

The Granary

WAN Commercial Awards 2011

Go with the grain

Refurbishment and a new addition represent a dramatic statement and a delicate intervention

This project showcases the creation of a new life for old buildings with facilities to meet 21st century needs, whilst respecting and celebrating their integrity.

Fundamental to the design was a sensitive approach to the building's rescue and restoration with carefully considered retention of its gracefully aged qualities.

The new is both a dramatic statement and a delicate intervention.

The whole is a harmonious fusion of new and old.

The refurbished Granary, with its new bronze-clad extension will form the new headquarters base for developer/contractor Roof.

Located in the Roding Valley, Abbey Road Riverside Conservation Area in the London Borough of Barking & Dagenham, the locally listed Granary building has been derelict and unoccupied for some considerable time and was in urgent need of comprehensive restoration to bring it back into use.

London Thames Gateway Development Corporation (LTGDC) obtained detailed planning consent in September 2009 with a scheme designed by Schmidt Hammer Lassen for a new Creative Industries Quarter centred on the former Granary and Malthouse buildings. The scheme includes a range of mixed-use commercial and residential buildings, a new public square, a public transport bridge and a café/restaurant with a riverside terrace.

Rooff decided to relocate their head office complex following the successful 2012 Olympic decision and the emerging regeneration opportunities at their existing site in Stratford. This site was seen as an ideal opportunity, with its road, rail and transport links as well as its proximity to the facilities of Barking Town centre and its fantastic location on the banks of the Roding.

Rooff acquired the site in March 2010 but had been closely involved with LTGDC and the development plans, having first identified the Granary building as a potential location in August 2005. LTGDC have been very much instrumental in the regeneration of Barking Town Centre and this scheme marks one of the first projects to complete and demonstrates Rooff's commercial commitment to the future of the area.

PTEa was appointed to develop the planning consented scheme - the essence being to optimise the use of the space both in the new and old buildings whilst at the same time preserving the original character and historical references. Although substantial work was needed to repair and restore the fabric, as far as possible the ethos of the conversion was sensitive restoration; a light and gentle touch.

The Granary has been restored with all new structures and interventions respecting the original fabric of the building. All lean-to extensions, accrued internal partitions and non-original secondary structures have been removed and formerly blocked-in windows, opened up again.

The plan form and shape of the new extension is respectful of the original building and takes its cue from its

strong gabled form. The new materials, bronze panels, further complement the original. The new accommodation is attached to the existing via the vertical circulation core and a high level bridge link.

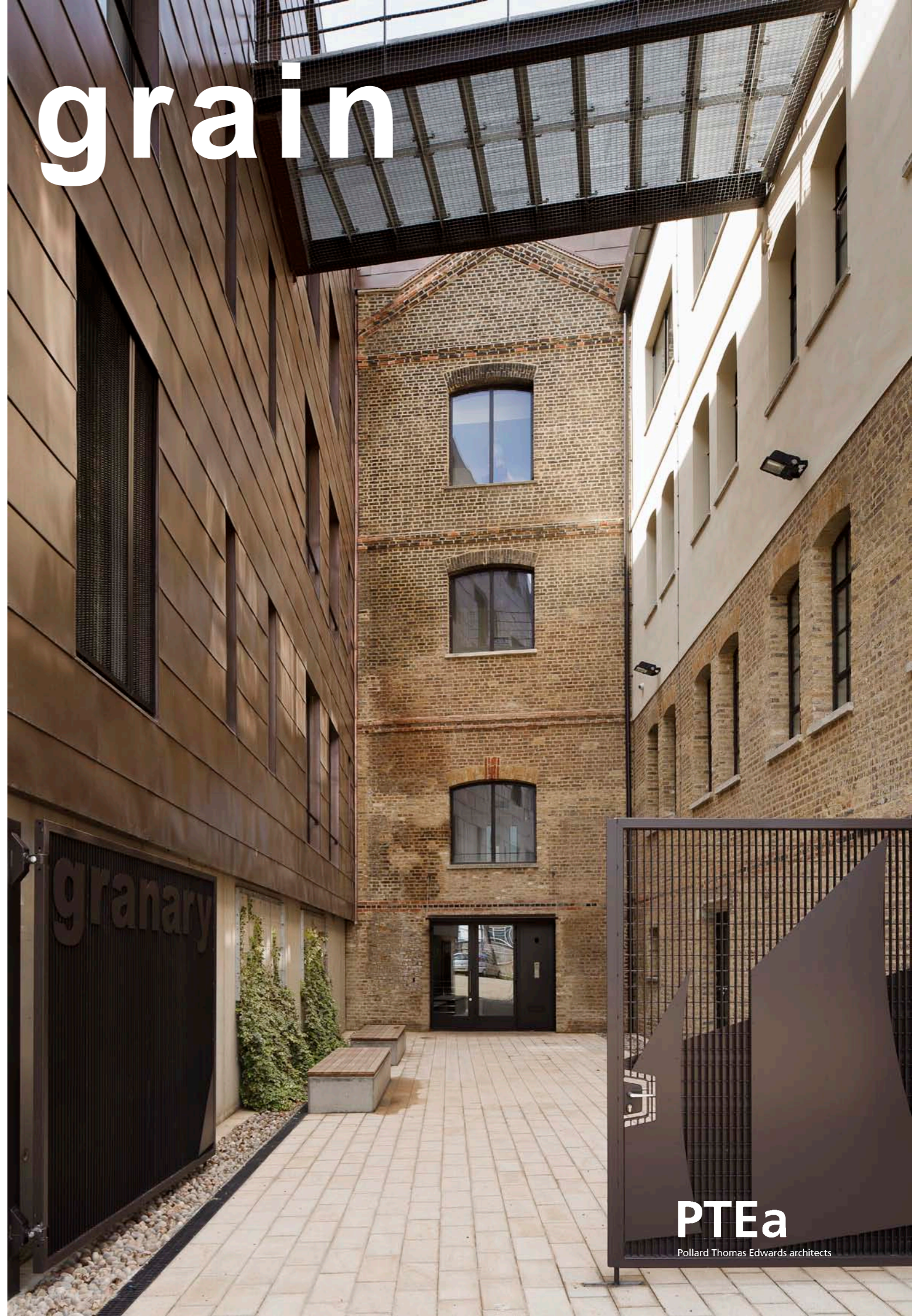
Rooff and PTEa worked closely with LTGDC and the London Borough of Barking in developing the detail design.

The main changes to the consented scheme were the removal of both the atrium linking the new and old buildings and the proposed podium around the base as well as the detail and design of the windows, rooflights and bronze cladding.

The building is naturally ventilated through cross ventilated open plan floor spaces and utilises the thermal mass of the existing and new concrete structure for internal temperature control. It has a centralised boiler plant distributing to individual floor plates. Lighting is lower level background with task lighting at workstation positions. Conservation "in roof" Photovoltaic Panels have been incorporated to provide renewable energy to the building.

Gross build cost including all design fees and statutory services and some fit out costs came to about £3.3M, which equates to approximately £1450 - £1500/m². This represents a very economic build and design solution, reflecting the viability of lower commercial end values in Barking.

Rooff moved into the building in July of this year. They occupy the two upper floors. The lower floors will be leased out to a mixture of creative and commercial users.



PTEa

Pollard Thomas Edwards architects

Sustainability Details

Rooff have introduced sustainable construction methods, to deliver the highest quality working environment at a viable price. The approach to sustainability has had to reflect the “fine line” between successful commercial viability of the project and it not proceeding at all.

The core objectives have been to restore the original building thereby preserving it for future generations, as well as delivering a “low tech” approach to passive building environmental aspects.

This has been successfully achieved through a number of strategies;

Key Environmental Features:

- By providing a new and active use historic and a locally listed building has been saved from dereliction and decay

Minimises Energy Demand:

- Both the new extension and the refurbished Granary building are naturally ventilated - windows are the primary source of fresh, cool air.
- The provision of large rooflights in the extension and the maximisation of daylighting through the opening-up of previously bricked-up window openings in the Granary have provided enhanced levels of daylighting and reduced reliance on internal lighting during the day.
- The existing solid brick walls thermally upgraded with internal insulation and drylining, but leaving elements of the original building exposed to retain historical reference.
- The insulation to the new extension is Pittsburg Corning Foamglas – the raw materials used in its production are inherently mineral

and thus environmentally friendly. The principal raw material (ie approximately 70%) is recycled glass.

- High levels of thermal insulation have been achieved on both walls and roof of the new extension with ‘U-values’ exceeding the requirements of the Building Regulations by more than 25%.
- Metal mesh screens to a number of the windows of the new extension provide passive solar shading. These have been carefully designed to provide security as well as solar shading, without affecting the external aesthetics of the scheme. Solar shading has meant that the need for air-conditioning was avoided and the provision of mechanical ventilation only for night-time cooling prevents over-heating of the building in the summer months.

Other Energy Efficient Measures:

- The cooling strategy incorporates the thermal mass of the existing Granary building and the exposed concrete structure of the new extension.

