



**Joint Annual Conference of
Canadian Transportation Research Forum
US Transportation Research Forum
May 1-4, 2016
DoubleTree by Hilton Toronto Downtown, Toronto**



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**Conference Theme
North American Transport Challenges in an Era of Change**

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Program at a Glance

Sunday May 1, 2016		
1:00pm	CTRF Board Meeting	Shanghai Room (25 th floor)
3:00pm	Registration Desk Opens	Ottawa Room (Mezzanine)
6:00pm	CTRF/TRF President's Reception (dinner after reception on your own)	Ottawa Room (Mezzanine)
Monday May 2, 2016		
7:45am-9:00am	Registration Check-in and Breakfast Buffet Opens	Mandarin Ballroom (LL)
9:00am-9:15am	Welcome remarks and announcements Dan Lynch, President of CTRF	
9:15am-10:15am	Plenary Session I - Prof. Genevieve Giuliano, Ferraro Chair in Effective Local Government	
10:15am-10:30am	Coffee break	
10:30am-12:00pm	Parallel Sessions M1	Breakout rooms (2 nd floor)
12:00pm-1:30pm	Luncheon	Mandarin Ballroom (LL)
1:30pm-3:00pm	Parallel Sessions M2	Breakout rooms (2 nd floor)
3:00pm-3:15pm	Coffee Break	
3:15pm-4:45pm	Parallel Sessions M3	Breakout rooms (2 nd floor)
5:00pm-6:30pm	Bison Transport Debate Reception	Hart House University of Toronto (see directions in program)
6:30pm-7:30pm	Bison Transport Debate (dinner after debate on your own)	
8:00pm	TRF Board Meeting	Shanghai Room (25 th floor)
Tuesday May 3, 2016		
7:30am-8:00am	Registration Check-in and Breakfast Buffet Opens	Mandarin Ballroom (LL)
8:00am-8:30am	Plenary Session II – Hon. Steven Del Duca – Minister of Transportation of Ontario	
8:30am-9:00am	CTRF Annual General Meeting	
9:00am-10:30am	Plenary Session III - Federal Transportation Current Policy Issues Chair: Joseph Schulman	
10:30am-10:45am	Coffee break	
10:45am-12:15pm	Parallel Sessions T1	Breakout rooms (2 nd floor)
12:15pm-1:45pm	Luncheon	Mandarin Ballroom (LL)
1:45pm-3:15pm	Parallel Sessions T2	Breakout rooms (2 nd floor)
3:15pm-3:30pm	Coffee Break	
3:30pm-5:00pm	Parallel Sessions T3	Breakout rooms (2 nd floor)
6:00pm-9:00pm	Conference Banquet (arrive at 6:00, dinner begins at 7:00pm)	CN Tower 360° restaurant (see directions in program)
Wednesday May 4, 2016		
7:30am-8:45am	Registration Check-in and Breakfast Buffet Opens	Mandarin Ballroom (LL)
8:45am-10:15am	Parallel Sessions W1	Breakout rooms (2 nd floor)
10:15am-10:30am	Coffee break	
10:30am-12:00pm	Parallel Sessions W2	Breakout rooms (2 nd floor)
12:00pm-1:30pm	Conference Awards Luncheon and Closing Remarks - Dan Lynch, President of CTRF	Mandarin Ballroom (LL)
1:30pm-4:30pm	Technical Tours	Meet in Hotel Lobby

