

General Notes

- All dimensions are in metres unless otherwise stated.
- All levels are in metres.
- This drawing is to be read in conjunction with all relevant Engineers and Architect's drawings, Specifications, Reports and Engineering Details.
- Do not scale from this drawing.

Section 104 notes

- All adoptable drainage works shall be in accordance with Design & Construction Guidance and Anglian Water's guidance notes.
- All adoptable manhole covers shall comply with BS EN 124 in accordance with Design & Construction Guidance.
- Lateral manholes with a depth of less than 1.2m from cover to soffit shall have a chamber with a minimum internal diameter of 450mm.
- Lateral manholes with a depth of more than 1.2m from cover to soffit shall have a chamber with a minimum internal diameter of 450mm, with a restricted access opening of 550mm for safety reasons.
- All pipework with less than 1.2m cover in highway or less than 0.9m cover in soft shall have a concrete protective cover slab to adopting water company requirements.
- Flow routes need to facilitate the potential route of flood flow in rainfall events exceeding the storm sewer design criteria, as required by the Design & Construction Guidance. Flow routes shall be kept clear of permanent physical obstructions which may obstruct the flow of surface water and cause flooding.
- Screen/grill to be located in last manhole to prevent any debris/soluble from entering the existing network during construction.
- All uncovered and shallow pipework to be protected against construction traffic as part of the contractors temporary works.
- Manholes with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety device.
- A Section 136 application and approval is required with Water Company for all connections (including indirectly) to the existing public sewer network prior to any connection being made.
- Any amendments to the section 136 agreement after section 104 technical approval compliance is issued, may incur a charge from Anglian Water. Refer to table 22 of Anglian Water's Developer Changing Arrangement 2022-2023 for details of any fees.
- The exact position, level, size and use of existing sewers to be confirmed on site and reported to the Engineer prior to the commencement of works.
- All pipes are to be laid with level soffits or as indicated.
- Trapped road gullies to be used for all gullies designed in shared parking areas.
- No inflow covers and frames to be used in block paved areas.
- Protective concrete cover slabs to be used on pipes in non traffic area which doesn't achieve 0.9m cover level and 1.2 cover in traffic area.
- Where pipe crossing, plastic membrane to be used for protection to eliminate any chance of cross contamination.
- Precast concrete manhole rings will not be cut under any circumstances. Other options will instead be utilised such as building up with concrete or brickwork to the top of the pipe.
- Covers and frames should be kitemarked.
- Pipes of different diameters entering the same manhole should be installed with soffits at the same level.
- All pipes located within the carriageway are located at least 1m from the kerb. The manholes are located 0.5m from the kerb.
- All manholes covers to be 675x675mm cover and frame to maintain clear 600x600mm access in accordance with BS EN 124 Class D400 and embossed FW or SW as appropriate. All proposed manhole covers must comply with Anglian Water Ltd current Health & Safety Standards.
- All manhole construction is to be in accordance with the Design and Construction Guidance.
- Non degradable marker tape is to be laid 300mm above the top of the rising main.

Health, safety & the environment

In accordance with the Construction (Design and Management) Regulations 2015, the designs and details on this drawing have been the subject of a Designers Risk Assessment, to identify risks in the construction, use, or demolition of the scheme.

It is not considered necessary for Designers to highlight obvious and/or common risks (such as deep excavations, manual handling and working around heavy plant) which Contractors should be familiar with, and be able to control by good management and site practice.

So far as is reasonably practicable, the risks inherent in the design have been eliminated. Where it has been considered that elimination of a risk (or part of a risk) is not reasonably practicable, it has been reduced.

