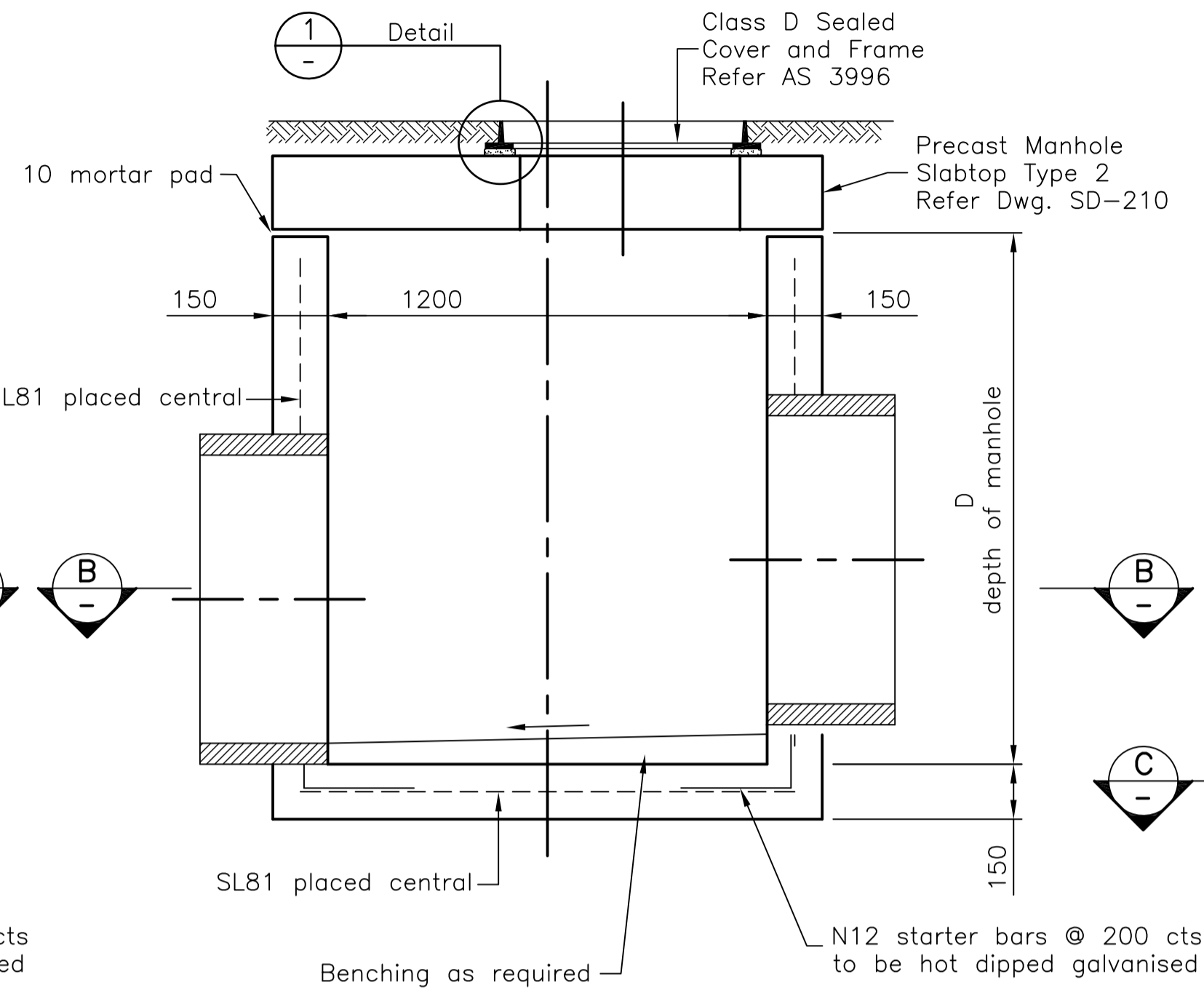
