

5.0

The Proposal

5.1 Design Principles

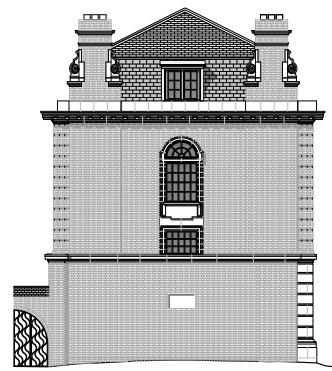
5.1.1 The Place of Heritage: Relating the Past and the Future

Our task as designers is to help realise Exeter College's aim to create a new kind of learning community at the Walton Street site. The aim is grounded in the traditions of Oxford Colleges: the commitment to small group teaching, to eating together, and to providing a rich array of extra-curricular resources. However the vision is also looking to the future. The result will be a richly layered experience for students and Fellows, combining the best of traditional and modern modes of learning and communal life. So for example there will be new kinds of study spaces, appropriate to a world in which laptops provide access to a vast array of academic resources and there will be a modern mix of privacy (individual rooms with en suites) together with relaxed sociability.

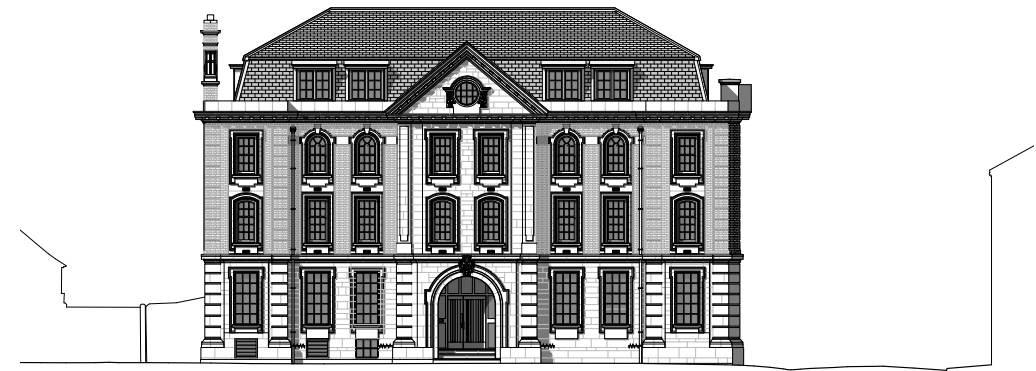
The principle of layering old and new also informs our approach to design. We propose that the facades of the Ruskin building (the 1913 block) should remain as a physical reminder of an important aspect of Oxford's history, and of British social history more generally.

The historical significance of Ruskin College does not adhere in any particular aspect of the design or detailing of the building, and we therefore believe that the building can be modified to suit its new requirements without unacceptable loss. The proposed modifications to the Ruskin College building retain the most significant historical layers but also to add a new one.

The proposals make the building more permeable to its surroundings, and more responsive to them. It is an irony that Ruskin College, whose aim was to open up higher education to working class people, created a building with a façade that shuts out the outer world rather than reaching out to it. Our new layers of detail and transparency will address this, making more satisfactory connections with Worcester Place, Walton Street and the broader community.



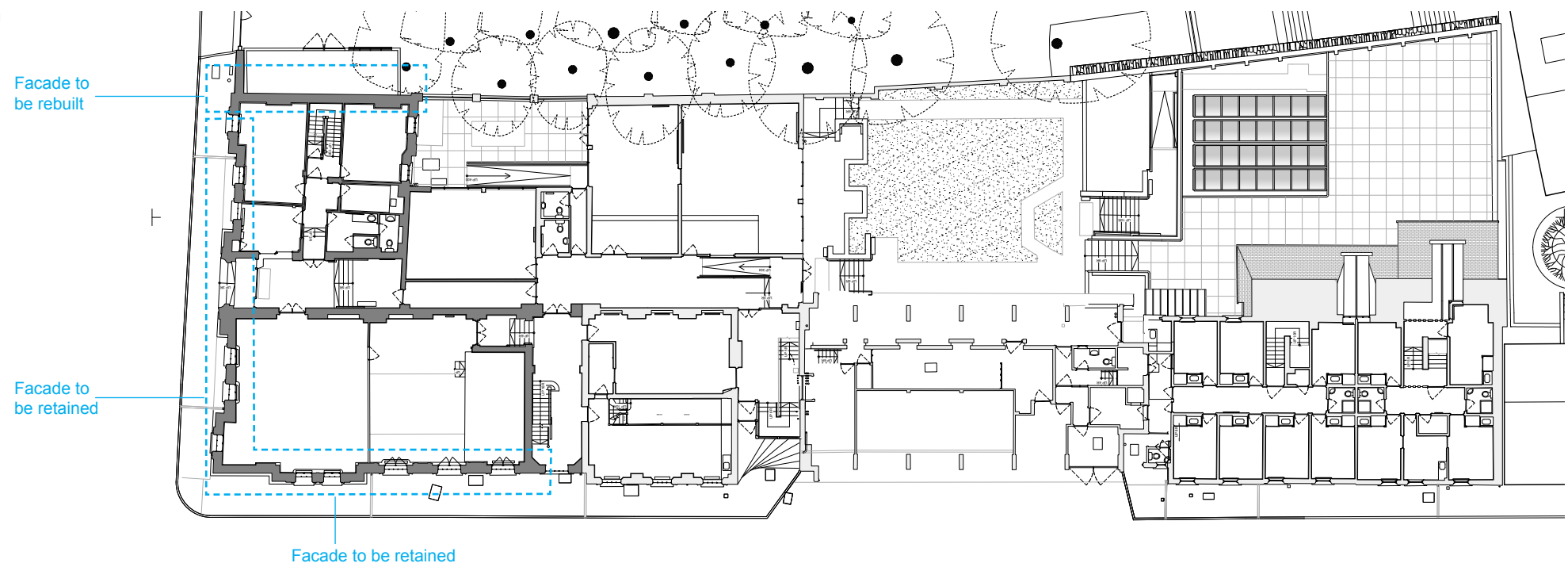
Existing South Elevation Measured Drawing



Existing East Elevation Measured Drawing



Existing North Elevation Measured Drawing



Existing ground floor plan showing extent of retained and rebuilt facades

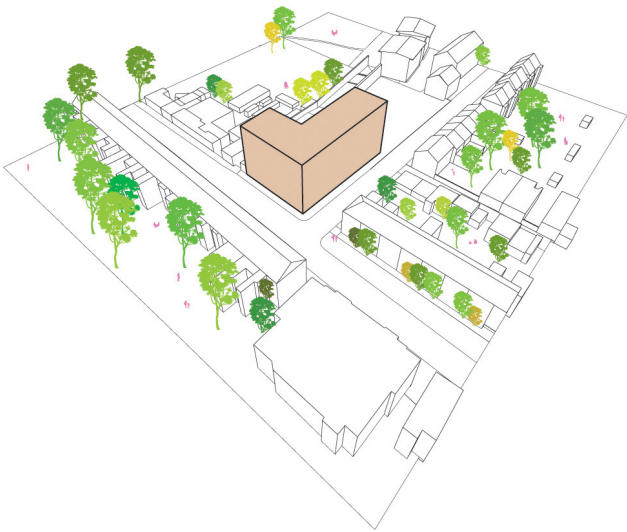
5.1.2
Urban Approach

In conjunction with our Team's position to retain the Ruskin building's facades as important cultural artifacts within Oxford's streetscapes, Alison Brooks Architects consider Exeter College's Walton Street Quad as an urban design project. With its very long Worcester Place frontage and prominent Walton Street 'corner', the site can be understood as an urban block of institutional character. However the college block also has a context of modest two and three storey houses opposite the site and along Worcester Place.