This drawing has been based/developed using the following external drawings					
Type	Company	Drawing date	Drawing title	Date received	Rev
Site Layout	JGA Architects	04.05.2022	20050 0102 P06 Proposed Site Layout-Model Space	04.01.2023	P06
Topographical survey	EMP Surveys LTD	July 2022	1021_Pinchbeck Topographical Survey_Final	04.01.2023	P05

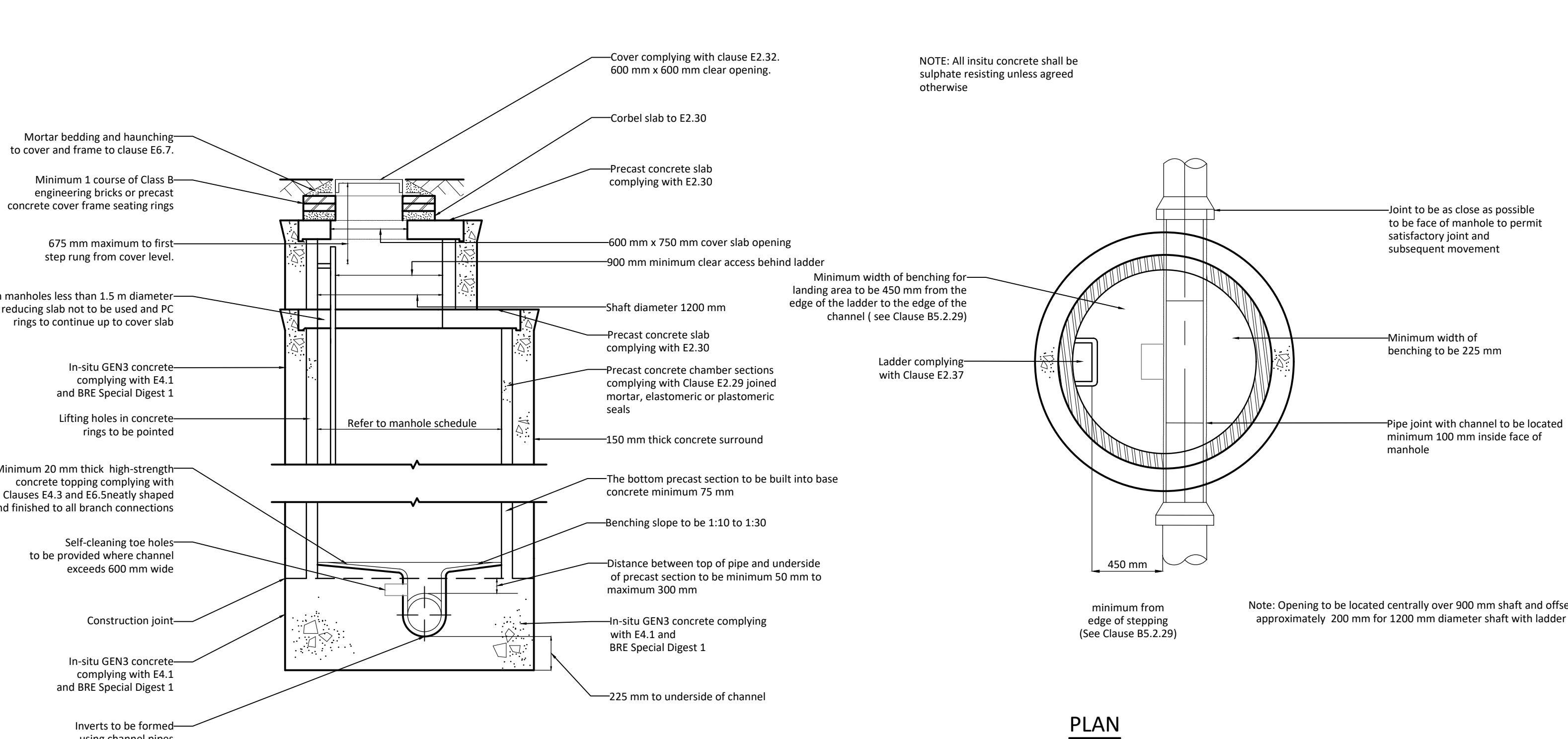
Agreement	Approval Granted
S23 (Land drainage consent)	NOT APPROVED
S104 (Adoption of sewers)	NOT APPROVED
S278 (Works in existing highway)	NOT APPROVED
S106 (Foul connection)	NOT APPROVED