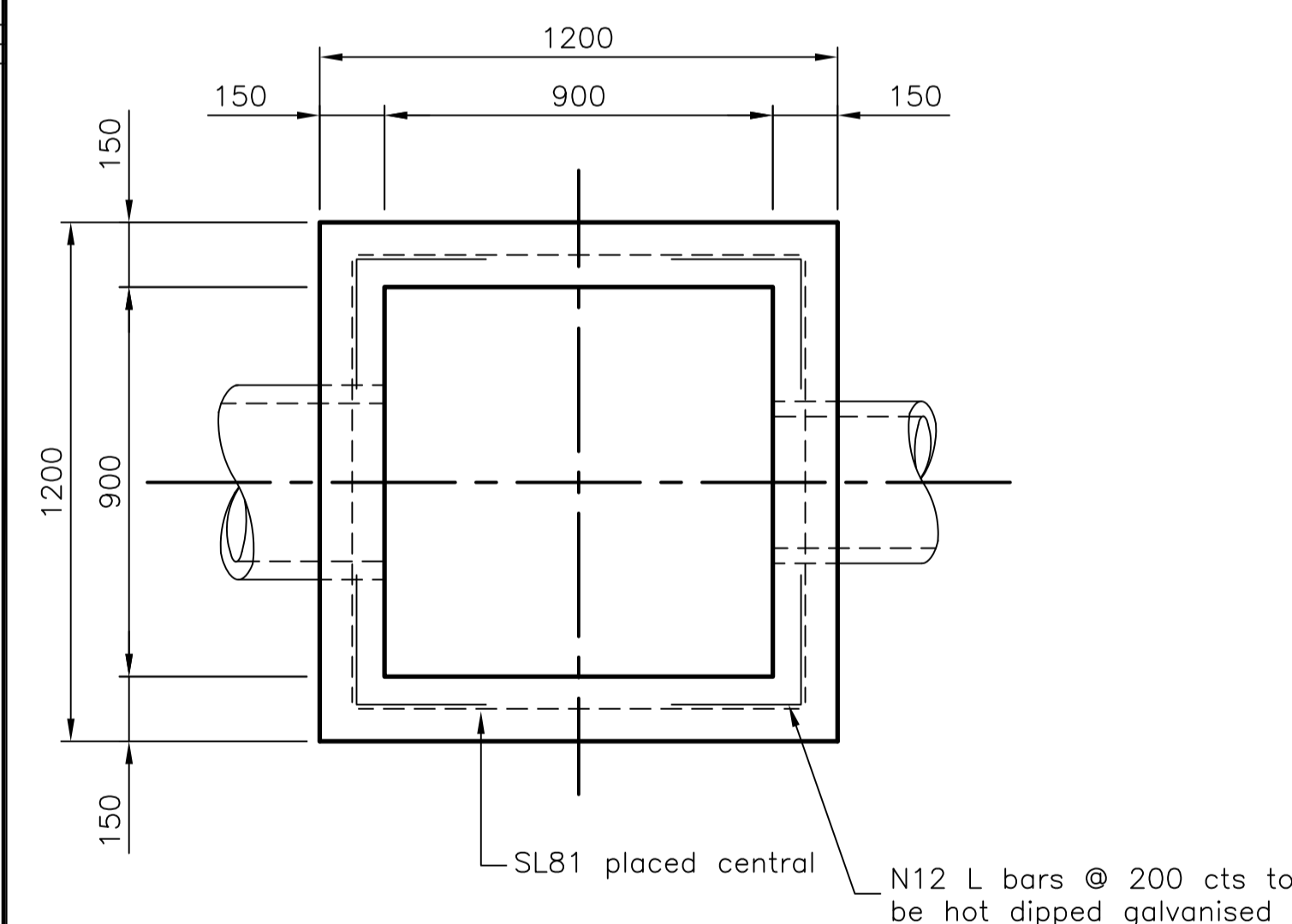


