



MWD

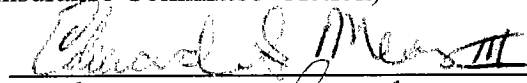
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

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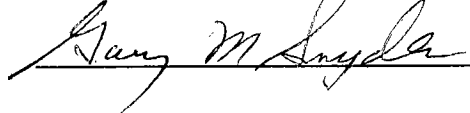
December 10, 1996

To: Board of Directors (Engineering and Operations Committee--Action)
(Finance and Insurance Committee--Action)

From: General Manager



Submitted by: Gary M. Snyder
Chief Engineer



Subject: Authorization No. 11 to Increase Appropriation No. 15122 by \$115,500,000 from \$151,760,000 to \$267,260,000 to Expend Budgeted Funds and Award a Construction Contract for the Construction of the Arrowhead East Tunnel of the Inland Feeder Project

RECOMMENDATIONS

It is recommended that a construction contract for the Arrowhead East Tunnel in the amount of \$88,373,316 be awarded to Shank/Balfour Beatty, a joint venture, in accordance with Specifications No. 1358, as amended, and that conditioned upon execution of the contract, all other bids be rejected.

It is recommended that your Board authorize an increase of \$115,500,000 in the Inland Feeder Appropriation No. 15122 from \$151,760,000 to a total of \$267,260,000 from the Commercial Paper Note Construction Fund, to finance all budgeted costs for the construction of the Arrowhead East Tunnel of the Inland Feeder Project.

EXECUTIVE SUMMARY

Approval of these recommendations will authorize the award of a unit price contract in the amount of \$88,373,316 to Shank/Balfour Beatty, a joint venture, the low bidder for Specifications No. 1358, as amended, for the construction of the Arrowhead East Tunnel which was previously planned and budgeted for the Inland Feeder Project (Project); and authorize an increase of \$115,500,000, including contingencies, construction management, and engineering support, to a total appropriation of \$267,260,000. The estimated total Project cost remains at \$1,188,000,000.

BRIEF DESCRIPTION

A total of seven bids were received and opened under Specifications No. 1358, as amended, for the construction of the Arrowhead East Tunnel of the Project and are shown on the Abstract of Bids (see Attachment B). The responsible low bid from Shank/Balfour Beatty, in the amount of \$88,373,316, complies with the requirements of the specifications, is \$9,078,184 below the next lowest bid, and is \$24,436,684 below the Engineer's Estimate. The bid is based upon unit prices for the estimated quantities set forth in the specifications. The final contract price may vary to the extent that actual quantities vary from the estimates in the specifications.

A \$115,500,000 increase in Appropriation No. 15122, formerly Appropriation No. 559, is therefore required for the construction of the Arrowhead East Tunnel of the Project. The total estimated cost of the Project remains at \$1,188,000,000 (see Attachment A).

Contract Type <input checked="" type="checkbox"/> New <input type="checkbox"/> Amended	Funding <input checked="" type="checkbox"/> Capital-Appropriation No. 15122 <input type="checkbox"/> O & M	Type of Competition <input checked="" type="checkbox"/> Competitive Bidding Specification No. 1358 <input type="checkbox"/> Negotiated Contract <input type="checkbox"/> Sole Source
Contract Form <input type="checkbox"/> Lease <input type="checkbox"/> Professional Services <input checked="" type="checkbox"/> Construction	Budget Status <input checked="" type="checkbox"/> FY 96/97 Amount \$60,896,200 <input checked="" type="checkbox"/> Out-Year Amount \$959,522,500 <input type="checkbox"/> Non-Budget Amount _____	Contract Type <input checked="" type="checkbox"/> Unit Price <input type="checkbox"/> Cost Plus <input type="checkbox"/> Time and Materials

PURPOSE/BACKGROUND

The Project is an essential feature of the Metropolitan distribution system, more than doubling the water delivery capacity of the east branch of the State Water Project and providing the service area with up to 650 million gallons of additional delivery capacity daily. The system will also help replenish local groundwater basins, improve State Water Project/Colorado River Aqueduct blends, and serve as an important source of supply for several Metropolitan reservoirs, including the Eastside Reservoir Project.

