



## **The Canadian Society for Civil Engineering**

La Société Canadienne de Génie Civil

### **Edmonton Section**

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**March 15, 2007**

### **CSCE DINNER MEETING**

A joint meeting with the Geotechnical Society of Edmonton

### ***“The Alaska Canada Rail Link Project: Route Evaluation”***

**Presented by:**

**Rudy Schmidtke, M. Sc., P. Eng. , Regional Manager, UMA Engineering Ltd.**

#### **Abstract:**

During World War II, over 10,000 soldiers built the Alaska Highway spanning 2435 km in 8 months. Although this highway was constructed out of military necessity, no rail link between Alaska and the Continental Mainland has ever been established. The Alaska-Canada Rail Link (ALCAN Railway) is considered to be the North America’s “Final Frontier” and a pre-feasibility study was recently conducted by a number of consultants with respect to market analysis, technical analysis, financial analysis, and public interest to provide sound information to build a business case for investors. A primary purpose of the rail link is to improve the economics of developing resource deposits in Alaska, British Columbia and the Yukon. The study is managed jointly by the State of Alaska and the Yukon Territory. More than 40 work packages were developed for this project. UMA was selected to perform the conceptual railway engineering design along with the assessment of potential routes through the Yukon and British Columbia.

This conceptual design involved selecting railway alignments to develop ground profiles, applying typical railway design to manage varying terrain, and development of a system to analyze each proposed route. Based on the results of each route analysis, a comparison was conducted to identify the most favourable route in terms of engineering and construction feasibility. In total, seven potential routes with a combined total of over 3500 Km of terrain analysis were conducted for what may become the start of the next true Nation Builder Project. A discussion of the potential routes, railway design standards, terrain analysis, and typical civil structures used in railway engineering will be presented.

### **DINNER MEETING DETAILS**

DATE: Thursday, March 15, 2007  
LOCATION: University of Alberta Faculty Club

Cocktails & Registration - 5:30	Student Members - \$10.00
Dinner - 6:30	Student Non-members- \$15.00
Presentation - 7:30	CSCE and GSE Members - \$20.00
Closing Remarks - 8:30	Non-members - \$30.00

**Note: This Dinner Meeting will also feature the Graduate Student Poster Contest**

***Please assist us in forecasting attendance via our voice mail at 405-4757 or e-mail at [info@csceedmonton.org](mailto:info@csceedmonton.org) at least two days prior to the meeting.***

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