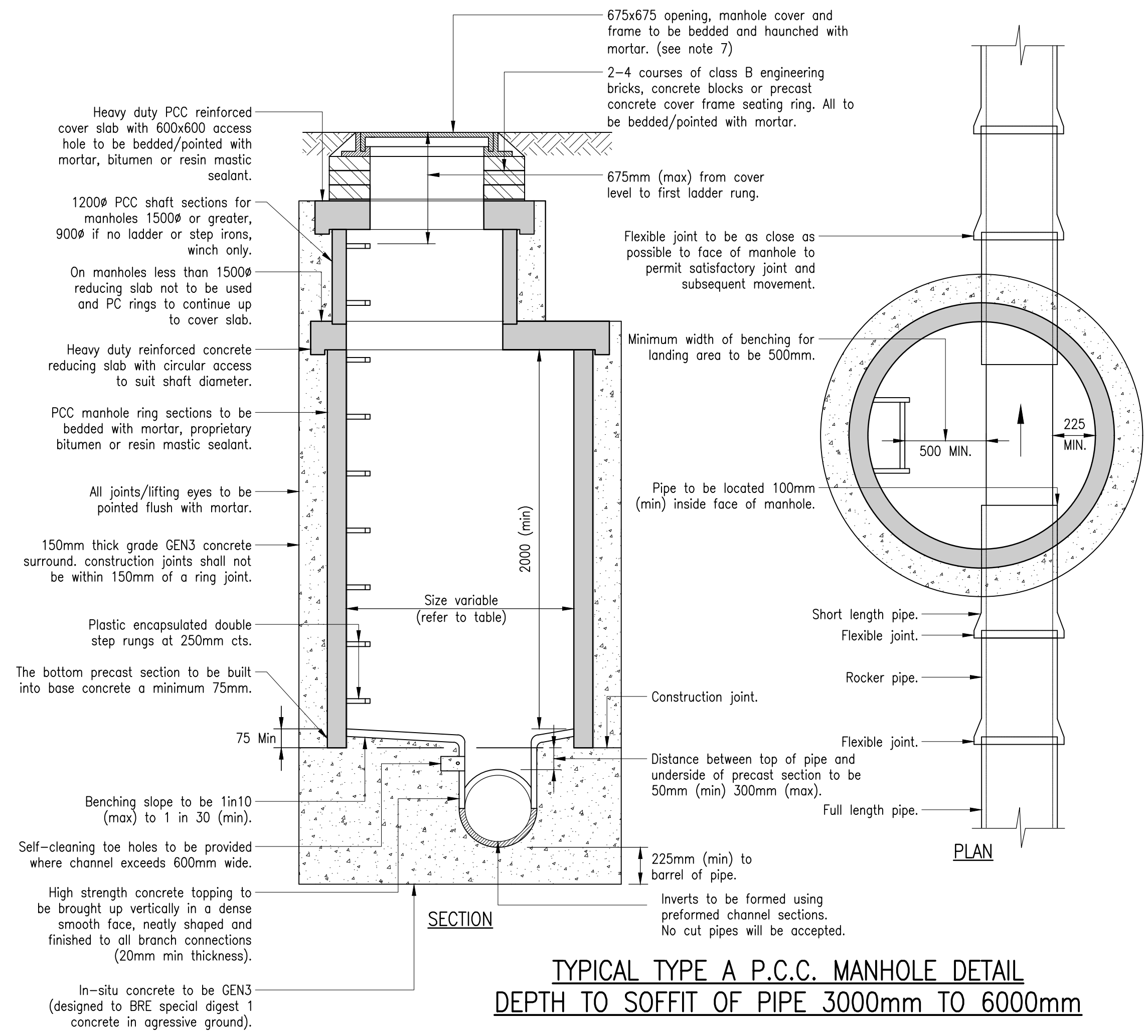


A1 - Do Not Scale

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 This information will include details of the SIGNIFICANT risks which 3E have considered beyond that which a competent contractor should be aware.

