



Bridge Barrier Guide in the Making

TAC has launched a project to develop a practical guide to bridge traffic and combination barriers.

The primary goal of the project is to ensure that the content of the guide is consistent with the requirements of the *Canadian Highway Bridge Design Code* published by the Canadian Standards Association (CSA).

Based on a synthesis of the current practices of transportation infrastructure owners throughout Canada, the project will result in a comprehensive guide on the use of crash-tested and acceptably modified bridge barriers. The publication will list practices related to crash-tested traffic and combination barriers, as well as provide background information and guidelines to address vehicle/barrier safety issues. Among the issues in question are structural adequacy, piercing, snagging, pocketing and hazards caused by detached elements and fragments.

Several reasons underlie the need to prepare the bridge barrier guide.

The majority of reports and codes related to the testing of bridge traffic and combination barriers take vehicles into account. However, little research has been done on other types of traffic such as cyclists and pedestrians. Furthermore, testing involves virgin material, creating a discrepancy for agencies that require guidelines for existing barriers that have been modified. Another issue results from waiving testing requirements if analytical evaluation shows the bridge barrier to be crashworthy. This potentially allows minor modifications to crash-tested barriers without retesting.

Initiated by TAC's Structures Standing Committee, the project will be conducted by a consultant under the direction of a steering committee. The consultant is expected to be selected this spring and the project completed in the spring of 2009.

The effort is being sponsored by: **Alberta Infrastructure and Transportation**, the **British Columbia Ministry of Transportation**, **Manitoba Infrastructure and Transportation**, the **New Brunswick Department of Transportation**, **Nova Scotia Transportation and Infrastructure Renewal**, **Newfoundland and Labrador Transportation and Works**, **Prince Edward Island Transportation and Public Works**, the **Quebec Ministry of Transport**, **Saskatchewan Highways and Infrastructure**, the **Yukon Department of Highways and Public Works**, the **South Coast British Columbia Transportation Authority (TransLink)** and the **cities of Calgary, Edmonton, Montreal, Ottawa, Vancouver and Winnipeg**. 

Upcoming Report on Intelligent Transportation Systems for Traffic Management

A TAC report detailing a framework for the application of intelligent transportation systems to traffic management will be published this spring.

The report provides a stand-alone comprehensive framework for the application of intelligent transportation systems (ITS) specifically intended for traffic management. The framework defines a process to assist transportation agency decision-makers, planners, engineers and operators by offering practical information on ITS applications. It addresses all stages of an ITS project, that is, planning, design, procurement, installation, operations and maintenance.

The upcoming publication also identifies best practices, potential pitfalls, institutional issues and other considerations in the area in question with the intent of improving decision-making and communication with politicians, senior management, consultants and suppliers.

Over the last two decades, ITS has evolved from a concept limited to urban traffic signal management to the current broad range of

(cont'd on p. 2)



In This Issue

Toronto Fighting Climate Change and Promoting Sustainable Transportation

Nominate the Transportation Industry's Best Players!

Reversible Lane Systems from A to Z

Transportation Infrastructure in Permafrost Regions Focus of New Project

(cont'd from p. 1)

applications that enable the efficient management of the surface transportation network. This evolution has resulted from research and development, pilot tests, demonstration projects and deployments with significant advancements in technologies and their transportation applications.

However, the level of familiarity with ITS varies within the transportation community. With ITS now becoming an integral component of the transportation practitioner's toolkit, there is a need for documentation and guidelines outlining the best approaches to planning and designing ITS applications.

For the purposes of the TAC report, ITS applications cover:

- traffic management on both urban and rural networks;
- traffic management centres including the management of special events and emergencies;
- work zones including both urban and rural applications; and
- special applications including road weather information systems specific to traffic management, rail crossing safety and management, bridge and tunnel management and wildlife protection.

The application of ITS to other modes and applications to such areas as public transportation, electronic payment, commercial vehicle operations and traveller information were considered to be outside of the scope of the report and will be the subject of future framework documents.

The easy-reference publication contains a framework section which provides an overview of ITS and the processes used in the planning, design and implementation of their application. Another section covers technical applications, providing details on current

“ Over the last two decades, ITS has evolved from a concept limited to urban traffic signal management to the current broad range of applications that enable the efficient management of the surface transportation network. ”

applications and technologies, best practices and lessons learned through experience and the implementation, operation and maintenance of existing ITS projects.