SECTIONAL ELEVATION



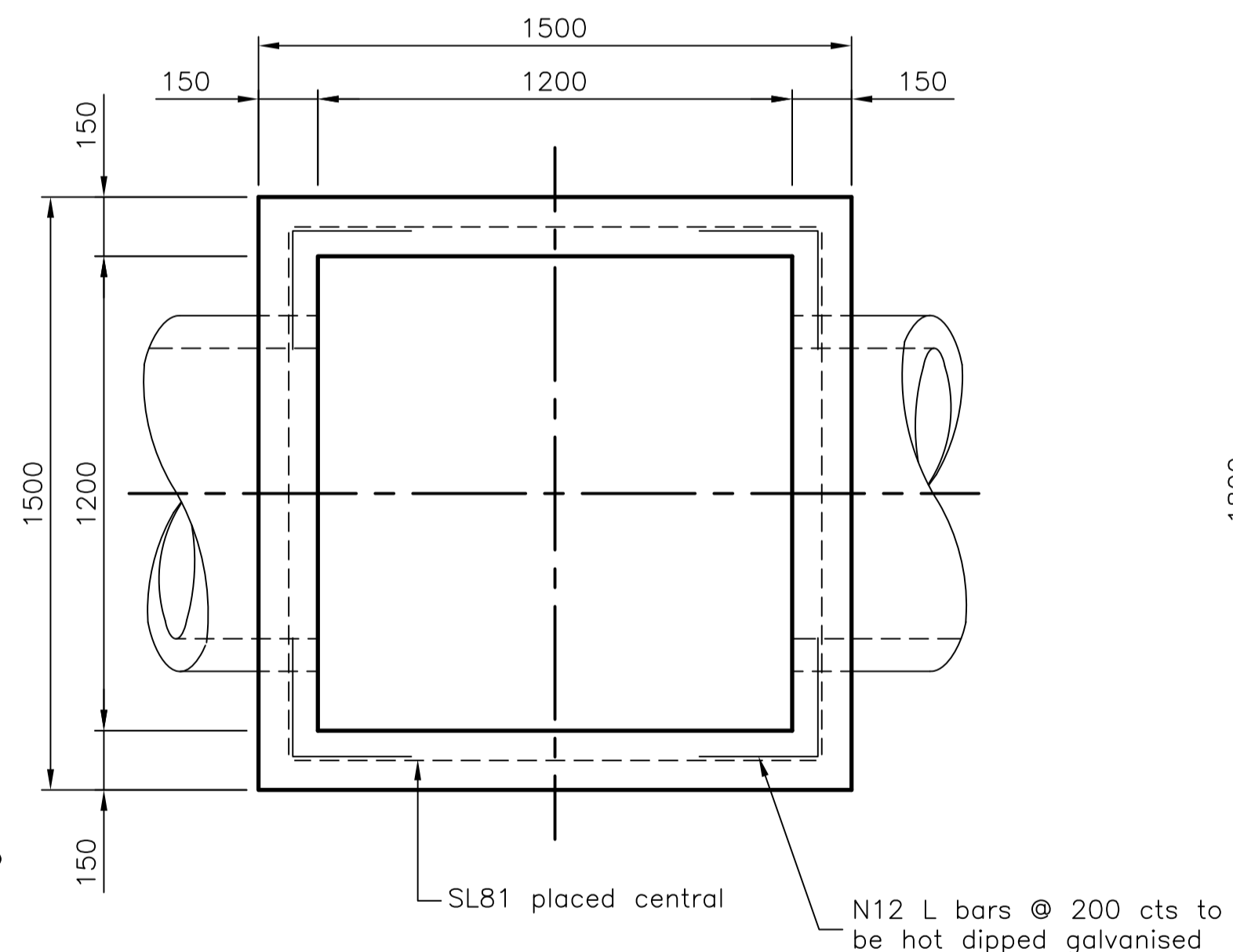
SECTIONAL ELEVATION



SECTION A

MANHOLE TYPE 1

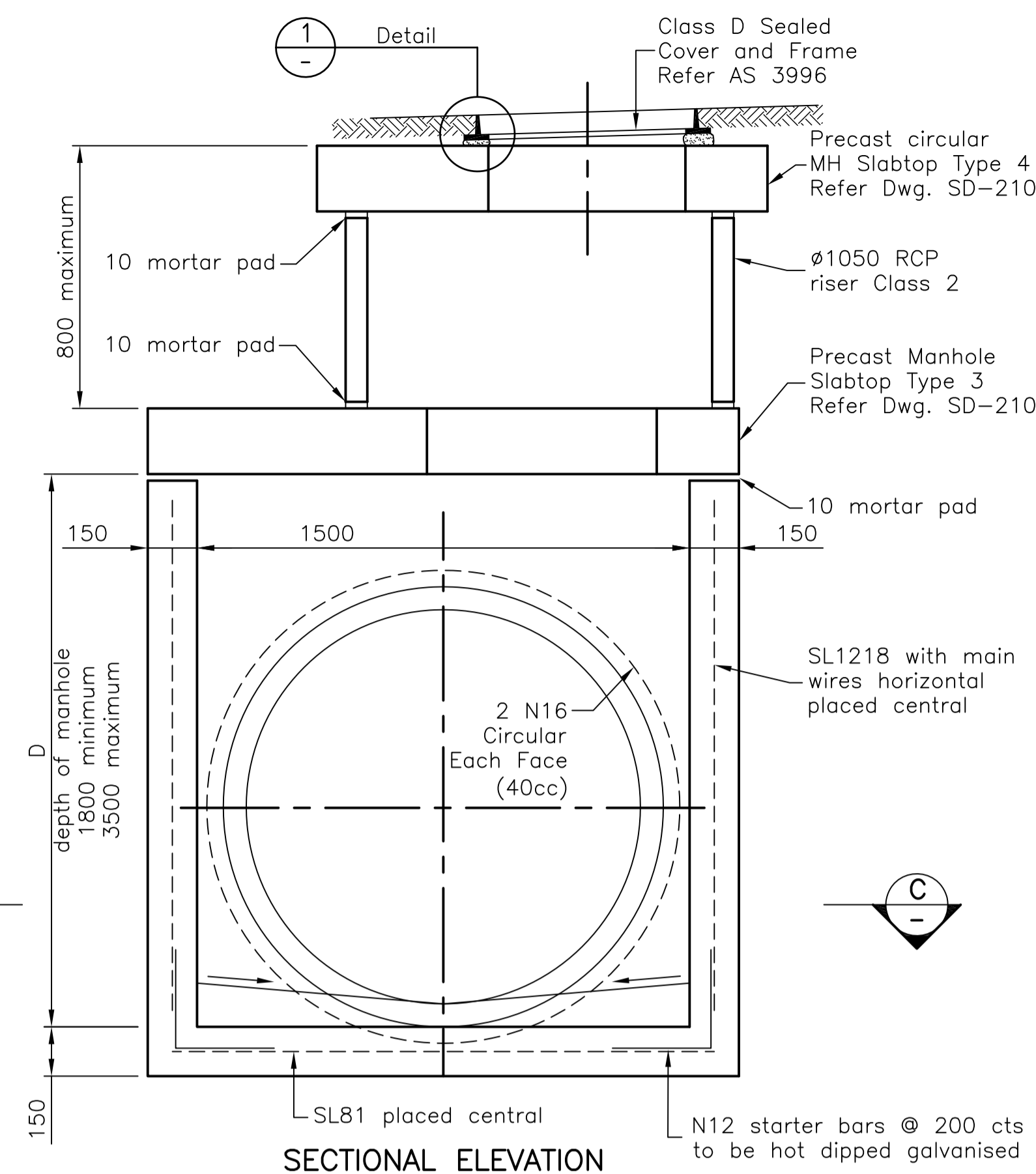
FOR PIPES UP TO 750mm INTERNAL DIAMETER
(for box culverts up to 750mm internal width)
- Where D is greater than or equal to 1200mm one internal dimension shall be 1200mm minimum (Reinforcement to be independently designed by the Engineer)