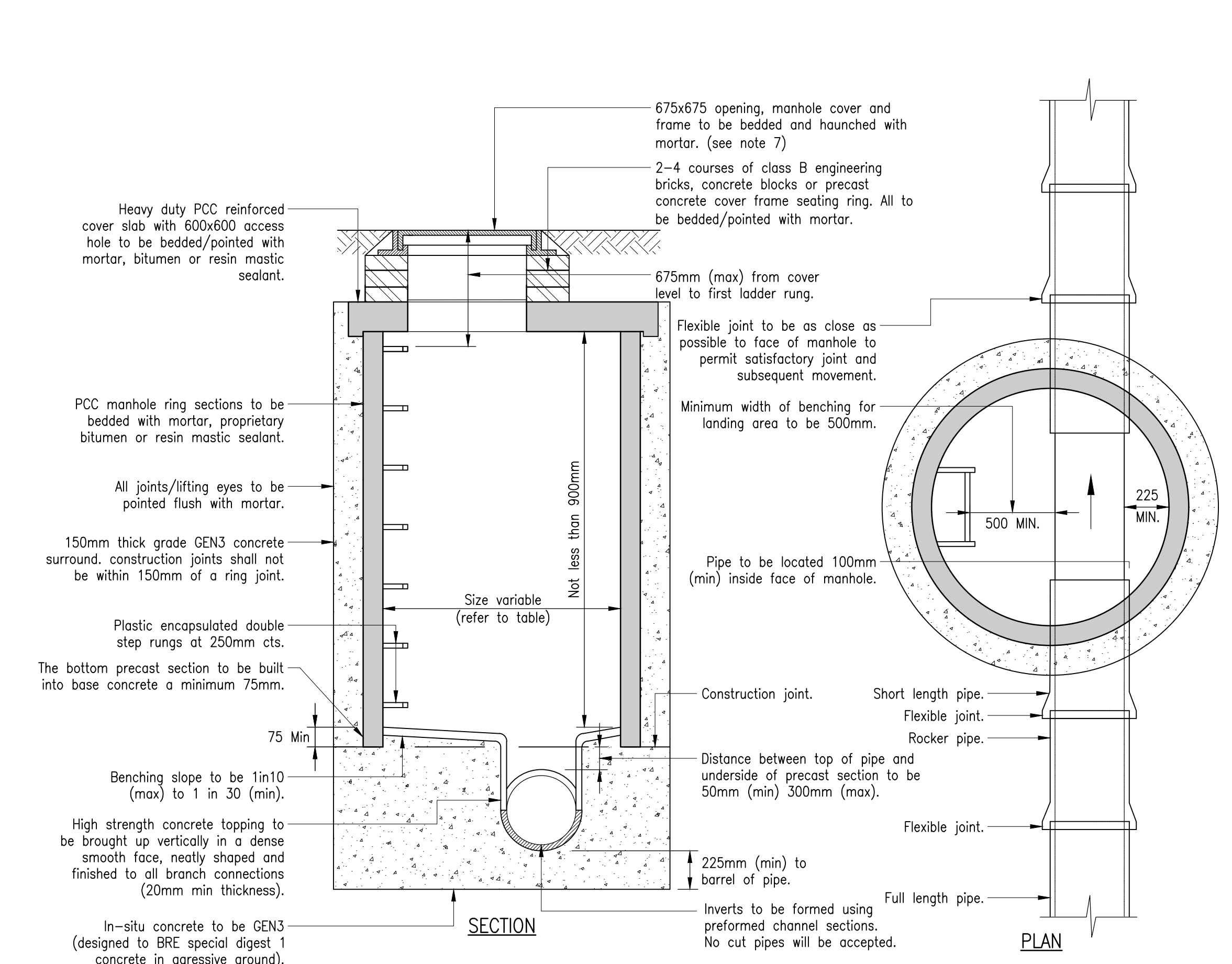
- NOTES**
- ALL ADAPTABLE SEWER WORKS AND MATERIALS TO BE IN ACCORDANCE WITH THE DESIGN AND CONSTRUCTION GUIDELINES FOR SOIL AND SURFACE WATER OFFERED FOR ADOPTION, THE RELEVANT BRITISH/EUROPEAN AND NORTHUMBRIAN WATERS STANDARDS/REQUIREMENTS.
 - CONTRACTOR TO ESTABLISH POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES PRIOR TO COMMENCING ON SITE.
 - THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.
 - THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
 - THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DE WATERING AS APPROPRIATE THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
 - PIPES UP AND INCLUDING 300mm TO BE TWIN WALLED PLASTIC PIPE. PIPES 375mm AND GREATER TO BE CONCRETE CLASS H.
 - THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERBS FACES AND SERVICE MARGINS.
 - SEWERS MUST HAVE 5 METERS CLEARANCE FROM TREES AND HEDGES.
 - ALL PIPE WORK TO BE 100mm DIAMETER UNLESS NOTED OTHERWISE.
 - COVER SLABS MUST CARRY THE BS KITE MARK OR WILL BE REJECTED BY DRAINAGE INSPECTOR WHERE THE CLEAR OPENING OF THE KITE MARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 475mmx475mm FOR THE NORTHUMBRIAN WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATIONS TECHNICAL BULLETIN ISSUED AUTUMN 2004 FOR KITE MARKED COVER SLAB OPENING SIZES.
 - SULPHATE RESISTING CEMENT (SR3-DCE) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITE MARKED. LOAD CLASS D400 FOR ROADS REGULARLY CARRYING FAST MOVING HEAVY VEHICLES. CLASS C250 TO BE USED IN LESSER TRAFFICED AREAS eg. ESTATE ROADS, CUL-DE-SACS, RESIDENTIAL CAR PARKING AREAS ETC.