Building heating

- Centralised gas fired boiler plant with heat metering to each demise.

Renewable Electricity Generation

- Electrical sub-metering to each floor demise.
- Low level background lighting with individually controlled task lighting.
- Approximately 80m2 of photovoltaic in-roof conservation style panels have been incorporate within the south facing aspect of the Granary roof.

Water Efficiency Measures

- Water efficient taps and toilets have been installed.

Sustainability’s Influence on Materials Selection

- Lime mortar re-pointing to the Granary elevations.
- Dalsouple recycled rubber flooring.
- Milliken recycled content floor tiles.

Inclusive Design Details and Accessibility for all users

Places people at heart of design process:

- The main entrance is clearly and logically located in the central recessed space between the new and old wings of the building complex. This makes the most of the experience of approaching this atmospheric historic building and adjacent dramatic modern extension.
- A decorative metalwork screen and gate at ground floor level guides the visitor to the courtyard entrance, and allows views through to the front entrance door to the complex.
- The entrance opens directly into a central vertical circulation hub between the two wings, which has been carefully inserted into the old building fabric, with modern materials, colour and lighting complementing the background historic fabric, and providing a new and dynamic heart to the building, fully accessible to the public who enter.
- The floor surface and colour scheme is consistent throughout the central circulation hub and associated able and disabled toilet facilities, making the common spaces clearly legible.



- A series of external riverside terraces on various floors of the building provide amenity to the building users and allow good views of the river, nature reserve and surrounding area.

Acknowledges diversity and differences:

- The restoration of these decaying old buildings has given a new lease of life to the site and provided substantial employment opportunities.
- The buildings and central core has been designed to be flexible in use, functioning under a single or a variety of tenancies.
- Good natural daylight & ventilation, open plan layouts and glazed partitions for individual offices and meeting rooms enhance both visual and social communication and interaction throughout the building.
- Sound absorbent floor finishes have been used throughout the building?

Inclusivity and accessibility for all:

- There are flush thresholds, lifts and ambulant stairs throughout the building.
- The main entrances to the building and from the carpark have level access.
- Future provision for separate external public access to the first floor riverside terrace has been designed for, in the case of this opening as a café.
- Disabled toilets are provided to each floor and there are disabled showers adjacent to the entrance core, on the ground floor.
- Disabled parking is provided adjacent to the main entrance

courtyard with direct level access to the central circulation core.

- The staff canteen and break out facilities are generous and situated adjacent to the riverside terraces, with large, often full height, windows giving a pleasant aspect of river and nature reserve surroundings.

Designed to accommodate changing needs:

- General access to the site has been improved as well as the interface with the local neighbourhood.
- The buildings are designed for adaptability for future change in the circumstances of occupants and visitors.
- The central core and toilet facilities allow for flexible future use and tenancies can be split between floors and/or between the two wings of the buildings.
- The ground floor of the Granary building is designed to function as either open plan office or can be partitioned into creative industry workshops, allowing flexibility and encouraging equality of involvement across different industries and/or professions.

Provides an enjoyable experience:

- The scheme layout is logical and simple, with all accessible and standard facilities located in the central core, or immediately adjacent to it. The inventive use of modern materials and preserving the old fabric throughout the building provides an identifiable visual and tactile route through the common spaces for all users, making the everyday experience stimulating and enjoyable, and providing references to the historical evolution of the building.

- The enjoyment starts on entering the site with the prime views of the restored Victorian brick facade of the Granary building juxtaposed with the dynamically shaped brass façade of the new extension.
- Roof's staff have themselves expressed delight with their new premises, describing the whole experience of the move from a late 1980s building as being "a breath of fresh air". This captures the new riverside environment, the enhanced levels of ventilation and daylight, the improved facilities as well as the pride in being part of delivering a building of such quality.

Community Impact and Engagement

The Granary building and the adjoining Malthouse are among the oldest remaining buildings within Barking and Dagenham. Roof are proud to be associated with the restoration and "bringing back to life" of such an important local feature.

The completion of the Granary and the construction of the stunning new bronze clad extension form part of the first phase of the longer term regeneration objectives for the Roding riverside frontage and is very much seen as an important catalyst for further regeneration in the Barking Town Centre area. It is being held up as a beacon of good design and conservation practices, delivered in one project.

The restored Granary will once again establish a "commercial" contact with the river and allow local people and visitors to enjoy the special waterside environment.

The riverside location boasts space for a new riverside café and terrace with views over the Roding Nature Reserve and local house boat community. This will be a new destination point on the river, linking back to the borough's

historic fishing and malting heritage.

The restored building has received welcome comments from long time local residents who are very pleased to see the building rescued and put back in to important employment use.

Extensive tours of the building have taken place, inviting local businesses and neighbours as well as representatives from the local council regeneration and economic departments, chambers of commerce and arts council contacts.

NLA (New London Architecture) members have also visited as part of an inward investment drive in to Barking.

Rooff themselves are actively involved with Barking and Dagenham's Education and Business partnership.

Rooff also continually support local training and employment initiatives. As well as recently moving its head office to the Granary in Barking, its Construction Plant Division moved to Wantz Road in Dagenham in 2007. The purchase and development of the Granary and Wantz Road sites represent a combined investment of £7M to the Borough and reflect the fact that the long term future of the company now lies firmly based in Barking and Dagenham.

The benefit to local people will be that as a major employer, Roof will seek to further their ties with the local community through training and employment initiatives, as they did in Newham for the first 100 years of the firm's history.

Rooff also take an active role in supporting the provision of purchasing locally. They already coordinate with local supply chain organisations such as East London Business Place and Local Authority data bases to source the best deals from the local market business community. They strongly believe in the benefits that small and

medium size enterprises can contribute and we encourage the inclusion of local Small and Medium Enterprise firms (SME - ie fewer than 250 employees), wherever possible.

As a point of principle Roof attend as many 'meet the buyer' events relevant to their area. These have included events at;

- Barking and Dagenham
- Barking & Dagenham Business Expo
- East London Business Place
- London Thames Gateway Development Corporation
- Gateway to London
- Essex

Many successful contacts have already been established with local sub-contractors including Bricklayers, Carpenters, Metal workers, Decorators, Caterers, as well as the Media and Designers.

Rooff have also successfully engaged with the local arts community. This follows a historic link with the Broadway Theatre in Barking, a former Civic Trust Award winner, which Roof refurbished and extended in 2004.

Rooff have become corporate patrons of the Theatre and have already established links with arts' organisations based in the adjacent Malthouse – Arc Theatre and Studio 3 Arts.

A shared mutual interest exists to further develop the creative industries quarter and support the Borough's long held aspirations for the site.

Rooff also supported the development and construction of the "Barking Amphitheatre" project on site at the Malt house, during the restoration of the Granary. This project consisted of an urban installation by artist Graham

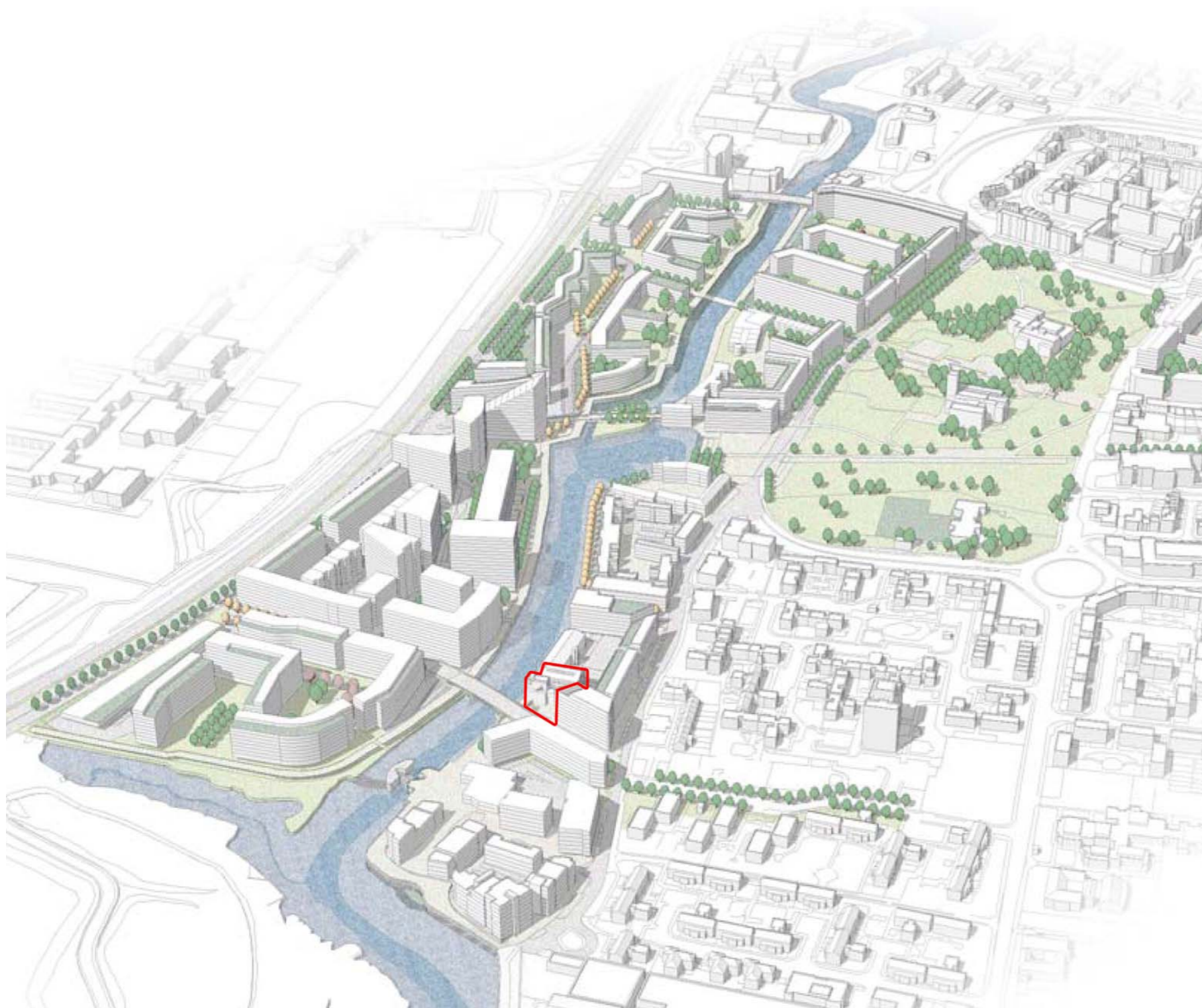
Hudson, to provide an outdoor performance space for local people and invited performers.