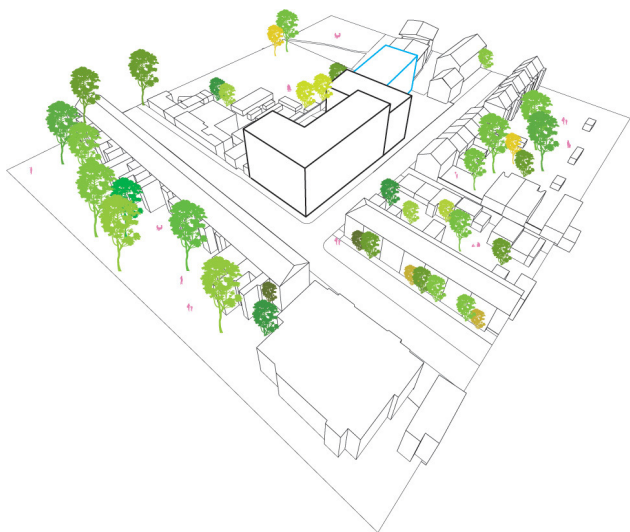
The new development responds sensitively to the scale and grain of this context through employing the following urban strategies:

- 1. A gradual stepping down of the building height and massing along Worcester place to approach the roof height of the house at Number 10 Worcester Place.
- 2. Setting back the wing of student accommodation at the west end of the site away from Worcester Place toward the site's southern boundary. This aligns the new west wing with the existing three storey residential blocks of Worcester College.
- 3. Introducing a new lane between the Ruskin site and the adjacent Worcester College site to the west.

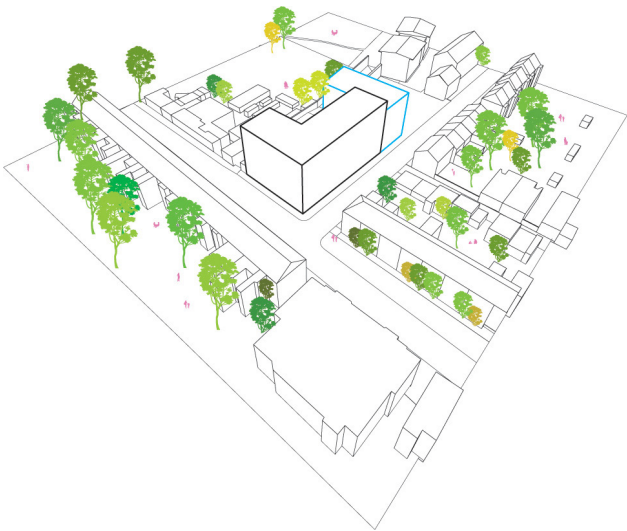
These new massing strategies for the Ruskin College site result in an opening up of Worcester Place to increased daylight, offering the potential of a walled courtyard garden in the place of the existing 1967 and 1980's residential blocks.



1 - The L shape Ruskin College block



3 - The West Wing and a new 'North Quad'



2 - Completing the South Quadrangle



4 - The North Quad and the Hall Pavillion



1 Walton Street, looking North



2 Walton Street, looking South West

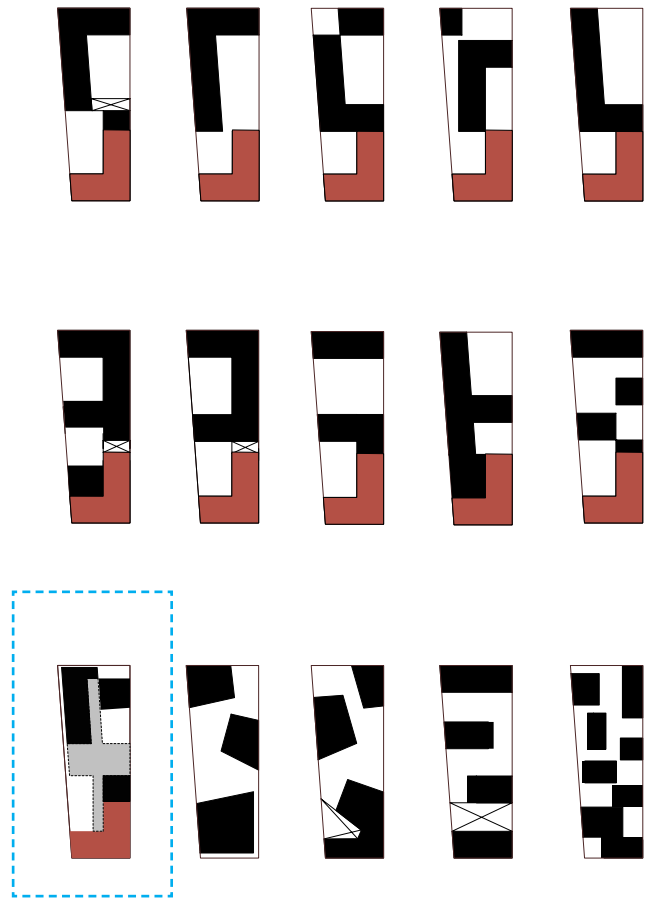
5.1 A Fully Accessibly Oxford Quad

5.1.3 The S-Shaped Plan

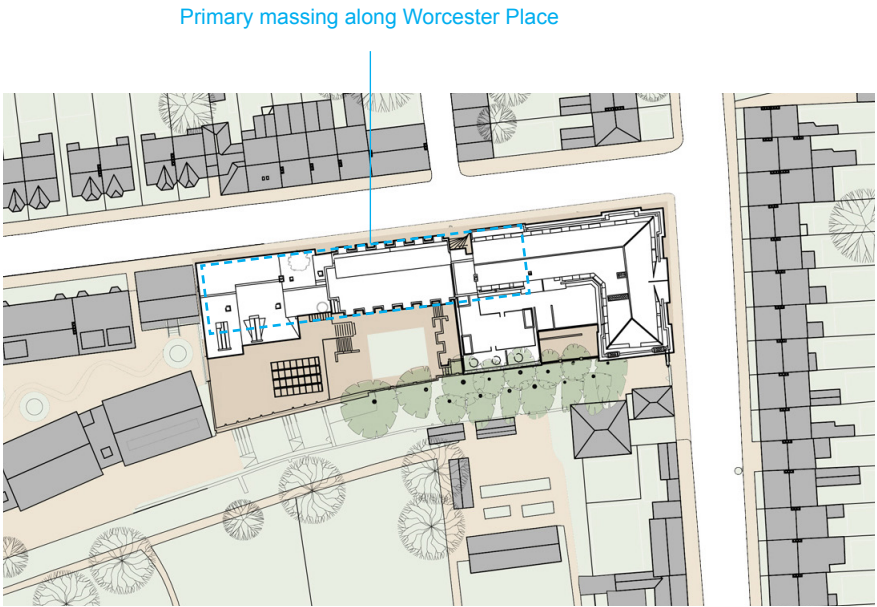
The desire to improve the urban quality of Worcester Place, while preserving the original facade of the Ruskin building, has led the positioning of a ‘west wing’ of student accommodation away from the street toward the south boundary. This aligns the new development with the existing Worcester College Student residence buildings adjacent to the site to the west. The major shift in massing led to a logical positioning of a central social hub of the new quad at the central transition point of the plan, roughly in the position of the existing 1967 residential block. Building on the original ‘L’ shape of the Ruskin building and its south-facing quad, this site strategy generates an ‘S-shaped Plan’.

