



● **Board of Directors**  
***Engineering, Operations, and Technology Committee***

6/13/2023 Board Meeting

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**8-2**

**Subject**

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Award a \$16,490,000 contract to J. F. Shea Construction Inc. to replace equipment storage buildings at three Colorado River Aqueduct pumping plants; the General Manager has determined that the proposed action is exempt or otherwise not subject to CEQA

**Executive Summary**

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Storage buildings at the Colorado River Aqueduct (CRA) pumping plants are used to protect and secure supplies and equipment from the extreme desert environment. The original 70-year-old storage buildings at three pumping plants (Hinds, Eagle Mountain, and Iron Mountain) have deteriorated due to corrosion and structural deficiencies and are no longer usable. Replacement of these original buildings is needed to protect equipment, parts, and other mechanical/electrical supplies which are stored at each site from premature deterioration due to weather damage. This action awards a construction contract to furnish and install a total of six new pre-engineered metal buildings, two each at three pumping plants.

**Details**

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**Background**

The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews in Riverside County. The CRA was placed into service in 1941. It consists of five pumping plants, 124 miles of tunnels, 63 miles of canals, and 55 miles of conduits, siphons, and reservoirs.

Between 1950 and 1955, several metal storage buildings with timber frames and a storage capacity of less than 2,000 square feet each were built at the Gene, Hinds, Eagle Mountain, and Iron Mountain pumping plants to store, protect, and secure CRA-related material and maintenance equipment from the extreme desert environment. Items stored at these buildings include portable equipment; large mechanical and electrical parts such as circuit breakers, disconnect switches, and pumps; spooled wire and cable; lifting fixtures used for maintenance of motors and valves; and general tools and supplies for various maintenance specialties such as plumbing, electrical, carpentry, paint, welding, construction, and vehicle/equipment maintenance.

The storage buildings have deteriorated after 70 years of service. The wooden frames have decayed due to fungal dry rot, and the metal walls and roof panels are significantly rusted. The storage buildings no longer seal properly to prevent rain and dust from entering the interiors and are not insulated. These buildings are not equipped with lights, fans, or electrical service. Following a comprehensive assessment of CRA storage needs, it was determined that refurbishment of the existing buildings is impractical, and staff recommends the replacement of these original storage buildings with new prefabricated, code-compliant buildings.

In October 2014, Metropolitan's Board authorized the replacement of two of these existing storage buildings at Gene Pumping Plant, which at the time were the most deteriorated structures, and construction was completed in 2015. The current project will replace the remaining deteriorated storage buildings with two new storage buildings at each of the three CRA pumping plants: Hinds, Eagle Mountain, and Iron Mountain. The new prefabricated buildings will be constructed of steel and installed on concrete slab foundations. Each new building will have approximately 4,000 square feet of interior storage space. The improved storage space will support ongoing maintenance activities along the CRA and upcoming capital rehabilitation work at the pumping plants.

Design of the new storage buildings is complete, and staff recommends award of a construction contract at this time.

### **Budget Impact**

In accordance with the April 2022 action on the biennial budget for fiscal years 2022/23 and 2023/24, the General Manager authorized staff to proceed with installation of the storage buildings, pending board award of the construction contract described below. Based on the current Capital Investment Plan (CIP) expenditure forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the CIP Appropriation for Fiscal Years 2022/23 and 2023/24 (Appropriation No. 15525). This project anticipates an expenditure of \$20.8 million in capital funds. Approximately \$4.0 million will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for in the next biennial budget. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the CRA Reliability Program.

### **Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings – Construction**

The scope of the contract includes: (1) site work, including grading of the sites to provide access and improve drainage, asphalt paving around the new buildings, replacement of security fencing near the building sites, and new concrete foundation pads; (2) installation of a firewater line and fire hydrant at each building for fire protection; (3) demolition of existing storage buildings at the Hinds and Eagle Mountain pumping plants to provide space for the new buildings; and (4) procurement and installation of six pre-engineered metal storage buildings, two at each pumping plant. Metropolitan forces will perform site clearing in advance of the contract; integrate the fire alarm system into the Supervisory Control and Data Acquisition system; and procure and install ventilation exhaust fans in each building to accommodate the desert environment.

