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Metropolitan
Transportation
Authority

One Gateway Plaza
Los Angeles, CA
90012-2952

OPERATIONS COMMITTEE
FEBRUARY 20, 2001

**SUBJECT: WAREHOUSE STORAGE AND RETRIEVAL MACHINES
UPGRADE**

**ACTION: APPROVE CONTRACT AWARD TO UPGRADE STORAGE
AND RETRIEVAL MACHINES**

RECOMMENDATION

- A. Adopt the following motion: The Board finds that there is only a sole source to provide an upgrade to the storage and retrieval machines (SRMs). The purchase is for the sole purpose of upgrading the MTA's existing SRMs. The Board hereby authorizes the upgrade to the SRMs pursuant to PUC Section 130237. (Requires a two-thirds vote.)
- B. Authorize the Chief Executive Officer to award a sole source, firm fixed price contract to HK Systems, Inc. for upgrade of the SRMs for an amount not to exceed \$561,913 including sales taxes.

RATIONALE

This project seeks to upgrade the motor control components and the positioning mechanisms on the SRMs, which consist of six Eaton Kenway, Model 750 Stacker Cranes.

The stacker cranes, which have been in service for more than fourteen years, are an integral part of the Automatic Storage and Retrieval System at the Central Warehouse. Their function is to store, retrieve and deposit bus parts and material in the Mini-Load storage area. Components of the existing motor controller assemblies have been repaired repeatedly, and in many cases are beyond capability of additional repair. Our pool of repairable/serviceable controllers has been declining over recent months, and now has reached a level where one or more cranes are out of service for extended periods of time. Staff expects this condition to continue to worsen, eventually resulting in cranes that cannot be brought back on line. One crane out of service indefinitely will result in fifteen percent of the bus parts inventory at the Central Warehouse becoming unavailable to support day-to-day operations.

The six stacker cranes, which were manufactured and installed by Eaton Kenway (now HK Systems, Inc.) in 1987, were manufactured specifically for installation and operation at the MTA's Central Warehouse facility. They operate within a racking

structure which is an integral part of the building itself, and which supports the warehouse roof.

HK Systems has upgraded the motor controls on eighty-five Eaton Kenway cranes similar to the cranes installed at MTA and has also upgraded the positioning mechanisms on thirty such cranes from encoder devices to modern laser positioning devices. Hardware configurations for both elements of this upgrade have already been designed, engineered and operated successfully in a production environment for a significant period of time.

Another firm presented with the same tasks would require design and engineering activities, as well as the incumbent testing and evaluation of the equipment prior to installation and post-installation, without guaranteed success. HK Systems installation of this equipment on HK System stacker cranes will ensure that responsibility for incompatibility of hardware/software elements, both new and existing, will not be in dispute. Sole sourcing this procurement ensures that the responsibility and accountability for project success lies with the Original Equipment Manufacturer and not a third-party integrator.

Compatibility of the performance characteristics of the controller devices and the crane structure is critical. Inherent in the crane design are performance limits which define the characteristics of the performance window within which crane structural integrity is preserved. Acceleration/ deceleration that may exceed the design specifications of the crane mast and boom will result in mast whip leading to weld cracks and mast failure. The Original Equipment Manufacturer is most qualified to ensure this compatibility, and to be accountable for the safe operation of the cranes.

HK Systems is the only approved source to provide the parts and technical expertise required to upgrade the SRMs. All designs, patents and rights for the SRMs are exclusively owned by HK Systems. There is no other source available for the replacement parts.

FINANCIAL IMPACT

Funding of \$598,200 for this upgrade is included in FY02 budget under Cost Center 6330, Inventory Management, Project Number 200040, Procurement and Warehouse Operations and line item number 53102, Acquisition of Equipment. In FY01, no funds were expended in this category.

ALTERNATIVES CONSIDERED

The alternative is not to award the contract to HK Systems. This action is not recommended because of the very real potential for interruption in service from failures and inefficiencies related to operating the SRMs in their current condition.

