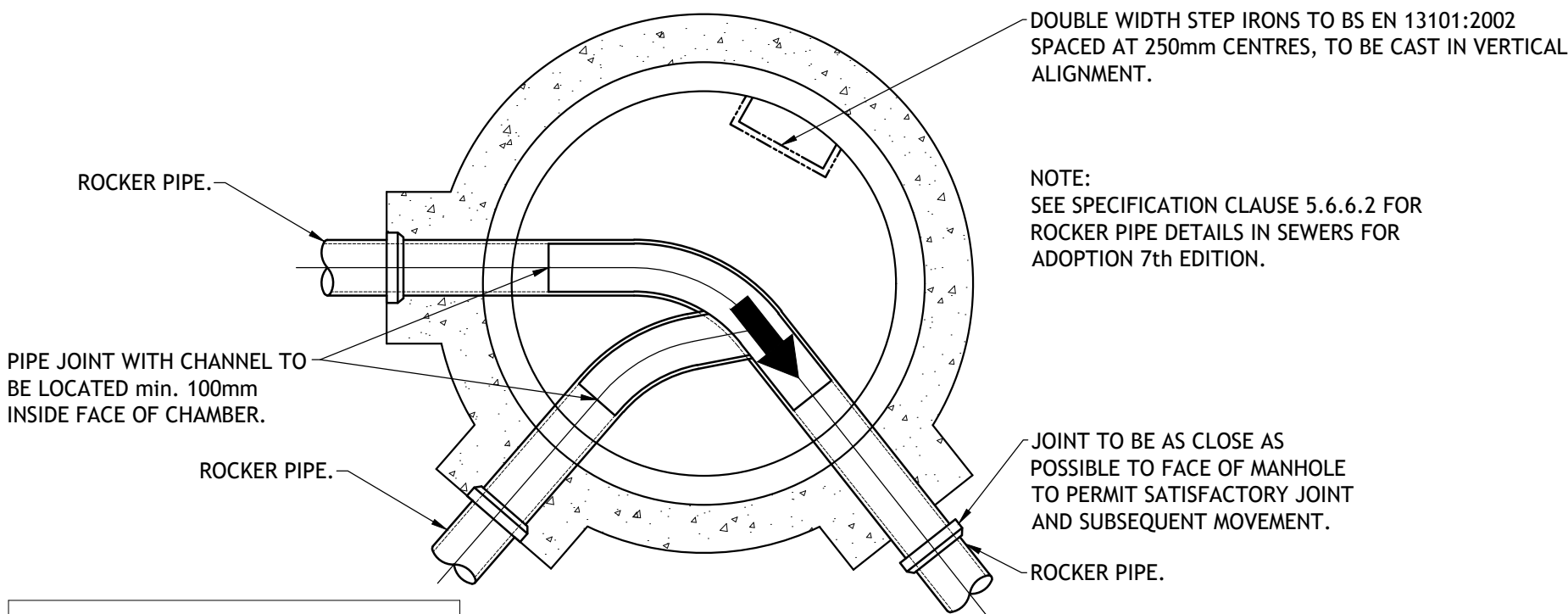
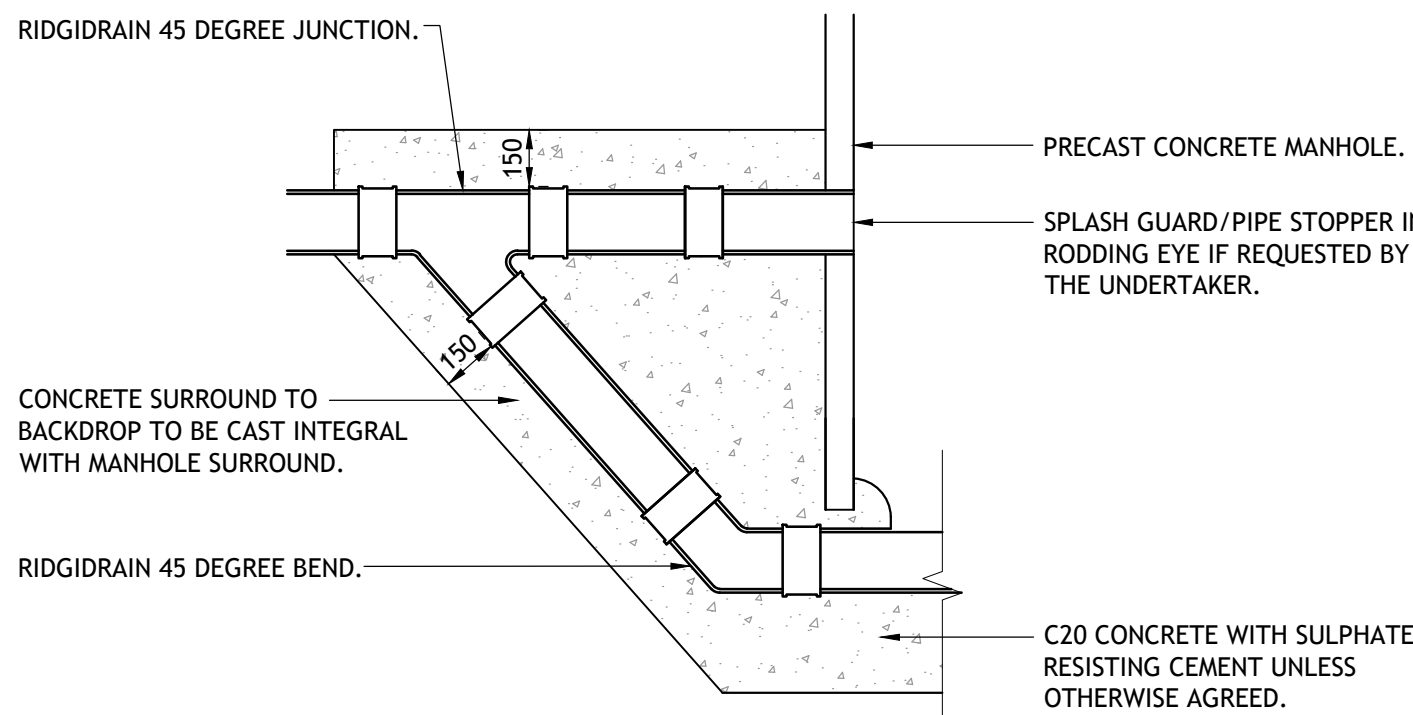




