
Subject: Building Construction & Technology – III

Topic: Cavity Walls

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Cavity wall

One of the most effective ways of stopping damp traveling through the walls of a property is to build with a cavity but sometimes the cavity can actually cause the damp problems.

Problem: Damp course could be 'bridged' or covered by high ground, pathway, garden or abutting new structure, (e.g. conservatory, steps): the damp proof course must be a minimum of 6 inches (150mm) above outside ground level, in order to avoid rainwater splash up causing penetrating dampness, although even in this case a clear cavity should prevent transfer of dampness to the inside wall.

Remedy: Remove the obstruction or inject a new damp proof course at the proper level (see Damp Proof Injection - small jobs Project)

Problem: Cavity 'bridged' or filled with debris: usually brick ends, sand and mortar, all dropped by the 'Brickies' during construction, or sand gradually falling from soft mortar joints.

Remedy - remove a brick or block from the wall and clean out the cavity.

Problem: Wall ties dirty: can cause damp spots to appear on the inside plaster, sometimes with 'salt' or black mould.

Remedy - use a metal detector to locate the ties on the outside, examine with a bore scope and remove a brick or block from the wall and clean the ties.

Problem: Wall ties rusting: can cause damp spots to appear on the inside plaster, sometimes with 'salt' or black mould.

Remedy - use a metal detector to locate the ties on the outside, examine with a bore scope and if necessary fit replacement ties before isolating or removing the old ones, (see Check Wall Ties Project).

Problem: Poor cavity insulation job: can cause cold spots on the inside plaster, sometimes with 'salt' or black mould.

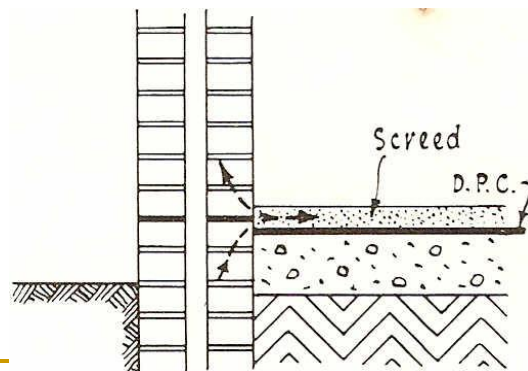
Remedy - Try re-injection first, but if this is not successful remove a brick or block from the wall and check the cavity insulation.

Problem: Service fixing, pipe or wire penetrates the cavity: pipes, wires, bolts and other fixtures that pass into the cavity can carry moisture inside, which may emerge at that level or drip down and show elsewhere.

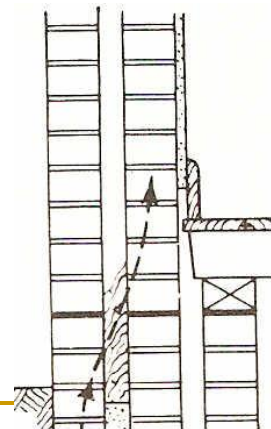
Remedy - remove the obstruction, or carefully seal the entry point. Pipes and wires should always be routed to climb up the wall immediately before entering the duct or hole, to avoid channeling the water by gravity.

Problem: Water pipes concealed inside the cavity: usually heating or mains water, but can also be boxed in foul water pipes or cistern overflows in more modern houses.

Remedy - examine with a bore scope and remove a brick or block from the wall to expose the defect.



Bridging by floor screed.



Bridging by mortar dropping in cavity.