

PROGRAM

- N.B.:** ♦ Business program activities are being held at the Hyatt Regency Hotel and the Fairmont Hotel Vancouver.
- ♦ If a paper has been published in the CD-ROM conference proceedings, the paper listing in the program is followed by an asterisk (*).
 - ♦ Simultaneous interpretation in both official languages will be provided during the Opening Plenary Session and at the following events: Panel Discussion 3; Session 4; Session 9; Session 13; Session 22; Session 36; and Session 37. Delegates may obtain simultaneous interpretation receivers in the conference registration area.
 - ♦ The following legend has been developed to allow delegates to quickly identify sessions, panel discussions and workshops of interest to them. It is intended to be used as a general guide as only key subject areas reflecting the overall content of an event are flagged.

THEME	Transportation in a Climate of Change
PLANNING	Planning
DESIGN	Geometric Design
ENV	Environment
SOILS/MAT	Soils & Materials
MTN/CONST	Maintenance & Construction
PAVE	Pavements
STRUCTURES	Structures
TRAFFIC	Road Traffic Operations & Management
SAFETY	Road Safety



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THURSDAY & FRIDAY

R&D	Research & Development
SUST DEV	Sustainable Development
ITS	Intelligent Transportation Systems
INFO MGT	Information Management
MUNICIPAL	Municipalities/Urban Areas (incl. transit)
EDUC/HR	Education & Human Resources

THURSDAY, OCTOBER 15

MEETING 13:00-17:00

Green Guide for Roads Task Force
Cortes Island Room, Discovery Floor, Fairmont

FRIDAY, OCTOBER 16

MEETINGS 08:00-10:00

Environmental Advisory & Legislation Standing Committee
Cortes Island Room, Discovery Floor, Fairmont
Mechanistic-empirical Pavement Design Guide (MEPDG) User Group
Hornby Room, Conference Floor, Fairmont

MEETINGS 09:00-12:00

Asset Management Task Force
Tweedsmuir Room, Conference Floor, Fairmont
Construction Subcommittee
Garibaldi Room, Conference Floor, Fairmont





FRIDAY

15

Geometric Design Guide Update Scoping Study
Project Steering Committee (closed)

Moresby Island Room, Discovery Floor, Fairmont

Guidelines for Posted Speed Limits on On and Off
Ramps Project Steering Committee (closed)

Grouse Room, Perspectives Level, Hyatt

MEETINGS 10:00-12:00

Environmental Issues Management Standing
Committee

Cortes Island Room, Discovery Floor, Fairmont

Mechanistic-empirical Pavement Design Guide
Calibration Project Steering Committee (closed)

Gabriola Island Room, Discovery Floor, Fairmont

MEETINGS 13:00-17:00

Joint Roundabouts Subcommittee

Brighton Room, 4th Level, Hyatt

Update of the 1998 Bikeway Traffic Control
Guidelines for Canada Project Steering Committee
(closed)

Galliano Island Room, Discovery Level, Fairmont

Winter Road Condition Terminology Project
Steering Committee (closed)

Grouse Room, Perspectives Level, Hyatt

MEETING 14:00-17:00

Traffic Operations & Management Standing
Committee Executive (closed)

Kensington Room, 4th Level, Hyatt

MEETINGS 15:00-17:00

Transit Lane Conspicuity Project Steering
Committee (closed)

Dover Room, 4th Level, Hyatt





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FRIDAY & SATURDAY

Transportation Infrastructure in Permafrost Regions
Project Steering Committee (closed)
Garibaldi Room, Conference Floor, Fairmont

MEETINGS 19:00-22:00

Active Transportation Project Steering Committee
(closed)
Grouse Room, Perspectives Level, Hyatt

Pavement Asset Design & Management Guide
Project Steering Committee (closed)
Gabriola Island Room, Discovery Floor, Fairmont

Work Zone Safety Manual Subcommittee
Garibaldi Room, Conference Floor, Fairmont

SATURDAY, OCTOBER 17

MEETING 07:30-09:00

Driver Comprehension Testing Project Steering
Committee (closed)
Tweedsmuir Room, Conference Floor, Fairmont

MEETING 08:00-10:00

Framework for High-quality Data Collection on
Urban Goods Movement in Canada – Phase 2
Project Steering Committee (closed)
Cypress Room, Perspectives Level, Hyatt

MEETINGS 09:00-12:00

Environment Council
Saturna Island Room, Discovery Floor, Fairmont





SATURDAY

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Guidance on the Use and Installation of Chevron Alignment Signs Project Steering Committee (closed)

Gabriola Island Room, Discovery Floor, Fairmont

Public Utilities Management Subcommittee
Brighton Room, 4th Level, Hyatt

Road Safety Standing Committee
Waddington Room, Conference Floor, Fairmont

Sustainable Transportation Standing Committee
Boardroom, Conference Floor, Fairmont

MEETINGS TO BE HELD IN CONJUNCTION WITH TAC CONFERENCE 09:00-12:00

Canadian National Committee of the World Road Association (CNC-PIARC/AIPCR) (closed)
Grouse Room, Perspectives Level, Hyatt

Climate Change & Northern Infrastructure Subcommittee (closed)
Cortes Island Room, Discovery Floor, Fairmont

MEETING 10:00-12:00

Urban Transportation Indicators Fourth Survey Project Steering Committee (closed)
Moresby Island Room, Discovery Floor, Fairmont

MEETING 11:00-13:00

Student Outreach Working Group
Hornby Room, Conference Floor, Fairmont

MEETINGS 13:00-17:00

Education and Human Resources Development Council
Boardroom, Conference Floor, Fairmont





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SATURDAY

Environment Council
Saturna Island Room, Discovery Floor, Fairmont
Best Practices for Winter Road Construction Project
Steering Committee (closed)
Gabriola Island Room, Discovery Floor, Fairmont
Guide to Bridge Traffic and Combination Barriers
Project Steering Committee (closed)
Cortes Island Room, Discovery Floor, Fairmont
Road Safety Standing Committee
Waddington Room, Conference Floor, Fairmont
Traffic Operations & Management Standing
Committee
Plaza Ballroom B & C, Plaza Level, Hyatt
Transportation Planning & Research Standing
Committee
Cypress Room, Perspectives Level, Hyatt

MEETING 13:00-18:00

Winter & Summer Maintenance Subcommittee
Brighton Room, 4th Level, Hyatt

**MEETING TO BE HELD IN
CONJUNCTION WITH TAC
CONFERENCE 14:00-17:00**

Organizing Committee of the 2010 PIARC Winter
Road Congress (closed)
Grouse Room, Perspectives Level, Hyatt

MEETING 16:00-18:00

Geometric Design Revisions & Additions
Subcommittee
Moresby Island Room, Discovery Floor, Fairmont





SATURDAY & SUNDAY

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**DELEGATE & COMPANION KIT
PICK-UP 16:30-18:00**

Regency Foyer, Convention Level, Hyatt

Delegate and companion kit / registration receipt pick-up **only** – all other services, including on-site registration, workshop choice confirmation, tour tickets and financial transactions, available beginning on Sunday only.

MEETINGS 18:00-21:00

Best Practices for Collision-prone Location
Screening Project Steering Committee (closed)
Tweedsmuir Room, Conference Floor, Fairmont

Signs and Markings for Multi-lane Roundabouts
Project Steering Committee (closed)
Kensington Room, 4th Level, Hyatt

SUNDAY, OCTOBER 18

**MEETING TO BE HELD IN
CONJUNCTION WITH TAC
CONFERENCE 07:00-10:30**

TAC Foundation Board of Directors (closed)
Seymour Room, Perspectives Level, Hyatt

**INFORMATION SESSION
08:00-09:00**

Standing Committee Executives (closed)
Cortes Island Room, Discovery Floor, Fairmont



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SUNDAY

REGISTRATION 08:00-18:30

Regency Foyer, Convention Level, Hyatt

TAC wishes to thank Stantec Consulting Ltd. for providing coffee to delegates and companions in the conference registration area.

MEETINGS 09:00-12:00

Chief Engineers' Council

Boardroom, Conference Floor, Fairmont

Urban Transportation Council

Saturna Island Room, Discovery Floor, Fairmont

Geometric Design Standing Committee

Plaza Ballroom A, Plaza Level, Hyatt

Maintenance & Construction Standing Committee

Waddington Room, Conference Floor, Fairmont

Soils & Materials Standing Committee

Vancouver Island Room, Conference Floor,
Fairmont

Structures Standing Committee

Stanley Room, Perspectives Level, Hyatt

Traffic Operations & Management Standing
Committee

Plaza Ballroom B & C, Plaza Level, Hyatt

TOUR A

Offered from 10:00 to 16:00

FALSE CREEK SELF-DIRECTED TOUR

(No ticket required)

Participants will receive a tour map in the Main Lobby of the Hyatt Regency Hotel (look for tour sign and TAC conference volunteer).



SUNDAY

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Delegates and companions are invited to explore Vancouver's scenic False Creek seawall at their own pace. Sites on this self-directed tour of False Creek include the Athletes' Village for the 2010 Olympics, waterfront parks and the Yaletown restaurant and shopping district. As part of the tour, participants will be able to hop on the city's historic streetcar and take a short ride on a False Creek ferry to get to Granville Island. A customized map and way-finding signage will facilitate participation in this open tour that can be either brief or extended (four hours suggested), based on personal preferences.

(This tour is covered by the conference registration fees. There are no restrictions on the number of participants.)

TOUR B-1 10:00-12:00;
TOUR B-2 11:00-13:00;
TOUR B-3 12:00-14:00;
TOUR B-4 13:00-15:00;
TOUR B-5 14:00-16:00 &
TOUR B-6 15:00-17:00

VANCOUVER CITY BUS TOUR

Buses leave from the Melville Street entrance of the Hyatt Regency Hotel at 10:00, 11:00, 12:00, 13:00, 14:00 and 15:00. Return times are approximate.

Offered to both delegates and companions, this two-hour motorcoach tour of downtown Vancouver will allow participants to familiarize themselves with their surroundings for the next few days and to view some of the city's attractions. The adventure will begin with a scenic drive through world-famous Stanley Park, a 400-





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SUNDAY



hectare forest set in the heart of downtown. The park itinerary includes the Lost Lagoon, a stop at the totem poles, Prospect Point and Brockton Oval. There will also be excellent views of the city, harbour and shoreline. The tour will then continue along seaside beaches, exotic Chinatown – the second largest in North America – and nearby Gastown with its quaint cobblestone streets, steam clock and unique shops all housed in buildings from the early 1900s.

(This tour is covered by the conference registration fees. Both delegates and companions were given the opportunity to reserve tour tickets when registering for the conference. Any remaining tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

MEETINGS 13:00-17:00

Chief Engineers' Council
Boardroom, Conference Floor, Fairmont

Urban Transportation Council
Saturna Island Room, Discovery Floor, Fairmont

Geometric Design Standing Committee
Plaza Ballroom A, Plaza Level, Hyatt

Maintenance & Construction Standing Committee
Waddington Room, Conference Floor, Fairmont

Pavements Standing Committee
Vancouver Island Room, Conference Floor,
Fairmont

Structures Standing Committee
Stanley Room, Perspectives Level, Hyatt

Traffic Operations & Management Standing
Committee
Plaza Ballroom B & C, Plaza Level, Hyatt





SUNDAY

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**TAC FAMILIARIZATION AND
CONFERENCE ORIENTATION
SESSION 13:00-13:45**

Cypress Room, Perspectives Level, Hyatt

This will be an opportunity for new Association members and first-time delegates to obtain valuable information and answers to any questions they may have. Stop by and let us help you maximize your investment and participation in TAC and its annual conference, as well as the enjoyment of your stay in Vancouver.

EXHIBITION 14:30-20:00

Regency Ballroom A, B, C, D & F, Convention Level, Hyatt

**WELCOMING RECEPTION
17:30-19:30**

Regency Ballroom, Convention Level, Hyatt

(Full registrants – ticket in booklet; other delegates – ticket to be purchased)

Mingle with delegates and their companions before the conference gets into full swing!

The Welcoming Reception is being held in the exhibition area so you can take a look at some of the latest transportation products and services on display.

Wine, beer and soft drinks, as well as hors d'oeuvres, will be served at this event. There will also be cash bars.





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SUNDAY & MONDAY A.M.

Many thanks to the Welcoming Reception sponsors: 3M Canada Company, Alberta Traffic Supply Ltd., Autodesk, CH2M HILL Canada Limited, EBA Engineering Consultants Ltd., HDR | iTRANS, International Municipal Signal Association (IMSA) and McCormick Rankin Corporation.

**MONDAY, OCTOBER 19
(MORNING)**

MEETING 07:00-08:45

Climate Change Task Force
Waddington Room, Conference Floor, Fairmont

SPEAKERS' BREAKFAST 07:30

Vancouver Island Room, Conference Floor,
Fairmont
(By invitation only)

*This morning's speakers' breakfast is sponsored by
McElhanney Consulting Services Ltd.*

REGISTRATION 07:30-16:30

Regency Foyer, Convention Level, Hyatt

MEETING 07:45-08:45

Transportation Finance Standing Committee
Oxford Room, Convention Level, Hyatt

EXHIBITION 08:00-09:30

Regency Ballroom A, B, C, D & F, Convention
Level, Hyatt





MONDAY A.M.

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Coffee and pastries will be served to delegates from 08:00 to 09:00. Coffee will also be available at other times. TAC thanks Armtec for sponsoring today's exhibition food and beverage service.

EXHIBITOR PRESENTATION 08:10-08:30

Balmoral Room, Convention Level, Hyatt

Morsky Hy-Speed Soil Nailing will make a presentation on the application of launched soil nails for shallow landslide remediation.

1 – OPENING PLENARY SESSION: TRANSPORTATION IN A CLIMATE OF CHANGE 08:45-11:00

British Columbia Ballroom, Conference Floor,
Fairmont

THEME

SUST DEV

ENV

PLANNING

R&D

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)

Sponsored by CH2M HILL Canada Limited, MMM Group Limited and Morrison Hershfield Limited

Chair: *John Law*, Deputy Minister, Saskatchewan Ministry of Highways and Infrastructure, and President of TAC

Words of Welcome

Hon. Shirley Bond, Minister of Transportation and Infrastructure of British Columbia and 2009 TAC Conference Chair

His Worship Gregor Robertson, Mayor of the City of Vancouver





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MONDAY A.M.