ROCKER PIPES LENGTHS	
Nominal Dia. (mm)	Effective Length (m)
100 to 600	0.60
675 to 750	1.00
over 750	1.25



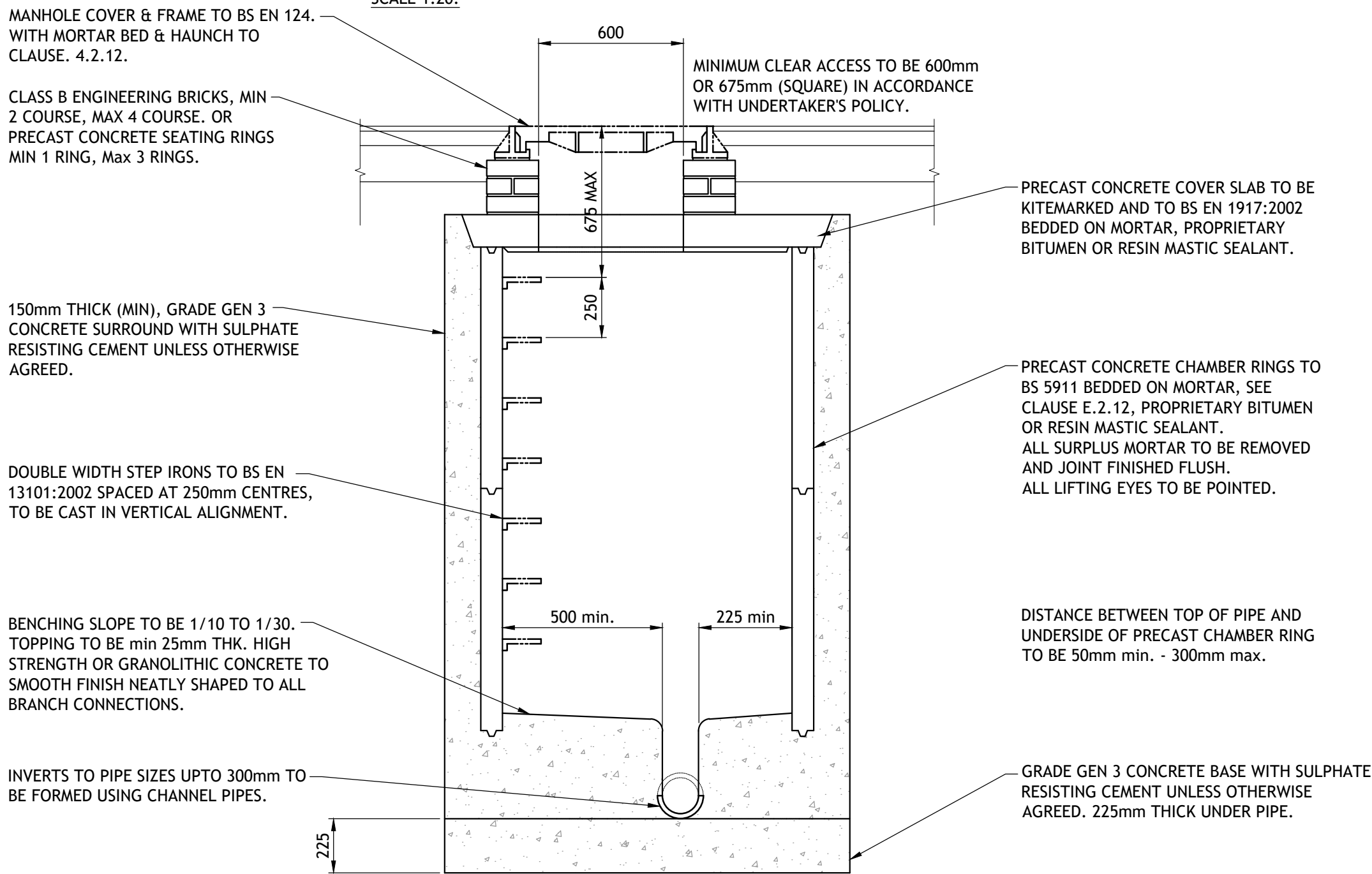
RAMPED BACKDROP DETAIL.

