

Diving In

CONSIGLI CONSTRUCTION CO. CONSTRUCTS A TRAINING POOL FOR NAVAL STATION NEWPORT, R.I.

By Jim DiGiorno, *Consigli Construction Co. Inc.*

WHEN MOST PEOPLE think of a pool, they think of a backyard oasis, offering a reprieve from steamy summer afternoons. However, at the Naval Station Newport (NAVSTA) in Newport, R.I., a pool represents the latest in combat training technology. The Navy chose a design-build team to oversee construction of this training pool project, which would replace an outdated WWII-era facility, and deliver the complex facility in less than 400 days. The team of Consigli Construction Co. Inc., construction manager (Milford, Mass.), and SMRT Architects (Portland, Maine) combined their collective experience to create an advanced training facility that would enable the Navy to meet their programming needs, schedule requirements and a strict budget.

Consigli was selected to build the 11,000-square-foot training building and was additionally tasked with creating a team that possessed the right level of experience to make the structure a reality. Consigli and SMRT had previously partnered on military design-build projects, including a readiness center for the Department of Defense in Skowhegan, Maine, and a training facility with support buildings for the Army Corps of Engineers in Chicopee, Mass., at the Westover Air Reserve Base, giving them a high level of familiarity with each other and with military projects. This experience was key, as the team was selected based entirely on qualifications and the proposed technical approach to the job, which called for a value-added package. As opposed to a hard bid, the value-added process incorporated a budget to accommodate additional features within the appropriated funding and complimented the design-build approach. While the project still had a firm budget, as mandated by the military, the team's approach focused on opportunities for components not incorporated in the original design that didn't inflate the bottom line.

From the start, the design-build approach gave the team an advantage when it came to meeting NAVSTA's projected schedule. By having the freedom to hire a design firm they were familiar with, the contractor immediately synched with the architect and got down to business creating the final drawings. Timing was critical on this project, as NAVSTA had already begun a period of rapid growth resulting from the 2005 Base Realignment and Closure Recommendations. In addition, a

major increase in population had occurred due to the directed return of Officer Candidate School to Newport, with an additional 1,000 students passing through the doors of Officer Training Command each year.

With all of these factors in mind, the team worked with the Navy to deliver a facility that would incorporate systems required of a six-lane, 12-foot deep gunite structure with a three-meter diving platform contained in a 31-foot-wide by 75-foot-long pool to be used for man overboard training. In addition to the pool, the energy-efficient metal building also houses male and female locker rooms, shower rooms, an observation office, first aid equipment, laundry facilities and storage areas. Building support functions include janitorial spaces, electrical rooms, pool equipment room and anti-terrorism protection measures. The military, however, does have specific design requirements for its facilities, making the fit-out anything but standard. By awarding the project as a design-build job, SMRT and Consigli were able to collaborate sooner than on projects delivered via other methods and subsequently nail down the specific requirements of the training facility's construction. Given that military facility construction is not governed by municipal building authorities, and is instead guided by regulations reflecting the military's performance requirements, the construction manager and designer must ensure they are in compliance with the unique building standards.

Creative value engineering enabled the team to identify equipment that would best suit the client's needs while also removing some items that were not mission critical. The early collaboration gave the team the ability to make quick decisions about components such as the pool filter system. The initial specifications called for stainless steel gutters but, after reviewing options with NAVSTA, it was determined that a constant overflow system with PVC drains would meet requirements while additional savings could be realized by choosing a four-hour cycle device versus a six-hour unit. Additionally, when faced with the uncertainty of whether the steel building panels would need windows, the design-build team was able to merge design review and fabrication to alert the manufacturer to issue panels with openings to accommodate windows at a later date. By making the decision quickly and as a team, the owner did



not incur any additional costs for these changes. One unexpected challenge was the discovery of contaminated soils on-site, the clean-up of which placed stress on the budget. By opting to delete the mezzanine level, which would have been used solely for additional storage, the team found savings that supported site remediation. Additionally, the removal of the marching field from the original scope helped the team achieve further savings. When it was determined that the field would influence storm water runoff into nearby Narragansett Bay, the field was removed from scope, as it, like the mezzanine, did not affect the core program areas.

Processes like these were aided greatly by formal partnering sessions that took place throughout construction, as is mandated on federal projects. “All three teams (architecture, construction management and engineering) working together can truly influence the project to minimize impact to schedule, cost and quality and still retain the original program,” said Claude Levesque, Consigli’s project manager. “You want to be sure to identify what is really sacred, incorporate those items and stay within their budget.”

As with any design-build project, a high level of involvement between all parties was essential to the project success. Even outside agencies were involved in the building program, as the team worked closely with the Coastal Resource Management Commission in Newport to help improve the condition of nearby Coddington Cove on Narragansett Bay. The team installed water quality basins to ensure a cleaner discharge into the Bay and provide greater oversight into environmental compliance.

“We became their partners,” said Levesque. “We wanted to give them what they wanted.”

The Lt. Michael P. Murphy Combat Training Pool was dedicated on July 9, 2009, in memory of a Navy SEAL who was awarded the Medal of Honor posthumously for his actions in Afghanistan.

About the author: Jim DiGiorno is a project executive with Consigli Construction Co. Inc. of Milford, Mass. He has over 20 years of construction management experience and has focused heavily on federal design-build projects. Jim has overseen projects with the Department of Defense, the Army Corps of Engineers and the U.S. Navy, among others.

Special Standards Met

AS PART OF WORKING with the military, the team had to meet several additional standards for success. The military maintains separate safety standards above and beyond OSHA regulations. Known as the 385 Safety Manual, these criteria are considered more stringent than OSHA and are verified via surprise inspections.

Additionally, the suppliers are U.S. owned and operated companies as mandated under the “Buy American” act. Overall critical components such as design criteria and suppliers are governed by varying levels of regulations. For example, on a Navy project, general military standards must be met, followed by Navy standards and, finally, criteria specific to the base — in this case NAVSTA.