The Arrowhead East Tunnel Segment is located in the San Bernardino Mountains between City Creek in the City of Highland and the Arrowhead Springs area north of the City of San Bernardino. This segment consists of approximately 27,350 feet of tunnel and 3,470 feet of pipeline which passes through a variety of ground and geologic conditions, including at least two major fault zones. Work under this contract will include tunnel and pipeline excavation, installation of tunnel liner and pipeline, construction of manholes and access facilities, and protection of existing facilities.

ACTION AND MILESTONE

Construction is scheduled to begin in February 1997 and complete in late-2001.

MBE/WBE

The specifications, as amended, established a mandatory subcontracting minimum of 6 percent to qualified subcontractors. Shank/Balfour Beatty listed 7.91 percent of this project as subcontracted to qualified subcontractors.

The specifications, as amended, required the bidder to submit documentation of its good-faith effort to encourage the participation of minority-, women-, and other-owned business enterprises (MBE/WBE/OBEs). As a result of this good-faith effort, participation by MBEs of 3 percent and by WBEs of 1 percent was expected. Shank/Balfour Beatty achieved 6.01 percent certified MBE participation and 1.82 percent certified WBE participation. The MBE and WBE subcontractors are listed on Attachment C.

CEQA COMPLIANCE/ENVIRONMENTAL DOCUMENTATION

All California Environmental Quality Act (CEQA) requirements have been satisfied for the proposed action. In February 1993, your Board certified the Final Environmental Impact Report for the Project. This action satisfied the provisions of CEQA, and no further environmental documentation or reviews are necessary for your Board to take action on this recommendation.

<p>Plan and Bid Statistics <u>66</u> Contractors Requested Plans <u>7</u> Bids Submitted</p>	<p>Evaluation Criteria Low bid that meets the requirements of the specifications. Bidders qualifications and MBE/WBE participation are also considered.</p> <p>Contractual Details <input checked="" type="checkbox"/> Anticipated Duration 1200 Working Days <input type="checkbox"/> Hourly Rates <input checked="" type="checkbox"/> Prevailing Wage Rates Will Apply</p>
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(rch2)

Financial Statement
Inland Feeder Program
(Capital Program No. 5-5590-11)

Project Summary:**TOTAL PROJECT**

	<u>Current Budget</u>	<u>Total Appropriation</u>
Planning	\$ 8,020,000	\$ 8,020,000
Land	51,000,000	30,600,000
Mitigation	13,660,000	8,480,000
Design	75,000,000	65,828,000
Contracts/Construction	900,000,000	138,593,000
Contingency	<u>140,320,000</u>	<u>15,739,000</u>
TOTAL	<u>\$1,188,000,000</u>	<u>\$267,260,000</u>

The total cost breakdown for Authorization Nos. 10 and 11 to Appropriation No. 15122 are shown below:

	<u>Authorization No. 10</u>	<u>Authorization No. 11</u>
CONSTRUCTION	\$ 1,895,000	\$ 90,269,000
LABOR:		
Study	\$ 1,510,000	\$ 1,510,000
Preliminary Engineering, Final Engineering and Preparation of Specifications	18,060,000	18,060,000
Shop Drawing Reviews, Contract Admin., Field/Fabrication Inspections	635,000	6,885,000
Environmental	380,000	380,000
Right-of-Way	<u>4,050,000</u>	<u>4,050,000</u>
LABOR SUBTOTAL	\$ 24,635,000	\$ 30,885,000
Materials and Supplies	3,960,000	4,260,000
Incidental Expenses	1,200,000	1,700,000
Professional & Technical Services	55,965,000	57,616,000
Environmental Mitigation	7,900,000	7,900,000
Right-of-Way Acquisition	20,300,000	20,300,000
Operating Equipment Use	350,000	750,000
Administrative Overhead	13,588,000	17,037,000
Owner Controlled Insurance Program (OCIP)	20,795,000	20,795,000
Contingencies	<u>1,172,000</u>	<u>15,748,000</u>
TOTAL	<u>\$ 151,760,000</u>	<u>\$ 267,260,000</u>

