

## REVISED EXECUTIVE MANAGEMENT AND AUDIT COMMITTEE JUNE 15, 2006

SUBJECT: METRO RED LINE GATING

ACTION: RECEIVE AND FILE

### RECOMMENDATION

Receive and file status update on Metro Red Line gating.

### **ISSUE**

At the February 23, 2006 Board meeting, Director Yvonne Burke introduced a motion that requested staff to investigate Metro Red Line gating and fare evasion, identified by four specific tasks:

- 1. Recommendations, including a timeline, on the implementation of a barrier ticketing system for the Red Line;
- 2. The capital costs of such implementation and potential funding sources;
- 3. A financial analysis of cost savings that includes a "payback" amortization period of the barrier system as compared with the present escalating manpower-costs associated with using fare inspectors; and
- 4. A report by staff on the feasibility of MTA sponsored legislation to decriminalize Penal Code Section 640, including recommendations and a financial analysis on the costs of establishing a "transit adjudication bureau" to process fare evasion infractions and the potential for MTA "cost recovery" revenue estimates. (Addressed in separate Board report.)

This Board report addresses Item 1, to provide a recommendation including a timeline on the implementation of a barrier ticketing system for the Metro Red Line. In order to provide such a recommendation, staff has issued a "Request for Information" (RFI) to the equipment manufacturing community seeking their ideas for the Metro Red Line barrier installations. The outline of a proposed Scope of Work needed to complete this process is identified in Attachment A, together with estimated RFI/RFP Implementation timelines, Attachments B & C.

Item 2 and Item 3, to provide capital costs, potential funding sources, and a financial analysis of cost savings including a "pay back" amortization period of the barrier system compared with the present manpower costs will be provided by staff after a "rough order

magnitude" (ROM) can be established through the RFI process in order to compare gating costs with current fare inspection costs.

The RFI has been issued to the industry and are due at Metro on June 22, 2006. After responses to the RFI and ROMs are received from the vendor community, staff will provide a staff analysis with options for Board consideration and direction. As per the industry standard, the RFI will serve as the basis from which a technical specification and "Request for Proposal" (RFP) can be issued for formal solicitation.

More recently staff has been advised that an APTA Peer Review panel was convened to evaluate Metro Security and further recommended consideration for gating the Metro Red Line to reduce fare evasion.

### **NEXT STEPS**

- Analyze RFI responses from vendor community and provide/obtain clarification to respondents
- Obtain responses to the Request for Information (RFI)
- Present alternatives and options received from the gating vendor community through the RFI process for Board consideration
- Write technical specifications based on options selected
- Issue a Request for Proposal (RFP) for Metro Red Line gates

### ATTACHMENT(S)

- A. Metro Red Line Request for Information Scope of Work
- B. Draft Timeline for RFI & RFP Process to Complete
- C. Draft Implementation Timeline
- D. Director Yvonne B. Burke Motion, Amendment to Item 16, February 23, 2006

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### **GENERAL STATEMENT OF WORK** "REQUEST FOR INFORMATION" (RFI) CONSIDERATIONS FOR INSTALLING BARRIER GATES ON THE **METRO RED LINE**

### **DRAFT**

The Los Angeles County Metropolitan Transportation Authority requests information from the automated fare equipment community to design, build, test and install barrier gates for the Metro Red Line system. The following is a General Statement of Work.

