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**EXECUTIVE MANAGEMENT AND AUDIT COMMITTEE
MAY 18, 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 will issue 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.

After responses to the RFI and ROMs are received from the vendor community, staff will provide 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

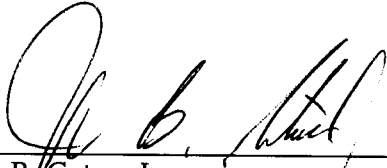
NEXT STEPS

- Issue 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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Roger Snoble
Chief Executive Officer

**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	<p>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 non-gated 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)</p> <ul style="list-style-type: none"> • Capital costs include: <ul style="list-style-type: none"> ○ Fare gate equipment and estimated quantities ○ Metro CDCS design changes ○ Regional CDCS design changes ○ Fare media procurement ○ Marketing and materials for patron education at “start up”
Operational Cost	<p>The RFI will analyze and estimate the ROM costs for operating and maintaining the new fare gate infrastructure including:</p> <ul style="list-style-type: none"> • 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) <i>See also Limited Use Paper Smart cards</i> • 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	<p>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.</p> <ul style="list-style-type: none"> • A considerable number of Metrolink patrons transfer to Metro Red Line. The RFI will consider such accommodations. • The RFI will consider through-put of the non-TAP, cash paying customer • The RFI will consider impacts to disabled patrons, children, and patron-operated devices such as wheelchairs, strollers, walkers, etc.. • 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.)
Impact to Fare Evasion	<p>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.</p>

TOPIC	DESCRIPTION
	<ul style="list-style-type: none"> 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
Impact on Fare Inspection	<p>The RFI will evaluate and estimate the impact the implementation of fare gates have on the cost of fare inspection.</p> <ul style="list-style-type: none"> 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 Fare Media	<p>The RFI will evaluate fare media that can be automatically processed by the fare gate. 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:</p> <ul style="list-style-type: none"> Limited-use smart cards Magnetic stripe tickets Bar codes <p>The RFI will evaluate and report on the options most applicable to the Metro environment.</p>
Impact to Maintenance	<p>The RFI will research and analyze the impact that the implementation of fare gates has on Metro's current maintenance organization. The research will evaluate centralized vs. decentralized maintenance of fare gates and the in-house versus outsourced models.</p>
Impact to Metro UFS – TAP Central Computer	<p>The RFI will research and analyze the impact that the implementation of fare gates has on the Metro CDCS including:</p> <ul style="list-style-type: none"> Interfaces and integration of non-Cubic systems with Cubic Central Computer and devices (TVMs, SAVs, HHVs, as described) Upgrading and configuring the Central Computer to enable two-tag transaction acquisition and processing Upgrade and configure Central Computer for the deployment of new business rules including new fare structure/tables.
Impact to Regional UFS – TAP Central Computer	<p>The RFI will research and analyze the impact that the implementation of fare gates has 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.</p> <ul style="list-style-type: none"> The RFI will consider Metro/Muni financial clearing impacts from additional gating transactions captured by regional riders, especially Metrolink Analyze the modifications and reconfiguration of the Regional TAP Computer to accommodate gating transactions, and the interfaces required for another 3rd party to integrate their system to Cubic's Nextfare smart card system.
Impact to TAP Service Center	<p>The RFI will research and analyze impacts that the implementation of fare gates has on the TAP Service Center. The contractor will have to accommodate additional volume of services from patrons interacting with a new UFS device</p> <ul style="list-style-type: none"> 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 Customers	<p>The RFI will evaluate the impact of fare gates on the Metro customer population.</p> <ul style="list-style-type: none"> 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	<p>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</p>
Procurement	<p>The RFI will provide consideration to:</p>

TOPIC	DESCRIPTION
Strategy	<ul style="list-style-type: none">• Equipment quantity sizing• System integration• Multi-sourcing

DRAFT Timeline for RFI & RFP Process to Complete

RFI and RFP Solicitation Schedule					
Start May 20, 2006	90 days from start	150 days from start	6 months from start	9 months from start	1 Year from start
Prepare and Issue Request for Information (RFI)					
	June 1 – August 30, 2006				
	Vendor Response Period				
	Clarification and industry comments received				
	Final Responses due				
		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			
			November 1 – December 30, 2006		
			Write Technical Spec to meet Board direction		
				January 1, 2007 – March 30, 2007	
				Issue RFP for gating	
				Clarification Meetings with proposers	
					April 1 – June 30, 2007
					Source Selection
					Award contract (June Board cycle)

DRAFT Implementation Schedule

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

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 process 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.