ALL WORKS WITHIN THE ADOPTABLE PUBLIC HIGHWAY SHALL CONFORM TO THE CURRENT "LINCOLNSHIRE DEVELOPMENT ROADS & SUSTAINABLE DRAINAGE DESIGN GUIDE" AND "DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION" PUBLICATIONS IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.

ALL ADOPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CODES FOR ADOPTION DESIGN & CONSTRUCTION GUIDANCE

DRAWINGS HAVE NOT BEEN APPROVED, UNTIL THE DRAWINGS ARE APPROVED THE DESIGNS AND DETAILS SHOWN ON THIS DRAWING ARE SUBJECT TO CHANGE.

ANY WORKS UNDERTAKEN PRIOR TO TECHNICAL APPROVAL IS ENTIRELY AT THE CONTRACTORS' RISK.

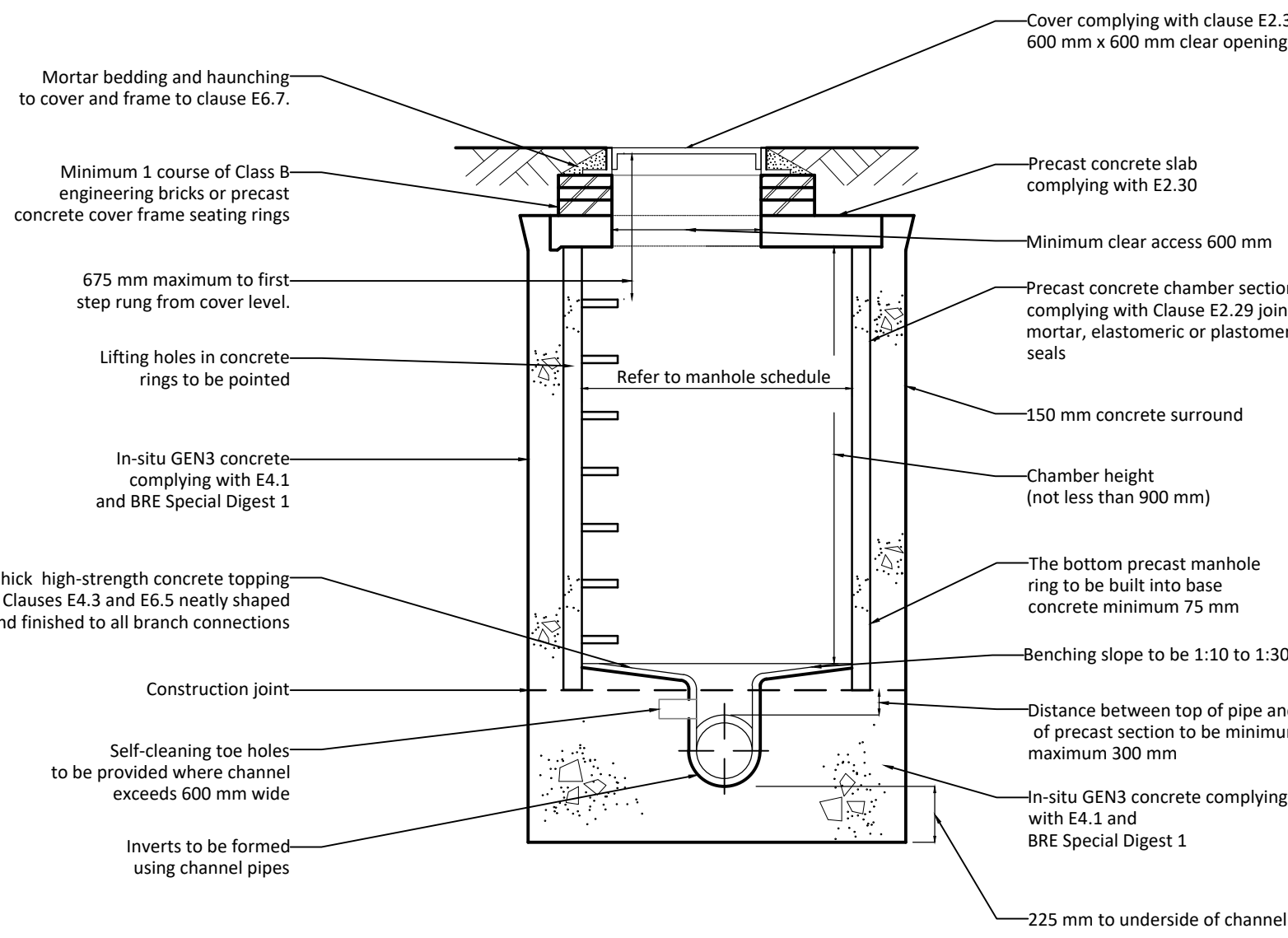


SHAFT DIAMETERS		
Shaft diameter (mm)	Int. Dia of pipe in MH (mm)	Int. Dia of pipe in MH (mm)
Less than 375	1200	
375 to 450	1350	
450 to 500	1500	
500 to 600	1800	
Greater than 600	Pipe diameter + 900	

ROCKER PIPES		
Pipe diameter (mm)	Effective length (mm)	
150 to 600	600	

Note: For clauses referenced above refer to Water UK Sewerage Sector Guidance Appendix C'

Precast Concrete Manhole Type A
Depth from cover level to soffit of pipe 3.0 m to 6.0 m with ladder and reducing slab
Rigid material construction with concrete surround

