

5

Interior Design Strategy

5.9

Key Details - Glazing

Facade Upgrade Overview

Buro Happold Facade Team have undertaken a Facade Condition study and proposed upgrade options to:

- significantly improve the thermal, acoustic, airtightness, solar and safety performance of the façade and sensibly reduce the University’s running costs.
- There is a good potential for reducing the carbon footprint of the building and provide a more sustainable approach, by upgrading the glazing and improving its poor energy performance.
- Internal comfort would automatically result from an upgrade of the building fabric and provision of solar measures could be envisaged to achieve the desired day lighting conditions.
- Acoustic and air quality control measures can be incorporated, especially for those elevation facing the traffic noise and pollution from Bedford Way.
- Most components of the original façade (i.e. gaskets, anodising finishing, timber battens) have reached the end of their service life. The refurbishment scheme may be seen an opportunity to extend the durability of these systems and the building operation.
- The structural integrity of the curtain walling and its components is currently a big unknown and opening-up works are recommended to assess the condition of structural hidden components. The works will be subject to the asbestos surveyor approval.

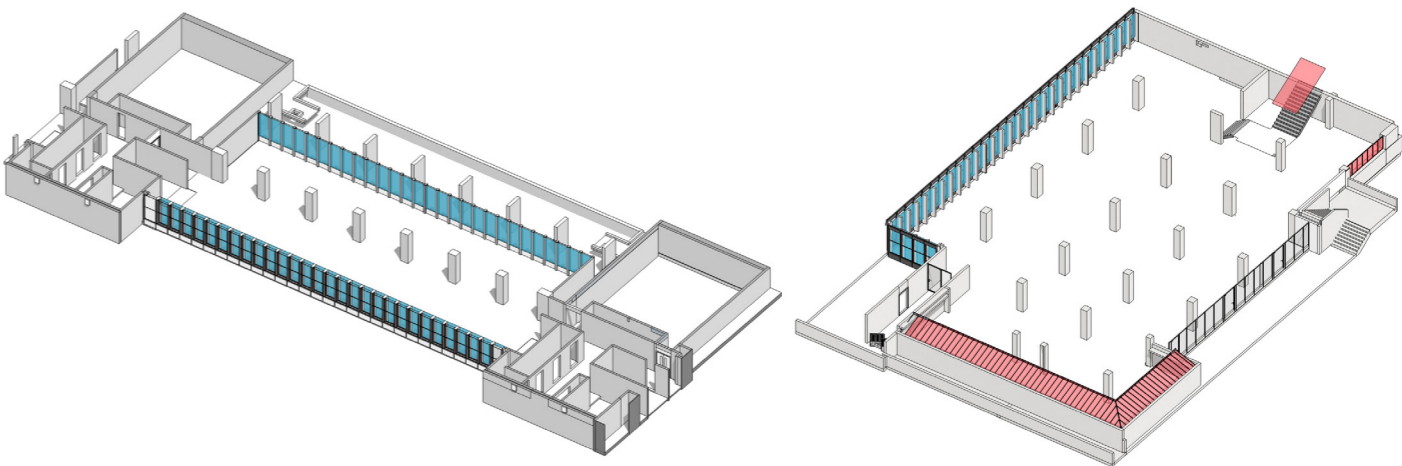
Recommendations are highly dependent on the results of intrusive investigations. The current Phase 1 facade proposal is to repair the existing vertical cladding, introducing solar control and safety films and improve the overall condition of the facade. A secondary glazing layer will then be introduced along with an insulated lining to the spandrel panels. The existing rooflights to L3 wing will also be replaced with modern double-glazed units to match existing setting-out and finishes. Likewise, the window into L3 from the service road will also be replaced with a modern double-glazed units, with frames to match the existing.

