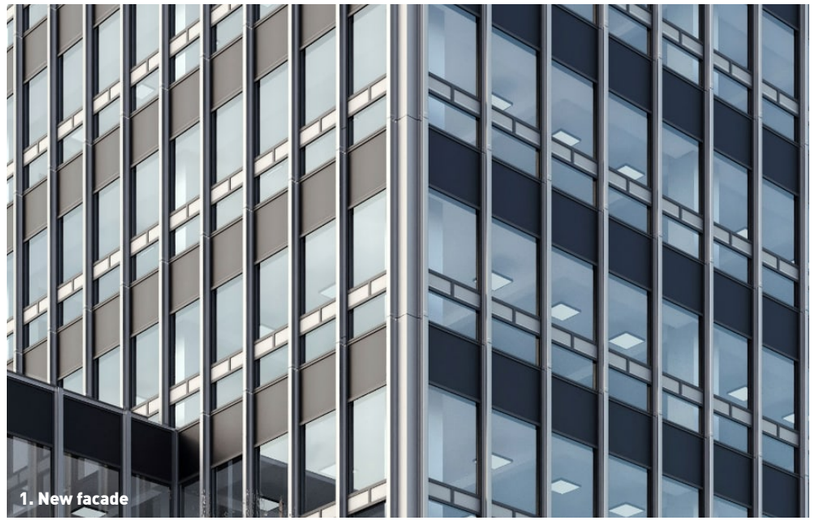
KEY PROPOSED CHANGES AND ENHANCEMENTS

The below proposed building section highlights specific areas of proposed change from the original (numerical items). These include the new facade alongside items that were consented within the 2020 proposals, which include the podium extension, the lower level remodelling and the public realm improvements

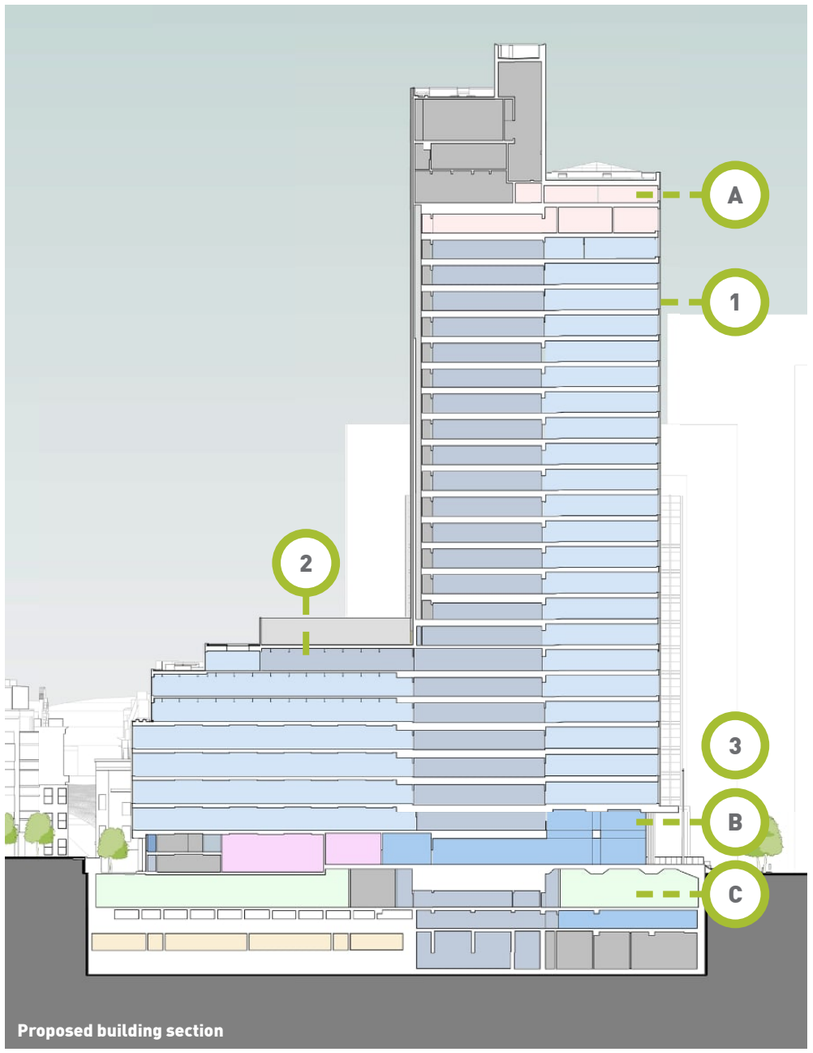
The section also highlights areas of enhancement (alphabetised items), which are proposed in the areas that are of significance but have been substantially altered over time or require further amendment in the context of the new scheme.

These include the inclusion of the Level 24-25 Bar and Restaurant, the Entrance Hall extension (as per 2020 consented proposals) and the repurposing of the Level 05 Ballroom and artwork within Basement Level 01.

These areas and items are also discussed further in this chapter.


1. New facade


A. Incorporation of L24-25 Bar and Restaurant



Proposed building section


2. Podium extension (as per 2020 consents)


B. Entrance scale increase, with improved artwork setting (as per 2020 consents)


3. Ground, basement and landscape remodelling (as per 2020 consents)


C. Repurposing of ballroom and artwork in Basement Level 01 (as per 2020 consents)

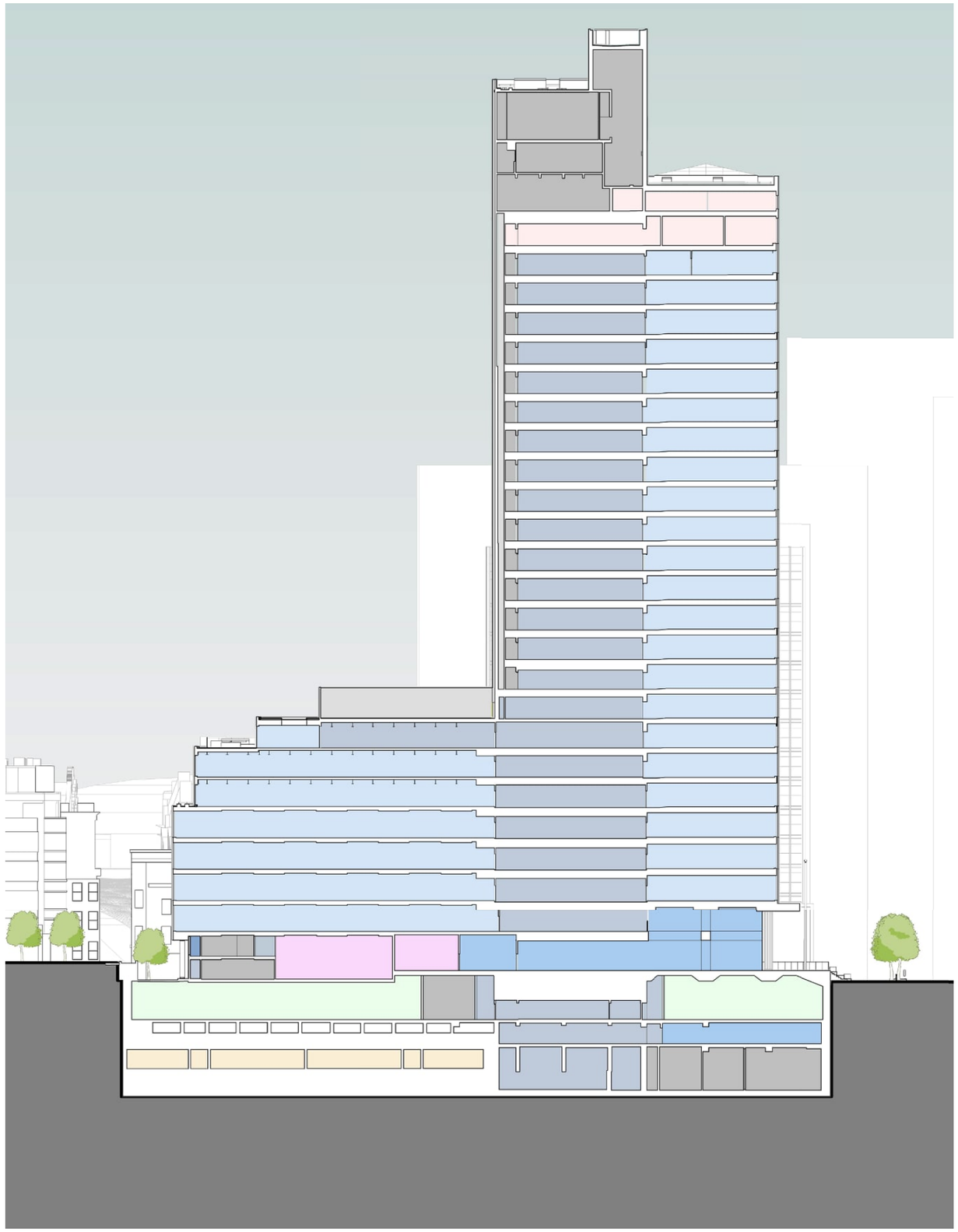
ACCOMMODATION SUMMARY

Informed by the brief, the overall development comprises of:

- 1,772sqm / 19,074sqft NIA of Use Class E b) (F&B) on Levels 24-25, providing a restaurant and bar space; accessed via a dedicated entrance at Ground
- 30,367sqm / 326,845sqft NIA of Use Class E c) (office) on Levels 01-23, providing office spaces designed to British Council for Offices (BCO) standards; with Level 23 providing a unique heritage layout
- This includes high density podium floor plates and a podium extension, of which Level 07 provides a communal external terrace, co-working and business lounge spaces
- An extended ground floor office entrance hall which houses the William Mitchell artwork, alongside supporting back of house spaces and active use accommodation (showers and cycle storage)
- 4,261sqm / 45,860sqft NIA of Use Class E a), E b), Sui Generis across 4no Retail and Leisure units on Ground and Basement Level 1 Lower
- 488sqm / 5,255sqft NIA Function Space on Basement Level 1 Lower, which provides an office amenity that houses the Barry Daniels artwork
- 1,628sqm / 17,524sqft NIA office amenity or gym space at Basement Level 1 Lower, covered by (Use Class E c) (office)/ E d) (gym)
- A disused former bunker at Basement Level 2
- Plant spaces on Basement Level 3, Level 08 and Levels 26-30
- 3,588sqm / 38,621sqft of public realm

The total quantum of development stands at 65,315sqm / 703,039sqft GEA.

The scheme targets BREEAM Excellent (New Construction Offices), EPC A, compliance with UK Net Zero Building Standard (Retrofit), WiredScore Platinum, NABERS accreditation and is WELL enabled.



L26-30 PLANT

L25 BAR

L24 RESTAURANT

L23 CELLULAR OFFICE

L01-22 OFFICES

GF/B1 RETAIL, LEISURE, FUNCTION SPACE, OFFICE ENTRANCE

B1L GYM/AMENITY

B2 DISUSED BUNKER

B3 PLANT

SUSTAINABILITY AND SERVICES OVERVIEW

Alongside the architectural proposals that will be described, a full services system replacement is proposed, with a large proportion of the existing system being original and beyond its intended design life. This provides a specification to compete with contemporary offices and supports the response to the design brief, with the proposed solutions providing a route to decarbonisation and an all electric approach.

A series of system feasibility studies have been undertaken to determine the most appropriate system replacement and the UK Net Zero Carbon Building Standard (UKNZCBS) has been used for performance comparison.

The result of this process is that heating and cooling is proposed via 4-pipe fan coils from air source heat pumps. This system provides excellent environmental control and adaptability, low carbon emissions, and futureproofing in relation to refrigerant use. Comparatively, VRF systems have potential plant obsolescence due to refrigerant phase out.

The 4-pipe system is supported by LED lighting and air handling units with heat recovery. Alongside this is a significant uplift in the digital connectivity strategy and a new photovoltaic installation is also included to support the new office extension, with further exploration into the potential re-use of the existing installation to be undertaken.

As an overview of the performances and accreditations achieved through the proposals described in this document, the following is targeted:

- BREEAM Excellent (New Construction, Offices only)
- BCO Compliance (generally)
- WELL Enabled (not formally assessed but design allowance for inclusion)
- NABERS accreditation
- Energy use intensity of 72.2kWh/m^2 in comparison to the UKNZCBS 2026 target of 122kWh/m^2 for 'One-Go Retrofit' of offices
- UKNZC Retrofit (2025 and 2026 site commencement) 'Pass' generally
- EPC A (currently EPC E) for the office spaces, in line with consideration of the anticipated Minimum Energy Efficiency Standards (MEES) requirements of EPC B by 2030
- WiredScore Platinum
- Embodied, operational and whole life carbon performance uplifts directly linked to the facade replacement
- An overall scheme whole life carbon assessment demonstrates that A1-A5 upfront embodied carbon (ie prior to use) achieves 530kgCO_2e/m^2 (GIA) in comparison to the UKNSCBS target of 600kgCO_2e/m^2 (GIA) for 2025 One-Go Retrofit and 575kgCO_2e/m^2 for 2026 One-Go Retrofit. The whole life embodied carbon (A-C excluding operational carbon B6-B7) equals 1,000kgCO_2e/m^2 (GIA), in comparison to RIBA's 2030 new build office (2025 target) of below 970kgCO_2e/m^2 (GIA)

Information regarding sustainability and servicing are further detailed in the documents that support this planning application.



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4.0 Facade and Podium Extension Design

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FACADE STRATEGY

STRATEGY OVERVIEW

The existing facade is now largely 63 years old, discounting localised repairs and the photovoltaic (PV) installation. This is beyond a typical 60 year design life. Several visual and intrusive surveys have confirmed that in spite of ongoing repair and maintenance over the years the building fabric is dilapidated and in need of modernisation. The original performance of the building fabric does not meet modern standards, which is compounded by deterioration over time. Some items including the post-breakage behaviour of the single glazing and the presence of asbestos pose health and safety risks.

The 2020 consents sought to refurbish the facade, on the basis of replacing single glazing with double glazing, the replacement of spandrels with a new PPC finished aluminium spandrel panel and a general refurbishment of finishes.

On the basis of matters such as deliverability, warrantees and building performance; the 2025 proposals seeks to replace the facade with a new curtain wall.

Given the listed nature of the building, the process of facade replacement has been rigorously tested across a number of areas of consideration as agreed with Manchester City Council. Design team members including heritage architects, facade engineers, fire engineers, structural engineers, services engineers and sustainability consultants have all provided technical input; alongside the input of contractors and their supply chain.

This process has subsequently been presented to stakeholders and consultees and is concluded with a facade options matrix. The matrix acts as an overview of supporting technical documents that are included within the submission documents.

The following pages demonstrate the design process; from the existing facade condition through to the proposed facade design, via the options study. An overview of the existing condition is provided below and on the following pages.

EXISTING FACADE SYSTEMS OVERVIEW

The facade to the tower and podium office floors comprises of a single glazed curtain wall stick system with aluminium mullions, transoms, projecting structural hiduminium "T-section" rails (which provide building maintenance unit support), black vitreous enamelled steel spandrel panels and single glazed panels. A mid-level privacy band in which a translucent interlayer is sandwiched between single glazing and perspex is incorporated. The aluminium and hiduminium elements have been surveyed to demonstrate that they have been pre-anodised and finished in a liquid applied fluoropolymer finish.

The service core was originally clad in grey inch square vitrified mosaic tesserae tiles and later overclad in 2005 with photovoltaic panels.

Two large skylights at the roof of the tower provide light into Level 25.

Ground floor incorporates elements of mosaic tile soffits, hiduminium soffits, painted column casings and aluminium framed glass curtain wall.

The facade is based on an imperial 1575mm wide grid.

EXISTING FACADE CONDITION OVERVIEW

- Single glazing broken in places with deteriorating post-applied reflective solar film
- Discoloured perspex panels in privacy band as a result of UV exposure
- Deteriorating and inconsistent sealants
- Aging vitreous enamel spandrels with instances of corrosion
- Flaking and patination of finish to aluminium profiles;
- Flaking and peeling of post-applied internal finish to aluminium profiles and timber beading
- Vulnerability of existing timber beading to damage during glass replacement
- Service core PVs generally in good condition with a need for ongoing inspection
- Remaining exposed mosaic tiles to columns and soffits debonding and soiled

EXISTING FACADE PERFORMANCE OVERVIEW

- Poor thermal performance due to single glazing, inadequate insulation and lack of thermal breaks to the aluminium profiles
- Poor trade-off between glass transparency and solar performance due to outdated post-applied film technology
- Substantial energy wastage to provide comfortable internal environment
- Outdated PV technology with no current energy output
- PV installation providing restraint to debonding tiles, preventing tiles from falling into street below
- Curtain wall U-Value of circa 5.3 W/m^{2}K
- Building EPC E
- Condensation at 24% relative humidity (high condensation risk)

EXISTING FACADE HEALTH AND SAFETY CONSIDERATIONS

- Post-breakage behaviour of monolithic annealed glass does not provide containment nor protection from falling from height, and resulting shards pose risk of sharp edges
- Asbestos present in spandrel panels
- Indeterminate performance and presence of fire barriers
- PV installation fire performance of materials not to current required classification

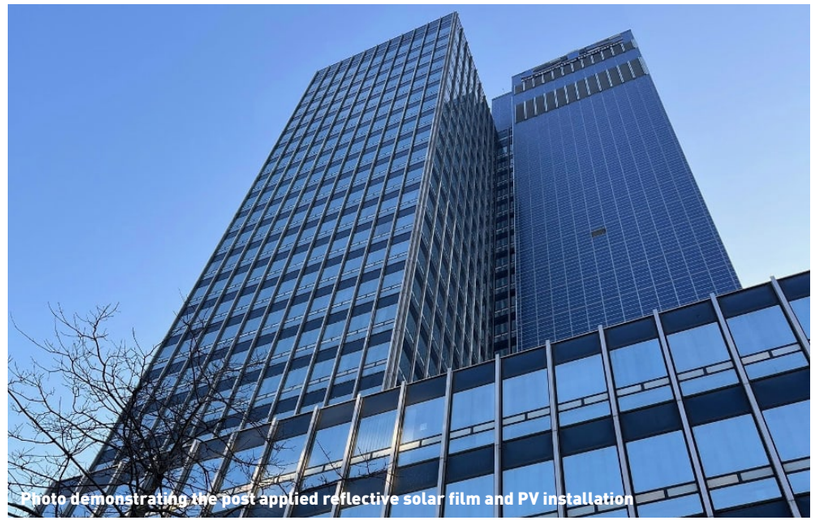


Photo demonstrating the post applied reflective solar film and PV installation



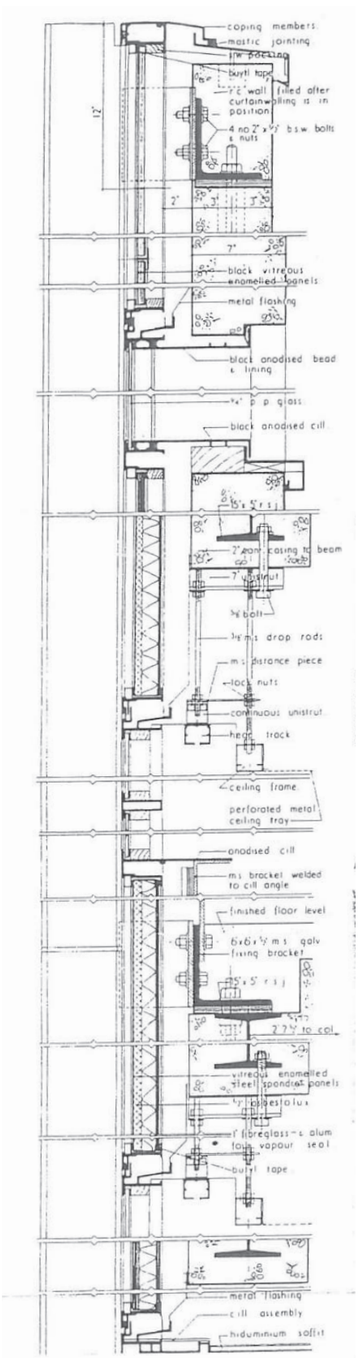
Hiduminium T-rail finish deterioration



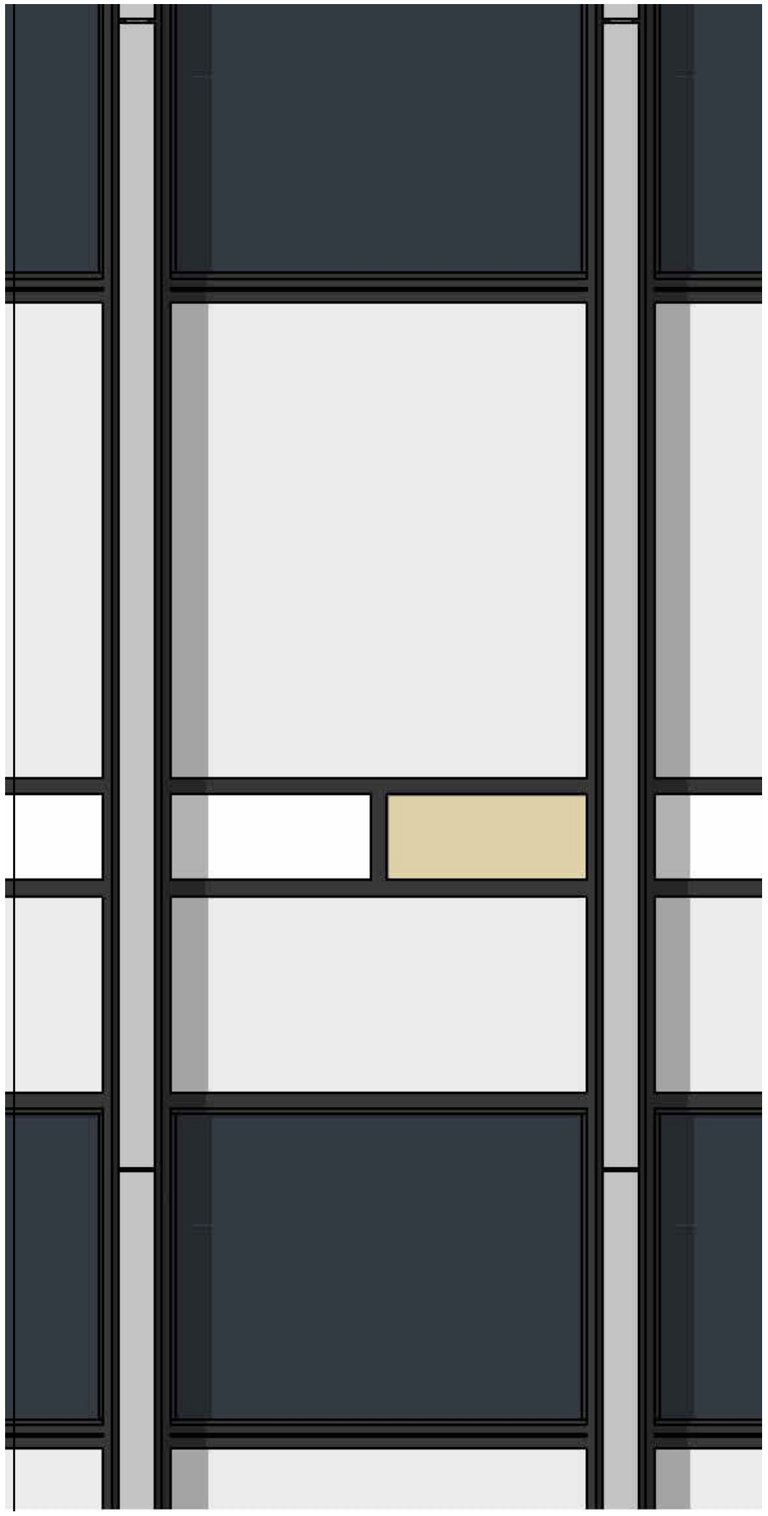
Frame finish deteriorating and UV degradation to obcsure panel

EXISTING CURTAIN WALL DETAILS

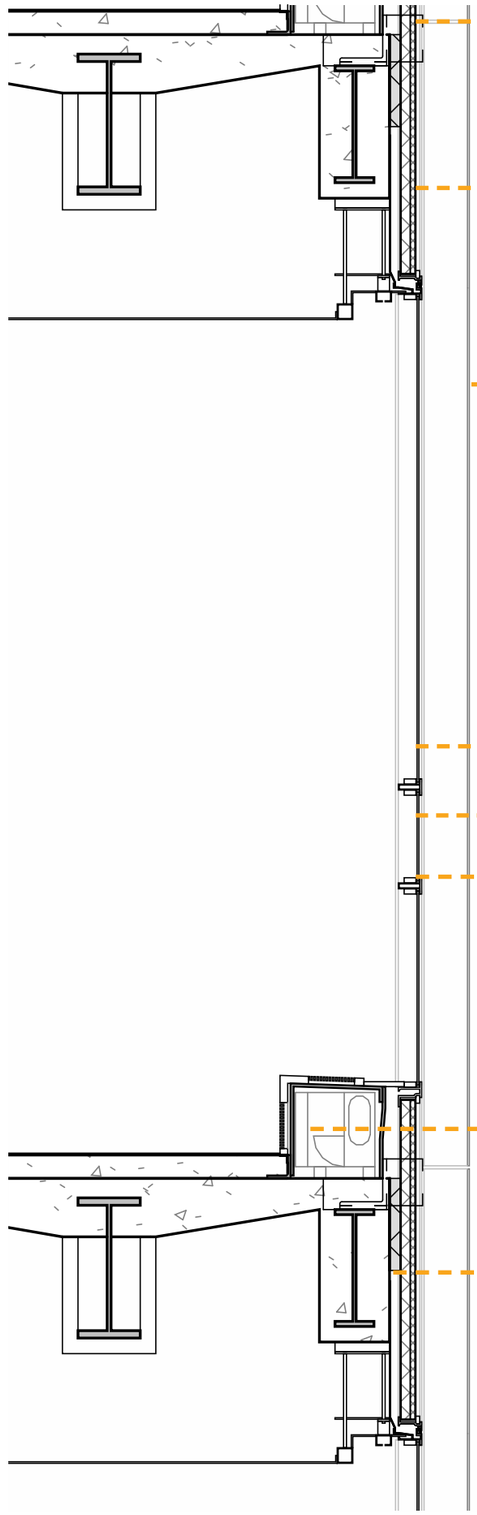
Window section from "The Architect and Building News", 1963



Bay elevation



Bay section



MASTICS, SEALANTS AND FIXINGS
Original casement putty replaced by silicone sealant which is now debonding. System wet sealed externally Fixings show corrosion and insufficient length or lock-off

BLACK VITREOUS ENAMELLED STEEL, INSULATED SPANDREL PANEL
Known to contain asbestos. Enamel finish degrading and exposed steel showing corrosion. Vitreous enamel is largely unused in facades today, other than projects requiring a high fire performance

EXTRUDED HIDUMINIUM T RAIL (BMU RAIL)
Pre-anodised with a silver liquid fluoropolymer topcoat. Finish deteriorating and showing patina, in line with expectations of building age. Rail provides primary facade structure, with black framing fixed to rail. Hiduminium is a high strength aluminium alloy that is now largely unavailable and the "T" rail use would require testing to destruction to determine its lifespan and capacity. The rails appear to have been pre-anodised by two suppliers on the basis of having two different substrate colours

CLEAR SINGLE GLAZING WITH SOLAR FILM
Glazing lacks the required structural and thermal performance. Locally broken panes. Post applied solar control film delaminating

TRANSLUCENT PRIVACY BAND
Single glazing with fibrous interlayer, sandwiched with perspex inner layer which is locally discolouring due to UV exposure

EXTRUDED PRE-ANODISED ALUMINIUM FRAMES WITH A BLACK LIQUID FLUOROPOLYMER TOPCOAT FINISH & PAINTED TIMBER INTERNAL GLAZING BEADS
Frame finish deteriorating and showing patina, in line with expectations of building age. Timber beads overpainted but in good condition

WEATHERMASTER (PERIMETER HEATING)
System now defunct and enclosure known to contain asbestos. Enclosure built on steel substructure fixed to facade bracketry

FIRE STOPPING
Continuity, performance and extent unknown.

EXISTING CURTAIN WALL CONDITION

As described in the overview of the facade, the annotated photographs below demonstrate the general condition of the existing curtain wall.



Post applied solar film delaminating and aging

Discoloured perspex

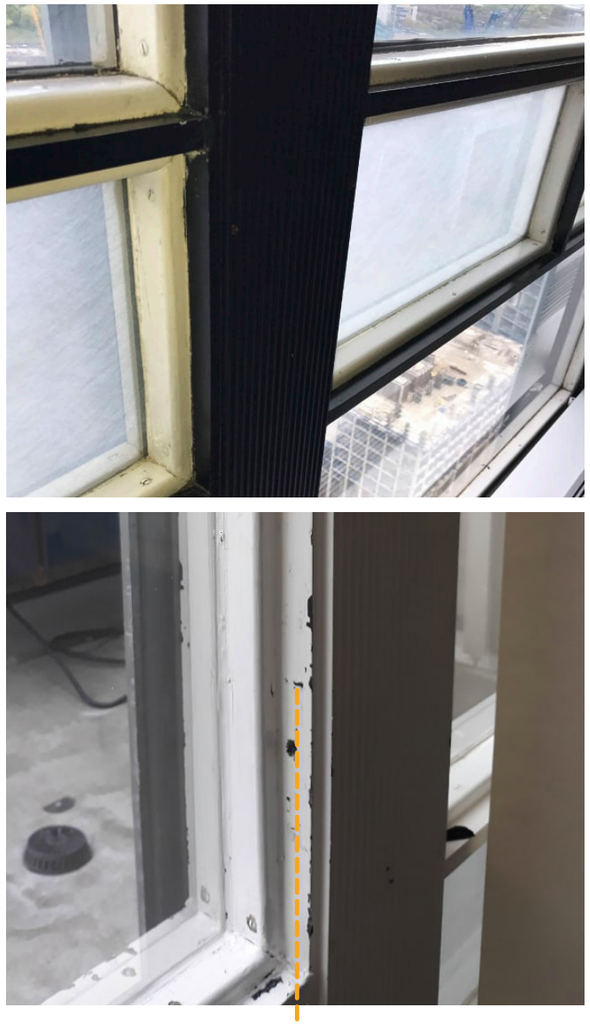
Sealants inconsistent in type, age and performance

Instances of broken single glazing

Fluoropolymer top coat degrading and showing patina

Vitreous enamel aging and any exposed steel substrate corroding

Fluoropolymer top coat degrading and showing patina



Flaking and peeling of post-applied internal finish to aluminium profiles and timber beading, and variation in internal decoration



Vulnerability of existing timber beading to damage during glass replacement

EXISTING CURTAIN WALL PERFORMANCE

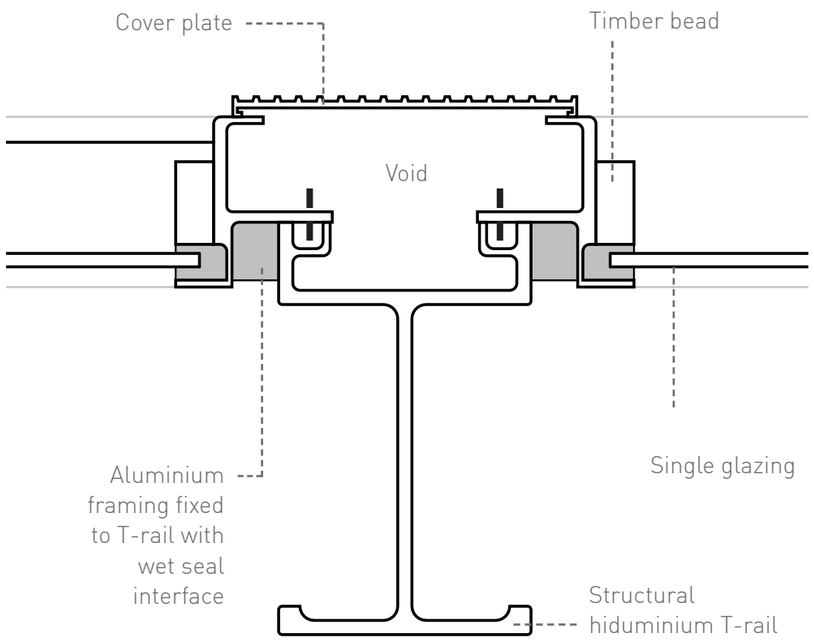
Currently a poor thermal performance is provided as a result of the combination of single glazing, the lack of thermal breaks within the framing (which provides a route for thermal transfer from inside to outside) and a lack of thermal insulation within the spandrel zones.

This results in an overall U-Value of circa 5.3 W/m^{2}K and a high condensation risk. This is married with an existing EPC E and energy wasted on space heating and cooling.

