Whale Rock Intake Valve Replacement Project

Specification No. 90252a



Approval Date: OCTOBER 3, 2002

### CITY OF SAN LUIS OBISPO STATE OF CALIFORNIA NOTICE TO BIDDERS

# 1. <u>Receipt and Opening of Bids</u>

A) Notice is hereby given that sealed proposals will be received by the City of San Luis Obispo, in the Public Works Administration Office, 955 Morro Street, 93401, until <u>3:00pm</u> on <u>Thursday, November 14, 2002</u>, at which time they will be publicly opened and read aloud, for construction of the work entitled:

# Whale Rock Intake Valve Replacement, Specification No. 90252a

- B) Any bid received at the Public Works Administration Office after the time and date specified above shall <u>not</u> be considered, and shall be returned to the bidder unopened.
- C) Bids received via FAX machine shall <u>not</u> be considered.
- **D)** Each bid shall be submitted in a sealed envelope plainly marked:

### Whale Rock Intake Valve Replacement, Specification No. 90252a

2. <u>General Work Description.</u> Remove and replace five (5) 24" butterfly valves and actuators at various depths in the intake tower structure at Whale Rock Reservoir.

# 3. Estimate of Total Construction Cost. \$90,000

- **4.** <u>**Contract Time.**</u> The contract time is hereby established as thirty (30) working days.
- 5. <u>Pre-Bid Conference.</u> A pre-bid conference will be held at the Whale Rock Project office, at 108 East 13<sup>th</sup> Street, Cayucos, 93430. The meeting will be held at 2:00pm on Wednesday, October 23, 2002.
- 6. <u>Liquidated Damages.</u> The fixed liquidated damages amount is hereby established as <u>\$1,000</u> per day for failure to complete the required work within the contract time allowed.
- 7. <u>Contractor License Requirement.</u> The Contractor must possess a valid <u>Class A</u> Contractor's License at the time of the bid opening. In addition, the Contractor shall possess additional licenses and qualifications appropriate for confined space entry and underwater construction in drinking water supply reservoirs.
- 8. <u>Minimum Wage Requirements.</u> Bidders are hereby notified that pursuant to Section 1773 of the Labor Code of the State of California, the City Council of the City of San Luis Obispo, California, has ascertained the general prevailing hourly wage rates in the locality where this work is to be performed for each craft or type of workman or mechanic needed to execute the Contract which will be awarded to the successful bidder, and copies of the rates so determined are on file in the Office of the City Engineer, 955 Morro Street, San Luis Obispo, CA 93401.

**9.** <u>Securing Bid Documents.</u> The work embraced herein shall be done in accordance with the City Standard Specifications dated October 2000, State Standard Specifications dated July 1999, Special Provisions, City Engineering Standards and the plans.

A copy of the Plans and Special Provisions may be obtained in the office of the City Engineer, 955 Morro Street, San Luis Obispo, CA 93401, by paying a non-refundable fee of **\$5.00** if picked up in person, or by mailing a non-refundable fee of **\$10.00** to: City of San Luis Obispo, Engineering Division, 955 Morro Street, San Luis Obispo, CA 93401. **Request must include the Specification Number. Additionally, these Plans and Special Provisions may be downloaded at the City's Web Site** <u>www.slocity.org</u> free of charge. A copy of the October 2000 City Standard Specifications may be obtained by paying a non-refundable **\$5.00** fee if picked up in person, or a non-refundable **\$10.00** fee if mailed to you by the City Engineer's Office. Standard Specifications are also available on the City's web site <u>www.slocity.org</u> on the Public Works page. For information call 805/781-7200.

- **10.** <u>**Bids.**</u> Bidders shall comply with and agree to all instructions and requirements in this notice and in the contract documents.
  - A) All bids must be submitted on the prescribed bid proposal form.
  - B) EACH BID SHALL BE ACCOMPANIED BY A CERTIFIED CHECK, CASHIER'S CHECK OR BIDDER'S BOND MADE PAYABLE TO THE CITY OF SAN LUIS OBISPO FOR AN AMOUNT EQUAL TO TEN PERCENT (10%) OF THE AMOUNT OF THE BID, SUCH GUARANTY TO BE FORFEITED SHOULD THE BIDDER TO WHOM THE CONTRACT IS AWARDED FAIL TO ENTER INTO THE CONTRACT.
  - **C)** The City of San Luis Obispo, California, reserves the right to reject any or all bids or waive any informality in a bid.
  - **D)** All bids are to be compared on the basis of the City Engineer's estimate of the quantities of work to be done.
  - E) No bid will be accepted from a contractor who has not been licensed in accordance with the provisions of Chapter 9, Division III of Business and Professions Code.
  - F) The award of the contract, if awarded, will be to the lowest and best regular responsible bidder whose proposal complies with the requirements prescribed. Such award, if made, will be made within <u>60</u> calendar days after the opening of the proposals.
- **11.** The Contractor may substitute securities for moneys withheld under the contract in accordance with the provisions of the Public Contract Code, Section 10263.

# 1. PLANS AND SPECIFICATIONS

The work embraced herein shall be done in accordance with these Special Provisions and the City of San Luis Obispo, Department of Public Works, Standard Specifications October 2000 edition, in conjunction with the State of California, Department of Transportation Standard Specifications dated July 1999.

In case of conflict between the Standard Specifications and these Special Provisions, the Special Provisions shall take precedence.

# 2. <u>EXECUTION OF CONTRACT, BEGINNING OF WORK, TIME OF</u> <u>COMPLETION, AND LIQUIDATED DAMAGES</u>

Contract bidding, award, execution and administration shall conform the provisions in the Standard Specifications and these Special Provisions.

