



Form & Function

NEWS & INFORMATION FROM HAMILTON FORM

WINTER, 2010

WHAT'S INSIDE

NEXT Beam

Orlando Events Center

Storing Forms

Depressing Strand

Employee Profile:
Ed Baer

ATLANTIC INDUSTRIES LIMITED

Retaining Wall Forms



Over the past few years, Hamilton Form has built over forty retaining wall forms for Atlantic Industries Limited (AIL). AIL is a major supplier of custom infrastructure solutions. The forms made by Hamilton Form are used to cast retaining wall panels for AIL's Vist-A-Wall™ MSE Structural Wall Systems. This wall system is used in bridge abutments, embankments and retaining walls across Canada, the U.S., and for projects in the Caribbean and Australia.

Atlantic Industries asked Hamilton Form to develop a more flexible forming system than what they had been using. To that

end, two different forms were designed that gives AIL the flexibility they need to cast their proprietary wall system. One form casts products up to 5' tall; the other casts products up to 7'-6" tall. Both forms adjust to cast smaller products in 3" increments. Each form can cast one 10' or two 5' wide products. Product widths can also be adjusted. The side rails cast in shiplap edge details that are joined with male/female connections. Removable pins form holes for alignment dowels in the top and bottom edges of the wall panels. Hanger assemblies hold tieback embeds in place at precise locations.

The forms also accept form liners used to create custom panel finishes. Cradle lug brackets are welded on opposing sides of each form to accommodate Hamilton Form external vibrators. To make working on the forms easier, they were designed with legs that raise them to a convenient working height.

The first form package Hamilton Form developed was shipped to British Columbia. AIL has been happy with the results. The forms are working well in production and have improved flexibility and production efficiencies for AIL.

[\(continued\)](#)



Retaining Wall Forms

Continued from Page 1



AIL is pleased with their new forms. In fact, after the first forms were delivered, Hamilton Form built and shipped formwork to Atlantic Industries plants in New Brunswick, Ontario, Florida and Queensland, Australia.

Jason Sherwood, AIL's VP in Western Canada commented on the formwork; *"We (AIL) are pleased with our purchase from Hamilton Form. Our schedules require daily use of our forms, while maintaining specifications and tight tolerances. The Hamilton form is a well built and sturdy form; that allows for extended life in a tough and rugged workplace. The heavy duty construction and flexibility of these forms have allowed us to compete in this tough economic environment."*



Wall Forms Head For → Down Under



The formwork built for the AIL plant in Australia was identical to forms built for its other plants, however; loading the shipment bound for Australia was different. The Australian government has fairly strict quarantine regulations that control the importation of certain materials. Shipping containers must be free of dust and dirt to avoid quarantine and only specially certified wood could be used for packing. Packers were given special footwear to use while working in and around the container. It was loaded clean and sent off for its trip over the ocean; a 9,000 mile journey.

Storing and Protecting Forms

When it's time to take forms out of production, proper cleaning and storing will add years of life to your forms and protect your investment. Cleaning and proper storage will also reduce the time and expense it takes to take forms out of storage and get them ready for use again.

Here's a few tips on proper cleaning and storage of steel forms:

- Before storing, forms must be clean of any concrete build up or debris.
- Make sure the form is completely dry.
- Apply a rust inhibitor.
- If you move your form to a storage location, make sure forms are stored on a flat plane with no twist.
- Vessel type forms such as pilings and double tees, can be stored inverted to help protect the casting surface.
- Forms stored outside should be under a tarp or other covering to protect them from the elements. The best coverings are ones that "breathe" so that air gets under the form to minimize condensation.
- Special care should be taken to make sure water doesn't pool or collect on any surface.
- Never stack forms metal to metal. If you do stack your forms, use plastic or wood spacers between the surfaces to allow airflow.

Technically Speaking

Storing forms filled:

Some precasters store their forms filled with concrete. Hamilton Form does not recommend this practice. Concrete shrinks, leaving a space where moisture can accumulate between the form and the concrete. Moisture leads to rust which is difficult to remove and can cause permanent damage to steel forms.