Design Proposals

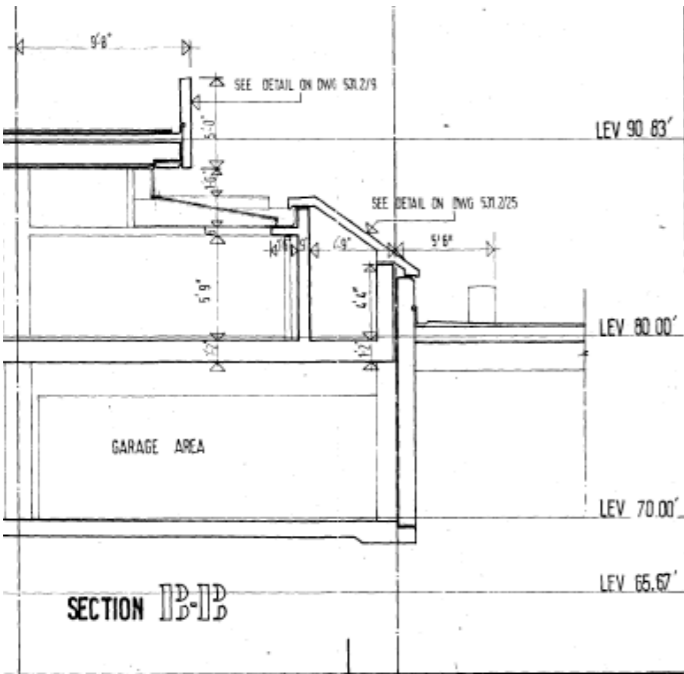
Further work will be undertaken at the next stage, including possible opening-up works, in coordination with the asbestos surveyor.

The detailed designs will respond to these findings and the emerging requirements. The proposals will also take inspiration from original Lasdun designs for secondary glazing that was provided to areas with high noise transmission.

The drawings on the opposite page illustrate how the proposals will be developed to ensure they are aligned with Lasdun's original intent, yet providing the thermal, solar, acoustic and air-tightness properties expected of modern buildings.



Diagrams above to indicate the areas of proposed rooflight and glazing replacement (shown in red), and areas of internal secondary glazing (shown in blue)



Section through rooflight in Level 3 Wing A



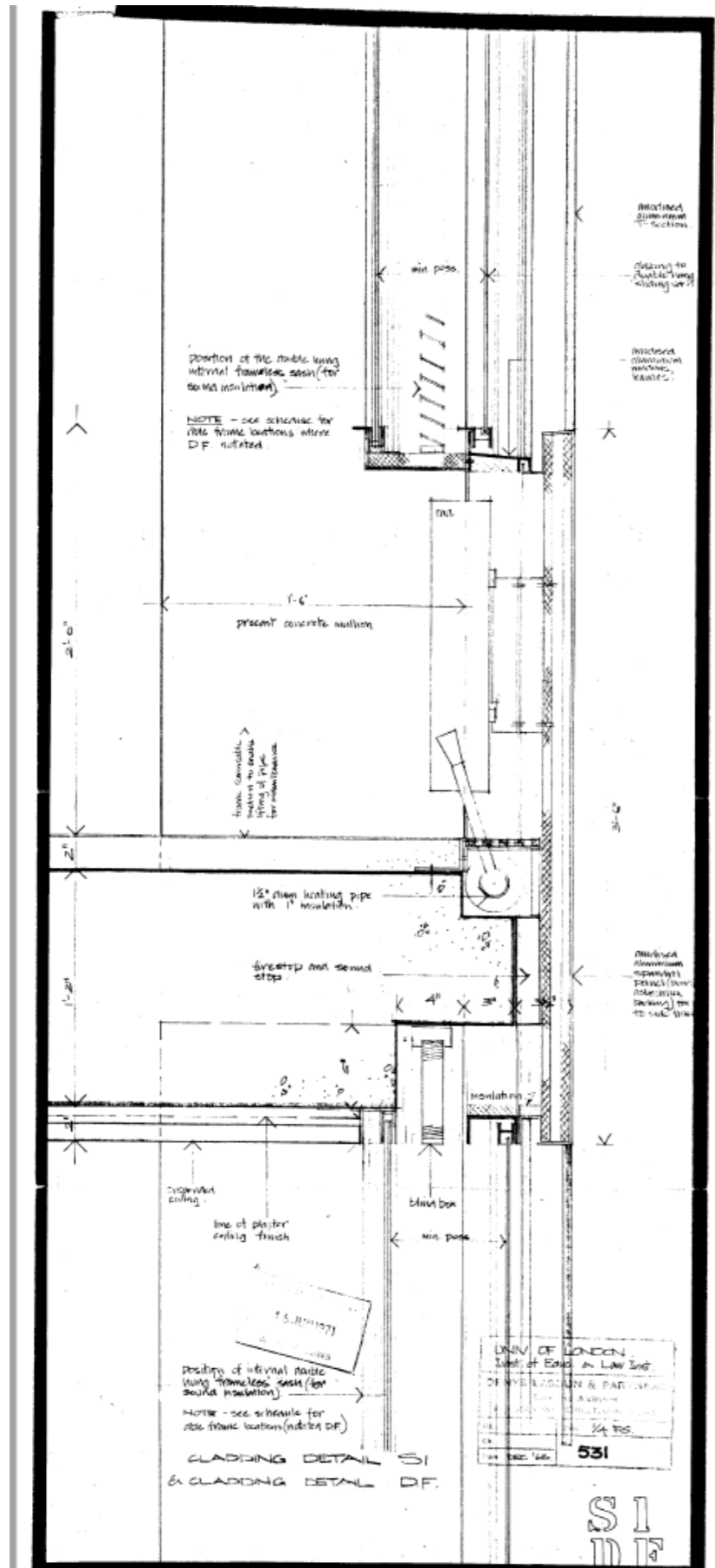
Wired glass rooflights on Level 3 wing to be replaced