Initiated by the association's Traffic Operations and Management Standing Committee, the report project was carried out by a team of consultants led by **Delcan Corporation**. Other members of the team were **EBA Engineering Consultants Ltd.**, Harmelink Consultants Limited and the TecSult Group. A TAC steering committee oversaw the work.

An announcement will appear on the association website as soon as *Framework for the Application of Intelligent Transportation Systems (ITS) for Traffic Management* is available for purchase. 

Nip and Tuck and Voilà!

TAC News has been given a fresh new look to bring it in line with current publication designs.

Aside from layout and aesthetic improvements, the newsletter will now be printed in a single colour in order to keep costs down. We have selected green for now with the option of switching to another colour at the start of the next volume in a year's time.

The online edition of *TAC News* will closely resemble the print version as it will now be presented in portable document format (PDF). However, it will be a much more colourful version of the printed offering. Convenient features have been incorporated into the online design, which will continue to reach readers earlier than the print version.

We intend to keep tweaking the look of *TAC News* during the course of the year, so let us know what you think. We would really like to hear from you about any aspect of the newsletter. 

A quarterly publication of the
Transportation Association of Canada
ISSN 0317-1280 ~ Publications Mail
Commercial Sales Agreement No. 1708201
2323 St. Laurent Boulevard
Ottawa K1G 4J8
Tel. (613) 736-1350 Fax (613) 736-1395

www.tac-atc.ca

Editor: Gilbert Morier (gmorier@tac-atc.ca)

news@tac-atc.ca

TAC is a national association with a mission to promote the provision of safe, secure, efficient, effective and environmentally and financially sustainable transportation services in support of Canada's social and economic goals.

The Association is a neutral forum for gathering or exchanging ideas, information and knowledge on technical guidelines and best practices.

In Canada as a whole, TAC has a primary focus on roadways and their strategic linkages and inter-relationships with other components of the transportation system.

In urban areas, TAC's primary focus is on the movement of people, goods and services and its relationship with land use patterns.

2008 TAC Annual Conference and Exhibition

Transportation – A Key to a Sustainable Future

September 21-24
Westin Harbour Castle Hotel
Toronto, Ontario

DELEGATES – Early registration information will be posted on the Web. Check out TAC's site as of April 14.

EXHIBITORS – To book your exhibit space, visit the association's website as of March 3.

SPONSORS – For sponsorship opportunities, consult the material already posted on the website or contact Sue Killam at the TAC office (tel. [613] 736-1350; email skillam@tac-atc.ca).

www.tac-atc.ca



Photo: Tourism Toronto

TAC GOING FOR GREEN!

TAC is planning on organizing "greener" meetings including its spring technical meetings and annual conference.



A staff task force, which reports to the association's executive director, will soon recommend changes to existing meeting policies and practices with environmental impacts, also identifying associated benefits and costs.

Another task force is looking at ways to green TAC's office environment.

In these times of rapid climate change and increasing degradation of the world's water, air and ecosystems, TAC wishes to limit its environmental footprint while also assuming a leadership role for its constituents in an effort to ensure a sustainable planet for future generations of Canadians. ☐

TAC Omnibus Sponsors

 <p>leading edge transportation solutions</p> <ul style="list-style-type: none"> ▶ transit priority planning & design ▶ environmental assessment ▶ highway/roads design ▶ program management ▶ traffic planning 	<p>COMMUNITIES</p> <p>TRANSPORTATION</p> <p>BUILDINGS</p> <p>INFRASTRUCTURE</p>
	<p>t: 905.882.1100 f: 905.882.0055 For more info please visit our website at: www.mmm.ca</p>

One Team. Infinite Solutions.

Stantec's transportation group provides comprehensive services for aviation, bridge, rail, roadway, and transit projects.



stantec.com

Offices throughout North America

TSH engineers architects planners

from *VISION* to *Plan* to *REALIZATION*

Policy, Planning and Design, Construction Administration

- Roads and Bridges
- Public Transportation
- Rail, Air, Marine

1-800-668-1983
tsh@tsh.ca
www.tsh.ca

Canadian Transportation Awards Program

Nominate the Transportation Industry's Best Players!

The Canadian Transportation Awards Program is intended to **recognize leadership, excellence and achievement in all modes and segments of the transport sector**. If you know someone who has made an outstanding contribution to transportation in Canada, this is your opportunity to ensure that this individual is considered for the industry's most prestigious awards!

