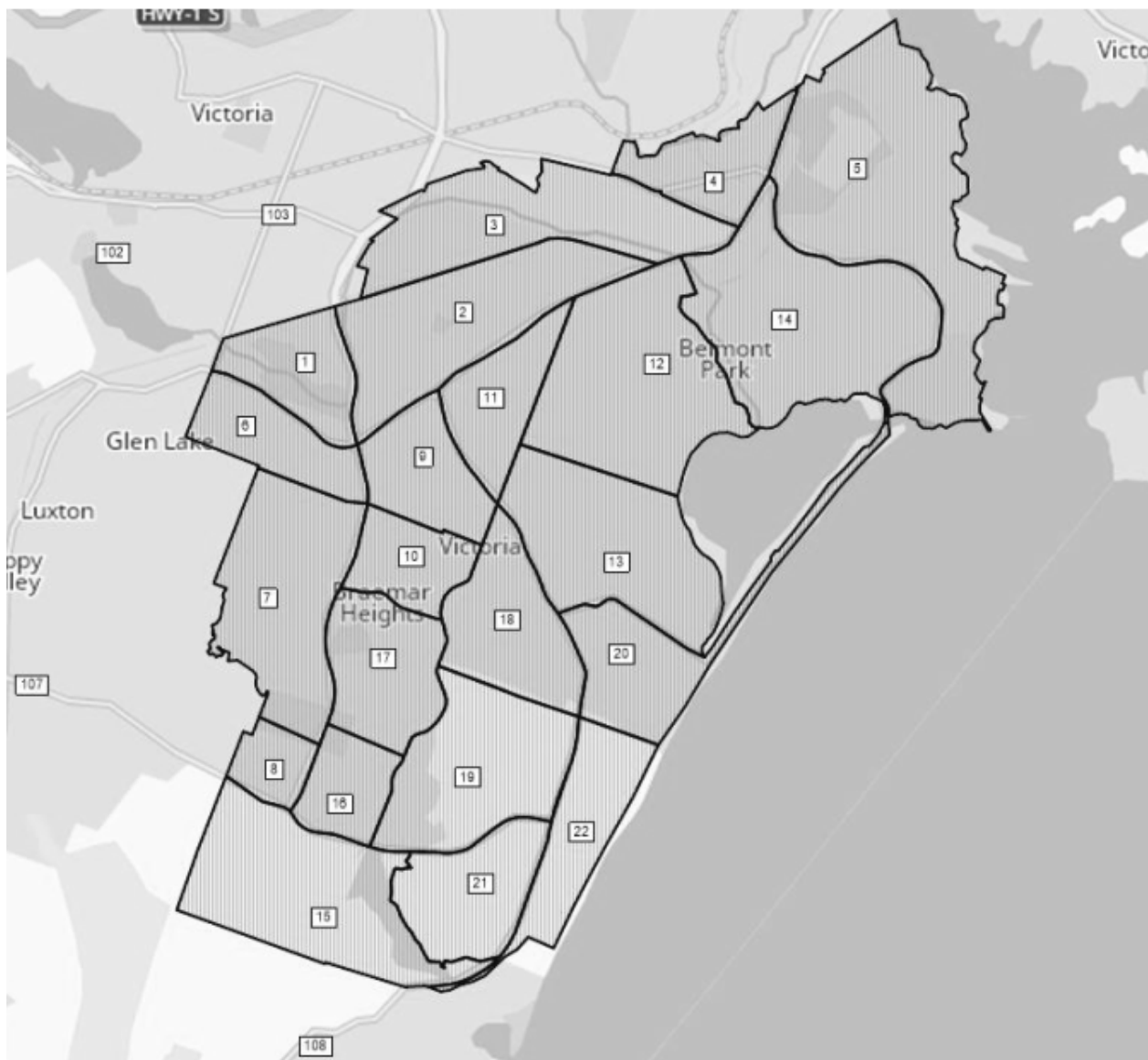


Colwood Traffic Model

The future traffic volumes on Colwood's major roads have been forecasted through travel demand modelling. As illustrated, the traffic model divides Colwood into zones, creates external zones representing surrounding communities and generates vehicle trips based on industry-standard trip generation rates and aggregated land uses for each zone within Colwood. The vehicle trips from each zone are then assigned to the road network within the model, following logical route choices based on origin, destination, and travel distances. After calibrating the existing model to current conditions to reflect known traffic volumes and trip distances, future models are developed that account for known and projected land uses.