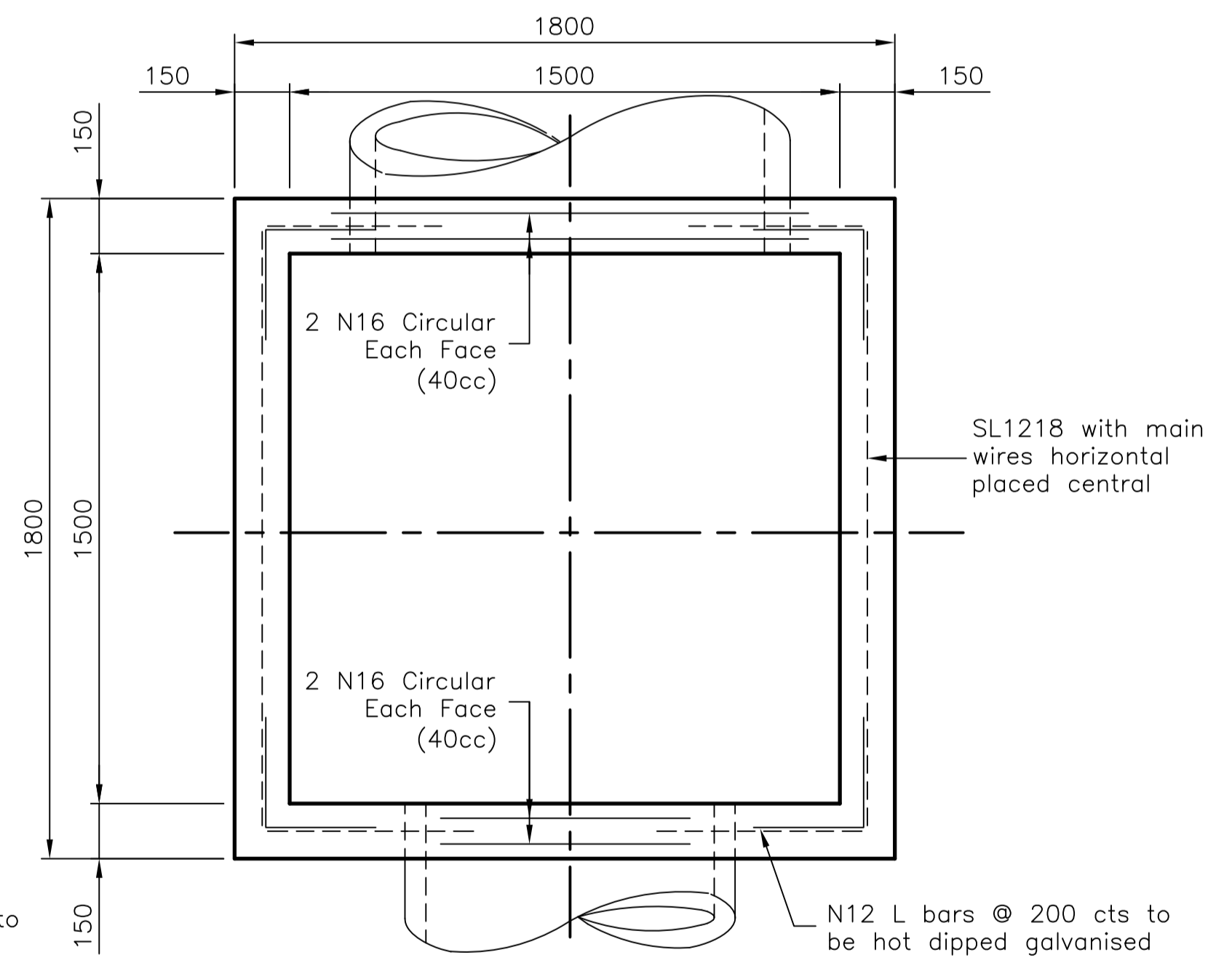
SECTION B

MANHOLE TYPE 2

FOR PIPES UP TO 1050mm INTERNAL DIAMETER
(for box culverts up to 900mm internal width)



