



**Metro**

Metropolitan Transportation Authority

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**OPERATIONS COMMITTEE  
JANUARY 18, 2007**

**SUBJECT: EXTENDED LENGTH ARTICULATED BUS DESIGN**

**ACTION: AUTHORIZE CONTRACT CHANGES TO EXTEND ONE ARTICULATED BUS TO 65 FEET**

**RECOMMENDATION**

Authorize the Chief Executive Officer to execute Modification No. 26 to Contract OP33200646 with North American Bus Industries (NABI) to extend one articulated bus to 65-feet in the amount not to exceed \$100,000, increasing the Total Contract Value from \$221,634,831 to \$221,734,831.

**RATIONALE**

Contract OP33200646 contains an option that was exercised in April 2006 to provide for delivery of ninety-six 60-foot articulated CNG buses with scheduled delivery between July 2006 and June 2007.

In reviewing the current ridership levels for Metro's Orange Line, staff has determined that this fixed guideway Bus Rapid Transit (BRT) service could be improved by utilizing even higher capacity buses. Metro staff began looking at higher capacity vehicles early last year, and met with several United States and European manufacturers. North American Bus Industries (NABI) recently offered to modify one bus in Metro's current order by adding five feet to a conventional 60-foot articulated bus for an additional cost of \$50,000. This change will provide nine additional passenger seats, which equates to a 15.7% increase in seating capacity. NABI does not anticipate the development and building of this prototype vehicle to present significant technical or mechanical challenges.

While the California Vehicle Code restricts transit buses to 60-feet in length, Metro can obtain an annual exemption from Caltrans to permit operation of this 65-foot vehicle on Metro's Orange Line. Longer-term, Metro will work to have the California Vehicle Code amended to permit the use of longer transit vehicles, particularly on dedicated rights-of-way like the Orange Line. This project should help demonstrate the viability of using extended-length vehicles on certain high-capacity transit corridors.

As part of this action, staff also recommends installing "frameless" windows on this 65-foot bus. The total cost for these upgraded windows is approximately \$16,000, and is included

as part of this contract modification. Installing these new window designs on this vehicle will help staff determine whether these attractive new window systems are desirable for future bus orders.

### **IMPACTS TO OTHER CONTRACTS**

There are no impacts to other contracts.

### **FINANCIAL IMPACT**

The cost to extend one bus to 65-feet and install upgraded windows is expected to cost less than \$100,000. This cost can be funded through the existing life-of-project budget by using the project contingency. No additional or new funding is required to implement this change.

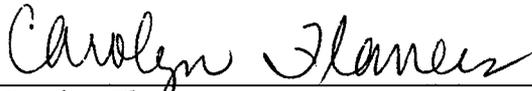
### **ALTERNATIVES CONSIDERED**

The Board may choose to not approve this contract modification. This option is not recommended because NABI's offer provides a low cost, low risk opportunity to explore the potential advantages of higher capacity vehicles. In the near future, staff will report back on the feasibility of using a higher capacity 80-foot bus on certain BRT lines, similar to vehicles currently in use in Europe and South America.

### **ATTACHMENTS**

- A Procurement Summary
- A-1 Procurement History

Prepared by: Richard Hunt, General Manager San Fernando Valley  
John Drayton, Manager, Vehicle Technology



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Carolyn Flowers  
Interim Chief Operating Officer



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Roger Snoble  
Chief Executive Officer

