



SHALLOW PRECAST CONCRETE MANHOLE
(DEPTHS UP TO 3.0m ON PIPES UP TO 300mm DIA.) SCALE 1:20

Notes :

Manhole Construction

Concrete manholes shall be constructed of precast units complying with I.S.420 and shall be of the dimensions as shown on the drawing. The base, shall be formed in situ of Grade C16/20 concrete. The base shall be 225mm thick and the channel be purpose made half round channels. The precast rings shall be surrounded in 150mm thick Grade C16/20 concrete.

A flexible joint shall be provided to each pipe within 500mm of the inner face of the manhole wall. projecting pipes shall be surrounded with Grade C15/30 concrete with the base been cast monolithically with the manhole base. a further "rocker" pipe shall be provided as per rocker pipe table.

Covers
Manhole covers and frames to comply with the requirements of IS/EN 124:2015. covers in roadways to be an approved minimum Class D400 with 600mmØ (600x600mm) clear opening. Covers in asphalt concrete roads to be Noroc covers by EJ unless noted otherwise. Covers in plaza / public areas to be D400 recessed covers to accommodate stone setts as specified by the landscape architecture.

Ladder Rungs

Ladder rungs shall be 20mm diameter mild steel heavily galvanised after manufacture as shown on the drawing and fitted at 300mm centres. length embedded in wall 125mm.

Access Ladders

Access ladders to be manufactured from mild steel with 65mm x 12mm stringers 300mm apart with 20mm diameter rungs at 300mm c/c. Mild steel stays 65mm x 12mm to be provided at intervals not exceeding 2.4m. Ladder and stays to be heavily galvanised to bs 729 after manufacture. The ladder is to be fixed with 18mm diameter stainless steel bolts.

Benching

Benching is to be formed in Grade C25/30 concrete and should rise vertically from the top edge of the channel to a height not less than that of the soffit of the outlet and slope upwards to meet the wall of the manhole at a gradient of 1:6 (min. rise 25mm). It should be floated with a steel float to a smooth hard surface with a 25mm thick coat of 1:1 cement mortar laid while the benching concrete is still green.

Notes:
1. This drawing shall be read in conjunction with all other relevant specifications & drawings including civil site drawings.

C01	12/04/19	D.F.	F.O.S.	J.D.
Issued for Construction (Status A4)				
P04	05/10/18	JTC	F.O.S.	J.D.
Issued for Construction Approval				
P03	23/07/18	B.M.	F.O.S.	J.D.
Issued for Tender				
P02	05/07/18	B.M.	F.O.S.	J.D.
Details Moved to Dwg C-3303				
P01	28/06/18	B.M.	F.O.S.	J.D.
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Rev	Date	By	Chkd	Appd

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Client
HQ **bam**
CLARENDON

Project Title
HQ
Horgan's Quay

Drawing Title
Proposed Typical Drainage
Details Sheet 1

Scale at A1 As Shown
Role Civil
Suitability A4 - Approved as Stage Complete
Arup Job No **252901-00** Rev **C01**
Name **HQDPR-ARP-ZZ-XX-DR-C-3301**