Strongwell News & Applications

Case Study: Fabrication FRP Arctic Towers Project Wins Top Construction Award

Strongwell's Fiber Reinforced Polymer (FRP) products were recently used by Wade Perrow Construction, LLC (WPC) for a Seal Observation Facilities Project on St. Paul Island, Alaska. WPC was in need of a low maintenance, high strength material to replace the rotten wooden towers and walkways. These structures were deemed unsafe for the observation of northern fur seals in the corrosive, arctic salt water environment.

WPC has been awarded the Associated General Contractors of America's Aon Build America Award for Best Renovation of a Federal and Heavy Construction Project for the the St. Paul project.

WPC found that the corrosion, rot and low temperature resistant qualities of Strongwell's EXTREN[®] and SAFRAIL[™] products proved to be an ideal replacement for the wooden structures and walkways. To ensure that the seals were not disturbed, WPC had to work during the winter months when the seals were not on land. The ease of installation allowed the FRP materials to be quickly assembled even in the midst of extreme sub-zero temperatures and high winds. This led to the project's completion a year ahead of schedule. The FRP products also preserve the beauty of the surrounding area.

FRP brought numerous other advantages to the customer as well. The products were easy to ship,



install and maintain; and available in custom colors.

Strongwell's FRP products offer an attractive, low maintenance, durable and increasingly cost competitive alternative to steel, wood, and aluminum, especially in harsh, arctic environments.

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Newsmaker: New Strongwell Leadership Strongwell Corporation Announces New President and CEO

Strongwell Corporation has announced the naming of G. David Oakley, Jr. as President and CEO of the firm. Oakley replaces John D. Tickle (68) in the position that Tickle had held since 1972. Tickle is the primary owner of Strongwell, and the Company is 100% owned by him and members of his family. John Tickle will remain involved in the business as Chairman of the Board of Directors.

David Oakley came to Strongwell from HAPCO Pole Products in Abingdon,





Virginia where he had been President since 2007. Prior to becoming President, he had held management positions in marketing and business development and as Vice President – Product Management with HAPCO.

A. Keith Liskey (66) who has served as Strongwell's Executive Vice President & COO since 1993, and who has been an officer at Strongwell since 1981 and a Director since 1985, will retire from full-time involvement with the

company at the end of March 2011. Liskey will remain active with the company on a part-time basis as Senior Advisor through 2014.



Case Study: DURAGRATE® and EXTREN®

FRP Withstands Corrosive Environment

In 2009, the city of Phoenix needed to install a walking surface at a lift station that houses a wet scrubber for foul air treatment. The station serves not only a senior living facility, but also the nearby Musical Instrument Museum. The museum is a 190,000 square foot facility that houses more than 10,000 collectibles related to music.

The chosen solution was sold by Molded Fiber Glass and submitted by Jacobs Engineering, whose design incorporated 1.5" DURAGRATE[®] molded grating. Strongwell's DURAGRATE[®] has high resin content (65%) that will provide the station extended maintenance-free performance and the lightweight panels are also very easy to fabricate.



Additionally, noncorrosive, light weight, and strong EXTREN[®] fiberglass profiles were selected for subsurface structural



support. The Design Engineer, David Holman with DE Associates, the Sr. Resident Engineer, James Shane from Jacobs Engineering Group, and the city of Phoenix were all pleased with the results and performance of the FRP products. These photos, taken in 2011, show how DURAGRATE[®] and EXTREN[®] have withstood the corrosive environment in the last two years.

New Online Tools:

Strongwell Now Offers a Metric Design Manual and MSDS Documents Online



DESIGN MANUAL

Strongwell is pleased to announce the release of the metric format of our Design Manual. Design Manual users will have around the clock access to the new metric manual containing conversions of the important information that Strongwell has provided professionals for years. Designers can find metric calculations for the properties, tolerances, elements of sections and safety factors of Strongwell's

fiberglass products, as well as access to CAD blocks and MSDS documents. To learn more or sign up to use the new Strongwell Metric Design Manual, visit <u>www.strongwell.com/designmanual</u>.

MSDS (Material Safety Data Sheet) documents for Strongwell products have been added to the new Design Tools webpage. The documents are in PDF format for easy access 24 hours a day.

The new Design Tools page also features the company's many other tools including the CAD Blocks, Design Manual, Strongwell Specifications, Corrosion



Resistance Guide, Fabrication Worksheets and other design guides for products like GRIDFORM[™] and SAFSTRIP[®]. Visit the Design Tools webpage at <u>www.strongwell.com/designtools</u>. ●

Case Study: SAFPLANK® Fiberglass Decking a Problem Solver for Temporary Walkways

In the midst of construction of a new main facility, Brook Army Medical Center at Fort Sam Houston in San Antonio, Texas required a temporary elevated covered walkway for pedestrians to travel from temporary offices to the main offices. Mobile Walkways, Inc. installed such a walkway system for the



Army's largest military hospital and medical training facility using SAFPLANK[®].

Due to the requirement that this walkway be three feet off the ground, project engineers knew that traditional materials were too heavy and time consuming for this project. The engineers also needed a walkway that was strong, non-slip and easy to install. SAFPLANK[®] was the clear choice. The project utilized the medium grit 24" wide SAFPLANK[®] interlocking decking system. Its unique interlocking design allowed the installer to form a continuous solid walking surface.

Strongwell's SAFPLANK[®] impressed the customer because of the fiberglass decking's light weight, durability and resistance to inclement weather. The ease of installation also led to an efficient assembly rate while maintaining reusability for later projects.