The Ups and Down of Depressing Strand

Harped or depressed strand are often called for in double tees to increase camber and its load carrying capacity. Similarly, in bridge girders and beams, harping strand puts more strands in the lower portion of the beam at mid span, to increase its load bearing capacity or the length of the beam. Like the saying, “there’s more than one way to skin a cat,” there are several ways that a bed can be prepared for harped strand. Hamilton Form has made strand depressors, strand hold-ups and strand pull ups for many of its customers. Different customers, with different production practices, prefer different methods.

Strand in a double tee can be harped using a top depressor system. Hamilton Form’s top depressor system consists of a beam that fits over the form, a tapered telescoping, reusable pin and a hydraulic depressor tool. Once the beam is secured into place on the form; the pin is adjusted to the proper depth and inserted into the beam. Then, the depressor tool is locked into place on the beam and the depressor system is ready to be operated. At that point, workers can move away from the form and remotely activate the hydraulically operated depressor tool. The tool pushes against the pin and depresses the strands into the leg of the double tee where it is anchored into place.

In long line girder forms, strand can be depressed, using an internal strand hold up and hold down system. Hold downs are anchored to the foundation under the soffit. Hold ups are positioned on top of the soffit between the side forms and headers. The hold-ups have a series of holes fitted with strand rollers. The strand is pulled over the rollers that are positioned at the proper height. It is then fed through the header, the beam and the hold down rollers, and then to the other end. Once the strand is pulled into place, it is tensioned in the harped position.



Strand hold-ups for depressing strand in long line girder forms at Heldenfels Enterprises in San Marcos, TX.



These internal strand hold ups were designed to be used in the production of TXDOT bridge girders. The base plate distributes the downward force evenly over the soffit. The vertical plate has two rows of holes that are fitted with strand rollers. The vertical plate can be shimmed for added adjustability. Two sizes of hold ups were built so that the customer could accommodate G38 through G78 girders.

ED BAER – Vice President, Sales

Ed began working at Hamilton Form in 1969, more than 40 years ago. It was to be a temporary job in Hamilton Form's engineering/drafting department after studying architecture at Texas Tech University. He soon learned the details of designing form-work and moved into sales and estimating, eventually becoming Vice President of Sales – but not right away.

In 1977 he left Hamilton Form to work for Martin Industries, a manufacturer of equipment for prestressed concrete production. Ed's first assignment was to manufacture 5,000 houses in the desert of Abu Dhabi, United Arab Emirates. It was an adventure, commissioning 27 pieces of machinery that had been conceived, designed, built, and shipped in less than a year; plus traveling halfway around the world with his wife and a two-year-old.

In their time off, Ed and his wife Alice explored the area. On one trip to Dubai, they thought they would investigate a building that had a large green dome on top. When they drove up to the building's huge, ornate, wooden door, they were met by a guard carrying an assault rifle. Alice was Lebanese and spoke five languages, so she quickly spoke to the "rifleman" in Arabic. After a short exchange, she pointed, and with command in her voice, that was normally not there, said to Ed, "Drive out that way now." They had unknowingly driven up to a restricted area under heavy guard – *The Ruler's Palace*. On another trip, Ed almost ran over a woman as she was jaywalking across the highway at night. "The night was dark and her costume was black," Ed said. "The only way I saw her was from the headlights reflecting on the gold coins sewn into her head cover."

In 1983, Hamilton Form purchased the assets from Martin Industries to start Hamilton Equipment Company. Ed was vice president/general manager. The equipment lines were updated and expanded. A few years later, Hamilton Equipment merged with Hamilton Form Company, making it easier to provide



Ed's grand-daughter
Kate and her new desk.

Master form designer and wood-worker;
Ed Baer.

customers with forms and complimentary labor-saving machinery as a package.