**BOARD REPORT ATTACHMENT A  
PROCUREMENT SUMMARY  
EXTENDED LENGTH ARTICULATED BUS DESIGN**

1.	Contract Number: OP33400646		
2.	Recommended Vendor: North American Bus Industries		
3.	Cost/Price Analysis Information:		
	A. Bid/Proposed Price: NTE \$100,000	Recommended Price: NTE \$100,000	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Fixed Price		
5.	Procurement Dates: Not Applicable to Modifications.		
	A. Issued: N/A		
	B. Advertised: N/A		
	C. Pre-proposal Conference: N/A		
	D. Proposals Due: N/A		
	E. Pre-Qualification Completed: N/A		
	F. Conflict of Interest Form Submitted to Ethics: Not Applicable		
6.	Small Business Participation:		
	A. Bid/Proposal Goal: 0% describe goal type	Date Small Business Evaluation Completed: Not Applicable to Bus Procurements	
7.	Invitation for Bid/Request for Proposal Data: Not Application to Modifications		
	Notifications Sent: Include no. sent N/A	Bids/Proposals Picked up: N/A	Bids/Proposals Received: Include no. received N/A
8.	Evaluation Information:		
	Bidders/Proposers Names:  North American Bus Industries	<u>Proposal Amount:</u>  N/A	<u>Best and Final Offer Amount:</u>  N/A
	B. Evaluation Methodology: Describe Methodology Details are in Attachment A-1.C		
9.	Protest Information:		
	A. Protest Period End Date: N/A		
	B. Protest Receipt Date: N/A		
	C. Disposition of Protest Date: N/A		
10.	Contract Administrator: Margaret Merhoff	Telephone Number: 922-1073	
11.	Project Manager: John Drayton	Telephone Number: 922-5882	

**BOARD REPORT ATTACHMENT A-1  
PROCUREMENT HISTORY**

**EXTENDED LENGTH ARTICULATED BUS DESIGN**

**A. Background on Contractor**

North American Bus Industries (NABI) was established in 1992 and has manufacturing facilities in Budapest, Hungary; Anniston, Alabama. NABI currently produces approximately 800 buses per year, and has the production capacity to produce approximately 1,000 buses per year. Its production capabilities include 30 to 60 foot steel-frame buses, and 30 to 45 foot composite buses. The firm has previously produced several composite body buses and has orders for future such buses.

NABI has delivered 875 40-foot low floor CNG buses, 100 composite 45-foot CNG buses and 200 60-foot articulated buses for Metro. The firm is currently manufacturing 96 additional 60-foot articulated buses under a contract modification. Bus quality and reliability have been good. In addition, the company has produced buses for many other major transit agencies. NABI has a local support-services facility in Ontario, CA. The company is privately owned and is well capitalized. There is a low financial or performance risk with this company.

**B. Procurement Background**

On February 27, 2003, the Board of Directors approved a contract for 200 CNG articulated vehicles from NABI. On September 22, 2005, the Board of Directors authorized the exercise of an option for an additional 94 articulated buses. As part of that action, the Board authorized staff to negotiate and execute modifications for this procurement up to an amount not to exceed \$2,000,000, for a total contract value not to exceed \$221,634,831. At the present time, the obligated contract amount including all modifications and sales tax is \$221,566,334.

Subsequent to authorization approving the option buses, NABI requested approval to expedite manufacture of the buses. Because the expedited delivery was not planned by Metro, the parties agreed that NABI would provide two additional buses at no cost to Metro.

In reviewing the current ridership levels for Metro's Orange Line, staff wishes to utilize even higher capacity buses. NABI proposed to modify one bus in this current order by adding five feet to the front section of the vehicle, thereby creating a new 65 foot articulated vehicle for an additional cost of \$50,000. In addition, the firm will provide upgraded "frameless" windows for an additional \$15,227, and this will help staff determine whether these new window systems are desirable for future bus orders.

**C. Evaluation of Proposals**

Staff reviewed NABI's proposal for extending the vehicle length by five feet and found costs to be "Fair and Reasonable" based on experience with similar work. In addition, staff also looked at two new window design options, and selected the design that was lower cost, yet had superior design features.

**D. Cost/Price Analysis Explanation of Variances**

The recommended increase of not to exceed \$100,000 for this modification has been determined to be fair and reasonable based upon price analysis derived from comparable historical pricing for similar modifications and equipment.