

HOV Facilities in Canada

John A. Bonsall, Ottawa-Carleton Regional Transit Commission — presiding

Development of the Ottawa Transitway System

John A. Bonsall

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Mr. Bonsall provided an overview of the development and status of the Ottawa Transitway and bus lanes. He also showed a video of the system. The following major points were covered in his presentation and in the video.

- The Regional Municipality of Ottawa-Carleton was formed in 1968. One of the charges given to the regional governments by the provincial government was the development of a regional plan. The original plan for the Ottawa-Carleton region was approved in 1974. At that time there was strong sentiment against building more freeways. Thus, the plan approved in 1974 contained a major policy thrust supporting public transit.
- In response to the adoption of the regional plan, planning for a transitway system was initiated in the mid-1970s. An appraisal study was conducted first to examine the need for rapid transit based on different future population projections. Alternative technologies capable of meeting these needs were also examined. In addition, two different development strategies were studied. One focused on the more traditional approach of developing the more expensive downtown portion of the system first, while the second focused on building the outlying portions first and delaying the downtown section.
- The study confirmed the need for a rapid transit system capable of carrying peak-hour, peak-direction volumes of some 15,000 passengers. The study further recommended the second approach to the development of the system. More detailed analyses were then conducted to determine the alignments in each corridor. Finally, a technology evaluation study was conducted comparing bus and light rail options. The busway alternative was selected due to lower capital and operating costs, a higher level of service, and greater flexibility.
- The first segments of the Ottawa Transitway were opened in 1982. Currently, some 13 miles are in operation, with additional bus-only lanes on streets in the downtown area. The Transitway is located on a separate right-of-way and consists of one lane in each direction, with shoulders on both sides. Stations are located at strategic points and some are tied into adjacent developments.
- One bus route operates exclusively on the Transitway, while other routes start in neighborhood areas and then access the facility. Ridership levels on the system are good. For example, seven out of ten downtown workers regularly use the bus. The mode split for downtown work trips is better than most North American cities and matches some European communities. On an average weekday, some 200,000 passengers are carried on the system.
- Part of the success of the bus and transitway system in Ottawa are the "Transit First" policies of the Regional Transit Commission. These policies help ensure that land use and development activities support the transit system. For example, new regional centers must be located along the Transitway.
- The Ontario provincial government funds 75 percent of the capital elements of the system. The province also shares operating cost equally with the region, as long as OC Transpo achieves a 65 percent revenue/cost ratio.
- Stations are designed to meet local needs and passenger demands. A common design treatment—using red steel pipe and glass structures—is used throughout the system. A few large stations are tied into surrounding developments, such as a hospital and regional shopping center, while smaller stations may only have shelters and bus pull-ins.
- The backbone of bus service on the Ottawa Transitway is high-frequency service, often using articulated buses. Buses stop at all stations to pick-up and drop-off passengers. Local feeder bus routes serve most stations, allowing passengers to transfer to Transitway buses. Other routes serve local areas and then access the Transitway. Thus, during peak periods most passengers have transfer-free express service. Pedestrian walkways, and park-and-ride and kiss-and-ride facilities are also provided at many stations.
- The Transitway system has allowed OC Transpo to maintain service levels without purchasing new buses. About 145 additional buses would be needed to provide the same level of service without the Transitway.

- Other elements supporting the Transitway system include downtown bus lanes, a bus mall, and bus priority at a few selected traffic signals. In addition, many downtown employers have adopted flexible working hours and partially subsidize employee transit passes. More than 70 percent of all riders use passes. OC Transpo has also worked extensively to improve passenger information through the use of a telephone information system and video screens at some stations.
- Future plans call for the completion of the first phase of the Transitway. The 19-mile, 26-station Phase 1 system is anticipated to be completed in the near future. A Phase 2 system, which includes an additional 19 miles, is planned for the future. Eventually, tunnels will also be built in the downtown area to address growing levels of traffic congestion. OC Transpo continues to explore the use of a wide range of advanced technologies to support and enhance the system.

Provincial HOV Planning and Policies

Tom AppaRao

Ontario Ministry of Transportation

Mr. AppaRao provided a summary of HOV planning and policy activities at the provincial level. Further, he discussed some of the recent projects undertaken by the Ontario Ministry of Transportation. Mr. AppaRao covered the following topics in his presentation.

- HOV facilities are being considered in Ontario for a number of reasons. These include increasing traffic congestion, deteriorating air quality levels, environmental concerns, and declining mobility. These are similar to the reasons other areas are considering HOV projects. HOV facilities are viewed as one element of a complementary transportation solution. Further, HOV projects support the Ministry's goals relating to the efficient movement of people and goods, reducing congestion, increasing transit use, reducing energy consumption and pollution, providing cost-effective alternatives to highway expansions, and making better use of the existing infrastructure.
- In the 1970s, the first bus-only lanes opened in some cities in Ontario. The first applications focused on the peak-period use of curb lanes by buses on downtown streets. In 1989, the Ministry of Transportation began a policy study to examine the current use and potential future application of HOV facilities in Ontario. The study resulted in the adoption of policies promoting both the development of HOV projects and support for
- ridesharing programs. The Ministry recognizes that it will have to work with the municipalities to develop HOV facilities as part of an integrated system. Further, the need and feasibility for HOV facilities must be examined for each project to avoid the empty-lane syndrome.
- The Ministry also recognizes that a variety of supporting services, facilities, and policies must be in place to help ensure the success of HOV projects. The goal is to maximize the utilization of the highway system. An initial demonstration project is being explored for an HOV lane on the provincial highway system. In Ontario, the provincial and the municipal governments are responsible for funding the transportation elements, such as highways and transit. Currently, the Toronto area is using arterial street lanes, while Ottawa has developed a transitway system.
- Marketing and educational activities will be needed to obtain and maintain public support. Coordination with other transit and transportation modes is important. Supporting elements such as park-and-ride and park-and-pool facilities, ridematching services, and bus services are also needed to help ensure the success of HOV facilities.
- A study is currently being conducted on Highway 403 in the Toronto area. A future widening of this facility may provide an opportunity to introduce the first freeway HOV lane in the Toronto area. There may be other opportunities for future freeway HOV projects in the Toronto area also. The first phase of the Highway 403 HOV lane demonstration project is currently underway. This phase involves looking at the projected HOV volumes and the project justification. Alternative design and operational approaches are also being examined. The long-range plan for the corridor may include general purpose lanes, HOV lanes, and a separate transitway for buses.
- The Ministry has supported ridesharing activities for a number of years. The Ministry developed a commuter software program, called Share-a-Ride, and a handbook for employers to use. Funding for HOV facilities is also being examined by the Ministry.