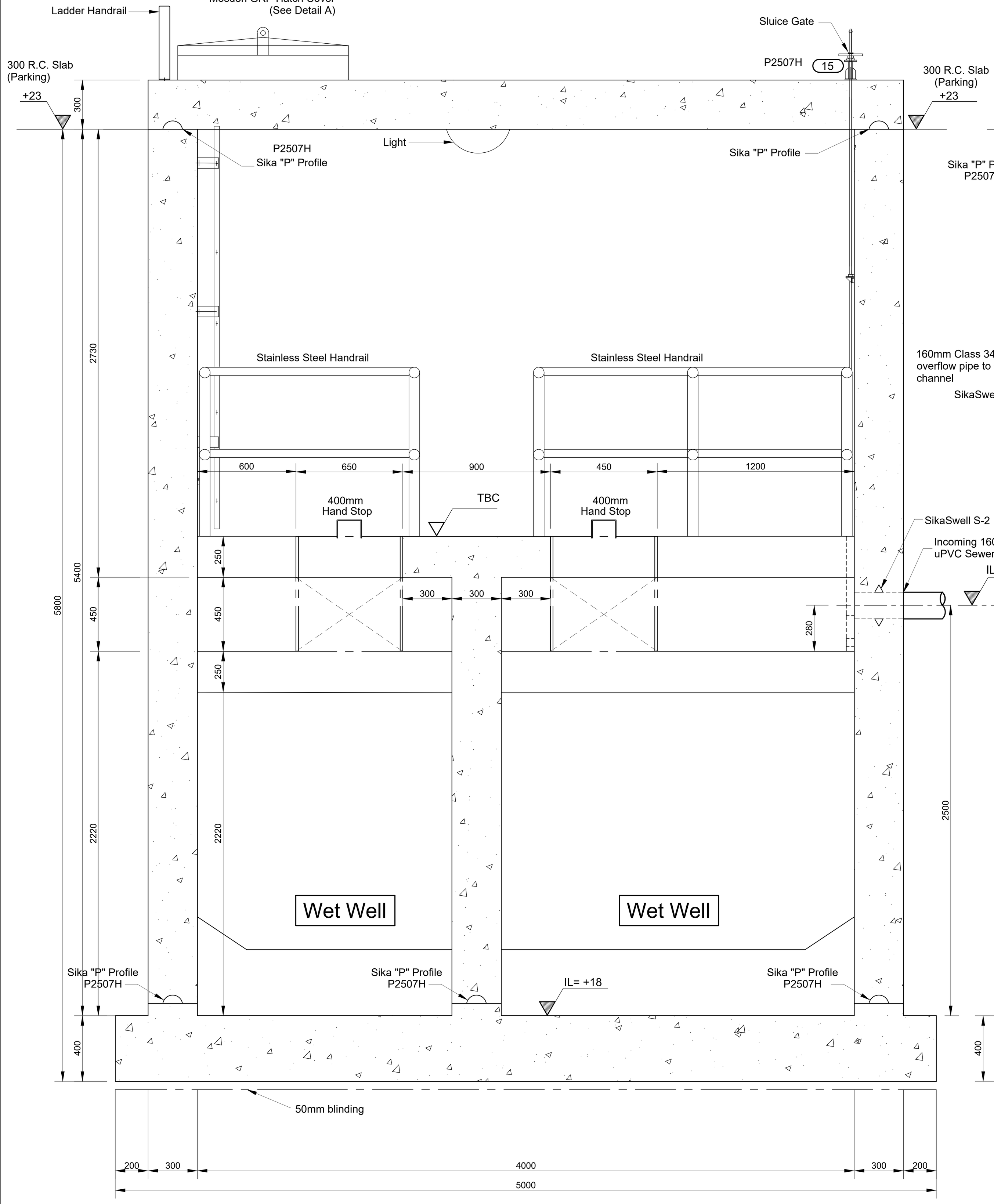
