



Winter Road Construction Guidelines in the TAC Bookstore

With the winter season fast approaching, the timely release of TAC's *Guidelines for the Construction and Operation of Winter Roads* stresses the important role that winter roads play in servicing remote communities with no all-weather road access within the territories and northern regions of Canadian provinces.

The main objective of the new guidelines is to provide recommendations for design, construction and operation of winter roads. Guidelines were developed using up-to-date information and experience gathered by experts in the field of winter road planning, construction and operation.

The development of resource projects in northern Canada relies heavily on winter roads. Building an all-season road network over long distances would prevent or delay exploration efforts due to high costs. Winter roads, on the other hand, provide an excellent, cost-effective means for moving equipment and goods in and out of a remote location. Drilling activities, for example, can be completed within a few months while the ground is frozen and water bodies are covered with an adequate ice sheet to support the operation.

Technically-trained personnel in leading management positions and transportation departments developing their own guidelines will benefit from this publication. The document can also be used as a general reference guide for other organizations to help develop specific documents for planning, building and operating winter roads.

The project was initiated by TAC's Maintenance and Construction Standing Committee and conducted by **EBA Engineering Group, A TetraTech Company**. 



2012 TAC Conference & Exhibition

Transportation: Innovations and Opportunities

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Fredericton, New Brunswick



In Edmonton, we celebrated successes. In Fredericton, we will continue to build on them by gathering and exchanging relevant ideas and information through a comprehensive trade show, technical tours, paper sessions, panel discussions and workshops. The importance of transportation to Canada's economic well-being and our role in promoting innovation in transportation will be showcased in a cosmopolitan city offering both choice and diversification.

We hope you will join hundreds of delegates in 2012 for three full days of learning and networking opportunities.

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Focusing on Climate Change and Road Safety in Urban Areas

TAC has begun work on a pilot project dealing with the impacts of climate change on the frequency and severity of collisions in urban areas.

The two key objectives are identifying the projected weather change trends in the context of future climate conditions and identifying collision trends as a result of the weather change. This will be accomplished through a detailed literature review and statistical analysis of collision data of urban areas for the previous 10 to 25 years. The data will be combined with Environment Canada's climatological records from major observing stations.

The TAC initiative will assist road safety professionals by identifying proactive practices in design, road safety, pavement marking and signage and road maintenance. It will also provide knowledge on weather impacts that will benefit all areas of road infrastructure.

TAC's Climate Change Task Force and Road Safety Standing Committee, under the auspices of the Chief Engineers' Council, recommended the project. The final deliverable will include a detailed report describing the research and findings for application by agencies considering their preparedness for weather-related safety conditions now and in the future.

The project steering committee will soon begin preparing the terms of reference and selecting a consultant. The project is expected to be completed by October 2012.

Funding for this project is being provided by the **British Columbia Ministry of Transportation and Infrastructure, Nova Scotia Transportation and Infrastructure Renewal, the Ministry of Transportation of Ontario, the Ministry of Transport of Quebec, the South Coast British Columbia Transportation Authority (TransLink)** and the **cities of Calgary, Moncton and Montreal.** 

Holiday Greetings from the TAC Staff

Please note that the TAC office will close on the afternoon of Friday, December 23 and reopen on Tuesday, January 3. Happy Holidays and best wishes from everyone at TAC!



2012 TAC Membership Renewal Notice

Membership dues invoices for 2012 are being mailed in December. Members paying prior to December 31, 2011 will be eligible for a draw to receive \$250 in TAC Bucks that can be used toward the purchase of a TAC product or service.

Note that membership rates for 2012 have been adjusted by 2.6% as approved by the Board – the first increase to TAC dues since 2008.

Any member representative who did not receive a mailed copy of their 2012 TAC renewal notice by December 9th or who have any questions about their renewal should contact Melanie Farah at (mfarah@tac-atc.ca) as soon as possible.

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TAC is a national not-for-profit 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.

SIX NEW POOLED FUND PROJECTS BEING DEVELOPED

Funding partners are now being sought for six new projects of the Chief Engineers' and Urban Transportation Councils. The projects were recommended by TAC standing committees following discussions and deliberations during their meetings in Edmonton in September.

Formerly called 'sponsored projects', TAC's Board of Directors recently approved a name change to 'pooled fund projects' to reflect the collaborative spirit of the work and the shared approach to financing.

New Edition – Geometric Design Guide for Canadian Roads

The Geometric Design Standing Committee has recommended the preparation of a new edition of TAC's *Geometric Design Guide for Canadian Roads*. The recommendation followed a scoping study that examined the work needed to update TAC's current edition of the guide, published in 1999.

Priority areas will focus on design exceptions, roadside design, human factors, intersections and modern roundabouts and active transportation.

The *Geometric Design Guide for Canadian Roads* is one of TAC's flagship documents and is used to varying extents by all road agencies, designers and practitioners in Canada. The significant undertaking necessary to develop and issue a new edition will rely upon input and support from TAC's membership, including public and private sector members and the academic community.



Guide to Sustainability of Bridges

A project proposed by TAC's Structures Standing Committee is aimed at developing a guide to sustainability of bridges to assist transportation authorities and bridge engineering professionals strike a balance between environmental, social and economic pillars of sustainability.

Most authorities recognize that sustainability is a driving force behind decisions, policies as well as performance measures sought by their stakeholders. However, there currently are no established sustainability guides, rating or assessment tools to help bridge professionals and transportation authorities.