TOPIC	DESCRIPTION
Capital Cost	The RFI will analyze and estimate the Rough Order Magnitude (ROM) costs for planning, designing, procuring, and implementing an automated fare gate system on the Metro Red Line that interfaces with Cubic TriReader smart card enabled Ticket Vending Machines (TVM), Stand Alone Validators (SAV), Hand-held inspection devices for nongated Light Rail (HHV), sales devices for loading smart cards; Cubic/GFI Odyssey bus fare boxes with Cubic smart card readers (TriReader), and Metro Cubic Central Computer (MCDCS), and Regional/TAP Cubic Central Computer (RCDCS)  • Capital costs include:  o Fare gate equipment and estimated quantities  o Metro CDCS design changes  o Regional CDCS design changes  o Fare media procurement  o Marketing and materials for patron education at "start up"
Operational Cost	The RFI will analyze and estimate the ROM costs for operating and maintaining the new fare gate infrastructure including:  Station agent hiring and training versus "un-manned" gates  Maintenance personnel hiring and training  Spare parts acquisition and storage  Customer Service training  Finance staff training  New fare media design and inventory (new fare media must be processed at the fare gate) See also Limited Use Paper Smart cards  Marketing impacts  Planning associated with adopting a distance-based or zone-based fare structure  Planning associated with Light, or At-Grade Rail (non-barrier) combined and interfaced with Heavy, or underground (barrier) systems
Impact to Station Throughput	<ul> <li>The RFI will consider the impact that the introductions of fare gates are likely to have on station throughput. What is currently an open and free flowing station environment, will change to a controlled entry and exit environment. This may introduce queuing and customer service issues.</li> <li>A considerable number of Metrolink patrons transfer to Metro Red Line. The RFI will consider such accommodations.</li> <li>The RFI will consider through-put of the non-TAP, cash paying customer</li> <li>The RFI will consider impacts to disabled patrons, children, and patron-operated devices such as wheelchairs, strollers, walkers, etc</li> <li>The RFI will also consider through-put impacts to security in the event of a disaster or patron emergencies (Fire-Life Safety, emergency personnel interface to gate, etc.)</li> </ul>
Impact to Fare Evasion	The RFI will consider fare evasion due to the controlled nature of the entry/exit to stations and trains. The RFI will evaluate and estimate the impacts to fare evasion and fare revenue.  • The RFI will propose solutions to the non-TAP cash-paying patron and fare media required to pass through the gates  • The RFI will propose solutions to potential fraudulent fare media usage

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TOPIC	DESCRIPTION
Impact on Fare	The RFI will evaluate and estimate the impact the implementation of fare gates have on
Inspection	the cost of fare inspection.
	The RFI will consider solutions to un-manned versus manned stations and
	impacts to fare evasion
	The RFI will consider fare inspection of Light Rail un-gated Proof of Payment (POP) systems interfacing with fully gated Red Line stations
Impact on Existing	The RFI will evaluate fare media that can be automatically processed by the fare gate.
Fare Media	The current Proof of payment (POP) media do not provide for this automatic processing. Cash paying customers must also be accommodated at the gates. A number of different fare media types and technologies could provide Metro with this necessary functionality
	including:
	Limited-use smart cards
	Magnetic stripe tickets
	Bar codes
	The RFI will evaluate and report on the options most applicable to the Metro
	environment.
Impact to	The RFI will research and analyze the impact that the implementation of fare gates has
Maintenance	on Metro's current maintenance organization. The research will evaluate centralized vs.
T	decentralized maintenance of fare gates and the in-house versus outsourced models.
Impact to Metro UFS – TAP Central	The RFI will research and analyze the impact that the implementation of fare gates has
Computer	on the Metro CDCS including:
Computer	<ul> <li>Interfaces and integration of non-Cubic systems with Cubic Central Computer and devices (TVMs, SAVs, HHVs, as described)</li> </ul>
	<ul> <li>Upgrading and configuring the Central Computer to enable two-tag transaction acquisition and processing</li> </ul>
	<ul> <li>Upgrade and configure Central Computer for the deployment of new business rules including new fare structure/tables.</li> </ul>
Impact to Regional	The RFI will research and analyze the impact that the implementation of fare gates has
UFS – TAP Central Computer	on the Regional TAP Central Computer. TAP is a regional fare medium and will be used by Muni and Metrolink riders. All TAP transactions are captured at the Regional
	Computer.  The PEI will consider Metro / Muniferential clearing impacts from additional
	<ul> <li>The RFI will consider Metro/Muni financial clearing impacts from additional gating transactions captured by regional riders, especially Metrolink</li> </ul>
	<ul> <li>Analyze the modifications and reconfiguration of the Regional TAP Computer to</li> </ul>
	accommodate gating transactions, and the interfaces required for another 3 <sup>rd</sup> party to integrate their system to Cubic's Nextfare smart card system.
Impact to TAP	The RFI will research and analyze impacts that the implementation of fare gates has on
Service Center	the TAP Service Center. The contractor will have to accommodate additional volume of services from patrons interacting with a new UFS device
	The RFI will analyze impacts to ACS – the TAP Customer Service /Regional
	Clearinghouse contractor and their systems to support additional devices on
	smart card
Impact to	The RFI will evaluate the impact of fare gates on the Metro customer population.
Customers	The RFI will analyze and report on the possible impact on customer education
	and public outreach due to the introduction of several major changes (distance
	based fares, fare gates, and new fare media) at the same time.
	The impact of fare gates to the ADA population will also be evaluated.
Schedule	The RFI will base their analysis on industry best practices, develop a projected schedule
	for planning, designing, procuring, and implementing the new fare gate system
Procurement	The RFI will provide consideration to:
Strategy	Equipment quantity sizing
	System integration
	Multi-sourcing

