BowkerSadler

John Dalton Central – EcoLab

Manchester Metropolitan University

Proposed Rooftop Plant Replacement Project

DESIGN & ACCESS STATEMENT

John Dalton Central – EcoLab

26-034-DA 01 Design and Access Statement
August 2026

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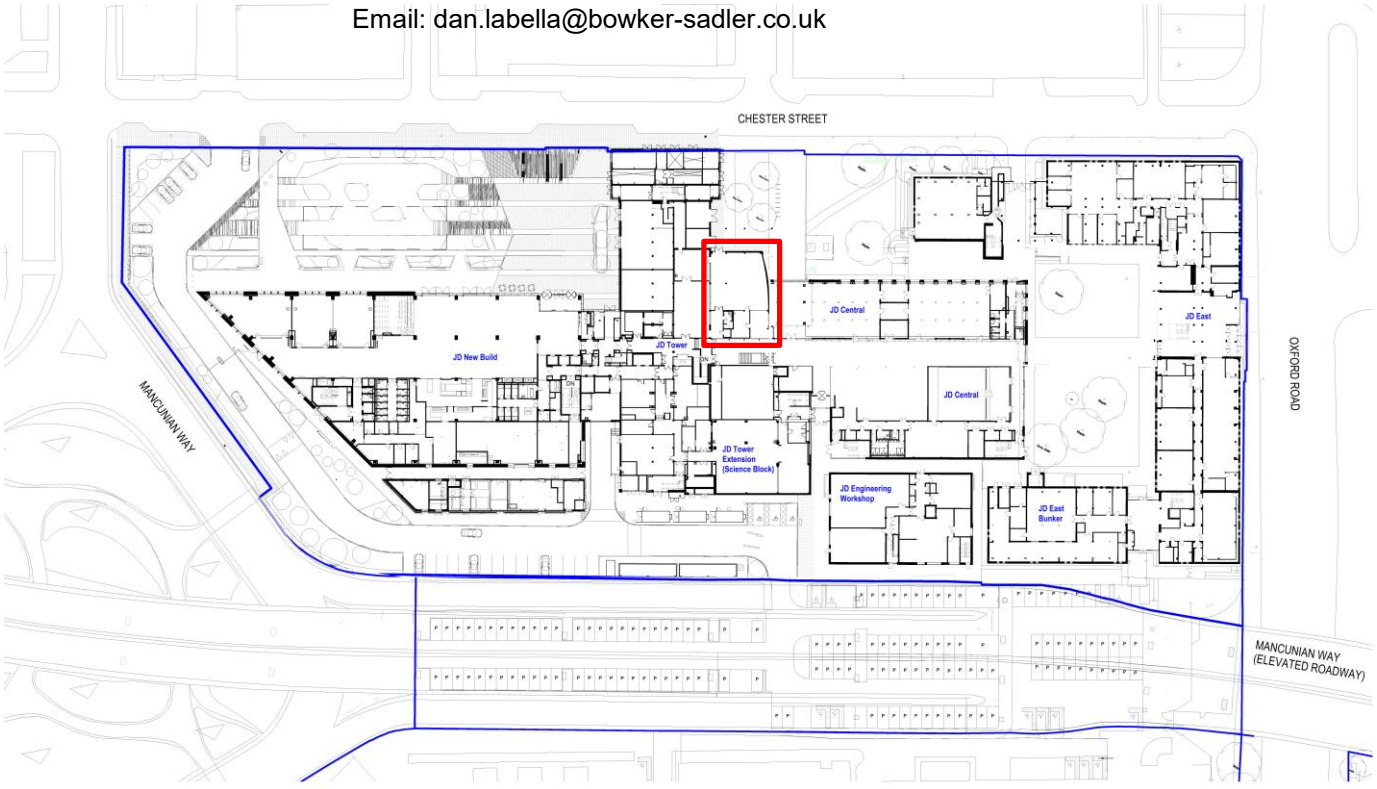
1.0 INTRODUCTION

This statement accompanies and supports the Full Planning Application, submitted on behalf of Manchester Metropolitan University, for the proposed rooftop plant replacement to the roof of the EcoLab at the John Dalton Central Building.

