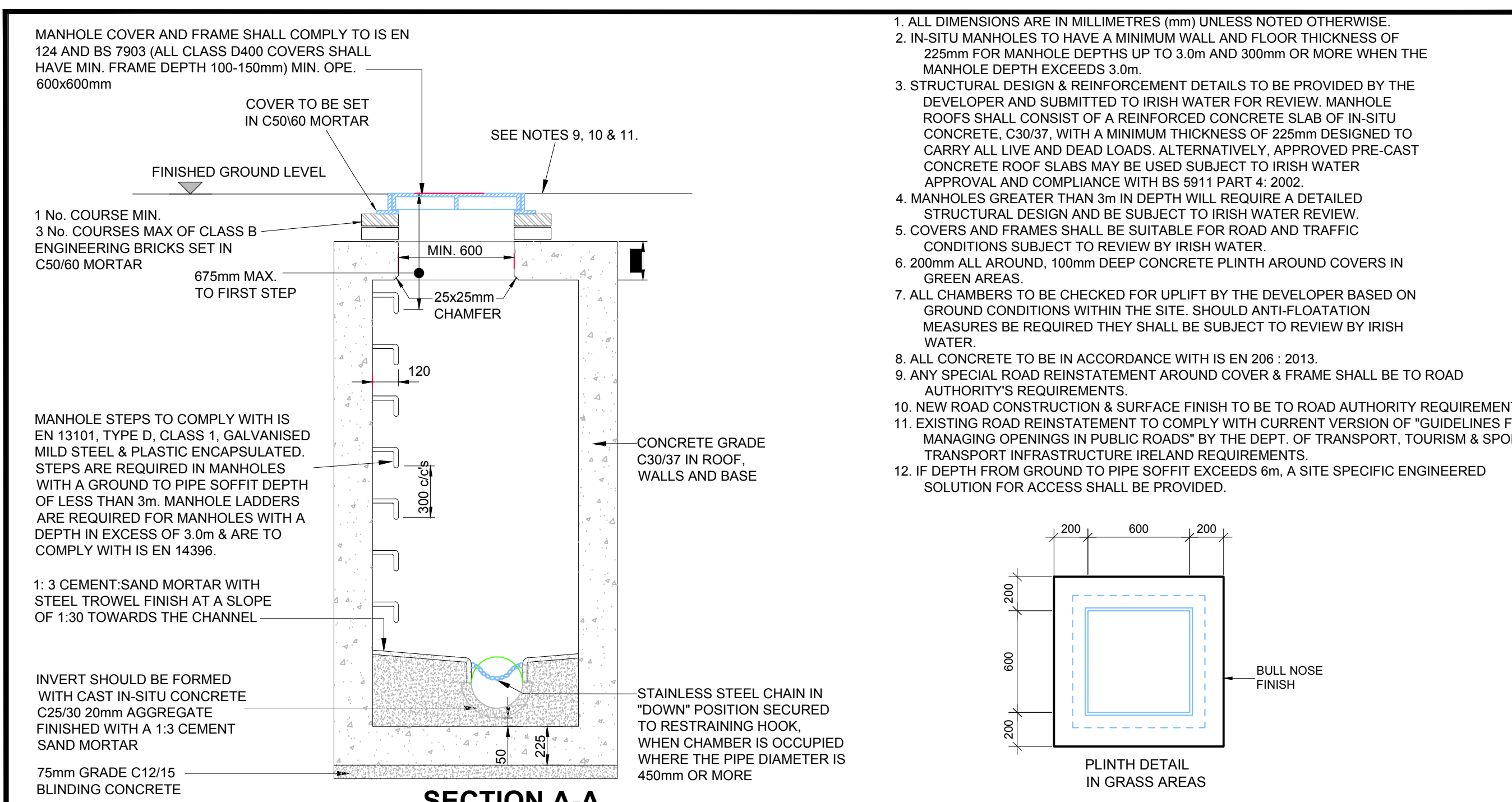


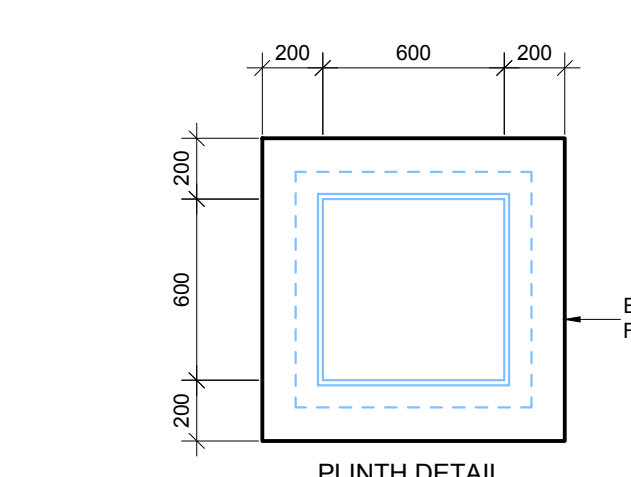
**NOTES**

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS DRAWINGS. DIMENSIONS ONLY (NOT SCALING) TO BE USED, WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT - ASK.
- CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.
- WASTE DRAINAGE DETAILS TO BE IN ACCORDANCE WITH IRISH WATER REQUIREMENTS UNLESS NOTED OTHERWISE.
- REFER TO THE STRUCTURAL WATERMAN DETAILS DRAWING FOR A TYPICAL SERVICE LAYOUT UNDER A FOOTPATH.
- CONNECTION OF BRANCHES TO THE MAIN LINE ARE TO BE BY MEANS OF 45° BRANCH CONNECTIONS, SADDLE CONNECTIONS NOT ALLOWED.
- INTERNAL GROUND FLOOR FOUL CONNECTIONS TO DRAIN SEPARATELY FROM THE UPPER STOREYS.
- ALL BURIED PIPES UNDER GROUND FLOOR SLABS TO BE ENCASED IN CONCRETE.
- ALL GULLY GRATINGS AND LIDS TO BE MIN. S400 RATING.

