Until recently, InfraStructures has been read mainly by French speaking users of heavy machinery.

Over the last seven years, InfraStructures has become a leader in its field. First by becoming the only magazine covering all aspects of the industry published in French in Canada. Then by being the first to publish all its editorial content on the web, and also by being the only construction magazine, published in French, having a significant readership outside the Province of Quebec.

For many years, we have received requests for an English version of InfraStructures. Technical limitations, and the lack of advertising revenue have prevented us from publishing such a magazine in print. Now, with the extent of the use of Internet by professionals, we feel that the time as come for a portable digital file (.pdf) version of InfraStructures in English.

While the content of the English version differs slightly from the original, most of the important news will be published in English. In the near future, more and more of the content of the original will be translated into English.

With over 500 visitors per day on average, spending over 13 minutes per visit, the website of InfraStructures in one of the most important sites of this kind. More than two thirds of the visitors come from outside Canada. With the English version of the magazine available on the web, visitors from outside will find it easier to enjoy the magazine.

Hoping to hear your comments,
In the News...

GL&V Lands One of the Largest Contracts in its History

Management of GL&V is pleased to announce that its DORR-OLIVER EIMCO Group has been awarded a $35 million order to supply a complete Eimco® recausticizing system and related engineering services for a new greenfield pulp mill to be built on Hainan Island in South China. Upon completion at the end of 2004, the mill will produce 3,000 tons per day of bleached Kraft pulp sourced from eucalyptus and acacia. Using Dorr-Oliver Eimco’s advanced ClariDisc® technology, the GL&V installation will produce 16,000 cubic metres of cooking liquor daily, making it one of the largest plants of its kind in the world. The design, engineering, procurement and project management services will be supplied from Salt Lake City, Utah, while the key components will be produced in GL&V Manufacturing’s Trois-Rivières, Quebec, facility. The balance of the manufacturing will be outsourced to GL&V’s worldwide network of subcontractors. The payment method, including an initial deposit, provides for progressive outlays as the work advances.

Laurent Verreault, President and CEO of GL&V, indicated that not only is this the most important recausticizing order ever received by Dorr-Oliver Eimco, but it is also one of the largest contracts in GL&V’s history. “This is a direct and major result of the November 2002 acquisition of Eimco, which has been a global leader in this type of technology for several years. Since Eimco has carried out a large number of similar contracts in the past, some of which were in this part of the world, we benefit from both solid technological expertise and in-depth knowledge of this market. This large-scale order definitely consolidates Dorr-Oliver Eimco’s international leadership in process equipment for the pulp and paper industry.”

Source: Groupe Laperrière & Verreault

GSI Environnement and Recruitsoft named Companies of the Year in the 2003 Mercuriades

The 23rd Mercuriades Gala organized by the Fédération des chambres de commerce du Québec took place this evening. Honorary president of the event was Madeleine Paquin, president of Logistec. More than 1,000 members of the business community from all parts of Quebec gathered in Montréal for the presentation of the celebrated Mercure trophies to 22 award-winning companies.

GSI Environnement inc. of Sherbrooke and Recruitsoft of Quebec City earned the evening’s chief honours. The two companies were named SMB of the Year and Big Business of the Year respectively, the two most coveted titles in the competition.

In 2000, GSI Environnement set out to become the Canadian leader in waste management and rehabilitation of contaminated sites. With this goal in mind, the company injected $7.3 million into its Eastern Townships, Quebec City and Lachute locations. The investment proved to be a wise one: among other things, it enabled GSI Environnement to double its revenue and support the development of new technologies.

Just three years after being founded, Recruitsoft has 375 employees, generates $60 million in annual revenue, and is the acknowledged world leader in its field. This Quebec company has transformed the staffing industry by providing the first computerized solution for recruit-
Current President and CEO of the National Optics Institute (INO), Paquet has been a visionary leader in robotics research, in business and in academia. His skill at building partnerships among businesses, universities and research institutions has helped Quebec establish a vibrant technology community.

The National Award for Engineering Achievement will be presented to two projects - the Lions’ Gate Bridge refurbishment by Buckland and Taylor Ltd., and the design and construction of the Diavik A154 Dike by Diavik Diamond Mines Inc. and Nishi-Khon/SNC-Lavalin.

