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Consulting Structural & Civil Engineers

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STRUCTURAL INSPECTION REPORT 2021

Blackpool Victoria Hospital, Laundry and Phase 4,
RAAC units

Abstract

This document serves as a record of condition for the Reinforced Autoclaved Aerated Concrete (RAAC) roof units in the buildings above

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BACKGROUND

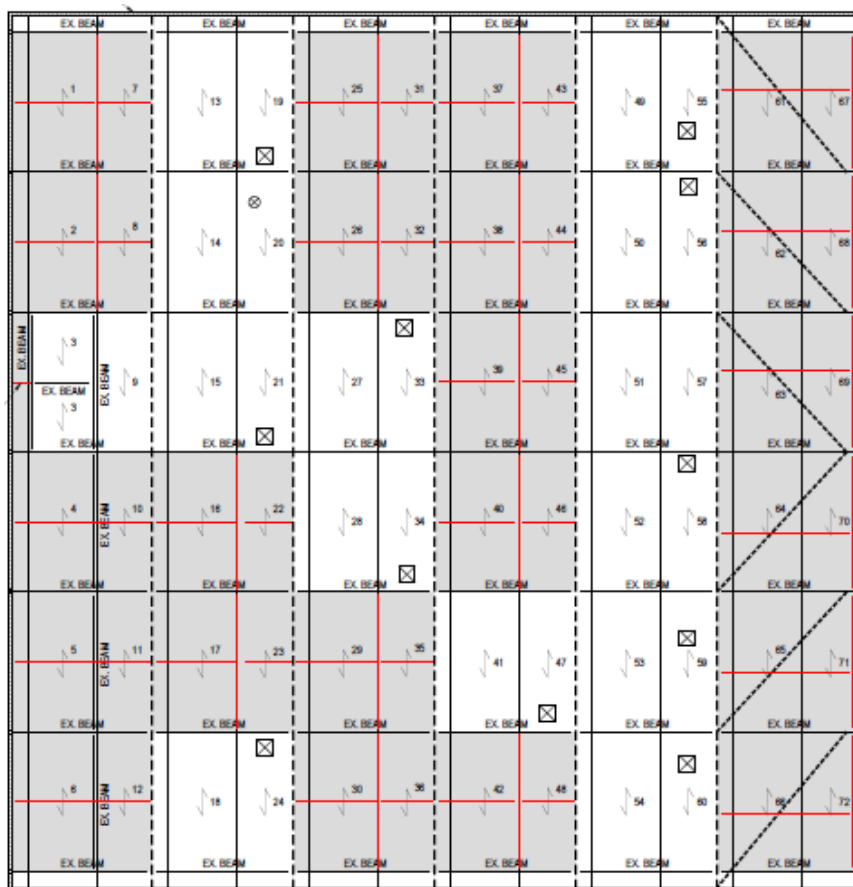
The Alan Johnston Partnership LLP were initially commissioned to inspect the RAAC units within the roof of both the laundry block (block 08) and block 44 (phase 4), inspections were completed in December 2019. A number of panels were found to have sagged unacceptably in block 8, and a series of re-supporting works were undertaken and completed during 2020. The reader should refer to the following AJP documentation:

- Structural inspection report Rev 03 (dated 10.03.2020)
- 219-380-S-001 RAAC support works drawings, Rev 04 (dated 20.11.2020)
- 219-380-S-002 Phase 4 roof panel arrangement, Reb P1 (dated 10.03.2020)

