



OPERATIONS COMMITTEE
APRIL 19, 2000

Metropolitan
Transportation
Authority

SUBJECT: UNIVERSAL FARE SYSTEM (UFS)

**ACTION: APPROVE PROCUREMENT PROCESS FOR UNIVERSAL
FARE SYSTEM**

One Gateway Plaza
Los Angeles, CA
90012-2952

RECOMMENDATION

Adopt the following motion: The Board finds that the UFS consists of highly specialized electronic fare collection equipment, such that the procurement qualifies under Public Utilities Code section 130238 for procurement by competitive negotiation. Using this methodology, staff will solicit a package of system hardware, software and related services. (Requires two-thirds vote)

ISSUE

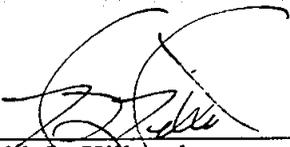
Because of the highly specialized nature of the equipment, MTA staff and consultants recommend a negotiated process be utilized for the UFS equipment procurement to allow consideration of non-price factors in the source selection approach. The use of a competitive negotiation procurement process for the acquisition of the UFS equipment requires a two-thirds Board authorization.

BACKGROUND

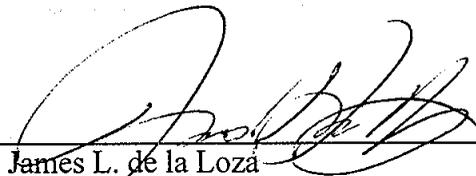
The UFS is a highly complex system that will ultimately involve multiple transit providers (and possibly non-transit participants) in a regional stored-value payment system. This will include bus, rail and shuttle modes of travel. It will include the Metrocard magnetic-stripe debit card that has been used in the region for some years, as well as smart cards for future growth. The specification that has been developed by the MTA's consultant, Booz-Allen & Hamilton, is for a single procurement that will include bus fareboxes and card processors which issue and receive magnetically encoded transfers; ticket vending machines and card validators for rail stations, "point of sale" devices to add-value to cards, and a computer network to integrate the entire system, provide consolidated reporting and interface to the regional clearinghouse network. A single contractor will have full responsibility to provide all equipment, deal with subcontractor suppliers (if needed) and provide the services needed to support and fully integrate the system. Attachment A, provided by Booz-Allen, is a draft description of the elements of the system.

Prepared by: Donald C. Dwyer
Contract Administration Manager, Procurement

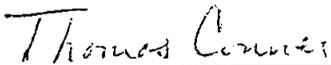
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Regional Transportation Planning and
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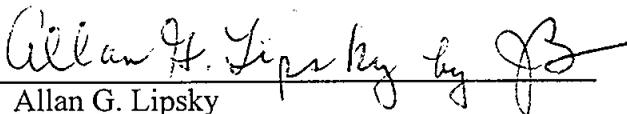
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Office of the Chief Executive Officer

- Means of easily changing ticket print format and generating additional ticket types as required, through the Central Data Collection System
- Ticket and receipt printing using thermal printing
- Self-unjamming
- Payment Processing
- Accept US coins and currency in common circulation
- Accept magnetic stripe stored value Metrocard, smart cards, tokens, credit cards and debit cards
- Recirculation of coins for use as change
- Continuous monitoring of ticket stock, coins and bills
- Bills escrowed pending completion of transactions. (Optional coin escrow)
- Credit/ATM (Debit) Bank Card System
 - Capable of processing credit and debit card transactions, in accordance with prevailing banking regulations.
 - LACMTA may task the Contractor to be responsible for establishing communication between TVMs and the transaction clearing system (that will be procured by LACMTA).
 - Checking sales against editable parameters
 - Providing settlement data to LACMTA and the UFS regional clearinghouse when that is available
- Reporting over network
 - Report all transactions in batch mode via Data Transmission System. Specific methodology to be proposed based on data requirements of the proposed system.
 - Fully transactional database (detailed transaction level data)
 - Alarms and credit/debit card transactions reported in real time
- Bus Fare Collection System, consisting of the following:
 - Electronic Validating Fareboxes providing the following functionality:
 - Revenue collection (specification allows for alternative cash handling approaches)
 - Driver control module, "stackable" approach to communicate to Advanced Transit Management System (ATMS)
 - Currency (coins and bills) recognition and validation
 - Ticket processor for Metrocards, issue transfers, accept transfers, stored ride/value cards, passes, permits and special cards
 - Smart card processor, compliant with above requirements
 - Installation
 - Store and securely transmit data to Central Computer via infrared communications link.
 - Communicate with ATMS for mutual sign-on and transmission of detailed data file over ATMS radio frequency LAN when that is available.

