

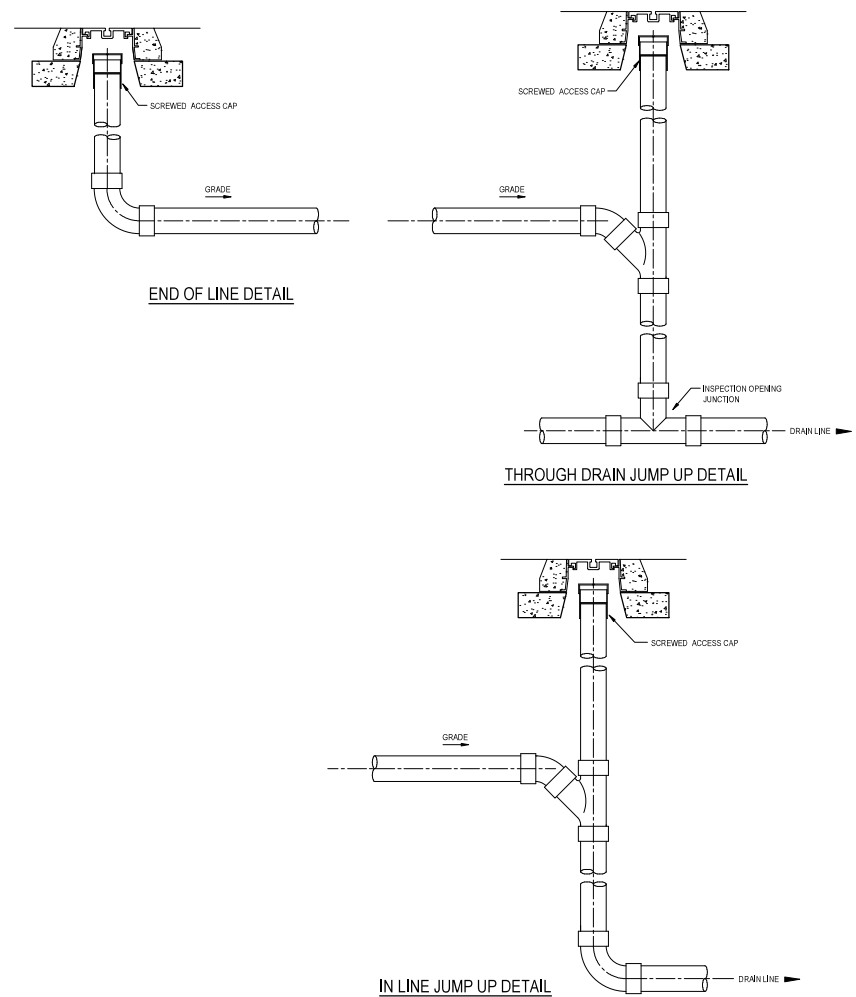
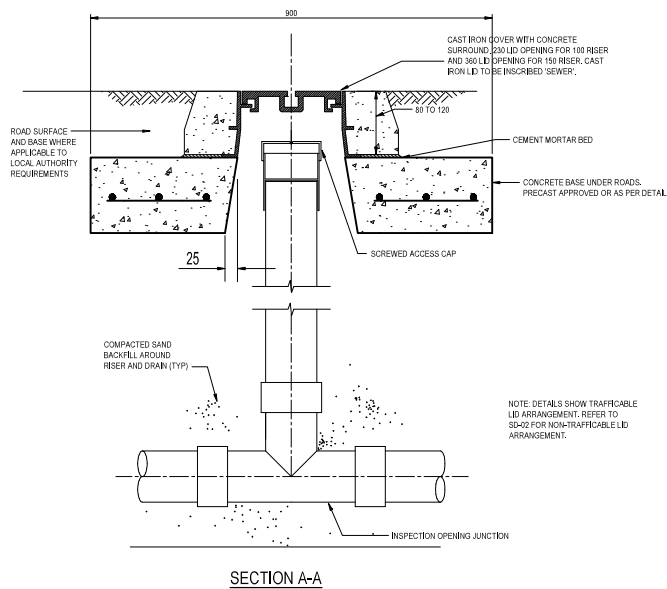
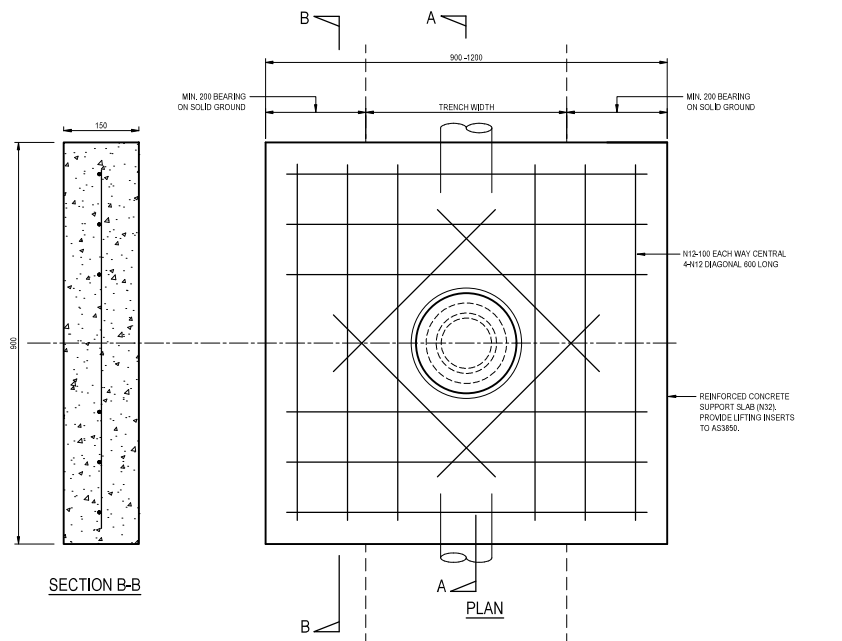
DRAWING INDEX

AC-CWMS-SD-00	DRAWING INDEX AND NOTES
AC-CWMS-SD-01	FLUSHING POINT AND INSPECTION OPENING DETAILS
AC-CWMS-SD-02	PROPERTY CONNECTION DETAILS
AC-CWMS-SD-03	FLUSHING POINT AND PROPERTY CONNECTION DETAILS
AC-CWMS-SD-04	MAINTENANCE HOLE DN1050 TO DN1500
AC-CWMS-SD-05	DROP MAINTENANCE HOLE DETAILS
AC-CWMS-SD-06	MAINTENANCE HOLE JUNCTION DETAILS
AC-CWMS-SD-07	SUBMERSIBLE PUMPING STATION PLAN AND SECTION
AC-CWMS-SD-08	PUMP STATION LID DETAIL
AC-CWMS-SD-09	PUMP STATION SWITCHBOARD
AC-CWMS-SD-14	LAGOON FENCE
AC-CWMS-SD-15	MARKER POST AND WARNING SIGN DETAIL
AC-CWMS-SD-16	VALVE DETAILS
AC-CWMS-SD-17	EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS
AC-CWMS-SD-19	TYPICAL VACUUM COLLECTION PIT
AC-CWMS-SD-20	TYPICAL VACUUM PUMP STATION
AC-CWMS-SD-21	NEW PUMP STATION FENCE DETAILS

- NOTES:
1. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL TO ENSURE THAT THEY ARE USING THE CURRENT VERSION OF THESE DRAWINGS, ALEXANDRINA COUNCIL ACCEPTS NO LIABILITY FOR ISSUES ARISING FROM THE USE OF SUPERSEDED DRAWINGS.
 2. THESE DRAWINGS MAY NOT SUIT ALL APPLICATIONS, ANY PROPOSED ALTERATIONS TO THESE DRAWINGS SHOULD BE REFERRED TO ALEXANDRINA COUNCIL FOR APPROVAL.
 3. ANY INCONSISTENCIES OR OMISSIONS IN THESE DRAWINGS SHOULD BE BROUGHT TO THE ATTENTION OF ALEXANDRINA COUNCIL FOR CLARIFICATION OR AMENDMENT.
 4. PRINTED COPIES OF THESE DRAWINGS ARE UNCONTROLLED.
 5. THE USE OF THESE STANDARD DRAWINGS DOES NOT NEGATE THE DESIGNERS RESPONSIBILITY TO ENSURE THAT THE DESIGN IS SAFE AND FIT FOR PURPOSE.
 6. THESE DRAWINGS ARE INTENDED AS A GUIDE ONLY. IT IS THE DESIGNERS RESPONSIBILITY TO INCLUDE ANY RELEVANT PROJECT-SPECIFIC DETAIL OR INFORMATION.