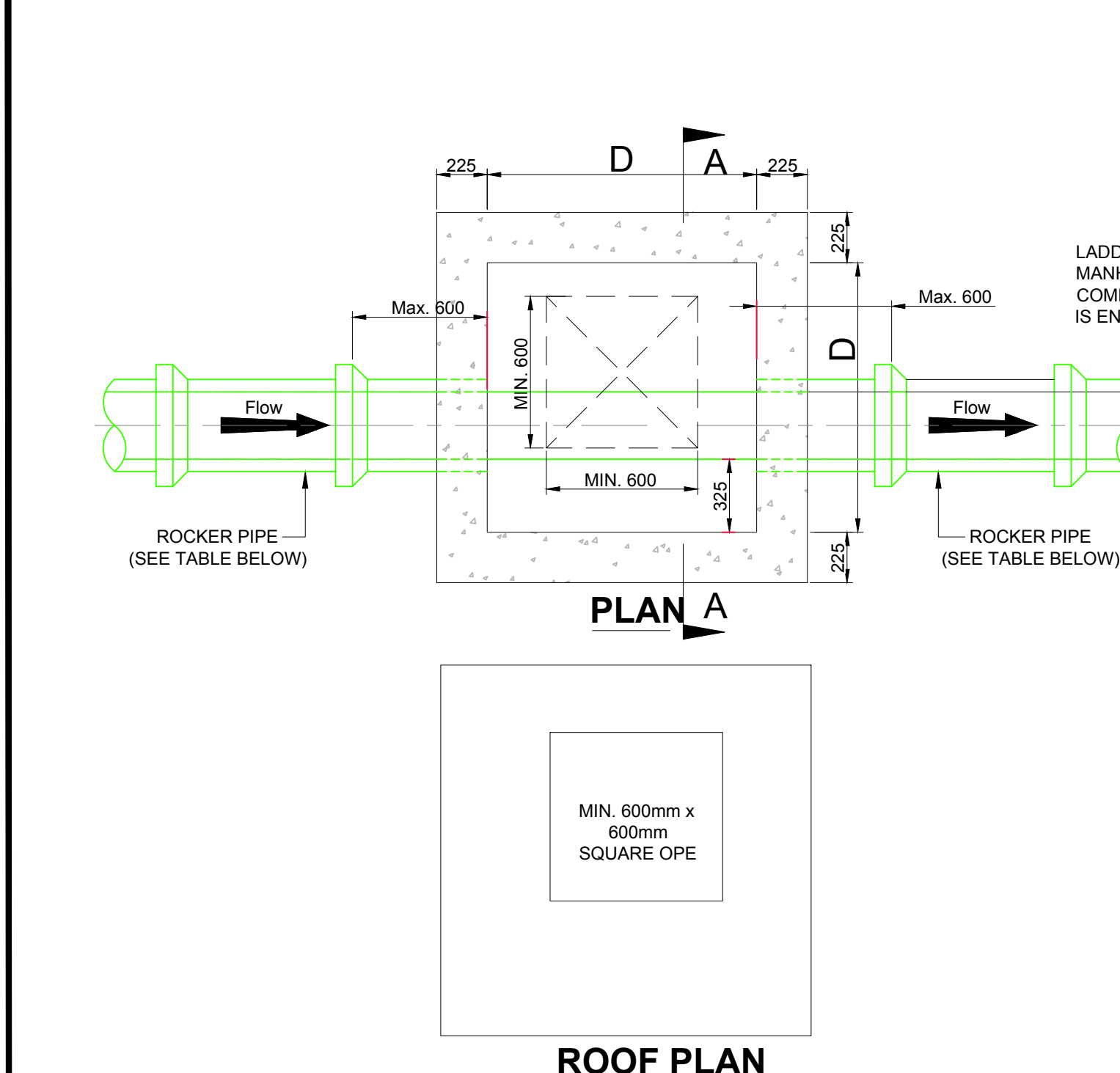


**SECTION A-A**

- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- IN-SITU MANHOLES TO HAVE A MINIMUM WALL AND FLOOR THICKNESS OF 225mm FOR MANHOLE DEPTHS UP TO 3.0m AND 300mm OR MORE WHEN THE MANHOLE DEPTH EXCEEDS 3.0m.
- STRUCTURAL DESIGN & REINFORCEMENT DETAILS TO BE PROVIDED BY THE DEVELOPER AND SUBMITTED TO IRISH WATER FOR REVIEW. MANHOLE ROOFS SHALL CONSIST OF A REINFORCED 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 APPROVAL AND COMPLIANCE WITH BS 9111 PART 4: 2002.
- MANHOLES GREATER THAN 3m IN DEPTH WILL REQUIRE A DETAILED STRUCTURAL DESIGN AND BE SUBJECT TO IRISH WATER REVIEW.
- 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-FLOATATION 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 TRANSPORT INFRASTRUCTURE IRELAND REQUIREMENTS.
- IF DEPTH FROM GROUND TO PIPE SOFFIT EXCEEDS 6m, A SITE SPECIFIC ENGINEERED SOLUTION FOR ACCESS SHALL BE PROVIDED.