Immediately following award of the project to the Contractor, Contractor shall order the 24" butterfly valves and actuators. A local supplier has indicated that the lead-time for the valves is approximately 6-8 weeks. The construction period of thirty (30) working days shall begin on the first Monday after the valves are delivered.

The Contractor shall pay to the City of San Luis Obispo Liquidated Damages in the amount set forth in the Notice to Bidders, for each and every calendar day's delay in finishing the work in excess of the number of Working Days identified in the Notice to Bidders.

# 3. <u>TRADE NAMES, ALTERNATIVES & SUBSTITUTIONS OF "OR EQUAL"</u> <u>MATERIALS.</u>

Substitutions for alternative or "equal" products and materials shall be as specified in Section 6-1.05 of the Standard Specifications except as herein modified.

Substitutions requested after bid opening shall be made in ample time to permit approval without delaying the work.

Any substitutions that may be approved shall be furnished without additional cost to the City. If any changes are required for the proper installation and fit of alternative materials or equipment, or because of deviations from the contract plans and specifications, such changes shall not be made without the consent of the Engineer and shall be made without additional cost to the City.

# 4. <u>CITY FURNISHED MATERIAL.</u>

NONE.

# 5. OPERATIONAL PROCEDURES.

All work shall take place under the provisions of Sections 4, 5, 6, 8, and 9, "Scope of Work," "Control of Work," "Control of Materials," "Prosecution and Progress," and "Measurement and Payment" of the Standard Specifications and these Special Provisions.

Operational procedures shall conform to the provisions in Section 7 of the Standard Specifications. Attention is directed to the provisions in subsections 7-1.01G "Water Pollution," 7-1.11 "Preservation of Property," and 7-1.12 "Responsibility for Damage" of the Standard Specifications and these Special Provisions.

In addition to the provisions in Section 7-1.01G "Water Pollution," the Contractor shall submit a pollution control plan identifying how runoff from the site is to be controlled in the event of inclement weather. Hay bales will not be allowed for filtering. Approval of the plan by the Engineer does not release the Contractor from the responsibility of allowing only clean rainwater to leave the site. The Contractor is responsible to make immediate changes in the control system as needed. Any penalties levied against the Contractor and/or the City shall be the responsibility of the Contractor. Retention for penalties will be made in accordance with the provisions in Section 7-1.01K for permit violations.

OSHA compliance shall conform to the provisions in Section 7-1.06, "Safety and Health Provisions," and these Special Provisions.

Restoration of benchmarks and monuments, and establishment of lines and grades shall conform to the provisions in Section 5-1.07, "Lines and Grades" of the Standard Specifications. In addition to the provisions of Section 5-1.07 "Lines and Grades" of the Standard Specifications, grade control, shall be provided in Metric units of measurement for verification by the Engineer. For projects shown on the plans to be built in English units, grade control shall be provided in English units.

The Contractor shall complete layout for the work. The Contractor shall notify the Engineer when layout is complete and all USA markings have been placed. The Contractor shall bring any potential conflicts to the attention of the Engineer. No work shall be performed until the Engineer has verified the layout.

Dust control shall conform to the provisions in Section 10, "Dust Control," of the Standard Specifications and these Special Provisions.

Watering shall conform to the provisions in Section 17, "Watering" of the Standard Specifications and these Special Provisions.

The Contractor shall supply and deliver notices of the work to all properties adjacent to and within 30 meters of the work areas. The notice shall briefly describe the work, potential impacts on the adjacent property, and shall include the Contractor's phone number. Notices shall be placed at least 48 hours in advance of the work and shall state the dates work will take place adjacent to that particular property. The Engineer prior to distribution shall approve wording for the notice. **Notices shall NOT be placed inside mailboxes**. Placing notices in mailboxes is prohibited by law. Notices should be hand delivered or made up as a door hanger.

Normal work hours are between 7 a.m. and 4 p.m. Allowable working hours are between 7 a.m. and 7 p.m.

Failure to comply with the provisions in this section shall be considered a material breach of contract. All work shall cease until contractor can demonstrate active compliance with these requirements. Any delay caused by failure to comply shall be the full responsibility of the contractor and no additional contract time or compensation will be allowed therefore. Full compensation for conforming to the requirements of this section shall be included in the contract prices paid for the various items of work and no additional compensation shall be allowed therefore.

# 6. EXTRA WORK, FORCE ACCOUNT PAYMENT.

The Contractor shall submit a list of equipment they anticipate will be used on the project and the associated Caltrans Equipment Rental Rate. If there is no established rate, the Contractor should so indicate. This information shall be provided **at the pre-construction conference**.

In addition to the provisions in Section 9-1.03A(1) "Labor" of the Standard Specifications, the following provisions shall apply:

For the purposes of calculating the cost of Extra Work, Force Account Payment, owner, superintendents or other salaried employees performing work on the project shall be billed at the prevailing wage corresponding to the type of work performed.

# 7. CONSTRUCTION DETAILS.

### 7-1.01 REPLACEMENT OF INTAKE TOWER VALVES.

The Contractor shall remove and replace the five (5) 24" butterfly valves and actuators. The existing valves were manufactured by Henry Pratt Company and were originally installed around 1960. The original plan for the valves is included in this specification. Several "as-built" drawings of the intake tower are also included. These drawings are over 40 years old, and are difficult to read. Therefore, the drawings are provided for information and clarification of these specifications only. Some of the more important information about the existing intake tower and valves is summarized below:

- Internal dimensions of the intake tower are approximately 5'-6" tall by 4'-0" wide.
- The intake tower is approximately 270' long and extends down the bank into the reservoir at an angle of approximately 38° from horizontal.
- The top of the intake tower is at elevation 232.5', while the outlet pipe at the bottom of the tower is at elevation 63.5'.
- The five 24" intake valves are at elevation 70', 100', 130', 160', and 190'.
- Due to their depth, the actuators for valves #4 and #5 are eight inch (8") bore, while the actuators for valves #1, #2, and #3 are six inch (6") bore. All five actuators shall have a twenty-two inch (22") stroke.