These links further the ties between the Broadway and the Malthouse to really invigorate the arts and cultural offer in the Borough.

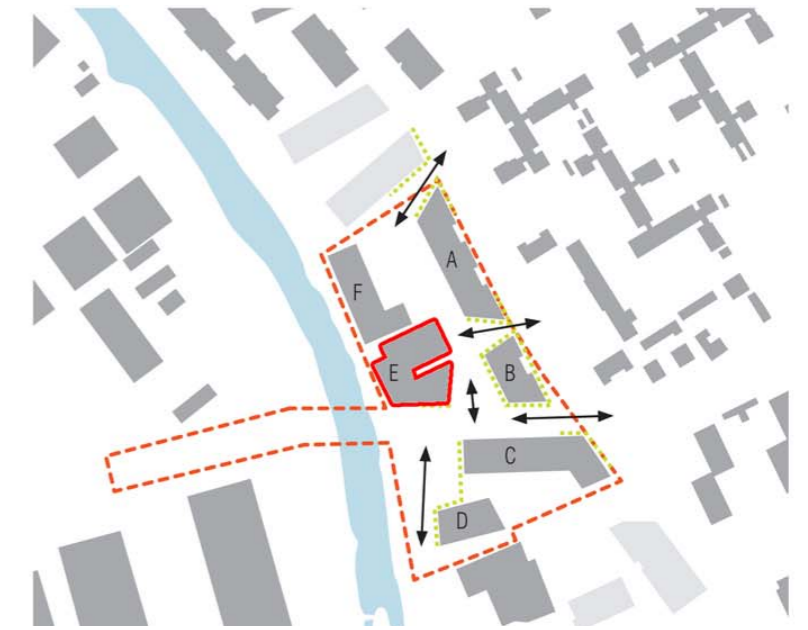
Rooff completed the entire work on site in little over a year and are now looking for like minded creative and commercial businesses to occupy the building with them.

Evidently the positive Corporate Social Responsibility approach of the company is and will continue to be of great benefit to Barking and Dagenham.

