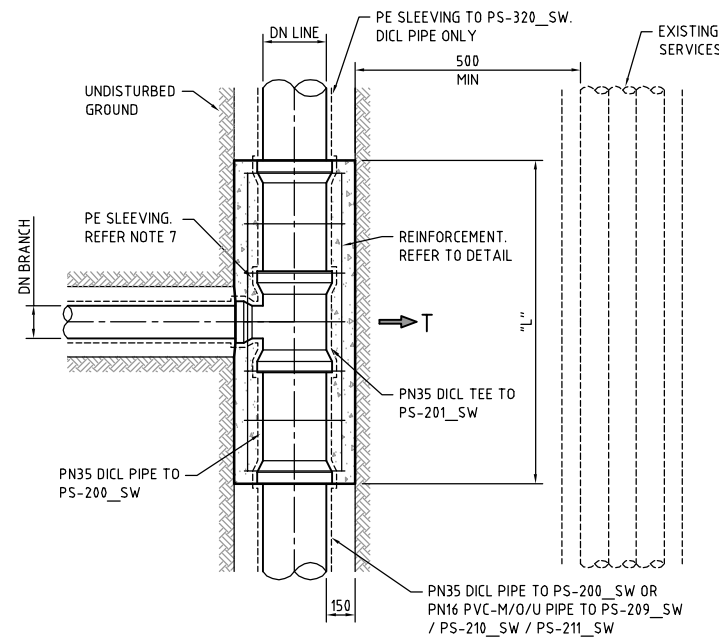


TEE THRUST BLOCK TYPE 1 PLAN

SCALE 1:20



TEE THRUST BLOCK TYPE 2 PLAN

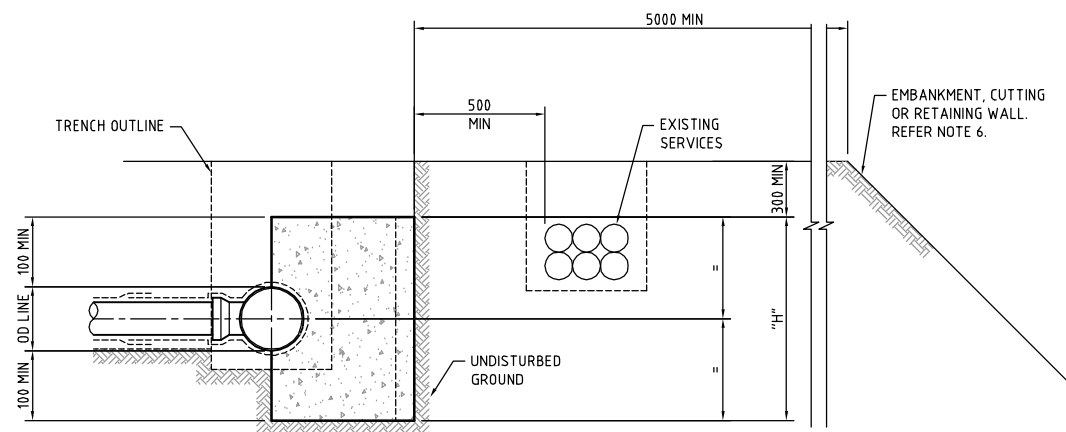
SCALE 1:20

THRUST BLOCK AREAS & DIMENSIONS FOR TEES - TYPE 1 (m²)

DN BRANCH	OD BRANCH	DESIGN PRESSURE HEAD	TEST PRESSURE HEAD	THRUST T	SOIL AHBP	H	L	W	REQUIRED BEARING AREA
(mm)	(mm)	(m)	(m)	(kN)	(kPa)	(mm)	(mm)	(mm)	(m ²)
100	122	120	150	17.2	50	500	700	400	0.344
100	122	120	150	17.2	100	400	450	250	0.172
100	122	120	150	17.2	200	400	400	300	0.086
150	177	120	150	36.2	50	700	1100	600	0.724
150	177	120	150	36.2	100	500	750	400	0.362
150	177	120	150	36.2	200	450	600	350	0.181
200	232	120	150	62.2	50	850	1500	700	1.243
200	232	120	150	62.2	100	700	900	400	0.622
200	232	120	150	62.2	200	500	650	250	0.311
250	286	120	150	94.5	50	REFER TO TYPE 2			1.889
250	286	120	150	94.5	100	800	1200	500	0.945
250	286	120	150	94.5	200	600	800	300	0.472
300	345	120	150	137.5	50	REFER TO TYPE 2			2.749
300	345	120	150	137.5	100	1000	1400	550	1.375
300	345	120	150	137.5	200	700	1000	350	0.687

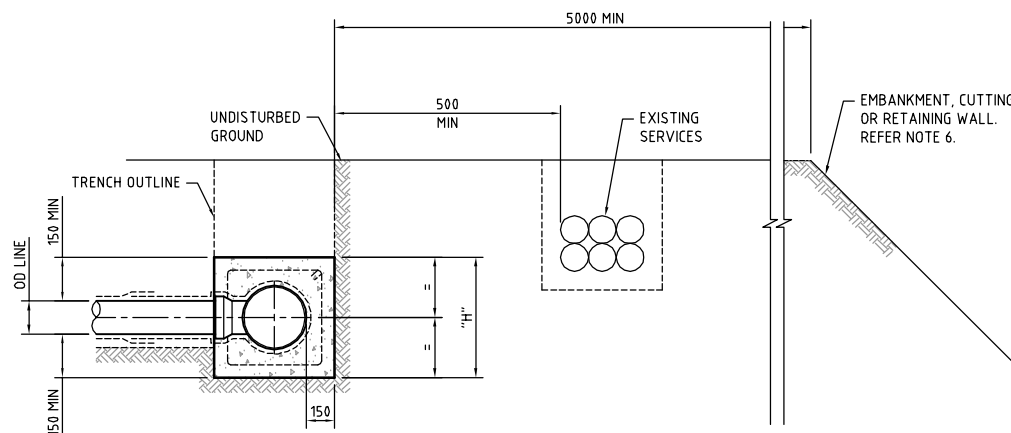
THRUST BLOCK AREAS & DIMENSIONS FOR TEES - TYPE 2 (m²)

