

World Radon Solutions Database

Existing Buildings

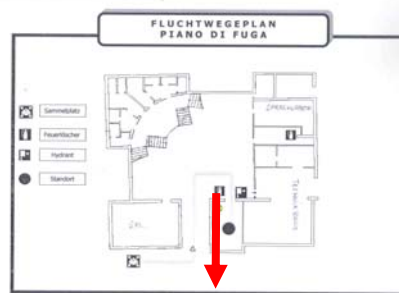
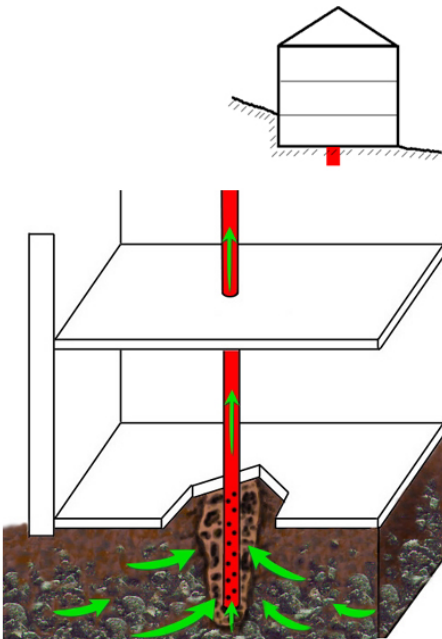
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Case Study | **Sheet N°** IT/CS/01

Type | Soil Depressurisation System from a void

Country | Italy/Bolzano

Illustration



Description

Code: BZ 141. An elementary school. Ground area of the school approx. 300m². A sump system (80x80x200cm) has been realized beneath the teacher room on the ground floor. In order to create a sub-slab depressurization, a fan (power: 80 W) has been applied. The fan and the sump are connected with PVC tubes (diameter: 10 cm).

Selection

High radon indoor concentration. Building without crawlspace.

Pre-installation Diagnosis

Radon concentration has been measured by continuous monitoring (Alphaguard). The highest radon concentration was detected in the teacher room (18,000 Bq/m³ continuous monitoring).

Radon reduction achieved

Room	Radon concentration (Bq/m ³)(*)		Effectiveness (%)
	Remediation off	Remediation on	
Teacher room	5,800	280	95
Classroom	5,600	210	96

- (*) = Highest radon concentration during the control measuring period of approx. two weeks in the winter: remediation off, on, off. Measuring instrument: Alphaguard.
- The sub-slab depressurization system was realized in 2004. The sump system is having a significant effect over all rooms on the ground floor.

Problems

House in hillside location. Radon has a lot of different entering possibilities.

System enhancements

A maintenance agreement is necessary, so for example, the fan must be changed every two years.

Further Information

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