

Foundation settling

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Our camera caught up with Alfred at the renovation centre and he says that he has cracks in the concrete and in the plaster. What to do?

The important first step is to which one of three possibilities apply to Alfred's house: It moved once, cracked and is not moving any more; the cracks are caused by vibrations that are still present but nothing is shifting; the crack is growing larger and larger. Each case must be handled differently.

If there are minor cracks all over, but nothing is moving, you can simply seal up the cracks with any appropriate material and you have a new house.

If the cracks are subject to vibrations such as heavy road traffic or construction in the neighbourhood you will find that any rigid patching or sealing material will not hold, or if it does hold like an epoxy injection, it may just crack next to the repair. For vibration, plaster repairs must either be done with flexible materials or hidden with moulding that allows the crack to continue moving. Concrete repairs should be done with polyurethane, a material almost like rubber when cured, that can move a bit without losing its seal.

If the crack is getting larger, don't even try to seal the cracks -- nothing will hold and the settling may be the sign of a larger problem. You need a professional to take a look at it to figure out why it is moving and how to stop it before you patch the cracks.

What I recommend is to draw one horizontal and one vertical line over any cracks, either in concrete walls or plaster walls. Then put marks at some easy-to-measure distance across the crack, like two inches apart. Now keep a diary. Start with the date you made the marks and every month measure between the marks, noting any changes in the distances. This kind of long-term history over a year's time will give valuable information that will allow him or here to tell exactly what is moving in what direction and how fast, and to prescribe the right solution. If nothing changes, that is valuable information too -- it that tells you that you don't have to hire a contractor, just patch the cracks. If the cracks open up again but the marks don't show growing movement, indicating a vibration problem, then use flexible sealant.

Follow this link for information on injection sealants.

Keywords:

Cracks, Foundation, Structure