Stalco Construction completes $3 million expansion for Oyster Bay High School

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Stalco Construction, Inc., a general contracting and construction management firm based in Islandia, N.Y., completed an expansion and renovation of the Oyster Bay High School complex.

According to Stalco principal Kevin Harney, "The $3 million, 9,000 s/f project encompassed ground-up construction of a 4,000 s/f, two-story addition, as well as extensive renovations to the exterior and 5,000 s/f of classrooms, offices, and bathrooms in the pre-existing building."

In addition to Stalco, which served as general contractor, the project team included architect Gary Robertson of Burton, Behrendt and Smith, and structural engineer Ysrael A. Seinuk, P.C.

Structural work included new foundations and erection of the steel structure for the addition. The brick and ornamental pre-cast concrete facade of the new wing closely resembles the exterior of the original, historical high school building, erected in 1929. The new addition features an arched entrance with a custom FRP storefront, an entranceway hallway with a storage room, two science classrooms with teacher's prep rooms, and internal connections to the pre-existing structure.

The renovation work encompassed re-pointing of 21,000 s/f of exterior brick walls and renovations to the vice principal's office, several classrooms, and four bathrooms.

The project team faced staging, organizational, and technical challenges. An underground fuel tank was located directly in front of the construction site, prohibiting access and parking by delivery trucks and preventing the placement of a crane directly above it. To address this issue, "Stalco utilized a massive crane with a 120-ton capacity," said project manager and vice president Robert Isbit. "The crane's boom reached across the tank area, which allowed the delivery of the structural steel elements and other materials to the site."

The staging area offered a very limited material storage capacity. The Stalco team developed a detailed delivery schedule coordinated with the progress of the work in order to limit the amount of on-site materials awaiting installation. The steel was erected immediately upon delivery. The masonry and pre-cast concrete elements were delivered in stages and stored outside of the underground tank area.

According to superintendent Michael Bjertnes "The facade elements were custom manufactured to match the color, dimensions, and pattern of the original school building's bricks and pre-cast concrete. The replication process employed a high-tech methodology. The pre-cast concrete fabricator scanned the original ornamental pieces with a laser and used the recorded results in a computerized reproduction of casting forms. The pre-cast elements included a 5,000 pound arch above the entrance to the addition."

The masonry contractor replicated a complex pattern that incorporated bricks of varied dimensions and colors. The new, custom-manufactured windows also match the look and color of the pre-existing ones.

The site work included construction of a 150 ft. long and three ft. high retaining wall along the site's perimeter, 700 ft. of new curbs, 250 ft. of concrete walkways, and a completely rebuilt surface parking area with an extensive drainage network.

Stalco performed a large portion of the interior renovation work in an occupied school. To ensure student safety and prevent dust contamination, the firm erected a temporary sheetrock wall with one-way entrances around the construction areas. The entrances provided the necessary fire egress for the school occupants, but prevented any access into the school through the construction zone.

The addition houses two biology and earth sciences classrooms. The renovated area houses biology, chemistry, and physics labs, and standard classrooms. The new and renovated classrooms feature masonry walls, VCT tile flooring, and acoustical tile ceilings in a 2-foot by 2-foot grid.