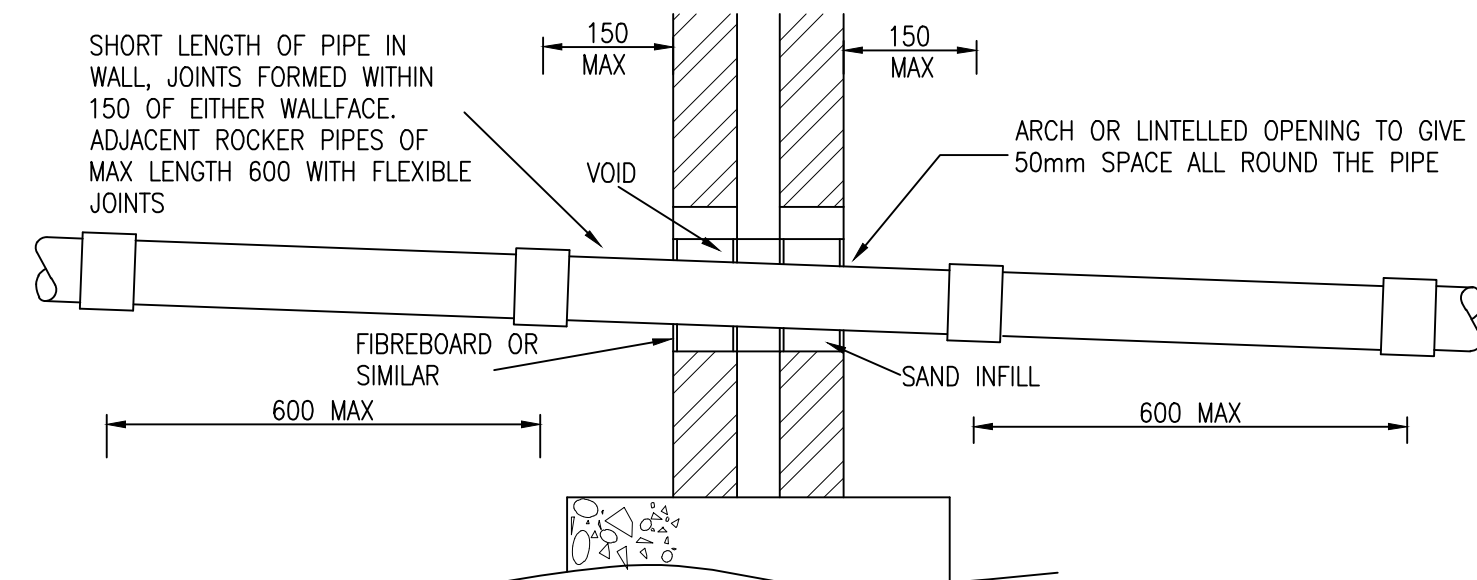




MIN WIDTH

MIN HEIGHT

HYDRO-BRAKE OPTIMUM™ WITH PIVOTING BY-PASS DOOR

ST TH

Diagram illustrating the Plan view of the Hydro-Brake Optimum assembly. The assembly is circular, featuring an INLET on the right and an OUTLET on the left. The central component is labeled HYDRO-BRAKE OPTIMUM™. The assembly is secured by STAINLESS STEEL THROUGH BOLT FIXINGS. The channel width is noted as CHANNEL EXCEEDS 600mm WIDE. The diagram includes a vertical centerline and a horizontal centerline, with labels A and B indicating specific points or sections.

Diagram illustrating the components of a Hydro-Brake Optimum™ sump assembly:

- INLET**: The entry point for water into the sump.
- OUTLET**: The exit point for water from the sump.
- HYDRO-BRAKE OPTIMUM™**: The central vertical pipe assembly.
- MASS CONCRETE BENCHING**: The base of the sump.
- SUMP DEPTH 60"**: The depth of the sump.
- CONCRETE BLOCK**: The structural support for the sump.
- PASSING**: The pipe passing through the sump.

Technical drawing of a manhole construction, showing a cross-section and a plan view. The drawing includes the following annotations:

- Top Section:**
 - 675 x 675 CLEAR OPENING
 - MANHOLE COVER & FRAME CLASS D400 TO BS EN 124 BADGED 'SW' OR 'FW'
 - MH COVER AND FRAME BEDDED & HAUNCHED WITH 1:3 CEMENT MORTAR
- Inner Chamber:**
 - 2 to 4 COURSES CLASS B ENGINEERING BRICKWORK (GRADE FL OR FN) OR SPECIAL PURPOSE CONCRETE BRICKWORK OR PRECAST CONCRETE SEATING RINGS USING 1:3 CEMENT MORTAR
 - 900ø (internal diameter)
 - 2000 MIN (height)
 - SIZE VARIABLE (SEE MANHOLE SCHEDULE)
 - 500 MIN BENCHING
 - 225 MIN BENCHING
- Outer Structure:**
 - REINFORCED CONCRETE COVER AND REDUCING SLAB BEDDED WITH MORTAR, PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT
 - ON MANHOLES LESS THAN 1.5m DIAMETER, REDUCING SLAB NOT TO BE USED. P.C. RINGS TO CONTINUE UP TO COVER SLAB
 - PRECAST CONCRETE SHAFT CHAMBER SECTIONS AND COVER SLAB TO BE BEDDED WITH MORTAR, PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT
 - ST4 CONCRETE SURROUND 150MIN THICKNESS
 - BENCHING SLOPE TO BE 1 IN 10 TO 1 IN 30
 - THE BOTTOM CHAMBER SECTION TO BE BUILT INTO BASE CONCRETE MIN 75
- Bottom Section:**
 - CONSTRUCTION JOINT
 - SELF CLEANING TOE HOLES TO BE PROVIDED WHERE CHANNEL EXCEEDS 600mm WIDE
 - DISTANCE BETWEEN TOP OF PIPE AND UNDERSIDE OF PC CHAMBER SECTION TO BE 100mm
 - INVERTS TO BE FORMED USING CHANNEL PIPES
 - 225mm TO BARREL OF PIPE
 - 75 GRADE ST4
 - GRADE ST4 CONCRETE BASE
- Other Details:**
 - HIGH STRENGTH CONCRETE TOPPING TO BE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS (20 MIN THICKNESS)
 - SECTION MARKERS A-A

150-600	0.6
OVER 600-750	1.0
OVER 750	1.25

2 No. ROCKER PIPES

JOINT TO BE AS CLOSE AS PRACTICABLE TO FACE OF MANHOLE TO PERMIT SATISFACTORY JOINT AND SUBSEQUENT MOVEMENT

SHORT LENGTH PIPE TO BE SIMILAR LENGTH TO ROCKER PIPE

CHAMBERS WITH OUTGOING PIPES GREATER THAN 600 DIA SHALL BE FITTED WITH GUARD BARS, SAFETY CHAIN OR OTHER SAFETY DEVICES

PIPE JOINT WITH CHANNEL TO BE LOCATED MIN 100mm INSIDE FACE OF CHAMBER

2 No. ROCKER PIPES

10mm MAX INFILL

GRANITE SETTS

25mm POLYESTER RESIN MORTAR BED WITH GRANITE SETTS AND INFILL WITH POLYESTER RESIN MORTAR

50mm

50mm

100mm

100mm

150mm

GEN 3 CONCRETE MIX

GRANITE SETTS

LAYING COURSE (MORTAR BED)

SUB-BASE

NOTES.

1. POLYESTER RESIN MORTAR SHALL BE RESBUILD POLYESTER MORTAR OR SIMILAR APPROVED.

GRANITE SETTS

NOTES.

1. POLYESTER RESIN MORTAR SHALL BE REBUILT POLESTER MORTAR OR SIMILAR APPROVED.

- NOTES:**
1. DO NOT SCALE FROM THIS DRAWING.
 2. ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS STATED OTHERWISE.
 3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATIONS.
 4. ALL WORKS WITHIN THE PUBLIC HIGHWAY SHALL BE CARRIED OUT AND COMPLY WITH THE REQUIREMENTS OF THE TMA "TRAFFIC SIGNS MANUAL CHAPTER 8 – TRAFFIC SAFETY MEASURES AND SIGNS FOR ROAD WORKS AND TEMPORARY SITUATION".
 5. ALL EXISTING LEVELS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS.
 6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY OCCURRENCES OF SOFT SPOTS IN THE SUBGRADE MATERIAL WITHIN THE CARRIAGEWAY NOTIONAL LOAD LINE. SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH COMPACTED CAPPING MATERIAL AS AGREED WITH THE ENGINEER.
 7. HANDLING OF KERBS, EDGES AND PAVORS (I.E. LIFTING, PLACING, MANOEUVRING) SHALL BE BY MECHANICAL OR SWEEPING PLANT APPROPRIATE.
 8. ALL APPROPRIATE PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

-	C05	GRANITE SETTS DETAIL ADDED	CU	MSR	20.05.26
-	C04	DETAIL ADDED	FP	MSR	08.10.23
-	C03	HYDROBRAKE HANDLE INFORMATION REVISED	FP	MSR	24.06.23
-	C02	TYPE A MANHOLE ADDED	MSR	MSR	23.05.23
-	C01	CONSTRUCTION ISSUE	FP	MSR	17.01.23
-	P01	INITIAL ISSUE	CU	MSR	04.10.22
ST	Rev	Description	Drm	CHK	Date
REVISIONS					
Preliminary Issue		Submitted for S104			
Planning Issue		Issued for Tender			
Submitted for S38		Issued for Construction			✓
Submitted for S278		As Built			
DRAWING STATUS					



WOOD VALE,
EAST BILLINGHURST

DATE	DRAWN	CHECKED	SCALE	
OCT. 2024	HF	CL	1:200	@A1
DRAWING NO.			REV	STATUS
7276-SMA-XX-XX-DR-C-0533			C05	SO

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