



MWD

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

8-4

April 21, 1998

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

From: *for* General Manager *Edward J. McCall III*

Submitted by: Gary M. Snyder *Gary Snyder*
for Chief Engineer

Subject: Award a Construction Contract for the Construction of the Arrowhead West Tunnel of the Inland Feeder Project

Reference: Appropriation No. 15122

RECOMMENDATION(S)

To construct the Arrowhead West Tunnel of the Inland Feeder Program, it is recommended that a construction contract for the Arrowhead West Tunnel in the amount of \$87,573,873 be awarded to Shank/Balfour Beatty, a joint venture, in accordance with Specifications No. 1357, as amended, and that conditioned upon execution of the contract, all other bids be rejected.

EXECUTIVE SUMMARY

Approval of this recommendation will authorize the award of a unit price contract in the amount of \$87,573,873 to Shank/Balfour Beatty, a joint venture, the low bidder for Specifications No. 1357, as amended, for the construction of the Arrowhead West Tunnel which was previously planned and budgeted for the Inland Feeder Program. The total estimated cost of the Inland Feeder Program remains at \$1,188,000,000.

JUSTIFICATION

The Arrowhead West Tunnel is a segment of the Inland Feeder Program. The major benefits that the Inland Feeder program offers, include: (1) ensuring supply reliability by increasing the delivery capacity from the State Water Project (SWP) to Metropolitan's service area; (2) taking advantage of potentially large quantities of SWP deliveries, which may only be available during short durations, in order to replenish storage in local groundwater basins and the Eastside Reservoir; (3) ensuring system reliability and operational flexibility by significantly increasing the linkage between the California and Colorado River aqueduct systems to protect the area against uncertainties; and (4) assisting in meeting future water-blending requirements. Award of this contract is consistent with the workplan for the Inland Feeder Program.

ALTERNATIVE(S) TO PROPOSED ACTION

Reject All Bids and Readvertise Project

Since this tunnel is essential to the Inland Feeder Program, the only feasible alternative is to reject all bids and readvertise the project. This would delay project completion, increase administrative costs, and may or may not result in lower bids.

ACTIONS AND MILESTONES

- Issue a Notice-to-Proceed in July 1998
- Complete Arrowhead West Tunnel construction in mid-2002

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 Program. This action satisfied the provisions of CEQA, and no further environmental documentation or reviews are necessary for your Board to take action on these recommendations.

CONTRACT SUMMARY

Contract Status:	New	Type of Selection:	Competitive Bid, Specifications No. 1357
Contract Form:	Construction	Contractors Requesting Plans:	85
Contract Type:	Unit Price	Bids Submitted:	5
Evaluation Criteria:	Low bid that meets the requirements of the specifications. Bidders qualifications are also considered.		

MBE / WBE

The specifications, as amended, established mandatory subcontracting requirements and required the bidder to conduct a good-faith effort to encourage participation of minority-, women-, and other-owned business enterprises (MBE/WBE/OBEs). The Anticipated Levels of Participation (ALP), Mandatory Minimum Subcontracting Requirement (MMSR), and the participation proposed by Shank/Balfour Beatty are as follows:

	<u>% MMSR</u>	<u>% MBE</u>	<u>% WBE</u>
ALP	6.00	3.00	1.00
Proposed	21.02	5.30	2.02

The Business Outreach Office has reviewed the good-faith effort submitted by Shank/Balfour Beatty, and has deemed it acceptable in meeting the criteria set forth in the specifications. The MBE and WBE subcontractors are listed on Attachment A.

DETAILED REPORT

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

The Arrowhead West Tunnel is the first leg of the Inland Feeder Program. It is located between the Arrowhead Springs area north of the City of San Bernardino and the Department of Water Resources Devil Canyon Power Plant near California State University, San Bernardino. This segment consists of approximately 21,200 feet of tunnel and 6,600 feet of buried pipeline which passes through a variety of ground and geologic conditions, including a fault-zone and areas of geothermal activity. 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.

A total of five bids were received and opened under Specifications No. 1357, as amended, for the construction of the Arrowhead West Tunnel and are shown on the Abstract of Bids (see Attachment B). The responsible low bid from Shank/Balfour Beatty, in the amount of \$87,573,873, complies with the requirements of the specifications, is \$4,326,127 below the next lowest bid, and is \$426,127 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.

BSB/bm:rev3
(arrowwest)
Attachment(s)

MBE/WBE PARTICIPATION
Specifications No. 1357, as Amended

Name of Bidder: Shank/Balfour Beatty, A Joint Venture
MBE/WBE Participation Levels: 3% MBE and 1% WBE

Name of Certified MBE/WBE Subcontractor/Supplier	Work to Be Performed or Materials To Be Supplied	Participation	
		MBE%	WBE%
R. T. Construction Studio City, PA	Furnish and Install Temporary Electrical		1.71%
Intra-American Foundation & Drilling Co., Inc. Seal Beach, CA	Furnish and Install PCC Tunnel Supports	5.02%	
	Additional participation submitted with the Good-Faith Effort:		
R. C. Cement Contractors Anaheim, CA	Cement Work	0.04%	
MEI Electric San Bernardino, CA	Electrical Instrumentation	0.24%	
Pacific Reinforcing Steel Santee, CA	Reinforcing Steel		0.31%
Total Committed Participation		5.30%	2.02%

**Abstract of Bids Received April 8, 1998, at 2:00 P.M.
 Specifications No. 1357, as Amended
 Arrowhead West Tunnel**

The Arrowhead West section of the Inland Feeder Project includes approximately 21,200 feet of 12-foot-diameter (finished) tunnel and 6,500 feet of 12-foot-diameter pipeline from the contract limit line near Devil Canyon to the contract limit line near Waterman Canyon. Work includes excavation and backfill, installation of pipeline and tunnel, protection and support of existing facilities, manholes, access facilities, and restoration.

Engineer's Estimate: \$88,000,000

Bidder & Location	Item 1 General Mobilization	Items 2 through 16 Construction	Total of Items 1 through 16
Shank/Balfour Beatty, A Joint Venture <i>Highland, California</i>	\$5,000,000	\$82,573,873	\$87,573,873
J. F. Shea Co., Inc. <i>Walnut, California</i>	\$5,000,000	\$86,900,000	\$91,900,000
Traylor Bros., Inc., and Frontier-Kemper Constructors, Inc., A Joint Venture <i>Pleasanton, California</i>	\$5,000,000	\$88,827,200	\$93,827,200
Obayashi Corporation/Dillingham Construction N.A., Inc., A Joint Venture <i>San Francisco, California</i>	\$5,000,000	\$96,759,000	\$101,759,000
NY Foundation/Atkinson/McNally, A Joint Venture <i>Ontario, Canada</i>	\$5,000,000	\$109,252,276	\$114,252,276