ATTACHMENTS

- A. Procurement Summary
- A-1. Procurement History



Colonus Mitchell
Executive Officer



Roger Snoble
Chief Executive Officer

**BOARD REPORT ATTACHMENT A
PROCUREMENT SUMMARY**

STORAGE AND RETRIEVAL MACHINES UPGRADE

1.	Contract Number: N/A Sole Source		
2.	Recommended Vendor: HK Systems		
3.	Cost/Price Analysis Information:		
	A. Bid/Proposed Price: \$561,913 incl. sales tax	Recommended Price: \$454,396 incl. sales tax	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Fixed Price		
5.	Procurement Dates: N/A		
	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:		
6.	Small Business Participation		
	A. Bid/Proposal Goal: No goal assigned	Date Small Business Evaluation Completed:	
	Small Business Commitment: No goal assigned		
4.	Invitation for Bid/Request for Proposal Data: N/A		
	Notifications Sent: N/A	Bids/Proposals Picked up: N/A	Bids/Proposals Received: N/A
5.	Evaluation Information:		
	A. Bidders/Proposers Names: HK Systems, Inc.	Bid/Proposal Amount: \$561,913 Incl. Sales Tax	Best and Final Offer Amount: \$561,913 Incl. Sales Tax
	B. Evaluation Methodology: Details are in Attachment A-1.C		
6.	Protest Information: N/A		
	A. Protest Period End Date:		
	B. Protest Receipt Date:		
	C. Disposition of Protest Date:		
7.	Contract Administrator: R. Bachman	Telephone Number: 922-1016	
8.	Project Manager: Dieter Hemsing	Telephone Number: 922-5114	

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

STORAGE AND RETRIEVAL MACHINES UPGRADE

A. Background on Contractor

HK Systems' corporate headquarters is located in Milwaukee, Wisconsin and the company has additional facilities in Salt Lake City, Utah; Hebron, Kentucky; Montgomery, Alabama; Seattle, Washington, and Toronto, Ontario. HK Systems was originally formed in 1969 as the Automated Material Handling Division of Fortune 300 P&H Harnischfeg. HK Systems installed the first Automated Storage & Retrieval System in 1969. In 1995 HK Systems acquired Eaton-Kenway. HK Systems also manufactures a full line of conveyors, palletisers, sortation equipment, storage and retrieval machines and automated guided vehicles. HK Systems has installed and upgraded similar storage and retrieval equipment for Ralphs Grocery, Goodyear, Anheuser Busch, General Motors, Texas Instruments and a number of other large companies.

HK Systems has been responsive and has provided good support to the MTA for software and hardware maintenance of the SRM system.

B. Procurement Background

Procurement staff performed an analysis, in accordance with the MTA's Policies and Procedures covering a non-competitive procurement. Staff determined that the items required are unique and specific to the MTA's SRM System, that there are no other companies that can manufacture the exact design. HK Systems is the only approved source for the products, as they own the rights and design to the SRMs originally manufactured by Eaton Kenway.

Based on Section 1102 Federally Funded Procurement by Noncompetitive Proposals, Section 1 (a), a sole source procurement is warranted if the item is only available from a single source. HK Systems is the sole supplier with the technical expertise and capability to provide the replacement parts required to upgrade the SRMs. Based on this fact, the Small Business Diversity Unit (SBD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this procurement.

C. Cost/Price Analysis Explanation of Variances

The negotiated price has been finalized based upon a cost analysis and pre-award audit performed by the Management Audit Service Department, supported by a Technical Cost Evaluation performed by Procurement's Estimating Group. The pre-award audit identified total variances in cost of \$155,258, the most significant of which was in calculation of the General and Administrative expense, which totaled \$117,561.

Based on negotiations, HK Systems reduced their cost in all areas. However, there still remains a significant variance in General and Administrative expenses between HK Systems' method of calculating G&A at the reduced rate of 50%, and MTA's approach which was calculated at 13.99%. The total variance in this cost element amounts to \$106,998.

In reviewing the total cost of the project, it was determined that the price to the MTA to complete the upgrade is less than the amount charged to other customers for similar work.

Additionally, HK Systems certified that the prices offered to MTA are equal to or less than the prices offered to any other private or public organization.