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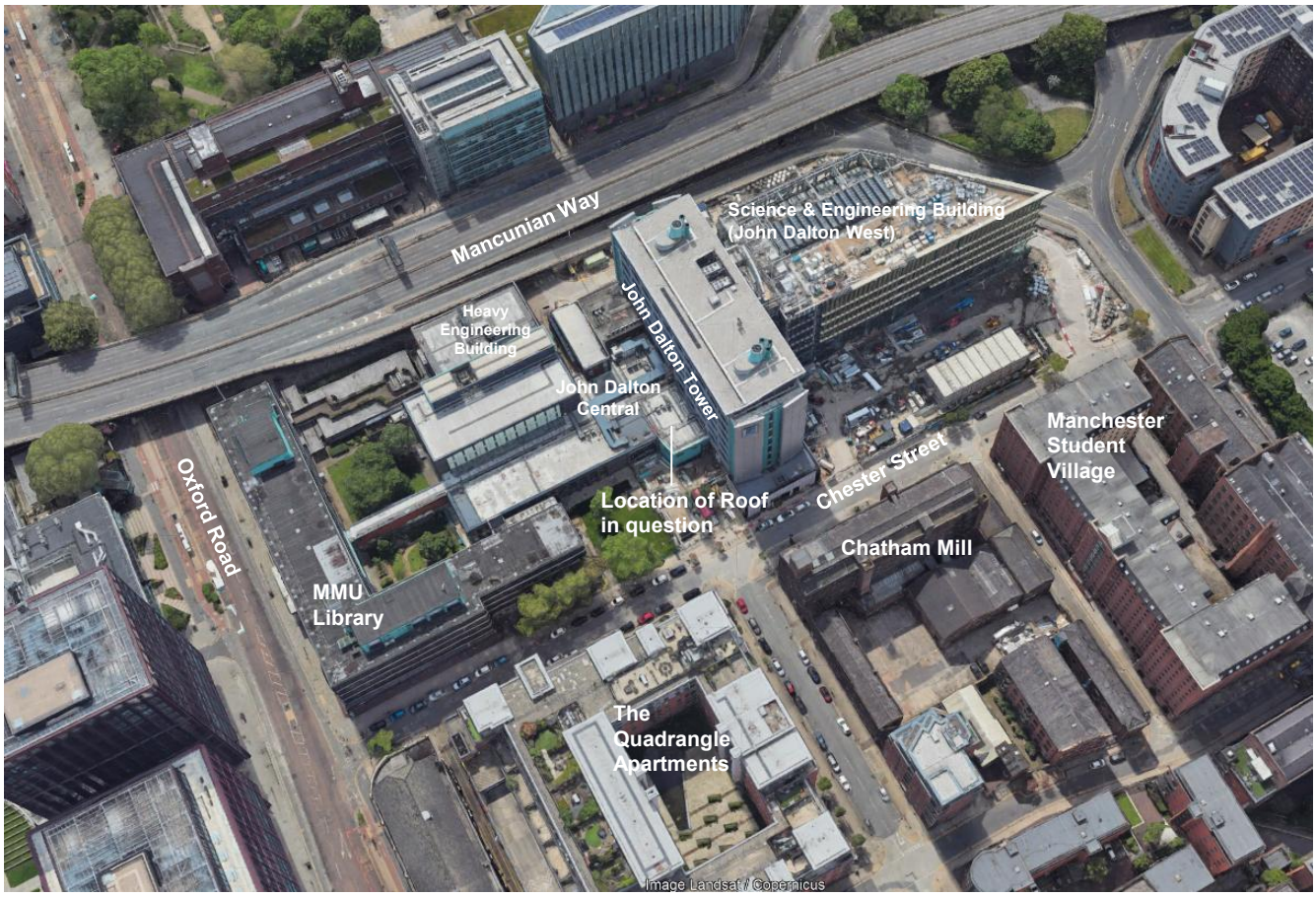


John Dalton Central Site – John Dalton Heavy Engineering Building 'EcoLab' site shown edged red.

1.1 SITE DESCRIPTION

Location.

The John Dalton EcoLab is proposed to be located in an area of the MMU campus that is currently bounded by the John Dalton Tower to the east, John Dalton Central to the west and south and by Chester Street to the north. It can be accessed from Chester Street via the entrance to the newly completed Science & Engineering Building (John Dalton West or 'Dalton Building'.



Topography and existing buildings.

