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 COMPTROLLER GENERAL OF THE UNITED STATES
 WASHINGTON, D.C. 20548

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 72-0198
 JUN 16 1972

RELEASED

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Dear Mr. Cabell:

This is in response to your letter of May 11, 1972, requesting that the General Accounting Office review and evaluate the bids for equipment recently received by the Washington Metropolitan Area Transit Authority (WMATA). WMATA received these bids as part of the second step in their two-step formal advertising procedure in contracting for the purchase of 300 rapid transit cars and related items (WMATA prospective contract 2Z0061). The bids were opened on May 3, 1972, and the low bidder was found to be Rohr Industries, Inc., of Chula Vista, Calif.; however, the award of the contract by WMATA is being held in abeyance pending completion of our review. Rohr is currently constructing similar equipment for the San Francisco Bay Area Rapid Transit District (BART).

Our inquiry included interviews with officials of WMATA and BART and an examination of pertinent records of these agencies.

RESPONSIBLE BID

In the request it was stated that the original estimate by WMATA for this equipment was \$119,043,364, that two of the qualified bidders were within \$18,000 of each other at \$103,130,000 plus, and that the low bidder submitted a bid of \$91,607,000. Some people suspect that the low bid by Rohr is an "irresponsible" bid, submitted in the hope that suggested changes and claims for overruns will result in materially increased payments.

Finding

The WMATA estimate prepared on April 7, 1972, includes (1) 300 rapid transit cars at \$116,728,500 (a unit price of \$389,095), (2) a squeeze test at \$20,000, (3) a truck test at \$50,000, (4) one lot of spare parts at \$1,248,864, and (5) a user education program at \$1,000,000--for a total of \$119,047,364. The WMATA unit price estimate of \$389,095 was reached by comparing their proposed rapid transit cars with those of a bidder of a recent New York transit car contract (in which the unit price was \$294,960) and then estimating the cost for any differences between the cars.

The estimate prepared by WMATA, therefore, did not have the precision that would be characteristic of an engineering estimate derived from a thorough analysis of the material and labor requirements for the items to be built.

The Rohr overall bid of \$91,607,274 includes (1) 300 transit cars at \$89,398,500 (a unit price of \$297,995), (2) a squeeze test at \$53,744, (3) a truck test at \$29,553, (4) one lot of spare parts at \$1,903,898, and (5) a user education program at \$221,579. We concluded that Rohr's bid was fully responsive to the WMATA request.

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In July 1969 Rohr, the low bidder for the BART contract, submitted an overall bid of \$66,708,031 exclusive of escalation and California local sales and use taxes. The unit price under this contract was \$233,056 for A-Cars and \$228,953 for B-Cars. (The difference in cars being that A-Cars contain an attendant's position and certain train control equipment and B-Cars do not.) The total amount to be paid under the BART contract has increased by 20 percent to \$80 million due to contractually allowed escalation of \$8,548,000, California local sales and use taxes of \$4,113,000, and contract changes of \$639,380. The 20-percent increase factor applied to the original unit price of A-Cars results in a present-day unit price of \$279,600. We found that the overall dimensions, specifications, and design configuration of the WMATA cars are similar to the BART A-Cars; therefore we believe that Rohr's unit price of \$297,995 for the WMATA bid appears to be reasonably consistent with the pricing of the BART car and does not indicate an irresponsible bid.

To determine whether Rohr had the resources and know-how to successfully complete the prospective contract, WMATA performed a preaward survey of the low bidder. WMATA found that Rohr (1) was financially qualified, (2) was able to comply with the required delivery schedule, (3) had a satisfactory record of performance, (4) had a satisfactory record of integrity, (5) had the necessary organization, experience, operational controls, and technical skills, and (6) had the necessary production, construction, and technical equipment and facilities.

In describing the performance capability of Rohr, a BART official stated:

"We feel that for other contracts which are comparable to BART's procurement of vehicles in terms of technical sophistication, complexity, and size, we have every indication thus far that Rohr could perform such work in a satisfactory manner."

BART officials have indicated that the manufacturing of BART vehicles is presently scheduled to be completed in August 1973 and that a contract with Rohr for WMATA transit vehicles is not expected to have any effect on Rohr's ability to perform on either the BART or the WMATA procurement.

We reviewed the records of the preaward survey and found no basis for disagreeing with WMATA's conclusion as to Rohr's ability to carry out the prospective contract.

BART'S EXPERIENCE WITH ROHR

In the request it was stated that Rohr, which has had a very large contract with BART, has had considerable difficulty in meeting its commitments and has asked for considerable overages.

