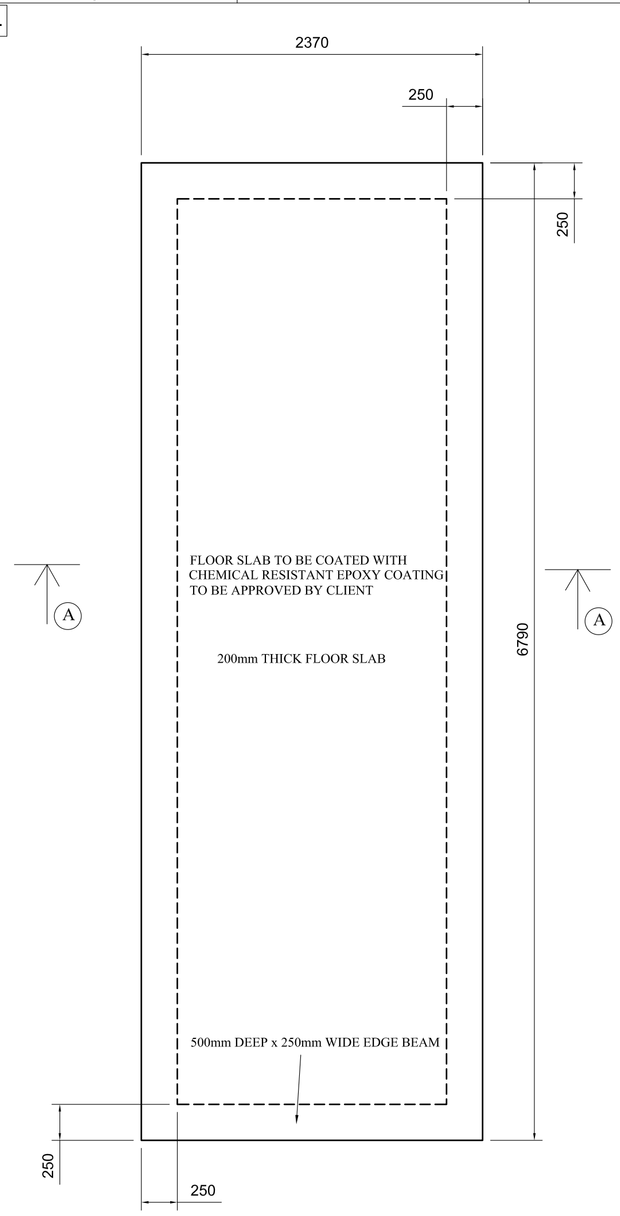
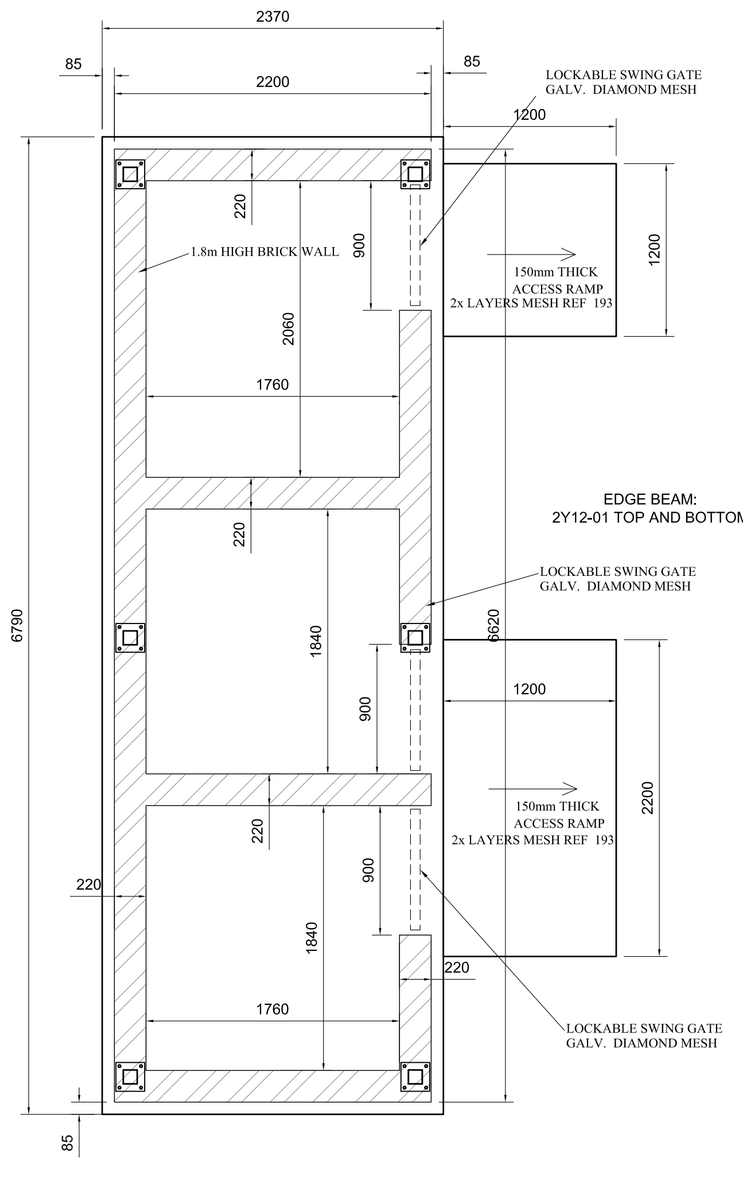