- At the end of August 2002, the water surface elevation of the reservoir was around elevation 205', approximately eleven feet below the spillway elevation of 216'.
- Cast iron manhole steps have been cast into the floor of the intake tower, which may either facilitate or hinder access to the intake tower valves.

The existing intake tower values are bolted to 24" I.D. cast iron wall thimble spools, which are cast into the concrete ceiling of the intake tower. The wall thimbles have been drilled and tapped as indicated on the plans. The new values shall be furnished with the same bolt pattern and shall be installed with new gaskets and bolts.

The valves shall be AWWA C504 Class 150 flanged cast iron body, ductile iron disc, 316 stainless steel disc edge, 304 stainless steel stem, BUNA-N seat (or equal), sized for 100 psi pressure, double acting with jack screw override, epoxy coating, fully rubber lined body with fusion epoxy coated disc (CMB K-Flo 500 Series, or equal). Actuators shall be ductile iron/stainless steel, quarter-turn, spring return and double acting actuators with output torques to 115,000 lb.in. (Morin 79B Actuators, or equal). Note that the actuators for valves #1, #2, and #3 are six-inch (6") bore and valves #4 and #5 are eight-inch (8") bore.

Contractor shall submit a plan for replacement of the valves to the City for approval. The plan shall include the method for accessing and removing the old valves, the sequence of work, work schedule, and planned procedures for re-activating the intake tower in the case of emergency. The Contractor shall at all times be able to re-establish operation of the intake tower within 24 hours of receiving notice by the City.

Contractor shall be responsible for all aspects of the work, including personnel safety and the preservation of City property. If during the course of construction, the Contractor becomes aware of material failures, substantial corrosion, and other deficiencies, they shall be immediately brought to the attention of the engineer. To the extent possible, the cause of the failure will be determined and appropriate course of action and/or remedy will be discussed. Any work required to correct unforeseen deficiencies shall be ordered and paid as extra work at force account rates.

### 7-1.01.01 Payment.

Replacement of the 24" butterfly valves includes all work to remove and replace the valves and actuators to full working order, including any and all labor, tools, equipment, power, personnel, testing, fittings, gaskets, seals, and other materials to provide a complete project, and no additional compensation shall be allowed therefor.

### 7-1.02 PROVIDE TEMPORARY WATER DELIVERY FOR CAYUCOS AREA WATER ORGANIZATIONS (CAWO).

Contractor shall provide temporary water service to the CAWO by piping water over the spillway. The point of connection for the temporary piping shall be the 6" ductile iron pipeline that crosses the spillway above ground along the side of the access road at the

base of the dam (see Exhibit 1). The Contractor shall submit a plan for providing this temporary CAWO service to the City for approval. The plan shall include sufficient safeguards against surge, water hammer, vacuum, and other potentially damaging affects. The temporary system shall be capable of providing 600 gallons per minute (gpm) for a ten-hour period between 8am and 8pm each day. The depth of the intake shall be approximately twenty-five (25) feet below the lake water surface, with the ability to change the intake depth by fifteen (15) feet both higher and lower. The temporary water service is expected to require approximately one thousand feet (1,000') of 6" pipe.

#### 7-1.02.01 Payment.

The project shall include all materials, supplies, power, equipment, and labor to provide temporary water service to the CAWO to the City's satisfaction, and no additional compensation shall be allowed therefor.

### 7-1.03 COMPLY WITH OSHA and PROVIDE FOR INSPECTION.

Contractor shall comply with OSHA, CalOSHA, and all other federal, state, and local regulations concerning safety. All work performed under this contract shall be conducted with the highest regard for safety of all persons and property.

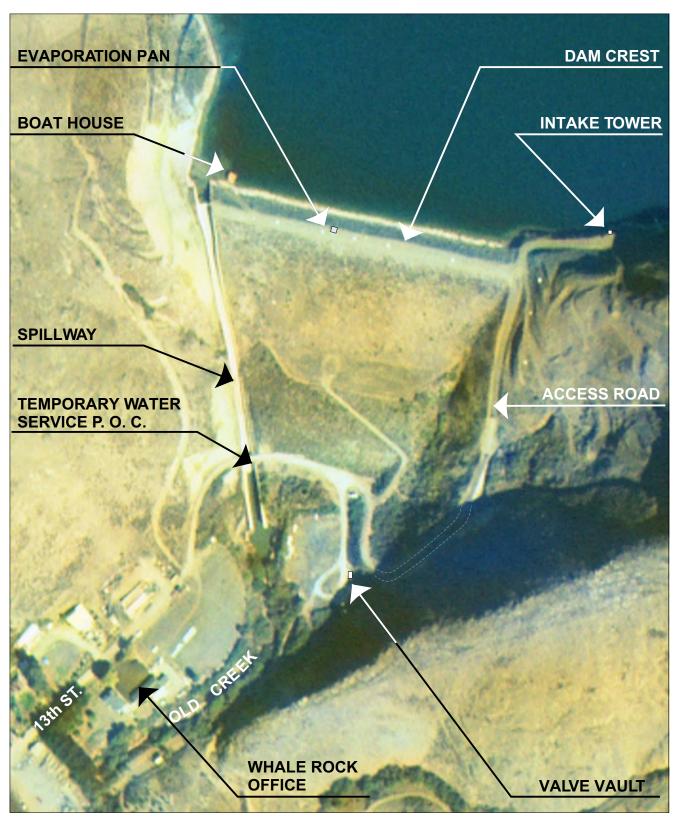
The Contractor shall provide the necessary confined space entry and emergency retrieval equipment to allow a City inspector to access the intake tower to inspect the finished work. Other inspections may be necessary depending on conditions found during the valve replacement project.