Two future horizons were developed:

1. **2041:** This scenario considers the growth planned to occur by approximately 2041. The total population in Colwood is projected to be approximately 31,900. Compared to today, this represents an increase of approximately 11,000 people.
2. **Buildout:** The buildout population is projected to be approximately 41,100, which would double today's population. While the exact horizon year for the buildout scenario is difficult to predict, it is anticipated that it will likely take 30-40 years from today to achieve full buildout.

Several options designed to accommodate the future traffic demands, ideally the buildout conditions, have been explored and evaluated. The following major improvements have been included 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.

Besides these improvements, the evaluation was centred on confirming the needs for widened among Veterans Memorial Parkway, Metchosin Road (between Latoria Road and Wishart Road) and Latoria Road between Metchosin Road and Veterans Memorial Parkway to accommodate the buildout traffic demands.

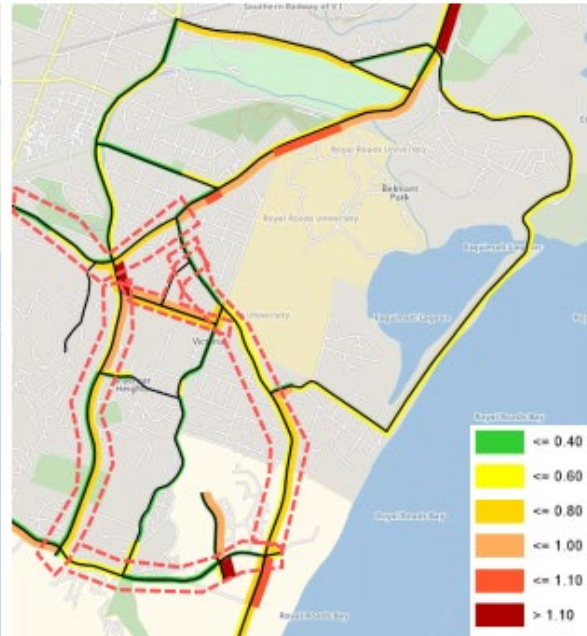
Volume-to-capacity ratio is a measure of anticipated traffic volumes relative to the capacity of a particular corridor. It is used to understand where traffic volumes are anticipated to meet or exceed the capacity of the street network or a particular corridor, leading to congestion and necessitating the need for added capacity. As illustrated below, the corridor volume-to-capacity (ratio) indicates that:

- Widening Veterans Memorial Parkway to four lanes is important to accommodate the significant northbound traffic demand in the morning peak periods (anticipated also southbound in the afternoon peak period);
- Widening of either Metchosin Road or Latoria Road will generally result in satisfactory network conditions, with only modest congestion / delay in select locations; and
- Widening all corridors (Veterans Memorial Parkway, Latoria Road and Metchosin Road) will provide the maximum level of roadway capacity, although is likely unnecessary in the buildout timeframe.

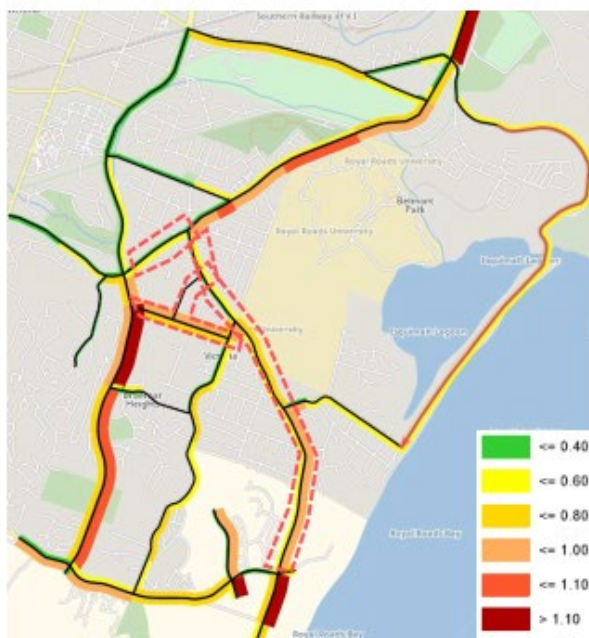
Scenario 2 / 2d
(4-lane VMP & Latoria)