The new guide will include such topics as planning, design and construction of sustainable bridges; bridge upgrading; maintenance, repair and rehabilitation; decommissioning; legacy effects and stress reductions and evaluation tools.

Digital Advertising Displays – Synthesis of Practices

The Association's Road Safety and Traffic Operations and Management Standing Committees will develop a synthesis of practices as well as national guidelines on LED digital advertising displays near roadways.

Rapid changes to digital advertising display technologies and associated reductions in costs have increased requests for application approvals of installations of these devices near roadways. With the increase in light intensity, resolution, animation functions and device sizes, road authorities across Canada are challenged with establishing appropriate application guidelines.

Without appropriate regulations in place, advertising billboards are being installed without understanding potential negative impacts to road users.

Final deliverables will include a review and summary of the latest research on safety impacts of LED digital advertising displays applied near roadways and a review of the latest regulations and guidelines being utilized by various jurisdictions.

Winter Severity Index Update

A project initiated by TAC's Maintenance and Construction Standing Committee will result in a report containing revised winter severity indicator models for Canada.

In 2007, TAC published a report on the development of a set of models using Canadian winter road maintenance, meteorological service of Canada and road weather information system data.

Winter road maintenance data were collected from various jurisdictions across Canada. Salt usage in tonnes was chosen as the dependent variable, standardized to account for differences in road network and the number of days in the observation period. Explanatory variables included snowfall occurrence, air temperature, freezing rain occurrence, and an east-west dummy variable to account for differences in winter road maintenance practices in different parts of Canada.

As models no longer meet the needs of researchers and practitioners, the study will be revisited to include additional experience and data facilitating the development of an updated set of models or a single index.

Moving Smarter – Exploring Solutions for Canadian Cities

Initiated by TAC's Sustainable Transportation Standing Committee, this project will help municipalities identify solutions and locally relevant measures to reduce transportation energy consumption and associated greenhouse gas emissions (GHG). It will also create a framework to enable municipalities to explore unconventional and innovative approaches for reducing energy and GHG emissions from urban transportation.

The project will examine all major modes of urban transportation addressed through government planning processes, focusing on passenger cars and light trucks, public transit, active transportation, and truck traffic.

It is expected that about 15 municipalities across Canada representing a variety of geographies and sizes of urban areas will actively participate in this initiative.

Final deliverables will include a report on findings as well as a summary of workshops that will be conducted at various stages of the project. A briefing, intended for practitioners and decision-makers, will also be prepared.

Urban Transportation Indicators Fifth Survey

A project recommended by the Transportation Planning and Research Standing Committee will result in the fifth survey in the Urban Transportation Indicators (UTI) series.

The overall goal of this initiative is to build a consistent and reliable database on urban transportation and develop indicators for Canadian municipalities and transportation stakeholders. Building on TAC's four previous UTI surveys, the fifth survey will be based on the data collected during the 2011 Canadian Census and National Household Survey.

Before conducting the survey with 33 Canadian census metropolitan areas, preliminary work will include a comprehensive review of the linkages between indicators and source data to ensure the survey methodology, level of effort by participants and results obtained are consistent with stakeholders' expectations.

Final deliverables will be the UTI Survey Database, integrating data from the fifth survey and previous surveys, a technical report and a TAC briefing.

Funding Partners Invited to Consider Other Projects

Seven other projects previously recommended by TAC standing committees need additional financial support before they can be launched. Funding partners are invited to consider these projects, which are described on the Association's website under Pooled Fund Projects in Development (www.tac-atc.ca/english/projects/indevelopment/), addressing topics such as roundabout design, model rules of the road, work zone safety and public transit. 

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TAC Membership Provides Recommendations

TAC recently collaborated with Vision Research Inc., an Ottawa-based firm, to undertake quantitative and qualitative research into the needs and expectations of its members.

A comprehensive online survey was developed and implemented to gain a deeper understanding of the relevance and quality of key programs, services and communication vehicles. Four telephone focus groups were also conducted with a representative sample of members, in addition to interviews with TAC directors.

Summary of Key Recommendations

The key recommendations from both the survey and focus group research, as expressed by Vision Research, were:

- Increase use of electronic media channels to engage and invite participation
- Continue to offer opportunities where members can collaborate and share ideas with other industry professionals
- Continue to offer publications and documents relevant to the industry needs, make them accessible in a variety of formats and provide presentation opportunities by industry professionals
- Identify areas needing research in the industry, partner with stakeholders to undertake research and report on the findings to members in various formats
- Keep up with current trends and respond to future issues affecting the transportation industry
- Gain insight into the specific kinds of information required by different segments of the membership
- Engage the younger demographic of transportation professionals in order to ensure longevity of future membership levels

Members Speak Out

Findings from the survey provided important insights into the needs of members as they access TAC products and services, participate in its programs and derive value overall.

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Technical guides and publications were viewed by the majority of respondents as both the most relevant (86 per cent) and the highest in quality (82 per cent) of TAC's products and services. Respondents suggested that TAC could offer more online resources such as electronic publications and webinars and supported leveraging the use of electronic channels to stay connected and share information with members.

Recurring themes in publications most used by respondents include design, traffic, road safety and cycling. This echoes comments in the focus groups on the growing importance of more active modes of transportation in cities.

The three TAC communication vehicles rated highest in terms of effectiveness were the website (66 per cent), *TAC News* (65 per cent) and the *Transportation Intelligence Bulletin*, (61 per cent).

