How has it been designed?

The proposal is split into the following elements:

- Element 1 - Existing Structural Survey

Detailed surveying of the existing building fabric to allow reuse of the reinforced concrete structure. New elements will then be designed to work with the existing structure which will minimise any disruption on site from strengthening.

- Element 2 - Replacement Windows and Refurbishment

Replacement of existing windows to floors 2, 3 and 4 on existing elevations to dramatically increase thermal insulating value and increase environmental performance. Refurbishment of the existing building at 20-23 Greville Street will allow acoustic insulation, fire protection and services distribution to be added to better future proof the current building.

- Element 3 - Lower Levels Reorganisation

Reorganising lower ground, ground and first floors to introduce A1 and A3 uses adding to the vibrancy and diversity of the surrounding area, provide a generous bin store with easy access to street level, provide cycle parking and associated facilities to exceed local standards and reposition the entrance to B1 space.

- Element 4 - Rear Extension

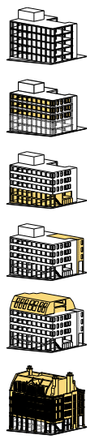
Reinstating the original building footprint with original facade to provide additional office accommodation and affordable area for the jewelery industry to the rear. The scale of this extension has been carefully measured and developed to reflect that of Bleeding Heart Yard.

- Element 5 - Roof Extension

A modest roof extension following the original mansard line stepping away from the parapet to protect neighbouring building's amenity levels and provide office accommodation for a range of business sizes.

- Element 6 - New Facade

Reclading of the existing structure on each elevation to match Spencer W. Grant's original proposal and reunite the building with the character of the conservation area. The recladding is to use a folded perforated metal mesh for its ability to weather, natural colouring, strength and ability to be moulded.



Where did the design originate?

Historical Analysis

Working with award winning historic building consultants Donald Insall Associates, we have uncovered the previous buildings which once occupied the site before being demolished and rebuilt in the 1970's.

The buildings on the site were once part of a terraced block recorded as being used for commercial purposes as early as 1846 with an ivory dealer, surgeon, optician, copper plate printer, bookbinder, engineers firm and silversmith documented at No. 20-23. This terrace was recorded in a 1922 elevation by Spencer W. Grant showing Nos. 22 and 23 as built together with paired facades, No. 21 built in a largely similar style with different floor levels and all three in a late-Victorian commercial aesthetic with ground floor shops and showrooms/workshops at the upper levels. No. 20 shows a Georgian townhouse with a lightwell, and No. 19a a mid-19th century house both with ground floor shops.

Spencer Grant, Front Elevation showing Proposed Upgrading of 20- 23 Greville Street, 1922

Spencer Grant, Showing Rear Yard Elevation, 1922

Spencer Grant, Street Elevation, 1922

Ordnance Survey Plan showing Bleeding Heart Yard, 1894

Photograph showing rear elevations of 20-23 Greville Street, 1967

Photograph showing rear elevations of 20-23 Greville Street, 1967

Ghost Veil

Our approach is to accurately re-create the detail and architectural style of the previous building facades in a contemporary and modern way, breaking up the street frontage as a whole, while at the same time achieving a well detailed and contemporary standard for along Greville Street.

We proposed to replace the 1970s appearance with a full floor to ceiling perforated brown metal skin to follow the original design by Spencer W. Grant, reintegrating the building with the Conservation Area.

Proposed viewed from Farringdon Road looking east

Proposed viewed from Hatton Garden looking east

Proposed north facade, Street elevation

How will the facade work?

The thin folded perforated metal building skin, designed specifically to allow as much natural light as possible as well as preserve an overall solidity will be overlaid onto the existing building, a mask of contextual detail and delight. Perforating the skin will allow clear views from all levels, introduce natural daylight into all interior spaces and act as a sunshade in summer months.

Material choices for the perforated cladding material will be sympathetic to the character of the Conservation Area. Brass, bronze or cor-ten are options to all match the surrounding palette with strong weathering abilities. We are keen to discuss the final material finish of the proposed with the borough to best suit the Conservation Area.

Metallic finish cast cladding panel

Patinated finish cast cladding panel

Metal balustrading samples

Patinated finish balcony railings

Polished finish cast cladding panels

Patinated finish – Non-perforated panel with fixture points

Facade Construction

Working with structural engineers Atelier One, the facade has been designed to act as a rainscreen, using available tested systems in fixing it to the existing building's structural fabric. A primary and secondary railing system will be fixed to the building onto which folded perforated metal sections will clip. These can be removed for maintenance as would a conventional rainscreen cladding system. Panels are butt jointed together to eliminate visible fixings and retain the overall coherency of the facade. A sample panel is currently under construction and will be installed in January 2018.

Stage 1 - Pre-primary work

Stage 2 - Pre-secondary rails

Stage 3 - Post-individual cladding panels

Stage 4 - Pre-individual cladding panels laid and fixing rails

Stage 5 - Pre-individual cladding panels together

Stage 6 - Finished cladding

Facade Maintenance

The small size of these perforations will ensure that any large items cannot be pushed through. If items of 6mm in diameter are pushed through the perforations, they fall to the bottom of the facade. The bottom of the facade ends 50mm above street level to ensure cleaning of any items can be easily accessed.

How does it work internally?

Reorganising internal spaces and adding a modest extensions to the rear and roof will allow the introduction of different use classes adding to the vibrancy and diversity of the surrounding area whilst adding to the current use classes in the building.

In line with Camden Development Policy DP1, 50% of the additional area created by this development will be dedicated to secondary uses, including affordable premises suitable for the jewellery industry.

Lower Ground Floor to First Floor - The introduction of A1/A3 units fronting onto Greville Street will activate the currently unused static north elevation. An A1/A3 unit to the rear will invite activity into Bleeding Heart Yard and help to make use of all building elevations. The bike store with associated facilities (lockers, showers and changing areas) is located at basement and ground level with easy access to the street through a dedicated stairway and entrance. The bin store is located at basement and ground level on a hydraulic scissor lift with mechanically operated lid to access ground floor level on collection days.

Second Floor to Fourth Floor - Second to fourth floors will be designed for open plan use, fitted to meet all Building Regulations and demands of a contemporary office. All spaces will have access to two staircases and dedicated bathroom and kitchen facilities. The rear extension will ensure any existing lower ground to first floor B1 space is relocated to the upper levels without reduction in area. Furthermore, existing tenants will remain in the building during construction works to minimise disruption.

Fifth Floor to Mezzanine - A modest roof extension is proposed to offer a single B1 unit over two floors. This will be accessed via the single core and include dedicated toilet and kitchen facilities.

Roof - All M+E equipment currently located at lower ground level and fronting onto Bleeding Heart Yard will be positioned at roof level. Any equipment will be positioned behind acoustic screening barriers to minimise any noise on amenity levels to neighbouring buildings.

Fig 100 - Existing Section

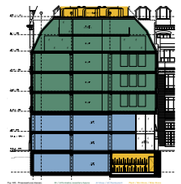
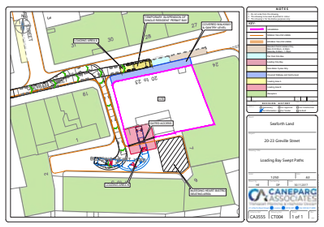


Fig 101 - Proposed Section

How will construction be managed?

Our construction works will be managed carefully to minimise impacts on our neighbours and the occupants of our building. Before works commence, a Construction Management Plan will be submitted and approved by Camden's Planning Department. The following provides a summary of how construction vehicles will access the site.



Construction traffic will be restricted to 09:30-15:00 on weekdays during term time and 09:30-16:30 outside of term time. Deliveries will also be undertaken between 08:00-13:00 Saturdays. No deliveries will be undertaken on Sunday or bank holidays. Strict delivery/collection scheduling and booking systems will be imposed.

Construction vehicles will approach from the south from the A40 (Holborn) before accessing Hatton Garden and turning right onto Greville Street. Vehicles will either stop within a temporary loading bay area on Greville Street or a second loading area within Bleeding Heart Yard. Vehicles will exit the area by continuing east along Greville Street to Farringdon Road.

The majority of vehicles will make use of the temporary loading area on Greville Street with the remaining vehicles accessing Bleeding Heart Yard, subject to vehicle size restraints. All vehicle movements will be assisted by banksmen control to prevent conflict with pedestrians and cyclists.

Thank you for your time

If you would like to provide written feedback to the project team, please contact Alex at alex@amintaha.co.uk or on 0207 253 9444.

Planning permission was approved at committee on 20th September 2018 and formally on 19th June 2019 (2018/0910/P) subject to a Section 106 legal agreement.

The planning approved scheme was for change of use of existing office (Class B1a) use at basement, ground floor and 1st floor to retail/restaurant (Class A1/A3) use; demolition of existing 5th floor plant room and erection of new 2 storey roof extension for office use; erection of 5 storey rear extension; infill of rear lightwell to create cycle storage and changing facilities at basement level; external alterations including new facade and glazing, and associated works.

A non-material amendment application (2019/1456/P) was made on 19th June 2019 for amendments (including changes to approved dormer windows construction and size, alterations to shopfront fenestration, changes to window glazing bars and door locations to front and rear, window positions aligned to match existing openings) to planning permission approved on 19/06/2019 under reference 2018/0910/P for the 'Change of use of existing office (Class B1a) use at basement, ground floor and 1st floor to retail/restaurant (Class A1/A3) use; demolition of existing 5th floor plant room and erection of new 2 storey roof extension for office use; erection of 5 storey rear extension; infill of rear lightwell to create cycle storage and changing facilities at basement level; external alterations including new facade and glazing, and associated works.".

This application was granted on 2nd July 2019.

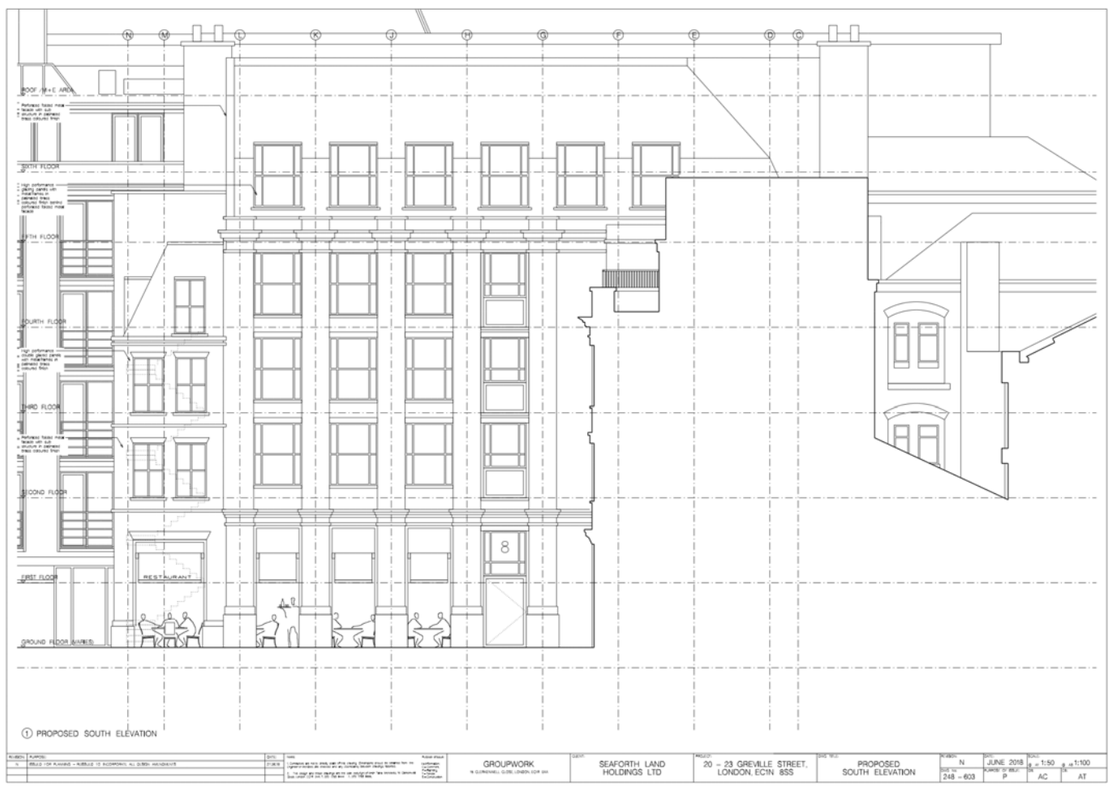


Fig. 40. Planning approved north (left top) and south (left bottom) elevations (ref; 2018/0910/P).