Nominations are solicited for the following four award categories in 2008:

- **Transportation Person of the Year;**
- **Award of Excellence (up to two awards);**
- **Award of Achievement (up to two awards); and**
- **Award of Academic Merit (up to two awards).**

Supported by Transport Canada, the Canadian Transportation Awards Program is administered by TAC. For more information on the program and to submit a nomination, **visit TAC's website at www.tac-atc.ca as of February 15. Nominations for the 2008 awards must be received online no later than April 18.**

Canada's Minister of Transport, Infrastructure and Communities or the Minister's alternate will confer the awards during the closing banquet of TAC's 2008 Annual Conference and Exhibition to be held in Toronto, September 21-24. ☐

Roadside Sign Placement Guidelines to Be Issued

Guidelines for vertical and lateral roadside sign placement will soon be published by TAC. They are expected to promote consistency and safety as the proper placement of signs is considered essential in order to command attention and observance on the part of road users.

The upcoming publication is intended to provide government agencies with information on the factors and key criteria that affect roadside sign placement. It will assist traffic operations and management practitioners in selecting optimal practical placement distances for new signs as well as in replacing existing signs. The lateral and vertical roadside sign placement provisions in the *Manual of Uniform Traffic Control Devices for Canada* will also be updated at a later date.



The work contains recommendations on lateral and vertical roadside sign placement criteria that account for Canadian conditions, accommodate the needs of both road agencies and users, encourage consistency and minimize jurisdictional differences, as well as factor in recent advancements in sign sheeting technology.

The guideline development process included surveying Canadian jurisdictions on current practices and policies related to roadside sign placement. The project team also conducted a literature review, examined and identified the key factors and criteria that influence placement, developed guidelines for determining optimal placement distances, and tested the guidelines in various parts of the country.

Initiated by the association's Traffic Operations and Management Standing Committee, the project was carried out by **Opus Hamilton Consultants Ltd.** under the direction of a steering group.

Having been approved by the Chief Engineers' Council, *Guidelines for Vertical and Lateral Roadside Sign Placement* will be available in the coming months. An announcement will be posted on TAC's website once the publication is available.

Is Your Geometric Design Guide up to Date?

Holders of TAC's *Geometric Design Guide for Canadian Roads* should note that the first updates to the guide were recently issued. The updates are available in both English and French from the association's online bookstore or by calling the TAC office. Members can buy a single copy for \$49 or 10 or more copies for \$44 each.

PEOPLE IN THE NEWS

In Saskatchewan, Hon. **Wayne Elhard** has been named minister of highways and infrastructure.

Hon. Dianne Whalen is the new transportation and works minister for Newfoundland and Labrador.

Bruce McCuaig has been named deputy minister of transportation for Ontario.

In Nunavut, Hon. **Patterk Netser** now holds the economic development and transportation portfolio.

Bryce Conrad has become director general of Transport Canada's surface infrastructure programs.

Fred Blaney has assumed the position of executive director of the Engineering Services Division of the New Brunswick Department of Transportation.

At UMA Engineering Ltd., **John Stecyk** has been appointed regional coordinator of the Sustainable Asset Management Group in Winnipeg.

Sylvain Boudreau is now the coordinator of urban technical networks in the Engineering Division of the City of Gatineau.

Yves Cadotte, senior vice-president, General Engineering Division (Quebec), SNC-Lavalin Inc., has joined the Board of Directors of the TAC Foundation. The organization now has a full complement of 11 directors.

	Edmonton: (780) 440-4411
	Red Deer: (403) 340-3022
Providing 30 years of: Quality • Innovation • Service • Professionalism	
<ul style="list-style-type: none"> ▪ Transportation ▪ Land Development ▪ Project Management ▪ Civil/Municipal ▪ Construction Survey ▪ Water Resources 	
www.al-terra.com	

Over 50 years of award winning services for the transportation sector
www.delcan.com
<i>Markham - Ottawa - London - Waterloo - Niagara Falls Calgary - Victoria - Vancouver</i>

Toronto Fighting Climate Change and Promoting Sustainable Transportation

Editor's Note: In this contribution to TAC News, Gary Welsh, general manager of Transportation Services of the City of Toronto, writes about some of the initiatives undertaken by his division to counter climatic changes. Requested by TAC's recently formed Task Force on Climate Change, this feature is the first article to profile climate change initiatives of member agencies. Other agencies are encouraged to contact the newsletter editor with a view to submitting articles or briefs highlighting their own projects in this area.