The space earmarked for the new EcoLab is a double-height space characterised by an external skin of patinated copper. It only presents on two elevations – to the north and parallel with Chester Street, and to the east in a gently curving façade that terminates in a relatively new adjacent grey brickwork façade. Its southern and western facades are obscured by existing buildings. It has a flat roof that contains a number of rooflights and existing plant.

Access.

The unit can be accessed by all staff, students and visitors arriving on foot via the main entrance from Chester Street to the Dalton Building and then via an internal corridor running eastwards

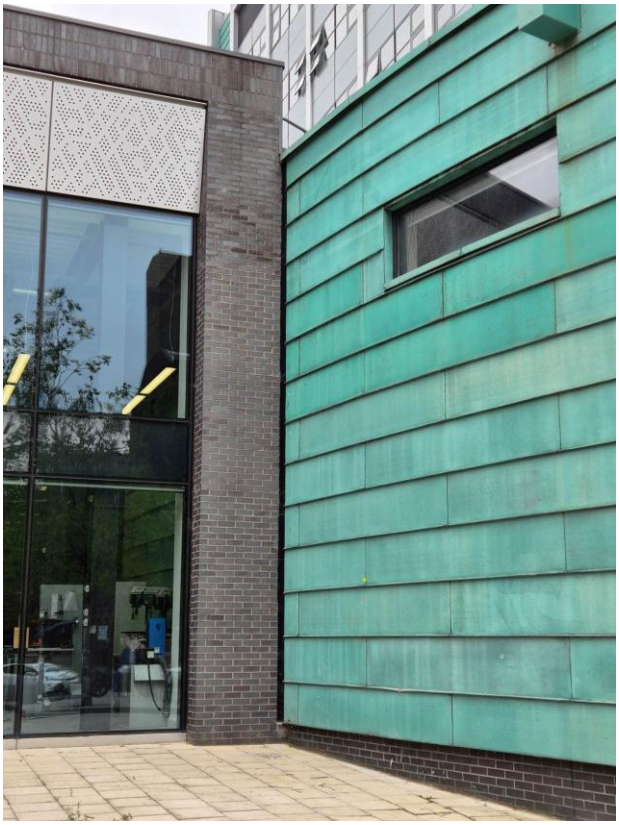
Boundaries.

There are no boundaries to the building itself other than those as defined on the redline plan which does not physically manifest itself on the site.

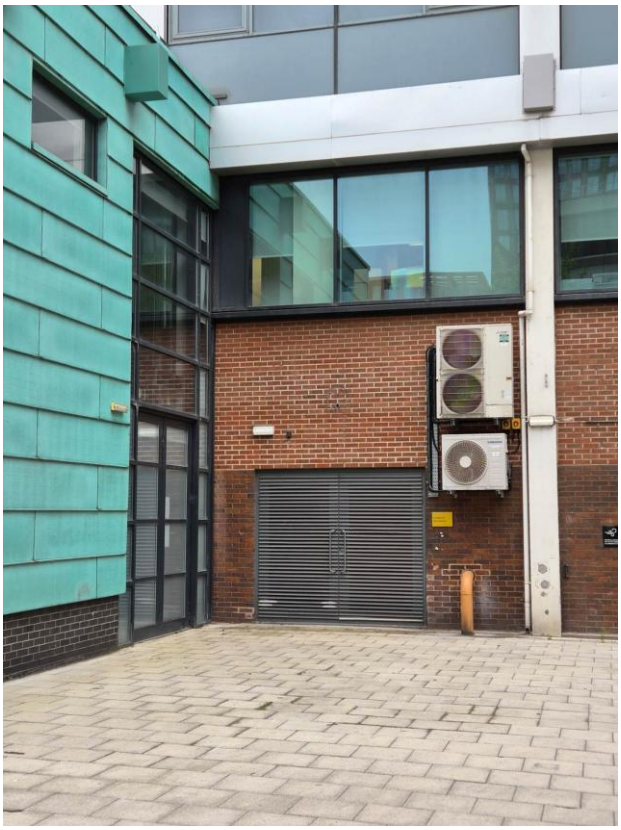
1.2 SITE PHOTOGRAPHS access and surroundings