Nearly half of respondents said they had not attended a TAC conference in the past three years. This is down slightly from the 52 per cent who reported the same in TAC's 2008 Membership Survey. Technical sessions were cited as the most relevant aspect of the conference by 90 per cent of respondents who attended. Location, timing and cost were all key factors in determining whether members were able to attend the TAC conference.

Respondents suggested making materials and sessions available via electronic formats (e.g., posting presentations online, live streaming the sessions) as ways to encourage participation. Several respondents also indicated TAC should be a leader in research and focus on studies which support areas of interest to the industry and emerging trends.

The majority of survey respondents indicated that they didn't view use of social media by TAC as effective for member engagement. However, respondents under the age of 35 were more positive about the potential for TAC's use of social media.

The focus group open discussion format allowed the moderator to probe a bit further into participants' thoughts and perceptions of TAC. Consistent themes, issues and needs echoed the insights highlighted in the membership survey. There is recognition of TAC as balanced, organized and diverse in the information and services it provides. TAC is highly valued and recognized by transportation professionals as a source of education and resources, in particular TAC's publications and guideline materials.

Next Steps

Key findings from the membership survey, focus groups and interviews with directors, were discussed with members of the TAC Board in early December. Over the next few months, guiding principles and tactics will be developed that will form a new five-year business plan for the organization. More information on the plan will be published after its adoption by the Board in April 2012. □

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All-Way Stop Control Sign Tabs - MUTCDC Update



TAC's *Manual of Uniform Traffic Control Devices for Canada* (MUTCDC) will be updated with respect to all-way stop control sign tabs.

A series of pictographic and word tabs will be added to the manual to address options available for the tab sign at all-way stop intersections. The updates resulted from a volunteer project of TAC's Traffic Operations and Management Standing Committee (TOMSC) and have been approved by the Chief Engineers' Council.

When stop signs are installed on all legs of an intersection, they are identified with the appropriate tabs. Pictographic tabs are preferred because they illustrate the layout of the intersection and avoid all language issues, but text tabs can be used as an alternative. Driver comprehension testing showed exceptional level of understanding for the pictographic tabs.

This project was initiated to develop a standard means of advising motorists of the existence of all-way stop requirements approaching an intersection. Between color and messaging variations, there exist at least seven different versions of all-way tabs currently in use across the country.

TAC's Editing and Publishing Subcommittee will review the material before the manual updates are released. A publication notice will be posted on the website when this step is completed. 

Canadian Capacity Guide Now Available

The *Canadian Capacity Guide for Signalized Intersections* has been endorsed by TAC's Chief Engineers' Council as a national reference guide on traffic engineering at controlled roadway intersections.

The third edition of the guide was originally published by the Canadian District of the Institute of Transportation Engineers (CITE) in February 2008. The ongoing development of the guide is supported by a joint advisory committee comprised of members of TAC's Traffic Operations and Management Standing Committee and CITE.

This publication is now available as a free download from the TAC website at www.tac-atc.ca/english/resourcecentre/reports.cfm

New Supplement Guide Will Shed Light on Environmental Concerns

TAC has launched a project to develop a light level reduction and power efficiency guide for roadways and walkways.

Project objectives include identifying best practices and procedures for light pollution and power consumption reduction, determining appropriate conditions and locations in which light levels may be reduced and identifying specific applications without compromising roadway safety and security.



This supplement to TAC's *Guide for the Design of Roadway Lighting* will assist road authorities in making decisions on environmental concerns involving light level reductions for street lighting.

TAC's guide, originally produced in 2006, provides design guidelines and desired lighting levels for roadway lighting. However, it does not offer alternative solutions other than those suggested in the guide. Jurisdictions and street lighting operators need to address environmental issues such as light pollution, power consumption and green house gas generation.

Current technologies and operating procedures focusing on these issues include dimming equipment, LED lighting or turning lights off during specific times. The new supplement to TAC's lighting guide will offer environmentally-friendly solutions.

A project steering committee has been formed and terms of reference are currently being developed. The consultant selection process is expected to be completed in the coming months.

Funding agencies include **Alberta Transportation**, the **British Columbia Ministry of Transportation and Infrastructure**, the **Ministry of Transportation of Ontario**, the **Ministry of Transport of Quebec**, **Halifax Regional Municipality**, the **Regional Municipality of York**, the **South Coast British Columbia Transportation Authority (TransLink)**, the **Town of Oakville** and the **cities of Calgary, Edmonton, Ottawa and Montreal**. 

Record-Breaking Attendance at 2011 TAC Conference

The 2011 TAC Conference & Exhibition, held at the world-class Shaw Conference Centre in Edmonton, September 11-14, welcomed over 1,150 delegates partaking in educational sessions, and networking and social events.

The record-breaking TAC Exhibition, held in conjunction with the annual conference, showcased 80 transportation-related booths, including international participants from Australia, Norway, Germany, the United Kingdom and the United States.

More than 145 local conference volunteers representing the City of Edmonton, Alberta Transportation, Consulting Engineers of Alberta, and

the Alberta Roadbuilders and Heavy Construction Association, selflessly donated their time to a wonderful cause.

Greener practices driven by the results of TAC's 2010 membership survey were adopted, including TAC's first virtual conference flyer that was posted on the Association's website. More than 700 attendees out of 1,157, or 60%, registered for the conference using the online registration system, compared to 23% in 2010. TAC also partnered with the Shaw Conference Centre, a recognized green facility, in eco-efficient event planning.