**Financial Statement
(Program No. 5-5590-11)**

Estimated Funds Required:

Revision	Date	Amount
Revision No. 1	August 8, 1989	\$ 3,450,000
Revision No. 2	July 31, 1990	2,320,000
Revision No. 3	December 17, 1991	2,330,000
Revision No. 4	January 22, 1993	3,000,000
Revision No. 5	March 30, 1993	102,900,000
Revision No. 6	June 30, 1993	-0-
Authorization No. 7	August 20, 1996	2,200,000
Authorization No. 8	October 29, 1996	8,250,000
Authorization No. 9	October 31, 1996	19,710,000
Authorization No. 10	November 19, 1996	7,600,000
Authorization No. 11	December 10, 1996	115,500,000
Remaining		<u>920,740,000</u>
Total		<u>\$1,188,000,000</u>

Source of Funds--Commercial Paper Note Construction Fund

Class: One--Project directly related to delivery of water.

Projected Expenditures of Funds:

Through Fiscal Year 1995/96	\$71,120,000
Fiscal Year 1996/97	52,000,000
Fiscal Year 1997/98	82,000,000
Fiscal Year 1998/99	130,000,000
Fiscal Year 1999/00	244,000,000
Fiscal Year 2000/01	179,000,000
Fiscal Year 2001/02	171,000,000
Fiscal Year 2002/03	82,560,000
Fiscal Year 2003/04	36,000,000
Contingency	<u>140,320,000</u>
TOTAL	<u>\$1,188,000,000</u>

The Metropolitan Water District of Southern California

**ABSTRACT OF BIDS RECEIVED 21, 1996 AT 2:00 PM
Specifications No. 1358, as Amended**

Arrowhead East Tunnel

This project consists of construction of approximately 27,350 feet of 12-foot-diameter (finished) tunnel and 3,466 feet of 12-foot-diameter pipeline from the contract limit line near Strawberry Creek Portal to the contract limit line near City Creek Portal. The work includes excavation and backfill, installation of pipeline and tunnel, protection and support of existing facilities, manholes, access facilities, and restoration.

Engineer's Estimate: \$112,810,000

Bidder & Location	Total
Shank/Balfour Beatty - San Francisco, California	\$88,373,316
J. F. Shea Co., Inc. - Walnut, California	\$97,451,500
S. A. Healy Company/PCL Civil Constructors, Inc., a Joint Venture - McCook, Illinois	\$102,945,849
Frontier/Traylor Arrowhead Joint Venture - Evansville, Indiana	\$103,000,000
Obayashi Corporation/Dillingham Construction N.A., Inc., a Joint Venture - San Francisco, California	\$117,376,000
Kiewit/Atkinson, a Joint Venture - Omaha, Nebraska	\$118,705,000
Kenny/Granite, Joint Venture - Wheeling, Illinois	\$126,261,000

MBE/WBE PARTICIPATION
Spec. No. 1358

Name of Bidder: Shank/Balfour Beatty
 PARTICIPATION LEVELS: 3 Percent MBE and 1 Percent WBE

Name of Certified MBE/WBE Subcontractor/Supplier	Work to Be Performed or Materials To Be Supplied	Participation	
		MBE%	WBE%
<i>Western Paving Contractors</i>	<i>Asphalt Paving</i>	<i>.07</i>	
<i>Coast Geo-Constructors, Inc.</i>	<i>PCC Tunnel Support Segments</i>	<i>5.71</i>	
<i>Daniel Hernandez Trucking</i>	<i>Trucking of Excavated Materials</i>	<i>.23</i>	
<i>R. T. Construction, Inc.</i>	<i>Tunnel Electrical</i>		<i>1.82</i>
Total Participation		6.01	1.82

