Pipe projects, products, and research

Airport application utilizes SaniTite HP
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Applications highlight varied roles for increasing range of pipe materials and sizes.
By Bob Drake

With a wide range of pipe materials to choose from, competition among pipe manufacturers is sometimes fierce, and performance claims and counterclaims can become confusing. On the other hand, such a wide selection of pipe offers civil engineers significant design options for potable water, wastewater, and stormwater projects to meet specific budget, performance, and installation requirements. The following project, product, and research reports — abridged for this article — highlight just some pipe applications and the design decisions behind them.

Airport stormwater drainage system
For the stormwater drainage system lines located around a new 10,113-foot-long runway at the Port Columbus International Airport, nearly five miles of ADS SaniTite HP polypropylene sewer pipe was used. Jon Pulcheon of George J. Igel & Co. Inc., the construction contractor responsible for the installation of the stormwater drainage system, explained that because the pipe, even the 60-inch-diameter sections, were lightweight, easily maneuverable, and resilient to the harsh environment of job sites, the crew was able to install the 18,000-plus feet of storm sewer pipe at maximum production rates.

“Shutting down an airport even for its own expansion simply cannot be done,” stated Ryan Zenkewicz, HP market manager for Advanced Drainage Systems, Inc. (ADS), manufacturer of the SaniTite HP pipe. “Maximum efficiency is the goal of any project for any field. [The contractor] even timed one section, putting in 200 feet of 36-inch pipe in just 90 minutes.”

ADS SaniTite HP is approved by Ohio Department of Transportation and the City of Columbus for storm and sanitary use, providing an equal alternative to the RCP Class IV pipe. SaniTite HP 30-inch- to 60-inch-diameter pipe meets ASTM F2764. The 60-inch-diameter pipe has a triple-wall construction that provides a smooth interior and exterior wall design, supported by a corrugated structural core for improved stiffness and greater beam strength. With dual-gaskets and a band-ed reinforced bell, it exceeds the water tightness requirements of ASTM D3212. The pipe is available in 20-foot and 16.3-foot standard lengths from ADS to accommodate various trench box dimensions.

Information provided by Advanced Drainage Systems Inc.