The City of Toronto adopted a bold climate change plan in 2007 that will see its residents, businesses and communities take action to cut greenhouse gas emissions, clean the air and create a sustainable energy future. The plan, which was crafted with substantial public and stakeholder input, is designed to not only realize the Kyoto Protocol greenhouse gas reduction target but substantially exceed it.

The plan calls for the achievement of reduction targets for greenhouse gas emissions and locally generated smog-causing pollutants by encouraging Torontonians to adopt more environmentally friendly lifestyles, promoting local food production, community energy planning, increasing the city's tree canopy and other measures.

Sustainable Transportation – A Key Element in Combating Climatic Changes

To support Toronto's "climate change plan," the city's Transportation Services Division has developed a sustainable transportation program with the goal of focusing on a new way of looking at transportation. Initiatives have been undertaken to favour investments in public transit and improved cycling and pedestrian facilities, as well as to direct future development to targeted areas that support transit, cycling and walking.

The division has proposed a number of short-term activities that can be implemented quickly and with limited funding, and a series of longer-term initiatives. Enhanced

pedestrian, cycling and public transit opportunities – among the first to be considered – include:

- increasing pedestrian crossing times at intersections;
- introducing a pilot project that would see pedestrians allowed to cross in all directions at certain intersections while traffic is stopped;
- enhancing the city's bike-share program;
- creating an east-west bike route through the city;
- improving bike parking across the city;
- traffic signal priority for transit vehicles; and
- working with other regions in the Greater Toronto Area (GTA) to develop "smart commute" policies for the entire region.

“With an eye to the future, the division is replacing cars, trucks, street sweepers, lawnmowers and other machinery in an effort to improve its commitment to public health and the environment.”

Sustainable transportation is just one of several means of combating climate change. The Transportation Service Division is also supporting the city's climate change efforts in other ways.

Anti-idling Bylaw

The City of Toronto has introduced a bylaw aimed at eliminating unnecessary idling. Contaminants from vehicle exhaust are major contributors to deteriorating air quality in Toronto.

The bylaw limits idling to no more than three minutes in a given 60-minute time period. It allows transit vehicles to idle when picking up or discharging passengers and also allows limited idling when transit vehicles are waiting for passengers. As well, the bylaw provides for idling during extreme outdoor temperatures to ensure heating or cooling inside a vehicle.

The Transportation Services Division has continued to educate the public on the reasons to avoid unnecessary idling of vehicles. It has launched a successful public awareness campaign highlighted by a media blitz which has resulted in a significant increase in the public's knowledge of the dangers of leaving engines idling.

“Green” Vehicles Join Transportation Services Fleet

The Transportation Services Division's fleet of vehicles is going green.

With an eye to the future, the division is replacing cars, trucks, street sweepers, lawnmowers and other machinery in an effort to improve its commitment to public health and the environment. It has taken major steps to realize the City of Toronto's Green Fleet Transition Plan.

(cont'd on p. 6)



An increase in the number of bike lanes is one of the City of Toronto's sustainable transportation initiatives.

(cont'd from p. 5)

Street Sweepers Improve Air Quality

Adding new, technologically advanced street sweepers to the current fleet of vehicles has improved both air quality and the delivery of road cleaning service.

The new sweepers are capable of removing and containing over 90 per cent of the fine dust from road surfaces. Removing this dust has led to a substantial improvement in the city's air quality. These machines will also be able to operate year round and help avoid the winter build-up of debris and fine particulate matter, as well as the need for a spring cleaning catch-up.

And there's another benefit – this time for water courses in the city. The new sweepers will substantially reduce the amount of fine road dust being washed down catch-basins into the sewer system. The benefits will be improved storm water quality and reduced water treatment costs.

New Traffic Lights Bring Energy Savings

Traffic lights are beginning to brighten Toronto's environmental protection

endeavours. New light bulbs being installed in the city's traffic signals will result in significant energy savings and a reduction of carbon dioxide (CO₂) emissions. The technology – light emitting diodes or LEDs – will also be used for the city's "Walk/Don't Walk" pedestrian signals.