Lions’ Gate Bridge required significant repairs but, as one of only two bridges linking North Vancouver to the downtown core, it couldn’t be closed without severe economic impact. Buckland and Taylor’s innovative approach ensured the bridge remained open and safe during the day while its deck was replaced section by section during 10-hour closures at night - an engineering first for a suspension bridge.
The second winning project is the Diavik A154 Dike, designed and built by Diavik Diamond Mines Inc. and Nishi-Khon/SNC-Lavalin. The dike was essential to mining more than $10 billion worth of diamonds from beneath Lac de Gras, 300 km north of Yellowknife. The innovative design, that resulted in no environmental damage to this ecologically sensitive area, stretched the boundaries of arctic engineering. The mine will boost the annual GDP of the Northwest Territories by 25%.

François Michaud, PhD, ing. of Sherbrooke, Quebec will receive the Young Engineer Achievement Award for his ground-breaking, internationally-recognized robotics research. He is working on developing robots capable of a broad range of human-like activity; including those that can help autistic children interact in social environments.

Gilles Brière, ing. of Boucherville, Quebec, will receive the Meritorious Service Award for Community Service. His exceptional logistics and problem-solving skills are key to ensuring that UN peacekeeping missions have food and equipment in war torn countries with little infrastructure such as Cambodia, the Democratic Republic of Congo, Zaire and Rwanda.

Peter D. Hiscocks, P.Eng. of Toronto, will be recognized with the Award for the Support of Women in the Engineering Profession. Thanks to the Discover Engineering Camps he founded at Ryerson University in Toronto, more than 1,000 young women who had no intention of becoming engineers when their camp began have pursued engineering studies. He is a tireless and committed advocate for equality.

Ali-Ismail Shivji, an engineering student at McGill University in Montreal, will receive the Gold Medal Student Award. Among his many humanitarian efforts, he raised $17,000 so he could join a Light Up the World trek to Nepal. With other engineer volunteers, he raised easily maintained, long-term lighting to homes in remote mountain villages, so children, who have to work in the fields by day, can study at night.

The Meritorious Service Award for Professional Service will be presented to Dr. Walter K. Bilanski, P.Eng. of Guelph, Ontario whose work as an engineering researcher, leader and volunteer spans more than 40 years. In addition to ground-breaking agricultural engineering research, he has been a community leader in the city of Guelph, and an active volunteer for Professional Engineers Ontario and the Canadian Council of Professional Engineers.

André Picard, PhD, ing. received the Medal for Distinction in Engineering Education for his inspirational teaching at Laval University. Author of several texts that have become standard civil engineering references, his commitment to his students and his research, and his contribution to numerous technical committees have impacted the lives of thousands.

Presented annually since 1972, the Canadian Engineers’ Awards are Canada’s pre-eminent engineering awards.

Source: The Canadian Council of Professional Engineers

Enwave District Energy and Aecon announce Alliance Agreement

Enwave District Energy Limited and Aecon Group Inc. announced that Aecon’s Utilities division and Enwave have entered into an agreement whereby Aecon would provide utility construction services to support Enwave’s heating and cooling services in Toronto.

Under the terms of the agreement, Enwave and Aecon will establish a joint implementation team to analyze, manage and execute the civil and mechanical construction associated with bringing buildings online to Enwave’s heating and cooling
ChevronTexaco Global Lubricants
Compliant With New Caterpillar Engine Oil Specification

Furthering its heavy-duty engine oil leadership position, ChevronTexaco Global Lubricants today announced its North America heavy-duty engine oils are compliant with the new ECF-1 specification, which Caterpillar announced would become effective on June 1, 2003. Furthermore, ChevronTexaco Global Lubricants is moving towards ECF-1 formulations worldwide to meet Caterpillar’s new specification. Diesel engine oils meeting ECF-1 are intended for use in all Caterpillar diesel engines worldwide (with the exception of 3600 Series and MAK) including new low emissions engines currently being produced.

ECF-1 defines an engine oil that will provide excellent soot control, acid neutralization capability, maximum thermal stability, and wear control while minimizing diesel engine piston deposits. Engine oils conforming to the ECF-1 requirements must meet the qualifications of API CH-4 or CI-4 performance categories and additional requirements for optimum performance and durability of all diesel engines.

“ChevronTexaco is committed to providing its global customers with products and services that meet or exceed industry regulations,” said Jim McGeehan, global manager of engine oil technology, ChevronTexaco Global Lubricants. “Once again, we have demonstrated commitment to our customers, who, regardless of geography, will have the best products available for their fleet of Caterpillar equipped vehicles.”

