



PLANNING AND PROGRAMMING COMMITTEE
March 18, 1999

Metropolitan
Transportation
Authority

SUBJECT: METRO RAPID BUS IMPLEMENTATION PLAN

**ACTION: APPROVE THE IMPLEMENTATION PLAN AND AMEND THE
CONSULTING CONTRACT WITH TRANSPORTATION
MANAGEMENT & DESIGN**

One Gateway Plaza
Los Angeles, CA
90012-2932

RECOMMENDATION

(213) 922-2000 Consider the following recommendations:

- A. Approve the Metro Rapid Bus Implementation Plan;
- B. Approve programming of \$16.5 million in the annual operating budgets beginning in FY 2000 and \$14.9 million in the capital budget to cover the operating and capital expenses of the demonstration program;
- C. Authorize the CEO to negotiate and execute a noncompetitive contract with Transportation Management & Design, Inc. to provide the MTA with planning and engineering services in an amount not to exceed \$320,000, with the period of performance from March 31, 1999 to December 31, 2000.

SELECTED CORRIDORS

The Metro Rapid Bus Implementation Plan (Attachment A) identifies program goals and objectives, demonstration corridors, bus operating plans and schedules, a two-phase station stop program, and a bus procurement and maintenance program. The Plan also presents an 18-month implementation schedule with specific milestones and measures of performance. An evaluation of the potential demonstration corridors in the East Side, Mid-City, and San Fernando Valley resulted in a recommendation of the following alignments and implementation schedule for the demonstration phase of the program:

1. Whittier/West 6th/Wilshire Boulevard (East Side/Mid-City)
January through December 2000
2. Ventura Boulevard (San Fernando Valley)
May through December 2000 (coincides with North Hollywood Red Line opening)
3. Pico/Broadway/East 1st/Cesar Chavez (Mid-City/East Side)
July through December 2000

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POLICY IMPLICATIONS

When developing the Metro Rapid Bus Implementation Plan, the MTA looked to other transit systems that had implemented Rapid Bus concepts. In particular, Curitiba Busways in Brazil was found to have a well-developed and mature Rapid Bus system operating on exclusive right-of-way. While not the same circumstances as the arterial-based MTA Metro Rapid Bus, there were many essential attributes that could be emulated within the already-developed major corridors of Los Angeles County. The following table summarizes the attributes of Curitiba Busways and notes when and how they will be emulated in the Metro Rapid Bus Program.

Application of Key Features of Curitiba Busways

ATTRIBUTE	METRO RAPID BUS	
	Phase One Demonstration	Phase Two Expanded System
1. Exclusive Bus Lanes	No	Yes (at key points)
2. Infrequent Stops	Yes	Yes
3. Station Stops	Yes (6 pairs)	Yes
4. Signal Prioritization	Yes (limited area)	Yes
5. Fare Prepayment	No (simulated testing)	Yes
6. Level Boarding and Alighting	Yes	Yes
7. Frequent Headways (5 minutes or less)	Yes (limited)	Yes
8. High Capacity Buses	No	Yes
9. Multiple-Door Boarding and Alighting	No	Yes
10. Simple Route Layout	Yes	Yes
11. Color-coded Buses and Stations	Yes	Yes
12. Feeder Network Modified to Support MRB	No	Yes
13. Coordinated with Land Use Planning	No	Yes (limited)

Seven of the thirteen attributes will be emulated in the demonstration phase of the Metro Rapid Bus program. The seven attributes focus on efforts to reduce passenger travel time and are expected to improve travel times by approximately 15-25 percent. This will provide customers with a significantly more attractive trip and allow the MTA to operate more service for the same operating and capital cost, thus improving both efficiency and effectiveness.

The remaining attributes will be emulated in the expansion phase of the program and are expected to further reduce passenger travel times by another 10-15 percent. The demonstration phase attributes are discussed below in conjunction with their policy implications.

Infrequent Stops – MTA currently operates two levels of arterial bus service: local-stop and limited-stop. Typically, local stops are spaced every 0.25-mile or less, while limited-stop services have an average spacing of just under 0.7 miles. Rapid Bus stop spacing will focus primarily on major destinations and transfer points, with stop intervals lengthened to approximately every mile. This compares favorably with existing MTA Metro Rail (ranging from 1.1 to 1.6 miles between Stations). Rapid Bus service will replace existing limited-stop service, with existing local bus service continuing along the corridor.