Dale Parker, Chair, Board of Directors, TransLink (South Coast British Columbia Transportation Authority)

Presentations

TRANSPORTATION OPPORTUNITIES IN A CLIMATE OF CHANGE – *Hon. Shirley Bond*, Minister of Transportation and Infrastructure of British Columbia, Victoria

TRANSPORT 2040: TRANSPORTATION AS AN ENABLER TO TACKLE CLIMATE CHANGE – *Thomas Prendergast*, Chief Executive Officer, TransLink (South Coast British Columbia Transportation Authority), Burnaby

U.S. POLICY DEVELOPMENTS ON CLIMATE CHANGE – *John Horsley*, Executive Director, American Association of State Highway and Transportation Officials, Washington, DC

TRANSPORTATION IN A CLIMATE OF CHANGE – AN AUSTRALIAN PERSPECTIVE – *Gary Liddle*, Chief Executive, VicRoads, and Deputy Chair, Austroads, Melbourne

EXHIBITION 11:00-16:00

Regency Ballroom A, B, C, D & F, Convention Level, Hyatt

EXHIBITOR PRESENTATION

11:40-12:00

Balmoral Room, Convention Level, Hyatt

Checkmate Geosynthetics Inc. will make a presentation on geosynthetic applications for roads and highways.



**MONDAY, OCTOBER 19
(AFTERNOON)**

AWARDS LUNCHEON 12:15

British Columbia Ballroom, Conference Floor,
Fairmont

(Full registrants – ticket in booklet; other delegates
– ticket to be purchased)

Sponsored by AECOM

Chair: *John Law*, Deputy Minister, Saskatchewan
Ministry of Highways and Infrastructure, and
President of TAC

Most of TAC's 2009 honours and awards will
be presented during this luncheon, which will
be a special opportunity to recognize Association
supporters who have contributed so much of
their time and energy to ensuring this
organization's success. General excellence in the
field of transportation will also be recognized at
this event. As well, the activities of the TAC
Foundation will be highlighted.

Musical entertainment will be provided.
Delegates are strongly encouraged to attend.

Recognition of TAC Foundation scholarship
donors and recipients

President's Medal for best paper related to 2008
conference theme

2009 Conference Student Paper Awards

W.H. Yeates award for best exhibit at 2009 TAC
conference

Awards to retiring TAC committee chairs

TAC Awards of Merit

TAC Award for Service



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MONDAY P.M.

TAC Distinguished Service Awards
2008 TAC Environmental Achievement Award
2008 TAC Sustainable Urban Transportation Award
2008 TAC Educational Achievement Award
2008 TAC Road Safety Engineering Award
TAC Honorary Life Memberships
Pre-luncheon reception for head table dignitaries and TAC award recipients courtesy of the 3M Canada Company

MEETING 14:15-17:00

Chief Engineers' Council
Plaza Ballroom A, Plaza Level, Hyatt

PANEL DISCUSSIONS 14:15

2 – ROLE OF POLICY IN CREATING A CLIMATE OF CHANGE

Balmoral Room, Convention Level, Hyatt

THEME

ENV

SUST DEV

PLANNING

MUNICIPAL

Chair: To be announced

This panel discussion will explore how policy is being used by the participants' agencies to drive innovative ways of dealing with climate change and other long-term challenges in a rapidly changing world.

Panelists

Guylaine Roy, Associate Assistant Deputy Minister, Policy, Transport Canada, Ottawa

Alan Humphries, Assistant Deputy Minister, Policy and Corporate Services, Alberta Transportation, Edmonton





MONDAY P.M.

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Doug Johnson, Assistant Deputy Minister, Policy, Strategic Development and Intergovernmental Relations, New Brunswick Department of Transportation, Fredericton

Gary Welsh, General Manager, Transportation Services, City of Toronto

Marc Blanchet, Director of Transportation, City of Montreal

Jerry Dobrovolny, Assistant City Engineer – Transportation, City of Vancouver

Discussion and Question-and-answer Period

3 – PIARC – A WINDOW ON A CHANGING WORLD

Plaza Ballroom B, Plaza Level, Hyatt

THEME

SUST DEV

R&D

(Simultaneous interpretation in both official languages will be offered during this panel discussion. Consult the GENERAL INFORMATION section for details.)

Chair: *Martin Lelièvre*, Director, Autoroute 30 and Quebec Projects, Transport Canada, Ottawa, President, CNC-PIARC/AIPCR, and Canada's First Delegate to PIARC

This panel discussion has been organized by the Canadian National Committee of the World Road Association (CNC-PIARC/AIPCR).

MESSAGE FROM THE PRESIDENT OF THE WORLD ROAD ASSOCIATION – *Anne-Marie Leclerc*, Assistant Deputy Minister, Infrastructure and Technologies, Ministry of Transport of Quebec, Quebec City, and President of PIARC

INTERNATIONAL WINTER ROAD CONGRESS: PAST CONGRESSES AND QUEBEC 2010 – *John Emery*, Principal Engineer and Vice-president, Special Projects, Dessau/LVM-JEGEL, Toronto





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MONDAY P.M.

AUSTRALIA AND THE PATH OF CHANGE – *Gary Liddle*, Chief Executive, VicRoads, and Deputy Chair, Austroads, Melbourne

BRITISH COLUMBIA – A CHANGING ENVIRONMENT – *David Marr*, Executive Director, Planning and Programming Branch, Ministry of Transportation and Infrastructure of British Columbia, Victoria

STRATEGIES FOR ROAD MAINTENANCE: ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS – *Pierre T. Dorchies*, Director of Sustainable Development, COLASCANADA-SINTRA, Montreal

TOWARD BETTER URBAN TRANSPORT SERVICES THROUGH A WORLD OF EXPERTISE – *Claude Carette*, Head, Transportation Management Division, City of Montreal

A NETWORK SAFER – *Michel Cloutier*, Chemist, CANUTEC Director, Transportation of Dangerous Goods, Transport Canada, Ottawa

SUSTAINABILITY AND CLIMATE CHANGE INITIATIVES BY CANADA'S CEMENT AND CONCRETE INDUSTRY – *Tim Smith*, Director, Transportation and Public Works, Cement Association of Canada, Ottawa

Discussion and Question-and-answer Period

SESSIONS 14:15

4 – 2008 TAC ENVIRONMENTAL ACHIEVEMENT AWARD NOMINATIONS

Plaza Ballroom C, Plaza Level, Hyatt

ENV

SUST DEV

THEME

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)

Chair: *Scott Hanna*, Regional Director, Western North America / Hatch Associate, Environment and Community Interface Group, Hatch Ltd., Vancouver





MONDAY P.M.

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TAC members that have made a contribution to the protection and enhancement of the environment or that have taken a particularly innovative approach to solving an environmental problem are eligible to receive the Association's annual Environmental Achievement Award.

A selection committee reviewed the nominations received for the 2008 award and recommended a winner to TAC's Board of Directors. The award will be conferred at the delegate luncheon scheduled for Monday, October 19. Nominees have been invited to give presentations on their respective projects at this session.

- 14:15 SEA TO SKY HIGHWAY IMPROVEMENT PROJECT (MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE OF BRITISH COLUMBIA) – *Angela Buckingham*, Chief Environmental Officer, Ministry of Transportation and Infrastructure of British Columbia, Victoria
- 14:40 OUTIL DE GESTION ENVIRONNEMENTALE– L'ENVIRONNEMENT DANS LES PROJETS ROUTIERS (MINISTÈRE DES TRANSPORTS DU QUÉBEC) (DEVELOPMENT OF AN ENVIRONMENTAL MANAGEMENT TOOL (MINISTRY OF TRANSPORT OF QUEBEC)) – *Donald Martel*, Environmental Specialist, Ministry of Transport of Quebec, Jonquière
- 15:05 PROLONGEMENT DE L'AUTOROUTE ROBERT-BOURASSA EN BOULEVARD URBAIN À QUÉBEC (MINISTÈRE DES TRANSPORTS DU QUÉBEC) (ROBERT-BOURASSA FREEWAY EXTENSION, QUEBEC CITY (MINISTRY OF TRANSPORT OF QUEBEC)) – Representative from the Ministry of Transport of Quebec, Quebec City
- 15:30 MONITORING AND FOLLOW-UP OF SANDHILL CRANE AND BOG HABITAT: ADAPTIVE MANAGEMENT OF PROJECT MITIGATION FOR SOUTH FRASER PERIMETER





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MONDAY P.M.

ROAD, B.C. (MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE OF BRITISH COLUMBIA) – *Charlie Palmer*, Environmental Coordinator, Gateway Program, Ministry of Transportation and Infrastructure of British Columbia

15:55 DEVELOPMENT OF A GEOTHERMAL BRIDGE DECK HEATING SYSTEM (COUNTY OF ESSEX, ON) – *Tom Bateman*, County Engineer, County of Essex, Essex, ON

16:20 WILDLIFE-VEHICLE MITIGATION ON NORTHEASTERN ONTARIO HIGHWAYS (MINISTRY OF TRANSPORTATION OF ONTARIO) – *Marlo Johnson*, Ministry of Transportation of Ontario

16:45 SALMON RIVER FISH HABITAT COMPENSATION PLAN (MINISTRY OF TRANSPORTATION OF ONTARIO) – *Sharon Westendorp*, Ministry of Transportation of Ontario, Kingston

5 – BRIDGES IN A CLIMATE OF CHANGE (A)

Georgia Room A, Plaza Level, Hyatt

STRUCTURES **MTN/CONST** **SOILS/MAT** **THEME**

Chair: *Brian J. Wood*, Senior Bridge Engineer, Stantec Consulting Ltd., Winnipeg

14:15 HIGH VALUE BRIDGES FOR LOW VOLUME ROAD (*) – *Julien Henley*, Manager, Industrial Infrastructure, Associated Engineering, Burnaby, BC; *Edward Cienciala*, Senior Bridge Engineer, Ministry of Transportation and Infrastructure of British Columbia, Prince George

14:45 CHANGES IN BRIDGE ENGINEERING AND A NEW BRIDGE OVER A UNESCO WORLD HERITAGE SITE (*) – *William Victor Anderson*, Executive Vice-president, Delcan, Markham, ON; *Sylvain Montminy*, Division Manager, Delcan, Ottawa; *Abdol Nouraeyan*, Program





MONDAY P.M.

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Manager, and *Marcel Delph*, Senior Project Manager, City of Ottawa

15:15 DESIGN OF TEMPLETON OVERPASS FOR THE CANADA LINE (*) – *Yulin Gao*, Senior Bridge Engineer, SNC Lavalin Inc., Vancouver; *Samson Chan*, and *Roger Woodhead*, SNC Lavalin Inc.

15:45 DESIGN OF CAMPBELL ROAD OVERPASS IN KELOWNA (*) – *Yulin Gao*, Senior Bridge Engineer, SNC Lavalin Inc., Vancouver; and *Samson Chan*, SNC Lavalin Inc.

6 – RETHINKING THE GEOMETRIC DESIGN OF FACILITIES FOR VULNERABLE ROAD USERS

Saturna Island Room, Discovery Floor, Fairmont

DESIGN	SAFETY	PLANNING
TRAFFIC	MUNICIPAL	THEME

Chair: *Gary Gosse*, Assistant Deputy Minister, Transportation, Newfoundland and Labrador Transportation and Works, St. John’s

14:15 VANCOUVER’S BICYCLE LANES: RETROFITTING ARTERIAL STREETS TO ACCOMMODATE CYCLISTS (*) – *Michael Anderson*, Transportation Engineer, Greenways & Neighbourhood Transportation, City of Vancouver

14:45 AN OVERVIEW OF SHARED USE LANE PAVEMENT MARKINGS FOR CYCLISTS (*) – *Mitchell Jacobson*, Transportation Engineer, and *Mike Skene*, President, Boulevard Transportation Group, Victoria; *Gavin Davidson*, Senior Planner, TransLink (South Coast British Columbia Transportation Authority), Burnaby, BC; *David Rawsthorne*, City of Vancouver

15:15 CYCLE TRACK CONCEPTS FOR BURLINGTON, ONTARIO: DESIGN LESSONS FROM APELDOORN NETHERLANDS (*) –





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MONDAY P.M.

Norma Moores, Senior Transportation Engineer, IBI Group, Hamilton, ON; *Kerry Davren*, Engineering Assistant, City of Burlington, ON

- 15:45 ACCOMMODATING SMALL AND LARGE USERS AT ROUNDABOUTS (*) – *Phil Weber*, Associate, Project Manager, Ourston Roundabouts Canada, Toronto; *Nancy Button*, Supervisor of Traffic Engineering, Regional Municipality of Waterloo, ON

7 – INNOVATIONS IN PAVEMENT MONITORING AND EVALUATION

Waddington Room, Conference Floor, Fairmont

PAVE

SOILS/MAT

MTN/CONST

R&D

Chair: *Jim Knox*, Assistant Director, Construction, New Brunswick Department of Transportation, Fredericton

- 14:15 LONG TERM PERFORMANCE AND ACOUSTIC PROPERTIES OF AN AGING OPEN GRADED FRICTION COURSE ASPHALT SURFACE (*) – *John Laxdal*, Regional Manager, Southwest British Columbia, AMEC Earth & Environmental, Burnaby, BC; *Mike Bishop*, AMEC Earth & Environmental; *Mike Oliver*, and *Daryl Finlayson*, British Columbia Ministry of Transportation and Infrastructure; *Clair Wakefield*, Wakefield Acoustics Ltd.
- 14:45 DEVELOPMENT OF A FRAMEWORK FOR DETERMINING MINIMUM TESTING INTERVAL REQUIREMENTS FOR NETWORK LEVEL SKID TESTING (*) – *Amir Abd El Halim*, Associate, Project Manager, Stantec Consulting Ltd., Kitchener, ON; *Susan Tighe*, Associate Professor and Canada Research Chair in Pavement and Infrastructure Management, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON
- 15:15 RESULTS OF USING MEASURED FULL-SCALE TIRE/ROAD CONTACT STRESSES IN MODELS





MONDAY P.M.