FOR APPROVAL	ALEXANDRINA COUNCIL				PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	
	APPROD SR DATE	-				AC-CWMS-SD			
	TEAM LEADER WATER INFRASTRUCTURE								
		P:\DWG\REV\1000 T1 Capital Works P0000 21 0000.WA SA 026 ADD 10 760-425 301				TITLE		SHEET	REV
						DRAWING INDEX AND NOTES		00	C

PROJECT NO: 2024-0001
DRAWING NO: AC-CWMS-SD-00
DATE: 10/10/2024



TYPICAL FLUSHING POINT DETAILS

NOTE: THE ALEXANDRINA COUNCIL DOES NOT ACCEPT PRIVATE PUMPING SYSTEMS AS A METHOD OF DISCHARGE INTO THE GREATER SEWERAGE NETWORK. ALLOTMENT CONNECTION INTO SEWERAGE NETWORK SHALL BE VIA GRAVITY CONNECTION ONLY.

FOR APPROVAL

APPD	SR	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRINA COUNCIL

Ph: 0800 805 7800
T: 0606 571967
P: 0606 571967
GPO: WA 54 5216
A900 10 765 440 351

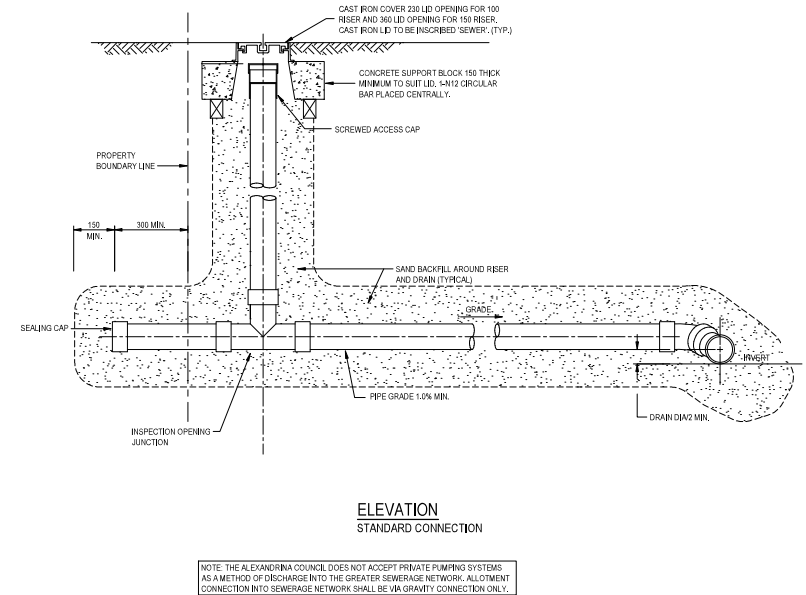
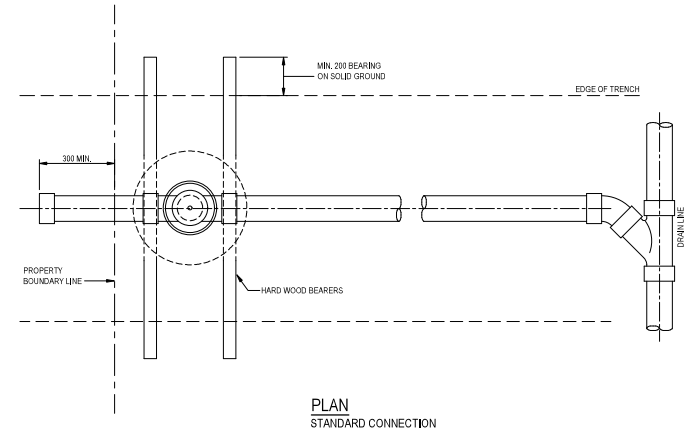
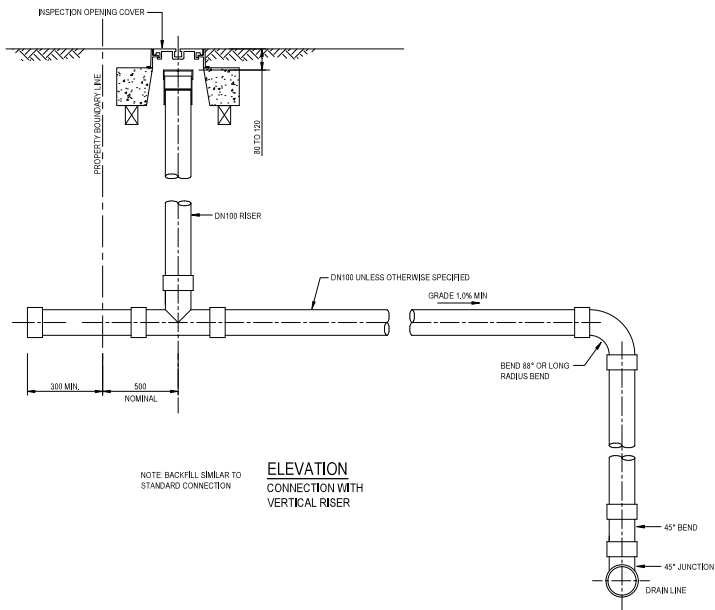
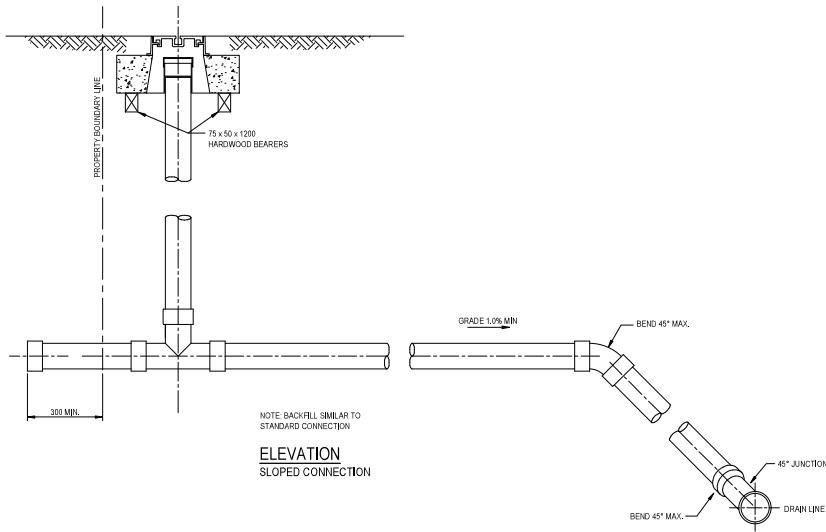