SCALE: 1:20.

PLAN ON TYPE 'B' MANHOLE.

MAX 3.0m DEEP FROM GL TO PIPE SOFFIT.

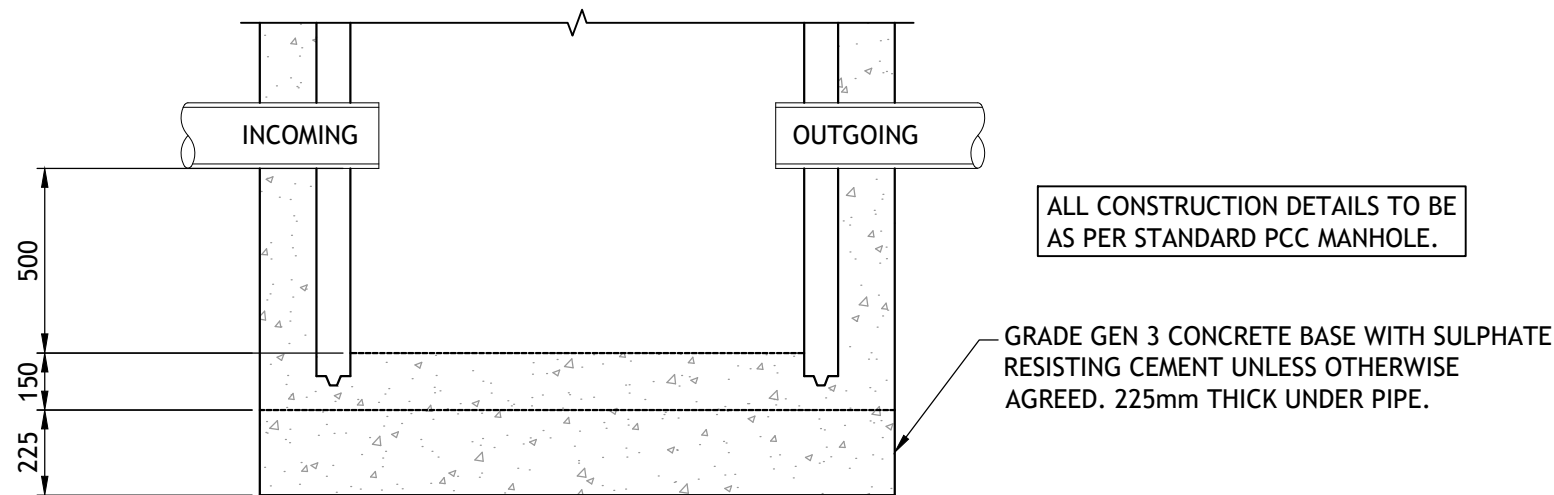
SCALE 1:20.



TYPE 'B' MANHOLE.

MAX 3.0m DEEP FROM GL TO PIPE SOFFIT.