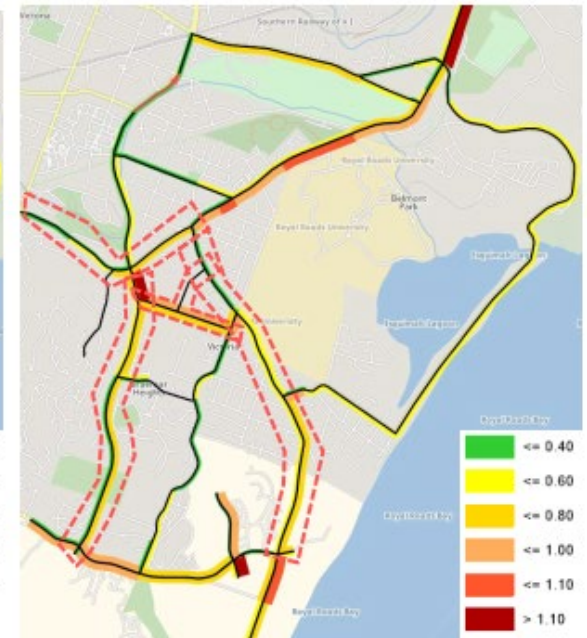
Scenario 2a
(4-laning all corridors)



Scenario 2c
(only 4-laning Metchosin)



Scenario 2c.1
(4-laning Metchosin & VMP)



Through discussions with Council and City staff, it was agreed that widening all major corridors within Colwood (Scenario 2a above) is not desirable given the significant cost and time required to realize changes.

With the analysis suggesting widening the Veterans Memorial Parkway corridor to four lanes along the entire length is necessary, two scenarios were shortlisted and explored in greater detail, as follows:

1. Expand Veterans Memorial Parkway and Latoria Road (Metchosin Road to Veterans Memorial Parkway) to four lanes. This scenario also includes upgrades along Metchosin Road, including widening to four lanes between Sooke Road and Wishart Road, intersection upgrades at Lagoon Road, Painter Road and Hatley Drive, and added centre turn lanes or medians in select locations.
2. Expand Veterans Memorial Parkway and Metchosin Road (Wishart Road to Latoria Road) to four lanes, while pursuing upgrades along Latoria Road at the Wishart Road and Bezanton Way intersections.

Beyond traffic operations, several other important factors have also been considered in evaluating the two scenarios, such as right-of-way availability, potential/planned land development, environmental impacts, multi-modal safety and capital cost. A few key conclusions are drawn from the many factors that were used to evaluate the two scenarios, as follows:

- Widening the Metchosin Road corridor would impact more than 80 private properties to achieve the right-of-way required for a four-lane road, which is a significantly higher impact compared to widening Latoria Road where widening requirements are less and the number of properties impacted is reduced.
- Land development is anticipated along Latoria Road that would allow for the expanded right-of-way needed to achieve a four-lane road, where expansion would be significantly more challenging along Metchosin Road where more land development is likely to occur more slowly and with a larger number of smaller properties.
- Concerns have been raised over the potential impact that widening Latoria Road could have on the adjacent Latoria Creek. The City intends to mitigate impacts by creating a riparian area and relocating the Creek further from the road. Tree loss is anticipated to be significantly higher to widen Metchosin Road, similar concerns with watercourses are not present on Metchosin Road.
- The Metchosin Road corridor consists of a large number of driveways that facilitate access to adjacent single-family residential properties. The need to provide access to homes is inconsistent with the desired character for a major, high-volume road.

Driveway access is more limited on Latoria Road, making it a better candidate for widening and added traffic.

- The capital cost associated with widening the Metchosin Road corridor (Scenario 2c.1) is anticipated to be approximately 50% more than Latoria Road (Scenario 2 / 2d), largely a result of the more significant upgrades required and the need to address surface and underground utilities.

Given the benefits and disbenefits considered above for each of the two considered scenarios, widening Latoria Road to four lanes is the approach that we have been asked to follow for the long-term major street network. This would include a continuous four-lane cross-section applied between Veterans Memorial Parkway and Metchosin Road, with localized intersection improvements to facilitate turn movements. Widening would be realized incrementally over time, with the goal of four lanes in-place in advance of the ultimate land use scenario (identified above).

Improvements would also be pursued on Metchosin Road in the ultimate timeframe, including widening to four lanes for the section between Wishart Road and Sooke Road, localized intersection upgrades at key locations (i.e., Lagoon Road, Painter Road, Hatley Drive, and added centre turn lanes or medians in select locations).