

Manchester Crown Courts: Chiller Replacement Project



Design Statement

2305-NAR-ZZ-XX-RP-A-10001

08/02/2024

1 Introduction

Manchester Crown Court building was designed by Manchester City chief architect Leonard Cecil Howitt and completed in 1962 in the modernist style however it was extended to the north in 1986 in the brutalist style.

It is located in the Spinningfields area of Manchester City Centre and was built to replace the Assize courts which were damaged during the war.

The new building replaced workshops and factories that had also been badly damaged.

The main rear façade treatment where the compound is located is of honed Portland stone panels with “punched” windows and a series of stone columns with full height glazed panels with look-a-like panels.

Extended walls above roof level serve as stairwell enclosures and screening for existing plant and machinery.

2 Scope of Works

The existing 4 no. chiller units located on the roof behind the extended screen walls are to be replaced by 3 no. new chiller units in the same compound.

As part of the works there is to be a new rooftop single storey weatherproof housing for the ancillary equipment namely electrical and building management systems.

The chillers have been designed to fit in the existing compound so as to remain hidden.

The plant room housing has been designed to be as hidden as possible within the same compound however it has had to encroach slightly beyond and is the same height as the adjacent single storey plant room.

Due to the height of the building and the existing massing of the surrounding buildings the rooftop is not visible from street level.

There are no changes to the main facades or internally.

2.1 Materials:

The materials used on the roofing elements are as follows:

- Existing:
 - Walls : These are a mixture of honed Portland stone panels or lead standing seam sheet.

The existing chiller compound was also enclosed to the rear by a full height louvered wall which is to be replaced
 - Roof: Mixture of concrete with an applied membrane or a continuation of the lead standing seam wall sheets to plant rooms.

The main roof is an inverted roof with stone ballast on insulation on a concrete slab and paving slabs to walkways

- Proposed:
 - Walls: The new plant room housing will be constructed in vertical profiled metal insulated panels in colour to replicate the lead standing seam system used elsewhere, Adventura RAL 7000
There will also be a new open grid security fence to the rear of the compound which replaces the old louvered walls in green
 - Roof: The roof of the plant room housing will also be in profiled metal insulated roof panels in colour to replicate the lead standing seam system used elsewhere, Adventura RAL 7000
New raised metal grated access floor is to be installed to the chillers approximately 400mm off finished roof level

2.2 Drainage:

There are no foul drainage requirements.

The surface water from the plant room roof will discharge onto the existing roof following the existing roof drainage system which is via existing roof gullies.

The plant room itself will have a blockwork bund wall to protect from any surface water discharge.

There are no drainage requirements from any of the plant or machinery

2.3 Noise Assessment

The building is not located within a residential area with the majority of surrounding buildings being either offices or retail/hospitality.

The number of chillers have been reduced and as these are more modern versions they have a soft ramp feature for the compressors to avoid sudden noise levels.

A full noise assessment has been carried out and is attached to the planning application

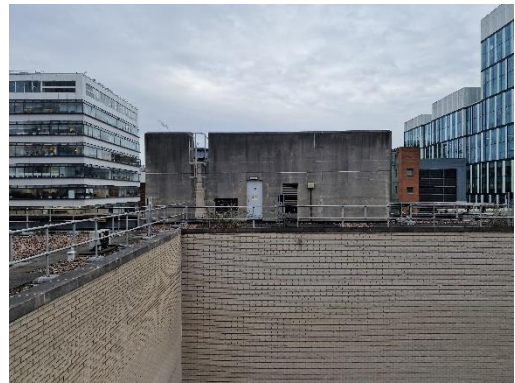
3 Access

The works are confined to the roof and do not affect existing access either pedestrian or vehicular

4 Existing Photos



Ph.01 View looking North



Ph.2 View looking East



Ph.3 View looking South



Ph.4 View Looking West



Existing chiller
screen walls

Ph.5 View looking at West Elevation