Over the next few years, Toronto's Transportation Services Division will convert the remaining 1,900 traffic and pedestrian signals to the new lighting. Conversion to the technology will pay immediate dividends. A reduction of five million kilograms of CO₂ emissions is projected as a result of this

initiative. In addition, the new lights will save more than 18 million kilowatt hours a year, providing an energy break of about \$1.8 million annually. ☐

“ Initiatives have been undertaken to favour investments in public transit and improved cycling and pedestrian facilities, as well as to direct future development to targeted areas that support transit, cycling and walking. ”



As part of its environmental objectives, Toronto's Transportation Services Division plans to develop policies aimed at improving public transit and focusing on pedestrian travel.

60 YEARS 1948-2008
R.V. Anderson Associates Limited
 environment • infrastructure
 tel 416 497 8600 web www.rvanderson.com
 toronto welland ottawa sudbury
 london moncton fredericton mumbai
 engineering • operations • management

BA Consulting Group Ltd.
 45 St. Clair Avenue West, Suite 300
 Toronto, Ontario M4V 1K9
 416.961.7110(tel) 416.961.9807(fax)
 www.bagroup.com

BAGROUP
 Transportation Consultants
 Movement in Urban Environments

Bunt & Associates Engineering Ltd.
 Vancouver • Victoria • Calgary • Edmonton
Transportation Planners and Engineers
 www.bunteng.com

BUNT & ASSOCIATES

Call for Submissions for Educational, Environmental, Urban and Safety Awards

TAC members are invited to submit their entries for the association's educational achievement, environmental achievement, road safety engineering and sustainable urban transportation awards. The deadline for submissions is March 14.

The four awards are open to all members of TAC and their staff. The award winners will be honoured at the association's fall 2008 conference in Toronto. Applicants for the environmental, safety and urban transportation awards will be expected to present their submissions at dedicated conference sessions.

A flyer on the awards is included with this issue of *TAC News*. Detailed information is available in the members' workroom of the association's website. ☐

Project to Study Winter Road Maintenance Performance Measurement

TAC will be preparing a report on winter road maintenance performance measurement with surface-friction testing equipment.

The main objective of this initiative is to examine methods that scale, or quantify, the friction of road surfaces, as well as current practices that measure real-time road conditions. The research will cover the advantages, disadvantages and validity of each method studied, and determine the lessons learned.

A literature search will be undertaken to identify existing methodologies and new studies and methods currently under development. The project will encompass the effectiveness of maintenance techniques with the view of allowing road agencies to augment their own research.

A section of the report will focus on further research into the subject in order to translate friction testing information in a straightforward way for the general public. This is designed to promote standardization of snow and ice control performance measures within and among provinces. It will also improve motorists' understanding of expected driving conditions for given road surface descriptions.

Various private firms, government agencies and universities will be contacted to determine if there have been advancements in surface-friction testing practices. The intent is to complement material found in existing reports and published studies.

The project will be carried out by a consultant to be selected in early spring. A steering committee will lead the project which was proposed by TAC's Maintenance and Construction Standing Committee. Work is expected to be completed by the end of 2008.

Sponsoring the project are: **Alberta Infrastructure and Transportation**, the **British Columbia Ministry of Transportation**, **Nova Scotia Transportation and Infrastructure Renewal**, the **Ministry of Transportation of Ontario**, **Prince Edward Island Transportation and Public Works**, the **Quebec Ministry of Transport**, the **City of Edmonton**, the **City of Winnipeg** and the **Salt Institute**. 

MEMBERSHIP HAPPENINGS

The **MMM Group Limited** and H.W. Lochner Inc., a Chicago-based transportation engineering firm, have formed a corporate partnership to pursue large-scale public-private partnership transportation projects in the United States. The new strategic alliance is called the Lochner MMM Group, LLC.

The **UMA Group Ltd.** and the Canadian Society for Civil Engineering have launched a competition to encourage post-secondary students to explore the interdisciplinary field of sustainable asset management. The annual event will encourage graduate and senior undergraduate students from Canadian universities to investigate and develop models, methods, tools and policies that support the sustainable management of civil infrastructure assets. To be eligible, students must submit a 4,000-word research paper by April 1. For more information, visit www.sustainable-assets.com.

Late last year, **TransLink**, now also called the South Coast British Columbia Transportation Authority, officially launched its iMove web portal developed by **Delcan Corporation**. Delcan designed and deployed the iMove system as a "one-stop" transportation portal to provide multi-modal, multi-jurisdiction, real-time and static traveller information. The website will enable users to quickly access information on transit and cycling routes, construction and events, current incidents, airline arrivals, border crossing wait times, ferry sailing times and loadings. Visitors to the site will also have access to 125 webcams to assess current conditions in major regional road corridors.

