

## REINFORCING NEWS

August 2009

Volume 6 Issue 1

### StelCrete increasing its capabilities in Ontario's wire mesh market with double bender to help precasters expand capacity

By Robert Nichols, General Manager

StelCrete has been working with its clients in Ontario and Québec over the past year to help them expand their capacity. By outsourcing an increasing amount of work to StelCrete, clients receive fully assembled wire mesh for precast concrete boxes, valve chambers, and other structures. The assemblies arrive at the pre-caster's plant, sometimes on the flatbed truck parked beside the mold, complete with spacers, lift pins, legs, feet, and chairs set in place. All that is required from the pre-caster is to remove the assembly from the truck, set the assembly in the mold, and pour concrete.



Double bender purchased from Elk River Machine Company now operational at StelCrete's Welland facility to increase efficiency in fabricating mesh assemblies. A U-shaped cage segment can be bent without removing the steel mat from the bending table. The ERMC double bender includes an unobstructed bending deck.

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To advance capabilities and product lines of its clients, StelCrete has purchased a double bender from Elk River Machine Company (ERMC). The machine will be located at StelCrete's Welland facility in a

production area of approximately 6,000 square feet. The production and assembly floor will be expanded with an increase in orders and applications for the pre-assembled mesh products.

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## Double bender

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ERMC double benders will bend mesh regardless of spacing. StelCrete's bender can produce mesh with both infinite and variable spacing.

Double benders are available with an internal clear space of 102, 126, and 150 inches. The machine purchased by StelCrete is a 10-foot double bender with the capability to bend sheets of mesh up to 126 inches. The bender can bend a full range of mesh up to D (W) 32 on 4-inch spacing. It is equipped with hydraulic cylinders in the bending deck.

Mesh is fed from either side with no obstruction in the bending deck, and can be bent on a skew as well as straight. To accomplish the second bend, the mesh mat is moved forward (no need to raise the mandrel) on the bending deck, to the second position. The same method for bending is repeated with the exception that the bend is from the opposite bending arm. After the arm is retracted, the cage will have a U configuration. Mesh is secured firmly between the deck and the bending mandrel for consistent accurate bending with no slippage regardless of mesh size.

StelCrete's double bender delivers a product that is form and concrete ready.



## New Web site is all about client service

StelCrete is about to build a new Web site that will focus on 21st Century Web technology and site functionality to make it easier for clients to work with StelCrete in keeping an inventory of pre-assembled products. A survey of clients about 24 months ago clearly reported that change was needed to be able to deliver the level of service expected from StelCrete—and other divisions of Salit Steel.

Subsequently, consideration was given to numerous options for building a Web site that expands the capability of clients to communicate with StelCrete staffs on a variety of needs that make their businesses run more efficiently.

Now that the Internet is becoming more robust when it comes to security, and businesses have identified values that can be delivered through Web technology, StelCrete can build a site that is client friendly while maintaining its archives of knowledge and information.

StelCrete's new site will have a content management focus, so that its staff's and clients can manage the content by editing existing files, or adding new files in a variety of formats, including video. Clients will be able to check their inventory of pre-assembled products, expand orders, and inform key

StelCrete personnel of new orders and expected inventories based on project bids of contractors that they are supplying. Many clients will find value in this service that builds stronger strategic alliances between StelCrete and its customers, and reinforces StelCrete's promise of timely delivery of products.

In addition, the site will have a more robust contact form and inquiry service, an expanded library of project sheets and case studies that detail the application of pre-assembled products, and an HTML newsletter that makes distribution more reliable and faster to download. All past pdf files of Reinforcing News and the new HTML files will be archived on the new site.

There will be additional new features including a Web log (blog) site for customers to post responses to questions and observations posed by StelCrete staffs.

The new site is expected to become a more common-place business tool at StelCrete to keep in touch with clients that are often too busy to spend much time on the phone. With the new site, StelCrete will be conducting business 24-7/365 days of the year.



