



**ADDENDUM NO. 1  
WATER MAIN BUILDING  
REQUEST FOR BIDS #11-1753  
October 28, 2010**

Acknowledge receipt of this addendum by inserting its number in the Proposal Form. The contents of this addendum are to be covered in the bids and in closing the Contract will become a part thereof. Changes noted herein affect only the specific words in paragraphs mentioned and the balance of the Drawings and/or Specifications remains in full force.

**QUESTIONS & ANSWERS:**

What is the location of the irrigation controller?

*The irrigation controller is to be along the North side of the building*

Will the water shut down require night or weekend work?

*Night or weekend work will be required when the transition to the new valve will take place.*

Is the building permit ready?

Yes

Who will pay for the cost of the permit?

*The Oregon Zoo.*

Will it be okay to extend a temporary fence out into the roadway, in order to use the roadway?

*The awarded general contractor will be required to provide a logistics plan showing traffic control and pedestrian and bicycle routing. This plan will be reviewed by the Oregon Zoo and Washington Park Alliance.*

Who will pay for the cost of special inspections?

*The Oregon Zoo*

What is the estimated or required completion date?

*The estimated completion date is March 30, 2011, however the contract schedule will be mutually agreed upon.*

Will there be any liquidated damages? If so, how much per day?

*Per Section 00 73 00-2, 1.03C, the per diem amount for liquidated damages is \$600.00.*

Is there a project estimate?

*As stated at the pre-construction meeting, we do not state project estimates*

**APPROVED SUBSTITUTIONS:**

<u>Section</u>	<u>Paragraph</u>	<u>Approved Manufacturers</u>
07 60 00	2.01 C Roof and Wall Panels	Magna Loc Panels
26 09 26	2.01 A Occupancy Sensors	Sensor Switch WSD

**DRAWINGS:**

**GENERAL:**

**CLARIFICATION** of shut down and temporary water supply.

The sequencing of work will require coordination with the Portland Water Bureau and the Zoo. No shutdown of the water system to the Zoo will be allowed.

The Water Bureau will provide a temporary service with a 2 inch line. Contractor to hook up the temporary service with a hose provided by the Water Bureau.

The temporary service will be limited to a maximum of 6 hours in length from the hours of 6 PM until 4 AM.

During the restricted flow temporary service the Contractor will provide two (2), 3000 gallon, water tanker trucks and drivers. All other temporary fire protection will be the responsibility of the Zoo with the exception of the 2 tankers.

**SHEET C03**

**REPLACE** the entire C03 sheet in its entirety. Revise Sheet C03 attached to this Addendum

**SHEET A1.1**

**CLARIFICATION:** The New Fence is to match the existing chain link fence in height and style

**SHEET E1.1**

Revise routing of power and keyed notes 8, 9 and 10 as shown on attached sketch SDE-01.

**SPECIFICATIONS:**

**00 01 00 Table of Contents**

**ADD** Section attached to this addendum

**00 41 00 Bid Forms**

**REPLACE** Schedule of Bid Prices, page 00 41 00-3, with the form attached to this addendum

**09 29 00 Gypsum Board**

**DELETE** Section in its entirety.  
There is no gypsum board work in the project other than minor patching for the electrical line.

**01 81 19 Indoor Air Quality Section**

**DELETE** Section in its entirety.

**09 90 00 Painting and Coating**

**Paragraph 1.01 A1 & 2:**

**DELETE** in its entirety.

**Paragraph 2.01 A & B:**

**DELETE** in its entirety.

**26 05 00 Common Work Results For Electrical Systems**

**Paragraphs 1.01 C and D,**

**DELETE** in their entirety.

**Paragraph 1.02 A. 2,**

**DELETE** and **REPLACE** with "LEED: Not Applicable."

**ATTACHMENTS:**

Bid Form page 00 41 00-3

Section 00 01 00 Table of Contents

Drawing C03

Drawing SDE-01

**END OF ADDENDUM NO.1**



**METRO**

600 NE Grand Avenue  
Portland, OR 97232-2736  
(503) 797-1700

## **BID FORMS**

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### **SCHEDULE OF BID PRICES**

Bidder to reference Specifications of Division 01, Section 01 11 00–Summary of Work; Section 00 11 16–Invitation to Bid.

#### **PART A –Water Main Building**

( \_\_\_\_\_ **DOLLARS**)  
**BASE BID** (in words)

**SECTION 00 01 10  
TABLE OF CONTENTS**

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

00 01 10	TABLE OF CONTENTS
00 11 16	INVITATION TO BID
00 21 13	INSTRUCTIONS TO BIDDERS
00 41 00	BID FORMS
00 52 00	CONSTRUCTION AGREEMENT
00 61 13	PERFORMANCE BOND FORMS
00 61 26	BID BOND FORM
00 72 00	GENERAL CONDITIONS
00 73 00	SUPPLEMENTARY CONDITIONS

**DIVISION 01 – GENERAL REQUIREMENTS**

01 11 00	SUMMARY OF WORK
01 25 00	PRODUCT SUBSTITUTION PROCEDURES AND SUBSTITUTION REQUEST FORM
01 29 00	PAYMENT PROCEDURES
01 33 00	SUBMITTAL PROCEDURES
01 35 43	ENVIRONMENTAL RESPONSIBILITY
01 42 00	REFERENCES
01 45 00	QUALITY CONTROL
01 50 00	TEMPORARY FACILITIES AND CONTROLS
01 56 39	TEMPORARY TREE AND PLANT PROTECTION
01 60 00	PRODUCT REQUIREMENTS
01 73 29	CUTTING AND PATCHING
01 74 00	CLEANING
01 74 19	CONSTRUCTION WASTE MANAGEMENT
01 77 00	CLOSEOUT PROCEDURES
01 79 00	DEMONSTRATION AND TRAINING
01 80 00	PERFORMANCE REQUIREMENTS
01 81 19	INDOOR AIR QUALITY REQUIREMENTS

**DIVISION 03 – CONCRETE**

03 30 00	CAST-IN-PLACE CONCRETE
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**DIVISION 04 – MASONRY**

04 22 00	CONCRETE UNIT MASONRY
04 43 00	STONE MASONRY

**DIVISION 05 – METALS**

05 50 00	METAL FABRICATIONS
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**DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES**

06 10 00	ROUGH CARPENTRY
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**DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

07 11 00	DAMPPROOFING
07 19 20	WATER REPELLANT (CLEAR)
07 20 00	BATT INSULATION

07 27 26 WEATHER RESISTIVE BARRIER  
07 60 00 METAL ROOFING, FLASHING AND SHEET METAL  
07 84 00 FIRESTOPPING  
07 92 00 JOINT SEALANTS

DIVISION 08 – OPENINGS

08 11 00 METAL DOORS AND FRAMES  
08 71 00 FINISH HARDWARE

DIVISION 09 – FINISHES

09 29 00 GYPSUM BOARD  
09 90 00 PAINTING AND COATING

DIVISION 26 – ELECTRICAL

26 05 00 COMMON WORK RESULTS FOR ELECTRICAL SYSTEMS  
26 05 19 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES  
26 05 26 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS  
26 05 33 RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS  
26 05 53 IDENTIFICATION FOR ELECTRICAL SYSTEMS  
26 09 26 LIGHTING CONTROLS  
26 27 26 WIRING DEVICES  
26 50 00 LIGHTING

DIVISION 31 – EARTHWORK

31 10 00 SITE CLEARING  
31 20 00 EARTH MOVING  
31 21 00 WATERING  
31 22 13 ROUGH GRADING  
31 22 19 FINISH GRADING  
31 23 00 EXCAVATION AND FILL  
31 23 19 DEWATERING  
31 23 33 TRENCHING AND BACKFILLING  
31 25 00 EROSION AND SEDIMENTATION CONTROLS

DIVISION 32 – EXTERIOR IMPROVEMENT

32 12 16 ASPHALT PAVING  
32 13 13 CONCRETE PAVING  
32 31 13 CHAIN LINK FENCES AND GATES

DIVISION 33 – UTILITIES

33 11 00 WATER UTILITY DISTRIBUTION PIPING  
33 41 00 STORM UTILITY DRAINAGE PIPING

END OF SECTION

# KEYED NOTES

- 1 8 ROUTE WIRING SURFACE MOUNTED IN STORAGE/ELECTRICAL ROOM.
- 1 9 METALLIC WEATHERPROOF JUNCTION BOX MOUNTED AT +24" ABOVE FINISHED GRADE - LABEL "WATER MAIN BLDG".
- 1 10 SAWCUT/PATCH/REPAIR PAVEMENT FOR FEEDER TO WATER MAIN BLDG. COORDINATE ACTUAL PATH WITH ALL UNDERGROUND UTILITIES - VERIFY.



**GIFT SHOP**

PANEL S2 SECT 1 7

1  
E1.1

## SITE PLAN

SCALE: 1" = 30'-0"



PECK  
SMILEY  
ETTLIN  
architects  
4412 SW CORBETT AVE.  
PORTLAND, OREGON 97239  
PHONE: (503) 248-9170  
FAX: (503) 248-0223

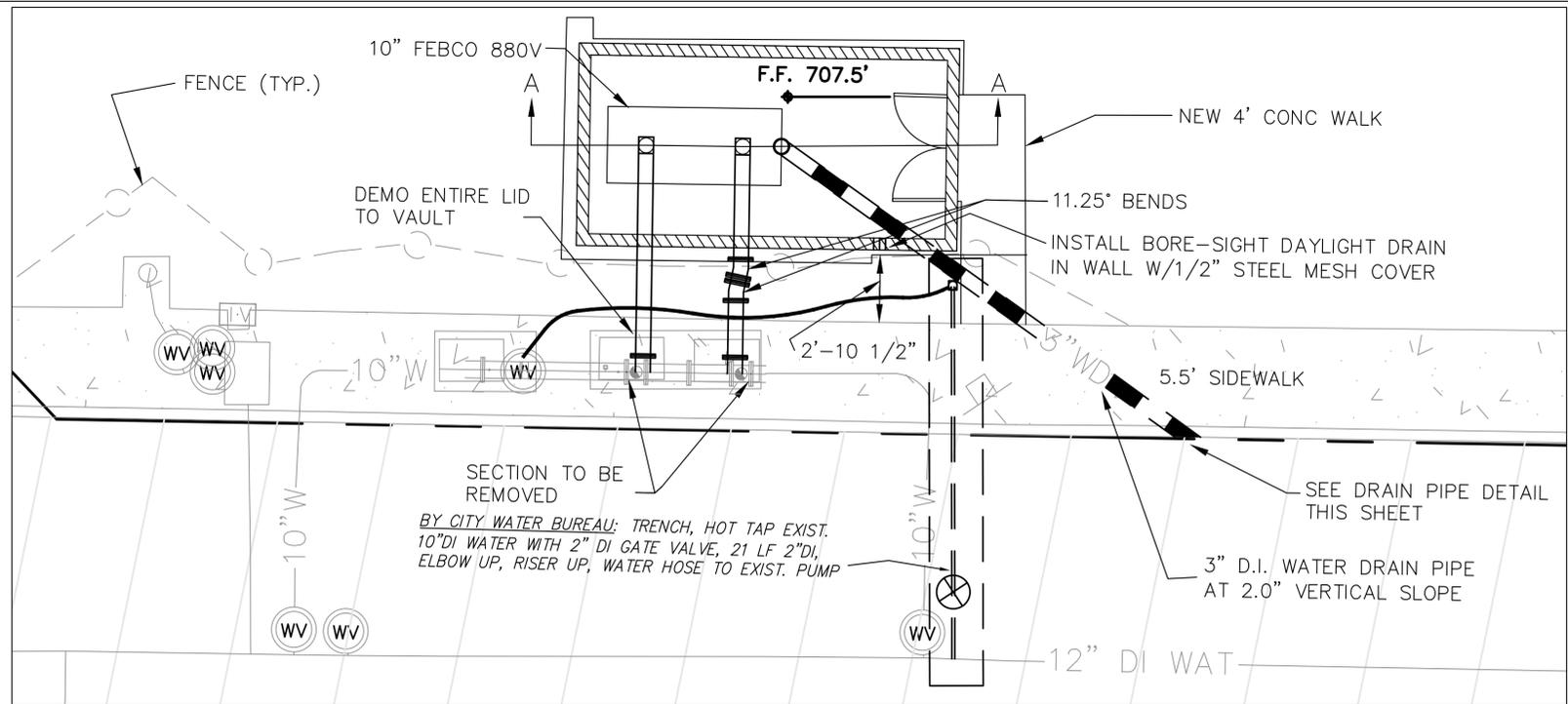
OREGON ZOO  
WATER MAIN BUILDING  
PORTLAND, OR

ISSUED VIA:	ADDENDA #1
PROJECT:	004
DRAWN:	CGL
CHECKED:	MLC
DATE:	26 OCT 2010

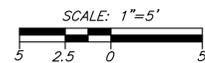
RE: SHEET E1.1
<b>SDE-01</b>

**CONSTRUCTION NOTES**

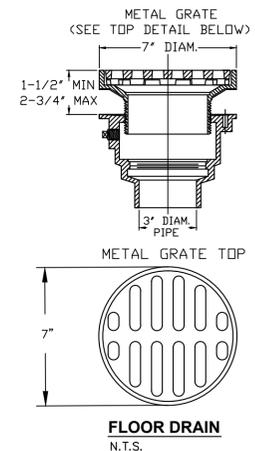
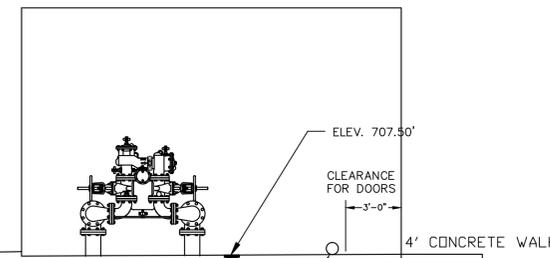
- PRIOR TO ANY WATER LINE CONSTRUCTION WORK, THE FOLLOWING PEOPLE SHALL BE NOTIFIED:  
CITY OF PORTLAND WATER BUREAU.....DAVE BARRIGAN.....503-823-7479  
CITY OF PORTLAND FIRE BUREAU.....STEW WHITE.....503-209-8221  
CITY OF PORTLAND FIRE STA. 16.....JOHN SEFFERT.....503-823-3756
- NO SHUTDOWN OF WATER SYSTEM TO THE ZOO WILL BE ALLOWED. THE WATER BUREAU WILL PROVIDE A TEMPORARY SERVICE WITH A 2 INCH LINE. CONTRACTOR TO HOOK THE TEMPORARY SERVICE WITH A HOSE PROVIDED BY WATER BUREAU. THE TEMPORARY SERVICE WILL BE LIMITED TO A MAXIMUM OF 6 HOURS IN LENGTH FROM THE HOURS OF 6 PM UNTIL 4 AM. DURING THE RESTRICTED FLOW TEMPORARY SERVICE THE CONTRACTOR WILL PROVIDE 2 3000 GALLON TANKER TRUCKS WITH DRIVERS. ALL OTHER TEMPORARY FIRE PROTECTION WILL BE THE RESPONSIBILITY OF THE ZOO WITH THE EXCEPTION OF THE 2 TANKER TRUCKS.
- CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, SIZES, AND CONNECTIONS PRIOR TO CONSTRUCTION INCLUDING ALL SUBSURFACE WORK.
- PRIOR TO PROCUREMENT, CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS SHOWING ALL DIMENSIONS, TYPES OF MATERIAL, ELEVATIONS, CONNECTIONS AND DETAILS.
- SEQUENCE OF CONSTRUCTION TO BE SUBMITTED AND APPROVED. RECOMMEND SEQUENCE TO BE: REMOVE EXISTING VAULT LID; VERIFY DIMENSIONS & GROOVES TO LID AND SUBMIT TO ENGINEER; CORE NEW HOLES (2) INTO N.E. SIDE OF VAULT; INSTALL UNDERGROUND PIPES, FITTINGS, AND CONNECTIONS FROM EXISTING VAULT TO NEW STRUCTURE; CONSTRUCT NEW STRUCTURE; INSTALL NEW DOUBLE CHECK PRESSURE REDUCING ZONE ASSEMBLY WITH ALL REQUIRED PIPING FITTINGS AND SUPPORTS; TEST NEW SYSTEM; COORDINATE WITH CITY ON TEMPORARY BY-PASS SYSTEM; UPON FINAL APPROVAL OF NEW CONNECTION, WORK TO DEMOLISH EXISTING DOUBLE-CHECK AND TIE IN NEW DOUBLE-CHECK PRESSURE REDUCING ZONE ASSEMBLY; TEST WHOLE SYSTEM; INSTALL NEW VAULT LID; COMPLETE SITE IMPROVEMENTS; CLOSE OUT PROJECT.
- ALL FLANGE GASKETS MUST COMPLY WITH ANSI B.16.21.
- TIGHTEN FLANGE BOLTS IN ACCORDANCE WITH MANUFACTURER'S TORQUE-ING REQUIREMENTS.
- REPLACE VAULT LID AFTER WATER LINE CONSTRUCTION IS COMPLETE, PER OLDCASTLE VAULT NO. 613-2-LA, TOP NO. 612-3-5-3-332P.
- CONSULT LOCAL CODES FOR SPECIFIC INSTALLATION REQUIREMENTS AND RESTRICTIONS APPLICABLE TO THE CITY OF PORTLAND. RECOMMENDED SUPPLY PRESSURE IS AT LEAST 20psi.
- THESE INSTRUCTIONS APPLY TO SERIES 880V SIZES 2½" TO 10" ONLY. THE VALVE MAY BE INSTALLED ONLY IN THE ORIENTATION/FLOW DIRECTION AS SHOWN. THE GATE VALVES MAY BE AS PERMITTED BY THE FLANGE BOLT PATTERN.
- NOTE:** NORMAL DISCHARGE AND NUISANCE SPITTING ARE ACCOMMODATED BY USE OF A FEBCO AIR GAP FITTING AND A FABRICATED INDIRECT WASTE LINE. THE GAP DRAIN IS NOT DESIGNED TO CATCH THE MAXIMUM DISCHARGE POSSIBLE FROM THE RELIEF VALVE. THE INSTALLATION OF FEBCO AIR GAP WITH THE DRAIN LINE TERMINATING ABOVE A FLOOR DRAIN WILL HANDLE ANY NORMAL DISCHARGE OR NUISANCE SPITTING THROUGH THE RELIEF VALVE. HOWEVER, FLOOR DRAIN SIZE MAY NEED TO BE DESIGNED TO PREVENT WATER DRAINAGE CAUSED BY A CATASTROPHIC FAILURE CONDITION. DO NOT REDUCE THE SIZE OF THE DRAIN LINE FROM THE AIR GAP FITTING.
- THE VALVE ASSEMBLY MUST BE INSTALLED WHERE IT IS ACCESSIBLE FOR PERIODIC TESTING AND MAINTENANCE. CLEARANCES SHOWN ARE ONLY RECOMMENDATIONS. THESE MINIMUMS DO NOT APPLY TO REMOVABLE PROTECTIVE ENCLOSURES.
- PRIOR TO INSTALLING THE VALVE INTO THE LINE, FLUSH THE SUPPLY LINE OF ALL FOREIGN MATERIAL.** FAILURE TO FLUSH THE SUPPLY LINE MAY CAUSE THE CHECK VALVES TO BECOME FOULED AND REQUIRE DISASSEMBLY AND CLEANING.
- LIFT THE ASSEMBLY BY CONNECTING LIFT HOOKS TO THE LIFT RINGS CAST INTO THE VALVE BODY. **DO NOT LIFT THE ASSEMBLY BY CONNECTION TO THE GATE VALVE HAND WHEELS OR STEMS.** THE USE OF THE OPTIONAL VALVE SETTERS (HORIZONTAL UNITS ONLY) PROVIDES A RIGID CONNECTION TO THE SUPPLY LINE (WITH THE CORRECT CENTERLINE) WITHOUT THE NEED FOR CONCRETE THRUST BLOCKS.
- AFTER INSTALLATION **SLOWLY** FILL THE ASSEMBLY WITH WATER AND BLEED AIR FROM THE BODY USING THE #3 AND #4 TEST COCKS. TEST THE VALVE ASSEMBLY TO ENSURE CORRECT OPERATION.
- THE ASSEMBLY MUST BE PROTECTED FROM FREEZING AND EXCESSIVE PRESSURE INCREASES. PRESSURE INCREASES CAN BE CAUSED BY THERMAL EXPANSION OR WATER HAMMER. THESE EXCESSIVE PRESSURE SITUATIONS MUST BE ELIMINATED TO PROTECT THE VALVE AND SYSTEM FROM POSSIBLE DAMAGE.



**WATER LINE PLAN**

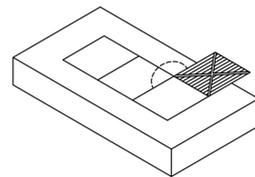


EXISTING GROUND

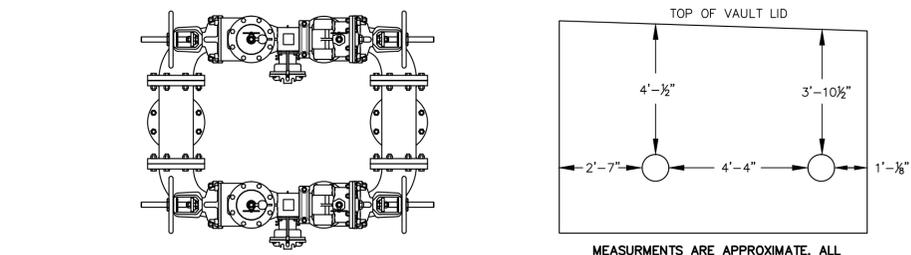


**LEGEND**

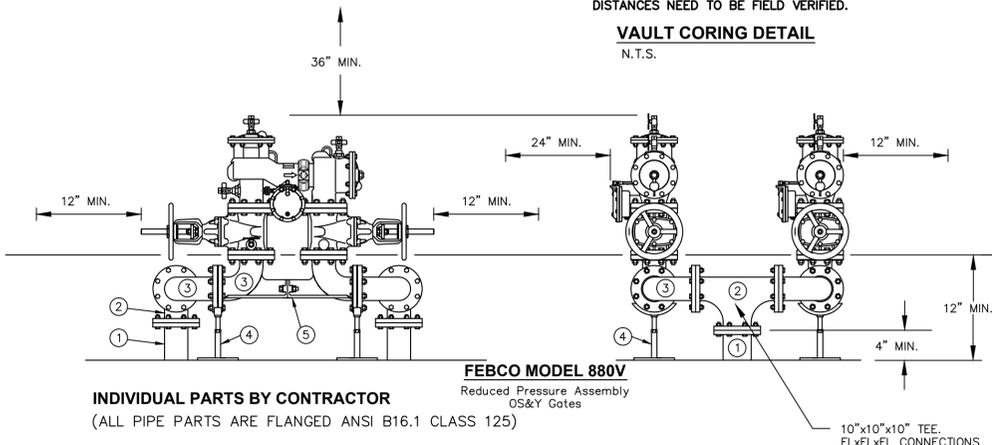
- EXISTING WATER VALVE
- EXISTING 10" DUCTILE IRON PIPE AND DOUBLE CHECK ASSEMBLY WITH GATE VALVE HAND WHEELS AND FLANGE CONNECTIONS
- PROPOSED 10" DUCTILE IRON PIPE WITH FLANGE CONNECTIONS
- LOCATIONS FOR BELOW TO ABOVE AND ABOVE TO BELOW GROUND TRANSITIONS



**VAULT TOP FOR OLDCASTLE VAULT NO. 612-3-LA**  
LOCKING GALVANIZED STEEL DOORS  
NO. 612-3-5-3-332P  
8,240 LBS.



**VAULT CORING DETAIL**  
N.T.S.



**INDIVIDUAL PARTS BY CONTRACTOR**  
(ALL PIPE PARTS ARE FLANGED ANSI B16.1 CLASS 125)

REFERENCE NO.	DESCRIPTION	QUANTITY	PART NO.
1	10" DI STANDPIPE	2 EA.	N/A
2	10" DI TEE	2 EA.	N/A
3	10" DI 90° ELBOW	8 EA.	N/A
4	VALVE & METER SUPPORT STAND	4 EA.	BF-STD-1
5	10" DI VALVE SETTER	2 EA.	905209

**GENERAL FEBCO 880V NOTES**

- DETAILED MAINTENANCE MANUALS ARE AVAILABLE FROM YOUR LOCAL FEBCO REPRESENTATIVE.
- RINSE ALL PARTS WITH CLEAN WATER PRIOR TO RE-ASSEMBLY.
- DO NOT USE ANY PIPE DOPE, OIL, GREASE OR SOLVENT ON ANY PARTS UNLESS INSTRUCTED TO DO SO.**
- DO NOT FORCE PARTS. PARTS SHOULD FIT TOGETHER FREELY. EXCESS FORCE MAY CAUSE DAMAGE AND RENDER THE ASSEMBLY IN-OPERABLE.
- CAREFULLY INSPECT SEALS AND SEATING SURFACES FOR DEBRIS OR DAMAGE.
- AFTER SERVICING, REPRESSURIZE THE ASSEMBLY AND TEST TO ENSURE PROPER OPERATION.

**CHECK VALVE DISASSEMBLY**

- CLOSE THE OUTLET SHUTOFF VALVE, THEN CLOSE THE INLET SHUTOFF VALVE. BLEED RESIDUAL PRESSURE FROM THE ASSEMBLY BY OPENING THE #4, #3 AND #2 TEST COCKS IN THIS SEQUENCE.
- REMOVE THE COVER BOLTS/NUTS AND LIFT THE COVER FROM THE BODY. THE SPRINGS ARE RETAINED AND THE COVER SHOULD BE PUSHED AWAY FROM THE BODY APPROXIMATELY 1/4 INCH.
- INSPECT/CLEAN DEBRIS FROM THE DISC AND SEAT RING. REPLACE WORN OR DAMAGED PARTS AS REQUIRED.
- REPLACE THE COVER, ENSURE THE SPRING ASSEMBLY IS POSITIONED IN THE PIVOT SOCKET. IF NECESSARY, APPLY FDA APPROVED GREASE TO THE O-RING IN POSITION WHILE INSTALLING THE COVER.

**RELIEF VALVE DISASSEMBLY**

- REMOVE THE CAP SCREWS HOLDING THE COVER TO THE RELIEF VALVE BODY, AND REMOVE THE COVER.
- REMOVE THE DIAPHRAGM AND PULL THE INTERNAL ASSEMBLY FROM THE BODY. IT MAY BE HELPFUL TO PUSH THE INTERNAL ASSEMBLY WITH YOUR FINGERS THROUGH THE DISCHARGE OPENING.
- INSPECT FOR DEBRIS, DAMAGE OR FOULING OF THE SEAT DISC. CLEAN OR REPLACE THE RUBBER DISC AS REQUIRED.
- REPOSITION THE INTERNAL ASSEMBLY AND DIAPHRAGM INTO THE BODY. INSTALL THE COVER AND CAP SCREWS.

**CONSTRUCTION DOCUMENTS**

**WATER LINE CONSTRUCTION PROJECT PLAN**  
**THE OREGON ZOO**  
City of Portland, Multnomah County, Oregon

**THE OREGON ZOO**  
4001 SW CANYON RD  
PORTLAND, OR 97221  
(503) 297-5090

**LANPACIFIC**  
CIVIL ENGINEERING  
DEVELOPMENT CONSULTING  
LANDSCAPE ARCHITECTURE  
5125 SW Macadam, Suite 140, Portland, Oregon 97239  
503 | 238-2097 FAX: 503 | 238-2447  
www.lanpacific.com

**REGISTERED PROFESSIONAL ENGINEER**  
56,263  
OREGON  
JANUARY 12, 1989  
ERIK M. ESPARZ  
EXP. 12/31/11

#	DATE	BY

DATE | 10/27/2010  
DRAWN | DRS  
DESIGNED | BSN  
CHECKED | EME  
PROJECT # | ZOO 08-001

SHEET TITLE  
**PLAN**  
SHEET NUMBER  
**C03**