At the Sunday Welcome Reception, delegates gathered around the University of Calgary solar car.



The 2011 W.H. Yeates Award for Best Exhibit was presented to McElhanney Consulting Services.



Attendees at the Awards Luncheon were greeted by a unique mix of Celtic bagpipe and African drumming.



The Opening Plenary Session, emceed by outgoing TAC President Ray Mantha and videotaped in its entirety, featured four keynote speakers.



A poster entitled *Sustainability Case Study Review of Using Recycled Aggregate in Road Structure* received the award for best contribution on pavements in a poster session. From left to right: Tom Kazmierowski, Poster Session Chair, Ministry of Transportation of Ontario; Rielle Haichert, co-author, PSI Technologies Inc.; Marlis Foth, co-author, Civil and Geological Engineering, University of Saskatchewan; Daryl Nixon, Award Sponsor, Engineering Consultants Ltd. and Curtis Berthelot, co-author and advisor, Civil and Geological Engineering, University of Saskatchewan. Not shown: Duane Guenther, co-author, City of Saskatoon.



The presidency torch was passed to incoming President Doug McNeil, who pleasantly surprised outgoing President Ray Mantha with a TAC Honorary Life Membership.



The Art Gallery of Alberta and the Francis Winspear Centre set the stage for mouth-watering cuisine and local entertainment at the Prairie Stars event.



Jinting Zhao, Policy Advisor for Alberta Transportation, opened the closing banquet with Alberta's official song specially written to commemorate the province's centennial in 2005.

2011 Conference Recap and Virtual Magazine Now Available

The 2011 TAC Conference & Exhibition Recap is now available for your reading and viewing pleasure on the TAC website.

This special section of the conference website includes the papers by category, author and title, an image gallery, quotes from key TAC stakeholders, as well as a video gallery featuring the Opening Plenary Session, the Monday afternoon policy panel discussion and the 2011 conference recap video montage.

In-depth interviews with award recipients, as well as candid snapshots of the Prairie Stars evening and networking events, are also in store for you in the very first TAC post-conference virtual magazine entitled *Unmasked*, on the homepage of the TAC website.

In the Winners' Circle: Canadian Transportation Award Recipients

The Honourable Luke Ouellette, Alberta Minister of Transportation, John Forster, Associate Deputy Minister, Infrastructure Canada and outgoing TAC President, Ray Mantha, presented five Canadian Transportation Awards at the 2011 closing banquet of TAC's September conference in Edmonton.

Launched in 2005 with the support of **Transport Canada**, the Canadian Transportation Awards Program (CTAP) is intended to recognize leadership, excellence and achievement in all modes and segments of the transport sector.

An independent panel of judges with multi-modal representation selected the winners after reviewing nominations received from across Canada.

Gary McNeil, GO Transit President in Toronto, received the coveted **Transportation Person of the Year Award** for having assumed a leadership role that contributed to the improvement or advancement of the transportation industry as a whole or any of its modes or segments.

"I have been involved in the transportation industry for over 35 years," notes Gary. "Helping to move people from place to place is part of my 'raison d'être'. For myself and GO Transit, this award is recognition of our commitment to meet customers' needs. It is recognition of the hard work of many."

Gary first joined GO Transit in 1999 as Director of Rail Services before progressively making his way to president of the organization. He currently leads GO Transit's team to provide regional transit services across the Greater Toronto and Hamilton Area, and neighbouring communities. He nurtured ridership growth of nearly 40 per cent and revenue growth of close to 70 per cent. His work led to the launch of the Passenger Charter and contributed to a significant improvement in customer satisfaction, rising from 59 per cent in 2009 to 82 per cent in 2010.

Jake Kosior, Senior Transportation Planner at Manitoba's Department of Infrastructure and Transportation, received the **Award of Excellence**, which recognizes an outstanding contribution to the betterment of the transportation industry over several years in safety, sustainable development, research, technology, policy or corporate development.

"For a province the size of Manitoba, population wise, we have acquired a significant portion of federal funding for transportation infrastructure. This has created a mini economic boom in the province. It gives me great pleasure to drive past the construction sites, knowing we had a role to play in its development."

Jake applied his combination of public, private and academic experience to several key initiatives at Manitoba's Department of Infrastructure and Transportation, including the economic justification of CentrePort Way. His role included modelling the transport network, trade flows and economic characteristics, which contributed to the successful approval of the \$212-million infrastructure project.

The **Award of Achievement** was presented to **Garfield Dales**, Manager, Project Delivery, Ministry of Transportation of Ontario, for having achieved, through innovation and initiative on a particular project or program, positive and measurable improvements of significant and enduring benefit to transportation.

"Improvements to the Windsor-Detroit gateway are important to keep people and trade moving through Canada's busiest trade corridor now and into the future. Through the *Let's Get Windsor-Essex Moving* strategy we are improving efficiency and reducing congestion in the short term, leading to a long-term solution with the Windsor-Essex Parkway and the proposed end-to-end system."

Ontario's efforts to improve North America's busiest border crossing have been largely entrusted to Garfield, Manager of Windsor Border



CTAP recipients from left to right: Alberta Transportation Minister Luke Ouellette; Gary McNeil (Transportation Person of the Year); Garfield Dales (Award of Achievement); Alberta Premier Edward Stelmach (Citation for Lifetime Achievement in Transportation Policy and Decision-Making); Liping Fu (Award of Academic Merit) and Jake Kosior (Award of Excellence)

Photo: Bill Marsh (Property of TAC)

Initiatives. He orchestrated several key components of the Windsor-Essex Parkway project that will connect Highway 401 with the U.S. Interstate by way of access roads, inspection plazas and bridge crossing of the Detroit River.