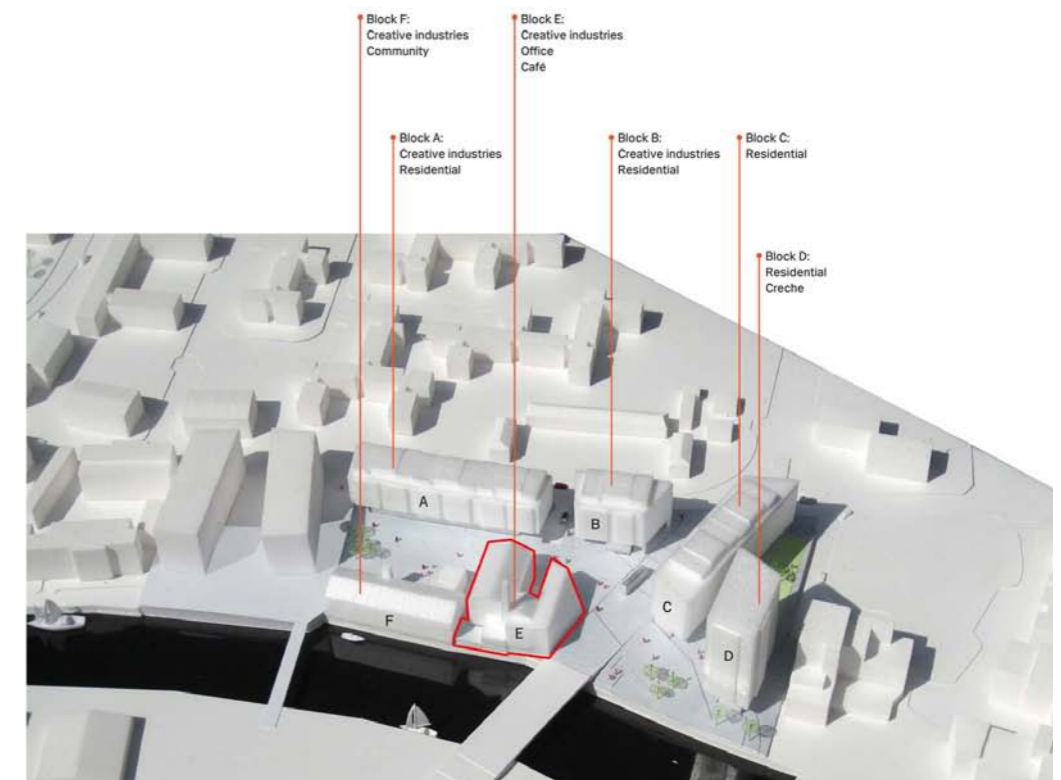
Masterplan Context



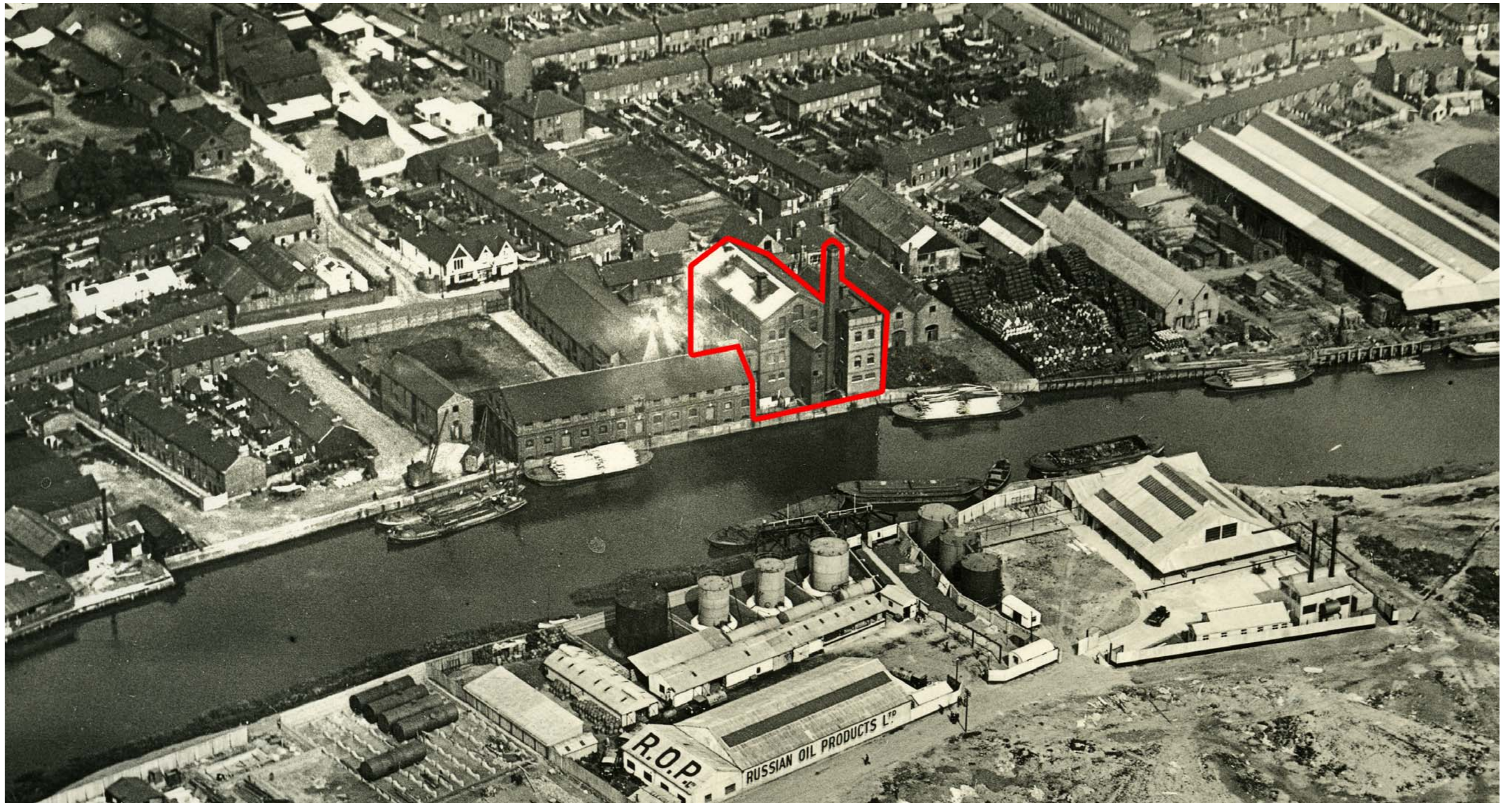
OVERALL MASTERPLAN



CREATIVE QUARTER MASTERPLAN

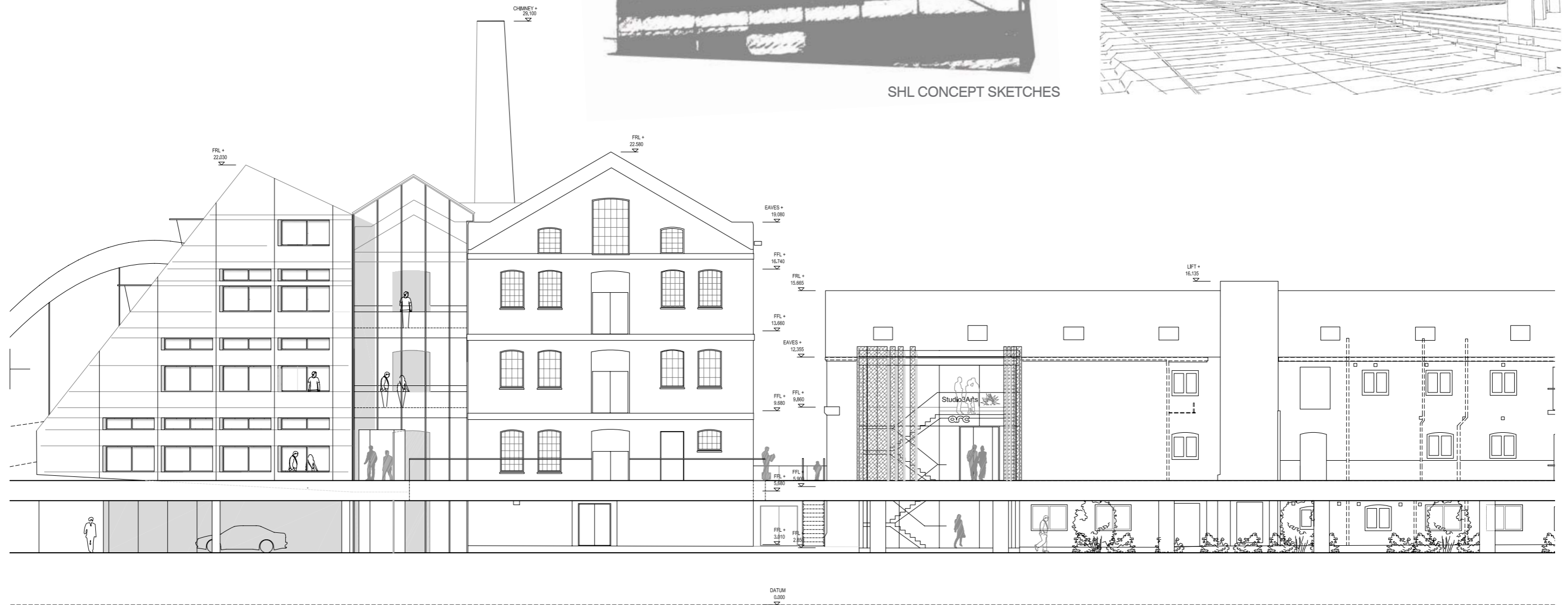
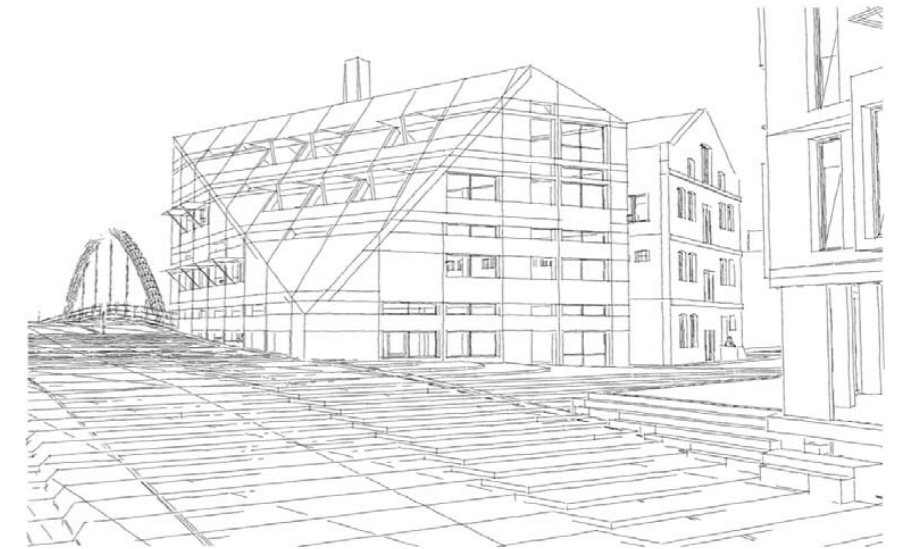
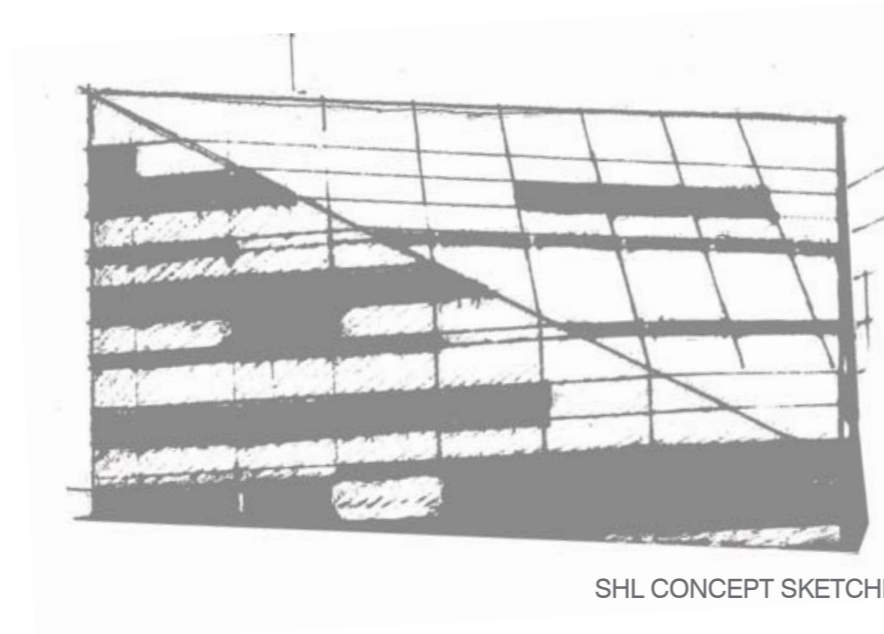