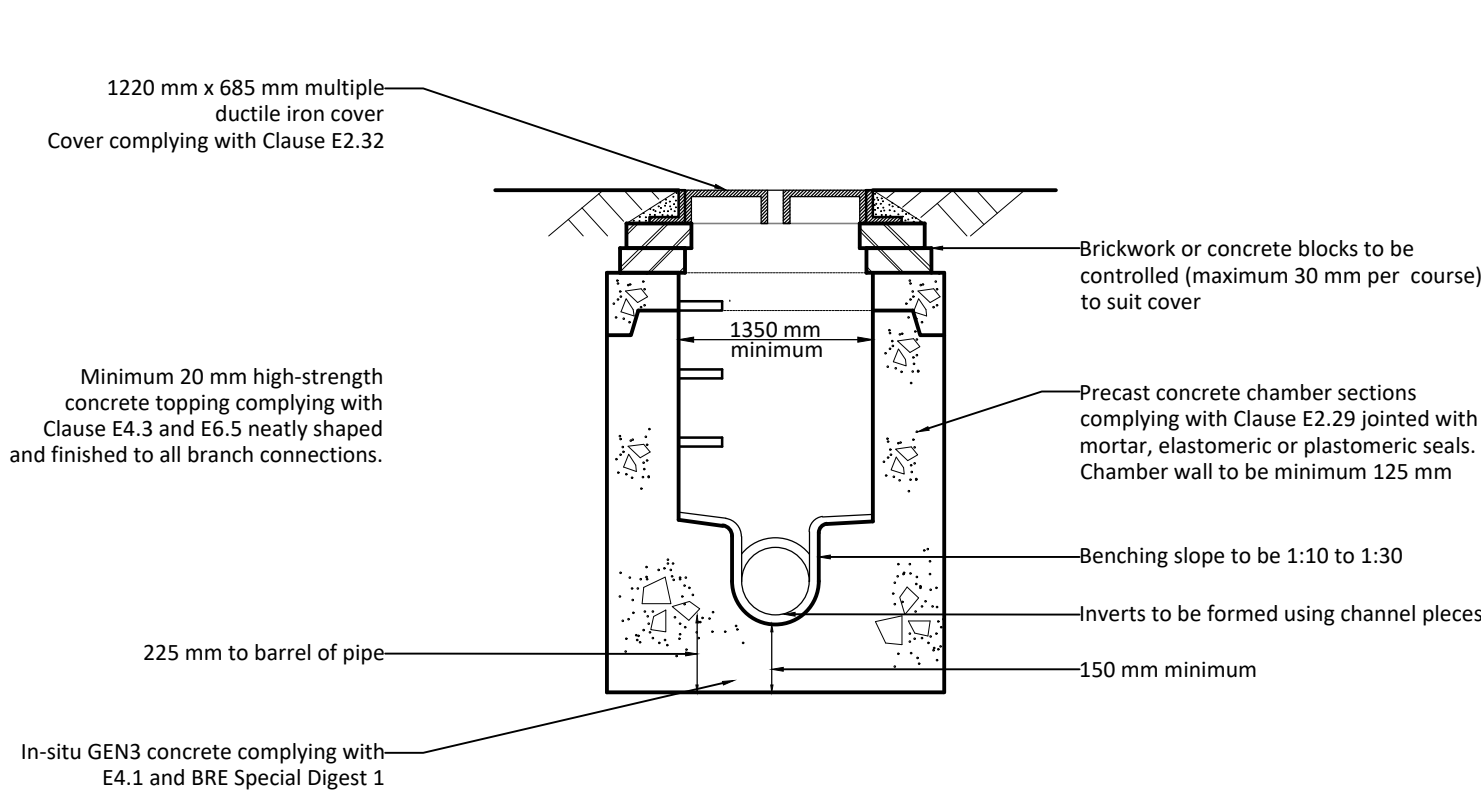


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Shaft diameter (mm)	Int. Dia of pipe in MH (mm)	Int. Dia of pipe in MH (mm)
Less than 375	1200	
375 to 450	1350	
450 to 500	1500	
500 to 600	1800	
Greater than 600	Pipe diameter + 900	

ROCKER PIPES		
Pipe diameter (mm)	Effective length (mm)	
150 to 600	600	

Note: For clauses referenced above refer to Water UK Sewerage Sector Guidance Appendix C'

Precast Concrete Manhole Type B
Depth from cover level to soffit of pipe 1.5 m to 3.0m
Alternative rigid material construction with concrete surround

