Ontario’s High Occupancy Vehicle Lane Network

Summary of the Plan for the 400-Series Highways in the Greater Golden Horseshoe

Tackling Congestion in the Greater Golden Horseshoe

Commute times in the Greater Golden Horseshoe (GGH) are getting longer and many highways are now experiencing congestion outside of the morning and afternoon rush hour periods. With the region’s population expected to grow by more than 3.8 million people in the next 25 years, there will be increased pressure on our highways to move goods and people. Traffic congestion is an issue that must be dealt with.

The Province of Ontario has a plan that will ease congestion as the Greater Golden Horseshoe continues to grow. This is essential as we work to build stronger, more prosperous communities. We are asking members of the public to provide comments on the plan.

It is not possible to build our way out of congestion. We must make the best possible use of our highways. Giving people better alternatives to driving alone is one of the most effective ways to tackle congestion now and to provide a transportation system that is more sustainable in the future.

The Province has drafted a plan to manage traffic congestion on our highways in the Greater Golden Horseshoe by adding high occupancy vehicle (HOV) lanes to many of our highways to get people and goods to their destinations safely and in less time.
The Greater Golden Horseshoe stretches from Fort Erie through the Niagara Peninsula, around Lake Ontario, across the Greater Toronto Area to Peterborough and north to Collingwood.

HOV lanes mean:

- Shorter commute times so that people spend less time on the road and more time with their family and friends
- A more efficient highway system that provides commuters with more travel choices
- More reliable and convenient bus service
- Decreased car emissions – travelling at fuel-efficient speeds minimizes emissions associated with stop-and-go traffic
- Less lost work productivity due to traffic delays

HOV lanes support both carpooling and municipal and cross-regional transit such as GO Transit, since all buses can use HOV lanes. HOV lanes can provide a congestion-free bus route, allowing operators to provide faster, more reliable service.

As we look at managing congestion and reducing the impact of our transportation system on the environment, one important action we can take is to reduce the number of vehicles that are on our roads. HOV lanes are an effective way to encourage people to choose a more efficient way of traveling, such as carpooling or taking transit.

**Ontario’s Plan to Tackle Congestion**

The Province has drafted an ambitious plan to add over 450 kilometres of new HOV lanes on 400-series highways in the Greater Golden Horseshoe – including some of the most heavily-congested highways in the province - over the next 25 years.

The HOV lane network will allow more efficient travel for all vehicles on congested highways in our major urban areas. As more people choose alternatives to driving alone, congestion will be better managed and the province’s investments in transportation infrastructure will be maximized. HOV lanes will help to ease congestion now and will accommodate increased demand on our highways in the future.
Why HOV Lanes?

One of the keys to managing congestion is using highways as efficiently as possible. The Province is taking steps to encourage public transit use and carpooling, both of which move substantially more people per vehicle than single-occupant vehicles. These are effective ways to ease congestion, particularly during peak traffic periods.

HOV lanes are a long-term, sustainable approach to addressing congestion. Adding more general purpose lanes to our highways would relieve congestion for a period of time, but widening with an HOV lane has the potential to relieve congestion much longer into the future. HOV lanes also have the benefit of giving priority to transit vehicles.

HOV lanes will improve highway efficiency by:

- Moving more people in fewer vehicles along congested highway corridors
- Encouraging carpooling and public transit use by improving reliability and travel times for HOV lane users
- Providing more efficient movement of other vehicles, including trucks, in the general purpose lanes

HOV lanes are part of a sustainable transportation plan that will connect public transit service to growing communities, support the movement of goods through the Greater Golden Horseshoe and to our borders, protect natural resources, maintain road safety and contribute to energy conservation.

The Ontario government’s investments are building a balanced and effective transportation system. By creating more efficient highway and public transit systems, we are contributing to a prosperous economy and vibrant communities.

HOV Lane Network Plan – An Action Plan for Today and Tomorrow

To plan the future HOV lane network, MTO assessed the potential travel demand for HOV lanes on each 400-series highway in the Greater Golden Horseshoe. Projected travel demand was based on forecasts of future population, employment and land use.