As a leading developer and supplier of heavy-duty lubricants and coolants, ChevronTexaco Global Lubricants has been conducting tests cooperatively with Caterpillar during the development of the ECF-1 specification.
Cummins Celebrates 1,000,000th Diesel Engine for Dodge Ram

Cummins Inc. celebrated the shipment of its one millionth diesel engine for the Dodge Ram pickup, highlighting fifteen years of partnership with the Chrysler Group. The Chrysler Group began offering the Cummins engine in the 1989 model year and the turbo diesel engine’s popularity has been growing ever since.

“We are thrilled to reach this milestone in our partnership with the Chrysler Group,” said Joe Loughrey, Cummins President - Engine Business. “The Cummins/Dodge combination has proven that the market for diesel power not only exists, but continues to grow in North America.”

Since 1998, the diesel heavy-duty pickup market has outpaced gas-powered pickups, growing over 25%, according to R.L. Polk registrations. The popularity of the Dodge Ram has grown as well. The all-new 2003 Dodge Ram Heavy Duty pickup truck, available with the Cummins Turbo Diesel and the Dodge HEMI® Magnum, recently was named Motor Trend magazine’s Truck Of The Year.

“We believe that there are terrific growth opportunities in this market, not only with the Dodge Ram, but in other light duty applications as well,” said Loughrey. “As fuel prices and environmental concerns continue to rise and our clean diesel technology continues to evolve, consumers will gravitate to the unmatched fuel economy, power and performance that only a Cummins diesel engine can offer.”

Whether hauling hay bales or towing RVs, the Cummins-powered Dodge Ram is famous for tremendous torque, durability and fuel economy. Since 1989, the Cummins diesel engine has increased 91% in horsepower and 39% in torque. Today, the Cummins powered Dodge Ram 3500 has the highest gross combined weight rating (total of truck, contents and trailer weight) of 23,000 pounds. This performance has helped inspire passionate customers who have formed fan clubs like the Turbo Diesel Register, a quarterly magazine with over 15,000 subscribers.

Highlighting the durability of the Cummins Turbo Diesel, Tom Olding, owner of a million-mile 1995 Cummins-powered Dodge Ram, showed off his engine and truck. Olding, who delivers Airstream trailers throughout the US, recently surpassed 1,000,000 miles on his truck with the original engine and many other components.

The milestone millionth Cummins Turbo Diesel will be installed in a special Dodge Ram 3500 as the prize in a 2003 Dodge Rodeo sweepstakes. The truck and the engine will be specially badged to mark it as the 1,000,000th engine. The truck will also be on display throughout the country at major rodeos throughout the year. In December 2003, one lucky winner will drive away with this collector’s item at the National Finals Rodeo in Las Vegas.

Source: Cummins Inc.
New at bauma in 2004 - bauma mining

This will be the first time that the mining technology sector is covered in depth at bauma. On all days of the fair, from 29 March to 4 April 2004, manufacturers of mining equipment and technology from all over the world will be displaying their latest products and services in Munich - machinery and equipment for open-cast and underground mining, and in the areas of processing and handling technology geology, geophysics, exploration and consulting. For bauma in 2004 the organiser, Messe München, is setting up additional outdoor exhibition capacity to the north of the main exhibition centre. This brings the total exhibition space for the world fair bauma in 2004 to 500,000 m², which is around 50,000 m² more than the last event in 2001.

On the extended open-air exhibition site is a large area, consisting of both outdoor and indoor exhibition space, which is to be dedicated to bauma mining. This area is in a very well frequented position, close by the main North Entrance to the exhibition centre. This central position on the open-air exhibition site at bauma 2004, and the proximity to about one third of all the car parking spaces, is sure to attract a high visitor frequency. All the usual site services and infrastructure will of course be provided on this site, to the same high quality as elsewhere at the exhibition centre. A large number of exhibitors have already announced they will be taking part in bauma mining. The German regions of Saarland and North Rhine-Westphalia will be taking a joint stand at bauma mining, and country pavilions are to be set up by Canada, Great Britain and the US.

The bauma mining section is to have a specially designed orientation system, with an attractive entrance area and special designation in the information centre. The Mining Machinery Association in the VDMA is also to have an information stand here. bauma mining is to be set out in direct line of sight with the underground mining section that is traditionally featured on the open-air site at bauma.

Exhibitors at bauma mining will be putting on a comprehensive and concentrated display of mining equipment and technology which is set to benefit from significant synergies arising from the tremendous attraction of bauma and the international scope of this world fair. At the last bauma in 2001, for example, 406,435 visitors came from 152 countries to see the products and services of 2,341 exhibitors from 42 countries.