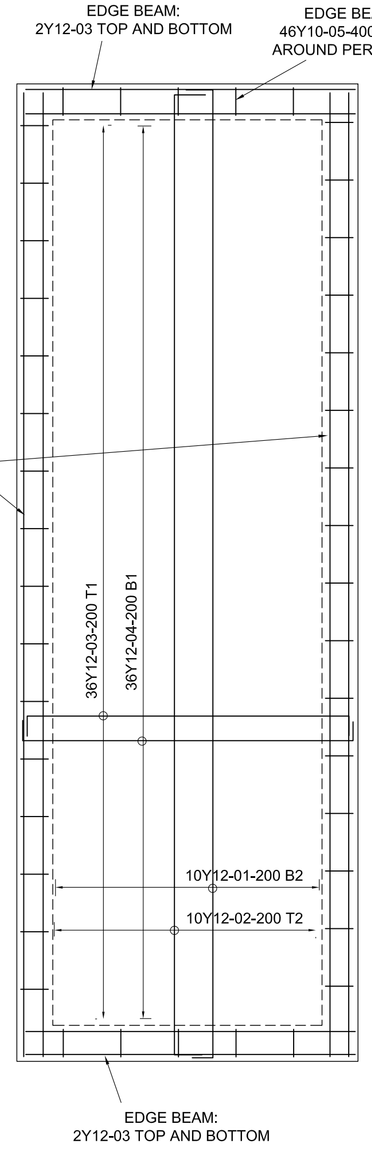
CIVIL



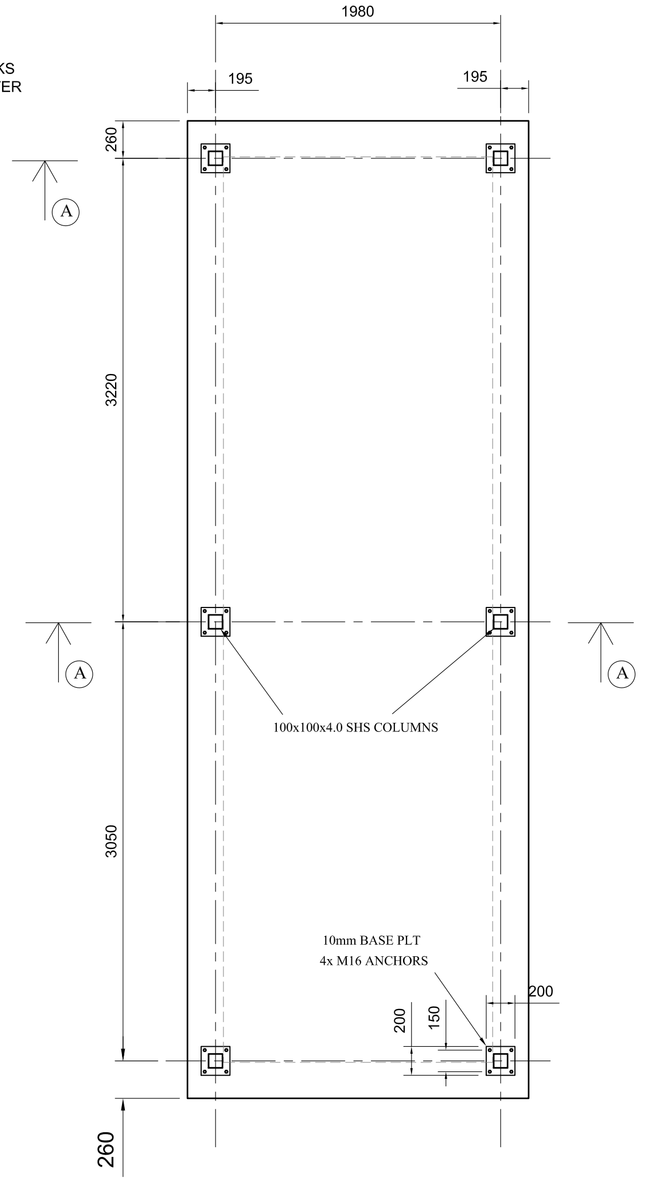
SLAB LAYOUT



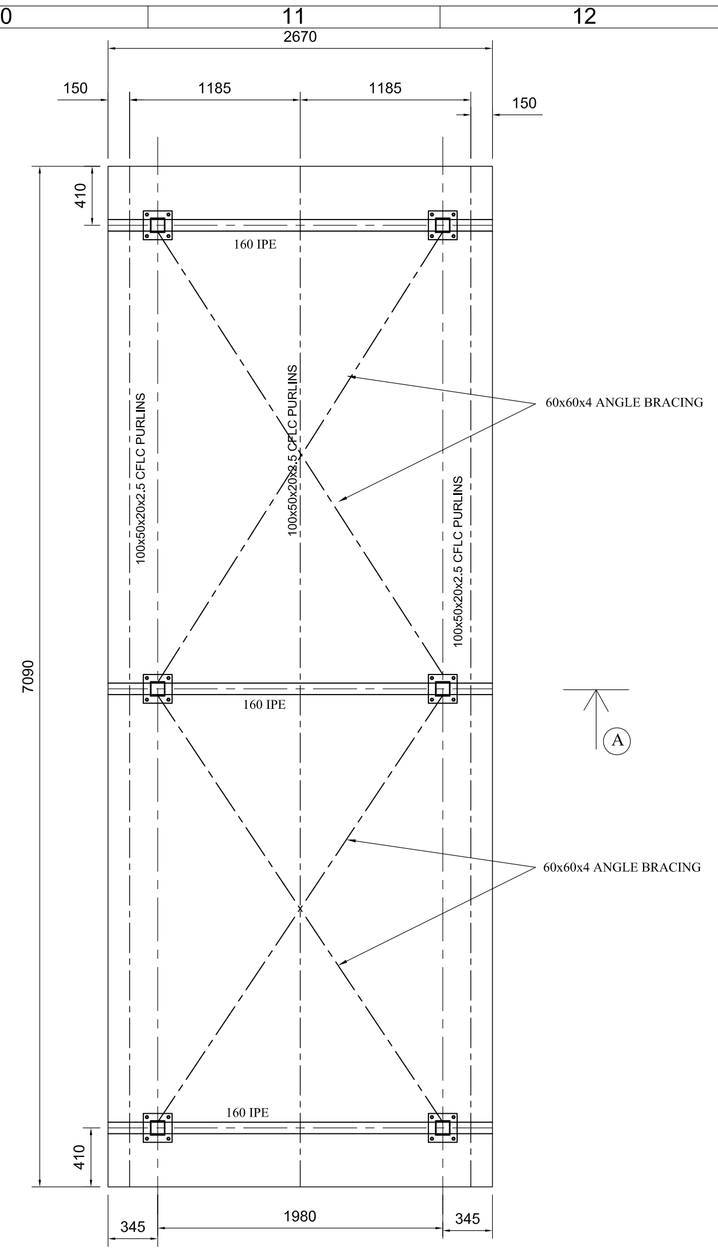
DIVIDING BRICKWALL LAYOUT



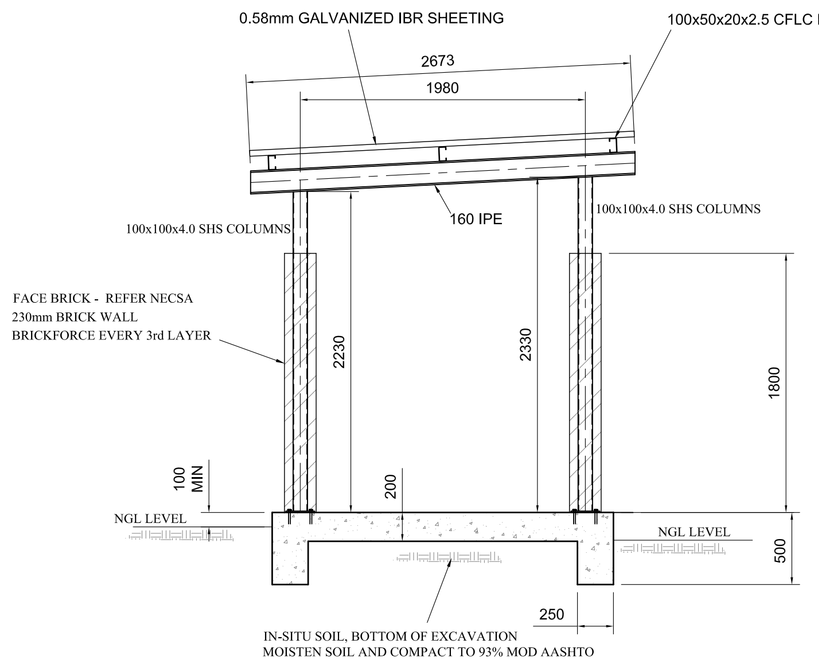
SLAB REINFORCEMENT LAYOUT



BASEPLATE AND COLUMN LAYOUT



CANOPY ROOF LAYOUT



SECTION A-A

SECTION A-A SLAB REINFORCEMENT

MEMBER	NO OFF	BAR MARK	DIA.	BARS / MEMBER	TOTAL NO.	CUT LENGTH	SHAPE CODE	BENDING A	B	C	D	E/r
MEHTANE, LPG SLAB	1	01	Y12	18	18	6890	35	6690				
		02	Y12	10	10	6890	35	6690				
		03	Y12	44	44	2470	35	2270				
		04	Y12	36	36	2470	35	2270				
		05	Y10	46	46	1210	72	400	150			
		06	Y10	16	16	650	83	250	100	100		

High tensile steel (Y) mass for schedule **387** kg
Mild steel (R) mass for schedule **0** kg
TOTAL MASS **387** kg

R = Mild steel bars (250 Mpa)
Y = Deformed high tensile steel bars (450MPa)
All reinforcement and bending to SANS 920 & SANS 282
All dimensions in schedule are outer dimensions

STEELWORK MATERIALS QUANTITY		
ITEM	STEELWORK SECTION	QUANTITY - UNIT
1.	100x100x4.0 SHS COLUMNS	175 kg
2.	160 IPE RAFTERS	130 kg
3.	100x50x20x2.5 CFLC PURLINS	110 kg
4.	60x60x4 ANGLE BRACING	60 kg