A total of \$20.8 million is required to perform this work. In addition to the amount of the contract described below, other funds to be allocated include \$159,000 for Metropolitan force activities as described above; \$1,830,000 for construction management and inspection; \$617,000 for submittal review, technical support during construction, responding to requests for information, and preparation of record drawings; \$680,000 for environmental monitoring, contract administration, Project Labor Agreement (PLA) administration, and project management; and \$1,024,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost to complete the storage buildings installation, including the amount allocated to date and funds allocated for the work described in this action, is approximately \$22.8 million.

### ***Award of Construction Contract (J. F. Shea Construction Inc)***

Specifications No. 2000A for the furnishing and installation of storage buildings at Hinds, Eagle Mountain, and Iron Mountain was advertised for bids on March 10, 2023. As shown in **Attachment 2**, two bids were received and opened on April 20, 2023. The low bid from J. F. Shea Construction Inc. in the amount of \$16,490,000 complies with the requirements of the specifications. The other bid was approximately \$19.7 million, while the engineer's estimate for this project was \$17,500,000. For this contract, Metropolitan established a Small Business Enterprise participation level of at least 25 percent of the bid amount. J. F. Shea Construction Inc. has committed to meet this level of participation. The subcontractors for this contract are listed in **Attachment 3**. This contract will be conducted under the terms of Metropolitan's PLA.

As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for construction management and inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for construction management and inspection is 11.0 percent of the total construction cost. The total cost of construction for this project is \$16,649,000, which includes the amount of the contract (\$16.49 million), and Metropolitan force activities and supplies (\$159,000).

### **Alternatives Considered**

Staff considered providing one large building instead of two smaller buildings at each pumping plant. The advantages of one large building include possibly reduced construction costs and reduced building erection durations. However, due to existing infrastructure at each site, a single large building is difficult to construct near

the center of the pumping plants and would need to be located on the outskirts of the facility. This approach increases the time needed to retrieve stored parts and leads to inefficient work practices. As a result, staff recommends to proceed with two centrally located buildings at each pump plant.

Staff also considered various building types, including tilt-up concrete, masonry, and steel buildings to use in the building construction. Staff recommends proceeding with pre-engineered metal buildings because they are a cost-effective alternative, can be quickly installed, and have insulated wall and roof panels to reduce the temperature inside of the buildings.

### **Summary**

This action awards a \$16,490,000 contract to J. F. Shea Construction Inc. for furnishing and installation of pre-engineered metal storage buildings at the Hinds, Eagle Mountain, and Iron Mountain pump plants.

See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the Listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

### ***Project Milestone***

November 2025 – Completion of construction

### **Policy**

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Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 52778, dated April 12, 2022, the Board appropriated a total of \$600 million for projects identified in the Capital Investment Plan for Fiscal Years 2022/2023 and 2023/2024.

### **California Environmental Quality Act (CEQA)**

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#### **Option #1:**

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. The proposed action involves operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use and no possibility of significantly impacting the physical environment. In addition, the proposed action includes the replacement and reconstruction of existing structures and facilities where the new structure will be located on the same site and as the structure replaced and will have the same purpose and capacity as the structure replaced. Further, the proposed action includes construction of limited numbers of new, small facilities or structures. Finally, the proposed action includes minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry or agricultural purposes. Accordingly, the proposed action qualifies under Class 1, Class 2, Class 3, and Class 4 (Sections 15301, 15302, 15303, and 15304 of the State CEQA Guidelines).

#### **Option #2:**

None required

**Board Options**

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**Option #1**

Award a \$16,490,000 contract to J. F. Shea Construction Inc. for furnishing and installation of pre-engineered storage buildings at the Hinds, Eagle Mountain, and Iron Mountain pumping plants.

