

VALVE MOUNTING FLANGE
300, 375, AND 500 NS

225 NS VALVE MOUNTING FLANGE

150 NS VALVE MOUNTING FLANGE

<	A	B	C	D	E	F Ø	G	H Ø
300NS	590	620	150	150	150	455	130	340/320
375NS	700	720	150	175	200	550	150	415/395
500NS	930	1160	250	230	230	705	260	500

NOTE:

- VALVE MOUNTING FLANGE SHALL BE CAST FROM DUCTILE IRON TO AS 1831-1985 GR 400-12, OR FABRICATED FROM SS316L.
- FLANGE FACE TO BE MACHINED ^{1.6} HOLES TO BE DRILLED AS SHOWN
- ALL UNMACHINED SURFACES OF CAST IRON MOUNTING FLANGE SHALL BE PROTECTED WITH APPROVED 2 PART EPOXY COATING
- ALL FILLET RADII TO BE 5mm MIN

NOTE:

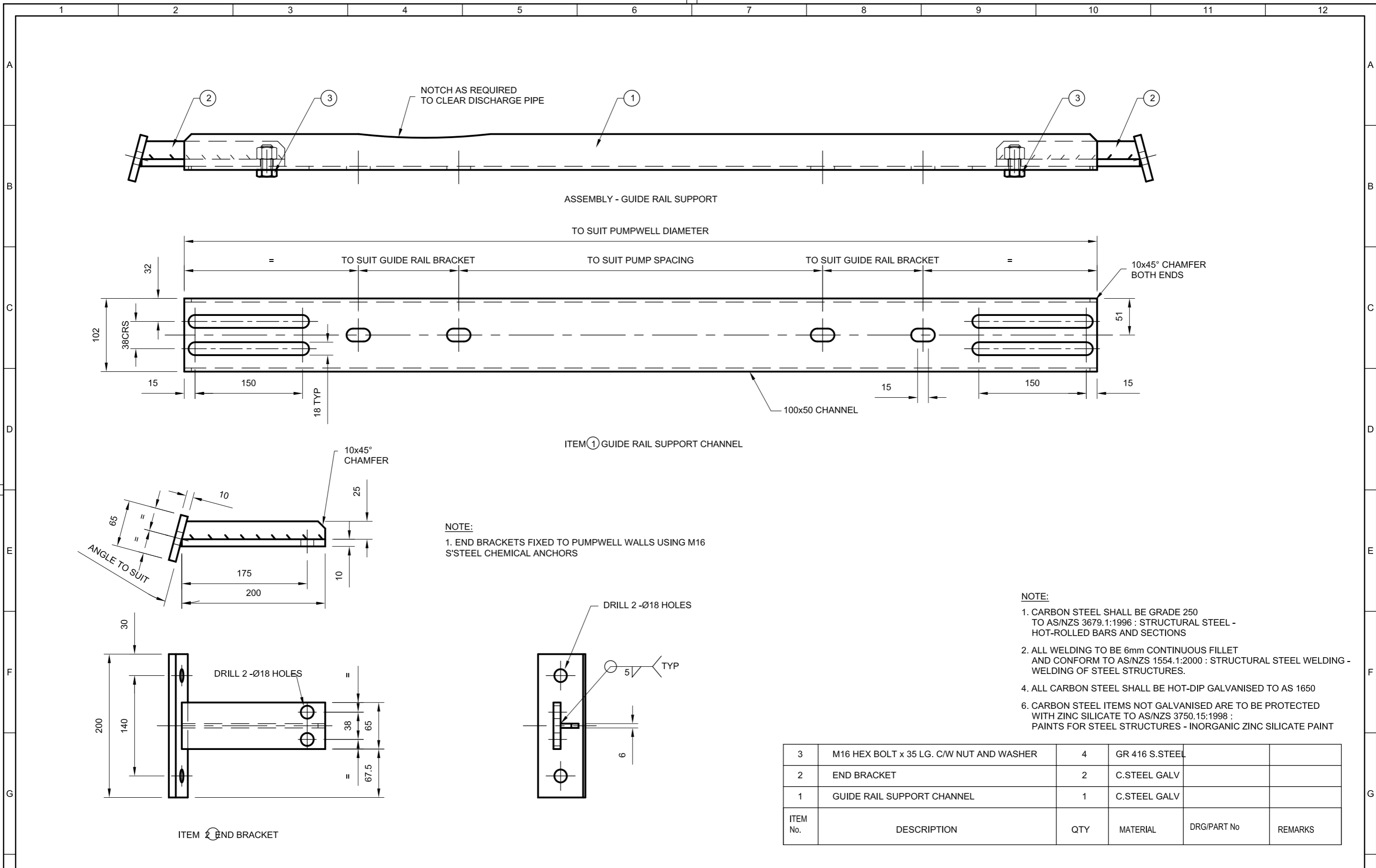
- CARBON STEEL SHALL BE GRADE 250 TO AS/NZS 3679.1:1996 : STRUCTURAL STEEL - HOT-ROLLED BARS AND SECTIONS
- ALL WELDING TO BE 6mm CONTINUOUS FILLET AND CONFORM TO AS/NZS 1554.1:2000 : STRUCTURAL STEEL WELDING - WELDING OF STEEL STRUCTURES.
- STAINLESS STEEL TO AS 2837-1986 : WROUGHT ALLOY STEELS - STAINLESS STEEL BARS AND SEMI-FINISHED PRODUCTS GRADE 316 (316 L IF WELDED) UNLESS OTHERWISE NOTED
- ALL CARBON STEEL SHALL BE HOT-DIP GALVANISED TO AS 1650
- DIM 'X' TO BE MEASURED AND CONFIRMED ON SITE
- CARBON STEEL ITEMS NOT GALVANISED ARE TO BE PROTECTED WITH ZINC SILICATE TO AS/NZS 3750.15:1998 : PAINTS FOR STEEL STRUCTURES - INORGANIC ZINC SILICATE PAINT

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
INLET VALVE MOUNTING FLANGE

