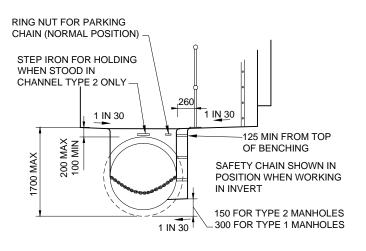


700 DROP BAR DETAIL FIXED END DETAIL HOOK DETAIL _100 SAFETY CHAIN IN NORMAL POSITION 500 <FLOW DOUBLE STEPS AT 300 CTRS VERTICALLY SEE NOTE 11 FRONT ELEVATION



SIDE ELEVATION (LOOKING DOWNSTREAM)

1. ALL DIMENSIONS ARE IN MILLIMETRES

2. CONCRETE BENCHING AND PIPE SURROUND

SHALL BE PLACED IN SINGLE CONTINUOUS OPERATION FROM TOP OF BASE SLAB TO TOP OF BENCHING AND PIPE SURROUND

3. CONNECTION INTO MANHOLES

SHALL BE CONSTRUCTED WITH THE SOFFITS LEVEL UNLESS DETAILED DIFFERENTLY ON CONTRACT

4. METALWORK

LADDERS, HANDRAILING AND SAFETY CHAIN SHALL BE AS SHOWN ON DEVELOPER SERVICES DETAIL 9 (STND/19/009)

5. CONCRETE SURROUND TO MANHOLES

A CONCRETE SURROUND IS NOT NORMALLY REQUIRED TO MANHOLES UNLESS INSTALLED IN AREAS OF UNSTABLE GROUND, UNDER CONDITIONS OF FLOTATION OR WHERE SUBJECTED TO EXCEPTIONAL OR ECCENTRIC LOADS. IN WHICH CASES A 150 SURROUND OF AT LEAST 20 N/mm CONCRETE SHALL BE PROVIDED. ANY JOINTS SHOULD BE STAGGERED WITH PRECAST CONCRETE JOINTS

6. MINIMUM LENGTH OF CHANNEL (X Min)

CHAMBER DIA	"X" MIN
1050	800
1200	950
1350	1000
1500	1050
1800	1150
2100	1300
2400	1450
2700	1550
3000	1700

7. CUT ENDS OF REINFORCED CONCRETE PIPES

SHALL BE TREATED WITH EPOXY RESIN PAINT/MORTAR

8. MANHOLE ACCESSES FOR MANHOLE ACCESS

OPTIONS AND DETAILS SEE DEVELOPER SERVICES DETAIL 10 (STND/19/010). DOUBLE STEPS SHALL BE PLASTIC ENCAPSULATED CARBON STEEL. DOUBLE STEPS SHALL NOT BE USED WHERE COVER-TO-SOFFIT DIMENSION IS >3.0m

9. COVER AND FRAME

150 DEEP COVERS ARE TO BE USED IN CATEGORY 1, 2, 3 ROADS. 100 DEEP COVERS ARE TO BE USED IN CATEGORY 4 ROADS. DOUBLE TRIANGULAR COVERS ARE TO BE USED IN CARRIAGEWAY, ROAD CATEGORY TO BE DESIGNATED BY THE HIGHWAY AUTHORITY. FRAME TO BE SET AS PER SPECIFICATION

10.CONCRETE

ALL IN-SITU CONCRETE TO BE DC - 3 OR FND3

11. VARIABLE FEATURES (V.F.)

WHERE V.F. APPEARS IN ANNOTATION REFER TO VARIABLE FEATURES AS SHOWN ON DEVELOPER SERVICES DETAIL 10 (STND/19/010)

CURRENT ISSUE INFORMATION

DH SD FOR INFORMATION



UNITED UTILITIES LTD

DEVELOPER SERVICES

DETAIL 2

MANHOLE TYPE 2 AND

INVERT ACCESS DETAIL

NTS	A3
	REVISION
STND/19/002	A

PIPES 600 - 1500 DIAMETER (DEPTH TO BENCHING NOT EXCEEDING 6000)

MANHOLE TYPE 2

С

PLAN

C

MINIMUM BENCHING

WIDTH 1100

500 x 150 RECESS-

DROP BAR DETAIL

SAFETY CHAIN

DOUBLE STEPS AT 300-

CTRS VERTICALLY

STEP IRON ABOVE PIPE

CHAIN REMOVAL. TYPE 2

COMPRESSIBLE FILLER-

REFER TO TABLE 3

DWG NO. STND/19/008

MANHOLE ONLY

THICKNESS "L"

OUTLET TO ALLOW SAFETY

PREFERRED LADDER

AND ACCESS

STAINLESS STEEL

-CONCRETE BASE

FLOW B

750 MAX. DISTANCE OF FIRST

PIPE JOINT FROM CHAMBER

SURROUND

PIPE CONNECTION

HANDRAILING

POSITION