 - SEWERS TO BE Laid IN CLASS 'D' BEDDING (150mm GRANULAR BED AND SURROUND WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES OR LESS THAN 0.9m IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHALL BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND.
 - BACKFILLING AND REINSTATEMENT TO TRENCHES IN PUBLIC HIGHWAYS SHALL BE TYPE 1 GRANULAR MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE ADOPTING AUTHORITY, OR, IN THE ABSENCE OF SUCH, IN ACCORDANCE WITH THE REQUIREMENTS OF 'THE STREET WORKS REGULATIONS 1992' AND RELEVANT PROVISIONS OF H.A.U.C. 'SPECIFICATION FOR THE REINSTATEMENT OF OPENINGS IN HIGHWAYS' JUNE 1992, BOTH UNDER SECTION 71 OF THE NEW ROADS AND STREET WORKS ACT 1991.
 - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENTS OF WATER INDUSTRY SPECIFICATION 4-28-03 (TABLE A2)
 - ALL ROAD GULLIES ARE TO BE TRAPPED GULLIES. ALL GULLY LEADS TO BE 150mm DIAMETER.
 - ALL REDUNDANT EXISTING DRAINAGE TO BE GRUBBED UP OR GROUDED, ANY EXISTING LIVE DRAINAGE SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED.
 - ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS.
 - THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS LIVE IS KEPT CLEAR OF DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION.
 - CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
 - CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.
 - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.