- Contactless Smart Card System
 - Fareboxes, TVMs, SAVs and Sales Office Terminals (SOTs) will contain contactless smart card readers to perform functions similar to those outlined above for the Metrocard (except printing on the smart card)
 - Load value onto a smart card (Farebox, TVM and SOT only)
 - Vend new smart card (TVM only)
 - Pay for the current transaction using value resident in the eurse
 - Obtaining access authorization for the opening of the TVM and farebox door using a valid contactless smart card Access Card inserted and removed from the credit/debit/ATM reader.
 - Support multiple contactless smart card standards (desired); Proposers to propose single smart card alternative

- Garage Computer Network
 - Computers located at each garage to provide a means of polling fareboxes, storing data, transmitting data to the CDCS, receiving operating parameters from the CDCS and transmitting operating parameters to the fareboxes and TPUs.
 - Interface to LACMTA's LAN/WAN (at LACMTA garages)
 - Communicate to CDCS via modem (shuttle garages or those with stand-alone TPUs)
 - Communicate to on-board equipment (farebox and/or TPU) via infrared probe and through the ATMS RF LAN.
 - Associated software and reporting subsystems.

- Sales Office Terminals (SOTs) to permit sales agents to:
 - Load Load value onto passengers' Metrocards
 - Sell Contactless Smart Cards (CSCs), once implemented
 - Load value onto CSCs, once implemented
 - Check the existing value of a Metrocard or CSC
 - Perform on-line credit and debit card authorizations
 - Print transaction receipts
 - Store and transmit transaction data to the CDCS.

- Central Data Collection System
 - Provide transaction control, daily farebox, TVM, SAV and SOT polling, event and machine status reporting
 - Data repository for all event and transaction data
 - Control of operating parameters
 - Producing specified reports
 - Report writer for ad hoc reporting
 - Monitoring and control of the fare collection system communications network.
 - Downloading of "negative list" of bad ticket numbers
 - Communication and logging of fare collection system alarms
 - Communication hub between TVMs and SOTs and credit card clearinghouse

- Maintenance and product support:
 - Contract maintenance for bus ticket processor units and/or rail fare collection equipment.
 - Maintenance facilities
 - Computer based training program
 - Bar code scanner and software
 - Extended warranty, annual cost for three (3) years in addition to base two (2) years
 - Coin and bill acceptor test and calibration equipment
- Card mirroring capability (additional data backup)

Universal Fare System – Competitive Negotiation Process

A. Competitive Negotiation

Staff plans to release a single Request for Proposal (RFP) for the procurement of the Universal Fare System using a competitive negotiation process. Competitive negotiation, as provided for in Public Utilities Code section 130238, can be used for the purchase of specialized rail transit equipment, including fare collections equipment, and allows, in addition to cost, for the consideration of factors such as vendor financing, performance reliability, standardization, life-cycle costs, delivery timetables, support logistics and the broadest possible range of competing products available.