Source: Messe München GmbH

Largest ever hydraulic pump

The Swedish Company Hägglunds is to launch its own pump series including its largest pump ever, with a maximum displacement of 750 cm³. The product series will be progressively introduced and includes eight basic pump sizes. This will make it possible to closely adapt the pump to drive speed requirement, and in doing so, optimizing the customer’s manufacturing process and, together with the company’s equipment provide a complete drive solution.

This pump series is one step further for Hägglunds in optimizing their complete drive systems. Benefits mentioned are space savings, possibilities to tandem mount pumps and low power consumption.

The company will continuously work with improvements of pump efficiency. “If the degree of efficiency is increased by 3% in a 1000 kW (1340 HP) system, the power consumption drops by 30 kW. This is equivalent to a saving of about SEK 120,000 - 240,000 (US$13,000 - US$26,000) per year of operation, which reduces pay-off time for the investment. Low energy consumption is also positive in terms of the environment,” says Kalevi Niemi, Marketing Director.

The pump series, denoted SP as in Superior Performance, is the result of a cooperation between Hägglunds, who specified the series, and the German Company Brueninghaus. Some component parts have been modified and several new functions have been added, e.g. a shaft seal, valves and a servo control system. These pumps have a lifetime equal to that of the other parts of Hägglunds drive solutions.

“We follow the same strict requirements that we apply to our hydraulic motors with these new hydraulic pumps,” explains Berth-Ove Byström, Head of Development for this product series.

The SP pump series, together with Hägglunds motors, power units and control systems provide the means to package a complete and customized combination for an optimized drive solution. Some pumps can be installed in a tandem configuration. This makes it possible to use a single electrical motor to drive both pumps thereby load sharing two drives on one electric motor. While combining different pump sizes to optimize operation, space is also saved.

As the new pump models are introduced to the market, the noise level will be reduced and, in the long-term, efficiency will be increased upwards to closer match the efficiency of the motors, to improve the overall efficiency of the complete drive solution.

“A low noise level is an important aspect of the working environment and our goal is 75 dB(A) for pumps up to 500 cm³” says Byström.

Beside the 750 cm³ pumps, the 250 cm³, 355 cm³ and 500 cm³ pumps are also available, with the four smaller models, 40 cm³, 71 cm³, 125 cm³ and 180 cm³ introduced very soon.

Source: Hägglunds Drives Inc.

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High production and serviceability are key factors in the redesign of the new generation GHP-2800. Over 10 percent more fuel capacity, combined with Tier II fuel efficiency, provide an extended day of paving, resulting in higher production.

The GHP-2800’s new segmented fiberglass shroud provides ease in serviceability. One section lifts up to allow access to the engine and service points. The battery box is relocated outside of the engine compartment for easier accessibility. The hydraulic pressure gauges have been changed and relocated to improve their organization.

The award winning G21 proprietary digital operating system is now featured on GOMACO’s new generation GHP-2800 slipform paver. The exclusive G21 brings a whole new level of system diagnostics and computing power with an easy-to-operate control panel. This unique system provides better control for smoother rides.

The redesign of the new generation GHP-2800 was built around the increased horsepower of the new electronic Tier II Caterpillar C9, 8.8 Liter diesel engine with 335 hp (250 kW).

The new electronic Tier II compliant engine reduces emissions and meets the required industry emission control standards being mandated for off-road diesel equipment throughout the world. The engine provides cleaner combustion and is tuned to achieve optimum performance.

The GHP-2800 features a revolutionary cooling package module incorporating a centrifugal fan for noise reduction and added cooling capacity. GOMACO’s new generation GHP-2800 features a sound insulation package, and combined with the new cooling system, makes it the quietest paver in the world. The GHP-2800 will meet or beat all international noise standards.

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High production and serviceability are key factors in the redesign of the new generation GHP-2800. Over 10 percent more fuel capacity, combined with Tier II fuel efficiency, provide an extended day of paving, resulting in higher production.
one of the first in the industry used on mobile equipment, has specially built blades with an airfoil shape to maximize air movement with the least amount of noise. It is remotely driven by hydraulics and is no longer attached to the engine. The muffler and air cleaner are internal to the new fiberglass shroud to reduce noise and increase operator visibility.

Vibrator modules are now mounted to the front of the paver in-line with the operator's console. The modules can be tilted out during paving to increase room on the operator's platform and tilted back in to accommodate transport widths. The new location for vibrator adjustment positions the modules across the front of the paver for easier reach and coordination with the vibrators below.