TYPICAL TYPE A P.C.C. MANHOLE DETAIL
 DEPTH TO SOFFIT OF PIPE 3000mm TO 6000mm

DIA. OF LARGEST PIPE IN M.H.	CHAMBER SECTION INT.DIA. (mm)
LESS THAN 375mm	1200
375 TO 700	1500
750 TO 900	1800
GRATER THAN 900	AS SPECIFIED

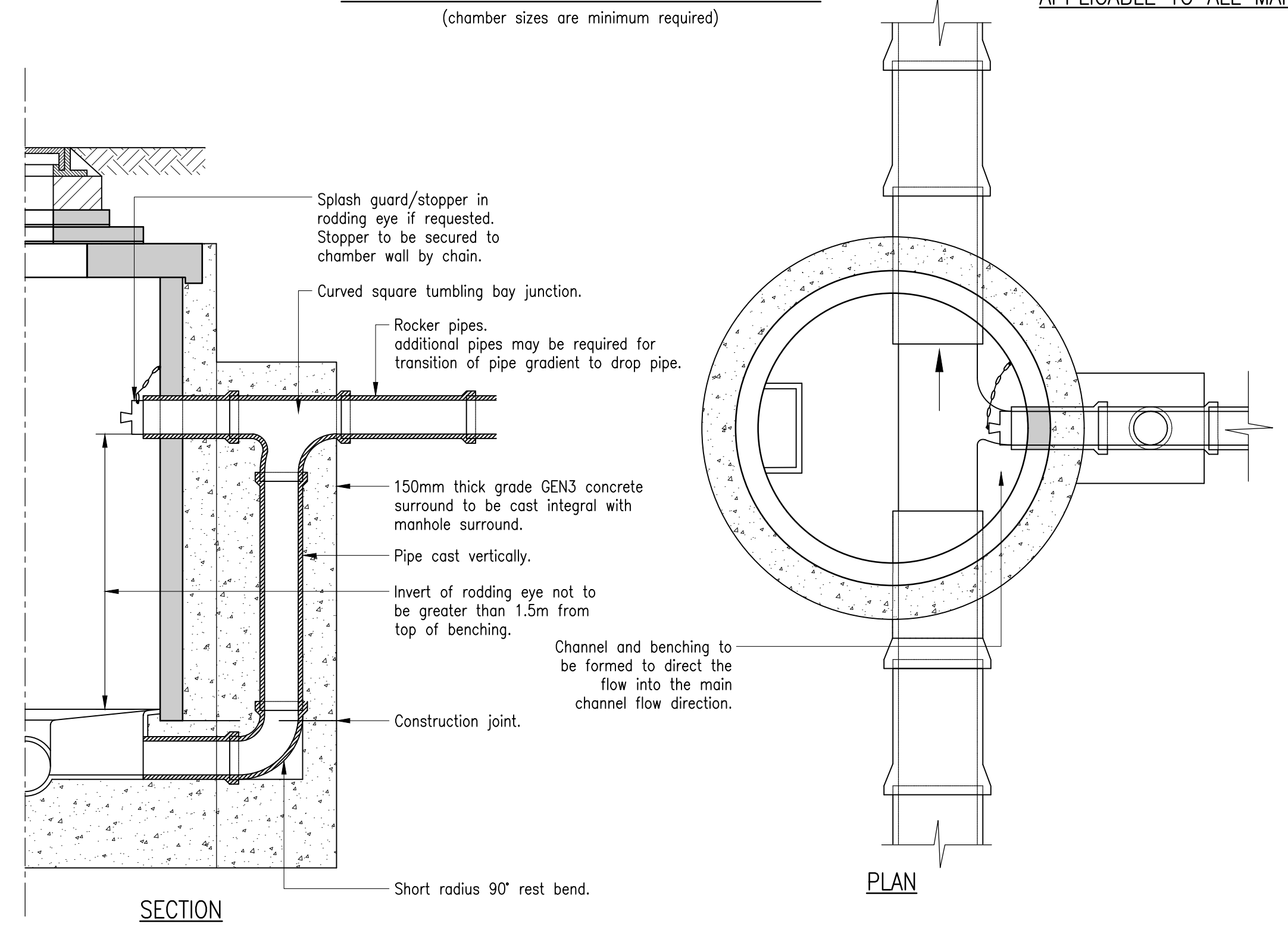
TABLE APPLICABLE TO P.C.C. MANHOLE TYPES
 (chamber sizes are minimum required)