Historical Context



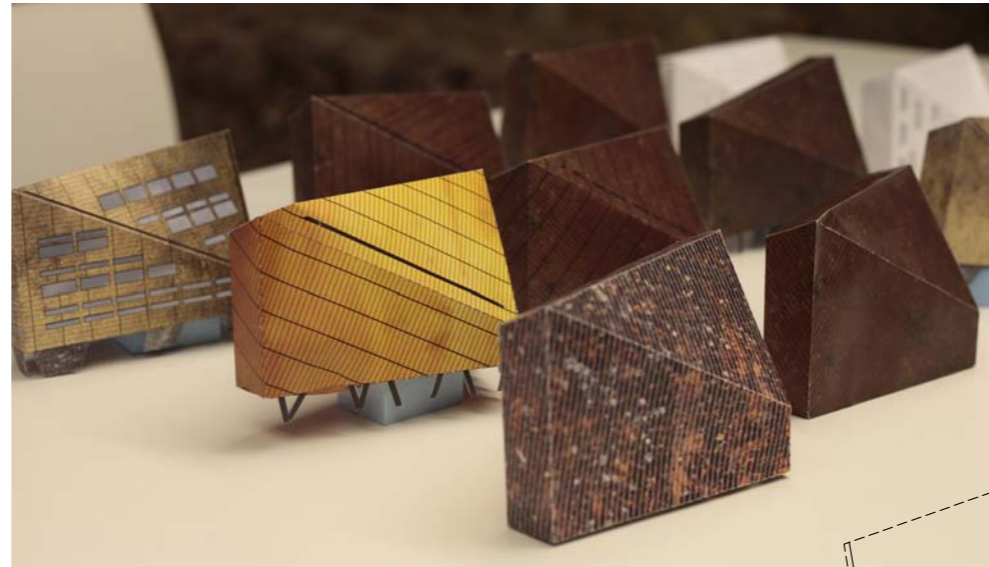
THE GRANARY IN 1931

Schmidt Hammer Lassen - Planning Consented Scheme

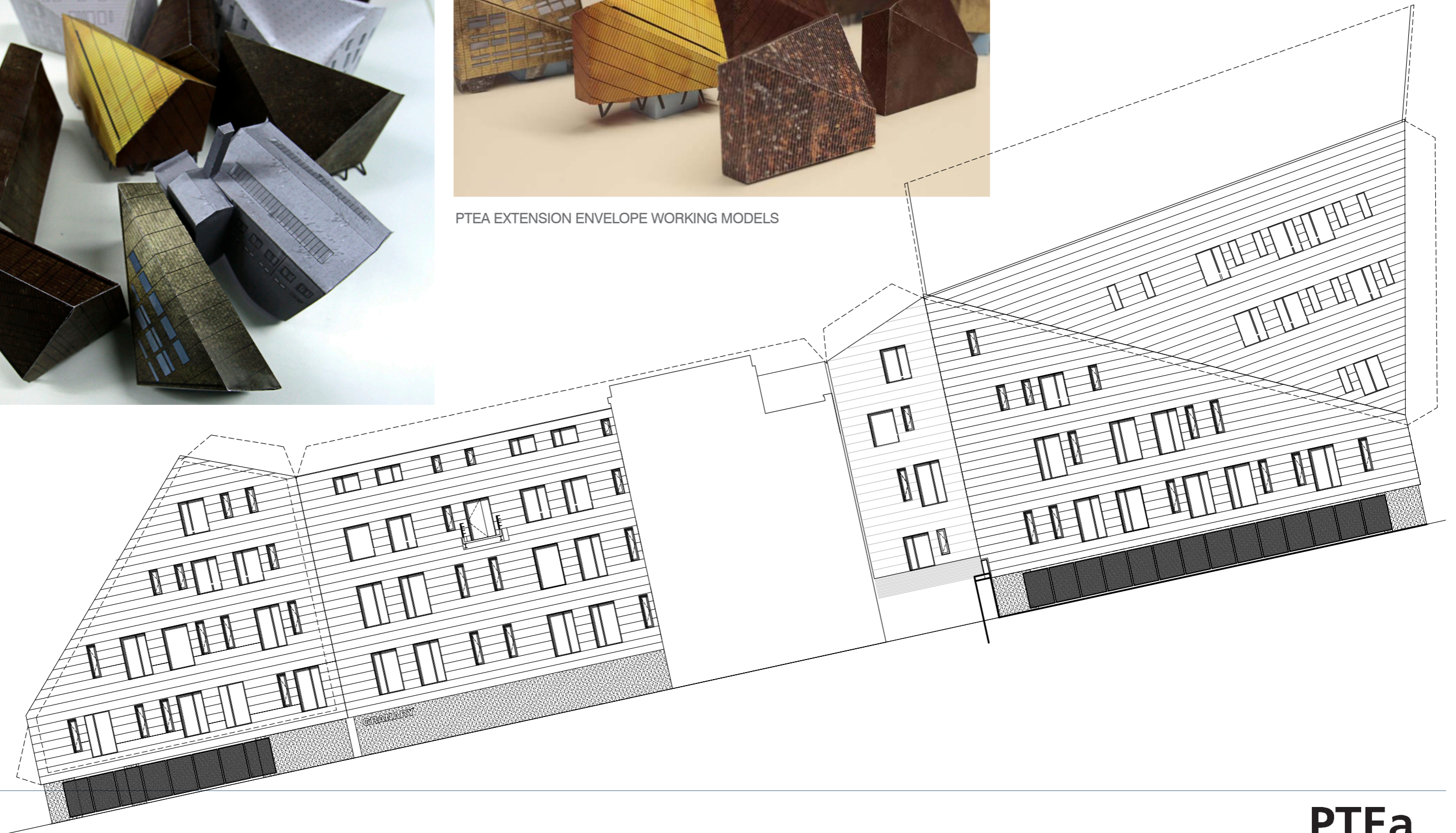


SHL MAIN FRONTAGE ELEVATION SHOWING PROPOSED GLAZED ATRIUM AND RAISED PODIUM DECK NOW OMITTED

PTEa - Refining the Envelope



PTEA EXTENSION ENVELOPE WORKING MODELS



Elevation Colour Studies



Repair and Restoration - Frontage



C19 HISTORIC PHOTOGRAPH



BEFORE WORK COMMENCED



PTEA CONCEPT



SITE PHOTOGRAPH 2011

Repair and Restoration - River Frontage