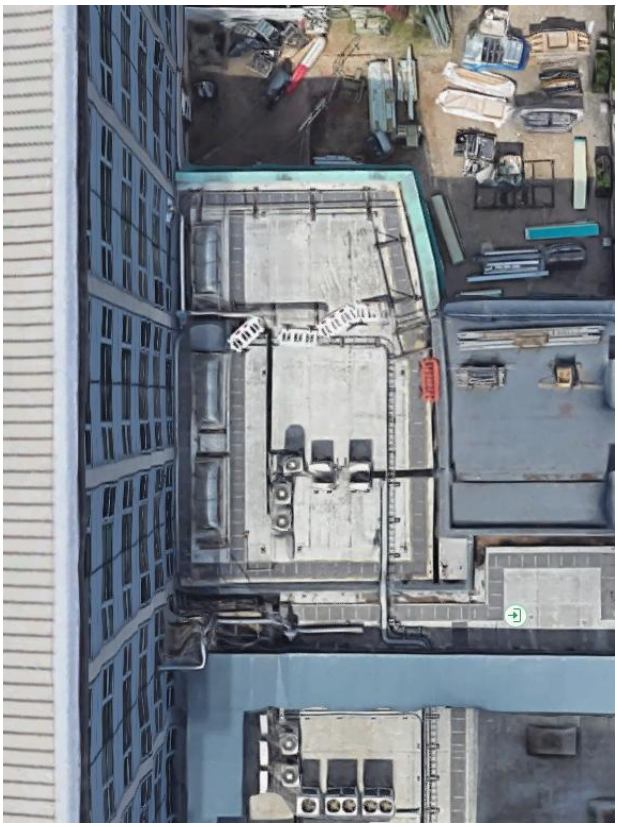
EcoLab external facades in green patinated copper sat adjacent to the John Dalton Tower.



EcoLab eastern facade sat adjacent to the grey brickwork of the engineering block.



EcoLab northern facade sat adjacent to the red brickwork plinth of the John Dalton Tower.



Aerial view looking down on to the roof of the EcoLab showing existing roof mounted services

1.3 PROPOSAL DESCRIPTION

This application seeks approval for the installation of a dedicated roof-mounted packaged air handling unit incorporating heat recovery, ventilation and integral heat pump heating and cooling in order adequatley service the needs of the 'BiG' EcoLab within the John Dalton Building at MMU. This upgraded roof-mounted kit will address the shortfalls of the existing heating and cooling units with the space reportedly becoming too warm during summer and too cold during winter. It will also ensure the clients requirement of maintaining the space at approximately 21 degrees C (+/- 2) throughout the year and allowing additional experimental kit to be incorporated into the room.

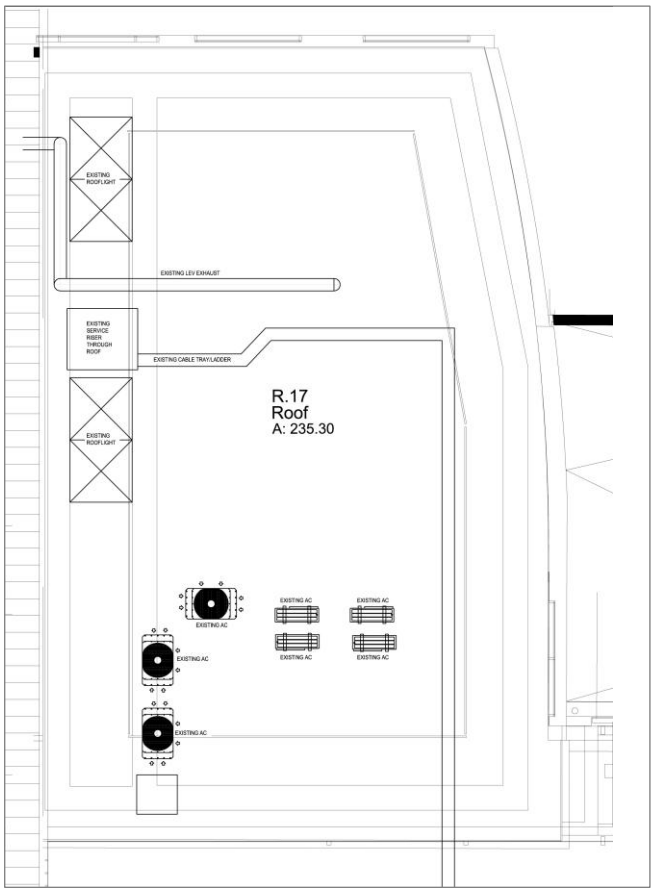


Image Left: Roof plan of the proposed BiG Lab showing the existing plant and ductwork currently housed on the flat roof

