MANHOLE NO. SWMH01		
DIAMETER	1500	
COVER LEVEL	97.700	
INVERT LEVEL	95.410	
MH TYPE	1	
DEPTH TO SOFFIT	2.065	
COVER SIZE	600x600	
COVER DEPTH	150	
COVER SPEC	D400	
LADDER OR DOUBLE STEPS?	Double Step	
SAFETY CHAIN	N/A	
SAFETY RAILS	N/A	
INVERT ACCESS STEPS	N/A	
HOLE SIZE IN COVER SLAB	750x600 E.O.	
ROCKER PIPES	600 mm	



MANHOLE NO.	
DIAMETER	
COVER LEVEL	
INVERT LEVEL	
МН ТҮРЕ	
DEPTH TO SOFFIT	
COVER SIZE	(
COVER DEPTH	
COVER SPEC	
LADDER OR DOUBLE STEPS?	
SAFETY CHAIN	
SAFETY RAILS	
INVERT ACCESS STEPS	
HOLE SIZE IN COVER SLAB	75
ROCKER PIPES	



MANHOLE NO.	SWMH03	
DIAMETER	1500	
COVER LEVEL	96.990	
INVERT LEVEL	94.613	
MH TYPE	1	
DEPTH TO SOFFIT	2.152	
COVER SIZE	600x600	
COVER DEPTH	150	
COVER SPEC	D400	
LADDER OR DOUBLE STEPS?	Double Step	
SAFETY CHAIN	N/A	
SAFETY RAILS	N/A	
INVERT ACCESS STEPS	N/A	
HOLE SIZE IN COVER SLAB	750x600 E.O.	
ROCKER PIPES	600 mm	



MANHOLE NO.	
DIAMETER	
COVER LEVEL	
INVERT LEVEL	
MH TYPE	
DEPTH TO SOFFIT	
COVER SIZE	
COVER DEPTH	
COVER SPEC	
LADDER OR DOUBLE STEPS?	D
SAFETY CHAIN	
SAFETY RAILS	
INVERT ACCESS STEPS	
HOLE SIZE IN COVER SLAB	75
ROCKER PIPES	
	MANHOLE NO. DIAMETER COVER LEVEL INVERT LEVEL MH TYPE DEPTH TO SOFFIT COVER SIZE COVER SIZE COVER DEPTH COVER SPEC LADDER OR DOUBLE STEPS? SAFETY CHAIN SAFETY CHAIN SAFETY RAILS INVERT ACCESS STEPS HOLE SIZE IN COVER SLAB ROCKER PIPES



NOTES

- 1) All drainage construction is to be in accordance with United Utilities Standard Details and the relevant clauses from the Civil Engineering Specification for the Water Industry (CESWI) 6th Edition and Design and Construction Guidance (DCG Version 2.0)
- 2) Invert levels shown on all incoming and outgoing pipes for manholes indicate the invert levels at the intersection of the pipes within the manhole.

3) CONCRETE BENCHING AND PIPE SURROUND Concrete shall be placed in a single continuous operation from top of

- base slab to top of benching and pipe surround. 4) <u>CONNECTION INTO MANHOLES</u>
- Connections into manholes shall be constructed with the soffits at the same level unless detailed differently on the contract drawings.
- 5) <u>METALWORK</u>
- Ladders, handrailing and safety chains shall be constructed as shown on UU Standard Detail STND/19/002. All components to be fabricated in Stainless steel grade X6 Cr Ni Mo Ti 17-12-2 to BS EN 10088-1. Refer to UU Standard Detail STND/19/002 for details.
- CONCRETE SURROUND TO MANHOLES 6) All manhole to have min 150mm surround of at least 20N/mm2 concrete (FND3Z in accordance with ground investigation report). Any joints should be staggered with pre-cast concrete joints. 7) MANHOLE ACCESSES
- For manhole access options and details refer to UU Standard Detail STND/19/010. Double steps shall be plastic encapsulated carbon steel to BS EN 1247-2 manhole steps.

8) COVER AND FRAME FOR TYPE A AND TYPE B ACCESS 150mm deep covers are to be used. Double triangular covers are to be used in carriageway. Frame to be set as per manufacturers specification. Manhole cover and frame to be in accordance with BS EN 124 Class D400, class M1 mortar bed and haunch, with minimum clear opening

of 600x600 unless noted otherwise. 9) COVER AND FRAME FOR INSPECTION CHAMBERS

PPIC cover to suit BS EN 124 loading with appropriate clear openings. PPIC located in driveways and footpaths - Grade B125.

10) ROCKER PIPES

Start of rocker pipe to be as close to face of manhole as possible and not greater than 750mm. Rocker pipes to be used until the pipe outside diameter exceeds the effective length of the rocker pipe. Refer to UU Standard Detail STND/19/010.



Rocker pipe effective length shall be as follows: 600mm for pipes up to 600mm ø

11) BENCHING WIDTH

- Minimum benching widths shall be as follows: For depth to soffit < 1.5m
- 225mm min for all pipe sizes
- For depth to soffit ≥ 1.5m 600mm min for 150mm ø to 375m ø pipes
- 750mm min for 450mm ø & 525mm ø pipes
- 12) INVERT ACCESS STEPS Invert access steps with double steps are required where pipes are greater than 450mm ø.

13) CHANNEL FITTINGS

Proprietary channel fittings are to be used up to and including 300mm ø pipes, above which granolithic in-situ channels can be used. Incoming and outgoing 'T' junctions, square junctions and 90° bends are not acceptable especially on foul systems, to be replaced by 'Y' junctions, oblique junctions and 2 No. 45° bends respectively.

MANHOLE NO.	CWMH01
DIAMETER	1050
COVER LEVEL	97.013
NVERT LEVEL	95.963
ИН ТҮРЕ	4
DEPTH TO SOFFIT	0.900
COVER SIZE	750x750
COVER DEPTH	150
COVER SPEC	D400
ADDER OR DOUBLE STEPS?	Double Step
SAFETY CHAIN	N/A
SAFETY RAILS	N/A
NVERT ACCESS STEPS	N/A
HOLE SIZE IN COVER SLAB	750x750 C.O
ROCKER PIPES	600 mm

CWMH02	
1050	
97.220	
95.780	
4	
1.290	
750x750	
150	
D400	
Double Step	
N/A	
N/A	
N/A	
750x750 C.O.	
600 mm	

MANHOLE NO.	CWMH03
DIAMETER	1200
COVER LEVEL	97.170
INVERT LEVEL	94.910
MH TYPE	1
DEPTH TO SOFFIT	2.110
COVER SIZE	600x600
COVER DEPTH	150
COVER SPEC	D400
LADDER OR DOUBLE STEPS?	Double Step
SAFETY CHAIN	N/A
SAFETY RAILS	N/A
INVERT ACCESS STEPS	N/A
HOLE SIZE IN COVER SLAB	750x600 E.O.
ROCKER PIPES	600 mm

Issue Purpose: APPROVAL					
Rev	Description		Date	Revised by	Checked by
А	Manhole notation updated		13/06/23	CA	ТМ
В	Manhole notation updated		05/07/23	CA	ТМ

Do not scale from this drawing





150Ø to CWMH02











Windermere Road

Scale @ A1: 1:20 Drawn by: CA

K39225

Project No:

BIM No:

First Issue: 26/05/23 Checked by

ΤМ Drawing No: 208

Office of Origin: Kendal Approved:

ΤМ

Rev: В