

Eagle Harbor Mechanical Uses Jay R. Smith Roof Drains for Rainwater Harvesting, Green Roof

The City of Tacoma, WA, was looking for different ways to help their Center for Urban Waters building be more environmentally-friendly, so Eagle Harbor Mechanical of Poulsbo, WA, installed a rainwater harvesting system, relying on Jay R. Smith Mfg. Co.® products to do the job. The building is the city's centerpiece for urban water quality and sustainability, so achieving LEED® certification was a priority—and planners looked at every source of water usage and consumption for potential conservation efforts. With more than 51,000 square feet of working space, the roof was large enough to use a rainwater harvesting system for most of the building's water needs. Not only could the rainwater harvesting system handle all of the urinal and toilet water demands, it could also be used to irrigate the green roof installed on the building.

Mark Bratonia of Eagle Harbor Mechanical knew that Jay R. Smith Mfg. Co. could provide him with a package of products that would meet

his requirements. Greg Skaggs with Braley-Gray Washington, the local Jay R. Smith Mfg. Co. representative, worked closely with Bratonia on previous projects. "Braley-Gray really does a good job of servicing their customers," said Bratonia. "Good factory reps are important, and it's the service behind the product that separates them from others. This rainwater harvesting project was different, and I knew that Jay R. Smith Mfg. Co. would be there until we got it right."

The Center for Urban Waters project has several roof drains manufactured by Jay R. Smith Mfg. Co. installed in the green roof. The roof drains convey all of the rainwater collected from the rooftop to the vortex filters. Two RH9520-06 medium-capacity vortex filters are installed directly under the green roof, which feed two 36,000-gallon, above-ground, corrugated, galvanized steel, rainwater storage tanks. The visibility of the two storage tanks, which are easily seen from the front of the building,

helps draw attention to rainwater harvesting and the overall sustainability of the Urban Waters building.

The concept of harvesting rainwater is simple; rainwater is collected from a rooftop. The harvested rainwater is conveyed through the piping to a filter that removes the debris from the rainwater. From the filter, the collected rainwater

enters the storage tank through a smoothing inlet. The smoothing inlet prevents the agitation of sediment at the rainwater inlet into the storage tank, and it aerates the water to keep it from becoming foul-smelling. The stored rainwater is now ready for use. Harvested rainwater is extracted from the cleanest part of the tank, just below the surface of the water, using a floating filter and pump. The end-result is filtered rainwater that is ready to use for any indoor water applications, such as flushing toilets and urinals, or for outdoor applications, such as irrigation.

Rainwater harvesting also helps eliminate water runoff problems. Large commercial buildings have asphalt parking lots that can create problems during large rain events. Pollutants can be carried down to storm gutters and out to streams and rivers. Some local municipalities have started levying fines on businesses with excessive runoff problems. Bratonia noted, "Here in Washington, everything runs to the rivers and out to the bays and then to the ocean, so rainwater harvesting really helped us avoid any potential risks."

The re-use of rainwater and the prevention of rainwater runoff that result from using the rainwater harvesting products are part of the city of Tacoma's efforts to achieve LEED Platinum certification, the highest possible LEED rating.

For more information on rainwater harvesting products and green roof drains or to contact your local Jay R. Smith Mfg. Co. representative visit www.jrsmith.com.

MCAA thanks Jay R. Smith Mfg. Co. for their continued support.



Eagle Harbor Mechanical installed a rainwater harvesting system in Tacoma, WA's Center for Urban Waters building, relying on Jay R. Smith Mfg. Co.® products to do the job. The visible stainless steel water storage tanks draw attention to rainwater harvesting and the city's efforts to promote sustainability.