

**CITY OF HAYWARD**  
**AGENDA REPORT**

AGENDA DATE 02/06/01  
AGENDA ITEM 6  
WORK SESSION ITEM \_\_\_\_\_

**TO:** Mayor and City Council  
**FROM:** Director of Public Works  
**SUBJECT:** Seismic Retrofit of the Highland 500 Reservoir—Approval of Addenda No. 1 and No. 2, Award of Construction Contract, and Authorization for Additional Appropriation from the Water Capital Improvement Fund

**RECOMMENDATION:**

It is recommended that the City Council approve the attached resolutions which:

1. Approve Addenda No. 1 and No. 2, that make minor revisions to the plans and specifications;
2. Award the construction contract to Pacific Mechanical Corporation, in the amount of \$1,005,000; and
3. Authorize an additional appropriation of \$25,000 from the Water Capital Improvement Fund.

**BACKGROUND:**

The Highland 500 Reservoir, located at Highland Boulevard and Campus Drive, is a critical component in the City's delivery system providing water to the eastern hills of Hayward. This prestressed concrete tank, constructed in 1955, has a storage capacity of 3 million gallons.

Several years ago, as part of a system-wide seismic analysis for the water system, Dames & Moore recommended the City provide certain strengthening measures for the 500 Reservoir. Carollo Engineers performed a more detailed structural study of the 500 Reservoir in 1999 and made a specific recommendation to reinforce the structure with tensioned steel cable.

Wrapping the exterior with steel cable and then covering the cable with shotcrete will seismically reinforce the reservoir. In order for the shotcrete to adhere to the old concrete, the existing paint must be removed. An analysis of the paint indicates that it contains lead that must be disposed of in accordance with environmental and health regulations.

The tank is partially buried and is situated on a small site that has little room between the tank and the property line. Excavation of up to 15 feet in depth will be necessary to expose the buried portion of the tank for wrapping. Controlling the exposed excavations by driving

shoring will be required. The City has negotiated with a neighboring property owner to obtain a construction easement for placement of the shoring materials and for temporary storage of the excavated soil, which will eliminate over 200 truck trips to haul away and return the excavated soil.

As part of this work, the 500 Reservoir will also be modified to become a "flow through" tank. A single pipe now provides inflow and outflow. With the current configuration stagnation can occur, adversely affecting water quality. As part of this project, an inlet pipe will be placed on the side of the tank opposite the outlet pipe, which will cause the water in the tank to be continuously cycled.

It will be necessary to take the tank out of service during retrofit activities. In order to minimize potential problems, construction work requiring the tank to be off-line will be scheduled for completion prior to the end of June 2001.

A public meeting concerning the project was held on November 8, 2000. The main concern expressed was landscaping of the site after completion of construction to screen the tank and soften the visual impact. Extensive landscaping is planned to address this concern. The landscape contract will be separated from the seismic upgrade contract because the wire wrapping work is highly specialized.

The seismic work is categorically exempt from environmental review under the California Environmental Quality Act (CEQA). The Public Resources Code states that CEQA does not apply to modifications of Class I Existing Facilities, e.g., existing facilities of publicly-owned utilities used to provide public utility services.

## **DISCUSSION:**

Addenda No. 1 and No. 2 contain clarifications to the plans and specifications issued primarily to respond to question raised during the advertisement period.

On November 28, 2000 the City Council approved plans and specifications for Highland 500 Reservoir and called for bids to be received on January 9, 2001. The bid date was rescheduled by Addenda No. 1 and No. 2 to January 16, 2001. Four bids were received, ranging from \$1,005,000 to \$1,298,000. The low bid, submitted by Pacific Mechanical Corporation, is 16 percent below the engineer's estimate of \$1,200,000. The combined DBE/WBE goal established for this project was set at 5 percent due to limited availability of subcontracting opportunities. Although the two low bidders did not list subcontractors claiming DBE/WBE status, the lowest bidder of the two did submit a good faith effort report that staff has concluded to be a satisfactory effort. The two high bidders each listed a subcontractor claiming WBE participation of 4.5 percent and 4.6 percent.

**Project Cost:**

The estimated costs of the project are as follows:

Design and administration	\$150,000
Construction	1,005,000
Future landscaping	100,000
Construction administration and inspection	<u>60,000</u>
<b>Total:</b>	<b>\$1,315,000</b>

**Funding:**

A total of \$1,290,000 has been approved in the Water System Capital Improvement Fund of the 2000/01 Capital Improvement Program for this project. An additional appropriation of \$25,000 will be necessary to complete this project. Sufficient monies are available in the Fund for this purpose.

