

## Information Sheet – Cracking In Brick Walls

If you are reading this it is quite possibly because you have noticed some cracks in your brick walls. You might have noticed these cracks appear randomly or maybe they have come to your attention through a building inspection. Unfortunately you are not alone as cracks in walls are very common in Sydney, especially in areas with very reactive foundation soils. But with the correct procedures, defective walls can be repaired without the need for replacing them as long as you take the right actions before it is too late.

### Why do brick walls crack?

The most common reason is due to the movements which occur in the foundations of your house. Being the base and most important structural element of a building, even small shifts or movements in the foundation would follow through on retaining walls, floor slabs, roof trusses or anything else that rests above.

You would think that solid structural materials such as steel, concrete, or wood will stay the same. However, this isn't always the case due to individual site conditions forcing abnormal pressure on the structural elements which can cause them to bend or even crush and break completely. The 2 most common causes for defects are:

- 1 – Poor foundation construction
- 2 – Incorrect use of soils to support the structure



### How can I assess the problem?

Unfortunately there isn't an easy answer as each site varies and therefore there is no calculator or rule of thumb to follow. Your best chance is by consulting a qualified structural engineer who is an expert in the principles of geotechnical engineering, soil mechanics and Australian construction best practice methods.

The engineer would conduct a building inspection which closely examines:

1. The magnitude (length and width) of the cracks
2. General and specific crack patterns
3. Review of construction methods implemented and whether it complies with the building drawings and specifications.
4. Other factors such as adjacent structures

The building inspection will be able to pinpoint the true cause of the cracks, the extent of the damages and their severity so you can make a well informed decision on how to repair the defects.

### **How is the problem resolved?**

As always the sooner you act the better as you will avoid unnecessary high costs of a complete rebuild down the track by implementing early rectification measures.

Consult one of our trusted structural engineers who have a reputation for providing a solution based on the latest innovative solutions combined with traditional methods. Learn from other people's mistakes, you will be glad you did and will never look back!

If you have problems with cracks in the walls of your property then take action before it's too late. Call ML Civil for a quick chat with one of our expert structural engineers on (02) 9875 5714.

