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NOTES:

1. RIGID PIPES SHALL MEAN CAST OR SPUN IRON, CONCRETE OR CLAY.
2. FLEXIBLE PIPES SHALL MEAN PIPES OF STEEL, PVC, OTHER PLASTIC OR DUCTILE IRON.
3. CONCRETE C20/25 TO HAVE COVER = 50mm MIN. WITH A MINIMUM CEMENT CONTENT OF 280 kg/m³, MAXIMUM W/C RATIO OF 0.45 AND SLUMP CLASS S2.
4. C25/30 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 280kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.45 AND SLUMP CLASS S2.
5. FOR DETAILS OF TRENCH REINSTATEMENT TO PIPES IN THE VICINITY OF BUILDINGS, WALLS & FOUNDATION, REFER TO STRUCTURAL DRAWINGS.
6. ALL PIPES WITH LESS THAN 1.2m COVER UNDER GRASSED AREAS AND FOOTPATHS TO BE SURROUNDED IN 150mm MINIMUM OF C20/25 CONCRETE.
7. LEAN-MIX BACKFILL TO TRENCHES IN EXISTING ROADS, WHERE REQUIRED BY THE LOCAL AUTHORITY TO BE GRADE C20/25 CONCRETE.
8. TRENCH DETAILS ARE REFERENCED FROM:
 - GREATER DUBLIN REGIONAL CODE OF PRACTICE FOR DRAINAGE WORKS.
 - TI ROAD CONSTRUCTION DETAILS
 - IRE RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS
 - BUILDING REGULATIONS
9. WHERE ROCKS OR OTHER HARD TRENCH BOTTOM IS ENCOUNTERED, THE FIGURE DENOTED BY * IS TO BE DOUBLED.
10. GRANULAR BACKFILL MATERIAL SHALL BE IN COMPLIANCE WITH CLAUSE B08 (GRANULAR MATERIAL TYPE B) OF THE TI SPECIFICATION FOR ROAD WORKS. GRANULAR BACKFILL SHOULD BE PLACED UNIFORMLY ON EITHER SIDE OF THE PIPE IN LAYERS NOT EXCEEDING 100mm, EACH LAYER BEING COMPACTED BY HAND TAMPING UNTIL THE PIPE HAS A MINIMUM OF 300mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTOR DOES NOT DAMAGE THE PIPE FROM ITS CORRECT LINE AND LEVEL. SUBSEQUENT LAYERS OF GRANULAR FILL TO BE WELL COMPACTED IN 150mm THICK LAYERS TO THE LOCAL AUTHORITY ROAD DIVISION SPECIFICATION. MECHANICAL COMPACTOR EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
11. SELECTED FILL SHOULD BE FREE FROM STONES LARGER THAN 30mm, LUMPS OF CLAY OVER 75mm, TIMBER, FROZEN MATERIAL AND VEGETABLE OR FOREIGN MATTER. GENERAL BACKFILL MATERIAL SUITABLE FOR BACKFILL ABOVE SELECTED FILL MATERIAL SHOULD BE FREE FROM BOLLERS, LUMPS OF CONCRETE, TIMBER AND VEGETABLE OR FOREIGN / CONTAMINATED MATERIAL. GENERAL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 300mm, EACH LAYER BEING WELL COMPACTED BY HAND TAMPING UNTIL THE PIPE HAS A MINIMUM OF 150mm COMPACTED COVER. CARE SHOULD BE TAKEN THAT THE PROCESS OF COMPACTOR DOES NOT DISPLACE THE PIPE FROM ITS CORRECT LINE AND LEVEL. SUBSEQUENT SELECTED FILL CAN BE PLACED AND COMPACTED IN 150mm THICK LAYERS.
12. GENERAL BACKFILL MATERIAL SUITABLE FOR BACKFILL ABOVE SELECTED FILL MATERIAL SHOULD BE FREE FROM BOLLERS, LUMPS OF CONCRETE, TIMBER AND VEGETABLE OR FOREIGN / CONTAMINATED MATERIAL. GENERAL BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 300mm, EACH LAYER BEING WELL COMPACTED BY HAND TAMPING UNTIL THE PIPE HAS A MINIMUM OF 450mm COMPACTED COVER OVER THE CROWN OF THE PIPE.