**Schedule:**

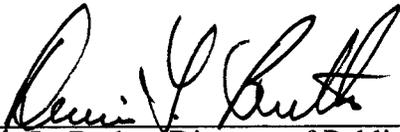
Award construction contract	February 6, 2001
Begin construction	February 27, 2001
Construction completion	August 20, 2001

Prepared by:



Alex Ameri, Deputy Director of Public Works

Recommended by:



Dennis L. Butler, Director of Public Works

Approved by:



Jesús Armas, City Manager

Attachments: Exhibit A: Project Location Map  
Exhibit B: Bid Summary

# PROJECT

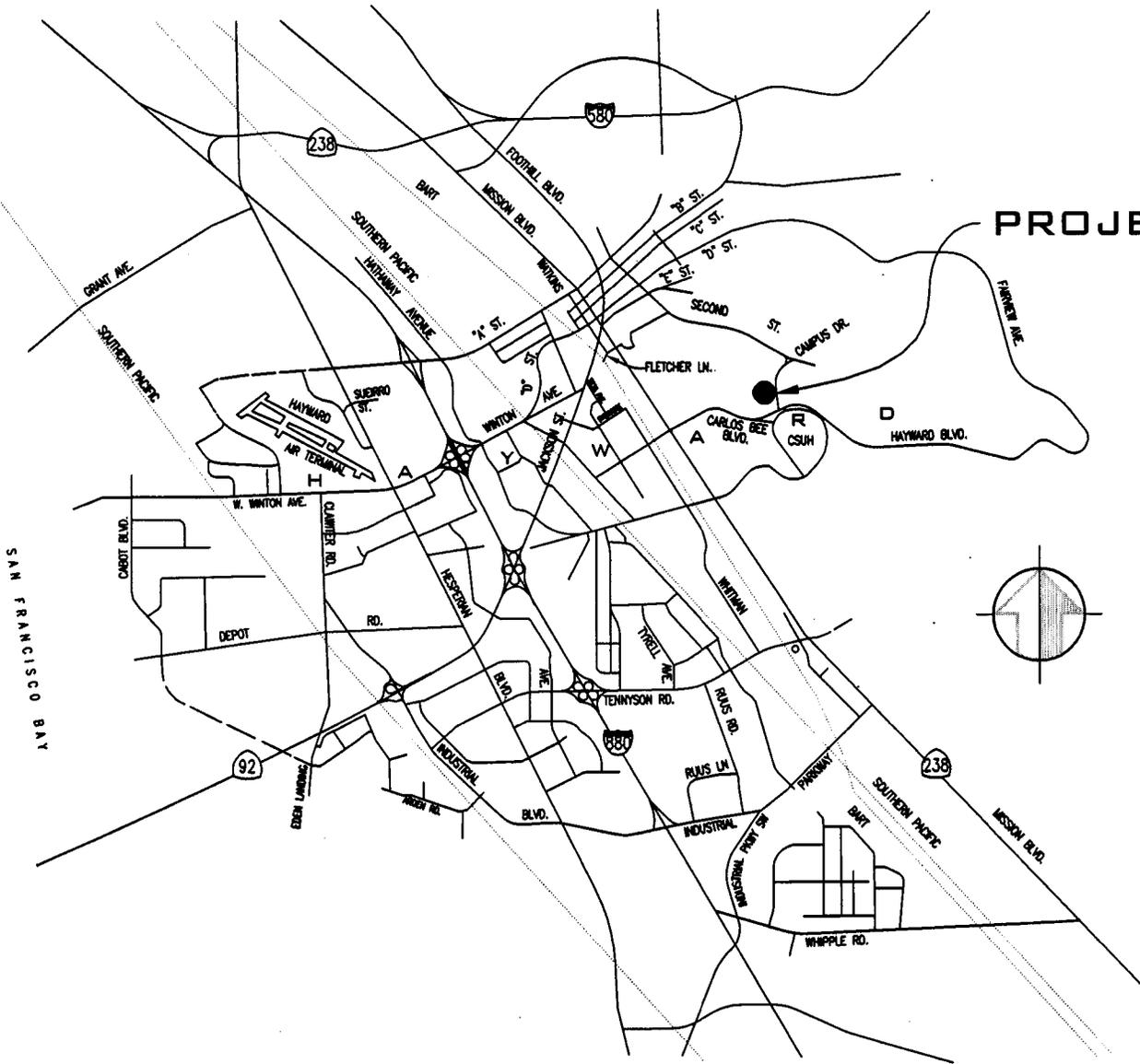


EXHIBIT A  
PROJECT LOCATION MAP

CITY OF HAYWARD  
 HIGHLAND 500 RESERVOIR SEISMIC RETROFIT  
 PROJECT NO. 7147  
 BIDS OPENED: JANUARY 16, 2001

(NUMBER OF BIDS RECEIVED - 4)