# Con Cast Pipe streamlining services with pre-assembled cages



Pre-assembled reinforcing cages arrive at the precast plant on a predetermined schedule. The assemblies are offloaded in the plant, directly from the flatbed to the mold.



tion date to accommodate the spawning period for migrating fish.

To meet the construction schedule of the contractor, production of the precast boxes took place between July 27

There is reduced waste, and a higher level of workers safety through less material handling.

When the assemblies for the 22nd Side Road culvert arrived at the plant, they were offloaded in a staging area where the tolerances were checked before the assemblies placed in the mold for the pour.

Many of the clients of Con Cast Pipe are municipalities who are replacing existing culverts or small bridge structures following a condition assessment. One such structure is the 22nd Side Road culvert, east of the 4th Line near Limehouse, Ontario in Halton Hills.

The existing culvert was a concrete box over a tributary of Black Creek in the Credit Valley Watershed. The culvert was of insufficient length causing a narrowing of the roadway to one lane. The culvert had to be lengthened to carry the roadway and shoulder width.

The consulting engineer, AMEC (Phillips Engineering) recommended replacement of the culvert with a three-sided precast box structure, with an open channel. Con Cast Pipe produces a TRI/SPAN modular system that would meet the design requirements.

NEI Construction Corp. of Maple was awarded the contract with a mid September comple-

and August 4 in a controlled environment.

Con Cast Pipe produced 8 standard 6000mm x 1800mm x 2m long boxes. The up stream and down stream sections were fabricated with a 6.5 degree skewed end to accommodate the angle of the road - creek intersection.

Con Cast Pipe has worked with StelCrete to supply pre-assembled reinforcement cages for its CON/SPAN bridge units. Both companies quickly realized that each knows best its core business. Con Cast Pipe specializes in precast concrete and StelCrete specializes in steel. By partnering in the production of reinforced concrete products, Con Cast Pipe would realize efficiencies in material supply and handling. Receiving pre-assemblies from StelCrete ensures that the reinforcement is assembled according to standards and specifications.



Plant technicians check cover dimensions.

The construction schedule was met, and the client received an



Additional cast-in hardware is connected to the pre-assembled cages.



Cage is secured on the pallet, spaced to the core, awaiting jacket closure and concrete pour.

engineered precast product ready for installation.

## Ontario growth and development

The Regional Transportation Plan for the Greater Toronto and Hamilton Area by Metrolinx ([www.metrolinx.com](http://www.metrolinx.com)) sets the framework for growth and development for the next 25 to 30 years. New development will occur in association with the plan and the regional planning policies that complement the transportation plan.



Provincial and federal press releases through January and February of 2009 clearly point to funds in the stimulus packages of the federal government and Ontario that are earmarked to stimulate the county's economic recovery through projects affiliated with the Metrolinx Plan.

**StelCrete** 

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## StelCrete and Salit Steel manufacturing pre-assemblies for poured-in-place construction



Value Engineering is a process, which analyzes the requirements of a project for the purpose of achieving the essential functions at the lowest total costs over the life of the project. Value and economy are improved through the study of alternate design concepts, materials, and methods without compromising the functional and value objectives of the client.

One of the constants of a project is the cost of labour. The global market for steel dictates the domestic cost and supply

that can fluctuate significantly from one year to the next.

StelCrete and Salit Steel have found a way to reduce onsite labour costs of a structural engineering project by supplying pre-assembled reinforcement. StelCrete is a leader in closing technology gaps between what is needed, and traditional ways of reinforcing precast products that have become costly and inefficient with questionable quality. The same innovations are being offered to the poured-in-place construction market through Salit Steel to help make projects more affordable and increasing the level of quality and standardization of the reinforcement.

Drawing upon a wide range of wire and rebar sizes and materials, Salit can access the existing facilities and expertise of StelCrete to expand services and products.

**StelCrete** 

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**StelCrete's core business is to supply precasters with pre-assembled reinforcing products.**