Case Study: STRONGRAIL® and DURASHIELD®

A Planned Community Turns Once Again to Fiberglass

After a successful installation of the FRP water slide structure (including the framing, stair treads and handrail) fabricated by I.M. Pena, Inc., a Strongwell distributor, a master planned community pool in Houston, Texas asked for fiberglass once again to update other areas around the pool. The Kingwood suburb community's homeowner association and maintenance personnel had a need for a low maintenance, high strength fencing solution that would replace the existing corroding wrought iron fence, meet building codes, and fulfill the aesthetic needs of their community.

I.M. Pena offered exactly what the community needed by designing and installing a 96" tall, wrought-iron looking STRONGRAIL[®] fencing system for the perimeter of the pool area. The wrought iron look was replicated by combining the finials with FRP fittings. Stainless steel or thermoplastic hinges were used on the STRONGRAIL[®] handrail to prevent any corrosion. STRONGRAIL[®], Strongwell's architectural handrail and fencing system, is fabricated from fiberglass components produced by Strongwell and molded thermoplastic connectors. The standard systems can be made





to meet color and ADA requirements, adding safety and beauty to any property.

I.M. Pena also fabricated a FRP chemical storage shed using lightweight and corrosion resistant 1" DURASHIELD[®] foam-insulated building panels to replace a rotting wooden shed. The chemical shed stores a 300-gallon tank of liquid chlorine and two 50-gallon tanks of muriatic acid to balance the pool's pH level. These chemicals rotted the existing wooden shed and left it in ruin. The insulated fiberglass panels will not rot and are customized to include vents so the shed can "breathe" and reduce chemical build up and odor. The fiberglass structure also reduces any noise made by the tanks and helps maintain a pleasing appearance in the pool area.

Association members are so pleased with the performance and look of the water play structure, fencing and shed that they are looking at expanding the use of Strongwell FRP to include more community pools.

Case Study: Fabricated Fiberglass Structure Strongwell Products Solve Chemical Processing Plant's Corrosion Issues



A chemical processing plant in Charleston, West Virginia was looking to replace deteriorating process vessels, tanks, covers, access walkways and railings that were becoming a safety hazard and Strongwell's distributor, GEF Incorporated, had the answer.

Due to its corrosion resistance, light weight and ease-ofinstallation, Strongwell's FRP grating, handrail and structural products were suggested as the ideal replacements. GEF Incorporated designed, built, and installed two new process vessels to replace old wooden tanks, and provided new access walkways, railings, and covers for the two existing vessels.

For the access walkways, Strongwell's square SAFRAIL[™] industrial handrail and DURADEK[®] I-6000 fiberglass grating were the products of choice. EXTREN[®] channels and angles were also selected to support the platforms and COMPOSOLITE[®] was chosen to be used both as a cover and walkway over the vessels due to its ability to fulfill the span requirements.

Fiberglass products exhibit unequaled corrosion resistance to meet the conditions found in chemical facilities. FRP also provides savings on labor and frequent maintenance, resulting in long term savings and the elimination of cost and inconvenience of downtime for repairs.

Spring 2011

STRONGWELL PEOPLE

David Oakley President and CEO

David Oakley, Strongwell's new President and CEO, graduated from the University of Tennessee with Honors in 1989 earning a Bachelor of Science in Business Administration with a Major in Marketing. David is married and resides in Bristol, Tennessee with



his wife Corina and children, Minnich (9), Catherine (7), and Skylar (3 months).

Glenn Barefoot Corporate Sales and Marketing Manager

Strongwell has promoted Glenn Barefoot to the position of Corporate Sales & Marketing Manager. Glenn, a West Point graduate who has a high profile in the composites industry through his significant industry committee work, has been Strongwell's



Corporate Marketing Manager for over 16 years. Strongwell's Regional Sales Directors and Regional Sales Managers report to Glenn. Glenn brings product and customer knowledge to his new role along with sales management experience.

Kelly Barnette Digital Media Specialist

Kelly Barnette has joined the Strongwell Marketing Department as Digital Media Specialist. Kelly graduated from East Tennessee State University with a Bachelor of Fine Arts in Graphic Design and has extensive design and digital media experience.



Kelly's responsibilities include Strongwell's website maintenance, newsletter production, training video production and other special digital media projects. **Mike Cook** Region A Regional Sales Manager

Mike Cook joined Strongwell as Region A Regional Sales Manager which covers northeastern US and eastern Canada. He graduated from Boston College in 2000 with a Bachelor of Arts degree and played 3 years of pro football with the Arizona Cardinals and



Pittsburgh Steelers before beginning his sales career. Mike lives in Marshfield, MA and worked 5 years for Harvey Building Products.

Ron Thomey *Region G Regional Sales Manager*

Ron Thomey has joined Strongwell as Region G Regional Sales Manager for Louisiana, Oklahoma, Texas, and Mexico. Ron comes to Strongwell from Concrete Reinforcements, Inc. where he was the Sales & Engineering Project Manager for the past 5 1/2



years. Ron also spent 8 years with Stonhard, a division of RPM Corporation, working with polyester and vinyl ester coating systems. Ron graduated from Steven F. Austin University in Nacogdoches, Texas with a Bachelor of Arts degree in Management and Finance.

Todd Berthold National Accounts Sales Manager

Todd Berthold is the new National Accounts Sales Manager. Todd is responsible for managing the sales of Strongwell's cooling tower and ladder rail business, and managing ballistic plates, infrastructure shields, and future military armor related product ac



military armor related product accounts.

He graduated from East Tennessee State University in 1995 with a Bachelor of Arts degree in Marketing. Todd has several years of sales experience working with UPS since 1995.

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