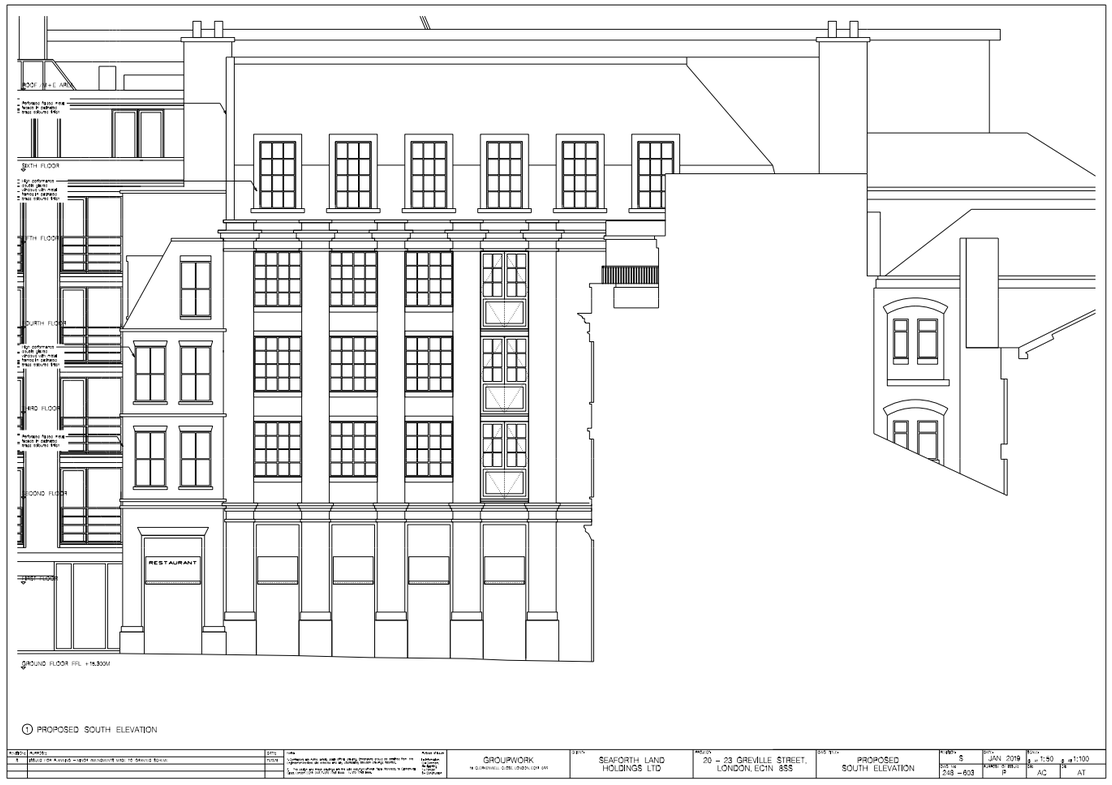
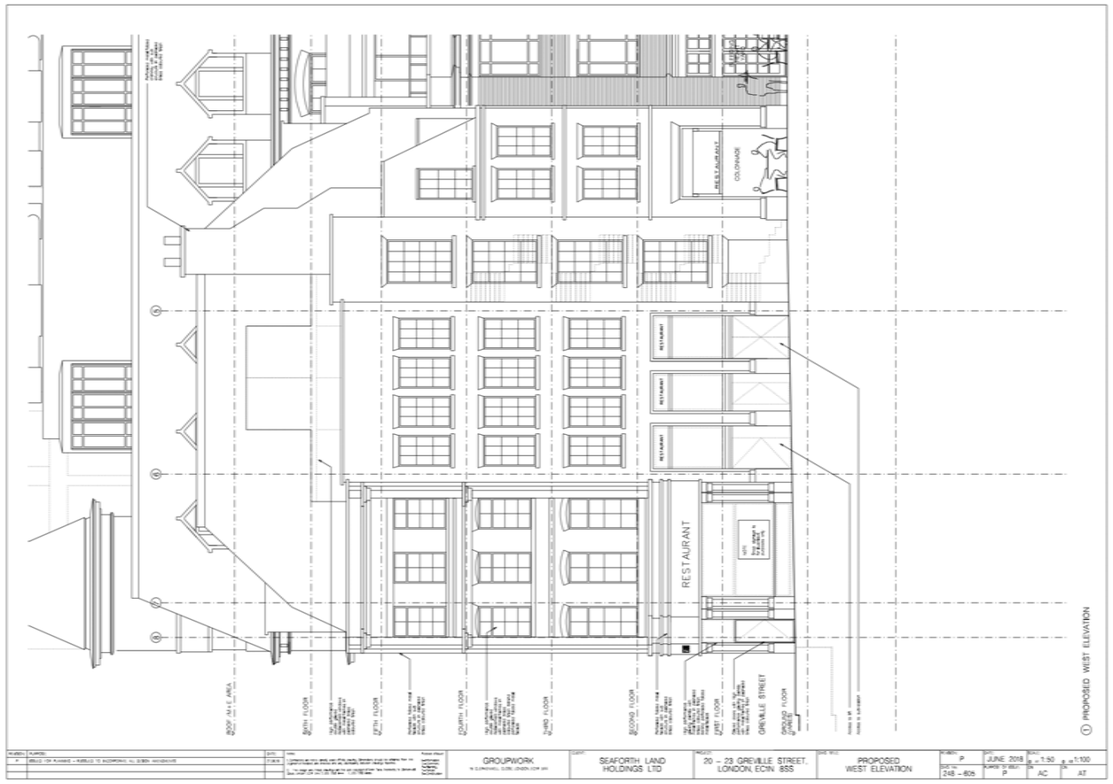


Fig. 41. Planning approved non-material amendments north (left top) and south (left bottom) elevations (ref; 2019/1456/P).



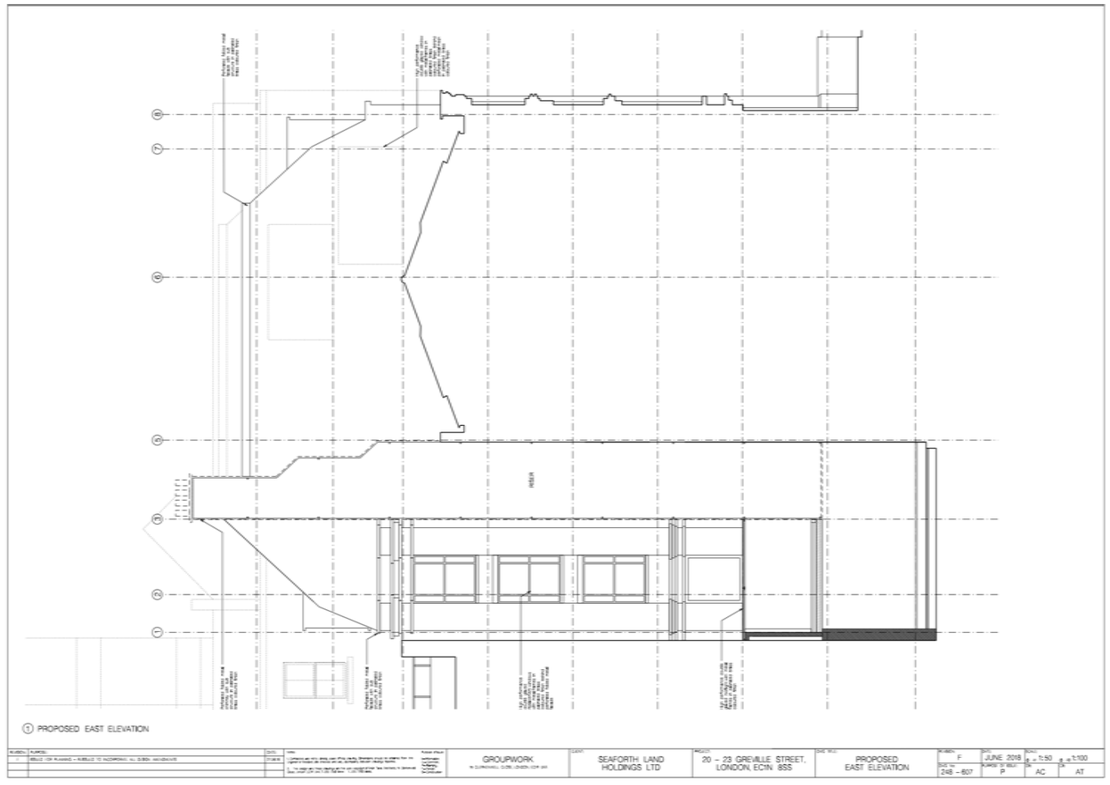
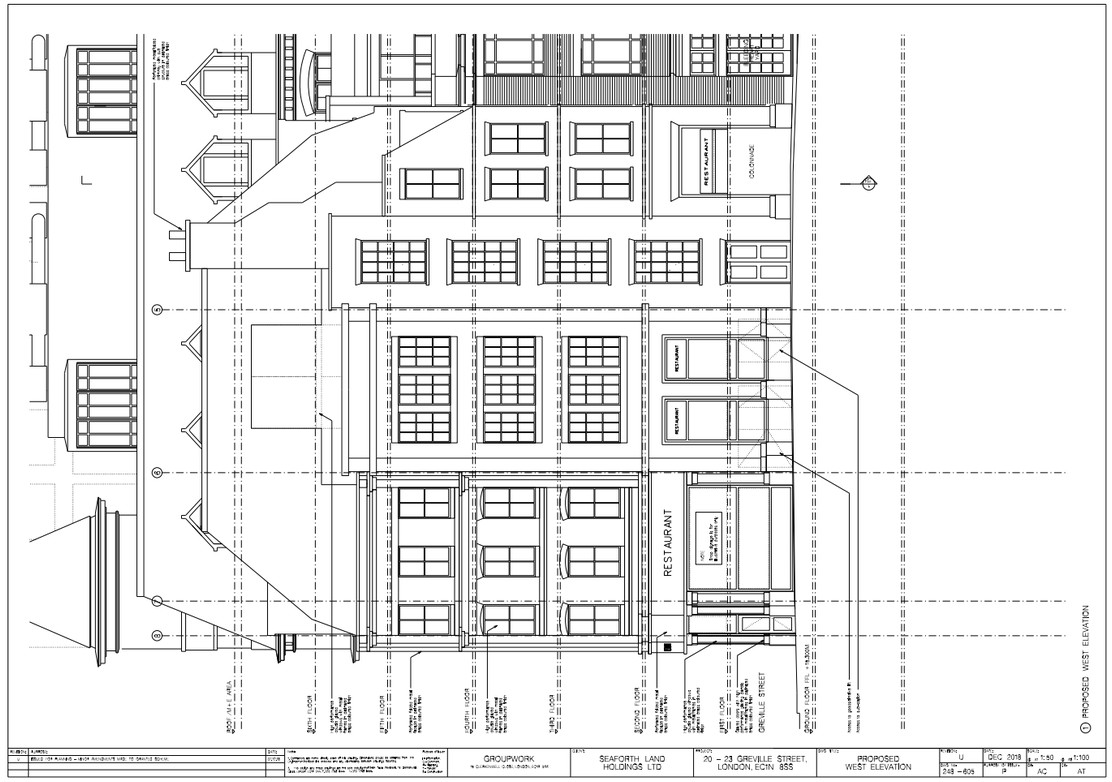


Fig. 42. Planning approved west (left top) and east (left bottom) elevations (ref; 2018/0910/P).