Liping Fu, Professor of Civil and Environmental Engineering at the University of Waterloo, received the **Award of Academic Merit**, which recognizes a long-term contribution to the advancement of the academic field and to the development of tomorrow's transportation leaders.

"Transportation engineering is a field that will continue to have challenges into the future, such as increased traffic congestion and collisions, aging population, and increased adoption of new information and sensor technologies. Tomorrow's transportation leaders must learn how to develop innovative, environmentally-friendly and technologically compatible solutions."

Dr. Fu's research focuses on the evaluation and optimization of complex traffic and transportation systems, as well as the development of support tools to manage them. Since 1999, he has secured nearly \$5 million in research funding from various sources, including the Ontario Ministry of Transportation, and the National Sciences and Engineering Research Council of Canada. He also developed a commercial routing and scheduling system that has been implemented in both Canada and the United States.

For the first time in CTAP history, the **Citation for Lifetime Achievement in Transportation Policy and Decision-Making** was attributed to Alberta Premier **Edward Stelmach**. "The new citation was awarded at the discretion of the CTAP awards jury to acknowledge a distinctive, widely-recognized contribution to transportation policy and decision-making," notes TAC Executive Director, Michel Gravel. "This is an area that was not covered previously by other CTAP awards."

Premier Stelmach advanced the twinning of the CANAMEX Highway and the expansion of trade corridors. His support of the New West Trade Partnership Agreement helped create a barrier-free transportation and trade environment among member provinces. Mr. Stelmach safeguarded critical funding for public infrastructure and transportation by creating the Capital Fund. He established the first public-private partnership in Alberta for the southeast section of the Anthony Henday Drive Ring Road.

In 2004, the Premier launched a provincial review of the Alberta Traffic Safety Program, which led to the development of the province's first Traffic Safety Plan.

The Alberta Premier offered some insight on Alberta's contribution to the success of the transportation industry and the importance of investing in critical infrastructure for Canada's economic recovery.

"Roads are the backbone of Alberta's economy and fundamental to Albertans' quality of life. They link producers and businesses to global markets, bring in visitors from all over the world, and connect us to our families, friends and communities. Investing in infrastructure is an economic enabler that creates opportunities to keep tens of thousands of Albertans working, underlining this government's ongoing commitment to a strong economic recovery." 

TAC Board Adopts Policy on Third-Party Endorsement

The TAC Board adopted a formal policy at its recent September meeting on third-party endorsement of conferences or special events.

TAC will endorse conferences or special events offered by a third party subject to receiving a written request that meets the following criteria:

- The event or conference is being hosted by one or several credible public national or international organizations and/or one or more of TAC's public sector members
- The subject matter is compatible with TAC's neutral technical mandate
- The event or conference has received an endorsement by a TAC Council
- The event or conference is not in direct competition with a TAC event
- No financial contribution is being requested from TAC

The endorsement policy also specifies the terms that apply as far as the use of TAC's logo and other promotional material, the dissemination of information on behalf of the proponent via TAC's website and newsletter, and that TAC may request visibility in exchange for the endorsement.

Endorsement requests should be forwarded to Erica Andersen, Director, Member Services & Communications, at eandersen@tac-atc.ca



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2012 TAC Foundation Scholarship Program

The call for applications for the 2012 TAC Foundation Scholarship Program was launched in December. Applications will be accepted from students meeting the scholarship eligibility criteria until February 13, 2012.

The TAC Foundation is funded by donors from a wide variety of organizations and individuals involved in transportation. Donors recognize the importance of the Foundation's mandate to Canada's transportation and roads sector, and support the Foundation's vision of educating tomorrow's transportation leaders.

Supporting the TAC Foundation is an investment in the future of Canadian transportation, and donors are recognized as leaders in the transportation and roadway sector. The Foundation not only helps students directly through the awarding of scholarships; it raises the visibility, image and profile of the transportation industry in the Canadian education system.

"The TAC Foundation has been very helpful in terms of providing financial support for my graduate studies," notes Jane MacAngus, one of the recipients of 2011 TAC Student Paper Awards. "I also found the TAC conference to be an excellent setting for students to engage with transportation professionals across Canada to help broaden our knowledge on the

transportation sector as a whole, and develop key connections with industry professionals that will help me advance in my career."

Why donate to the Foundation?

TAC Foundation donors receive visibility through the TAC Foundation's Donor Program. There are a variety of ways to make a donation, including named scholarships and planned giving.

The activities of the TAC Foundation are largely funded by single-year or multi-year commitments from a diverse group of donors and individuals. Donors at the Platinum, Gold, Silver and Bronze levels are recognized in *TAC News*, at the TAC Conference & Exhibition and on the TAC Foundation website. Donors with named scholarships also receive added recognition in specific TAC Foundation scholarship promotions and listings.

TAC Foundation Executive Director Brian Henderson says the TAC Foundation plans to attract more students to transportation-related disciplines in 2012.

"The TAC Foundation must get the message out to students that transportation is a worthwhile and attractive industry and change the image of transportation. Other sectors, such as computer programming, the arts and other sciences, are in competition.

Transportation does not appear in their radar screen but it is up to us to change how this industry is perceived. It is important for our future to increase the number of students in civil engineering and promote this aspect."

