Round Table Discussion

Charles Fuhs, Parsons Brinckerhoff Quade & Douglas - presiding

HOV Facilities: Moving into the 21st Century John A. Bonsall Ottawa-Carleton Regional Transit Commission

Mr. Bonsall provided a series of observations related to the current status and future potential for rapid transit. He noted that his perspective is based largely on the experience of developing the Ottawa-Carleton busway system over the last 20 years. Mr. Bonsall covered the follow points in his presentation.

- It is important to examine the land use and development patterns that transit systems are being designed and developed to serve. For the most part, the existing land use patterns were formed around automobile travel. The development of high-capacity transit systems to serve this land use pattern must maintain the flexibility afforded by the automobile. Further, it appears inappropriate to force a high-density transit solution in a lowdensity area. Transfers must be reduced to attract more riders. One key of the Ottawa system has been the attempt to provide frequent and direct service from most neighborhoods to the major activity centers.
- Rather than a project-by-project approach, a systems approach needs to be applied to transit. A network of high-capacity transit corridors should be the starting point. Individual projects can then be developed within a framework. Too often, planning begins with an individual project, around which the development of a system is later attempted.
- The exact technology to be used in developing a transit system often becomes a major issue. Instead of focusing attention on a specific technology, transportation professionals should consider the potential evolution of different technologies as ridership levels and other needs warrant.
- The use of advanced technologies or IVHS represents an area that deserves, and is receiving, a good deal of attention. From a bus operator's perspective, the use of advanced technologies will help to change the whole nature of the way people perceive transit systems. The advent of improved real-time transit and traffic information can have a significant impact on the way people think about transit. Currently, the 560 system in Ottawa allows individuals to phone in their bus stop number and obtain scheduled bus information from the comput-

er. The next logical step in this system is to provide real-time information on the status of buses. This holds the potential to provide service almost as good as offered by taxis. There are a variety of technologies that can be used to provide real-time information to individuals at their homes and places of work.

Craig Roberts IVHS America

Mr. Roberts provided his thoughts on the use of IVHS technologies with HOV facilities and transit services. He also discussed some of the institutional issues associated with the development of IVHS. Mr. Roberts addressed the following points in his comments.

- The future of HOV facilities appears to be bright. HOV lanes offer consumers the choice to form carpools and vanpools or to use the bus in return for travel time savings and more reliable travel times. This, in turn, offers one of the best methods to increase vehicle occupancy levels. However, it is important to ensure that HOV facilities are delivering the benefits promised and that they are located in appropriate corridors. Often, HOV projects raise questions concerning public policy versus political popularity. Possible public resistance must be examined in the planning stages and appropriate techniques need to be implemented to obtain public support for the facility. Customer orientation is necessary with IIOV projects.
- The movement toward better management of freeway facilities, rather than additional new construction, further supports the expanded use of HOV projects in many metropolitan areas. The flexible funding offered by many programs within the ISTEA also supports further development of HOV facilities.
- HOV projects require highway and transit agencies, and other groups, to work together to plan, design, implement, and operate the facilities. Established multiagency working relationships are also needed for the development and operation of IVHS projects. Further, IVHS will require increased private sector participation.
- Road pricing—or congestion pricing—is another approach that is currently receiving a good deal of attention. It appears that congestion pricing holds the

potential to have a dramatic impact on changing travel behavior. HOV facilities have been suggested as one way to implement congestion pricing strategies. A number of political and social issues have been raised with the use of congestion pricing, however. A greater understanding of these issues is needed before road pricing projects can be implemented effectively.

• The issue of technology serving needs versus technology for its own sake must also be addressed. It is important that the use of advanced technologies be tied to specific needs and to providing measurable benefits. The use of advanced technologies may also drive needed institutional changes, however. Thus, multiple benefits could be realized through the development and implementation of advanced technologies.

Morris Rothenberg JHK & Associates

Mr. Rothenberg provided his thoughts on the future of HOV facilities moving toward the 21st century. He provided a brief historical perspective on the development of HOV projects and the current status of commuting as the basis for examining future directions. Mr. Rothenberg covered the following points in his presentation.