SCALE: 1:20.



MANHOLE WITH CATCHPIT.

SCALE: 1:20.

ADDITIONAL ROCKER PIPES MAY BE NECESSARY TO ACCOMMODATE TRANSITION OF PIPE GRADIENT TO VERTICAL DOWNPIPE. CARE TO BE TAKEN TO MAINTAIN FLEXIBILITY.

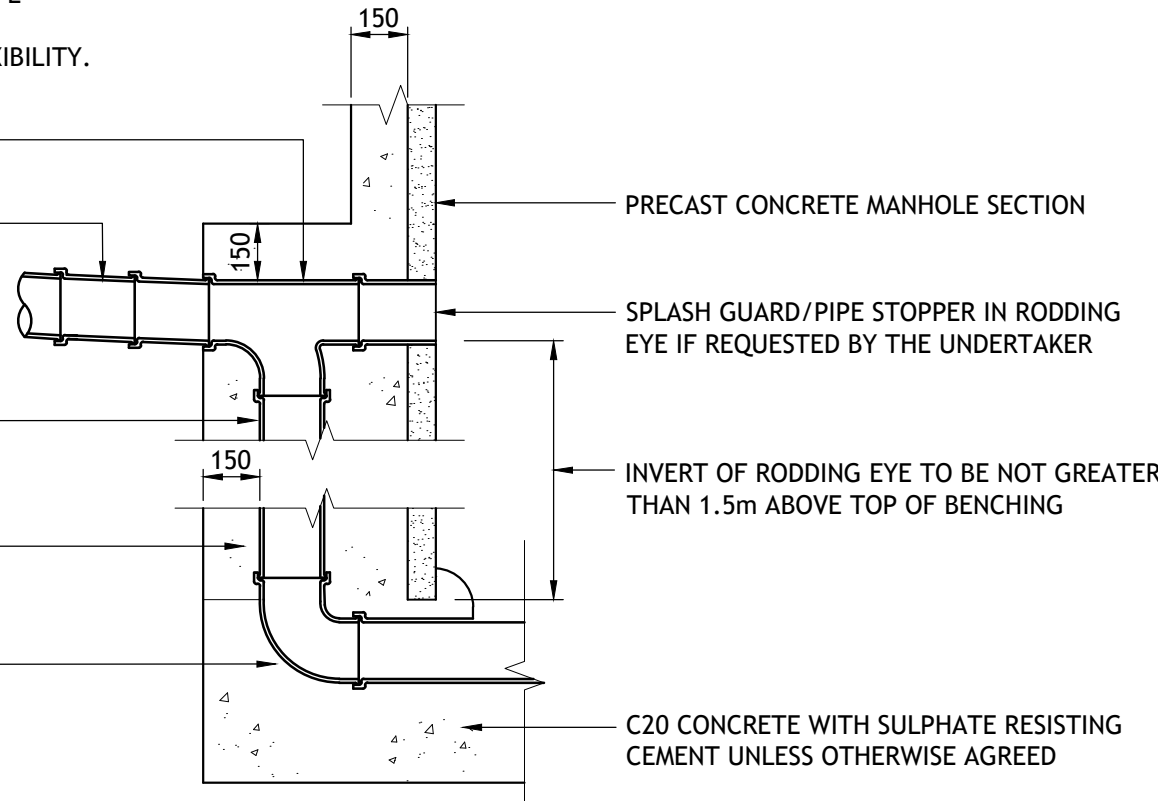
STANDARD TUMBLING BAY JUNCTION

SEE SPECIFICATION CLAUSE 4.6.6.2 FOR ROCKER PIPE DETAILS.

PIPES SET VERTICALLY.

CONCRETE SURROUND TO BACKDROP TO BE CAST INTEGRAL WITH MANHOLE SURROUND.

SHORT RADIUS 90 DEGREE BEND.



TYPICAL VERTICAL BACKDROP DETAIL.

SCALE: 1:20.

MANHOLE COVER & FRAME TO BS EN 124. WITH MORTAR BED & HAUNCH TO CLAUSE. 4.2.12.

CLASS B ENGINEERING BRICKS, MIN 2 COURSE, MAX 4 COURSE, OR PRECAST CONCRETE SEATING RINGS MIN 1 RING, Max 3 RINGS.

150mm THICK (MIN), GRADE GEN 3 CONCRETE SURROUND WITH SULPHATE RESISTING CEMENT UNLESS OTHERWISE AGREED.