DO NOT SCALE		
SCALE:	N.T.S	
DRAWING NUMBER		
SEWL-STD-000		0
SHEET 1 OF 1	REV	

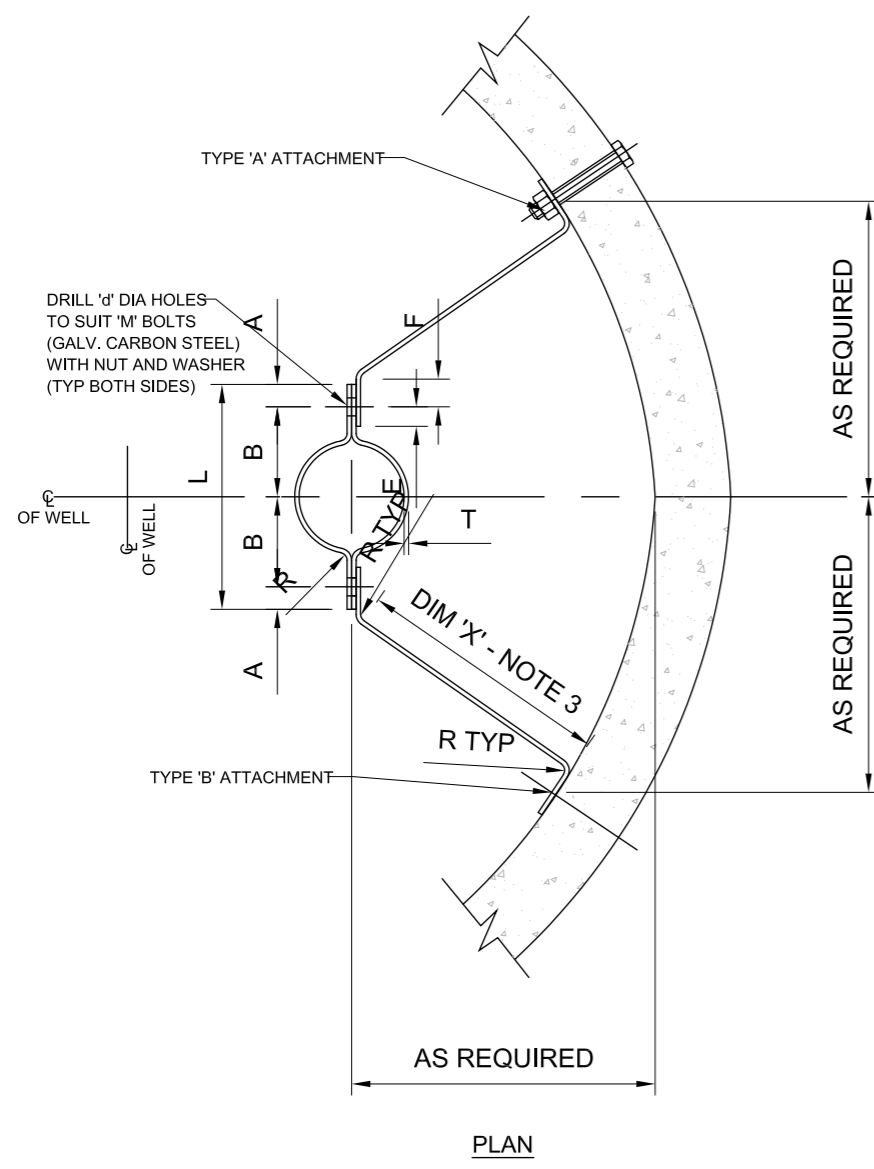


0	ISSUED AS STANDARD	30/6/03	A.P.W.
REV	DESCRIPTION	DATE	APP'D
1			
2			
3			
4			



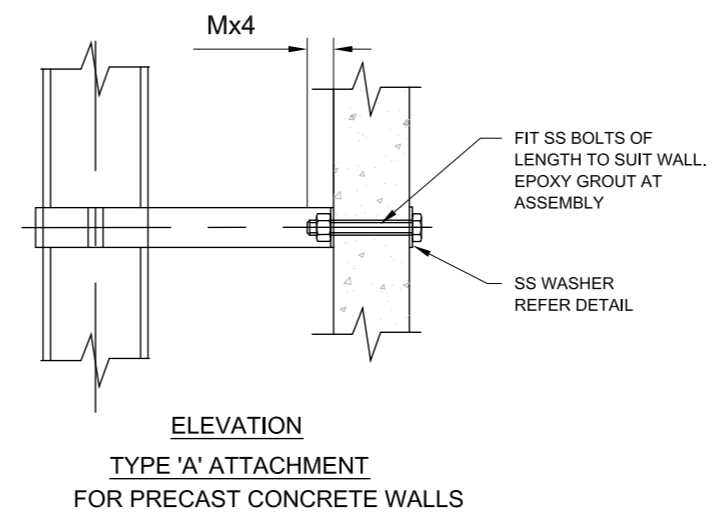
SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
PUMP GUIDE RAIL INTERMEDIATE SUPPORT
DETAILS

DO NOT SCALE	
SCALE:	N.T.S.
DRAWING NUMBER	
SEWL-STD-001	0
SHEET 1 OF 1	REV

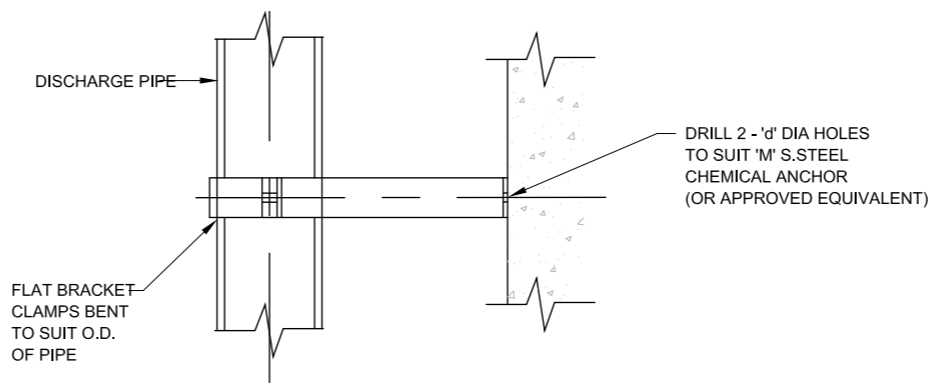


PLAN

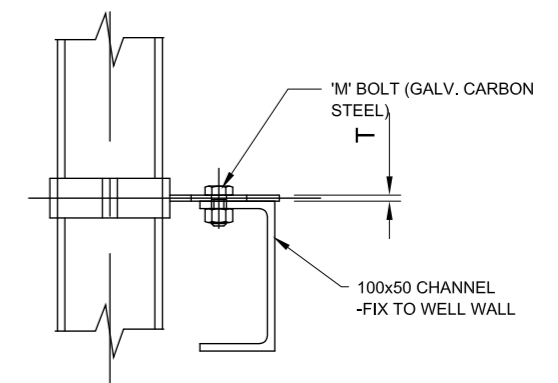
NOMINAL BORE OF PIPE	A	B	L	E	F	G	H	R	T	W	M	Ød
50	15	60	150	13	20	15	25	5	3	25	M10	12
80	20	80	200	15	25	20	30	7	5	40	M12	14
100	20	95	230	15	25	20	30	7	5	40	M12	14
150	20	125	290	15	25	20	30	8	6	40	M12	14
200	25	155	360	20	30	25	35	8	6	50	M16	18
225	25	170	390	20	30	25	35	12	10	50	M16	18
250	25	190	430	20	30	25	35	12	10	50	M16	18
300	25	220	490	20	30	25	35	12	10	50	M16	18



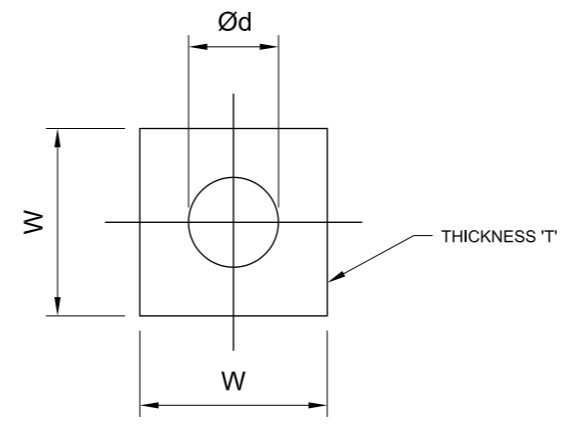
ELEVATION
TYPE 'A' ATTACHMENT
FOR PRECAST CONCRETE WALLS



ELEVATION
TYPE 'B' ATTACHMENT
FOR CAST INSITU CONCRETE WALLS (150 MIN THICK)



TYPE 'C' ATTACHMENT



WASHER DETAIL
MATERIAL: 316SS

NOTE:

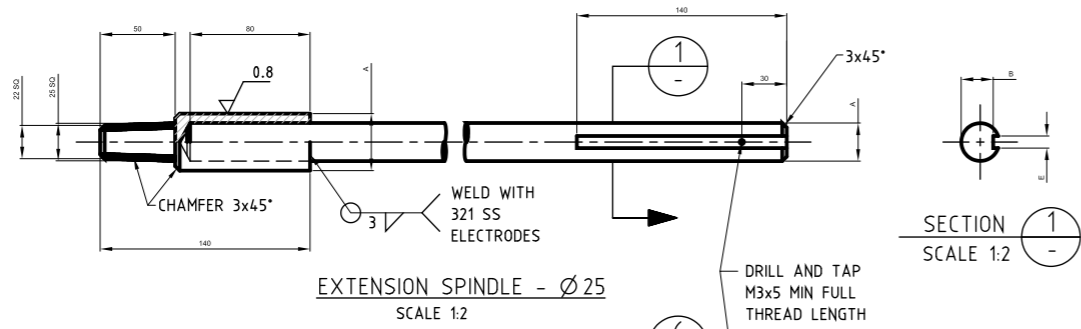
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REV	DESCRIPTION	DATE	APP'D



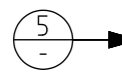
SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
LATERAL SUPPORT BRACKETS

DO NOT SCALE	
SCALE:	N.T.S
DRAWING NUMBER	
SEWL-STD-002	0
SHEET 1 OF 1	REV



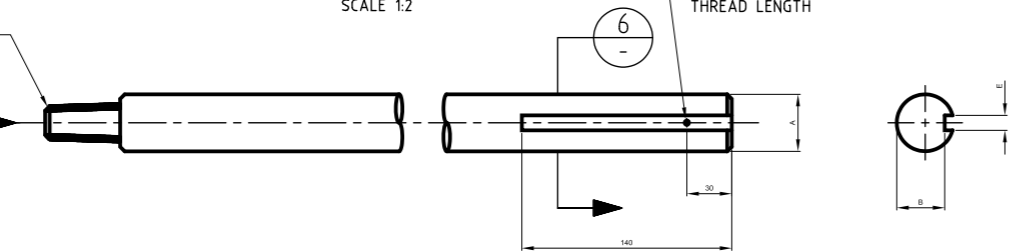
EXTENSION SPINDLE - Ø 25
SCALE 1:2

TAPER DIMENSIONS AS PER SPINDLE Ø25 SPINDLE



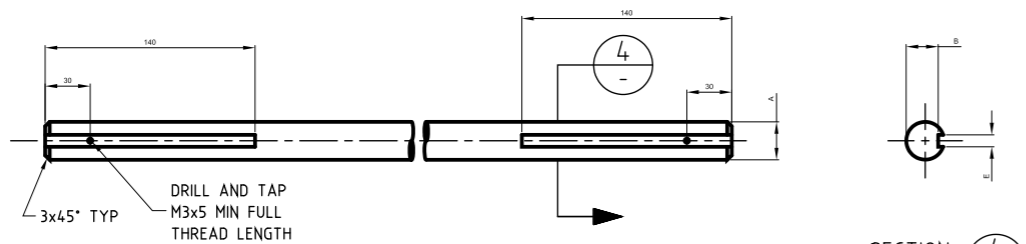
VIEW 5
SCALE 1:1

STAMP TOP OF SPINDLE AS SHOWN - TYPICAL



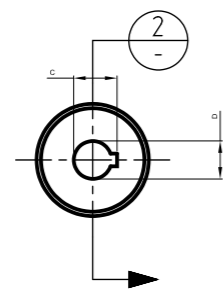
EXTENSION SPINDLE - Ø 38
SCALE 1:2

MATERIAL: - SS GR. 321 (GR. 329, AVESTA-223 FAL OR AVESTA-2205 IF SPECIFIED IN PARTS LIST) COLD DRAWN. (SPINDLE LENGTH AS SHOWN ON STATION G.A. DRAWING)

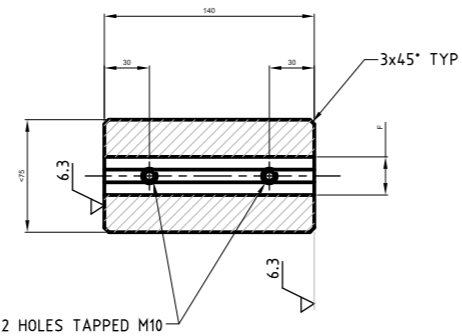


INTERMEDIATE SPINDLE
SCALE 1:2

MATERIAL: - SS GR. 321 (GR. 329, AVESTA-223 FAL OR AVESTA-2205 IF SPECIFIED IN PARTS LIST) COLD DRAWN. (SPINDLE LENGTH AS SHOWN ON STATION G.A. DRAWING)

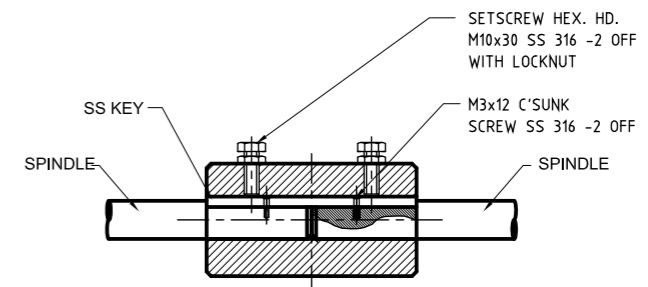


SPINDLE MUFF COUPLING
SCALE 1:2
MATERIAL: - SS GR.431

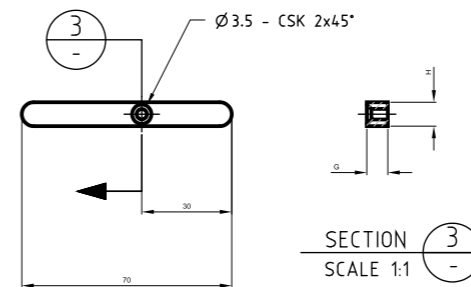


SECTION 2
SCALE 1:2

	Ø 25 SPINDLE	Ø 38 SPINDLE
A	Ø 25.400 Ø 25.300	Ø 38.100 Ø 38.000
B	21.300 21.100	33.000 32.800
C	28.900 28.700	41.600 41.400
D	25.428 25.407	38.109 38.134
E	8.000 7.964	10.000 9.964
F	8.098 8.040	10.040 10.098
G	7.000 6.910	8.000 7.910
H	8.000 7.964	10.000 9.964



ASSEMBLY
SCALE 1:2



KEY
SCALE 1:1
MATERIAL: - SS GR.316

NOTE:

1. ALL WELDING TO BE 6mm CONTINUOUS FILLET AND CONFORM TO AS/NZS 1554.1:2000 : STRUCTURAL STEEL WELDING - WELDING OF STEEL STRUCTURES UNLESS SHOWN.

OTHERWISE.

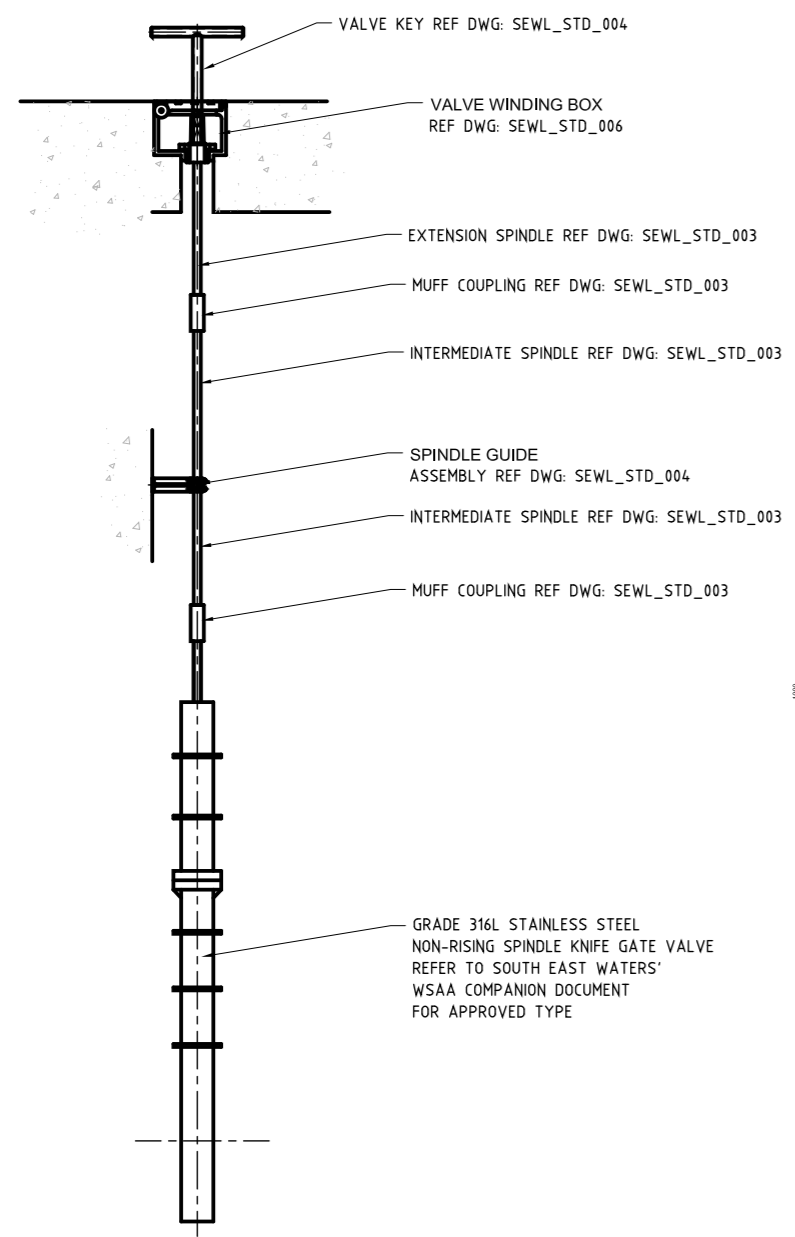
2. STAINLESS STEEL TO AS 2837-1986 : WROUGHT ALLOY STEELS - STAINLESS STEEL BARS AND SEMI-FINISHED PRODUCTS.
3. TOLERANCES GENERALLY H7/k6.

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.

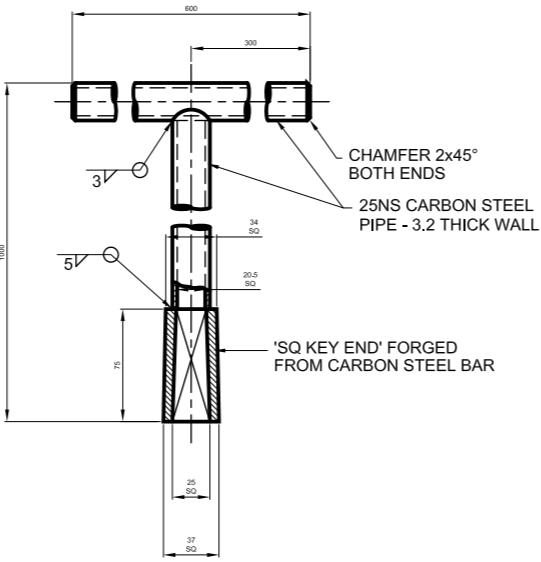


SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
VALVE SPINDLE EXTENSION

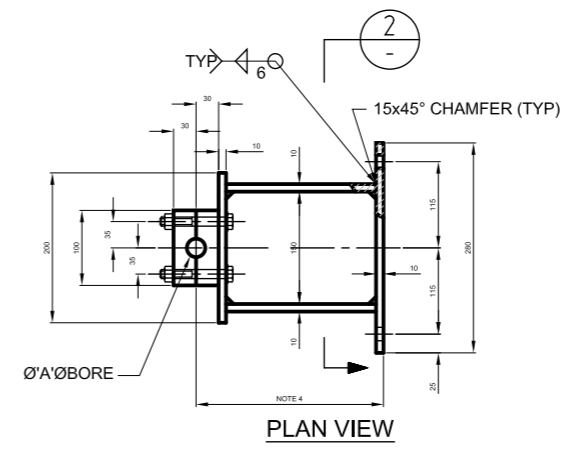
DO NOT SCALE	
SCALE:	N.T.S.
DRAWING NUMBER	
SEWL-STD-003	0
SHEET 1 OF 1	REV



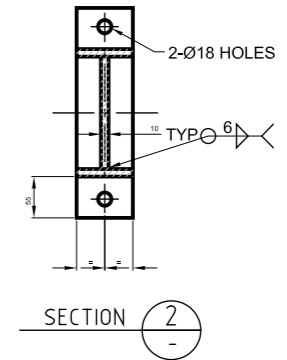
ASSEMBLY
N.T.S.



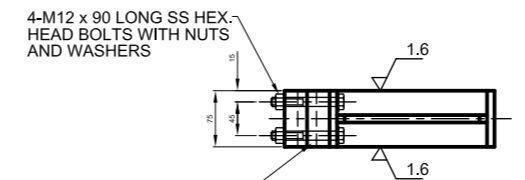
VALVE KEY
SCALE 1:2



PLAN VIEW



SECTION 2



SPINDLE GUIDE ASSEMBLY

SCALE 1:5
 MATERIAL: - CARBON STEEL

SPINDLE DIAMETER	'A'
25	26.50 27.00
38	39.50 40.00

BORE WHEN CLAMPED TOGETHER

NOTE:

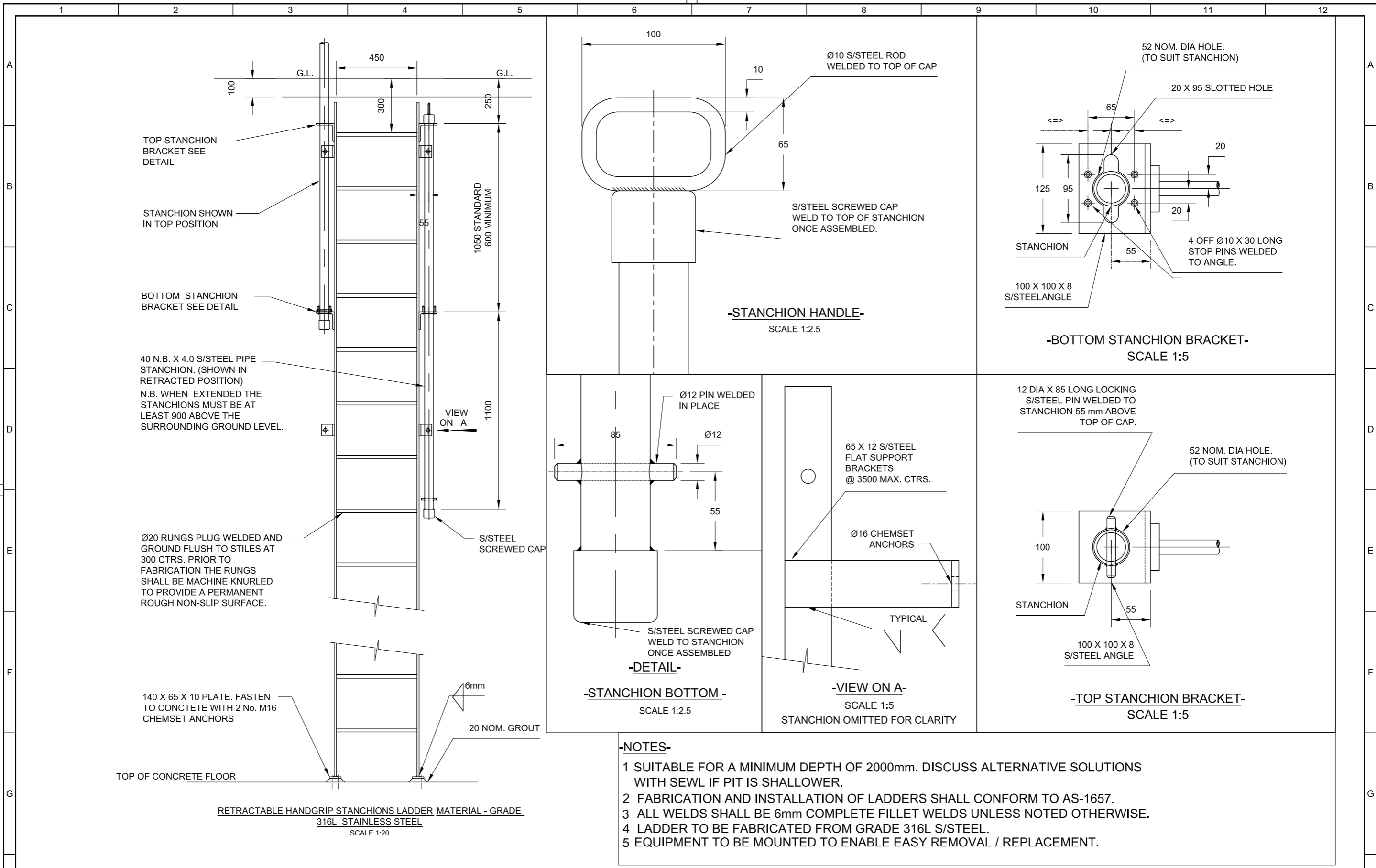
- CARBON STEEL SHALL BE GRADE 250 TO AS/NZS 3679.1:1996 ; STRUCTURAL STEEL - HOT-ROLLED BARS AND SECTIONS AND ZINC SILICATE COATED TO AS/NZS 3750.15:1998 ; PAINTS FOR STEEL STRUCTURES - INORGANIC ZINC SILICATE PAINT
- ALL WELDING TO BE 6mm CONTINUOUS FILLET AND CONFORM TO AS/NZS 1554.1:2000 ; STRUCTURAL STEEL WELDING - WELDING OF STEEL STRUCTURES.
- STAINLESS STEEL TO AS 2837-1986 ; WROUGHT ALLOY STEELS - STAINLESS STEEL BARS AND SEMI-FINISHED PRODUCTS
- DIMENSIONS SHOWN ON MECHANICAL ARRANGEMENT DRAWING.
- CARBON STEEL ITEMS TO BE PROTECTED WITH ZINC SILICATE TO AS/NZS 3750.15:1998 ; PAINTS FOR STEEL STRUCTURES - INORGANIC ZINC SILICATE PAINT

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
 STANDARD DESIGN REQUIREMENTS
 SPINDLE GUIDE ASSEMBLY

DO NOT SCALE		
SCALE:	N.T.S.	
DRAWING NUMBER		
SEWL-STD-004		0
SHEET	1 OF 1	REV



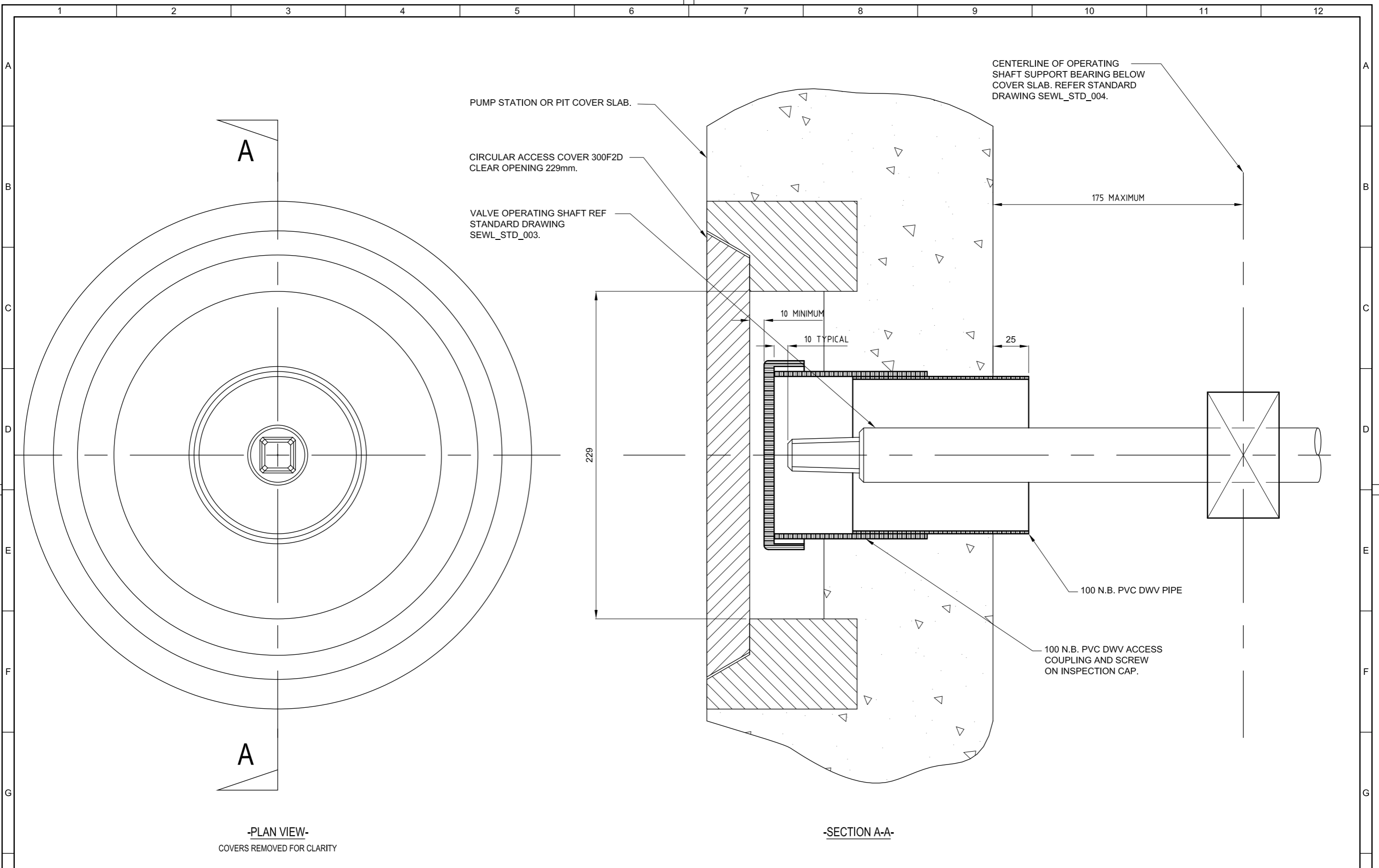
- NOTES-**
- 1 SUITABLE FOR A MINIMUM DEPTH OF 2000mm. DISCUSS ALTERNATIVE SOLUTIONS WITH SEWL IF PIT IS SHALLOWER.
 - 2 FABRICATION AND INSTALLATION OF LADDERS SHALL CONFORM TO AS-1657.
 - 3 ALL WELDS SHALL BE 6mm COMPLETE FILLET WELDS UNLESS NOTED OTHERWISE.
 - 4 LADDER TO BE FABRICATED FROM GRADE 316L S/STEEL.
 - 5 EQUIPMENT TO BE MOUNTED TO ENABLE EASY REMOVAL / REPLACEMENT.

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
RETRACTABLE HANDGRIPS STANCHIONS LADDER

DO NOT SCALE	
SCALE:	AS SHOWN
DRAWING NUMBER	
SEWL-STD-005	0
SHEET 1 OF 1	REV

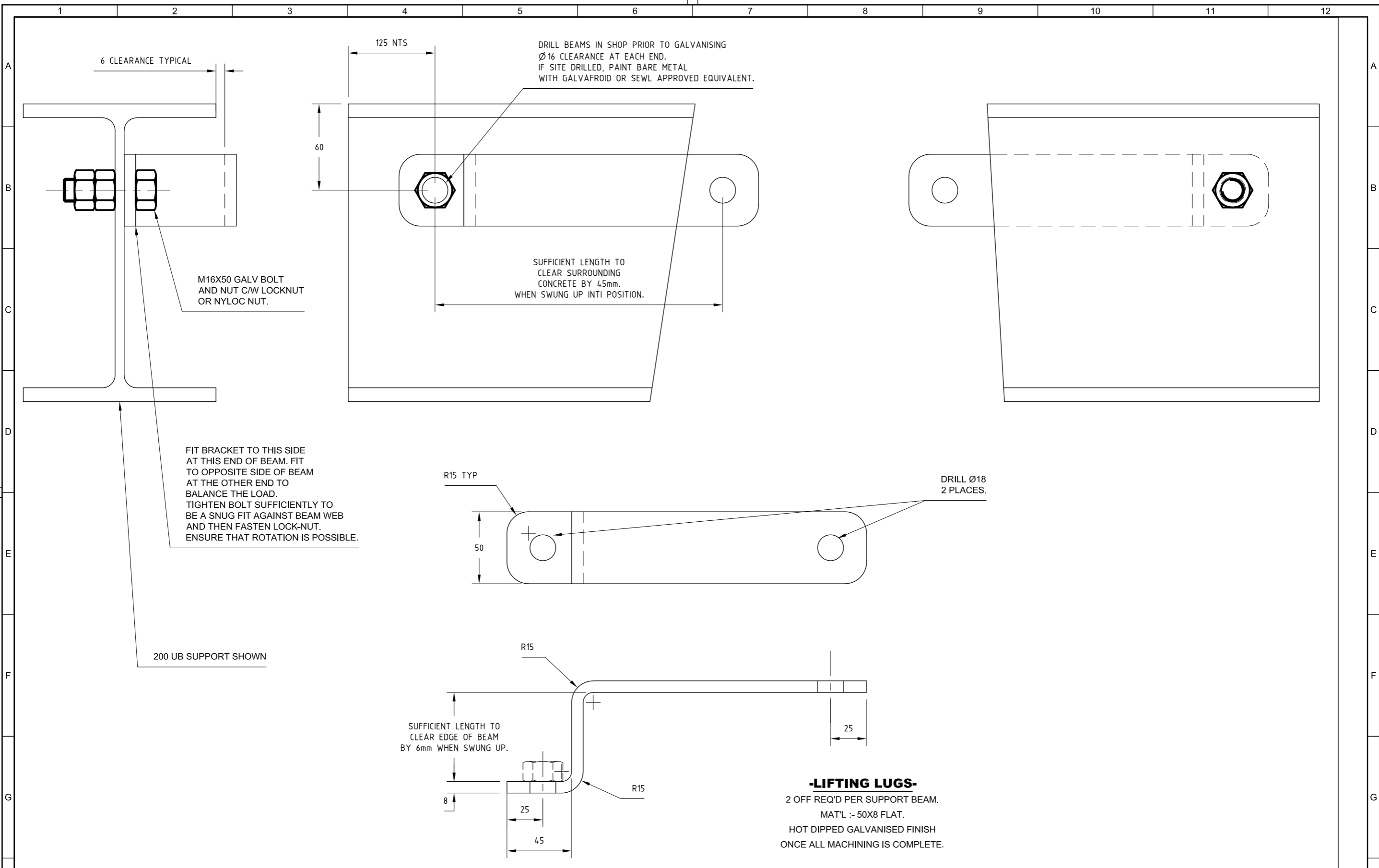


REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
GAS TIGHT WINDING BOX

DO NOT SCALE		
SCALE:	N.T.S.	
DRAWING NUMBER		
SEWL-STD-006		0
SHEET 1 OF 1	REV	

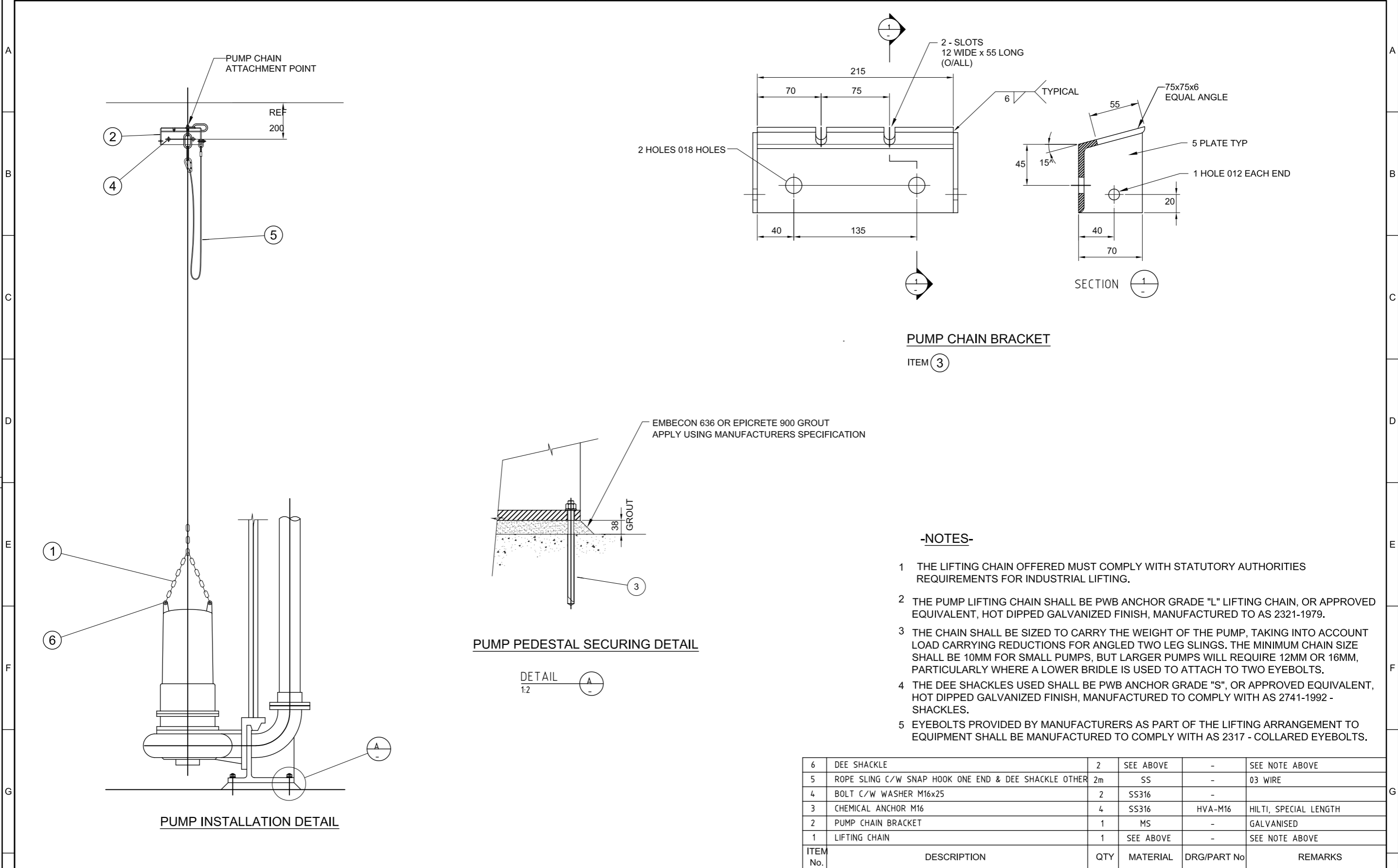


REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
MULTI-PART ACCESS COVERS
SUPPORT BEAM STANDARD LIFTING BRACKETS

DO NOT SCALE	
SCALE:	N.T.S.
DRAWING NUMBER	
SEWL-STD-007	0
SHEET 1 OF 1	REV



PUMP CHAIN BRACKET

ITEM 3

PUMP PEDESTAL SECURING DETAIL

DETAIL 1:2

-NOTES-

- 1 THE LIFTING CHAIN OFFERED MUST COMPLY WITH STATUTORY AUTHORITIES REQUIREMENTS FOR INDUSTRIAL LIFTING.
- 2 THE PUMP LIFTING CHAIN SHALL BE PWB ANCHOR GRADE "L" LIFTING CHAIN, OR APPROVED EQUIVALENT, HOT DIPPED GALVANIZED FINISH, MANUFACTURED TO AS 2321-1979.
- 3 THE CHAIN SHALL BE SIZED TO CARRY THE WEIGHT OF THE PUMP, TAKING INTO ACCOUNT LOAD CARRYING REDUCTIONS FOR ANGLED TWO LEG SLINGS. THE MINIMUM CHAIN SIZE SHALL BE 10MM FOR SMALL PUMPS, BUT LARGER PUMPS WILL REQUIRE 12MM OR 16MM, PARTICULARLY WHERE A LOWER BRIDLE IS USED TO ATTACH TO TWO EYEBOLTS.
- 4 THE DEE SHACKLES USED SHALL BE PWB ANCHOR GRADE "S", OR APPROVED EQUIVALENT, HOT DIPPED GALVANIZED FINISH, MANUFACTURED TO COMPLY WITH AS 2741-1992 - SHACKLES.
- 5 EYEBOLTS PROVIDED BY MANUFACTURERS AS PART OF THE LIFTING ARRANGEMENT TO EQUIPMENT SHALL BE MANUFACTURED TO COMPLY WITH AS 2317 - COLLARED EYEBOLTS.

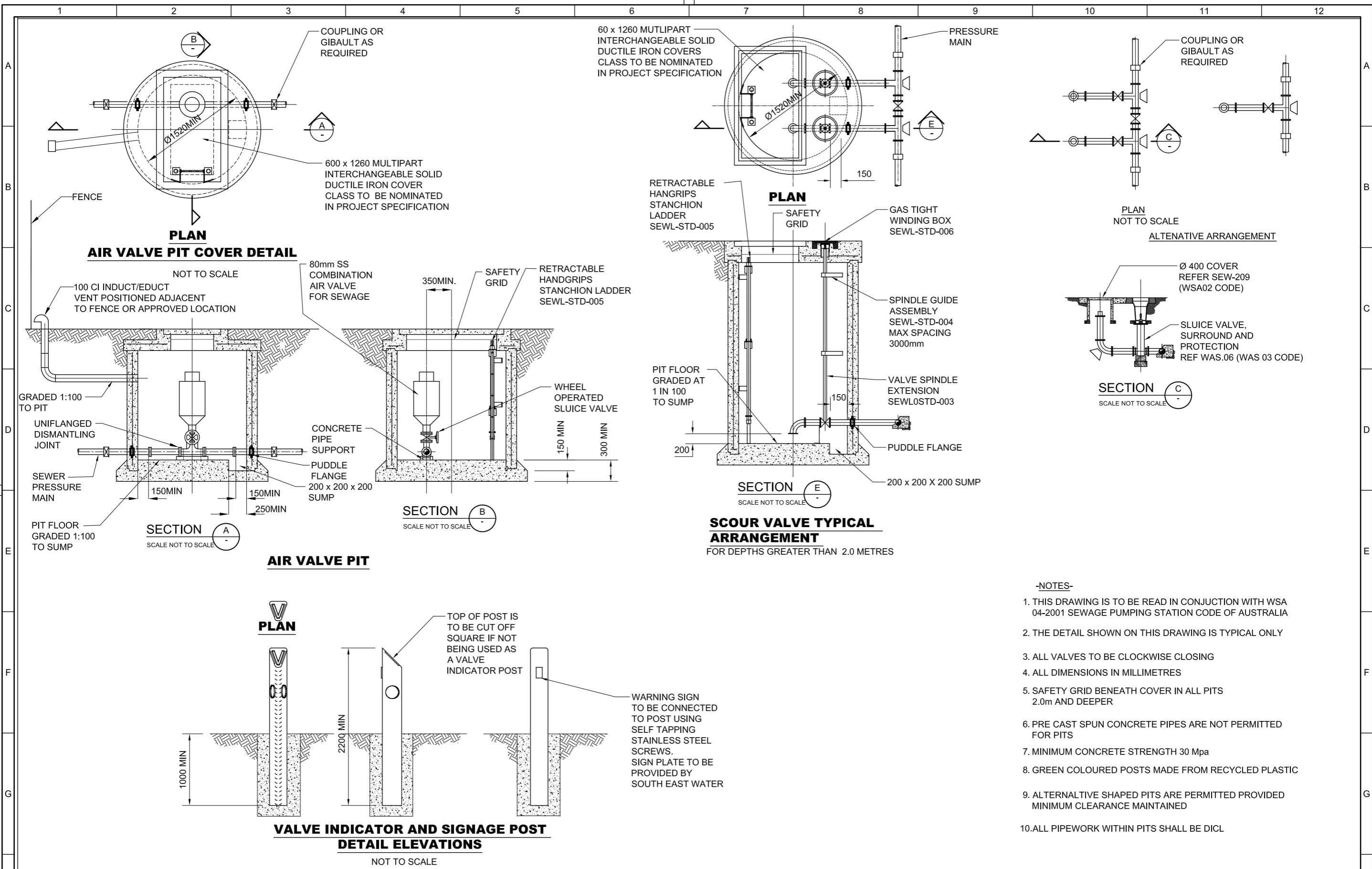
6	DEE SHACKLE	2	SEE ABOVE	-	SEE NOTE ABOVE
5	ROPE SLING C/W SNAP HOOK ONE END & DEE SHACKLE OTHER	2m	SS	-	03 WIRE
4	BOLT C/W WASHER M16x25	2	SS316	-	
3	CHEMICAL ANCHOR M16	4	SS316	HVA-M16	HILTI, SPECIAL LENGTH
2	PUMP CHAIN BRACKET	1	MS	-	GALVANISED
1	LIFTING CHAIN	1	SEE ABOVE	-	SEE NOTE ABOVE
ITEM No.	DESCRIPTION	QTY	MATERIAL	DRG/PART No	REMARKS