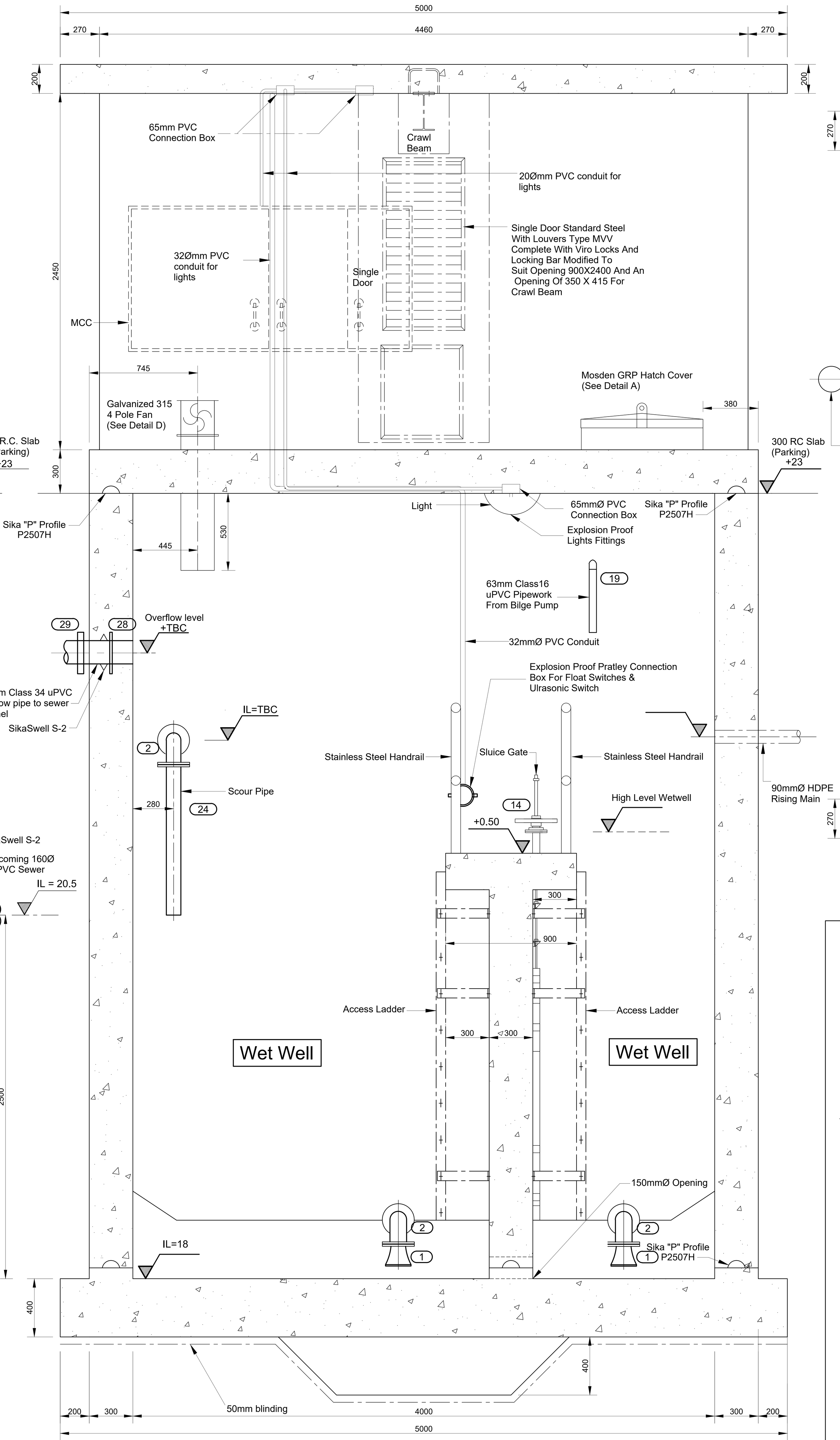


