

# Case Study: Mitchell H. Cohen Courthouse

## Federal courthouse uses ultra-thin insulation to reduce roof repair costs by \$200,000

Less destructive repair approach succeeds in solving water intrusion, adds thermal efficiency



The Mitchell H. Cohen U.S. Courthouse in Camden, NJ, is a 180,000 square-foot government facility. Constructed in 1994, the seven-story building contains 12 courtrooms and several attendant facilities, suites, and offices.

When the courthouse began to experience water leakage from the roof and walls, the facility management sought a long-term repair solution, but had concerns about the amount of demolition and damage that might be required to complete repairs.

The building's owners turned to R-50 and its sister company Roofing Resources Inc. (RRI), to review the site and propose a solution.

### PROJECT TYPE

Infrared Survey Roofing & R-50  
Value Insulation System Installation

### PROJECT SIZE

10,000 Square Feet

### OWNER

General Services Administration (GSA)

### CHALLENGE

- Meeting GSA energy efficiency
- Existing roof conditions

### ADVANTAGES

- \$200,000 Savings
- Energy Efficiency

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### The assessment

The RRI team conducted a visual assessment of the roof and discovered several areas of water intrusion. They then performed an infrared thermographic survey of the affected areas and discovered more extensive areas of damage. RRI recommended replacing the roof, but were met with some concern by the building's owners regarding the level of demolition, expense and inconvenience that would be required.

### Quicker completion, lower price tag

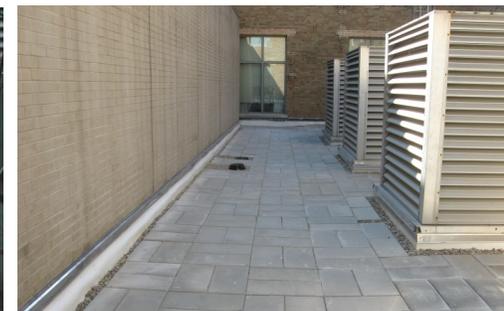
Using conventional insulation to achieve an R-value of 50 on a roofing project would require the addition of almost 1 ½ extra feet of height to the structure. By contrast, R-50 and RRI specified the use of a system of concrete pavers and a patented 1" thick Vacuum Insulated Panel (VIP) from R-50. In doing so, crews were able to address the damaged roof, and add the required energy efficiencies to the new construction with far fewer destructive building modifications.

### The result

By implementing the R-50-recommended system, the cost of construction was approximately \$200,000 less than the original plan, and was able to realize substantial efficiencies in the building's heating and cooling in the years that followed.



1"-thick, R-50 Roof Panels



Finished Roof Surface

**R-50** INSULATION  
SYSTEMS

Imagine the Advantage.