

What to do about rotten 2x6's in a basement concrete floor?

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Martin went to renovate his basement and discovered that he had rotten out 2x6's right in his concrete basement floor. He thought that they simply left the forms for the footing in place when they poured the floor slab. This sounded a bit strange so I sent him the first graphic above that shows how a basement slab is normally poured, floating over the foundation wall footing. Martin sent me back the second graphic where he changed my drawing to show that they had actually poured the slab level with the footing, leaving the 2x6 in place and in constant contact with the soil below. This is bad construction. Putting the slab above the footing helps to keep the basement dry since most moisture tends to come in over the footing and below the wall. With the slab higher, there is a good possibility that this water will go below the slab and not onto the top. But not at Martin's house. In fact, any moisture pressure from below would immediately come up between the footing and the slab. I wouldn't re-pour the whole slab, but rather I would dig out the old wood, put a sheet of polyethylene between the opening and the footing and then pour in concrete to fill the gap. The reason for the poly is to provide a shrinkage line on one side, and an adhesion joint on the other. When the concrete shrinks, you can caulk the line between the new pour and the old footing. Without the plastic separator, shrinkage cracks could show up anywhere in the new pour and would be difficult to seal.

Keywords:

Floors, Air Sealing, Concrete, Footings, Basement