

The Need for Better Bus Service

Modern metropolitan areas depend on transit to provide transportation connections to build strong economies and communities. Excessive dependence on automobiles has contributed to sprawling patterns of urban development that clog the roadway network with congestion, pollute the air, blight the landscape, and undermine the character of neighborhoods. Buses provide attractive and effective alternatives to automobiles, and flexible, low-cost alternatives to rail, reaching into central cities, neighborhoods, and suburbs to meet the mobility needs of millions of people.

Conceived as an integrated, well-defined system, Bus Rapid Transit can provide significantly faster operating speeds and greater service reliability than conventional bus operations, matching the quality of rail when implemented in appropriate settings.



THE BUS RAPID TRANSIT INITIATIVE

The Federal Transit Administration is launching the Bus Rapid Transit Initiative to improve the speed, reliability, and convenience of bus service, to enhance the mobility and access needed for thriving communities, and to promote a healthy environment. Central to the Initiative is a Demonstration Program introducing Bus Rapid Transit to the United States at several competitively chosen locations, backed by technical support from the FTA.

DEMONSTRATION PROGRAM

Stage 1: Local transit operators will identify transportation needs in potential corridors through traditional planning means involving metropolitan planning organizations, local jurisdictions, elected decisionmakers and the general public, and analyze transportation alternatives including Bus Rapid Transit.

Stage 2: The FTA will issue *Federal Register* notices soliciting interest in and proposals for participating in the Bus Rapid Transit Demonstration Program.

Stage 3: Interested localities will submit proposals, obtaining guidance as needed from the FTA Regional Offices.

Stage 4: Based on criteria published in the *Federal Register*, FTA will select several applicants to participate in the Demonstration Program. The FTA will support the selected sites with technical assistance in designing the demonstration.

Stage 5: The FTA will participate with the selected sites as a partner in conducting comprehensive evaluations of the selected Bus Rapid Transit demonstrations, and disseminate reports of the results nationwide.

Bus Rapid TransitInitiative Activities

The Federal Transit Administration will support a wide range of activities in the Bus Rapid Transit Initiative through direct involvement of FTA personnel or third party consultants and experts.

RESEARCH

- **Best Practices in Transit Operations**
- New Technology
- Infrastructure Design for Intersections, Busways, Shelters
- **Integration of System Components**

PLANNING

- Identifying Corridor Needs, Goals, and Objectives
- Obtaining Stakeholder Inputs
- Data Collection and Analysis
- Estimating Benefits and Impacts
- **Environmental Review**

DEMONSTRATION

- Design
- **Acquisition of Equipment**
- Software Systems
- Construction of Busways, Terminals, Bus Shelters
- Implementation Guidance

TECHNICAL ASSISTANCE AND SUPPORT

- Peer-to-peer Advice
- **Expert Consultants**
- Implementation Packets
 - **Technical Reports and Documentation**

EVALUATION

- Developing an Evaluation Plan
- Gathering Data
- Measuring Performance
 - **Evaluating Impacts**

TECHNOLOGY TRANSFER

- Technical Report Publication
- Workshops and Seminars
- World Wide Web Sites

Features of Bus Rapid Transit

Several United States sites, including Los Angeles, Cleveland, Boston, Eugene, and the Dulles corridor in northern Virginia, are now studying the possibility of implementing Bus Rapid Transit facilities. Coordinated improvements in infrastructure, operations, and technology are the foundation for Bus Rapid Transit, and include some or all of the following features:

Bus lanes: A lane on a city street or an urban arterial is reserved for the exclusive or near-exclusive use of buses.



Bus streets and busways: A bus street or transit mall is created by dedicating all lanes of a city street for the exclusive use of buses.

Bus signal preference and preemption: Preferential treatment of buses at intersections can involve advancing or extending green time at signalized intersections upon detection of an approaching bus.

Traffic engineering improvements: Low-cost infrastructure improvements supporting Bus Rapid Transit, such as bus turnouts, bus boarding islands, and curb realignment, that allow buses to bypass congested segments of the roadway network, can produce major improvements in speed and reliability.

Faster boarding: Innovations in fare collection can speed the boarding process through payment of fares upon entry to enclosed boarding areas, the use of smart cards, or a self-service "honor system" in which evidence of prior fare payment is spot-checked while passengers are onboard the bus. Physical access to buses can be made both quicker and easier through changes in bus or



platform design to provide level boarding.

Integrated planning: Integrating land use planning with transit development assures that transit service is available where needed, and that there is a ready demand for it. Supportive land use policy includes zoning for high density residential and commercial buildings along transit routes.

Curitiba Experience in Bus Rapid Transit

The bus system of Curitiba, a rapidly growing city of 2.3 million people in southern Brazil, exemplifies a model Bus Rapid Transit system, which plays a large part in making this a livable city. Curitiba has one of the most heavily used, yet low-cost, transit systems in the world. It offers many of the features of a subway system -- vehicle movements unimpeded by traffic signals and congestion, fare collection prior to boarding, quick passenger loading and unloading, efficient, reliable service -- but it is above ground and visible.

Fast city street bus operations are the result of linking urban planning and transit development to promote high density residential and commercial development along the major transit routes. The system evolved incrementally as innovative low-cost and low-tech options for new services and features were chosen over more expensive alternatives at each stage.



Curitiba's bus system is composed of a hierarchical system that includes a range of services from small feeder minibuses to conventional buses. The backbone of the bus system is composed of express buses operating on five main arteries leading into the city center. This backbone, aptly described as Bus Rapid Transit, is characterized by the following features:

- integrated planning
- exclusive bus lanes
- signal priority for buses
- pre-boarding fare collection
- level bus boarding from raised platforms in tube stations
- ► free transfers between lines (single entry)
- ▶ large capacity articulated and bi-articulated wide-door buses
- overlapping system of bus services

Even with one automobile for every three people, one of the highest automobile ownership rates in Brazil, around two thirds of Curitiba's inhabitants use transit daily to commute to work. Curitiba enjoys one of the lowest rates of ambient air pollution in Brazil, and uses about 30 percent less fuel per capita when compared to other Brazilian cities.

CONTACTS

Transit agencies, counties, states or other parties interested in participating in the Bus Rapid Transit Initiative should contact Federal Transit Administration Regional Offices; their staffs will work with potential applicants in developing proposals and providing guidance as needed. Contact Headquarters in Washington, D.C. for information regarding the Demonstration Program and procedural guidance.

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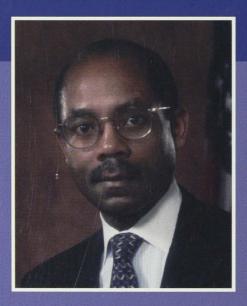
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"Bus rapid transit embraces a holistic approach to transportation that will integrate transit development with land use planning to improve the quality of life in our cities."

Gordon J. Linton
Administrator
Federal Transit Administration