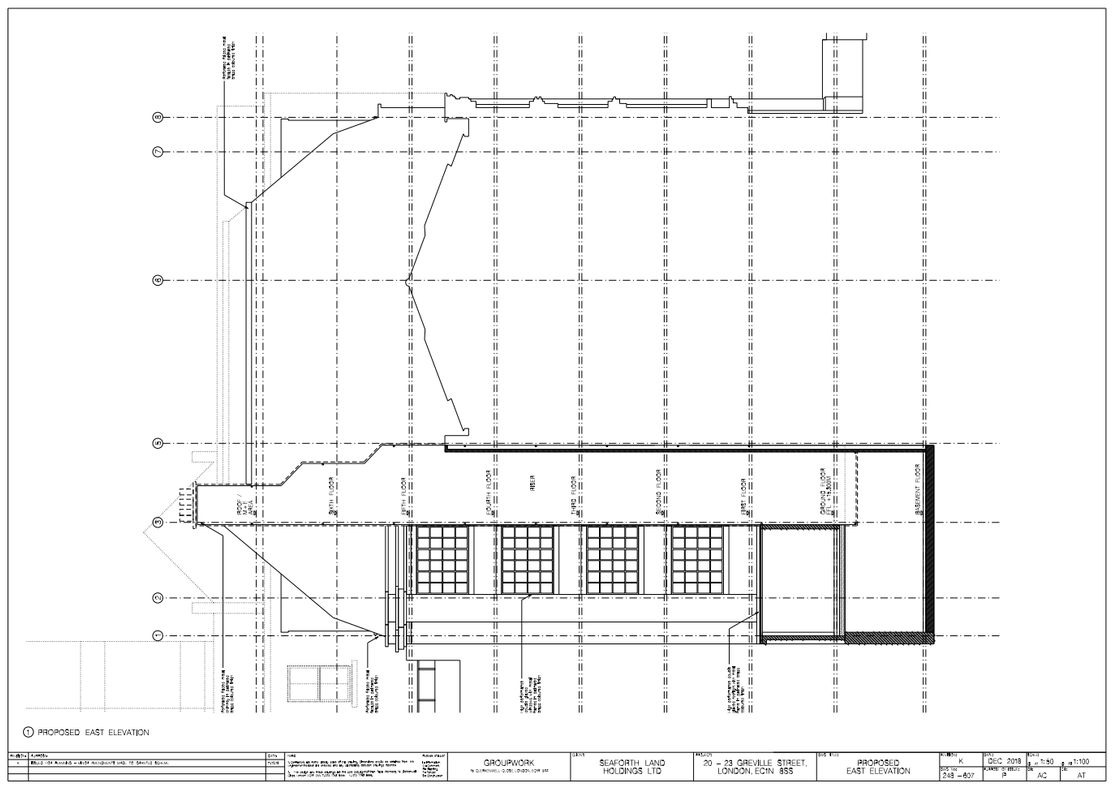


Fig. 43. Planning approved non-material amendments west (left top) and east (left bottom) elevations (ref; 2019/1456/P).

4.0 Proposal

Fig. 40. View of proposal looking west along Greville Street from Farringdon Road.

Our aim is to recondition 20-23 Greville Street to provide additional office accommodation and provide a building which makes a positive contribution to the Hatton Garden Conservation Area through drawing on the character and heritage of the surrounding area and refurbishing and adding to the existing structural fabric.

The proposal comprises five key elements:

- **Key Element 1 - Restoration**
  Recladding of the existing structure on each elevation to match Spencer W. Grant's original proposal and reunite the building with the character of the conservation area. The recladding is to use a folded perforated patinated metal mesh with a patinated brass finish for its ability to weather, colour, inhabit natural strength and ability to be folded.

- **Key Element 2 - Roof Extension**
  A modest roof extension comprising one floor with mezzanine level following the original mansard line stepping away from the parapet to protect neighbouring building's amenity levels and provide office accommodation for a range of business sizes.

- **Key Element 3 - Activating Bleeding Heart Yard**
  Reinstating the original building footprint with original facade to provide additional office accommodation.

- **Key Element 4 - Internal Area**
  Reorganising internal spaces over lower ground to first floors will allow the introduction of dual A1/A3 use, adding to the vibrancy and diversity of the surrounding area. Second to fifth mezzanine floors will be designed for open plan office accommodation use and fitted out to meet all Building Regulations and demands of a contemporary office. Removal of existing parking spaces is also proposed which are currently situated on Bleeding Heart Yard.

  The proposal will seek to retain all B1 office accommodation whilst adding additional A1/A3 dual use space. The proposal will also offer B1C Affordable workspace to contribute to the area's local industries.

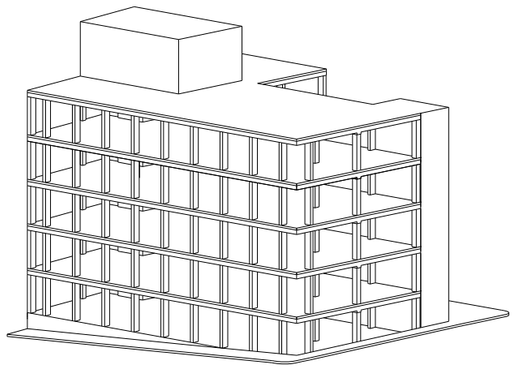
  The proposal will improve current access conditions by offering level access from Greville Street to the ground floor unit and a DDA accessible retractable stair lift in the new colonnade.

- **Key Element 5 - Refurbishment**
  Refurbishment of the existing building at 20-23 Greville Street to allow acoustic insulation, fire protection and services distribution to be added to better future proof the current building.

  Windows are to be upgraded and refurbished to increase the building's thermal insulation values.

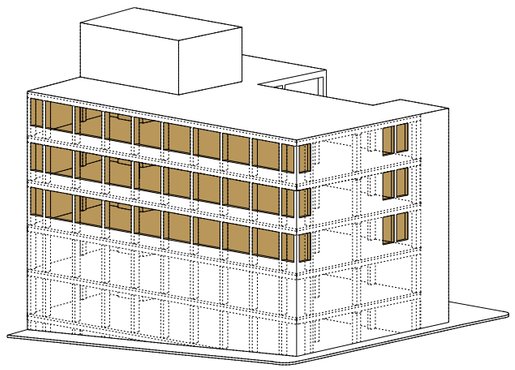
Step 1 - Existing Structural Survey

Detailed surveying of the existing building fabric to allow reuse of the reinforced concrete structure. New elements will then be designed to work with the existing structure which will minimise any disruption on site from strengthening.



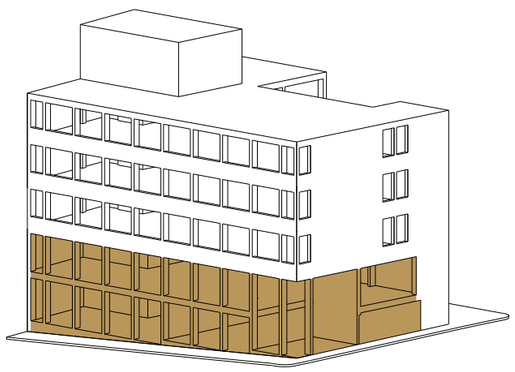
Step 2 - Replacement Windows and Refurbishment

Replacement of existing windows to floors 2, 3 and 4 on existing elevations to dramatically increase thermal insulating value and increase environmental performance. Refurbishment of the existing building at 20-23 Greville Street will allow acoustic insulation, fire protection and services distribution to be added to better future proof the current building.



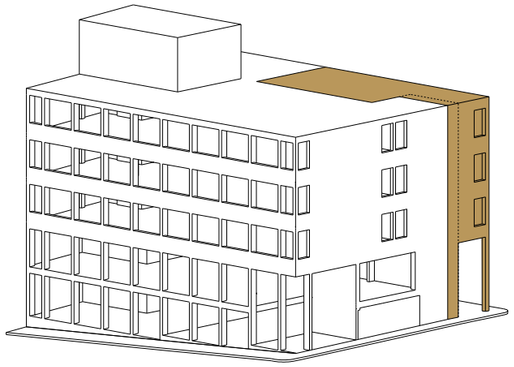
Step 3 - Lower Levels Reorganisation

Reorganising lower ground, ground and first floors to introduce A1 and A3 uses adding to the vibrancy and diversity of the surrounding area, provide a generous bin store with easy access to street level, provide cycle parking and associated facilities to exceed local standards and reposition the entrance to B1 space.



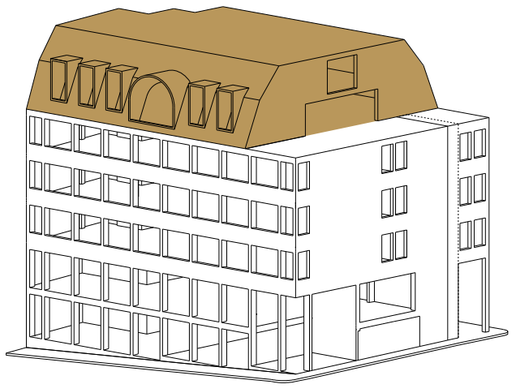
Step 4 - Rear Extension

Reinstating the original building footprint to the rear to provide additional office accommodation and affordable area for the jewellery industry. The scale of this extension has been carefully measured and developed to reflect that of Bleeding Heart Yard.



Step 5 - Roof Extension

A modest roof extension comprising one floor with mezzanine level following the original mansard line stepping away from the parapet to protect neighbouring building's amenity levels and provide office accommodation for a range of business sizes.



Step 6 - New Facade

Recladding of the existing structure on each elevation to match Spencer W. Grant's original proposal and reunite the building with the character of the conservation area. The recladding is to use a perforated folded metal mesh with patinated brass finish for its ability to weather, natural colouring, strength and ability to be moulded.

Fig. 41. View of proposal looking east along Greville Street towards Farringdon Road.

4.3 Key Design Issues

Through high quality considered design, the following issues are addressed:

- Providing a contemporary yet sensitive design that respects the scale, character and appearance of the conservation area and locally listed buildings and is a dramatic improvement of the existing building.
- Increasing employment floorspace to support the local economy and meet the demand for office floorspace from small and medium sized enterprises.
- Designing flexible floorplates with sufficient facilities to accommodate a variation in businesses.
- Avoiding degradation of neighbouring properties' privacy, outlook and amenity.
- Creating appropriate internal daylight and sunlight conditions and providing good access to natural light within the development.
- Ensuring neighbouring properties maintain acceptable levels of natural daylight and sunlight.
- Enhancing the existing streetscape and creating an improved urban setting.
- Achieving a highly sustainable and energy efficient design that will meet Part L Building Regulations in accordance with the London Plan.
- Providing suitable levels of development on the site acknowledging the greater surrounding area's density.
- Addressing the surrounding trees and reducing the impact of this redevelopment on their condition.
- Exceeding local guidelines for transportation provision.
- Improving accessibility into the ground floor through level access from Greville Street and a DDA accessible retractable stair lift in the new colonnade.

4.4 Key Element 1 – Restoration

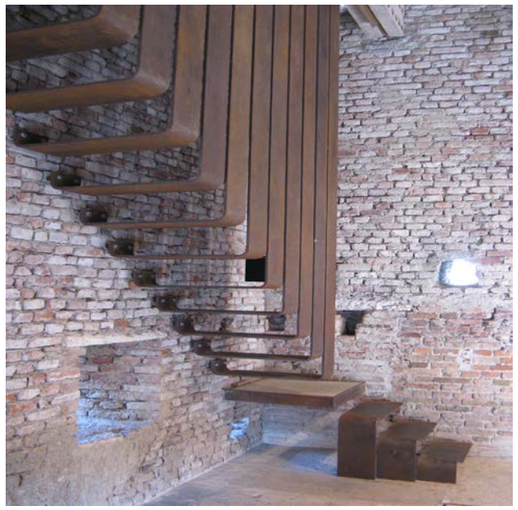


Fig. 42. Ignoring Context - Castle Vecchio - Carlo Scarpa.

Fig. 43. Restoring Context - Neues Museum - David Chipperfield Architects.

Fig. 44. Exploring Context - "Blueprint" - Do Ho Suh - Scale Representation of a New York Townhouse Facade.

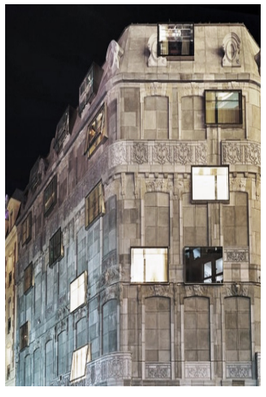


Fig. 45. Hotel, Paris - Edouard François.

Fig. 46. "House" - Rachel Whiteread.

4.4 Key Element 1 - Restoration -

Design Philosophy

When working with existing structures and within conservation areas there are perhaps three integrated methodologies to employ. Explore, Restore and Ignore.