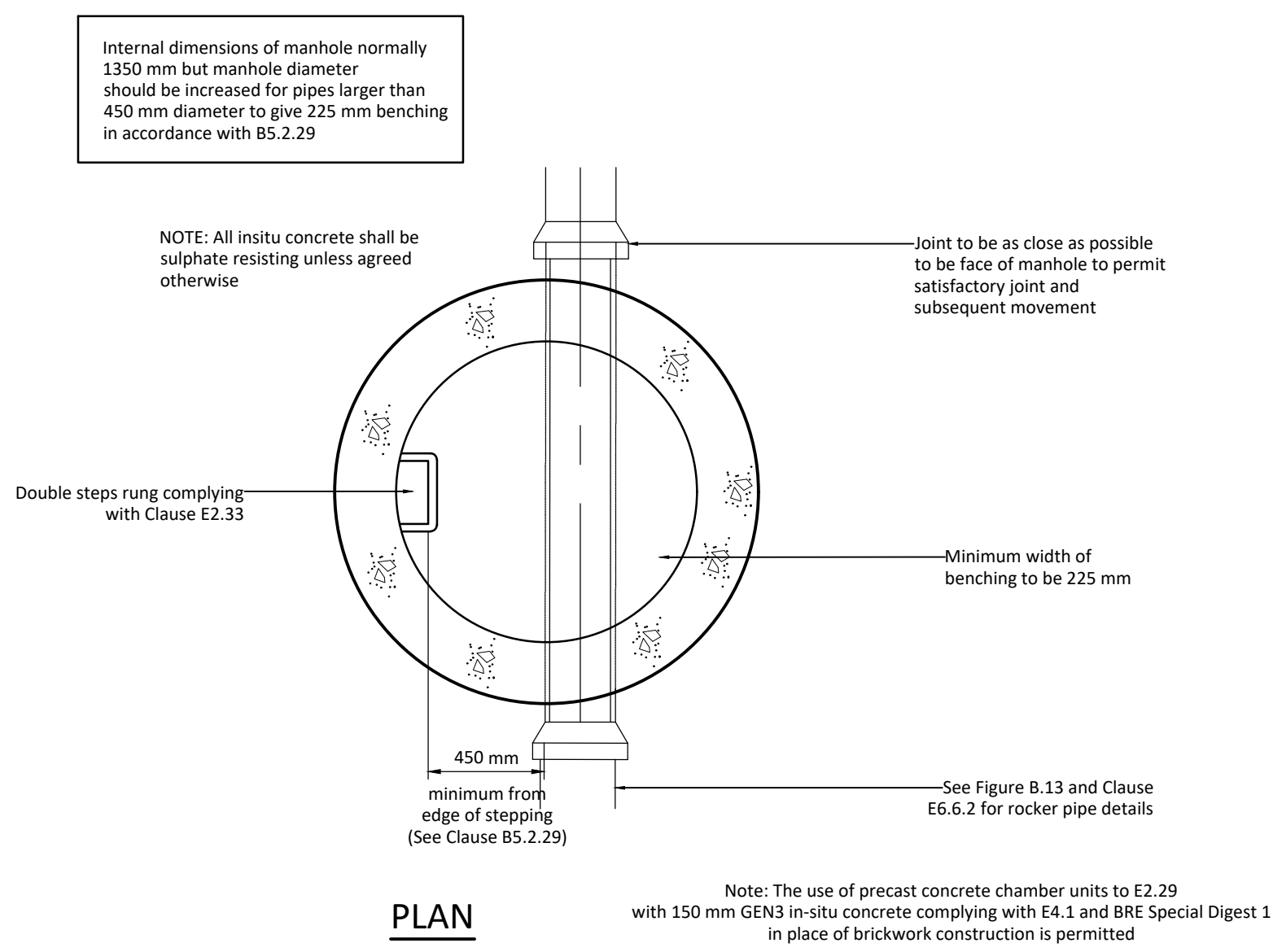


SHAFT DIAMETERS		
Shaft diameter (mm)	Int. Dia of pipe in MH (mm)	Int. Dia of pipe in MH (mm)
Less than 375	1200	
375 to 450	1350	
450 to 500	1500	
500 to 600	1800	
Greater than 600	Pipe diameter + 900	

ROCKER PIPES		
Pipe diameter (mm)	Effective length (mm)	
150 to 600	600	

Note: For clauses referenced above refer to Water UK Sewerage Sector Guidance Appendix C'

Precast Concrete Manhole Type C
Depth from cover level to soffit of pipe less than 1.5m
Maximum pipe size 450 mm diameter
Rigid material construction



SHAFT DIAMETERS		
Shaft diameter (mm)	Int. Dia of pipe in MH (mm)	Int. Dia of pipe in MH (mm)
Less than 375	1200	
375 to 450	1350	
450 to 500	1500	
500 to 600	1800	
Greater than 600	Pipe diameter + 900	

ROCKER PIPES		
Pipe diameter (mm)	Effective length (mm)	
150 to 600	600	

Note: For clauses referenced above refer to Water UK Sewerage Sector Guidance Appendix C'

Precast Concrete Manhole Type D
Depth from cover level to soffit of pipe 1.5 m to 3.0m
Alternative rigid material construction with concrete surround