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- OF PAVEMENT BEHAVIOUR (*) – *Robert A. Douglas*, Senior Geotechnical Engineer, Low-volume Roads, Golder Associates Ltd., Mississauga, ON; *Sabine Werkmeister*, Research Fellow, Technische Universitaet Dresden, Dresden, Germany; *Martin Gribble*, Research Engineer, Opus International Consultants, Auckland, New Zealand
- 15:45 NON-DESTRUCTIVE STRUCTURAL ASSET VALUATION OF A SASKATCHEWAN RURAL AIRFIELD BEFORE AND AFTER STRUCTURAL UPGRADE (*) – *Curtis Berthelot*, President, *Erin Stuber*, and *Rielle Haichert*, PSI Technologies Inc., Saskatoon, SK; *Ania Anthony*, Materials Engineer, Saskatchewan Ministry of Highways and Infrastructure, Saskatoon; *Doug Hansen*, Preservation Engineer, and *Peter Heal*, Regional Airport Coordinator, Saskatchewan Ministry of Highways and Infrastructure, Prince Albert
- 16:15 CASE STUDY OF AN INNOVATIVE FORENSIC INVESTIGATION OF A DRAMATIC PAVEMENT FAILURE, 14 STREET NW, CALGARY, ALBERTA (*) – *Art Johnston*, Principal, Transportation Practice, EBA Engineering Consultants Ltd., Calgary; *Joe Chyc-Cies*, Materials and Research Engineer, City of Calgary; *Darel Mesher*, Project Director, Infrastructure, EBA Engineering Consultants Ltd., Edmonton
- 16:45 IMPROVEMENTS IN PIEZOELECTRIC SENSORS AND WEIGH-IN-MOTION DATA COLLECTION TECHNOLOGY (*) – *Xiaohua Jiang*, Postdoctoral Fellow, *Shahram H. Vaziri*, *Carl Haas*, Canada Research Chair and Professor of Civil Engineering, *Leo Rothenburg*, *Gerhard Kennepohl*, and *Ralph Haas*, Distinguished Professor Emeritus, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON



8 – CHANGES IN MAINTENANCE SERVICE LEVELS AS A RESULT OF REDUCED BUDGETS AND ESCALATING COSTS

Vancouver Island Room, Conference Floor,
Fairmont

MTN/CONST	PAVE	THEME
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Chair: *Gary Todd*, Manager, Design and Contract Standards Office, Ministry of Transportation of Ontario, St. Catharines

- 14:15 ALBERTA ROAD WEATHER INFORMATION SYSTEMS NETWORK EXPANSION, WINTER RISK ASSESSMENT, AND PRIORITY LIST FOR ADVANCED WINTER MAINTENANCE STRATEGIES (*) – *Mark F. Pinet*, Manager, Intelligent Transportation Systems, AECOM, Ottawa
- 14:45 PAVEMENT PRESERVATION - EFFECTIVE WAY OF DEALING WITH SCARCE MAINTENANCE BUDGET (*) – *Ludomir Uzarowski*, Associate, Pavement and Materials Engineering, *Gary Farrington*, Pavements Asset Management Specialist, and *Wilson Chung*, Pavements and Materials Engineer, Golder Associates Ltd., Whitby, ON
- 15:15 PORTLAND CEMENT STABILIZED FULL DEPTH RECLAMATION OF THE PT. MICHAUD BEACH ROAD (*) – *Christopher L. Barnes*, Research Associate, Nova Scotia CAD/CAM Centre, Dalhousie University, Halifax

9 – BEST PRACTICES IN URBAN TRANSPORTATION PLANNING: MEASURING CHANGE (A)

Regency Ballroom E, Convention Level, Hyatt

MUNICIPAL	PLANNING	TRAFFIC
SUST DEV	ITS	THEME

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)



MONDAY P.M.

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Chair: *J. Allen Stewart*, Vice-president, Academic, and Dean of Engineering, Royal Military College of Canada, Kingston, ON

14:15 VANCOUVER'S TRANSIENT PARKING SUPPLY AND DEMAND (*) – *Francis Navin*, Professor Emeritus, UBC Civil Engineering, Director, Easy Park, Vancouver; *Peter Joyce*, President, Bunt & Associates Engineering Ltd., Vancouver

14:45 TRANSPORTATION MODELING FOR THE 2010 WINTER OLYMPIC GAMES (*) – *Chetan Joshi*, Project Manager, and *Karen Giese*, Project Manager, PTV America, Inc.; *Christopher Darwent*, Transportation Engineer, Olympic Transportation Branch, City of Vancouver

15:15 THE BIG MOVE: TRANSFORMING TRANSPORTATION IN THE GREATER TORONTO AND HAMILTON AREA (*) – *Lisa Salsberg*, Manager, Transportation Policy and Planning, and *Abril Novoa-Camino*, Intern Policy and Planning, Metrolinx, Toronto

15:45 PLAN DIRECTEUR DES SYSTÈMES DE TRANSPORTS INTELLIGENTS DE LA VILLE DE MONTRÉAL (CITY OF MONTREAL'S MASTER PLAN FOR INTELLIGENT TRANSPORTATION SYSTEMS) (*) – *Marc Blanchet*, Director, Transportation Branch, City of Montreal; *Georges O. Gratton*, Senior Advisor, Transportation Strategies, Tranglesco, Montreal

10 – INNOVATIONS IN TRAFFIC CONTROL SAFETY

Georgia Room B, Plaza Level, Hyatt



Chair: *Michael Skene*, President, Boulevard Transportation Group, Victoria





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MONDAY P.M.

- 14:15 A PROTOTYPE SYSTEM FOR TRUCK SIGNAL PRIORITY (TKSP) USING VIDEO SENSORS (*)
– *Nicolas Saunier*, Professor, *Tarek Sayed*, Professor, Department of Civil Engineering, and *Clark Lim*, Managing Director, Bureau of Intelligent Transportation Systems and Freight Security – Engineering, University of British Columbia, Vancouver
- 14:45 A RISK/COST-BASED ALGORITHM FOR THE ROUTING OF DANGEROUS GOODS (*) – *Karim El-Basyouny*, Research Assistant, *Derek Cheng*, Geographic Information System Administrator, *Clark Lim*, Managing Director, Bureau of Intelligent Transportation Systems and Freight Security – Engineering, and *Tarek Sayed*, Professor, Department of Civil Engineering, University of British Columbia, Vancouver
- 15:15 AUTOMATED PEDESTRIAN SAFETY ANALYSIS USING VIDEO DATA IN THE CONTEXT OF SCRAMBLE PHASE INTERSECTIONS (*) – *Karim Ismail*, PhD Student, *Tarek Sayed*, Professor, and *Nicolas Saunier*, Professor, Department of Civil Engineering, University of British Columbia, Vancouver
- 15:45 THE INFLUENCE OF CANADIAN PRACTICES IN DEVELOPING NEW BRUNSWICK'S WORK AREA TRAFFIC CONTROL MANUAL (*) – *Mark Gunter*, Transportation Planner, Opus International Consultants (Canada) Ltd., Fredericton, NB
- 16:15 WILDLIFE DETECTION IN ONTARIO – *Mark F. Pinet*, Manager, Intelligent Transportation Systems, AECOM, Ottawa



**MONDAY, OCTOBER 19
(EVENING)****VANCOUVER AQUARIUM
NIGHT – “Explore the Ocean
Floor” 19:00-23:00**

Vancouver Aquarium, Stanley Park

Buses leave from the Melville Street entrance of the Hyatt Regency Hotel at regular intervals between 18:30 and 19:30. Weather permitting, participants may also join a 45-minute guided walking tour to the venue. (For the walking tour, participants should assemble in the Main Lobby of the Hyatt Regency at 18:00.) Shuttle service back to the hotel will be provided from 21:00 to 23:15. (Recommended attire is business casual.)

(Full and basic registrants – ticket in booklet; other delegates – ticket to be purchased)

*Special thanks to the conference co-hosts, the **Ministry of Transportation and Infrastructure of British Columbia**, the **City of Vancouver** and **TransLink**. Thanks also to the many generous local sponsors (to be recognized on site.)*

Delegates and companions are invited to “Explore the Ocean Floor” at one of Canada’s most intriguing and unforgettable attractions – the Vancouver Aquarium.

Nestled in the heart of Vancouver’s majestic Stanley Park, the country’s largest aquarium has welcomed such well-known visitors as Queen Elizabeth II and former Prime Minister Pierre Elliott Trudeau and has served as a filming location for both movies and television shows. On Monday of the conference week, the facility has been reserved for exclusive use by TAC.



40 MONDAY P.M. & TUESDAY A.M.

On arrival at the aquarium, you will be ushered into an undersea world not soon forgotten. Meet and greet some of British Columbia's underwater neighbours and maybe see the wildlife enjoy a meal. Watch world-famous sea otters, best known for holding hands on *You Tube*! There will be creatures and displays to see all evening!

Food and beverage stations will be set up throughout the aquarium, each one showcasing the variety of dishes that have come to represent the cultural diversity not only of Vancouver but the West Coast in general. Tall tables and seating strategically located throughout the venue will allow guests to relax and socialize as they make their way through the exhibits.

In addition, participants will have the opportunity to watch short videos on the construction of some of British Columbia's transportation landmarks.

Come to the Vancouver Aquarium for an awesome evening!

TUESDAY, OCTOBER 20 (MORNING)

SPEAKERS' BREAKFAST 07:30

Vancouver Island Room, Conference Floor,
Fairmont
(By invitation only)

EXHIBITION 08:00-12:00

Regency Ballroom A, B, C, D & F, Convention
Level, Hyatt

Coffee and pastries will be served to delegates from 08:00 to 09:00. Coffee will also be available at other times. *TAC thanks HDR | iTRANS for sponsoring today's exhibition food and beverage service.*





TUESDAY A.M.

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REGISTRATION 08:00-17:30

Regency Foyer, Convention Level, Hyatt

MEETING 08:30

TAC Board of Directors (closed)
Pacific Ballroom, Conference Floor, Fairmont

Refreshments sponsored by Ontario Good Roads Association

MEETINGS TO BE HELD IN CONJUNCTION WITH TAC CONFERENCE 09:00

Board of Directors, Canadian Council of Motor Transport Administrators (closed)
Moresby Island Room, Discovery Floor, Fairmont

Policy and Planning Support Committee, Council of Deputy Ministers Responsible for Transportation and Highway Safety (closed)
Boardroom, Conference Floor, Fairmont

PANEL DISCUSSIONS 09:00

11 – RE-EVALUATING DESIGN STANDARDS TO ADDRESS CLIMATE CHANGE

The Roof, Fairmont

DESIGN	ENV	THEME
SUST DEV	INFO MGT	

Chair: *Kevin Volk*, Manager, Strategic Planning and Policy, Ministry of Transportation and Infrastructure of British Columbia, Victoria

Transportation infrastructure must be designed and built to withstand the impacts of both day-to-day weather and climate extremes. Given that climatic averages and extremes are changing, it is important that work be undertaken to provide the transportation





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TUESDAY A.M.

industry with current climatic data and trends, and guidance on how to use this information to improve designs.

This panel discussion will address these challenges from two different perspectives. First, there will be a review of the current gaps in climatic data and the work being done to improve data reporting and modelling. Second, in the absence of having the ideal quantity and quality of climate data, panelists will consider how various jurisdictions are planning and designing for a changing climate.

Panelists

ENVIRONMENT CANADA'S EFFORTS TO IMPROVE CLIMATE DATA COLLECTION AND ANALYSIS – *Heather Auld*, Associate Director, Meteorological Service of Canada, Environment Canada, Downsview, ON

UPDATING REGIONAL INTENSITY / DURATION / FREQUENCY (IDF) DATA – *Joan Klaassen*, Environment Canada

COORDINATING BRITISH COLUMBIA'S CLIMATE INFORMATION – MANY SOURCES, ONE PURPOSE – *Ted Weick*, Climate Networks Coordinator, Environmental Protection Division, Ministry of Environment of British Columbia

PILOT PROJECTS TO ASSESS THE VULNERABILITY OF CANADIAN INFRASTRUCTURE – *David Lapp*, Manager, Professional Practice, Engineers Canada

MUNICIPAL CLIMATE ADAPTATION AND RESILIENT CITIES – *Melina Scholefield*, Manager, Sustainability Group, City of Vancouver

Discussion and Question-and-answer Period

12 – BEYOND ROAD SAFETY VISION 2010

Waddington Room, Conference Floor, Fairmont

SAFETY

TRAFFIC

R&D

Co-chairs: *Mavis Johnson*, President, Canadian Traffic Safety Institute, Surrey, BC, and *Paul Boase*, Chief, Road User Safety, Transport Canada, Ottawa





TUESDAY A.M.

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Discussions have commenced on the successor to *Road Safety Vision 2010*, a national effort aimed at making Canada's roads the safest in the world. The vision provides the country's road safety community with benchmarks against which to develop new strategies and measure intervention efforts.

Panelists

AN UPDATE ON THE PROGRESS OF ROAD SAFETY VISION 2010 – *Paul Gutoskie*, Road Safety 2010 Task Force, Transport Canada, Ottawa

PROGRESS MADE IN THE PLANNING FOR THE NEXT VERSION OF ROAD SAFETY VISION 2010 SINCE THE ROAD SAFETY FORUM IN OCTOBER 2008 – *Charles O'Donnell*, Director, Registrar of Motor Vehicles, Fredericton, NB, and President, Canadian Council of Motor Transport Administrators

RESEARCH BEING UNDERTAKEN THROUGH THE ENGINEERING AND RESEARCH SUPPORT COMMITTEE OF THE COUNCIL OF DEPUTY MINISTERS RESPONSIBLE FOR TRANSPORTATION AND HIGHWAY SAFETY – *Dirk Nyland*, Chief Engineer, Ministry of Transportation and Infrastructure of British Columbia, Victoria

SUPPORT FROM THE ENFORCEMENT COMMUNITY FOR ROAD SAFETY VISION 2010 AND ITS SUCCESSOR PLAN – *Norm Gaumont*, Superintendent, Traffic Services, "E" Division, Royal Canadian Mounted Police, Vancouver

Discussion and Question-and-answer Period

SESSIONS 09:00

13 – 2008 TAC SUSTAINABLE URBAN TRANSPORTATION AWARD NOMINATIONS

Plaza Ballroom C, Plaza Level, Hyatt

MUNICIPAL	SUST DEV	TRAFFIC
ENV	THEME	



(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)

Supported by Transport Canada's Urban Transportation Showcase Program (UTSP)

Chair: *Ana Maria Leyton*, Highway Programs, Transport Canada, Ottawa

TAC members that have made an exemplary contribution to sustainable urban transportation are eligible to receive the Association's annual award recognizing their efforts in this area.

A selection committee reviewed the nominations received for the 2008 award and recommended a winner to TAC's Board of Directors. The award will be conferred at the delegate luncheon scheduled for Monday, October 19. Nominees have been invited to give presentations on their respective projects at this session.

- 09:00 ONTARIO TRANSPORTATION DEMAND MANAGEMENT – MUNICIPAL GRANT PROGRAM (MINISTRY OF TRANSPORTATION OF ONTARIO) – *Maria Piccioni*, Senior Policy Advisor, Ministry of Transportation of Ontario, Toronto
- 09:30 LE SERVICE D'ÉCOLOBUS DANS LE VIEUX-QUÉBEC (ECOLOBUS SERVICE IN OLD QUEBEC (QUEBEC CITY)) – *Hervé Chapon*, Transportation Planning Advisor, Quebec City
- 10:00 PENTILLY ROAD IMPROVEMENTS (DILLON CONSULTING LIMITED) – *Flavio R. Forest*, Partner, Dillon Consulting Limited
- 10:30 TRANSPORT 2040 – SOUTH COAST BRITISH COLUMBIA TRANSPORTATION AUTHORITY (TRANSLINK) – *Sarah McMillan*, Senior Transportation Planner, Strategic Planning and Policy, TransLink (South Coast British Columbia Transportation Authority), Burnaby, BC



TUESDAY A.M.