- Information from the 1990 U.S. Census and the 1990 National Personal Transportation Survey contain some disturbing trends related to the use of all HOV modes. According to these sources, the use of ridesharing is down, the use of transit has remained stable or declined slightly, and SOV use has increased. These represent national trends. Changes within a particular urban area or along a specific corridor may be different. These trends may work against the development of HOV facilities.
- There are other trends which favor the development of HOV facilities, however. For example, many provisions of recent legislation, such as the federal Clean Air Act Amendments and the ISTEA, certainly favor HOV facilities. Rather than having Congress legislate the use of HOV facilities, however, a better approach may be to try to provide a service that commuters will find valuable. Commuters want a convenient trip, they want to save time, and they want to save money. These are the basic determinants in mode choice. They have not changed significantly in the past and should not be expected to change in the future. HOV facilities that offer travel time savings and cost savings will be the most successful.

- A systems approach needs to be taken to the development of HOV facilities. A good deal of progress has been made in this regard over the past few years, but more needs to be done. HOV systems are beginning to emerge in many areas. These systems should include arterial as well as freeway HOV lanes, the supporting facilities, and the necessary supporting policies. The freeway portion, which preferably would be physically separated, represents the basic component in this systems approach. HOV systems should also be user friendly, safe to operate, and convenient for users.
- In the future it will also be important to remember that transportation planning is as much a political process as it is a technical process. In response to this, transportation planners need to become much more politically attuned. HOV projects are often controversial; transportation professionals must understand this and identify ways to address the political concerns that may arise.
- A back-to-the-basics approach is needed to ensure that future HOV projects are successful. They must be developed within a systems framework, and they must meet the basic goals of providing travel time savings, more reliable travel times, and cost savings.

Jeff Lindley Federal Highway Administration

Mr. Lindley suggested that the projected 1,000 miles of HOV facilities by the year 2000 provided a good starting point for discussing the future vision for HOV facilities. This vision includes the HOV systems being developed in many areas, and the facilities, services, and policies needed to support them. Mr. Lindley focused his comments on the activities needed to help ensure that this vision is realized. He addressed the following points in his remarks.

• One very important issue related to future HOV projects is legislative support, especially that offered through the ISTEA. In addition, the presentations at the conference have made it clear that there is also strong support for HOV projects in Canada. The discussions have also indicated that legislative support may be too narrow of a focus and that political support is really the key. This need for political support can be framed in terms of the ISTEA, which can be viewed as an HOV-friendly piece of legislation. The credit for ensuring that many of these provisions were included in the legislation goes to many people attending the confer-

ence. However, while the political support was there to pass the legislation, that support is a very fleeting thing—as anyone from the Virginia area will remind us.

- The ISTEA provides funding authorization for a sixyear period, of which the first year has been completed. Obviously, one of the things that will be looked at as planning for a new transportation bill begins in about three years is the benefits realized from the development of HOV facilities authorized in the ISTEA. Measurable benefits and results will be needed to ensure continued political support at the national level. Continued political support at the local level is also critical to the continued success of HOV projects.
- A second issue relates to both congestion pricing and the use of advanced technologies. It is important that the use of advanced technologies are tied to addressing specific problems, rather than just pursuing technology for technology's sake. Pricing appears to be an attractive approach, but becomes more difficult as the specific details of the individual projects are examined. It does appear that there is support for implementing a few demonstration projects to test this concept, however. The technology is available to make pricing work, and now may be an appropriate time to do something the easiest way to determine if the concept will work is to try it. One of the things congestion pricing does is bring out-of-pocket costs into the mode selection decision-making process.
- A third issue involves the take-a-lane concept. In the 16 years since the Santa Monica Freeway project, the conventional wisdom has been that you cannot take an existing general-purpose lane and convert it into an HOV lane. The recent experience on the Dulles Toll Road would seem to support this reasoning. There may be situations when a general-purpose lane could be converted into an HOV lane, however. These situations need to be examined very carefully, but this may be an appropriate approach in cases where the only way to develop an HOV system is to take a general-purpose lane.
- A fourth issue relates to HOV facilities and air quality. Almost every session at this conference made reference to air quality concerns and issues. Questions are being raised by environmental groups and others concerning the air quality impacts of HOV facilities, park-and-ride lots, and other related projects. More analysis needs to be done in this area to document the air quality impacts of HOV projects.

