Working Paper no.1
About the Model

The future traffic volumes on Colwood's major roads have been forecasted through travel demand modelling. The traffic model divides Colwood into zones, creates external zones representing surrounding communities and calculates vehicle trips based on land uses and anticipated trip making for each zone within Colwood.

How is the model calibrated to reflect known existing conditions?

A series of corridor and intersection traffic counts were completed and cross-compared against the model existing conditions. Where inconsistent, the model is updated to reflect known current conditions. The calibrated existing conditions model is used as the basis for exploring future conditions.

What timeframe does the model represent?

Modelling of future conditions are based on an ultimate buildout population of approximately 41,000 people (approximately double the population of Colwood today). While the exact horizon year for the build-out scenario is difficult to predict, it is anticipated that it will likely take 30-40 years from today to achieve ultimate buildout.

What future network improvements are assumed in the model?

Several options were designed to accommodate traffic demands under the ultimate buildout scenario. The following major network improvements have been assumed in the model across all options:

- Sooke Road expanded to four lanes from Metchosin Road through Veterans Memorial Parkway to Jacklin Road;

- A new Allandale connection connecting Veterans Memorial Parkway and Wishart Road; and

- Widening Metchosin Road to four lanes between Sooke Road and Wishart Road.

How does the model forecast future conditions?

Anticipated vehicle trips are forecasted based on the future population and land use scenario. Vehicle trips are assigned to the road network within the model following predicted route choices based on origin, destination, and travel distances. The model is run for the

ultimate build-out scenario, with model outputs identifying future travel demand (i.e., trips) along major corridors.

In addition to the assumed major network improvements above, a series of scenarios were explored to address anticipated congestion. These include combinations of corridor widening on Veteran's Memorial Parkway, Latoria Road and Metchosin Road. Results suggested that widening only Metchosin Road or only Latoria Road would not adequately address future traffic demand, while widening all three major corridors would be cost prohibitive. As a result it is likely that either Latoria Road or Metchosin Road need to be widened to four lanes with the other corridor receiving various improvements.