<b>BID SUMMARY</b>				ENGINEER'S ESTIMATE		PACIFIC MECHANICAL CORP. P.O. BOX 4041 CONCORD CA 94524 (925) 827-4940		CONCO WEST, INC. P.O. BOX 1360 MANTECA CA 95336 (209) 239-2110	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
1	1	LS	MOBILIZATION	75,000.00	75,000.00	45,000.00	45,000.00	25,000.00	25,000.00
2	1	LS	EARTHWORK	130,000.00	130,000.00	60,000.00	60,000.00	131,210.00	131,210.00
3	1	LS	SHEETING, SHORING, AND BRACING OR EQUIVALENT METHOD	200,000.00	200,000.00	175,000.00	175,000.00	205,000.00	205,000.00
4A(s)	1	LS	PRESTRESSING RESERVOIR WALL - BY WIRE STRAND	288,000.00	288,000.00	250,000.00	250,000.00	310,000.00	310,000.00
4B(s)	1	LS	PRESTRESSING RESERVOIR WALL - BY THREAD ROD	0.00	0.00		0.00		0.00
5	1	LS	CONCRETE RING BEAM AND STRUCTURAL REPAIR WORK	90,000.00	90,000.00	75,000.00	75,000.00	61,000.00	61,000.00
6	1	LS	MECHANICAL PIPING	51,000.00	51,000.00	75,000.00	75,000.00	40,000.00	40,000.00
7	1	LS	GRADING AND PAVING	29,000.00	29,000.00	30,000.00	30,000.00	15,000.00	15,000.00
8(s)	1	LS	PAINT REMOVAL, CONTAINMENT, AND DISPOSAL	100,000.00	100,000.00	100,000.00	100,000.00	94,400.00	94,400.00
9(s)	1	LS	PAINTING	47,000.00	47,000.00	50,000.00	50,000.00	51,500.00	51,500.00
10	500	LF	TANK WALL REPAIR	30.00	15,000.00	30.00	15,000.00	42.50	21,250.00
11	1,800	LS	TANK FLOOR AND WALL JOINTS REPAIR	25.00	45,000.00		0.00	10.00	18,000.00
12	1	LS	MISCELLANEOUS WORK	30,000.00	30,000.00	30,000.00	30,000.00	15,000.00	15,000.00
13	1	LS	ADMINISTRATIVE CHANGE ORDER	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
			<b>TOTAL</b>		<b>1,200,000.00</b>		<b>1,005,000.00</b>		<b>1,087,360.00</b>

**EXHIBIT B**  
**BID SUMMARY**

CITY OF HAYWARD  
 HIGHLAND 500 RESERVOIR SEISMIC RETROFIT  
 PROJECT NO. 7147  
 BIDS OPENED: JANUARY 16, 2001

(NUMBER OF BIDS RECEIVED - 4)

