Chartered Surveyors approach to claims investigations

Chris Burley and Colin Ashford are part of the GRS Middle East regional construction and engineering team. They are both qualified Chartered Surveyors (MRICS) and members of the Royal Institution of Chartered Surveyors, with more than 40 years combined loss adjusting experience.

Their grounding as Chartered Surveyors give them a unique insight when handling complex construction defect related insurance claims, using the symptoms observed during surveys to assist in the interrogation of underlying defects.

When investigating a potential defect as a Chartered Surveyor, one of the first things that we do is a desk study, which amongst other things, would involve a study of the building design drawings. This is to understand the construction of the building since diagnosis of a defect is much easier if you know how it has been constructed. A word of warning however, the building may not be constructed exactly in accordance with the drawings, so checking the drawings against the actual construction on site also forms part of our survey.

Why do elements of the building structure fail?

There are multiple reasons which can include poor workmanship, inadequate design, inappropriate alterations, poor maintenance or other external factors. Even though a defect may be present, the building may perform satisfactorily for many years until a failure manifests, which may be due to other factors combining with the original defect to cause the failure.

Concrete is often seen as an extremely resilient and durable material, which is strong in compression but weaker in tension. When using concrete as a structural material, reinforcement is often required to provide tensile strength which is most typically in the form of steelwork embedded within the concrete.

It is often not appreciated that, although being an extremely durable construction material, changes in the chemical properties of concrete can result in material failure. Chloride attack and sulphate attack are two examples of defects which can be exacerbated in saline water environments. In both scenarios, the end result is corrosion of the steel reinforcement, which can cause failure of the concrete.

In one recent professional indemnity claim we have handled, we observed the effects of corrosion of steel reinforcement, exacerbated by chemical attack. The defect was found in a reinforced concrete wall to the basement of a multi storey office block. Concrete was spalling and the wall developed significant cracking and distortion, indicative of structural failure. The building had been constructed six years previously and was within the decennial liability period.

Our involvement in the matter started when the principal designer notified a claim under their professional indemnity (PI) policy. A PI policy does not automatically respond to the strict liability imposed by decennial liability and the principal designer was required to demonstrate a “breach of duty” in the course of their professional duties. This was a specific policy requirement for any claim to potentially be successful.

On this project, our Principal's Insured's role was for structural design only. Architectural design details and specialist design such as waterproofing were undertaken by other project parties. Our role was therefore to establish if there had been any deficiencies in the structural design, which led to the failure.

Our investigation commenced using the same approach as we would investigating a defect as chartered surveyors. Applying first surveying principles, we identified from the drawings the concerned wall was constructed of 400mm steel reinforced concrete construction, which extended four levels below ground. Externally, a bonded membrane had been specified as the waterproofing layer. Having identified the construction make-up, we were able to survey the building to identify evidence to assist in considering the possible causes.

We identified significant cracking up to approximately 75mm width, indicating a significant structural failure. To assist our understanding of the defect we also surveyed the surrounding structure, looking for further evidence that could assist our understanding of causation. Our survey identified multiple locations of water ingress through the external wall. We considered this was indicative of a widespread issue with water ingress, which appeared to have occurred over a period of time, although the precise reason for this was not immediately clear.

In this claim scenario, we had to focus our investigation on whether or not there may be a defect in the design or specification of the basement wall as this was our Principal's Insured's responsibility. We studied project documents including design drawings, construction progress reports, concrete cube test results and such like, to identify if there were any discrepancies between the design and what had been constructed. No discrepancies were identified and an independent appraisal by a third party structural engineer concluded that the design was appropriate.

In many instances, the failure of a structure can be due to more than one factor. In this scenario, we were able to demonstrate that our Principal's Insured discharged their professional duties by designing the wall correctly. We were able to successfully defend our Principal's position and the Claimant sought recovery of their losses elsewhere.

As we had demonstrated that there were no deficiencies in the design, we were able to defend the alleged "*breach of duty*" on the part of our Principals Insured. Accordingly, the main contractor was obliged under the decennial liability laws of the concerned country, to rectify the wall and cover the costs of the works themselves.

At GRS we adopt a proactive and collaborative approach to handling major, complex and technical claims. Our loss adjusters work closely with skilled and experienced in-house experts in the fields of surveying, engineering and accountancy, to support, inform and enhance the loss adjusting process; ensuring that the very best of our company is brought to every claim we handle.

Chris Burley *BSc (Hons) DipSurv MRICS Cert CILA*

Associate Director
Construction, Property & Specialist Liabilities

T: +974 66 490 740

E: cburley@globalrisksolutions.com

L: https://www.linkedin.com/in/chris-burley-815b9816b/

Colin Ashford *BSc (Hons) MRICS FCILA*

Senior Loss Adjuster

T: +971 54 252 0707

E: cashford@globalrisksolutions.com

L: https://www.linkedin.com/in/colin-ashford-a6516391