

# Educated guesswork?

In the first of two articles, Andrew Bussey and Nathan Tilford provide an insight to the fast-track and detailed investigation approaches to subsidence claims

The dry weather conditions over the early part of 2006 and, in particular, over recent months are likely to lead to a surge in subsidence claims throughout the autumn and winter period. Insurers, loss adjusters, surveyors and engineers involved in this industry are likely to be hit with a deluge of projects requiring their professional input and advice.

Surveyors already involved in the subsidence market will have noticed trends in the way that insurers and adjusters are administering such claims, with the increasing fashion in recent years to instigate 'fast-track' desktop and risk-sharing models to subsidence claim settlement, both in terms of diagnosis and repair.

If one looks at the situation simplistically, subsidence cases can be easy to rectify and the modern fast-track approach is a reflection of this. Insurers and loss adjusters (and their engineering and surveying staff and consultants) have been involved in administering subsidence claims since it was introduced as an insured peril under building's insurance in the mid to late 1970s. Hence, there is a huge bank of experienced individuals and data held in relation to subsoil conditions, weather patterns and claims history and trends.

## Visible experience

On certain cases, insurers and adjusters are therefore adopting the view that a simple visual assessment of the problem may be adequate to diagnose the problem and devise an action plan to stabilise and repair a building. This has been the case for some 3-4 years now and where insurers and adjusters have experienced subsidence 'experts' familiar with subsidence symptoms, and reliable subsoil information for the local area, they are increasingly happy for a visual diagnosis to be undertaken. This may identify an obvious tree or nearby drain as the culprit and, from this, mitigation works can be specified.

The benefits of this approach are that diagnosis is quick and a report can be generated for everyone to act on within hours or days of an initial site visit. This is also cost effective as site investigations, involving the likes of trial holes, subsoil testing and root analysis etc, have been avoided.

However, without the benefit of these detailed investigations, is such a fast-track diagnosis to be regarded as 'educated guesswork'? Surveyors should really ask themselves whether they really know what the precise ground conditions are below a building and the precise foundation depth and type, without the benefit of specific site investigation works?

## A detailed fallback

Reassuringly, insurers and adjusters still recognise this and, in cases where the cause is not always clear or there could be more than one problem, the detailed investigation route is the only option. This has the disadvantage that it often takes up to a month for investigation works to be completed and for results of laboratory testing to be available for consideration in the report. This delay frustrates policyholders who are concerned about the wellbeing of their most important asset and a thorough site investigation, complete with soil and root analysis, builds up to a fairly expensive package of work for insurers to fund.

Regardless of the assessment approach, after the initial visit the cause of the problem is usually identified. This can then be dealt with and the future stability of the building can be considered.

At this stage, insurers and adjusters are also keen to streamline the subsidence process. A traditional claim would involve subsequently monitoring the areas of damage to ensure stability was apparent before any repairs were undertaken. The alternative fast-track approach assumes the building will stabilise following mitigation works and, as such, repairs can be immediately implemented.

This has been clearly demonstrated on subsidence caused by drainage defects where historic empirical monitoring data shows that buildings suffer little or no further movement if drainage defects are remedied. A monitoring regime is typically between 6-12 months, dependant on the cause and the immediate repair regime is obviously appealing to policyholders, restoring the condition of their building in a matter of months rather than years.

## A risky approach?

However, with clay shrinkage-related problems, and without the benefit of accurate level or crack monitoring, can surveyors and engineers be entirely confident the building will stabilise and will there be any movement before this stability occurs? Avoiding monitoring on such claims is arguably a gamble, but a surveyor or engineer with experience in this field may be quite willing to assess potential future movement of the building and informally share risk of this with the insurers to immediately implement repairs, resulting in an overall time saving on the claim and also avoiding monitoring costs.

However, surveyors and engineers should be aware, for example, that after a tree is removed, it is highly likely that the subsoil will re-hydrate during the wetter months of the year and the cracks will



Top to bottom: Damage on rear elevation, pulling around rear elevation window and dragging effect of roof decking (and evidence of previous repairs)

close up. If the repairs to the building have already been undertaken by this time, there is no scope for the building to absorb this upward 'heave' of the foundations and the result could be further cracking to the building.

Figure 1 illustrates the unusual way in which a building can react after mitigation works and demonstrates that stability is not always a certainty.

