Curitiba Bus Rapid Transit System

Curitiba, Brazil

Submitted by: Nick Grossman

Imagine a bus system that is neighborhood-friendly, and also cost-, energy-, and time-efficient. Curitiba's got it.

Click on any image for slide show





For more images of **Curitiba Bus Rapid Transit System** or other places, try searching our <u>Image Collection</u>

Why It Works

The Bus Rapid Transit (BRT) system is a new, highly efficient mode of public transportation that has recently been adopted in Curitiba, a city of some 1.7 million people. In most instances, BRT buses are a faster mode of transportation than private automobiles. The organizational, structural, and technological advances of the BRT system are the main factors in increasing efficiency and speed of buses. Traffic lights are delayed for oncoming buses, decreasing the amount of time between stops. A computer chip inside the bus signals sensors on the road, which then alert the passengers at the next station if the bus is running on time. In addition, fares are pre-paid, reducing waiting at bus stops, and waiting platforms are elevated to allow for quicker entry and exit to the bus. Finally, the busses have their own lanes, which keep the bus system independent of congested traffic.

What Makes Curitiba Bus Rapid Transit System a Great Place?

BRT routes are perfectly plotted into rings, with each ring expanding further into the outer reaches of the city. Busses are color coordinated to make it easy for riders to distinguish between different rings/routes. This pattern allows for uniform bus routes and locations for bus stops throughout the city. Curitiba is a great example of efficiency of the BRT system, as embarking and disembarking times have been reduced by one-eighth of their original time. Hide levels of ridership leave the roads relatively unclogged.

Busses are traditionally stereotyped as "lower class," and the BRT system is designed to help eliminate this label. The speed, reliability, bus stop locations and environmental friendliness of the BRT system have caused many middle- and upper-class people to begin using it. Over time, BRT will remove the negative image that people have of bus systems, and increase the use of public transportation.

The Bus Rapid Transit system is the most widely used form of transportation in Curitiba, used by approximately 75% of travelers. Transit systems should also be evaluated according to their impact on both the local community and economy. Public spaces where people come together are areas where local businesses and entrepreneurship thrive. BRT stops can function as destination points for commercial activities such as shopping and social activities, and as catalysts for building and rebuilding surrounding communities and business sectors.

The reliability, organization, safety, and quickness of the BRT system is changing the stereotype of bus systems being "lower class." Cities where the system has been implemented have experienced high ridership rates from all socioeconomic classes. The ring pattern bus location allows easy access to the bus system for all people.

History & Background

When the debate began 30 years ago in Curitiba over which type of tranportation system to implement, a major deciding factor was construction costs. The cost of a new subway system was estimated at over \$90 million per kilometer, versus just \$200,000 per kilometer for construction of new BRT routes. Since the implementation of the BRT system, travel time thoughout the city has lowered, total harmful emissions have dropped, and total street congestion has decreased