A 500,000-Gallon Precast Concrete Storm Water Detention System

Taking advantage of Kistner Concrete’s Enviro-D-System, Tredo Engineers of Buffalo, New York, provided a sturdy, practical, economical, and speedy solution to the stormwater treatment process requirement at the new Goya Foods Great Lakes Distribution Center in Angola, NY.

New construction is required to have a storm water treatment process/system. Project Engineer Ed Tredo took advantage of the new system developed by Kistner to quickly install a complete underground holding and processing structure for storm water from the facility roof and the new parking areas. Being made with structural precast concrete, it easily supports the paved truck dock area needed for this recently constructed Goya Foods facility. Overall, the precast portion consisted of 550 pieces, and measured 60 feet wide by 360 feet long.

The site, being near Lake Erie, had a high water table, necessitating a relatively shallow configuration. Andy Marino, Tredo Engineers, said the entire staff selected this system to minimize the area and depth of rock removal and to provide the durability of concrete in a heavy wheel-loaded condition. Limited cover due to a shallow outfall connection into the public ditch system dictated a concrete vault. The vault system was selected as a surface detention basin area was not available. There is no overflow, with pipe sizing controlling low/hi-flow rates. The open-bottom vault infiltrates into shallow rock substrates, with an underdrain system providing positive drainage. The total capacity of the vault is just over 1 ac-ft of storage with a restricted outflow to meet the NYSDED SPDES Permit and Village of Angola requirements.

After clearing and some earth moving, a simple bed of sand and stone was placed and compacted for the ten rows of tunnel. Precast footer elements, measuring 1 foot high by 2 feet wide by 10 feet long, were then placed and aligned. Next came the unique perforated channel members, each 5 foot wide by 2 feet high and 20 feet long, followed by the 5 foot wide by 20 foot long roof slabs, and then finally the end closure caps. It took the contractor, Russo Development, Springville, NY under a month to install in our cold winter conditions. This precast Detention system is a new development by Environment 21, not even shown in Kistner’s latest product catalogue (www.kistner.com). Thanks to Mike Kistner for the picture and this story.
Out of Sight, No Longer Out of Mind

Reprinted with permission from the Summer 2008 issue of *The Advocate*, the newsletter of the Catskill Watershed Corporation, Margaretville, NY

CWC technical staff member Todd Henderson explained the workings of an effluent filter to a homeowner who attended a septic maintenance workshop at the Pine Hill Community Center May 9 (photo right). Septic program manager Leo LaBuda is also pictured. Forty people attended the free classes at Pine Hill, Delhi and Hunter. Among them was Fortunata Percocco of Lanesville, who followed up by scheduling the recommended septic tank pumpout and inspection (photo below). CWC pays half the cost of such maintenance for systems that were installed since 1995 and are at least three years old.

The CWC’s Septic Maintenance Program has been extended to an additional 338 homeowners in the Catskills whose septic systems were installed or replaced in 2005.

The program pays half the cost of pumping septic tanks and inspecting systems that were installed in the New York City watershed west of the Hudson River since 1997 and are at least three years old.

Letters explaining the program were sent in early May to 180 homeowners whose systems were replaced by the CWC’s Septic Rehabilitation and Replacement Program in 2005, and to the owners of another 148 new homes. (Septic systems for new construction are not covered by the CWC’s replacement program, but are eligible for the maintenance program.)

Regularly-scheduled maintenance — pump-outs and inspection every three to five years by a licensed professional — is key to preventing costly system failures and environmental degradation. If you think you may be eligible for the maintenance program and have not received a letter and the required participation forms, please call the CWC at 845-586-1400, or, toll-free, 877-928-7433.

June 16 Member Marketing meeting with NECSA

The first results generated at this Focus meeting will be sent to all members soon (possibly in the members only category on our website). We ask all members to review this, and offer any comments. This document will then be finalized, and become part of our subsequent submission to NECSA. It will be one of the measurement tools used to substantiate their continued substantial financial investment in PCANY.
Member News

Welcome to our newest Septic Tank Producer Member, United Concrete Products, Inc., Yalesville, Connecticut. You can contact Jonathan Gavin, President, through the PCANY website member listing link, or directly to theirs at www.unitedconcrete.com, to check on their extensive list of standard products produced.

Septic Tank Associate Member Richard Wisotzke, Northeast Sales Associates, Fairport, NY announces that they are the new representative in upstate New York for the EZ-Flo product line, which can be seen on their website, www.ringindustrial.com. They also represent Zoeller Pump, with several products of interest to the on-site market (check out www.zoeller.com).


Then again, the next issue of ENR lists the Top 200 Environmental Firms, containing PCANY Professional Members Earth Tech Inc., CDM, Stantec Inc. And once more, the July 21 ENR issue on the Top 200 International Design Firms listed once again Earth Tech Inc., Stantec Consulting Services, CDM, and Wilbur Smith Associates. Of note, Skanska AB appeared on many lists; they are not Professional Members, but they are the parent company of Producer Member Bayshore Concrete Products.

NPCA Best Practices Manual Offers Tips for Watertight Tanks

Precast concrete tanks offer watertight on-site wastewater treatment for many decades when they are manufactured to the appropriate specifications. NPCA has recently published a new edition of its best practices manual, “Precast Concrete On-site Wastewater Tanks” to provide benchmarks for manufacturers and installers of precast tanks. This is available from NPCA, or your local septic tank manufacturer, or PCANY.

Precast Concrete On-Site Wastewater Tanks … Durable, Watertight Protection

Reprinted from the National Precast Concrete Association website, www.precast.org

Structurally sound and watertight when manufactured to industry quality standards, precast concrete on-site wastewater systems outperform and outlast systems comprised of other materials. Quality precast tanks are designed to withstand loads that other materials cannot bear, and a routinely-serviced tank will provide many decades of trouble-free service. Whether for residential projects or commercial construction, precast concrete is the material of choice for on-site wastewater treatment systems.

One of the most important components in protecting a community's groundwater, on-site wastewater systems are in service today in more than 40 million homes in the United States alone. On-site wastewater systems use the surrounding soil to filter the discharge from on-site wastewater tanks, the primary structure in a on-site wastewater system.

On-site wastewater tanks discharge a clarified effluent by settling solid wastes and preventing buoyant material from being discharged from the tank. Precast concrete on-site wastewater tanks operate successfully where municipal sewers are not an option. Precast concrete provides durable watertight protection of watersheds to ensure ground and surface water quality.

Why Precast Concrete?
• Strength increases over time
• Weight helps resist buoyant forces
• Durability
• Ease of installation
• Low susceptibility to damage during backfill
• Environmentally sound

Watertight when produced and installed according to industry standards.
2008 PCANY Membership Directory

The 2008 PCANY Membership Directory was mailed with the June Newsletter and transmitted electronically to our email list of newsletter recipients. Inevitably, mistakes happen, and changes occur regularly. Please inform us of your changes. Our first correction is for Splice Sleeve North America: the contact should be Stan Kunoki, the phone and fax should be 949-861-8393 and 949-861-8419, email should be info@splicesleeve.com – the rest is correct.