Keynote Speakers

<p>Genevieve Giuliano Ferraro Chair in Effective Local Government Sol Price School of Public Policy, USC Director, METRANS Transportation Center</p>	<p>Plenary Session I Monday May 2 – 9:15-10:15am Mandarin Ballroom</p>
	<p>Dr. Genevieve Giuliano is Professor in the Sol Price School of Public Policy, University of Southern California, and Director of the <u>METRANS</u> joint USC and California State University Long Beach Transportation Center.</p> <p>Professor Giuliano's research focus areas include relationships between land use and transportation, transportation policy analysis, and information technology applications in transportation. Her current research includes examination of relationships between land use and freight flows, spatial analysis of freight activity location, impacts of rail investments on land use, and development of applications for transportation system analysis using archived real-time data. She has published over 170 papers, and has presented her research at numerous conferences both within the US and abroad.</p> <p>Professor Giuliano is a past Chair of the Executive Committee of the Transportation Research Board, and a National Associate of the National Academy of Sciences. She is the recipient of the TRB Distinguished Service Award (2006), the Thomas B. Deen Distinguished Lectureship Award (2007), the Transportation Research Forum Outstanding Researcher Award (2012), and the Council of University Transportation Centers Distinguished Contribution award (2013). She is a frequent participant in National Research Council policy studies, and a member of several advisory boards, including the National Freight Advisory Committee.</p> <p>For recent publications, see http://www.usc.edu/schools/price/research/publications/index.html</p>
<p>The Honourable Steven Del Duca, Minister of Transportation of Ontario Minister of Provincial Parliament Vaughan</p>	<p>Plenary Session II Tuesday May 3 – 8:00-8:30am Mandarin Ballroom</p>
	<p>Vaughan MPP Steven Del Duca has a proven track record of outstanding community involvement and a clear dedication to public service. He was first elected to the Ontario Legislature in September 2012 in a provincial byelection.</p> <p>In less than two years, he secured approval of the Highway 427 extension and delivered \$49.7 million towards the Mackenzie Vaughan Hospital and \$49 million for four new schools in Vaughan. Del Duca was re-elected in June 2014 and appointed Ontario's Minister of Transportation in Premier Kathleen Wynne's cabinet.</p> <p>Prior to his election as MPP, he was the fundraising chair for the 2008 Annual Vaughan Hospital Fundraising Gala, which raised over \$1 million for the project. In 2008, he authored an op-ed in the Toronto Star calling for a regional economic summit to help Vaughan and surrounding areas deal with the global economic crisis. He worked with all levels of government, community leaders and organizations to establish the Greater Toronto Region Economic Summit, which took place in May 2009.</p> <p>Del Duca obtained a bachelor of laws from Osgoode Hall law school in 2007. Previously, he studied political science and Canadian history at the University of Toronto and Carleton University.</p> <p>He first moved to Vaughan in 1987 when his family settled in Kleinburg. Today, he and his wife, together with their two daughters, live in Woodbridge.</p>

Plenary Session III – “Federal Transportation Current Policy Issues”

Tuesday May 3 – 9:00-10:30am - Mandarin Ballroom

Chair: Joseph Schulman

Catherine Higgens
Associate ADM Policy, Transport Canada

Carlos Monge Jr.
Assistant Secretary for Transport Policy
US Department of Transportation



Carlos Monje is Assistant Secretary for Transportation Policy. He manages and oversees the Office of Transportation Policy which is primarily responsible for recommending transportation policy initiatives to the Secretary, Deputy Secretary and Under Secretary. The Office of Transportation Policy reviews proposed Departmental regulatory actions to ensure that regulations are as consistent as possible with the policies of the Administration and the Secretary. He oversees the administration’s proposal to reauthorize surface transportation programs, the TIGER discretionary grant program, and on efforts to promote equity and economic development.

Monje previously served as Counselor to US. Transportation Secretary Anthony Foxx, Special Assistant to the President and Chief of Staff of the White House Domestic Policy Council where he helped oversee all aspects of policy, message and event development across a wide spectrum of domestic policy issues which included disaster recovery, veterans affairs, and national service issues. Monje also served as deputy policy director at Obama for America and a special assistant in President Obama’s DC Senate office where he handled homeland security and veterans affairs. Monje previously worked as a policy and press aide in the United States Senate and on a number of federal and statewide electoral campaigns.

Frank Mulvey
President, ITER Associates



Frank Mulvey is president of ITER Associates, a transportation consulting firm in Bethesda, Maryland, and has been an RTC board member since June 2014. Frank is extremely interested in alternative, clean and healthy forms of travel.

Frank recently retired from the U.S. Surface Transportation Board (STB) after serving two terms. Before his appointment, he served as staff director for Railroad Issues for the Ranking Member of the U.S. House Committee on Transportation and Infrastructure. Prior to working on the Hill, Frank spent many years taking on transportation-related leadership roles, including for the U.S. Department of Transportation, the U.S. General Accounting Office and the National Academy of Sciences’ Transportation Research Board.

He is a former member of the Economics Department faculties at Northeastern University, Wheaton College and Bowling Green State University, and continues to lecture as an adjunct faculty member at the R.H. Smith School of the University of Maryland.

