

**Executive Summary of the  
Regional Forum on Congestion and Mobility**

**Denver, Colorado  
November 17 & 18, 1995**

**Friday, November 17, 1995**

**Introduction**

The Regional Forum on Congestion and Mobility, hosted by the Denver Regional Council of Governments (DRCOG) with the assistance of the Federal Highway Administration (FHWA), brought together transportation professionals and elected officials for 2 days of presentations and colloquy. The first day treated congestion and congestion management as concerns of transportation professionals. These challenges, grounded in quality of life and economics, are often more political than technological. In laying out the complex interrelationships among these topics, the opening speakers repeated a common theme: **AYou** can't build your way out of congestion.@ This forum sought successful alternatives.

**The Challenge of Innovation**

Congestion management provides innovative, yet realistic methods for dealing with transportation and related land use issues. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) introduced supply and demand management and an array of new tools. Intelligent Transportation Systems (ITS) promotes innovation through new technologies, including institutional technologies closer to political science than engineering. In a restrictive budget environment, successful, such cost-effective tools for managing congestion must be identified and applied. These topics were explored in the following case studies.

*Congestion Relief Through Traffic Management*

DRCOG's Traffic Signal System Improvement Program works to resolve the problems of burgeoning traffic signals operated by multiple jurisdictions. This effort uses interagency cooperation; communications and other systems development; proper resources; pragmatic implementation through short term solutions; and demonstration of worth.

Parking at the University of Utah posed special problems. Unlike the private sector, this institutional setting was adversarial, requiring a paradigm shift. To manage congestion, the university diverted funds from new parking structures to promotion of bus use with the Utah Transportation Agency through incentives and an appeal based on the environment. The program's success relied on bringing economics to the level of the individual, selling the effort, and using preexisting services.



### *Growth Management and Concurrency Programs*

With low congestion, 2 percent average annual growth over 5 years, and 2,000 new jobs and 1,000 housing starts per year, Sioux Falls, SD, poses an example of growth management in a smaller metropolitan area. That city adopted a plan using growth area boundaries for provision of specific services through coordinated public/private development. Plan goals promote mixed use development; concurrent land use and transportation development; and multijurisdictional coordination. Planners used three criteria (availability of utilities, transportation capacity, and environmental constraints) to identify future growth areas.

Growth management is not new to the Denver Region, an example of growth management and concurrency issues in a larger metropolitan area. Limited by Colorado's weak State and regional planning powers, an earlier managed growth plan also did not address strong commercial growth. The impact of that growth on transportation has been severe. In a new effort, The Metro Vision 2020 Plan projects for the year 2020 the following: a 700-square-mile urban area of somewhat increased population density; a few remaining free-standing communities; a growth boundary around the core urban area; new, high density, mixed use urban centers; and transportation plans relying on increased efficiency and maximized use of existing facilities, with new bus and transit systems in 7 corridors.

### *Congestion in a Recreational Corridor*

A constricted setting and the strains of growing affluence and population mean that Aspen, CO, endures levels of demand and congestion that threaten its economy and quality of life. A 1995 Aspen transportation plan for parking and transit includes use of parking stations; parking facilities respectful of esthetics; programs allowing residents time in commercial and residential areas without fees; High Occupancy Vehicle (HOV) commuter parking; and increased subsidized transit. Outreach efforts include parking regulation nonenforcement before 10 am for commercial deliveries; empowered parking control officers; smart parking cards; and forgiveness of first tickets.

Efforts to manage congestion in Branson, Missouri's recreational corridor were examined. A town of 4,000 residents and 6 million visitors in 1990, Branson has Aspen's congestion without its tax base. Residents resisted or could not afford optimal solutions; to Branson's merchants, bumper to bumper traffic on a two lane road means business. By asking Branson's people what they wanted, a congestion management firm satisfied the town's criteria: improvements must be performed in 6 months, must not be disruptive, and must be inexpensive. Lanes were widened, shoulders paved, curves taken down, and a bus turnaround removed, all funded by a 1/2cent sales tax and service fees.

### **Plenary Session**

Participant groups discussed questions related to congestion management and strategies. Certain consensus themes emerged. Preferred strategies included incident management; congestion pricing; HOV lanes; alternative transportation; and creative funding. Such projects compete for funding only with difficulty; success requires public education about real costs and innovative financing. The use of non-Single Occupancy Vehicle (non-SOV) congestion management strategies provoked skepticism; those strategies work chiefly when options are limited or congestion is in crisis. Participants supported promotion of congestion management in planning, but many thought it badly done; they emphasized education, funding, and implementation at State and local levels. There was consensus that the public care little about congestion until it is a critical issue; that officials care about congestion, but know less about its management; and that funding and the true costs of transportation will remain difficulties. Education of the public and officials should be a critical priority.