5.	10mm BASE PLATES	20 kg
6.	M16 CHEMICAL ANCHORS	x24 Nr Off
7.	LOCKABLE SWING GATE HINGED , DIAMOND MESH	x3 Nr Off
8.	0.58mm GALVANIZED IBR SHEETING	12 m^2
9.	CLEATS, PLATES, ETC.	40 kg

GENERAL CIVIL WORK NOTES:

ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH THE PROVISIONS OF SANS 2001-PART CC1 : CONCRETE WORKS (STRUCTURAL)

1. EARTH WORKS :

1.1 ALL BACKFILLING TO BE DONE IN ACCORDANCE WITH THE RELEVANT DRAWINGS AND SPECIFICATIONS

2. CONCRETE AND REINFORCEMENT

2.1 CONCRETE : 30 MPa / 19mm STONE UNLESS OTHERWISE NOTED

2.2 MINIMUM CONCRETE COVER TO REINFORCEMENT:
- BOTTOM OF BUND SURFACE BED, FLOOR : 50mm
- BUND WALLS AND TOP OF FLOOR : 40mm

2.3 CURING : ALL CONCRETE TO BE CURED BY KEEPING CONCRETE SURFACES WET FOR A MINIMUM OF 7 DAYS.

4. FORMWORK

4.1 ALL EXPOSED CORNERS ARE TO BE PROVIDED WITH 25x25 CHAMFER AT 45 DEGREES

4.2 EXPOSED SURFACE FINISH : SMOOTH STEEL FLOAT

4.3 HIDDEN SURFACE FINISH : ROUGH

5.0 BOTTOM OF FOUNDATION EXCAVATION TO BE CLEANED, COMPACTED AND LOOSE MATERIAL REMOVED. SOILS TO BE SPRAYED WITH WATER, KEPT MOIST MOIST BEFORE CASTING CONCRETE