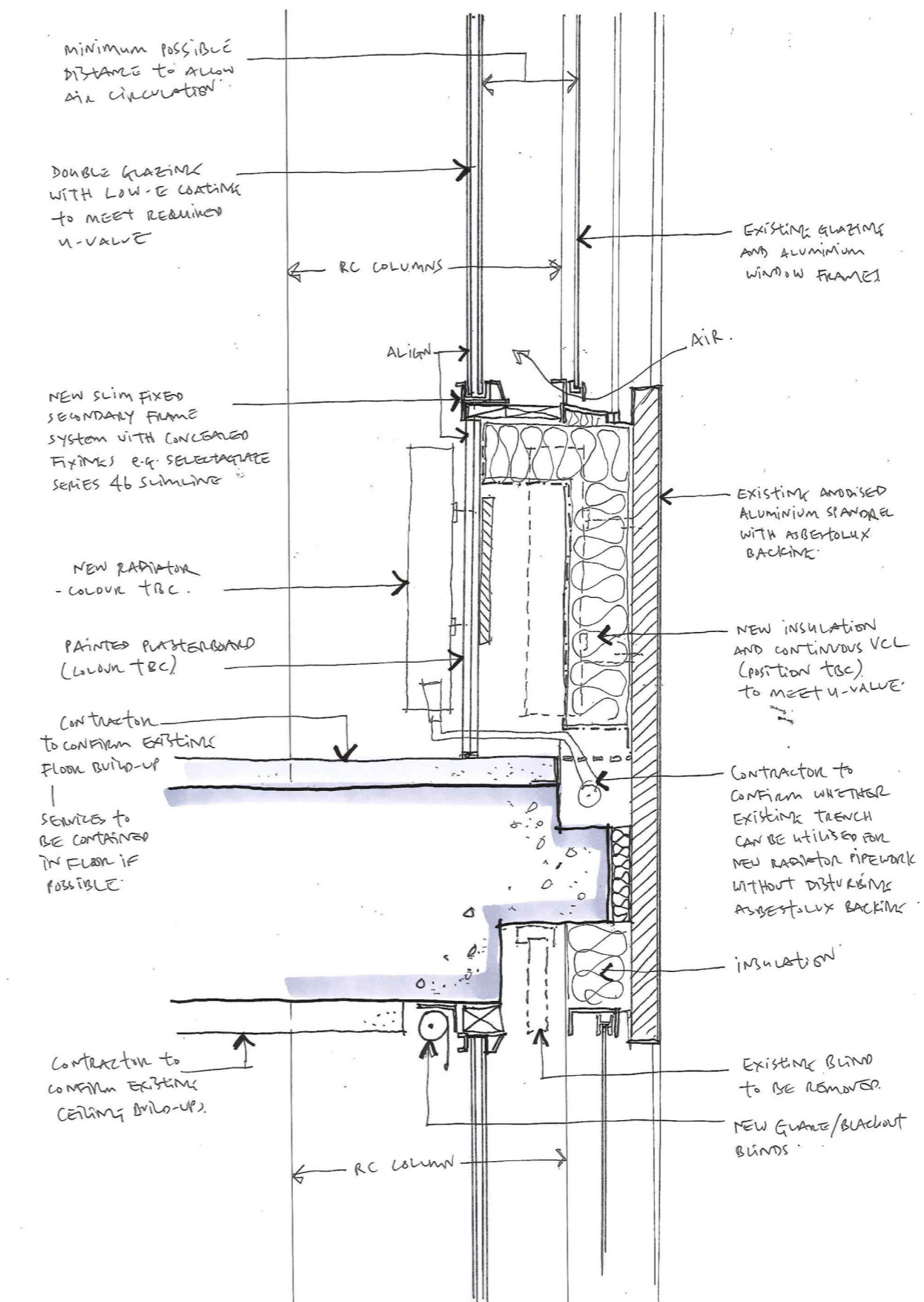
Wired glass rooflights above Stairs Level 3 wing to be replaced