Summary of Tracks and Parallel Sessions

Track	Room	Parallel Sessions							
		Monday May 2, 2016			Tuesday May 3, 2016			Wednesday May 4, 2016	
		M1	M2	M3	T1	T2	T3	W1	W2
		10:30am – 12:00 pm	1:30pm – 3:00pm	3:15pm - 4:45pm	10:45am – 12:15pm	1:45pm – 3:15pm	3:30pm - 5:00pm	8:45am – 10:15am	10:30am-12:00pm
01 - Sustainable Transportation and the Environment	Toronto Ballroom	01a – Electric Vehicles / Vehicle Sharing		01b - Energy, Emissions, & Environment 1			01c - Urban Planning, Policy and Education	01d - Energy, Emissions, & Environment 2	
02– Bicycle, Pedestrian, Public Transit, Demand Analysis	Toronto Ballroom		02a - Bicycle / Pedestrian		02b - Public Transit 1	02c - Travel Demand Analysis			02d – Public Transit 2
03–Air Transportation, Pricing, Finance & Evaluation	Victoria Room A	03a - Pricing Finance and Evaluation 1		03b - Air Transport		03c - Pricing, Finance and Evaluation 2			
04 - Safety	Victoria Room A/B			04a - Rail Safety and Hazmat					04b - Highway Safety
05 - ITS, Traffic Operations and Congestion	Victoria Room A/B	05a - Connected/ Autonomous Vehicles	05b - Traffic Operations 1		05c - Traffic Operations 2			05d - Congestion Analysis	
06 – Marine, Rail and Intermodal	Vancouver Room					06a - Rail Transport 1	06b – Ports / Marine		06c - Rail Transport 2
07 - Logistics and Supply Chain	Vancouver Room	07a – Outsourcing	07b - GPS and Technology	07c - Routing	07d – Next Logistics Technology (NeLT)			07e - Logistics Performance and Trade	
08 - Agriculture, Biofuels and Rural Issues	Victoria Room A		08a - Agriculture and Biofuels 1				08b - Agriculture and Biofuels 2		

Detailed Parallel Sessions – Monday May 2, 2016

Day/Time	Session and Paper Title (Room)	Authors
M1 Monday, May 2, 10:30am- 12:00pm	01a – Electric Vehicles / Vehicle Sharing (Toronto Ballroom)	Session Chair: Vijay Gill
	Simulating transportation and environmental outcomes of electric vehicle adoption scenarios: An application to the Windsor Census Metropolitan Area (CMA)	Terence Dimatulac, Hanna Maoh
	A consumer latent class choice model to assess prospects for electric vehicles in Canada	Mark Ferguson, Moataz Mahmoud, Christopher Higgins, Elnaz Abotalebi, Pavlos Kanaroglou
	The effect of car2go on vehicle ownership: a case study in Vancouver	Michiko Namazu, Hadi Dowlatabadi
	03a - Pricing Finance and Evaluation 1 (Victoria Room A)	Session Chair: Robin Lindsey
	Flexible design strategies for enhancing life cycle value: An airport P3 case study	Vivek Sakhrani
	Impacts of public infrastructure on productivity In Ontario	Cvet Georgiev
	The effect of changes in fuel prices on the demand for road transportation in Ontario	Sina Motamedi
	05a - Connected/ Autonomous Vehicles (Victoria Room B)	Session Chair: Anik Lacroix
	How cities can use autonomous vehicles to increase transit ridership and reduce household ownership?	Bern Grush, John Niles
	Understanding the differences in lane change maneuvers of cars and heavy vehicles on freeways	Umair Durrani, Chris Lee, Peibo Zhao
	The social welfare analysis framework to evaluate managed lanes	Omid M. Rouhani, Rick Geddes
	07a – Outsourcing (Vancouver Room)	Session Chair: Ryan Gallagher
	Keeping trucking in-house: A dynamic multi-item shipment consolidation model for a manufacturer-distributor	M. Ali Ülkü
	Modelling freight outsourcing decisions	Toka Mostafa , Matthew Roorda
	Canadian coastal shipping and CETA: Some lessons from four market deregulation cases	Sofiane Laribi, Emmanuel Guy
Microsimulating the spatial distribution of commercial vehicles by the location of their owned establishments	Aya Hagag, Hanna Maoh	

Detailed Parallel Sessions – Monday May 2, 2016

Day/Time	Session and Paper Title (Room)	Authors
M2 Monday, May 2, 1:30pm- 3:00pm	02a - Bicycle / Pedestrian (Toronto Ballroom)	Session Chair: Jeremy Mattson
	Evaluation study of bike share program in Fargo, ND	Ranjit Godavarthy, Jeremy Mattson
	Examining the impact of sample size in the analysis of bicycle sharing systems	Ahmadreza Faghieh Imani, Naveen Eluru
	System-wide pedestrian planning efforts: An analysis of current planning trends	Andrew Andrusko, Eunsu Lee
	Integration of crowdsourced and traditional data for route analysis and route finding for pedestrians with disabilities	Amelia C. Regan, Nicola Christie, Reza Asadi, Dmitri Arkhipov
	05b - Traffic Operations 1 (Victoria Room B)	Session Chair: Chris Lee
	Simulating the impacts of RFID lanes at the Canada-US border: an application to the Gordie Howe International Crossing	Shakil Khan, Hanna Maoh, William Anderson
	The 'Big Lift' project of Macdonald Bridge re-decking, Halifax, Canada: A dynamic traffic assignment model	Md Jahedul Alam, Muhammad Habib
	Time series based hourly traffic flow prediction on the GTA freeways using TS-TVEC model	Tao Ma, Zhou Zhou, Baher Abdulhai
	Simulating roadside safety inspection benefits enabled by alternative V2I pre-screening technologies	Garland Chow, Geetansh Kakkar
	07b - GPS and Technology (Vancouver Room)	Session Chair: Michael Kieran
	Advanced technology use in Canada's transportation sector	Scott Bacon, Vincent Dube, Lawrence McKeown
	A method for using data integration for GPS and roadside intercept survey data	Sirui Zhu, Matthew Roorda
	Resilience measures for reducing the impact of nature-induced disruptions in transportation supply chains	Matthew Whelen, Ata Khan, Louis-Paul Tardif, David Ramsey
	Expansion of a GPS truck trip sample to remove bias and obtain representative flows for Ontario	Kevin Gingerich, Hanna Maoh, William Anderson
	08a - Agriculture and Biofuels 1 (Victoria Room A)	Session Chair: Barry Prentice
	A short term outlook for Canadian grain transportation requirements	Alexander Gregory
	Government hopper cars and the Canadian grain handling and transportation system	Steve Pratte
Agricultural freight flows: Field level generation using Cropscape	Jeremy Sage	

Detailed Parallel Sessions – Monday May 2, 2016

Day/Time	Session and Paper Title (Room)	Authors
M3 Monday, May 2, 3:15pm- 4:45pm	01b - Energy, Emissions, and Environment 1 (Toronto Ballroom)	Session Chair: John Lawson
	Investigating near road particle number concentrations along a busy urban corridor with varying built environment characteristics	Junshi Xu, An Wang, Marianne Hatzopoulou
	Assessment of exposure to traffic-related air pollution in a large urban area: Impacts of individual mobility and transit investment scenarios	Maryam Shekarrizfard, Marianne Hatzopoulou
	Highway expenditure and induced vehicle emissions	You Zhou
	Life cycle assessment of medium-duty diesel and compressed natural gas trucks. A case study for Toronto	Taylor Zhou, Heather MacLean, Matthew Roorda
	03b - Air Transport (Victoria Room A)	Session Chair: Rob McKinstry
	Commercial air transport: The impact on regional economies	Michael McCormick
	Passenger-centric intermodal traffic management involving airports and railways	Olaf Milbredt, Florian Rudolph, Erik Grunewald
	Sustainable transportation: airships versus jet airplanes	Barry Prentice, Robert Knotts
	Come fly with me: Seasonal and temporal patterns in air travel	Trever Bova, Gwen Cromwell, Lawrence McKeown
	04a - Rail Safety and Hazmat (Victoria Room B)	Session Chair: Marie-Claude Lévesque
	Canada's shifting sands: Oil production and distribution, 2005-2014	Lawrence McKeown, Anthony Caouette
	An examination of accident clustering on the US rail network	Steven Peterson
	Community data needs on hazardous goods movement by rail: Perspectives of select New Brunswick emergency planning officials	Trevor Hanson, Brendan McPhee
	Hazardous materials transportation with multiple objectives: A case study in Taiwan	Ta-Yin Hu, Ya-Han Chang
	07c – Routing (Vancouver Room)	Session Chair: Dan Lynch
	Reroute or wait it out? Estimating optimal route decisions in the presence of unexpected delays	J. Bradley Eustice, Jeremy Sage
	End to end supply chain deliver function modeling	Edwin Savacool, Dale Doxtater
	Application of vehicle routing optimization in Improving the flow of mail to a processing plant	Iman Niroomand, Amir Khataie, Matin Foomani

Detailed Parallel Sessions – Tuesday May 3, 2016

Day/Time	Session and Paper Title (Room)	Authors
T1 Tuesday, May 3, 10:45am- 12:15pm	02b - Public Transit 1 (Toronto Ballroom)	Session Chair: Trevor Hanson
	Unbundling the hedonic price effects of rapid transit and transit-oriented development in Toronto	Christopher Higgins, Pavlos Kanaroglou
	Does the income level of a neighborhood affect transit demand responsiveness?	Caroline Miller, Ian Savage
	Journey-to-work by public transit: Recent evidence from the four largest urban centres in Canada	Rahaf Husein, Hanna Maoh
	Is the Bloor Danforth corridor a 'sensible location' for a separated bike lane?	Charles M. Burke, Darren M. Scott
	05c - Traffic Operations 2 (Victoria Room A)	Session Chair: James Perttula
	Advanced traveler general information systems	Omid M. Rouhani
	Formulating delay after the stop-bar in the shock wave model	Mohammad Noaeen, Amir Abbas Rassafi, Behrouz Homayoun Far
	Impacts of illegal on-street parking on Toronto's CBD Congestion	Ahmed Ramadan, Matthew Roorda
	07d – Next Logistics Technologies (NeLT) (Vancouver Room)	Session Chair: Sang-Hei Choi
	Technology in Supply Chain Management and Logistics: What Does the Future Hold?	Anthony Pagano, Matt Liotine, and Sidd Varma
	A study on the railway freight train management based on Internet of things	Jong-Un Won, Yong Jang Kwon
	ICT based hazardous transport vehicle management system	GeomGeum Yoo, Jong-un Won, YongJang Kwon
	Port Strategy and Technology in the Near Future in Korea	Sang-Hei Choi, Ju Dong Park, and Sang Young Moon
	Material Handling Equipment for Labor-intensive Working Environment - Logistics Aids for Safety and Convenience	YongJang Kwon, SungWook Kang

Detailed Parallel Sessions – Tuesday May 3, 2016

Day/Time	Session and Paper Title (Room)	Authors
T2 Tuesday, May 3, 1:45pm- 3:15pm	02c - Travel Demand Analysis (Toronto Ballroom)	Session Chair: Ahsan Habib
	Transit user behaviour in response to service disruption: State of knowledge	Teddy Lin, Amer Shalaby, Eric Miller
	A new modal classification system for public transportation	Arthur Guzzetti, John Wesley Neff
	Next direction route choice model of cyclists using panel data	Melvin Wong, Bilal Farooq, Guillaume-Alexandre Bilodeau
	A latent segmentation multinomial logit approach to examine bicycle sharing system users' destination preferences	Ahmadreza Faghieh Imani, Naveen Eluru
	03c - Pricing, Finance and Evaluation 2 (Victoria Room A)	Session Chair: Mario Iacobacci
	Revenue risk sharing options for highway facilities	Omid M. Rouhani, H. Oliver Gao, Rick Geddes
	Optimal transit pricing with crowding and traffic congestion: A dynamic equilibrium analysis	André de Palma, Robin Lindsey, Guillaume Monchambert
	Road pricing - better than a Kinderegg	Olav Hauge
	06a - Rail Transport 1 (Vancouver Room)	Session Chair: Malcolm Cairns
	Recent public policy initiatives in respect of railway service	Jean Patenaude
	CBTC effect on transit and rail	Alireza Edraki
	Measuring commodity flows in Canada: A carrier-based approach	Georgiana Madar, Sagal Searag, Lawrence McKeown
	Japan liquefied natural gas (LNG) intermodal truck/rail container operations: Applicability to U.S. operations	Richard Dow Stewart, Hiroko Tada

Detailed Parallel Sessions – Tuesday May 3, 2016

Day/Time	Session and Paper Title (Room)	Authors
T3 Tuesday, May 3, 3:30pm- 5:00pm	01c – Urban Planning, Policy and Education (Toronto Ballroom)	Session Chair: Derek Scrafton
	An analysis of the status of undergraduate transportation management education in the United States	Richard D. Stewart, Natalie Burger, Erica Hansen, Gavin Johnson
	Planning for real or for show? An analysis of the completion of Montreal's transportation plans.	Pierre Barrieau, Victor Silvestrin-Racine
	SMARTPLANS: Simulation Model for Assessing the Ramifications of Transportation Policies and Land-use Scenarios	Hanna Maoh, Kevin Gingerich
	The tale of taxi reforms in two cities: The failure of closed entry	Joseph Monteiro, Barry Prentice
	06b – Ports / Marine (Vancouver Room)	Session Chair: Marc-André Roy
	Opportunities and challenges of developing the northern shipping passages	Halia Valladares Montemayor, Kelly Moorhead
	The Panama Canal expansion: Potential impact on Latin American economic growth	Anthony M. Pagano, Bo Zou, Onesimo Sanchez, Eddie Tapiero, Judith Torres
	Port operation and competition by its operation type: Case study of ports in Korea	Ju Dong Park, Kyong-Han Lee
	Do we need to assess service delivery at Canadian ports?	Mary Brooks
	08b - Agriculture and Biofuels 2 (Victoria Room A)	Session Chair: Mark Hemmes
	Western grain exceptionalism: Transportation policy change since 1968	Paul Earl , Barry Prentice
	Effects of yields and prices on the supply of biofuel from energy beets in North Dakota	Aaron De Laporte, David Ripplinger
	Intramodal railroad competition impacts on railroad wheat rates	Michael Babcock, Bebonchu Atems
	Pass the salt - estimating market structure in Great Lakes shipping	Logan Pizzey, James Nolan

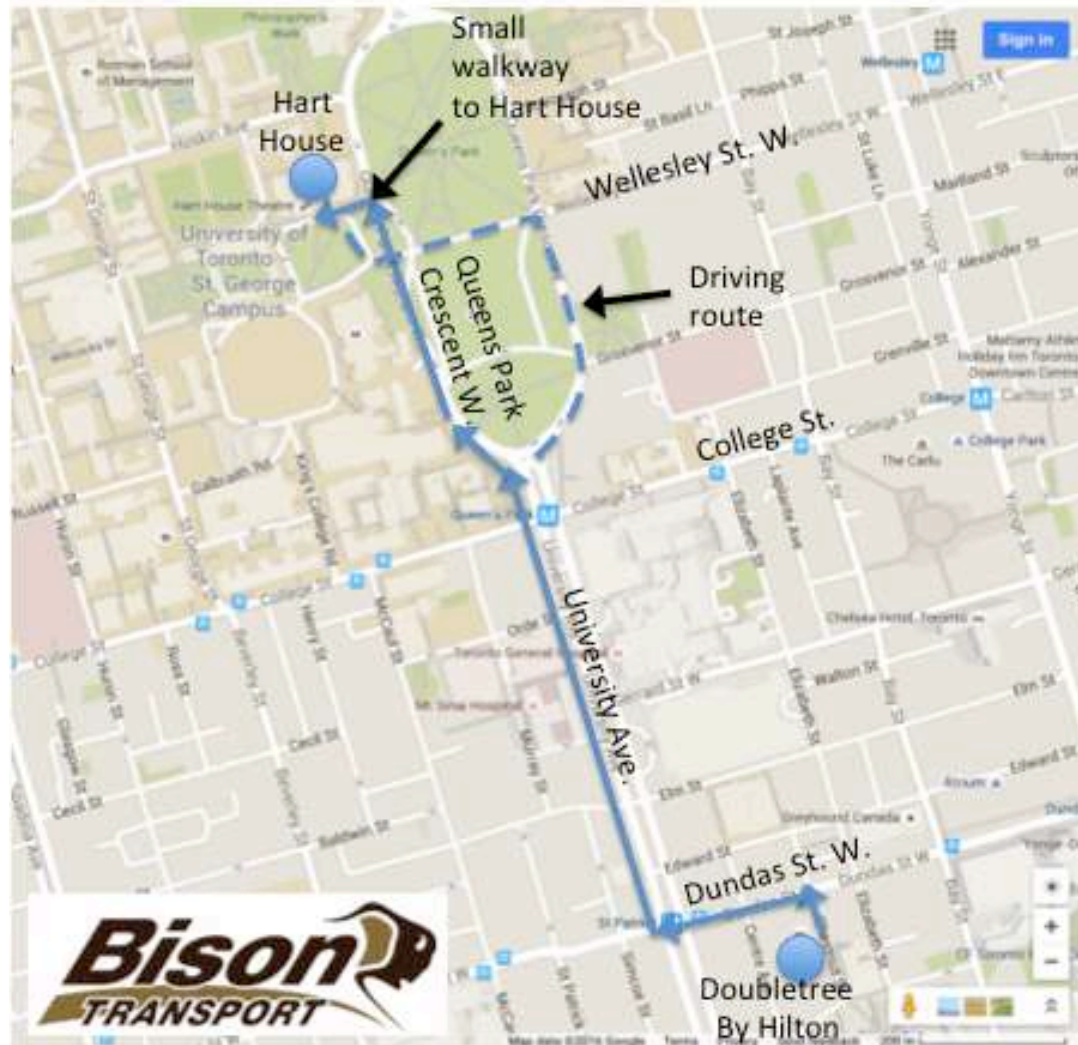
Detailed Parallel Sessions – Wednesday May 4, 2016

Day/Time	Session and Paper Title (Room)	Authors
W1 Wed- nesday, May 4, 8:45am- 10:15am	01d - Energy, Emissions, and Environment 2 (Toronto Ballroom)	Session Chair: Bill Anderson
	Characterizing near-road air pollution using local-scale emission and dispersion models and validation against in-situ measurements	An Wang, , Masoud Fallahshorshani, Junshi Xu, Marianne Hatzopoulou
	Microscopic modeling for atmospheric urban pollutant dispersion in dense urban road networks	Masoud Fallah Shorshani, Marianne Hatzopoulou
	Part of the problem, or part of the solution? How Canada's railways can help address climate change	Michael Gullo, Enrique Rosales
	05d - Congestion Analysis (Victoria Room A)	Session Chair: Lloyd Ash
	Clogged arteries: An empirical approach for identifying and addressing localized highway congestion bottlenecks	Vivek Sakhrani, Tufayel Chowdhury
	Bayesian linear regression performance model for the Libyan national road network without an initial database on its condition based on expert's knowledge	Abdussalam Heba, Gabriel J. Assaf, ETS Montreal
	Commuter mobility and economic performance in US cities	Justin Tyndall
	Determinants of urban congestion: A study of metropolitan areas in the U.S.	Xinyi Ren (Kate), Martin Dresner
	07e - Logistics Performance and Trade (Vancouver Room)	Session Chair: Mary Brooks
	Building resilience to counter the impact of international supply chain vulnerabilities	Rupert Allen, Matthew Whelen, Ata Khan
	Analyzing the transportation impacts of free trade agreements	Chris Bachmann
A survey of awareness and Importance of inland port features	Paul Larson, Matt Adelman	

Detailed Parallel Sessions – Wednesday May 4, 2016

Day/Time	Session and Paper Title (Room)	Authors
W2 Wed- nesday, May 4, 10:30am- 12:00pm	02d – Public Transit 2 (Toronto Ballroom)	Session Chair: Chris Higgins
	Enabling and measuring success among New Brunswick volunteer driver programs in an era of demographic change: Towards a common data collection standard	Trevor Hanson, Denis Caissie
	Estimating demand for rural intercity bus services	Jeremy Mattson
	Identification of BRT- Advantaged age-group and income level group by examining various BRT cities	Utpal Dutta, Sawan Dutta
	Evaluating impacts of TDM policies through before-after travel survey: Application of data fusion for discrete choice modelling	Md Sami Hasnine, TianYang Lin, Adam Weiss, Khandker Nurul Habib
	04b - Highway Safety (Victoria Room A)	Session Chair: Ian Savage
	Investigating safety of impact of backlit pedestrian crossing sign using driver behavior analysis	Matin Foomani, Ciprian Alecsandru
	A Safety Perception Indicator for vulnerable Road users in urban Environments (ASPIRE)	Nicola Christie, Amelia Regan
	Evaluation of rear-end collision risk in car-heavy vehicle mixed traffic flow on freeways using surrogate safety measures	Peibo Zhao, Chris Lee
	Data analysis of truck crashes in Texas (2011-2013)	Liang-Chieh (Victor) Cheng, Lingchen Fan, Yao Jiang, Weiwei Wu, Abbas Amiri, Shujun Cheng
	06c- Rail Transport 2 (Vancouver Room)	Session Chair: Garland Chow
	Full steam ahead: Performance measures of Canada's rail industry	Lawrence McKeown, Georgiana Madar, Sagal Searag
	Improved financial performance of CP and CN over the past twenty years: Factors contributing to the improvement	Malcolm Cairns
	Rail level of service decisions and shipper service requirements	Ryan Gallagher, François Tougas
	Solar-powered Vactrain: A preliminary analysis	Sundar Narayan

Directions to the Bison Transport Reception and Debate



Bison Transport Reception & Debate

Monday May 2, 2016

Hart House – Debates Room

University of Toronto

7 Hart House Circle

Walk distance from hotel = 1.5km

The Debates Room is located on the 2nd floor of Hart House.

Walk groups leave

hotel lobby 4:45pm

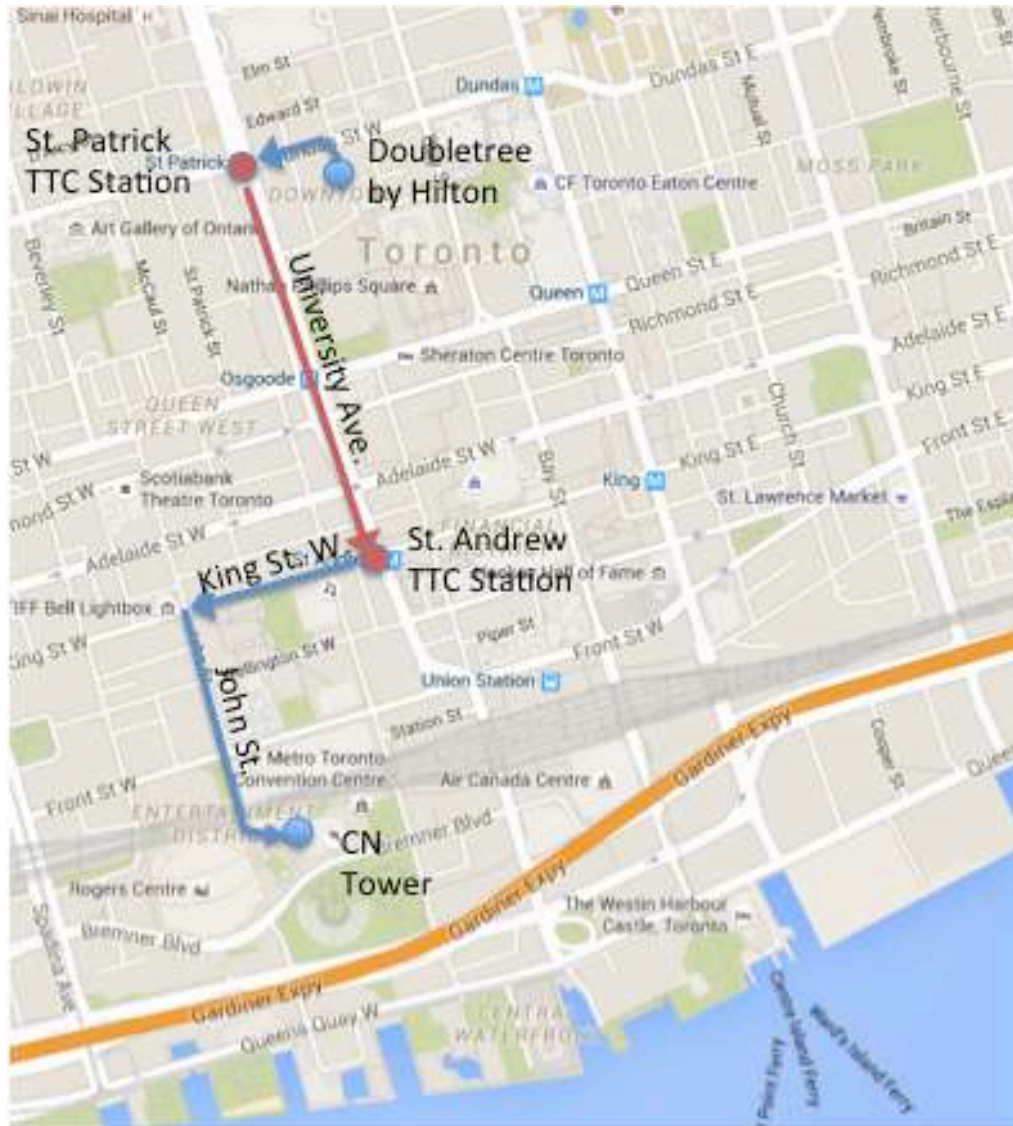
Reception begins: 5:00pm

Bison Transport Debate: 6:30pm

If a taxi is necessary, please contact the registration desk.



Directions to the Conference Banquet – CN Tower – 360° Restaurant



Conference Banquet

Tuesday May 3, 2016

CN Tower – 360° Restaurant

Walk distance from hotel = 2.0 km

Walk distance if you take TTC = 1.1km

TTC fare = \$3.25 adult, \$2 senior

Walking, TTC groups leave hotel lobby

5:15-5:30pm

Arrive at CN Tower by: 6:00pm

Get to the top by: 6:30pm

Conference Dinner: 7:00pm

If a taxi is necessary, please inform
the registration desk.