RIVER FRONTAGE BEFORE
WORK COMMENCED



OLD MEETS NEW - SITE
PHOTOGRAPHS 2011



Repair and Restoration - Courtyard



NEW COURTYARD SPACE DURING DEMOLITION OF LATER EXTENSIONS



NEW COURTYARD SPACE SITE PHOTOGRAPH 2011



BLOCKED OPENINGS

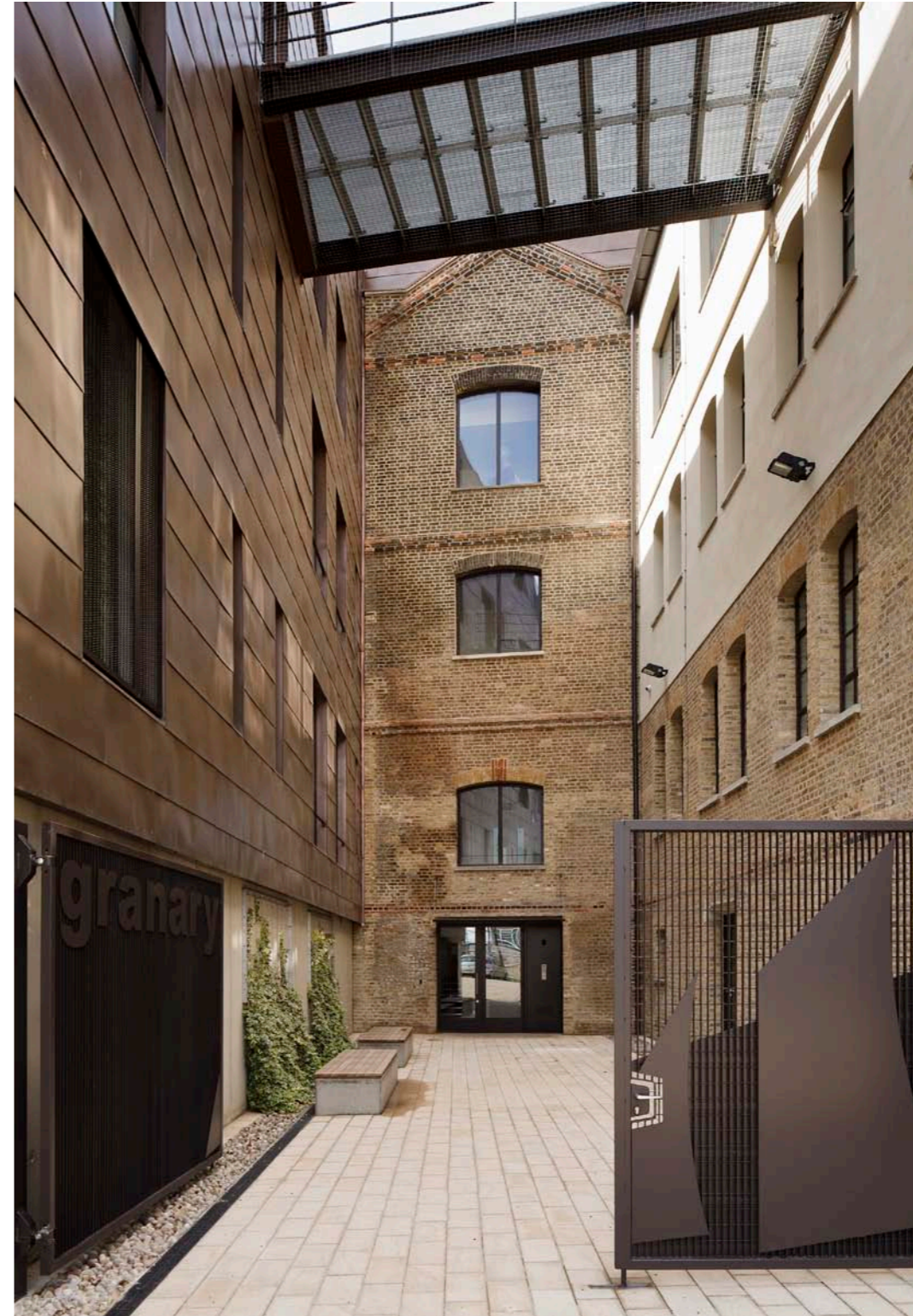


RESTORED OPENINGS

Repair and Restoration - Entrance

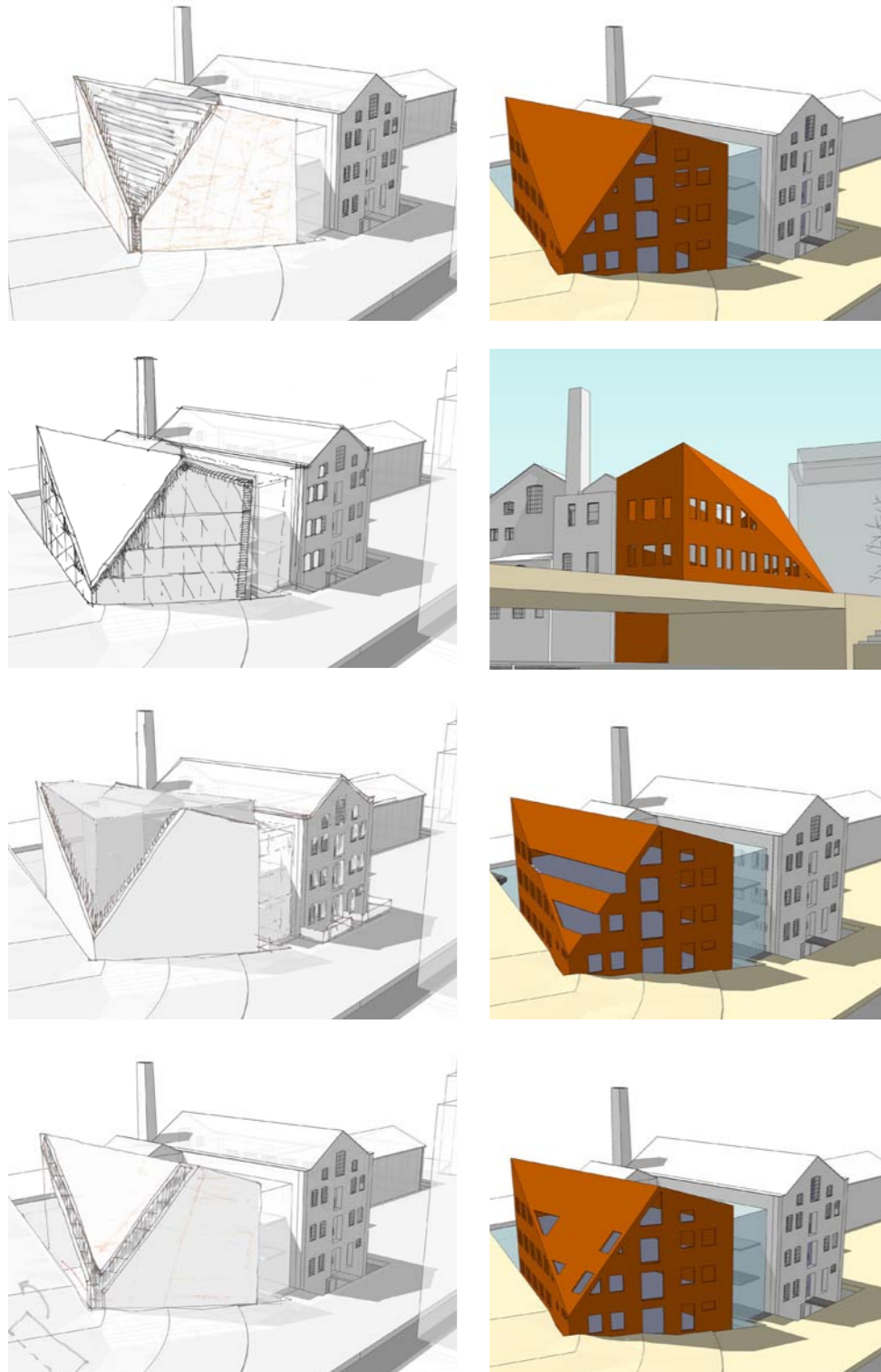


ENGINE TOWER REVEALED DURING
DEMOLITION WORK



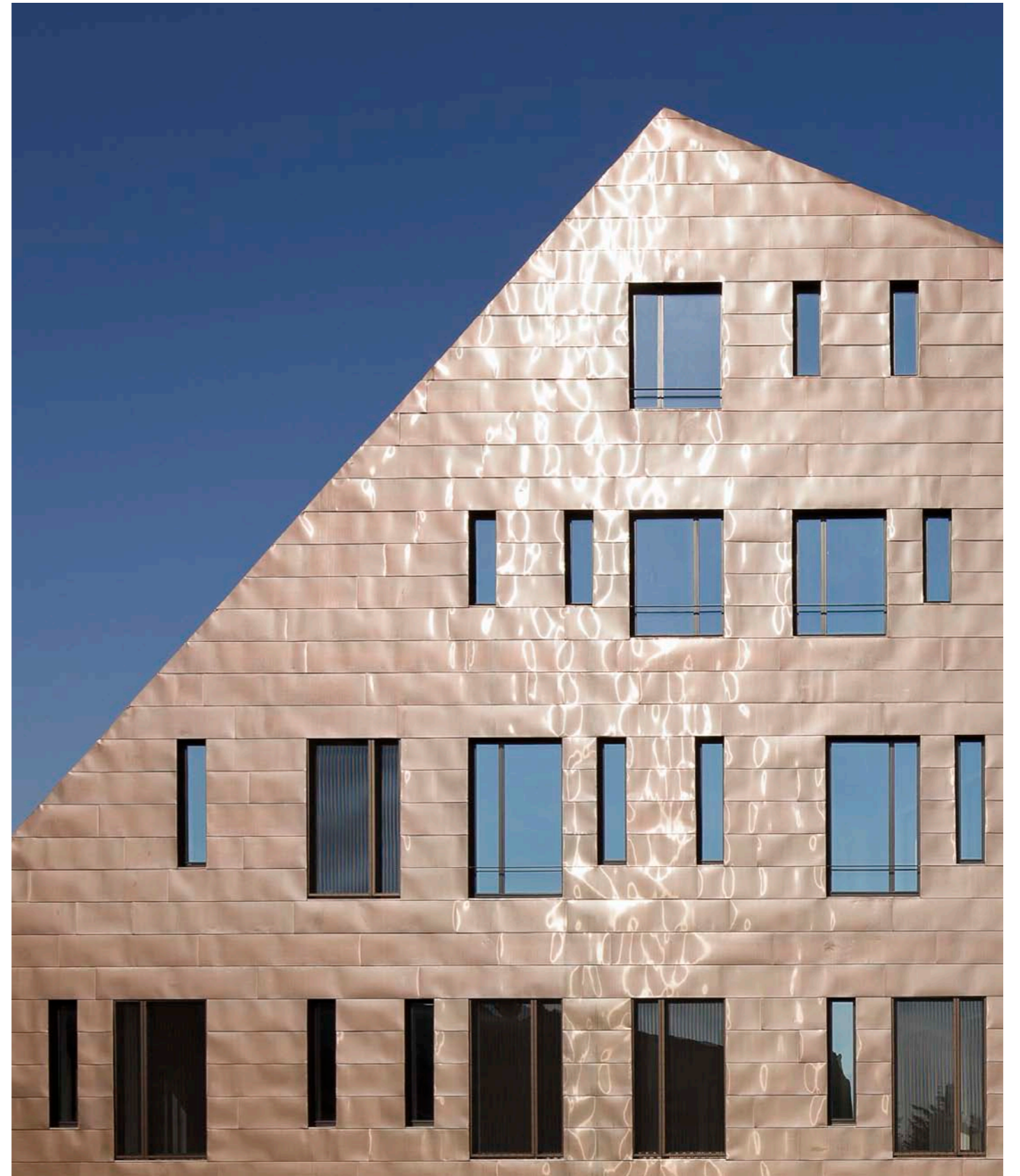
TOWER RESTORED AND NEW ENTRANCE
SITE PHOTOGRAPH 2011