Explore

Researching the local and broader physical built, historic and social context. Establishing predominant built fabric, material, structure and reasons for construction and methodologies at that time as well as extracting forgotten memories and establishing how these can integrate with current context, if at all. In this way beginning to root the building into both the local context and wider culture. The following pages will explain this approach and its synthesis with the preferred massing.

Restore

Where there is fabric, reason and the ability, the restoration of partly intact structures should be sought to retain exemplars of past social and physical histories. At the Neues Museum the newly unified German state called for architect to initially overlay and hide the scars of war and 60 years of neglect. Chipperfield's eventually carefully rebuilt elements, left others with the very scars of war and brought in new areas that chimed with the neoclassical design.

Ignore

Ignoring context can be a philosophical starting point. It should rely on an intelligent strategy of judicious choices that aim to complement both the new arrival and the existing context. To turn Castle Vecchio into a museum Carlo Scarpa introduced rooms, staircases and link bridges where there had been none. Using materials evoking the middle ages but employed in a wholly 20th century manner to counterpoint, highlight and celebrate both social periods through their fabric.

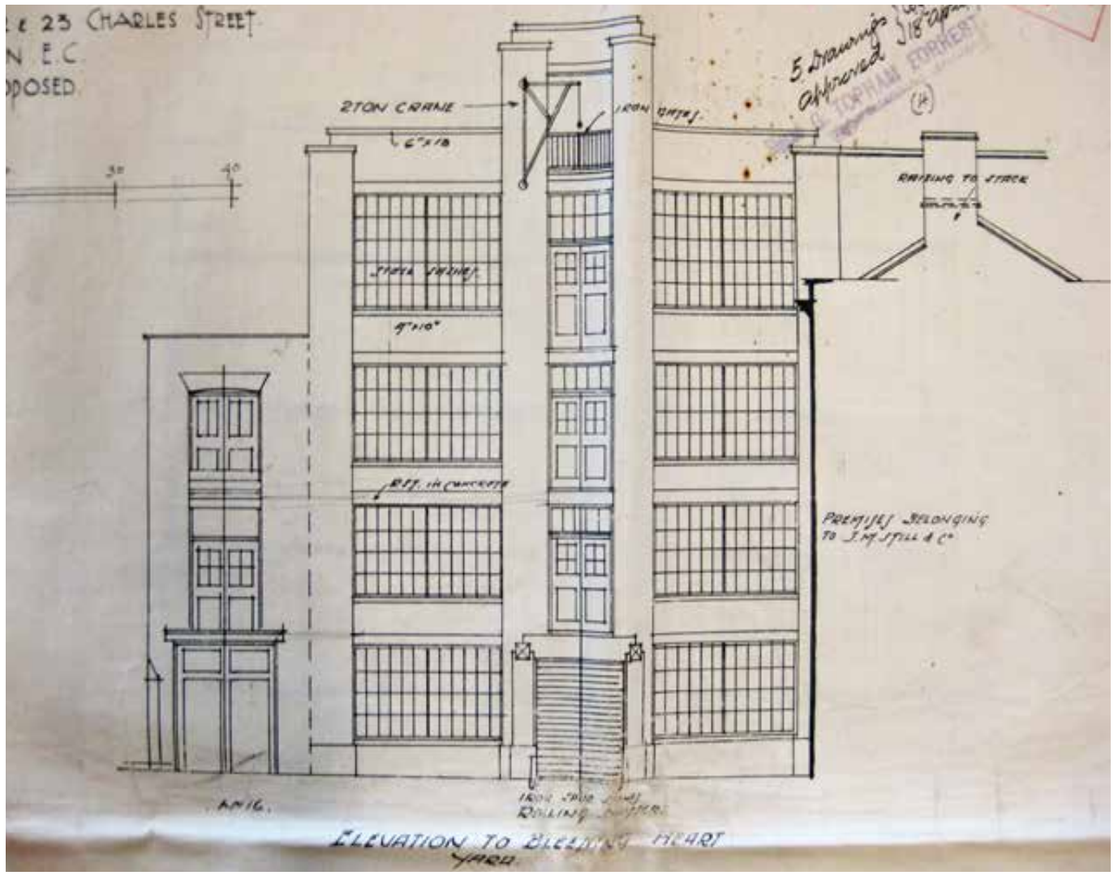


Fig. 47. Spencer Grant, Bleeding Heart Yard Elevation, 1922.

Fig. 48. Photograph showing rear elevation of 20-23 Greville Street, 1977.

Fig. 49. Photograph showing side elevation of 20-23 Greville Street, 1977.

4.4 Key Element 1 - Restoration -

Revisiting the local context

The parade of buildings between Hatton Garden and Farringdon Road, of which the proposed site forms not an insignificant part, act as living heritage of the small and medium scale diamond traders. While a great deal of the street remains intact with Georgian and Victorian buildings some with plain and flat facades others with high levels of decoration and architectural play, there have been a number of post war amalgamations of smaller plots finished with unsympathetic buildings of large mass and as with our site stripped back utilitarian facade composition and finishes.

19 - 23 Greville Street and 3 - 4 Bleeding Heart Yard as the site plots were originally numbered, accommodated six buildings of various sizes which up until they were demolished during the 1970's were gradually knocked through for their tenants. Our research has shown the extent of their original footprints, heights and architectural detail. Which when reconstructed within a CAD 3D model not only readdress the common rhythm of vertical and decorative shopfronts on Greville Street but also give a much clearer definition of building lines and form to Bleeding Heart Yard.

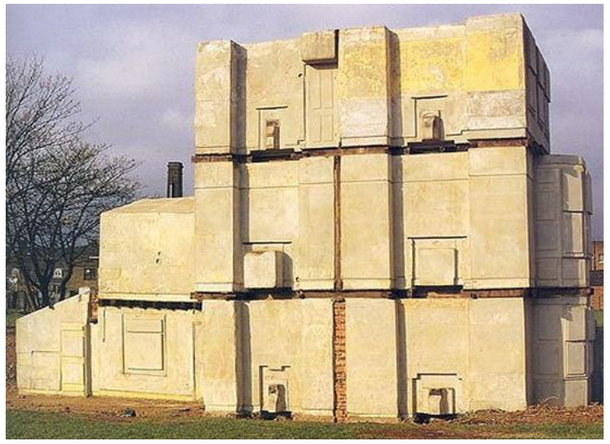


Fig. 50. House - Rachel Whiteread.

Fig. 51. Home Within a Home - Do Ho Suh.

Fig. 52. Fouquet's Barrière Hotel, Paris - Edouard Francois.

Fig. 53. Naturkundemuseum, Berlin - Diener and Diener.

4.4 Key Element 1 - Restoration -

Memory and the Misremembered

Given the clarity of historical information and opportunity to restore the original urban form, social heritage and architectural detailing, our approach has been to remember or rather misremember the missing pieces. After all we cannot build using the same materials to meet today's standards and arguably why should we given the opportunities available to us. Similarly, of the multitude of creative options possible, the idea of looking to the past and the past looking back is full of possibilities. We therefore began by simply aiming to return the original buildings in form and detailing. But as a full height metal skin, a shell conceived as a 1:1 monument cast of the past.

Very much drawn from Rachel Whiteread (Ghost House, London), Do Ho Suh (Home within Home), Diener+Diener (Natural History Museum, Berlin) and Edouard Francois (Hotel Fouquet, Paris), all external mouldings, window surrounds and features as well internal skirting, dado rails, cornices and anaglypta wallpaper were modelled. The CAD information then projected into a 3D model in order that this effort isn't seen as an attempt to perfectly mimic the past, instead alluding to memory, indeed misremembered pasts the finish is monolithic, slipping in areas, imperfect and in some parts wholly misplaced.

Had the CAD information been written incorrectly, would it be correctly translated by the metal fabricators? As well as reminding us that our ideas/ memories of the past are often edited and adjusted to suit our present and futures, the notion that the "making/construction" is also misremembered suggests that what we understand as rational and controlled by for instance neoclassical architectural rules is also fluid.

Within the monolithic cast shell, new internal floor plates literally represent the new habitation pattern. Located where convenient and of a very different and gentler material, the Cross laminated Timber Floor plates are alien to the monument and carried through with new openings behind the metal perforated sheet and potentially in some areas cut where required without respect to the older window locations or their surrounding neoclassical detail. From across the street and further distances the metal facade appears as the original street elevation of soot-washed London stock brick. As one approaches the perforations become more evident signalling the edifice but a light weight of ephemeral shroud, a ghost of the past. Internally as with net-curtains the proximity to the shroud allows clear views out with some solar shading on the south and west faces and sense of privacy from the street.

Fig. 54. French Ministry of Culture - Francis Soler.

Fig. 55. Naturkundemuseum, Berlin - Diener and Diener.

Fig. 56. French Ministry of Culture - Francis Soler.

Fig. 57. 168 Upper Street - Amin Taha Architects.

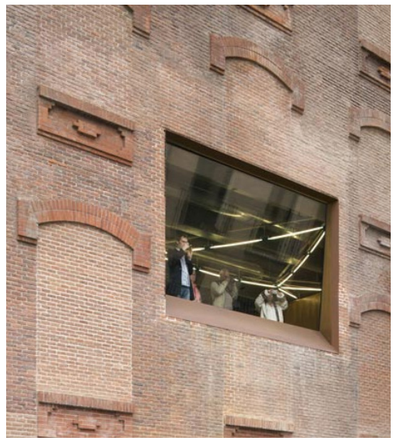


Fig. 58. La Caixa Forum, Madrid - Herzog and De Meuron.

There are a number of precedents for exploring a distinct reading of the past and interpreting and remaking a historic context. This page describes precedents for such an approach.

Interpreting the restoration process for the contemporary age

Built history provides us with an identifiable and tangible understanding of a time since past. Materials, scale and detail describe previous architectural styles, social movements and commercial aspirations and our interpretations and methods of re-creation have the potential to challenge our understanding of where we've come from and inform us moving forward. The attentive unity of old and new produces exciting relationships that foster dialogue and discussion and a thoughtful re-interpretation of context can challenge physical properties, introduce transparency, weight or texture and encourage us towards a more detailed reading of a specific place or building.

The examples to the right range from the Ministry of Culture in Paris which abstracts the building and roof proportions set out by Haussmann and Mansard for the city combining it with an Art Nouveau laser cut screen, to a boutique hotel also located in Paris as well as the Natural History Museum in Munich which both literally cast adjacent and imagined details of buildings past.

Fig. 59. Cast iron building facade, Soho, New York.

Fig. 60. Cast iron building facade, Soho, New York.

Fig. 61. Cast iron building facade, Soho, New York.

Fig. 62. Haughtwout Building, Soho, New York.

Fig. 63. 101 Spring Street, New York.

Precedents for Metal Facades

Cast iron has been used as a building material since the early 1700s, gaining prominence during the Industrial Revolution for its structural and aesthetic possibilities and ability to replicate shapes and forms, inspiring new systems of production and design.

After Englishman Abraham Darby in the early 1700 revolutionised the processes for heating and casting iron, cast iron's use developed into partially and then fully supporting building facades and structures. This technology freed interiors from bulky wooden or granite piers and provided commodious commercial spaces. By the late 1850s, foundries were disseminating cast iron products to all parts of the nation and beyond, marking a breakthrough in traditional regional barriers in architecture and decorative arts.

The great plasticity of cast iron also permitted ornamentation in the form of emblems, shields, medallions, animal heads, ornate window lintels, and rosettes. Architects and builders devoted great effort to make finished façades resemble marble or another stone. In addition to columns and lintels in commercial buildings, cast iron was used in flat plates to resemble stone blocks on building exteriors.

Instead of using cast iron to imitate the appearance of stone, designers turned toward cast iron buildings with slender columns in facades, thereby allowing for large expanses of glass, while the buildings remained structurally sound. They experimented with nonmasonry paint colours to highlight cast-iron design elements. In interiors, thin cast iron structural elements allowed for height, light, efficiency, and more floor space. Some historians have identified the use of cast iron in buildings of this decade as a precursor to the all-glass curtain walls of the twentieth century.