Windows Level 3 wing window to be replaced



Original Lasdun drawing illustrating secondary glazing, blind and radiator details



Indicative sketch proposal of secondary glazing and insulation to existing curtain wall

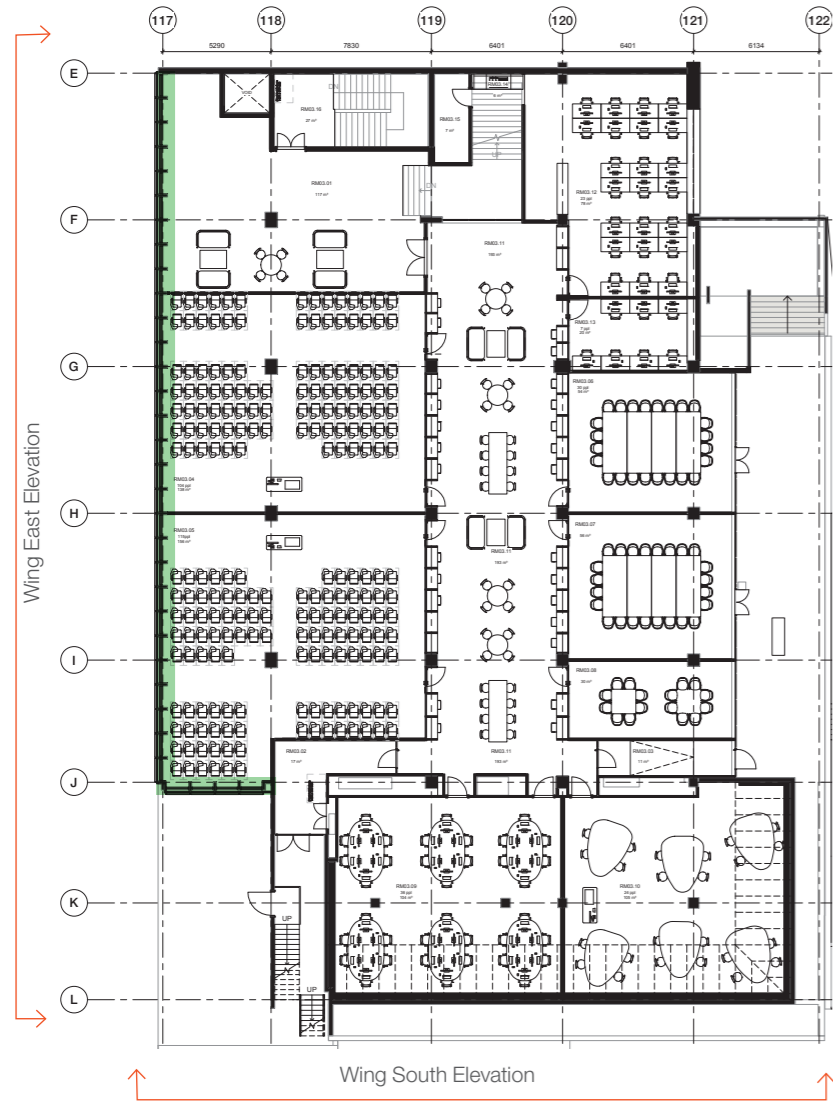
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Scope of Secondary Glazing

There are a number of areas in Phase 1 which have existing secondary glazing. This secondary glazing will be replaced with new, as outlined on the previous page. The diagrams and on these pages illustrate the locations where replacement / new secondary glazing is proposed, summarised as follows:

	Existing	Proposed
	No secondary glazing	Install new secondary glazing
	Secondary glazing (Type 1)	Replace with new secondary glazing
	Secondary glazing (Type 2)	Replace with new secondary glazing



Above: Proposed Level 3 Wing