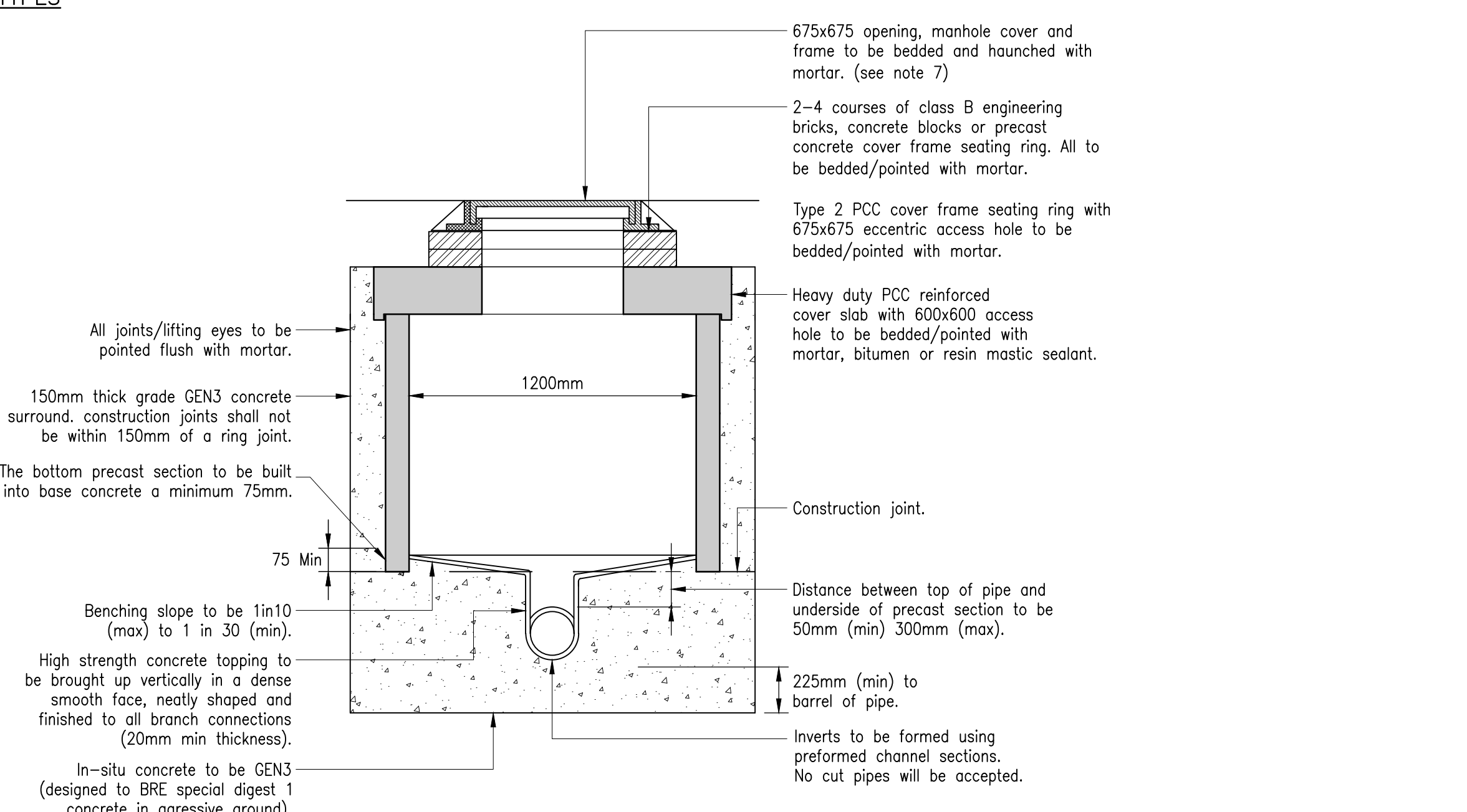
TYPICAL TYPE B P.C.C. MANHOLE DETAIL
 DEPTH TO SOFFIT OF PIPE 1500mm TO 3000mm

NOMINAL SIZE	EFFECTIVE LENGTH (mm)
150 TO 600	600
OVER 600 TO 750	1000
OVER 750	1250

SHORT AND ROCKER PIPE LENGTHS TABLE
 APPLICABLE TO ALL MANHOLE TYPES



TYPICAL VERTICAL BACKDROP MANHOLE DETAIL
 (note: construction details as standard PCC manhole)



TYPICAL TYPE E P.C.C. MANHOLE DETAIL
 DEPTH TO SOFFIT OF PIPE 1m TO 1.5m
 Max sewer diameter 375mm
 (non-man entry)

14/01/22	TENDER ISSUE	JF	T1
10/11/21	PRELIMINARY ISSUE	JF	P1
Date	Revisions	Drawn	Rev
Purpose of Issue		Drawing Status	
TENDER		-	
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Client: NEW TYNE WEST DEVELOPMENTS			
Project: SCOTSWOOD PHASE 5			
Title: DRAINAGE DETAILS SHEET 1			
Scale: VARIES	Author: JF	Checked: MP	Date: NOV 21
Job Number	Originator	Zone	Level
P19-401-3E-ZZ-XX-DR-C-1501-T1			