

**Pearl Assurance House, Princess Street, Manchester**

**Application Reference CDN/19/0963**

**Supporting Statement for Increased Demolition Extents**

**Introduction:**

This statement has been written in support of proposed changes to the redevelopment proposals for Pearl Assurance House.

Specifically it has been produced to explain why the demolition extents now proposed have increased from those envisaged when the original planning application was submitted.

This statement is to be read in conjunction with ROC sketch reference 3874-SK27 sheets 1 to 4 that accompany this report and illustrate the difference in demolition extents between the current proposals and the previous scheme.

It should be noted that changes to the proposed demolition extents do not affect the existing Portland stone façade to Princess Street and Clarence Street or alter the proposed external appearance of the finished building in any way.

In summary, by increasing the demolition extents the construction process is greatly simplified making the whole scheme much more buildable and removing risk from the project.

**Original Intent:**

The original intent for the redevelopment was to retain and reuse as much of the original building fabric as possible.

Externally the demolition extents comprised removal of the single-storey and two-storey sections of the existing building at the rear and removal of the existing masonry façade where the new rear extension was to be added.

Internally however significant areas of demolition were required associated with the following:

- Remodelling of the existing fire escape stair, increasing the stair width to meet modern building regulations requirements
- Installation of a new fire fighting and goods lift adjacent the remodelled fire escape stair
- Removal of the existing main staircase and infilling the current opening with new floor construction
- Creation of a new opening through all the upper floors for a new main staircase
- Additional areas of demolition around the proposed new passenger lifts to allow construction of the new lift shaft walls
- Additional areas of ground floor slab to be broken out to allow access into the basement for construction plant

The extents of demolition as originally proposed are illustrated on sheets 3 and 4 of the accompanying sketch 3874-SK27.

**Revised Intent:**

The revised intent for the redevelopment is to demolish the full structural bay at the rear of the building, in addition to the single-storey and two-storey sections, retaining the bay to the front (facing Princess Street) and to the side (facing Clarence Street)

This revised extent is illustrated on sheets 1 and 2 of the accompanying sketch 3874-SK27.

## Benefits of the Revised Proposals:

Whilst obviously there is an increased scope of new construction work associated with the increased demolition extents, by having a single straight cut line between the retained part of the existing building and the new extension to the rear the demolition and construction process is greatly simplified.

Specifically the revised scheme presents the following benefits:

### 1. New main staircase

Previously to form the new main staircase it would have been necessary to install new trimming steel inside the existing building prior to breaking out the existing slab. The new stair would then have to have been built within the constraints of the existing building. With the revised proposals the new staircase be simply installed as part of the main steel frame erection.