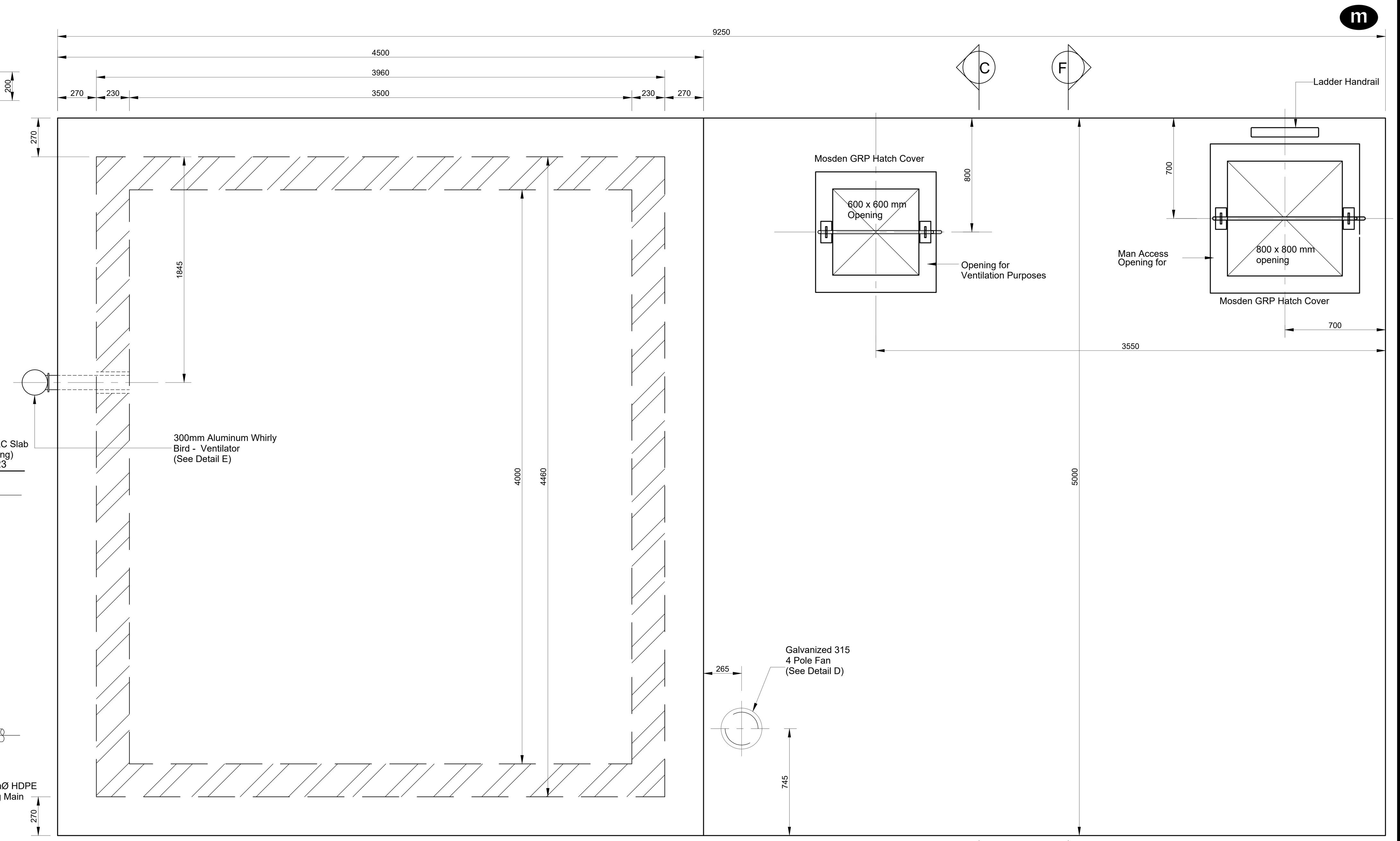
SECTION F - F

SCALE 1:20



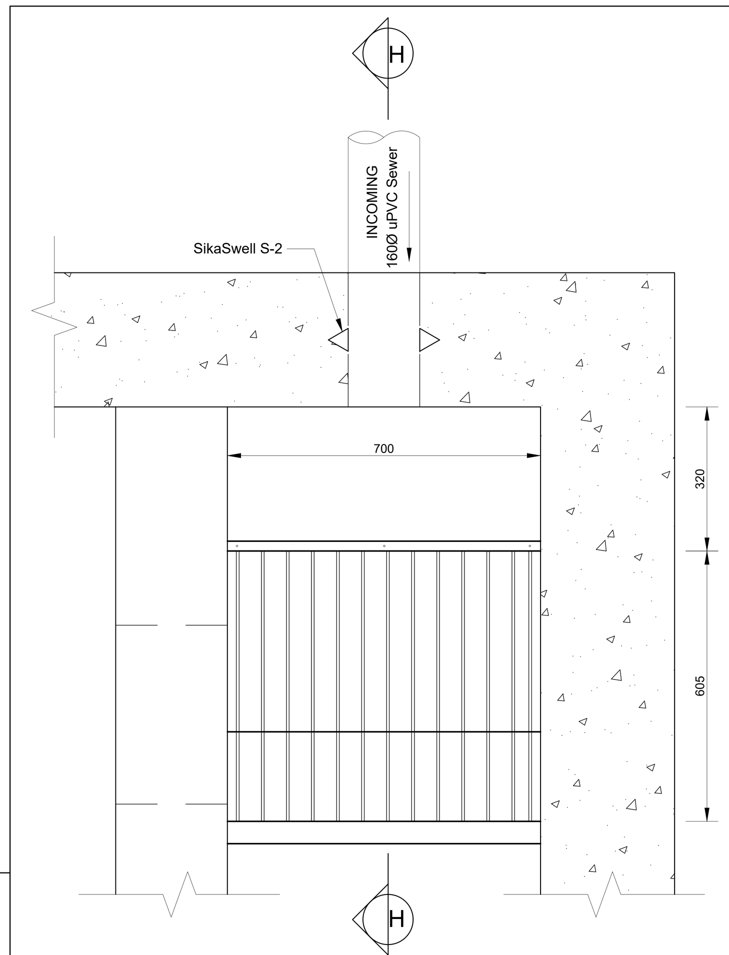
SECTION E - E

SCALE 1:20