13. TRENCH ABOVE PIPES WITH LESS THAN 750mm COVER TO BE BACKFILLED WITH C20/25 CONCRETE TO FORMATION LEVEL.
14. SURFACING TO BE IN ACCORDANCE WITH THE ROAD SPECIFICATION AND, IF APPROPRIATE, LOCAL AUTHORITY REQUIREMENTS.
15. WHERE CLASS 6/1 / 6/2 CAPPING MATERIAL IS PROPOSED WITHIN 500mm OF CONCRETE OR STEEL, CLASS 08 IS TO BE USED INSTEAD.

NOTE:
ALL WORKS & SPECIFICATIONS TO BE UNDERTAKEN IN ACCORDANCE WITH:
• TI SPECIFICATION FOR ROADWORKS
• RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS

NOTE:
FOR WATERMAIN DETAILS REFER TO IRISH WATER CONNECTION AGREEMENT & IRISH WATER INFRASTRUCTURE STANDARD DETAILS' & CODE OF PRACTICE

NOTE:
FOR DETAILS OF FOUL SEWER MANHOLES REFER TO IRISH WATER CONNECTION AGREEMENT & IRISH WATER 'WASTEWATER INFRASTRUCTURE STANDARD DETAILS' & CODE OF PRACTICE

FOR	SM3/22	ISSUED FOR PLANNING	KAL'E	RTM
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		A - Approval		