The four-track GHP-2800 offers “smart” cylinders to ease in the setup and operation of the four-track paver, especially in minimum-clearance projects.

Steering control has been simplified with the exclusive “smart” cylinders, used for dependable steering control feedback, eliminating the sprocket, chain, and potentiometer at the top of each leg.

The “smart” cylinder reduces moving parts and eliminates the physical adjustments to the steering system.

GOMACO’s exclusive G21 digital controller now makes it possible to have push-button steering setup. The “smart” cylinders can be taught the desired degree of leg rotation, so that the tracks do not strike any object in minimum-clearance requirements. The operator has the option of overriding this setting.

Gomaco products are sold in Quebec by Les Équipements Lefco Inc. based in Laval, Quebec. 
Source: Gomaco Inc.
New Options for Sterling’s Acterra

**Acterra All-Wheel Drive Conversion**

The Sterling Truck Corporation announced an important new optional feature for its versatile Acterra medium-duty and vocational truck. Sterling now offers a factory-authorized All-Wheel Drive Conversion for Acterra trucks. The All-Wheel Drive feature, manufactured by Fabco Automotive Corporation, is available immediately for all Acterra 4x2 versions, with conversions for Acterra 6x4 trucks expected later this year.

“The new Acterra All-Wheel Drive Conversion enhances our growing Acterra product line by enabling Sterling to provide its current and potential customers with another option when deciding on an all-wheel drive vehicle,” said John Merrifield, Senior Vice President, Sales & Marketing for Sterling Truck Corporation.

Sterling created the Acterra Fabco All-Wheel Drive Conversion option to meet the needs of commercial truck buyers across a wide range of vocations, including construction, utilities and municipal and emergency services.

The Acterra Fabco All-Wheel Drive Conversion is offered with front axle ratings of 12,000, 14,000 or 16,000 pounds, and comes with a choice of one- or two-speed transfer cases. The All-Wheel Drive is available for Acterra products equipped with MBE and Caterpillar medium-duty engines and with transmission choices from DaimlerChrysler Powersystems, Eaton and Allison.

The new Acterra Fabco All-Wheel Drive Conversion features a technologically-advanced offset front drive carrier axle and four-shaft transfer case, designed to ensure a minimal increase in vehicle height of only four to six inches over standard height. Coupled with no step frame modifications, the Fabco All-Wheel Conversion retains frame integrity and durability, maintains a low center of gravity and eliminates up to 300 pounds of weight, which allows for an increased payload capacity. Superior driveline angles comply with industry standards, and a single piece forward driveshaft avoids the cost and weight of a two-piece shaft. For operator convenience, the all-wheel drive system is engaged through two easy-to-reach electro-pneumatic switches located on the dash.

For additional information about the Acterra Fabco All-Wheel Drive Conversion or for a directory of Sterling’s expanded dealer network, customers should call (800) 358-7624, or visit the Sterling Web site at www.sterlingtrucks.com.

Sterling Truck Corporation, based in Willoughby, Ohio, produces heavy- and medium-duty custom work trucks for regional hauling and diverse vocational applications. Sterling is a member of the Freightliner LLC Group. Freightliner is a company of DaimlerChrysler, the world’s leading commercial vehicle manufacturer.

**Acterra SportChassis™ Crew Cab**

Sterling Truck Corporation has added a Crew Cab option for the SportChassis™ recreational tow vehicle. The Crew Cab option expands the comfort and versatility of the popular Acterra SportChassis, which is designed to tow RV, horse, boat, race car or custom trailers. Built on an Acterra Chassis, the SportChassis is custom-outfitted by Freightliner Specialty Vehicles, Inc. of Clinton, Okla.

“The Sterling Acterra SportChassis exceeds the capabilities of most pick up trucks with its higher towing capacity and custom options,” said John Merrifield, Senior Vice President, Sales & Marketing, Sterling Truck Corporation. “With the new Crew Cab Option, the Acterra adds an extra measure of comfort for trips between venues.”

The new SportChassis is manufactured with a maximum 40,000-pound GCWR and an Allison TRV3000 transmission. It also offers diesel engines made by DaimlerChrysler Powersystems, Caterpillar and Cummins, ranging from standard 300 hp to optional 350 hp models.

Standard features on the SportChassis include an aluminum body and wheels, lightweight aluminum-styled cab side valence panels, dual 80-gallon fuel tanks and complete cab insulation utilizing two-inch blue block. For driver comfort and safety, the vehicle offers a traction control system, fiber-glass tilt hood, power-assisted WABCO hydraulic braking, front and rear air conditioning, cruise control and power windows and locks. Each Sterling SportChassis also comes with a two-year, unlimited mileage warranty.