6.0 REINFORCEMENT MINIMUM OVERLAP LENGTH = 50 x BAR DIAMETER

GENERAL STRUCTURAL STEELWORK NOTES

1. ALL STEELWORK TO BE IN ACCORDANCE WITH SANS 2001-CS1 :2005 STANDARDIZED SPECIFICATION FOR CIVIL ENGINEERING CONSTRUCTION : STRUCTURAL STEELWORK.
2. MINIMUM GRADE OF STRUCTURAL STEELWORK :
   - HOT ROLLED MEMBERS : GRADE S355JR
   - HOLLOW SECTIONS : MINIMUM GRADE 300WA
   - COLD FORMED SECTIONS : MINIMUM 240 MPa YIELD STRESS
3. STEELWORK MATERIAL GRADE CERTIFICATES TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL..
4. THE ENGINEER SHALL BE RESPONSIBLE FOR THE PRODUCTION OF ALL DESIGN DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRODUCTION OF ALL FABRICATION AND ERECTION DRAWINGS.
6. ALL FABRICATION, WORKSHOP AND ERECTION DRAWINGS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF FABRICATION. DRAWINGS WILL BE CHECKED FOR STRUCTURAL DESIGN INTENT. WORKSHOP DIMENSIONS WILL NOT BE CHECKED.
7. ALL BOLTS AND NUTS TO BE GRADE 8.8, GALVANIZED, MINIMUM BOLT SIZE M12 UNLESS OTHERWISE NOTED.
8. WELD SIZE TO BE MINIMUM 6mm CONTINUOUS FILLET WELD UNLESS OTHERWISE NOTED.
9. ALL BURRS AND ROUGH EDGES SHALL BE GROUND SMOOTH PRIOR TO WELDING END PLATES, CLEATS, BRACKETS OR PAINTING..
10. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ERECTION SEQUENCE AND STABILITY DURING CONSTRUCTION.
12. ALL ELEMENT SPLICES TO DEVELOP FULL STRENGTH OF MEMBERS JOINED.
13. ALL WELDING TO CONFIRM TO AWS D1.1
14. DIMENSIONS ON DRAWINGS DO NOT ALLOW FOR FABRICATION, ERECTION CLEARANCES, SHOP DETAILS MUST ALLOW FOR TOLERANCES, CLEARANCES FOR ERECTION.
15. UNLESS OTHERWISE SPECIFIED ALL STEELWORK MEMBERS TO INTERSECT AT CENTER OF GRAVITY NODE POINTS.
16. THE STEELWORK CONTRACTOR IS RESPONSIBLE FOR HIS OWN FABRICATION QUALITY CONTROL PROCEDURE.
17. CORROSION PROTECTION ON STEELWORK - REFER NECSA SPECIFICATIONS

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REV	DESCRIPTION	CHK'D	DATE
2.0	ISSUED FOR APPROVAL	PBvA	2026-02-02

REFERENCE DRAWINGS:

CLIENT ACCEPTANCE APPROVAL OF DRAWING			
DISCIPLINE	NAME	SIGNED	DATE
FACILITY OWNER :			
LICENSING :			
PREPARED :	PB VAN ASWEGEN		2026-02-02
APPROVED :	PB VAN ASWEGEN		2026-02-02
REVIEWER :	SIBONGELENI MNGOMA		
REVIEWER :	KASUREN MOODLEY		
REVIEWER :	HERTZOG BISSETT		

APPROVED BY PROFESSIONAL ENGINEER

2026-02-02

DATE

ORIGINAL SCALE: AS SHOWN ON VIEW

DRAWN PBvA

CHECKED

necsa We're in your world

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PTFE FACILITY

PTFE FILTER DESTRUCTION PROJECT BUND

METHANE, LPG, ARGON GAS STORAGE AREA

CIVIL WORKS DETAILS

LAST UPDATE 2026/02/02

DATE CREATED 2026/02/02

A1

2.0

REVISION

DRG. NO: NNDD-V-H2-C-BUNDE-0002

TEAMCENTER No: