

## **Sustainable Transportation Analysis and Planning**

23 February 2010

*The Victoria Transport Policy Institute is an independent research organization dedicated to developing innovative solutions to transport problems. Our work helps expand the range of impacts and options considered in transportation decision-making, improve evaluation methods, and make specialized technical concepts accessible to a larger audience. VTPI has worked on a variety of sustainable transportation and energy conservation policy studies and planning projects in a variety of institutional and geographic conditions. Below are examples of our work.*

### **Community Energy and Emissions Reduction Plans**

Helps develop Community Energy and Emission Reduction Strategies (CEERS) for Langford and Colwood. Provides guidance on transportation and land use policies that support energy conservation and emission reduction objectives. (Client: cities of Langford and Colwood. Project Manager: Jordan Fisher of Jordan Fisher & Associates. Time Period: May 2009-January 2010.)

### **Transportation Energy Plan**

Identified national, regional and local strategic policies for managing transportation challenges associated with rising oil prices. Developed estimates of future transport energy demands, projected fuel prices and optimal policies to address uncertain and possibly variable and rising fuel prices. Coauthored the report, *Managing Transport Challenges When Oil Prices Rise* ([www.ltsa.govt.nz/research/reports/357.pdf](http://www.ltsa.govt.nz/research/reports/357.pdf)). (Client: New Zealand Transport Agency. Project Manager: McCormick Rankin Cagney. Time Period: May-August 2008.)

### **Connected Urban Development**

Serves as a special advisor on transportation and land use planning for the *Connected Urban Development* program ([www.connectedurbandevelopment.org](http://www.connectedurbandevelopment.org)), which uses advanced technologies to improve mobility options in major cities, including personal handheld navigation devices, electronic public transit information and payment systems, and road pricing. (Client: Cisco Systems and the Clinton Foundation. Project Manager: Nicola Villa. Time Period: August 2007- ongoing.)

### **Regional Energy Plan**

Helped develop a regional energy plan. Identified and evaluated potential transportation energy conservation and emission reduction strategies suitable for implementation by local and regional governments. (Client: Capital Regional District [[www.crd.bc.ca](http://www.crd.bc.ca)]. Project Manager: Sheltair Scientific. Time Period: May-December 2006.)

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### **National Study on Car-Less and Special Needs Evacuation Planning**

Coauthoring a study and best practices guide on the evacuation of car-less and special needs people during major disasters. Includes research of previous disaster evacuations, stakeholder surveys and analysis of best practices. (Client: Federal Transit Administration. Project Manager: Professor John Renne. Time Period: January 2006-January 2010.)

### **Transportation Cost Study**

Coauthored a comprehensive study assessing the sustainability of Nova Scotia's transportation system using various indicators and cost categories. Provided recommendations for improving transport efficiency, affordability and sustainability. Published as *The GPI Transportation Accounts: Sustainable Transportation for Nova Scotia - Measuring Sustainable Development, Application Of The Genuine Progress Index To Nova Scotia*. (Client: GPI Atlantic, [www.gpiatlantic.org](http://www.gpiatlantic.org). Project Manager: Ronald Colman. Time Period: January-December 2006.)

### **City Mobility Management Program Best Practices Review**

Helped develop mobility management policies and programs that encourage more efficient transportation and reduce per capita vehicle travel, in order to reduce local and regional transportation problems. (Client: City of Fort Collins, Colorado. With the Brendle Group. Time Period: January-May 2006.)

### **Planning for Active Transportation and Health - Healthy Rural Roads Project**

Investigated transportation and land use policies and programs to support public health objectives in Humboldt County, California. This project included research to identify strategies for reducing traffic crash risk and increasing physical activity in semi-rural communities. Presented results at workshops for the general public and public officials. (Client: Redwood Community Action Agency [[www.rcaa.org](http://www.rcaa.org)]. With Nelson Nygaard Consulting. Time Period: Oct.-Dec. 2005.)

### **Healthy Community Planning Best Practices: Population Health and Urban Form**

Investigated how urban form affects community health, including physical activity and fitness, crash risk, pollution exposure, community cohesion, and mental health, and how to create healthier communities. Produced, *Promoting Public Health Through Smart Growth* ([www.vtpi.org/sgbc\\_health.pdf](http://www.vtpi.org/sgbc_health.pdf)). (Client: Smart Growth BC [[www.smartgrowth.bc.ca](http://www.smartgrowth.bc.ca)]. Time Period: June-Sept. 2005).

### **Greenhouse Gas Emission Reduction Plan**

Provided guidance on transportation emission reduction strategies for the city of Vancouver's greenhouse gas emission reduction plan. Identified a variety of potential emission reduction strategies, predicted their potential emission reductions, and developed a framework for evaluating their full benefits and costs. (Prime contractor: Sheltair Scientific [[www.sheltair.com](http://www.sheltair.com)], for City of Vancouver [[www.vancouver.ca](http://www.vancouver.ca)]. Time Period: September-December 2003).

### **Kingston, Jamaica Area Sustainable Transportation And Land Use Plan**

Helped develop a sustainable transportation and land use strategic plan for the Kingston, Jamaica region. Included performing an extensive literature review of developing country sustainable transportation and land use strategies, reviewing current travel and land use conditions and policies in the Kingston region, consulting with stakeholders, and providing specific policy and planning recommendations. (ENACT Project Sustainable Development Plan, National Environment and Planning Agency [[www.nepa.gov.jm](http://www.nepa.gov.jm)] and Canadian International Development Agency [[www.acdi-cida.gc.ca](http://www.acdi-cida.gc.ca)]. Time Period: July-August 2003).

### **Transportation and Social Exclusion Research**

Wrote and presented a paper titled *Social Inclusion As A Transport Planning Issue in Canada* ([www.vtpi.org/soc\\_ex.pdf](http://www.vtpi.org/soc_ex.pdf)), at a seminar at the University of Westminster in London, April 3-4, 2003 as part of a study to evaluate transport-related social exclusion issues in various countries. (Project Manager: Professor Karen Lucas, University of Westminster. Client: Federation Internationale de l'Automobile [[www.fiafoundation.com](http://www.fiafoundation.com)]. Time Period: January – April 2003.)

### **Evaluated Integrated Mobility Systems**

Helped to develop a model to predict the effects that an integrated, “smart card” electronic transit fare system can have on transit ridership and vehicle travel in the Toronto region. Involves developing an analysis framework, and research on the effects that user prices and convenience factors have on transit demand. (Client: Integrated Mobility Systems Consortium, Toronto. Time Period: September-December 2002)

### **Wrote Mobility Management Information Resource**

Wrote “Mobility Management Measures” module ([www.vtpi.org/gtz\\_module.pdf.pdf](http://www.vtpi.org/gtz_module.pdf.pdf)) for the *Sustainable Transport Sourcebook for Developing Countries* ([www.sutp.org](http://www.sutp.org)), a comprehensive transportation planning and management information resource for use in developing country cities. (Client: GTZ [[www.gtz.de](http://www.gtz.de)]. Time Period: April-December 2002).

### **Demand Management Emission Reduction Strategy Evaluation**

Identified and evaluated potential transportation demand management strategies for reducing energy consumption and pollution emissions in the Vancouver region. Developed a model that predicts potential energy conservation and emission reduction benefits of each strategy. Discussed additional benefits (congestion reduction, safety, consumer savings, etc.), costs and barriers. (Client: Environment Canada. Time Period: February 2002 to April 2003.)

### **Evaluate Transportation Energy Conservation Options**

Helped identify and evaluate policy and operational programs to improve transportation sector energy efficiency, energy conservation and use of renewables suitable for implementation by the New Zealand Energy Efficiency and Conservation Authority. (Project Manager: Booz-Allen & Hamilton. Client: TransFund New Zealand. Time Period: November 2001 to March 2002.)

## Publications

Todd Litman (1999), “Reinventing Transportation; Exploring the Paradigm Shift Needed to Reconcile Sustainability and Transportation Objectives,” *Transportation Research Record 1670*, Transportation Research Board ([www.trb.org](http://www.trb.org)), pp. 8-12; at [www.vtppi.org/reinvent.pdf](http://www.vtppi.org/reinvent.pdf).

Todd Litman (2003), “Measuring Transportation: Traffic, Mobility and Accessibility,” *ITE Journal* ([www.ite.org](http://www.ite.org)), Vol. 73, No. 10, October, pp. 28-32; at [www.vtppi.org/measure.pdf](http://www.vtppi.org/measure.pdf).

Todd Litman (2004), “Mobility Management Module” ([www.vtppi.org/gtz\\_module.pdf](http://www.vtppi.org/gtz_module.pdf)) of the *Sustainable Transport Sourcebook*, published by the Sustainable Urban Transport Project in Asia ([www.sutp.org](http://www.sutp.org)) and GTZ ([www.gtz.de](http://www.gtz.de)); at [www.vtppi.org/gtz\\_module.pdf](http://www.vtppi.org/gtz_module.pdf).

Todd Litman (2008), *Well Measured: Developing Indicators for Comprehensive and Sustainable Transport Planning*, VTPI ([www.vtppi.org](http://www.vtppi.org)); at [www.vtppi.org/wellmeas.pdf](http://www.vtppi.org/wellmeas.pdf).

Todd Litman (2009), “Mobility as a Positional Good: Implications for Transport Policy and Planning,” *Car Troubles: Critical Studies of Automobility and Auto-Mobility* (Jim Conley and Arlene Tigar McLaren eds), Ashgate ([www.ashgate.com](http://www.ashgate.com)); at [www.vtppi.org/prestige.pdf](http://www.vtppi.org/prestige.pdf).

Todd Litman (2007), “Developing Indicators For Comprehensive And Sustainable Transport Planning,” *Transportation Research Record 2017*, Transportation Research Board ([www.trb.org](http://www.trb.org)), 2007, pp. 10-15; at [www.vtppi.org/sus\\_tran\\_ind.pdf](http://www.vtppi.org/sus_tran_ind.pdf).

Todd Litman and David Burwell (2006), “Issues in Sustainable Transportation,” *International Journal of Global Environmental Issues*, Vol. 6, No. 4, pp. 331-347; at [www.vtppi.org/sus\\_iss.pdf](http://www.vtppi.org/sus_iss.pdf).

VTPI (2010), *Online TDM Encyclopedia*, Victoria Transport Policy Institute ([www.vtppi.org/tdm](http://www.vtppi.org/tdm)).

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