SHAFT DIAMETER 1200mm dia.

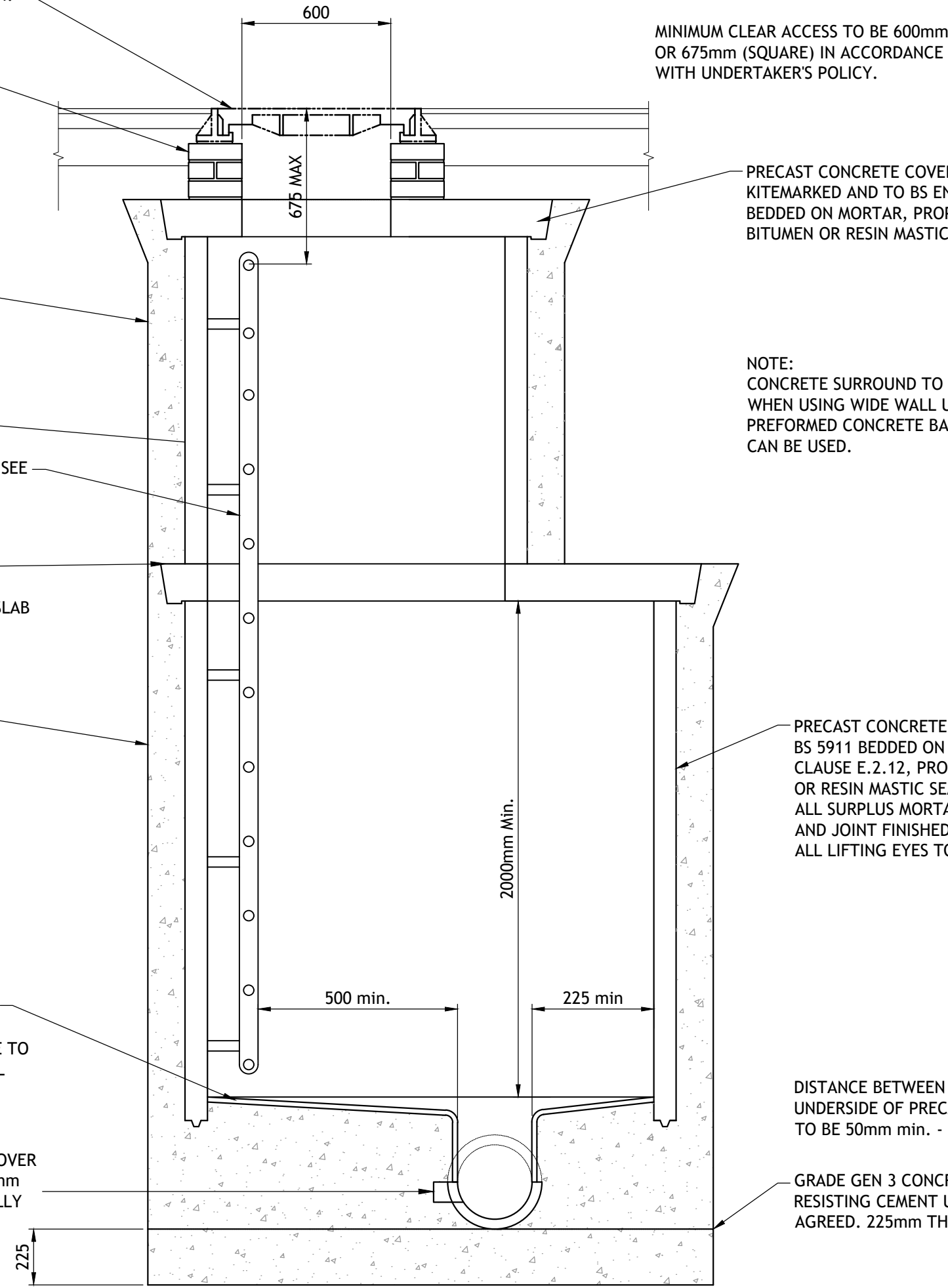
LADDER COMPLYING WITH BS EN 14396 SEE CLAUSE E2.37

ON MANHOLES LESS THAN 1.5m DIA. REDUCING SLAB NOT TO BE USED AND PC RINGS TO CONTINUE UP TO COVER SLAB

150mm THICK (MIN), GRADE GEN 3 CONCRETE SURROUND WITH SULPHATE RESISTING CEMENT UNLESS OTHERWISE AGREED.