SECTIONAL ELEVATION



SECTION C

MANHOLE TYPE 3

FOR PIPES UP TO 1350mm INTERNAL DIAMETER
(for box culverts up to 1200mm internal width)

GENERAL NOTES

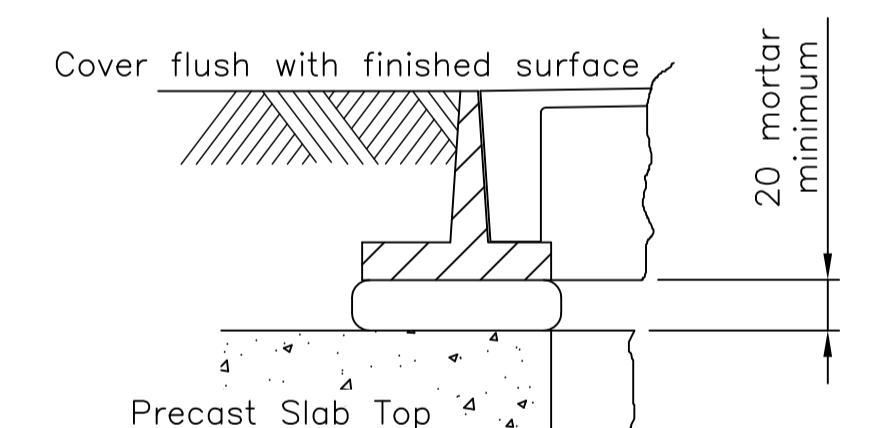
- All dimensions are in millimetres unless noted otherwise.
- Refer Standard Drawing SD-205 for standard manhole details.
- Exposure Classification B1. This drawing does not apply to exposure classifications more severe than B1.
- 50mm sand levelling pad required. Foundation requirements to be site-specific and designed by the Engineer.
- Where manhole depth is greater than 3500mm and/or internal dimensions are greater than 1500mm, the manhole walls and slab top shall be independently designed by the Engineer.
- Where the slab top opening is greater than 600mm x 600mm, the slab top shall be independently designed by the Engineer.
- Refer to project drawings for location of manhole, design levels, grades of pipes, and grades of kerb and channel.

CONCRETE NOTES

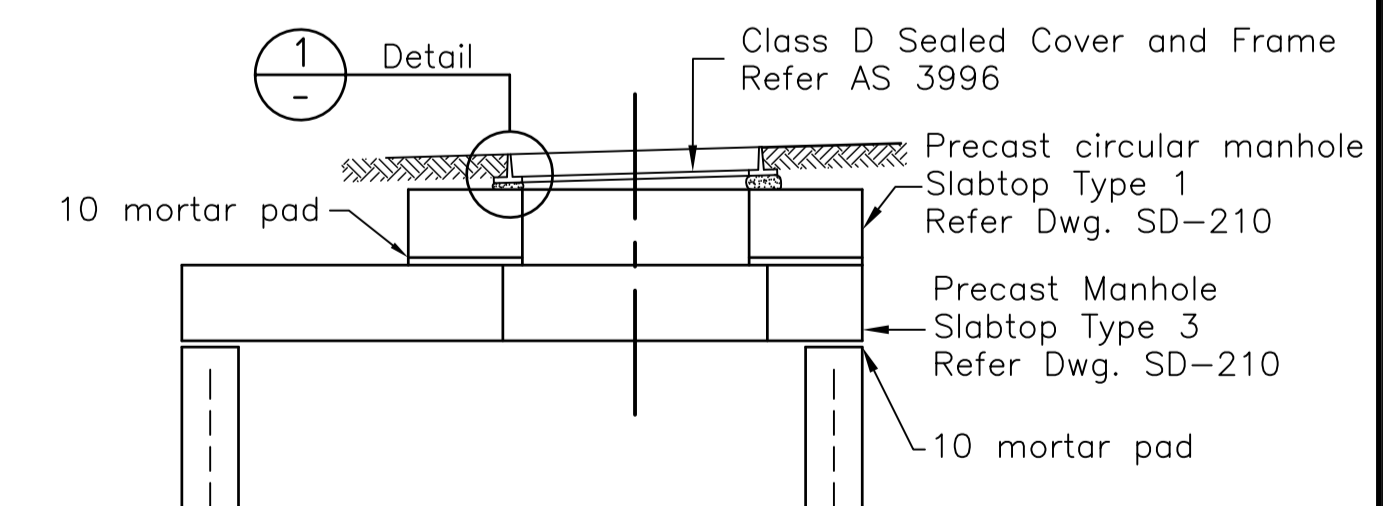
- All concrete to be in accordance with AS 1379 and AS 3600.
- Concrete for walls and base:
S32 Standard
S50 Aggressive Environments
- Concrete for precast slab top S32 min.
- Formwork in accordance with AS 3610.
- Design loads as per Austroads Bridge Code:
W7 wheel load
Dynamic factor 0.4
- All concrete shall be vibrated as per requirements of Standards Australia.
- Mass concrete benching shall be formed as directed by the Engineer.
- Kerb and channel infill and transition sections to be constructed after completion of adjacent standard kerb and channel, manhole, top and troughs. Infill and transition sections to be formed as necessary to match faces and edges of completed work.

REINFORCEMENT NOTES

- Mesh - grade 500 to AS 1304.
- Bars - grade 500 to AS 1302.
- Laps in reinforcement unless noted otherwise:
N12 - 300mm
N16 - 400mm
Mesh - overlap 2 transverse wires
- Minimum cover to reinforcing steel:
50mm Standard
70mm Aggressive Environments
- Cog length = 150mm
- Wall reinforcing at pipe entries to be cut and/or bent around openings as approved by the Engineer.
- All reinforcing steel to be held rigidly together, either by welding or tying, prior to placing concrete.
- All wire to be hard drawn wire.
- Starter bars in base slab shall be hot dipped galvanized.
- Reinforcement in manholes shall not be replaced with fibre reinforced concrete.



DETAIL 1



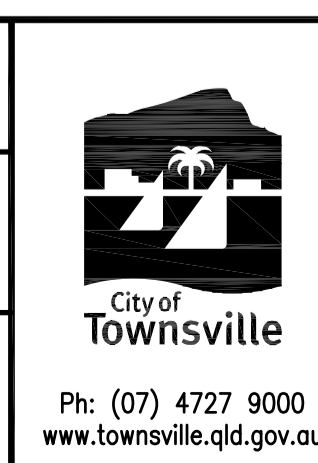
ALTERNATIVE MANHOLE TYPE 3
DETAIL WITHOUT R.C. PIPE RISER

No.	DATE	DESCRIPTION	AP'D
C	15/05/2012	BEDDING DETAILS ADDED	
B	23/12/2010	MANHOLE DETAILS AMENDED	
A	29/07/2009	ORIGINAL ISSUE	
REVISIONS			

NOTES : Supersedes COT Dwg 10205, 10210, 10216 and TCC Dwg 14057

Full Size A1
Not to scale

DRAWN: DESIGN OFFICE
CHECKED: WJP
Design Engineer Approved: Original signed by J EL-KHOURI
Date: 30/5/2012
Manager Approved: Original signed by J CLARKE
Date: 26/6/12



STORMWATER MANHOLE DETAILS

**STANDARD DRAWING
DRAINAGE
SD-205 C**