PROJECT CWMS TYPICAL DRAWINGS

TITLE FLUSHING POINT AND INSPECTION OPENING DETAILS

PLAN # AC-CWMS-SD

SHEET 01 REV B



TYPICAL PROPERTY CONNECTION DETAILS

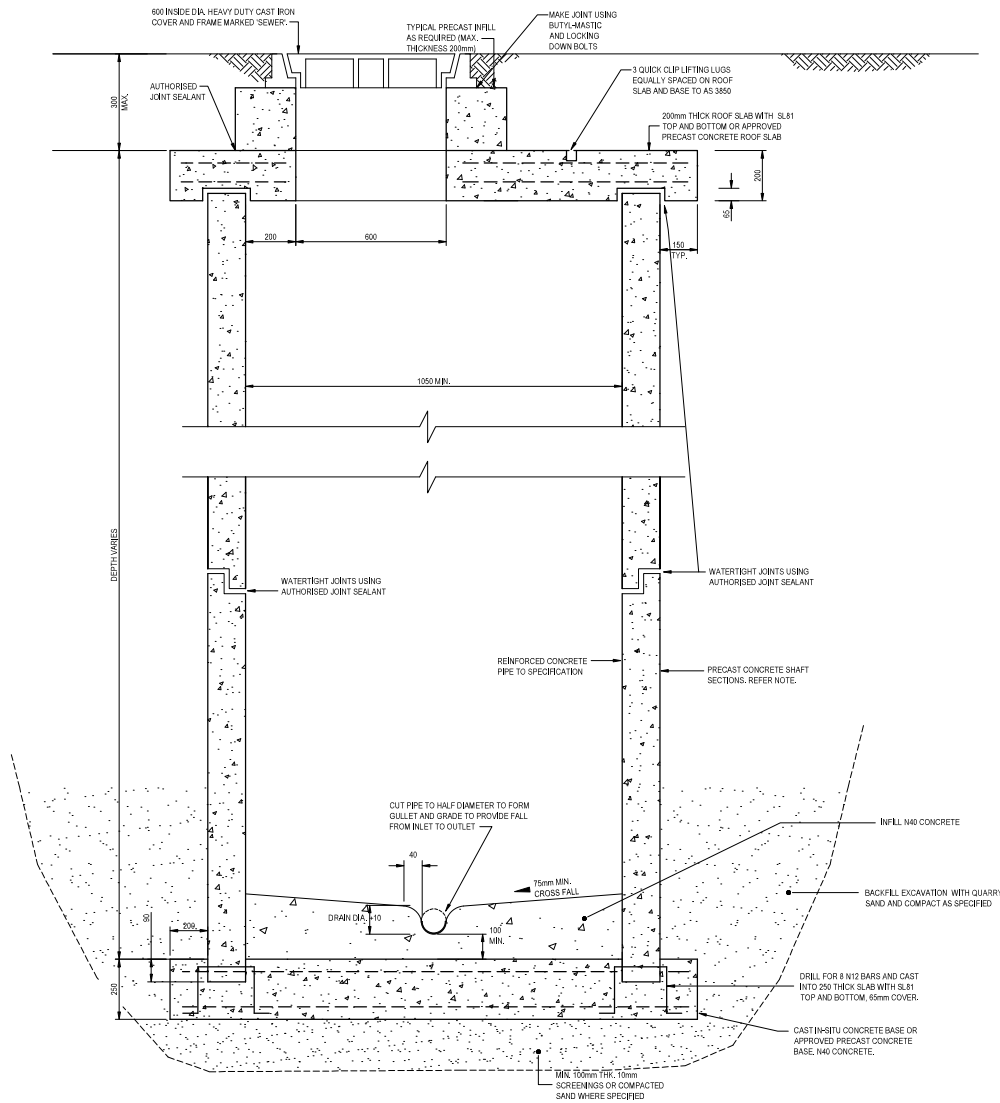
FOR APPROVAL	
APPROD SR	DATE
TEAM LEADER WATER INFRASTRUCTURE	

ALEXANDRIA COUNCIL

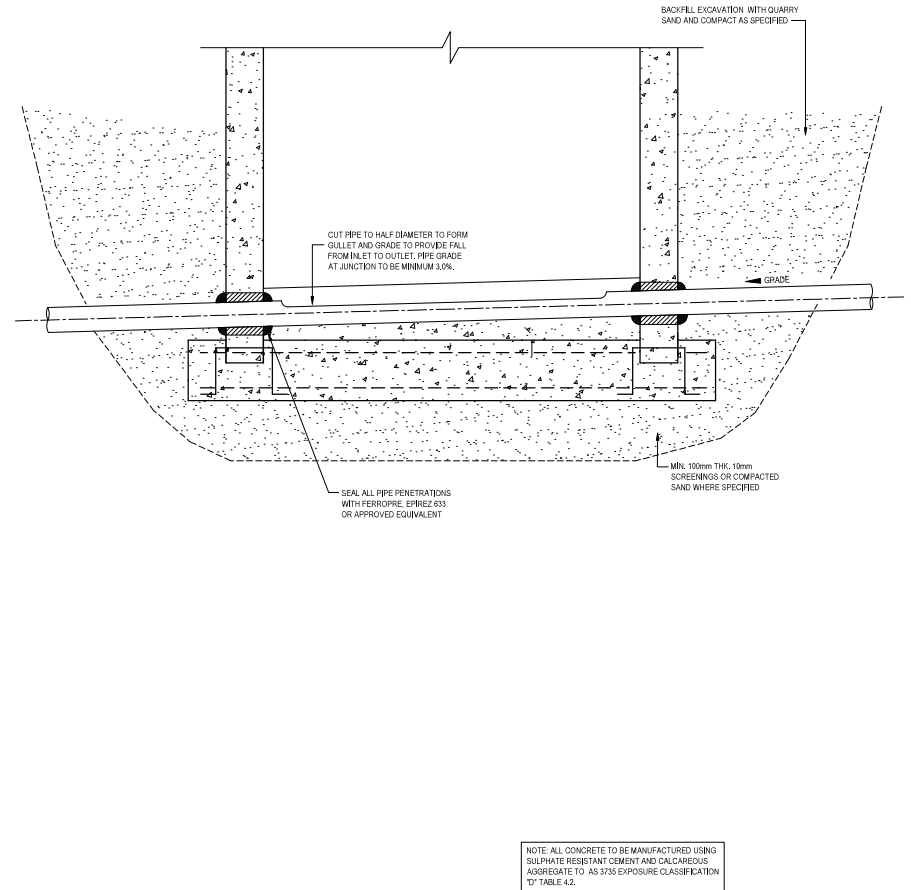
Ph: 0800 800 7800
T: 0438 571967
P: 0800 27
GPO: WA 54 525
A900 10 780-400 351



PROJECT	CWMS TYPICAL DRAWINGS		PLAN #	AC-CWMS-SD	
TITLE	PROPERTY CONNECTION DETAILS		SHEET	02	REV B



TYPICAL MAINTENANCE HOLE DETAIL FOR DN1050 TO DN1500
1/20



FOR APPROVAL

APPROVED BY: SR DATE: -
TEAM LEADER WATER INFRASTRUCTURE

ALEXANDRIA COUNCIL

PHONE: 0853 7888
11 Calwell Street
PO Box 21
6000 WA 614 5216
A901-00 785-140 351