45

14 – BRIDGES IN A CLIMATE OF CHANGE (B)

Saturna Island Room, Discovery Floor, Fairmont

STRUCTURES **MTN/CONST** **SOILS/MAT** **THEME**

Chair: *Robert van Ginkel*, Principal and Senior Project Manager, Wardrop Engineering Inc., Winnipeg

09:00 THOMPSON RIVER RETAINING WALL REHABILITATION (*) – *Carlo Elholm*, Technical Director, Structural Engineering, and *Jay Sutton*, Senior Project Manager, WorleyParsons Westmar, Vancouver

09:30 THE PATTULLO BRIDGE EMERGENCY REPAIR (*) – *David Woolford*, Project Manager, Bridges, TransLink (South Coast British Columbia Transportation Authority), Burnaby, BC; *Darryl Matson*, Vice-president, Buckland & Taylor Ltd., Vancouver

10:00 THE LIONS’ GATE BRIDGE SUSPENDED SPAN REPLACEMENT (*) – *Darryl Matson*, Vice-president, Buckland & Taylor Ltd., Vancouver

10:30 MITIGATING ENVIRONMENTAL IMPACTS ON THE SEA TO SKY HIGHWAY THROUGH INNOVATIVE STRUCTURAL CONCEPTS AND DETAILS (*) – *Keith Holmes*, Senior Project Manager, and *Jianping Jiang*, Partner, MMM Group Limited, Vancouver

11:00 MODIFICATIONS TO QUEENSBOROUGH BRIDGE, NEW WESTMINSTER, BC (*) – *David I. Harvey*, Principal, Associated Engineering, Burnaby, BC

11:30 KICKING HORSE CANTILEVER STRUCTURE (*) – *Bruce Hamersley*, Manager, Bridge Engineering, Klohn Crippen Berger Ltd., Vancouver; *Keith Mitchell*, and *Brian Borton*, Klohn Crippen Berger Ltd.

15 – REDUCING THE CARBON FOOTPRINT THROUGH TRAFFIC MANAGEMENT

Georgia Room B, Plaza Level, Hyatt

TRAFFIC **ENV** **SUST DEV**
MUNICIPAL **ITS** **THEME**



SUMMARY PROGRAM

Notes: This program is provided for quick reference only. Abbreviations: SC - Standing Committee; PSC - Project Steering Committee.

FRIDAY, OCT. 16	SATURDAY, OCT. 17
<p>MEETINGS 08:00 Environmental Advisory & Legislation SC Mechanistic-empirical Pavement Design Guide (MEPDG) User Group</p> <p>MEETINGS 09:00 Asset Management Task Force Construction Subcommittee Geometric Design Guide Update Scoping Study PSC Guidelines for Posted Speed Limits on On and Off Ramps PSC</p> <p>MEETINGS 10:00 Environmental Issues Management SC Mechanistic-empirical Pavement Design Guide Calibration PSC</p>	<p>MEETING 07:30 Driver Comprehension Testing Program PSC</p> <p>MEETING 08:00 Framework for High-quality Data Collection on Urban Goods Movement in Canada – Phase 2 PSC</p> <p>MEETINGS 09:00 Environment Council Guidance on the Use and Installation of Chevron Alignment Signs PSC Public Utilities Management Subcommittee Road Safety SC Sustainable Transportation SC</p> <p>MEETING 10:00 Urban Transportation Indicators Fourth Survey PSC</p> <p>MEETING 11:00 Student Outreach Working Group</p>
<p>MEETINGS 13:00 Joint Roundabouts Subcommittee Update of 1998 Bikeway Traffic Control Guidelines for Canada PSC Winter Road Condition Terminology PSC</p> <p>MEETING 14:00 Traffic Operations & Management SC (TOMSC) Executive</p> <p>MEETINGS 15:00 Transit Lane Conspicuity PSC Transportation Infrastructure in Permafrost Regions PSC</p> <p>MEETINGS 19:00 Active Transportation PSC Pavement Asset Design & Management Guide PSC Work Zone Safety Manual Subcommittee</p>	<p>MEETINGS 13:00 Education and Human Resources Development Council Environment Council Best Practices for Winter Road Construction PSC Guide to Bridge Traffic & Combination Barriers PSC Road Safety SC Traffic Operations & Management SC (TOMSC) Transportation Planning & Research SC Winter & Summer Maintenance Subcommittee</p> <p>MEETING 16:00 Geometric Design Revisions & Additions Subcommittee</p> <p>REGISTRATION MATERIAL PICK-UP 16:30-18:00</p> <p>MEETINGS 18:00 Best Practices for Collision-prone Location Screening PSC Signs and Markings for Multi-lane Roundabouts PSC</p>
<p>Thursday, Oct. 15 (13:00) Green Guide for Roads Task Force</p>	

SUNDAY, OCT. 18	MONDAY, OCT. 19
<p>INFORMATION SESSION 8:00 Standing Committee Executives</p> <p>REGISTRATION 08:00</p> <p>MEETINGS 09:00 Chief Engineers' Council Urban Transportation Council Geometric Design SC Maintenance & Construction SC Soils & Materials SC Structures SC TOMSC</p> <p>FALSE CREEK SELF-DIRECTED TOUR (Offered from 10:00 to 16:00)</p> <p>VANCOUVER CITY BUS TOUR (Hourly departures from 10:00 to 15:00)</p>	<p>MEETING 07:00 Climate Change Task Force</p> <p>SPEAKERS' BREAKFAST 07:30</p> <p>REGISTRATION 07:30</p> <p>MEETING 07:45 Transportation Finance Standing Committee</p> <p>EXHIBITION 08:00</p> <p>EXHIBITOR PRESENTATION 08:10</p> <p>OPENING PLENARY SESSION 08:45</p> <p>EXHIBITOR PRESENTATION 11:40</p>
	AWARDS LUNCHEON 12:15
<p>MEETINGS 13:00 Chief Engineers' Council Urban Transportation Council Geometric Design SC Maintenance & Construction SC Pavements SC Structures SC TOMSC</p> <p>TAC FAMILIARIZATION AND CONFERENCE ORIENTATION SESSION 13:00</p> <p>EXHIBITION 14:30</p>	<p>MEETING 14:15 Chief Engineers' Council</p> <p>PANEL DISCUSSIONS 14:15 Role of Policy in Creating a Climate of Change PIARC - A Window on a Changing World</p> <p>SESSIONS 14:15 2008 TAC Environmental Achievement Award Nominations Bridges in a Climate of Change (A) Rethinking the Geometric Design of Facilities for Vulnerable Road Users Innovations in Pavement Monitoring and Evaluation Changes in Maintenance Service Levels as a Result of Reduced Budgets and Escalating Costs Best Practices in Urban Transportation Planning: Measuring Change (A) Innovations in Traffic Control Safety</p> <p>EXHIBITION</p>
WELCOMING RECEPTION 17:30	VANCOUVER AQUARIUM NIGHT 19:00

SUMMARY PROGRAM (cont'd)

TUESDAY, OCT. 20	WEDNESDAY, OCT. 21	
<p>SPEAKERS' BREAKFAST 07:30 REGISTRATION 08:00 EXHIBITION 08:00 MEETING 08:30 TAC Board of Directors PANEL DISCUSSIONS 09:00 Re-evaluating Design Standards to Address Climate Change Beyond Road Safety Vision 2010 SESSIONS 09:00 2008 TAC Sustainable Urban Transportation Award Nominations Bridges in a Climate of Change (B) Reducing the Carbon Footprint through Traffic Management Urban Freight Movement and Trade Gateways: Changing the Paradigm Slope and Embankment Engineering for Changing Environments Advances in Pavement Design and Construction Delivery of Highway Construction and Maintenance Services with a Decreasing Labour Force and Limited Industry Capacity</p>	<p>SPEAKERS' BREAKFAST 07:15 REGISTRATION 08:00 WORKSHOPS 08:30 Recruitment and Retention Practices in Canada Improving Work Zone Safety Materials and Resources for Greener Roads Moving Minds: Effective Strategies For Influencing Travel Behaviour Multi-lane Roundabouts Asset Management - Practices, Plans and Considerations PANEL DISCUSSIONS 09:00 Road Pricing in an Urban Context Climate Change and Northern Infrastructure</p>	<p>MEETINGS TO BE HELD IN CONJUNCTION WITH TAC CONFERENCE</p> <p><u>Sat., Oct. 17 (09:00)</u> Climate Change & Northern Infrastructure Subcommittee</p> <p><u>Sat., Oct. 17 (09:00)</u> Canadian National Committee of the World Road Association (CNC-PIARC/AIPCR)</p> <p><u>Sat., Oct. 17 (14:00)</u> Organizing Committee of the 2010 PIARC Winter Road Congress</p> <p><u>Sun., Oct. 18 (07:00)</u> TAC Foundation Board of Directors</p> <p><u>Tues., Oct. 20 (all day)</u> Board of Directors, Canadian Council of Motor Transport Administrators Policy & Planning Support Committee</p> <p><u>Wed., Oct. 21 (all day)</u> Council of Deputy Ministers</p> <p><u>Thurs., Oct. 22 (all day)</u> Council of Ministers</p>
<p>ANNUAL LUNCHEON 12:15</p>	<p>PRESIDENT'S LUNCHEON 12:15</p>	
<p>TOURS 14:00 Sea to Sky Highway Lions Gate Bridge Olympic Venues Central Vancouver (Pedestrian Tour) Canada Line Rapid Transit System TAC ANNUAL GENERAL MEETING 14:15 PANEL DISCUSSION 14:15 Green Guide for Roads SESSIONS 14:15 Sustainability in Development and Geometric Design for Roadways Are Developers Becoming Transit-oriented? Long Term Pavement Performance: Canadian and American Program Results Cycling and Safety Soil Stabilization for Changing Environments Economic Implications of Climate Change POSTER SESSIONS 14:15 Traffic Operations and Management Pavement Evaluation, Performance and Management MEETING 15:15 TAC Board of Directors</p>	<p>TOURS 14:00 Sea to Sky Highway Lions Gate Bridge Olympic Venues Golden Ears Bridge Vancouver Cycling (Bicycle Tour) Port of Metro Vancouver PANEL DISCUSSIONS 14:15 Where Is Pavement Design Headed in this Climate of Change? P3 Projects - Management of Environmental Issues Freeway / Urban Street Transitions Active Transportation and Sustainable Communities SESSIONS 14:15 Lessons Learned in Integrating Transportation and Land Use Best Practices in Urban Transportation Planning: Measuring Change (B) 2008 TAC Road Safety Engineering Award Nominations Sustainability of Asphalt Mixes POSTER SESSION 14:15 Bridges in a Climate of Change</p>	
	<p>ANNUAL BANQUET 19:00</p>	

CONFERENCE CO-HOSTS

Ministry of Transportation and Infrastructure of British Columbia
 City of Vancouver
 TransLink
 (South Coast British Columbia Transportation Authority)

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 Thurber Engineering Ltd.
 Transport Canada's Urban Transportation Showcase Program (UTSP)
 Wardrop Engineering Inc.

Chair: *Ron Stewart*, Associate Director, IBI Group, Toronto

- 09:00 HOST CITY OLYMPIC TRANSPORTATION PLAN (HCOTP) FOR THE 2010 WINTER GAMES (*) – *Dale Bracewell*, Director, Olympic Transportation, City of Vancouver
- 09:30 CITY OF VANCOUVER PARKING BY-LAW — A RECITAL OF SUSTAINABLE PARKING POLICIES (*) – *Wali Memon*, Parking Policy and Development Engineer, City of Vancouver
- 10:00 MODELLING TRAFFIC OPERATIONS FOR PERFORMANCE MEASUREMENT OF THE PORT MANN / HIGHWAY 1 PROJECT (*) – *Rubina Ali*, Analyst, and *Felipe Rodriguez*, Senior Project Manager, MMM Group Limited, Vancouver
- 10:30 REAL WORLD APPLICATIONS OF VIRTUAL WEIGH STATIONS (*) – *Rod Klashinsky*, Vice-president, Special Projects, International Road Dynamics Inc., Saskatoon, *Randy Hansen*, Executive Vice-president and Chief Operating Officer, and *Scott McGibney*, Technical Specialist, International Road Dynamics Inc.
- 11:00 THE CITY OF CAMBRIDGE BIKEWAY NETWORK MASTER PLAN (*) – *Shannon Noonan*, Manager of Transportation Engineering, and *Cathy Robertson*, Director of Engineering Services, Transportation and Public Works Department, Corporation of the City of Cambridge, ON
- 11:30 DEVELOPMENT OF A DYNAMIC TRANSIT SIGNAL PRIORITY STRATEGY (*) – *Wael Ekeila*, Research Assistant, *Tarek Sayed*, Professor, Department of Civil Engineering, and *Mohamed El Esawey*, Research Assistant, University of British Columbia, Vancouver

TUESDAY A.M.

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**16 – URBAN FREIGHT MOVEMENT AND
TRADE GATEWAYS: CHANGING THE
PARADIGM**

Georgia Room A, Plaza Level, Hyatt

MUNICIPAL	PLANNING	TRAFFIC
INFO MGT	SUST DEV	THEME

Chair: *Clark Lim*, Managing Director, Bureau of Intelligent Transportation Systems and Freight Security – Engineering, University of British Columbia, Vancouver

- 09:00 WHAT CAN WE DO TO IMPROVE URBAN GOODS MOVEMENT DATA COLLECTION IN CANADA? (FINDINGS OF THE TAC PROJECT ON THE FRAMEWORK FOR THE COLLECTION OF HIGH QUALITY DATA ON URBAN GOODS MOVEMENT) (*) – *David Kriger*, Vice-president, and *Kornel Mucsi*, HDR | iTRANS, Ottawa; *Matthew McCumber*, Transportation Planner, HDR | iTRANS, Richmond Hill, ON
- 09:30 ONTARIO-QUEBEC TRADE CORRIDOR AND CONTINENTAL GATEWAY: A SAFE, SUSTAINABLE AND COMPETITIVE TRADE GATEWAY (*) – *Évangéline Lévesque*, Department Head, Ministry of Transport of Quebec, Quebec City
- 10:00 DESIGN AND DEVELOPMENT OF A METHODOLOGY TO ESTIMATE URBAN CONTAINER TRUCK TRAFFIC (*) – *Garreth Rempel*, PhD Candidate, and *Jeannette Montufar*, Associate Professor, Department of Civil Engineering, University of Manitoba, Winnipeg
- 10:30 SMART COMMERCIAL CORRIDORS (*) – *Keenan Kitasaka*, Manager, Intelligent Transportation Systems, TransLink (South Coast British Columbia Transportation Authority), Burnaby, BC; *Joseph K. Lam*, President, Systems Business, Delcan Corporation, Markham, ON

- 11:00 IMPACT OF INTERCITY TRUCKING ON URBAN ENVIRONMENT – GREATER TORONTO AND HAMILTON AREA CASE STUDY (*) – *Selva Sureshan*, Senior Policy Advisor, Systems Analysis and Forecasting Office, Transportation Planning Branch, Ministry of Transportation of Ontario, Toronto
- 11:30 BENEFITS OF STRATEGIC FREIGHT MOVEMENT IN SASKATCHEWAN (*) – *Sharla Hordenchuk*, Environmental Specialist, Saskatchewan Ministry of Environment, Regina; *David C. Smith*, Manager of Trucking Systems, Saskatchewan Ministry of Highways and Infrastructure, Regina

17 – SLOPE AND EMBANKMENT ENGINEERING FOR CHANGING ENVIRONMENTS

Plaza Ballroom B, Plaza Level, Hyatt

SOILS/MAT

PAVE

ENV

MTN/CONST

THEME

Chair: *Darryl Nixon*, Project Director, Materials & Pavements Practice, EBA Engineering Consultants Ltd., Edmonton

- 09:00 USE OF LAUNCHED SOIL NAILS TO STABILIZE SHALLOW SLOPE FAILURE ON URBAN ACCESS ROAD 172 (*) – *Jermaine Smith*, Highway Design Engineer, Transportation Practice, EBA Engineering Consultants Ltd., Edmonton; *Chris Gräpel*, Senior Project Engineer, and *Sam Proskin*, Senior Project Engineer, EBA Engineering Consultants Ltd.; *Sabhago Oad*, Operations Engineer, Alberta Transportation
- 09:30 HIGHWAY EMBANKMENT CONSTRUCTION OVER SOFT SOILS IN THE LOWER MAINLAND OF BRITISH COLUMBIA (*) – *Chris N. Weech*, Senior Geotechnical Engineer, and *Don R. Lister*, Senior Geotechnical Engineer, Golder Associates Ltd., Victoria



TUESDAY A.M.

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- 10:00 APPROACH FILL DESIGN OF NORTH SASKATCHEWAN RIVER BRIDGE (*) – *Tony Ruban*, Principal Consultant, EBA Engineering Consultants Ltd., Edmonton
- 10:30 SLOPE REDESIGN AND SLOPE REMEDIATION DURING DESIGN/BUILD CONSTRUCTION AT KICKING HORSE CANYON - PHASE 2 (*) – *Richard Humphries*, Principal, Golder Associates Ltd., Squamish, BC; *Don R. Lister*, Senior Geotechnical Engineer, Golder Associates Ltd., Victoria; *Paul Schlotfeldt*, Golder Associates Ltd.
- 11:00 MECHANISMS AND KINEMATICS OF RIVER VALLEY LANDSLIDES IN EDMONTON (*) – *K.W. Soe Moe*, BGC Engineering Inc., Edmonton; *D.M. Cruden* and *C.D. Martin*, University of Alberta, Edmonton; *D. Lewycky* and *P. R. Lach*, City of Edmonton

18 – ADVANCES IN PAVEMENT DESIGN AND CONSTRUCTION

Regency Ballroom E, Convention Level, Hyatt

PAVE

SOILS/MAT

MTN/CONST

R&D

Chair: *Ahmed Shalaby*, Associate Dean (Undergraduate), Faculty of Engineering, University of Manitoba, Winnipeg

- 09:00 SULPHUR ENHANCED ASPHALT CONCRETE TEST SECTIONS (*) – *James A. Merriman*, President, Mid Pacific Testing & Inspection Services, Washougal, WA
- 09:30 ONTARIO'S EXPERIENCE IN THE CONSTRUCTION OF PERPETUAL PAVEMENT TRIALS (*) – *Joseph Ponniah*, Senior Pavement Research Engineer, *Becca Lane*, Head, Pavements and Foundations Section, *Pamela Marks*, Senior Bituminous Engineer, and *Susanne Chan*, Pavement Design Engineer, Pavements and Foundations Section, Materials Engineering and Research Office, Ministry of Transportation of Ontario, Downsview





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TUESDAY A.M.

- 10:00 BEHAVIOUR AND PERFORMANCE OF PERVIOUS CONCRETE PAVEMENT IN CANADA (*) – *Vimy Henderson*, PhD Candidate, *Susan Tighe*, Associate Professor and Canada Research Chair in Pavement and Infrastructure Management, and *Jodi Norris*, Research Technician, Centre for Pavement and Transportation Technology, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON
- 10:30 ROLLER-COMPACTED CONCRETE PAVEMENTS FOR HIGHWAYS AND STREETS (*) – *Gregory E. Halsted*, Market Manager, Pavements, Portland Cement Association, Bellingham, WA
- 11:00 THE CANADIAN COUNCIL OF INDEPENDENT LABORATORIES (CCIL) LABORATORY CERTIFICATION PROGRAM – *Nabil Kamel*, Program Manager, CCIL, Burlington, ON
- 11:30 CONSTRUCTION OF DURABLE LONGITUDINAL JOINTS – THE COURAGE TO USE INNOVATIONS PAYS OFF (*) – *Ludomir Uzarowski*, Associate, Pavement and Materials Engineering, and *Vimy Henderson*, Engineer in Training, Golder Associates Ltd., Whitby, ON; *Gary Moore*, Director, Engineering Services, City of Hamilton, ON; *Michael Halloran*, Project Manager, Region of Waterloo, ON

**19 – DELIVERY OF HIGHWAY
CONSTRUCTION AND MAINTENANCE
SERVICES WITH A DECREASING LABOUR
FORCE AND LIMITED INDUSTRY CAPACITY**

Balmoral Room, Convention Level, Hyatt

MTN/CONST	EDUC/HR	THEME
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Chair: *Gary Todd*, Manager, Design and Contract Standards Office, Ministry of Transportation of Ontario, St. Catharines



TUESDAY A.M. & P.M.

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- 09:00 MANITOBA INFRASTRUCTURE AND TRANSPORTATION'S TRAINING, DEVELOPMENT AND RECRUITMENT STRATEGY: BUILDING THE INFRASTRUCTURE TO A SUSTAINABLE WORKFORCE (*) – *Randy Pitz*, Director of Construction Support Services, and *Harmony McKinney-Bumstead*, Training, Development and Recruitment Coordinator, Manitoba Infrastructure and Transportation, Winnipeg
- 09:30 TWO PLOWS — ONE OPERATOR — THE USE OF TOW PLOWS ON AN ARTERIAL HIGHWAY IN NORTHERN N.B. (*) – *Mike Corbett*, Chief Engineer, and *Roméo Poitras*, OMR, Manager, Brun-Way Highways Operations Inc., Hanwell, NB
- 10:00 PAVEMENT PERFORMANCE SPECIFICATIONS: CASE STUDY (*) – *Louis D'Amours*, Vice-president, and *Jean Carrier*, Senior Pavement Engineer, Groupe Qualitas (an SNC-Lavalin division), Montreal
- 10:30 MEASURING HIGHWAY MAINTENANCE PERFORMANCE (*) – *Steve Batchelor*, Highway Management Consultant, Bognor Regis, West Sussex, United Kingdom

**TUESDAY, OCTOBER 20
(AFTERNOON)**

ANNUAL LUNCHEON 12:15

British Columbia Ballroom, Conference Floor,
Fairmont

(Full registrants – ticket in booklet; other delegates
– ticket to be purchased)

Sponsored by Delcan Corporation

Chair: *Peter Milburn*, Deputy Minister of
Transportation and Infrastructure of British
Columbia



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TUESDAY P.M.

Speaker: *Don Krusel*, President and Chief Executive Officer, Prince Rupert Port Authority

Topic: The Port of Prince Rupert – A Success Story

**MEETING TO BE HELD IN
CONJUNCTION WITH TAC
CONFERENCE 13:30**

Board of Directors, Canadian Council of Motor Transport Administrators (closed)
Moresby Island Room, Discovery Floor, Fairmont

**TOUR C-1 14:00-17:00
SEA TO SKY HIGHWAY**

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

View the majestic Sea to Sky Highway, gateway to Whistler and its Olympic events. Complex design and constructability issues and their engineering solutions will be explained during this site visit. Mechanically stabilized earth walls and side hill structures situated on mountainous terrain, with challenging foundation conditions, environmental constraints and complex traffic management requirements, called for close collaboration among several engineering disciplines. Highlights will include large rock cuts and floodway treatments for mountain streams.

For full enjoyment of the tour, footwear appropriate for uneven terrain and rain gear in case of inclement weather are recommended.





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(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR D-1 14:00-17:00

LIONS GATE BRIDGE

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

Take a guided tour of the Lions Gate Bridge. Carrying over 60,000 vehicles per day, this suspension bridge is one of only two links between Vancouver and the north shore communities of North and West Vancouver. The large volume of vehicles uses only three lanes with a reversible centre lane. Since opening in 1938, the bridge has benefited from many upgrades and improvements, notably major restoration and seismic upgrading from 1999 to 2002 with replacement of its deck section by section while still in use. Participants will see first-hand the work undertaken, including a look into one of the bridge anchor chambers and the traffic control centre where the reversible lane system is managed. See the reversible lane in service, as well as the challenges of widening the bridge approach road through Stanley Park.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)





TOUR E-1 14:00-17:00**OLYMPIC VENUES**

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

View several of the recently completed Vancouver venues for the 2010 Winter Olympics, including the Hillcrest Curling facility, Athletes' Village site and Richmond Skating Oval. Find out about some of the challenges of building these unique structures. You will also gain an understanding of how each facility has been designed to become a permanent legacy for the community after 2010, as well as how designs were adapted to incorporate sustainability features and some of the specialized features.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR F 14:00-17:00**CENTRAL VANCOUVER
PEDESTRIAN TOUR**

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Participants should assemble in the Main Lobby of the Hyatt Regency Hotel. Return time is approximate.

Join a professionally guided walking tour to see new developments in central Vancouver. Points





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of interest along the route include the Canada Line Rapid Transit System, newly created communities within walking distance of downtown, Granville Mall, historic Yaletown, an integrated park / parking project, extensive seawall walkways, B.C. Place Stadium, Science World and the Olympic Athletes' Village.

Participants should be prepared to walk several kilometres. Rain gear is recommended in case of inclement weather.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR G 14:00-17:00

CANADA LINE RAPID TRANSIT SYSTEM

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Participants should assemble in Plaza Ballroom B on the Plaza Level of the Hyatt Regency Hotel. Return time is approximate.

Tour the new Canada Line Rapid Transit System that connects downtown Vancouver with Richmond and the international airport. Learn about construction methods including both bored and cut-and-cover tunnelling, as well as precast segmental elevated structures and a low-profile, cable-stayed bridge across the Fraser River. See downtown and suburban stations and find out how each station was customized to meet the needs of the adjoining community. The tour will also cover the coordination of land use with transit, which encourages green development and increased transit ridership.



(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TAC ANNUAL GENERAL MEETING 14:15

Pacific Ballroom, Conference Floor, Fairmont

MEETING TO BE HELD IN CONJUNCTION WITH TAC CONFERENCE 14:15

Policy and Planning Support Committee, Council of Deputy Ministers Responsible for Transportation and Highway Safety (closed)
Boardroom, Conference Floor, Fairmont

PANEL DISCUSSION 14:15

20 – GREEN GUIDE FOR ROADS

Grouse Room, Perspectives Level, Hyatt

ENV

SUST DEV

MUNICIPAL

THEME

Sponsored by Autodesk

Panelists will outline approaches and guidelines to greening roadway planning, design, construction and operations that are already in use or being developed by some agencies. Participants will then have an opportunity to discuss the approach being taken by TAC in its upcoming *Green Guide for Roads*. Input on key goals and elements, their relative importance and various means to achieve these goals will be solicited in a roundtable format.

Panelists

FACILITATOR'S OPENING REMARKS – *Claudio Covelli*,
Partner, Dillon Consulting Ltd., Toronto



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GREENING ONTARIO'S ROADS – *Gary Todd*, Manager, Design and Contract Standards Office, Ministry of Transportation of Ontario, St. Catharines

GREEN ROADS – A SUSTAINABILITY RATING SYSTEM FOR ROADWAYS – *Stephen Muench*, Assistant Professor, Civil and Environmental Engineering, University of Washington, Seattle, WA

TAC'S GREEN GUIDE FOR ROADS – *Carl Clayton*, Senior Vice-president, Stantec Consulting Ltd., Edmonton

Roundtable discussions: goals and objectives, green guide scope and application, performance measurement methodologies, proposed evaluation / accreditation system, and future needs / work. The discussions will be followed by summary presentations and the facilitator's closing remarks.

SESSIONS 14:15

21 – SUSTAINABILITY IN DEVELOPMENT AND GEOMETRIC DESIGN FOR ROADWAYS

Georgia Room B, Plaza Level, Hyatt

DESIGN

SUST DEV

ENV

PLANNING

Chair: *Zane Sloan*, Senior Project Engineer, ISL Engineering and Land Services Ltd., Burnaby, BC

14:15 HOW COMPONENTS OF SUSTAINABILITY CAN BE INCLUDED IN HIGHWAY PLANNING AND DESIGN – *Zane Sloan*, Senior Project Engineer, ISL Engineering and Land Services Ltd., Burnaby, BC

14:45 ECO-STREET: QUANTIFYING ENERGY EFFICIENCY OF ROADS OVER THEIR LIFESPAN (*) – *Rielle Haichert*, M.Sc. Candidate, *John Coode*, M.Sc. Candidate, and *Curtis Berthelot*, Director and Associate Professor, Saskatchewan Centre of Excellence in Transportation and Infrastructure, University of Saskatchewan, Saskatoon; *Atish Bajpai*, University of Saskatchewan, Saskatoon



- 15:15 SUSTAINABLE DESIGN FOR THE PRINCE GEORGE SOUTH WEIGH SCALE AND FOUR-LANING (*) – *Michael Howes*, Principal Project Manager, CH2M HILL Canada Limited, Kamloops, BC; *Ryan Gidluck*, CH2M HILL Canada Limited, Calgary
- 15:45 SOCIALLY SUSTAINABLE INFRASTRUCTURE: INCORPORATING THE NEEDS OF THE AGING USER IN ROADWAY DESIGN AND UPGRADES (*) – *Raheem Dilgir*, Opus International Consultants (Canada) Limited, Calgary, and *Margaret Gibbs*, Senior Transportation Engineer, Opus International Consultants (Canada) Limited, Vancouver; *Gregory Ablett*, International Consultants (Canada) Limited; *Sany Zein*, formerly with Opus International, now with TransLink
- 16:15 FEASIBILITY OF 2+1 ROADS ON ALBERTA RURAL HIGHWAY NETWORK (*) – *Masood Hassan*, Senior Transportation Engineer, EBA Engineering Consultants Ltd., Edmonton; *Robyn V. McGregor*, Senior Transportation Engineer, EBA Engineering Consultants Ltd., Calgary; *Bill Kenny*, Director, Project Management and Training, Technical Standards Branch, Alberta Transportation, Edmonton
- 16:45 CARRALL STREET GREENWAY: PUBLIC REALM IMPROVEMENTS AND COMMUNITY DEVELOPMENT (*) – *Douglas Scott*, Project Manager and Landscape Architect, Engineering Services, and *Linda Chow*, Civil Engineer II, City of Vancouver

22 – ARE DEVELOPERS BECOMING TRANSIT-ORIENTED?