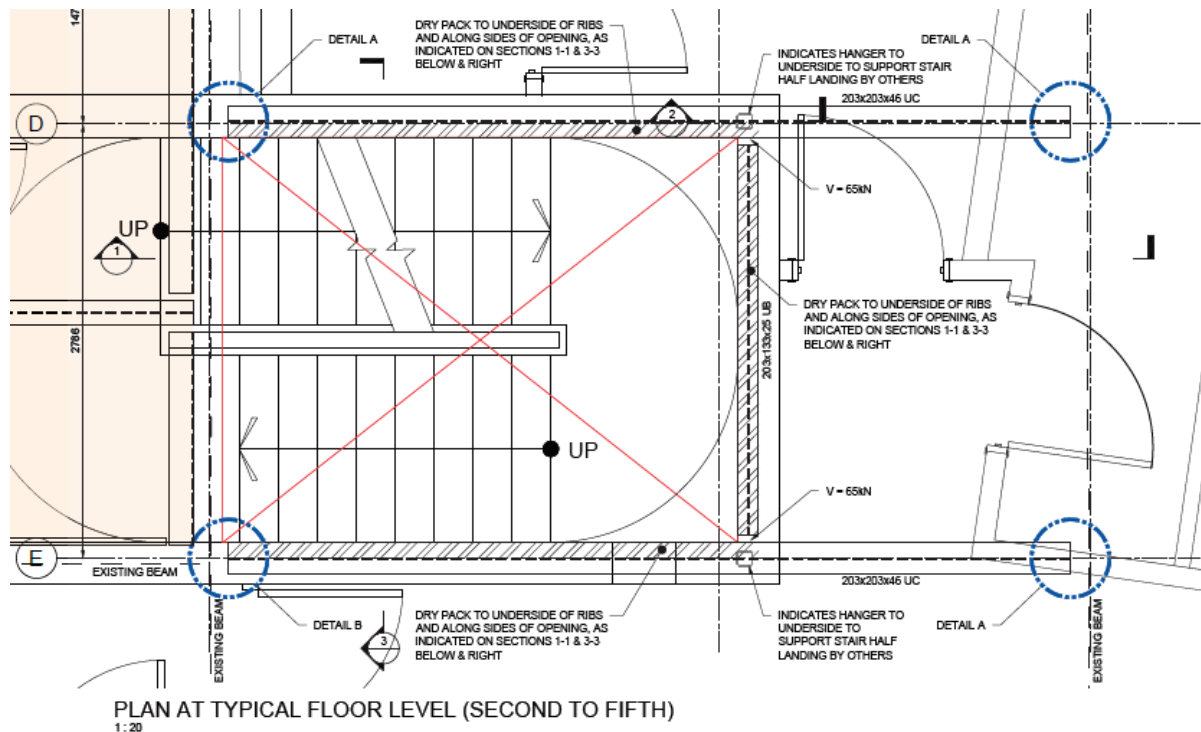


Fig. 1 Plan on trimming steel to new main stair required with previous demolition extents

## 2. Infill of existing main staircase

Where the existing main staircase was being removed new floor structure was needed to infill the void created. Like with the trimming steel to the new stair opening this all would have to be constructed within the constraints of the existing retained building. With the revised proposals this area of floor just becomes part of the construction for the new build extension to the rear.