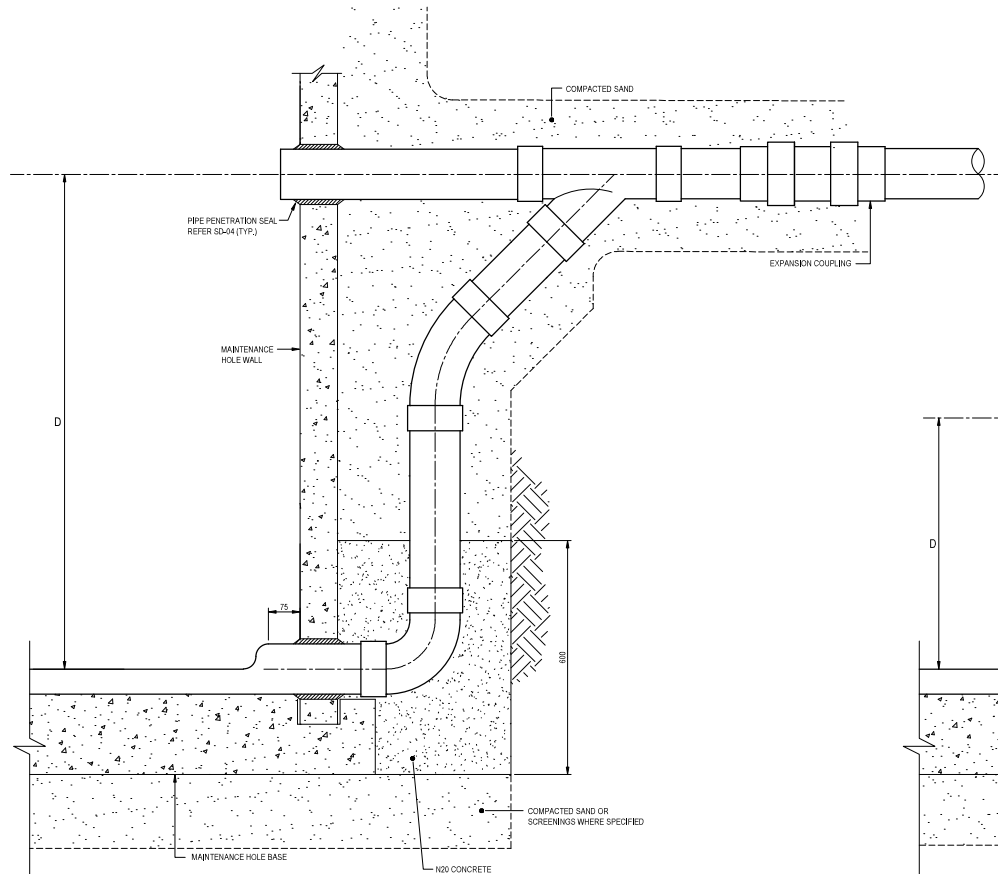


PROJECT CWMS TYPICAL DRAWINGS

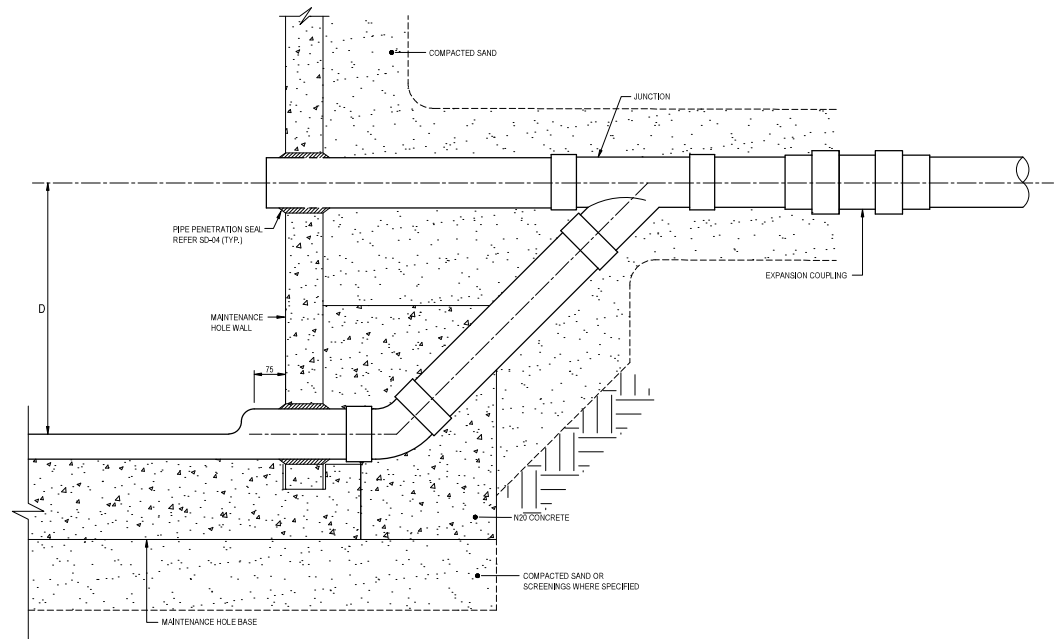
TITLE MAINTENANCE HOLE DN1050 TO DN1500

PLAN # AC-CWMS-SD

SHEET 04 REV B



DROP MAINTENANCE HOLE DETAIL WHEN D > 600



DROP MAINTENANCE HOLE DETAIL WHEN D < 600

FOR APPROVAL

APP'D	SR	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRINA COUNCIL

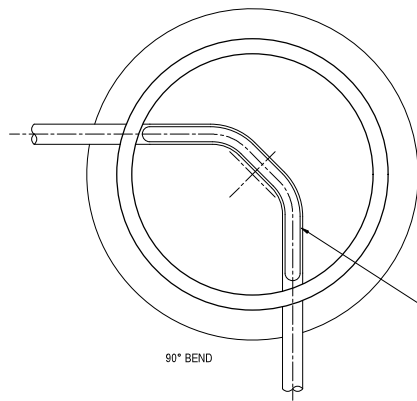
Ph: 08 935 7888
11 Colwell Street
PO Box 21
6000 WA 6142
A/NZ: 08 935 7888 FAX: 08 935 7888



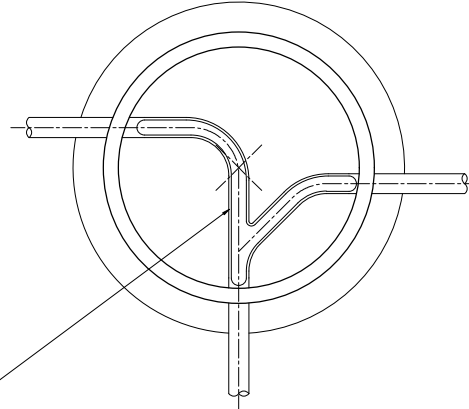
PROJECT	CWMS TYPICAL DRAWINGS	
TITLE	DROP MAINTENANCE HOLE DETAILS	

PLAN #	AC-CWMS-SD	
SHEET	05	REV B

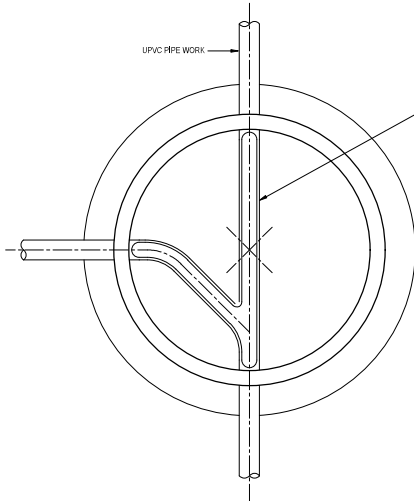
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90° BEND

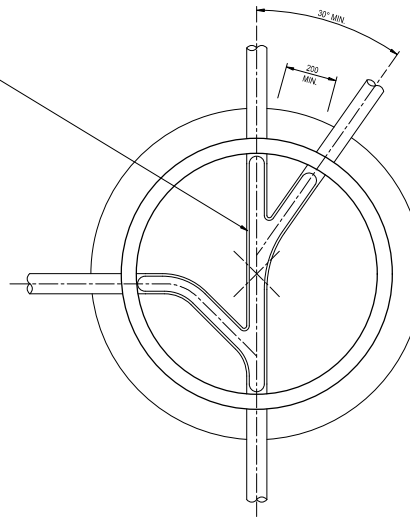


TYPICAL PLAN VIEWS OF MAINTENANCE
HOLE JUNCTIONS WITH GULLETS FORMED
USING UPVC PIPES CUT TO HALF DIAMETER



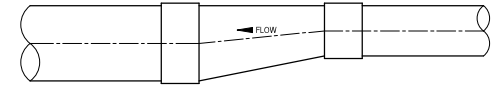
UPVC PIPE WORK

JUNCTION & BEND



MULTIPLE ENTRY DETAILS

NOTE: APPROVED PRECAST CONCRETE
BASES WITH PRE-BENCHED GULLIES TO
SUIT PIPE CONFIGURATION CAN BE USED



NOTE: ALL PIPES TO JOIN SOFFIT TO SOFFIT

TYPICAL PIPE REDUCTION
OUTSIDE MAINTENANCE HOLE

TYPICAL MAINTENANCE HOLE PIPE CONFIGURATIONS

FOR APPROVAL

APP'D	SR	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRINA
COUNCIL

PHONE 0855 7888
11 Colac Street
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6005 WA 6A 5274
A/NZ 08 785 440 351