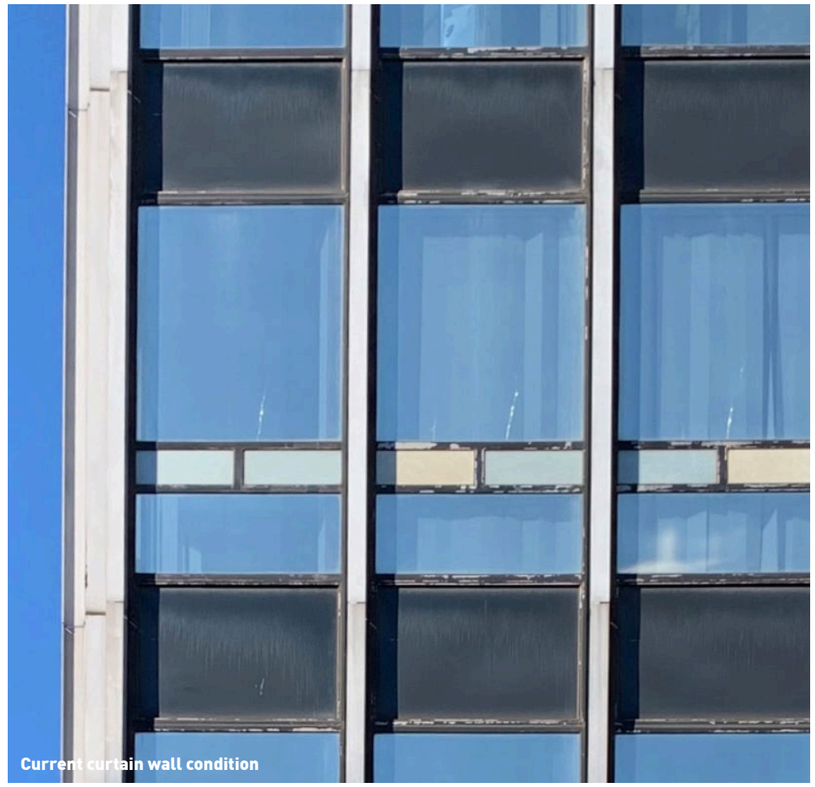
A solar film has been installed to the interior of the single glazing, however this will have a relatively low performance benefit and detracts from the original transparent aesthetic of the curtain wall.

Further supply chain input since the 2020 submission has determined that the hiduminium "T" rails are a structural element within the facade, with the black aluminium frames fixed to them. This is a key factor contributing to the slimline framing system. Also, the rails are deadloaded on top of one another, therefore top-down removal would be required in any refurbishment scenario.

Hiduminium is a high strength aluminium alloy that is now largely unavailable and the "T" rail use would require testing to destruction to determine its lifespan and capacity; collectively resulting in supply and warranty issues. The rails appear to have been pre-anodised by two suppliers on the basis of having two different substrate colours, as determined by additional investigative surveys. Any refinishing of these may therefore result in colour differences as a result of varying substrate preparation.



Existing curtain wall mullion detail



Current curtain wall condition

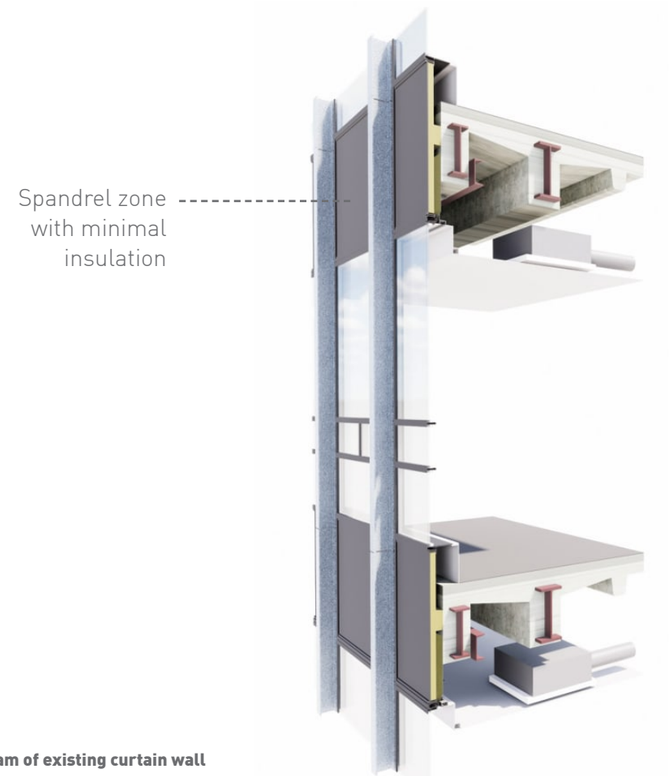
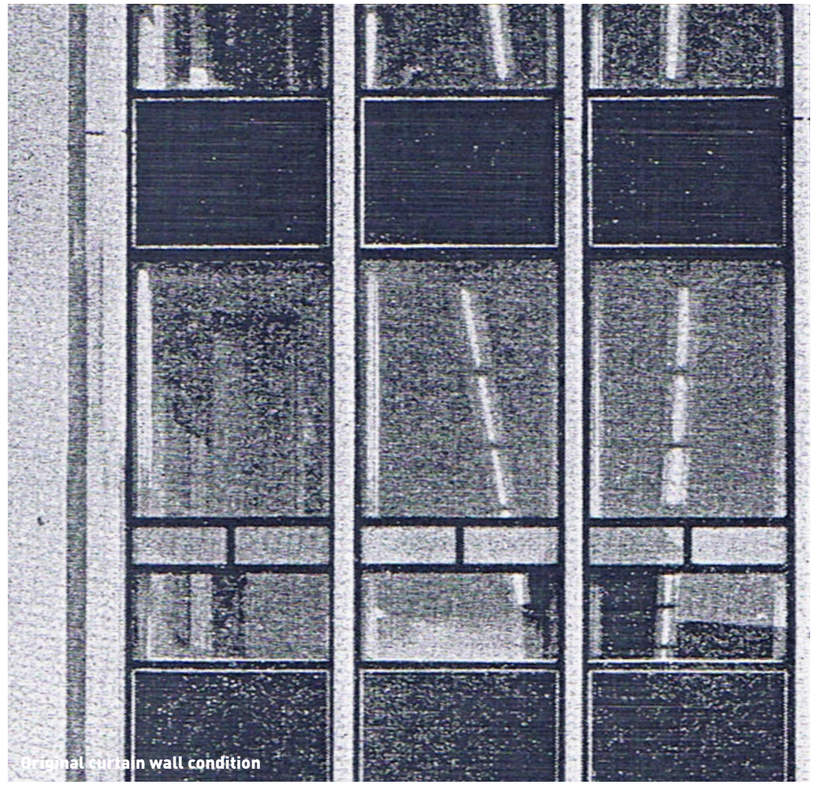


Diagram of existing curtain wall



Rear of cladding system showing rails deadloaded on supports and framing fixed to rails



Original curtain wall condition

EXISTING CURTAIN WALL HEALTH AND SAFETY CONSIDERATIONS

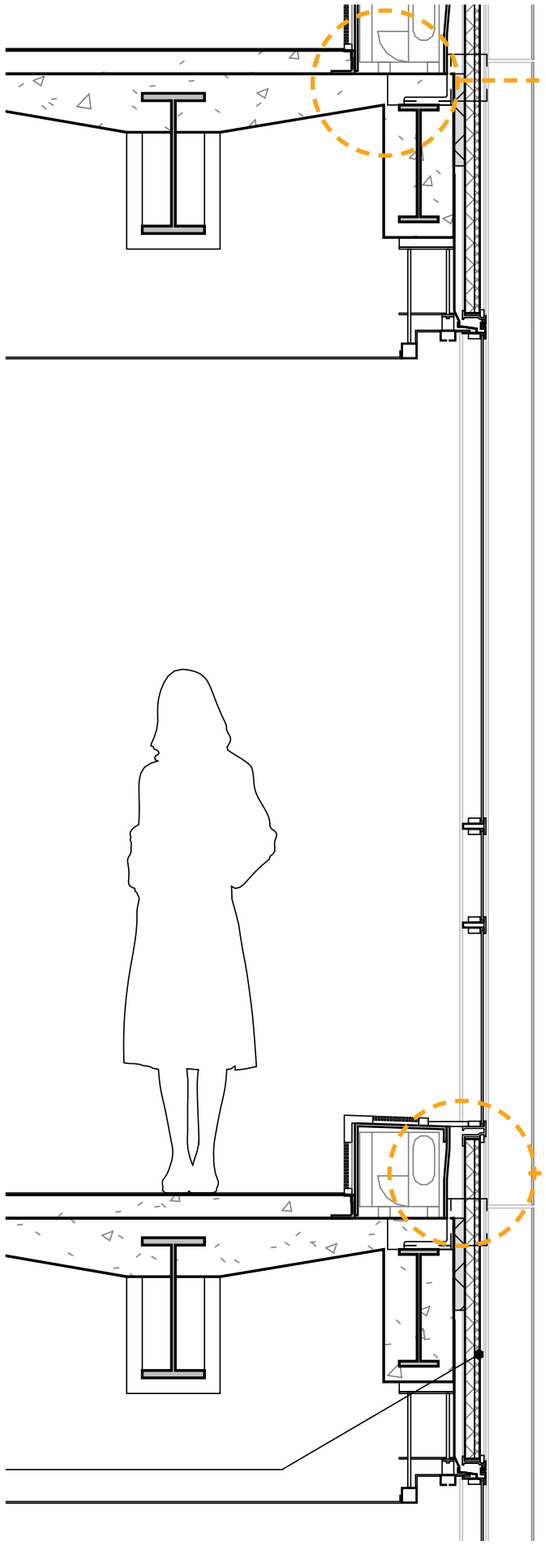
Asbestos is present in spandrel panels. Surveys have been carried out and asbestos boards have been identified to the back of the spandrel sheeting. It is understood that if left undisturbed it does not pose a health and safety risk. This would become a risk with any works to the spandrel panels however.

The presence of slab edge fire barriers and the performance of any that do exist remains undetermined. The original details included in "The Architect and Building News" do not show a fire stop for compartmentation. Following the 2020 enabling works, instances of daylight can be observed at the curtain wall fixing location, between the compartment floors. The Fire Engineer notes:

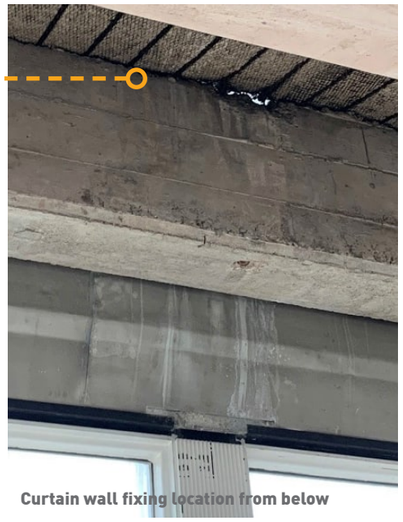
> *"The Building Regulations require that all junctions between fire-separating elements should be fire-stopped to achieve a performance equal to that of the fire resisting separation provided. Proprietary fire-stopping and sealing systems which have been shown by test to maintain the fire resistance of the wall or other element, should be used. To permit the occupancy of the building and necessary phased evacuation strategy, the compartment floor perimeter interface with the facade must be fire stopped to the same standard as the compartment floor throughout the building. The minimum period is to be determined be Structural Fire Engineering, but is likely to be 90 and 120 minutes depending on location."*

With regard to the single glazing and existing curtain wall framing; the post breakage behaviour of monolithic annealed glass does not provide barrier loading, containment or protection from falling from height. The resulting shards post breakage pose risk of sharp edges. It is therefore unlikely to comply with CIRIA 632 guidance for glazing at height. Similarly, the existing curtain wall performance is not known to meet regulations with regard to barrier loading.

These elements therefore all require consideration prior to occupation of the building.



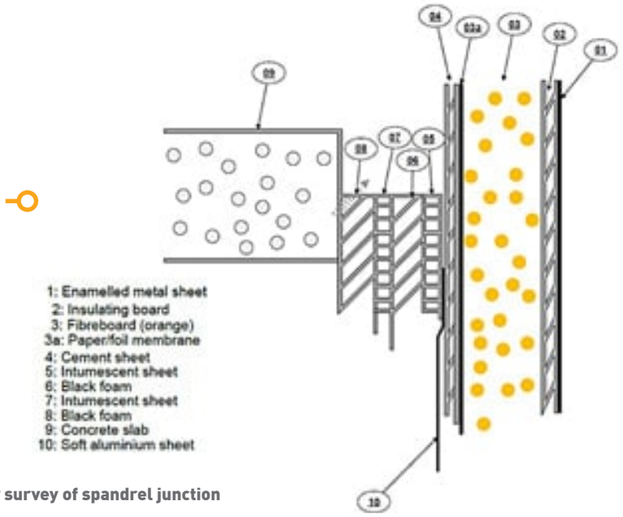
Bay section



Curtain wall fixing location from below



Spandrel removed



Third party survey of spandrel junction



Photo of spandrel junction

EXISTING SERVICE CORE PHOTOVOLTAIC INSTALLATION

The service core was originally clad in grey inch square vitrified mosaic tesserae tiles.

In 2002 Arup undertook a study of the tesserae tiles as they had been debonding. It was reported that, despite continuing remedial efforts over the years, the tiles would continue to fail, causing health and safety issues with falling tiles. The failure was determined as being a result of inadequate bond between the tiles and substrate, and deterioration of this would occur with time due to a combination of factors:

- stress acting on the adhesive caused by thermal expansion of the tile, which is only able to relieve itself by pushing the mosaic outwards as there are no movement joints present in the mosaic-clad areas
- incorrect adhesive and/or the nature of the mosaic tessarae tiles;
- deterioration of grouting allowing water to penetrate behind the tiles

In 2005, the service tower was subsequently clad with photovoltaic (PV) panels which were intended to contain the original mosaic tiles in-situ via a stainless steel mesh placed behind the installation; whilst simultaneously meeting the CIS's desire to improve sustainability.

There currently is no energy output from them and their efficiency does not meet current PV installations, however options to bring them back into use are being explored.

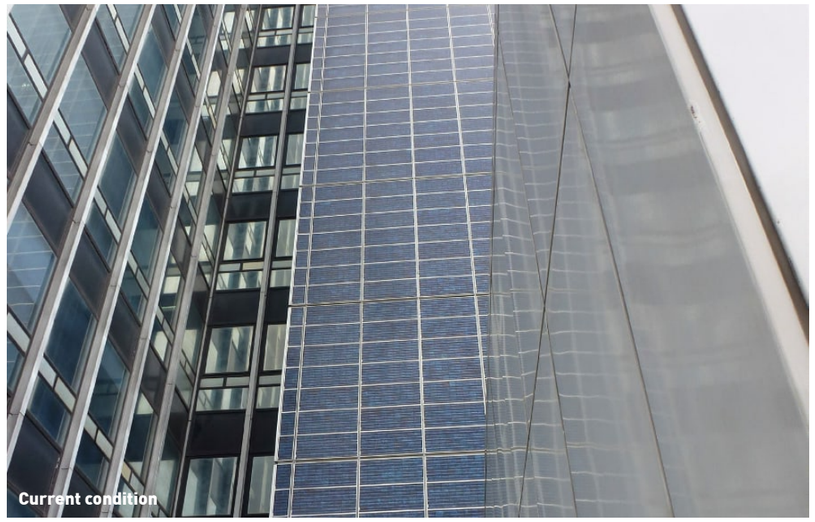
From a fire performance perspective, the current PV panels do not meet current classification requirements. As with the 2020 consents, a minimum amount of intervention is required, as described by the Fire Engineer below. The proposals for this is described later in the chapter.

> *"As the building height is greater than 18m, the material selected for use in the facade is to meet the classification of Class A2-s3, d2 or better. Following detailed review PV Panels have been found not to meet this standard. This results in a recommendation for removal of the panels from the north facade, and 1 small and 2 large modules from each horizontal strip on the east and west. These are the corners close to the escape/firefighting stairs and lobbies in the tower. The remainder are proposed to be retained, but are subject to risk assessment throughout the building's lifespan."*

In terms of condition, the 20 year old PVs are generally in good condition with the need for ongoing inspection, with the Facade Engineer noting:

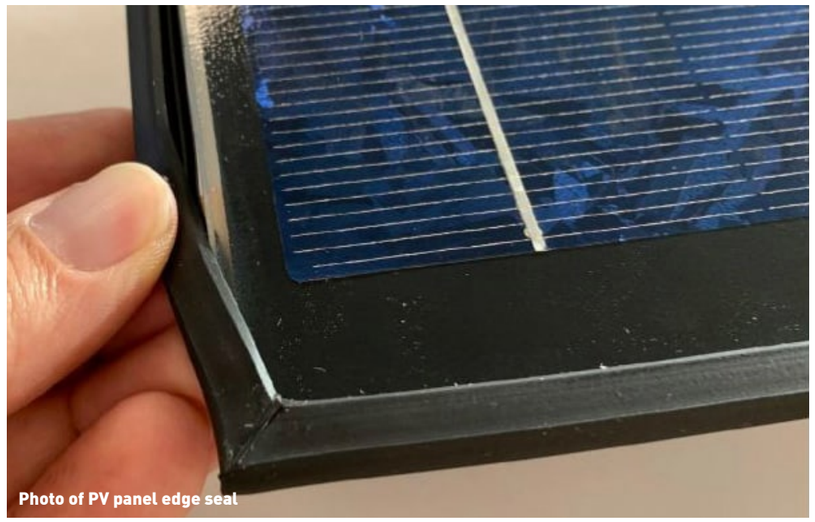
> *"As long as the structural support frames and brackets are not corroded or damaged, it is anticipated that these would not need to be replaced. However, a detailed survey would be required to fully understand the conditions. It is anticipated that these could last for 25-30 years for framing & supports."*

As a result, the PV installation remains outside the scope of the current applicant brief.


Current condition


Mid-installation of PVs


Photo of PV panel dismantled


Photo of PV panel edge seal



Original service core condition

EXISTING ENTRANCE VESTIBULE CONDITION

The existing Entrance Hall is partially contained within a single storey vestibule projecting from the main facade and is located under Level 2 of the tower. It comprises a single glazed, aluminium framed facade which is natural anodised and silver in colour, with a flat roof. A previous condition report states that the facade "appears to be constructed utilising a steel 'goal post' frame. The steel is clad with aluminium profiles."

The external envelope is original but has seen significant alteration with the doors replaced at some point within the last 20 years. The arrangement of entrance doors was also altered during the replacement. In the original installation a single revolving door with double leaf, side hung doors either side was provided to Miller Street with 2no. double leaf side hung doors on each of the side elevations.

Currently, there are 3no. very small revolving doors to the Miller Street frontage, between which are two single leaf, manually operated pass doors.

On the Dantzic Street and opposing elevation are double doors with a single leaf fire escape door. The escape doors are too narrow to meet current regulations and on the east elevation the frames have swelled so much the doors are inoperable.

There are no automatic opening doors for wheelchair users.

Observations during 2020 were that the majority of people entering the building chose to not use the revolving doors and use the single leaf pass doors. The pass doors were also affected on windy days where the air pressure difference held the doors open, leading to security personnel locking them to prevent people trying to pass through them.

Due to the single glazing, non-thermally broken frames, and the above issues with the pass doors the Entrance Hall was very cold and draughty in colder months when previously in use. A building article in 1963 even noted:

> *"When will architects finally accept that the double defence of a draught lobby is imperative in public buildings in the north of England?"*

In addition to the faults associated with the doors there are several areas, across the full extent of the envelope, where water ingress is evident. Cill sections are oxidising, swelling and showing salt deposits. The extent and amount of failings of the envelope are evidence that both the original envelope and more recent alterations are beyond their design life.



Existing entrance vestibule interior condition



Existing entrance vestibule exterior condition

CONDITION OF OTHER EXISTING AREAS OF CLADDING

Generally, elements can be seen to be deteriorating and beyond their design life, throughout the building.

EXTERNAL COLUMN CASING

External column casings consist of a pressed or folded metal 'plank' panel believed to be aluminium or steel with a black liquid applied coating. This finish is now degrading and peeling severely. The casings may have been repainted due to the black finish below. Panels are secret fixed (no visible fixings) however the exact method of fixing is undetermined. It is not believed that there is any insulation wrapping the columns.

SOFFITS

The soffit treatments comprise of areas of bonded mosaic tiles to the underside of Level 01 or hiduminium sheets and exposed concrete around the entrance.

In general, the soffit treatments do not provide any thermal insulation and are cold bridges into the building. Most soffit elements are at the end of their service life and many of the mosaic areas are debonding in the same manner as the service core.

ROOFLIGHTS

The existing system comprises aluminium rafters and purlins laid onto a trussed steel structure which spans across the structural aperture. The aluminium system retains the glazing and provides weather tightness via compression bars/sealing caps. The system has had some remedial works carried out since its original installation and features double glazed units with monolithic toughened inner and outer panes. An external film has been applied to the glass to control solar gain and glare which is now failing and peeling off. In addition the external weather seal which consists of a silicone sealant is also now failing.

In general, the main framing and aluminium sections appear in fair order given the age of the system. The coating has however deteriorated and there are some signs of corrosion of the steelwork edge support beam which is exposed to the external environment. However, with regard to building regulations and protection from falling, the performance remains undetermined but is not anticipated to provide the necessary performance. External 'fragile roof' signage is present.



Existing column casings and entrance soffits



Existing mosaic soffits



Level 25 rooflight



Ground floor mosaics

FACADE OPTIONS STUDY

Under the refurbishment proposals of the 2020 consents, the main objectives were to:

- maximise fabric retention where possible
- repair where appropriate
- respect the original appearance as closely as possible within the parameters of non-negotiable risk mitigation and a balanced performance enhancement
- address health and safety risks with regard to glass breakage, fire stopping and deleterious materials

Four general approaches were considered and explored as possible responses to the objectives:

- 1. Repair only
- 2. Replace single glazing with double glazing
- 3. Install secondary glazing
- 4. Undertake a full replacement of the façade

Repair and secondary glazing options were discounted due to the low performance enhancements and lacking internal environment benefits. Glazing upgrades alongside spandrel replacement were chosen over full replacement based on the investigative survey work taken at that time; despite the performance enhancements of a new system. This was on the basis of less intervention and the performance uplift being deemed an appropriate balance at that time.

Since the 2020 planning consents, further supply chain and facade engineer input has been sought alongside specialist surveys, raising some key considerations that alter the approach to the facade retention or replacement:

- The hiduminium "T" rails are currently a structural element within the facade; which would pose buildability and warranty issues to reuse. This is a key factor contributing to the slimline framing system
- The hiduminium rail finish is not a natural or 'anodised' type finish and is a liquid applied finish. There is also a high chance of the rails originally being finished via two suppliers, meaning any refinishing may not guarantee a homogenous finish
- The same may be true of window frames and exploration is required into possible finish replacements
- The mid-level privacy band is believed to be single glazing with interlayer and perspex inner layer; which is discolouring due to UV degradation and explains the inconsistent presence of discolouring.
- The 'panels' are deadloaded on top of one another, therefore top-down removal would be required in any refurbishment scenario

These technical factors sit alongside the environment of a post-Covid pandemic world, changes in office market demands and a push towards net zero carbon development. As such the options explored and assessed on the following pages look into modern cladding systems alongside further refurbishment options.

With the replacement options, it has been taken into account that generally speaking, many of the elements or features described in the existing curtain wall system that would have been considered 'state of the art' in 1960 have now also been disproven over time or are now unfeasible.

With all of these factors in mind, the following key objectives were drivers:

- visual replication of profiles and the external listed fabric
- reinstating a transparent glazing, with the use of modern coatings, in lieu of the current reflective post-applied film
- building performance enhancements:
  - EPC A
  - BREEAM Excellent
  - UK Net Zero Carbon Building Standard targets for retrofit
  - Whole life carbon considerations
- deliverability
- modern safety standards

These elements have been assessed alongside other considerations, such as heritage impact, public benefit, thermal performance, life span, and warranties. The conclusion of this process is to determine an optimal system that contributes to an extended the lifespan of the building.

The current proposal, which has been presented to MCC, Historic England and The Twentieth Century Society; is for a new facade using standardised curtain wall framing profiles internally and bespoke caps to replicate the relief and detailing to the exterior. This would be paired with a new aluminium 'T' extrusion. The following pages show the process in reaching this proposal.



FACADE PROFILES AND OPTIONS STUDY

The below options show the typical plan profile, overlaid with the baseline condition in red and demonstrating the initial comparison study.

All options with a grey arrow require the facade line to move outboard.

All carbon values shown are based on an updated building services system, to provide a 'level playing field' with regard to facade comparisons. All percentage increases shown are based on Option 1. This study is continued overleaf.

ADDITIONAL NOTES

- All replacement systems benefit from a design life of 50-60 years for framing and 25-30 years for glazing
- All replacement systems assume 70% recycled content for new aluminium components

BASELINE
Retention of current condition

KEY CONSIDERATION
End of design life and poor performing

U-VALUE
5.3W/m^2K

OPERATIONAL CARBON
14.81kgCO_2/m^2

WHOLE LIFE CARBON
N/A

OPTION 1
Refurbishment in line with 2020 Planning Consent (new double glazing spandrels, existing frame and rails refurbished insitu)

KEY CONSIDERATION
Low performance and cost similarities with replacement facade

U-VALUE
2.6W/m^2K

OPERATIONAL CARBON
13.38kgCO_2/m^2

WHOLE LIFE CARBON
480kgCO_2/m^2

OPTION 2
Refurbished frames and rails; single glazing with secondary glazing, new spandrels

KEY CONSIDERATION
High quantum of internal framing, poor internal quality in terms of lettings

U-VALUE
3.0W/m^2K (+15.4%)

OPERATIONAL CARBON
13.60kgCO_2/m^2 (+1.6%)

WHOLE LIFE CARBON
480kgCO_2/m^2 (+/-0.0%)

OPTION 3
Refurbished frames and rails; double glazing with secondary glazing, new spandrels

KEY CONSIDERATION
High quantum of internal framing, poor internal quality in terms of lettings

U-VALUE
2.0W/m^2K (-23.1%)

OPERATIONAL CARBON
12.97kgCO_2/m^2 (-3.1%)

WHOLE LIFE CARBON
480kgCO_2/m^2 (+/-0.0%)

OPTION 4
Replacement unitised facade with structural reuse of hiduminium rails and bespoke extrusions

KEY CONSIDERATION
Structural reuse of fins, even if feasible in physical terms, may still be unwarrantable and difficult to deliver

U-VALUE
2.0W/m^2K (-23.1%)

OPERATIONAL CARBON
12.97kgCO_2/m^2 (-3.1%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)

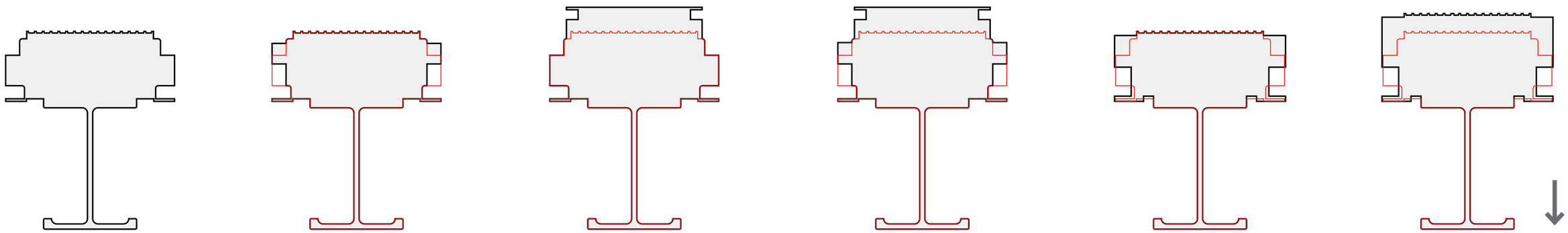
OPTION 5
Replacement unitised facade with structural reuse of hiduminium rails and bespoke extrusions (variation)

KEY CONSIDERATION
Structural reuse of fins, even if feasible in physical terms, may still be unwarrantable and difficult to deliver

U-VALUE
2.0W/m^2K (23.1%)

OPERATIONAL CARBON
12.97kgCO_2/m^2 (-3.1%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



FACADE PROFILES AND OPTIONS STUDY

Options 8 and 11 were selected for further study, on the basis of providing good levels of performance uplift; albeit Option 8 being reliant on the use of aluminium T-rails to make it deliverable and warrantable.

Option 8 provides a more sympathetic internal profile via bespoke extrusions, however this is at a performance and deliverability cost. Option 11 is very deliverable and high performing, yet externally sympathetic through the use of bespoke caps. Both options are further explored on the following pages.

PERFORMANCE CONCLUSIONS

Option 1 (2020 refurbishment) in comparison to the best performing option, Option 11 (2025 standardised profile proposal) is currently demonstrating an uplift in embodied carbon (as would be anticipated for a full replacement facade) and an improvement in operational carbon (figures based on same services system upgrades). Over a 60 year life, Option 11 demonstrates a 100kgCO_2/m^2 life cycle betterment, with the same services system applied.

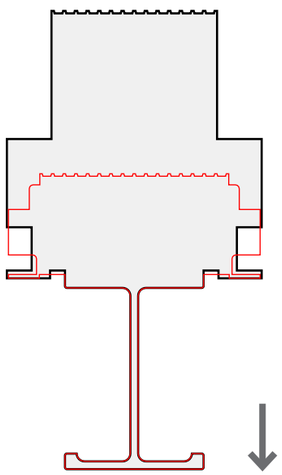
OPTION 6
Replacement unitised facade with non-structural reuse of hiduminium rails, bespoke extrusions and slab cut to receive framing and fire stopping

KEY CONSIDERATION
Slab requires extensive cutting

U-VALUE
2.0W/m^{2}K (-23.1%)

OPERATIONAL CARBON
12.97kgCO_2/m^2 (-3.1%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



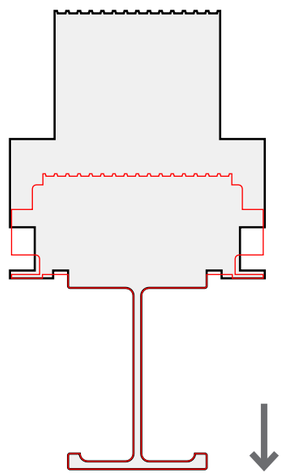
OPTION 7
Replacement unitised facade with non-structural reuse of hiduminium rails, bespoke extrusions and facade line offset to enable framing and fire stopping installation without cutting slabs

KEY CONSIDERATION
Facade line moves outboard significantly with large frame profiles

U-VALUE
2.0W/m^{2}K (-23.1%)

OPERATIONAL CARBON
12.97kgCO_2/m^2 (-3.1%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



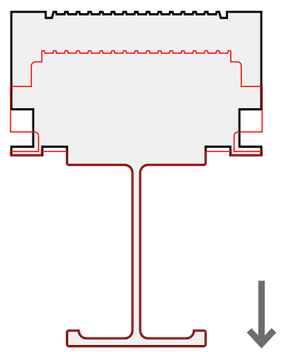
OPTION 8
Replacement unitised facade with partially structural reuse of hiduminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs

KEY CONSIDERATION
Good performance but requires aluminium rail to become deliverable, with remaining risks around supply chain and bespoke extrusions.

U-VALUE
1.53W/m^{2}K (-41.2%)

OPERATIONAL CARBON
12.67kgCO_2/m^2 (-5.3%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



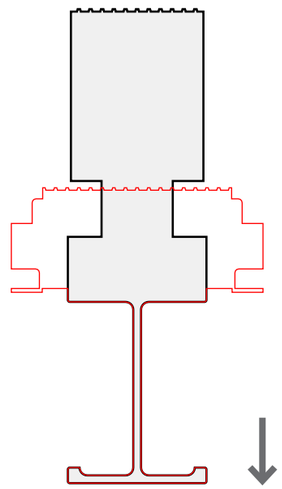
OPTION 9
Replacement unitised facade with non-structural reuse of hiduminium rails and typical modern slimline profiles

KEY CONSIDERATION
Lacks any visual similarities to original

U-VALUE
1.53W/m^{2}K (-41.2%)

OPERATIONAL CARBON
12.65kgCO_2/m^2 (-5.5%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



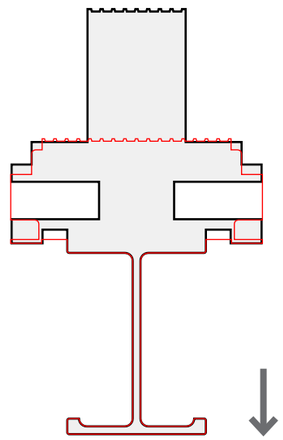
OPTION 10
Replacement unitised facade with non-structural reuse of hiduminium rails and typical modern slimline profiles with bespoke caps

KEY CONSIDERATION
Good performance and deliverable via numerous cladding suppliers; except for hiduminium rails

U-VALUE
1.44W/m^{2}K (-44.6%)

OPERATIONAL CARBON
12.62kgCO_2/m^2 (-5.7%)

WHOLE LIFE CARBON
420kgCO_2/m^2 (-12.5%)



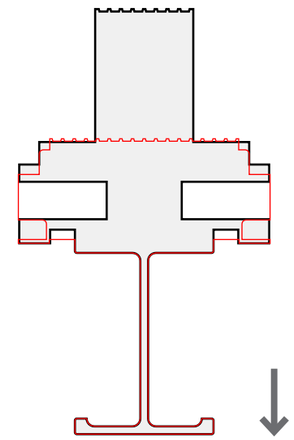
OPTION 11
Replacement unitised facade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps

KEY CONSIDERATION
Good performance and deliverable via numerous cladding suppliers

U-VALUE
1.44W/m^{2}K (-44.6%)

OPERATIONAL CARBON
12.62kgCO_2/m^2 (-5.7%)

WHOLE LIFE CARBON
380kgCO_2/m^2 (-20.8%)



EXISTING DETAILS AND CONSTRAINTS

Prior to development of Options 8 and 11 in section, a further assessment of the existing details and constraints was undertaken. These include:

- consideration of 1960s build tolerances and the unlikely reality of the slab edge meeting modern construction tolerances. This is of importance when considering the creation of any new fire stopping zone. The exact position of the slab will remain unknown until the facade is removed and the slab edge is surveyed, requiring a tolerance assumption to be built into the details
- consideration of existing bracketry connection pockets and avoidance of amendment to building structure; to avoid CDM issues across circa 2,200 connection locations and a general removal of original fabric. Whilst fixing methodologies may develop, structural amendment is to be avoided where possible
- in connection with this is the existing perimeter primary beam and co-ordination with it, to ensure suitable fixing details are achieved
- consideration that the structural use of the high strength hidiuminium rail partially contributes to the reduced frame depth and therefore it is an unrealistic expectation to achieve a like for like plan detail without significant performance losses

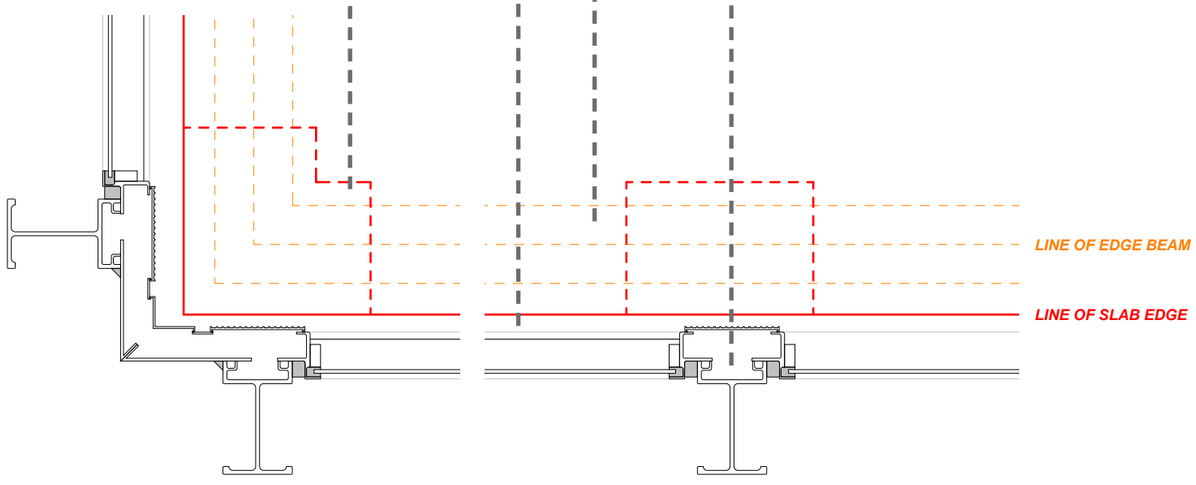


EXISTING SLAB EDGE, TOLERANCES AND CONNECTION 'POCKETS' (AS LEFT)
Amendments to structure to be avoided for CDM reasons

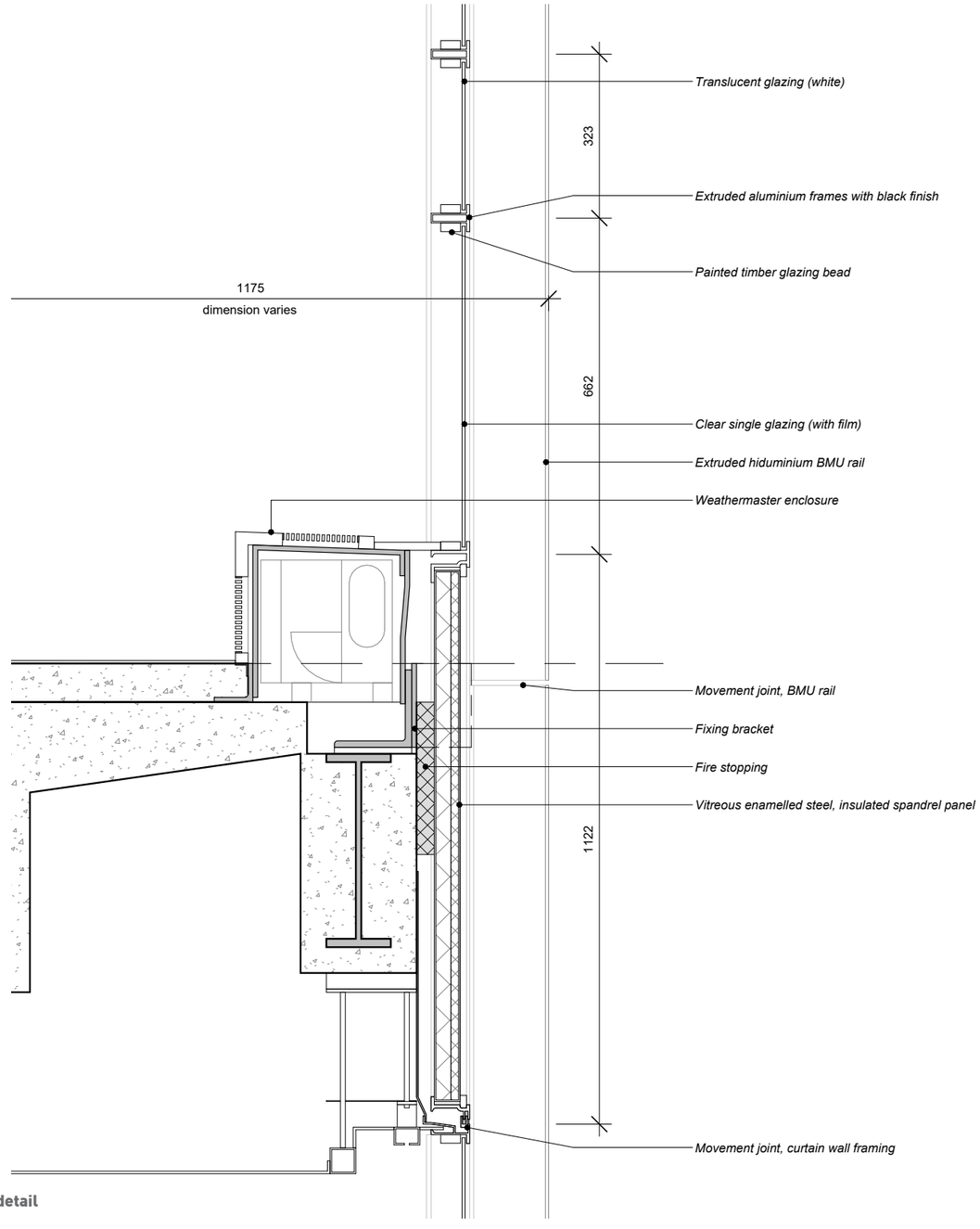
MINIMAL CURRENT FIRESTOPPING ZONE
Setting out and final outer face determined by fire stopping zone

EXISTING BEAM
Facade connections required to be made into existing beam

STRUCTURAL HIDUMINIUM RAIL
Partial driver for reduced frame depth



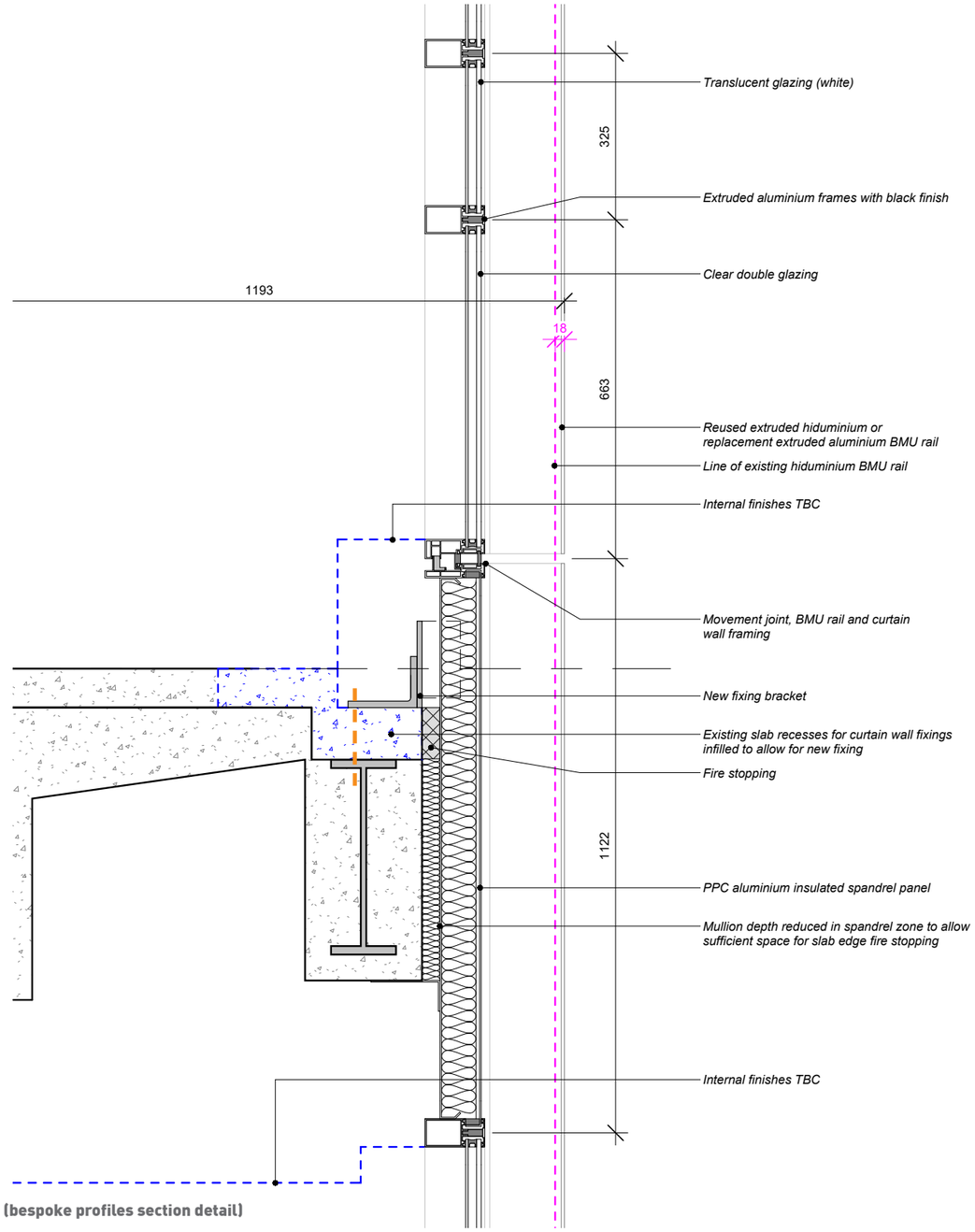
Plan detail



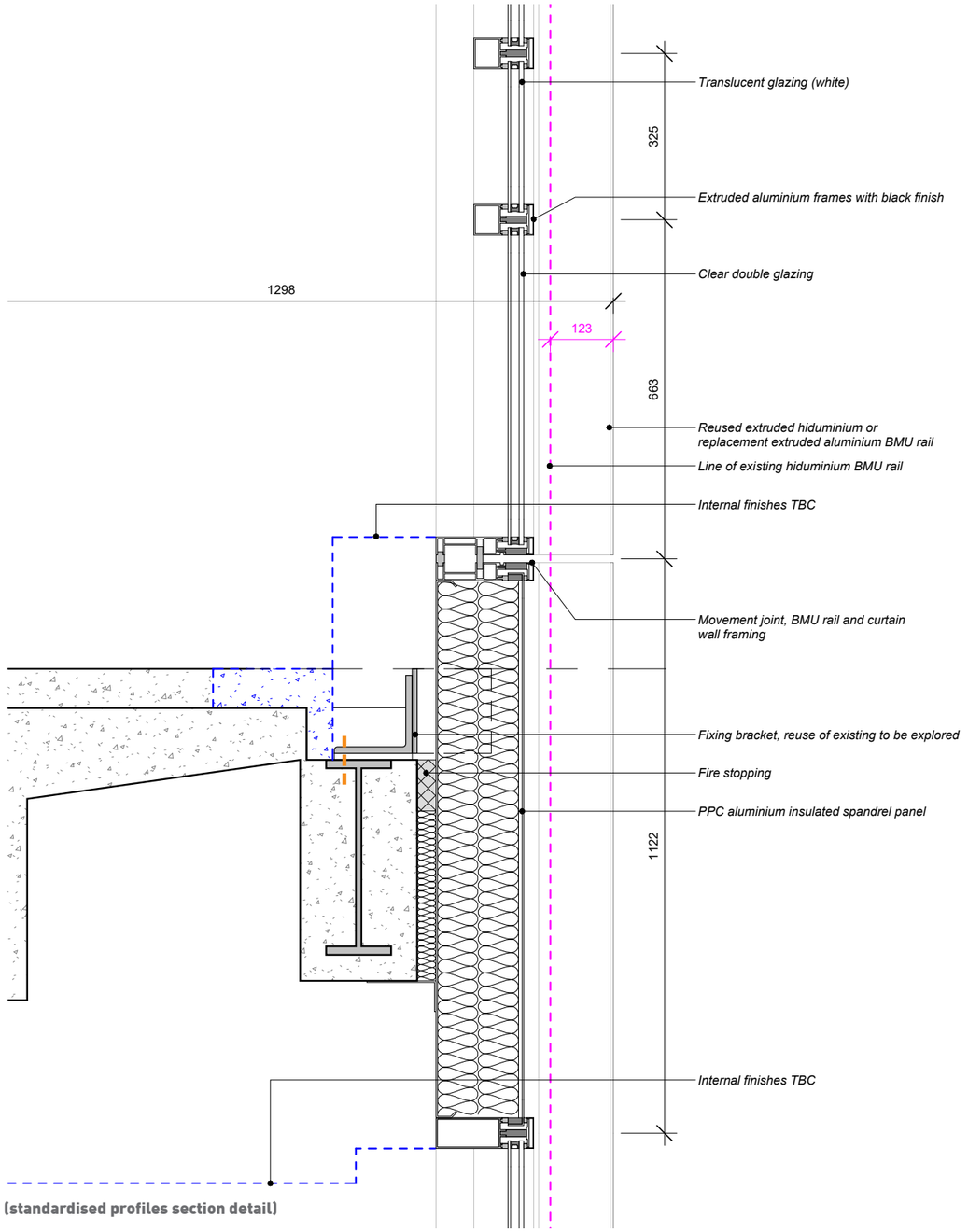
Section detail

OPTIONS 8 AND 11 DEVELOPMENT

Options 8 and 11 were subsequently studied in section with the key difference between the two being the extent of the facade moving outboard. This is a direct result of the allowance for standardised mullion profiles in Option 11, however this provides the benefit of improved thermal performance through the increased depth spandrel zone. Fixing methodologies are to be further developed, but may involve connection through the inboard top flange, from below.



Option 8 (bespoke profiles section detail)



Option 11 (standardised profiles section detail)

CORNER STUDY

One of the key visual impact concerns with regard to the cladding moving outboard was the impact on the corner detailing, which is read as a Modernist or Miesian expression of corners.

In plan the blanking panel on to the corner can be read to increase in width on Option 11 in particular, as a result of the circa 120mm movement of the facade outwards. This can be seen in the adjacent plan studies.

An alternative approach to Option 11 was explored, which looked at a resetting of the facade grid to achieve a consistent corner detail between the existing condition and the replacement condition. However, this raised concerns on a technical level with regard to fixing methodology, alongside a heritage impact with regard to the new facade grid being more impactful than the visual manifestation of the corner detail. It also exacerbated the clash of the tower and podium cladding grids, which were critiqued in 1963:

> *"...one must say that the curtain wall junction between the podium and the tower lets the detailing down...nothing less that a precise junction on a module will do for full satisfaction. Anything else looks like an accident and there has certainly been a 'tram-smash' here."*

Therefore, whilst both options result in a larger corner detail, particularly with Option 11, it is observable (see below) that the original design exhibited a hierarchy to the facade elements that included a 'strong' or 'pronounced' corner within the overall composition.

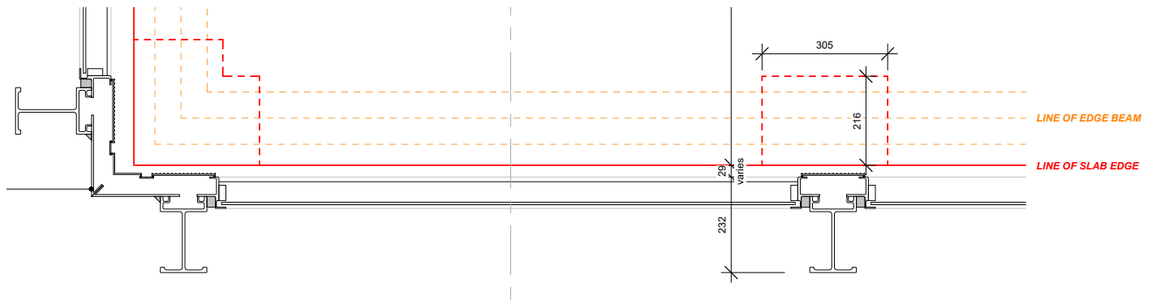
It is therefore felt that the proposed design response is sympathetic and in keeping with the original design language and hierarchy.

A modelling exercise has also been undertaken to review impact, which is demonstrated further in the chapter.

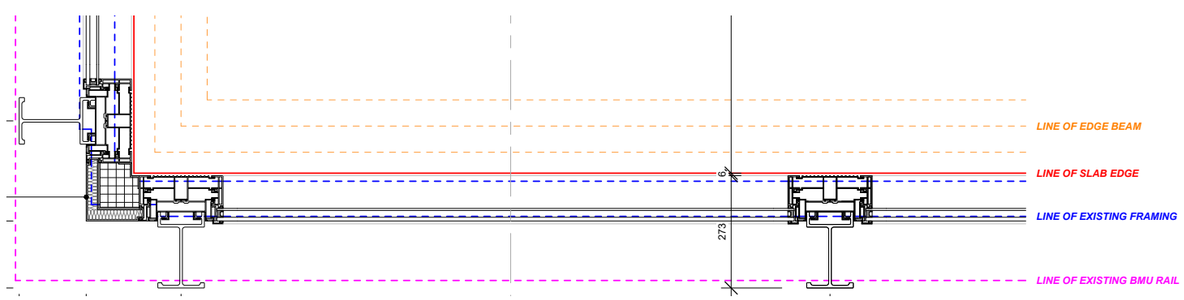




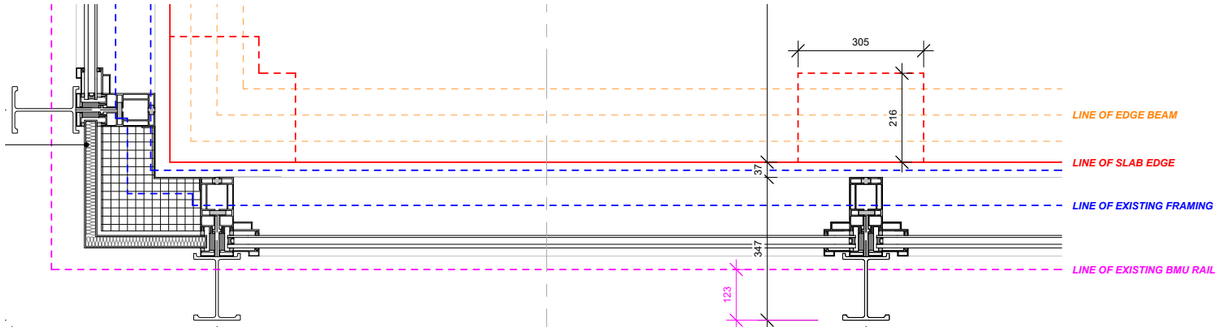
Existing plan detail



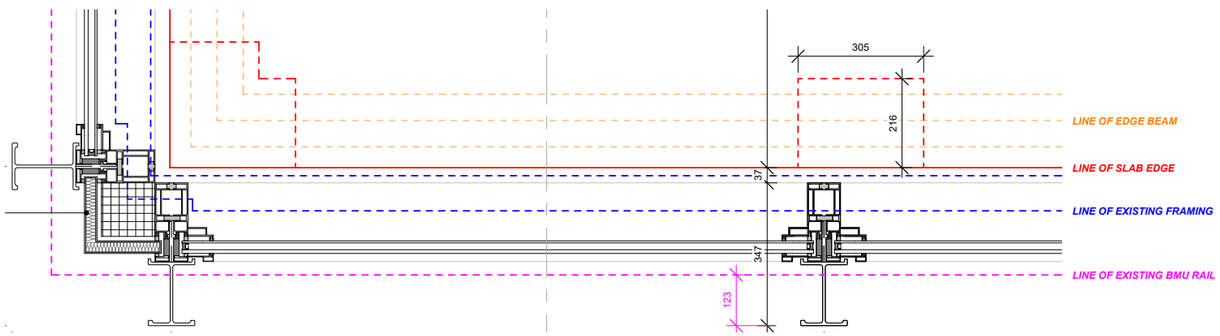
Option 8 plan detail



Option 11 plan detail

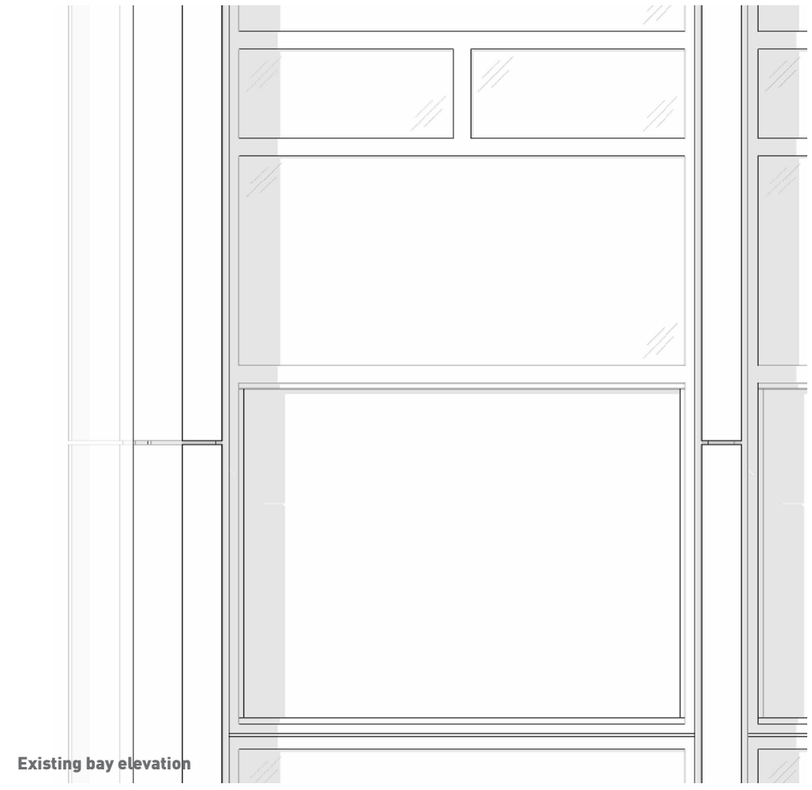


Option 11 plan detail with amended panel setting out

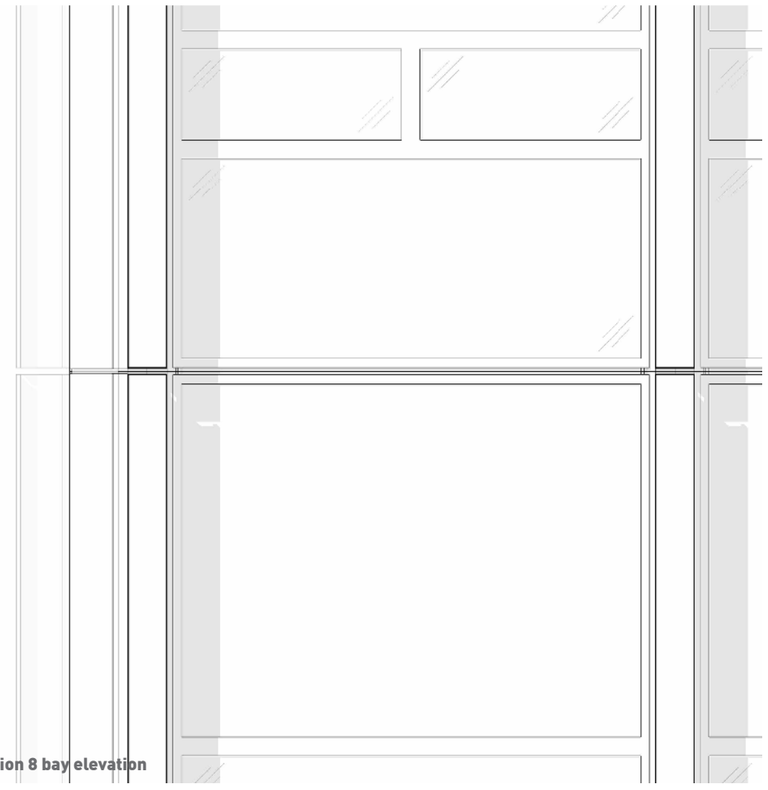


BAY STUDY

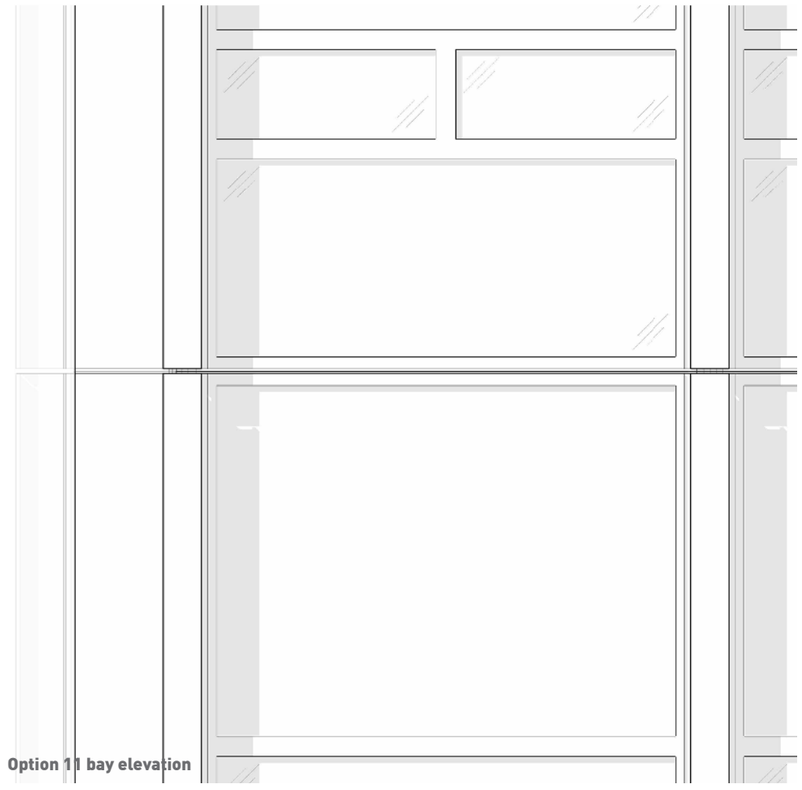
A bay study was also undertaken, including the corner increase. Whilst the corner increase is perceptible, the key differences to note are the improved transparency of both Options 8 and 11; alongside the change in movement joint location. An existing "T" rail joint is read in the spandrel zone, with no demonstrable horizontal framing joints. In both replacement options, the horizontal rail and panel joint is aligned with the head of the spandrel and the base of the vision unit. Whilst it is a visual change, this is not deemed to be of high significance in the overall composition.



Existing bay elevation



Option 8 bay elevation



Option 11 bay elevation



Existing bay visualisation



Option 8 bay visualisation



Option 11 bay visualisation

WIDER VISUAL IMPACT STUDY

Zooming out from the bay study, the options were subsequently explored at a macro level, with particular regard to the corners as previously noted.

In both options, in addition to the points noted, the removal of the reflective film could be observed to have a positive impact on the wider composition and target of replicating the original design intent.

OPTION 8 OBSERVATIONS

- Minor depth increase
- Cladding grid maintained. Greater system depth results in minor enlarging of corner detail
- Requires bespoke frame profiles
- Movement joint location moves to suit modern design methods

OPTION 11 OBSERVATIONS

- Greater depth increase
- Cladding grid maintained. Greater system depth has subsequent impact on corner detail
- Utilises standard frame profiles with improved deliverability and maximises performance
- Movement joint location moves to suit modern design methods


Existing condition visual


Option 8 visualisation


Option 11 visualisation

DETAIL DEVELOPMENT AND DELIVERABILITY

Throughout the design process, the 'conceptual' approach to each facade design option has inherently developed and been assessed.

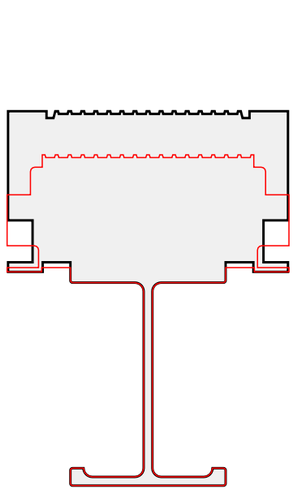
With focus on Options 8 (partially structural, bespoke framing) and Option 11 (non-structural, standardised framing), the detailing was developed with facade engineer and supply chain input.

This is demonstrated in the adjacent details for each option.

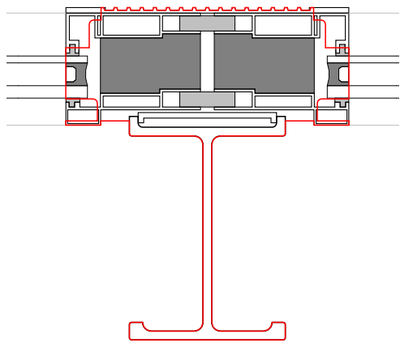
As has been described, Option 11 is the proposed solution, with a significant focus on supply chain deliverability, given the quantum of facade to be replaced.

Naturally, the details associated with Option 11 will further develop as the supply chain is further engaged and undertakes their own technical design of the system. Therefore the detailing provided in this application sets the visual intent and system parameters; with further information to be supplied via conditions, sampling and visual mock ups.

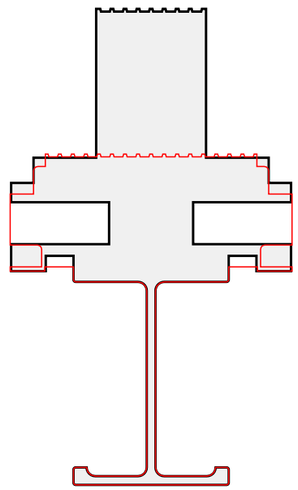
As a precursor to this process, 3D printing of a typical facade panel junction and a corner junction (to demonstrate the scale increase) has been undertaken to test the concepts of the system proposals. These 3D prints are shown in the adjacent photographs.



