

Proposed roof plan, with plant

# 1916.00 1916.00 592.50 90.0° 592.50

Proposed acoustic plant housing

#### PROPOSED LAYOUT

- 1. The single storey structures will remain largely unchanged, except for the addition of three smoke ventilation risers that will pass through the structures and are required to extend slightly higher. The location and extent of these penetrations is illustrated on the accompanying plans and elevations.
- 2. The existing heating and ventilation plant will be completely removed, replaced by a new, more energy efficient and cleaner system. A variable refrigerant flow (VRF) system is proposed with roof mounted condenser units located adjacent to the existing risers that serve the bedrooms below, minimising lengths of refrigerant pipework, and negating the need for a refrigerant leak detection system to be installed (required by the previous proposals).
- 3. New 1,100mm high metal balustrades, in keeping with the existing balustrades elsewhere on the roof, will be fixed to the rear of the low parapet walls.

### ACOUSTIC SCREENING

An environmental noise survey was undertaken to support the previous planning application (23/00538/FULL). This established suitable criteria for noise emissions from the proposed plant to be installed on the main roof of the building, based on the requirements of Westminster City Council.

Noise impact calculations were undertaken, using manufacturer provided noise levels of the plant units, to predict the noise level at nearby noise sensitive receivers.

The results of these calculations determined that compliance with the proposed noise criteria is feasible, provided that mitigation measures are installed.

Acoustic housings are therefore proposed to all of the roof-mounted units, as illustrated in the photograph to the left.



#### USE

The proposals do not have an impact on the use of the wider building, which remains student accommodation.

#### SCALE + MASSING

The proposed works will not impact the floor area of the building. The roof mounted plant with acoustic housings will not extend higher than the existing single storey structures. Smoke ventilation risers will extend marginally higher than these structures (indicated by the annotation 'AOV' on the elevation below.

#### **FIRE STRATEGY**

The proposals do not change the emergency escape strategy for the building. Escape from the roof is provided via the main access stair to the east, and a secondary escape hatch and ladder to the west. This is illustrated on the plan on the facing page.

#### **EXISTING APPEARANCE**

The existing roof comprises a number of white painted single storey structures.

Between these, extends an array of tired and dated galvanised ductwork and pop ups, with stepped gantries where required to provide crossing points over the equipment.

A simple black painted metal balustrade provides edge protection to the rear elevations of the building. A low level brick parapet extends up from the front facades.

#### PROPOSED APPEARANCE

The single storey structures will remain largely unchanged, with the exception of smoke ventilation risers extending slightly above the flat roofs in three locations (identified on the accompanying proposed plans and elevations).

Existing plant equipment and access gantries will be removed, and new equipment will be located locally to service risers, minimising lengths of refrigerant pipework. Plant equipment will be housed in high-quality powder coated metal acoustic housings. Exposing more of the roof, this simplified plant layout will appear cleaner and improve access for maintenance.

New black metal balustrades, 1,100mm high and to match the existing balustrades in appearance, are proposed to be fixed to the rear of the low level parapet walls.



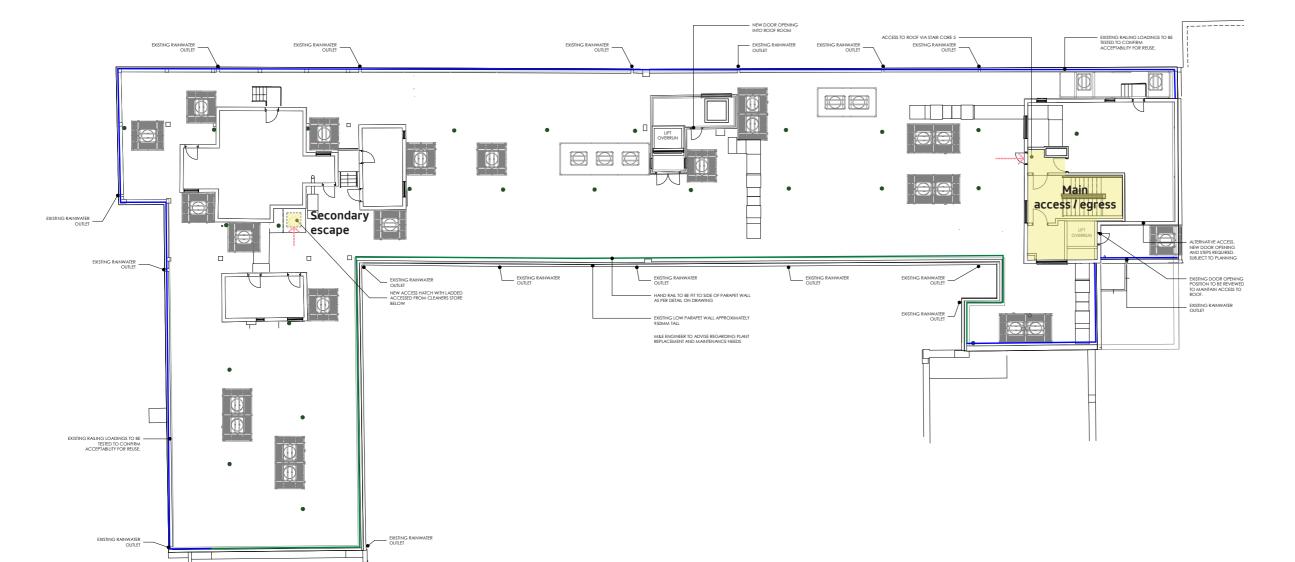
Proposed north west elevation

## 04 ACCESS + MAINTENANCE

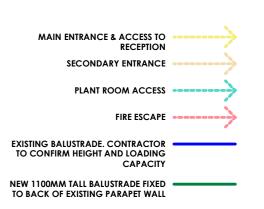
Access and egress from the roof is via a stair to the east, which discharges at ground floor onto Conduit Place to the north of the building. A secondary emergency escape is provided via a hatch and cat ladder located to the west. The cat ladder drops into a protected area on the top floor (level 06) of the building. Both the stair and the access hatch are highlighted in yellow on the plan below.

Existing metal balustrades are provided to the perimeter of most of the roof (highlighted by the blue line on the below plan). Existing parapet walls to the remaining elevations are too low to provide adequate edge protection. In these instances, new 1,100mm high metal balustrades will be fixed to the rear of the parapet walls, ensuring safe access to the whole of the roof.

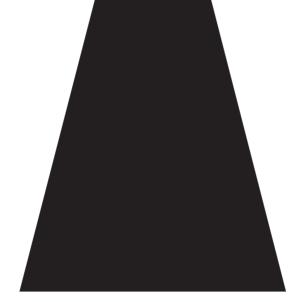
Access to the roof will be restricted, and only for the purpose of maintenance of the building fabric, rainwater goods and plant equipment.

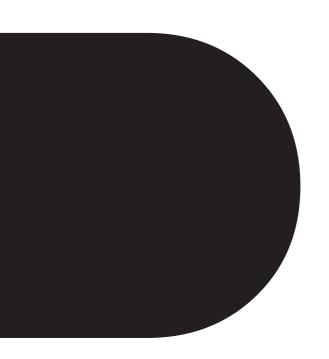


Access and Maintenance Strategy: Roof Level



## FAULKNERBROWNS ARCHITECTS





FaulknerBrowns LLP Dobson House Northumbrian Way Killingworth Newcastle upon Tyne NE12 6QW

+44 (0)191 268 3007

info@faulknerbrowns.com
faulknerbrowns.com