This S-shaped plan has five important roles:

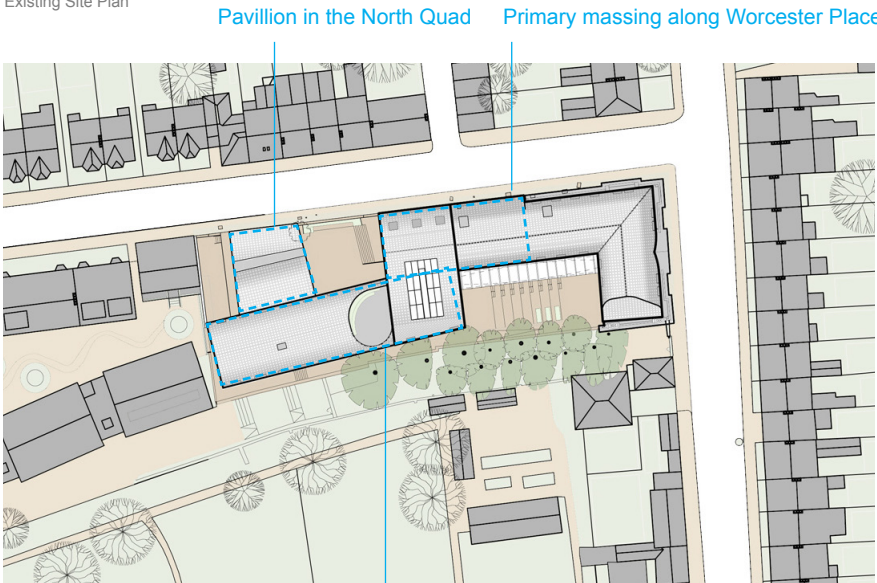
- provides a setback from Worcester Place for student rooms in respect of overlooking existing residents dwellings
- provides a new sense of open-ness to Worcester Place , making more sunlight and longer views available to existing Worcester Place Residents
- provides a setting for a new ‘jewel building’ within the Quad, in the spirit of Exeter College’s own Hall and Chapel, creating a destination within the overall site configuration
- provides a natural point of direct public access to the Lecture Hall from Worcester Place for occasional events.



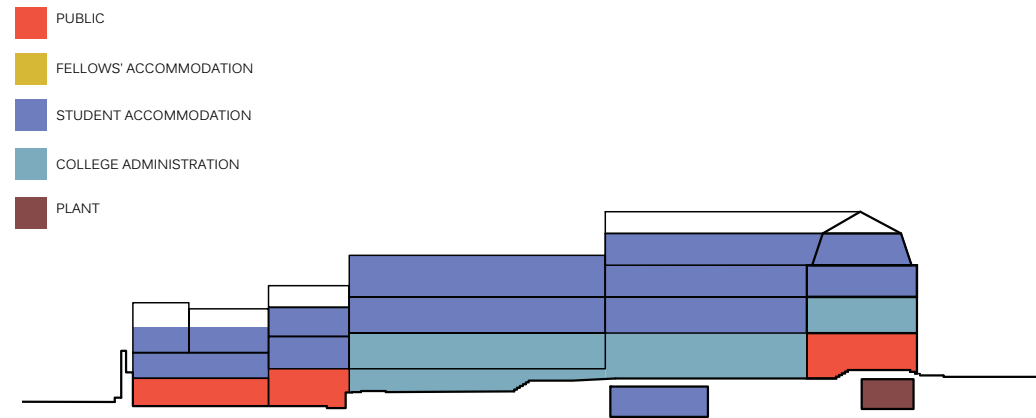
The evolution of the S-Shaped plan



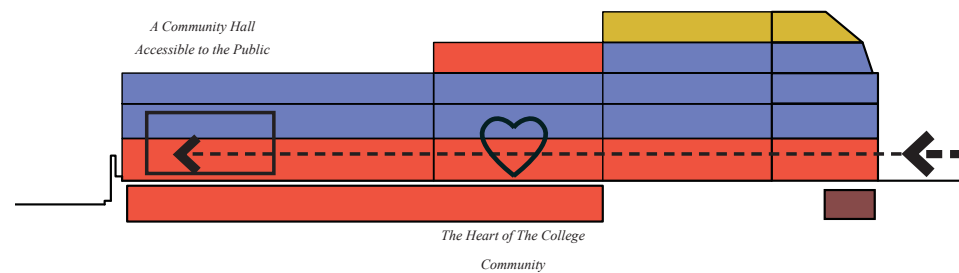
Existing Site Plan



Proposed Site Plan



Existing Building Section - Fundamentally Inaccessible



Proposed Building Section with new 'Heart' at the center of the scheme

5.2.1 Level Access from Walton Street

One of the key challenges of the Ruskin Building is its inaccessibility from the street, with steps, wheelchair lift and temporary entrance hall raised flooring. The stepped and irregular levels across the existing site reflect the accretion of uncoordinated site development over time, producing a shallow terracing of floor levels down to the lowest level of the existing library. There are currently twenty separate staircases connecting the various levels that make of the ground floor of the existing building.

Our Client brief initiated the Design Team's approach to restore level access to the entire building from Walton Street - following the principles of the 1907 Joseph and Smithem competition design and to make a fully accessible, barrier-free Oxford College. Our adaptation strategy includes the lowering of the Ruskin building ground floor to its near original floor level, coinciding with Walton Streets' pavements.

Enhancing the Streetscape
Lowering the ground floor level of the building has created the opportunity to lower the primary ground floor windows. This creates a spatial and proportional relationship between the ground floor primary windows, the interior spaces behind these rooms, and the street. Our proposals lower the main windows from 1.8m above the interior floor level to 700mm, a much more reasonable cill height. of the

Ruskin building subtly transform building's ground floor façade from a forbidding and authoritarian frontage to a more open, permeable façade. The elongated windows have a leavening effect on the facade, the more vertical proportions in keeping with the 'Wrenaissance' idiom from which the Ruskin building's classicism originates. A new layer of meaning is added to the reading of the Ruskin building's facades, enriching its existing qualities with a more open civic presence and a new role as Exeter College.

This major intervention in the fabric of the existing building was considered in depth by the project consultant team to understand the effect on the existing building's structure, basement levels and the existing EDF substation at basement level. These studies, combined with the need to fully replace the building's environmental systems, introduce wheelchair and fire escape compliant circulation, modern space standards and ensuite facilities for student rooms resulted in a determination that the internal fabric of the Ruskin College building would require full replacement or reconstruction.



Walton Street Elevation

5.3 Roof Concept

5.3.1 The Ruskin College Site – A Piecemeal Approach to Expansion

The Ruskin College site is currently a series of accretions; five phases built over a seventy year period up to 1985. Each successive development compromised the original vision of this site: a civic institution of architectural quality, substantial scale and formal coherence. The new proposal aims to restore architectural coherence and quality to the Walton Street site, first by preserving and enhancing the Ruskin building's primary facades, and secondly by responding to the scale and texture of the Worcester Place context with a more informal approach to massing than the palatial institutional baroque envisioned by Joseph and Smithem, within a consistent new architectural language.

5.3.2 Optimising the Site through Expansion of the Roof

Key to adapting the Ruskin College site to a fully self-sufficient, residential and academic College quadrangle is to optimise the current capacity of the site. Currently the site holds 80 student rooms; Exeter College's minimum brief requirement is for 90 student rooms plus Fellows' apartments and greatly expanded facilities for teaching, social and public spaces. The sloping site allows expansion of the basement level for services and a café leading to a new sunken garden. Early in the project the design Team identified the opportunity to expand the site capacity vertically through an intervention at roof level.