Saskatoon-based **International Road Dynamics Inc.** (IRD) is acquiring a 50-percent interest in Xuzhou-PAT Control Technologies Limited (XCPT) located in Xuzhou, China. XCPT, IRD's distributor in China since 2003, is a design, manufacturing and service company focused on providing intelligent transportation systems for the country's growing highway and roadway infrastructure. 

 Cole Engineering <small>www.ColeEngineering.ca</small> <small>100 Renfrew Drive, Suite 100</small> <small>Markham, ON L3R 9R6</small> <small>Tel: 416.987.6161 Fax: 905.940.2064</small>	<i>Excellence In Engineering Infrastructure</i>	
	Traffic Engineering Transportation Planning EA & Road Design Municipal Engineering Water Resources	Project Infrastructure Management

Excellence in Transportation Planning <i>Transportation Land Use Integration</i> <i>Transit Planning</i> <i>Traffic Management</i> <i>Expert Services</i>	
Tel: (905) 946-8900 Toll Free: 1-800-959-6788 info@ENTRAconsultants.com	

 DILLON CONSULTING	<i>Infrastructure</i>	<i>Communities</i>
	<i>Environment</i>	<i>Facilities</i>
<i>Offices Across Canada and International</i> 235 Yorkland Blvd., Suite 800 Toronto, Ontario M2J 4Y8 416.229.4646 www.dillon.ca		

	Planning Transportation/Systems Design
	Transportation Planning • Public Transportation Traffic Operations & Parking • Intercity Transportation Goods Movement • Planning & Design
5th Floor - 230 Richmond Street West Toronto ON M5V 1V6 tel 416 596 1930 fax 416 596 0644 www.ibigroup.com	

Bikeway Traffic Control Guidelines Being Updated

TAC will update the 1998 edition of its *Bikeway Traffic Control Guidelines for Canada* with a view to contributing to the improvement of bicycle safety and traffic flow.

The current edition of the publication provides guidance on the design and application of pavement markings and signs for bicycles and bikeways. However, there is a need to update the guidelines with additional traffic control devices not included in the 1998 publication.

The update will include recommendations from a recent TAC project that developed new bicycle pavement markings and associated signage, as well as any recommendations that emerge from the ongoing simulation testing of coloured pavements and markings for bicycle traffic.

The project will also encompass a review of all sections of the existing publication and relevant TAC manuals to identify any other improvements and additions that may be needed. As well, it is expected that a few additional non-regulatory signs or tabs will be developed as part of the project.

In addition to a new version of the bikeway traffic control guidelines, text will be prepared for any recommended changes to TAC's *Manual of Uniform Traffic Control Devices for Canada* resulting from ongoing work on bicycle traffic pavement markings and signage.

The **Boulevard Transportation Group** has been chosen to conduct the update which was proposed by TAC's Traffic Operations and Management Standing Committee. The work, which is expected to be completed by the summer of 2009, will be carried out under the guidance of a project steering committee.

A number of agencies are sponsoring this effort. They are **Alberta Infrastructure and Transportation**, the **British Columbia Ministry of Transportation**, **Nova Scotia Transportation and Infrastructure Renewal**, **Prince Edward Island Transportation and Public Works**, the **Quebec Ministry of Transport**, the **cities of Cambridge, Edmonton, Hamilton, Mississauga and Saskatoon**, **Halifax Regional Municipality** and the **South Coast British Columbia Transportation Authority (TransLink)**. 

New Members

TAC is pleased to welcome the following new members:

Carillion Canada Inc. / TWD Roads Management Inc.

Toronto, ON
Paul Quinless, Senior Vice President, Services

Challenger Geomatics Ltd.

Edmonton, AB
Jim Boss, Project Manager

Colas Canada Inc.

Montreal, QC
Yves Léger

Focus Corporation

Edmonton, AB
Paul Breeze, Vice President

Town of Shediac

Shediac, NB
Claude Boudreau, Director of Public Works

C.C. Tatham & Associates Ltd.

Collingwood, ON
Michael Cullip, Manager, Transportation Engineering

URS Canada Inc.

Thornhill, ON
Kevin Phillips

Mordechay Katan

EDMONTON AB 780.438.9000	Expertise across all aspects of transportation planning, traffic, roadway and bridge engineering.
CALGARY AB LANGLEY BC 403.254.0544 604.530.2288	
 ISL Engineering and Land Services	
Exceptional people. Shared success. www.islengineering.com	

Early-bird Membership Payment Winner

Congratulations to **Carleton University**, winner of the early-bird TAC membership payment draw! Professor Ata Kahn wins a 2008 association publication of his choice.

