

URS Volunteers Return to Haiti for Water Pipeline's Construction

Building on volunteer work performed over the last year, volunteers from URS Division's offices in Virginia Beach and Tampa recently returned to Haiti to oversee the start of construction of a new water supply pipeline. The 12,000-foot, 4-inch PVC pipeline will serve the 5,000 residents of the town of Baptiste, located in eastern Haiti. The pipeline will eliminate the need for residents to make a daily two-mile trip (which includes climbing a 600-foot mountain) to collect spring water. It also will help protect the water source from contamination from daily activities at the spring such as watering livestock. The project, which was designed by the URS volunteers, is being constructed by the residents of Baptiste.

Dave Plum, the Virginia Beach Office Manager, and Brucely Joseph, a transportation engineer in the Tampa, Florida, office, spent the first week of July in Baptiste to support construction start-up. Leading the volunteer effort, Dave has been to Haiti a number of times and witnessed the challenges in overcoming the language barrier between English and Haitian Creole. Brucely, drawing on his Haitian-American heritage and travels to Haiti, brought translation skills and an awareness of Haitian culture to help overcome these challenges. His skills were instrumental in discussing workers' pay rates, explaining the critical points of the construction and installation process, and resolving other logistical matters.



Workers excavate the trench by hand.

Construction start-up followed a standard approach. Dave and Brucely held a preconstruction meeting with construction supervisors from Baptiste and then walked the first mile of the project route to confirm and mark the alignment. Next, a labor force of 23 workers were assembled and organized, and construction began on July 1. A daily lunch program also was established, which will help workers' families conserve food.

PVC pipe was carried to the site and laid along the alignment to guide excavation. With no on-site mechanical equipment, the trench was excavated by hand using picks and shovels. Pipeline sections were disassembled and ends were cleaned, primed, cemented and placed over the trench on wooden stakes prior to being placed in the trench. By the end of the day on July 4, the team had hand-excavated more than 1,000 feet of trench to a three-foot depth and assembled and backfilled 520 linear feet of pipe, exceeding estimates of what could be accomplished within the timeframe.



At the end of their trip, Dave and Brucely met with workers and re-emphasized critical construction points, such as keeping pipe away from exposed rocks in the trench. The construction effort will continue without direct supervision from Dave; however, personnel from Haiti's National Water Board (SNEP), who were involved during design, will visit the site three times a month to observe the construction effort and provide updates to Dave via e-mail. The nonprofit group financing the project provided SNEP with a digital camera, hand-held GPS unit and a CD containing

survey points for loading into the GPS unit, which will allow Dave to remotely monitor construction. As-built GPS points have been received and inserted into the design drawings to track the work.

As of last month, the pipeline work was nearly complete with approximately 11,000 linear feet of PVC pipe installed. Work remaining involves constructing the enclosure for the spring, three aerial crossings and multiple fountains in Baptiste. Work was delayed this summer due to multiple hurricanes that devastated the island. A final shipment of materials to complete the project is en route to Haiti from Virginia Beach and construction is scheduled to resume in early January 2009. The project serves as a testament to what can be accomplished through commitment and a spirit of volunteerism and, more importantly, will improve the quality of life for the residents of Baptiste for years to come.

Additional URS employees involved in the project include: Transportation Engineer Stephen Tempesco, Civil Engineer Marvin Pierre, GIS Technician Keith Pullen, Project Manager Seshadri Iyer, and Engineer Stephen Poe of the Virginia Beach office; Project Managers Joseph Hardee and Philip Jones of the Richmond, Virginia, office; GIS Manager Richard Winterfield of the Oak Ridge, Tennessee, office; and Project Assistant Nathalie Leroy of the Paris, France, office.

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