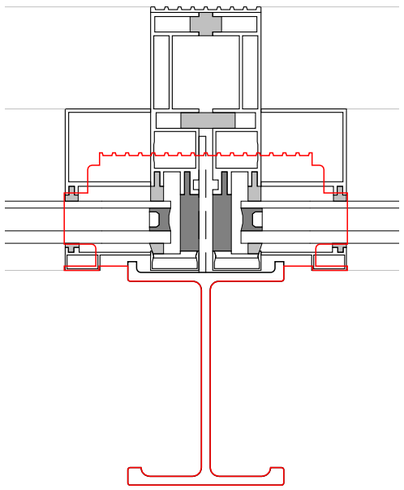
Option 8 early silhouette study



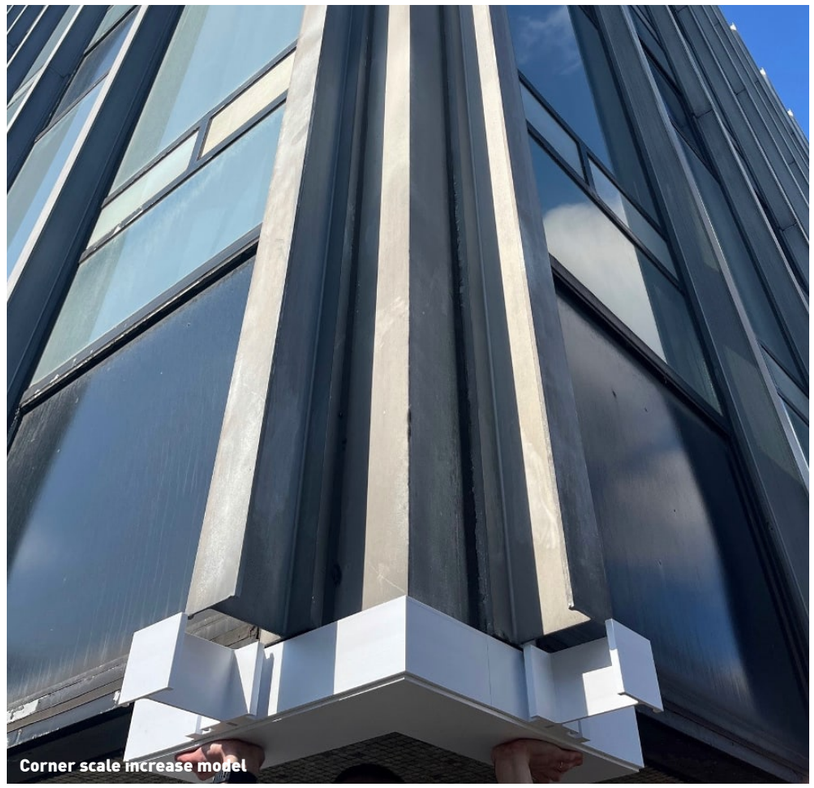
Option 8 developed detail



Option 11 early silhouette study



Option 11 developed detail



Corner scale increase model



Typical panel to panel junction model

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MATERIALITY

As part of the further surveys and supply chain input, a survey into the existing metal finishes was obtained. This states that the curtain wall framing and "T" rail have a liquid applied finish akin to a modern PPC finish:

"The three distinct layers on each sample are indicative of the profiles having been chromic acid pre-anodised, coated with a liquid epoxy resin-based primer and then a fluoropolymer liquid topcoat.

Essentially the same finishing system as on the feature fins except that the colour of the top coat is black and not light grey"

"Each sample was found to have been subjected to an anodic pre-treatment process, providing excellent levels of corrosion protection to the aluminium substrate, and then coated with a primer paint layer and finished with a decorative topcoat.

As powder coating technology, which is commonly used today, did not exist in the 1960's, we would anticipate the paint layers would have been a liquid epoxy resin-based primer and a fluoropolymer-based liquid topcoat."

Having determined that fluoropolymer coatings are limited in availability, particularly in the architectural metalwork industry; an anodising equivalent PPC finish is proposed for framing and spandrels, as per the below image. This would be used alongside a natural anodised aluminium 'T' rail, in principle. Black anodising is not proposed on the basis of being susceptible to damage, typically being more carbon intensive in its production than PPC and difficult to repair.

With regard to glazing; double glazed units are proposed with films to suit the required performances. The interlayer to the privacy band is to be determined following further investigative works.





FRAMING
Current : Fluoropolymer topcoat on pre-anodised aluminium

Proposed : High quality PPC in finish to match current, on aluminium cappings; see '1'. Internal finish to be white PPC

FEATURE FINS
Current : Fluoropolymer topcoat onto pre-anodised hiduminium

Proposed : Natural anodised aluminium (to be developed with supply chain on basis of robustness); see '2'

PRIVACY BAND
Current : Annealed single glazing with interlayer and perspex panel

Proposed : Double glazed units with films to suit required performances. Interlayer specification to be determined with supply chain following further investigation

GLAZING
Current : Annealed single glazing with solar film

Proposed : Double glazed units with films to suit required performances

SPANDRELS
Current : Vitreous Enamelled Steel

Proposed : High quality PPC in finish to match current, on aluminium

INTERNAL ELEVATION

With regard to the interior of the curtain wall, it can be observed that the current condition is significantly altered and varied from the original condition.

As part of the replacement proposals, it is intended that a homogenisation of the interior condition is achieved, albeit with a white rear of the facade opposed to black, to provide a clean and light backdrop to the office environment that is in line with modern workspace expectations.

Internal detailing is utilised to maintain a similarity in character between the existing and proposed, through elements such as the cover plate between panels. The defunct perimeter Weathermaster system is replaced in lieu of a more typical cill and upstand detail.

ORIGINAL CONDITION

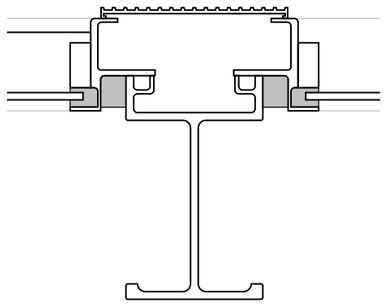
- Black rear of facade
- Timber glazing beads and black extruded cover plate to mullions
- Black finished perimeter Weathermaster
- Vertical blinds

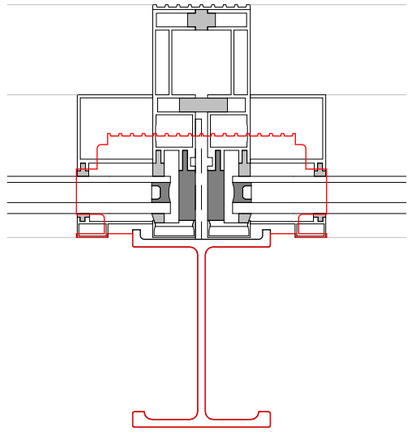
EXISTING CONDITION

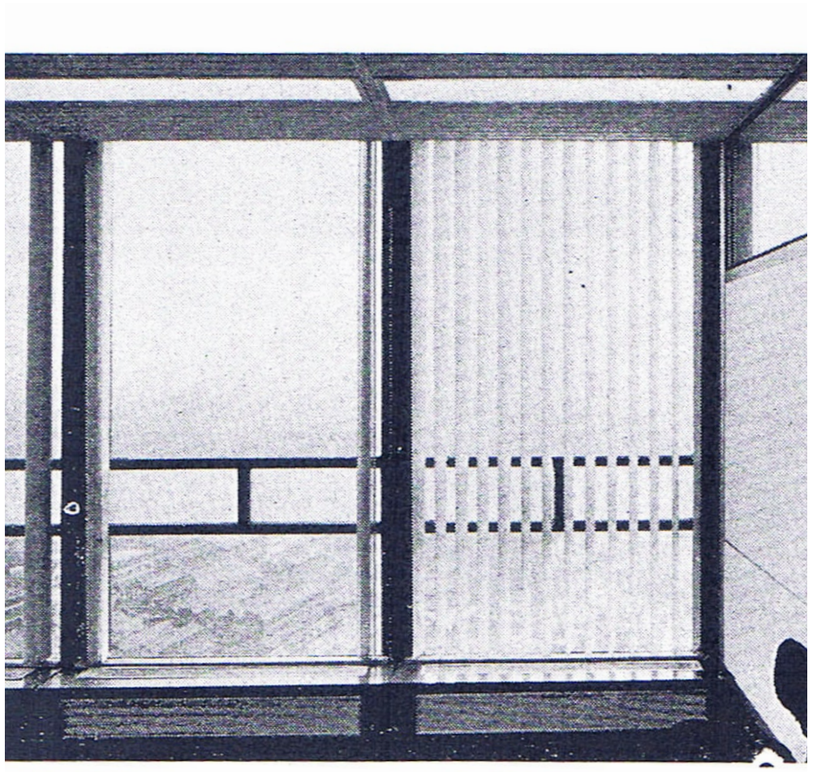
- White and/or black over painted rear of facade
- White and/or black over painted timber glazing beads and extruded cover plate to mullions
- White and/or black finished perimeter Weathermaster
- Vertical blinds

PROPOSED CONDITION

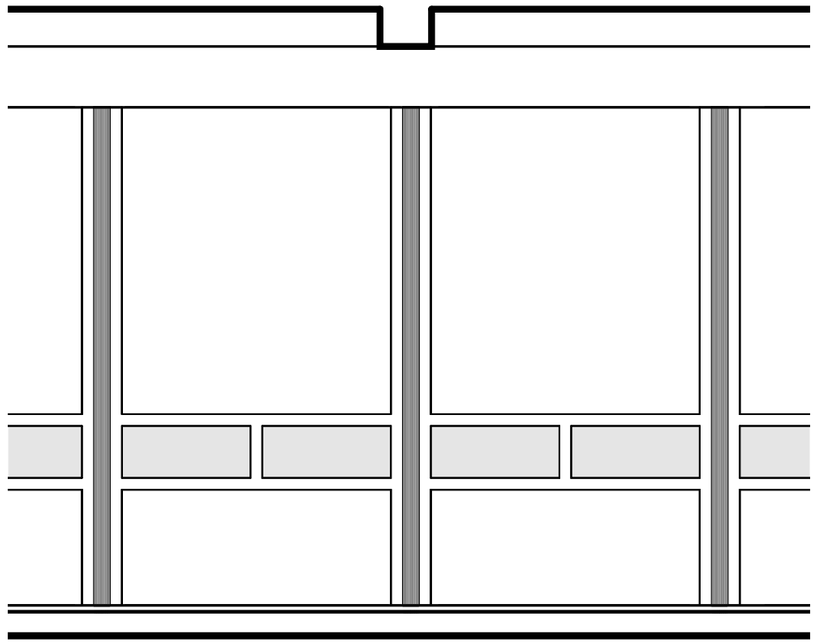
- White PPC rear of facade
- Omission of timber glazing beads with new profiled aluminium beads
- Cover plate expression
- White painted plasterboard perimeter cill and timber skirting detail
- Landlord specification for blinds (specification tbc)











FACADE OPTIONS MATRIX : TOPICS AND OPTIONS

An approach for assessing the options was agreed with Manchester City Council, for presentation to all stakeholders and consultees. The below topics were agreed, with the matrix inputs provided by the relevant specialist design team members, to assess the 11no options developed over the course of the design process by SimpsonHaugh Architects. The matrix is then supported by technical reports produced by the relevant design team member. The full matrix is provided on the following pages.

MATRIX TOPICS:

OVERVIEW
- External Design Description
- Internal Design Description
- Fabric Impact
- Visual Impact
- Heritage Impact Summary
- Sustainability
- Commercials
- Public Benefit incl. Heritage Benefit

PERFORMANCE
- U-Value
- EPC Rating
- Condensation Risk
- Embodied Carbon
- Operational Carbon
- Whole Life Carbon
- Design Life
- Structural Impacts
- Acoustic Performance

WIDER CONSIDERATIONS
- CDM/Health and Safety considerations
- Access & Maintenance considerations
- Capital cost/sqm
- Market considerations
- Warranty considerations
- Circularity principles and procurement
- Buildability considerations

MATRIX OPTIONS:

- Baseline : Retention of current condition

REFURBISHMENT
- Option 1 : Refurbishment in line with 2020 Planning Consent (new double glazing spandrels, existing frame and rails refurbished insitu)
- Option 2 : Refurbished frames and rails; single glazing with secondary glazing, new spandrels
- Option 3 : Refurbished frames and rails; double glazing with secondary glazing, new spandrels

REPLACEMENT
- Option 4 : Replacement unitised facade with structural reuse of hiduminium rails and bespoke extrusions
- Option 5 : Replacement unitised facade with structural reuse of hiduminium rails and bespoke extrusions (variation)
- Option 6 : Replacement unitised facade with non-structural reuse of hiduminium rails, bespoke extrusions and slab cut to receive framing and fire stopping
- Option 7 : Replacement unitised facade with non-structural reuse of hiduminium rails, bespoke extrusions and facade line offset to enable framing and fire stopping installation without cutting slabs
- Option 8 : Replacement unitised facade with partially structural reuse of hiduminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs
- Option 9 : Replacement unitised facade with non-structural reuse of hiduminium rails and typical modern slimline profiles
- Option 10 : Replacement unitised facade with non-structural reuse of hiduminium rails and typical modern slimline profiles with bespoke caps
- Option 11 : Replacement unitised facade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps

Note that Options 6-10 could theoretically utilise a hiduminium or aluminium rail, but have been assessed on the basis of hiduminium reuse



FACADE OPTIONS MATRIX : OVERVIEW

Option No.	Façade Proposal	OVERVIEW External Design Description *See also Design and Access Statement*	Internal Design Description *See also Design and Access Statement*	Fabric Impact *See also Heritage Statement*	Visual Impact *See also Heritage Statement*	Heritage Impact Summary *See also Heritage Statement, for detailed impact assessment and consideration of wider heritage benefits that could outweigh the impacts identified below.*
Baseline	Retain in current condition.	Frames and hidiminium rails exhibiting corrosion and patination. Finishes peeling. Spandrels beginning to bow and sag, with finish patination. Glass locally broken, with post applied solar film to inside face delaminating. Obscurity panel discolouring and sealants inconsistent in type and age. Column casings corroding and finish degrading. Mosaic tesserae tiling delaminating and soiled . Hidiminium rails are structural (supporting frames) and are deadloaded on top of one another, requiring a top-down removal.	Aging and varied; reflecting a number of fitouts/refurbishments and maintenance works over design life. Post applied solar film is delaminating, diminishing the performance benefits and distracts from original visual intent of transparency.	Façade is little altered and retains original, historic fabric.However, historic fabric continues to deteriorate requiring localised, ad-hoc, repairs.	The façade expresses the original architectural design intent which is of high significance. However, appearance of building continues to deteriorate.	Negligible adverse in the short-term becoming increasing higher over time if this option results in the building not being in active use / repaired.
1	Refurbishment inline with 2020 Planning Consent (new double glazing and spandrels, existing frame and rails refurbished insitu).	Visual changes with regard to spandrel finish and glass type (glass becomes clear as original intent, albeit double glazed with modern coatings). Metalwork finishes restored/refurbished.	Unchanged internal appearance and profiles beyond homogenisation of internal decoration and replacement beading to support new glazing.	Direct Impact: minor adverse Option ensures minimal intervention to historic fabric.	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Beneficial
2	Refurbished frames and rails; single glazing with secondary glazing; new spandels.	Visual changes with regard to spandrel finish. Post applied glass coatings removed. Secondary glazing system visible through external wall glazing. Metalwork finishes restored/refurbished.	New secondary glazing system installed to interior becomes the dominant feature to the internal elevation, obscuring existing framing. Homogenisation of internal decoration also required.	Direct Impact: minor adverse Option ensures minimal intervention to historic fabric.	Indirect Impact: minor-to-moderate adverse Secondary glazing has potential for adverse impact on the external architectural expression of the building.	Minor adverse
3	Refurbished frames and rails; double glazing with secondary glazing; new spandels.	Visual changes with regard to spandrel finish and glass type (glass becomes clear as original intent, albeit double glazed with modern coatings). Metalwork finishes restored/refurbished. Secondary glazing system visible through external wall glazing.	New secondary glazing system installed to interior becomes the dominant feature to the internal elevation, obscuring existing framing. Homogenisation of internal decoration also required, alongside replacement beading to support new glazing.	Direct Impact: minor adverse Option ensures minimal intervention to historic fabric.	Indirect Impact: Minor-to-moderate adverse Secondary glazing has potential for adverse impact on the external architectural expression of the building.	Minor adverse
4	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions.	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Wet seals retained. Shadow gap profiles vary from original.	New curtain wall to interior with cover plates to disguise panel joints. Shallow depth profiles retain similar sight lines. Framing marginally wider than existing profiles, in elevation.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: beneficial Architectural design intent maintained - changes imperceptible.	Minor adverse
5	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions (variation).	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Wet seals retained. Shadow gap profiles vary from original. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: beneficial Architectural design intent maintained - changes imperceptible.	Minor adverse
6	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and slab cut to receive framing and fire stopping. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Wet seals retained. Shadow gap profiles vary from original. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Much deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation. Overall profile stepped to reduce overall impact.	Direct Impact: moderate-to-major adverse All historic fabric removed bar the hidiminium rails. Additional fabric intervention to slab.	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Moderate adverse
7	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and façade line offset to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Wet seals retained. Shadow gap profiles vary from original. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Much deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation. Overall profile stepped to reduce overall impact.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Minor-to-moderate adverse
8	Replacement unitised façade with partially-structural reuse of hidiminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Wet seals retained. Shadow gap profiles vary from original. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Much deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation. Overall profile stepped to reduce overall impact.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Minor-to -moderate adverse
9	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Shadow gaps/caps omitted, removing design language of original profiles. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. System deeper and narrower than original, posing significant change in overall profile to original.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: moderate adverse Change to architectural design intent will be perceptible.	Moderate adverse
10	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles with bespoke caps.	New metallic PPC finishes to all external framing, except for refurbished hidiminium rails. New double glazing to receive modern coatings. Shadow gaps/caps utilised to mimic design language of original profiles. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Much deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation. Overall profile stepped to reduce overall impact.	Direct Impact: moderate adverse All historic fabric removed bar the hidiminium rails	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Minor adverse
11 (Proposed Option)	Replacement unitised façade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps.	New metallic PPC finishes to all external framing; new natural anodised finish to aluminium rails. New double glazing to receive modern coatings. Shadow gaps/caps utilised to mimic design language of original profiles. Line of façade moves outboard.	New curtain wall to interior with cover plates to disguise panel joints. Much deeper profiles than original system alters sight lines. Framing marginally wider than existing profiles, in elevation. Overall profile stepped to reduce overall impact.	Direct Impact: major All historic fabric removed.	Indirect Impact: beneficial The façade expresses the original architectural design intent which is of high significance.	Moderate adverse

FACADE OPTIONS MATRIX : OVERVIEW

Option No.	Façade Proposal	OVERVIEW Sustainability	Commercials	Public Benefit (including Heritage Benefit) *See also Planning Statement and Public Benefit Considerations Statement*
Baseline	Retain in current condition.	Weakest thermal performance and operational energy. Results in substantial energy wastage and requires oversized HVAC plant to provide comfortable internal environment. ESG targets unlikely to be achieved.	Ability to obtain full warranty: N/A Façade supply chain availability: N/A ££££££	The façade is of low performance and condition is degrading. The current appearance of the building detracts visually from the surrounding area. It does not meet the requirements of potential future occupiers and would therefore likely struggle to secure tenants and therefore an optimum viable use. This option therefore makes a limited to no positive impact on job creation or supporting economic growth of the city region. Without a viable long term use then the building could fall into further disrepair. With limited occupation there will be limited access and appreciation of the heritage asset. The 'do nothing' approach would generate no net public benefits.
1	Refurbishment inline with 2020 Planning Consent (new double glazing and spandrels, existing frame and rails refurbished insitu).	Glazing heat loss is lowered but framing heat loss remains high, mitigating potential reductions on heating demand. Solar control glazing can be incorporated to improve internal environment quality. ESG targets unlikely to be achieved. Lower embodied carbon but higher whole life carbon than replacement approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial warranty, for new elements only Façade supply chain availability: limited £££££	Double glazing would help enhance the environmental attributes of the building; however, improvements would be limited. It does not meet the requirements of potential future occupiers and would therefore likely struggle to secure tenants and therefore an optimum viable use. There would therefore be limited / no public benefits associated with the long-term viability or occupation of the building. This option makes a limited to no positive impact on job creation or supporting economic growth of the city region. If the building cannot attract occupiers it would not be commercially viable for a developer, meaning the heritage benefits (bringing the building back into optimum viable use) would not be fully realised. With limited occupation there will be limited access and appreciation of the heritage asset, resulting in limited to no net heritage benefits.
2	Refurbished frames and rails; single glazing with secondary glazing; new spandels.	Thermal performance improved, but over-specified HVAC plant still required to provide comfortable internal environment. No opportunity to incorporate solar control glazing to further improve performance. ESG targets unlikely to be achieved. Lower embodied carbon but higher whole life carbon than replacement approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial warranty, for new elements only Façade supply chain availability: limited £££££	Secondary glazing would help enhance the environmental attributes of the building; however, improvements would be limited. It does not meet the requirements of potential future occupiers and would therefore likely struggle to secure tenants and therefore an optimum viable use. There would therefore be limited / no public benefits associated with the long-term viability or occupation of the building This option makes a limited to no positive impact on job creation or supporting economic growth of the city region. If the building cannot attract occupiers it would not be commercially viable for a developer, meaning the heritage benefits (bringing the building back into optimum viable use) would not be fully realised. With limited occupation there will be limited access and appreciation of the heritage asset, resulting in limited to no net heritage benefits.
3	Refurbished frames and rails; double glazing with secondary glazing; new spandels.	Thermal performance improved to meet targets in Building Regulations, but over-specified HVAC plant still required to provide comfortable internal environment. Solar control glazing can be incorporated to further improve internal environment quality. Some ESG targets may be achieved, but this would require enhanced servicing plant. Lower embodied carbon but higher whole life carbon than replacement approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial warranty, for new elements only Façade supply chain availability: limited £££££	Secondary glazing would help enhance the environmental attributes of the building; however, improvements would be limited. It does not meet the requirements of potential future occupiers and would therefore likely struggle to secure tenants and therefore an optimum viable use. There would therefore be limited / no public benefits associated with the long-term viability or occupation of the building This option makes a limited to no positive impact on job creation or supporting economic growth of the city region. If the building cannot attract occupiers it would not be commercially viable for a developer, meaning the heritage benefits (bringing the building back into optimum viable use) would not be fully realised. With limited occupation there will be limited access and appreciation of the heritage asset, resulting in limited to no net heritage benefits.
4	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions.	Thermal performance improved to meet targets in Building Regulations, but over-specified HVAC plant still required to provide comfortable internal environment. Solar control glazing can be incorporated to further improve internal environment quality. Some ESG targets may be achieved, but this would require enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial warranty, for new elements only; structural reuse of hiduminium rails not understood to be warrantable. Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
5	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions (variation).	Thermal performance improved to meet targets in Building Regulations, but over-specified HVAC plant still required to provide comfortable internal environment. Solar control glazing can be incorporated to further improve internal environment quality. Some ESG targets may be achieved, but this would require enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial warranty, for new elements only; structural reuse of hiduminium rails not understood to be warrantable. Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
6	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and slab cut to receive framing and fire stopping. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Thermal performance improved to meet targets in Building Regulations, but over-specified HVAC plant still required to provide comfortable internal environment. Solar control glazing can be incorporated to further improve internal environment quality. Some ESG targets may be achieved, but this would require enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial, for new elements only Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
7	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and façade line offset to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Thermal performance improved to meet targets in Building Regulations, but over-specified HVAC plant still required to provide comfortable internal environment. Solar control glazing can be incorporated to further improve internal environment quality. Some ESG targets may be achieved, but this would require enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial, for new elements only Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
8	Replacement unitised façade with partially-structural reuse of hidiminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Thermal performance improved to meet targets in Building Regulations without requirement to over-spec HVAC plant. Solar control glazing can be incorporated to further improve internal environment quality. ESG targets can be achieved, but this may require some enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminum rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial, for new elements only; structural reuse of hiduminium rails not understood to be warrantable. Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
9	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Thermal performance improved to meet targets in Building Regulations without requirement to over-spec HVAC plant. Solar control glazing can be incorporated to further improve internal environment quality. ESG targets can be achieved, but this may require some enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial, for new elements only Façade supply chain availability: very limited £££££	Improved environmental performance, however, replacement of the façade combined with the retention of the rails has the highest embodied carbon. In addition, the visual change from the original will detract from the appearance. Improvements may meet the requirements of potential future occupiers, and if successfully occupied, the proposals would secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. As the proposals are likely to attract occupiers it will secure the long-term future of the building, thus securing heritage benefits. However, the poor aesthetics may detract from the overall visual appearance of the building, and impact on ability for visitors to appreciate the original architectural expression of heritage asset.
10	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles with bespoke caps.	Best thermal performance of all options, minimising building energy requirements and removing need to over-spec HVAC plant. Solar control glazing can be incorporated to further improve internal environment quality. ESG targets likely to be achieved, without requirement for enhanced servicing plant. Combination of replacement facade and refurbished hiduminium rails results in highest embodied carbon, but still results in lower whole life carbon than full refurbishment approach (over a life of 60 years). Refurbishment of existing hiduminium rails more carbon intensive than replacement with new aluminium rails.	Ability to obtain full warranty: partial, for new elements only Façade supply chain availability: very limited £££££	Improved environmental performance. However, refurbishment of existing rails is more carbon intensive than replacing them with new aluminium rail. Improved environmental performance would meet the requirements of potential future occupiers. The proposals are therefore likely secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. If successfully occupied, this would secure the long-term use of the building, by re-activating an existing heritage asset through securing its 'optimum viable use' alongside newly created retail and leisure space, drawing people into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.
11 (Proposed Option)	Replacement unitised façade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps.	Best thermal performance of all options, minimising building energy requirements and removing need to over-spec HVAC plant. Solar control glazing can be incorporated to further improve internal environment quality. ESG targets likely to be achieved, without requirement for enhanced servicing plant. Higher embodied carbon than refurbishment approach, but best whole life carbon performance of all options (over a life of 60 years).	Ability to obtain full warranty: yes Façade supply chain availability: good £££££	Significant improvements to environmental performance. This also represents the most thermally efficient option, therefore minimising the energy requirements of the building. Would secure the long-term use of the building which in-turn would enhance activity and pedestrian footfall in the area, reducing anti-social behaviour and providing improved connections through the city. Improved environmental performance would meet requirements of potential future occupiers. The proposals are therefore likely to secure the long-term occupation of the building, thus facilitating job creation and supporting the economic growth of the city region. The proposals will secure the long-term occupation and use of the building - the optimum viable use, and will therefore also secure heritage benefits, which the viability of this scheme allows. By re-activating an existing heritage asset, people will be drawn into the area to appreciate and understand the value of this historic asset, in addition to securing ongoing retention and maintenance.

FACADE OPTIONS MATRIX : PERFORMANCE CONSIDERATIONS

Option No.	Façade Proposal	PERFORMANCE CONSIDERATIONS U-Value	EPC rating *See also Façade Operational Energy and Carbon Study*	Condensation risk *(Theoretical RH at which condenstation would occur as %)*	Embodied Carbon *Calculated based on upgraded building services*	Operational Carbon *Calculated based on upgraded building services*	Whole Life Carbon *Calculated based on upgraded building services*	Design life *See also Façade Engineering Report*	Structural impacts *See also Structural Report*	Acoustic performance *See also Acoustic Report*
Baseline	Retain in current condition.	Circa 5.3 W/m^{2}K	EPC: E-125; B-33 with new services NCM Energy vs Existing: -38.3% NCM CO2 vs. Existing: -50.54%	High (24%). Condensation is observed.	N/A	14.81kgCO_2/m^2	N/A	Elements beyond intended design life.	N/A (estimated current weight of 160kg/m).	Min. Requirement 30 dB Rw + Ctr. Proposal could achieve 30 to 33 dB Rw + Ctr based on on-site measurements.
1	Refurbishment inline with 2020 Planning Consent (new double glazing and spandrels, existing frame and rails refurbished insitu).	Circa 2.6 W/m2K	EPC: A-24 NCM Energy vs Existing: -49.42% NCM CO2 vs. Existing: -59.57%	High (25%)	130kgCO_2/m^2	13.38kgCO_2/m^2	480kgCO_2/m^2	Anticipated 25-30 years for refurbished framing and new glazing; expected that refurbished existing framing would require refinishing every 10-15 years, and full replacement at the same time as new glazing.	Estimated weight of 230kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr. Proposal could achieve 30 to 33 dB Rw + Ctr based on on-site measurements.
2	Refurbished frames and rails; single glazing with secondary glazing; new spandels.	Circa 3.0 W/m2K	EPC: A-25 NCM Energy vs Existing: -48.12% NCM CO2 vs. Existing: -58.84%	High (41%)	130kgCO_2/m^2	13.60kgCO_2/m^2	480kgCO_2/m^2	Anticipated 25-30 years for refurbished framing and new glazing; expected that refurbished existing framing would require refinishing every 10-15 years, and full replacement at the same time as new glazing.	Estimated weight of 240kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could readily achieve ↗38 dB Rw + Ctr
3	Refurbished frames and rails; double glazing with secondary glazing; new spandels.	Circa 2.0 W/m2K	EPC: A-22 NCM Energy vs Existing: -50.77% NCM CO2 vs. Existing: -61.22%	High (31%)	130kgCO_2/m^2	12.97kgCO_2/m^2	480kgCO_2/m^2	Anticipated 25-30 years for refurbished framing and new glazing; expected that refurbished existing framing would require refinishing every 10-15 years, and full replacement at the same time as new glazing.	Estimated weight of 260kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could readily achieve ↗38 dB Rw + Ctr
4	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions.	Circa 2.0 W/m2K	EPC: A-22 NCM Energy vs Existing: -50.77% NCM CO2 vs. Existing: -61.22%	Medium/Low (60%)	180kgCO_2/m^2	12.97kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 220-250kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
5	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions (variation).	Circa 2.0 W/m2K	EPC: A-22 NCM Energy vs Existing: -50.77% NCM CO2 vs. Existing: -61.22%	Medium/Low (60%)	180kgCO_2/m^2	12.97kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 220-250kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
6	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and slab cut to receive framing and fire stopping. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Circa 2.0 W/m2K	EPC: A-22 NCM Energy vs Existing: -50.77% NCM CO2 vs. Existing: -61.22%	Medium/Low (58%)	180kgCO_2/m^2	12.97kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
7	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and façade line offset to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Circa 2.0 W/m2K	EPC: A-22 NCM Energy vs Existing: -50.77% NCM CO2 vs. Existing: -61.22%	Medium/Low (58%)	180kgCO_2/m^2	12.97kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
8	Replacement unitised façade with partially-structural reuse of hidiminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Circa 1.53 W/m2k	EPC: A-22 NCM Energy vs Existing: -52.46% NCM CO2 vs. Existing: -62.7%	Medium/Low (58%)	180kgCO_2/m^2	12.67kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
9	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Circa 1.53 W/m2K	EPC: A-21 NCM Energy vs Existing: -52.46% NCM CO2 vs. Existing: -62.7%	Low (67%)	180kgCO_2/m^2	12.65kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
10	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles with bespoke caps.	Circa 1.44 W/m2K	EPC: A-21 NCM Energy vs Existing: -53.12% NCM CO2 vs. Existing: -74.98%	Low (65%)	180kgCO_2/m^2	12.62kgCO_2/m^2	420kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.
11 (Proposed Option)	Replacement unitised façade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps.	Circa 1.44 W/m2K	EPC: A-21 NCM Energy vs Existing: -53.12% NCM CO2 vs. Existing: -63.01%	Low (65%)	150kgCO_2/m^2	12.62kgCO_2/m^2	380kgCO_2/m^2	Framing 50-60 years; glazing 25-30 years	Estimated weight of 250-280kg/m. Additional steel brackets required on perimeter to increase existing structure's load capacity.	Min. Requirement 30 dB Rw + Ctr Proposal could achieve between 30 to 40 dB Rw + Ctr depending on specification of glazing.