5.3.3 Articulated Roofs

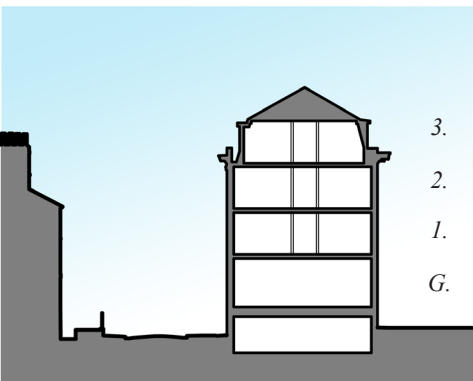
Since the 17th Century dormered roofs of various styles have been added to Oxford's building stock by the Colleges to increase their ability to house scholars and students. The neo-classical architectural language of the Ruskin building was also identified as inheritor of the English "renaissance" idiom where roofs were often articulated as two, three or even four storey elements with dormers and other embellishments.



Queens Gate, 1887, Norman Shaw

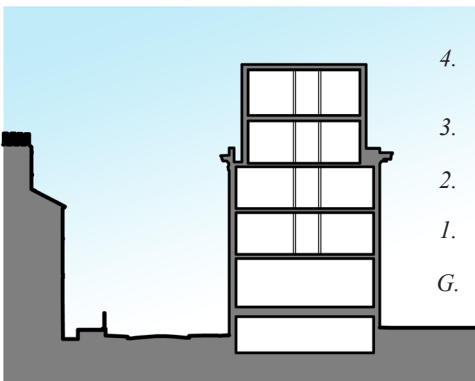


Cromer Hotel, Skipper



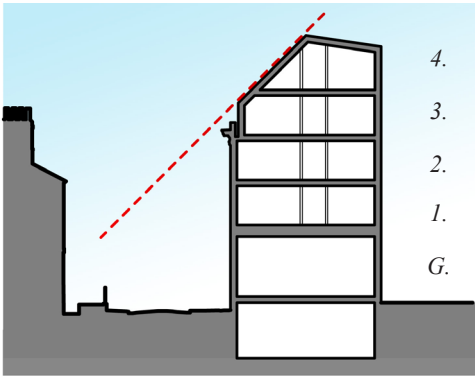
Existing

Net NIA: 3429 SqM
Student Rooms: 80

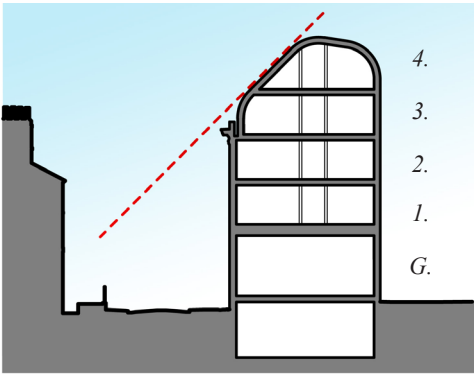


Opportunity

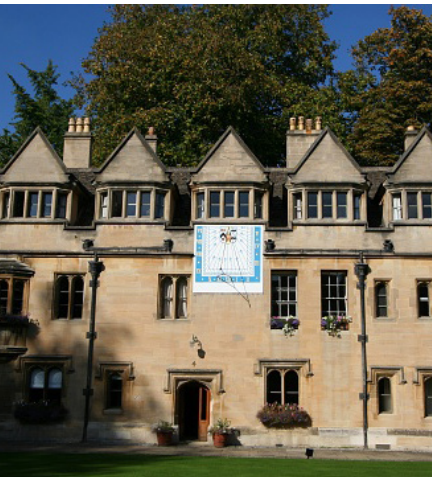
To meet the proposed brief
an extra floor level is required.



Angled Roof Profile



Roof Profile Softened
With Radii



Cocklofts at Brasenose College

5.3.4 The Pitched Roof versus the Flat Roof – A Domestic Architectural Form

The convention for adding to the roof level of historic buildings in the past thirty years or more has reflected the modernist approach of replacing the pitched roof with a flat roof and inserting a glazed 'box' set back from the parapet line. This approach often includes an overhanging canopy to provide solar shading to the glass box.

ABA's approach to the Walton Street site, adding to the architectural language of the Ruskin building, is based on our strongly held belief that the pitched roof offers the potential

for greater architectural character and quality, enriching both the existing building and the context of Walton Street. The pitched roof is a primordial architectural 'figure' signifying both shelter and dwelling. The material expression of a pitched roof offers further opportunities for pattern and detail, with a long tradition of 'roofcraft' underpinning contemporary methods and materials.

5.3.5 The Evolution of the Mansard and Gambrel Roof

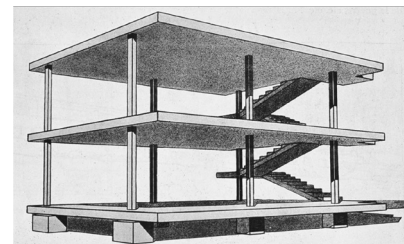
The existing mansard roof of the Ruskin Building was the starting point for ABA's reconsideration of the building's roof line. The mansard, or gambrel roof type is a pitched roof divided into two planes, one of which is slightly off the vertical. This near vertical plane allows the maximum useable floor area beneath the roof, and is normally punctuated by dormer windows to permit light.

In the case of the Mansard, the roof type named after Francois Mansart, allowed Parisian developers to extend beyond Baron Hausmann's six-storey height limit with

additional floors of accommodation, disguised as roof above the eaves line. The cross-section of a gambrel roof is similar to that of a mansard roof, but a gambrel has vertical gable ends instead of being hipped at the four corners of the building. A gambrel roof overhangs the façade, whereas a mansard normally does not.



Blue Boar Quadrangle 1965, Christchurch College



Modernist Domino frame



The Ruskin Building - Existing Mansard Roof



The Parisian curved mansard roof



New Bodleian Law Library 1964

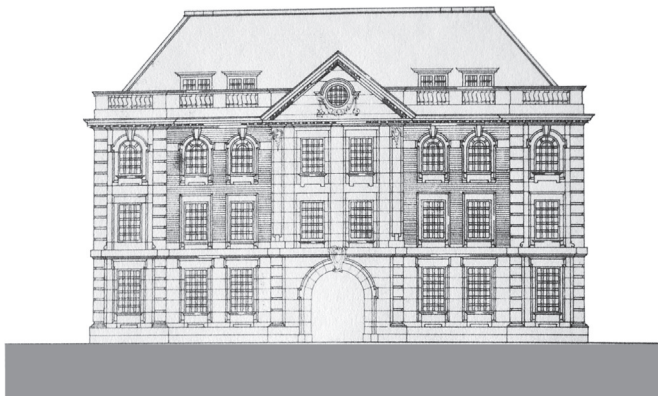


The Domestic Mansard, London



The Rural Gambrel Roof

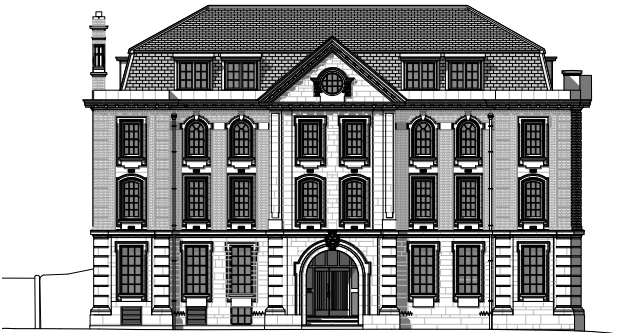
5.3 Roof Concept



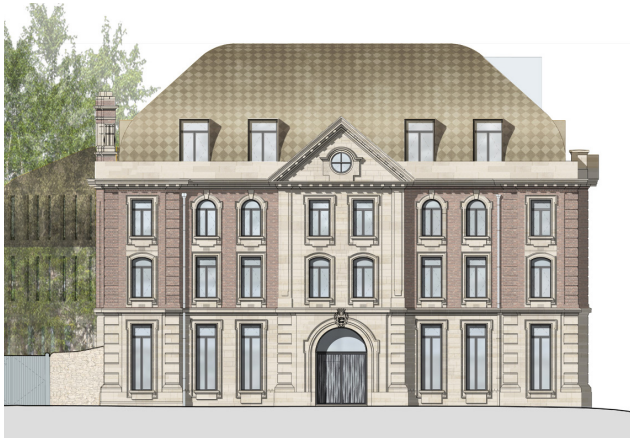
Worcester Place Elevation 1907 as envisaged



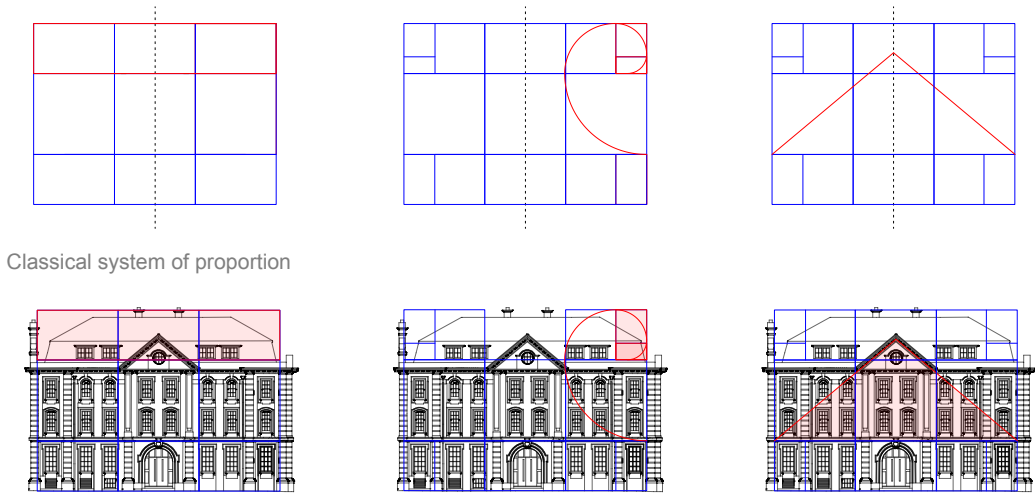
Worcester Place Elevation 1913 final competition scheme



Worcester Place Elevation 1913 as built



Worcester Place Elevation as Proposed



Classical system of proportion

Classical Proportions Overlaid onto Walton Street Elevation

5.3.6 The Principle of Extending the Roof

The proportional system governing neo-classical facade composition is, as a rule, governed by the 'golden mean'. In architecture, classical facade subdivisions of base, middle and top were typically subdivisions of the golden section as related to the facade as a whole. The proportions of the Ruskin building's Walton Street facade deviates from these rules in its very narrow side and central bays, very steeply sloped pediment and its disproportionately small roof. A proportional analysis suggests a classical 'base' of the Ruskin's width would typically be able to accommodate a much larger roof than what was realised at the Ruskin College site. The principle of extending the roof at Walton Street to provide more student accommodation was identified as being both appropriate in compositional terms, while offering the potential for contemporary environmental performance, architectural expression and delight.



Section through retained Ruskin facade and proposed building

5.3.7 The Integral Roof

ABA's proposals for Exeter College at Walton street represents an evolution of the mansard roof typology in form, structure and material. The ridges and eaves of the mansard have been smoothed into radii, similar to the curved mansards of 18th C Paris or the Ogee domes of Wren at All Soul's College. This fluid approach reduces the apparent scale of the vertically extended roof form and simplifies its construction. Furthermore, the radiussed beam construction system of the 'mansard' results in vaulted ceilings to all the upper floor student rooms and corridors. The internal expression of the curved roof refers to the radiussed arches and windows of the original Ruskin building, while greatly increasing the spatial quality of the new College accommodation on all the upper floors.

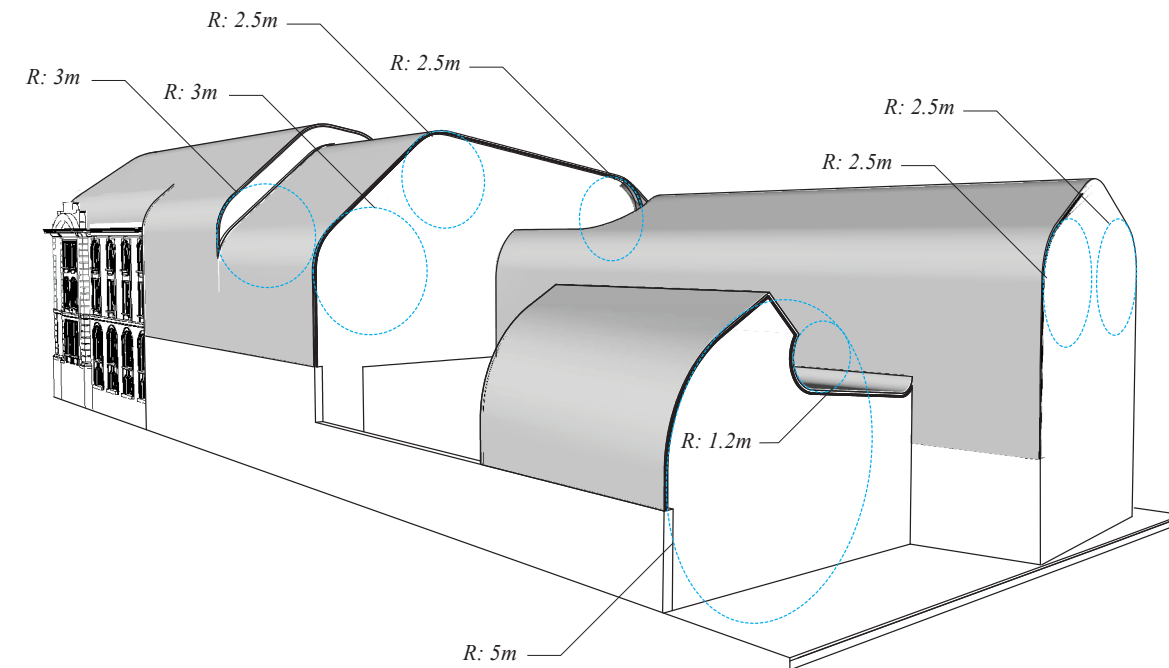


Diagram showing Roof Radii of curved mansards



Sections through roofscape



Worcester Place Elevation- Integration of Existing and Proposed

5.3 Roof Concept

5.3.8 Roofs Above a Garden Wall

The stone base of the proposal's Worcester Place elevation expresses the new building's public spaces similar to the Ruskin building, yet in a more purist architectural language of dressed stone, following the coursing of the existing building. Reminiscent of the plain, stone walled streetscapes found in central Oxford, the base changes in character along its Worcester Place length. It is at first punctuated by openings, it then becomes a plain garden wall overhung by greenery.



Building behind a wall



Buildings integrated a wall



Buildings engaging with a wall



Worcester College wall along Walton Street

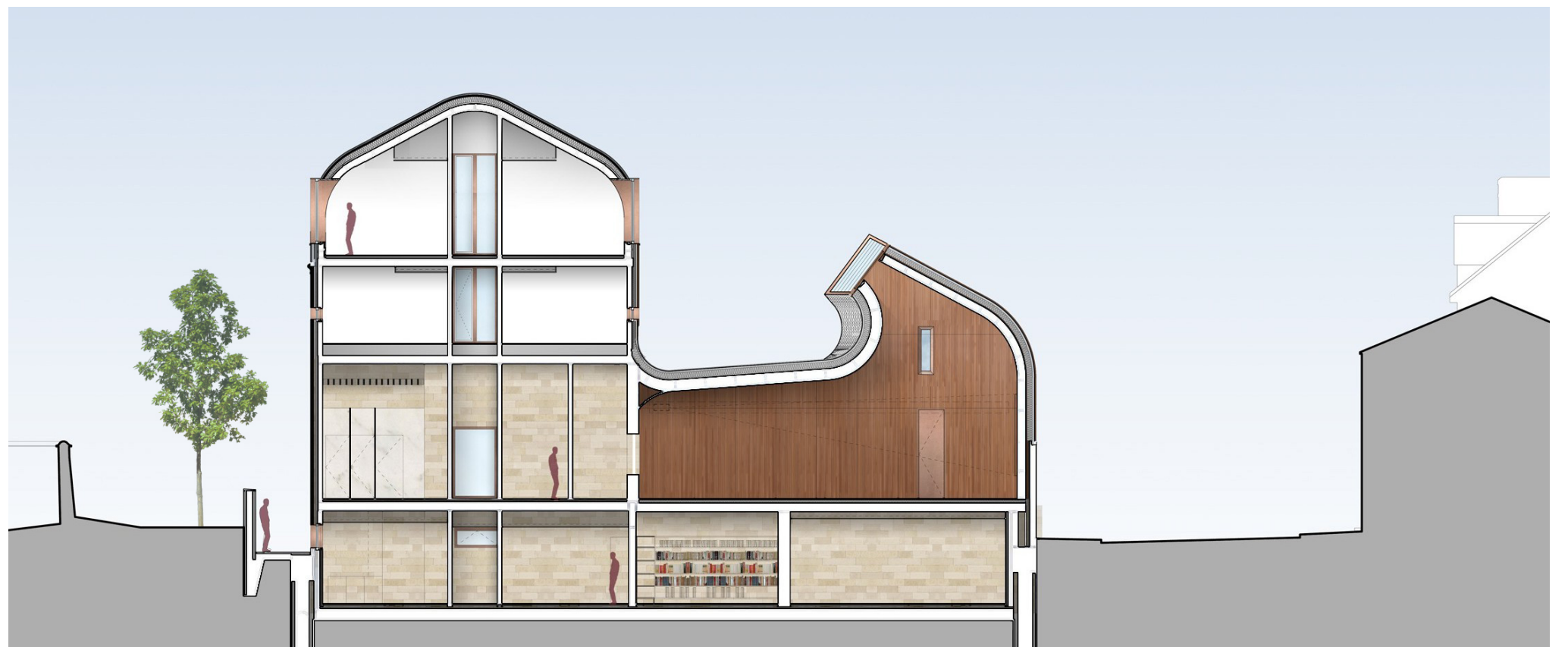
At its western extent it forms the base to the roof of the pavilion-like Hall and is terminated by a 'garden gate'. This series of changing roles and characters of the new College wall along Worcester place can be seen as a continuation of the 'garden wall as streetscape' tradition in Oxford. The garden wall of Worcester College that fronts Walton Street demonstrates the same characteristics of wall, building and roof merging to form an articulated urban edge. Our approach to the Worcester place frontage continues this tradition and reinforces this site's condition as 'architectural boundary' to Worcester College gardens.



View From the Hall



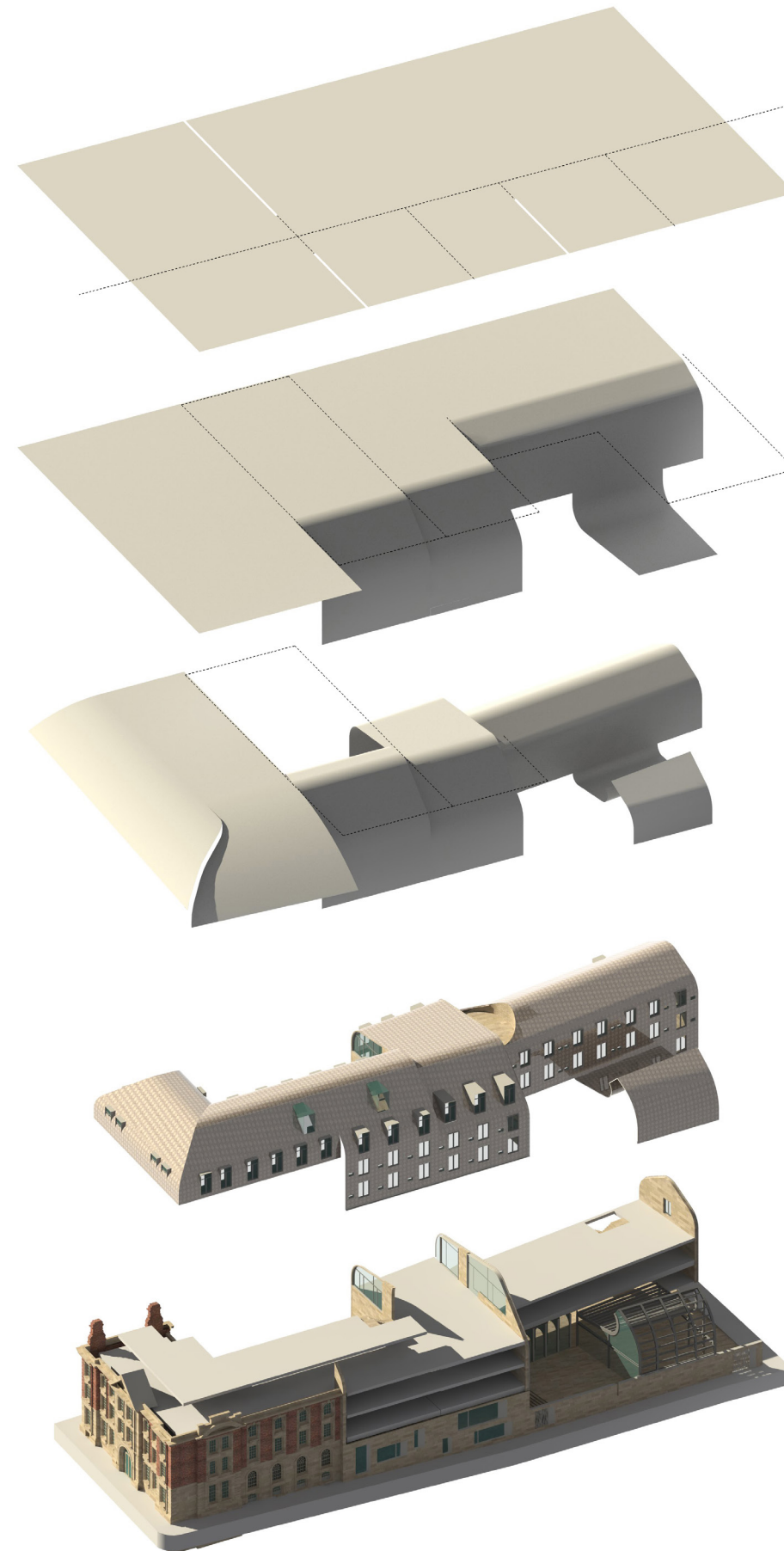
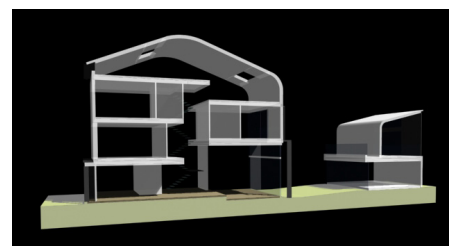
The Hall Roof and Garden Wall



