CASE STUDY

BUILDING SURVEYING

GRAHAM SIBBALD

ROOF REFURBSIHMENT WORKS TO MICKLEHURST PRIMARY SCHOOL

PROJECT SUMMARY

The Design, Specification, and Quality Management of a roof refurbishment project, following prolonged water-ingress to the internal areas of the property.

TEAM
Manchester Building Surveying Department

LOCATION
Manchester, Tameside

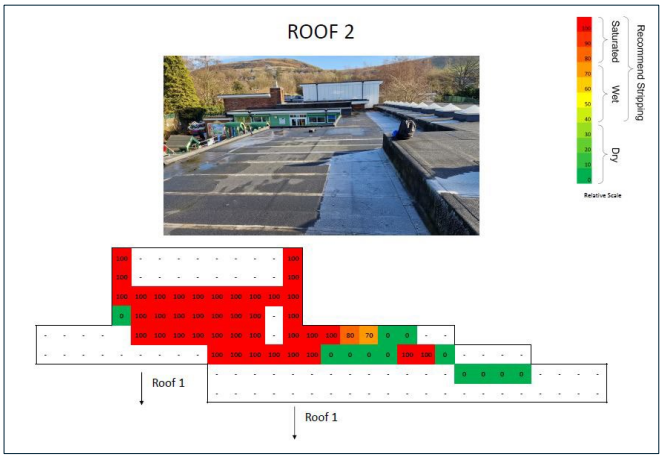
CLIENT
Roberston FM

DATES
August – December 2023

SUBHEADER

Further to reports of longstanding and undiagnosed issues of water-ingress, Graham + Sibbald were appointed by Robertson FM (on behalf of Tameside Borough Council) to identify the source of the defects and provide an appropriate remedial specification to address the issues at Micklehurst C of E Primary School.

The roof had suffered from ingress for a number of years with speculative liquid applied treatments being used to remedy the issues without any long-term success. Furthermore, internal timbers had rotted and decayed due to the prolonged exposure to moisture, which also posed structural and rot related risks, if left untreated. Ponding water above the flat roof and inefficient roof falls were also accelerating the degradation of the primary roof covering.



WHY G+S

Graham + Sibbald were instructed due to our wealth of experience in the flat roofing industry and in particular, the discipline of defect analysis, which will ensure the source is correctly identified and the measures recommended for repair are appropriate and fully justified, both in reason and in cost.

As a result of our dedication to provide a very high service at a very good cost, we work with a broad spectrum of clients, including a number of leading names in the public and private sectors, representing a wide range of retained clients including Local Authorities, Inward Investors, Government Departments, Major Retailers and Industrialists, Licensed Trade Operators and Insurance Brokers via their Loss Adjusters, amongst many others.

APPROACH

A full condition survey was undertaken to multiple roofs of the property, identifying previous speculative repairs, wet rot and also the inappropriate use of polystyrene insulation, which was not only a potential fire risk, but also may have been contributing towards interstitial condensation, given the presence of Polyisocyanurate insulation above the roof deck.

We utilised moisture mapping tools and core sample analysis to establish the build-up of the original flat roof and the level of saturation residing within the built-up system, to fully diagnose the issues and ensure the remedial specification put forward was harmonious with the existing construction methods and materials in-situ. The remedial specification would also be compliant with current regulations and improve the properties energy performance from a heat retention perspective.

Moisture mapping analysis found that over half of the roof was heavily saturated with the existing insulation found to be beyond repair and was suffering from reduced performance as a result of the longstanding exposure to moisture.

Whilst it was deemed appropriate for this particular roof area to be fully stripped, the same technology can be utilised to save money and highlight areas that only require a partial strip, allowing a more targeted replacement of heavily affected areas only.

ADDED VALUE

Throughout the project Graham + Sibbald assisted the RFM Project Management Team, School and Local Authority from a technical standpoint, ensuring the installation was completed in line-with the specification and in-line with the manufacturer's guidance.

SERVICES PROVIDED

Throughout the project Graham + Sibbald were able to provide a number of services to the client;-

- Defect Analysis and Building Pathology
- Design and Specification
- Project Monitoring

KEY CHALLENGES

The project was undertaken during the winter months with the school remaining in occupation throughout the project, which was subjected to a number of storms, with inclement weather from heavy rain, snow and frost complicating the construction phase of the project.

KEY MESSAGE

This re-roofing scheme was designed and specified to finally put an end to the longstanding issues of water ingress, with Graham + Sibbald putting their technical capabilities and knowledge to good effect, carefully managing the expectations of all stakeholders throughout the project.

Key contacts:

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