<b>BID SUMMARY</b>				ENGINEER'S ESTIMATE		MONTEREY MECHANICAL CO. 8275 SAN LEANDRO STREET OAKLAND CA 94621 (510) 632-3173		ALBAY CONSTRUCTION CO. 355 HOWE ROAD MARTINEZ CA 94553 (925) 228-5400	
ITEM	QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
1	1	LS	MOBILIZATION	75,000.00	75,000.00	100,000.00	100,000.00	50,000.00	50,000.00
2	1	LS	EARTHWORK	130,000.00	130,000.00	200,000.00	200,000.00	135,000.00	135,000.00
3	1	LS	SHEETING, SHORING, AND BRACING OR EQUIVALENT METHOD	200,000.00	200,000.00	150,000.00	150,000.00	250,000.00	250,000.00
4A(s)	1	LS	PRESTRESSING RESERVOIR WALL - BY WIRE STRAND	288,000.00	288,000.00	280,000.00	280,000.00	309,000.00	309,000.00
4B(s)	1	LS	PRESTRESSING RESERVOIR WALL - BY THREAD ROD	0.00	0.00		0.00		0.00
5	1	LS	CONCRETE RING BEAM AND STRUCTURAL REPAIR WORK	90,000.00	90,000.00	90,000.00	90,000.00	125,000.00	125,000.00
6	1	LS	MECHANICAL PIPING	51,000.00	51,000.00	30,000.00	30,000.00	59,000.00	59,000.00
7	1	LS	GRADING AND PAVING	29,000.00	29,000.00	60,000.00	60,000.00	11,000.00	11,000.00
8(s)	1	LS	PAINT REMOVAL, CONTAINMENT, AND DISPOSAL	100,000.00	100,000.00	100,000.00	100,000.00	95,000.00	95,000.00
9(s)	1	LS	PAINTING	47,000.00	47,000.00	40,000.00	40,000.00	50,000.00	50,000.00
10	500	LF	TANK WALL REPAIR	30.00	15,000.00	40.00	20,000.00	30.00	15,000.00
11	1,800	LS	TANK FLOOR AND WALL JOINTS REPAIR	25.00	45,000.00	30.00	54,000.00	21.00	37,800.00
12	1	LS	MISCELLANEOUS WORK	30,000.00	30,000.00	30,000.00	30,000.00	62,000.00	62,000.00
13	1	LS	ADMINISTRATIVE CHANGE ORDER	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
			<b>TOTAL</b>		<b>1,200,000.00</b>		<b>1,254,000.00</b>		<b>1,298,800.00</b>

**EXHIBIT B**  
**BID SUMMARY**

# DRAFT

HAYWARD CITY COUNCIL 

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

**RESOLUTION APPROVING ADDENDA NO. 1 AND NO. 2;  
AND AWARDING CONTRACT TO PACIFIC MECHANICAL  
CORPORATION FOR THE SEISMIC RETROFIT OF THE  
HIGHLAND 500 RESERVOIR, PROJECT NO. 7147**

WHEREAS, on November 28, 2000, the City Council approved the plans and specifications for the seismic retrofit of the Highland 500 Reservoir, and called for bids to be received on January 9, 2001, and the bid date was rescheduled by Addenda No. 1 and No. 2 to January 16, 2001; and

WHEREAS, on January 16, 2001, four bids were received ranging from \$1,005,000 to \$1,298,000 and Pacific Mechanical Corporation submitted the low bid in the amount of \$1,005,000, which is 16 percent lower than the Engineer's Estimate of \$1,200,000; and

WHEREAS, Addenda No. 1 and No. 2 contain clarifications to the plans and specifications issued primarily to respond to questions raised during the advertisement period.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that Addenda No. 1 and No. 2 are hereby approved and adopted as part of the plans and specifications for the project.

BE IT FURTHER RESOLVED that Pacific Mechanical Corporation, is hereby awarded the contract for the seismic retrofit of the Highland 500 Reservoir, Project No. 7147, in accordance with the plans and specifications adopted therefor and on file in the office of the City Clerk of the City of Hayward at and for the price named and stated in the bid of the hereinabove specified bidder, and all other bids are hereby rejected.

BE IT FURTHER RESOLVED that the City Manager is hereby authorized and directed to execute an agreement for the award of the contract on behalf of the City of Hayward, in an amount not to exceed \$1,005,000, in a form to be approved by the City Attorney.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 2001

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward

**DRAFT**

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION AMENDING RESOLUTION NO. 00-089,  
THE BUDGET RESOLUTION FOR CAPITAL PROJECTS  
FOR FISCAL YEAR 2000-2001, RELATING TO AN  
APPROPRIATION OF FUNDS FOR THE SEISMIC  
RETROFIT OF THE HIGHLAND 500 RESERVOIR,  
PROJECT NO. 7147

WHEREAS, an appropriation of \$25,000 is needed from the Water Capital Improvement Fund in the 2000-2001 Capital Improvement Program budget for the seismic retrofit of the Highland 500 Reservoir, Project No. 7147, in order to complete the project.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that Resolution No. 00-089, the Budget Resolution for Capital Projects for fiscal year 2000-2001, is hereby amended by appropriating an additional \$25,000 from the Water Capital Improvement Fund for the for the seismic retrofit of the Highland 500 Reservoir, Project No. 7147, in order to complete the project.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 2001

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward