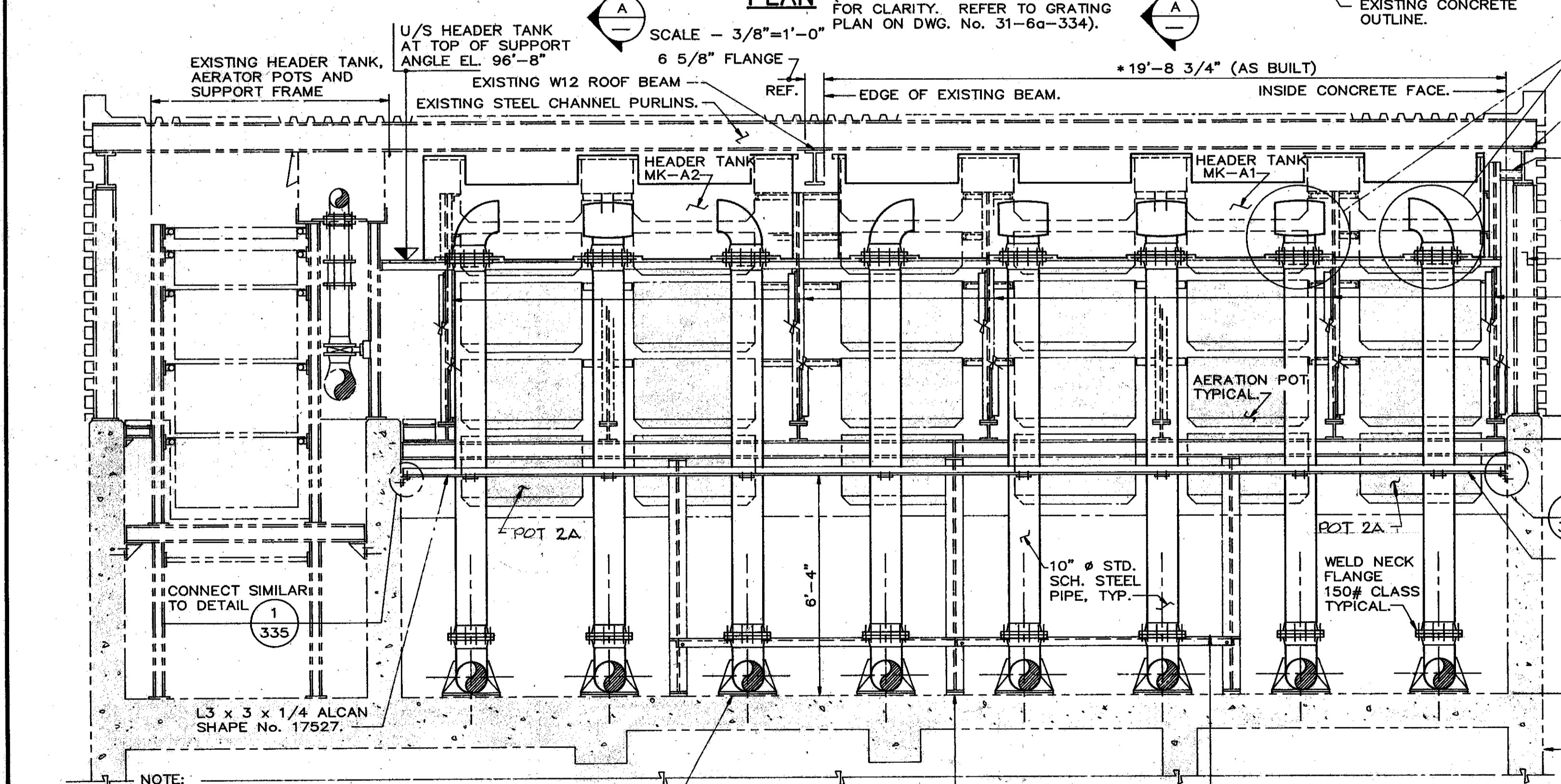
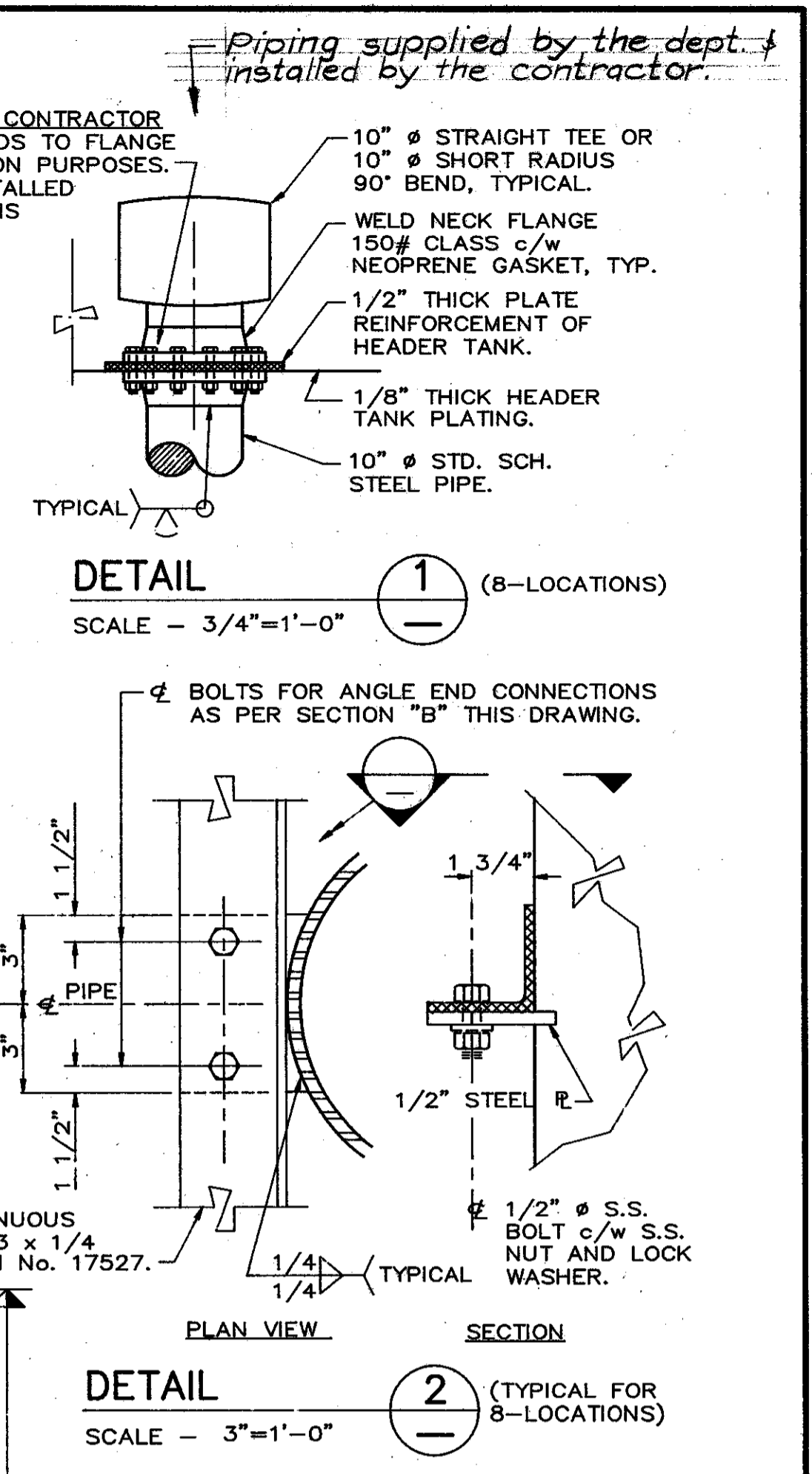
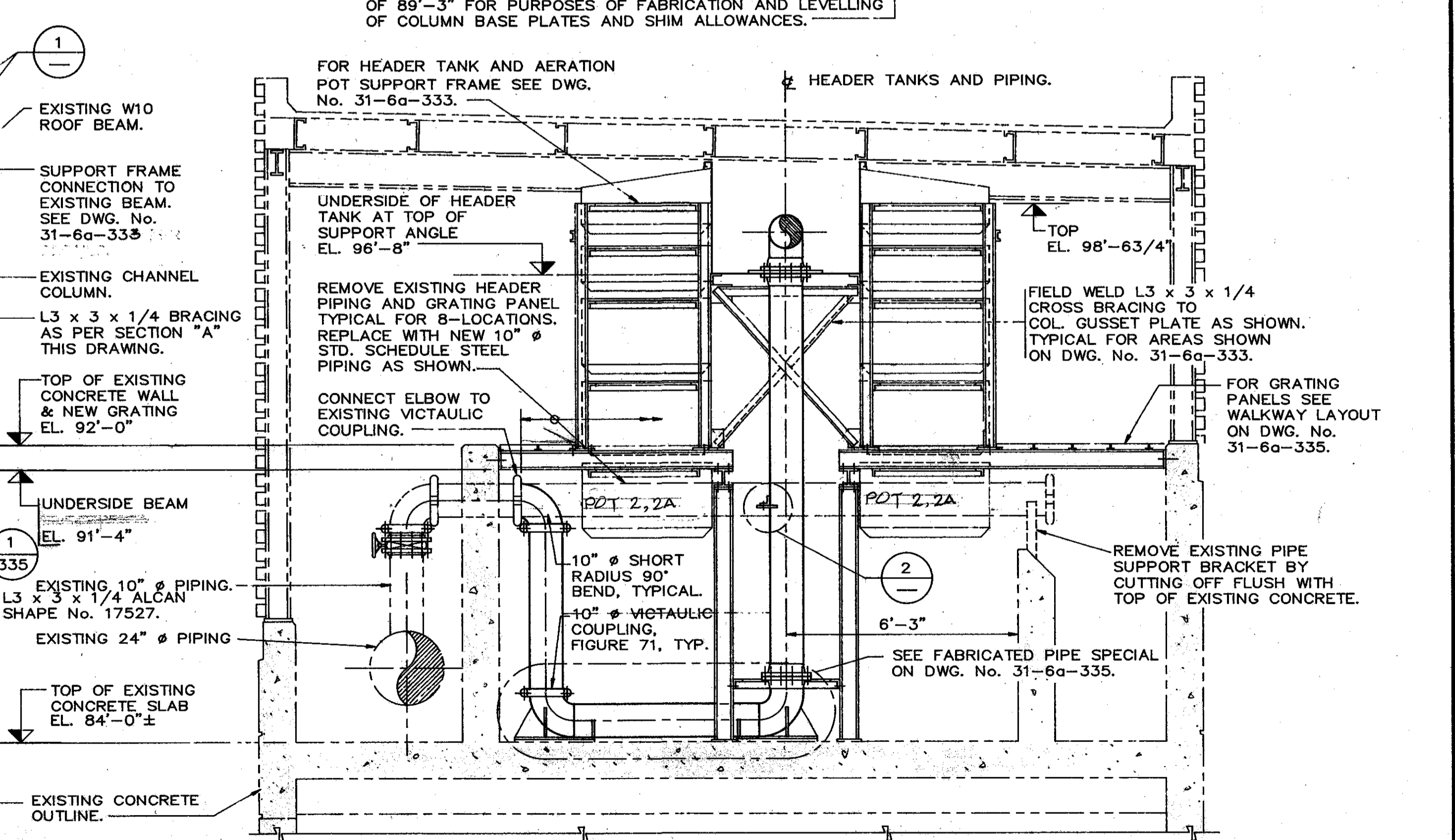


TYPICAL AERATION POT COLUMN AND DISTRIBUTION TANK ARRANGEMENT
SCALE - 3/4"=1'-0"

TOP OF EXISTING WALL NOT EXACTLY LEVEL ($\pm 1/2"$). THE CONTRACTOR SHALL ESTABLISH THE HIGHEST POINT ALONG THE LENGTH OF WALL AS THE WORKING ELEVATION OF 89'-3" FOR PURPOSES OF FABRICATION AND LEVELLING OF COLUMN BASE PLATES AND SHIM ALLOWANCES.



SECTION B
SCALE - 3/8"=1'-0"



SECTION A
SCALE - 3/8"=1'-0"

DWG. NO.	REFERENCE DRAWINGS

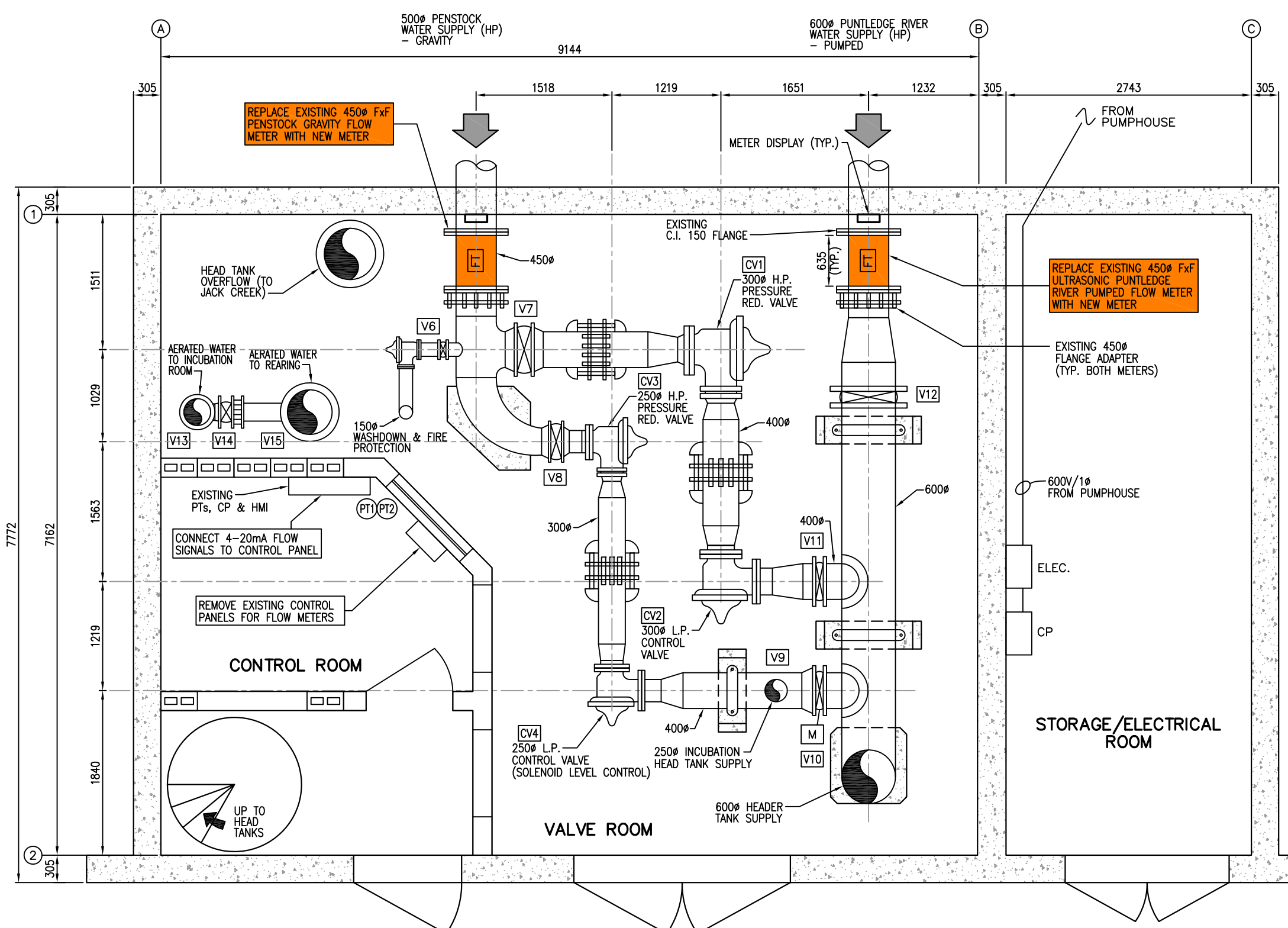
NOTES
1. THE CONTRACTOR SHALL VERIFY THOSE DIMENSIONS SHOWN WITH AN ASTERISK (*) ON SITE BEFORE COMMENCEMENT OF FABRICATION.
2. FOR DETAILED REQUIREMENTS OF METAL WORK AND PIPING REFER TO THE CONTRACT SPECIFICATIONS.
3. ALL PIPING, PIPE FITTINGS AND COUPLINGS SHALL BE SUPPLIED BY THE DEPT. OF FISHERIES AND OCEANS AND INSTALLED BY THE CONTRACTOR.

NO.	DATE	REVISIONS
1	AUG 89	DRAWING "AS BUILT"
0		APPROVED FOR CONSTRUCTION
	APRIL 89	ISSUED FOR TENDER

DEPARTMENT OF FISHERIES AND OCEANS
SALMONID ENHANCEMENT PROGRAM

PUNTLEDGE RIVER HATCHERY
CONTRACT No. 89-1
AERATION TOWER MODIFICATIONS
METAL WORK AND PIPING
GENERAL ARRANGEMENT

DESIGNED KEN SUN	SCALE AS SHOWN
DRAWN G. REICHARDT	DATE APRIL 1989
CHECKED <i>[Signature]</i>	DRAWING NUMBER 31-6a-332
RECOMMENDED <i>[Signature]</i>	REVISION 1
APPROVED <i>[Signature]</i>	



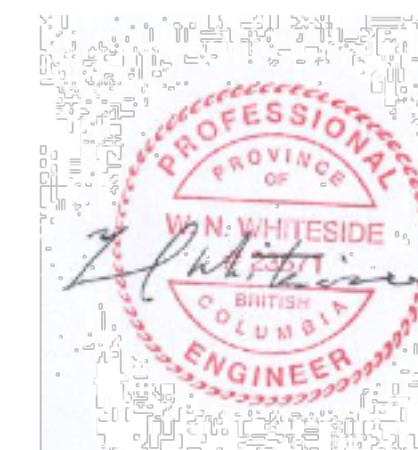
PLAN
1:50

Notes:

1. General
 - 1.1 Flow meter information to be submitted for Engineer approval, including parameters in production description below.
 - 1.2 Provide 4 copies of detailed installation and operating instructions with meter.
2. Products
 - 2.1 Flow Meter

Parameter	Values/Description	Notes
Quantity	2	Puntledge River Pumped and Penstock Gravity
Nominal Diameter	18" (450mm)	
Inside Diameter of Flowtube	17.25" (438mm) +/-6mm	
Pressures:		
Maximum static pressure	160 psig	
Normal working pressure	130 psig	
Design pressure	225 psig	
End Connections	Flanged to match existing ASME B16.5 Class 150	Confirm whether raised-face or flat-face is required in field.
Laying length	635mm +/- (25")	Existing meter lay length, shorter length may be accommodated with spacer plate, longer lengths may require modification of existing piping.
Service	Water 0 to 30 deg. C	
Operating Principle	Unidirectional flow	
Min. Conductivity Rating	Electro-magnetic	
Flow Range		
Minimum normal flow	1,000 Lpm	
Typical flow	10,000 Lpm	
Maximum flow	50,000 Lpm	
Accuracy		
At min. normal flow	1% of reading	
at typical flow	0.5% of reading	
Input power	120 V AC, 60 hz single phase	
Main output	Flow 4-20mA signal	
Auxiliary outputs	Two digital outputs	Programmable to give either empty pipe, reverse flow or zero flow.
Display	Wall mount with 6m cable to transducer, 2 line configurable display, IP65 enclosure (dust-proof, spray-proof)	
Operator interface	Integral with display, allowing for configuration of unit.	
Liner	PTFE or Neoprene	
External Coating	Polyurethane or approved equal.	
Approved Model	Rosemount 8750W to above specifications	Available from Spartan Controls Contact D. Crane - 604 422-4752
Alternate Approved Manufacturers	Endress and Hauser ABB	Contact Corix - 604 942-0288 Contact Metecor - 403 603-5325

3. Execution
 - 3.1 Confirm required modifications to piping (either spacer plate or shortening of downstream pipe as required) for each meter install.
 - 3.2 One of two water supplies must remain in operation at all times; i.e. either Penstock Gravity or Puntledge River Pumped water supply.
 - 3.3 After first meter is installed, flow to be restored completely to satisfaction of the Owner and Engineer prior to disconnecting second source.
 - 3.4 Shutdown for each meter install and isolation and lockout of valves to be completed using safe work procedures approved by the Owner.
 - 3.5 Connect to power supply with armoured (Teck) cable run overhead.
 - 3.6 Connect 4-20 mA signal from flow meter to replace existing flow meter signal to SCADA. Check SCADA displayed flow matches flow meter display (ensure range matches existing).
 - 3.7 Mount flow meter display at 1500 mm above floor on wall above incoming pipe.
 - 3.8 Ground flow meter to existing incoming pipe as per manufacturers recommendations.
 - 3.9 Provide lamicaloid tag above display for each meter
 - Puntledge River Pumped Supply Flow
 - Penstock Gravity Supply Flow
 - 3.10 Remove and dispose of existing flow meters.



Neal Whiteside
Feb 22 2016 1:48 PM

SCALE 1:50



WHITESIDE ENGINEERING LTD.
WATER UTILITY CONSULTING



FISHERIES AND OCEANS CANADA
REAL PROPERTY AND TECHNICAL SUPPORT

DWG. NO.	DRAWING REFERENCES	NOTES	NO.	DATE	REVISIONS	DESIGNED N. WHITESIDE	DRAWN A. VIZNAR	CHECKED N. WHITESIDE	RECOMMENDED	APPROVED	APPROVED	SCALE AS NOTED	DATE 22-Feb-16	DRAWING NUMBER M-001	REVISION 1
			1	22-FEB-2016	ISSUED FOR CONSTRUCTION										