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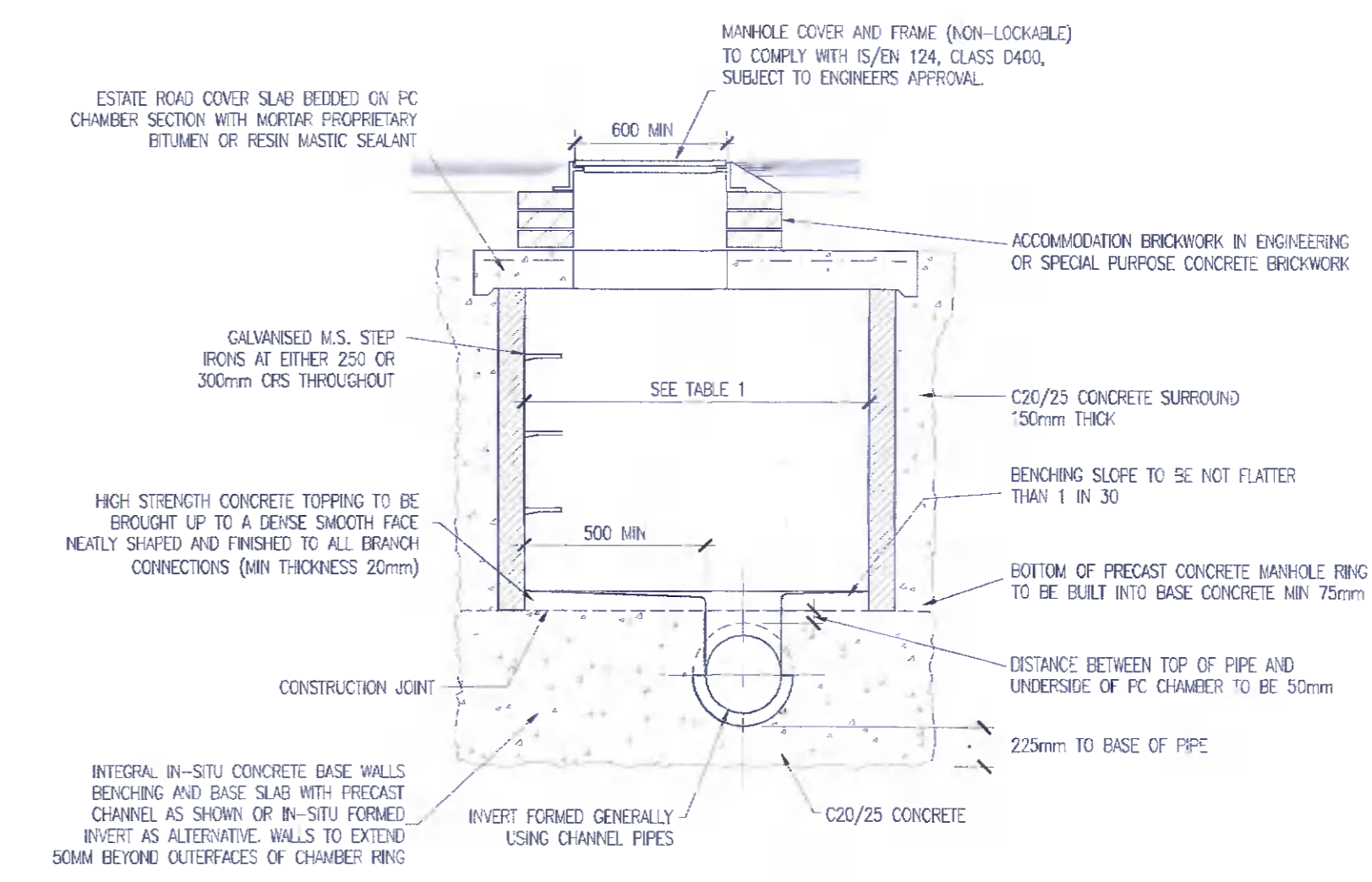
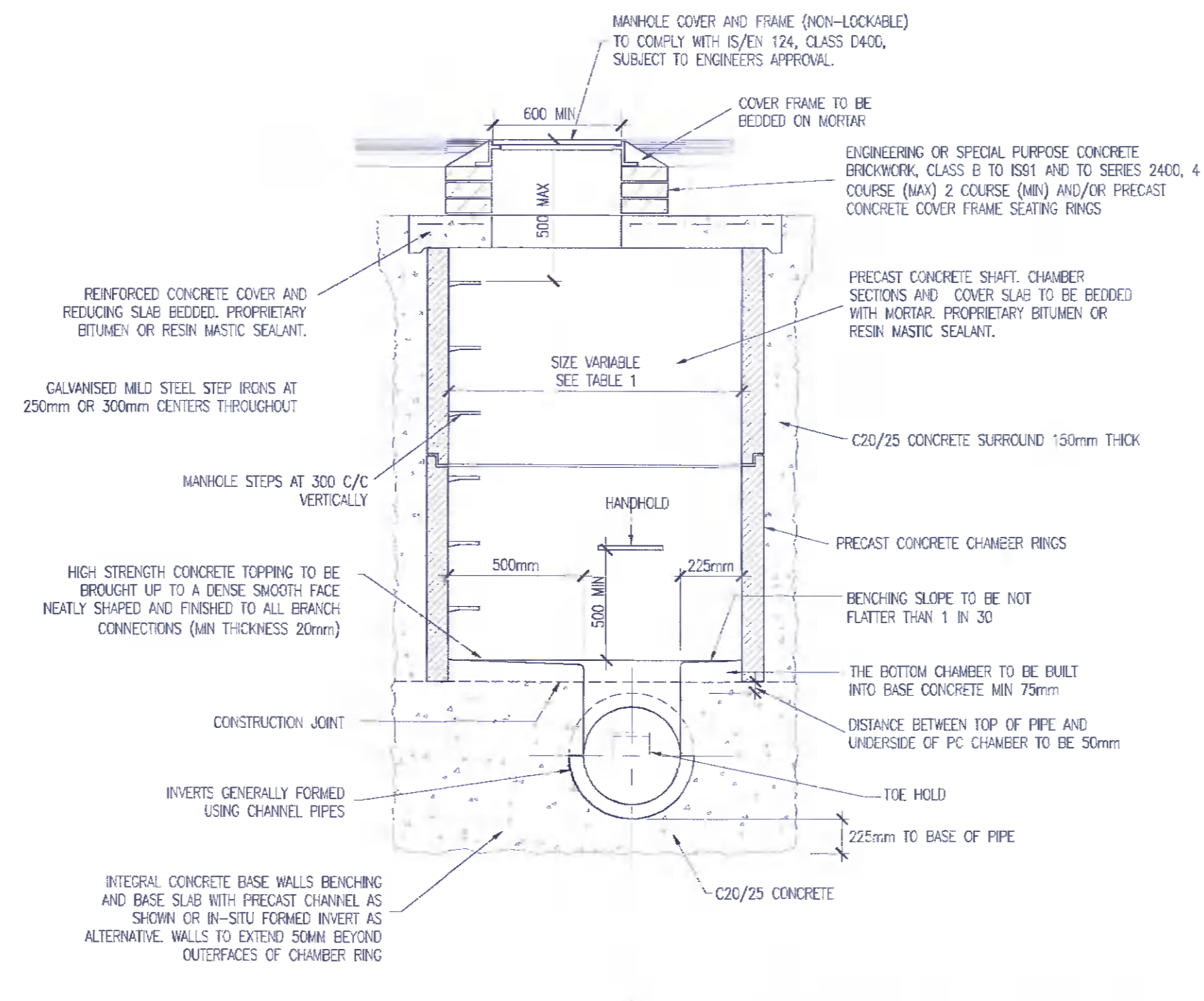
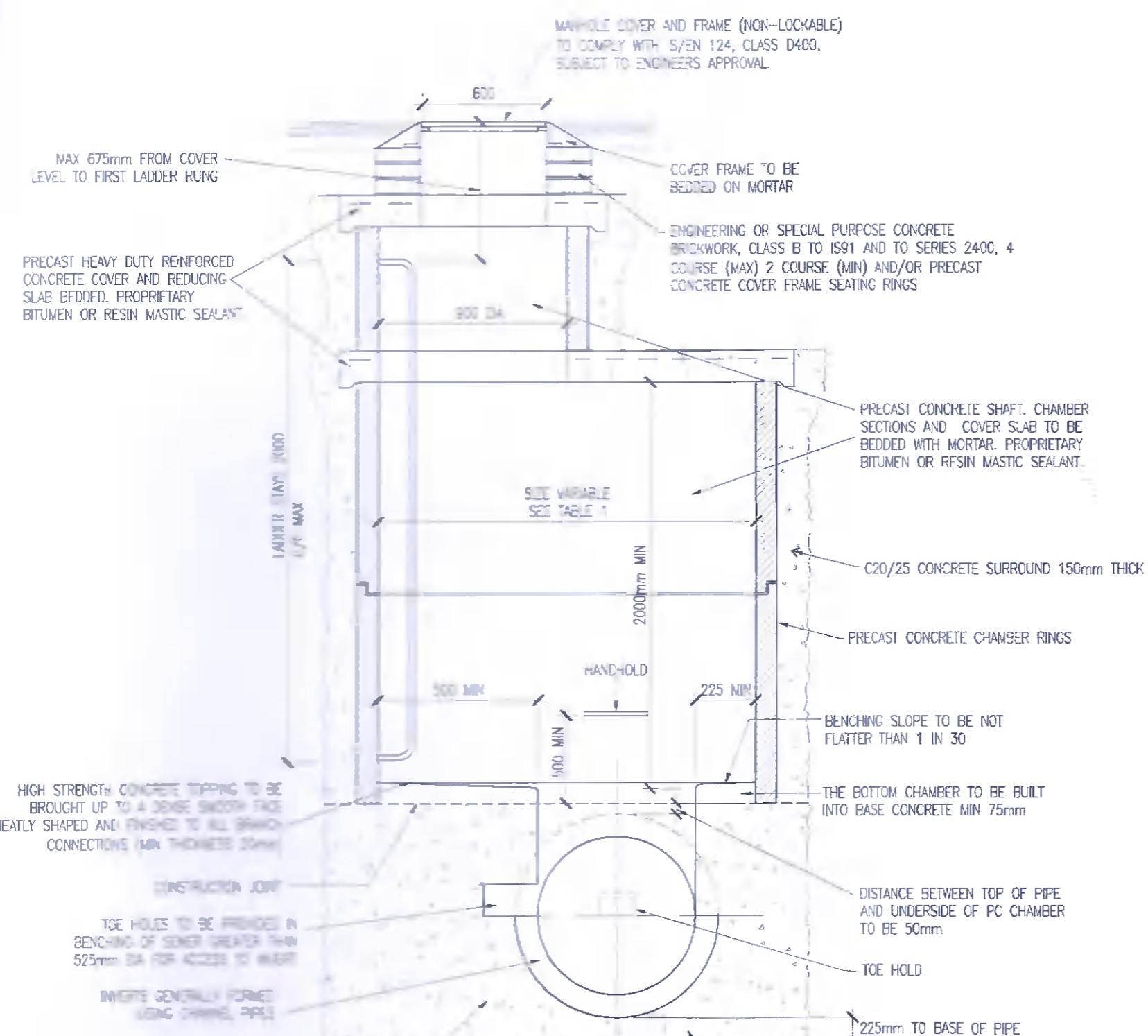
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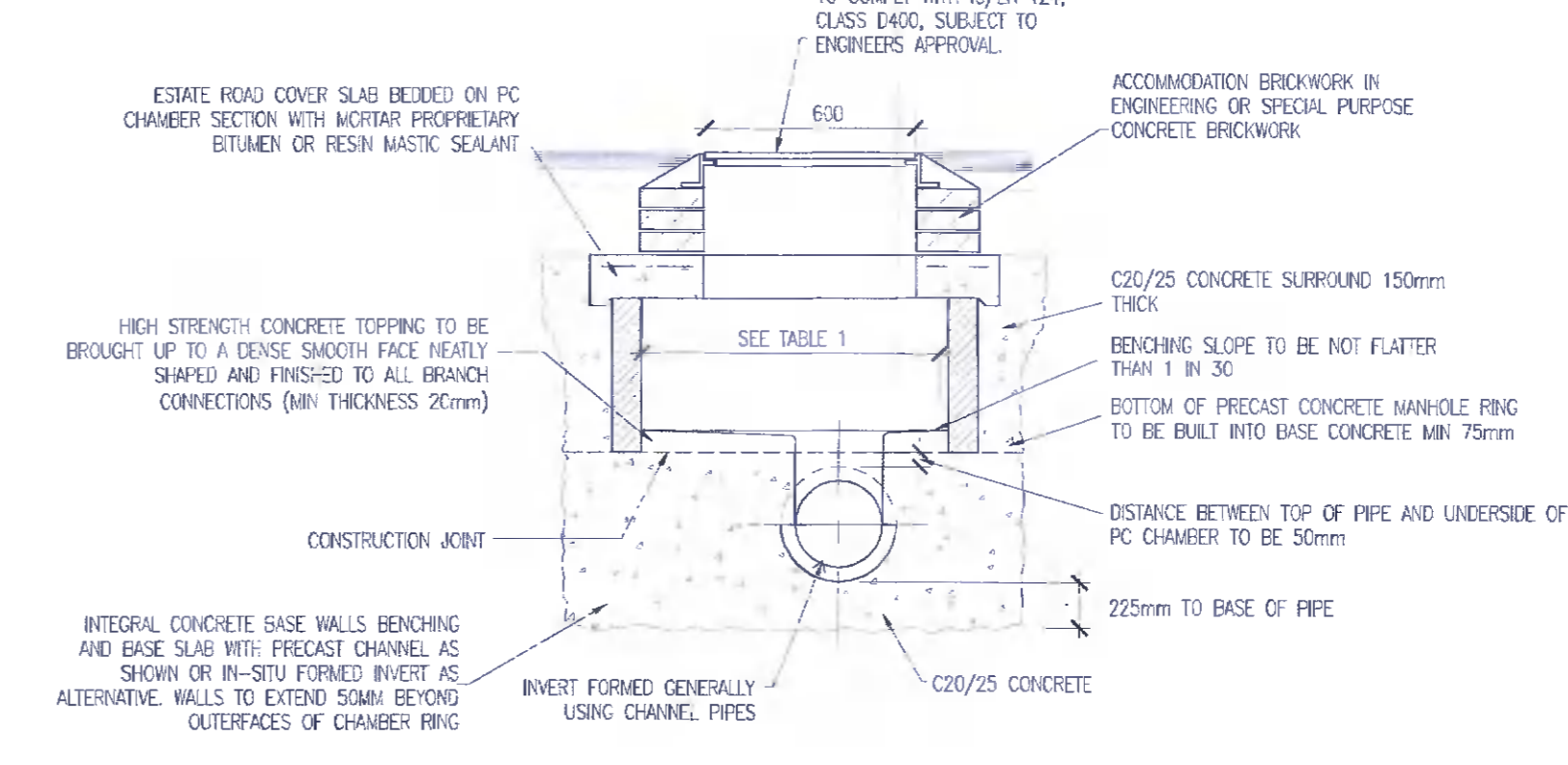
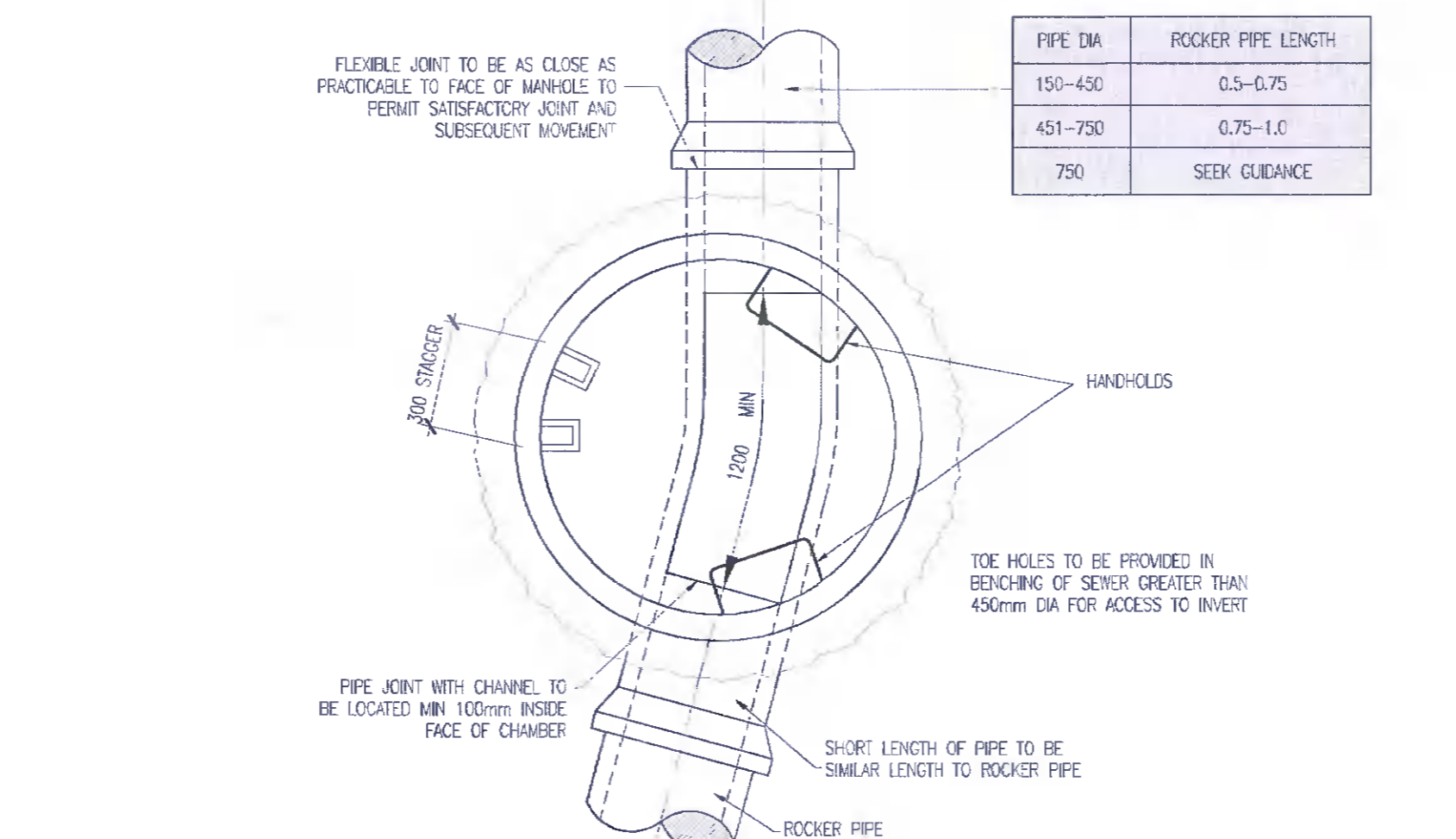
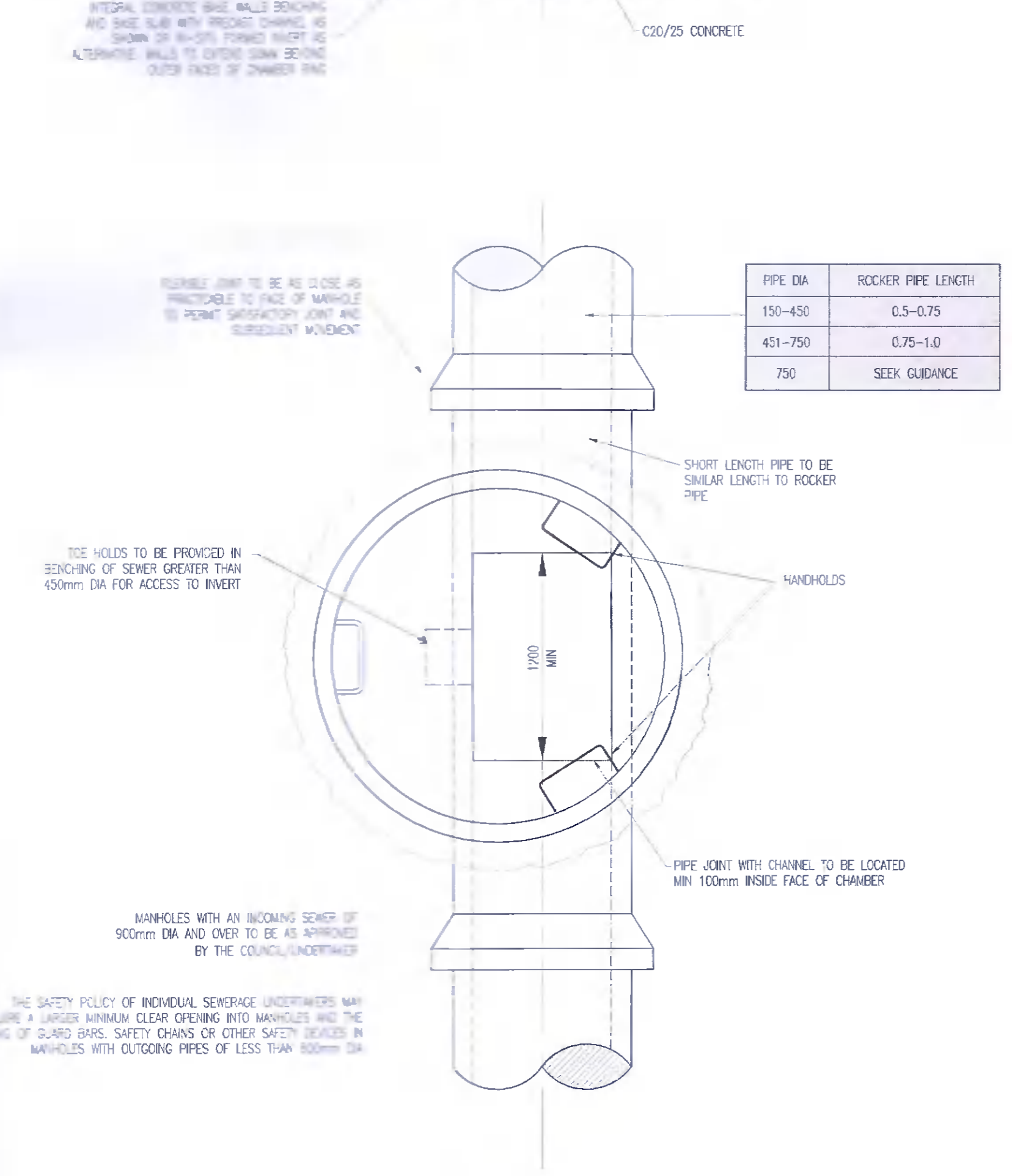