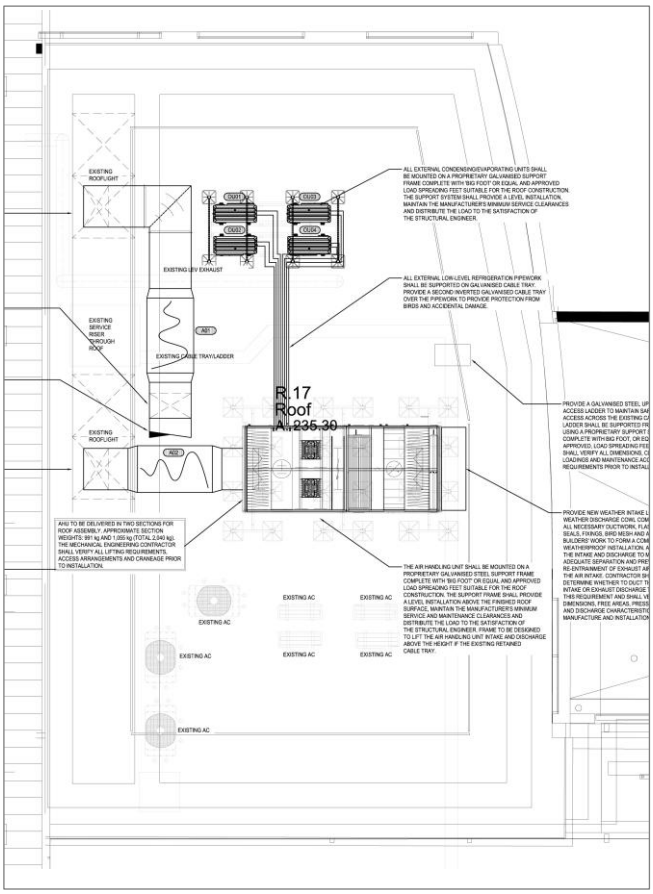


Image Right: Roof plan of the proposed BiG Lab showing the proposed plant and ductwork intended to be housed on the flat roof

2.0 PLANNING POLICIES

2.1 Planning Policy

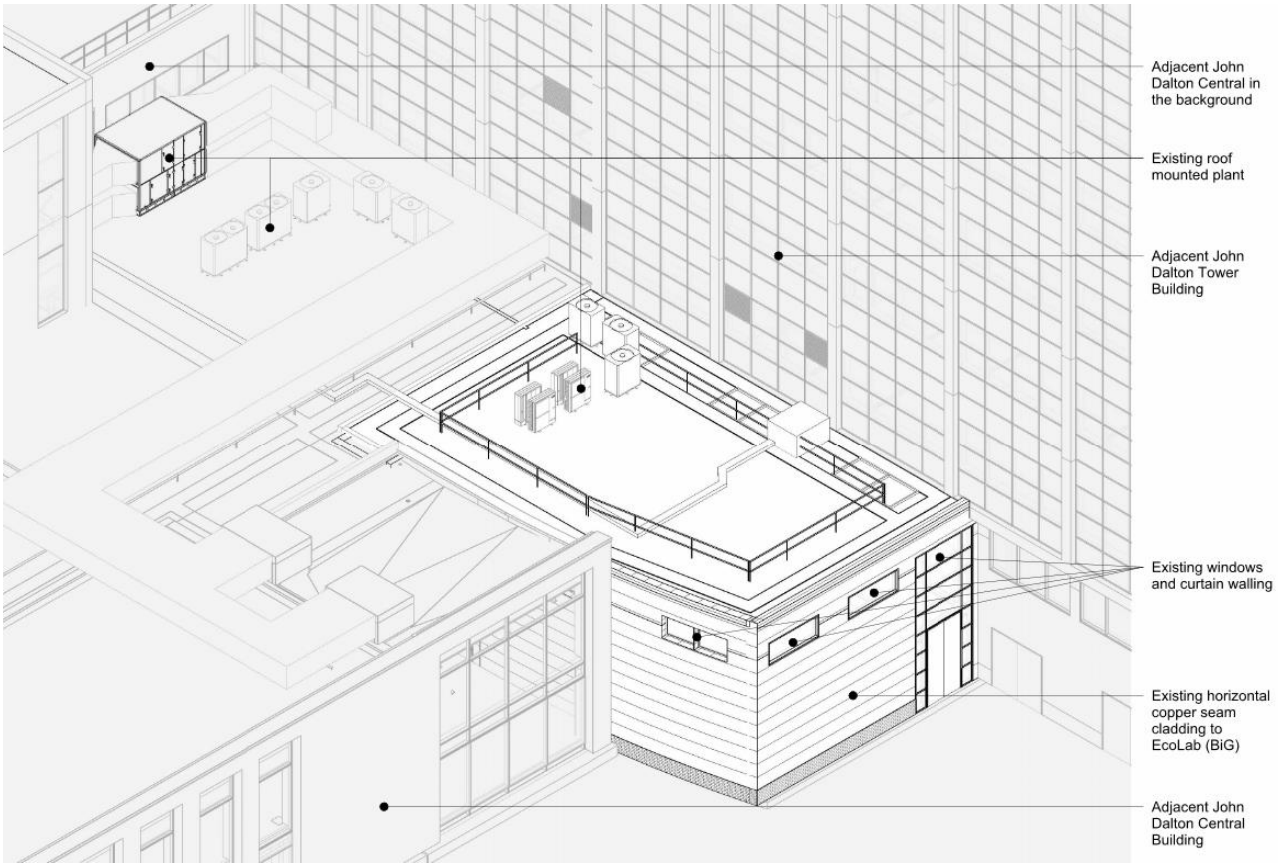
No reference has been ,made to any Planning Policy given the nature of the proposal

