



Stormwater and Environmental Backgrounder

Cities around the country have started to realize the true management cost of stormwater, both in terms of quantity and more recently quality, arising out of the Metropolitan Surface Water Management Act. In response, the City of Minneapolis assessed a stormwater fee for all properties in the city. For Murphy Warehouse Company, that meant the 22-acre Minneapolis Campus was charged a \$68,000 annual assessment.

For the 105 year-old industrial site, the extent of stormwater management up until now was to drain water away from the property – 95% of the site is impervious to water and covered with asphalt and buildings.

“Finding a solution to manage stormwater on our facility was a priority from an economic and environmental perspective,” said Richard Murphy, president and CEO of Murphy Warehouse Company.

In 2007 Murphy began consulting with local firm Wenck Engineers to design and construct a stormwater system with a retention basin and three additional rain gardens to collect 95% of the rainwater that falls on campus. The project took six weeks to construct and is the first stormwater system of its kind to be voluntarily constructed on an existing, heavy use commercial site in Minneapolis.

Post-construction analysis shows that the \$580,000 system will eliminate the stormwater assessment fee, leading to a return on the investment in just over eight years. An additional benefit discovered after the construction allowed Murphy to write-off half the depreciation value of the project right away through a federal tax credit.

Drawing upon Richard Murphy’s landscape architecture background, Murphy also installed native prairies around the stormwater system, increasing its efficiency, eliminating polluting fertilization and water waste from automatic sprinklers, and saving additional money through reduced maintenance costs of a traditional lawn. For example, at Murphy’s Fridley Campus, a similar installation requires \$2,240 per year for six acres of prairie upkeep instead of \$21,650 per year for only four acres of lawn care.

The system has been hailed as a model of a heavy-use industrial site by Paul Chellsen, water resources technician at the City of Minneapolis. And in March, the American Council of Engineering Companies recognized Murphy and Wenck with the Minnesota Engineering Excellence Award.

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As a company, Murphy has been committed to green practices as part of its “long haul” strategy, because as Richard Murphy says, “It’s the right thing to do.” Green measures by Murphy include:

- Currently pursuing LEED and ISO 14001 “green” certifications at three facilities
- Cultivated native prairies at most Murphy facilities in the Twin Cities and planted more than 200 trees on these facilities to reduce the urban heat island effect
- Installed “winter insulated blankets” on warehouse steel docking plates to reduce heat-loss during winter months; lead to 10% reduction in heating costs
- Continuously upgrading lighting since the 1990s as new technology arrives, including one system that was only five years old (the average payback has been within 14 to 16 months)