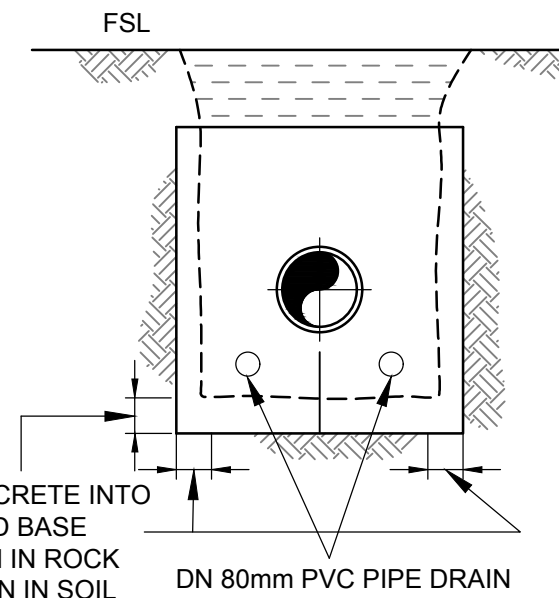
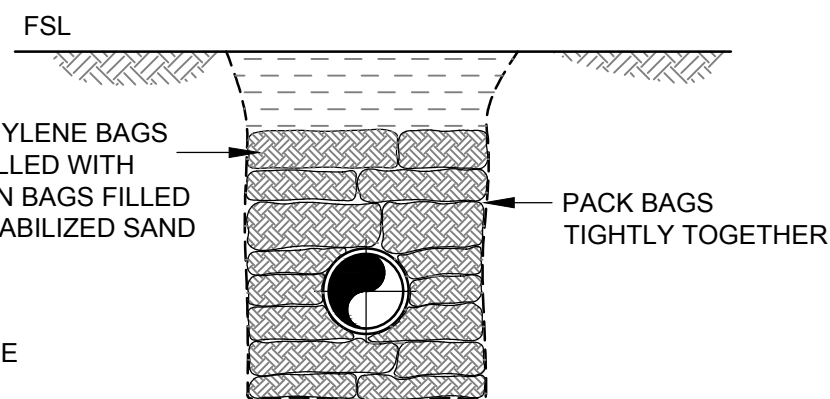


CONCRETE BULKHEAD DETAIL



SECTION A-A



SECTION B-B

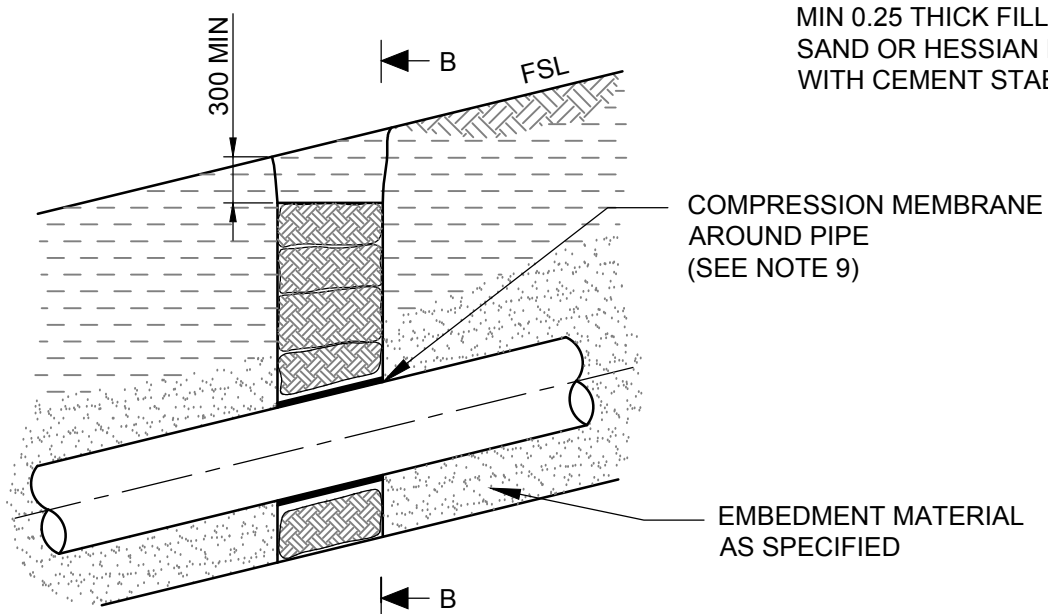
GRADE %	REQUIREMENT	SPACING S m
5 - 14	TRENCHSTOPS	$S = 100/\text{GRADE} (\%)$
15 - 29	CONCRETE BULKHEAD	$S = L_p/\text{Grade} (\%)$, WHERE $L_p = 80 \times \text{PIPE LENGTH}^*$, m (450 m MAX) WHERE $L_p > 100$ m - USE INTERMEDIATE TRENCHSTOPS AT SPACING $< 100/\text{GRADE} (\%)$
30 - 50	CONTINUOUS CONCRETE ENCSEMENT OF PIPELINE AND CONCRETE BULKHEADS	$S = 100/\text{GRADE} (\%)$
> 50	SPECIAL DESIGN	

WSA TABLE 9.1

REQUIREMENTS FOR BULKHEADS AND TRENCHSTOPS

NOTES:

- ALL DIMENSIONS IN MILLIMETRES.
- CONSTRUCT CONCRETE BULKHEADS AND TRENCHSTOPS AT LOCATION SPECIFIED IN THE DESIGN DRAWINGS.
- LOCATE BULKHEADS AT A RETAINING WALL UNDER THE WALL.
- KEY CONCRETE BULKHEADS INTO SIDES AND BOTTOM OF TRENCH AGAINST A BEARING SURFACE OF UNDISTURBED SOIL.
- CONCRETE THE BE CLASS N25.
- DO NOT DEFORM PIPING DURING PLACEMENT OF CONCRETE.
- SEAL BAGS TO PREVENT LEAKAGE OF CONTAINED MATERIAL.
- PROVIDE CONTINUOUS DRAINAGE PATH
 - THROUGH BULKHEADS AND TRENCHSTOPS
 - AROUND MAINTENANCE HOLES
 - IN TRENCH EXCAVATIONS ACROSS ROADWAYS
- COMPRESSIBLE MEMBRANE AROUND PIPE TO BE 10mm EXPANSION FOAM or 3mm MIN THICK RUBBER FOR BULKHEADS AND TRENCHSTOPS ON SLOPES.



TRENCHSTOP DETAIL

Armidale Dept of Public Regional Council Infrastructure	SCALES	APPROVED	D. MAUNDER	31/08/2016	SHEET 1 OF 1
	NTS	MANAGER ENGINEERING AND STANDARDS SUPPORT		DATE	
SEWER MAIN EMBEDMENT & TRENCH FILL TYPICAL ARRANGEMENT		SURV	AS SHEET SIZE	DRAWING No	AMDT No
		DRWN GW	A3	010-039	
		DES			
		CHKD MW	CADFILE 010-039.dwg	DATE 31/08/2016	