Competitive negotiation as described in Public Utilities Code section 130238 includes, but is not limited to, all the following requirements:

- (1) “The request for proposals shall be prepared and submitted to an adequate number of qualified sources, as determined by the commission, to permit reasonable competition consistent with the nature and requirement of the procurement.”
- (2) “Notice of the request for proposals shall be published at least twice in a newspaper of general circulation, at least 10 days before the date for receipt of the proposals.”
- (3) “The commission shall make every effort to generate the maximum feasible number of proposals from qualified sources and shall make a finding to that effect before proceeding to negotiate if only a single response to the request for proposals is received.”
- (4) “The request for proposals, shall identify all significant evaluation factors, including price, and their relative importance.”
- (5) “The commission shall provide reasonable procedures for technical evaluation of the proposals received, identification of qualified sources, and selection for contract award.”

One of the results of the evaluation committee's work will be the establishment of a Competitive Range, consisting of those proposers that have met the standards established by the evaluation criteria and are deemed responsive and responsible to all proposal requirements.

Those in the Competitive Range shall be invited to participate in oral and written discussions, as well as price negotiations. They will also be invited to participate in formal presentations to the evaluation committee to further improve the committee's understanding of the offers.

A price analysis will be performed on all price proposal from the Competitive Range. Unless adequate competition is determined, those cost proposals will also be audited prior to price negotiations.

Best and Final Offers and Contract Award

At the conclusion of the discussions, clarifications and price negotiations with those in the competitive range, the evaluation committee shall request a Best and Final Offer. After evaluation of the Best and Final Offers, a recommendation will be made by the committee to the Contracting Officer.

After formal notification to all proposers, a formal recommendation will be presented to the Board for contract approval.

PROPOSAL SUBMITTAL REQUIREMENTS

Proposers will be required to submit specific technical, qualifications, and price information for evaluation by the LACMTA Proposal Evaluation Committee. Technical information to be evaluated will include, but not be limited to the following:

- Overall system design features, including:
 - Design and construction details for each device and subsystem specified in the Request for Proposals (RFP)
 - Customer and operator interface design details
 - Central Data Collection System and bus and station computer network architecture and design elements
 - Security and environmental design features
 - Provisions to accommodate reliability tracking and facilitate ease of equipment servicing and maintenance
- Approach to integration of system elements

DRAFT Evaluation Criteria

Exhibit 1 to Attachment B

Proposals will be evaluated based upon Technical, Qualifications, and Price factors. Of a maximum of 100 points, these three categories shall be weighted as follows:

- Technical Evaluation - 40 points
- Qualifications Evaluation - 25 points
- Price Evaluation- 35 points

Scoring of Technical, Qualifications and Price information will be combined by adding the Technical, Qualification and Price Scores to determine which Proposal is more advantageous to LACMTA.

Technical Proposal Evaluation (weight = 40 points). The Proposer's Technical proposal will be evaluated according to the following five overall criteria, listed here in descending order of importance. Adjacent criteria may be of equal importance.

- a. **System design:** Proposals will be evaluated in terms of the degree the concept and design meets the requirements of the specifications, including the detailed componentry of the devices, customer and operator interface provisions, CDCS design (including garage and station computer network), magnetic Metrocard system provisions, selected smart card technology, security and environmental design features.

Price Proposal Evaluation (weight = 35 points). Proposer's Price Score will be calculated as follows:

$$\text{Proposer's Price Score} = \text{Maximum Points} \times \frac{\text{Lowest Total Price}}{\text{Proposer's Total Price}}$$

Item 13 Substitute Motion by Supervisor Burke

In November of 1992 the LACTC directed staff to accelerate the study of the Crenshaw Corridor for transit improvements with a focus on using the transit investment as a catalyst for economic development in the inner city.

Later in 1992 LACTC proceeded to prepare a Preliminary Planning Study to review options for transit improvements in the Crenshaw-Prairie Corridor.

In January, 1994, the Preliminary Planning Study was approved by the MTA. The study outlined conditions in the corridor and suggested possible transit improvements, station locations, and environmental impact issues.