Russ L. Pierce Washington State Patrol

Mr. Pierce provided some ideas on the future of HOV projects from an enforcement perspective. His comments focussed on the role of the Washington State Patrol in the operation of the HOV facilities in the Seattle area and enforcement activities in general. Mr. Pierce covered the following points in his remarks.

- Enforcement agencies need to be actively involved in all phases of planning, designing, and operating HOV projects. The state patrol or a similar agency will have the ultimate authority for enforcing the facilities and ensuring their safe operation. In the Seattle area, the Washington State Patrol assigns officers to monitor and enforce the occupancy requirements during the first six months of a new HOV lane. This lets motorists know that the lanes will be enforced.
- Transportation professionals need to realize that enforcement personnel may not always understand the purpose of HOV facilities or the scope of the HOV system. Thus, planners and engineers should be sure they take the time to meet with and involve enforcement personnel in the planning and design process. This will allow enforcement agencies to conduct special training for their personnel. HOV lanes can be frustrating for enforcement staff if they are not designed accordingly. Adequate and safe enforcement areas need to be provided on HOV facilities.
- In addition to designing facilities that can be enforced safely, consideration needs to be given to ensuring that the operating requirements can be enforced. Variable occupancy rates are more difficult to enforce and keeping the operations of HOV facilities simple has a number of benefits. Not only do the enforcement personnel need to be educated, but the court system has to support citations when they are issued.

Ian Stacey Regional Municipality of Ottawa-Carleton

Mr. Stacey provided his thoughts on the future of HOV facilities based on his experience with the development of the Ottawa Transitway system. He covered the following major points in his presentation.

• The development of HOV facilities has come a long way in the past ten years. The presentations at the conference have provided an indication of the variety of HOV projects currently being planned, designed, implemented, and operated in North America and around the world. The major focus of HOV projects will continue to be to provide ways to maintain mobility and address environmental concerns.

- Although HOV projects may differ, they are all based on moving more people more efficiently and keeping urban areas liveable. It is also important to remember, however, that there is no single universal solution and that HOV facilities may not always be the correct approach. Many approaches will be needed to address the numerous problems facing urban areas today.
- Political support is needed to develop and operate HOV facilities. This point, and the importance of public acceptability and support, should not be forgotten. Even in areas with successful HOV projects, the ongoing support of all groups is needed. It is also important to learn from projects that may not have been successful and to continue to try new ideas and projects.
- There does appear to be a heightened awareness about environmental issues in both the United States and Canada. This provides an opportunity to advance transit, HOV facilities, and other projects. This may involve taking risks sometimes, but change does not often come without taking risks.

Alan Gonseth Champagne Associates

Mr. Gonseth provided an overview of the recent activities of the Institute of Transportation Engineers (ITE) related to HOV projects. His summary included a description of the following projects.

- The use of HOV facilities is highlighted as one of the key approaches to managing congestion and improving air quality in the ITE publication *A Toolbox for Alleviating Traffic Congestion*. This document is geared toward local elected officials, although it is also a good reference for engineers and planners. Over 40 different articles related to HOV facilities have been published in the *ITE Journal* and additional articles are always welcome.
- ITE has also been asked by FTA and FHWA to develop travel demand management (TDM) seminars and videotapes. HOV facilities have been included in these materials. ITE is further in the process of initiating a TDM Task Force. HOV facilities will be within the

scope of this task force, which could potentially develop into an ITE council. This task force can also assist in confronting many of myths and fears associated with HOV projects. Educating the public and local elected officials is very important in this regard.

• A monograph on the benefits of HOV facilities is being prepared by ITE. This monograph, which should be available early in 1993, focuses on providing information on HOV projects to policy makers and the media.