Station Stops – Fifty-five locations have been identified in the demonstration phase as Metro Rapid Bus Stations (the Stations will be paired with one in each direction). Initially, two new Rapid Bus Stations will be constructed at each of six locations. The prototype stations will be designed to test their ability to facilitate handling of the higher passenger loads associated with Rapid Bus operation and expedite boarding and alighting activity (reducing dwell times). The stations will also incorporate a higher level of customer information (real-time 'next-bus' displays), security, and comfort, as well as urban streetscape improvements to improve the environment around the Station. They will allow for local community customization. The deployment of Stations will require separation of local and Rapid Bus stops in order to avoid delays to Metro Rapid Bus and may require additional curb space in some instances. The remaining 49 intersections will receive upgrades during the demonstration period, including distinctive Rapid Bus identification, improvements in both passenger amenities and information, and enhanced areas around the stop in order to make Metro Rapid Bus more attractive to customers and local residents and businesses.

Signal Prioritization – Use of bus signal priority technology will have a significant travel time benefit to MTA customers and will result in improved operational efficiency and effectiveness for Metro Rapid Bus. Studies at other systems indicate that up to 30-40 percent of the delay time at signals can be avoided with bus signal priority systems. Deployment of the LADOT's loop-transponder detector (LTD) system on the first two Metro Rapid Bus corridors (Whittier/Wilshire and Ventura) is recommended in the demonstration phase of the program. No recommendation for the third corridor (Pico/East First/Chavez) is made at this time; the decision will be coordinated with MTA's Bus Signal Priority Pilot Project.

Level Boarding and Alighting – Metro Rapid Bus service will utilize low-floor buses exclusively to provide level platform boarding and alighting. The evidence on low-floor equipment indicates that boarding and alighting times are more reliable and can reduce travel times if used in conjunction with other attributes such as fare prepayment and multiple-door boarding. Low-floor buses also improve access for persons with disabilities or persons who have difficulty with stairs.

Frequent Headways – Frequent service (i.e., every five-minutes or better) is proposed on both the Whittier/Wilshire (every 3.5-minutes) and Pico/East First/Chavez (every 5 minutes) Rapid Bus lines during peak periods. An operating contingency is also recommended to provide available funds to increase service frequencies as ridership grows.

Simple Route Layout – Current MTA bus service has evolved into a complex and often confusing array of different service branches, service types, and short turns in an effort to both customize the service to market niches and to maximize cost efficiency. A simple route layout is proposed for Rapid Bus where every trip is the same, without exception. Rapid Bus seeks to build the same customer confidence in a consistent route structure enjoyed by fixed guideway modes.

Color-Coded Buses and Stations – The station and bus concepts depicted in the attached report share visual cues, including colors, and a consistent graphics theme. The ability to distinguish between Rapid Bus vehicles and regular transit bus services at a distance, recognize the Stations from one or more blocks away, and recognize the link between Rapid Bus service and Stations allows customers to make informed choices.

FINANCIAL IMPACT

The Metro Rapid Bus program calls for significant increases in overall service levels on the demonstration corridors as well as additional operation and capital support. Preliminary operating and capital budgets have been prepared to identify costs beyond those currently budgeted by MTA. These costs are detailed as part of Attachment A. Due to the nature of the Metro Rapid Bus demonstration program, both the operating and capital budgets are preliminary estimates and will be further refined during the demonstration period. The proposed demonstration operating budget of \$16.5 million (annualized at \$17.95 million) includes all elements necessary to successfully test Metro Rapid Bus, including enhanced MTA activities ranging from dedicated field supervision and operator support to marketing and on-site customer service. An operating contingency of 10 percent has been included to prepare for unforeseen ridership increases, low-floor bus deployment (the seat reduction of these buses will require operation of additional buses), and unforeseen additional field support or maintenance. A capital budget of \$14.9 million is proposed and is principally comprised of the cost for 17 new buses needed beyond the existing fleet, 6 Rapid Bus Stations (12 sites), enhancements to the other 49 Rapid Bus stop locations, and support technology. A 10 percent contingency is also included for capital costs to cover unforeseen expenses during the demonstration period.