On June 28, 1995, this Board voted to approve the Award of a Professional Services Contract to Korve Engineering to prepare the Major Investment Study (MIS) for the Crenshaw Corridor.

In November, 1997, this Board determined to suspend work on Pasadena, Mid City, North Hollywood and Crenshaw. At the time of the Corridor suspensions, 80% of the MIS for Crenshaw was completed. These other projects have now resumed moving forward except Crenshaw, which has only 20% of the work remaining.

Crenshaw is important as the significant North/South line that would make an actual transportation network of the proposed corridors being studied.

There are presently approximately 20,000 bus riders on that route. All elected representatives of that area are in support of the Crenshaw line. Representative Julian Dixon is supportive.

In the 2001 federal budget the Secretary of Transportation through the FTA is seeking authorization for \$560,000,000 in the discretionary bus funds for Bus Rapid Transit (BRT). This fund is separate from other TEA-21 fund authorizations. -

Crenshaw is presently proposed for a Rapid Bus line.

I, THEREFORE, MOVE that the staff of MTA be directed to send a letter to the Secretary of Transportation requesting the following corridors for Bus Rapid Transit funds: Valley, Eastside, Wilshire, Crenshaw and Exposition.

At the February Board of Directors meeting, the MTA took an important step forward to solidify direction in the creation of a Countywide Transportation System in choosing to proceed with the implementation of three transportation corridors. At my request, this Board agreed to put over discussion of the Exposition Boulevard Corridor. I requested this for several reasons in order to obtain more information and to maintain focus on the three primary corridors under consideration with full funding grant agreements.

In choosing to move forward with the three corridors, MTA is now facing the issue of tying together the east-west travel patterns in with north-south travel patterns. It is my intention to endeavor to focus this Board's attention back to the task of creating a transportation system by **creating a network of corridors** now that the corridor commitments have been kept.

I have consistently expressed concern over the Exposition Corridor because I have always felt that (a) it did not provide ready access to the densely populated Wilshire Corridor, but instead would really only serve end-to-end ridership in a less populated area, (b) the ridership modeling focus was predicated more on end-use travel patterns rather than feeder-route travel patterns contributing to end-use destinations, and (c) the Exposition corridor has not been studied as a stand alone corridor in many years and does not address the need to develop network connections. Underscoring this was the BRT study that suggested a second tier of potential lines of which the Exposition Line was one.

Instead, I am suggesting that serious consideration be given to provide connectivity and north-south access to the Wilshire Corridor BRT, the Metro Red Line and the Los Angeles International Airport (LAX) and the Metro Green Line in the south.

With this objective in mind, I recently sent an exploratory letter to Secretary of Transportation Rodney Slater asking him to consider supporting the **Crenshaw Corridor as a possible BRT "ground-up" demonstration project**. Among the issues I raised with the Secretary included:

The Crenshaw Corridor, with a ridership of approximately 20,000 passengers per day and a population density of 13.41 persons per acre (vs 4.65 persons per acre for Expo ROW), provides an important North-South connection through a high-density area that will feed both the Wilshire BRT and the Metro Red Line. Underscoring the importance of this linkage, the Crenshaw Corridor reinforces existing infrastructure investments made with the Metro Red Line and the Metro Green Line through this North-South Connection.

The Crenshaw Corridor offers accessibility to LAX and would help relieve existing congestion associated with this facility and an important

MOTION by Supervisor Yvonne B. Burke

2. Prepare funding request for the project, to be submitted to the FTA for inclusion in the administration's FY 2002 request no later than August 1, 2000. The capital costs of the fixed guideway system should be included in section 5309 new starts, while the vehicle procurement and technology insertion should be included in section 5309 bus discretionary.

3. Also explore the availability of funding for the Crenshaw-LAX corridor in the FHWA's Surface Transportation Program and Congestion Mitigation and Air Quality Improvement.