B.C. Contributes to Noise Reduction on State Route 520

Submitted by Len Sielecki, Environmental Issues Analyst

South of the border, State Route 520 (SR 520) is a vital transportation link between Seattle and Redmond, Washington. The highway carries over 150,000 vehicles a day and crosses Lake Washington on the Evergreen Point Bridge, the world's longest floating bridge. By 2018, the Washington State Department of Transportation (WSDoT) will be replacing the entire existing 4-lane highway with a new highway consisting of four general purpose lanes, two high occupancy vehicle lanes, and a pedestrian/cyclist lane. The SR 520 project is expected to cost about $4 billion.

Since its inception, the SR 520 project team has been working closely with local neighbourhoods, communities and First Nations to address social and environmental issues. WSDoT is particularly concerned about traffic noise and its impacts on local residents and those who use the parks, schools and other private and public facilities located near the highway. In September, the SR 520 project team organized a three-day noise reduction strategies expert review panel workshop in Seattle as a part of its comprehensive mediation efforts.

Since British Columbia and Washington State share many social, economic and environmental characteristics, WSDoT was very interested in our ministry's traffic noise reduction initiatives. As a result, Mike Oliver, Chief Geotechnical Engineer, and I were asked to join leading U.S. and international traffic noise experts on the review panel. The 12-member panel included Dr. Ulf Sandberg from the Swedish National Road and Transport Research Institute and Dr. Judy Rochat from the United States Department of Transportation's Volpe National Transportation Systems Center Acoustics Facility.

The SR 520 project staff were very professional and really friendly. They were a terrific group of people to work with. Everything was extremely well organized and well run. Prior to the workshop, extensive traffic noise surveys had been conducted by the SR 520 project engineers. Project materials were assembled and distributed in advance, so panel members were well prepared and could hit the ground running. The workshop was facilitated by Dr. Robert Otto Rasmussen, a leading U.S. tire and pavement noise expert. From working breakfasts and lunches, to evening highway inspection field trips, every minute of the workshop was utilized as effectively as possible.

At the beginning of the workshop, neighbourhood representatives made presentations about their noise concerns to the panel members. The representatives were well informed about traffic noise reduction solutions and spoke about their particular noise issues. For the next three days, the panel reviewed all types of solutions and strategies to reduce traffic noise for the residents. The subjects ranged from quieter pavements and absorptive noise walls to intersection lids and bridge deck encapsulation. The panel discussions were open, congenial and extremely constructive. At the conclusion of the workshop, the panel made a public presentation of its findings and recommendations to the neighbourhood residents and members of the press and public. Questions from the audience were fielded by panel members. There was a lot of interest in the ministry's experience with open-graded asphalt in Nanaimo to reduce traffic noise.

Although the days were long and busy, the workshop was very rewarding. It was great to work with the world's leading traffic noise experts and the professionals on the WSDoT SR 520 project team. ♦

International experts brainstorm noise reduction solutions. Photo by Len Sielecki.

Evergreen Point Bridge, the longest floating bridge in the world, carries more than 150,000 vehicles a day. Photo by Ulf Sandberg.

Recreational activities on Lake Washington are a local interest. Photo by Ulf Sandberg.