BENCHING SLOPE TO BE 1/10 TO 1/30. TOPPING TO BE min 25mm THK. HIGH STRENGTH OR GRANOLITHIC CONCRETE TO SMOOTH FINISH NEATLY SHAPED TO ALL BRANCH CONNECTIONS.

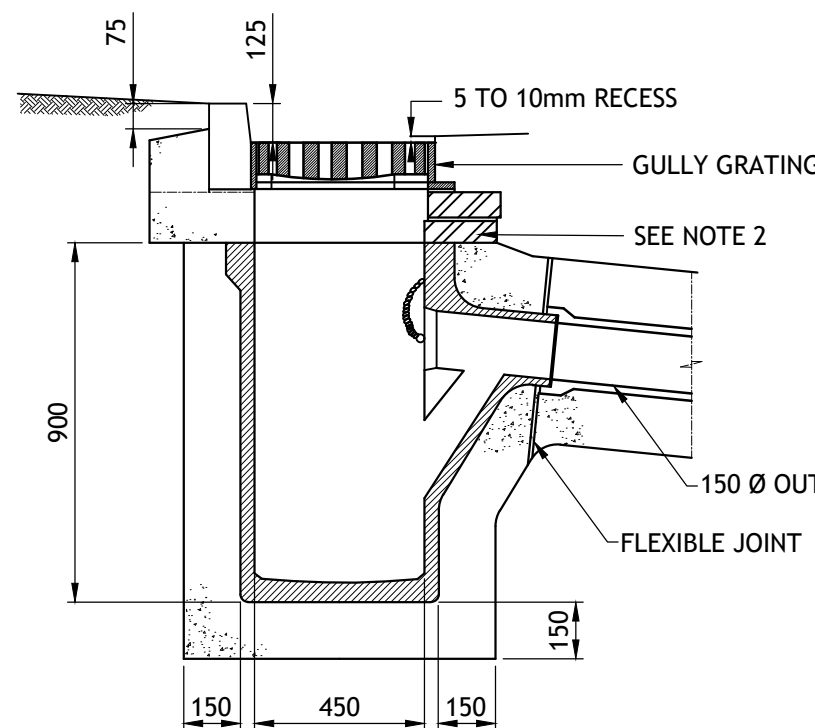
TOE HOLES TO BE PROVIDED ON PIPES OVER 600mm INTERNAL DIA. SPACED AT 300mm CENTRES HORIZONTALLY AND VERTICALLY



TYPE 'A' MANHOLE.

FROM 3.0m TO MAX 6.0m DEEP FROM GL TO PIPE SOFFIT.

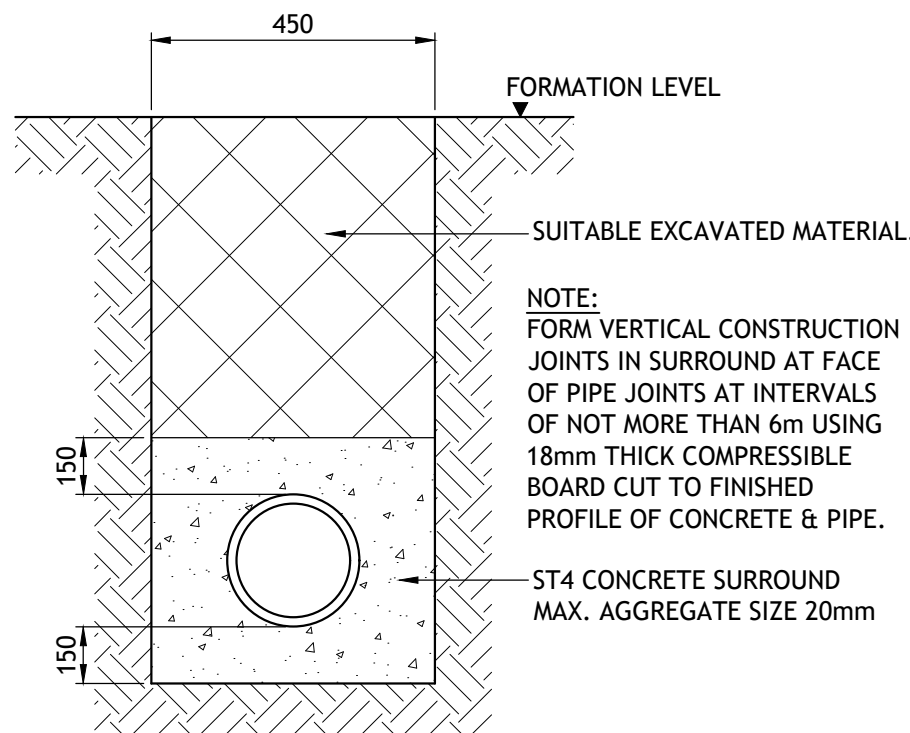
SCALE: 1:20.