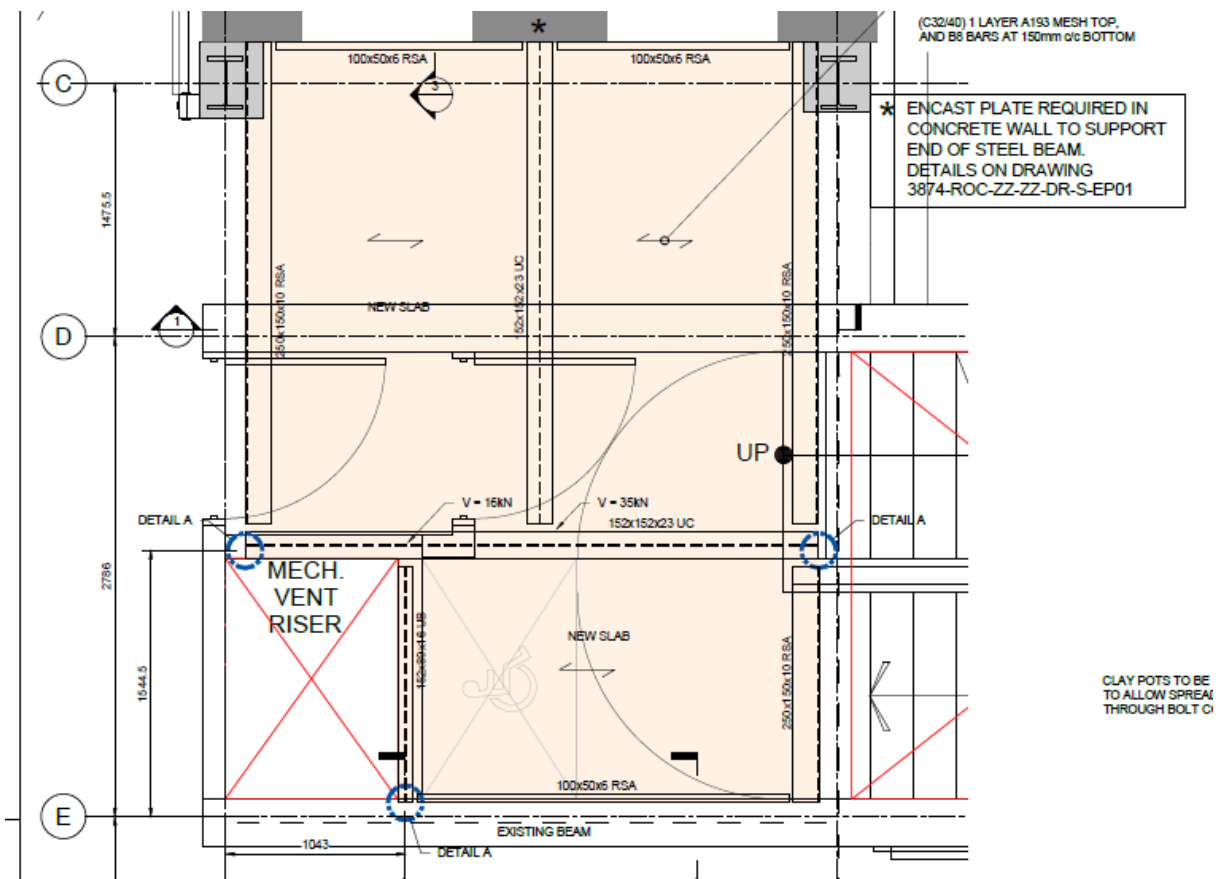


Fig. 2 Plan on trimming steel to new main stair required with previous demolition extents



#### 4. Interface between new and existing structures

Numerous interfaces between the new and existing structures were required with the previous demolition extents. Not only is a structural connection required where the new extension links to the retained part of the existing building, but connections would be needed between all the areas of new infill slab constructed internally around the new fire escape stair core and in the void created by the demolition of the existing main staircase (items 2 and 3 above).

With revised demolition extents, these secondary interfaces are eliminated and the only connection required is where the new structure joins the existing.

#### 5. Reduced temporary works required

Demolition of the existing escape stair, and the area of floor slab around it, whilst retaining the existing façade required temporary works to retain that façade. The installation of these temporary works and their removal complicates the construction process as the temporary props must be installed and removed progressively with the demolition/construction work. Demolishing the walls around this area removes the temporary works requirement in its entirety.