In addition to the standard features, customers can also select optional features including a global positioning system, high performance stereo system, multiple towing hitches and custom ultra leather interior packages, including a powered rear sofa.

“Because there are so many options available on the SportChassis, we have the ability to manufacture a truck to meet the customer’s unique needs and preferences,” says Merrifield. “For example, if a customer will be using his or her truck primarily for towing, we can outfit the vehicle with such options as automatic tire chains, air-ride towing hitch, and trailer-specific braking systems. We believe customization is essential for customer satisfaction.”

For additional information about the SportChassis, visit www.sportchassis.com.

Source: Sterling Truck Corporation
J-Day at Ontrac in Ottawa

Many contractors responded to the invitation of Ontrac, the John Deere dealer for the Ottawa region, and met at one of Thomas Cavanagh Construction Limited’s pits in Ottawa for the official presentation of the new 824J, the biggest J-Series front end loader.

They were able to test drive the new 7 yard 824J front end loader, the 60 ton 600LC excavator as well as 35 tons 530D articulated dump trucks and 75,000 lb 1050C bulldozer.

Ontrac felicitates Ike Durant, the winner of the skill contest at the commands of a 310G loader-backhoe.

The company also wants to thank all the visitors that contributed to make a success of that event.

Source: Ontrac Inc.

The new Rugby 100 «truly a high quality electronic level»

Laser Alignment, now a division of Leica, announces the launch of its totally new electronic level

Easy to Learn. Easy to Use. The professional’s choice for fast, reliable and accurate laser leveling
- Accuracy of ±1/16” @ 100 feet (± 1.5 mm @ 30 m)
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**Autocar Adds Space, Comfort To Xpeditor Cab Interior**

The cab of the Autocar Xpeditor will offer operators more room, more comfort and improved ergonomics thanks to changes being made to interior components on all trucks manufactured as of September 2 of this year.

“The Xpeditor cab is already recognized as one of the best in the LCOE business for ergonomics and visibility,” said Bill Dolesh, chief engineer at Autocar. “We found we could add extra space by simply redesigning some interior components and adjusting their position.”

Dolesh indicated that the redesign gained 3 inches of belly room and 4½ inches of knee and leg room. These gains were made thanks to a specially designed 16-inch steering wheel and relocating the seats and seat belts rearward, Dolesh explained.

“We also made a change in foot pedal positions on our dual steer, right-hand sit-down cab configuration, spreading the pedals to a more comfortable 9½ inches on-center position that will improve ease of operation for the driver.

The design changes were unveiled at the Waste Expo in New Orleans in early June and got a heavily favorable reaction from those attending.

Source: Autocar LLC.

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**Pomerleau Sand & Gravel Chooses Innotag and RDS Technology Weighing Systems**

Richard and Regent Pomerleau owners of Pomerleau Sand and Gravel Inc., serving the Ottawa region, stand proudly in front of their three front end loaders equipped with RDS Loadmaster 8000 electronic weighing systems supplied by Innotag Industriel, of Beloeil, Quebec.

Innotag Industriel is proud to take part in the success of Pomerleau Sand and Gravel Inc.

Source: Innotag Industriel, (450) 464-7427

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**Rosco RA-300 Fills Up Potholes in New Brunswick**

Rosco spray patchers are the most versatile tools for road maintenance on the market today. Rosco spray patchers make it all seem easy!

Available as the truck-mounted RA-300 or trailer-mounted RA-2000, Rosco pothole patchers that can do it all... including cleaning the surface to be patched, spraying tack coat onto the surface, combining aggregate and hot asphalt to fill and repair, and finishing the job with a final dust coat of aggregate.

According to the National Research Council’s SHRP Report, spray injection patching is the most economical and longest lasting method of pothole repair.

LeeBoy Rents gives road maintenance professionals the power to put the right piece of equipment on the job at the right time.

LeeBoy Rents offers a solid lineup of industry leading paving, grading and road maintenance equipment, all at rental rates that make sense. Rent for a week or a month - you’re in charge!

LeeBoy Rents is focused exclusively on your specialized, unique equipment needs - pothole repair, snow removal, utility cuts and road replacement, chip sealing, grading, and street, parking lot or alley paving.

For more information, on LeeBoy products or LeeBoy Rents visit: www.LeeBoy.com

J.A. Larue Inc. is the dealer for Province of Quebec and the Maritimes.