Marlis Foth, another recipient of the 2011 TAC Student Paper Awards, agrees that the secret to attracting more students lies in promoting the Foundation's vision.

"I think both TAC and the Foundation should support work internships or short-term work experiences early in university programs and even during later years in high school so students may experience what working in the industry is really like."

In 2011, forty-six scholarships were awarded to university graduates and undergraduates in transportation-related disciplines. Becoming a donor is a way for organizations to promote a career in transportation while making both a positive impression upon and direct contact with bright, young professionals entering the field.

If you would like to help the TAC Foundation achieve its vision of educating tomorrow's transportation leaders, visit www.tac-foundation.ca and support the TAC Foundation today! 

Recommended Guidelines for Driver Comprehension Testing

In keeping with its responsibility of maintaining the *Manual of Uniform Traffic Control Devices for Canada*, TAC's Traffic Operations and Management Standing Committee (TOMSC) recommended a study on testing driver comprehension of traffic control devices (TCD), which has now been completed.

The project report documents the study findings, describes test procedures and acceptable levels of comprehension and presents recommended guidelines for comprehension testing.

The objective of this initiative was to assess approaches to driver comprehension testing and to establish a model for ongoing and future testing programs.

Road signs must be both understood and legible to allow drivers enough time, at their operating speed, to react to the sign and complete any required action.

The more critical the sign (e.g., stop sign vs. tourist symbol), the greater the required degree of comprehension accuracy. The report of the driver study recommends 95% of comprehension guidelines for critical TCDs, 85% for important TCDs and 75% for all other TCDs.

Prepared by **Human Factors North Inc.** and approved by the Chief Engineers' Council, the report will help the TOMSC to assess, develop and test comprehension new traffic control devices that may be recommended through future work of this committee.

Funding for this project was provided by **Alberta Transportation, Manitoba Infrastructure and Transportation, the Ministry of Transportation of Ontario, the Ministry of Transport of Quebec, Saskatchewan Highways and Infrastructure, Halifax Regional Municipality** and the **cities of Edmonton and Ottawa.**

A Moment in Time – Historical Milestones in Transportation

As a prelude to TAC's centennial in 2014, TAC News introduces *A Moment in Time*, a column featuring historical anecdotes showcasing milestones in transportation. Montreal will host the Association's 100th birthday celebrations, providing an opportunity to highlight important Canadian achievements in the transportation sector.

Streetcars began operation in Canada during the era of horse-powered local transportation, expanded rapidly with electrification, shrank with a public policy switch in favour of rubber-tired vehicles, and recently re-emerged as light rail transit. With a simple, robust technology, street railways have had a profound impact on our society, not only as a



Yonge Street, Toronto – Looking north from King Street, 1910 (courtesy Toronto Transit Commission).

transportation mode but also in the development of the electric-power industry and on the shaping of our cities.

As the technology matured, the typical system had tracks mounted flush with the pavement, current collection by trolley, and overhead wire supported by poles, often also used for lighting. Costs for both installation and operation were low, and streetcar services spread rapidly. Windsor (Ontario) installed the first Canadian electric tram system in 1886. Vancouver followed in 1890, Winnipeg in 1891, Montréal, Hamilton and Toronto in 1892, Edmonton in 1908, Calgary in 1909 and Regina in 1911. By World War 1, 48 Canadian cities and towns boasted streetcar systems. (Source: the Canadian Encyclopedia)



Street Car – On Queen Street, Toronto (photo by Lorraine C. Parow).

PEOPLE IN THE NEWS

At Alberta Transportation, Hon. **Ray Danyluk** has been named Minister of Transportation and **Tim Grant** has become Deputy Minister.

Hon. **Bob Chiarelli** is now Minister of Transportation of Ontario in addition to his existing role of Minister of Infrastructure.

Hon. **Pierre Moreau** has replaced **Sam Hamad** as Minister of Transport for Quebec, while **Dominique Savoie** has been appointed Deputy Minister. Mr. Hamad is now Minister of Economic Development, Innovation and Export Trade.

Brian Douglas is the new Deputy Minister of Transportation and Infrastructure Renewal for Prince Edward Island.

Ray Mantha has been appointed Assistant Deputy Minister, Mines and Minerals for the province of Ontario. **Gerry Chaput** has become Assistant Deputy Minister, Provincial Highways Management Division, Ministry of Transportation of Ontario.

Claude Carette has replaced Marc Blanchet as Director of Transportation for the City of Montreal.

Chris Raymond is now Head of the Bituminous section, Ministry of Transportation of Ontario.

David MacIsaac has accepted a two-year interchange Canada assignment at Halifax Regional Municipality as Transportation Demand Management Program Supervisor.

Hart Solomon has retired from the City of Hamilton and is currently working for CIMA+ in their Burlington office.

Christopher Clary-Lemon is Acting Manager, Environmental Services, Manitoba Infrastructure and Transportation, succeeding **Kimber Osowy** who has joined HAZCO Environmental Services, A CCS Company.

At the City of Mississauga, **Hamish Campbell** recently joined the Transportation Planning Division and **Lorenzo Mele** is the new Transportation Demand Management Coordinator, Transportation and Works.

TAC's Transportation Information Service in Action**2011/12 Canadian Surface Transportation Survey – Your Input Required**

TAC is conducting its annual inventory of research projects in surface transportation in Canada.

Contribution to this survey is particularly important since the data serves as a centralized information source for surface road and rail transportation research in Canada. The records in the database help TAC monitor Canadian research activity, define the current state-of-the-art, and identify experts in the field.