2.2 Pre Application Consultations

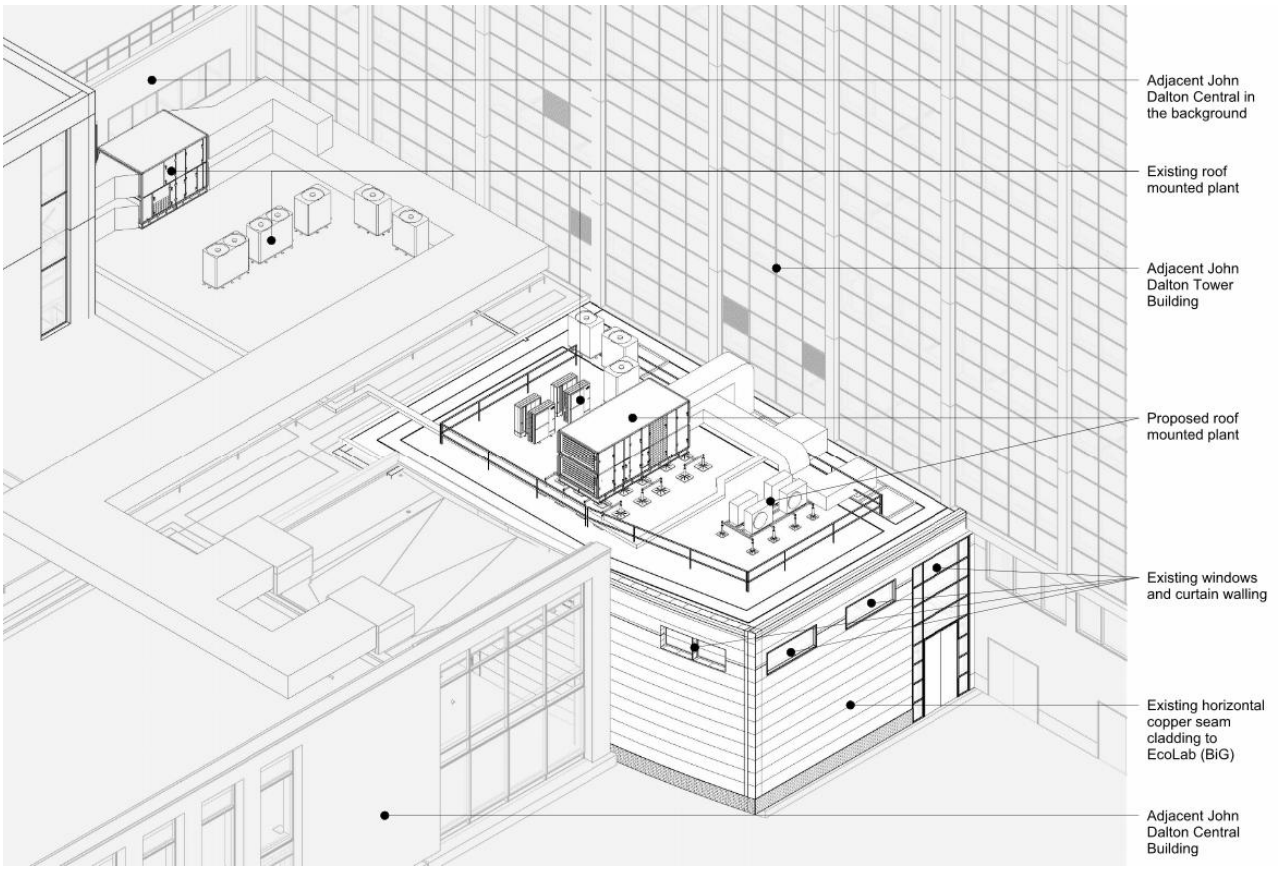
No Pre-Application discussions have been made given the nature of the proposal

