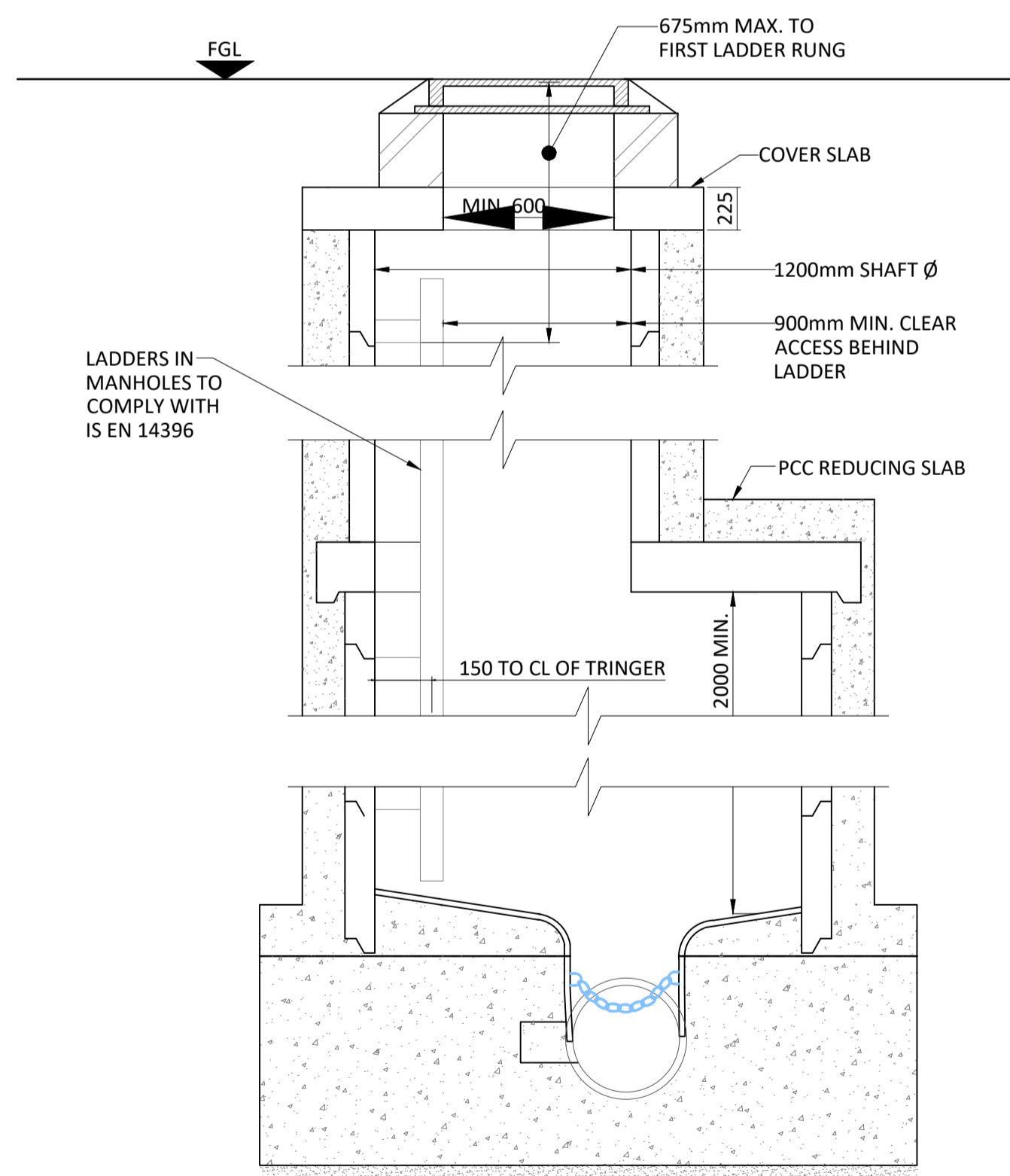


SECTION A-A (MANHOLE DETAIL < 3m)
SCALE 1:20



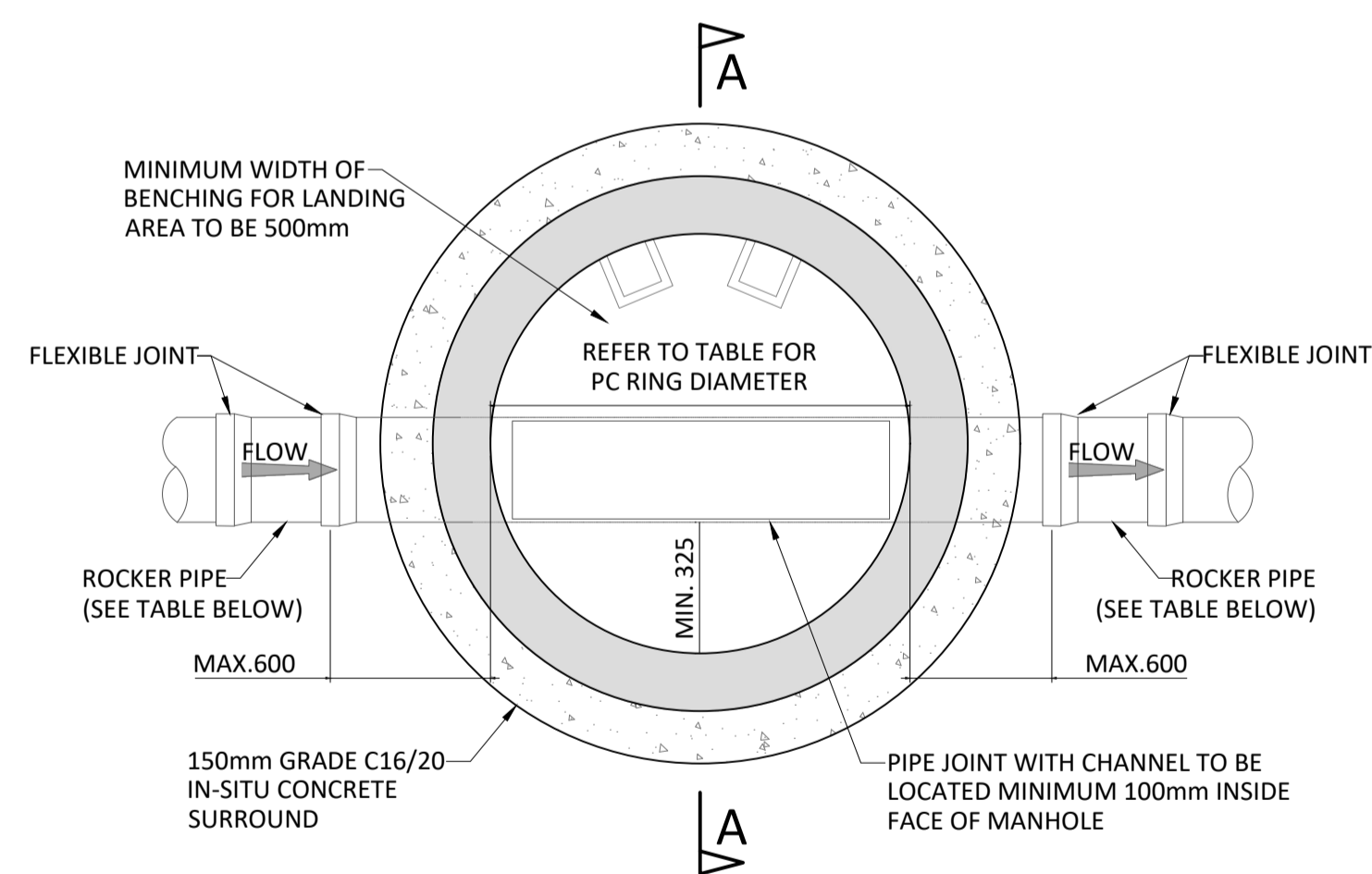
**MANHOLE DETAIL >3m & <6m
GROUND TO SOFFIT DEPTH**

(NOTE: ON MANHOLES <1.5mØ REDUCING SLAB NOT TO BE USED & PPC RINGS TO CONTINUE UP TO COVER SLAB)
SCALE 1:20

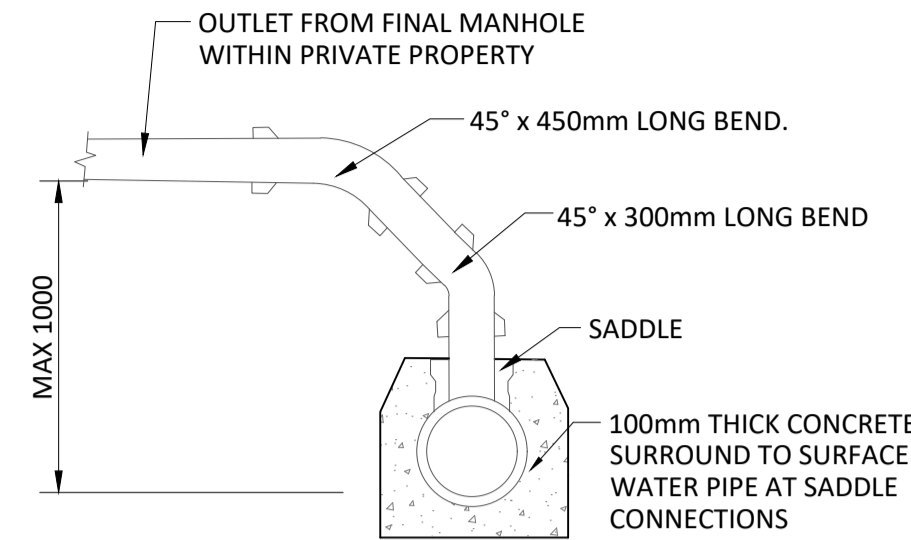
- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- PRE-CAST MANHOLES UNITS: COMPLYING WITH REQUIREMENTS OF IS EN 1917 AND BS 5911-PART 3.
- THICKER MANHOLE BASES REQUIRED FOR SEWERS IN EXCESS OF 3m DEEP WHERE THE SIZE IS GREATER THAN THE STANDARD MINIMUM SIZE.
- APPROVED PRE-CAST CONCRETE BASES MAY BE USED INCORPORATING CHANNELS, BENCHING ETC. SUBJECT TO IRISH WATER REVIEW AND COMPLYING WITH BS 5911-PART 4 2002.
- STRUCTURAL DESIGN AND REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW.
- MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER REVIEW.
- MANHOLE ROOFS SHALL CONSIST OF A RE-INFORCED CONCRETE SLAB OF IN-SITU CONCRETE, C30/37, WITH A MINIMUM THICKNESS OF 225mm DESIGNED TO CARRY ALL LIVE AND DEAD LOADS. ALTERNATIVELY, APPROVED PRE-CAST CONCRETE ROOF SLABS MAY BE USED SUBJECT TO IRISH WATER REVIEW AND COMPLIANCE WITH BS 5911 PART 4: 2002.
- COVERS AND FRAMES SHALL BE SUITABLE FOR ROAD AND TRAFFIC CONDITIONS SUBJECT TO REVIEW BY IRISH WATER.
- 200mm ALL AROUND, 100mm DEEP CONCRETE PLINTH AROUND COVERS IN GREEN AREAS.
- ALL CHAMBERS TO BE CHECKED FOR UPLIFT BY THE DEVELOPER BASED ON GROUND CONDITIONS WITHIN THE SITE. SHOULD ANTI FLOATION MEASURES BE REQUIRED THEY SHALL BE SUBJECT TO REVIEW BY IRISH WATER.
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 206 : 2013.
- ANY SPECIAL ROAD REINSTATEMENT AROUND COVER & FRAME SHALL BE TO ROAD AUTHORITY'S REQUIREMENTS.
- NEW ROAD CONSTRUCTION & SURFACE FINISH TO BE TO ROAD AUTHORITY REQUIREMENTS.
- EXISTING ROAD REINSTATEMENT TO COMPLY WITH CURRENT VERSION OF "GUIDELINES FOR MANAGING OPENINGS IN PUBLIC ROADS" BY THE DEPT. OF TRANSPORT, TOURISM & SPORT, OR TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
- IF DEPTH FROM GROUND TO PIPE SOFFIT IS GREATER THAN 6m DEEP, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.
- PROPRIETARY WATERTIGHT PCC MANHOLE RING SYSTEMS WITH A WALL THICKNESS > 125mm, & A WATER TIGHT JOINT SEALING SYSTEM, MAY BE USED WITHOUT CONCRETE SURROUND, SUBJECT TO THE GROUND WATER LEVEL AT THE MANHOLE BEING LOW, & SUBJECT TO REVIEW BY IRISH WATER

MINIMUM MANHOLE DIAMETERS	
DIAMETER OF LARGEST PIPE IN MANHOLE(mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 TO 450	1350
500 TO 750	1500

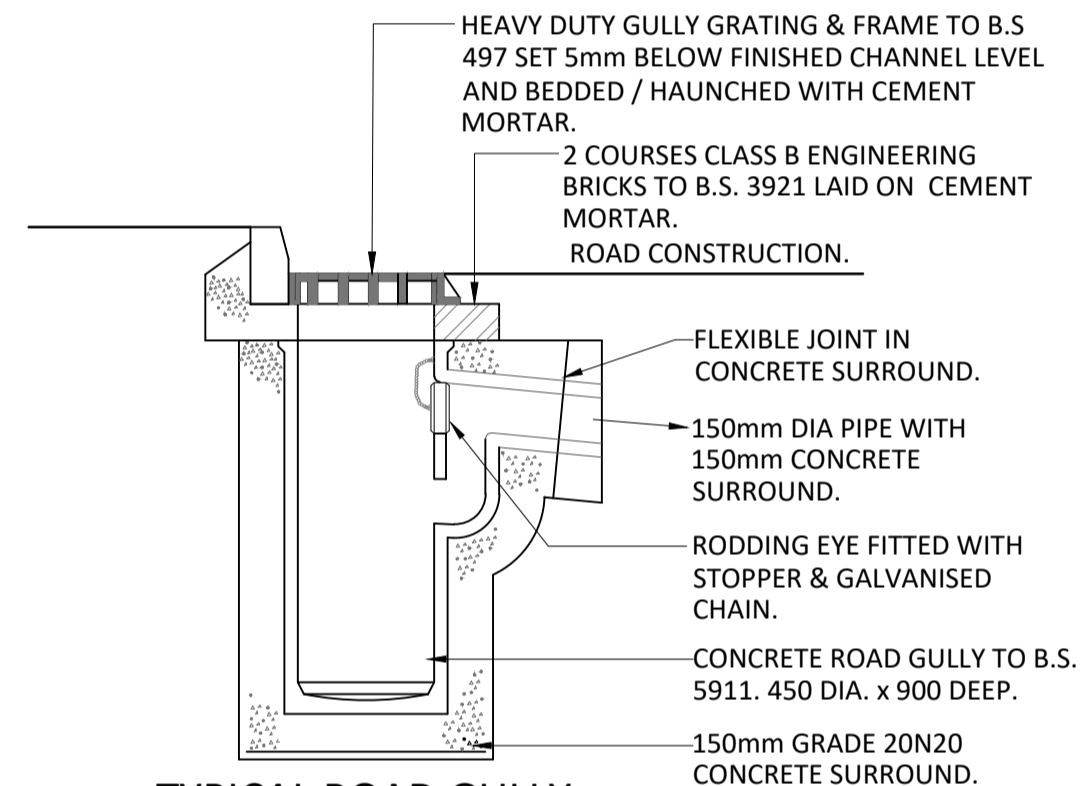
ROCKER PIPE LENGTH	
PIPE DIAMETER (mm)	ROCKER PIPE LENGTH (mm)
150 TO 600	600
GREATER THAN 600 TO 750	1000
GREATER THAN 750	1250



PLAN OF PRECAST CONCRETE RING MANHOLE
SCALE 1:20



**TYPICAL SADDLE
CONNECTION DETAIL TO
PUBLIC SEWER**
SCALE 1:25



TYPICAL ROAD GULLY

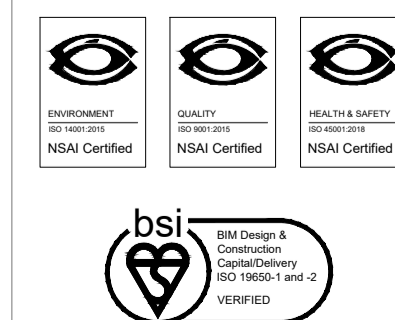
NOTES:

- DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.
- SELECTED FILL SHALL BE FREE FROM STONES GREATER THAN 25mm IN SIZE, BUILDERS RUBBLE, VEGETABLE MATTER AND LUMPS OF CLAY GREATER THAN 75mm IN SIZE AND SHALL BE COMPACTED IN 150mm LAYERS.
- IN OPEN SPACES BACKFILL SHALL CONSIST OF SUITABLE SELECTED EXCAVATED MATERIAL. UNDER PAVED AREAS BACKFILL SHALL CONSIST OF SUITABLE APPROVED GRANULAR FILL. GENERAL BACKFILL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm THICK.
- CONCRETE BED AND SURROUND SHALL BE USED ON ALL PIPES WHERE MINIMUM COVER CANNOT BE ACHIEVED.
- ALL CONCRETE FOR PIPE BEDDING, HAUNCHING AND SURROUNDS SHALL BE GRADE 20N/20.
- ALL MANHOLES SHALL BE WATERTIGHT TO THE SATISFACTION OF THE ENGINEER.
- FORMWORK TO REINFORCED CONCRETE AND MASS CONCRETE SHALL BE CLASS F2.
- CLASS U2 FINISH TO THE TOP OF SLABS. REINFORCEMENT TO SLABS TO ENGINEERS DETAILS.
- 225mm THICK CL. 30/20 MASS CONCRETE FOUNDATIONS. 225 THICK PRECAST R.C. ROOF SLAB IN CL.30/20 CONCRETE. COVER TO STEEL TO BE 40mm.
- TOE HOLES TO BE PROVIDED IN BENCHING OF SEWERS GREATER THAN 450mm DIAMETER FOR ACCESS TO INVERT. SAFETY CHAIN ON SEWERS 600mm. DIAM. OR GREATER MILD STEEL SAFETY CHAIN SHALL BE 10MM. NOMINAL SIZE GRADE M(H) NON CALIBRATED CHAIN, TYPE 1, COMPLYING WITH BS4942 PART 2.
- WHEN DEPTH OF MANHOLES TO INVERT IS GREATER THAN 3.0m, LADDERS SHALL BE USED INSTEAD OF RUNGS.
- LADDER STRINGERS SHOULD BE ADEQUATELY SUPPORTED FROM THE MANHOLE WALL AT INTERVALS OF NOT MORE THAN 3.0m STRINGERS SHOULD BE BOLTED TO CLEATS TO FACILITATE RENEWAL.
- ALL LADDERS, RUNGS, HANDRAILS, SAFETY CHAIN, ETC. SHALL BE HOT DIPPED GALVANISED TO BS729.

- FOR SETTING OUT REFER TO ARCHITECT'S DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND ENGINEERING DRAWINGS AND ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
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C01	20/10/22	ISSUED FOR PLANNING	CW	CM

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Project: RESIDENTIAL DEVELOPMENT
CROSSHAVEN, LOWER ROAD
Title: DRAINAGE DETAILS
SHEET 2 OF 3
Code Originator: Zone | Level | Type | Role | Number | Status | Revision
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