### 7-1.03.01 Payment.

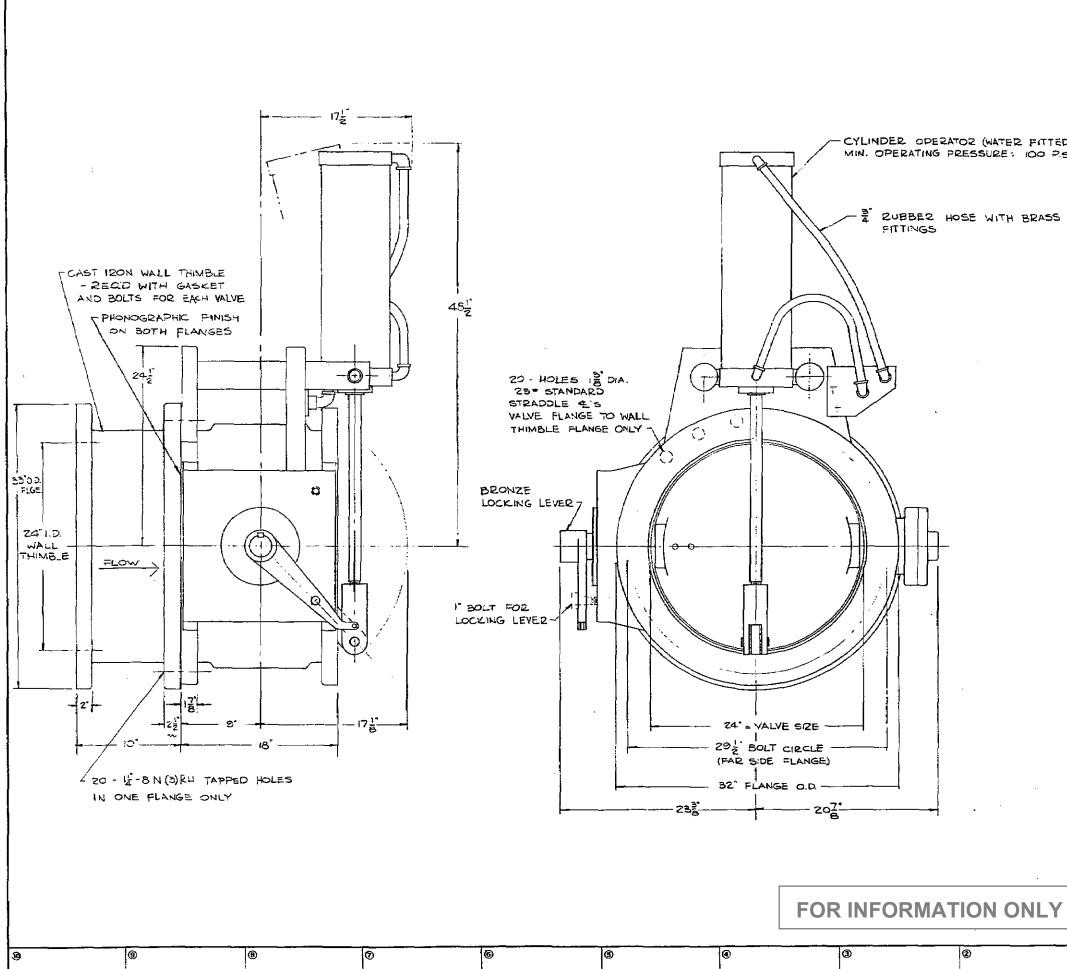
Compliance with OSHA shall include full compensation for furnishing all labor, materials, tools, equipment, personnel, medical screening and incidentals, and for doing all the work involved to comply with all OSHA regulations pertinent to the types of work to be done under this contract, including preparation of worker protection plan required by Section 6705 of the Labor Code, and no additional compensation shall be allowed therefor.

#### 7-2.01 Engineering Standards & State Standard Plans.

Engineering Standards & State Standard Plans have been included in these Special Provisions as a convenience to the contractor. Any additional standards, referenced or not, which are required for completion of the work and for which are not included in the following list, can be found in the current edition of the City Engineering Standards and State Standard Plans.

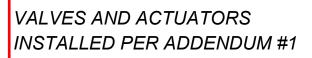


WHALE ROCK DAM & FACILITIES



	LIST OF PARTS TO BE SHIPPED LOOSE:
	1- 6" + 4" + 5%6 ANGLE + 7"-0" LG 5 - 6" + 4" + 5%6" ANGLES + 1"-0" LG 5 - 3 1/2" DIA. + 1"-3" LG INDICATO2 WEIGHTS WITH 3%6 + 21/2" EYE BOLT IN ONE END
	10 - Pulley Blocks
	10 - CABLE CLAMPS
	5 - EYE-END FITTINGS WITH PINS
	35 - ROZE GUIDES
00 25.4	5 - POSITION INDICATORS
	CINCH ANCHORS, SCREWS, BOLTS OR STUDS, Washers and NUTS.

