JAY R. SMITH MFG. CO.®

case study

Jay R. Smith Mfg. Co.® Siphonic Roof Drainage System is used to Value Engineer – Marshall Erdman Office Building

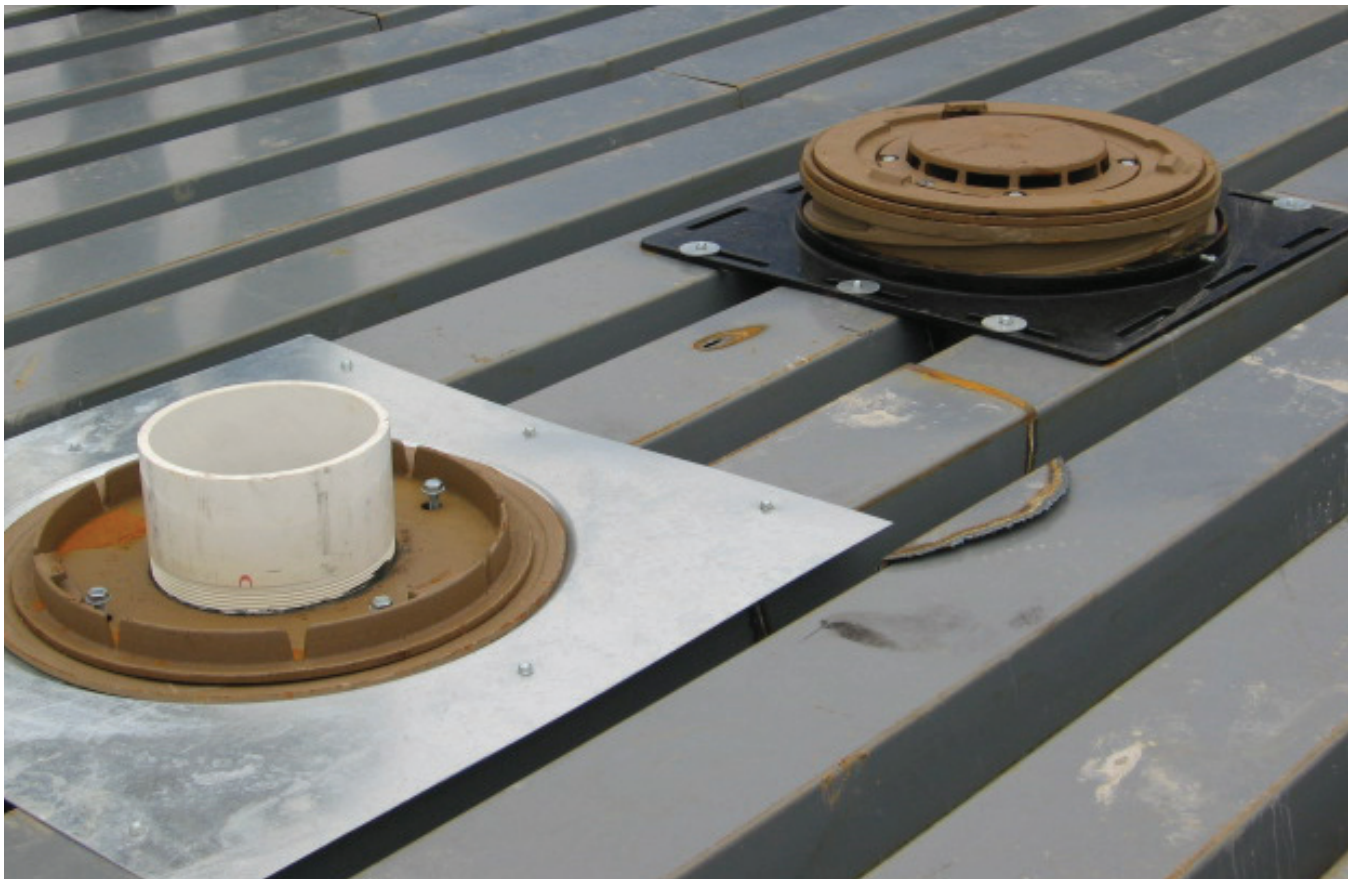

Figure # 1070 Overflow Standpipe Drain used with Figure #1005 Siphonic Roof Drain.

Marshall Erdman, a Design-Build General Contractor in Madison, Wisconsin used green building strategies in order to achieve LEED® Gold certification on their new office building. They not only wanted their office building to be a prime LEED® building model but a place of business for which they could be proud. Tom Breu, an engineer with Marshall Erdman had experience with products by Jay R. Smith Mfg. Co.® and was aware of the potential Siphonic Roof Drains could provide him in value engineering the project while still incorporating other LEED® efforts.

This project was the first Siphonic Roof Drain project in the state of Wisconsin; that meant educating both the state and the city engineers on the product performance and use. The Jay R. Smith Mfg. Co. representative in Wisconsin, Steve Mellone of Northland Sales, worked with Erdman during this approval process. It was important to them to have the Siphonic Roof Drains approved statewide so that they could be used on future design-build projects. Upon approval by the state, the state simply reviews the hydraulic calculations, plans and specifications to confirm proper technique is used.

Benefits of Using a Siphonic Roof Drainage System

- Smaller pipe diameters can be used reducing material costs – 2”, 3”, and 4” vs. conventional 6”, 8”, and 10”
- Labor savings due to horizontal piping – Less manpower
- One main rain leader conductor instead of multiple rain leader conductors
- Sleeving and Coring – One main riser as opposed to four
- Below slab piping – One 10” connection point as opposed to four smaller connection points
- Maximum use of space without intrusion of piping – Avoid elevation conflicts with HVAC and lighting

During the approval and design process, Erdman worked with Rainwater Management Solutions (RMS), a partner with Jay R. Smith Mfg. Co. on Siphonic roof drains. Together they used the SiphoniTec® Siphonic Roof Drain Design Software to successfully design the siphonic roof drain system for the office building. The use of the siphonic software provided many benefits in designing the roof drainage system. At the conclusion of the design, Jay R. Smith Mfg. Co. Figure number 1005 siphonic roof drains were specified and used.

H & H Industries was the plumbing subcontractor for the job and is a MCAA member. Justin Vils, Plumbing Manager for H & H estimates an approximate savings of 30% in both labor and material costs by using a siphonic roof drain system instead of a conventional roof drain system. The amount and the size of the piping decreased, which saved money in material and manpower.

The Erdman Office Building project was a success for the engineer, the representative, and the plumbing contractor. Not only does the siphonic roof drain system help to promote a new way of value engineering, it also saves time and money on the job. Justin Vils with H & H Industries states, “We expect this type of system to be utilized more and more in the future, and eventually, become an industry standard.”

For more information on Siphonic Roof Drains, SiphoniTec® design software, or to contact your local representative, visit **www.jrsmith.com.**