Cross Section Through Hall



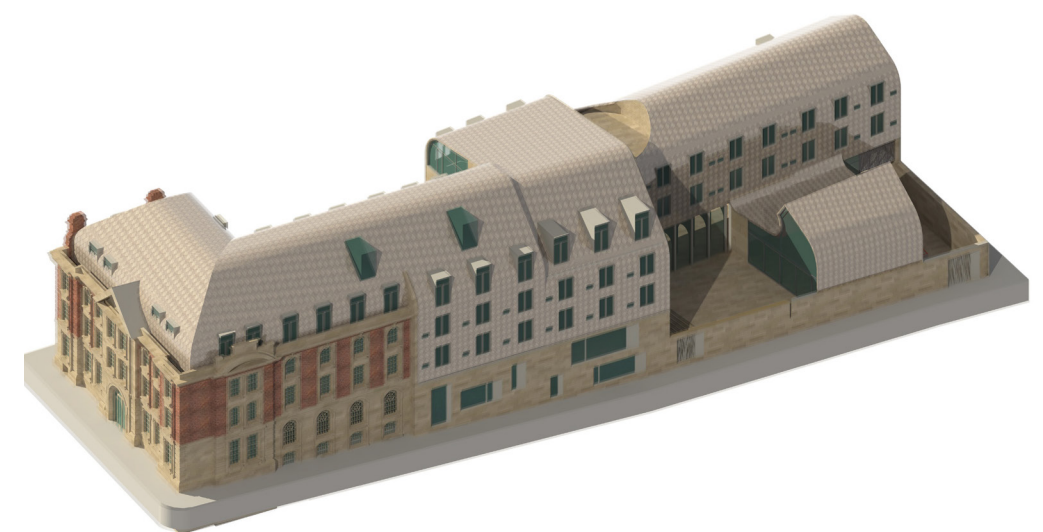
ABA's semi-detached houses at Accordia, Cambridge



Roof concept - Exploded axonometric

5.3.9 Language of Continuity – Planar and Curvilinear Fabric / tailoring

As one moves past the Ruskin building along Worcester Place to the fully new College building construction, the curved gambrel roof extends down to the ground floor level like a cloak, punctuated by dormers and a regular pattern of windows. This extension of the roof surface past the eaves line to become a façade draws on the tradition of hung tiles, but more clearly and fluidly expresses contemporary cladding technology: exterior roof and wall finishes form a continuous 'rainscreen' behind which lies a waterproofing membrane and highly insulated structural fabric. This honest expression of the building 'skin' as a free surface allows the College's new roof to be lyrically reinterpreted as a patterned cloak that envelopes the new student rooms above an articulated stone 'base'. The roof can therefore be understood as a single planar element, curved about a horizontal axis, 'cut' to fit the stepped building elements like the tailoring of cloth to a body.



Axonometric of proposed building integrating the old and new

5.3 Roof Concept

5.3.10 The Expressive Roof – Building Craft and Iconography

Metals have traditionally been used as an effective and often beautiful roofing material. Traditional roofing metals such as copper, zinc, lead and stainless steel provide effective protection from rain, are relatively lightweight and easy to handle. It's sheet or roll format makes it ideal for roofs with very shallow slopes, its malleability accommodates complex shapes such as dormers or curved roof forms such as domes. Metal roofing in all its forms – sheet, tiles or panels – is one of the few craft-based technologies remaining in the construction industry. The size the roof tile reveals the scale of material or module manageable by one person, working at height, the roof tile pattern is the by product of the module and its design for weathering.

ABA have utilised a traditional metal tile roofing pattern in two colours for the new roofs of Exeter College at Walton street. Metal tiles set in a diagonal format suit the curved roof form in the same way that fish-scales accommodate aquatic forms. Subtle checkerboard patterning adds another layer of reference and meaning to the new roof, reflecting the latticed diagonal lead work of the Exeter's Turl St Chapel spire, and the patterned tiles of the Chapel floor. The patterning of William Morris's tapestries, also adorning the Turl Street Quad, and the checkerboard brick of the artisan cottages of Jericho are a further association one can make with the iconography of the new roof, adding to the layering of histories to be read in the new architecture of the Walton Street site.

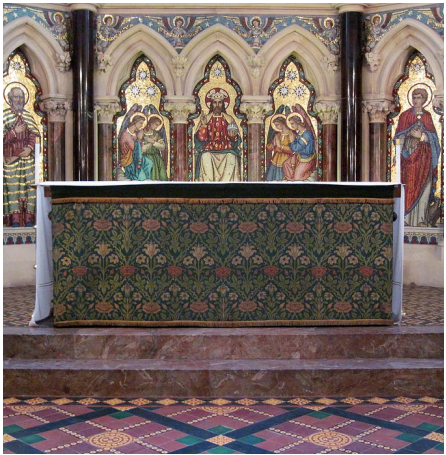
The curved and patterned roof rising from the eaves of the Ruskin building reveal themselves more fully as a carefully tailored 'cloak' to the varied building forms along Worcester Place. These new roof and facade forms can be read as an authentic representation of 21st century construction technology, internal spatial delight, renewed iconography and building craft to enrich both the Walton street context and Oxford's architectural heritage.



Lead lattice work to the lead fleche on Exeter College Chapel



Keble College, Oxford



Patterned tiles and altar at Exeter College Chapel



Patterned tiles at Exeter College chapel



Brick patterning in Jericho



Brick patterning in Jericho



Decorative porches in Jericho



Decorative porches in Jericho



Oxford University Museum - Patterned tiled roof

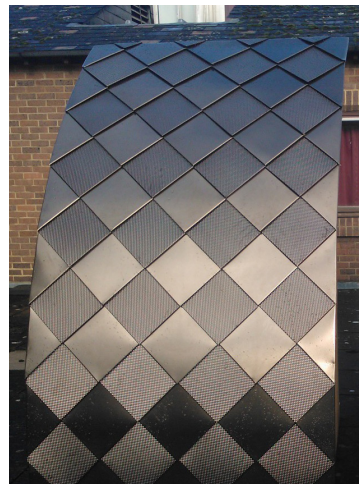


William Morris Wallpaper, Red House, London

5.3.11

Roof Material

The proposed roof cladding is a coloured and textured stainless steel interlocking tile in a diamond checkerboard pattern and has been selected to reduce reflectivity. The stainless steel goes through a manufacturing process where it is patterned, textured, bead blasted and formed into the individual tiles which are installed on site. The patterned finishes are manufactured by cold rolling various metals in sheet and coil format, the patterned product is textured and bead blasted to achieve the final finish before being leveled and processed for flatness.