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client: **BLACKWIN LIMITED**

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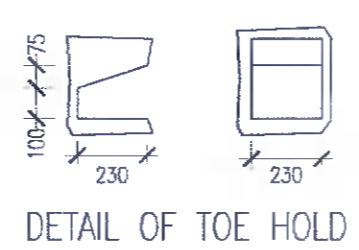
TYPICAL MANHOLE DETAIL
(DEPTH TO SOFFIT 1.0 TO 1.35m)



TYPICAL MANHOLE DETAIL
(DEPTH TO SOFFIT LESS THAN 1.0m)

TYPICAL MANHOLE DETAIL
(DEPTH TO SOFFIT 1.35 TO 3m)

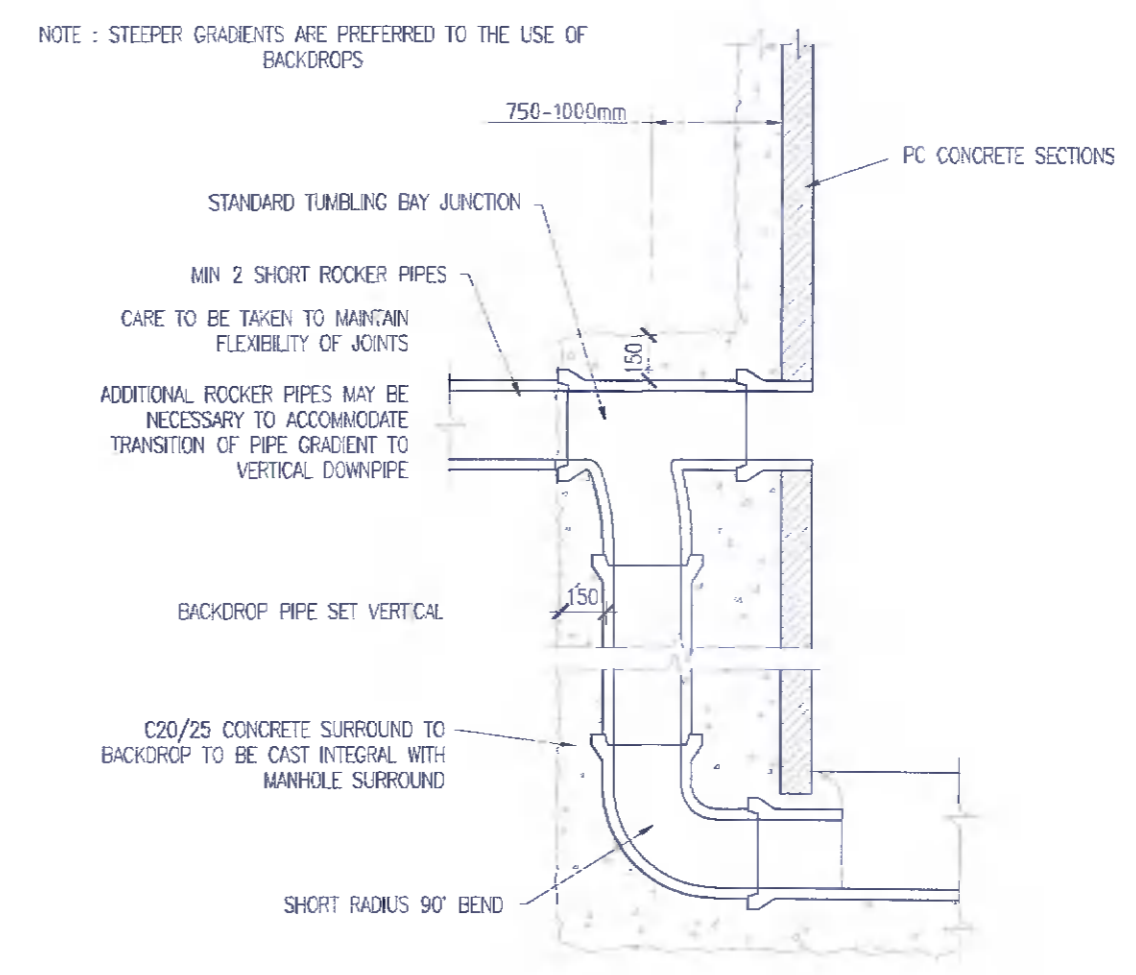
THE SAFETY POLICY OF INDIVIDUAL SEWER UNDERTAKERS MAY REQUIRE A LARGER MINIMUM CLEAR OPENING INTO MANHOLES AND THE FITTING OF GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES IN MANHOLES WITH OUTGOING PIPES OF LESS THAN 600mm DIA



DETAIL OF TOE HOLD

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	CHAMBER SECTION DIAMETER (mm)		
	1m - 3m	3m - 5m	5m - 12m
LESS THAN 375	1050	1050	1500
<600	1200	1200	1500
<675	1350	1350	1500
<750	1350	1500	1500
<900	1500	1500	1500
<1200	2100	2100	2100

TABLE 1



TYPICAL VERTICAL BACKDROP DETAIL