FACADE OPTIONS MATRIX : OTHER CONSIDERATIONS

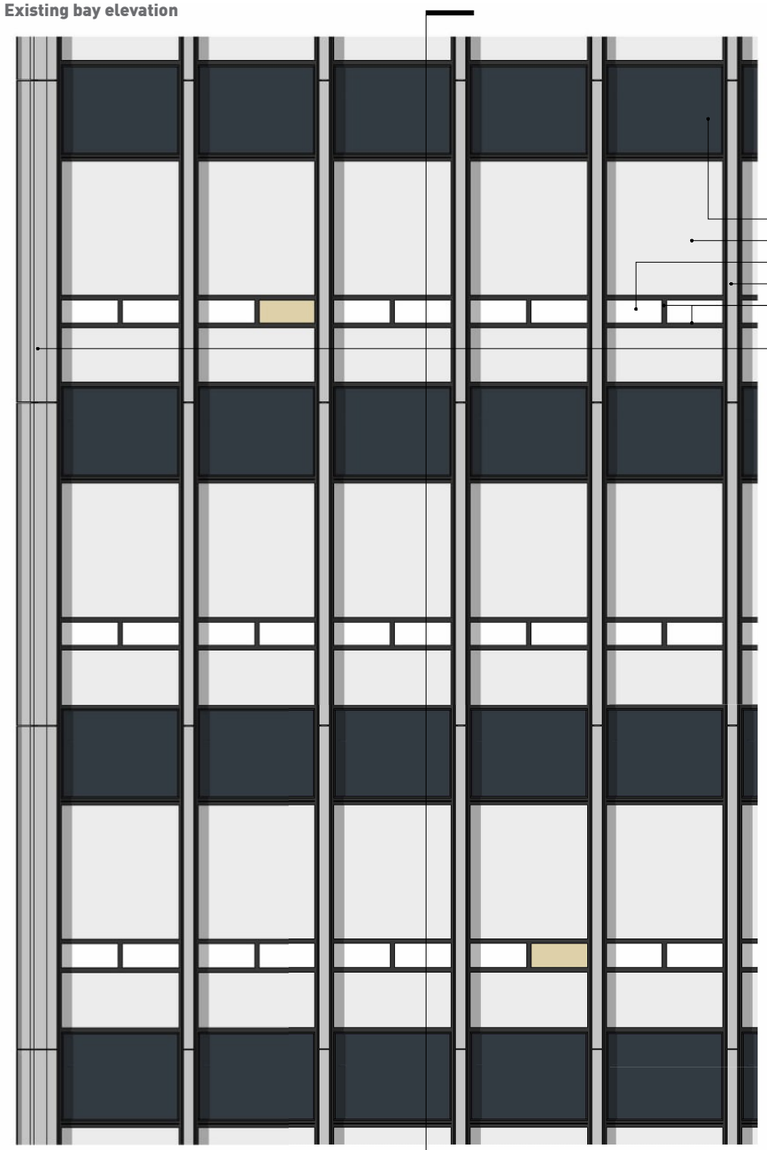
Option No.	Façade Proposal	OTHER CONSIDERATIONS CDM / H&S considerations	Access & Maintenance considerations	Capital cost / sqm *Excludes costs associated with differing programme lengths, access requirements and installation requirements.*	Market considerations *See also Market Considerations Statement*
Baseline	Retain in current condition.	Existing single glazing lacks the required structural and safe breakage requirements. Continuity, performance and extents of fire stopping unknown; archival drawings suggest there may be no fire stopping present. Existing spandrel panels known to contain asbestos. BMU restraint reliant on existing hiduminium rails.	BMU utilises hidiminium rails. Consideration of asbestos disturbance required. Framing wet sealed externally.	N/A	Low EPC rating and poor environmental performance unlikely to meet prospective occupiers' ESG goals; high risk of condensation expected to be unacceptable to occupiers.
1	Refurbishment inline with 2020 Planning Consent (new double glazing and spandrels, existing frame and rails refurbished insitu).	New glazing provides safe breakage and barrier loading in line with modern requirements. New fire stopping can be installed, but continuity and performance may be limited by spatial constraints of existing framing. Replacement of spandrel panel likely to remove bulk of asbestos, but some may require encapsulation if retention of existing framing prevents access for full removal. BMU restraint reliant on existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass replacement can occur from inside with external support from BMU; spandrel replacement external via BMU.	£1,100	Poor EPC rating and poor environmental performance unlikely to meet prospective occupiers' ESG goals; high risk of condensation expected to be unacceptable to occupiers.
2	Refurbished frames and rails; single glazing with secondary glazing; new spandels.	Existing single glazing lacks the required structural and safe breakage requirements; barrier loading would need to be provided by secondary glazing. New fire stopping can be installed, but continuity and performance may be limited by spatial constraints of existing framing. Replacement of spandrel panel likely to remove bulk of asbestos, but some may require encapsulation if retention of existing framing prevents access for full removal. BMU restraint reliant on existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass replacement can occur from inside with external support from BMU, but requires access through secondary glazing; spandrel replacement external via BMU.	£1,025	Poor EPC rating; environmental performance improved; high risk of condensation expected to be unacceptable to occupiers; secondary glazing creates dated design and feel to office interiors, expected to be unappealing to prospective occupiers.
3	Refurbished frames and rails; double glazing with secondary glazing; new spandels.	New glazing provides safe breakage and barrier loading in line with modern requirements. New fire stopping can be installed, but continuity and performance may be limited by spatial constraints of existing framing. Replacement of spandrel panel likely to remove bulk of asbestos, but some may require encapsulation if retention of existing framing prevents access for full removal. BMU restraint reliant on existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass replacement can occur from inside with external support from BMU, but requires access through secondary glazing; spandrel replacement external via BMU.	£1,200	EPC rating and environmental performance improved; high risk of condensation expected to be unacceptable to occupiers; secondary glazing creates dated design and feel to office interiors, expected to be unappealing to prospective occupiers.
4	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions.	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint can continue to use existing hiduminium rails or new pins can be post-applied.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,400	EPC rating and environmental performance better aligned with ESG goals of prospective clients; risk of condensation significantly reduced and less likely to concern prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
5	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions (variation).	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint can continue to use existing hiduminium rails or new pins can be post-applied.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,400	EPC rating and environmental performance better aligned with ESG goals of prospective clients; risk of condensation significantly reduced and less likely to concern prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
6	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and slab cut to receive framing and fire stopping. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins post-applied to existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,350	EPC rating and environmental performance better aligned with ESG goals of prospective clients; risk of condensation significantly reduced and less likely to concern prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
7	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and façade line offset to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins post-applied to existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,325	EPC rating and environmental performance better aligned with ESG goals of prospective clients; risk of condensation significantly reduced and less likely to concern prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
8	Replacement unitised façade with partially-structural reuse of hidiminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins post-applied to existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass replacement can occur from inside with external support from BMU, but requires access through secondary glazing; spandrel replacement external via BMU.	£1,325	EPC rating and environmental performance better aligned with ESG goals of prospective clients; risk of condensation significantly reduced and less likely to concern prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
9	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins post-applied to existing hiduminium rails.	Periodic cleaning at least 3 times per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 5 years, and then every 2 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,275	EPC rating and environmental performance best aligned with ESG goals of prospective clients; low risk of condensation removes concern for prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
10	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles with bespoke caps.	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins post-applied to existing hiduminium rails.	Periodic cleaning at least twice per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 10 years, and then every 5 years. Existing BMU can be retained, with facade restraint system using existing hiduminium rail. Glass and spandrel replacement external via BMU; removal of hiduminium rail required for replacement.	£1,275	EPC rating and environmental performance best aligned with ESG goals of prospective clients; low risk of condensation removes concern for prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.
11 (Proposed Option)	Replacement unitised façade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps.	Modern safety standards in relation to safe breakage and barrier loading achieved by new facade. New fire stopping can be installed to achieve the required performance and compartmentation. Asbestos removed from facade in full. BMU restraint via new pins integrated into design of new aluminium rails.	Periodic cleaning at least twice per year using traditonal hands on window cleaning techniques. Inspection of external gaskets and seals required after 10 years, and then every 5 years. Existing BMU can be retained, with facade restraint system using new akuminium rail. Glass and spandrel replacement external via BMU; removal of aluminium rail required for replacement.	£1,250	EPC rating and environmental performance best aligned with ESG goals of prospective clients; low risk of condensation removes concern for prospective occupiers; modern and sleek design and feel to office interiors likely to be appealing to prospective occupiers.

FACADE OPTIONS MATRIX : OTHER CONSIDERATIONS

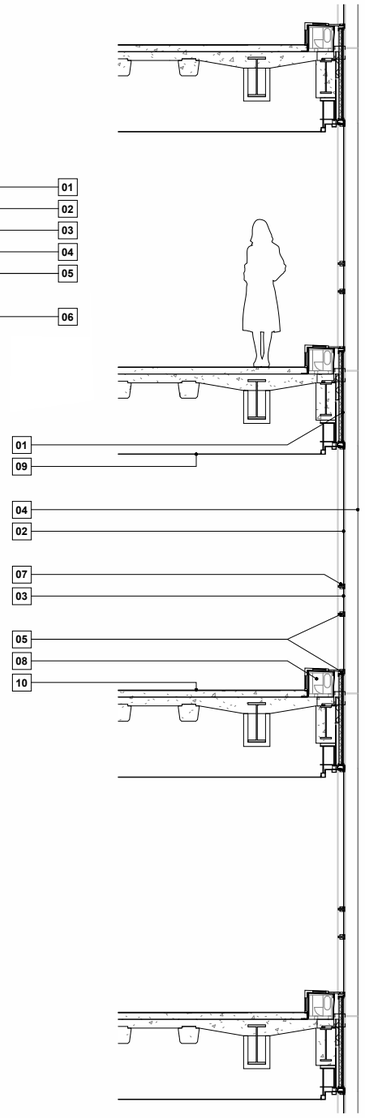
Option No.	Façade Proposal	OTHER CONSIDERATIONS		
		Warranty considerations	**Circularity principles and procurement**	**Buildability considerations**
Baseline	Retain in current condition.	Warranties no longer valid.	N/A	N/A
1	Refurbishment inline with 2020 Planning Consent (new double glazing and spandrels, existing frame and rails refurbished insitu).	Warranties would only cover new elements and seals to existing frames.	Reuse framing and rails, recycle glass, reduce new spandrel and glass consumption.	Scaffolding required to tower and podium for full extents of work to facade to replace glazing and spandrels and refurbish framing; asbestos removal may require sealed environment.
2	Refurbished frames and rails; single glazing with secondary glazing; new spandels.	Warranties would only cover new elements and seals to existing frames.	Reuse framing and rails, reduce new spandrel and secondary glazing consumption.	Scaffolding required to tower and podium for full extents of work to facade to replace glazing and spandrels and refurbish framing; asbestos removal may require sealed environment.
3	Refurbished frames and rails; double glazing with secondary glazing; new spandels.	Warranties would only cover new elements and seals to existing frames.	Reuse framing and rails, recycle glass, reduce new spandrel and secondary glazing consumption.	Scaffolding required to tower and podium for full extents of work to facade to replace glazing and spandrels and refurbish framing; asbestos removal may require sealed environment.
4	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions.	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing; new framing to use recycled aluminium content.	Destructive testing required to determine structural capacity of existing hiduminium rails; reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Bespoke extrusions introduce risk and limit supply chain availability. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
5	Replacement unitised façade with structural reuse of hidiminium rails and bespoke extrusions (variation).	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing; new framing to use recycled aluminium content.	Destructive testing required to determine structural capacity of existing hiduminium rails; reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Bespoke extrusions introduce risk and limit supply chain availability. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
6	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and slab cut to receive framing and fire stopping. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing; new framing to use recycled aluminium content.	Cutting of slab and edge beam would be required to approx. 2,200 locations and would necessitate extensive remedial structural work, thus not considered feasible. Bespoke extrusions introduce risk and limit supply chain availability. Reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
7	Replacement unitised façade with non-structural reuse of hidiminium rails, bespoke extrusions and façade line offset to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing and glazing consumption; new framing to use recycled aluminium content.	Bespoke extrusions introduce risk and limit supply chain availability. Reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
8	Replacement unitised façade with partially-structural reuse of hidiminium rails, bespoke extrusions and reduced mullion depth in spandrel zone to enable framing and fire stopping installation without cutting slabs. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing; new framing to use recycled aluminium content.	Bespoke extrusions introduce risk and limit supply chain availability; reduced mullion depth to spandrel zone adds complexity to design and construction of facade. Destructive testing required to determine structural capacity of existing hiduminium rails; reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
9	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles. *Note: new aluminium rails could also be used in place of existing hiduminium rails.*	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass; new framing to use recycled aluminium content.	Reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Standardised unitised framing design increases supply chain availability and deliverability. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
10	Replacement unitised façade with non-structural reuse of hidiminium rails and typical modern slimline profiles with bespoke caps.	Full warranty to all new elements for 10-12 years; reused hiduminium unlikely to be warrantable.	Reuse rails, recycle framing and glass, reduce new framing and glazing consumption; new framing to use recycled aluminium content.	Reuse of hiduminium rails lengthens construction programme and adds complexity to demolition. Standardised unitised framing design increases supply chain availability and deliverability; bespoke profiles limited to external capping only, mitigating impact on supply chain availability and deliverability. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.
11 (Proposed Option)	Replacement unitised façade with new non-structural aluminium rails and typical modern slimline profiles with bespoke caps.	Full warranty to all elements for 10-12 years.	Recycle framing, rails and glass, reduce new framing and rails; new framing and rails to use recycled aluminium content.	Standardised unitised framing design increases supply chain availability and deliverability; bespoke profiles limited to external capping only, mitigating impact on supply chain availability and deliverability. Scaffolding required to tower and podium removal of existing façade, but can be removed prior to installation of new facade; asbestos removal may require sealed environment.

TYPICAL PODIUM AND TOWER BAY DETAILING

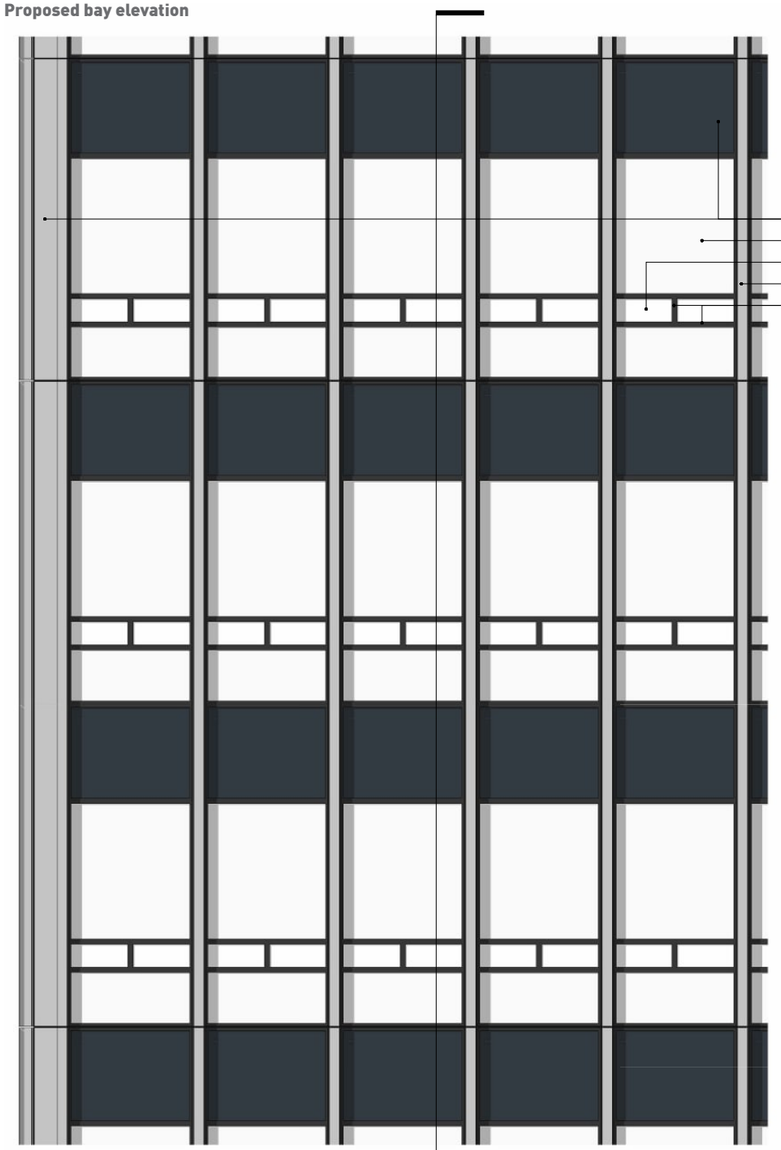
Existing bay elevation



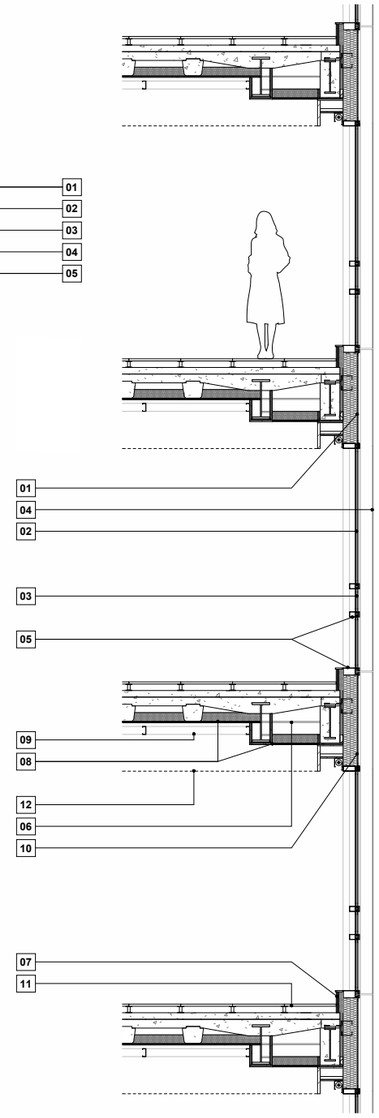
Existing bay section



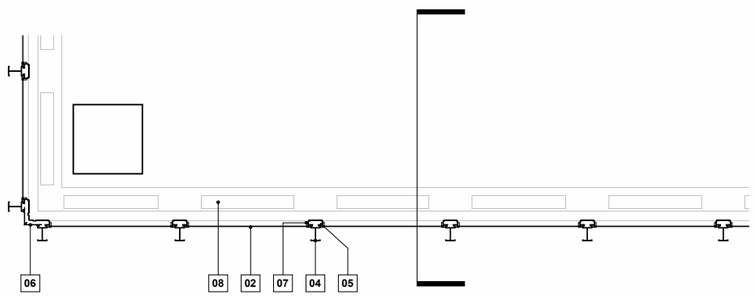
Proposed bay elevation



Proposed bay section



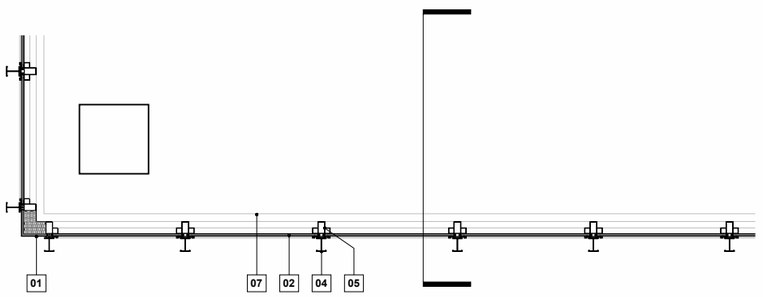
Existing bay plan



LEGEND

01	Vitreous enamel on steel spandrel panel
02	Single glazed clear panel, with retrofitted mirrored film
03	Single glazed obscure panel, with discolouration in areas
04	Hiduminium T rail with fluoropolymer finish
05	Aluminium curtain wall framing with fluoropolymer finish
06	Uninsulated corner panelternal wall, build-up unknown
07	Timber beading internally
08	Weathermaster perimeter heating system
09	Non-original ceiling
10	Non-original floor finishter heating system

Proposed bay plan



LEGEND

01	New aluminium panel, PPC finish (spec TBC)
02	Double glazed clear panel (films to suit performance TBC)
03	Double glazed obscure panel (interlayer spec TBC)
04	New aluminium T rail, natural anodised finish (spec TBC)
05	New aluminium curtain wall framing, PPC finish (spec TBC)
06	New slab edge strengthening beam
07	Replacement cill detail in plasterboard and timber
08	Fire protection to existing structure
09	Secondary steel grid for services fit-out
10	Blindbox
11	Raised access floor
12	Base of services zone, minimum 2700mm clear headroom

GROUND FLOOR CLADDING CHANGES

In line with the 2020 consents, a full replacement to the ground floor cladding is proposed. This includes the entrance vestibule, column casings, soffits, perimeter cladding, and the recladding of the main entrance and Hanover Street canopies.

The most notable change is the increased size of the entrance, which is described further in the chapter. Many of the changes are required to reflect the changes in use, alongside the replacement of elements that are beyond their design life and have low performance.

The proposals are intended to provide a significant improvement in the streetscape. An office entrance, restaurant entrance, retail frontages and a leisure unit entrance are provided to Dantzic Street. Hanover Street is remodelled to provide daylighting to mezzanine building management areas. On the eastern facade, a new leisure entrance vestibule is added.

As will be described with podium extension proposals, the design philosophy and response is intended to be sympathetic to the existing building, taking cues from existing proportions and grids. Accordingly, the glazing module of the new curtain walling is the same as that of the imperial 1575mm façade grid above, it is monochromatic in appearance and as a subtle differentiation to that of the façade above, the curtain wall glazing is structurally bonded without an expressed mullion externally.

SOFFITS

All soffits are proposed to be replaced with a natural anodised aluminium panel system, the material and finish of which is to be developed via sampling. Soffits incorporate lighting and services ventilation.

COLUMN CASINGS AND CANOPIES

All column casings and canopy cladding panels are proposed to be replaced, materially matching all new spandrels and frames in a black PPC; the finish of which is to be developed via sampling. The Miller Street colonnade columns are proposed to match the existing profiled detail.

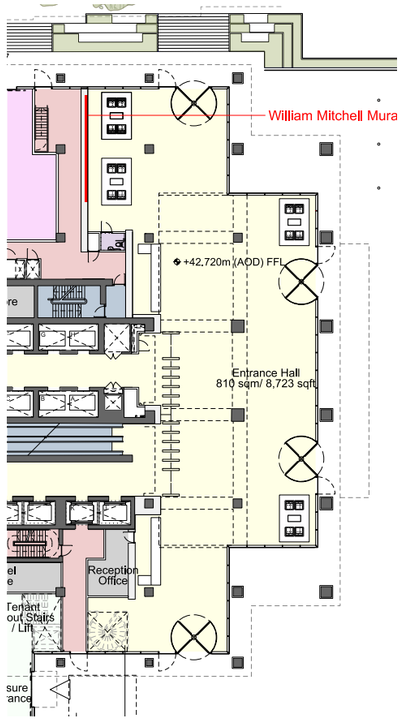
PERIMETER CLADDING

All new glazing systems are proposed to be a capless structurally bonded curtain wall. This includes the new leisure entrance vestibule. To Hanover Street and the eastern elevation, areas of recladding are proposed to back of house areas, utilising a matching vertical louvre as the Level 08 plant enclosure; creating a consistent language and vertical expression.

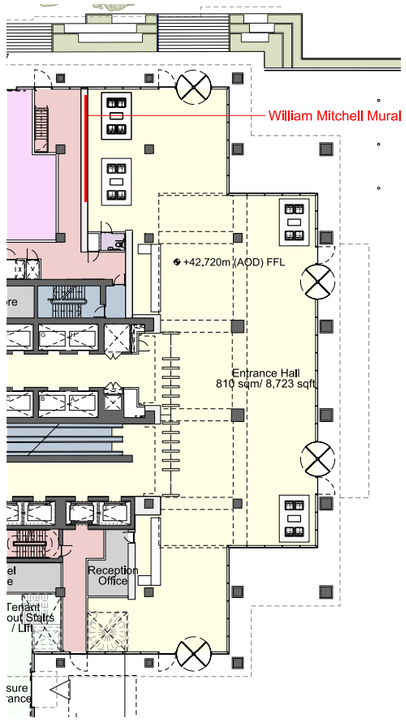
ENTRANCE

All new entry points are integrated into the existing grid, whilst reflecting the increased building population and current accessibility requirements.

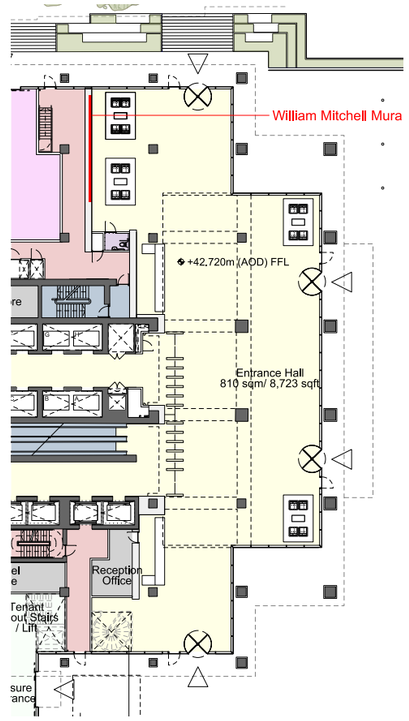
As part of the 2020 proposals, a design study was undertaken with regard to the integration of revolving doors. This was based on exploring doors of a readily available size that met the performance requirements and their position within the facade line. The result of this process required secondary mullions within the 1575mm grid. This was deemed to be the most pragmatic response and remains the proposal, on the basis of balancing accessibility, maintenance and movement of people with the existing grid. The alternative options to fit within the grid required obtrusively large doors, visually and with regard to their dimensional implication on the public realm.



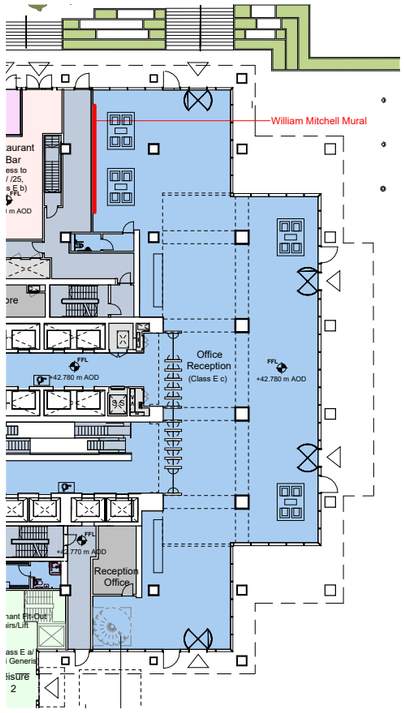
2020 revolving door study (full grid option 1)



2020 revolving door study (full grid option 2)



2020 revolving door proposal



2025 proposals



Proposed ground floor Dantzic Street bay elevation

LEGEND

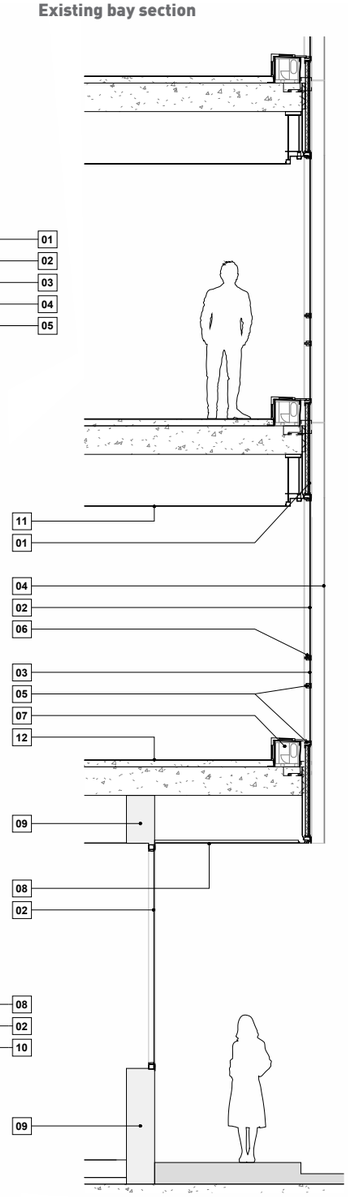
- 01 New aluminium panel, PPC finish (spec TBC)
- 02 Double glazed clear panel (films to suit performance TBC)
- 03 Double glazed obscure panel (interlayer spec TBC)
- 04 New aluminium T rail, natural anodised finish (spec TBC)
- 05 New aluminium curtain wall framing, PPC finish (spec TBC)
- 06 Glazed cladding in structurally bonded curtain wall system with integrated revolving and pass doors
- 07 New natural anodised (spec TBC) aluminium panel clad soffit with integrated lighting and ventilation
- 08 New aluminium column overcladding, PPC finish (spec TBC)
- 09 Glazed balustrade with stainless steel capping
- 10 Tiered landscaping with planting

TYPICAL GROUND AND TOWER BASE BAY DETAILING

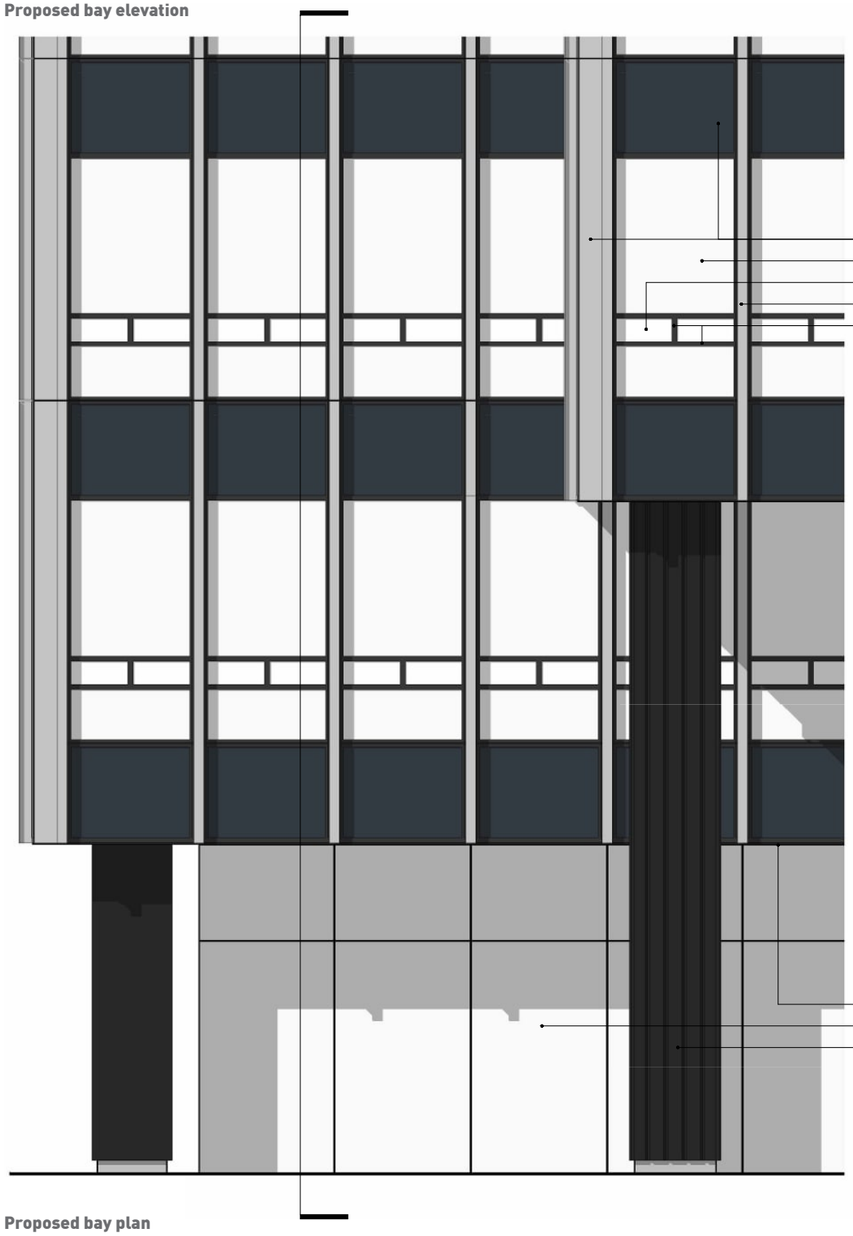
Existing bay elevation



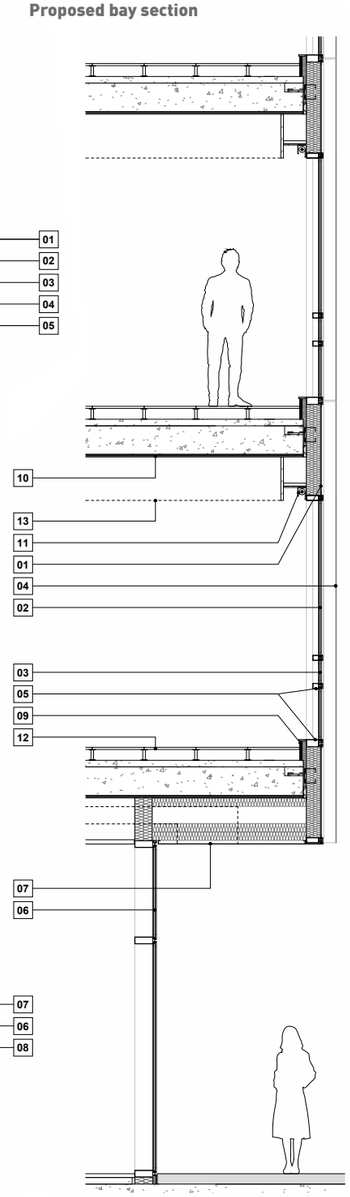
Existing bay section



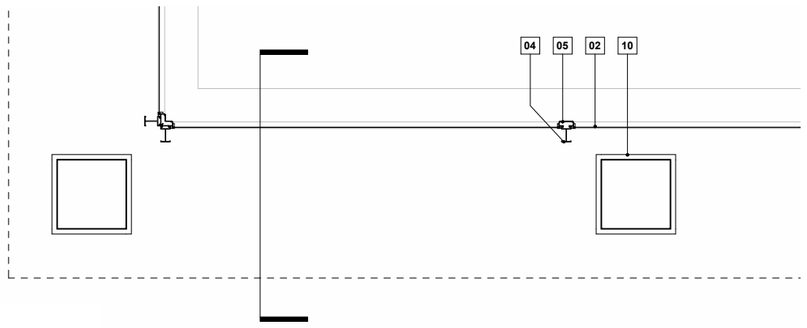
Proposed bay elevation



Proposed bay section



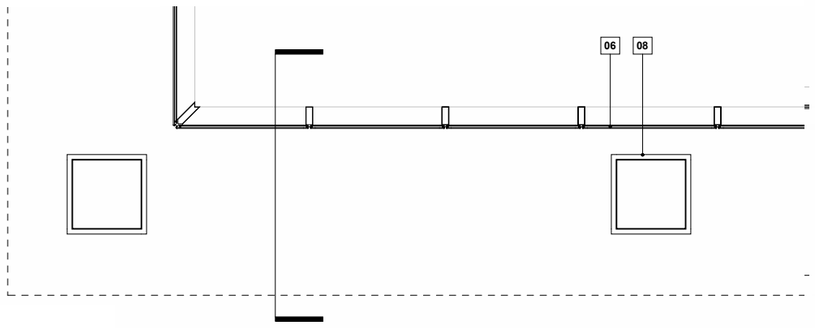
Existing bay plan



LEGEND

- 01 Vitreous enamel on steel spandrel panel
- 02 Single glazed clear panel, with retrofitted mirrored film
- 03 Single glazed obscure panel, with discolouration in areas
- 04 Hiduminium T rail with fluoropolymer finish
- 05 Aluminium curtain wall framing with fluoropolymer finish
- 06 Timber beading internally
- 07 Weathermaster perimeter heating system
- 08 Mosaic tile clad soffit, build-up unknown
- 09 External wall finished to match spandrels, build-up unknown
- 10 Metal column overcladding
- 11 Non-original ceiling
- 12 Non-original floor finish

Proposed bay plan



- 01 New aluminium panel, PPC finish (spec TBC)
- 02 Double glazed clear panel (films to suit performance TBC)
- 03 Double glazed obscure panel (interlayer spec TBC)
- 04 New aluminium T rail, natural anodised finish (spec TBC)
- 05 New aluminium curtain wall framing, PPC finish (spec TBC)
- 06 Glazed cladding in structurally bonded curtain wall system with integrated revolving and pass doors
- 07 New natural anodised (spec TBC) aluminium panel clad soffit with integrated lighting and ventilation
- 08 New aluminium column overcladding, PPC finish (spec TBC)
- 09 Replacement cill detail in plasterboard and timber
- 10 Fire protection to existing structure
- 11 Blindbox
- 12 Raised access floor
- 13 Base of services zone, minimum 2700mm clear headroom

LEVEL 25 GLAZING

As per the 2020 consents, the proposals seek to lower the existing cill height of the Level 25 glazing. Above the glazing at Level 24 there is a spandrel panel, the height of which is atypical to that of the rest of tower. It is therefore proposed to drop the cill level of the Level 25 glazing and create a spandrel between Levels 24 and 25 that is of the same height as all other floors below.

