



CONTRACT NO.: SCM/MOH/10/2025

ROUXVILLE/ROLELEATHUNYA:CONSTRUCTION
OF SPORTS GROUND_PHASE 2

BOOK OF TENDER DRAWINGS

AUGUST 2025



Drawing signed for approval
held at Engineering Aces offices

| | | | |
|-----------|------------|-----------------------------------|------|
| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | N QWABE | SS MNTAMBO Pr Tech Eng-2025302376 | DATE |
| CHECKED: | PL MABOHO | | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
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| TO | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
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ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2

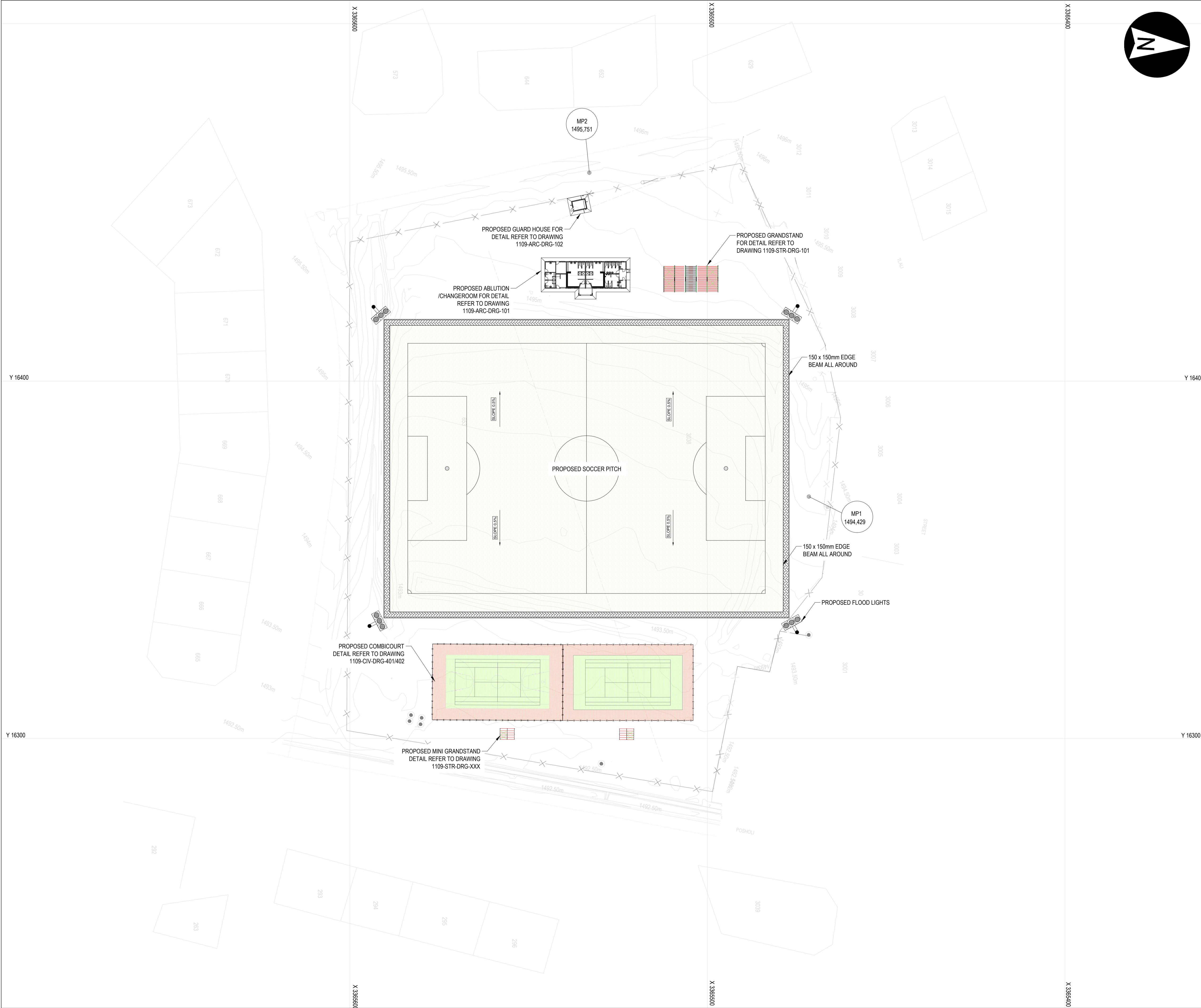
LAYOUT:
LOCALITY PLAN

LIST OF DRAWINGS

| | | |
|------------------|---|---|
| 1109-CIV-DRG-100 | : | LAYOUT: LOCALITY AND LIST OF DRAWINGS |
| 1109-CIV-DRG-101 | : | LAYOUT: SITE |
| 1109-CIV-DRG-102 | : | DETAILS: PROJECT NAMEBOARD |
| 1109-CIV-DRG-401 | : | DETAILS: NETBALL AND BASKETBALL COMBI-COURT |
| 1109-CIV-DRG-402 | : | DETAILS: VOLLEYBALL AND TENNIS COMBI-COURT |
| 1109-ARC-DRG-100 | : | DETAILS: GENERAL NOTES |
| 1109-ARC-DRG-101 | : | DETAILS: ABLUTION FACILITY/CHANGING ROOMS |
| 1109-ARC-DRG-102 | : | DETAILS: GUARD HOUSE |
| 1109-ARC-DRG-103 | : | DETAILS: WINDOWS AND DOOR SCHEDULE |
| 1109-STR-DRG-100 | : | DETAILS: GENERAL NOTES |
| 1109-STR-DRG-101 | : | DETAILS: COVERED GRANDSTAND |
| 1109-STR-DRG-102 | : | DETAILS: COVERED GRANDSTAND AND ROOF COVERING |
| 1109-STR-DRG-103 | : | DETAILS: COVERED GRANDSTAND CONNECTION DETAIL |
| 1109-STR-DRG-104 | : | DETAILS: COVERED GRANDSTAND FOUNDATION REINFORCEMENT AND BENDING SCHEDULE |
| 1109-STR-DRG-105 | : | DETAILS: MOVABLE MINI GRAND STAND |
