



SEA-TO-SKY HIGHWAY - ITS DURING CONSTRUCTION

PROJECT DESCRIPTION

An integral part of the preparations for the 2010 Olympics in Vancouver, BC, involved a major reconstruction of the Sea-to-Sky Highway. To allow the onsite contractor (Peter Kiewit and Sons) to monitor traffic conditions and provide advance motorist notification of activities during the construction phase of this project, ITS elements were installed along the 100km



stretch of highway, spanning between Vancouver and Whistler. As a whole, the implemented ITS system allowed for the following functionalities:

- Provided dynamic messaging at strategic points along the corridor for traveler information
- Provided real time and archived traffic data

The Sea-to-Sky ITS system is constructed of the following field components and head-end/control devices.

Field Components

- Portable LED-based dynamic message signs that provide advance notification of construction activities and incidents
- Fixed video cameras that are image-capture-capable are used to capture visual traffic conditions
- Microwave-based vehicle detection stations that provide speed, volume and occupancy data
- License plate readers implementing character recognition technologies, such as license plate readers providing travel time information
- Communication capabilities for all ITS field sites provided through the use of wireless CDMA 1X technologies

Head End/Control Components

ITS field device monitoring and control equipment has been installed at the Peter Kiewit and Sons offices in downtown Vancouver. Monitoring and data amalgamation services are handled from this location, with services being provided primarily with the Cameleon™ ITS software. Traffic data is logged continuously for record and auditing purposes and can be reviewed, charted and graphed as required.

In addition, through leveraging the Cameleon distributed client network capabilities coupled with wireless technologies, operators are able to control signs and obtain traffic information from any point along the Sea-to-Sky Highway. Future provisions of the project will allow for the transfer of traffic data and images to project and Ministry websites.

PROJECT DETAILS

Period of Performance
Dec 2003 to Dec 2009

Fee Arrangements

Cost, system metrics analyzed to determine construction traffic throughput; performance bonuses/penalties awarded based on traffic data



ICx Transportation
1720 Clay St., Suite 14
San Francisco, CA 94109
T + 1.888.511.4298
www.icxt.com/transportation