ROOF PLAN

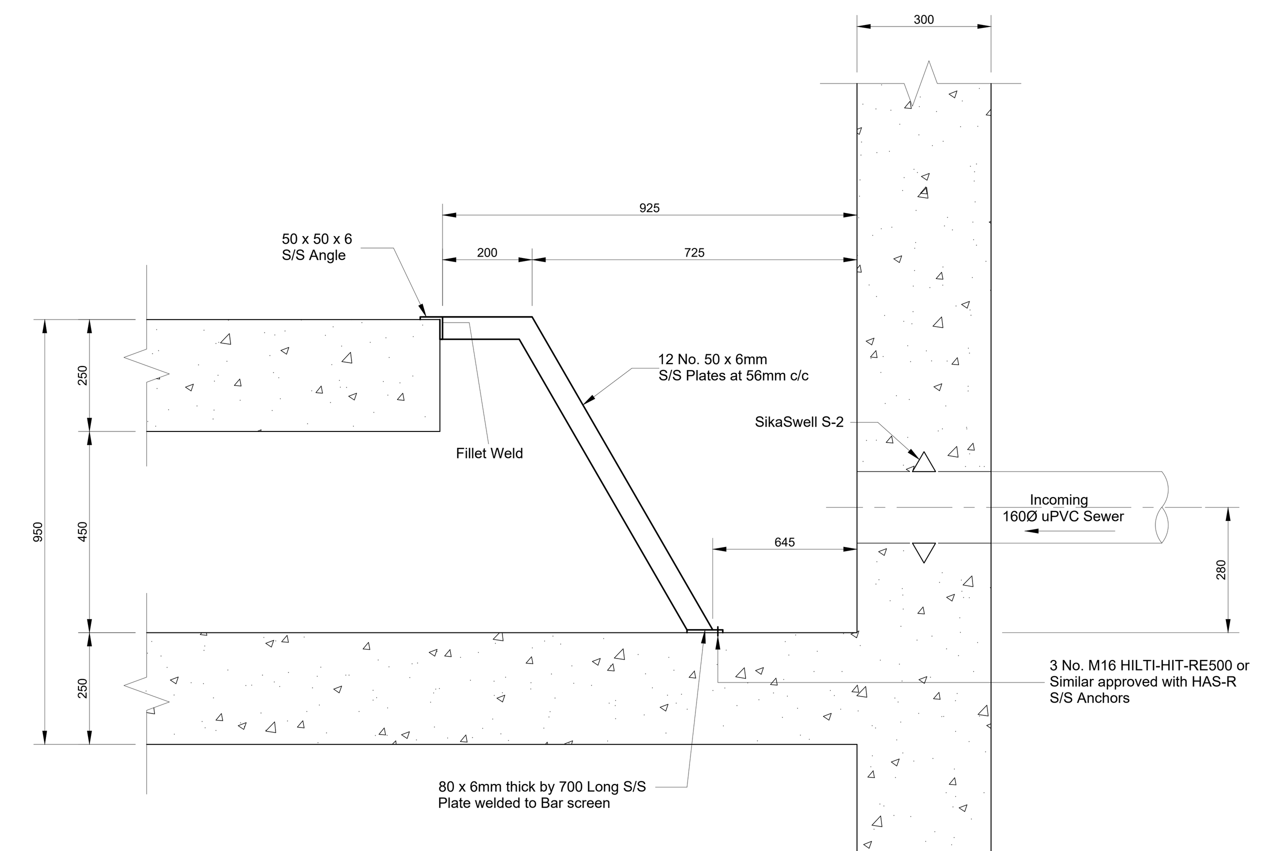
SCALE 1:20



PLAN - BAR SCREEN

SCALE 1:10

(TO BE INSTALLED BY M & E CONTRACTOR)

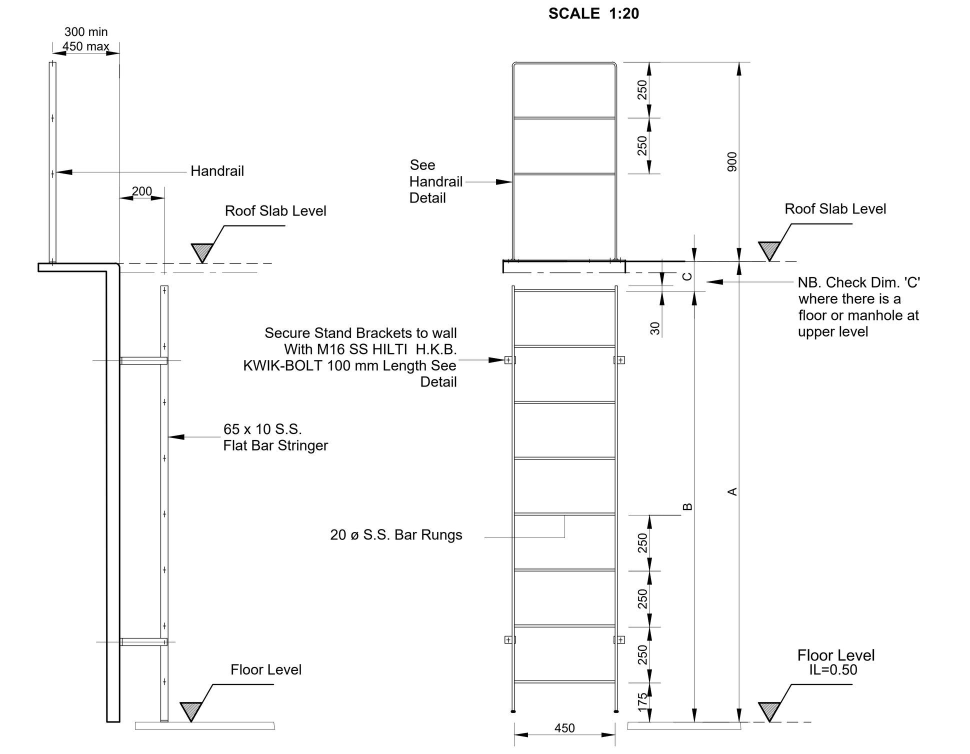


SECTION H - H

SCALE 1:10

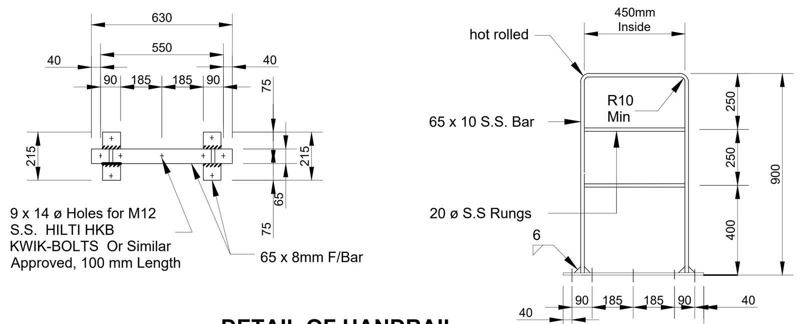
DETAIL C - BAR SCREEN

(TO BE INSTALLED BY M & E CONTRACTOR)



STAINLESS STEEL LADDER FOR PERMANENT INTERNAL ACCESS

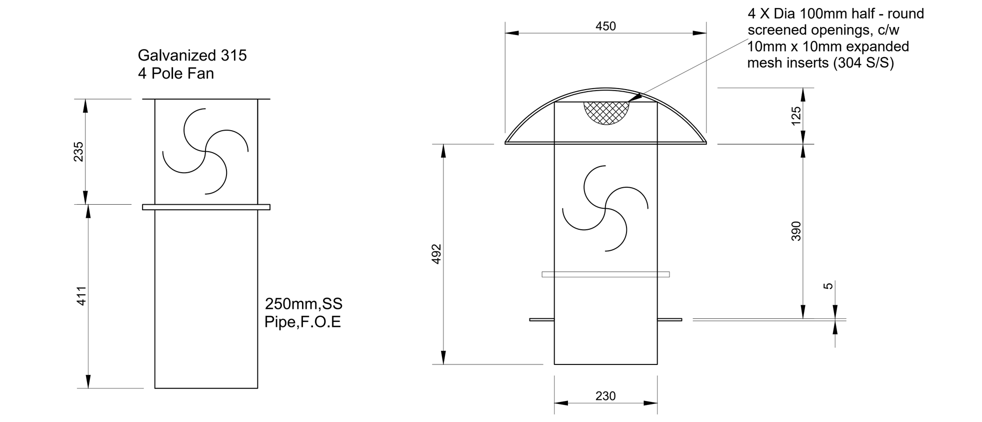
SCALE 1:20



DETAIL OF HANDRAIL

SCALE 1:20

DETAIL B - ACCESS LADDER & HANDRAIL



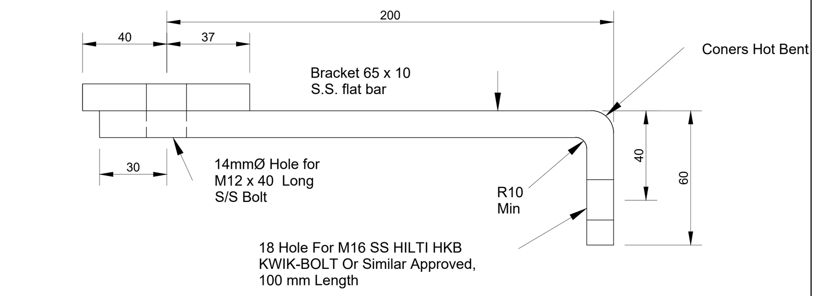
SECTION J - J
DETAIL D - 315 POLE FAN

SCALE 1:2

SECTION
DETAIL D - 450 Ø VENTILATOR

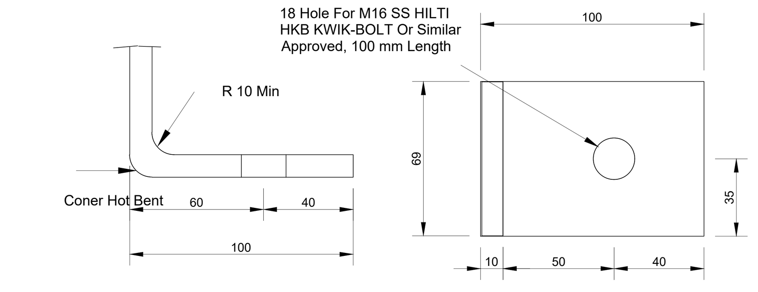
SCALE 1:2

(TO BE INSTALLED BY M & E CONTRACTOR)



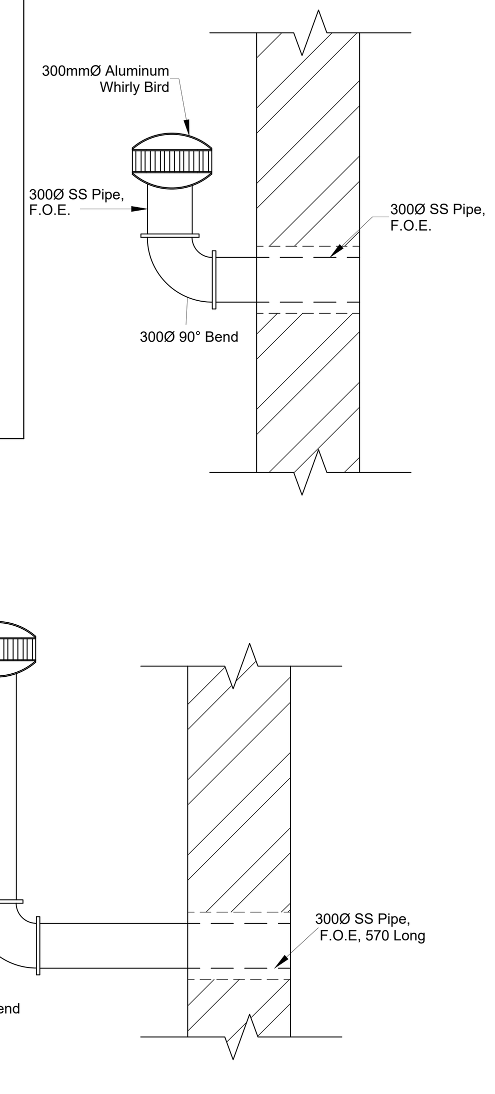
TYPICAL DETAIL OF WALL BRACKET

SCALE 1:2



TYPICAL DETAIL OF LADDER FOOT

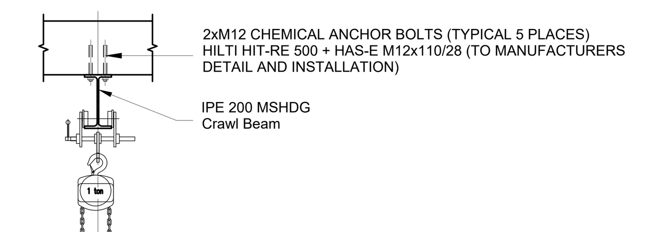
SCALE 1:2



DETAIL E
WHIRLY BIRD VENTILATOR

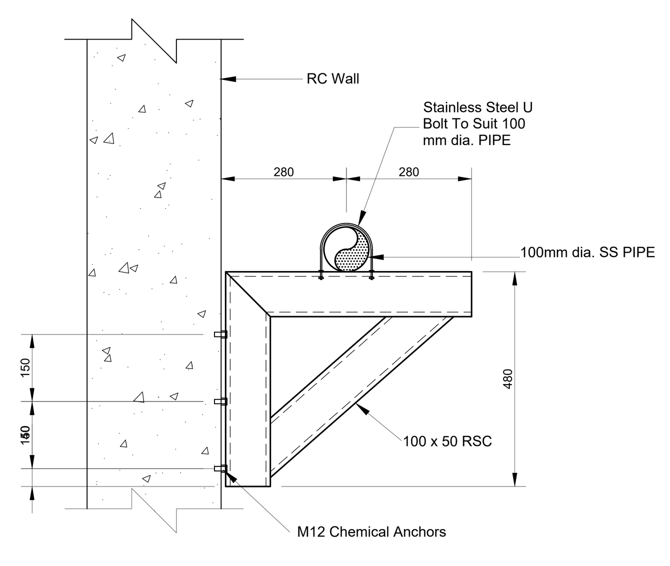
SCALE 1:10

(TO BE INSTALLED BY M & E CONTRACTOR)



CRAWL BEAM DETAIL

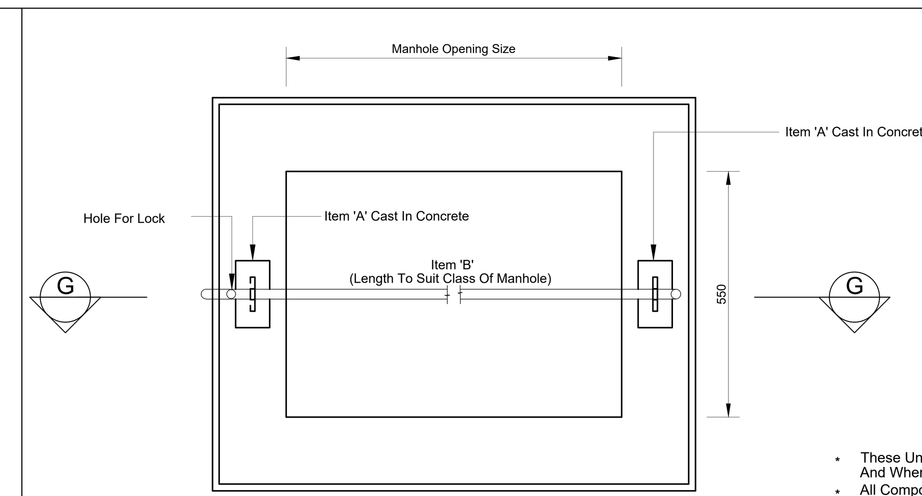
NTS



DETAIL F
SCOUR PIPE SUPPORT BRACKET

SCALE 1:10

(TO BE INSTALLED BY M & E CONTRACTOR)

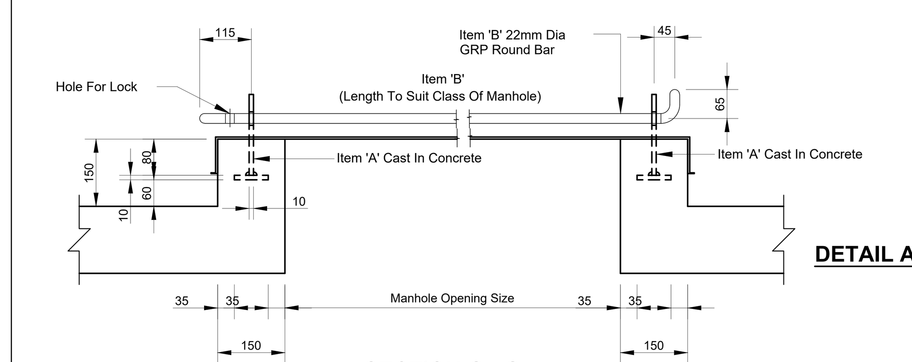


PLAN ON MANHOLE COVER

SCALE 1:10

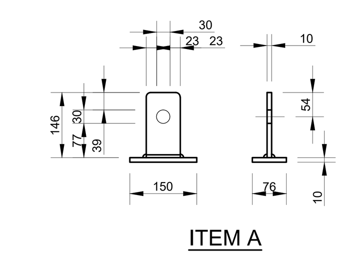
ASSEMBLY DETAIL

- These Units To Be Provided For Manholes And Wherever Else Ordered By Engineer
- All Components To Be GRP
- 20mm Dia. Hole In Item 'B' To Suit "Viro" High Security Lock Type 106
- Assembly To Be Placed Centrally Across Manhole / Opening.
- All Corners To Be Radiused To 10mm Radius As Shown