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# DRAFT Timeline for RFI & RFP Process to Complete

rt 1 Vear from start																							B	Så	April 1 – June 30, 2007	Source Selection	Award contract (June Board cycle)
9 months from start																					January 1, 2007 -	March 30, 2007	Issue RFP for gating	Clarification Meetings with proposers			
RFI and RFP Solicitation Schedule							,		:									November 1 –	December 30, 2006	Write Technical Spec to							
RFI and RFP Sol 150 days from start							September 1 – October 30, 2006	Staff evaluation of RFI	responses	Clarification from	industry received	Staff analysis presented	to Metro Executives	Board briefings and	Board presentation (October Board cycle)	Get Board direction on	proposed approach					5				THE COLUMN TO TH	
90 days from start		June 1 – August 30, 2006	Vendor Response Period	Clarification and industry comments	received	Final Responses due																	0.00		- Paragraphia		
Start May 20, 2006	Prepare and Issue Request for Information (RFI)	¥ 9866				77.													175.0								

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## **DRAFT Implementation Schedule**

	32 months from NTP																					April 2009	Contract Close-out		
l Line Gates	26 months from NTP															The state of the s				October 2009	Final Acceptance		a v. manufactus		
Design – Build - Test-Install –Pilot – Deploy Metro Red Line Gates	20 months from NTP															1		April 2009	Deploy for patron usage system-wide						
ild - Test-Install –Pilo	19 months from NTP	77-0											September 2008 – March 2009 -	Install fare gates	Construct & retrofit	stations	Run Pilot Tests								
Design – Bu	12 months from NTP					August 2008	Gating Contractor Design/Build phase	Integration to Cubic	Systems – Metro and	Regional Central	Computer	Integration to ACS TAP Customer Service Center										1000			The state of the s
	30 days from Award Contract	Start July 2007	Issue Notice to Proceed	(NTP) to gating contractor	(Regional TAP comes on line with MUNIs)																				

As we move forward with the implementation of the smart card Universal Fare System, we need also remedy the problems surrounding the present (non-barrier) passenger ticketing system. I believe it is time for this agency to make the capital investment for a barrier, turnstile ticketing system similar to what every other major transit property uses for their heavy rail "Red Line" systems.

Each year the MTA spends approximately \$19 million dollars on security for the Red Line, and a significant portion of that cost is spent on "fare inspectors" who randomly ask passengers to produce their tickets. It has been estimated that the capital costs of installation of a barrier ticketing system would run in the neighborhood of \$30 million dollars. While the former LACTC decision to employ the "honor system" for a fledgling rail service could be characterized as "laudable, it has proved over the years to be unwieldy, inefficient and extremely costly to rely on "fare inspectors" as a means to prevent fare evasion. It would be reasonable to estimate that the capital investment of a barrier system could be amortized over a period of several years and offset by the ongoing savings from the escalating manpower-costs of using fare inspectors. Furthermore, the barrier system efficiencies greatly enhance the application of the smart card technology.

Additionally, indirectly related to this issue of curtailing fare evasion, is the increasing problem that there is an extremely high incidence of fare evasion scofflaws who fail to pay the citation they receive from the MTA fare inspectors. Such failure to pay results in the Superior Court's issuance of a bench warrant; thereby further exacerbating the drain on existing court resources when the scofflaws are arrested and taken into custody. One example of this systemic problem is the Compton Court in the City of Compton. On any given day, the Compton Courthouse receives an average of 40 arrests just from MTA fare evasion-citation bench warrants. The processessing of these warrants and custodies puts a severe strain on the courts, who are otherwise extremely busy processing serious felony cases and criminals. MTA staff are presently engaged in discussions with the Courts examining alternatives to the present system. Many cities have decriminalized the infractions and have established "transit adjudication bureaus" that not only relieve the courts of this burdensome task, but also provide for a greater cost recovery mechanism for the administrative process and security efforts.

- I, THEREFORE, MOVE, that this Board instruct the CEO to return to the Board in April at the Executive Management and Operations Committees (respectively) with:
- 1. Recommendations, including a timeline, on the implementation of a barrier ticketing system for the Red Line;
- 2. The capital costs of such implementation and potential funding sources;
- 3. A financial analysis of cost savings that includes a "payback" amortization period of the barrier system as compared with the present escalating manpower-costs associated with using fare inspectors; and
- 4. A report by staff on the feasibility of MTA sponsored legislation to decriminalize Penal Code Section 640, including recommendations and a financial analysis on the costs of establishing a "transit adjudication bureau" to process fare evasion infractions and the potential for MTA "cost recovery" revenue estimates.