The one-time not-to-exceed cost of consulting support to implement, monitor, and assess the performance of the Metro Rapid Bus demonstration program is \$320,000. This contract will not use any Federal funds.

BACKGROUND

In November 1998, the MTA Board of Directors approved the Regional Transit Alternatives Analysis (RTAA). Included in the approval of the RTAA was the adoption of a Countywide Bus System Enhancement Program that directed staff to "proceed with the preparation for presentation to the Board of a thorough plan for a Rapid Bus demonstration project of three lines, including at least one line serving each of the East Side, Mid-City, and San Fernando Valley". The Rapid Bus concept was presented as a three-phase program, with Phase One comprising the demonstration phase.

At about the same time, the Los Angeles City Council adopted a report titled "Interim Transit Improvements for Metro Rail East Los Angeles and Mid-City Corridors, and Related Issues" committing the City to work with the MTA in developing interim bus service improvements. The commitment included the cooperative development of a funding and implementation program to install a bus priority traffic signal system tied to the existing Automated Traffic Surveillance and Control (ATSAC) system and the provision of bus stop enhancements and amenities within the targeted corridors. The report was received by the MTA in early November 1998.

In January 1999, MTA staff engaged the services of Transportation Management & Design, Inc. and worked in partnership with the Los Angeles Department of Transportation (LADOT) to prepare a Metro Rapid Bus Implementation Plan. The purpose of the Plan was to lay the foundation for a new, fast, high quality bus service that would significantly reduce passenger travel times for those passengers traveling long distances on arterial streets, in consideration of the suspension of the Eastside and Mid-City segments of the Metro Red Line.

Transportation Management & Design, Inc. was the lead firm involved in the development of Metro Rapid Bus in Los Angeles County through the original concept development in the Westside Bus Restructuring Study, ongoing Metro Rapid Bus work with the City of Los Angeles, preparation of the RTAA Milestone One report, and preparation of the Metro Rapid Bus Implementation Plan. TMD is intimately familiar with the East Side, Mid-City, and the San Fernando Valley Metro Rapid Bus demonstration corridor areas through its lead work on the three bus restructuring studies that dealt with these areas. As well, TMD and its staff have undertaken implementation work in a variety of operating environments ranging from start-up of the Dallas suburban and Santa Fe systems to major system restructuring in such systems as New York City, San Diego, Tampa, Cleveland, and Sydney, Australia.

COST/PRICE ANALYSIS

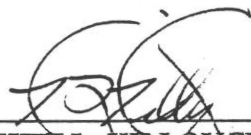
The final terms of the consulting service Contract with Transportation Management & Design, Inc. (TMD) have not been determined but will comply with all requirements of MTA Procurement, including cost analysis, legal, and audit before the Contract is executed. Board approval is being requested prior to the completion of all required reviews and approvals since a delay in issuing this Contract could extend the project schedule. If the final costs of this Contract exceed the not-to-exceed amount, specific Board Authorization will be requested.

Staff has determined that TMD is the only firm that can provide these services to the requirements and timeframe provided. Staff has also prepared a noncompetitive justification which is in the Procurement file.

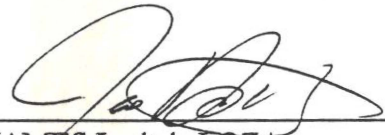
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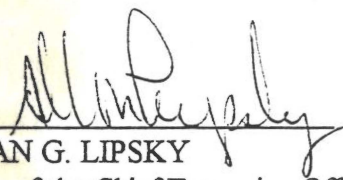
Execute a contract amendment with Transportation Management & Design, Inc. MTA staff, in concert with the City of Los Angeles and the Consultant, will initiate the Metro Rapid Bus Implementation Plan.

Prepared by Rex Gephart, Project Manager - Regional Transportation Planning & Development



KEITH L. KILLOUGH
Deputy Executive Officer
Countywide Planning

MICHAEL O'CONNOR
Executive Officer of Procurement
& Distribution

JAMES L. de la LOZA
Executive Officer
Regional Transportation Planning &
Development

ALLAN G. LIPSKY
Office of the Chief Executive Officer