#### **RECORD INFO**



#### NOTE .

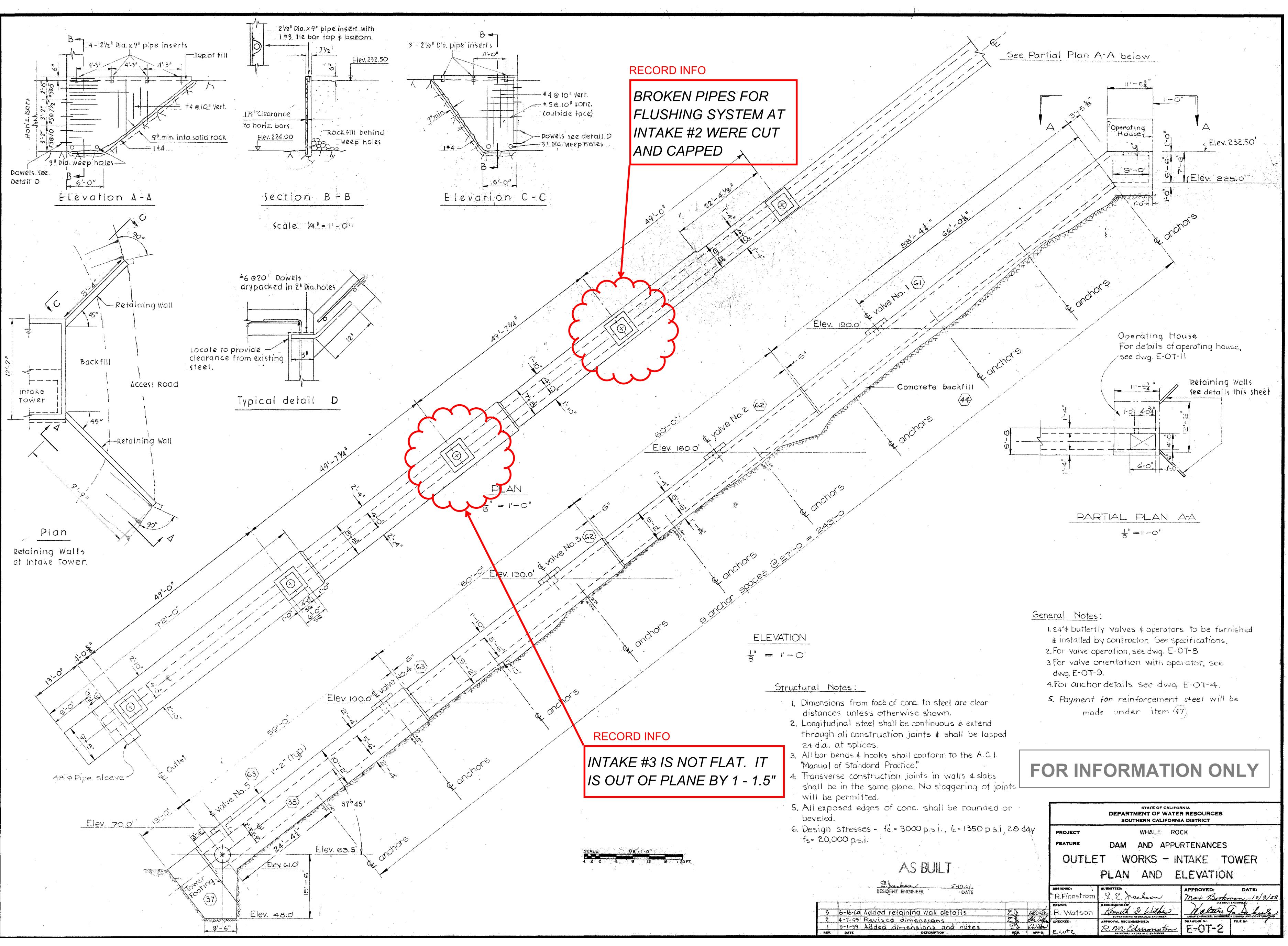
3 - 24 VALVES REQ'D WITH & BORE + 22 STROKE CYLINDERS TAG: NOS. T-1, T-2 + T-3

2 - 24" VALVES READ WITH 8" BORE + 22" STROKE CYLINDE25 TAG: NOS. T-4 + T-5

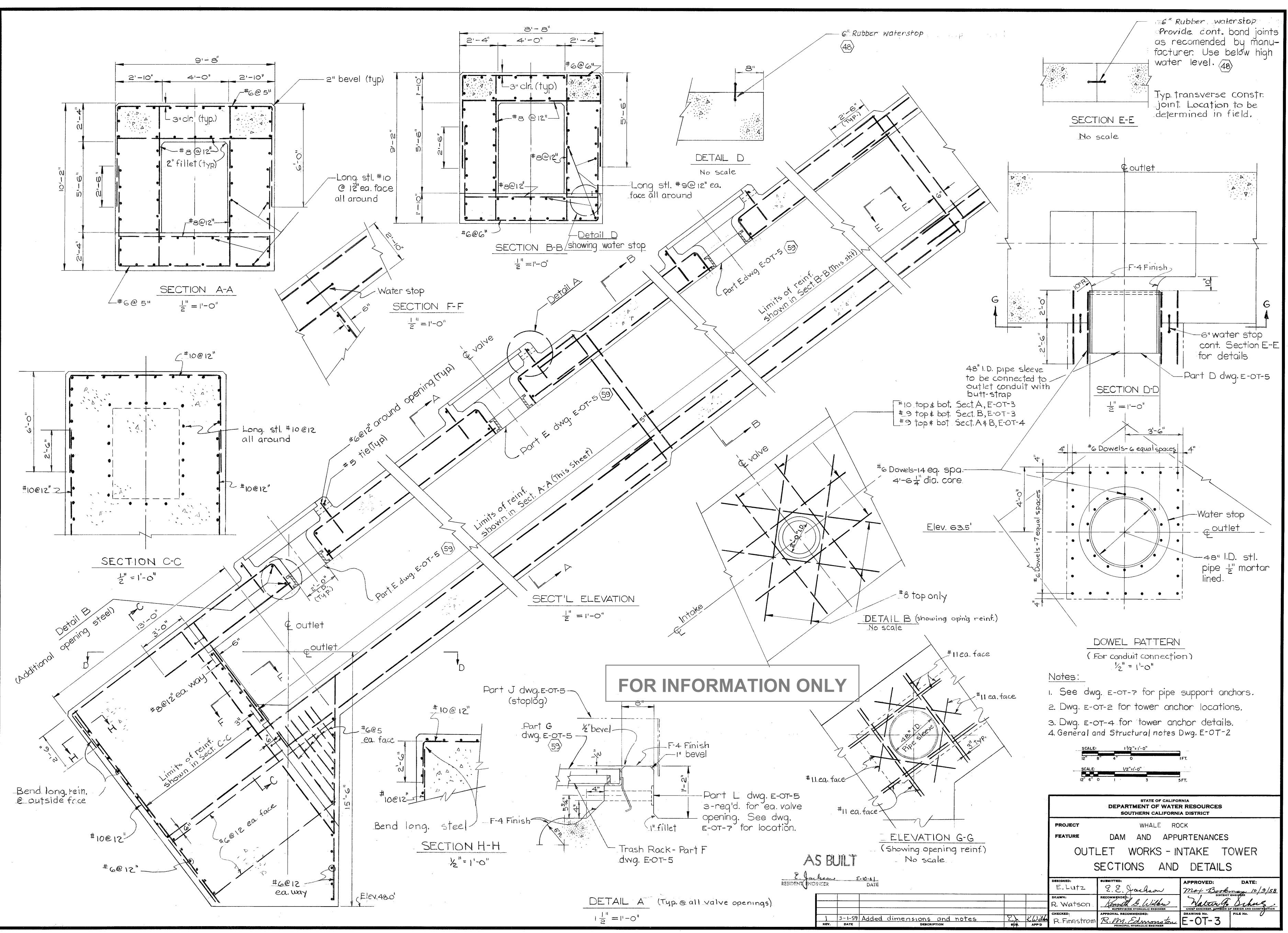
ALL EXPOSED EXTERIOR SURFACES TO BE PAINTED WITH COAL TAR EPOXY RESIN

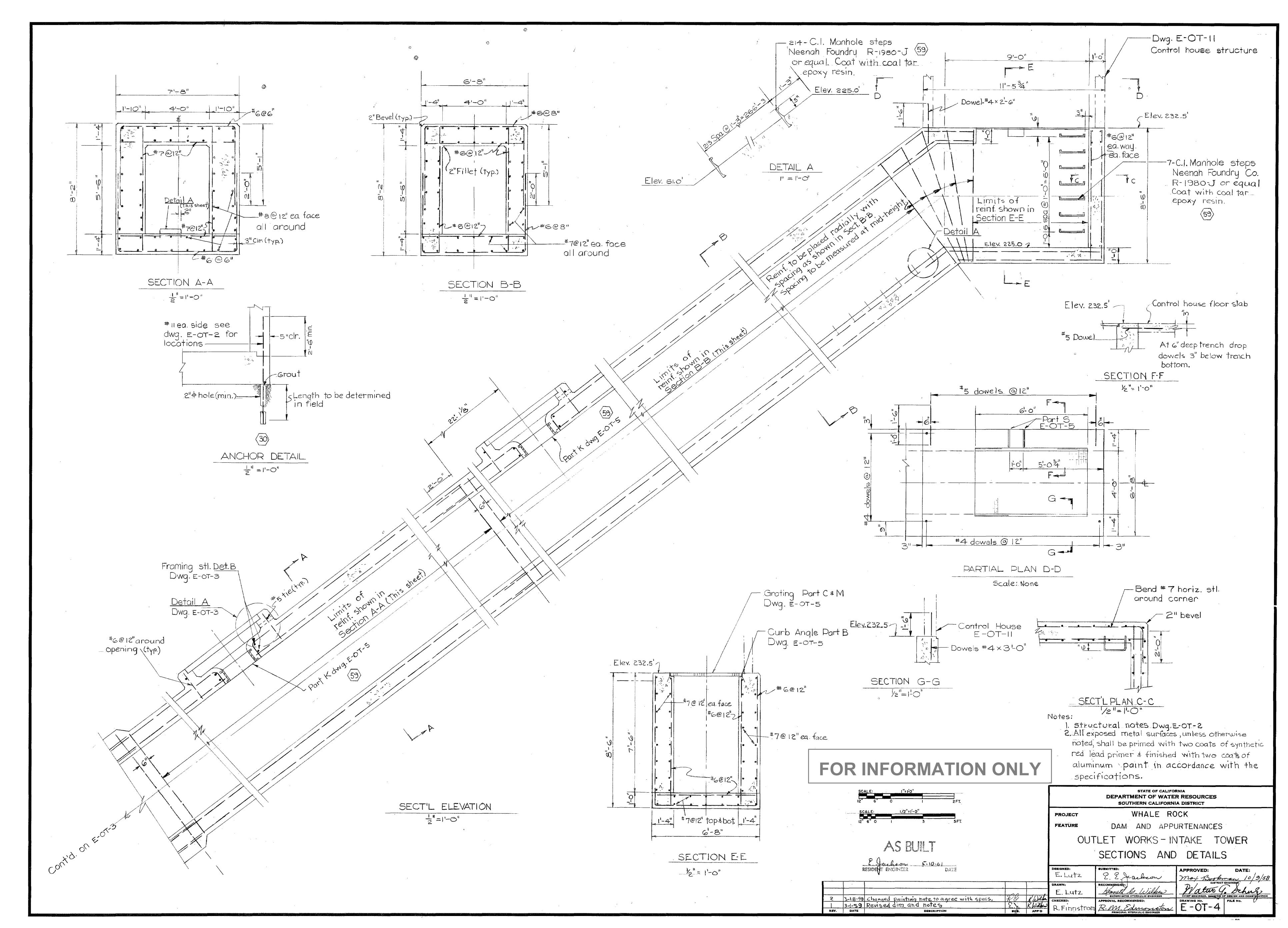
CUSTOMER : M-K-DARKENWALD, JONT VENTURE CUSTOMER P.O. NO.; 250244 PRATT ORDER NO.: 1-2286-1, 2, 3, 4 15 PROJECT: STATE OF CALIFORNIA, DEPT. OF WATER RESOURCES, WHALE ROCK DAM SERVICE : INTAKE TOWER

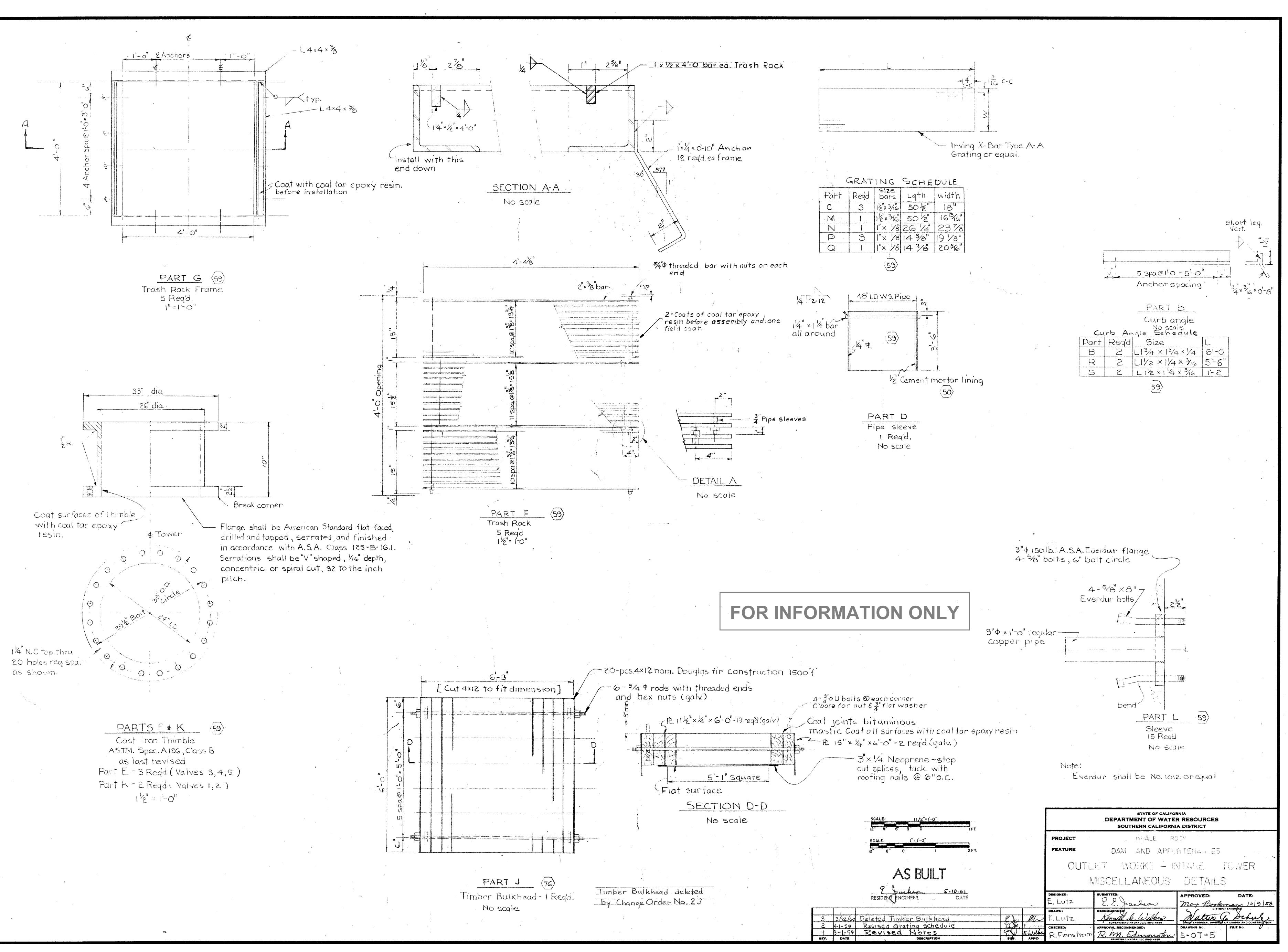
	PART	MATERIAL	
	BODY	CAST IRON ASTM A-126 CLASS-B	
	DISC	CAST IRON ASTM A-48-48 CLASS-40	
125+46 € 50-16	SHAFT	STAINLESS STEEL 18-8 TYPE - 304	
	SEAT	HYCAR RUBBER	
	SEGMENTS	2% NICKEL CAST 120N	
	BEARINGS	SILICONE LUBZICATED BRONZE	
RECEIVED			
WHATE LOCK FEDECT Comm. C.C.			
CERTIFIED PRINT	GENERAL ARRANGEVENT CYLINDER OPERATED RUBBER SEAT BUTTERFLY VALVE		
HENRY PRATT CO.		NG LEVER FOR SUBMERSIBLE SERVICE	
- +7. Komines	DATE 3-24-59	HENRY PRATT CO.	
	BEALE: B' = 1'-O'		
0 25	CHECKED BY	CHICAGO	
4+10-31	AP-ROVED:	0*AS 25-0-20280	



an, .		STATE OF CALIFOR DEPARTMENT OF WATER SOUTHERN CALIFORNI	R RESOUR
28 day	PROJECT	WHALE RO	СК
¥. 5.	FEATURE	DAM AND APPU	RTENAN
· · · · · ·	OUTLE	T WORKS - IN	ITAKE
		PLAN AND E	LEVAT
	DESIGNED:	SUBMITTED:	APPROVEL
· .	-R.Finnstrom	E.E. Jackson	may 1.
i de la compañía de la	DRAWN:	RECOMMENDED	
P. policile	R. Watson	Kenneth & Wilkle	CHILF ENGINEER
& Chille	CHECKED:	APPROVAL RECOMMENDED;	DRAWING No.
Er K. Wilke		R. M. Edinonaton	F-0T







	STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES SOUTHERN CALIFORNIA DISTRICT			
· · ·	PROJECT	, WHALE RO	))r	
	FEATURE	DAM AND APPU	RTENA ES	
·	OUTL	LET WORKE - IN		
	t t	MISCELLANFOUS	DETAIL	
	designed: E, Lutz	SUBMITTED: E. E. Jackson	APPROVED: May Book	
E.J. Al	DRAWN: E.Lutz	RECOMMENDED. Kennett &. Wilkes	Matter Buller Englinger, DATER	
20x. Fallers	CHECKED	4 BUPERVISING HYDRAULIC ENGINEER	DRAWING NO	



# ADDENDUM

DATE: November 6, 2002 PROJECT: Whale Rock Intake Tower Valves Replacement Project – Spec. No. 90252a ADDENDUM NO.: 1 BID DATE: Thursday, November 14, 2002

# NOTICE TO ALL CONTRACTORS SUBMITTING BIDS AND TO ALL PLANHOLDERS:

You are hereby notified of the following changes, clarifications or modifications to the contract documents. This addendum shall supersede the original contract documents and subsequent addenda. Wherein this addendum contradicts the original contract documents and previous addenda, this addendum shall take precedence. All other conditions shall remain unchanged. The change specified below shall become a legal part of the original contract documents.

# A. CHANGES AND/OR CLARIFICATIONS TO THE SPECIFICATIONS:

**Valves.** The spools to which the valves attach are cast with the bottom face of the flange flush with the ceiling of the intake tower. The flange is drilled and tapped, with studs threaded into the holes. The valves are attached to the studs with nuts as indicated on the plans. Standard 24" AWWA C504 Butterfly Valves will not work, due to four of the holes being tapped as a result of clearance restrictions. The valves that were originally installed are "long-body" valves, which allow sufficient clearance for all of the holes to fit cleanly over the existing studs. A standard valve and spool piece may work, though the City's preference is for the long-body valves. Contractors shall submit bids for long-body valves that will allow for "through bolting" of all 20 holes. If the cost is substantially less, Contractors may include an alternate price for standard valves and spool pieces along with their bid for the long-body valves. The City will decide, at its sole discretion, whether to allow standard valves and spool pieces.

The specification is further amended to eliminate the requirement that the valves have a rubber lined body. The valves shall have a seat that can be replaced in the field. Valves shall be AWWA Class 150B, Cast Iron body, cast or ductile iron disc, 316 stainless steel edge, 304 stainless steel shaft, Buna N seat, epoxy coated disc, epoxy coated or rubber lined body (Henry Pratt, K-Flo, or owner approved equal).

Actuators. The actuators specified are not recommended for continuous submergence. They are also pneumatic, rather than the required hydraulic actuation. The specification is amended to require that the new actuators shall be all stainless units approved for continuous submergence, with special piston seals specifically designed for water supply actuation. In addition, all adapting hardware necessary to mount the actuators to the valves shall be stainless steel.

The valve actuator shall be sized for operational loads based on full differential head pressure, using a full lake water level and dry on the back side of the valve. Flow velocities and dynamic torque shall be calculated by the valve manufacturer and used for sizing of the actuators. A de-clutchable manual gear override shall be included as an integral part of the valve actuator. The override shall allow for full valve operation by one person using the same dynamic torque loads as above. The manual override shall be such that the valve can be placed back into automatic operation without disassembly of the actuator. The actuator shall be rated for full water submerged service to the water depths shown on the drawings for each valve location. The actuator shall be Morin stainless steel S-Series with manual declutchable override or approved equal. The actuator shall fit into the required space as shown on the drawings and shall be rated for full submergence. Actuator sizing calculations shall be submitted for review showing dynamic torque loads and actuator output.

# B. CHANGES AND/OR CLARIFICATIONS TO THE PLANS: as described above.

# C. CHANGES AND/OR CLARIFICATIONS TO THE CONTRACT PROPOSAL: none.

### D. GENERAL CLARIFICATIONS: as described above.

# Contractors shall note the acknowledgment of this addendum in the appropriate space provided on the Contract Proposal sheet "f".

If you have any questions, contact Dan Gilmore at (805) 781-7208.

Sincerely,

JAY D. WALTER CITY ENGINEER