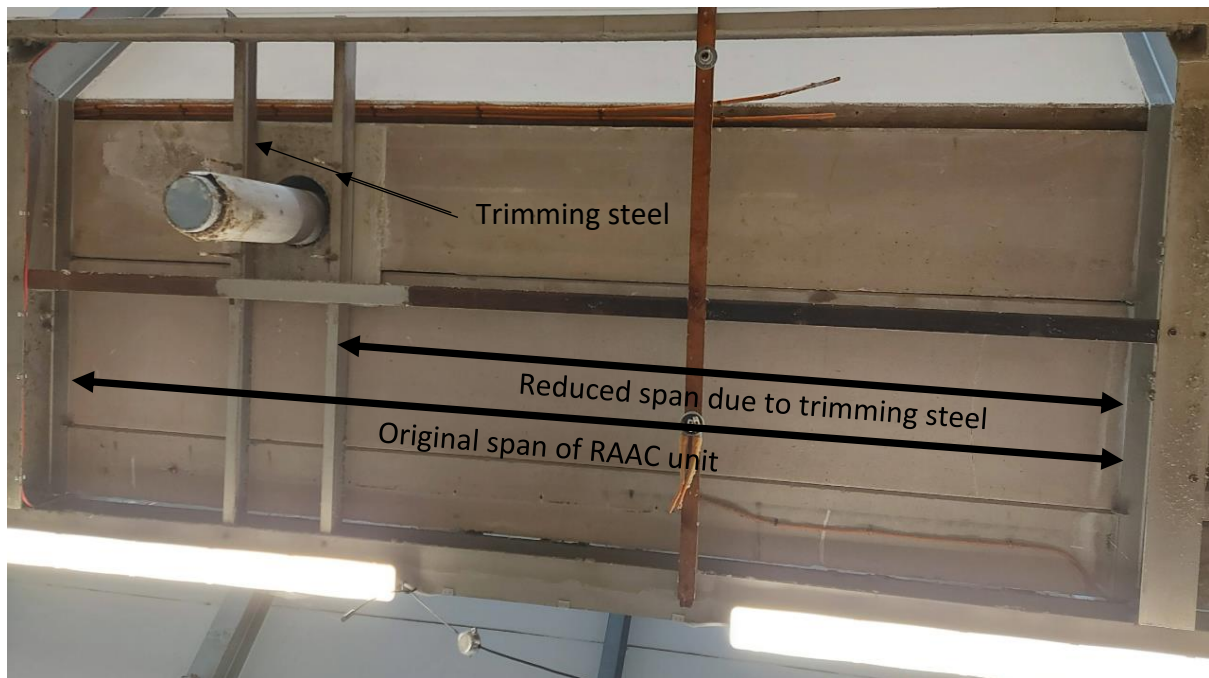
To monitor any further deterioration of the panels, it was agreed that structural inspections would be undertaken on an annual basis. This report is a record of the first annual inspection.

STRUCTURAL INSPECTION – BLOCK 08 (laundry)

The new steelwork specified on AJP drawing S-001 has been installed correctly as per the coloured illustrated below. No further deterioration of the RAAC units has occurred since the initial inspection. Due to trimmed openings cored into various units, it was not possible to install steelwork in every bay as the existing steel caused various obstructions. Initial inspections concluded that the existing trimming steel was effectively reducing the span of the RAAC units therefore deeming them acceptable without intervention. Refer to the photograph overleaf for clarity



PLAN ON LAUNDRY ROOF HIGHLIGHTING NEWLY INSTALLED STEELWORK



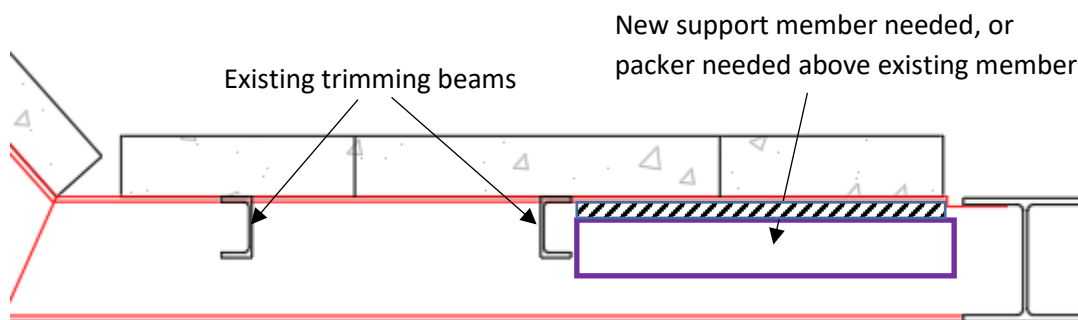
EFFECT OF EXISTING TRIMMING STEEL ON UNITS

