

Design and Access Statement

ICU Rooftop Plantroom Works & Fire Escape Stair

Installation of new enclosed escape stairs on the external of the
ICU - planning application 231087

Royal Berkshire Hospital

Reading



31st June 2023

GBS Health+ Job Number: 7069

Revision – A 04/11/24

Introduction

The following Design and Access Statement has been prepared and researched by GBS Health+ on behalf of Royal Berkshire Hospital NHS Foundation Trust (RBH).

The Trust are in the process of upgrading the air handling system within the Intensive Care Unit (ICU) located within the South Block Building level 3. Upgrading the system to modern standards has proved a problem however as the current air handling system is within an enclosed plant room on the roof of level 3 and a modern system is a larger than the existing installed system.

The Trust is looked to modify this plant room however as section of the plant room is dedicated to other services, not all the plant room can be demolished. Instead, a section of the plant room will be demolished, and a new open-air compound put in place for the new air handling equipment.

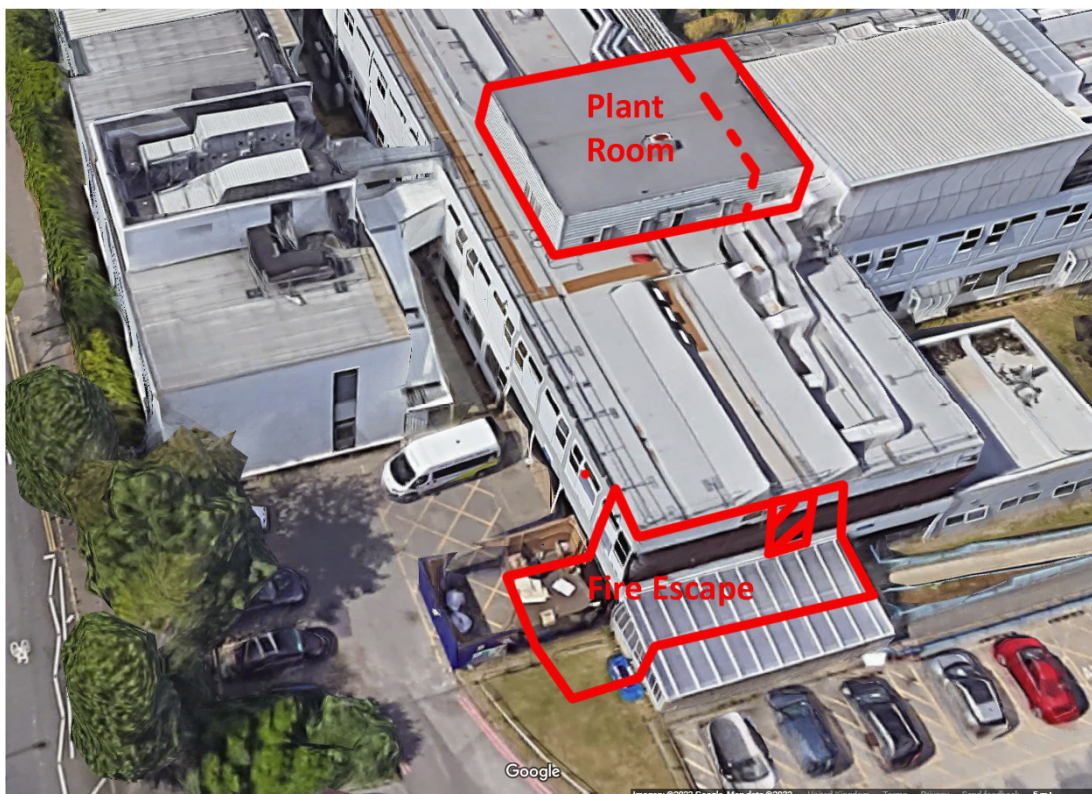
The second part of the application is the installation of a new enclosed escape stair on the external of the ICU. Due to limitations on the internal layout of the ICU, there is need for a secondary means of escape at the end of the building. Site limitations restrict the size of the fire escape and where the escape stair can land, however the Trust are looking at enclosed stairs to avoid rain and weather slip hazards. As a roof access stair is also required, the Trust is looking to achieve both using one enclosed stair, similar to the fire escape stair that links South Block with Redlands building (see image on drawings).

The above proposal was approved on the 11th of Dec 2023 under application number 231087. The AHU works were removed and granted under a separate application 231086. This statement is to assist with the application to alter the existing approval to increase the size of the enclosure for the incorporation of a bed evacuation lift as part of the ICU works.

Existing

The site is located on the roof of South Block, part of Royal Berkshire Hospital, Reading, RG1 5AN. South Block is an Oxford Method building, steel frame with cladding panel infill panels that support a simple glazing system.