Several criteria were used to select the HOV lanes identified in this plan. All the
HOV lane locations have the potential to achieve a minimum volume of 500 high occupancy vehicles in the lanes during the peak morning and afternoon commuting hours. This number is a standard target used in other North American jurisdictions for HOV lane planning. HOV lane use in the Greater Golden Horseshoe is expected to exceed the minimum lane volume. Other factors used to select HOV lane locations and the timeframes for constructing them include their potential for use by transit vehicles and the opportunity to build HOV lanes in conjunction with other highway projects.

The following maps illustrate how the HOV lane network could be created in phases.

**Figure 1** shows the existing HOV lanes on Highways 403 and 404 and the next additions to the network in the Greater Golden Horseshoe. Funding for these projects has been confirmed, and these projects are identified in the Province’s Southern Ontario Highways Program. These projects include the HOV lanes currently under construction on northbound Highway 404. The HOV lanes on Highway 400 are currently being designed and construction will begin in 2008. On the Queen Elizabeth Way (QEW), construction is already underway to widen bridges in preparation for the addition of HOV lanes. MTO will also study how to include HOV lanes on Highway 427 and will consider transit options.

**Figure 2** proposes a vision for “growing the corridors” by building on existing HOV lanes. This involves extending the HOV lanes on Highways 400 and 404 farther north and adding lanes to other key sections such as Highway 401 in Peel Region.

**Figure 3** shows the proposed strategy for “creating the network”. This longer-term vision includes adding HOV lanes on other important highway corridors. Most importantly, it provides opportunities to connect these new lanes with those already constructed, to form an integrated network of HOV lanes across the region. An efficiently connected network will provide fast and reliable travel for carpools and transit vehicles.

This plan represents a vision for establishing a full network of HOV lanes in the Greater Golden Horseshoe by 2031. This extensive network of HOV lanes would provide a tremendous incentive for commuters to carpool or take transit. Constructing this network by 2031 will require funding beyond the amount typically budgeted for highway construction in the Greater Golden Horseshoe.

Most of the HOV lanes shown in the plan will involve constructing new highway lanes. However, space constraints in some areas will present a challenge, including
sections of Highways 400, 401 and 427 and the QEW that pass through heavily urbanized areas. Over the long term, once the HOV lane network is more fully developed, MTO will study the possibility of converting existing lanes in these areas to HOV lanes. Conversion in these areas will be considered when there is high demand for HOV lanes and/or when the converted lane would link two other HOV lanes together or would extend an HOV lane. Before any conversion is done, however, the effects on safety, goods movement and cost must be carefully examined.

Precise timing of the opening of the HOV lane corridors listed in the plan will depend on a number of factors, including:

- Changes in traffic patterns
- Changes in population and employment growth
- Outcomes of environmental assessments
- Need for property acquisition
- Design and construction requirements
- Funding

The Province will consult with municipalities, transit providers and the general public throughout planning and environmental studies for each HOV lane project. The ministry will also work with the Greater Toronto Transportation Authority, as this plan offers a network that will support regional transit service and the development of a regional transportation plan in the GTA.

**HOV Lane Network – Roadway to Easier Commutes**

In developing a network, MTO will plan for and identify opportunities to include important features to make it easier for carpoolers and transit operators to use HOV lanes, including:

- Continuous highway-to-highway ramps for HOV lane users. These would allow HOV drivers to move more easily from one highway to another. These ramps would be similar to the existing interchange between the Highway 404 southbound HOV lane and Highway 401 westbound, where HOV traffic merges onto the Highway 401 collector lanes separately from general traffic.
- Possible connections with municipal HOV lanes on arterial roads, with special access lanes or ramps dedicated exclusively for HOV use.
- Carpool parking lots close to highway interchanges to provide carpoolers with a convenient way to meet. Commuters currently have access to 50 carpool parking lots in the Greater Golden Horseshoe, with more than 5,000
High Occupancy Vehicle (HOV) Lanes parking spaces. The ministry is analyzing short- and long-term needs for carpool parking, with special attention to needs near highways that have or are planned to have HOV lanes.

- Transit connections at carpool and park-and-ride lots at interchanges on highways with HOV lanes. The Ministry will continue to work with GO Transit and other transit providers to create hubs where carpool and transit riders can park.

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Figure 1. Near-term HOV Lane Projects (2007-2011)

Figure 2. Growing the Corridors: Medium-Term HOV Lane Priorities (2011-2016)
Figure 3. Creating the Network: Longer-Term HOV Additions (2017 +)