Stainless Steel Roof mock-up panel



Bronze Paladin sample tile



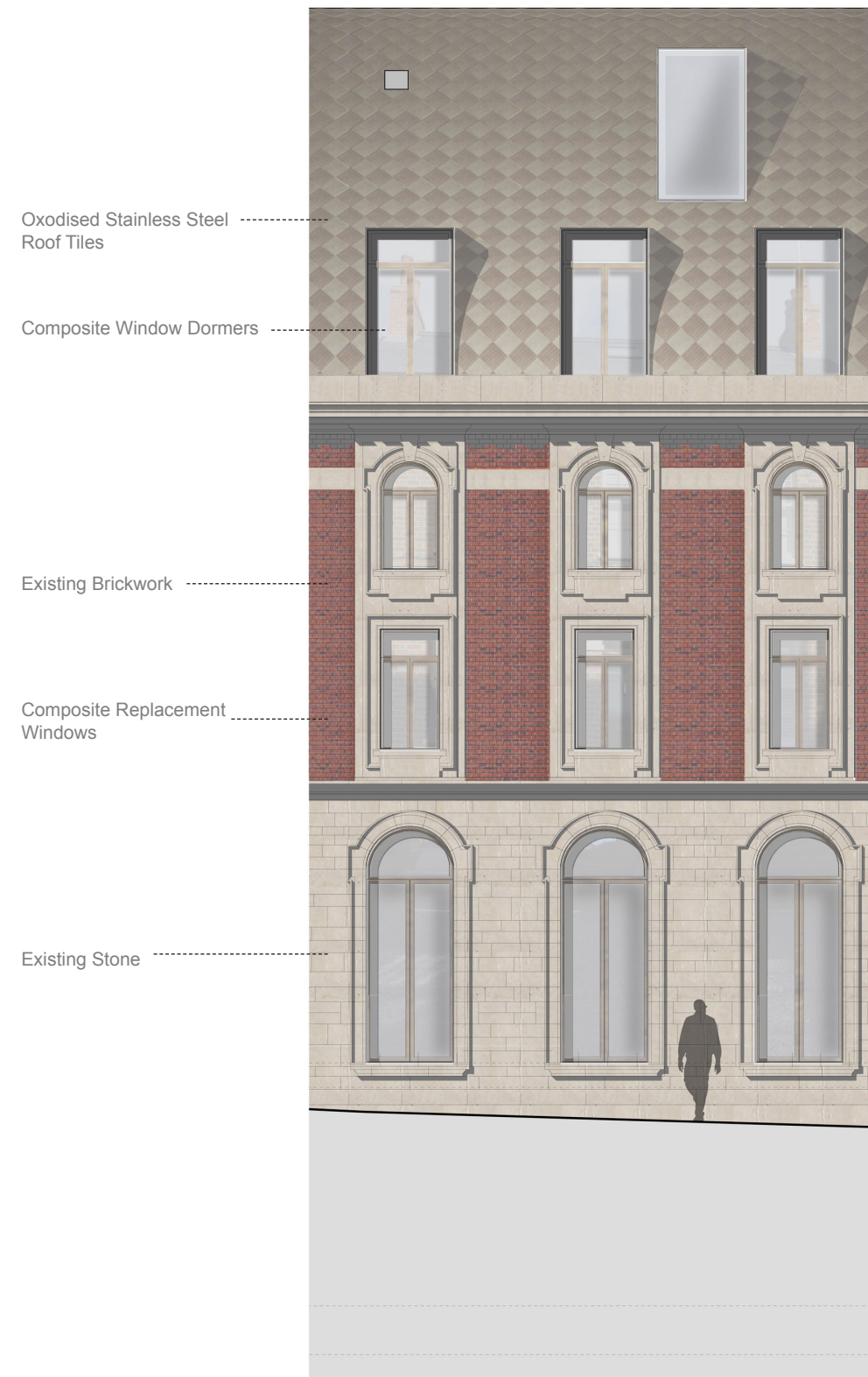
Brand Building, Holland



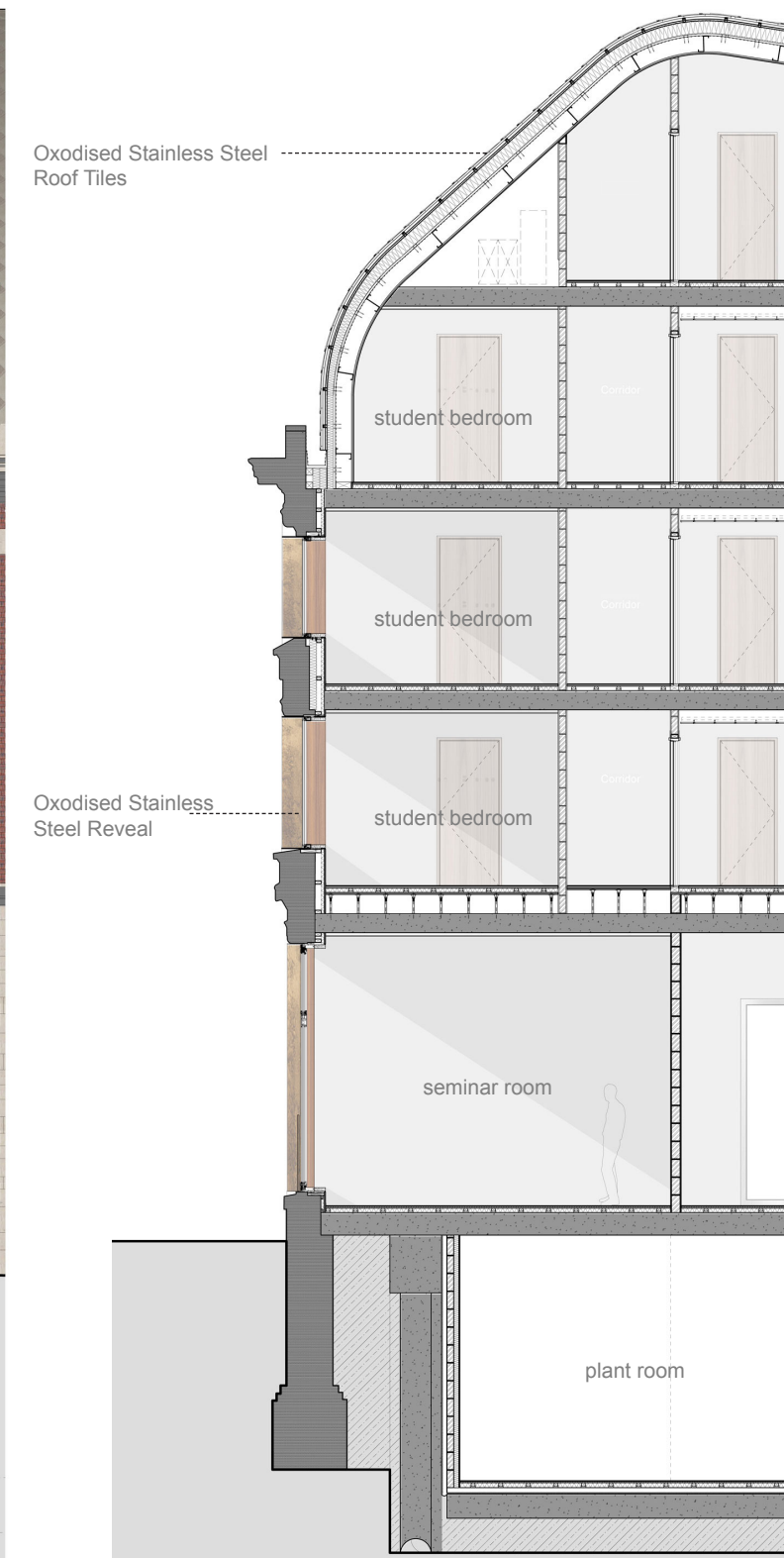
Rabobank Building, Holland



Millennium Centre, Cardiff



Detailed Elevation - Worcester Place



Detailed Section - Worcester Place