

CASE STUDY | PROFESSIONAL



BREVARD COUNTY COURTHOUSE

VIERA, FLORIDA

This 4-story addition, housing courtrooms and judges' chambers, was completed in 2009.



DRYLOK® MASONRY WATERPROOFER

When moisture was found to have damaged interior gypsum board in the Brevard County Courthouse, an occupied public structure, they needed a fast, easy to use, cost-effective solution that wouldn't require significant exterior renovation. Visible water damage and mold on the gypsum board inside the building indicated previous water intrusion.

How did it get there? An existing, negative internal pressurization of the structure, aggravated by strong, coastal, wind-driven rain and seasonal hurricanes, was responsible.

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DRYLOK®

MASONRY WATERPROOFER

It had pushed moisture through the gaps between concrete masonry unit (CMU) block columns that had been poorly tied into the face brick returns at the window openings, and caused condensation on the interior steel gypsum board studs.

Prior to patching and waterproofing, the negative pressurization issues were solved. Then, a mockup section was repaired with DRYLOK® products and tested by the project consultants. A professional-grade, high-pressure spray rig was used to simulate wind-driven rain conditions. After the repair passed the rigorous tests, renovations were completed within a few short weeks with the courtrooms and judges' chambers restored to their original interior finish condition. The process included these 3 steps:

Step 1: DRYLOK® Concrete Patch and DRYLOK® Fast Plug®, a fast-setting hydraulic cement, were used to fill the gaps between the returned face brick and the interior concrete columns (negative side) of the building exterior walls on the third and fourth floors. These products were chosen because of their excellent masonry-to-masonry adhesion, and because DRYLOK® Fast Plug® doesn't shrink after drying. Due to time constraints, the speedy set time was an important factor. Backer rods were inserted into the deeper gaps and filled with DRYLOK® Concrete Patch.

Step 2: To seal the patching materials and create a long-term barrier against both casual moisture and wind-driven rain intrusion, two coats of DRYLOK® Extreme Masonry Waterproofer were applied on the interior side of the walls, over the patches, and around the windows. Since speed was critical, the product's Green Wise® certification, low VOCs, and low odor formula meant less time worrying about delays related to airing the structure.

Step 3: Finally, to add another layer of protection, DRYLOK® Water-Base 5% Silicone Brick and Masonry Sealer was applied to the exterior brick facing. This durable, clear, water-repellent coating helps prevent water from getting into masonry in the first place, while allowing water vapor to escape. Since then, this product has been reformulated to deliver even better performance under its new name, DRYLOK® Siloxane 7 Brick & Masonry Penetrating Sealer.

Department Manager Peter Craig of Building Science Solutions at Intertek PSI, the consultant on the project, said, "DRYLOK® was competitive and cost-effective. It was easy to use by the subcontractor and allowed them to move quickly and easily without complication. DRYLOK® gave us the ability to manage water in the 'as built' condition - the product solved both an interior and exterior intrusion as a system." Tim Lawry, Facilities Construction Manager at the Brevard County Facilities Department, agreed, "It went rather smoothly. The patch work was done in no time and with no problems so far."

PROJECT PARTICIPANTS:

Owner: Brevard County Florida Facilities Dept.

Consultant: Intertek PSI, Orlando, FL.

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