STANDARD ROAD GULLY DETAIL.

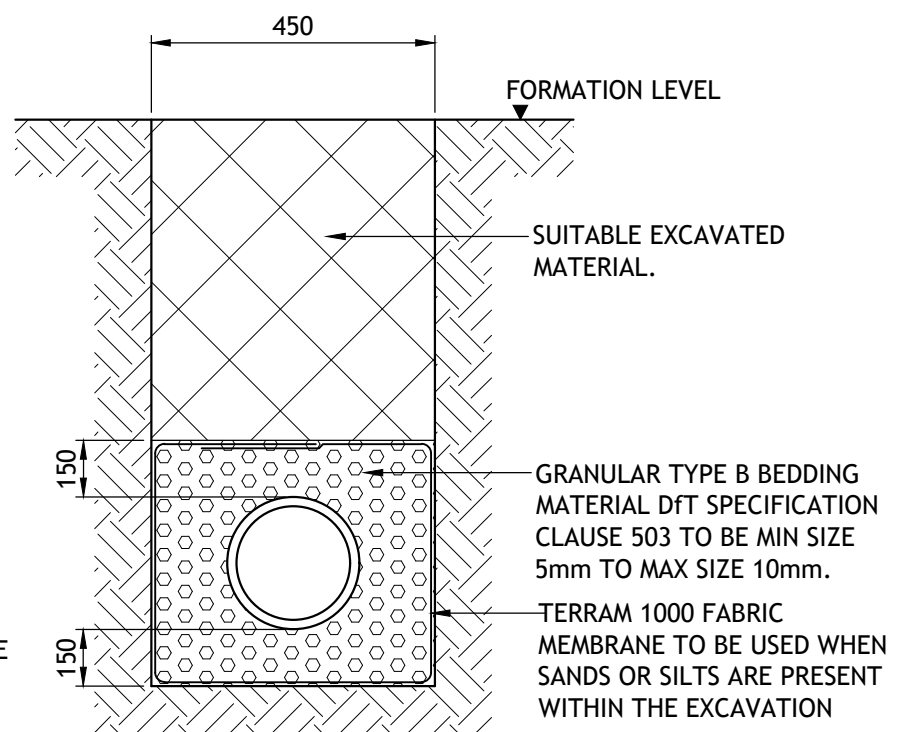
SCALE: 1:20

1. DUCTILE IRON GULLY GRATING AND FRAME TO BS EN 124:2015 LOAD CLASS D400 BEDDED ON 10mm 1:3 SAND/CEMENT MORTAR (NON-ROCK DESIGN).
2. COVER AND FRAME TO BE SEATED ON 2 COURSES MIN. 4 COURSES MAX. OF ENGINEERING BRICKWORK CLASS "B".
3. GULLY POTS TO BE PRECAST CONCRETE TO BS 5911 PART 2 WITH 150mm THICK ST4 CONCRETE FOUNDATION AND SURROUND. OUTLET TO BE 150mm DIA., TRAPPED, WITH GALVANIZED METAL CHAIN AND STOPPER. UNLESS OTHERWISE STATED PIPE CONNECTION BETWEEN MAIN RUN AND GULLY CONNECTION TO BE BEDDING TYPE Z. MINIMUM WATERWAY OF GULLY TO BE 916mm.
4. ALL LEVELS ARE IN METRES UNO & TO OS DATUM.
5. THE WORKS SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING SPECIFICATION.
6. THE LOCATION LINE & LEVEL OF ALL KNOWN EXISTING DRAINAGE PIPEWORK INDICATED ON THE DRAWINGS ARE APPROXIMATE AND FOR GUIDANCE PURPOSES ONLY.
7. CONNECTION TO THE EXISTING PUBLIC SEWERS WILL BE SUBJECT TO THE RELEVANT APPROVALS FROM THE STATUTORY UNDERTAKER.
8. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXACT LINE AND LEVEL, BY WAY OF HAND EXCAVATED TRIAL PITS, PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS ON SITE. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS AND MAINTAIN THE STRUCTURAL INTEGRITY OF ALL ABOVE AND BELOW GROUND SERVICE INSTALLATIONS.
9. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THROUGHOUT THE DURATION OF THE CONTRACT A FULL TRAFFIC MANAGEMENT SYSTEM TO ENSURE SAFE PASSAGE OF VEHICLES/PEDESTRIANS IN THE VICINITY OF THE WORKS. ALL TRAFFIC SIGNS, SIGNALS, BARRIERS ETC. SHALL BE IN ACCORDANCE WITH CHAPTER 8 OF THE TRAFFIC SIGNS MANUAL.
10. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISION FOR DEALING WITH AND DISPOSING OF GROUND/SURFACE WATER ENCOUNTERED DURING EXCAVATIONS.
11. ALL SOFT / HARD PAVED AREAS AFFECTED BY THE WORKS SHALL BE FULLY REINSTATED FOLLOWING THE INSTALLATION OF ALL DRAINAGE WORKS. ALL SURFACE MARKINGS AFFECTED BY THE WORKS SHALL BE FULLY REINSTATED.
12. ALL SURPLUS EXCAVATED MATERIAL SHALL BE DISPOSED IN A DESIGNATED AREA ON SITE.
13. UPON COMPLETION OF THE WORKS THE CONTRACTOR SHALL PROVIDE AS BUILT SETTING OUT CO-ORDINATE AND LEVEL INFORMATION.
