

Official Community Plan Option: Analysis and Assessment of Transportation Impacts

Summary Report

November 1997

Introduction

The Capital Regional District intends to develop a Regional Growth Strategy to ensure that development over the next 25 to 30 years is consistent with a Regional Vision that is being defined by the CRD Board. The regional Vision will include a strategy to address anticipated population and employment growth. This report summarizes the analysis and assessment of the transportation impacts of the "OCP Option" to 2010 and to "95% build-out" assumed to be reached in 2018.

The OCP Option assumes a 31% increase in population and a 29% increase in employment for the study area between 1996 and 2018. The study area for the transportation analysis includes the Capital Region and the Cowichan Valley Region but excludes Saltspring and the Gulf Islands. The fastest growth is assumed to occur in the Western Communities with a 117% increase in population and a 141% increase in employment.

The analysis assumed "Do-Minimum" transportation networks for the two design years. These networks included only those capital projects judged by the participating agencies to be already "committed." These networks would provide for relatively modest improvements in road capacity.

Findings

The results of the analysis indicated that the number of PM peak hour automobile trips on a typical weekday would increase by 28% - slightly less than the increases in population and employment. However, there would be a significant increase in road congestion:

- The kilometres of roadway with noticeable traffic congestion is forecast to increase by approximately 250% while the kilometres of roadway experiencing serious traffic congestion and flow breakdown is forecast to increase by more than 2,400%!
- There would be significant congestion in the Trans Canada Highway corridor despite planned improvements included in the "Do-Minimum" networks.
- The overall average region-wide network speed is forecast to decline from 44 km/hr in 1996 to 41 km/hr in 2010, and to 40 km/hr in 2018.

The overall speed reduction of 10% is forecast to occur more or less equally on Provincial highways and on municipal roads. However, the reductions in speed are not uniform across the region. The most significant average speed reductions are forecast in the Western Communities with significant reductions also forecast for

Victoria and Saanich. The Transportation Planning areas forecast to experience the most significant average speed reductions are:

- Langford - from 43 km/h in 1996 to 31 km/h in 2018
- Sooke - from 53 km/h in 1996 to 44 km/h in 2018
- Metchosin - from 52 km/h in 1996 to 46 km/h in 2018
- Victoria - from 34 km/h in 1996 to 30 km/h in 2018
- Saanich - from 47 km/h in 1996 to 43 km/h in 2018.

The results indicate that a modest increase in the proportion of total vehicle trips made by transit is possible but with a significant increase in transit operating costs:

- A significant increase in transit subsidy and/or significant increases in fares would be required to provide the level of transit service required to maintain transit's current share of peak hour travel.
- Many of the frequencies in the assumed transit network are higher than is economically feasible. Consequently, some of the waiting time reductions, and transit travel time reductions may, in fact, not be realized.
- To achieve an "affordable" transit system would mean a reduction in overall bus hours and kilometres of more than 40% from that modelled.
- Reductions in transit service from that modelled would reduce the number of transit trips and lead to further increases in automobile travel and further increases in congestion.
- Perhaps more importantly, the mobility of residents who do not drive or do not own a vehicle would be reduced below the levels experienced today.

The combination of traffic volume increases which exceed the modest increase in roadway capacity assumed in the "Do-minimum" road network, and the likely need to limit transit service expansion and improvement to an affordable level will reduce the mobility enjoyed by today's residents:

- It is clear that the mobility currently enjoyed by the region's residents cannot be maintained without a significant investment in new transportation infrastructure and increased funding for transit operations.

Issues

The study findings indicated a number of key issues to be addressed in the ongoing work of the CRD to develop and evaluate alternative Growth Management strategies.

These include:

- the appropriate level of transit service and the cost of providing this service
- utilization of existing surplus transportation capacity in the Urban Core of the region
- congestion in the Western Communities

- identification, development and preservation of a network of regional arterial roads to connect the region's major centres.
- conditions in the Trans Canada Highway corridor each side of the Colwood Interchange
- accessibility and mobility, particularly by automobile
- access to the remainder of the Island via the Malahat Highway
- traffic conditions in the Pat Bay Highway corridor.