Organizations are invited to complete the Research and Development Survey Form or update their records on published project descriptions. The survey form, housed on TAC's website under the Resource Centre Library section, is available in three formats: print, electronic and online.

Copies of final reports from research projects related to road or rail transportation are of considerable interest to TAC members and the transportation community. The Association can also help with the process of technology transfer on a national and international level.

Project information is shared with European and U.S. agencies, offering international exposure for research work. The information compiled in this survey is distributed in electronic format to the Organization for Economic Co-operation & Development where it becomes part of the International Transport Research Documentation database.

For more information on the Canadian Surface Transportation Survey, contact TAC's Transportation Information Service at tis@tac-atc.ca.

NEW MEMBERS

TAC is pleased to welcome the following new members:

Altus Group Limited

Dieppe, NB

Daniel Doucet, Executive Vice-President,
National Right-of-Way Services

Buckland & Taylor Ltd.

North Vancouver, BC

Kristine Majlath, Business Development
and Marketing Coordinator

Flood Murray International

Scotsburn, NS

John Robinson

Town of Golden

Golden, BC

Chris Cochran, Manager of Operations

GVW Consulting Group

Kamloops, BC

Graham Gilfillan, President

JSF Technologies

Saanichton, BC

Matt Robson, Business Development
Director

Mohawk Council of Kahnawake

Kahnawake, QC

Louis Stacey, Coordinator, Occupation
Safety & Health

Regional Municipality of Lake Lenore

St. Brieux, SK

Jennifer Thompson, Administrator

**Mitchelmore Engineering Company Ltd.
(Meco)**

Dartmouth, NS

Jonathan Branton, Jr. Geotechnical Engineer

Montufar Group

Winnipeg, MB

Garreth Rempel

Peto MacCallum Ltd.

Toronto, ON

Turney Lee-Bun

District of Port Hardy

Port Hardy, BC

Jack Griffiths, Operational Services Foreman

Red River College

Winnipeg, AB

Michel Huard, Instructor

Regional Municipality of Sherwood

Regina, SK

Rod Benroth, Manager of Engineering
Operations

Town of Sundre

Sundre, AB

Ron Baker, Director of Operations

SurTek Group Ltd.

Fredericton, NB

Dan Estey, Senior Highway / Municipal
Engineer

Rebecca Peterniak

Winnipeg, MB

MEMBERSHIP HAPPENINGS

AECOM, a world provider of professional technical and management support services, has been awarded a CA\$4.6 million contract by **Alberta Transportation** for the MacLeod Trail / Stoney Trail interchange project in Calgary. The upgrade of the project will help handle the additional traffic volume anticipated once the Stoney Trail is opened in September 2013.

The **Canadian Society for Civil Engineering** (CSCE) is accepting applications for its new award for Government Leadership in Sustainable Infrastructure until December 15. The award, given annually to a public sector entity that has shown particular leadership in the area of sustainable infrastructure, will be presented at the CSCE annual conference in Edmonton in June 2012.

International Road Dynamics Inc. (IRD), a world provider in highway traffic management, operating internationally in the intelligent transportation systems industry, has been awarded a contract valued at CA \$1.0 million by Kevco Electric, Inc. for virtual weigh station upgrades to existing weigh-in-motion data collection systems in the State of New Jersey. Completion of all sites is scheduled for 2013. IRD has also been awarded a US\$5 million contract by the Oklahoma Department of Transportation to build, implement and maintain new port-of-entry electronic screening systems and virtual weigh stations for commercial vehicles within the State of Oklahoma.

Canada Promotes Safe Roads with 2015 Strategy

Canada's Road Safety Strategy (RSS) 2015 is the third in a series of national road safety programs replacing Road Safety Vision 2001 and 2010. The new strategy focuses on the continued vision of making Canada's roads the safest in the world.

With over 1.4 million kilometres of roads, Canada has more drivers on the road today than ever before. The good news is that the number of collisions and fatalities are declining. There were 13.2 deaths per hundred thousand drivers reported in 2001 but only 9.5 in 2009.

Canada's RSS 2015 launch coincided with the official kick-off of the National Year of Road Safety as proclaimed by the Canadian Global Road Safety Committee. The new strategy also demonstrates Canada's support for the United Nations General Assembly resolution which established 2011-2020 as the Decade of Action for Road Safety.

The objectives of RSS 2015 are to raise public awareness and commitment to road safety, enhance enforcement of traffic laws, strengthen communication, cooperation and collaboration among all stakeholders, and increase road safety information in support of research and evaluation.

The key elements of Canada's RSS 2015 include:

- a fluid and flexible approach to allow Canadian jurisdictions to develop their own road safety programs, taking into account their specific needs and circumstances
- the promotion of a holistic, safe system approach that recognizes the interdependencies between road users (drivers), infrastructure (road engineering) and vehicles (design)
- the creation of a proven and promising best practice framework that addresses the primary risk groups and major contributing factors associated with road crashes
- a progress report on directional downward trends in the rate-based number of fatalities and serious injuries resulting from road collisions in Canada

The road safety strategies focus on proven and promising best practices, a matrix of the key target groups and contributing factors, and include communication and awareness, education/training, policy/legislation, enforcement, technology, road infrastructure, information/data for research and evaluation, and linkages.

Ideally, a combination of these strategies could be applied to a specific target group or contributing factor. To date, 120 initiatives addressing key factors and target groups have been identified and included in the inventory on the RSS 2015 website.