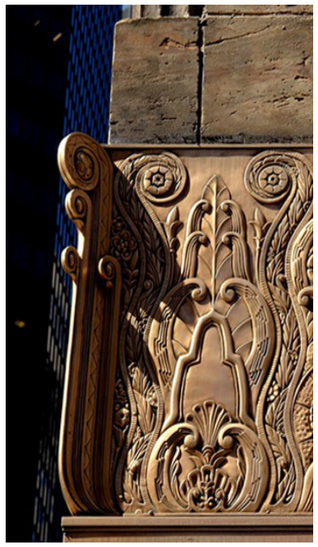


Fig. 64. Chanin Building, Manhattan.

Fig. 65. Baptistry South Doors, Florence.

Fig.66. Carson Pirie Scott Building, Chicago.

Fig. 67. Bronze Colour/Patina Variations.

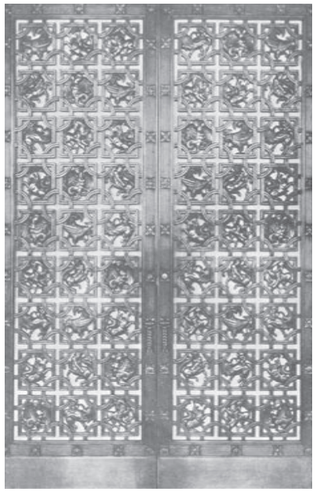


Fig. 68. Bronze grille doors, entrance hall, Bowery Savings Bank, New York City.

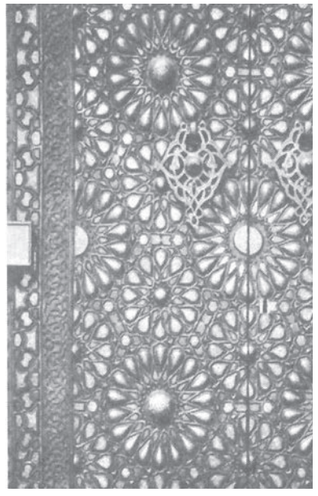


Fig. 69. Bronze door from an Egyptian mosque, inlaid with gold and silver (14th century).

Fig. 70. Finished small moulds for casting of exterior doors for the Boston Public Library.

4.4 Key Element 1 - Restoration -

Approach to Materials

Brass/Bronze

An initial proposal is to form the 'replica' building with a veiled metal facade with a brass or bronze weathering finish, a tried and tested high quality material finish capable of withstanding the elements, developing a patina fixed to a preferred aesthetic or allowed to evolve in tone and appearance over time.

Brass and bronze have been commonly used as external building elements as well as public sculptures and monuments due to its stable nature to hold architectural detail and relief. The use of bronze as a means of detailing an identity dates back to the bronze age, through the fabrication of ornate battle helmets, armour, tools and decorative tiles.

A stunning example of Renaissance architecture, The Baptistry South Doors in Florence, Italy were fabricated from bronze to form an ornate and iconic portal of entry and in the example of Rodin's Gates of Hell in Paris, narrative is transformed into a stunning relief of detail and shadow. As a cast or worked material, it was commonly used in European and North American buildings well into the 20th Century. These examples along with selected architectural details are shown to the left.

The design of the facade pattern, its scale and density ratio maintains solidity for the purpose of the buildings form within the streetscape and definition of detail.

The bronze or brass finish can be left in its initial state which over many years would weather to a darker tone or frozen at a particular point in the spectrum by treating the metal with a patina solution at its fabrication stage, making it maintenance free.

As a veiled representation of contextual detail, our design at Greville Street proposes a unique and contemporary solution with strong ties to its local and wider context.

Developments in the fabrication and use of bronze and brass have led to further architectural applications as fixed and operable panels, its longevity as a finish bolstering its strong quality of appearance. As an exposed material, bronze and brass as a finish are maintenance free and when panelised and laser cut with perforations. It provides an attractive and ornate facade allowing for ample light penetration while alluding to ephemeral memories, a ghost of what once stood; seemingly solid from a distance but at close inspection a semi-transparent shroud representing the past.

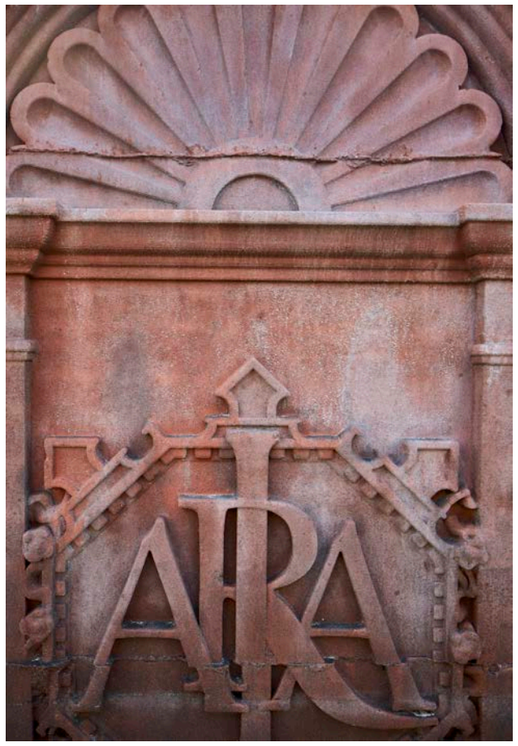


Fig. 71. 168 Upper Street, Amin Taha Architects.

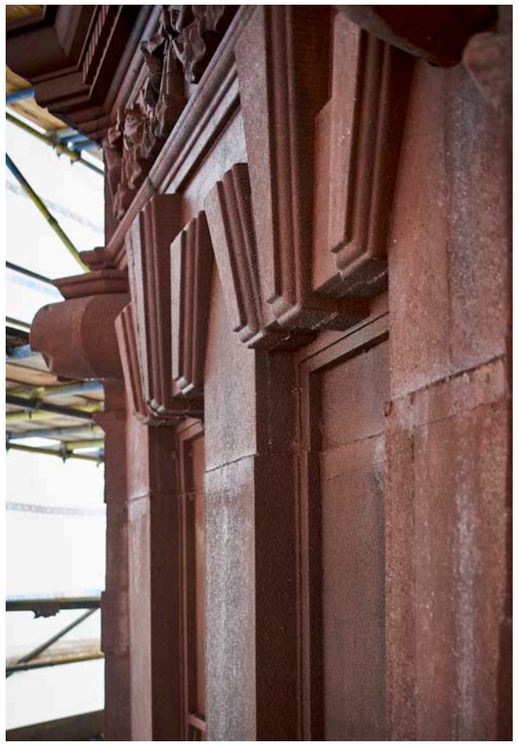


Fig. 72. 168 Upper Street, Amin Taha Architects.

4.4 Key Element 1 - Restoration - Skeuomorphism

To ensure the 'restoration' isn't an attempt to perfectly mimic the past nor part of an incremental development and representation of the neoclassical language, but a critique of that process and the nature of memory the choice of construction and fabrication processes is key.

The external wall construction is a 1:1 hollow cast of the original buildings formed of perforated metal mesh fabricated to echo all original details. Whilst this presents a complex and technical construction challenge, the process itself brings opportunities to explore and enhance the notion of representation of past traditions. The monolithic nature of the material and construction methodology becomes a conscious simulacrum of standalone elements and component assembled to make the whole, namely pilasters, capitals, pediments, cornices etc.

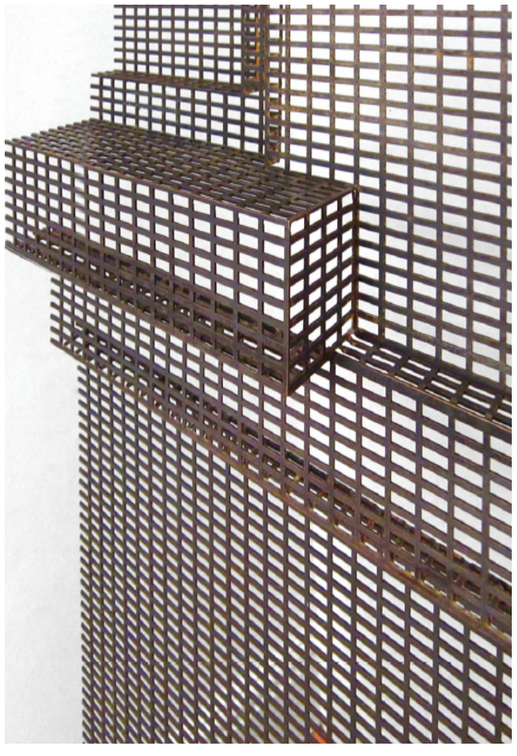


Fig. 73. Perforated brass detail test panel.

Fig. 74. Solid brass detail test panel.

Fig. 75. D/Vision, Ferruccio Laviani, 2017.

Fig. 76. Good Vibrations and D/Vision, Ferruccio Laviani, 2017.

Fig. 77. Good Vibrations and D/Vision, Ferruccio Laviani, 2017.

Fig. 78. D/Vision, Ferruccio Laviani, 2017.

Fig. 79. Good Vibrations and D/Vision, Ferruccio Laviani, 2017.

4.4 Key Element 1 - Restoration -

Digital Inaccuracies

The digital fabrication process, whilst critical in the production of accurate construction information, introduces traces and imperfections of the manufacturing process. For instance, folds in panels for stability and occasional mechanical fixings to the sub structure disguised from a distance become visible upon closer inspection.

Understanding that on occasion, the translation of the CAD information into the manufacturing equipment could resulted in lost and distorted details, areas likely to ‘fail’ can be encouraged to do so. Sometimes, over simplifying details or even skewing, or losing them altogether. This digital manufacturing process having as many opportunities for ‘failure’ as the physically manhandling and carving of materials reinforces the notion of misremembrance intrinsic to the building’s construction and our understanding of the past. It needs scrutiny, questioning before understanding.

Fig. 80. Proposed Greville Street elevation.

4.4 Key Element 1 - Restoration -

Proposal

In accordance with our 'Design Points of Reference', we have considered how the research above can be applied to the site. Our approach of 'explore' is to accurately re-create the detail and architectural style of the previous building facades in a contemporary and modern way, breaking up the street frontage as a whole, while at the same time achieving a well detailed and environmentally efficient design for Greville Street and the wider Conservation Area.

Ghost Veil

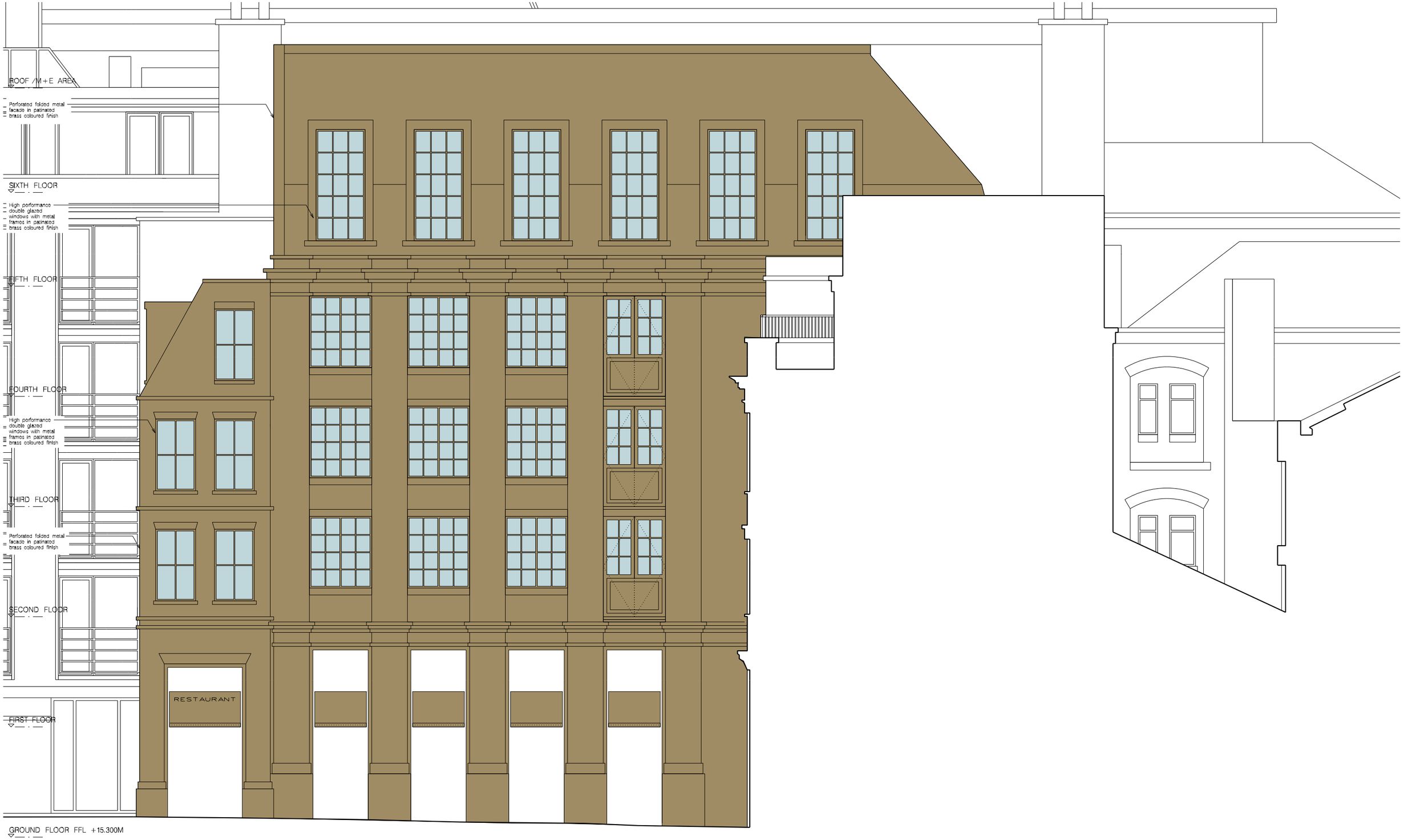
We proposed to replace the 1970s appearance with a perforated folded metal skin in a patinated brass finish to follow the original design by Spencer W. Grant, reintegrating the building with the Conservation Area.

A thin folded metal building skin with a controlled laser cut pattern will be designed specifically to allow as much natural light as possible as well as preserve an overall solidity, a mask of contextual detail and delight. This mesh skin will preserve the form and retain the coherency of the detailed facade. Perforating the skin will allow clear views from all levels, introduce natural daylight into all interior spaces and act as a sunshade in summer months. Furthermore, the perforation pattern, density, frequency and size can be altered to reduce the impact on the surrounding area and streetscape.

Material finishes for the perforated cladding material will be sympathetic to the character of the Conservation Area. Brass, bronze or cor-ten are options to all match the surrounding palette with strong weathering abilities. We are keen to discuss the final material finish of the proposed with Camden that is felt to best suit the Conservation Area.

Existing floor plates will sit behind and detached from the detailed facade which at levels not necessarily aligning with the window positions. As with a net curtain, the semi-transparent facade acts as sun shade and privacy screen. In this way heightening and expressing the difference between old and new, activating an overall building form that otherwise sits as a monument to the past.

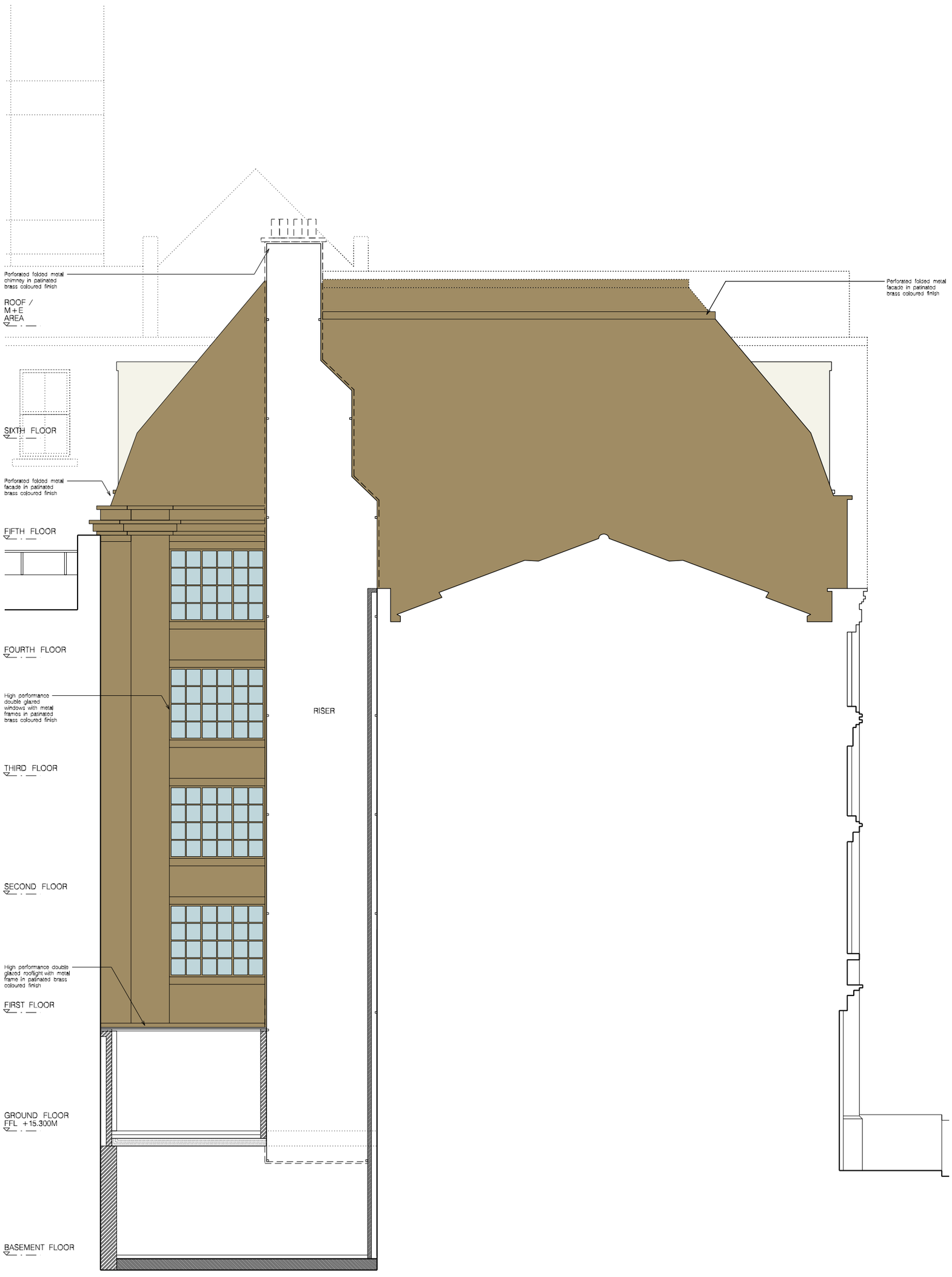
1 PROPOSED NORTH ELEVATION



1 PROPOSED SOUTH ELEVATION

1 PROPOSED WEST ELEVATION

1 PROPOSED EAST ELEVATION



4.4 Key Element 1 - Restoration -

Facade Testing

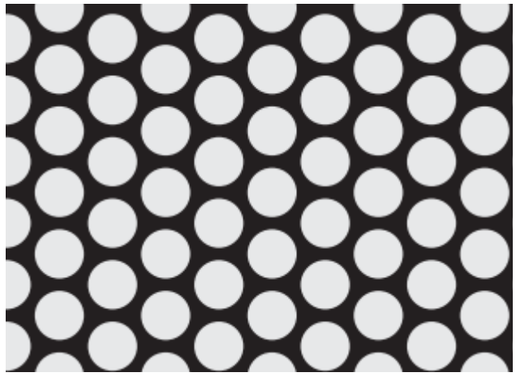


Fig. 81. Sample A - 8mm DIA x 10mm pitch - 50%

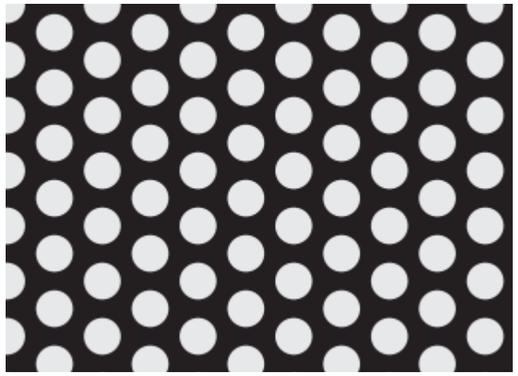


Fig. 82. Sample B - 6mm DIA x 10mm pitch - 35%

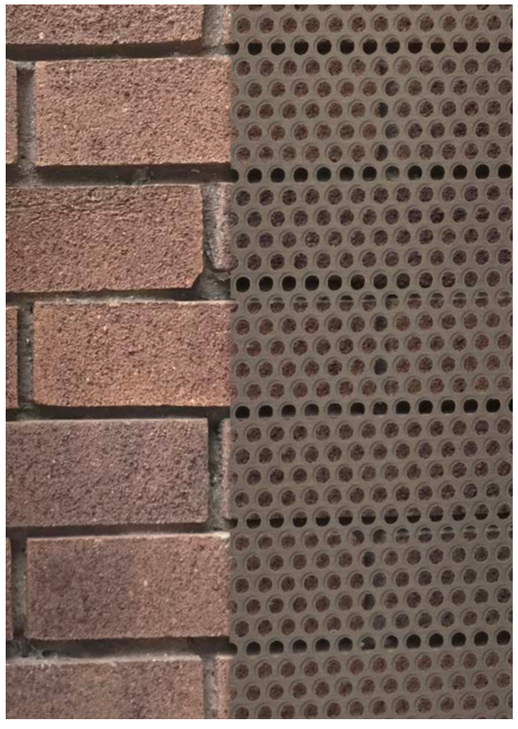


Fig. 83. Sample A - **Computer generated scale image of mesh over brick.**

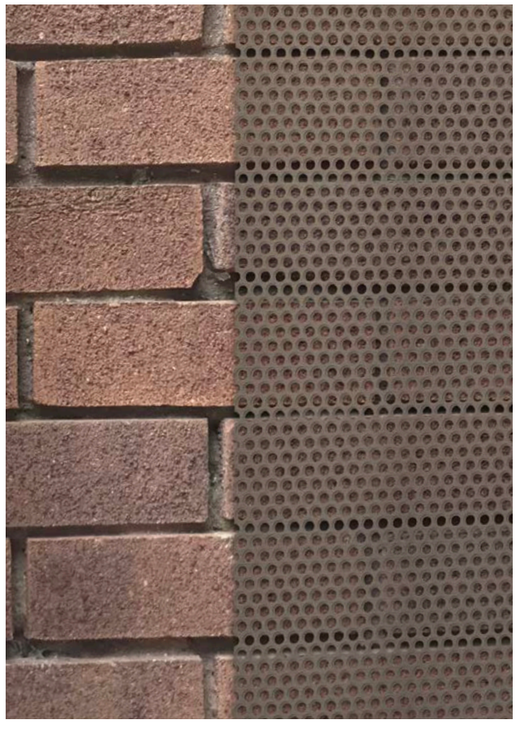


Fig. 84. Sample B - **Computer generated scale image of mesh over brick.**

The facade material has been investigated to ensure what is proposed will be an accurate representation of what can be implemented.

Working with metal fabricators Eastnor, round perforated metal sheets of varying opacities have been investigated for their workability, cost, availability and visibility when set against the brickwork.

A computer generated scale rendering of sample perforation sizes to scale held over existing brickwork highlights the effect the proposed facade will achieve.

The two tested perforations are as follows:

Sample A
8mm diameter perforation
10mm pitch
50% open area

Sample B
6mm diameter perforation
10mm pitch
35% open area

Following the testing of both against brickwork, sample B provides greater solidity and therefore veiling of the host building. The addition of a 50mm void between brick and veil facade will add greater depth and shadow, hiding the brickwork behind.

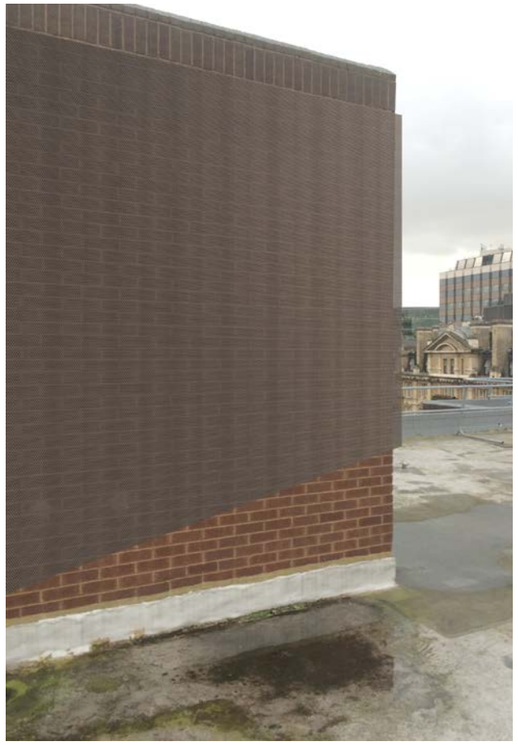


Fig. 85. **Mesh test panel shown over existing brick wall.**

Fig. 86. **Mesh test panel shown over existing brick wall.**

Fig. 87. **Previous mesh test panel shown over existing brick wall. This is a test sample only and does not represent the finish/pattern of the proposed facade material.**

Fig. 88. **Previous mesh test panel shown over existing brick wall. This is a test sample only and does not represent the finish/pattern of the proposed facade material.**

4.4 Key Element 1 - Restoration -

Facade Appearance and Material

When applied over a larger scale or with addition of details, the 35% opacity round perforated patinated metal sheet provides adequate covering of the host building and 1970s brick skin beneath. A computer generated model was created to test and highlight the difference in finish between the existing brick and proposed facade covering.

In addition, a sample panel was fabricated using a similar opacity level with different shaped perforations to test how details would appear when set against the existing brickwork. In areas with greater depth, the brickwork remains relatively unseen due to the increase in shadows.

Both samples have been constructed from perforated metal sheet with a patinated brass finish. The patinated brass finish darkens the metal whilst maintaining its inherent weathering characteristics and colouring.

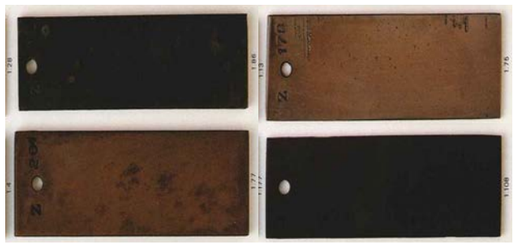
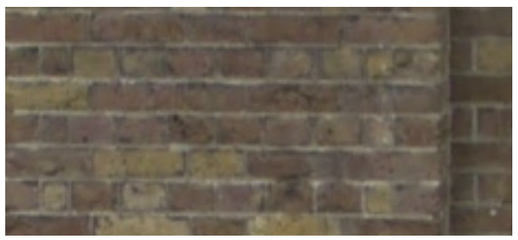


Fig. 89. **Brass finish sample colouring.**



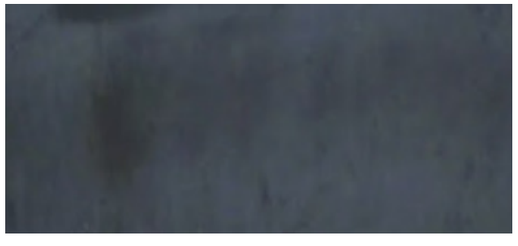


Fig. 90. **24 Greville Street material palette example**

Fig. 91. Sample panel location shown on proposed computer model.

4.4 Key Element 1 - Restoration -

Facade Sample Panel

Further to Design Review Panel feedback, we have developed a sample panel currently installed on the corner of Greville Street and Bleeding Heart Yard. The sample panel has been designed to showcase the following:

- **Large areas of perforated folded metal with a patinated brass finish against the brickwork.**

This indicates how visible the existing brick appears behind the mesh facade.

- **Integration with existing window openings.**

This highlights typical details where the facade integrates with the existing window openings. The existing window openings are to be used with replacement high performance windows in the proposed design. The facade panel will be folded into the existing window surrounds.

- **Typical fixings**

This indicates how the facade is fixed back to the main RC structure and how visible such fixings are. The design has been developed with structural engineer Atelier One to be minimal and discreet whilst high performing. A black aluminium primary frame will be fixed between RC slabs vertically with secondary horizontal members at 450mm centres. This will provide reinforcement of the existing brickwork.

- **Panel joints**

The sample panel shows how panels are joined together where large areas are proposed. The panel joints will occur at areas of bending or details to minimise any visible breakages in large areas of the facade. Facade panels are bent into manageable sections divided at fold lines. Joints between these panels will be unseen.

The sample panel has been installed on the building from January 2018 giving the ability to see how such materials wear with London weather conditions.

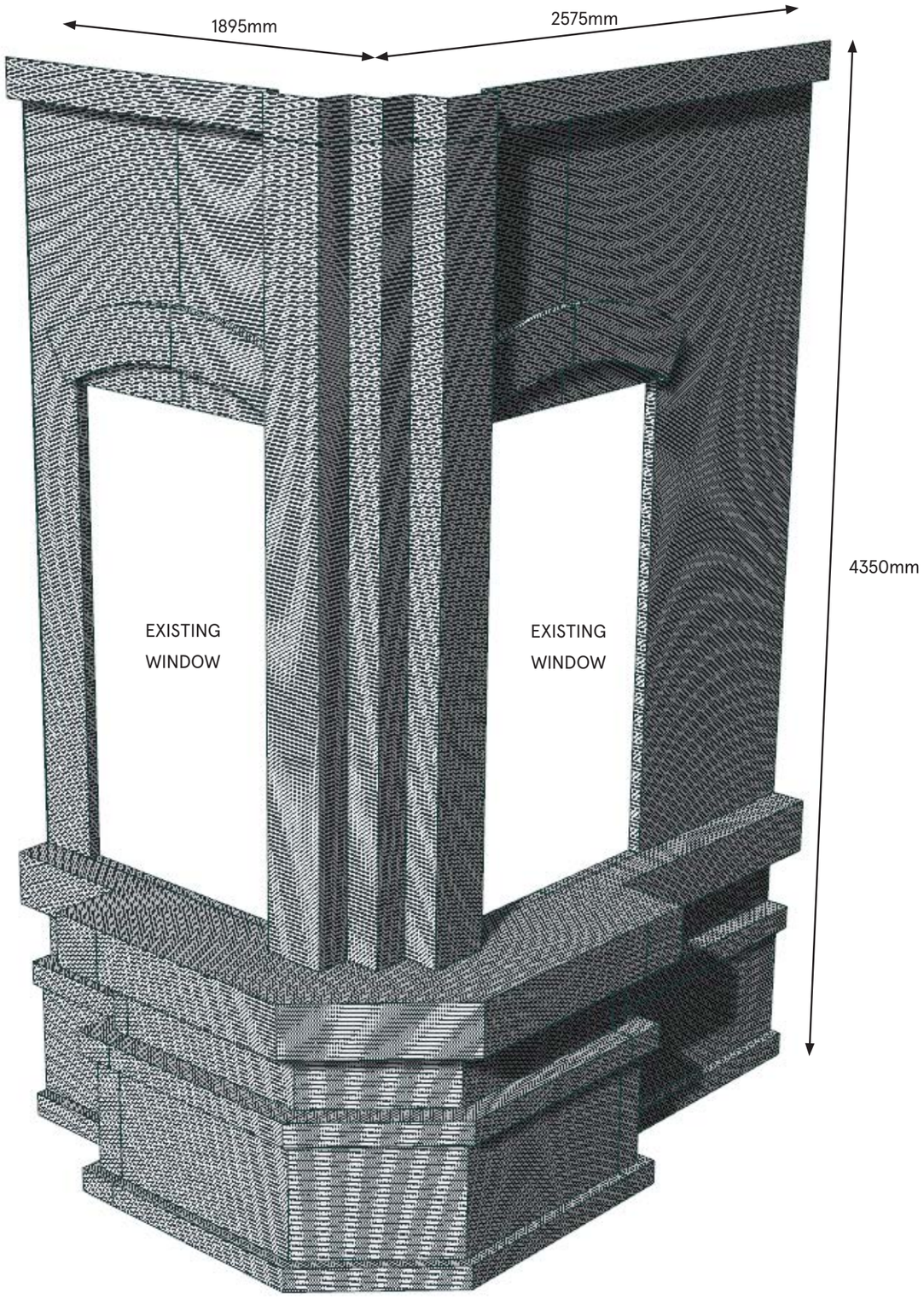
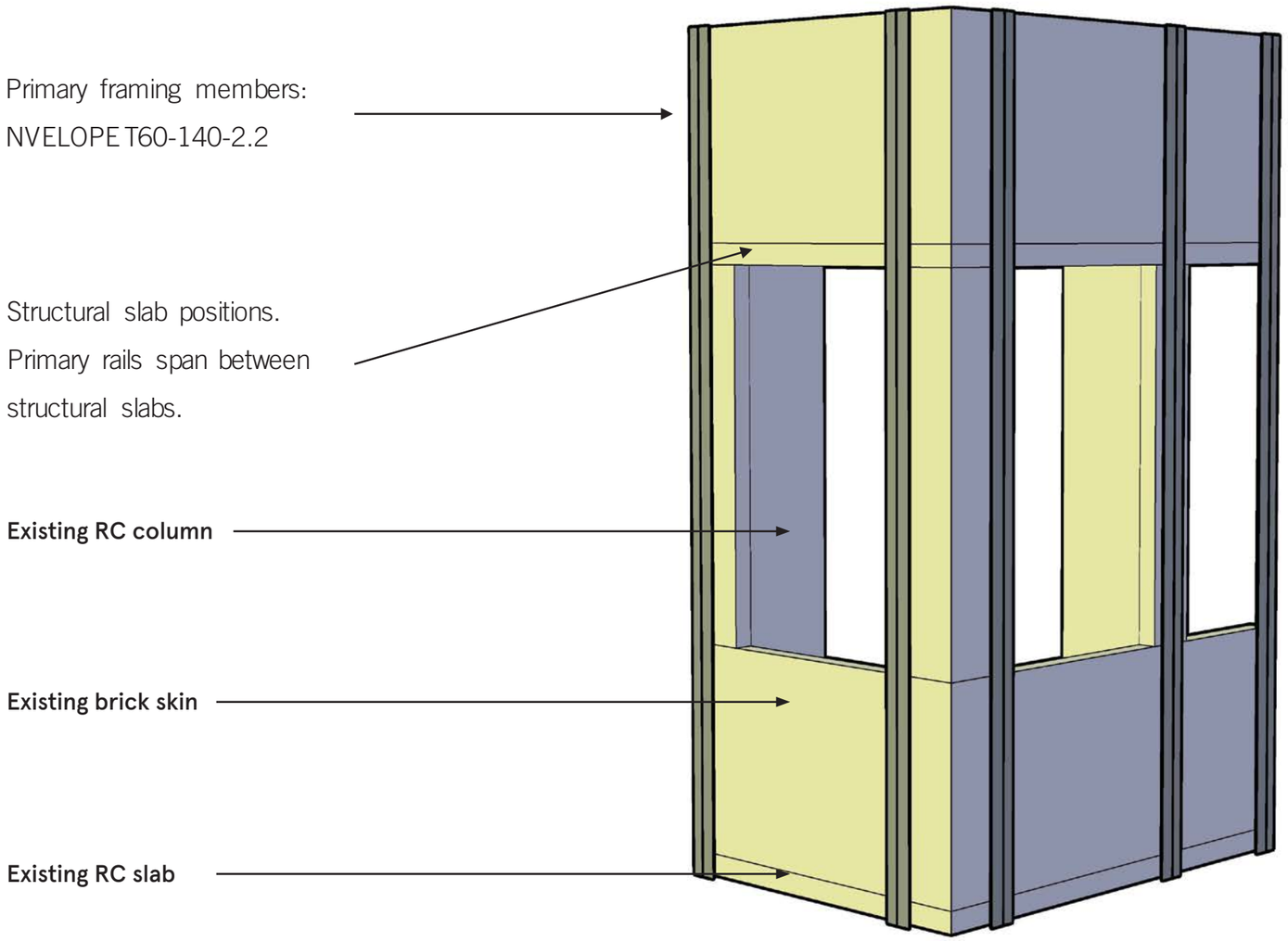
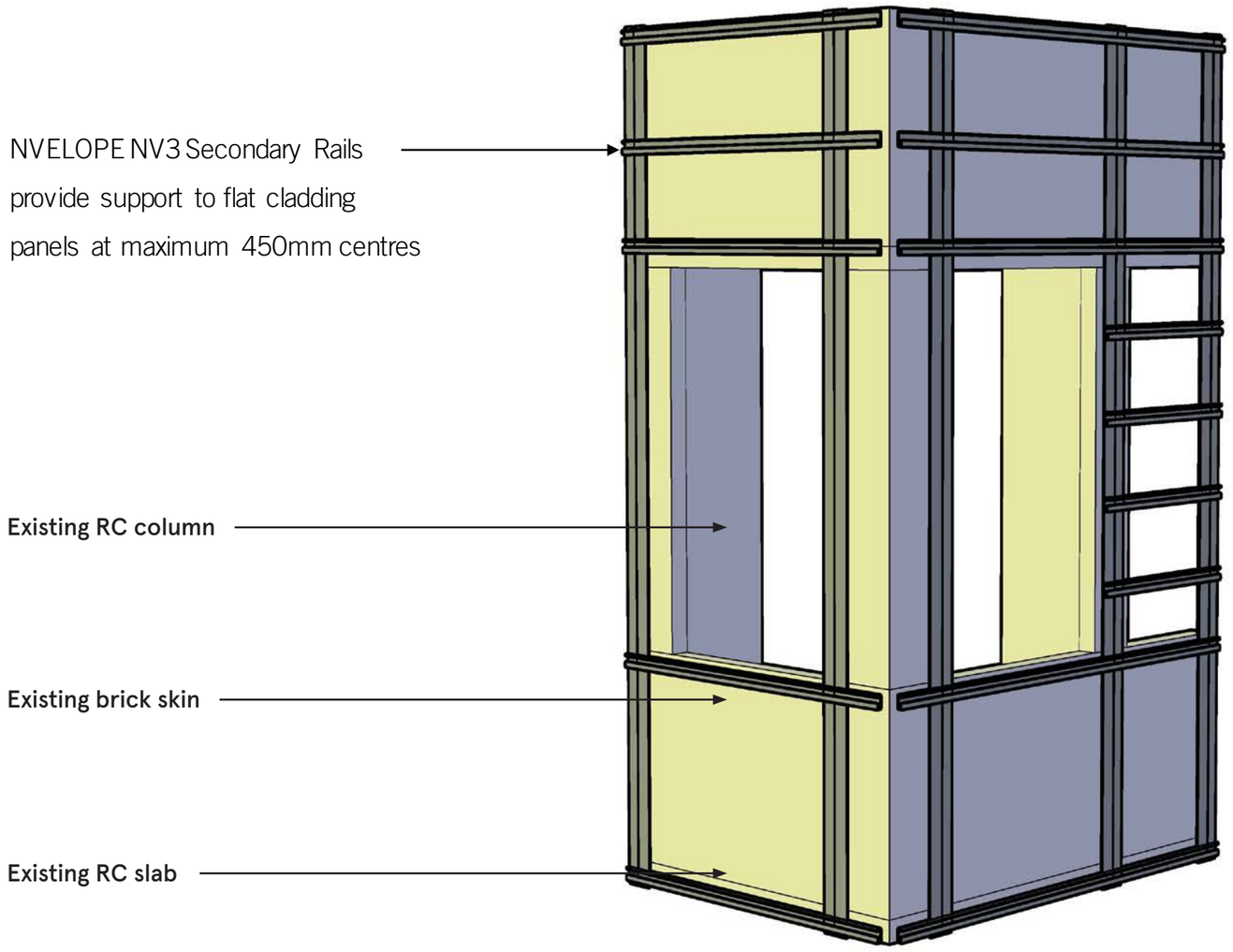


Fig. 92. Sample panel computer model.

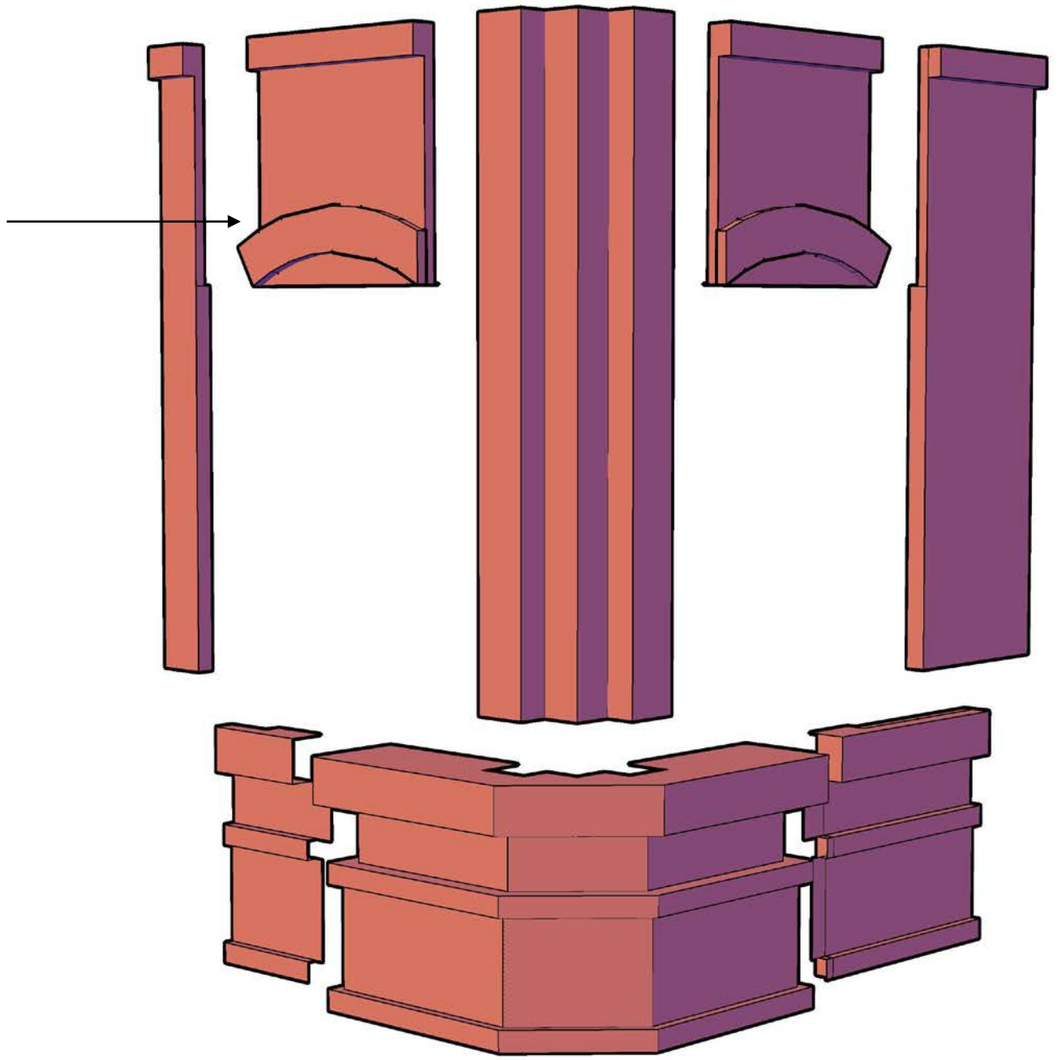
Fig. 93. Sample panel location shown on proposed computer model.

Fig. 94. Sample panel location shown on existing building.

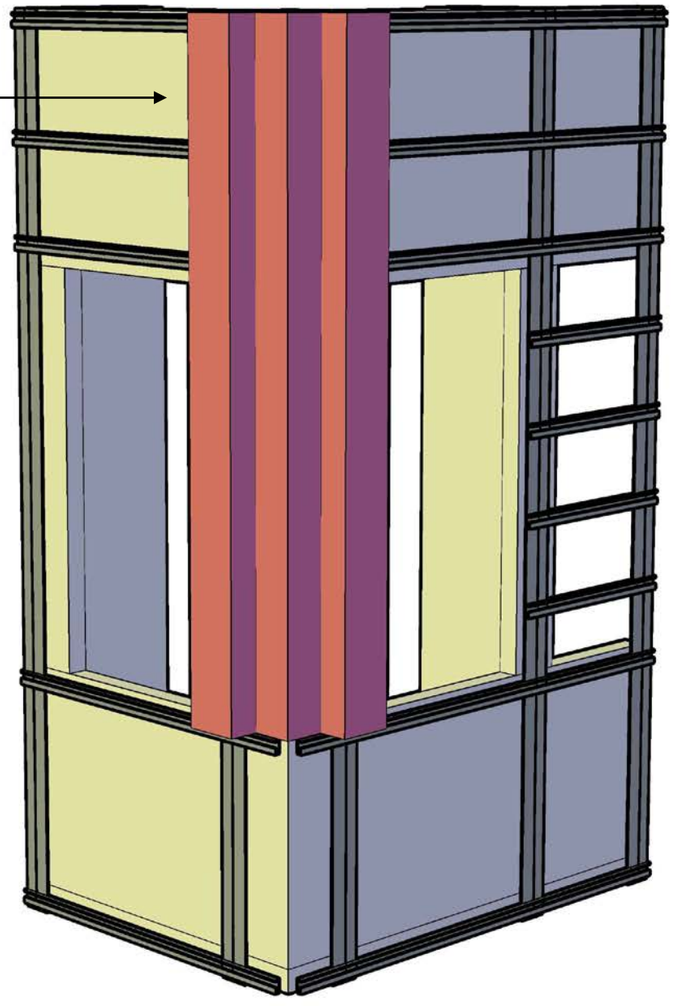

Primary framing members:
NVELOPE T60-140-2.2
Structural slab positions.
Primary rails span between
structural slabs.
Existing RC column
Existing brick skin
Existing RC slab


NVELOPE NV3 Secondary Rails
provide support to flat cladding
panels at maximum 450mm centres
Existing RC column
Existing brick skin
Existing RC slab

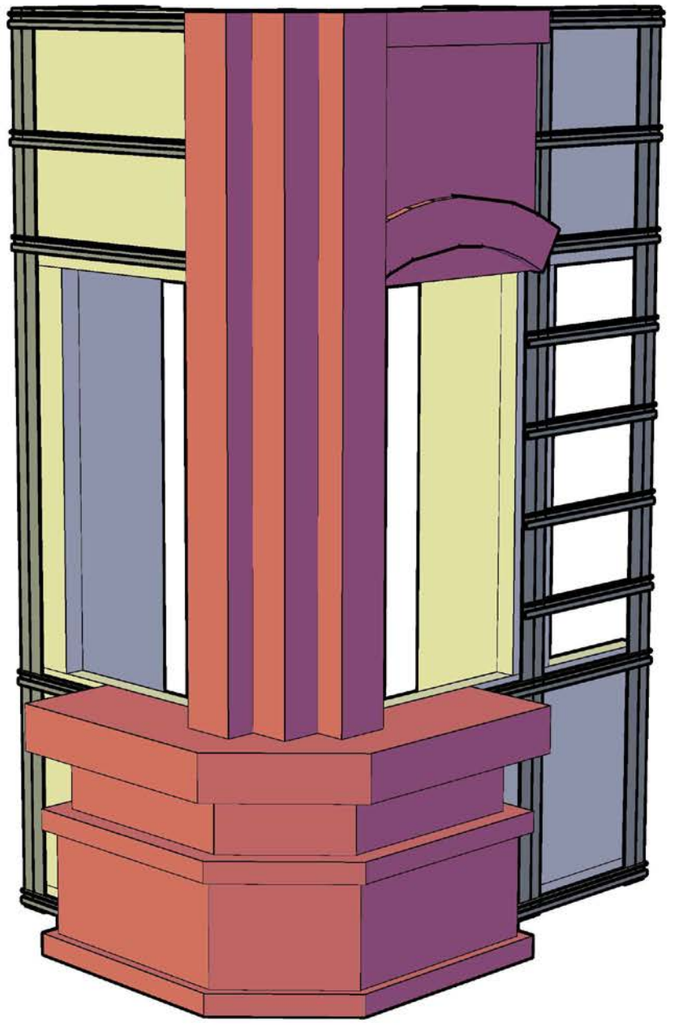
Brass CZ121 Perforated brass cladding panels are bent into manageable sections divided at fold lines.



The brass units are progressively clipped to the secondary rails.



The installation order is designed to minimise visible fixings.



Sample panel fixing step 5 - Clipping of facade panels to hanging system

Sample panel fixing step 6 - Completed sample facade panel