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# Quality *focus*

A Quarterly Publication of the Ohio School Facilities Commission  
For Architects, Engineers and Construction Managers who participate in  
OSFC-funded projects

## How to Resolve Difficult Post-Construction Issues (w/o Litigation)

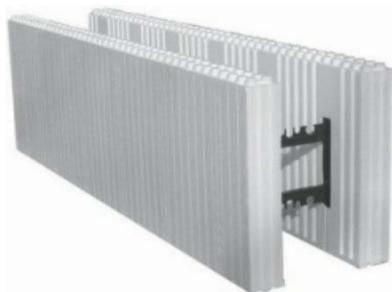
*Below is an example of a success story on an Ohio School Facilities Commission project in resolving a post-construction issue. We discovered through experience that it's best to keep the original project team intact to collectively arrive at an optimal resolution.*

OSFC conducted an investigative evaluation program of the leakage problems at the East Muskingum Local School District Middle School. The leaks were recreated by spraying water directly onto areas of the concrete masonry unit veneer. The investigation indicated that there were problems with the wall flashing and the wrong counterflashing was installed. Based on findings of the comprehensive investigative program, the development of specific repair recommendations was required. Triad Architects, Ltd. and Davis Architectural Group, the architects of record, issued

remedial drawings for the project. In addition, construction management services were provided by Project and Construction Services under their original contract. Grae-Con Construction, Inc., the general trades contractor, performed the remedial work required under the revised plans. This project was successful because the project team remained intact and worked together with the school district and OSFC throughout the process. A settlement was reached by all parties and the school district is enjoying a leak-free building thanks to the efforts of all involved.



East Muskingum Middle School  
Muskingum County, Ohio



## Product Spotlight – ICF

The easiest way to understand Insulating Concrete Forms (ICF) is to think of ICF blocks as giant Lego® blocks. Each block is made out of expanded polystyrene, which is a polymer-based foam product that looks and feels like a hard styrofoam. The inside of the block is a hollow cavity where concrete is poured, providing the strength of the wall. On each side of the cavity is 2.5"-3" of styrofoam that *remains in place* after the concrete is poured, unlike traditional concrete forms which are removed once the concrete hardens. The hard foam, combined with the concrete, creates an exterior wall that is remarkably energy efficient.



## Not all Floor Coverings are Created Equal...

*Below is a lessons-learned story related to the effects moisture can have on adhesive-applied floor coverings and how this problem should be avoided in the future.*

***Answer: The OSFC now requires the concrete to be placed directly over the vapor retarder.***

At St. Henry Consolidated Local School District, the vapor retarder was located under a granular layer. Vinyl composition tile (VCT) was installed after acceptable moisture readings were obtained. After about a year's time, the district began noticing blisters on their new floor. When a low-permeability floor covering is installed on a concrete floor, special care should be taken during construction to control the moisture content of the subgrade. It's best to place the floor after the

building is enclosed and the roof is watertight. On many projects, however, this isn't possible, and the granular layer can become a water reservoir. Such was the case at St Henry Schools. But a thoughtful approach by the project team, consisting of Fanning Howey Associates, Inc. and Turner Construction, provided the school district with a good solution. Porcelain tile was installed by the contractor, Peterson Construction, that allowed the excess moisture to be released through the grout lines. This specialty tile should provide a long-lasting floor with minimal district maintenance for years to come. Way to go team!

***Question: For slabs on grade, should the vapor retarder be located under a granular layer or directly under the concrete?*** This has been a hotly debated topic in the concrete industry. Some specifiers require concrete to be placed directly on the vapor retarder, and others require placement of a granular blotter layer between the concrete and the vapor retarder. Advocates of each option argue that their preference results in a better concrete slab.

**ON POINT:**  
Quality in  
Today's  
Construction  
Market



Perhaps the most important part of a quality control program is the creation of a jobsite culture where quality is required and expected. Quality doesn't just apply to the finished product. It includes the way projects are planned, identification of problems well in advance of construction, the rate at which change orders are handled, and the quality of employee training.

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