The existing roof top side is a plant room on level 4 of South Block. The plant room houses the existing air handling equipment along with other services. The plant room is fully enclosed and clad with horizontal metal cladding and a single ply roofing membrane. The escape stair is to be located on the south elevation of South Block.

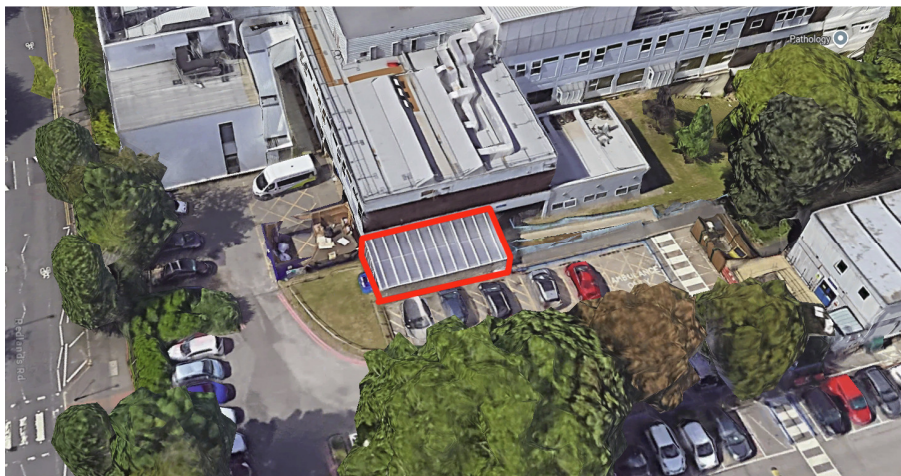


Initial Proposal

The enclosed escape stair would provide a weather protected means of escape from the ICU and safe maintenance access to the roof. There is an existing enclosed fire escape between South Block and the Redlands Building next door, however this escape route does not meet building control travel distances, hence why this exit is required.

2024 Further alterations

During the works, the Trust fire officer highlighted several vulnerabilities of the ICU ward as it currently exists. This included the escape provisions for staff and patients. The existing ICU was serviced by a single fire escape stairwell or the alternative path across the bridge to the Redlands building, however due to the condition of the patients, the stair well would be impractical as the patients would need to be removed from the beds and evacuated down the stairs. With a series of changes to the internal arrangement, some practical measures have been put in place to slow the progression of fire through the ICU, however the shape of the building means that the beds in Pod 2 and the adjacent single rooms, can be cut off from the rest of the ICU if the fire breaks out at a certain pinch point.



The Trust fire officer advised addressing this with the installation of a bed evacuation lift within the scheme, however, this could not be located within the ICU as the ward cantilevers over the South Block level 2 entrance. As an enclosed external escape stair was already granted during this application, the Trust is seeking to widen the size of the enclosure to allow the incorporation of a fire evacuation lift. This would require the removal of the current staff bike storage unit located below the ICU (shown in red) and the bike storage relocated underneath the covered entrance area. The area shown in the picture above would be expanded with 2-storey bike racks that would greatly expand the bike storage to replace the bike storage lost.

Access

The roof is already accessible via other access points across South Block's large roof, however the Trust are looking to put in a safe and practical access at this end of the building. This is being incorporated into the fire escape enclosure that will house the escape stair and the new lift. The maintenance stair will be gated and locked off from any unauthorised access.

The ICU would be serviced by the fire escape stair and the patient evacuation lift. A door at the base of the enclosure would provide security from unlawful access and panic ironmongery would all escape in case of fire and ensure that this is a means of escape only.

Flood Risk Assessment

The site is deemed very low risk, an area with a low probability of flooding and not near a water course. Therefore, a flood risk assessment is not applicable

Noise Impact Statement

An acoustic assessment was provided as part of the original application.

Daylight or Sunlight Assessment

We do not feel a daylight or sunlight assessment is necessary as the proposal is for maintenance equipment and set back from the hospital boundary, therefore there is no effect on the daylight or sunlight to nearby properties.

Trees

There are no trees in either of the effected areas.

Conclusion

The expansion of the external escape enclosure to house a bed lift would greatly improve the fire escape of the ICU. Bed-bound patients can be removed from the building and then transferred from the external paved area via ambulance to alternate provisions rather than relying on the protection of the fire compartments and the response time of the fire department. This alteration to the approved planning is based on fire safety grounds and we hope that the Local Authority agrees with the decisions made during the course of the works and their views align with the Trust that patient safety takes the highest priority on the Royal Berkshire Hospital site.