



THIS DRAWING MAY ONLY BE USED IN THE COURSE OF AND FOR THE PURPOSE OF CREATING SYDNEY WATER ASSETS. USE THIS DRAWING WITH CARE. THE USER IS RESPONSIBLE FOR THE CORRECT APPLICATION OF THIS DRAWING. DEEMED TO COMPLY DRAWINGS ARE SUBJECT TO TERMS AND CONDITIONS OF USE AS PUBLISHED BY SYDNEY WATER.

NOTES:

- THIS DRAWING MUST BE READ IN CONJUNCTION WITH DTC/1100.
- GEOTEXTILE LAYER TO MEET CLASS C STRUCTURAL AND CLASS 4 PERMEABILITY PARAMETERS AS DETAILED IN THE TNSW QUALITY SPECIFICATION R67.
- PRE-CAST CONCRETE CHAMBER DESIGNED TO SM1600 LOADS OF AS 5100.2. DESIGN LOAD FOR PRE-CAST CONCRETE SUPPORT BEAM BASED ON AS3996 - CLASS C RATING FOR FOOTWAY AND CLASS D RATING FOR CARRIAGE-WAY APPLICATIONS.
- FOUNDATION CONDITIONS MUST BE TO FOUNDATION NOTES ON DTC/1100.
- PIPELINE DESIGN BASED ON MAXIMUM DESIGN PRESSURE OF 120m AND TEST PRESSURE OF 150m OF WATER.
- PRECAST CONCRETE BEAMS DIMENSIONS "L1" AND "L2" TO BE SHOWN ON WAC DRAWINGS.
- ALL FLANGES MUST BE TO DTC/1145.
- ALL DI FITTINGS MUST BE COATED WITH THERMAL-BONDED POLYMERIC COATING.
- WHERE PROPRIETARY PRODUCTS ARE SPECIFIED, THE PRODUCTS MUST BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

REFERENCE DRAWINGS:

DTC/1145	WATER MAINS PN16 BURIED FLANGE CONNECTION DETAILS DN100 TO DN750
DTC/1150	STEEL WATER MAINS DN150 TO DN1200 STEEL PIPE JOINTING
DTC/1212	AIR VALVE AND HYDRANT INSTALLATIONS DETAILS WATER MAINS DN375 - DN750

TABLE 1 - PRECAST CONCRETE BEAM SIZE

	CARRIAGE-WAY									FOOTWAY					
	FIRM TO STIFF ($C_u \geq 50\text{kPa}$) DCP $\geq 9/300\text{mm}$			STIFF ($C_u \geq 75\text{kPa}$) DCP $\geq 12/300\text{mm}$			VERY STIFF ($C_u \geq 150\text{kPa}$) DCP $\geq 18/300\text{mm}$			FIRM TO STIFF ($C_u \geq 50\text{kPa}$) DCP $\geq 9/300\text{mm}$			STIFF ($C_u \geq 75\text{kPa}$) DCP $\geq 12/300\text{mm}$		
FOUNDATION MATERIAL - CLAY															
FOUNDATION MATERIAL - SAND	LOOSE DCP $\geq 5/300\text{mm}$			MEDIUM DENSE DCP $\geq 8/300\text{mm}$			MEDIUM DENSE TO DENSE DCP $\geq 15/300\text{mm}$			LOOSE DCP $\geq 5/300\text{mm}$			MEDIUM DENSE DCP $\geq 8/300\text{mm}$		
	TOTAL LENGTH (L1)	SIDE SUPPORT LENGTH (L2)	APPROX WEIGHT (t)	TOTAL LENGTH (L1)	SIDE SUPPORT LENGTH (L2)	APPROX WEIGHT (t)	TOTAL LENGTH (L1)	SIDE SUPPORT LENGTH (L2)	APPROX WEIGHT (t)	TOTAL LENGTH (L1)	SIDE SUPPORT LENGTH (L2)	APPROX WEIGHT (t)	TOTAL LENGTH (L1)	SIDE SUPPORT LENGTH (L2)	APPROX WEIGHT (t)
DN375	3550	1350	1.00	2200	675	0.62	1550	350	0.44	2500	825	0.70	1700	425	0.48
DN450	3600	1350	1.01	2300	675	0.65	1650	350	0.46	2600	825	0.73	1800	425	0.51
DN500	3900	1350	1.10	2550	675	0.72	1900	350	0.53	2850	825	0.80	2050	425	0.58
DN600	4000	1350	1.13	2650	675	0.75	2000	350	0.56	2950	825	0.83	2150	425	0.60
DN750	4150	1350	1.17	2800	675	0.79	2150	350	0.60	3100	825	0.87	2300	425	0.65

DYNAMIC CONE PENETRATION TEST (DCP) TO AS1289.6.3.2. INDICATIVE VALUES SHOWN IN TABLE TO CONFIRM SHEAR STRENGTH (C_u) OF CLAYS OR DENSITY OF SANDS. TESTS TO BE CARRIED OUT TO A DEPTH NOT LESS THAN 600mm BELOW PRECAST BEAM FOUNDING LEVEL.

Sydney
WATER

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APPROVED

NORBERT SCHAEFER
ENGINEERING MODERNISATION MANAGER

ENGINEERING & ENVIRONMENTAL SERVICES

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A	ORIGINAL ISSUE
LETTER	DETAILS OF ISSUE / AMENDMENT

NS	31/07/24
PJG	01/03/13
APP'D	DATE

DEEMED TO COMPLY DRAWINGS

HYDRANT INSTALLATIONS
FIRE FIGHTING ACCESSIBLE

DI, PVC, GRP, SCL & PE WATER MAINS DN375 - DN750

DTC

1207

ISSUE	DATE
B	31/07/24