DN BRANCH	OD BRANCH	DESIGN PRESSURE HEAD	TEST PRESSURE HEAD	THRUST T	SOIL AHBP	H	L	REQUIRED BEARING AREA
(mm)	(mm)	(m)	(m)	(kN)	(kPa)	(mm)	(mm)	(m ²)
100	122	120	150	17.2	50	650	1150	0.344
100	122	120	150	17.2	100	650	1150	0.172
100	122	120	150	17.2	200	650	1150	0.086
150	177	120	150	36.2	50	750	1200	0.724
150	177	120	150	36.2	100	650	1200	0.362
150	177	120	150	36.2	200	650	1200	0.181
200	232	120	150	62.2	50	800	1600	1.243
200	232	120	150	62.2	100	650	1250	0.622
200	232	120	150	62.2	200	650	1250	0.311
250	286	120	150	94.5	50	900	2150	1.889
250	286	120	150	94.5	100	900	1300	0.945
250	286	120	150	94.5	200	900	1300	0.472
300	345	120	150	137.5	50	1050	2700	2.749
300	345	120	150	137.5	100	1050	1400	1.375
300	345	120	150	137.5	200	1050	1400	0.687



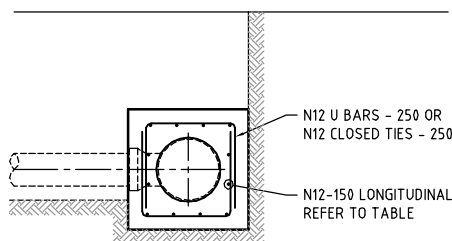
TEE THRUST BLOCK TYPE 1 ELEVATION

SCALE 1:20



TEE THRUST BLOCK TYPE 2 ELEVATION

SCALE 1:20



TEE THRUST BLOCK TYPE 2

CONCRETE ENCASEMENT DETAIL

SCALE 1:20

CONCRETE ENCASEMENT REINFORCEMENT DETAILS

MAIN SIZE	LONGITUDINAL REINFORCEMENT
DN100	8N12
DN150	8N12
DN200	12N12
DN250	12N12
DN300	12N12

NOTES:

- ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.
- THRUST BLOCKS DESIGNED TO WITHSTAND A DESIGN PRESSURE OF 120m AND A TEST PRESSURE OF 150m HEAD OF WATER.
- THE ALLOWABLE HORIZONTAL BEARING PRESSURE (AHBP) OF UNDISTURBED NATURAL SOIL TO BE DETERMINED BY A SUITABLY EXPERIENCED GEOTECHNICAL ENGINEER PRIOR TO CASTING THRUST BLOCKS.
- CAST THE THRUST AREA OF ALL THRUST BLOCKS AGAINST A CLEAN FACE OF UNDISTURBED NATURAL SOIL. THRUST BLOCKS NOT TO INTERFERE WITH OTHER SERVICES.
- DO NOT USE THRUST BLOCKS AS SPECIFIED IN THIS DRAWING IN SOILS WHERE AHBP < 50KPa.
- DO NOT USE THRUST BLOCKS SPECIFIED IN THIS DRAWING WITHIN 5m OF AN EMBANKMENT, CUTTING OR RETAINING WALL. A GEOTECHNICAL ASSESSMENT AND INDIVIDUAL DESIGN IS REQUIRED FOR THESE CONDITIONS.
- ALL DI FITTINGS AND PIPES TO BE WRAPPED IN POLYETHYLENE SLEEVING. TAPE 700 LONG PE SLEEVING TO END OF DICL PIPE TO BE ENCASED 150 FROM THE SOCKET FACE TO OVERLAP PE SLEEVED DICL PIPE. WHEN CONNECTING TO PVC PIPE (WITHOUT PE SLEEVE) TAPE 700 LONG PE SLEEVE TO PVC PIPE. POLYETHYLENE SLEEVING TO PS-320_SW.
- CONCRETE SHALL BE CLASS N25 TO PS-357_SW. ALL CONCRETE SHALL HAVE SLUMP IN THE RANGE OF 80mm TO 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 LOAD FOR AT LEAST 14 DAYS AFTER POURING THRUST BLOCKS.
- THRUST BLOCK DESIGNS SHOWN ON THIS DRAWING ARE NOT SUITABLE FOR USE IN AGGRESSIVE OR CONTAMINATED SOILS.

Sydney
WATER

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APPROVED

PETER GILLMAN
MANAGER E & ES

ENGINEERING & ENVIRONMENTAL SERVICES

B

THRUST BLOCK DIMENSIONS REVISED

PJG

29\02\12

A

ORIGINAL ISSUE

PJG

31/01/12

LETTER

DETAILS OF ISSUE / AMENDMENT

APP'D

DATE

DEEMED TO COMPLY DRAWINGS

THRUST BLOCK DETAILS
DICL AND PVC WATER MAINS ≤ DN300
TEES

DTC

1113

ISSUE

DATE

B

29\02\12