**A simple lesson**

Perhaps the best way of demonstrating the advantages and disadvantages of either system is by reference to an example on a simple domestic conservatory (a common example, but conservatories will form a substantial part of this year's subsidence claim portfolio).

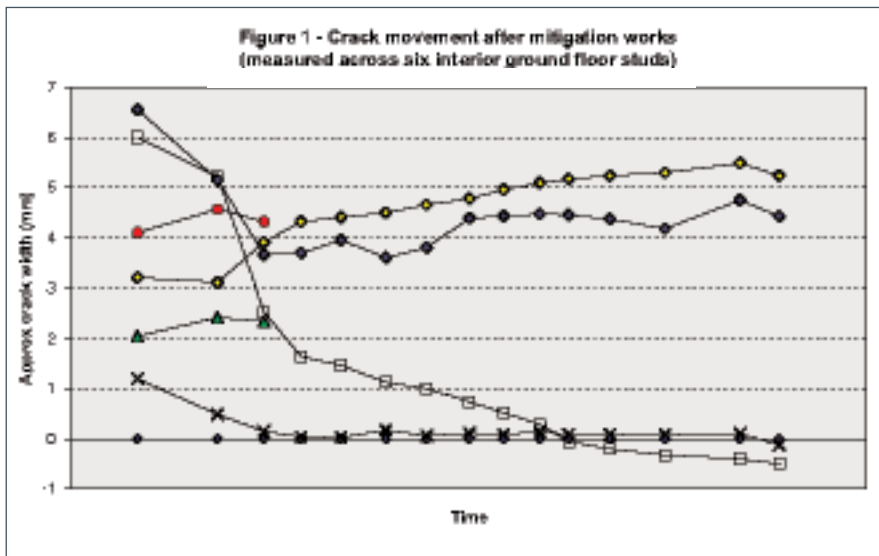
Take a case where movement had been recorded, in 2003, to a simple lean-to conservatory on the back of a building, where its brickwork base walls had rotated away from the main building and the frame above was distorted preventing the doors and windows from operating properly. Adjusters sent their surveyor to complete a visual diagnosis. He understood the subsoil in the area to be clay and, with a large creeper growing at the back corner of the conservatory, suggested the policyholder remove this and immediately thereafter the cracks to the brickwork could be repaired and the framework reassembled to restore alignment.

This procedure was followed through in a matter of months and the claim closed with the policyholder happy with the speed of its conclusion and insurers satisfied with the minimal expense involved.

Regrettably, by early 2005, problems had recurred with similar cracking apparent to the brickwork and the frame distorted. A thorough investigation was commissioned and it was discovered that the building was only constructed on 300mm deep foundations that were seated on approximately 1.6 metres of 'made up' fill material.

While the creeper at the back corner of the conservatory may have had an influence in 2003 after a dry summer (as the made material was largely clay-based) the actual cause of defects to the conservatory was poor construction as it had inherently shallow foundations seated within a material that will inevitably compact and consolidate over future years.

Ordinarily, with such a claim, insurers would look to repudiate liability as the conservatory had only been constructed to this poor standard a few years earlier but, as the initial claim had been accepted, they were obliged to progress with a second phase



of repairs to the building and this involved its complete demolition and reconstruction on much deeper foundations. This cost in excess of £20,000 plus professional fees.

If proper investigations and/or monitoring had been undertaken, insurers would not have had any liability to repair the building.

**A new surge**

There is clear scope – where insurers and adjusters have very experienced staff to diagnose defects, the case is simple and they have reliable subsoil information – that a desktop, fast-track model can be used. However, for absolute reassurance over the cause of problems, future stability and appropriate repairs, a better way is for policyholders to accept a slightly longer diagnosis and monitoring period and for insurers to accept the additional costs associated with this.

It will be interesting to see what trends emerge following this year's subsidence surge and what other data becomes available for assessors to use in the future.

*Part two of this article will discuss subsidence causes, investigations and remedial works.*

**References**

*Subsidence of low-rise buildings*, The Institution of Structural Engineers, August 2000

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	Traditional approach	Fast-track approach
Diagnosis time (approx.)	3-4 weeks	1 week
Diagnosis cost (approx.)	£1,000 plus	£500
Report detail	High	Low
Surveyor experience needed	Moderate	High
Advantages	Usually very accurate	Quick and cost effective process
Disadvantages	Expensive and slow process	Element of 'guesswork' involved