The discussion following focused chiefly on the desirability versus the difficulty of effecting life style changes in relation to transportation. CanCshouldCplanners convince a traveling public to trade freedom for lessened mobility in the name of a greater social good they might not accept? Speakers tended to pessimism about the state of their profession; this day's meeting participants largely engage in work related to transportation and planning. All seemed to agree that the problems discussed will not go away without life style change.

The moderator asked participants to consider questions he would ask elected officials at the next day's meeting. Respondents felt that politicians need to be shown pertinent, new solutions to problems because they too often equate congestion management with Amore taxes or less personal freedom. A change of perception is required, along with creative salesmanship. Participants leaned toward Federal involvement, particularly in creative financing. There was disagreement, however, over how much conviction is shown in Federal participation in ISTEA related programs. Speakers agreed on the difficulty of selling congestion management. The corollary issue of regional control was seen as lethal to other efforts. Acceptance will come only by focusing on benefits and choices.

## **Saturday, November 18, 1995**

### **Introduction**

The second day treated congestion and congestion management as concerns of elected officials. The effects of congestion on mobility and quality of life are now and will remain major issues in the Denver Region. Again, the recurring theme was, AYou can't build your way out of congestion,@ with the addition of challenging fiscal and electoral limits.

### **Impacts of Congestion**

In the public perception, congestion management will increase as a critical issue requiring

significant investment. Attempts to influence voters must account for recent, strong electoral trends. Currently in the Denver Region, growth and transportation congestion/air pollution are the second most important issue after crime. To succeed with voters, projects must fit the public vision; show benefit and common sense; have dramatic impact; empower voters; demonstrate frugality; and be sized to the electorate. Transportation planning will be the area's major public project and process in the next several years.

### **What Causes Congestion**

While problems of infrastructure and land use may result in congestion, another factor has become influential. The American family's turn away from past stereotypes has led to vast shifts in demographics and life styles and their effects on transportation and congestion. The average Denver household mirrors the national data. Analysis of travel has changed along with these shifts; it will rely on Person-Miles Traveled (PMT) and vehicle trips rather than household units. Projections of future demographics for Denver, while positive, mean greater transportation congestion.

### **Emerging Patterns of Land Development and Travel**

Bad habits have led Americans into congestion. Can anything new be done to remedy it? The president of a growth management firm answered with a qualified no. Since World War II, we think we have a constitutional right to live in rural areas near big cities, but not too far away, and to drive whenever we want without congestion. We travel more by car and less by transit; yet we are dissatisfied with the types of development that result. We build over the open spaces and natural features we once enjoyed. Space remains available for building; but more space is used for less people, and our habitations become ever more expensive. The affluent leave the poor behind in decaying cities and increasingly throw away suburbs and exurbs, too. Metropolitan areas in the US cannot remain competitive with others around the world without more economical land use and building.

In transportation, we have been slow learners. Thoughtless infrastructure development has led to an environment devoted to car culture, big-box retail, primacy of size over time-function, and ghettoization of work and home. The resultCpeople expect to travel by car; travel by other means has become nearly impossible. Choices of other modes must be opened. Doing that requires land use support and more responsible building, as well as development of mutually supportive systems. The goals must be to increase residential densities and reduce large lots; ameliorate overall patterns of development; and return to older, more compact development patterns. Balance is crucial.

### **Fiscal Constraint & Can We Build Our Way out of Congestion?**

In Colorado, the answer to this question is up to the voters. But to continue building only for SOVs, said the director of a State transportation agency, will wreck the State's future.

Under a multimodal plan for the next 20 years, Colorado must increase use of facilities to replace SOVs. During that time, an \$8 billion shortfall is anticipated in transportation funding, which is raised through gasoline taxes. If the goal is to get people out of their cars, how can enough revenue be raised to achieve that? Other funding sources must be sought. Any investment, whether alternative or conventional, must be profitable. A blue ribbon task force will convene to determine strategies, as well as possible funding sources. Should the State raise funds for future transportation or existing structures? The number one issue in Colorado is transportation. Achieving consensus will be difficult. The State cannot afford to go on as it is.

Building out of congestion is out of the question in St. Louis, said an advocate of that metropolitan area. A newly instituted long range transportation plan has redefined St. Louis' transportation systems. It is based on fiscal constraints and has other objectives besides congestion management. Among those were preservation of existing highways and transit (top priority); safety; and access to opportunity. Reflected in the fact that congestion management was only the third priority, some commonly held notions were questioned: does congestion matter? Average work trip travel time there has increased 30 seconds in several decades; the main form of congestion is bottlenecks. Because people make intelligent choices to avoid delays, the speaker suspected that the popular image of congestion does not conform with facts. Traditional views should be challenged.

St. Louis spends \$1 billion a year for transportation. Of that, 95 percent goes for maintenance of existing systems. Reinvestment is needed to avoid losing large parts of existing systems. Expanding capacity would mean deferring a proportional amount of needed maintenance. Preservation, expansion of light rail, incident management, increased efficiency, and other, small efforts must make do.

### **Congestion Reduction StrategiesCNew Approaches**

Each speaker was followed by dialogue with a panel of local elected officials.