Source: J.A. Larue Inc., David Robichaud, 1-800-631-9297
Bechtel Completes First Iraqi Infrastructure Project

Bechtel today announced the completion of its first Iraqi infrastructure project, a four-lane bridge bypass for a critical highway in Western Iraq.

The Al Mat bypass work was done by Al-Bunnia Trading Company of Baghdad, the first Iraqi subcontractor signed up by Bechtel as part of its USAID Iraq Civil Infrastructure Reconstruction contract.

“There’s only one first,” said Cliff Mumm, program director for Bechtel’s project team, “it’s a milestone for our program, and it’s gratifying that an Iraqi company did the design and construction on this work,” he added.

The Al Mat Bridge, damaged in the recent conflict, provides a key link on Highway 10, which carries over 3,000 trucks daily, bringing humanitarian aid and goods to Baghdad and other Iraqi cities from Jordan.

Al-Bunnia, which employed about 50 of the company’s engineers and field employees, worked under the supervision of Bechtel managers to complete the approximately 3 km-long bypass.

Now that the bypass is completed, the original Al Mat Bridge will be reconstructed, a project estimated to take about six months.

“We not only got the bypass completed in less than a month,” Mumm pointed out, “but we also worked with Al-Bunnia to jointly develop a first-of-a-kind safety plan and procedures for the project.”

The plan included use of safety signs in both Arabic and English, mandatory use on site of hard hats, work boots, gloves and safety glasses.

Work on another early infrastructure project for Bechtel, the Port of Umm Qasr, is continuing. The port opened to commercial traffic on June 16, but work continues to dredge the port’s deep-water basin, remove unexploded ordnance and sunken vessels and repair vital power supply to port. Two Iraqi firms, the Al-Ebadi Group, and Al-Dohan are supplying labor and equipment and technical support at the Port of Umm Qasr.

Bechtel was awarded an emergency infrastructure repair and rehabilitation contract April 17 by the U.S. Agency for International Development (USAID). The $680 million agreement calls for the repair, rehabilitation or reconstruction of vital elements of Iraq’s infrastructure. This includes assessment and repair of power generation facilities, electrical grids, municipal water systems and sewage systems. There is also a provision in the contract for rehabilitation or repair of airport facilities and the dredging, repair and upgrading of the Umm Qasr Seaport, in close cooperation with other USAID contractors working in those sectors.

The contract also addresses the responsibility for repairing and reconstruction of schools, hospitals, selected ministry buildings and major irrigation structures.

Bechtel is one of the world’s premier engineering-construction organizations. It provides technical, management and directly related services to develop, finance, build and operate installations for customers in a wide range of industries. To date, Bechtel has worked on more than 20,000 projects in 140 countries on all seven continents.

Source: Bechtel

InfraStructures June/July 2003 — page 15
Here are a few snapshots of our friends, visitors and exhibitors at Internat 2003.
9th Annual Urban Infrastructure Week

The Changing Infrastructure Rehabilitation Market:
The Emergence of a New Dynamic

Honorary Chair:
Francine Ruest-Jutras,
President of the Union des municipalités du Québec
and Mayor of Drummondville

November 17-19, 2003
Hotel Omni Mont-Royal, Montreal

For details on submitting a proposal for a presentation,
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Flexible Municipal Pavements

Maintenance and Rehabilitation Techniques

Description of the Technology

Localised hot in-place asphalt recycling (Localised HIPAR) by means of in situ milling and regeneration of the properties of the material and possibly of the surface profile.

Cracks, caused by heat shrinkage, asphalt embrittlement and/or the surfacing of underlying cracks or joints, allow the infiltration of water and other contaminants into the sub-structure of the pavement, causing further degradation.

Localised HIPAR can be used to prevent infiltration through these pavement cracks and joints.

Thermal patching is carried out in two simultaneous operations, namely remixing and recycling of the surface course. Remixing eliminates the pattern of cracking in the asphalt and recycling renews the properties of surface course. Together, these operations limit the occurrence of distress such as potholes, sags and ruting.

Localised HIPAR, if carried out promptly, extends the expected useful life of the pavement.

An alternative method consists of simply heating the surface, raking it by hand and then compacting it.

Materials and Equipment

Regeneration agent and fresh mixture, if needed.

Equipment for heating and in-place remixing the surface course of the asphalt will be required, in addition to the usual road work equipment.

Fields of Use

This technique can repair cracks and paving joints that are too extensive and severe for the sealing technique (See Fact Sheet CS 1.1.1).