14. PIPEWORK WITH LESS THAN 750mm OF COVER IN TRAFFICKED AREAS TO BE CONCRETE ENCASED. (BEDDING CLASS Z)
15. PIPEWORK WITH MORE THAN 750mm OF COVER TO HAVE CLASS 5 GRANULAR BED AND SURROUND.
16. POLYPROPYLENE INSPECTION CHAMBERS OF 500Ø > 1.2m DEEP TO BE FITTED WITH A REDUCED ACCESS FITTING.
17. FOR 6 STOREY BUILDINGS AND ABOVE - GROUND FLOOR APPLIANCES TO DISCHARGE TO THEIR OWN STACKS.
17. SOIL STACKS - WHERE SOIL STACKS SERVE MULTIPLE STOREYS THE STACK REST BEND IS TO BE MINIMUM 750mm BELOW THE LOWEST BRANCH CONNECTION. WHERE SEPARATE STACKS ARE PROVIDED FOR GROUND FLOOR, REST BENDS MAY BE 450mm MINIMUM BELOW THE LOWEST CONNECTION.
18. SVP CONNECTIONS TO BE 100mm DIA UNO.
19. ALL FO AND RWP LOCATIONS TO BE TO BE COMPLETE WITH A LOW LEVEL ACCESS PLATE FOR RODDING.
20. WHERE PROPOSED DRAINAGE PIPEWORK RUNS ARE IN CLOSE PROXIMITY TO THE NEW FOUNDATIONS, THE CONTRACTOR SHALL ALLOW FOR EXTENDING THE DEPTH OF NEW FOUNDATIONS IN LEAN MIX CONCRETE DOWN TO THE PROPOSED PIPE BEDDING LEVEL.



TYPE "Z" BEDDING DETAIL.

SCALE 1:20.



TYPE "S" BEDDING DETAIL.

SCALE 1:20.

Notes

1. THIS DRAWING IS THE COPYRIGHT OF TIER CONSULT LTD AND CANNOT BE REPRODUCED IN ANY FORM WITHOUT WRITTEN CONSENT FROM THE COMPANY.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTS', ENGINEERS AND SPECIALIST'S DRAWINGS TOGETHER WITH THE APPROPRIATE SPECIFICATION.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNO, FOR THE PURPOSES OF CONSTRUCTION THIS DRAWING MUST NOT BE SCALED AND ONLY WRITTEN DIMENSIONS USED. IT IS THE CONTRACTORS RESPONSIBILITY TO CHECK ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER IN WRITING.
4. ALL LEVELS ARE IN METRES UNO & TO OS DATUM.
5. THE WORKS SHALL BE IN ACCORDANCE WITH THE NATIONAL BUILDING SPECIFICATION.
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PI	03.04.2020	CCF	ISSUED FOR COMMENT	JH	PJB
Rev	Date	By	Description	Chk	App

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Client



Project

**TCB BUILDING EXTENSION.
WREXHAM INDUSTRIAL ESTATE.**

Title

**TYPICAL DRAINAGE DETAILS.
SHEET 1.**

Scale	Drawn	Revision
AS SHOWN	C.C.FITTON	P1
Date	Checked	
13.01.2020	J.HALE	

Drawing No :

T_20_2265-55-03