As part of the recent inspection, several units were identified as being not fully supported by this trimming steelwork as illustrated by the photograph below:

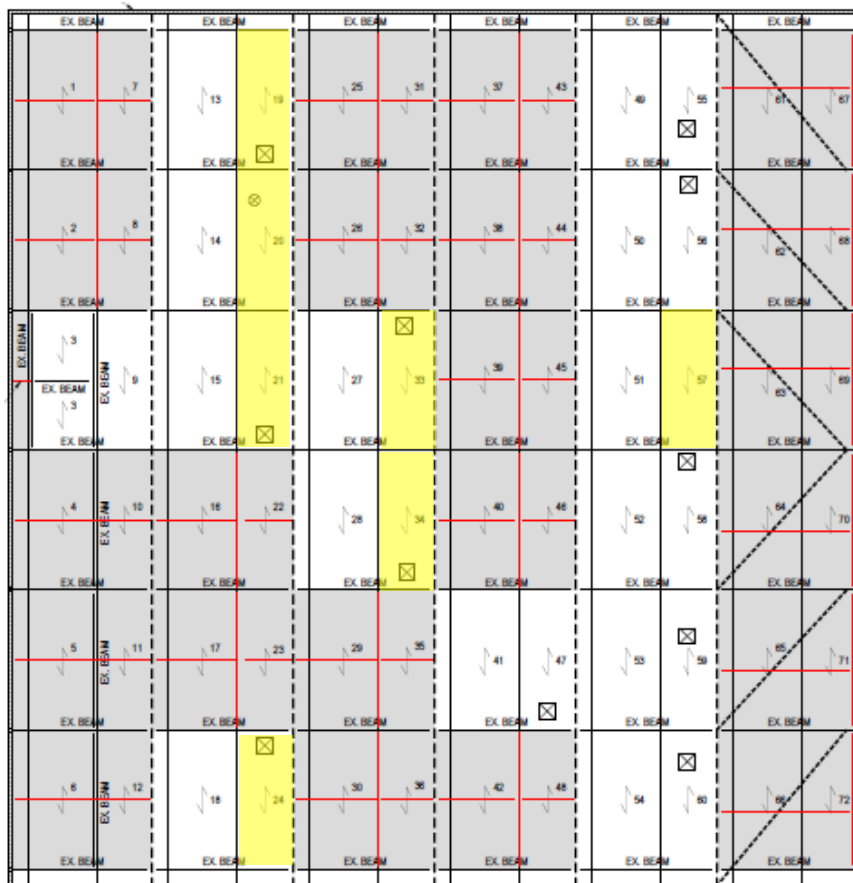


EXAMPLE OF EFFECTIVELY UNTRIMMED UNITS

Further non-urgent minor works will be needed to rectify these issues at a convenient time to suit the building's use. Typical details required as indicated below:



TYPICAL MINIMUM REQUIREMENTS



PLAN INDICATING TYPICAL BAYS REQUIRING FUTURE ATTENTION

The full scope of works for this ongoing maintenance procedure will be defined at such a time when the building ceases to be a covid-19 vaccination centre, and becomes accessible again. It may be prudent to carry out additional preventative works at the same time in anticipation of further deterioration in the coming years.

STRUCTURAL INSPECTION – BLOCK 44 (phase 4 roof)

The previous report identified several areas of deterioration as follows:

- Head of main access stair
- Above the medical records store
- Above the disused mechanical plant to the West of the main access stair

Water ingress was previously noted in all of these locations and, despite repairs, it was apparent that ingress was still occurring above the mechanical plant to the West of the main access stair. Efforts should be made to ensure that all water ingress is fully addressed through proper repairs and sealing.

No deterioration of the RAAC units was evident, and the units appear have remained in a generally good condition.



TYPICAL RAAC UNITS IN GOOD CONDITION

SUMMARY OF RECOMMENDATIONS

Block 08 (laundry):

- Identify a suitable date to carry out further non-urgent roof works
- Continue to restrict access to the roof

Phase 4:

- Repair the outstanding leaks occurring in the areas previously described