2.3 Local consultation

To be arranged as required.



Above: Axonometric view of roof of BiG Lab showing existing roof mounted plant
Below: Axonometric view of roof of BiG Lab showing proposed additional roof mounted plant



3.0 DESIGN CONSIDERATIONS

3.1 Introduction;

The need for the development.
The EcoLab laboratory will occupy an existing double-height space of approximately 202 m² with an overall volume of around 1,400 m³. The area is currently served by a number of floor-standing heating and cooling units; however, we have been advised that these do not perform satisfactorily, with the space reportedly becoming too warm during summer and too cold during winter. The M&E Engineer looked at a number of options to mitigate this:
Option 1 – Replace existing units on a like-for-like basis
Option 2 – Strip out existing units and install new standalone VRF system
Option 3 – New standalone VRF system with dedicated ventilation AHU
Option 4 – New packaged heat pump AHU providing ventilation, heating and cooling

Option 4 was the preferred option. This option would involve the installation of a dedicated roof-mounted packaged air handling unit incorporating heat recovery, ventilation, and integral heat pump heating and cooling. This would provide ventilation, heating and cooling from a single installation, while remaining independent of the existing heating and cooling pipework and associated plant. It would also provide improved air distribution throughout the double-height space and is considered the most robust option for achieving stable year-round environmental conditions.

3.2 Context and Site analysis

The existing site
The space proposed for the new BiG Lab comprises of double-height space which is effectively annexed to the main John Dalton Building and adjacent to the John Dalton Tower. It presents only 2 elevations – one facing north to Chester Street and the other partial elevation facing east. Its facades comprise of patinated copper cladding and there are no proposals to modify the facades. The main focus of the proposed work will be located on the flat roof of the BiG Lab.

3.3 Amount

The proposal, as relevant for this application, is for the insertion of a dedicated roof-mounted packaged air handling unit as noted on the proposed roof plan

3.4 Layout

The proposed kit comprises of 2 main elements. A main air handling unit (Geniox 20) mounted on a galvanised steel support frame and 4 no external condenser units (Mini Air Evo) in a compact group arrangement. Supporting ductwork connects to the main air handling unit and feeds into the BiG Lab via the existing roof lights.

3.5 Scale, appearance & materials

The Geniox 20 main air handling unit is approx. 4.7m long x 2.1m wide x 2.3m high whilst the external condensor units are approx. 1m long x 0.4m wide by 0.86m high each. The main Geniox 20 air handling unit comes in a corrosion resistant casing complete with access doors to provide a clean looking rectilinear box aesthetic.



Left: Image of Geniox 20 Main Air Handling Unit

Right: Image of Mini Evo Air External Condensor Units



3.0 DESIGN CONSIDERATIONS

3.6 Security and access

The proposed design does not affect the security or accessibility measures already in place at the John Dalton Central Building.

3.7 Climate change and sustainability

The chosen option will provide heat recovery, reducing long-term heating energy consumption.

4.0 CONCLUSION

This proposal seeks planning permission to replace existing rooftop mounted plant with new standalone roof-mounted packaged air handling unit and associated ancillary pipework and ducting.. As demonstrated, the design, scale and appearance of the installation is of a quality appropriate to its intended purpose and location, and the design does not have any impact upon the existing building. We have also had a Noise Impact Assessment Report undertaken by a specialist Acoustic Consultant which concludes that impact of the proposal is expected to be low and no additional mitigation is proposed. It is therefore submitted that the proposals accord with local and national planning policies such that planning permission should be granted.

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