Ed raised two sons for several years as a single parent after his wife passed away. "Fortunately the boys were old enough that Alice had passed on her values to them," Ed states. For many years, Ed and the boys were involved in scouting and were avid campers. The highlights were always their two-week, 75-mile backpacking trek at Philmont Scout Ranch in New Mexico.

Today, Ed's son Tony is a Director for a large hedge fund, and his wife Margaret is an attorney specializing in environmental law. They have Ed's only grandchild; Kate, who is two years old. The family lives in Manhattan. Ed's younger son Eric lives in the Dallas area and manages a restaurant for a large chain. His girlfriend Angie, works for a risk assessment company. She has a little white fuzz ball of a dog named Bella. "She weighs 7 lbs. but has a 100 lb. personality," says Ed.

For many years, Ed has been partnered with Margaret Davis, who is also widowed. Ed says, "I have been blessed twice." Margaret is office manager/board member of The Widowed Persons' Service, an all-volunteer support group where she and Ed met. She also has two children. Her son Gary is a computer programmer in Houston and daughter Melanie, is a software applications contractor at Boeing in Los Angeles.

They are both avid skiers, bikers, and both rollerblade. Melanie has a 150 lb. great dane/labrador mix that is a trained service therapy dog. When the two "grand-dogs" are together at Christmas, it is quite a funny contrast.

Ed has seen Hamilton Form and the industry grow and change in the last 40 years and has helped drive much of that growth. In the early days, before faxes and e-mail, concrete shapes had to be described verbally. "I was one of the best," says Ed. Customers have come to know Ed for his ability to translate their needs and help solve many of their production problems. He especially enjoys working on projects that involve new and different ways to form and produce products. "I get a lot of pleasure from developing new solutions," says Ed. He has said his most memorable times have been dealing with the very professional and nice people in our industry.

During 2010, Ed will be "phasing into retirement" and plans to stay busy traveling with Margaret, and with "hands on" projects. During the last two years Ed has built a woodworking shop at home. With limited space, he designed a modular "bench-top tool" system. Each machine mounts on a common-sized base, and when taken from the storage cabinet, each fits on a portable table. Almost every space is used. Maybe he used a thing or two he learned at Hamilton Form in the design.

W.E. Dailey Wins First NEXT Beam Project

NEWS

Originally proposed by Rita Seraderian, the Executive Director of PCI New England, in late 2006, and developed by the PCI Northeast Technical Committee; the Northeast Extreme Tee or “NEXT” beam has finally become a reality. The NEXT beam is designed to accelerate bridge construction by minimizing the number of pieces needed to build the super structure and eliminates deck forming. The first bridge to use the new beam is a 510-foot, seven span prestressed concrete bridge in York, Maine. It will replace a 17-span steel girder bridge.

W.E. Dailey in Shaftsbury, VT will supply the precast for the bridge with a form built by Hamilton Form. The form looks like a hefty double tee with 15-inch stem widths, spaced 5-feet apart. A 4-inch radius forms the stem to deck transition. Maximum stem depth is 32-inches and can be adjusted for different depths with stem fillers. Because the width of the section can vary from 8 to 12-feet, adjustable magnetic side rails were designed for use with the form.

The beam has been met with enthusiasm from Department of Transportation engineers in New England and New York.; and is



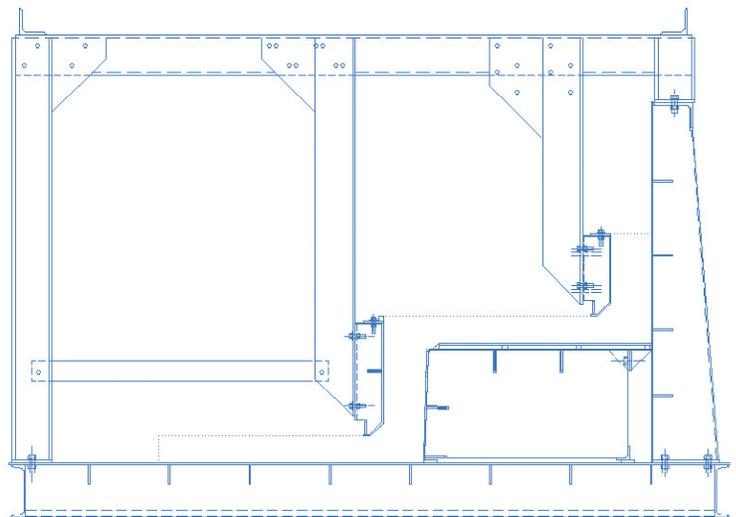
being reviewed in several other states. All eyes will be on the first project to illustrate the benefits of the new design. Hamilton Form is proud to be a part of this project and extends congratulations and best wishes to all of those involved in making it a reality.