Georgia Room A, Plaza Level, Hyatt

MUNICIPAL **PLANNING** **SUST DEV** **THEME**

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)



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Chair: *Tomasz Kroman*, Senior Consultant, HDR | iTRANS, Calgary

- 14:15 AMÉNAGER LE TERRITOIRE POUR RECEVOIR UN SYSTÈME DE TRANSPORT RAPIDE EN SITE PROPRE : LE RAPIBUS (LAND DEVELOPMENT TO ACCOMMODATE AN IN-SITU RAPID TRANSIT SYSTEM – RAPIBUS) (*) – *Salah Barj*, Director, Planning and Development, Outaouais Transit Corporation, Gatineau, QC
- 14:45 TRANSIT ORIENTED DEVELOPMENT FROM BOTH SIDES OF THE TRACKS: HOW THE CITY IS PROMOTING IT AND HOW DEVELOPERS ARE BUILDING IT (*) – *Megan Fernandes*, Project Manager, HDR | iTRANS; *David Patman* and *Ryan Vanderputten*, City of Calgary
- 15:15 CENTRAL WATERFRONT HUB STUDY (*) – *Steve Brown*, Senior Transportation Engineer, and *Matt Shillito*, City of Vancouver
- 15:45 MESURER L'IMPACT DU TRANSPORT EN COMMUN SUR LES VALEURS RÉSIDENTIELLES UNIFAMILIALES (MEASURING THE IMPACT OF TRANSIT SERVICES ON SINGLE-FAMILY RESIDENCE VALUES) (*) – *Jean Dubé*, Doctoral Candidate, Land Use and Regional Development, *Marion Voisin*, *Marius Thériault*, PhD, and *François Des Rosiers*, PhD, Laval University, Quebec City

23 – LONG TERM PAVEMENT PERFORMANCE: CANADIAN AND AMERICAN PROGRAM RESULTS

Saturna Island Room, Discovery Floor, Fairmont

PAVE

R&D

MTN/CONST

INFO MGT

Chair: *John Hosang*, Consultant, Winnipeg

- 14:15 US-LTPP PROGRAM: PRESERVING THE LEGACY – *Gary Elkins*, Consultant, MALTEC, Washington, DC



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- 14:45 C-LTPP PROGRAM RESULTS – *Tom Christison*, Consultant, Edmonton
- 15:15 PAVEMENT PERFORMANCE MODELLING IN QUEBEC – *Denis Thébeau*, Engineer, Pavements Section, Ministry of Transport of Quebec, Quebec City
- 15:45 IMPACTS OF WIDE-BASED SINGLE TIRES ON THIN PAVEMENTS – *Guy Doré*, Professor, Department of Civil Engineering, Laval University, Quebec City

24 – CYCLING AND SAFETY

Balmoral Room, Convention Level, Hyatt

SAFETY

TRAFFIC

MUNICIPAL

PLANNING

SUST DEV

Chair: *Tim Murphy*, Senior Transportation Project Manager, Delcan Corporation, Surrey, BC

- 14:15 THE ROLE OF BIKE CENTRES IN THE URBAN TRANSPORTATION ENVIRONMENT (*) – *Adrian Witte*, Transport Planner, Bunt & Associates Engineering Ltd., Vancouver
- 14:45 WHAT IS ACCEPTABLE RISK IN CYCLING INFRASTRUCTURE? (*) – *Gerry Forbes*, President and Chief Engineer, Intus Road Safety Engineering Inc., Milton, ON
- 15:15 BICYCLE TRANSPORTATION PLAN – CITY OF EDMONTON (*) – *Claire Ellick*, Transportation Engineer, Sustainable Transportation, City of Edmonton
- 15:45 THE ESQUIMALT AND NANAIMO RAIL TRAIL – BUILDING ON THE CAPITAL REGIONAL DISTRICT'S TRAIL NETWORK (*) – *Bruce Beames*, Senior Transportation Engineer, Stantec Consulting Ltd., Victoria
- 16:15 REGIONAL GREENWAYS – VISION TO REALITY (DEVELOPING THE CENTRAL VALLEY GREENWAY) (*) – *Douglas Scott*, Project Manager and Landscape Architect, Engineering Services, City of Vancouver

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25 – SOIL STABILIZATION FOR CHANGING ENVIRONMENTS

Plaza Ballroom A, Plaza Level, Hyatt

SOILS/MAT	PAVE	ENV
MTN/CONST	R&D	THEME

Chair: *Hugh Donovan*, Construction Services Engineer, City of Edmonton

- 14:15 COST AND CONSTRUCTABILITY OF PERMAFROST TEST SECTIONS ALONG THE ALASKA HIGHWAY, YUKON (*) – *Donna Reimchen*, Project Engineer, Government of Yukon, Whitehorse; *Guy Doré*, Professor, Department of Civil Engineering, Laval University, Quebec City; *Daniel Fortier*, University of Montreal, Montreal; *Bill Stanley*, and *Robin Walsh*, Director, Transportation Engineering, Government of Yukon
- 14:45 MECHANISTIC DESIGN AND STRUCTURAL EVALUATION OF TIME SENSITIVE URBAN FULL DEPTH STRENGTHENING PROJECTS (*) – *Curtis Berthelot*, Director and Associate Professor, Saskatchewan Centre of Excellence in Transportation and Infrastructure, Department of Civil and Geological Engineering, University of Saskatchewan, Saskatoon; *Diana Podborochynski*, Engineer in Training, *Jody Berthelot*, Engineer in Training, and *Colin Wandzura*, Engineer in Training, PSI Technologies Inc., Saskatoon, SK; *Colin Prang*, Preservation Engineer, City of Saskatoon; *Harlan Ritchie*, Municipal Innovation Facilitator, Communities of Tomorrow, Regina
- 15:15 CHARACTERIZING THE SOIL RESILIENT MODULUS FOR TYPICAL MANITOBA SOILS (*) – *Haithem Soliman*, Graduate Student, Department of Civil Engineering, and *Ahmed Shalaby*, Associate Professor and Associate Dean, Faculty of Engineering, University of Manitoba, Winnipeg; *Said Kass*, Director of



Materials Engineering Branch, and Tony N. Ng, Geotechnical Engineer, Manitoba Infrastructure and Transportation

15:45 FULL DEPTH REMEDIATION OF ROADS USING PORTLAND CEMENT (*) – Christopher Holt, Senior Project Engineer, Lewis O’Toole, AMEC Earth and Environmental, and Philip Sullivan, AMEC Earth and Environmental, Dartmouth, NS; Christopher Barnes, Dalhousie University, Halifax

16:15 PAVEMENT BASE UNBOUND GRANULAR MATERIALS GRADATION OPTIMIZATION – Jean-Pascal Bilodeau, Research Professional, Guy Doré, Professor, and Pascale Pierre, Department of Civil Engineering, Laval University, Quebec City

26 – ECONOMIC IMPLICATIONS OF CLIMATE CHANGE

Plaza Ballroom C, Plaza Level, Hyatt

ENV	SUST DEV	THEME
R&D	PAVE	

Chair: Graham Gilfillan, President, International Road Technologies Inc., Kamloops, BC

14:15 ECONOMIC ASSESSMENT OF CLIMATE CHANGE SCENARIOS ON DRAINAGE INFRASTRUCTURE DESIGN (*) – Ronald B. Scheckenberger, Vice-president, Aaron C. Farrell, Associate, and Matthew Senior, Water Resources Designer, Philips Engineering Ltd., Burlington, ON

14:45 WINTER ROADS AND ICE BRIDGES: ANOMALIES IN THEIR RECORDS OF SEASONAL USAGE AND WHAT WE CAN LEARN FROM THEM (*) – Robert A. Douglas, Senior Geotechnical Engineer, Low-volume Roads, Ron Bianchi, Director of Meteorology, and Martin Rawlings, Air Quality and Environmental Assessment Specialist, Golder Associates Ltd., Mississauga, ON





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- 15:15 CEMENT AND CONCRETE INDUSTRIES CONTRIBUTION TO CLIMATE CHANGE MITIGATION (*) – *Tim Smith*, Director, Transportation and Public Works, Cement Association of Canada, Ottawa
- 15:45 ADVANCING THE CEMENT INDUSTRY'S CLIMATE CHANGE PLAN IN BRITISH COLUMBIA: ADDRESSING ECONOMIC AND POLICY BARRIERS (*) – *Azin Moradhassel*, Manager, Government Affairs, and *Bob Masterson*, Cement Association of Canada, Ottawa

POSTER SESSIONS 14:15-17:15

27 – TRAFFIC OPERATIONS AND MANAGEMENT

Pacific Ballroom Foyer, Conference Floor, Fairmont

TRAFFIC

R&D

Coffee service will be provided between 14:45 and 16:30.

ONTARIO MINISTRY OF TRANSPORTATION - HIGHWAY 403 REHABILITATION - TRAFFIC IMPACT MODELLING AND MONITORING – *Brian Huston*, Partner, Transportation Engineer, Dillon Consulting Limited, London, ON; *Christopher Balasa*, Senior Project Engineer, Ministry of Transportation of Ontario, London

WILDLIFE-VEHICLE COLLISION MITIGATION ON NORTHEASTERN ONTARIO HIGHWAYS – *Heather Garbutt*, Transportation Environmental Planner, and *Marlo Johnson*, Head, Planning and Environmental Section, Northeastern Region, Ministry of Transportation of Ontario, North Bay

A STUDY OF THE COMMERCIAL VEHICLE VALUE OF TIME FOR OPERATION AT BORDER CROSSINGS (*) – *Karim Ismail*, PhD Student, *Clark Lim*, Managing Director, Bureau of Intelligent Transportation Systems and Freight Security – Engineering, and *Tarek Sayed*,



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Professor, Department of Civil Engineering, University of British Columbia, Vancouver

INTEGRATED REGIONAL SIGNAL SYSTEM BENEFITS OF REGIONAL TRAFFIC SIGNAL TIMING (*) – *Keenan Kitasaka*, Manager Intelligent Transportation Systems, TransLink (South Coast British Columbia Transportation Authority), Burnaby, BC; *Joseph K. Lam*, President, Systems Business, Delcan Corporation, Markham, ON

UNIQUE FEATURES WEIGH2GOBC – *Pamela McDermid*, Business Manager, GLTS Project, Commercial Vehicle Safety and Enforcement, British Columbia Ministry of Transportation and Infrastructure, Surrey

28 – PAVEMENT EVALUATION, PERFORMANCE AND MANAGEMENT

Pacific Ballroom Foyer, Conference Floor, Fairmont

PAVE

SOILS/MTR

R&D

MTN/CONST

Coffee service will be provided between 14:45 and 16:30.

Chair: *Tom Kazmierowski*, Manager, Materials Engineering and Research Office, Ministry of Transportation of Ontario, Toronto

INCORPORATING RECYCLED CONCRETE AGGREGATE IN PERVIOUS CONCRETE PAVEMENTS (*) – *Rabiah Rizvi*, BAsC Candidate, *Vimy Henderson*, PhD Candidate, *Jodi Norris*, Research Technician, and *Susan Tighe*, Associate Professor and Canada Research Chair in Pavement and Infrastructure Management, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON

EVALUATING TIRE PRESSURE CONTROL SYSTEMS (TPCS) TO IMPROVE PRODUCTIVITY – *Fazal Mabood*, Master's Candidate, and *Susan Tighe*, Associate Professor and Canada Research Chair in Pavement and Infrastructure Management, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON; *Tom Klement*, *Tom Kazmierowski*, Manager, Materials Engineering and

Research Office, Ministry of Transportation of Ontario, Toronto; *Steve Mercier*, Researcher, FPIInnovations-Feric
MACROTEXTURE MEASUREMENTS USING PHOTOMETRIC STEREO TECHNIQUE – *Amin El Gendy*, and *Ahmed Shalaby*, Associate Professor and Associate Dean, Faculty of Engineering, University of Manitoba, Winnipeg

GROUND PENETRATING RADAR QUALITY ASSURANCE CHARACTERIZATION OF ASPHALTIC CONCRETE SURFACING (*) – *Curtis Berthelot*, President, *Erin Stuber*, *Diana Podborochynski*, Engineer in Training, and *Rielle Haichert*, PSI Technologies Inc., Saskatoon, SK; *Brent Marjerison*, and *Rob Bushman*, Saskatchewan Ministry of Highways and Infrastructure, Saskatoon

WIDE BASE SINGLE TIRES VS. DUAL TIRES: ASSESSMENT OF IMPACT ON ASPHALT PAVEMENTS (*) – *Joseph Ponniah*, Senior Pavement Research Engineer, Ministry of Transportation of Ontario, Downsview; *Ralph Haas*, Distinguished Professor Emeritus, Department of Civil and Environmental Engineering, *Zhiyong Jiang*, and *Adedamola Adedapo*, University of Waterloo, Waterloo, ON; *Ron Madill*, Ministry of Transportation of Ontario, London

SEASONAL LOAD RESTRICTIONS ON LOW VOLUME HIGHWAYS: PAVEMENT STRENGTH ESTIMATION (*) – *Juan Pernia*, Assistant Professor, *Jeffrey Chapin*, Graduate Student, and *Bruce Kjartanson*, Associate Professor, Department of Civil Engineering, Lakehead University, Thunder Bay, ON

AN INNOVATIVE APPROACH FOR SELECTING THE OPTIMUM ASPHALT PAVEMENT REHABILITATION METHOD INCLUDING SUSTAINABILITY ASPECTS – *Ludomir Uzarowski*, Associate, Pavement and Materials Engineering, Golder Associates Ltd., Whitby, ON; *Imram Bashir*, Pavement and Materials Engineering, Golder Associates Ltd., Cambridge, ON; *Phil Antoniow*, Manager, Design and Construction, City of Cambridge, ON; *Michael Halloran*, Project Manager; and *Jim Ellerman*, Project Manager, Region of Waterloo, ON



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MEETING 15:15-17:00

TAC Board of Directors (closed)
Pacific Ballroom, Conference Floor, Fairmont
Refreshments sponsored by Ontario Good Roads Association

**WEDNESDAY, OCTOBER 21
(MORNING)**

SPEAKERS' BREAKFAST 07:15

Vancouver Island Room, Conference Floor,
Fairmont
(By invitation only)

REGISTRATION 08:00-16:30

Regency Foyer, Convention Level, Hyatt

**MEETING TO BE HELD IN
CONJUNCTION WITH TAC
CONFERENCE**

Council of Deputy Ministers Responsible for
Transportation and Highway Safety (closed)

Breakfast 07:45

Cortes Island Room, Discovery Floor, Fairmont

Meeting 09:00

Pacific Ballroom, Conference Floor, Fairmont

WORKSHOPS 08:30

Note: A workshop information booklet is available in the conference registration area. **Delegates who have not yet registered for a workshop must do so by start time on Wednesday.** Workshop





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registrations will only be processed in the conference registration area. No registrations will be accepted at the door.