Moreover, localised HIPAR is useful in restricted spaces or small areas where large scale equipment would be unsuitable.

Restrictions and Limitations

It is not advisable to use this technique when the bearing capacity of the pavement is too weak or where the pavement is under 50 mm thick.

It is not recommended for use on very distorted pavements, in the presence of certain crack sealants or in areas where there is freezing-related distortion.

Certain crack sealants previously applied must be removed beforehand.

The depth of repair, and quantity and type of regeneration agent must be established according to the job requirements.

The quantity of fresh paving mixture must be calculated beforehand to ensure an adequate height for effective compaction.

Main Phases

- Clean pavement and cracks over 20 mm wide;
- Gradually preheat, then heat the affected area of pavement;
- Perform milling and simultaneously apply regeneration agent;
- Grade surface course;
- Compact materials.

Tests and Monitoring

The type and quantity of regeneration agent, as well as the grading curve and quantity of fresh
pavement mixture must be checked.

Results
The depth of the treatment can vary from 25 to 40 mm, and the repair is carried out over approximately one metre width.

Operation and Maintenance
Localised HIPAR is good for 3 to 8 years, depending on the type of defect and level of subsequent stress (traffic and weather conditions).

Cracks must be sealed as soon as they appear.

Disclaimer
It is recommended to consult the explanatory notes accompanying the fact sheets to ensure proper use.

CERIU assumes no responsibility, whatsoever, concerning the application of the techniques and procedures described in this fact sheet.

To obtain a copy of the CERIU Compendium of Infrastructure Technologies, please contact CERIU’s Céline Forest at (514) 848-9885, extension 272, at the Centre d’expertise et de recherche en infrastructures urbaines (CERIU).

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CERIU launches INFRA 2003, the 9th Annual Urban Infrastructure Week

CERIU is proud to announce that it will be hosting the 9th Annual Urban Infrastructure Week – INFRA 2003 – on November 17, 18 and 19, 2003. On this occasion, more than 100 speakers from throughout Canada, the United States and Europe will be on hand to discuss the latest developments in urban infrastructure management, investigation, maintenance and rehabilitation.

The theme for this year’s conference is The Changing Infrastructure Rehabilitation Market: The Emergence of a New Dynamic. Presentations will provide urban infrastructure managers with comprehensive information and invaluable food for thought on the issues of today and tomorrow.

Potholes, water main breaks and contaminated water supplies are all telltale symptoms of the dilapidated state of our public facilities. Experts agree that these problems will only intensify in frequency and severity unless specific, effective measures are taken immediately.

Rehabilitation plays a fundamental role in this process. Fittingly, the recently launched Quebec Water Policy, which devotes an entire component of its program to municipal infrastructure, advocates the improved management of water supply systems and the increased utilization of rehabilitation techniques.

It is accordingly in the best of interest of municipalities and other system owners, private businesses and service providers, to bolster their knowledge of new management methods and technological developments. INFRA 2003 is designed to facilitate this process, with three days of unique, informative presentations made by individuals who have been involved in implementing new infrastructure management policies as well as researchers and front-line personnel with invaluable experience in this regard.

In addition to the lineup of presentations, discussions and technical workshops on the agenda, INFRA also features the Evening of Excellence which, for eight years, has been showcasing accomplishments within the infrastructure community. Among the highlights of the event is the presentation of the Technological Innovation in Infrastructure Award, which is given to a municipality in recognition of its exemplary performance and innovation in using a new technology in conjunction with a rehabilitation project.

INFRA is the only event of its kind to take an integrated approach to the various facets of municipal infrastructure management, including financing, decision support, planning, maintenance, investigation, rehabilitation and construction. Every year, researchers, engineers, professionals, politicians and other stakeholders come to share their knowledge and expertise and discover new, more efficient and more economical infrastructure management and rehabilitation methods.

INFRA 2003 is organized by the Centre for Expertise and Research on Infrastructures in Urban Areas (CERIU). Created in 1994, CERIU is a technology transfer centre that strives to promote the use and development of new, optimal urban infrastructure rehabilitation technologies. CERIU fosters the exchange of expertise and technological know-how and, as such, is one of the few organizations in the country dedicated to positioning urban infrastructure as a development tool.

CERIU’s primary focus lies in three key sectors, namely underground infrastructure, municipal pavement, and bridges, tunnels and retaining walls. Its efforts in this regard revolve around awareness, training and management initiatives.

Source: CERIU
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