The current architectural diagram places emphasis on the top of the building, as many towers do, by placing a banding 'crown' of two equal height vitreous enamel spandrels, with a small slot window.

The existing fenestration position renders the space unlettable, on the basis that views out are only available when standing, despite the potential for unobstructed views from the highest usable space of the building.

The proposed alterations retain a single banding 'crown' to the top of the building, retaining a different proportion and point of difference from the rest of the tower facade detailing.

The new spandrel between Levels 24 and 25 is to be of equal proportion to the spandrels of the rest of the tower facade, unifying itself with the language of the tower below. This strategy maintains the architectural diagram of the floors and zones observed below, with a rigorous and consistent grid.

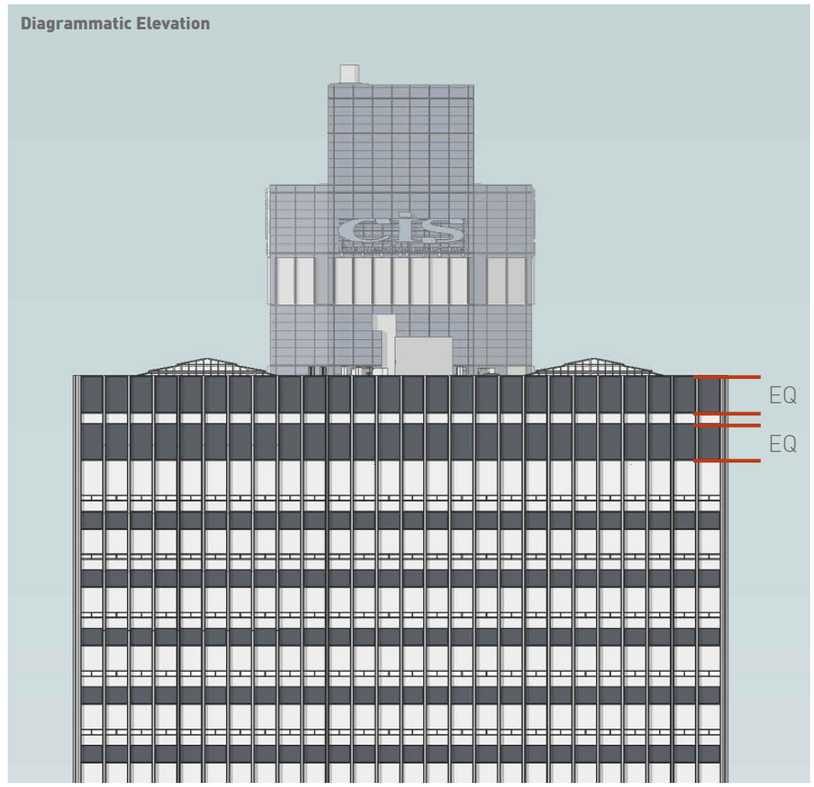
The Heritage Statement describes the change as having "an almost imperceptible visual impact on the crown of the tower. There would be a minor change to the fenestration pattern, but the top of the building would remain defined by the band of spandrel panels. The enlarged 25th floor windows would thus continue to contribute to the subtle change in the pattern of the tower, punctuating the top of the building."

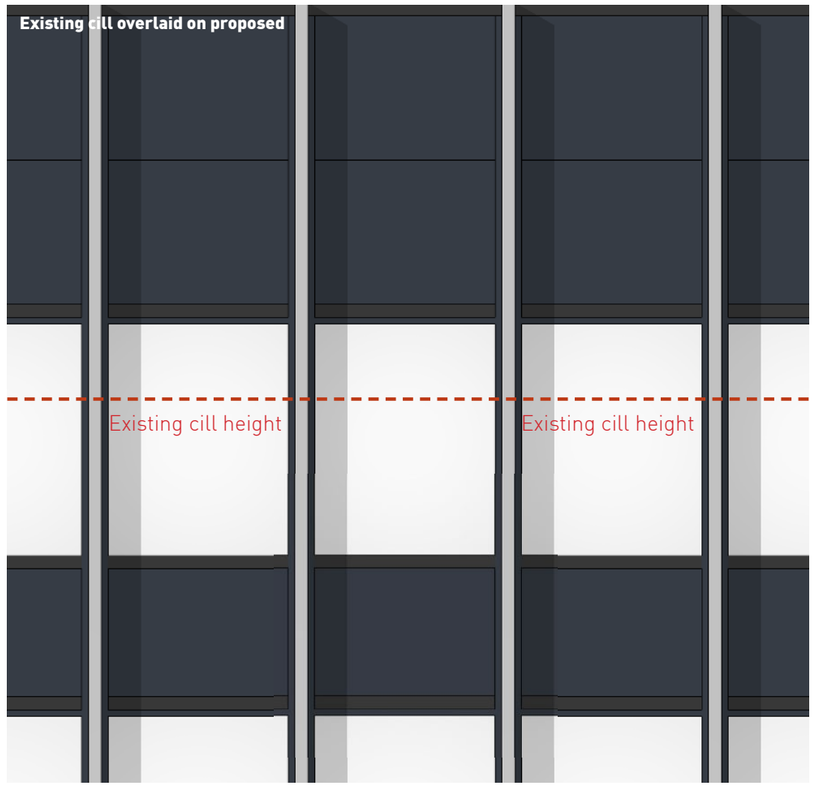
Alternative options were explored in 2020, however the proposed solution was and still is, deemed to be the most successful; with regard to both internal and external considerations.

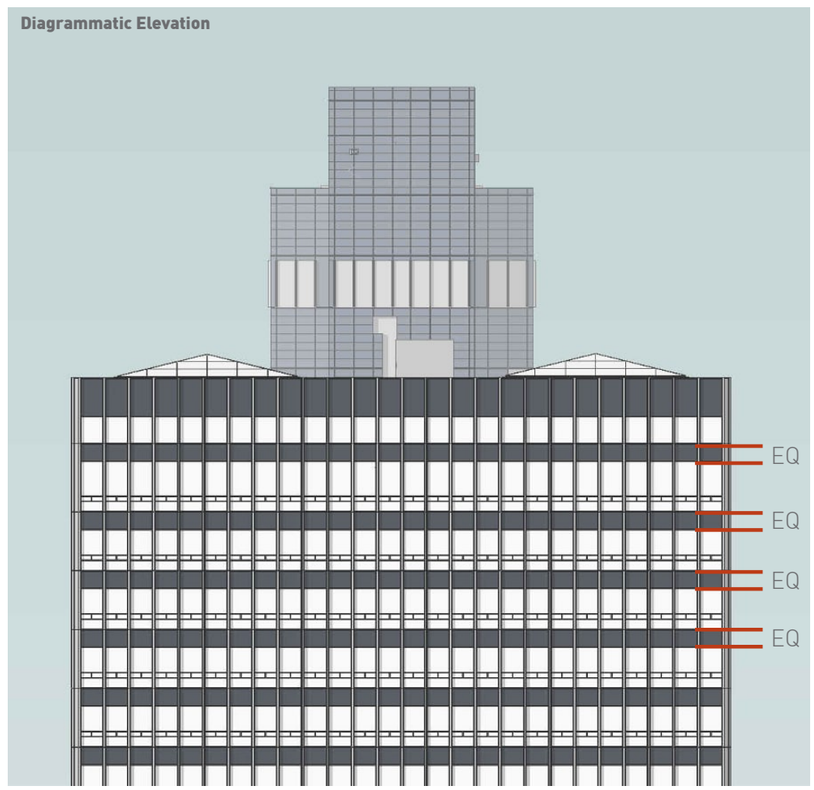
The spatial effect of dropping the cills becomes significant, ensuring it is lettable, and providing the space and users with panoramic views across Manchester and beyond. This space is intended for use as a restaurant, as is described later in the following chapter.

A 2020 design study showing the existing and proposed solution is shown in the adjacent images and overleaf; with a 2025 revision of the existing and proposed bay study that includes the rooflight proposals provided in the next section.



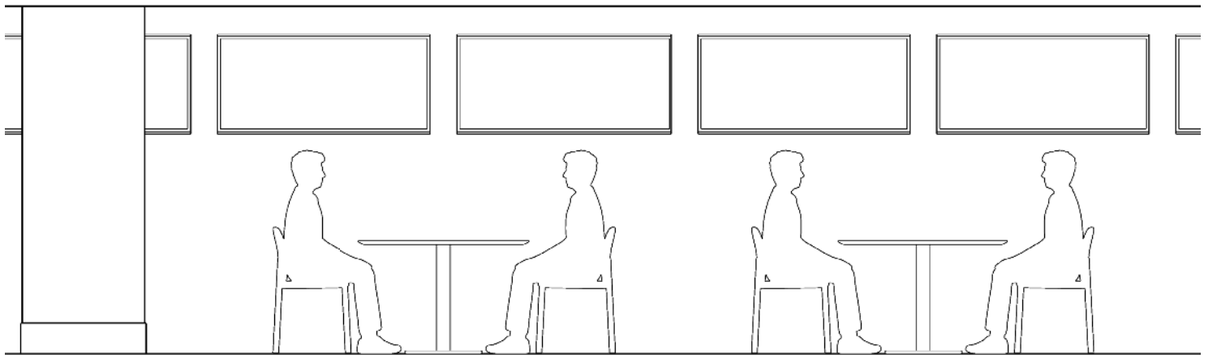






LEVEL 25 GLAZING

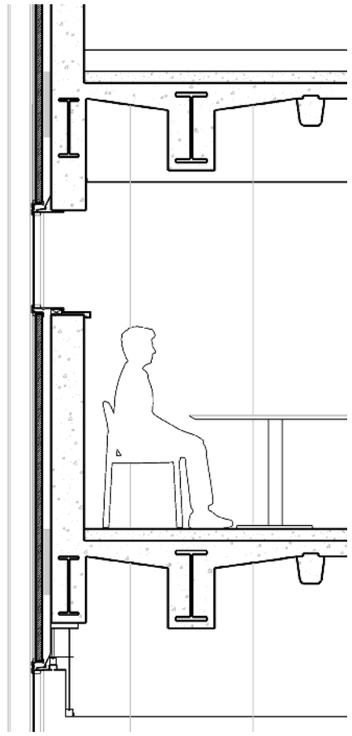
Existing Internal Elevation



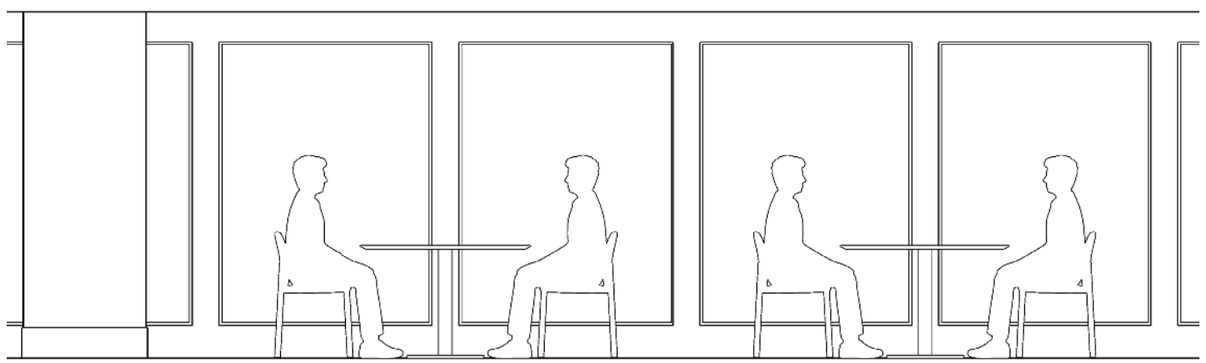
Existing Bay Elevation



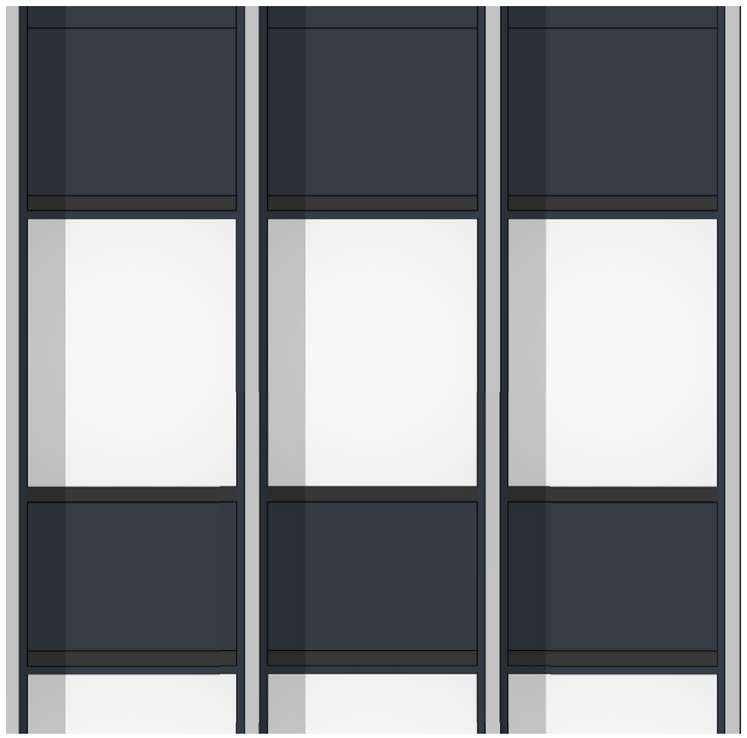
Existing Bay Section



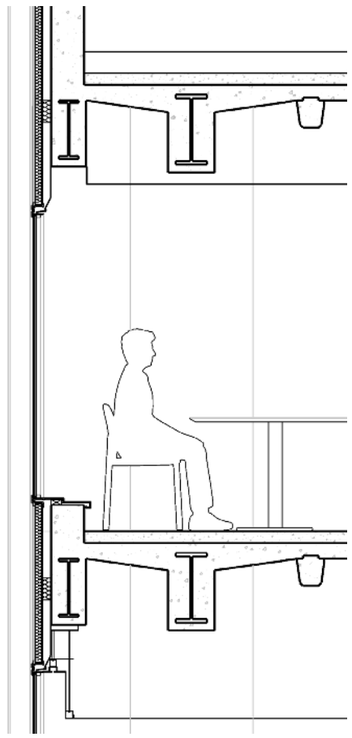
Proposed Internal Elevation



Proposed Bay Elevation



Proposed Bay Section



LEVEL 25 ROOFLIGHTS

There are also two substantial, glazed rooflights at this level. These lights are not in their original condition with a translucent screen that was originally present underneath both lights being removed. This means that as viewed today, where the pyramidal form of the glazed lights can be seen, was never the original design intention. In addition to this non-original light fittings have been installed, hanging from the rooflights. The rooflights are comprised of a superstructure defining the pyramidal form with the glazing provided as relatively small format panels which have a coating/ film applied to them.

As can be seen from the adjacent images, the glass has a post-applied film on it which is failing and there is signage stating that the roof is fragile ie modern safety standards are not met.

It is proposed to strip back the rooflights to superstructure for refurbishment, with removal of the non-original lighting and replacement of the small format, translucent glazing system with a new, large format clear glazing system. This system will be provided with new structure and this will sit above the existing trusses and will provide greater views of the sky above.

As described in the Heritage Statement, the change is deemed to be 'negligible adverse' on the basis of removing non-original fabric that was not intended to be visible, alongside the retention of the superstructure.

An existing and proposed bay section is provided overleaf, including the change to the perimeter windows.



Existing rooflight condition



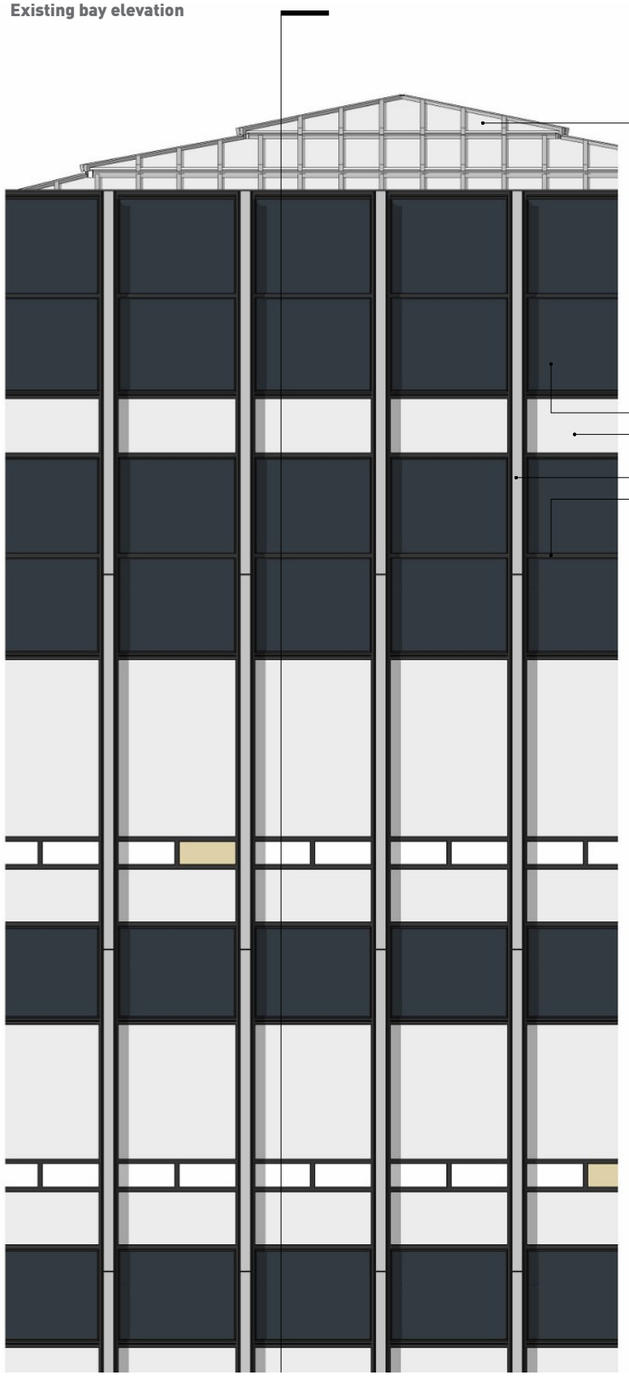
Rooflight hazard signange



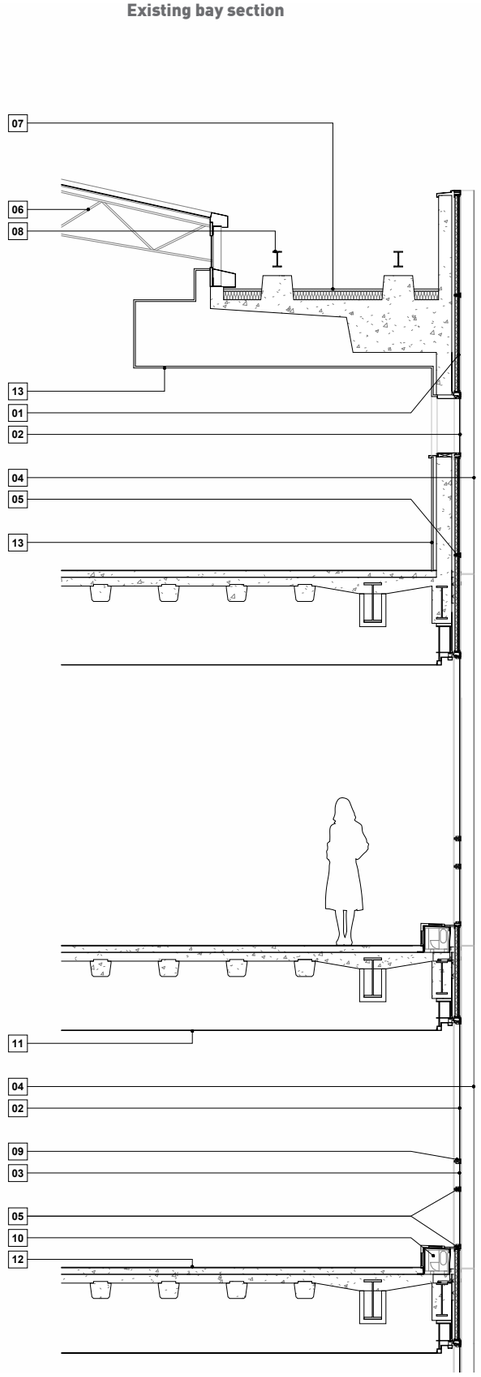
Internal rooflight condition

TYPICAL TOWER TOP BAY DETAILING

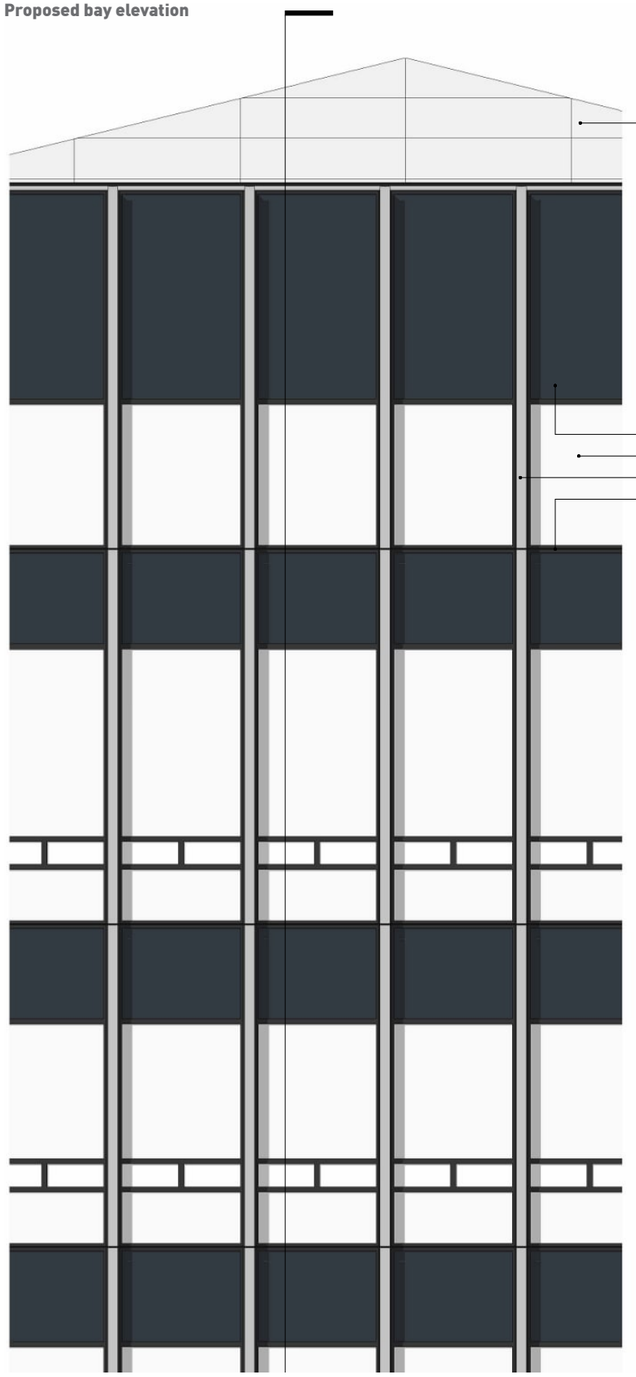
Existing bay elevation



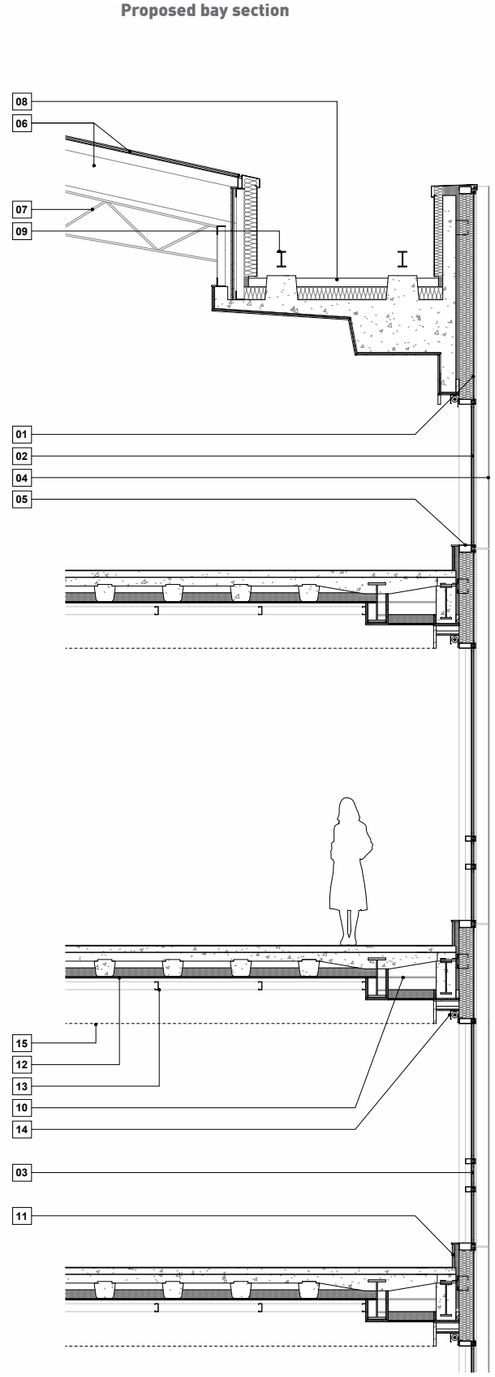
Existing bay section



Proposed bay elevation



Proposed bay section



LEGEND

01 Vitreous enamel on steel spandrel panel	06 Single glazed rooflight and associated structure	11 Non-original ceiling
02 Single glazed clear panel, with retrofitted mirrored film	07 Existing roof	12 Non-original floor finish
03 Single glazed obscure panel, with discolouration in areas	08 Existing BMU track	13 Non-original internal finishes, build-up unknown
04 Hiduminium T rail with fluoropolymer finish	09 Timber beading internally	
05 Aluminium curtain wall framing with fluoropolymer finish	10 Weathermaster perimeter heating system	

LEGEND

01 New aluminium panel, PPC finish (spec TBC)	06 New double glazed rooflight and associated structure	11 Replacement cill detail in plasterboard and timber
02 Double glazed clear panel, cill dropped to increase height	07 Refurbished existing rooflight structure	12 Fire protection to existing structure
03 Double glazed obscure panel (interlayer spec TBC)	08 New roof	13 Secondary steel grid for services fit-out
04 New aluminium T rail, natural anodised finish (spec TBC)	09 Existing BMU track	14 Blindbox
05 New aluminium curtain wall framing, PPC finish (spec TBC)	10 New slab edge strengthening beam	15 Base of services zone, minimum 2700mm clear headroom

PODIUM EXTENSION MASSING OVERVIEW

A podium extension remains part of the 2025 proposals. These are in line with the 2020 consents, with internal accommodation and landscaping changes that are described further in the chapter. The addition of the podium accommodation at Levels 05 to 08 is the most prominent alteration to the CIS Tower and its setting. Careful consideration has been given to its form and massing, which are the result of an iterative design process. As can be seen in the options described on this page, a key consideration with the extension proposals is the implication on the existing Level 05 Ballroom and Barry Daniels artwork within the space. The ballroom sits within the middle of the existing plant enclosure, surrounded by plant. The considerations of this space are described overleaf.

This page and the following pages demonstrate the design process and narrative behind the extension; concluding with the approach to the facade treatment of the extension.

As well as being cognisant of the structural limits of the existing building and the other technical challenges involved in designing an extension of this kind, the design team have strived to ensure that massing is one that complements the CIS Tower. The newly proposed extension is felt to improve upon the existing plant accommodation that presents a much poorer quality elevation towards its neighbours and the city core to the south.

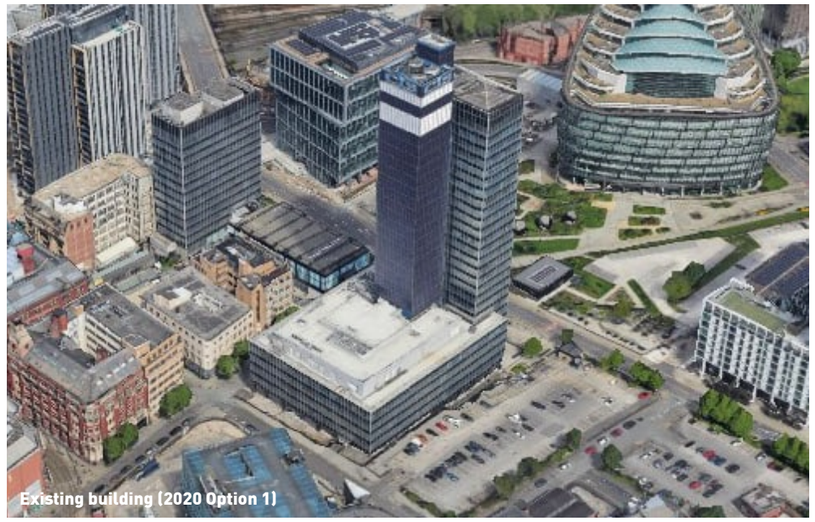
The immediate context to the south of the CIS Tower has changed over time. In the 1960s, a building that was of the same height as the plant enclosure that occupied the urban block to the south of the CIS Tower, effectively obscuring the plant enclosure from the city core in a way that is no longer the case. When walking from the city core today the plant level is visible in a manner which was not the case when originally designed. The proposed extension therefore seeks to improve the relationship with the city to the south.

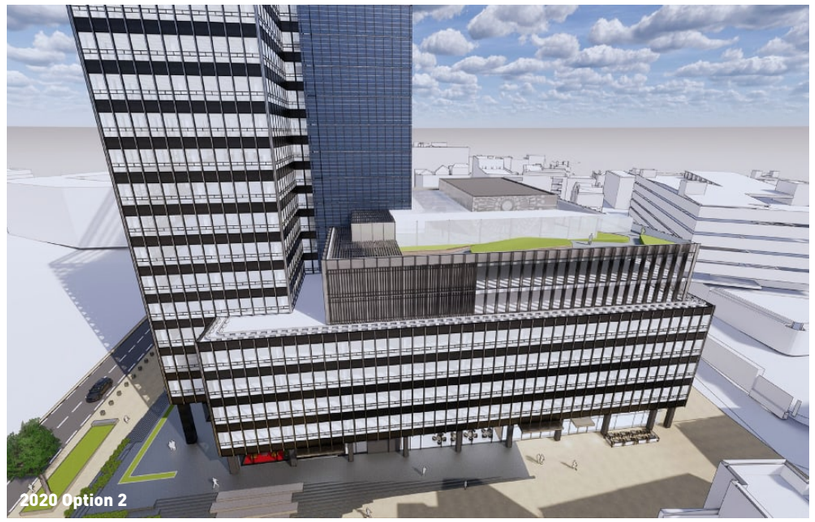
The form of the extension was considered, and has been reconsidered, from key viewpoints that have been agreed with Manchester City Council as part of a visual impact assessment. The Heritage Statement submitted in support of this application provides further narrative on the impact of the proposed extension upon the setting of the existing building.

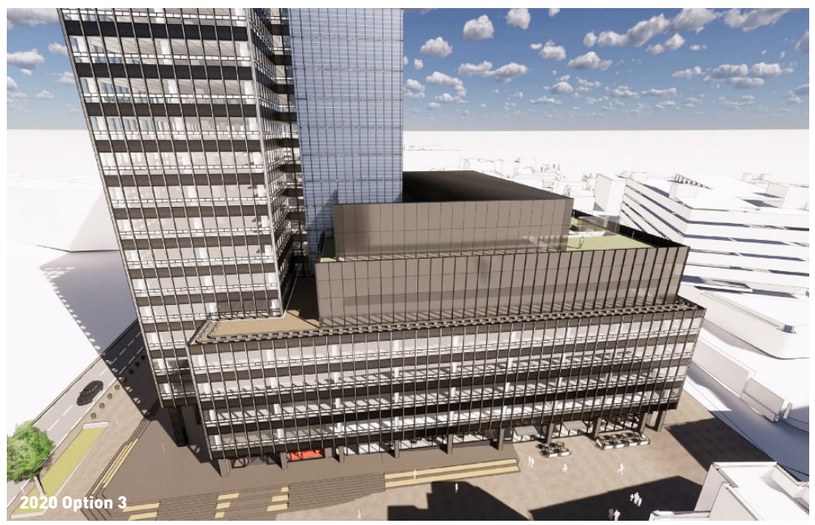
The adjacent images show key moments in the iterative design process, which were assessed and deemed as not being viable within the 2020 Design and Access Statement. These included:

- 1) Do nothing
- 2) Relocation of the existing ballroom to Level 07 within an extension of 3no accommodation floors
- 3) Relocation of the existing ballroom to Basement Level 01 with an extension of 3no accommodation floors
- 4) Relocation of the Barry Daniels artwork to Basement Level 01 with an extension of 3no accommodation floors (reflective of the 2020 proposals)

These options were subsequently further explored in the 2020 Design and Access Statement Addendum, with additional commentary from Stephen Levrant Heritage Architecture Ltd.


Existing building (2020 Option 1)


2020 Option 2


2020 Option 3



2020 Proposals (Option 4)


1960s photo demonstrating taller buildings to the south

LEVEL 05 BALLROOM AND ARTWORK RELOCATION

On Level 05 is the Ballroom which includes an artwork by Barry Daniels. This space was originally an amenity space for building staff, which was latterly used as a windowless office space. The original fit out includes elm timber panelling and walnut skirting to the walls. Elements of the space have been altered over time, including additional timber panels that have been installed over the artwork, obscuring its full extents.

Within the 2020 scheme, it was proposed that the Barry Daniels artwork was to be relocated within a function space on Basement 1. This strategy currently remains the same within the 2025 proposals, albeit with developments to the space that it will be located within. These developments are described later in the document.

The Level 05 Ballroom space is currently isolated and not publicly accessible. In addition to public accessibility, prior option studies demonstrated that there were additional constraints around retaining the ballroom and/or artwork insitu or within the podium extension, on the basis of viability.

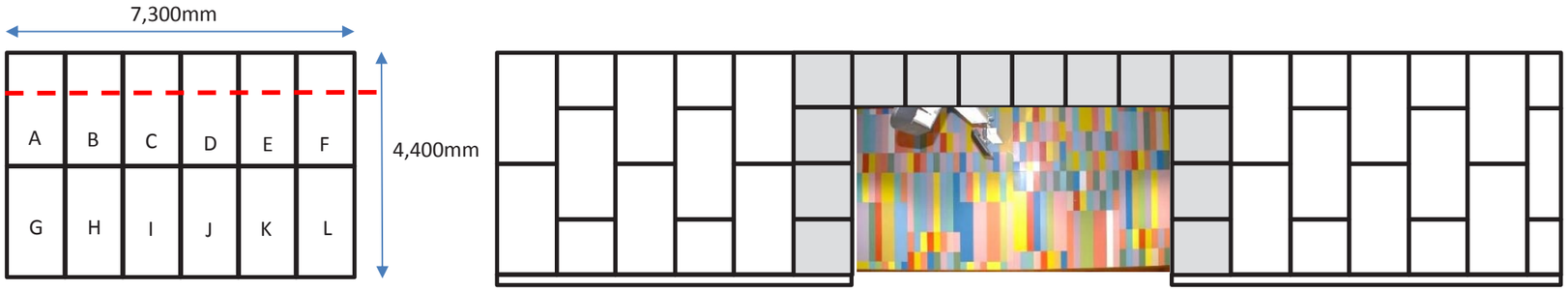
The artwork in its full composition and scale, stands at 7.3 x 4.4m. As a result, the only existing space within the building that can house the artwork is Basement Level 01, following the removal of the archive floor grating at Basement Level 01 Upper.

Basement Level 01 currently provides a canteen space, which is heavily altered from its original condition. The canteen use is also now defunct on the basis of a multiple tenant office use, hence its reallocation spatially.

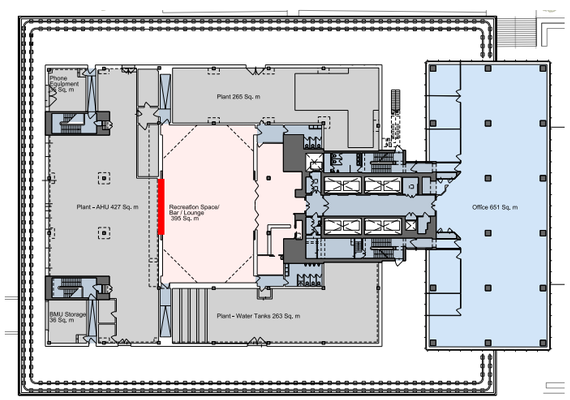
The proposal of placing the artwork within a space at Basement Level 01 is intended to make the artwork more publicly accessible, within a space that suits a modern office. As part of this relocation, the artwork would also be restored.



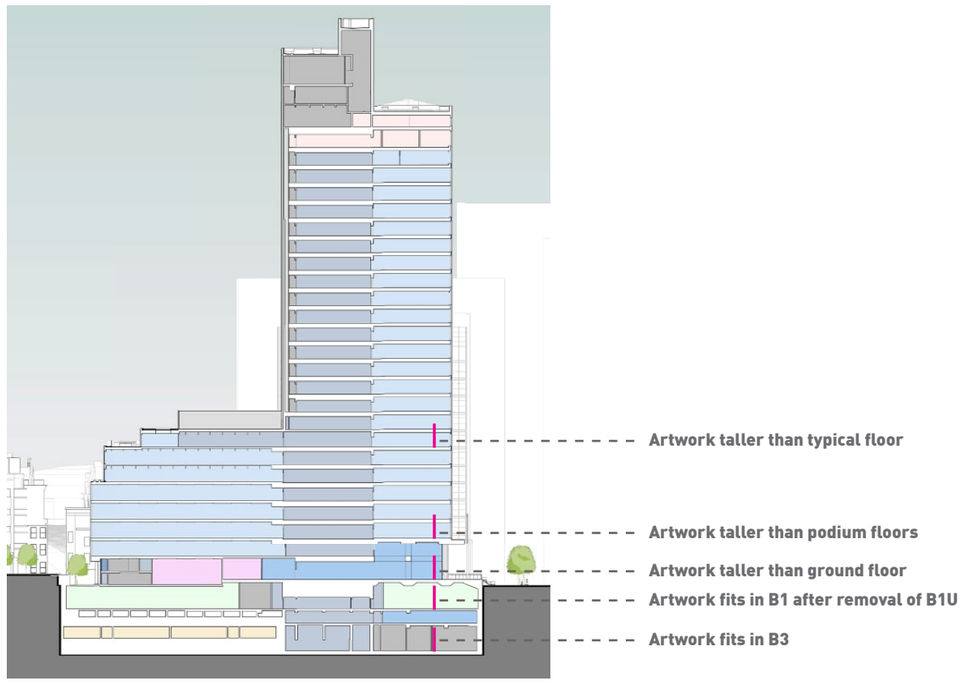




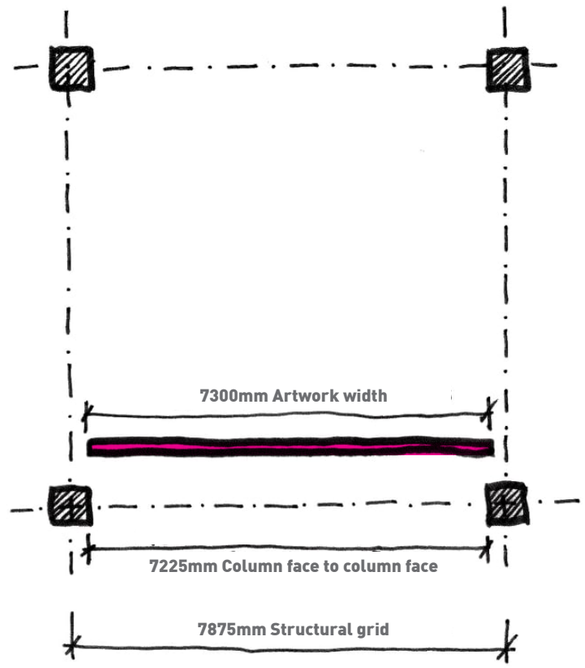
Conservators drawings highlighting the scale of the artwork and retrofitted timber panels in grey



Existing Level 05 location



Structural limitation diagrams



PODIUM EXTENSION MASSING ASSESSMENT

The existing Level 05 mass takes form as a two tier extrusion for the plant and ballroom, sat atop the office podium floor extrusion. These elements have distinctly different languages to the rest of the building.

Whilst 'single storey', the existing mass is c.6.0m-7.4m in height (measured from the Level 05 roof) and are therefore not insignificant in scale. Originally, it was intended to be relatively anonymous on an enclosed elevation, whereas the mass is now very visible in the townscape view.

During the recent consultations, queries were raised with regard to the proposed rationale, opposed to a single extrusion. As demonstrated in the adjacent drawings and imagery, this approach was tested early into the development of the 2020 proposals. The resulting mass was felt to be overly dominant with regard to townscaping and the existing character of the building; leading towards a tiered mass approach. As the imagery shows, whilst lower in height and of smaller silhouette, the single extrusion is in competition with the original elements more so than the taller, tiered mass.

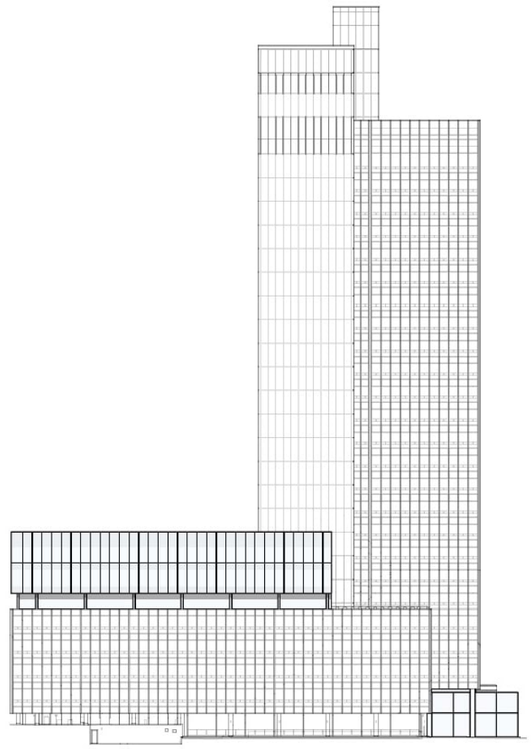
The proposed mass takes a tiered form, with an emphasis on making the different functions read distinctly within the overall mass hierarchy. As highlighted below by Stephen Levrant Heritage Architecture in their commentary of the 2020 scheme, at that time. The 2025 Heritage Statement aligns with this assessment.

> *"The proposed three-storey extension, with a single storey plant volume above it, is clearly interpreted as a new addition to the podium (and rear of the building) and remains appropriately deferential to the design focus, scale and mass of both service and main tower by breaking-up the mass into stepped components. The materiality and stepped form of the addition integrates the roof-top addition into the rear elevation to avoid an undue focus on this addition to the building's components. Therefore, despite its scale and mass, the proposed development from this perspective would not diminish the intrinsic aesthetic values and special interest of the CIS Building from this ancillary, rear view, resulting in a negligible adverse heritage impact"*

The described building components are demonstrated overleaf, with a language of 'served' and 'serving' driving the overall composition.

Within the 2020 Design and Access Statement Addendum; Stephen Levrant Heritage Architecture Ltd provided an overview of the assessment process defined by Historic England and ICOMOS; concluding that consultees did not raise concern over the mass proposals. This process and feedback has remained consistent in the 2025 proposals, with the 2025 Heritage Statement noting the below in reference to short range views;

> *"The extension is consequently read as an appropriately deferential evolution of the tower which avoids compromising its impressive and elegant character or appearance. The minor visual impact of the addition to the podium is significantly outweighed by the restoration of the design aesthetic and character of the original building components."*



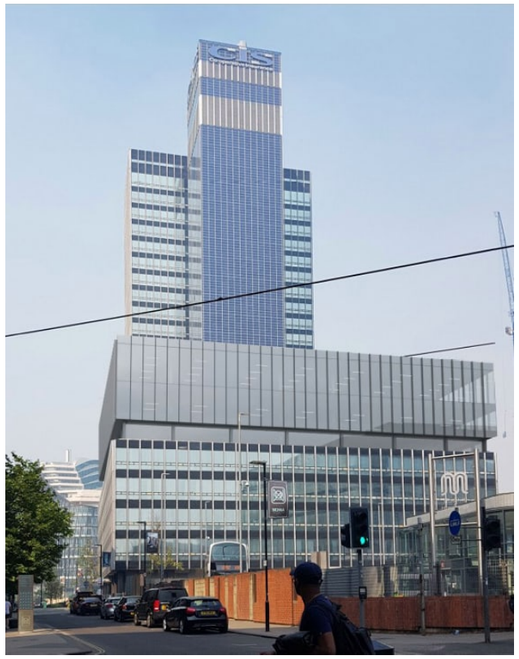
2018 option elevation, with single extrusion



2025 proposals elevation, with tiered extrusion



Existing view from south



2018 option view from south, with single extrusion



2025 proposals view from south, with tiered extrusion

PODIUM EXTENSION MASSING COMPOSITION

The massing design approach is intended to be cognisant of the existing massing diagram and uses the characteristics of the existing mass as context for the extension's design.

Simplistically, the existing mass consists of an interlocking tower and podium, and the broader podium mass envelops the tower base. On further analysis, it can be seen that both elements are formed of three masses each, two of which subservient to the 'served' office accommodation mass. .

It is the office accommodation masses (shown in orange) that are most dominant and provide the recognisable identity and language of the building.

As a result, when incorporating a new extension mass within the overall form, emphasis has been put into ensuring the strong office accommodation masses remain the primary focus. This is reflected in the set back tiering from the existing podium office mass and the new mass also being set back from the tower mass at the point at which they meet.

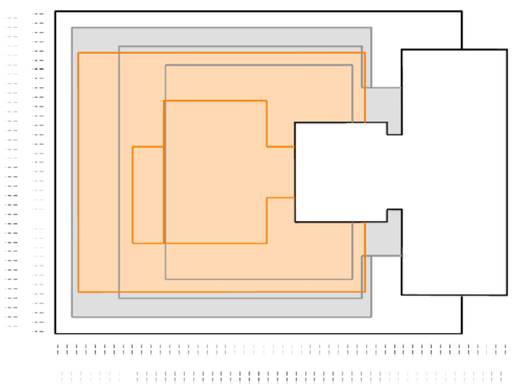
With regard to the form of the extension, the existing podium masses are set back from the podium office mass, and are tiered. These sit on the 1575mm grid of the building, however the existing upper mass in particular is quite incongruous to the overall form.

The new mass is also defined by the 1575mm grid, however it is offset by half a grid, to enable a subtle language change and different rhythm to the facade design, when viewed against the existing podium facade below. This is demonstrated in the following section.

The new mass tiering replicates the existing language of the form, with an emphasis of simplifying the plan form in comparison to the existing upper plant tier in particular.

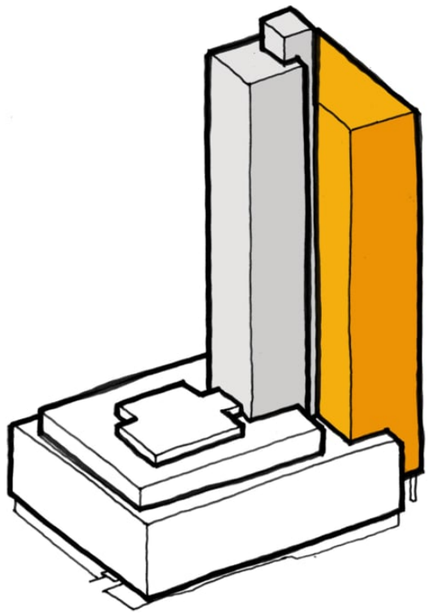
Where the new mass approach does strategically differ to the existing, is that there is an additional tier to the existing. The hierarchy in terms of use is also different, moving from two tiers of subservient plant to two tiers of office and a single tier of plant.

To counteract this, there has been emphasis placed on ensuring the new office and plant read differently from one another and the new office draws from the language of the existing facade, but does not mimic it, as is also described in the following section.

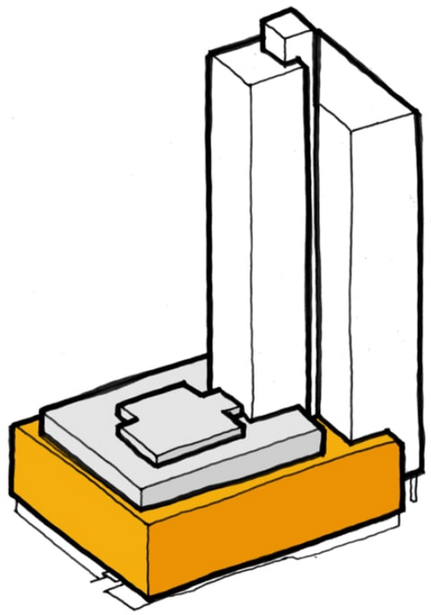


Existing and proposed mass relationship with grids shown; new mass in grey, original in orange

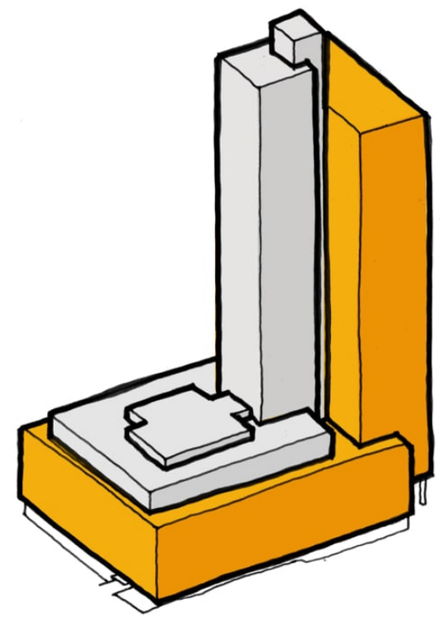
Existing mass (tower expression)



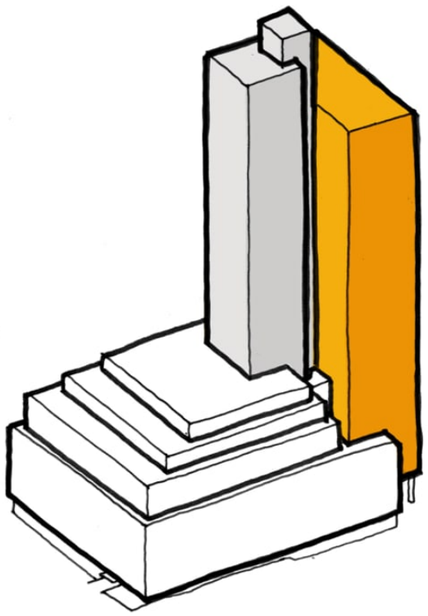
Existing mass (podium expression)



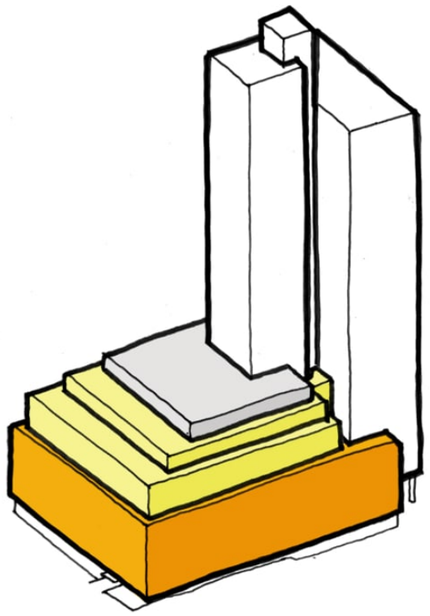
Existing mass (served and servicing)



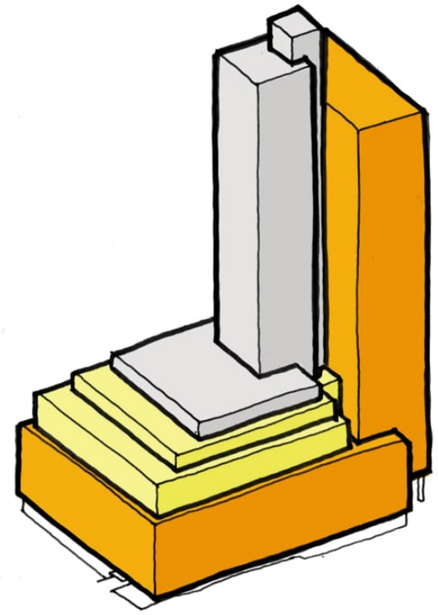
Proposed mass (tower expression)



Proposed mass (podium expression, with new transitional accommodation mass)



Proposed mass (served and servicing, with new transitional accommodation mass)

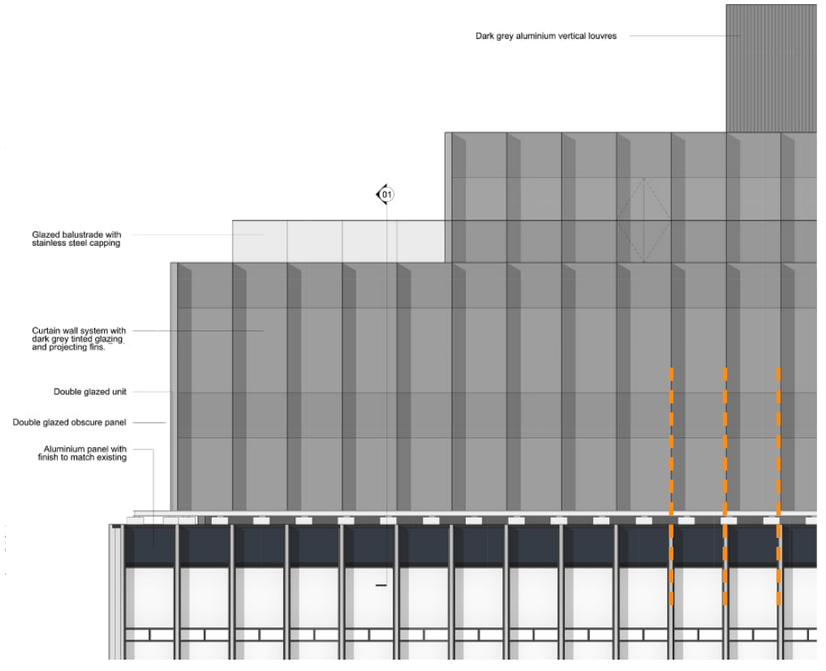


PODIUM EXTENSION DEVELOPMENT OF ARCHITECTURAL LANGUAGE

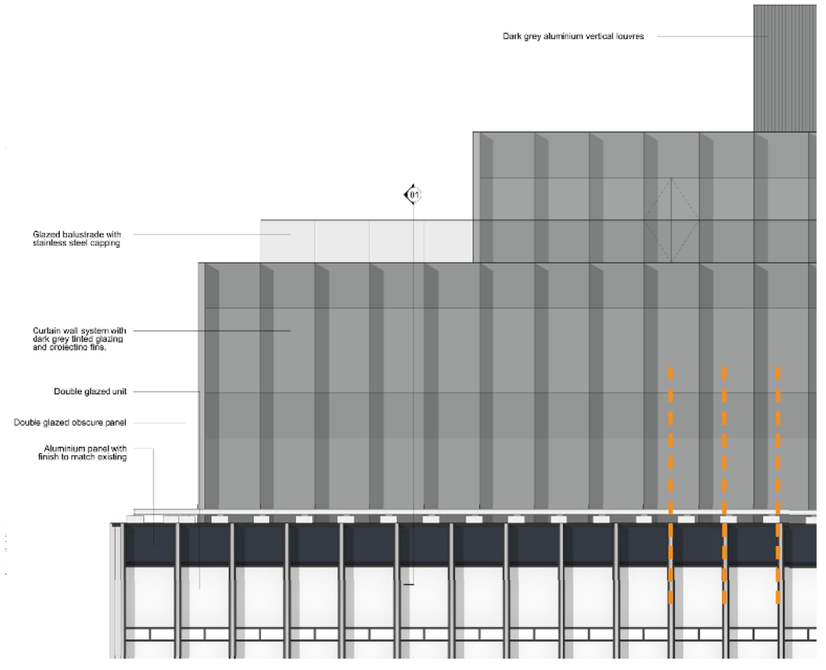
As demonstrated in the prior application documents and the adjacent diagrams, the language of the mass was developed in such a way to ensure that the stepping was proportional and symmetrical on all sides, adhering the rigorous grid and symmetry that is present in the existing building.

One of the benefits of stepping the building, as demonstrated by the prior pages and the south elevation diagram, is that the visual impact on the Dantzic Streetscape is sympathetic, with the upper two tiers of the mass being largely imperceptible to pedestrians when in close proximity, on Dantzic Street.

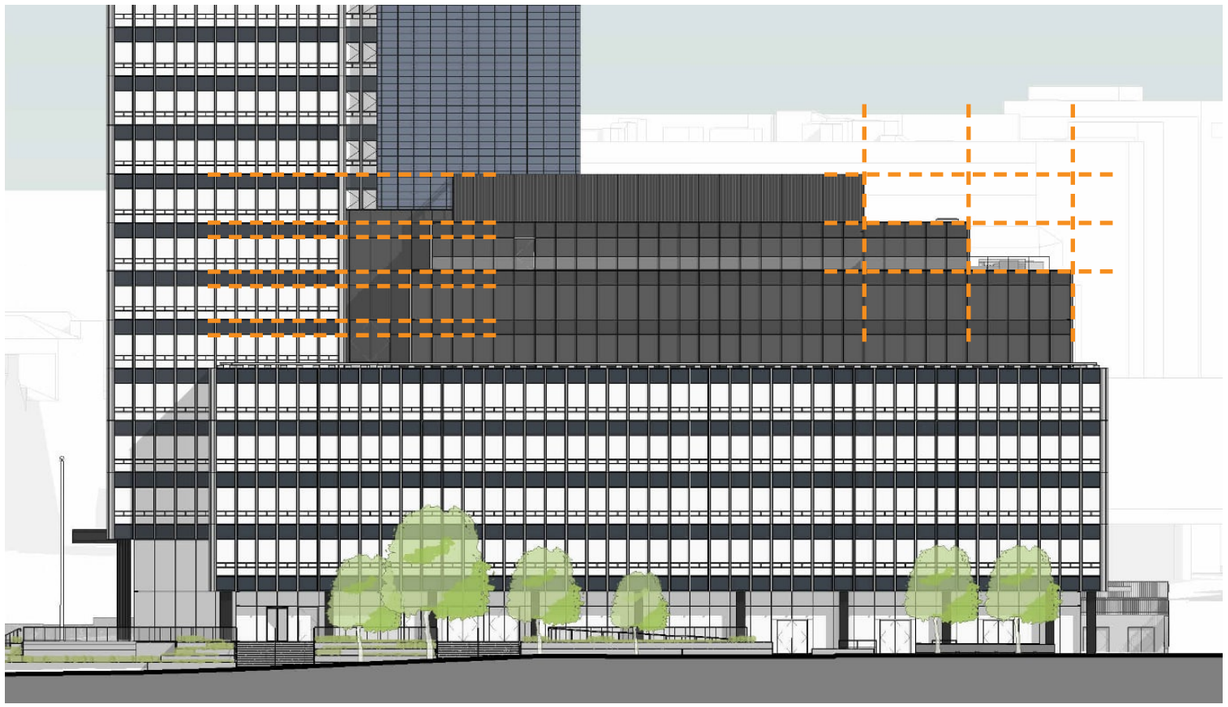
With regard to the cladding grid formation, horizontal planes have been defined by the existing spandrel zones; locking the new and the old together via these datums. Vertically, a decision was made of offset the 1575mm grid by half a bay, between new and old, to create a subtle point of difference. The language and character is maintained, but this difference creates an important distinction and articulation between the elements; complimenting the existing office accommodation opposed to detracting from it.



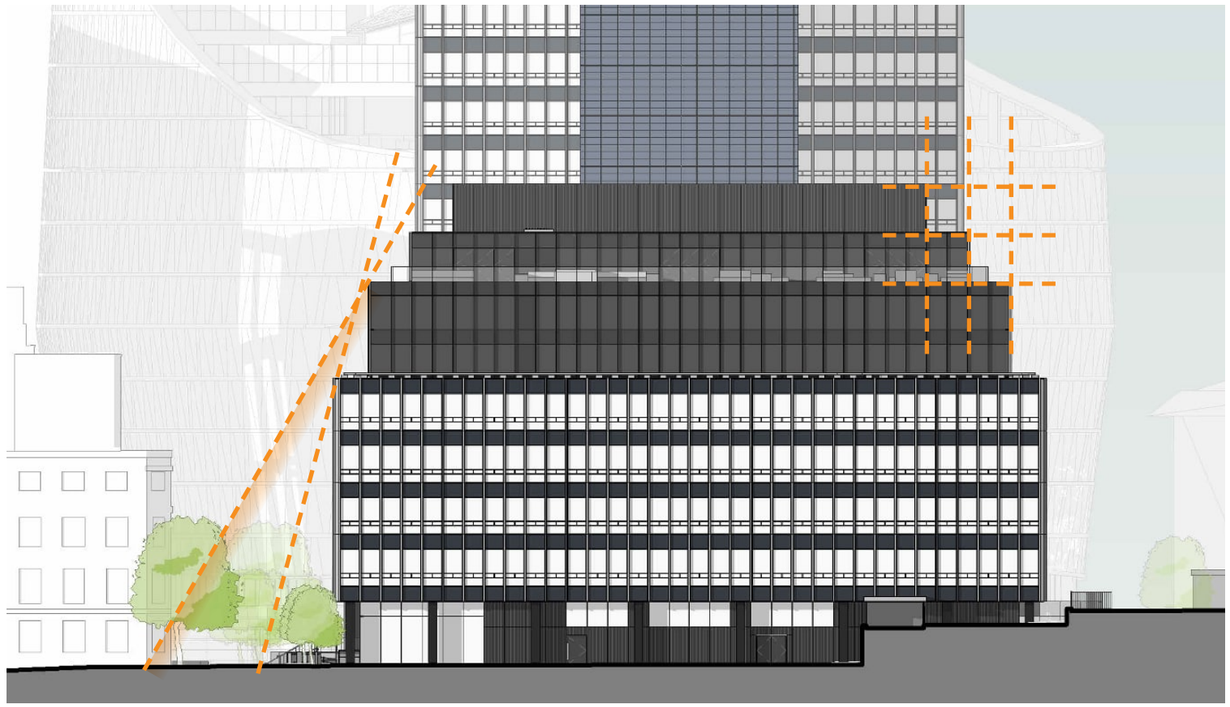
Grid verticality study; with grid aligned to existing grid below



Grid verticality study; with grid offset from existing grid below



Proportional tiering to south and alignment of spandrels



Stepping to east and west elevations, with matching approach to spandrels and proportional steps, to minimise Dantzic Street visual impact

PODIUM EXTENSION DEVELOPMENT OF ARCHITECTURAL LANGUAGE

The existing building has a highly repetitive and ordered façade with a vertical emphasis that is based upon a module derived from the structural grid of the building. This highly rational approach to the elevation design is very typical of the general design ethos underpinning buildings of this style and is therefore an important design feature to acknowledge. Also, as is typical of a building of this period and style, the façade is very restrained in its use of materials.

Overall, the proposals aim to be complimentary to the existing design and addresses the new building diagram. Materially and tonally, it is similar to that of the existing office accommodation, following a restrained palette. Proposals take cues from the existing façade, such as utilising the same plan module and aligning transom lines with the existing façade, defining a verticality, and reflecting the monochromatic nature of the existing façade.

The use of a glazed spandrel in lieu of the existing metal spandrels provides a more uniform appearance to the extension, avoiding it been overly articulated and distracting from the existing building.