A – RECRUITMENT AND RETENTION PRACTICES IN CANADA

Georgia Room A, Plaza Level, Hyatt

EDUC/HR

PLANNING

THEME

Even in today’s challenging economy, recruitment and retention are critical issues for organizations. Ensuring the right people stay through the economic downturn will determine how effectively an organization will operate once the market recovers. Yet most organizations know little about why people join, stay and leave. This workshop will address the critical issue of recruitment and retention of engineering professionals in Canada in a peer-to-peer exchange of ideas and best practices.

B – IMPROVING WORK ZONE SAFETY

Plaza Ballroom A, Plaza Level, Hyatt

SAFETY

TRAFFIC

MTN/CONST

The topic of roadway work zone safety covers a broad range of work types, conditions, locations, risks and exposure. It also covers varying perspectives on “what is safe” among public agencies, workers, health professionals and road system users.

In order for TAC to develop a practical work zone safety manual, it is necessary to be able to determine: whether there is a problem; how it is measured; the magnitude and urgency of the problem; why it exists; and how it can be mitigated. The workshop speakers will provide their unique viewpoints on these topics from “both sides of the barrier” to help participants better understand the complexity of the issues.

C – MATERIALS AND RESOURCES FOR GREENER ROADS

Waddington Room, Conference Floor, Fairmont

SOILS/MAT

PAVE

MTN/CONST

SUST DEV

ENV

R&D





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WEDNESDAY A.M.

Sponsored by CH2M HILL Canada Limited

Recycling materials and reusing in-place resources is important for the construction of greener roads. However, incorporating these processes into construction projects requires knowledge, experience and a concerted effort on the part of the owners, designers and contractors. This workshop will provide insight, from a variety of perspectives, into developing new recycling technologies and incorporating them into construction projects.

D – MOVING MINDS: EFFECTIVE STRATEGIES FOR INFLUENCING TRAVEL BEHAVIOUR

Plaza Ballroom C, Plaza Level, Hyatt

MUNICIPAL **SUST DEV** **ENV**
TRAFFIC **THEME**

Sponsored by Bunt & Associates Engineering Ltd.

Influencing travel behaviour has become imperative to achieving economic vitality, emission reduction and improved quality of life. Understanding current behaviours, true obstacles and successful intervention tools will advance sustainable transportation objectives. This workshop will explore lessons from social marketing initiatives in a variety of sectors and connect them to specific transportation system considerations such as trip types, personal circumstances and community contexts.

E – MULTI-LANE ROUNDABOUTS

Plaza Ballroom B, Plaza Level, Hyatt

TRAFFIC **SAFETY** **DESIGN** **MUNICIPAL**

This workshop will explore issues related to multi-lane roundabouts, which are more complex than single-lane roundabouts. Invited speakers will make presentations on policy considerations, pedestrian treatments, public outreach and special design considerations.



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**F – ASSET MANAGEMENT – PRACTICES,
PLANS AND CONSIDERATIONS**

The Roof, Fairmont

PLANNING **INFO MGT** **PAVE** **STRUCTURES**

Sponsored by Ontario Good Roads Association

The objective of this workshop is to understand the current state of asset management practices within agencies at all levels and to identify gaps in existing asset management practices. The roundtable discussions will serve to identify key issues currently facing agencies and how the topic of asset management can be managed within TAC in order to best address these issues.

PANEL DISCUSSIONS 09:00

29 – ROAD PRICING IN AN URBAN CONTEXT

Balmoral Room, Convention Level, Hyatt

MUNICIPAL **TRAFFIC** **PLANNING** **THEME**

Chair: *Bassam Hamwi*, Principal and Manager of Transportation Planning, Morrison Hershfield Limited, Ottawa

Panelists

Brian Mills, Director, Strategic Planning and Policy, TransLink (South Coast British Columbia Transportation Authority), Burnaby

Robin Lindsey, Professor of Economics, University of Alberta, Edmonton

Douglas Floyd, Vice-president, Transportation, Delcan Corporation, Markham, ON

François Major, Senior Transportation Analyst, City of Montreal

Bill Waters, Professor Emeritus of Operations and Logistics, University of British Columbia, Vancouver

Discussion and Question-and-answer Period

30 – CLIMATE CHANGE AND NORTHERN INFRASTRUCTURE

Saturna Island Room, Discovery Floor, Fairmont

ENV	SUST DEV	PLANNING	DESIGN
MTN/CONST	PAVE	THEME	

Chair: *John Zigarlick*, President, Nuna Logistics, Vancouver

This panel discussion will focus on the impacts of climate change on three areas of northern transportation – infrastructure built on permafrost, winter roads and Arctic shipping.

Panelists

Anne-Marie Leclerc, Assistant Deputy Minister, Infrastructure and Technologies, Ministry of Transport of Quebec, Quebec City, and *Anick Guimond*, Research Officer, Ministry of Transport of Quebec, Rouyn-Noranda

Dermot Loughnane, Principal, Tactical Marine Solutions Ltd., Victoria

Don W. Hayley, Director, Arctic Resource Development, EBA Engineering Consultants Ltd., Kelowna, BC

Billy Conner, Director, Alaska University Transportation Center, University of Alaska, Fairbanks

Discussion and Question-and-answer Period

WEDNESDAY, OCTOBER 21 (AFTERNOON)
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**PRESIDENT'S LUNCHEON
12:15**

Regency Ballroom, Convention Level, Hyatt

(Full registrants – ticket in booklet; other delegates – ticket to be purchased)

Sponsored by ISL Engineering and Land Services Ltd.



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Chair: *John Law*, Deputy Minister, Saskatchewan Ministry of Highways and Infrastructure, and President of TAC

Speaker: *Dan Doyle*, Executive Vice-president, Vancouver Organizing Committee, 2010 Olympic Winter Games

Topic: Olympic Infrastructure Projects

TOUR C-2 14:00-17:00

SEA TO SKY HIGHWAY

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

See Tuesday afternoon tour description.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR D-2 14:00-17:00

LIONS GATE BRIDGE

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

See Tuesday afternoon tour description.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)



TOUR E-2 14:00-17:00**OLYMPIC VENUES**

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

See Tuesday afternoon tour description.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR H 14:00-17:00**GOLDEN EARS BRIDGE**

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Participants should assemble in the Grouse Room on the Perspectives Level of the Hyatt Regency Hotel. Return time is approximate.

Visit the new Golden Ears Bridge crossing the Fraser River and connecting Maple Ridge to Langley. Replacing a ferry service, this cable-stayed structure has been built as a P3 project. Difficult foundation conditions required that 48 large-diameter piles, averaging 90 metres deep, be bored into the soft silt layers of the river. Special features include First Nations' interests, noise mitigation, as well as habitat protection and compensation. This three-hour bus tour will allow you to view the automated electronic toll-collection system. En route, you will also see the corridor and preliminary work for the Trans-Canada Highway (TCH) / Port Mann portion of



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the British Columbia Gateway Program, as well as high-occupancy vehicle lanes on the TCH.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR I 14:00-17:00

VANCOUVER CYCLING TOUR

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)

Participants should assemble in the Main Lobby of the Hyatt Regency Hotel. Return time is approximate.

Ride the Skytrain to Metrotown, then cycle back to the conference site along city bicycle routes and the Central Valley Greenway (13 km, mostly downhill!). This bicycle tour will allow you to view the network of off-arterial routes, bike lanes, bike boxes and other priority measures for cyclists, while discussing design standards. Complete the tour along the seawall system.

Bicycles and helmets will be provided. Participants should bring any additional cycling gear including appropriate footwear. Rain gear is also recommended in case of inclement weather.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

TOUR J 14:00-17:00

PORT OF METRO VANCOUVER

(Ticket required. Limited number of participants. See GENERAL INFORMATION section for details.)





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WEDNESDAY P.M.

Bus leaves from the Melville Street entrance of the Hyatt Regency Hotel. Return time is approximate.

British Columbia is hailed as the Asia-Pacific trade gateway, lying two days closer by ship than major U.S. ports. The Port of Metro Vancouver – Canada’s largest and busiest – is a dynamic gateway for trade and tourism, and a major economic force that strengthens the Canadian economy. You will visit Deltaport, Vancouver’s largest container terminal, located at Roberts Bank in Delta. Operated by TSI Terminal Systems Inc., Deltaport is designed to handle the biggest container ships afloat and features Super Post-Panamax container cranes, two berths and advanced computer systems. A third berth is scheduled for completion at the end of 2009. Delegates will also have an opportunity to view TSI’s hybrid rubber tire gantry crane. Subject to operational requirements.

Delegates wishing to participate in this tour must produce a valid passport or driver’s license with a photo and one other piece of identification for security clearance.

(This tour is covered by the conference registration fees. Tour tickets will be available on a first-come, first-served basis at the Special Event Ticket Desk in the conference registration area.)

**MEETING TO BE HELD IN
CONJUNCTION WITH TAC
CONFERENCE 14:15**

Council of Deputy Ministers Responsible for
Transportation and Highway Safety (closed)
Pacific Ballroom, Conference Floor, Fairmont



PANEL DISCUSSIONS 14:15

31 – WHERE IS PAVEMENT DESIGN HEADED IN THIS CLIMATE OF CHANGE?

Boardroom, Conference Floor, Fairmont

PAVE	SOILS/MTR	ENV
SUST DEV	R&D	THEME

Chair: *Steve Goodman*, Branch Manager, AME Materials Engineering, Ottawa

Participants will debate the future of pavement design in the next 20 years. A renewed focus on sustainability, reducing the environmental footprint and green construction are changing the ways pavements are designed and constructed. The panel discussion will define the factors that will influence pavement types and design methods in the next two decades and the strategic role of pavement designers in managing this change.

Panelists to be announced

Discussion and Question-and-answer Period

32 – P3 PROJECTS - MANAGEMENT OF ENVIRONMENTAL ISSUES

Plaza Ballroom B, Plaza Level, Hyatt

ENV	PAVEMENT	MTN/CONST
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Chair: *Angela Buckingham*, Chief Environmental Officer, Ministry of Transportation and Infrastructure of British Columbia, Victoria

This panel discussion will explore environmental management issues associated with planning, procurement and implementation of P3-financed road and rail infrastructure projects, based on recent examples. Participants are expected to discuss the procurement process, environmental management challenges from the owner's and concessionaire's perspectives, opportunities for partnering with First



Nations, challenges related to environmental quality management frameworks and implementation, clarity and value-added considerations in concession agreements, as well as stakeholder communications programs.

Panelists

CANADA LINE RAPID TRANSIT PROJECT – ENVIRONMENTAL SUCCESS STORY FOR CANADA'S LARGEST P3 INFRASTRUCTURE PROJECT – *Scott Hanna*, Regional Director, Western North America / Hatch Associate, Environment and Community Interface Group, Hatch Ltd., Vancouver

PROTECTING A SENSITIVE ECOSYSTEM DURING P3 PROJECT DELIVERY: LESSONS LEARNED IN THE SOUTH FRASER PERIMETER ROAD PROJECT – *Malcolm Smith*, Senior Environmental Planner, Hemmera, Vancouver

ENVIRONMENTAL BENEFITS FROM A VALUE-ADDED PROCUREMENT MODEL – SEA TO SKY HIGHWAY IMPROVEMENT PROJECT – *Isobel Doyle*, President, Par Terre Environmental Consulting Services Ltd., Victoria

P3S IN A REGULATORY ENVIRONMENT – IMPLEMENTING P3 DELIVERY MODELS IN THE CONTEXT OF ENVIRONMENTAL LEGAL REQUIREMENTS – *Maria D'Archangelo*, Legal Counsel, Legal Services Branch, Ministry of the Attorney General of British Columbia, Victoria

ENVIRONMENTAL ISSUES – CONSIDERATIONS FOR THE PROCUREMENT AND MANAGEMENT OF LARGE P3 TRANSPORTATION PROJECTS – *Gary Webster*, Partner and Major Project Advisor, KPMG

ALBERTA'S EXPERIENCE WITH ENVIRONMENTAL ASPECTS OF P3 ROADWAY CONSTRUCTION – *Don Snider*, Manager, and *Darren Carter*, Manager, Environmental Management Services, Alberta Transportation, Edmonton

Discussion and Question-and-answer Period



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33 – FREEWAY / URBAN STREET TRANSITIONS

Stanley Room, Perspectives Level, Hyatt

DESIGN

TRAFFIC

SAFETY

MUNICIPAL

Chair: *Richard Voyer*, Senior Geometric Standards and Design Engineer, Engineering Branch, Ministry of Transportation and Infrastructure of British Columbia, Victoria

Panelists

CONTEXT SENSITIVE SOLUTIONS IN FREEWAY / URBAN STREET TRANSITIONS – *John Collings*, Principal, Collings Johnston Inc., Vancouver

DESIGN GUIDANCE FOR FREEWAY TRANSITIONS TO SIGNALIZED INTERSECTIONS: SOME APPLICATION HEURISTICS – *John B.L. Robinson*, Senior Partner, McCormick Rankin Corporation, Halifax