**Fiscal Impact:** Expenditure of \$20.8 million in capital funds. Approximately \$4.0 million will be incurred in the current biennium and has been previously authorized. The remaining funds from this action will be accounted for in the next biennial budget.

**Business Analysis:** This option will protect important CRA maintenance equipment and supplies from premature deterioration. Recent supply chain issues have demonstrated the importance of stocking critical maintenance material and equipment spares near the operating facility.

**Option #2**

Do not proceed with the project at this time.

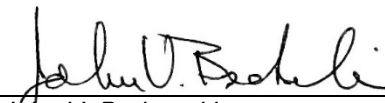

**Fiscal Impact:** None

**Business Analysis:** This option would forgo an opportunity to protect Metropolitan’s assets and may result in premature deterioration of equipment and increased replacement costs.

**Staff Recommendation**

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Option #1

	5/18/2023
_____ John V. Bednarski Manager/Chief Engineer Engineering Services	Date
	5/23/2023
_____ Adel Hagekhalil General Manager	Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – Listing of Subcontractors**

**Attachment 4 – Location Map**

Ref# es12694785

## Allocation of Funds for Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings

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	<b>Current Board Action (Jun. 2023)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	680,000
Submittals Review & Record Drwgs.	617,000
Construction Inspection & Support	1,830,000
Metropolitan Force Construction	128,000
Materials & Supplies	20,000
Incidental Expenses	11,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
J. F. Shea Construction, Inc.	16,490,000
Remaining Budget	1,024,000
<b>Total</b>	<b>\$ 20,800,000</b>

The total amount expended to date for the Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings Project is approximately \$2.0 million. The total estimated cost to complete, including the amount appropriated to date and funds allocated for the work described in this action, is \$22.8 million.

**The Metropolitan Water District of Southern California**

**Abstract of Bids Received on April 20, 2023, at 2:00 P.M.**

**Specifications No. 2000A**

**Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings**

The work includes furnishing and constructing six prefabricated buildings, two at each pumping plant, on new slab foundations; demolition of existing storage buildings; grading; utility installation; installation of fire sprinkler systems; asphalt paving; and replacement of security fencing.

Engineer's estimate: \$17,460,000

<b>Bidder and Location</b>	<b>Total</b>	<b>SBE \$</b>	<b>SBE %</b>	<b>Met SBE<sup>1</sup></b>
J. F. Shea Construction Inc. Walnut, CA	<b>\$16,490,000</b>	<b>\$5,462,384</b>	<b>33%</b>	<b>Yes</b>
Catrac Construction, Inc Fontana, CA	\$19,668,656	-	-	-

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 25% for this contract.

**The Metropolitan Water District of Southern California**

**Subcontractors for Low Bidder**

**Specifications No. 2000A**

**Hinds, Eagle Mountain, and Iron Mountain Pumping Plants Storage Buildings**

Low bidder: J. F. Shea Construction Inc.

<b>Subcontractor</b>	<b>Service Category; Specialty</b>
Hardy & Harper Inc. Lake Forest, CA	Paving
Environmental Construction Group Inc. Signal Hill, CA	Demo & Abatement
MDB General Engineering Inc Irvine, CA	Earthwork
Crown Fence Santa Fe Springs, CA	Fencing
EBS General Engineering Inc. Corona, CA	Sitework Concrete
Southwest V-Ditch Inc. Riverside, CA	Gunite
Qualco Fire Protection Inc. Santa Fe Springs, CA	Fire Protection
K&S Excavating Inc. Anaheim, CA	Trenching & Backfill
South Valley Construction and Develop. Inc. Murrieta, CA	Pre-Engineered Metal Building
Overhead Door Company of Inland Empire Colton, CA	Overhead Doors
Techno Coatings Anaheim, CA	Paint
LA Steel Services Corona, CA	Rebar
Leed Electric Inc. Santa Fe Springs, CA	Electrical

### Location Map