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



**SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
PUMP PEDESTAL AND CHAIN BRACKET
DETAILS**

DO NOT SCALE	
SCALE: N.T.S.	
DRAWING NUMBER	
SEWL-STD-008	0
SHEET 1 OF 1	REV



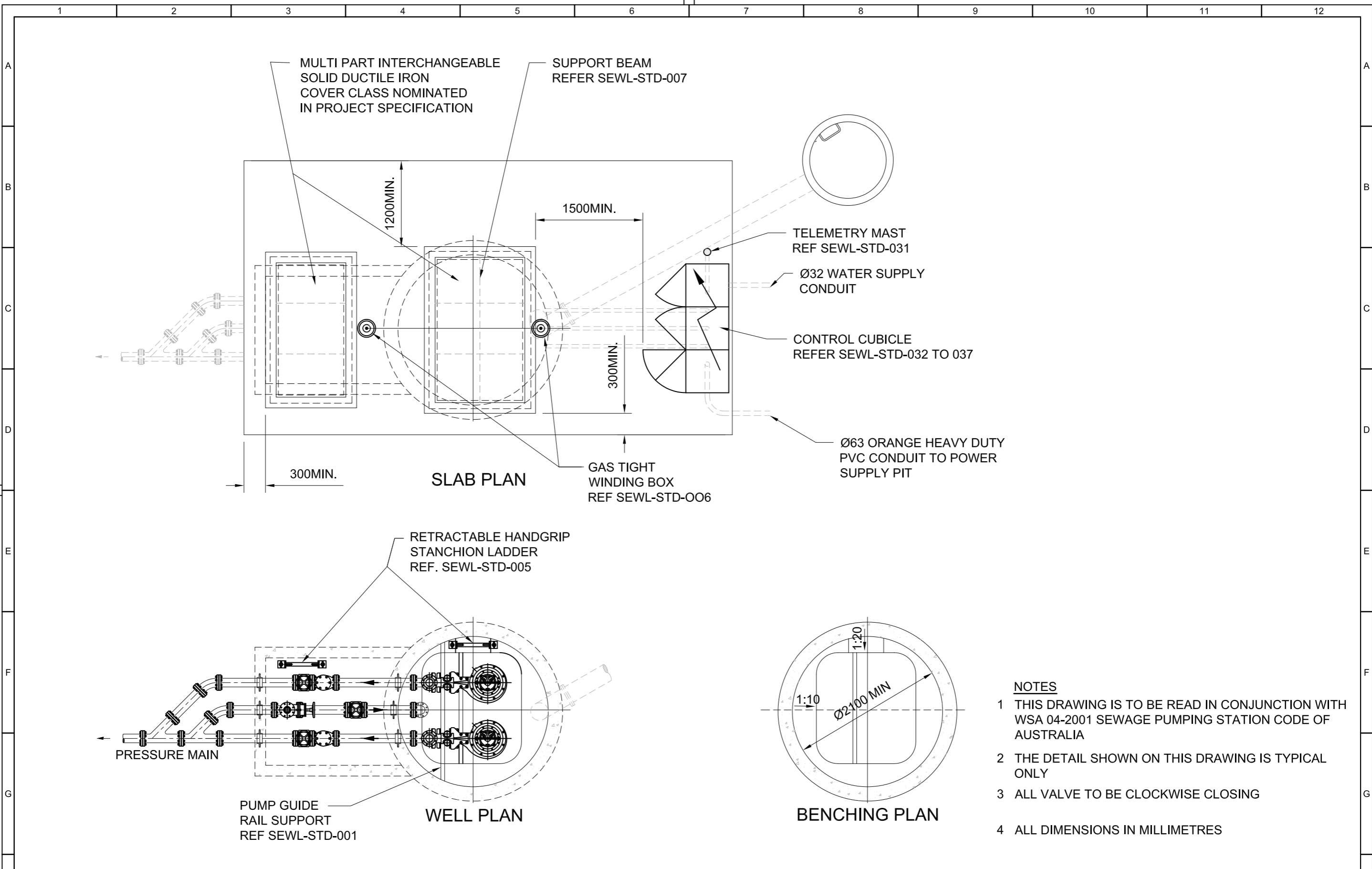
- NOTES-**
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH WSA 04-2001 SEWAGE PUMPING STATION CODE OF AUSTRALIA
 2. THE DETAIL SHOWN ON THIS DRAWING IS TYPICAL ONLY
 3. ALL VALVES TO BE CLOCKWISE CLOSING
 4. ALL DIMENSIONS IN MILLIMETRES
 5. SAFETY GRID BENEATH COVER IN ALL PITS 2.0m AND DEEPER
 6. PRE CAST SPUN CONCRETE PIPES ARE NOT PERMITTED FOR PITS
 7. MINIMUM CONCRETE STRENGTH 30 Mpa
 8. GREEN COLOURED POSTS MADE FROM RECYCLED PLASTIC
 9. ALTERNATIVE SHAPED PITS ARE PERMITTED PROVIDED MINIMUM CLEARANCE MAINTAINED
 10. ALL PIPEWORK WITHIN PITS SHALL BE DICL

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30/6/03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
AIR VALVES AND SCOUR VALVE PITS

DO NOT SCALE	
SCALE:	N.T.S.
DRAWING NUMBER	
SEWL-STD-060	0
SHEET 1 OF 1	REV



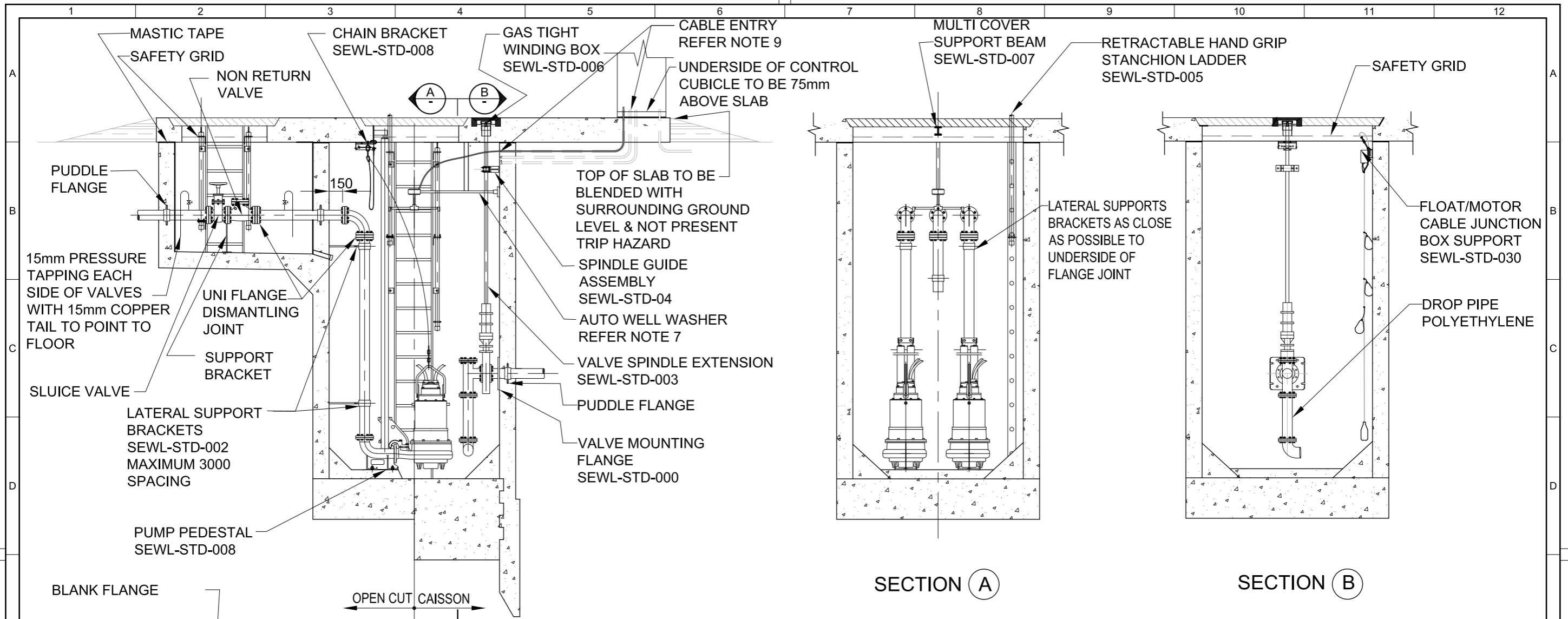
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 - 4 ALL DIMENSIONS IN MILLIMETRES

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A	ISSUED AS STANDARD	30.06.03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
PLAN VIEW

DO NOT SCALE		
SCALE:	N.T.S	
DRAWING NUMBER		
SEWL-STD-090		0
SHEET	OF	REV



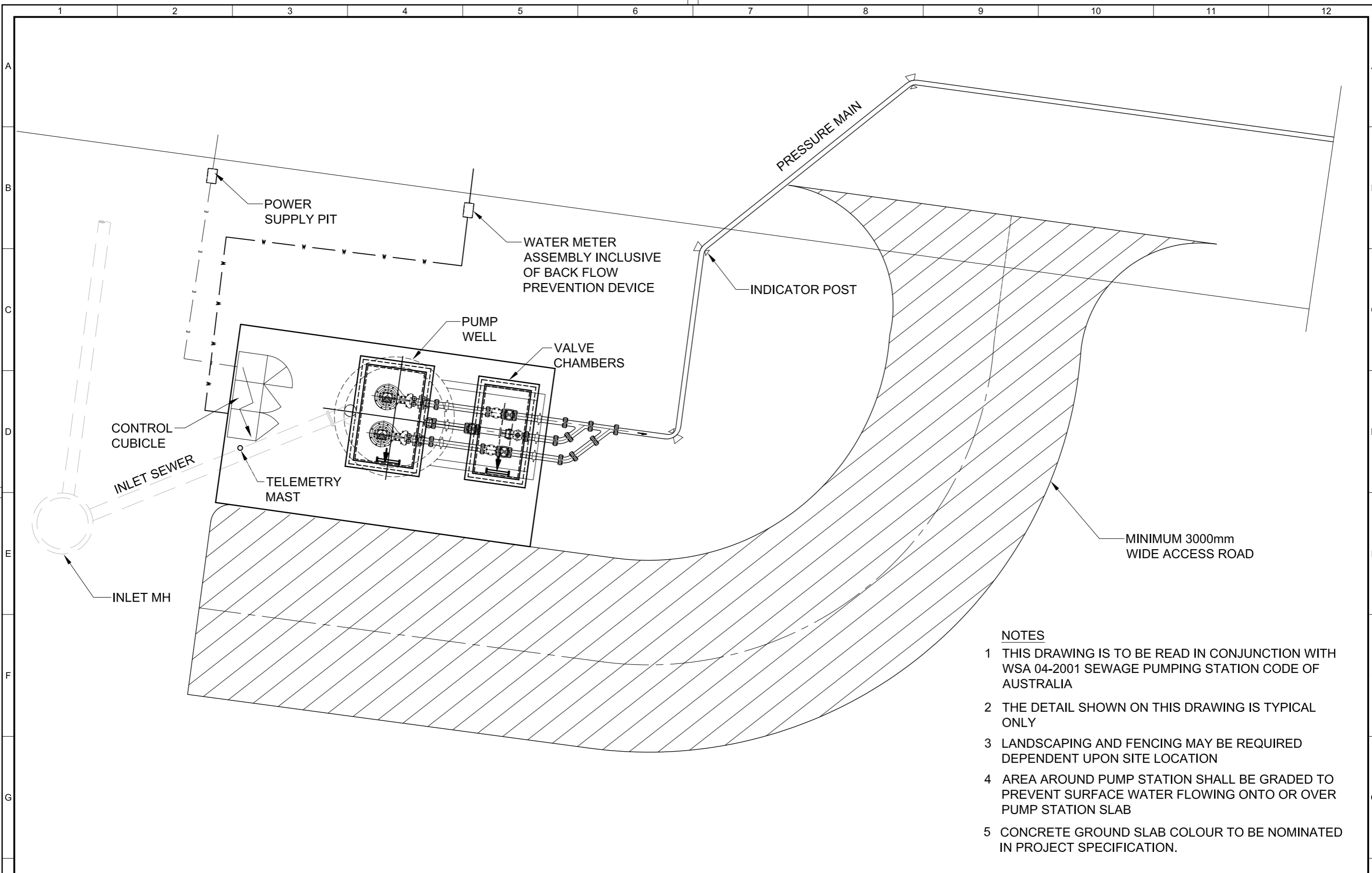
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 - 4 ALL DIMENSIONS IN MILLIMETRES
 - 5 ALL INTERIOR SURFACES OF WET WELL AND VALVE CHAMBER SHALL BE COATED WITH AN EPOXY COATING SYSTEM IN ACCORDANCE WITH SPECIFICATIONS 03.01.
 - 6 PUMP DISCHARGE PIPEWORK SHALL BE DUCTILE IRON COATED WITH DEVSHIELD 235 BAR RUST 2 PART EPOXY
 - 7 AUTO WELL WASHER INSTALLED AND POSITIONED TO MANUFACTURERS RECOMMENDATION. HINGED SO AS TO NOT INTERFERE WITH PUMP REMOVAL . WELL WASHER REQUIRES 19 mm PE SERVICE - SOLENOID CONTROLLED THROUGH PLC FITTED WITH BPD HOUSED WITHIN HOSE REEL SECTION OF CONTROL CUBICLE.
 - 8 ALL BOLTS TO BE 316 SS COATED WITH ANTI SEIZE
 - 9 CABLES ENTRIES SHALL BE SEALED WITH EXPANDING FOAM

O	ISSUED AS STANDARD	30.06.03	A.P.W.
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1			
2			
3			
4			



SEWAGE PUMP STATION
STANDARD DESIGN REQUIREMENTS
ELEVATIONS

DO NOT SCALE		
SCALE:	N.T.S.	
DRAWING NUMBER		
SEWL-STD-091		0
SHEET	OF	REV
1	12	



- NOTES**
- 1 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH WSA 04-2001 SEWAGE PUMPING STATION CODE OF AUSTRALIA
 - 2 THE DETAIL SHOWN ON THIS DRAWING IS TYPICAL ONLY
 - 3 LANDSCAPING AND FENCING MAY BE REQUIRED DEPENDENT UPON SITE LOCATION
 - 4 AREA AROUND PUMP STATION SHALL BE GRADED TO PREVENT SURFACE WATER FLOWING ONTO OR OVER PUMP STATION SLAB
 - 5 CONCRETE GROUND SLAB COLOUR TO BE NOMINATED IN PROJECT SPECIFICATION.

REV	DESCRIPTION	DATE	APP'D
0	ISSUED AS STANDARD	30.06.03	A.P.W.



SEWAGE PUMPING STATION
STANDARD DESIGN REQUIREMENTS
SITE PLAN

DO NOT SCALE		
SCALE:	N.T.S.	
DRAWING NUMBER		
SEWL-STD-100		0
SHEET	OF	REV
11	12	