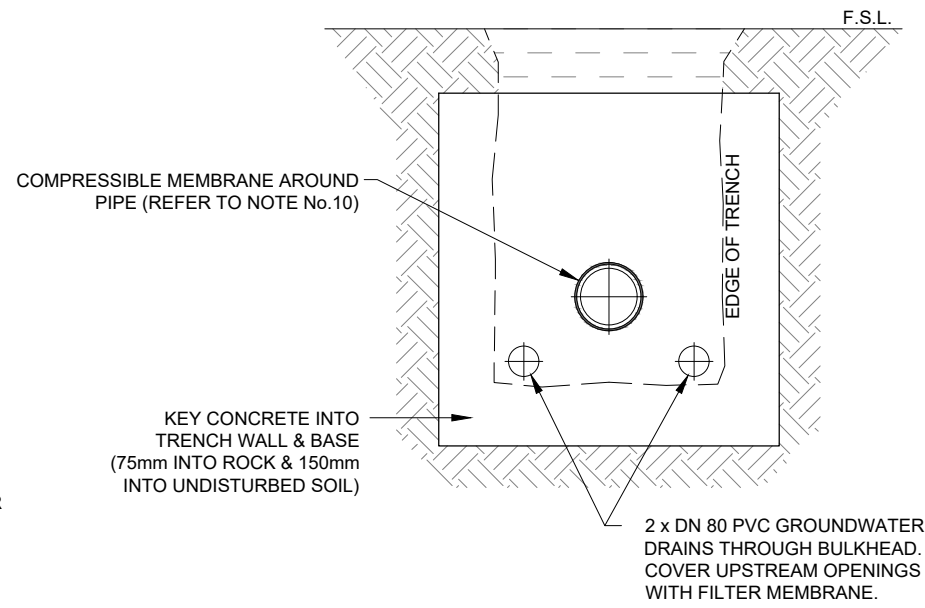
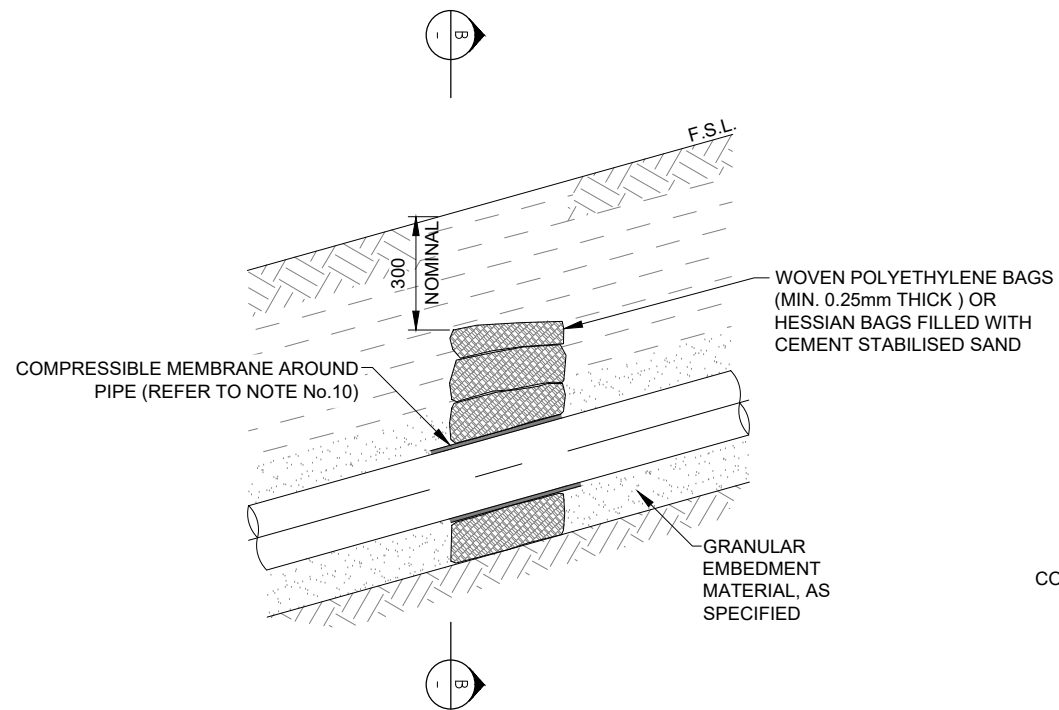