 ITRANS Consulting insight, integrity and innovation [®] in:	2007 Transportation Person of the Year Congratulations to Geni Bahar on being TAC's 2007 Transportation Person of the Year
<ul style="list-style-type: none"> • Transportation Planning • Transportation Systems • Environmental Assessments/ Functional Planning 	<ul style="list-style-type: none"> • Transportation Safety • Roadway Planning & Design • Public Transit
www.itransconsulting.com	I-888-860-1116
Vancouver • Calgary • Cambridge • Toronto • Ottawa • Washington DC	

www.synectics-inc.net

synectics
SAFETY SPECIALISTS

ROADWAY AUDITS
TRAFFIC SAFETY
POLICY DEVELOPMENT
APPLIED RESEARCH
EXPERT OPINION

1-866-355-6627

80 Hanover Drive, Suite 3, St. Catharines ON CANADA L2W 0A1

 MRC McCORMICK RANKIN CORPORATION	Global Transportation Engineering
<ul style="list-style-type: none"> • Transportation • ITS • Airport Engineering 	<ul style="list-style-type: none"> • Toll Highways • Environmental • Project Management • Transit • Design / Build • Railway Engineering • Structural • Value Engineering
2655 North Sheridan Way Mississauga, Ontario, Canada, L5K 2P8 Tel: 905-823-8500 Fax: 905-823-8503 Web: www.mrc.ca	

 UMA AECOM	UMA offers engineering, management and consulting services to clients across Canada. Visit us at www.uma.aecom.com .
--	---

Transportation Infrastructure in Permafrost Regions Focus of New Project

Funding has been secured for a project aimed at developing a best practices guide for the construction, maintenance and rehabilitation of transportation facilities in permafrost regions.

The study area in question was identified as a priority by the Permafrost Subcommittee of the Engineering and Research Support Committee, which reports to the Council of Deputy Ministers Responsible for Transportation and Highway Safety.

In northern regions across Canada, airfield and road infrastructure has been built on permafrost with the expectation it would be a stable foundation. However, many agencies are now experiencing difficulties with permafrost thaws. Premature deterioration or failure of the infrastructure can result.

Several different approaches to construction and maintenance in permafrost regions have been tested with varying degrees of success. The project will lead to the publication of a TAC guide that describes recommended practices and identifies those that should be avoided. The guide will be applicable for practitioners responsible for transportation infrastructure and services in northern areas.

More information about the project, including an overview of the guide's tentative contents, is available on the association's website, under the projects and publications section.

Selection of a consulting firm to carry out the project should be completed in the near future. The work, which will be conducted under the auspices of TAC's Chief Engineers' Council, is expected to be done by the spring of 2009.

Sponsoring the project are: **Manitoba Infrastructure and Transportation**, the **Northwest Territories Department of Transportation**, **Nunavut Economic Development and Transportation**, the **Quebec Ministry of Transport**, the **Yukon Department of Highways and Public Works** and **Transport Canada**. 

Traffic Control Devices Manual Updates Coming Soon



Updates to TAC's *Manual of Uniform Traffic Control Devices for Canada* will be published in the near future.

The updates reflect the results of recently completed sponsored and volunteer projects aimed at developing and improving traffic signs and signals.

Major changes have been made to Part B of the manual which deals with traffic control signals. This entails the complete replacement of Division 2.

The division will now contain installation guidelines for traffic control signals based on TAC's new warrant matrix procedure. The procedure reflects existing practices combined with relevant adjustment factors to minimize data collection requirements. Designed for easy use, it is supported by domestic experience and in keeping with Canadian needs.

Other additions and revisions include the introduction of the Clearview type font for guide and information signs, shape and colour codes for temporary condition signs, colours reserved for future use, bicycle signal head location, lens size and colour, as well as newly developed seat belt use, emergency detour route and seasonal load restriction signage.

A number of minor editorial changes have also been made throughout the document for which the association's Traffic Operations and Management Standing Committee is responsible.

A notice will be posted on TAC's website as soon as the update package is available. As well, traffic control manual holders with email addresses on file will be advised directly on how to order the updates. 