Canadian Council of Motor Transport Administrators Takes the Lead

These initiatives will continue to grow as the Canadian Council of Motor Transport Administrators (CCMTA), the custodian of the strategy, ensures new initiatives are added on a regular basis.

CCMTA led the development of RSS 2015 in partnership with its government members, the engineering and police communities and key industry stakeholders. Although responsibility for road safety is shared among jurisdictions, CCMTA will continue to work through its 14 jurisdictions, committees and task forces to promote and increase the number of initiatives within the strategy.

CCMTA's Executive Director, Allison Rougeau, made a presentation to members of TAC's Chief Engineers' Council and the Road Safety Standing Committee at the recent 2011 TAC Annual Conference & Exhibition in Edmonton. Intending to stay informed on the work of these groups in order to expand the infrastructure-related best practices and initiatives contained in the strategy, CCMTA will follow-up at the TAC 2012 Spring Technical Meetings to discuss the possibility of adopting a decision-making tool for including initiatives in the strategy.

RSS 2015 is intended to inspire stakeholders from all levels of government and key public and private sector experts to work together towards making Canada's roads the safest in the world and come up with their own road safety strategies and plans. A slogan and logo were also developed that challenge governments, the public and road safety stakeholders to "Rethink Road Safety".

CCMTA is a non-profit organization comprised of representatives of the provincial, territorial and federal governments of Canada, which through the collective consultative process, makes decisions on administration and operational matters dealing with licensing, registration and the control of motor vehicle transportation and highway safety. It also includes associate members from the private sector and other government departments whose expertise and opinions are sought in the development of strategies and programs. CCMTA receives its mandate from the Council of Ministers Responsible for Transportation and Highway Safety.

To learn more about Canada's Road Safety Strategy 2015, go to www.roadsafetystrategy.ca



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TORUS: Roundabout Planning and Design
NEXUS: Intersection Design

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COMING EVENTS

2012

Annual Meeting of the National Asphalt Association

January 21-25
Palm Desert, California
Tel. (888) 468-6499
www.asphaltpavement.org

91th Annual Meeting of the Transportation Research Board

January 22-26
Washington, DC
Tel. (202) 334-2934
www.trb.org/meeting

Sustainable Communities Conference and Trade Show

February 8-12
Ottawa, Ontario
Tel. (613) 241-5221
www.fcm.ca/home/events/2012-sustainable-communities-conference-and-trade-show.htm

Technical Conference and Exhibition of the Institute of Transportation Engineers

March 4-7
Pasadena, California
Tel. (202) 785-0060
www.ite.org/meetcon/index.asp

94th Annual Conference of the Canadian Construction Association

March 11-16
Savannah, Georgia
Tel. (613) 236-9455
www.cca-acc.com/en/annual-conference

Annual Conference of the Association québécoise du transport et des routes

April 2-4
Quebec City, Quebec
Tel. (514) 523-6444
www.aqtr.qc.ca/index.php/congres-annuel/congres-2012

Bridge Safety and Longevity Conference & Expo

April 10-12
Ottawa, Ontario
Tel. (902) 425-3980
<http://bridgelife.ca/>

TAC Spring Technical Meetings

April 12-17
Ottawa, Ontario
Tel. (613) 736-1350
www.tac-atc.ca

CCMTA Annual Meeting

May 6-10
Winnipeg, Manitoba
Tel. (613) 736-1003
<http://www.ccmta.ca/english/events/annualmeeting/annualmeeting.cfm>

Annual Conference of the Canadian Urban Transit Association

May 26-30
Victoria, British Columbia
Tel. (416) 365-9800
www.cutaactu.ca/en/eventsandawards/conferences.asp

Annual Conference of the Canadian Institute of Transportation Engineers

May 27-30
Winnipeg, Manitoba
Tel. (202) 289-0222
www.cite7.org/Winnipeg2012/index.php

Annual Conference of the Federation of Canadian Municipalities

June 1-4
Saskatoon, Saskatchewan
Tel. (613) 241-5221
www.fcm.ca/

Annual Conference of the Canadian Transportation Research Forum

June 3-6
Calgary, Alberta
Tel. (519) 421-9701
www.ctrf.ca/

Annual Conference of the Canadian Society for Civil Engineers

June 6-9
Edmonton, Alberta
Tel. (514) 933-2634
www.csce2012.ca/

Annual Conference of the Intelligent Transportation Systems Society of Canada

June 10-13
Quebec City, Quebec
Tel. (905) 471-2970
www.itscanada.ca/Quebec2012/confEN.htm

Velo-City Global 2012

June 26-29
Vancouver, British Columbia
www.velo-city2012.com

10th International Conference on Concrete Pavements

July 8-12
Quebec City, Quebec
Tel. (613) 738-6094
<http://www.concretepavements.org/10thiccp/>

Annual Meeting and Exhibit of the Institute of Transportation Engineers

August 12-15
Atlanta, Georgia
Tel. (202) 785-0060
www.ite.org/meetcon/index.asp

Annual Conference of the Canadian Institute of Planners

October 9-12
Banff, Alberta
Tel. (613) 237-7526
www.cip-icu.ca/

TAC Fall Technical Meetings

October 11-16
Fredericton, New Brunswick
Tel. (613) 736-1350
www.tac-atc.ca

TAC Conference & Exhibition

October 14-17
Fredericton, New Brunswick
Tel. (613) 736-1350
www.tac-atc.ca