

## STORMWATER PIPES UNDER SIDEWALK

STORMWATER PIPES  
UNDERNEATH ROADS, ACCESS  
ROADS & PARKING AREAS

## SITUATIONS WHERE A CONCRETE SLAB IS REQUIRED

STORMWATER PIPES UNDERNEATH MAIN ROUTES UNDER THE FOLLOWING CIRCUMSTANCES

1. COVER < 800mm FOR  $D_o \leq 750\text{mm}$
2. COVER < 900mm FOR  $D_o \leq 750\text{mm}$

## SITUATIONS WHERE A CONCRETE BEDDING IS REQUIRED

	<u><b>LEGEND</b></u>
	D = PIPE CLASS D <sub>0</sub> = INTERNAL PIPE DIAMETER
	<u><b>NOTES</b></u>
1.	ALL PIPES BELOW SIDEWALKS & OPEN AREAS TO BE CLASS 50 'D' EXCEPT WHERE COVER < 2.0m ON 1200mm Ø AND GREATER THE CLASS OF THE PIPES ARE TO BE INCREASED TO 75 'D'.
2.	FOR STORMWATER PIPES BELOW STREETS & MAIN ROUTES, SEE TABLE 2.
3.	THE CONTRACTOR SHALL AT ALL TIMES ADHERE TO THE SAFETY PRECAUTIONS AS SET OUT IN SANS 1200 D - 1988.
4.	IF TRENCHES ARE 200mm WIDER THAN THE SPECIFIED WITH IN TABLE 2, IT MAY BE NECESSARY TO CHANGE THE PIPE CLASS.
5.	BEDDING: a. NORMAL BEDDING ACCORDING TO DETAIL 1. b. BEDDING ACCORDING TO DETAIL 2. c. CONCRETE SLAB OVER PIPE ACCORDING TO DETAIL 3.
6.	CONCRETE BEDDING ACCORDING TO DETAIL 4.
7.	BACKFILL MATERIAL: THE MATERIAL USED CONSISTS OF SELECTED GRAVEL WITH PI ≤ 6, MUST BE FREE OF STONES LARGER THAN 20mm, ORGANIC MATERIALS AND CLAY LUMPS. THE BEDDING MATERIALS AT THE SIDES OF THE PIPE MUST BE COMPACTED TO 90% MOD. AASHTO DENSITY AFTER THE PIPE HAS BEEN LAID.
8.	BACKFILL TYPE A: THE MATERIAL USED MUST BE UNIFORM AND MUST BE COMPACTED TO 90% MOD AASHTO DENSITY IN LAYERS NOT MORE THAN 100mm AND MUST BE FREE OF: a. ROOTS OF TREES, BUILDING RUBBLE AND ORGANIC MATERIAL. b. CLAY LUMPS LARGER THAN 75mm. c. STONES LARGER THAN 20mm.
9.	BACKFILL TYPE B: MINIMUM G9 MATERIAL ACCORDING TO THR14 CLASSIFICATION COMPACTED TO A MINIMUM OF 90% MOD. AASHTO DENSITY IN LAYERS NOT MORE THAN 150mm.
10.	MINIMUM PIPE SIZE: CONNECTIONS FROM ERVEN TO MUNICIPAL SYSTEM SYSTEM TO BE 450mm.

[illegible]

CONCRETE SLAB: CLASS 25/19 CONCRETE	DEPTH (d)	REINFORCING	MIN. COVER
D <sub>0</sub> < 900mm	150mm	REF. No 245 WELDED MESH	40mm
900mm < 0 < 1800mm	200mm	REF. No 311 WELDED MESH	40mm

TABLE 2

PIPE CLASSES FOR PIPES UNDER SECONDARY STREETS, LIGHT ACCESS ROADS, PARKING AREAS, PRVATE ENTRANCES AND SIDEWALKS FOR 40kN WHEEL LOAD WITH DUE ALLOWANCE FOR IMPACT LOADS.														PIPE CLASSES FOR PIPES UNDER ROUTES FOR H8 - WHEEL LOADS OF EIGHT 80kN WHEEL LOAD WITH DUE ALLOWANCE FOR IMPACT LOADS.											
ø	TRENCH WIDTH	COVER (m)												ø	TRENCH WIDTH	COVER (m)									
mm	mm	0.6	0.9	1.0	1.2	1.5	1.8	2.0	2.5	3.0	4.0	5.0	6.0	mm	mm	0.6	0.9	1.0	1.2	1.5	1.8	2.0	2.5	3.0	4.0
450	950	75D	75D	75D	75D	50D	50D	50D	75D	75D	75D	75D	75D	450	950	75D	100D	100D	100D	100D	100D	100D	100D	75D	75D
525	1020	75D	75D	50D	50D	50D	50D	50D	75D	75D	75D	75D	75D	525	1020	75D	100D	100D	100D	100D	100D	100D	100D	100D	100D
600	1620	75D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	100D	600	1620	75D	100D	100D	100D	100D	100D	100D	100D	100D	100D
675	1710	75D	75D	75D	75D	75D	75D	75D	75D	75D	100D	100D	100D	675	1710	75D	100D	100D	100D	100D	100D	100D	100D	100D	100D
750	1790	75D	50D	50D	50D	50D	75D	75D	75D	75D	100D	100D	75D	750	1790	75D	100D	100D	100D	100D	100D	100D	100D	100D	100D
825	1870	75D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	100D	825	1870	75D	50D	100D	100D	100D	100D	100D	100D	100D	100D
900	1950	75D	50D	50D	50D	50D	75D	75D	75D	75D	100D	100D	100D	900	1950	75D	50D	100D	100D	100D	100D	100D	100D	100D	100D
1050	2120	75D	75D	75D	75D	75D	75D	75D	75D	75D	75D	100D	100D	1050	2120	75D	50D	100D	100D	100D	100D	100D	100D	100D	100D
1200	2280	75D	50D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	1200	2280	75D	50D	100D	100D	100D	100D	100D	100D	100D	100D
1350	2450	50D	50D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	1350	2450	50D	50D	100D	100D	100D	75D	75D	100D	100D	100D
1500	2610	50D	50D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	1500	2610	50D	50D	100D	100D	100D	75D	75D	100D	100D	100D
1650	2760	50D	50D	50D	50D	50D	50D	50D	75D	75D	100D	100D	100D	1650	2760	50D	50D	100D	100D	100D	100D	75D	100D	75D	75D
1800	3260	50D	50D	50D	50D	50D	50D	50D	75D	75D	75D	100D	100D	1800	3260	50D	50D	100D	50D	75D	75D	75D	75D	100D	100D