SECTION G - G

SCALE 1:10



ITEM A

DETAIL A - MANHOLE COVER & LOCKING PLATE

SCALE 1:10

FOR TENDER PURPOSES ONLY

NOTES:

1. Manholes to be in accordance with DWG No. 38570 and 38574 .
2. Pipe bedding to be in accordance with departmental specification DB 5.5 .
3. All dimensions are to be checked on site prior to any fabrication and commencement to work .
4. Positions and levels of all services in the vicinity of the new sewer to be checked and proved prior to commencement of construction .
5. Sewer pipe shall be heavy duty uPVC 150mmØ on flexible bedding unless otherwise stated .
6. All invert levels to be confirmed by contractor on site.
7. All manholes within road carriageway to have H.D. cast iron cover and frame unless otherwise indicated .
8. All existing services to be proven by contractor on site prior to works proceeding .
9. For engineering services layout refer to DRG. No. 10266/5000
10. The minimun cover to all pipes shall be :
    A) Midblock - 800mm
    B) Sidewalk - 1000mm
    C) Roadway - 1200mm
11. Sewer manholes shall be 1000mmØ precast ring manholes with light duty cover and frame unless otherwise indicated .

N.G.L. - Natural Ground Level
F.G.L. - Finish Ground level

Any discrepancies are to be confirmed with the engineer on site prior to work proceeding

12. All Pipe work & Pumps to be installed by Mechanical + Electrical Contractor.
13. Sump wall & roof slabs to be Plastered with 30mm thick HAC - Engineer to confirm extent of Plastering.
14. Anchor knob sheet (AKS) 3mm thick to be installed with sump walls and roof slabs during casting.

15. G2 material to be installed from Pumpstation base to height of maximum 1m, placed in 200mm layers & compacted to 98% Mod Asshto (Subject to engineers instruction).

16. G7 material to be installed for Pumpstation backfill material placed and compacted in 200mm layers & compacted to 98% Mod Asshto (Subject to engineers instruction).

REVISIONS

Revision	Date	Description
A	AUG 2023	FOR TENDER PURPOSES

DATE : .... SIGN : ....

REDUCED PLAN USE SCALE BELOW

0 10 20 30 40 50 60 70

70mm ON ORIGINAL PLAN

LEGEND OF EXISTING UNDERGROUND SERVICES

PROPOSED SEWERS AND M.H.'S
EXISTING SEWERS AND M.H.'S
ABANDONED SEWERS AND M.H.'S
STORM WATER DRAIN AND M.H.'S
WATER MAINS AND VALVES
ELECTRICITY CABLES
TELEPHONE CABLES
SPOORNET LINE
OIL PIPELINE

UNDERGROUND SERVICES CHECKED

SERVICE	DATE	SIGNATURE
S.W DRAINS		
SEWERS		
WATER MAINS		
TELKOM CABLES		
ELECTRIC CABLES		
SPOORNET CABLES		
E.S.C. CABLES		
OIL PIPE LINE		

NOTE: Only underground services affected by new construction work are shown. Care must be taken during excavations for road foundations, trenches etc, to avoid damage to underground services such as sewers, drains, cables, water mains and connections. Wherever possible these must be located before work proceeds.

NOTE: No construction work to commence until land and servitude acquisitions have been completed Acquisitions completed:– N/A

Date Engineer

NORTH POINT

ENGINEERING
WASTEWATER DESIGN

ETHEKWINI MUNICIPALITY

ETHEKWINI WATER & SANITATION

Contract No. **WS 7684**

Project Title

NORTHDALE PUMP STATION AND RISING MAIN REPLACEMENT

Project No.(Y 8612)

Drawing Title

PUMPSTATION SECTION DETAILS PART 2

Reference Drgs.

Scales	: AS SHOWN		
Surveyed	: S.MANQELE	Date	: AUG 2019
Drawn	: P. ZONDI	Date	: AUG 2023
Designed	: R.NEL	Date	: AUG 2023
Checked	: P.MBHELE	Date	: AUG 2023

Area Manager

Manager (Design) : P.MBHELE

Deputy Head (Engineering): B.SONI

Head: (Water & Sanitation) E. MSWELI

Drawing No. **59106** Sheet 6/14 Rev.