Alexandrina
Wastewater

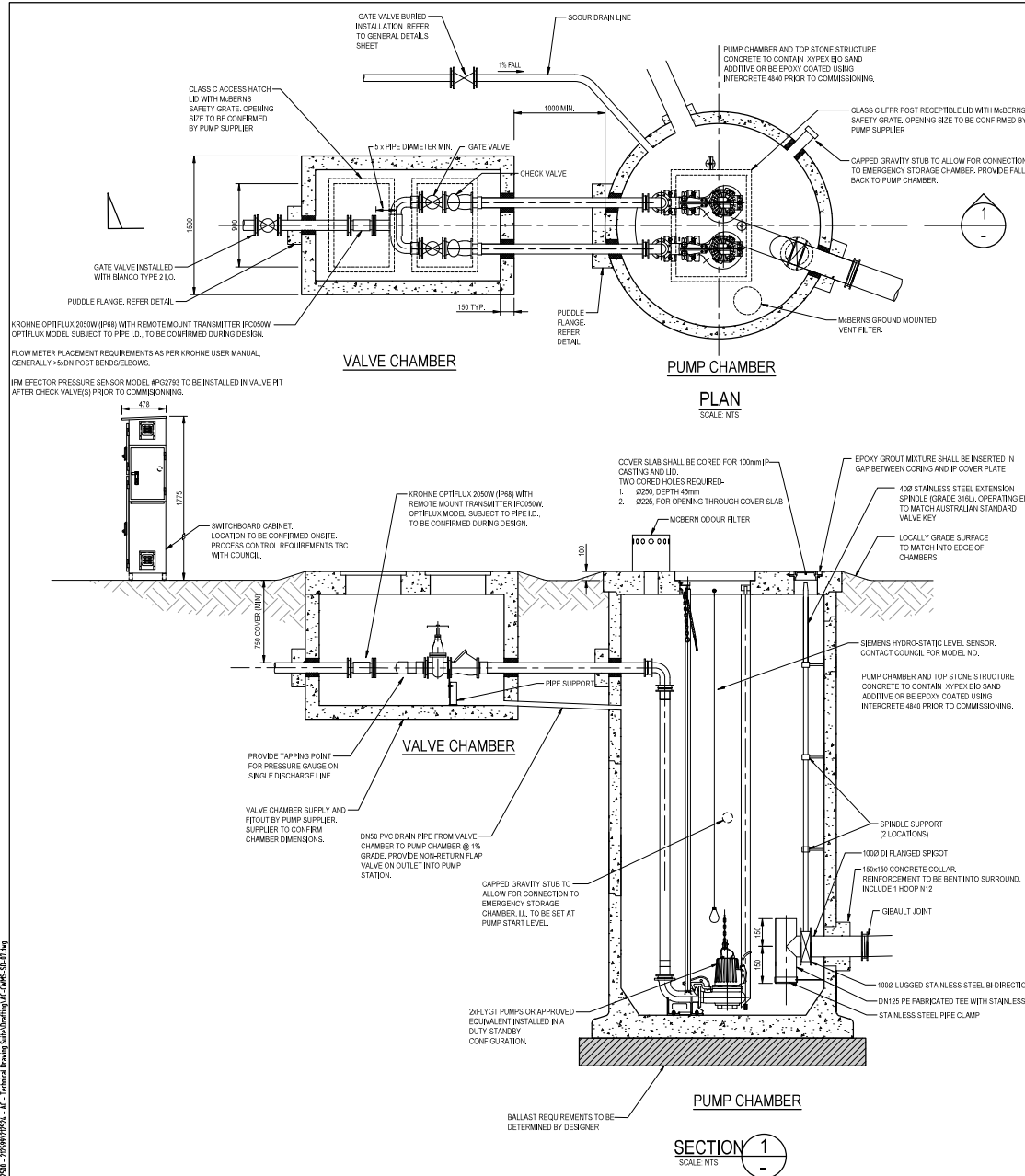
PROJECT CWMS TYPICAL DRAWINGS

PLAN #
AC-CWMS-SD

TITLE
MAINTENANCE HOLE JUNCTION DETAILS

SHEET
06

REV
B



SINGLE PUMP DUTY = _____ L/s AT _____ m HEAD
SINGLE PUMP DUTY = _____ L/s AT _____ m HEAD

COMMISSIONING INFORMATION (TO BE COMPLETED BY CONTRACTOR):

PUMP 1 SERIAL NUMBER: _____

PUMP 2 SERIAL NUMBER: _____

MEASURED PUMP 1 DUTY: _____ L/s AT _____ m HEAD

MEASURED PUMP 2 DUTY: _____ L/s AT _____ m HEAD

MEASURED PUMP 1 & 2 DUTY: _____ L/s AT _____ m HEAD

PIPE DIAMETER	BLOCKOUT DIAMETER 'A'	BLOCKOUT DIAMETER 'B'
DN75	160	260
DN100	180	280
DN150	240	350
DN200	290	400

PUDDLE FLANGE DETAIL

NOT TO SCALE

NOTES:

REPAIR OF BLOCKOUTS:

- CLEAN CONCRETE AND PIPE SURFACES AND APPLY A COATING OF EPIREZ 633
- FILL VOID WITH EPOXY GROUT EPIREZ 633 MIXED WITH QUARTZ SAND. APPLY TO MANUFACTURERS SPECIFICATION.

FOR APPROVAL

APPROVED	SIGNED	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRIA COUNCIL

Ph: 08 933 7000
T: 08 933 7100
P: 08 933 7100
G: 08 933 7100
A: 08 933 7100



PROJECT

CWMS TYPICAL DRAWINGS

TITLE

SUBMERSIBLE PUMPING STATION PLAN AND SECTION

PLAN #

AC-CWMS-SD

SHEET

07

REV

D



LOCKING DETAIL D

- HANDLE DETAIL B



- DETAIL A



**ALEXANDRINA
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11 Cadell Street
PO Box 21
GOOLWA SA 5294
AFL 28 785 485 751