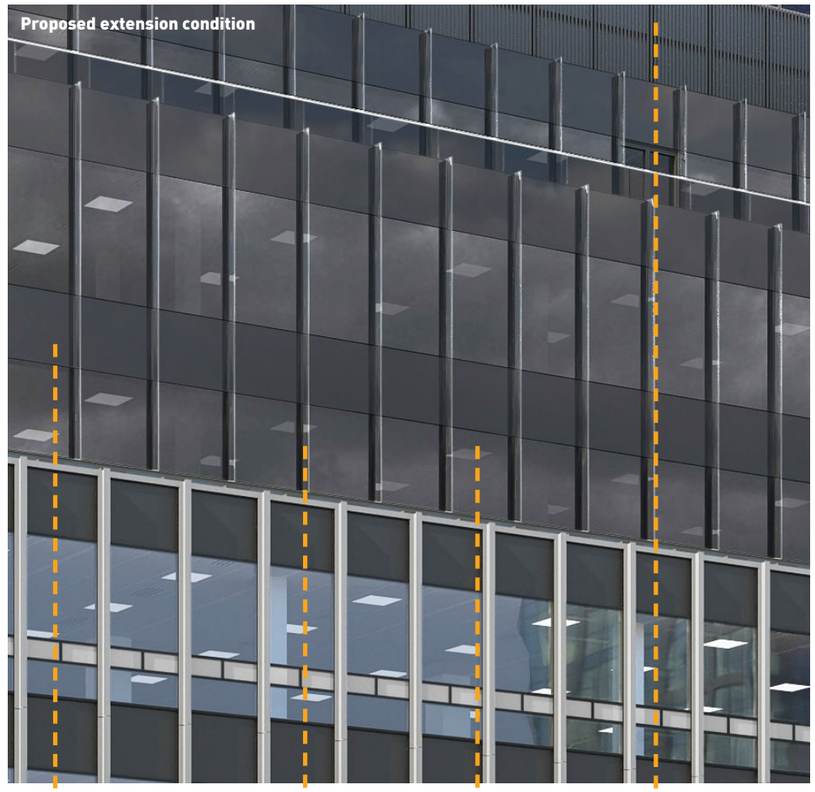
Levels 05-07 also include vertically orientated natural anodised aluminium fins that acknowledge the expressed "T" rails of the existing façade, break down the mass and add visual interest throughout changing daily rhythms and view points.

Level 08 is articulated differently to reflect the change in use from the floors below. Plant screening is provided which has a vertical emphasis and is a dark grey-black PPC finished aluminium, to compliment the vertical language of the new and old vertical elements, and the replacement spandrels.

The below diagrams highlight the key design elements and how they manifest themselves; including dark grey backpainted or body tinted spandrels, natural anodised aluminium vertical fins, tinted double glazed vision units and vertical plant screen louvres in a polyester powder coated finish. This is demonstrated in greater detail overleaf.





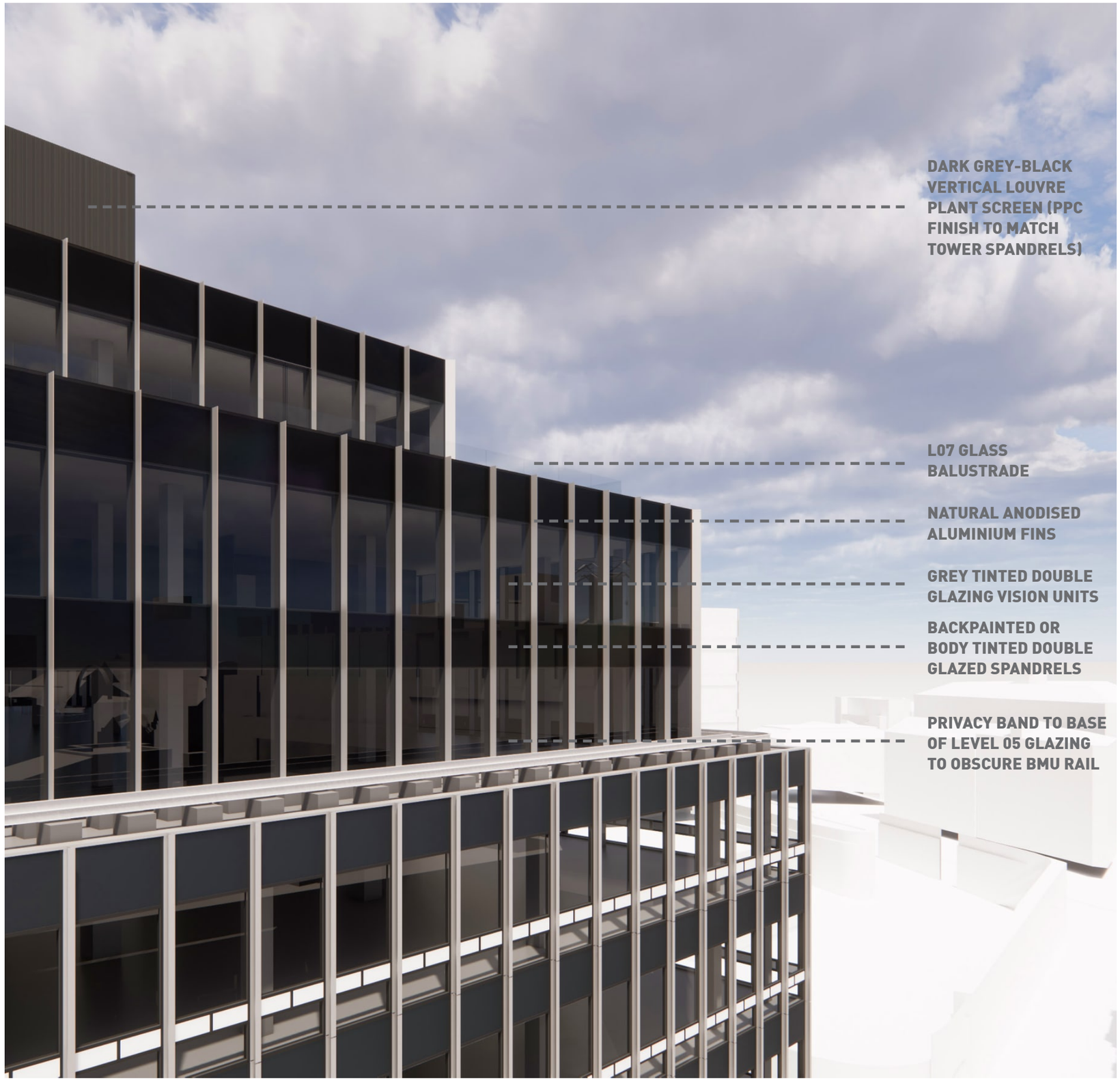


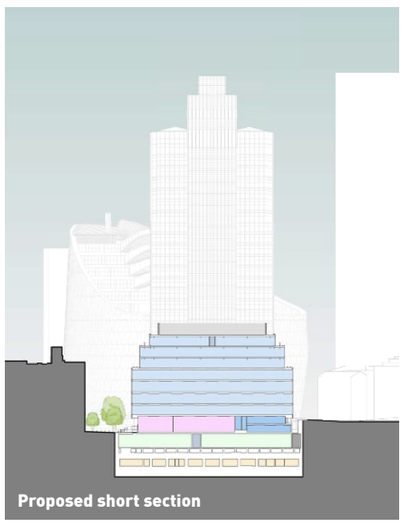
PODIUM EXTENSION MATERIALITY

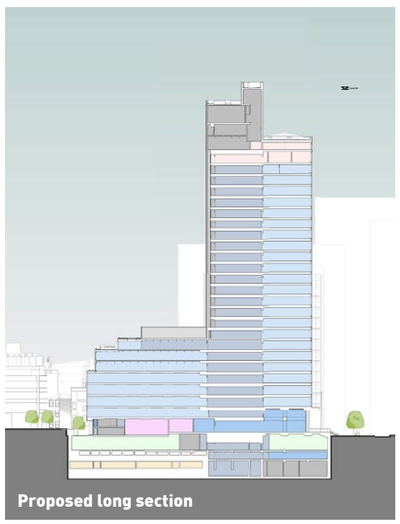
The adjacent development render demonstrates the proposed palette and materiality for use in the podium extension; demonstrating the overall result of the composition considerations.

The three accommodation floors take the form of a curtain wall, which has grey tinted double glazing units alongside grey body tinted or backpainted spandrels. All glazing specifications are to be developed through further sampling. Vertical mullion joints are capped with natural anodised aluminium blade fins, with capless horizontal joints. Other elements such as glazed balustrades are used on Level 07 and internal face glass treatments are used on Level 05 to obscure visibility of the external building maintenance unit rails.

On the following pages, the architectural language and materiality is further demonstrated through detailed bay drawings. The chapter is concluded with proposed general arrangement elevations and visuals to demonstrate the overall design considerations and compositional treatments described in this chapter.




Proposed short section

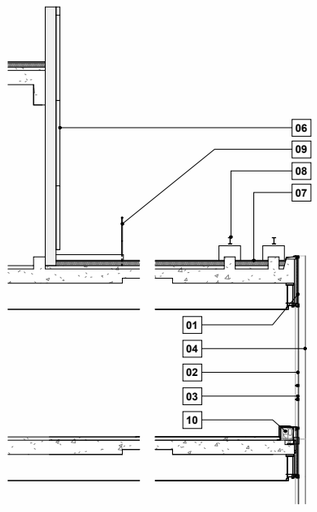

Proposed long section

TYPICAL PODIUM EXTENSION BAY DETAILING

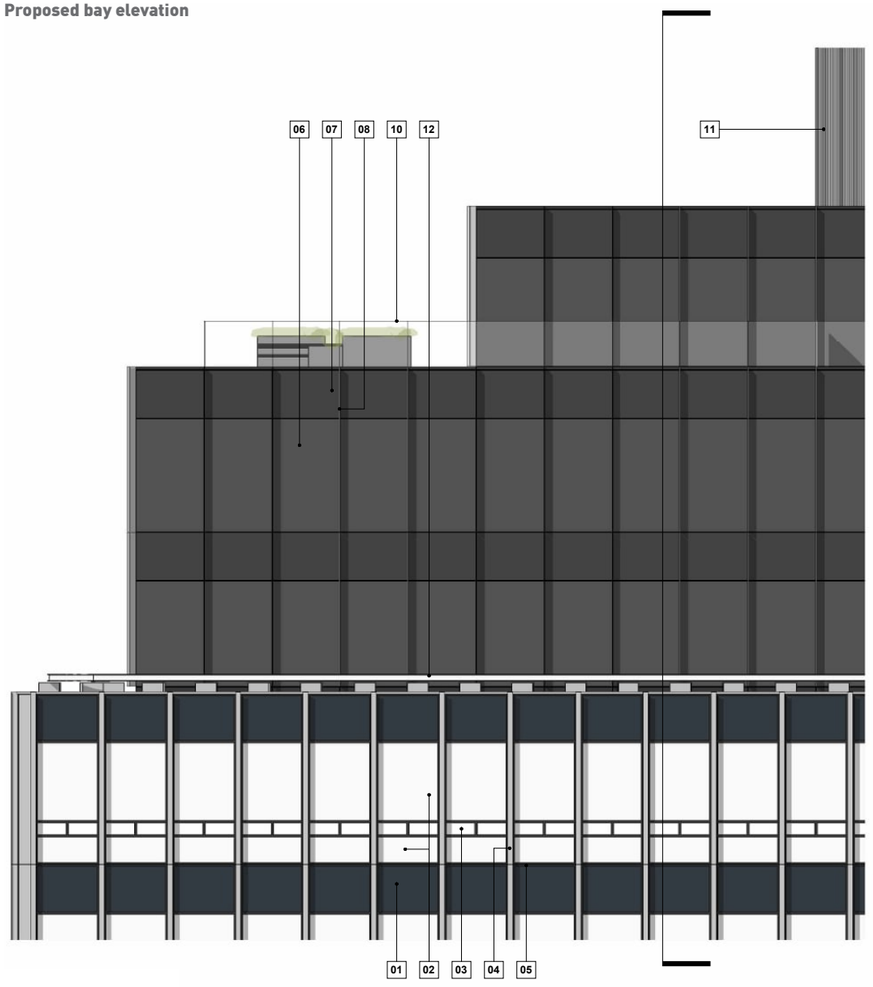
Existing bay elevation



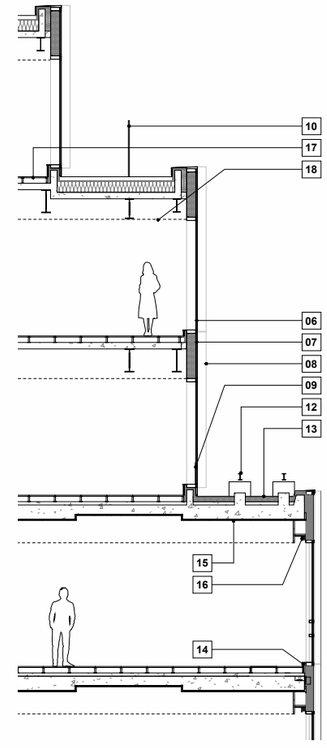
Existing bay section



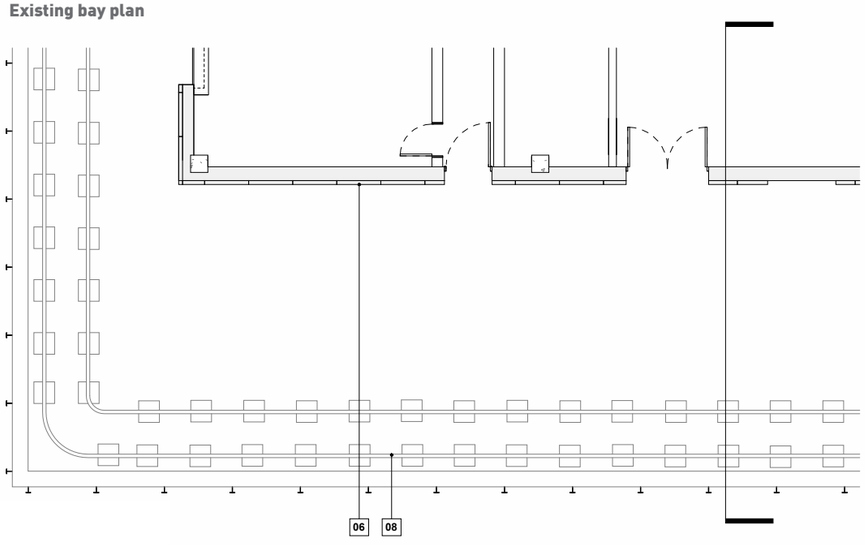
Proposed bay elevation



Proposed bay section



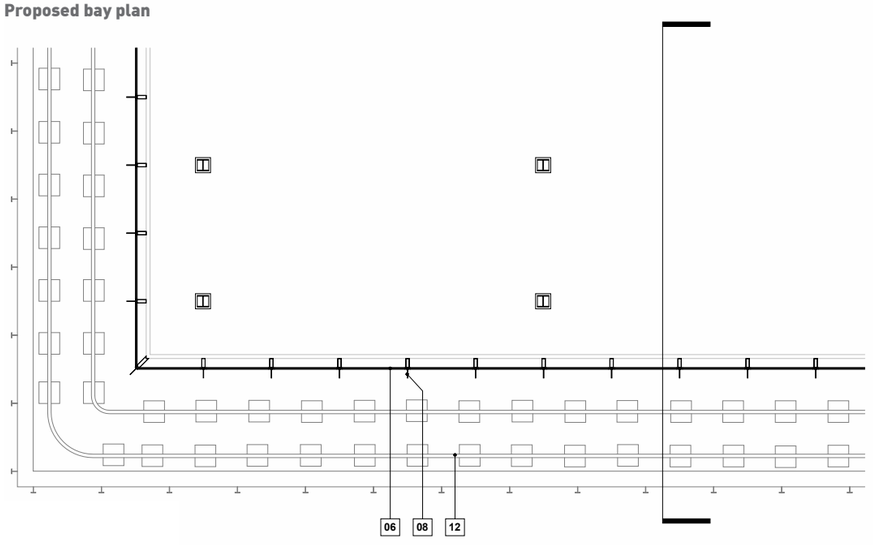
Existing bay plan



LEGEND

01	Vitreous enamel on steel spandrel panel
02	Single glazed clear panel, with retrofitted mirrored film
03	Single glazed obscure panel, with discolouration in areas
04	Hiduminium T rail with fluoropolymer finish
05	Aluminium curtain wall framing with fluoropolymer finish
06	Panelised cladding to external wall, build-up unknown
07	Existing roof
08	BMU track
09	Metal balustrade
10	Weathermaster perimeter heating system

Proposed bay plan



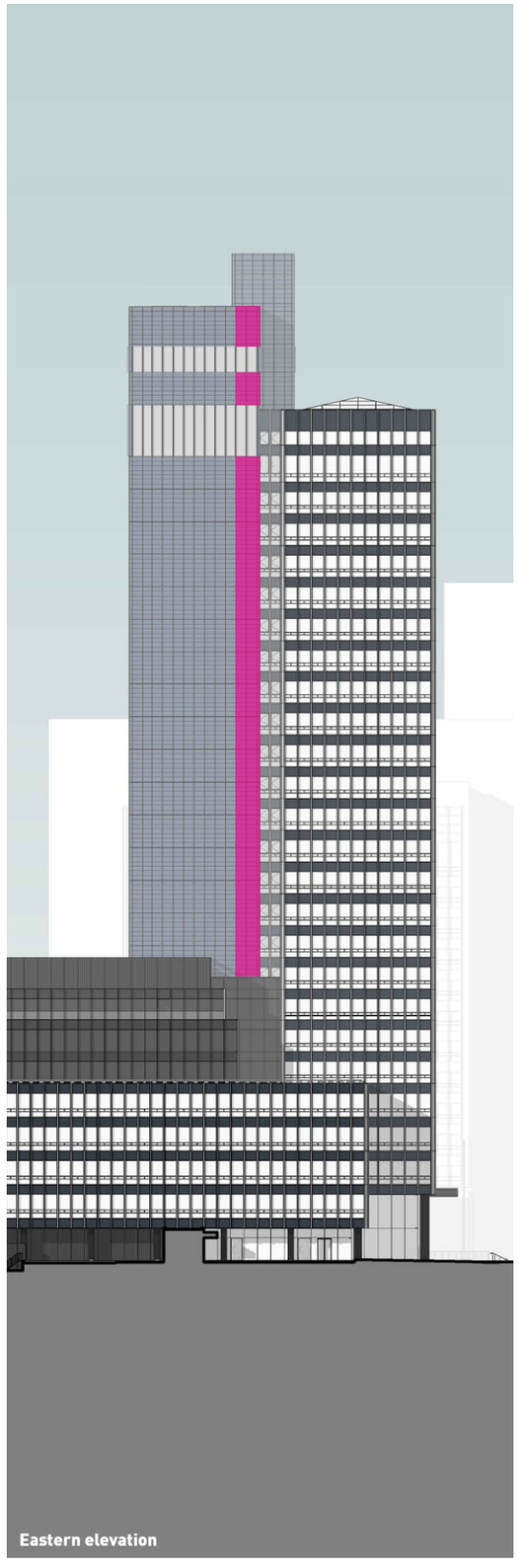
LEGEND

01	New aluminium panel, PPC finish (spec TBC)
02	Double glazed clear panel (films to suit performance TBC)
03	Double glazed obscure panel (interlayer spec TBC)
04	New aluminium T rail, natural anodised finish (spec TBC)
05	New aluminium curtain wall framing, PPC finish (spec TBC)
06	Dark grey tinted double glazed panel
07	Dark grey back-painted / body-tinted glazed spandrel panel
08	Projecting aluminium fin, finish to match T rails
09	Internal translucent glass treatment to obscure BMU track
10	Glazed balustrade with stainless steel capping
11	Dark grey / black aluminium vertical louvres, PPC finish
12	Existing BMU track
13	New roof
14	Replacement cill detail in plasterboard and timber
15	Fire protection to existing structure
16	Blindbox
17	Raised access floor
18	Base of services zone, minimum 2700mm clear headroom

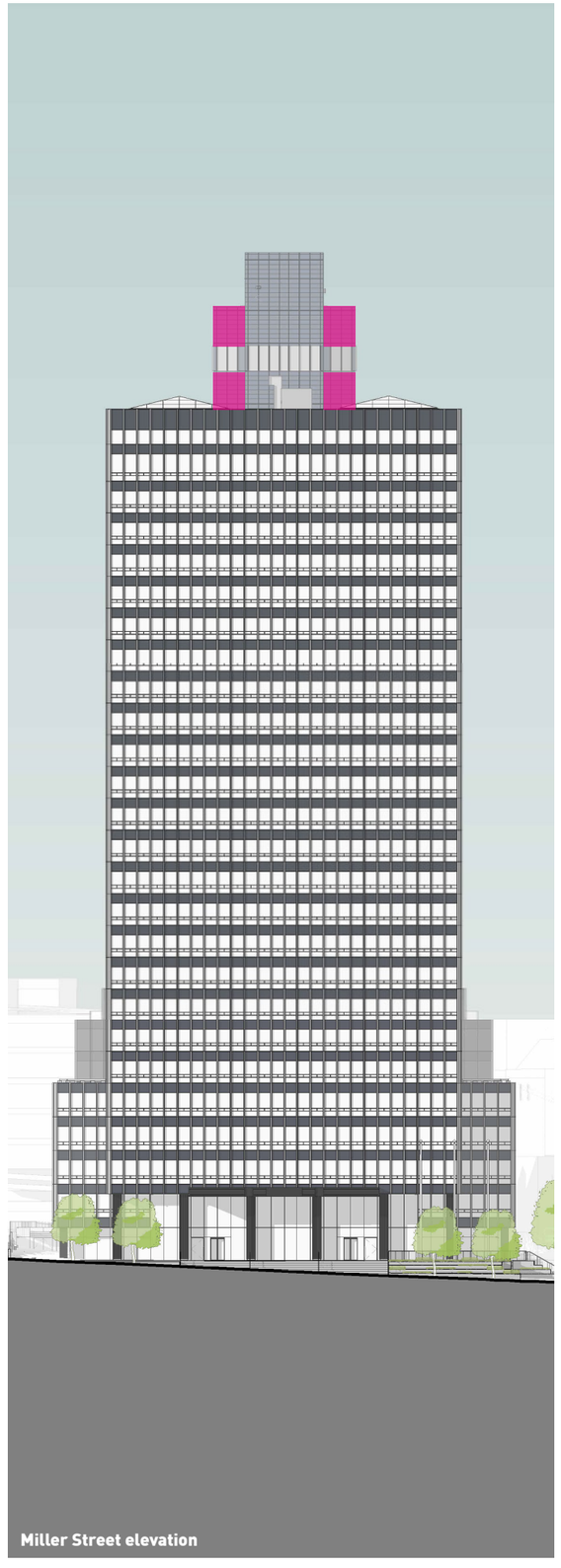
SERVICE TOWER PHOTOVOLTAIC PANELS

In line with the Fire Engineer's input to support this application it is necessary to remove part of the photovoltaic panel array on the service tower of the building.

The extent of the removal necessary is highlighted in pink on the elevations included on this page. This reflects the full removal of the panels on the north facade as well as 1 small and 2 large modules from each horizontal strip on the east and west facades, nearest the office floor plates. It is intended that these panels will be replaced. The design team are currently reviewing an appropriate and deliverable replacement with details to be provided in due course. This is to be in the form of a 'dummy' panel or a PPC finished rainscreen panel.



Eastern elevation



Miller Street elevation



Dantzic Street elevation

PV panels to be removed

DEBRANDING, SIGNAGE AND LIGHTING

DEBRANDING

The CIS Tower was designed and built for a single owner/occupier. The service tower, since completion has included the letters 'CIS' at its peak.

During the overcladding of the service tower the opportunity was taken to replace the 'CIS' letters with updated signage on all service tower elevations.

Given that the signage is not original and that The Co-operative have vacated the building, it is proposed that the signage is removed as part of the works.

NEW SIGNAGE

Within the adjacent diagrams, there is a zone indicated on the service tower where signage is anticipated in the future. No further details can be provided until a branding exercise is commenced for the building in its 'post-CIS' existence, with separate applications for this signage to follow.

In addition to the service tower signage, further signage is anticipated at ground floor, behind the glazing line for the primary building entrance as well as the retail and leisure unit entrances. Signage zones will also be included for the existing canopy of the Miller Street entrance.

LIGHTING

It is also the intention remove the uplighters currently at street level on Miller Street and the existing building podium roof. These will then be replaced with updated, more energy efficient lighting for the building.

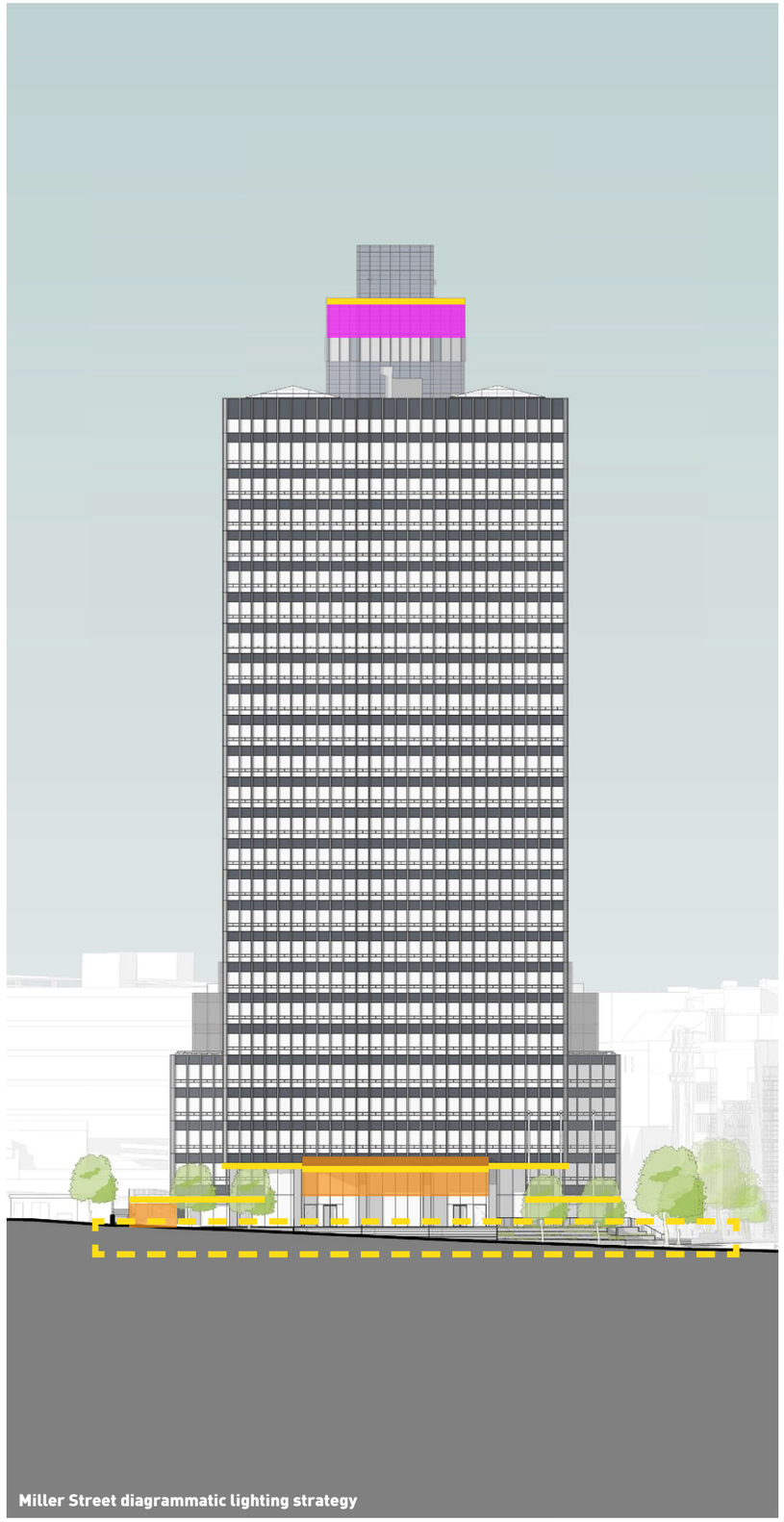
A detailed lighting strategy for the building is to be developed. The following areas are anticipated to include new lighting:

- at the top of the service tower as a 'halo' above the signage zone,
- to ground floor soffits and canopies to aid activation of facades proposed at street level,
- facade feature lighting,
- back illumination to all signage,
- ground floor and terrace landscaping (as Landscape Architect's proposals)

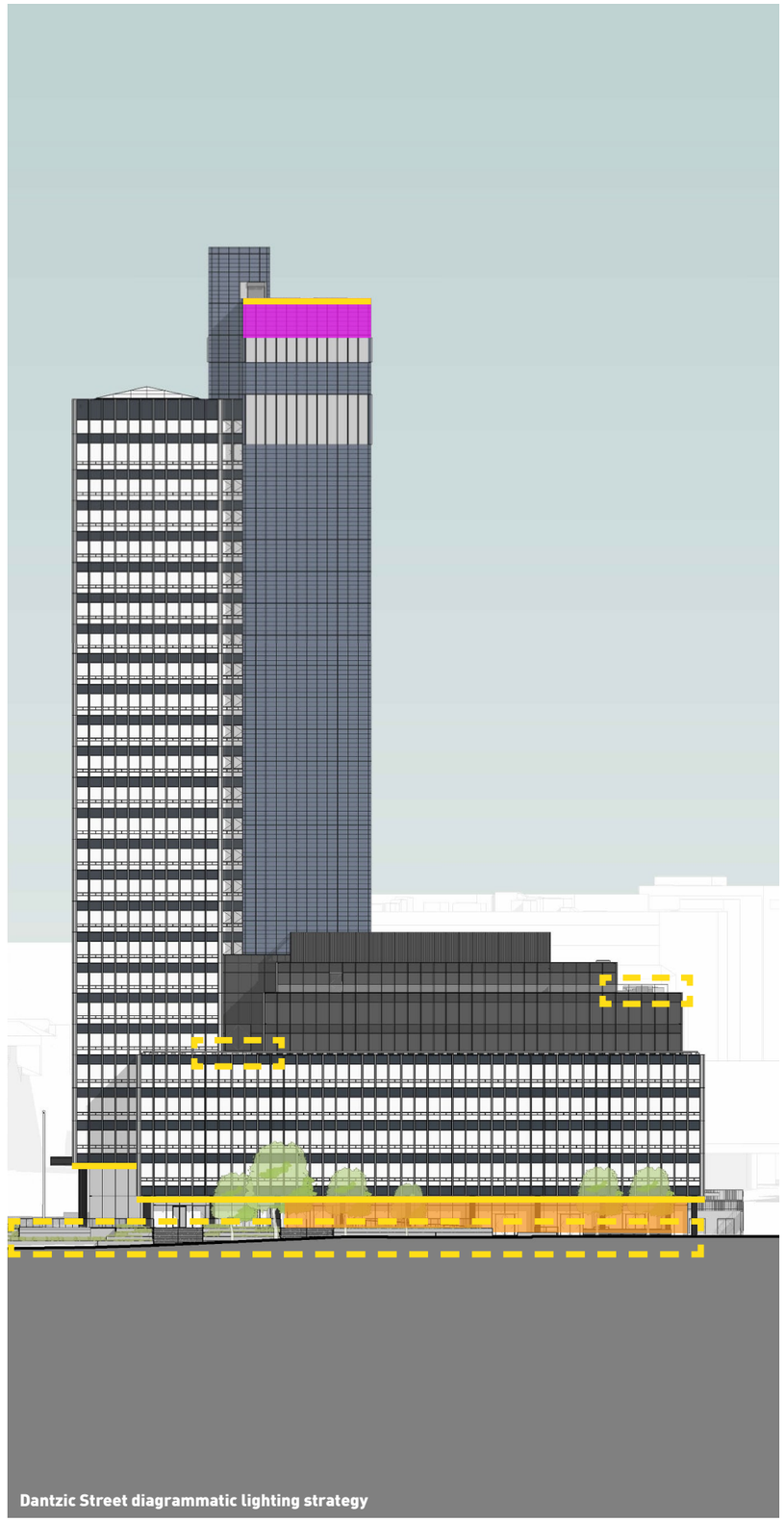


Existing signage

New signage zone
Ground floor signage
Canopy and soffit lighting
Landscape and building lighting



Miller Street diagrammatic lighting strategy



Dantzic Street diagrammatic lighting strategy

KEY VIEW COMPARISONS



Corporation Street junction current



Corporation Street junction proposed



Miller Street current



Miller Street proposed

KEY VIEW COMPARISONS



Rochdale Road junction current



Rochdale Road junction proposed



Hanover Street current



Hanover Street proposed

PROPOSED SCHEME ELEVATIONS



Miller Street elevation (north)



Dantzic Street elevation (west)

PROPOSED SCHEME ELEVATIONS



Hanover Street elevation (south)



Eastern elevation

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