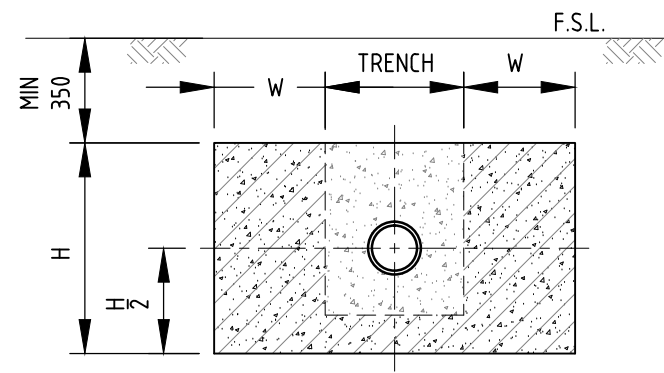
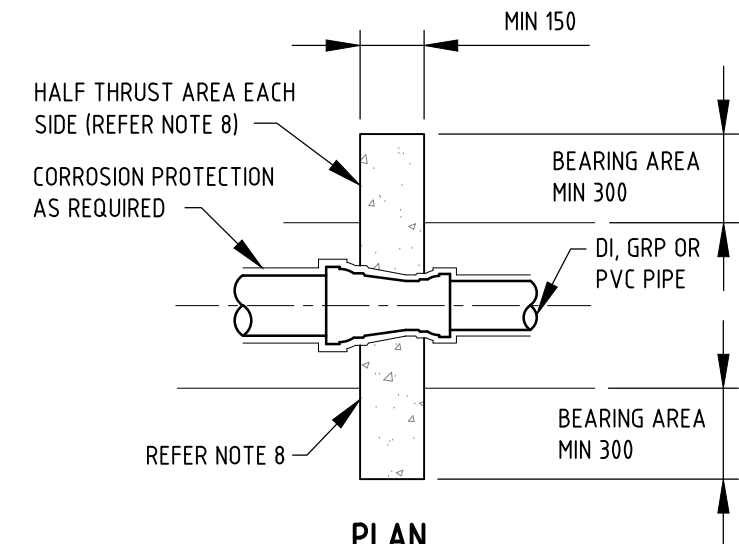


PLAN

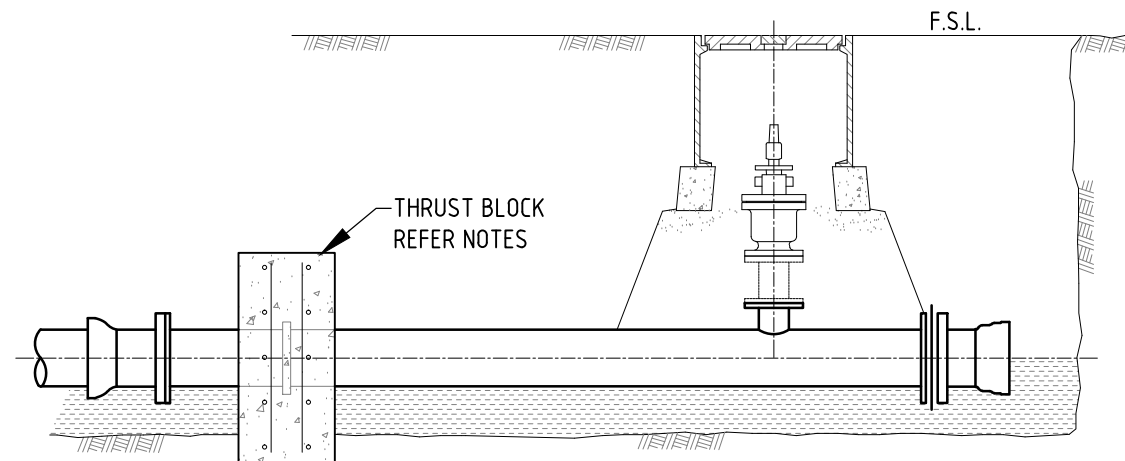
THRUST BLOCK - ISOLATING VALVE



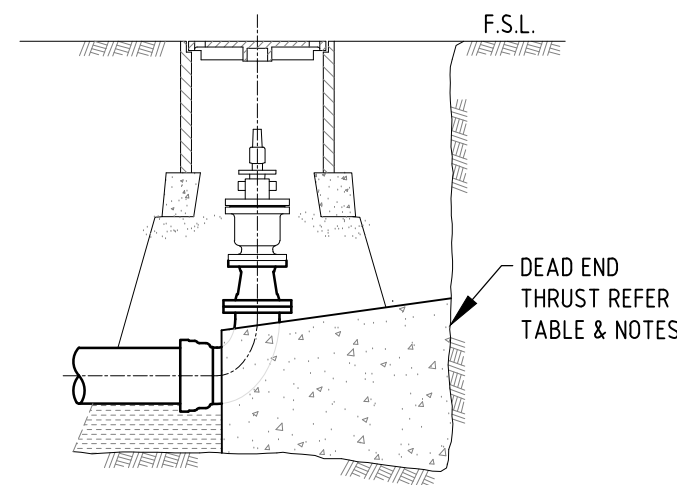
SECTION 1



PLAN
TAPER THRUST BLOCK



THRUST BLOCK - TEMPORARY FIRE HYDRANT END



THRUST BLOCK - PERMANENT DEAD END

NOTES:



- ANCHOR BLOCKS IN THE TABLE ARE DESIGNED FOR A TEST PRESSURE OF **1000kPa & 1600kPa**. PRESSURES OTHER THAN 1000 kPa & 1600 kPa INCREASE OR REDUCE THE MINIMUM THRUST AREA BY THE RATIO OF THE DESIGN PRESSURES EXCEPT WHERE:
 - MIN THRUST AREA IS < 0.1 m AND,
 - 'N' APPEARS IN THE TABLE AND DESIGN PRESSURE IS ABOVE 1000 kPa.**WHERE THE TEST PRESSURE IS OTHER THAN 1000 kPa THE CONTRACTOR SHALL ADJUST CONCRETE VOLUME TO COMPLY WITH THE TEST PRESSURE.**
- CONCRETE GRADE SHALL BE N25.
- REINFORCEMENT SHALL BE DESIGNED AS PER AS 3600.
- BLOCK CONSTRUCTION SHALL BE:
 - CONCRETE POURED AGAINST SOUND UNDISTURBED FACE OF EXCAVATION.
 - ANCHOR BLOCK - LOCATED CENTRALLY ABOUT THRUST COLLAR AND EXTENDING INTO BOTH SIDES AND FLOOR OF TRENCH.
 - REINFORCEMENT ALONG BOTH FACES WITH 75 MINIMUM COVER.
 - CONCRETE SHALL BE CLEAR OF ALL BOLTS, NUTS AND PIPE JOINTS.
- ONLY **AUTHORISED** FABRICATED EXTENSION PIECES OR DICT/ MSCL FITTINGS WITH PUDDLE FLANGES SHALL BE USED.
- WHERE THE SOIL IS:
 - VERY SOFT, SOFT OR FIRM CLAY,
 - LOOSE CLEAN SAND,
 - UNCOMPACTED FILL OR REFUSE,
 STANDARD THRUST BLOCKS AS SPECIFIED IN THIS DRAWING SHALL NOT BE USED. **A GEOTECHNICAL ASSESSMENT AND INDIVIDUAL DESIGN SHALL BE UNDERTAKEN FOR THESE SOILS & PROVIDED TO THE SA WATER REPRESENTATIVE.**
- WHERE **DUCTILE IRON PIPES AND FITTINGS WITH RESTRAINED JOINTS ARE USED, ANCHOR BLOCKS MAY NOT BE REQUIRED.** REFER 4005-30003-08 FOR RESTRAINED DUCTILE IRON JOINT SYSTEM.
- REFER 4005-30002-01 & 4005-30002-02 FOR GENERAL NOTES.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.

TEE & DEAD END								
FOR HORIZONTAL THRUST ON TRENCH WALLS WHERE THE COVER OVER PIPES IS 450 OR GREATER								
AHBP (kPa)		SOIL CLASSIFICATION REFER 4005-00003-05						THICKNESS (T) mm
		50		100		200		
PRESSURE (kPa)		1000	1600	1000	1600	1000	1600	
DN	100	0.24	0.38	0.12	0.19	N	0.06	300
	150	0.50	0.80	0.25	0.40	0.13	0.21	300
	200	0.85	1.36	0.43	0.69	0.22	0.35	300
	250	1.29	2.06	0.65	1.04	0.33	0.53	300
	300	1.87	3.00	0.94	1.50	0.47	0.75	350
	375	2.85	4.56	1.43	2.29	0.72	1.15	400

MINIMUM THRUST AREA FOR BLOCKS IN SQUARE METRES (m²)
DESIGN PRESSURES 1000 kPa & 1600 kPa.

REFER NOTE 1 WHERE PRESSURE VARIES.

'N' DENOTES NOMINAL THRUST AREA (REFER NOTE 1).
AHBP - ALLOWABLE HORIZONTAL BEARING PRESSURE.

REVISION PANEL					DESIGN PANEL			<div><div></div><div>This drawing is the property of the SOUTH AUSTRALIAN WATER CORPORATION and shall not be copied or modified in part or in whole without authorization.</div></div>		SA WATER STANDARD DRAWINGS WATER SUPPLY CONSTRUCTION MANUAL		A3 SHT SIZE		1 REVISION	
REV	DATE	DRN	DETAILS	APR	CURRENT REV	DESIGNED: 28/09/15	AUTHORISED: 31/03/16	TOTAL SHEETS:							
					AUTHORISED:	RJP	T.GALEK	SUPERSEDES: B8, B17							
					SIGNATURE:	DRAWN: 16/11/15	SIGNATURE:	DRAWING NUMBER							
						MS		4005-30003-07							
						REVIEWED: 21/03/16		THRUST BLOCKS		PREFIX					
1	31/03/16	MS	2016 STANDARDS REVIEW	TG		TG				NUMBER					
										SHEET					