WAYFINDING FOR MAJOR ROAD NETWORK IN METRO VANCOUVER – *Hansel Wang*, Program Manager, Transportation Engineering, TransLink (South Coast British Columbia Transportation Authority), Burnaby; *Adrian Bell*, Project Director, Applied Information Group North America Inc., Vancouver

Discussion and Question-and-answer Period

34 – ACTIVE TRANSPORTATION AND SUSTAINABLE COMMUNITIES

Saturna Island Room, Discovery Floor, Fairmont

MUNICIPAL

SUST DEV

PLANNING

THEME

Supported by Transport Canada's Urban Transportation Showcase Program (UTSP)

Co-chairs: *Roxane MacInnis*, Transportation Demand Management Planner, Halifax Regional Municipality, and *Geoff Noxon*, President, Noxon Associates Limited, Ottawa

Panelists

DEVELOPING AND IMPLEMENTING ACTIVE TRANSPORTATION STRATEGIES: FINDINGS OF THE TAC SYNTHESIS OF PRACTICES STUDY – *Brian Hollingworth*, Director, IBI Group, Toronto

A CANADIAN ACTIVE TRANSPORTATION PLAN IN THE MAKING – *Diane McLaughlin*, Manager, Sustainable Development, Transport Canada, Ottawa

PROVINCIAL GOVERNMENT INITIATIVES TO SUPPORT ACTIVE TRANSPORTATION IN BRITISH COLUMBIA – *Alan Callander*, Manager, Transportation Policy Branch, Ministry of Transportation and Infrastructure of British Columbia, Victoria

FOSTERING ACTIVE TRANSPORTATION IN VICTORIA – *John Luton*, Councillor, City of Victoria, and Executive Director, Capital Bike and Walk Society, Victoria

Discussion and Question-and-answer Period

SESSIONS 14:15**35 – LESSONS LEARNED IN INTEGRATING TRANSPORTATION AND LAND USE**

The Roof, Fairmont

MUNICIPAL **SUST DEV** **PLANNING** **TRAFFIC**

Chair: *Ted Gill*, Senior Project Manager, McCormick Rankin Corporation, Mississauga, ON

14:15 EDMONTON: CHANGING THE WAY WE GROW AND THE WAY WE MOVE (*) – *Rhonda Toohey*, Project Manager, Transportation Master Plan, Transportation Department, City of Edmonton

14:45 AGING POPULATION AND ITS TRAVEL NEEDS – PROFILES AND TRENDS ANALYSIS FOR GREATER TORONTO HAMILTON AREA (ONTARIO) – *Selva Sureshan*, Senior Policy Advisor, Systems Analysis and Forecasting Office, Transportation Planning Branch, and



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Arthur Tai, Ministry of Transportation of Ontario, Toronto

- 15:15 AN INNOVATIVE DEVELOPMENT FRAMEWORK FOR THE LONG TERM ROADWAY NETWORK PLANNING IN ROCKY VIEW COUNTY, ALBERTA (*) – *Tomasz Kroman*, Senior Consultant, HDR | iTRANS, Calgary; *Byron Riemann*, and *Derek Lovlin*, Municipal District of Rocky View No. 44, Calgary
- 15:45 INTEGRATING FREQUENT TRANSIT SERVICE AND CORRIDOR-BASED TRANSIT SUPPORTIVE ENVIRONMENTS IN THE METRO VANCOUVER REGION (*) – *Lyle Walker*, Transportation Planner, and *Peter Klitz*, Transportation Planner, TransLink (South Coast British Columbia Transportation Authority), Burnaby; *Lee-Ann Garnett*, Senior Regional Planner, and *Ray Kan*, Senior Transportation Planner, Metro Vancouver

36 – BEST PRACTICES IN URBAN TRANSPORTATION PLANNING: MEASURING CHANGE (B)

Plaza Ballroom C, Plaza Level, Hyatt

MUNICIPAL	PLANNING	SUST DEV
R&D	THEME	

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)

Chair: *J. Allen Stewart*, Vice-president, Academic, and Dean of Engineering, Royal Military College of Canada, Kingston, ON

- 14:15 URBAN TRANSPORTATION SHOWCASE PROGRAM: RESULTS OF INTEGRATED URBAN PASSENGER GREENHOUSE GAS EMISSION REDUCTION DEMONSTRATION PROJECTS (*) – *David MacIsaac*, Senior Advisor, Urban Transportation, Transport Canada, Halifax



- 14:45 MEASURABLE PERFORMANCE INDICATORS FOR ROADS: CANADIAN AND INTERNATIONAL PRACTICE (*) – *Ralph Haas*, Distinguished Professor Emeritus, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON; *Guy Felio*, President, Infrastructure Strategies & Research Inc., Rockland, ON; *Zoubir Lounis*, Institute for Research in Construction, National Research Council Canada, Ottawa; *Lynne Cowe Falls*, Associate Professor, Director of Students, Schulich School of Engineering, University of Calgary, Calgary
- 15:15 CANADIAN TRANSPORTATION DEMAND MANAGEMENT IMPACT MEASUREMENT GUIDELINES (*) – *Allison Clavelle*, Transportation Planner, HDR | iTRANS, Vancouver; *David Kriger*, Vice-president, HDR | iTRANS, Ottawa; *Geoff Noxon*, President, Noxon Associates Limited, Ottawa
- 15:45 URBAN TRANSPORTATION INDICATORS 4TH EDITION : AN OVERVIEW OF THE RESULTS – *Brian Hollingworth*, Director, IBI Group, Toronto
- 16:15 IMPACTS DE L'ÉVOLUTION DES FAÇONS DE FAIRE EN MATIÈRE DE COLLECTÉ ET DE TRAITEMENT DES DONNÉES DE CIRCULATION (IMPACTS OF CHANGES IN TRAFFIC DATA COLLECTION AND PROCESSING METHODS) (*) – *Jean David*, Chief, Traffic Section, Pavement Service, Ministry of Transport of Quebec, Quebec City

37 – 2008 TAC ROAD SAFETY ENGINEERING AWARD NOMINATIONS

Georgia Room A, Plaza Level, Hyatt

SAFETY

TRAFFIC

(Simultaneous interpretation in both official languages will be offered during this session. Consult the GENERAL INFORMATION section for details.)




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Co-chairs: *Glen Furtado*, Branch Manager, McElhanney Consulting Services Ltd., Calgary, and *Steve Melton*, General Manager, Roadway Design and Construction, ISL Engineering and Land Services Ltd., Edmonton

TAC members that have made an exemplary contribution to roadway safety engineering and infrastructure are eligible to receive the Association's annual award recognizing their efforts in this area.

A selection committee reviewed the nominations received for the 2008 award and recommended a winner to TAC's Board of Directors. The award will be conferred at the delegate luncheon scheduled for Monday, October 19. Nominees have been invited to give presentations on their respective projects at this session.

- 14:15 LA RECONSTRUCTION DU COMPLEXE TURCOT : UNE NOUVELLE APPROCHE POUR ESTIMER LE NIVEAU DE SÉCURITÉ (MINISTÈRE DES TRANSPORTS DU QUÉBEC ET CIMA+) (EVALUATING THE SAFETY PERFORMANCE OF AN INTERCHANGE IN THE DESIGN PROCESS: TURCOT COMPLEX CASE STUDY (MINISTRY OF TRANSPORT OF QUEBEC AND CIMA+)) – *Alireza Hadayeghi* , CIMA+, Burlington, ON; *Pascal Dansereau*, ARPSE, Montreal Island Branch, Ministry of Transport of Quebec
- 14:45 INITIATIVES VISANT L'AMÉLIORATION DE LA SÉCURITÉ ROUTIÈRE (MINISTÈRE DES TRANSPORTS DU QUÉBEC) (ROAD SAFETY IMPROVEMENT ACTIVITIES (MINISTRY OF TRANSPORT OF QUEBEC)) – *Anne Baril*, Head, Operating Technologies, Ministry of Transport of Quebec, Quebec City
- 15:15 RICHARD TAY'S CONTRIBUTIONS TO ROAD SAFETY (UNIVERSITY OF CALGARY) – *Richard Tay*, Professor, School of Engineering, University of Calgary, Calgary
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38 – SUSTAINABILITY OF ASPHALT MIXES

Georgia Room B, Plaza Level, Hyatt

SOILS/MAT	PAVE	SUST DEV
ENV	R&D	MTN/CONST

Chair: *Sandy Brown*, Technical Director, Ontario Hot Mix Producers Association - Asphalt Institute, Mississauga, ON

- 14:15 FIVE-YEAR PERFORMANCE REVIEW OF COLD IN-PLACE RECYCLING AND COLD IN-PLACE RECYCLING WITH EXPANDED ASPHALT MIX ON HIGHWAY 7, PERTH, ONTARIO (*) – *Susanne Chan*, Pavement Design Engineer, Pavement Design Engineer Pavements and Foundations Section, Materials Engineering and Research Office, *Becca Lane*, Head, Pavements and Foundations Section, Materials Engineering and Research Office, and *Chris Raymond*, Senior Pavement Design Engineer, Pavements and Foundations Section, Ministry of Transportation of Ontario, Downsview, ON; *Tom Kazmierowski*, Manager, Materials Engineering and Research Office, Ministry of Transportation of Ontario, Toronto; *Warren Lee*, Pavement Design Engineer, Pavements and Foundations Section, Ministry of Transportation of Ontario
- 14:45 TO RECYCLE OR NOT TO RECYCLE ASBESTOS-CONTAINING RECYCLED ASPHALT PAVEMENT (RAP): THAT IS THE QUESTION (*) – *Joe Chyc-Cies*, Materials and Research Engineer, and *Ben G. Wineberger*, Environmental Specialist, City of Calgary
- 15:15 COMPACTION SENSITIVITY OF SASKATCHEWAN SPS-9A ASPHALT MIXES (*) – *Aziz Salifu*, M.Sc. Candidate, and *Curtis Berthelot*, Director and Associate Professor, Saskatchewan Centre of Excellence in Transportation and Infrastructure, Department of Civil and Geological Engineering, University of Saskatchewan, Saskatoon; *Brent*



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Marjerson, and Ania Anthony, Materials Engineer, Saskatchewan Ministry of Highways and Infrastructure, Saskatoon

- 15:45 **GOLDERSSET®: APPLICATION OF A SUSTAINABILITY DECISION SUPPORT TOOL TO THE ROOF ASPHALT SHINGLES RECYCLING PROJECT OF METRO VANCOUVER (*)** – *Robert Noël de Tilly, Project Director, Golder Associates Ltd., Montreal; Hana Prilesky, Golder Associates Ltd., Coquitlam, BC; Ludomir Uzarowski, Associate, Pavement and Materials Engineering, Golder Associates Ltd., Whitby, ON; Esther Bérubé and Wilbert Yang, Metro Vancouver; Benoit Bourque and Cyril Michaud, Golder Associates Ltd.*
- 16:15 **MEETING DIFFICULT HOT MIX ASPHALT CHALLENGES WITH WARM MIX ASPHALT SOLUTIONS (*)** – *Susan Tighe, Associate Professor and Canada Research Chair in Pavement and Infrastructure Management, Department of Civil and Environmental Engineering, University of Waterloo, Waterloo, ON; Vince Aurilio, Manager, Pavement Engineering Services, DBA Engineering Ltd., Markham, ON*
- 16:45 **SUSTAINABILITY: CARRIER OF INNOVATIONS IN THE DEVELOPMENT OF PAVEMENT MATERIALS (*)** – *Jean-Martin Croteau, Manager, Quality Systems and Technical Developments, Works Alberta Ltd. (Subsidiary of ColasCanada Ltd.), Edmonton; François Chaignon, Colas North America, Morristown, NJ; Todd Strynadka, Terus Construction Ltd., Vancouver*

POSTER SESSION 14:15-17:15

39 – BRIDGES IN A CLIMATE OF CHANGE

Pacific Ballroom Foyer, Conference Floor, Fairmont

MTN/CONST **STRUCTURES**



Coffee service will be provided between 14:45 and 16:30.

METHODOLOGY TO DETERMINE OPTIMAL INTERVENTION STRATEGIES FOR STRUCTURES ADVERSELY AFFECTED BY LATENT PROCESSES – *Bryan T. Adey*, Infrastructure Management Consultants, Ltd., Zuerich, Switzerland; *Rade Hajdin*, Infrastructure Management Consultants, Ltd.; *James D. Birdsall*, Parsons Transportation Group

GOLDEN EARS CORRIDOR: APPLYING CONTEXT, THEME AND AESTHETICS TO A MAJOR NEW HIGHWAY CORRIDOR – *John Collings*, Principal, Collings Johnston Inc., Vancouver

CHURCHILL RIVER BRIDGE FISH MIGRATION MONITORING – *Ken Hannaford*, Environmental Scientist, and *Roger Pottle*, Senior Environmental Planner, Newfoundland and Labrador Transportation and Works, St. John's

THE COQUIHALLA HIGHWAY EXPERIENCE: MAINTENANCE OF BURIED STEEL AND CONCRETE ARCH BRIDGES - SUSTAINABILITY OVER THE LONG TERM – *Phil Carroll*, Region Engineer, Western Canada, Armtec Limited, Langley, BC

WEDNESDAY, OCTOBER 21 (EVENING)

ANNUAL BANQUET 19:00-22:00

Regency Ballroom, Convention Level, Hyatt
(Full registrants – ticket in booklet; other delegates – ticket to be purchased)
(Cash bars will be open from 18:00 to 19:00 in the Regency Ballroom Foyer.)



WEDNESDAY P.M. & THURSDAY

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Chair: *Hon. Shirley Bond*, Minister of Transportation and Infrastructure of British Columbia and 2009 TAC Conference Chair

During this elegant evening, delegates and companions will be treated to an exquisite dinner and vibrant musical and dance selections showcasing Vancouver's cultural diversity. The 2009 recipients of TAC's Canadian Transportation Awards – Transportation Person of the Year and awards of excellence, achievement and academic merit – will also be announced. The evening will conclude with a performance by *Tiller's Folly*, the Pacific Northwest's internationally traveled, virtuosic ambassadors of song. A potent mix of Celtic influenced Canadiana, this performance promises to be an unforgettable feast for the eyes, ears and spirit!

Delegate draws, including those organized in connection with speedy registration, online registration and the exhibition, will take place during the evening.

Pre-banquet reception for dignitaries courtesy of the Cement Association of Canada.

TAC wishes to thank the Canadian Precast / Prestressed Concrete Institute, IBI Group and MMM Group Limited for their contribution toward the Annual Banquet meal costs.

THURSDAY, OCTOBER 22

MEETING TO BE HELD IN CONJUNCTION WITH TAC CONFERENCE

Council of Ministers Responsible for Transportation and Highway Safety (closed)
Pacific Ballroom, Conference Floor, Fairmont