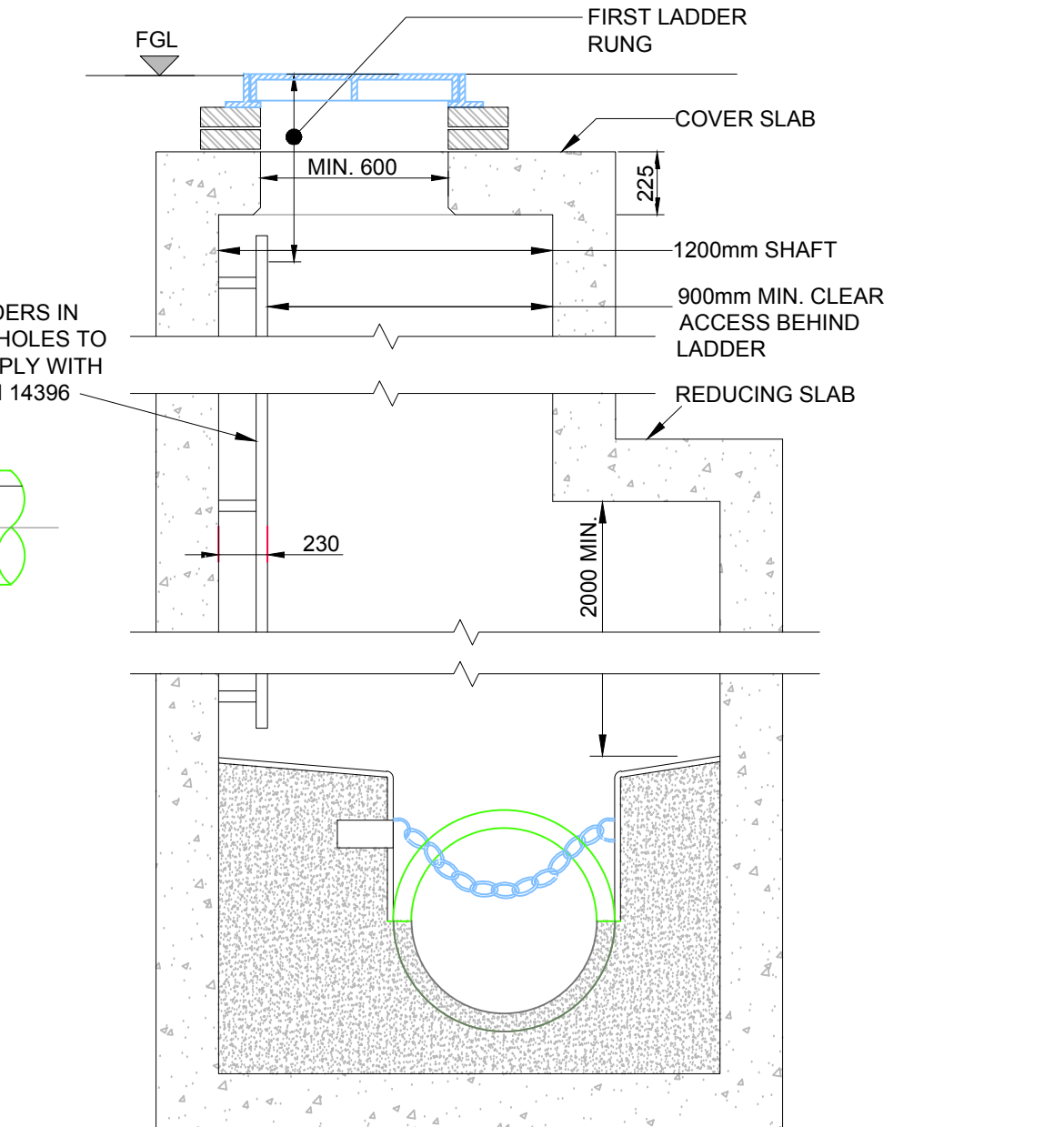


**PLINTH DETAIL IN GRASS AREAS**



**PLAN A**

**ROOF PLAN**



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

(NOTE: ON MANHOLES < 1.5m SHAFT DIMENSION, REDUCING SLAB NOT TO BE USED & SHAFT TO CONTINUE UP TO COVER SLAB)

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

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

**C IN-SITU CONCRETE MANHOLE DETAILS**

PL2	18.04.19	ISSUED FOR PLANNING	MC	SP	CP
PL1	06.03.19	ISSUED FOR PLANNING	MC	SP	CP
ISSUE	DATE	DESCRIPTION	DRG	SP	CP
DRAWING STAGE					
<b>PLANNING</b>					
Dublin Office: Sandwith House, 33-34 Lower Sandwith Street, Dublin 2, Ireland. Tel: 01 472 2200 Fax: 01 472 2164 London Office: 12 Mill Street, London SE1 2AY, United Kingdom. Tel: (02044) 084 5413 2722 Consulting Engineers, Civil, Structural, Project Management E-mail: info@bm.ie Web: www.bm.ie					
CLIENT: <b>DEVELOPMENT 8</b>					
PROJECT TITLE			BM PROJECT No.		
<b>CONCORDE RESIDENTIAL DEVELOPMENT</b>			<b>18.232</b>		
MODEL REFERENCE			MODEL REV.		
CCRD-BMD-00-ZZ-DR-C-1010			P1 S1		
DRAWING TITLE					
<b>STANDARD DRAINAGE DETAILS SHEET 2 OF 2</b>					
DRAWING No.					
CCRD-BMD-00-ZZ-DR-C-1201					
ISSUE					
PL2					