Extension



PTEA EXTENSION STUDIES - SOLID AND VOID RELATIONSHIPS

NEW EXTENSION ENVELOPE
SITE PHOTOGRAPH 2011



Extension



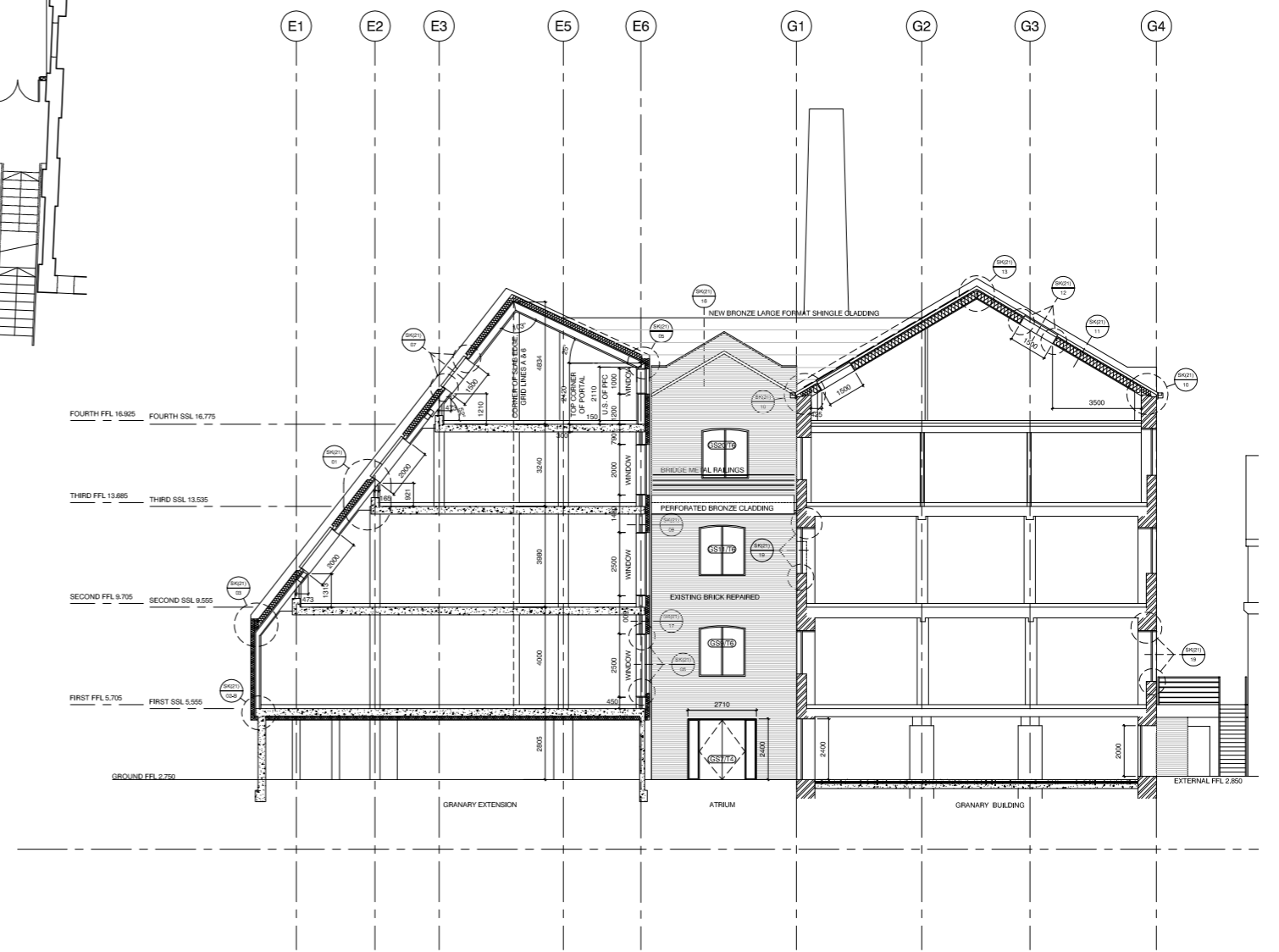
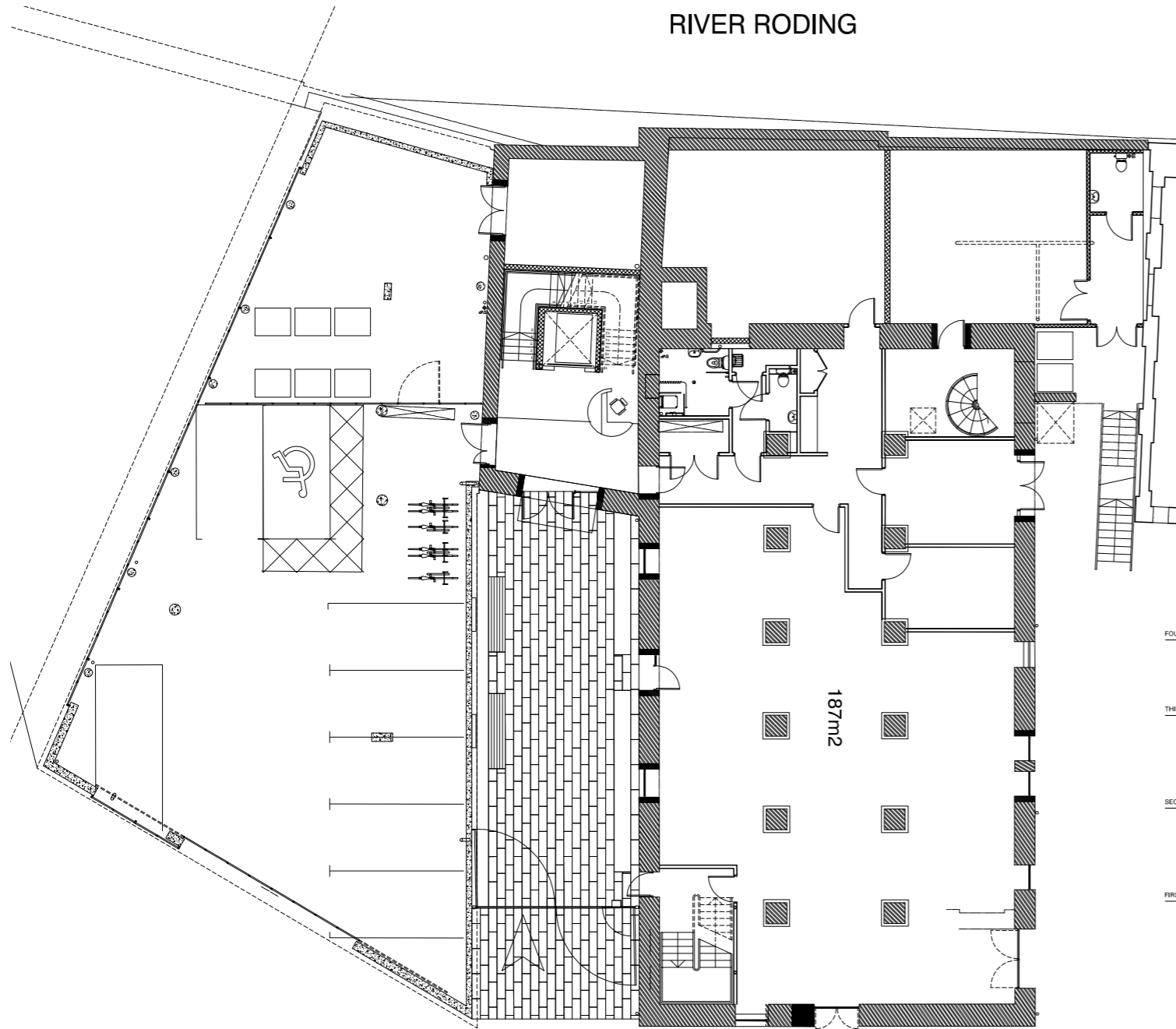
Drawings - Frontage Elevation