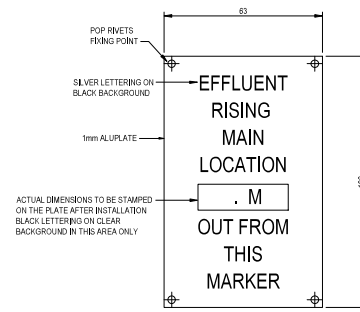
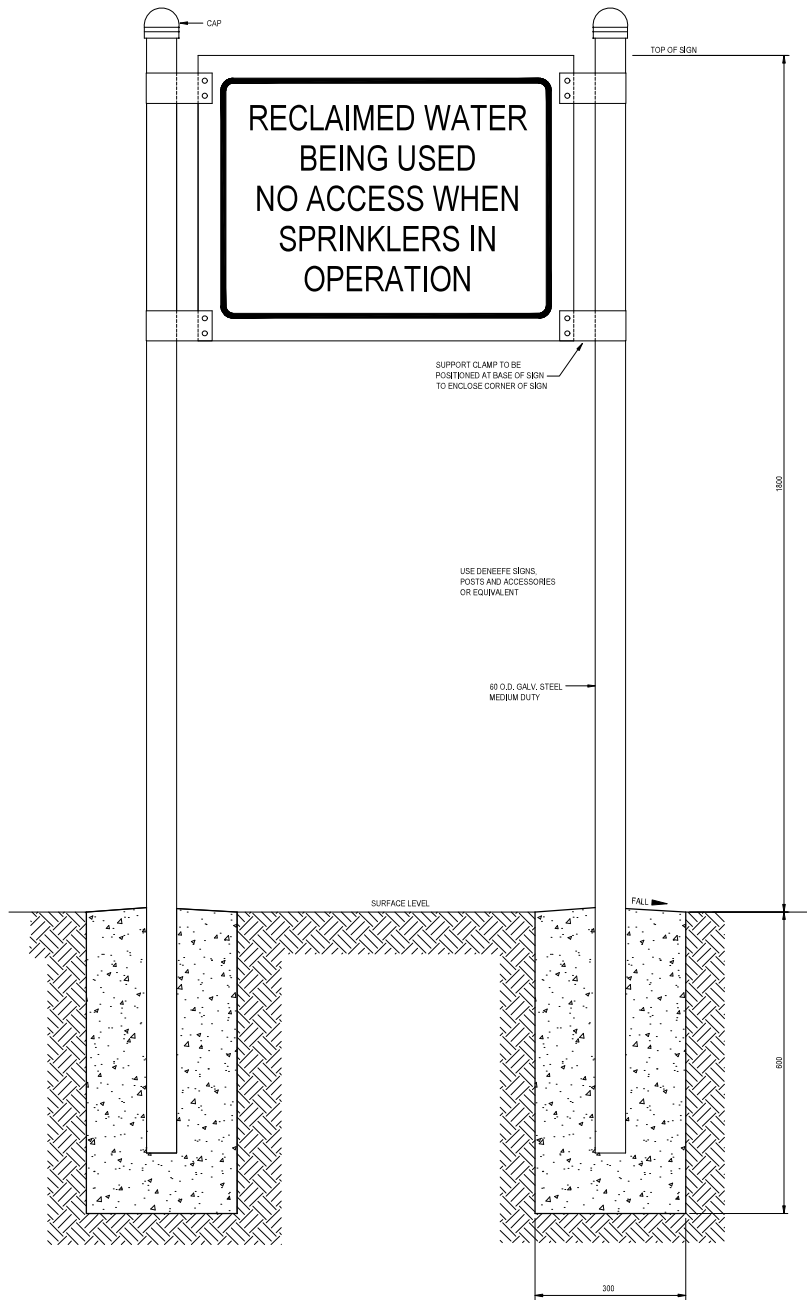
PROJECT	CWMS TYPICAL DRAWINGS
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TITLE	PUMP STATION LID DETAIL
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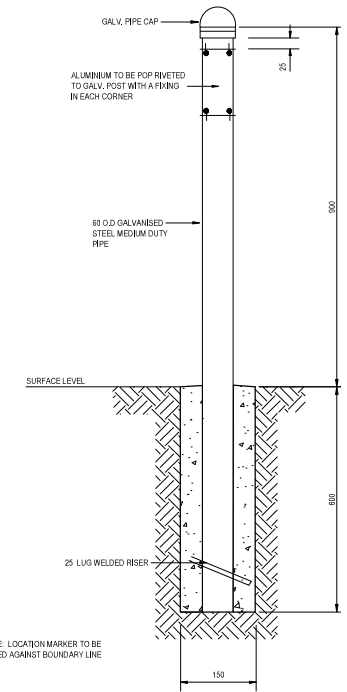
PLAN #	
AC-CWMS-SD	
SHEET	REV
08	B

SUPERSEDED - REFER TYPICAL DRAWINGS - ELECTRICAL

[illegible]



DETAIL OF PHOTO ANODISED
ALUMINIUM LOCATION PLATE



TYPICAL RISING MAIN LOCATION MARKER

NOTE

1. GALVANISED COATING ON STEEL TUBES SHALL COMPLY WITH AS/NZS 4792, COATING CLASS HDG 300.
2. REFERENCE TO BE MADE TO GUIDELINES FOR NON-DRINKING WATER IN SOUTH AUSTRALIA AND RECLAIMED WATER GUIDELINES.

FOR APPROVAL

APPD	SR	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRINA
COUNCIL

PHONE 0855 7889
11 CALDWAY STREET
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GROVE SA 54 524
WWW.ALEXANDRINA.COUNCIL.SA.AU



PROJECT	CWMS TYPICAL DRAWINGS
TITLE	MARKER POST AND WARNING SIGN DETAIL

PLAN #	AC-CWMS-SD
SHEET	15
REV	B



- NOTES:
1. ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
 2. TRAFFIC LIGHT BOX, STREET BOX COVERS AND FRAMES TO BE IN ACCORDANCE WITH AS 3698, CLASS D LOADING.
 3. COVER AND FRAME, CONCRETE RING AND SPACERS TO BE INSTALLED SO THAT NO LOADING IS TRANSMITTED TO THE VALVE OR PIPE.
 4. CONCRETE SPACERS – PLACE THICKEST IN BOTTOM POSITION. EXTRA SPACERS (THICK OR THIN) ARE THEN ADDED TO GIVE THE FINISHED LEVEL.
 5. CONCRETE OR FIBRE BOARD PACKING SEGMENTS SHALL NOT BE USED FOR HEIGHT ADJUSTMENTS.
 6. CONCRETE VALVE CHAMBER SPINDLE, SLEEVE AND BOTTOM CONCRETE SPACER BEDDED SO THAT NO ROAD LOADING IS TRANSMITTED TO VALVE OR PIPE.
 7. COMPACTED QUARRY RUBBLE TO BE >100mm BELOW VALVE GLAND AND >100 ABOVE PIPE.



SCALE N.T.S.

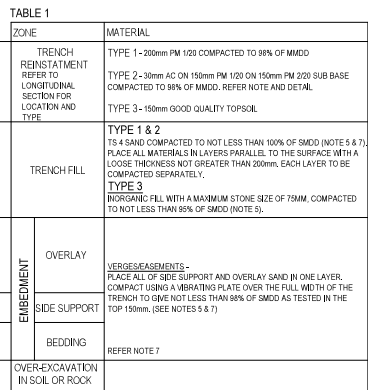
VALVE SPINDLE AND SLEEVE SHALL NOT PROTRUDE INTO TOP STONE CHAMBER

- ### ISOLATING STOP VALVE NOTES:
1. COMPACTED QUARRY RUBBLE FOR HIGH TRAFFIC AREAS AND CEMENT TREATED CURB FOR HEAVY TRAFFIC ROADS. TO BE 100MM BELOW VALVE AND +100 ABOVE VALVE.
 2. CONCRETE VALVE CHAMBER, SPINDLE SLEEVE, AND BOTTOM CONCRETE SPACER BEHIND SO THAT NO ROAD LOADINGS IS TRANSMITTED TO VALVE PIPE.
 3. TOP CONCRETE SPACERS - PLACE THICKER IN BOTTOM POSITION. EXTRA SPACERS (THICK OR THIN) ARE THEN ADDED TO GIVE THE FINISHED LEVEL.
 4. CONCRETE OR RUBBER BOARD PACKING SECTIONS SHALL NOT BE USED FOR HEIGHT ADJUSTMENTS.
 5. TOPSTONES ARE NOT DESIGNED FOR JACKING.
 6. TOPSTONES TO BE PLACED ON A SLOPE OF 1:1 IN EASEMENTS OR SURFACE OF UNSEALED ROADS AND TRACKS.
 7. TOPSTONES TO BE POSITIONED SO THAT THE STANDARD VALVE KEY CAN BE USED AND ALSO FOR BELT GRAINED FIVE HYDRANTS A HYDRANT AND KEY CAN BE CONNECTED THROUGH THE OPENING WITHOUT FOLLING.
 8. TOPSTONES TO BE PAINTED YELLOW AND LABELLED TO IDENTIFY STOP VALVE MEMBERS.



- NOTES:**
1. PVC PIPEWORK SHALL BE PAINTED BLACK.
 2. ALL MILD STEEL BRACKETS, SUPPORTS, FIXINGS AND METALWORKS SHALL BE HOT DIP GALVANISED TO ASINZS 4680.





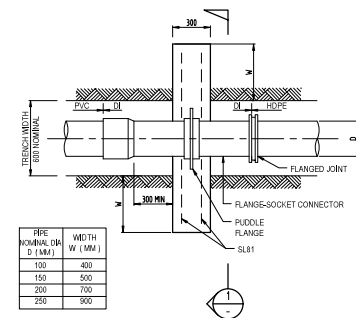
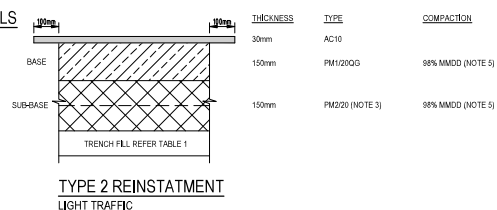
SCALE N.T.S.

NOTES:

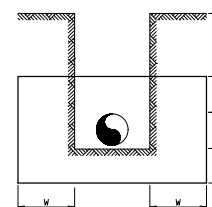
1. ALL PLE RISERS SHALL BE SURROUNDED BY A MINIMUM 300mm OF COMPACTED EMBEDMENT MATERIAL EXTENDING UP TO CONTACT SPACER RING.
2. PM1102 = 20mm CLASS 1 QUARRENED PAVEMENT MATERIAL (PM1102G)
3. PM2020 = 20mm CLASS 2 PAVEMENT MATERIAL
4. SM5D = STANDARD MAXIMUM DRY DENSITY (AS 1289.5.1),
5. SM5D = MODIFIED MAXIMUM DRY DENSITY (AS 1289.5.2),
6. IF THE TS4 DENSITY DOES NOT DISPLAY A DEFINED MODIFICATION CURVE (SEE NOTE 1, OF AS 1289.5.1) THEN THE DENSITY RATIO (R) METHOD MAY BE USED. THIS SHALL BE USED FOR COMPACTION CONTROL AND 80% SHALL BE TAKEN AS EQUIVALENT TO 100% OF SM5D.
7. AC- ASPHALTIC CONCRETE SURFACE TO MATCH THE EXISTING. THE AC SHALL EXTEND 100mm EITHER SIDE OF THE EXCAVATED TRENCH AND THE OUTER EDGE SHALL BE SAW CUT.
8. THE MINIMUM FINISH COVER SHALL BE TO COUNCIL STANDARD SPECIFICATION UNLESS SHOWN OTHERWISE ON DRAWINGS.

TRENCH FLOOR PREPARATION

- ENSURE THAT THE TRENCH FLOOR IS SMOOTH AND FIRM, AND WITHIN THE DESIGN TRENCH FLOOR LEVEL LIMITS OF 80mm MINIMUM TO 150mm MAXIMUM BELOW THE BOTTOM OF THE PIPE, BEFORE PLACING ANY BEDDING.
- IF THE TRENCH FLOOR IS IN FIRM NATURAL SOIL AND AN EXCAVATOR IS BEING USED, IT WILL NORMALLY BE SUFFICIENT TO TRIM THE EXCESS SOIL TO THE EXCAVATOR BUCKET.
- IF THE TRENCH FLOOR IS IN ROCK, MAXIMUM BETWEEN PEAKS OVER 30mm HIGH WITH SAND COMPACTED TO 100% OF SMD BEFORE PLACING ANY BEDDING.
- IF THE TRENCH FLOOR HAS BEEN OVER EXCAVATED BELOW DESIGN TRENCH FLOOR LEVEL, BACKFILL WITH SAND COMPACTED TO 100% OF SMD TO BRING IT BACK UP TO DESIGN TRENCH FLOOR LEVEL BEFORE PLACING ANY BEDDING.
- REMOVE LOOSE SOIL, ROCK RUBBLE FROM THE FLOOR OF THE TRENCH.
- IF THE TRENCH FLOOR WHOLLY OR PARTIALLY CONSISTS OF VERY SOFT CLAY, LOOSE SAND, OLD OR CRUMBLED CONCRETE, OR OTHER UNDESIRABLE MATERIAL, OR IF ROCK IS IN IT, OR HAS BEEN DISTURBED BY GROUNDWATER INFLOW, CONSULT THE SUPERINTENDENT OR REFER TO TECHNICAL SPECIFICATIONS.



SCALE: NTS



SECTION 1
SCALE INTS

APPD	SR	DATE	-
TEAM LEADER WATER INFRASTRUCTURE			

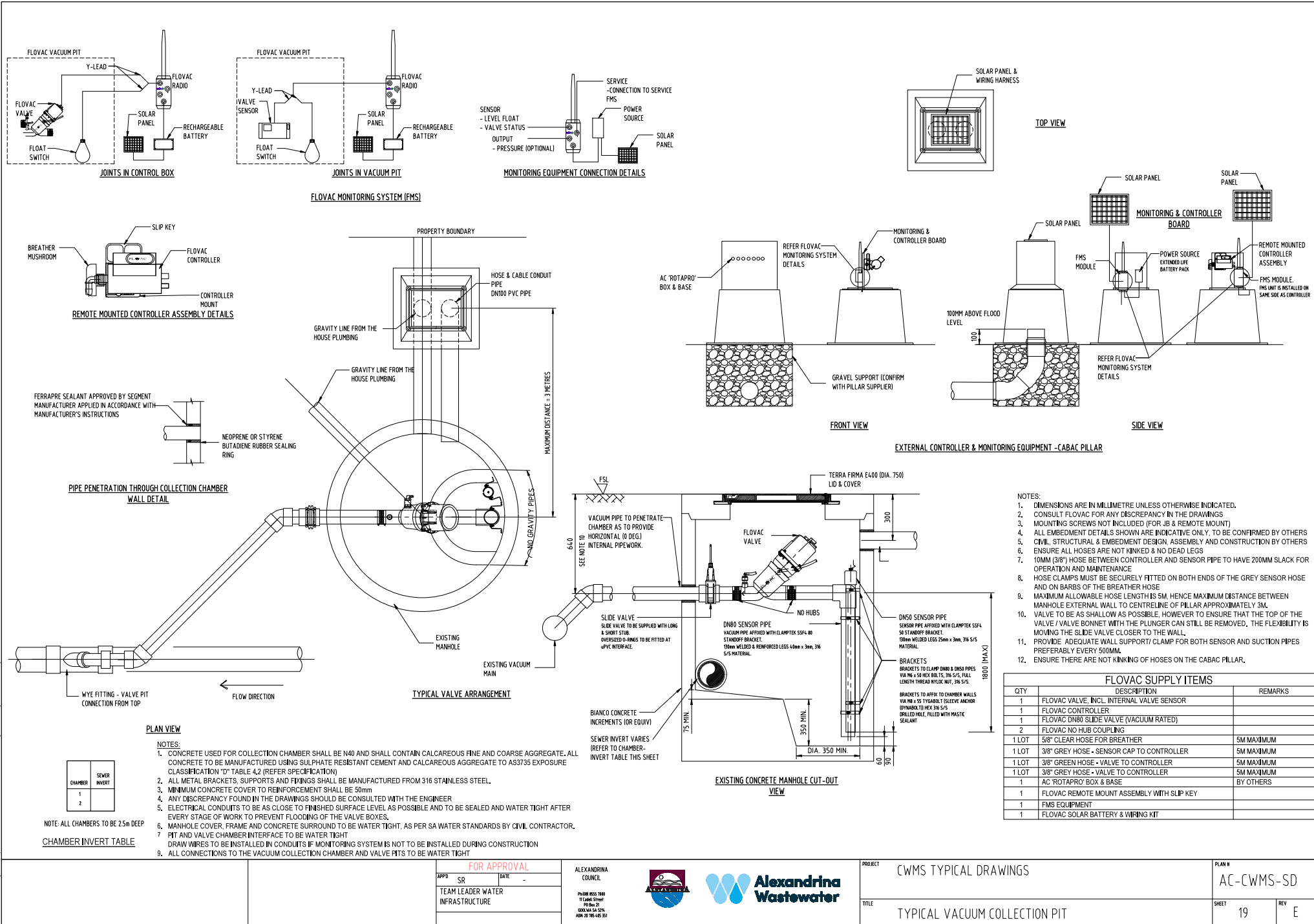
ALEXANDRINA
COUNCIL

Ph: (08) 8555 7000
11 Cadell Street
PO Box 21
GOOLWA SA 5204
ABN: 28 705 495 351

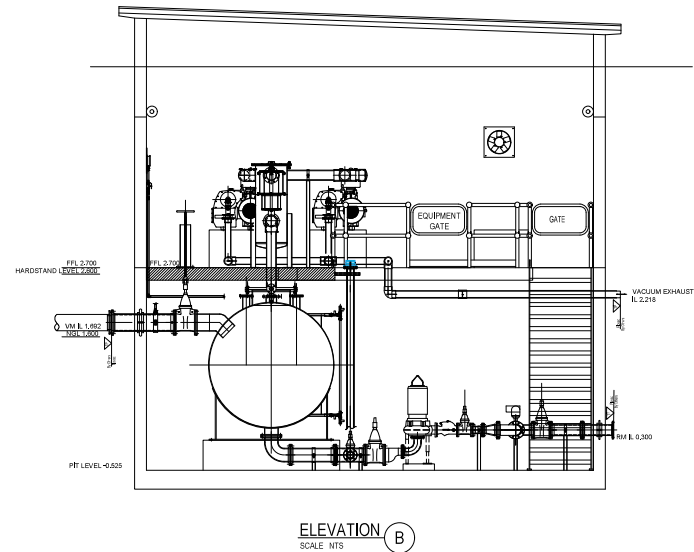
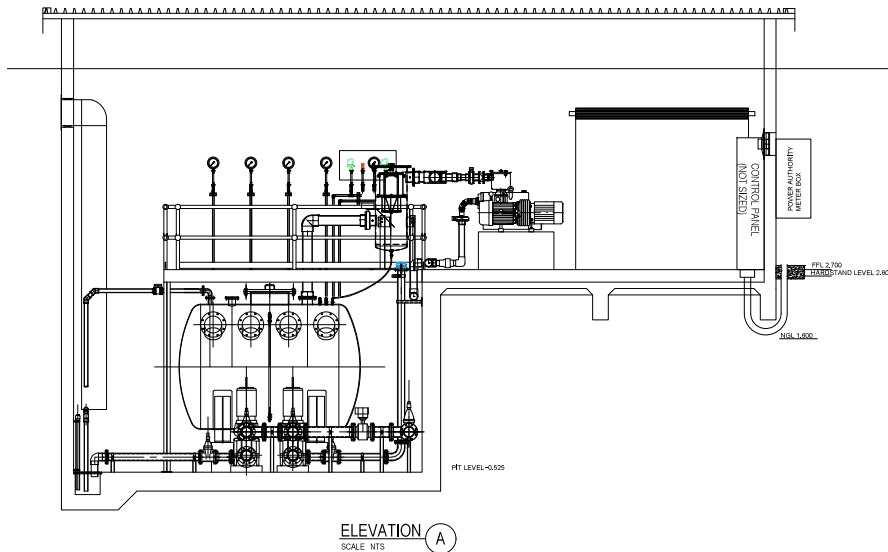
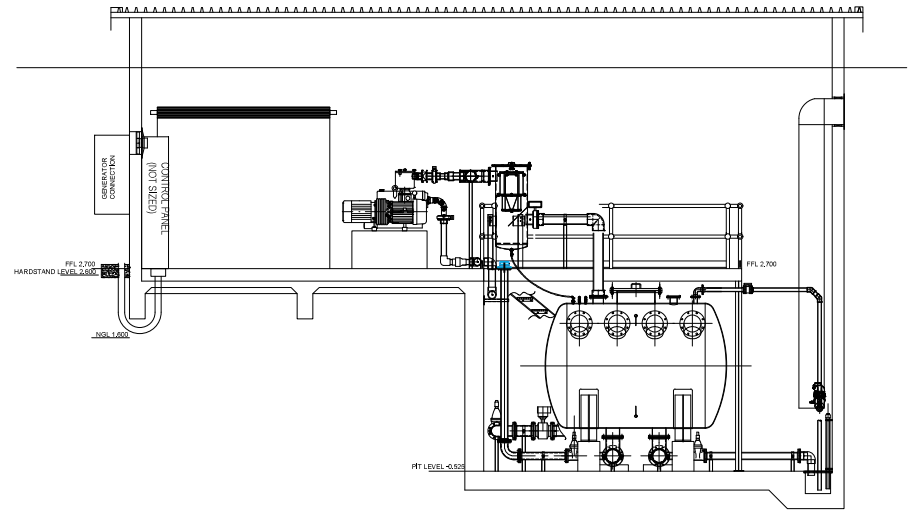
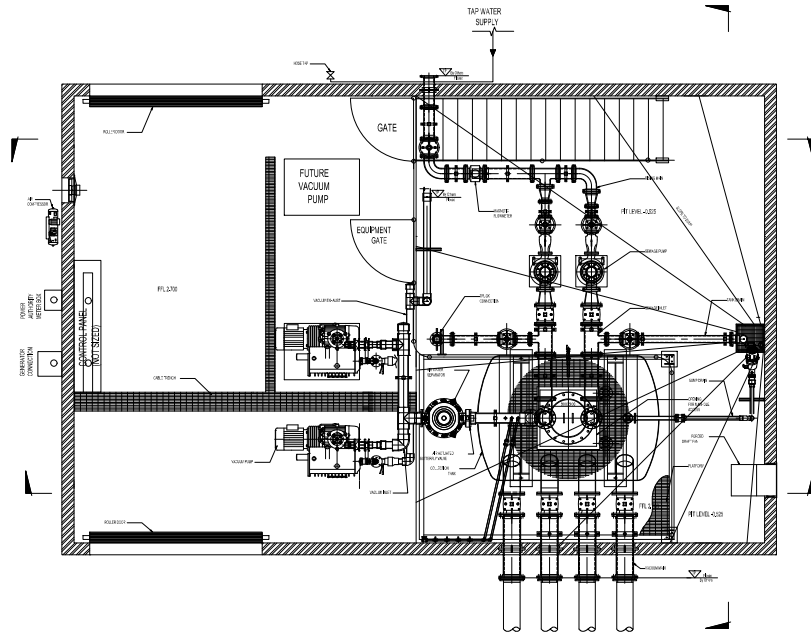


Alexandrina Wastewater

PROJECT	CWMS TYPICAL DRAWINGS	PLAN #	AC-CWMS-SD
TITLE	EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS	SHEET	17
		REV	B



Filename: \\vgp-100\projects\1370\1370506 - 252000\1370506 - AC - Technical Drawing\Substation\AC-CWMS-20-10.dwg

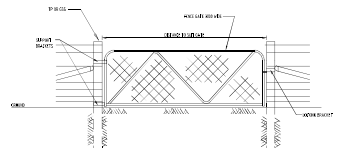
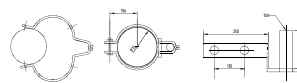
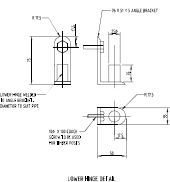


FOR APPROVAL		
APPROVED	SIGNED	DATE
TEAM LEADER WATER INFRASTRUCTURE		

ALEXANDRINA COUNCIL
Ph: 0800 800 7888
111 Gable Street
PO Box 21
4000 WA 54 5216
WWW.ALEXANDRINA.CITY.NZ



PROJECT		CWMS TYPICAL DRAWINGS		PLAN #	
TITLE		TYPICAL VACUUM PUMP STATION		AC-CWMS-SD	
SHEET		20		REV	
				B	



TYPICAL GATE PANEL DETAILS TIMBER ROUND POSTS
RAPID FENCE: 3000 X 100 SLANT HEAVY DUTY FARM GATE (OR EQUIV.)