Gate Concrete Supplies Precast for Amway Center



Gate Concrete will soon complete delivery of the precast components for Orlando’s new Amway Center. The center is slated to open in the autumn of 2010 and will serve as the home of the NBA’s Orlando Magic. The venue will seat up to 20,000 and is planning to host concerts and shows, as well as basketball, hockey and arena football games.

Gate was able to utilize some existing stadia forms for the project. Hamilton Form helped by supplying components to



customize those forms. In addition, Hamilton Form supplied Gate with a casting table, side rail and hangers that were used as a base to cast a number of other components.

Both hammerhead and L-shaped products were accommodated by this base set-up. Fillers and risers added the flexibility needed to change deck widths and riser heights. This provided Gate the ability to cast a wide range of products, while minimizing the number of individual forms required.



Hamilton Form Company, Ltd

7009 Midway Road • Fort Worth, Texas 76118

Ph 817.590.2111 • Fx 817.595.1110

www.hamiltonform.com

And the Winners Are

One of the most popular stops on the show floor at the PCI Convention is the Hamilton Form booth where attendees can pick the newest recipes to add to their Handy Epicurean Cookbook. Last fall, as an added bonus; food lovers were able to enter a drawing for a signed copy of Jon Bonners' new cookbook; Texas Fine Cuisine.

The winners of the drawing were:

Tim Breen; Unistress Corporation

Chris Leonard; Heldenfels Enterprises

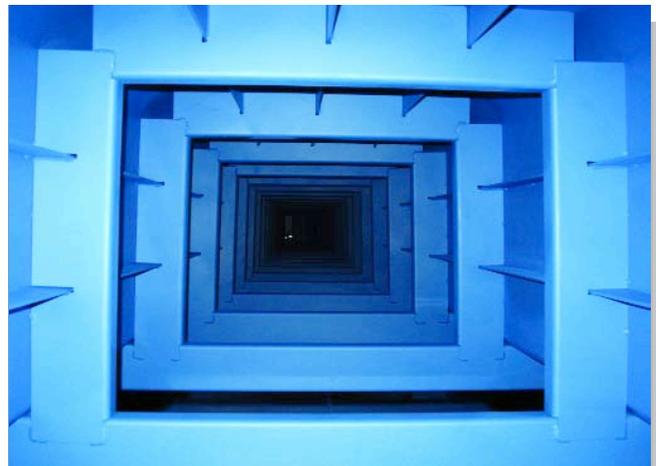
Bob Sween; Wells Concrete

Carlos Cerna; Manco Structures

Ellie Sutton, the wife of the distinguished professor and PCI Medal of Honor recipient, Doug Sutton

Thanks to all who stopped by to see us in San Antonio. We're looking forward to exhibiting and seeing you at the PCI Convention/fib Congress in Washington D.C. in May.

If you want 2009 recipes or a copy of the Handy Epicurean Cookbook; or would like to submit a recipe for the 2010 cookbook; please e-mail recipes@hamiltonform.com or call 817 590-2111.



Name that Form

Above is an unusual view of one of the forms we've written about in this newsletter. It's not a typical view, but if you can use your imagination and name that form, you could win a \$50 gift card from American Express. If you can name that form, send an e-mail before March 15th, 2010 to:

newsletter@hamiltonform.com

Five winners will be chosen from the correct answers and will be sent a \$50 American Express gift card.