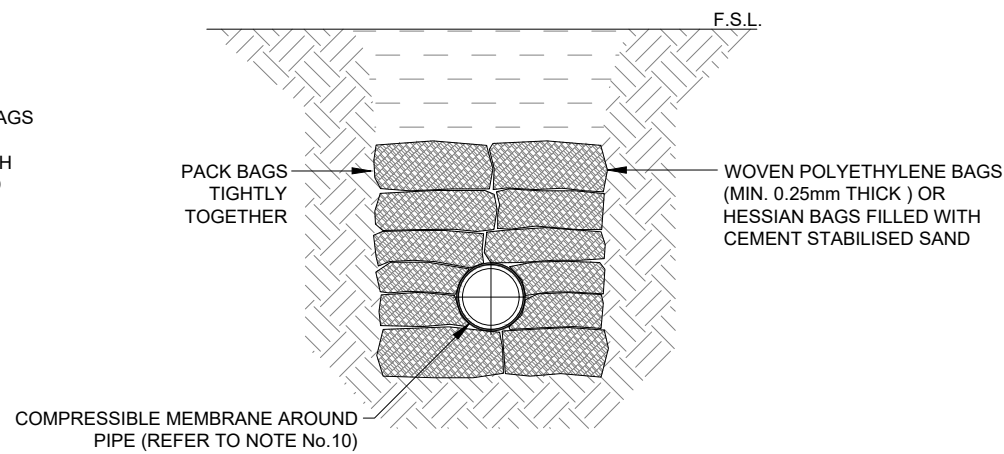
CONCRETE BULKHEAD DETAIL
SCALE 1:20 (A3)



SECTION A
SCALE 1:20 (A3)



TRENCH STOP DETAIL
SCALE 1:20 (A3)



SECTION B
SCALE 1:20 (A3)

- NOTES:**
1. ALL DIMENSIONS IN MILLIMETERS.
 2. CONSTRUCT CONCRETE BULKHEADS & TRENCH STOPS AT LOCATIONS SPECIFIED IN THE DESIGN DRAWINGS.
 3. BULKHEAD AT RETAINING WALL TO BE UNDER WALL.
 4. KEY CONCRETE BULKHEADS INTO SIDES & BOTTOM OF TRENCH AGAINST A BEARING SURFACE OF UNDISTURBED SOIL.
 5. CONCRETE TO BE CLASS N25.
 6. DO NOT DEFORM PIPES DURING PLACEMENT OF CONCRETE.
 7. SEAL BAGS TO PREVENT LEAKAGE OF CONTAINED MATERIAL.
 8. PROVIDE A CONTINUOUS DRAINAGE PATH
 - THROUGH BULKHEADS & TRENCH STOPS
 - AROUND VALVE CHAMBERS
 - IN TRENCH EXCAVATIONS ACROSS ROADWAYS
 TRENCH DRAINAGE TO BE IN ACCORDANCE WITH WSA03-2002 WAT-1210.
 9. COMPRESSIBLE MEMBRANE AROUND PIPE TO BE 10mm THICK RUBBER FOR BULKHEADS & 3mm THICK FOR TRENCH STOPS.
 10. FOR SLOPES >30% CONTINUOUSLY ENCASE THE PIPE TO PREVENT MOVEMENT & TRANSFER OF GROUND WATER. WRAP JOINTS TO PREVENT DAMAGE TO RRJ.

E	ANCHOR BLOCK COVER DIMENSION AMENDED & NOTE No.9 AMENDED	S.K.J	01.2019
D	ROAD CROSSING BULKHEAD DETAIL REMOVED & NOTE No.3 REMOVED	G.P.C.	12.2013
C	BULKHEAD HEIGHT ABOVE PIPE AMENDED	G.P.C.	10.2013
B	REINFORCEMENT NOTES AMENDED	G.P.C.	09.2012
A	ORIGINAL ISSUE	G.P.C.	10.2010
ISSUE	AMENDMENT DETAILS	INITIALS	DATE



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DESIGN ENGINEER	<i>[Signature]</i> DATE 19.12.13
DESIGN MANAGER	<i>[Signature]</i> DATE 20.12.13
DRAWN	ENGINEERING & OPERATIONS DESIGN UNIT
SCALE	1:20 (A3)

PROJECT:	WATER SUPPLY STANDARDS
PLAN TITLE:	TRENCH DRAINAGE BULKHEADS & TRENCH STOPS

DRAWING NUMBER:	S.D. 341
	JAN 2014