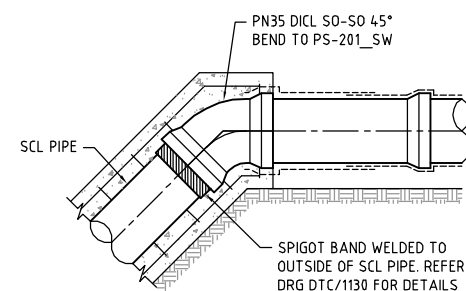


TYPICAL RESTRICTED ACCESS CROSSING - TYPE 3
TRENCHED SCL PIPE CONCRETE ENCASED

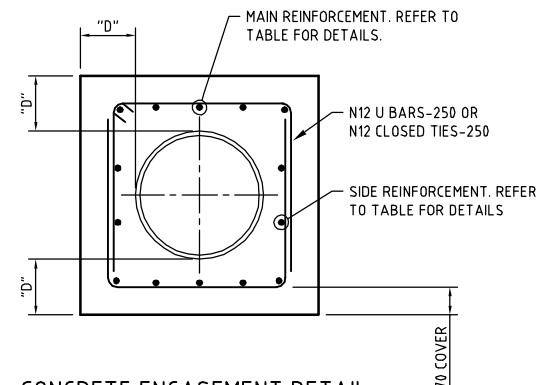
SCALE 1:20

NOTES:

- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
- CROSSING TYPE 3 NOT SUITABLE FOR INSTALLATION IN AGGRESSIVE SOILS.
- THRUST RESTRAINT PROVIDED BY CONCRETE ENCASEMENT. ULTIMATE LIMIT STATE BASED ON TEST PRESSURE OF 150m HEAD OF WATER. THIS DESIGN MAY ONLY BE USED WHERE DIMENSION "L1" IS LESS THAN 2500.
- STEEL PIPE JOINTS TO BE EITHER PLAIN ENDS WITH WELDING COLLAR, BUTT WELDED OR SLIP-IN TYPE WELDED JOINTS.
- SHOW DIMENSIONS "W", "X1", "X2", "Z1", "L1", "V1" IN DESIGN AND WORK AS CONSTRUCTED DRAWINGS.
- TAPE 700 LONG PE SLEEVING TO FITTING 150 FROM THE SOCKET FACE TO OVERLAP PE SLEEVED DICL PIPE.
- CONCRETE TO BE NORMAL CLASS N25 TO PS-357_SW. SLUMP SHALL BE 80mm - 120mm. MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 20mm.
- ALL REINFORCEMENT SHALL BE TO AS4671 SHAPE - D, STRENGTH GRADE = 500MPa, DUCTILITY CLASS - N.
- MINIMUM CLEAR COVER TO REINFORCEMENT SHALL BE 70mm.
- DO NOT APPLY ANY THRUST LOADS FOR AT LEAST 28 DAYS AFTER POURING CONCRETE.
- FORM ALL CONSTRUCTION JOINTS. SCABBLE JOINT TO EXPOSE AGGREGATE TO 5mm DEPTH AND WIRE BRUSH CLEAN PRIOR TO FORMING. SOAK EXISTING CONCRETE SURFACE WITH WATER AND REMOVE ALL EXCESS WATER IMMEDIATELY PRIOR TO PLACING CONCRETE.
- WHEN CROSSING UNDER A WATER MAIN \leq DN375 THE MINIMUM VERTICAL CLEARANCE SHALL BE 150mm. WHEN CROSSING UNDER A WATER MAIN $>$ DN375 THE MINIMUM VERTICAL CLEARANCE SHALL BE 500mm.
- THE DESIGNER SHALL LOCATE ALL EXISTING AND PROPOSED SERVICES AND RECORD DETAILS ON THE DESIGN DRAWINGS.
- THE CONSTRUCTOR SHALL LOCATE AND CONFIRM THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION OF THE CROSSING.
- CONSTRUCTOR TO SUPPORT ALL EXISTING SERVICES DURING CONSTRUCTION OF CROSSING.

**TYPE 3 - ALTERNATIVE END TREATMENT**

SCALE 1:20

**CONCRETE ENCASEMENT DETAIL**

SCALE 1:10

CONCRETE ENCASEMENT REINFORCEMENT DETAILS FOR 45° VERTICAL BENDS			
MAIN SIZE	MAIN REQ (T&B)	SIDE REQ (T&B)	"D"
DN100	3N20	NIL	150
DN150	4N24	NIL	200
DN200	5N20	NIL	250
DN250	5N20	2N16	300
DN300	5N24	2N16	300

REFER NOTE 3

STEEL PIPE DIMENSIONS		
PIPE SIZE DN	OUTSIDE DIAMETER OD	WALL THICKNESS WT
100	114	4.8
150	168	5.0
200	219	5.0
250	273	5.0
300	324	5.0

ROCKER PIPE DIMENSIONS		
PIPE SIZE (DN)	"R" MIN	"R" MAX
150	300	450
200	400	600
250	500	750
300	600	900

Sydney
WATER



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APPROVED

PETER GILLMAN
MANAGER E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

A
LETTER

ORIGINAL ISSUE

DETAILS OF ISSUE / AMENDMENT

PJG

31/01/12

APP'D

DATE

DEEMED TO COMPLY DRAWINGS

CROSSINGS UNDER OBSTRUCTIONS
WATER MAINS \leq DN300
TYPE 3 - TRENCHED INSTALLATION
SCL MAIN CONCRETE ENCASED

DTC**1126**

ISSUE

DATE

A**31/01/12**