MAIN FRONTAGE ELEVATION - WORKING DRAWING

Drawings - Ground Floor Plan and Section

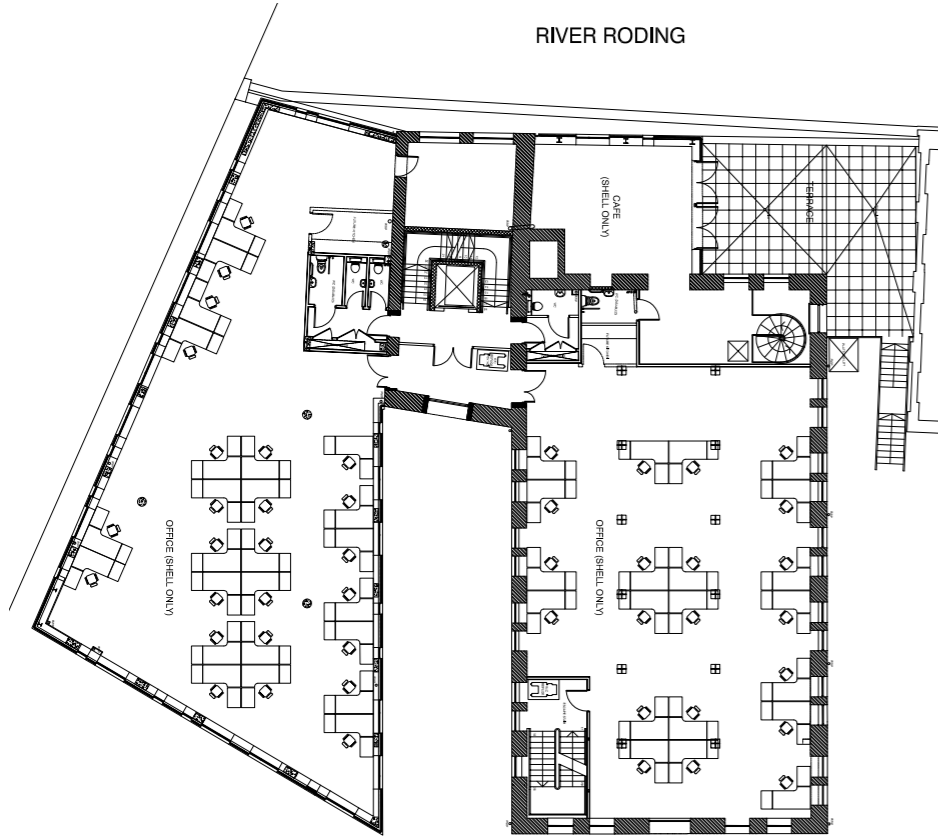
RIVER RODING



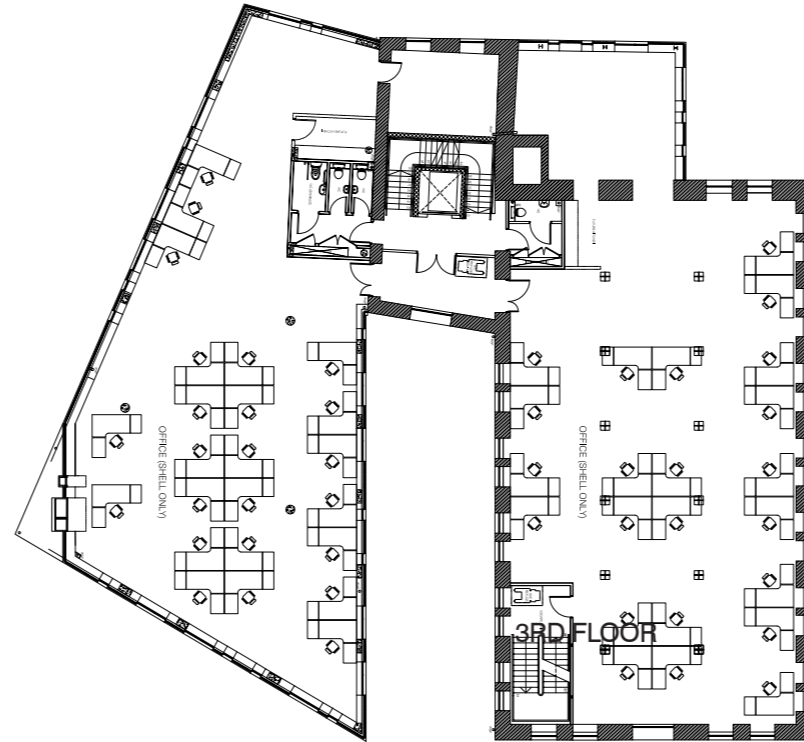
GROUND FLOOR PLAN AND TYPICAL SECTION - WORKING DRAWINGS

Drawings - Plans

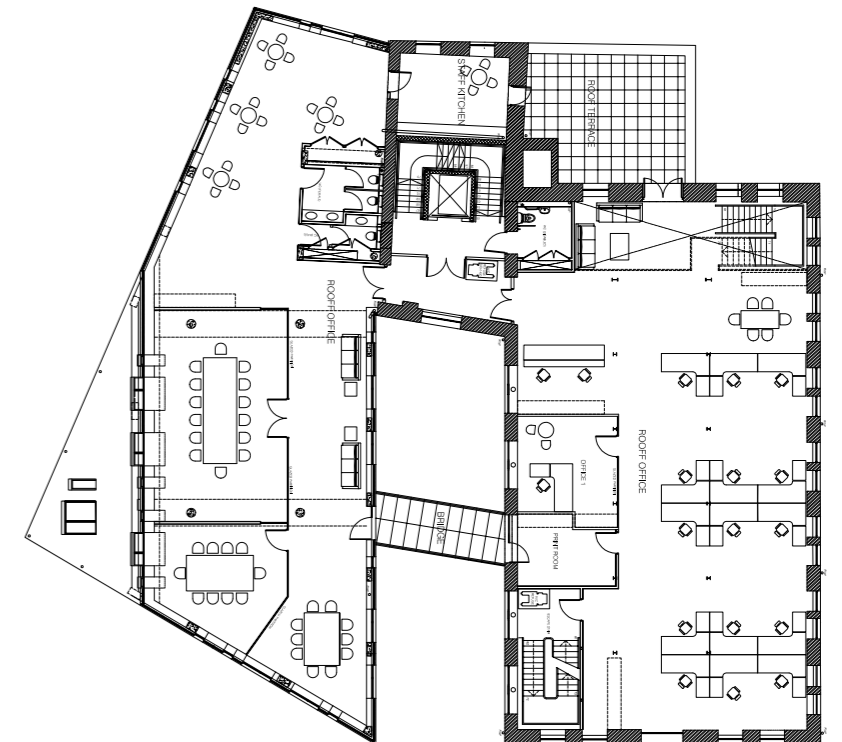
RIVER RODING



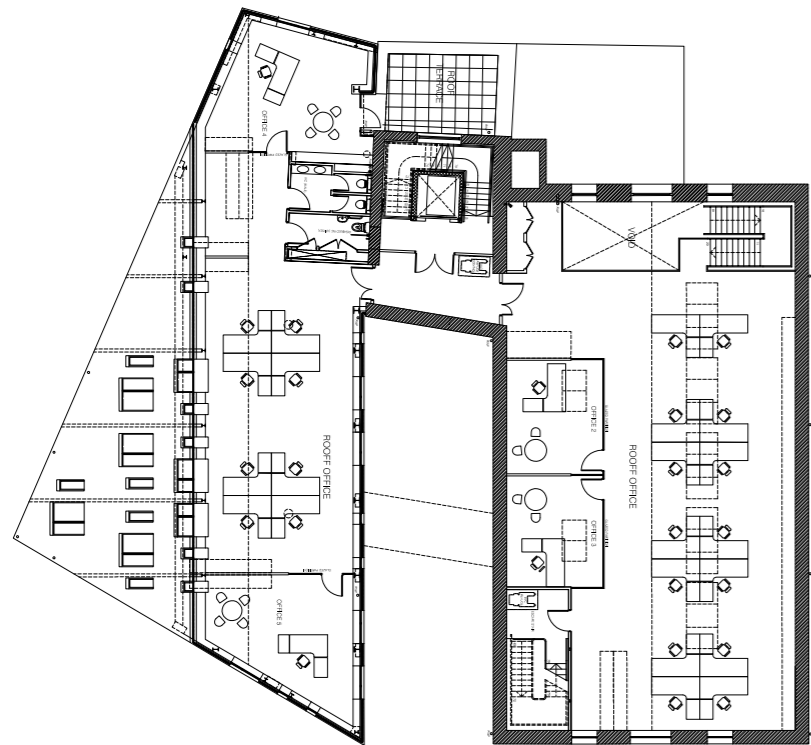
1ST FLOOR



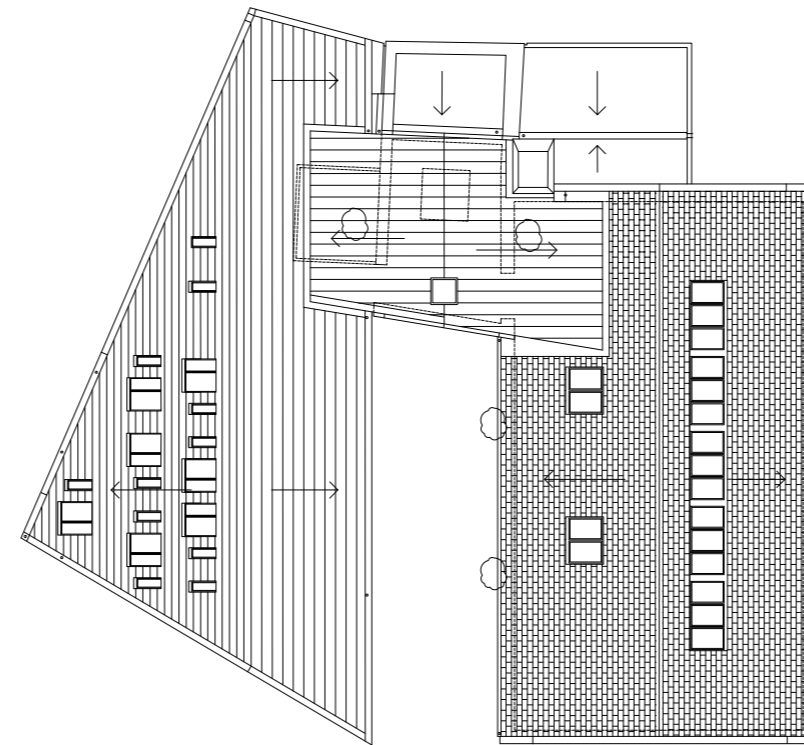
2ND FLOOR



3RD FLOOR



4TH FLOOR



ROOF PLAN