Finding

The BART vehicle contract was awarded to the low bidder, Rohr Corporation (now Rohr Industries, Inc.), on July 3, 1969. This firm fixed-price contract with provision for material and labor escalation was in two parts. Part I, in the amount of \$10,000,000, was for the manufacture and test of 10 transit prototype vehicles. Part II, in the amount of \$56,708,031, was for the manufacture and delivery to specifications of 240 transit vehicles. The cost of all contractual changes up to May 24, 1972, including changes in process, amounted to \$639,380. The only contract change introduced by Rohr actually resulted in a reduction in the contract bid price.

The prototype testing took 15 months rather than the 6 months originally planned. Some of the major problem areas delaying the program were (1) traction motor flashovers, (2) traction motor coupling failures, and (3) control system performance reliability. According to BART officials, these problem areas were not unexpected and could be considered typical during initial testing of sophisticated systems.

Rohr has been late in the delivery of the vehicles for various reasons. Three major contributing factors have been the delay in completion of the prototype program, an earthquake, and a labor dispute and subsequent strike.

An earthquake in the Los Angeles area on February 9, 1971, caused substantial destruction to the manufacturing facilities of a subcontractor supplying the friction brake system for the BART transit vehicles.

A strike, started at Rohr's manufacturing plant in Chula Vista on November 28, 1971, was not terminated until February 2, 1972. After the strike was settled only 46 of the 135 men and women experienced in the assembly and testing of the BART transit vehicles returned to work. Therefore 89 workers with virtually no previous BART transit-vehicle experience had to be added to the production line to return to the prestrike manpower level.

At the present time Rohr expects to deliver 60 vehicles by October 27, 1972; 40 more by January 10, 1973; and the remaining 150 by August 10, 1973.

The price of Rohr's contract with BART for transit vehicles has increased from \$66,708,031 to \$80,008,411, as follows:

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Original contract:	
Part I	\$10,000,000
Part II	<u>56,708,031</u>
Total	66,708,031
Change orders	639,380
Estimated escalation allowable under the contract	8,548,000
Estimated sales tax levied by California and reimbursable under the contract	<u>4,113,000</u>
Contract price at May 24, 1972	<u>\$80,008,411</u>

WMATA officials advised us that the contract with Rohr would be a firm fixed-price contract containing no provision for escalation.

REVIEW AND EVALUATION OF BIDS

We were requested to review and evaluate the bids.

Finding

We have reviewed the technical proposals, bids, and related correspondence submitted by Rohr Industries, Inc., General Electric Company, LTV Aerospace Corporation, and Tokyo Shibaura in response to WMATA's Request for Technical Proposal (RFTP-02) and Invitation for Bid (IFB-04).

A tabulation of the bids is presented in the enclosure.

We found no basis for questioning WMATA's conclusion that each of the above bidders was responsive to the invitation for bids and that the technical proposals were acceptable.

We did not obtain formal comments from WMATA on the matters included in this report.

We plan to make no further distribution of this report unless copies are specifically requested and then only after your agreement has been

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obtained or public announcement has been made by you concerning the contents of the report.

If we can further assist you in this matter, please let us know.

Sincerely yours,

A handwritten signature in cursive script, reading "James B. Peets". The signature is written in dark ink and is positioned above the typed name and title.

Comptroller General
of the United States

Enclosure

The Honorable Earle Cabell
House of Representatives

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

INVITATION FOR BIDS

BID TABULATION--PROSPECTIVE CONTRACT 2Z00061

<u>Item</u>	<u>Quantity</u>	<u>Description</u>	<u>WMATA</u>	<u>Rohr</u>	<u>General Electric</u>	<u>LTV</u>	<u>Tokyo Shibaura</u>
1	300	Rapid transit cars:					
		Unit price	\$ 389,095	\$ 297,995	\$ 335,115	\$ 338,730	\$ 464,040
		Extended	<u>\$116,728,500</u>	<u>\$89,398,500</u>	<u>\$100,534,500</u>	<u>\$101,619,000</u>	<u>\$139,212,000</u>
2	1	Squeeze test	20,000	53,744	67,275	157,000	94,500
3	1	Truck test	50,000	29,553	60,000	115,000	6,500
4	1	Lot of spare parts for 300 cars	1,248,864	1,903,898	1,886,079	2,055,000	2,154,000
5	1	User education program	<u>1,000,000</u>	<u>221,579</u>	<u>583,700</u>	<u>628,000</u>	<u>1,505,300</u>
Total bid			<u>\$119,047,364</u>	<u>\$91,607,274</u>	<u>\$103,131,554</u>	<u>\$104,574,000^a</u>	<u>\$142,972,300</u>

^aThe maximum reference weight established by WMATA was 72,000 pounds. All the contractors, with the exception of LTV, used this weight in their bids. The reference weight in the LTV bid was 69,500 pounds. This difference in reference weight, 2,500 pounds, when multiplied by the number of cars (300) and the weight penalty (\$1.90), would reduce the amount of LTV's bid by \$1,425,000 to \$103,149,000--the total evaluated bid.