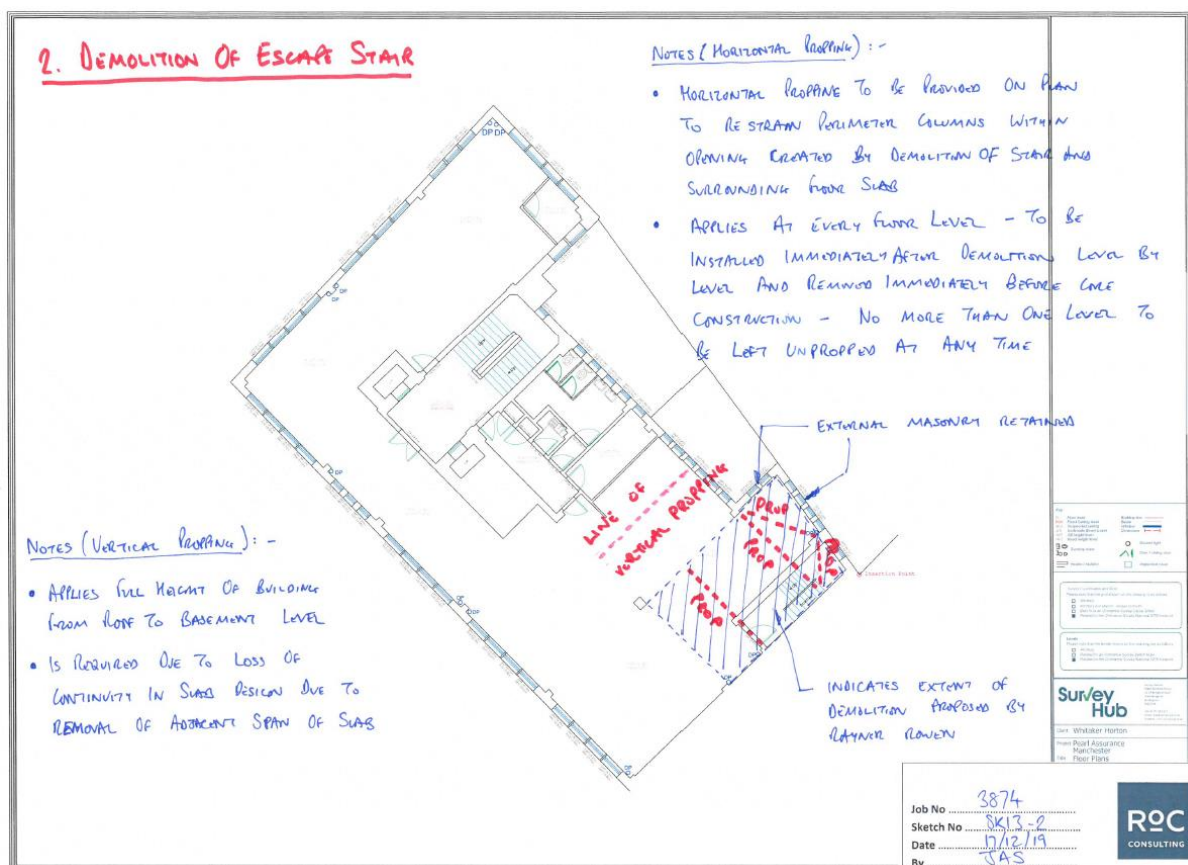


Fig. 4 Plan on temporary works around fire escape stair required with previous demolition extents

## 6. Improvements to demolition & construction health and safety

As well as simplifying the demolition/construction works as noted above, it is considered that the revised extents of demolition will allow different construction techniques and processes to be used by the contractor in the execution of the works that are inherently safer.

Specifically it allows for greater use of mechanical plant and equipment, reducing the requirements for manual work, and it reduces the extents of demolition, steelwork erection and slab construction within the restricted constraints of an existing building.

## Conclusion

To conclude the construction process is greatly simplified by increasing the demolition extents, the requirements for temporary works are reduced and the interfaces between the new and existing structures are reduced and simplified. Overall the changes make the scheme much more buildable and remove risk from the project.

It is also worth noting that the additional extent of demolition isn't actually that great when all the internal demolition works required by the previous approach are considered, as a simple comparison of the two proposals shows.

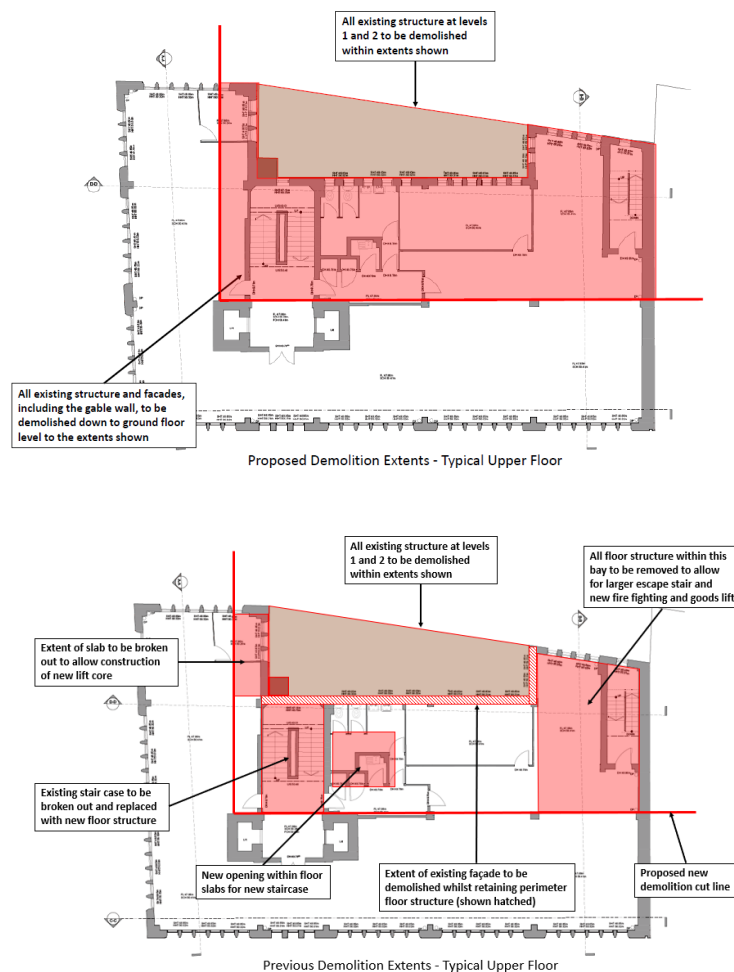


Fig. 4 Comparison of proposed demolition extents, new and previous