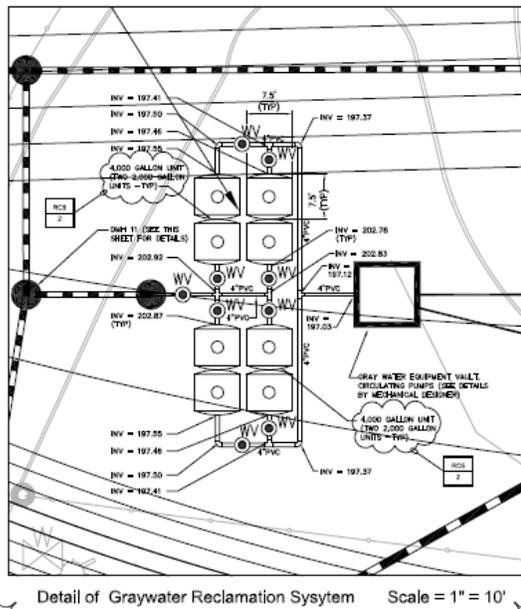


Rainwater Harvesting System Putnam Regional High School, Springfield, MA



At the Roger L. Putnam Regional High School, stormwater runoff from a section of rooftop will be captured in a series of cisterns for use in flushing all toilets and urinals. Roof drainage will be collected in four 4,000 gallon underground tanks that direct flow to the school's gray water plumbing system. The project also includes a raingarden, grass swale, and a series of infiltrators. These facilities are capturing stormwater from the parking area.

Purpose: To provide a well functioning grey water plumbing system that uses harvested rainwater. The construction of this new school facility (which replaces an older facility) is following the Massachusetts Collaborative for High Performance

Schools (MA-CHPS) Green Schools Guidelines. Two major components of these guidelines include a rooftop rainwater reclamation system and infiltration system.

Designers: Drummey Rosane Anderson, Inc.; Vanasse Hangen Brustlin, Inc.

Stormwater Capacity: The rainwater harvesting system is designed for a total storage capacity of 16,000 gallons. When tanks are full, water will be directed to the normal disposal system, including discharge to the city stormwater system. The system was not sized for a particular storm event, but rather for the capacity needed to make the recycle system work properly.

Permitting: The project required permitting through the Springfield Conservation Commission (NOI), Planning Department, and Engineering Department.

Construction Costs: \$185,500

Funding Source(s): The project is funded with a grant from the Massachusetts School Building Authority as well as the City, which is required to provide match to the grant.

Lessons Learned: One item to consider in building these systems is connection to a dedicated water supply should this system run out of water in summer months due to drought. This can be done through the use of a float system that switches over to a domestic water supply, an approach that has been incorporated in the Putnam School Project.

Decision Makers: School Department; Architect

Completed: 2013 (estimated completion date)