#### *Innovative Transit*

The general manager of a transportation district discussed a recent ballot initiative asking voters to finance design, building, and implementation of eight corridors for transportation construction. In addition to a rail build-out, a diversified complement of transit and bus service will be developed. Planned transportation services must reach out to communities served. Panelists' concerns included exhaustion of sales tax as a revenue measure; withdrawal of towns from unresponsive bus/transit systems; and the national trend of declining transit ridership. The biggest dissatisfaction with government, it was said, lies in not getting value back for money spent. Results must be tangible.

#### *Incident Management*

Incidents, said a State engineer, cause 60 percent of all congestion. Vehicles on the shoulder cause a 20 percent loss of capacity in the adjacent lane, as well as gawking accidents; during rush hour, each minute a lane is blocked means 4 minutes of congestion. Strategies to improve incident related congestion should include detection, verification, response, motorist information, removal, restoration of capacity, and traffic management.

The State of Missouri has instituted the Motorist Assist Program. Effective and inexpensive, this service patrol uses small pickup trucks (but not towing services) to respond to minor highway incidents. It helps with tire problems, provides fuel, helps relocate disabled vehicles, and provides minor mechanical assistance and emergency telephone service. Such patrols are an Aearly winner@ that provides good public relations.

### *intelligent Transportation Systems (ITS)*

According to an FHWA representative, ITS has been promoted too much as a series of technologies and not enough as a problem solving system. ITS represents a breakthrough in safety, crash avoidance, and communications in a system of innovative products and services largely available on the market now. Each is important, but only when integrated do they operate properly. ITS offers a national goal of implementation of a travel management infrastructure in all major metropolitan areas in 10 years. US Secretary of Transportation Peña hosted an ITS roll-out in January 1996.

### *Congestion Pricing*

Congestion pricing falsely connotes paying money and time to wait in line; in fact, it means paying money to avoid paying in time. With congestion pricing, price, rather than time, allocates goods, a method not commonly used in transportation. Roads are seldom offered at a price that tracks demand. Increasingly worldwide, however, experience with variable pricing has shown the tactic's effectiveness. The speaker, a transportation expert, suggested that its time has come in the US, as well. About programs in California and Florida, he observed: that revenue neutral pricing is often necessary to avoid political difficulties; that schemes may be opposed unless revenues are tied to improvements in the same corridor; that businesses may support changes that occur only during peak periods, do not affect customer traffic, or assist employees; and that such schemes do not have to harm poor users. First applications may be on new roads or under-utilized car pool lanes. A panelist raised equity issuesCeveryone pays for construction, but variable pricing means paying for things again. Another panelist noted difficulties in the use of such tactics without regional enforcementCif Boulder raises its gas tax, then drivers will cross the boundaries to the gas stations that inevitably spring up beyond. He questioned whether raising fees to change behaviors would succeed.

### *Land Use/Transportation Concurrency*

The president of a growth management firm defined concurrency as keeping balance

between land use and transportation through monitoring and regulation of development. This method has been widely used since Florida required local compliance until State facilities were available. Generally, a point system rates an infrastructure's adequacy to cope with development. Such efforts may employ zoning requirements, ordinances, or informal administrative decisions. These requirements make sense and bring development into line with capacity. Development will occur, however. Why not bring capacity into line with expected development? Unfortunately, standards for adequacy and capacity can be misused. In most cases, such ordinances are passed due to preexisting deficiencies. New development routinely pays for older development. And if such ordinances are passed, they will bring unexpected results. This law of unforeseen consequences might mean, for example, that movement of tie-ups across jurisdictions cannot be controlled, with inevitable policy conflicts. Further, communities often fail to link development of facilities to necessary capital improvements programs. Concurrency can be a useful tool, but it requires a serious program of capital improvements.

## **Conclusion**

In an era of economical, political, and environmental limitations, coping with congestion will mean a search for pragmatic solutions & managing rather than ending congestion. State and local governments will face that search with less and less assistance from the Federal Government and with an electorate increasingly unsympathetic to traditional revenue raising measures. Those governments will have to seek innovative funding methods such as public/private partnerships to accomplish a difficult balance between maintaining existing systems and moving toward infrastructures required by future congestion. At least as challenging will be the efforts required to elicit from a restive public the changes of life style and behavior necessary to managing congestion. Will individuals cede important aspects of their free mobility for the sake of an ascribed greater social good? The use of techniques such as incentives and disincentives, congestion pricing, HOV lanes, and concurrency will be used more routinely in reinforcing those personal changes. The benefits must be demonstrable for both the short and long term, and they must result from an open process. The third limitation, the environment, comes into play most clearly through an issue to which residents of the Denver Region are particularly sensitive, quality of life. All three issues are profoundly interrelated and will require from all parties involved a careful approach of balance, coordination, efficient use of existing systems, and education of the public and elected officials. With the advent of ISTEA, ITS, and other innovations, a wide array of tools are available for the enormous tasks ahead.