COMING EVENTS ~ 2008

TAC Seminar on Erosion and Sediment Control on Roadway Projects

February 25
Vancouver, British Columbia
Tel. (613) 736-1350
www.tac-atc.ca

Annual Conference of the Canadian Construction Association

March 2-6
Victoria, British Columbia
Tel. (613) 236-9455
www.cca-acc.com

CONEXPO-CON/AGG 2008

March 11-15
Las Vegas, Nevada
www.conexpoconagg.com

2008 Accelerated Bridge Construction Conference

March 20-21
Baltimore, Maryland
Tel. (202) 366-4599
www.fhwa.dot.gov/bridge/accelerated/index.cfm

TAC Spring Technical Meetings

April 3-7
Ottawa, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

Annual Conference of the Association québécoise du transport et des routes

April 14-16
Quebec City, Quebec
Tel. (514) 523-6444
www.aqtr.qc.ca

(cont'd from p. 9)

International Conference on Transport Infrastructure

April 24-26
Beijing, China
icti@jtzx.net.cn

Institute of Transportation Engineers

April 26-30
Victoria, British Columbia
www.citebc.ca/Conf2008/

11th International Conference on Durability of Building Materials and Components

May 11-14
Istanbul, Turkey
www.11dbmc.org

Annual Conference of the Canadian Urban Transit Association

May 24-29
Edmonton, Alberta
Tel. (416) 365-9800
www.cutaactu.ca

Annual Conference of the Federation of Canadian Municipalities

May 30-June 2
Quebec City, Quebec
Tel. (613) 241-5221
www.fcm.ca

Annual Conference of the Intelligent Transportation Systems Society of Canada (ITS Canada)

June 1-4
Montreal, Quebec
Tel. (905) 471-2970
www.itscanada.ca

Annual Conference of the Canadian Transportation Research Forum

June 1-4
Fredericton, New Brunswick
Tel. (519) 421-9701
www.ctrf.ca

Annual Conference of the Canadian Society for Civil Engineering

June 10-13
Quebec City, Quebec
www.csce2008.ca

7th International Conference on Managing Pavement Assets

June 24-28
Calgary, Alberta
www.ICMPA2008.com

Annual Conference of the Canadian Institute of Planners

July 13-16
Winnipeg, Manitoba
Tel. (800) 207-2138

4th International Conference on Bridge Maintenance, Safety and Management

July 13-17
Seoul, Korea
Tel. (202) 493-3023
www.iabmas08.org

International Construction Management Conference

September 8-11
Orlando, Florida
Tel. (202) 366-1562
gerald.yakowenko@fhwa.dot.gov

TAC Annual Conference & Exhibition

September 21-24
Toronto, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

Symposium on Pavement Surface Characteristics for Roads and Airfields – SURF 2008

October 21-23
Portoroz, Slovenia
Tel. (418) 644-0890, ext. 4056
www.surf2008.si

Reversible Lane Systems from A to Z

Guidelines for the planning, design, operation and evaluation of reversible traffic lane systems will be established by TAC.

The guidelines will encourage consistency in the application and operations of reversible lane systems and advance the measurement of costs and benefits associated with the systems.

The project in question will identify the planning process, roadway design practices and considerations for reversible lane systems (RLS) including suggested warrant guidelines, as well as the evaluation of multiple configurations, left-turn issues and safety factors. Guidelines will be developed to incorporate the need for physical separation, lane marking, signal control placement, terminals and transition treatment / signage.

Project work will identify and provide guidance on RLS operations as a traffic control measure. System performance measures will also be evaluated. In addition, enforcement strategies will be noted for various RLS designs and operations, that is, temporary set-up, permanent lane control and movable barrier arrangements.

The project deliverables are a stand-alone document and recommendations for revisions to the *Manual of Uniform Traffic Control Devices for Canada*.

A consulting team will be contracted in the spring to carry out the project under the supervision of a steering committee. Proposed by the association's Traffic Operations and Management Standing Committee, the initiative is expected to be completed by the spring of 2009.

Project funding is being provided by **Alberta Infrastructure and Transportation**, the **British Columbia Ministry of Transportation**, **Nova Scotia Transportation and Infrastructure Renewal**, the **Ministry of Transportation of Ontario**, the **Quebec Ministry of Transport**, the **cities of Calgary, Edmonton, Hamilton, Ottawa and Vancouver**, **Halifax Regional Municipality** and the **South Coast British Columbia Transportation Authority (TransLink)**. 