| 1109-STR-DRG-106 | : | DETAILS: GENERAL DETAILS |
| 1109-STR-DRG-107 | : | DETAILS: ABLUTION FACILITY AND GUARD HOUSE FOUNDATION AND SURFACE BED |

DRAWING NO.
1109-CIV-DRG-100

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LEGEND:

EXISTING FENCE

PROPOSED HIGH MAST

NOTES:

1. THE LATEST EDITION OF ANY STANDARD SPECIFICATION SHALL APPLY.

2. ALL DIMENSIONS ARE IN METERS (m) UNLESS STATED OTHERWISE.

3. SHALL EXPOSE ALL EXISTING SERVICES TO BE CONNECTED PRIOR TO ANY WORK BEING DONE. WORK MAY ONLY COMMENCE ONCE THE ENGINEER HAS CHECKED THAT CONNECTIONS ARE POSSIBLE AND WRITTEN APPROVAL GIVEN FOR COMMENCEMENT OF WORK.

4. CONTRACTOR TO OBTAIN APPROVAL TO CONNECT WITH EXISTING INFRASTRUCTURE AND TO COMPLY WITH LOCAL AUTHORITY REGULATIONS.

5. ALL EARTHWORKS AND SERVICES TO BE SET OUT BY A COMPETENT AND QUALIFIED SURVEYOR ACCORDING TO CO-ORDINATES ON PLANS.

6. EXCESS EXCAVATED MATERIAL SHALL BE SPOILED TO AN APPROVED SITE LOCATED BY THE CONTRACTOR.

7. MINIMUM NUMBER OF PROCESS CONTROL TESTS REQUIRED FOR FILL AND LAYER WORKS :
- REIMBURSEMENT FOR PROCESS CONTROL TESTS SHALL BE INCLUDED IN RATES SUBMITTED.

8. WORK TO COMPLY WITH THE FOLLOWING STANDARD SPECIFICATION.
STANDARDIZED SPECIFICATIONS FOR CIVIL ENGINEERING CONSTRUCTION
-SABS 1200 - SABS 1200 - SABS 1200 D - SABS 1200 MH - SABS 1200 D
- SABS 1200 M - SABS 1200 ME

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DRAWN: N QWABETENDER DRAWINGS

DESIGNED: N QWABE

CHECKED: PL MABOHO

APPROVED: SS MNTAMBO

DATE

SS MNTAMBO Pr Tech Eng-2025302376

SCALE: AS SHOWN

AMMENDMENTS

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LOCAL MUNICIPALITY

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ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2

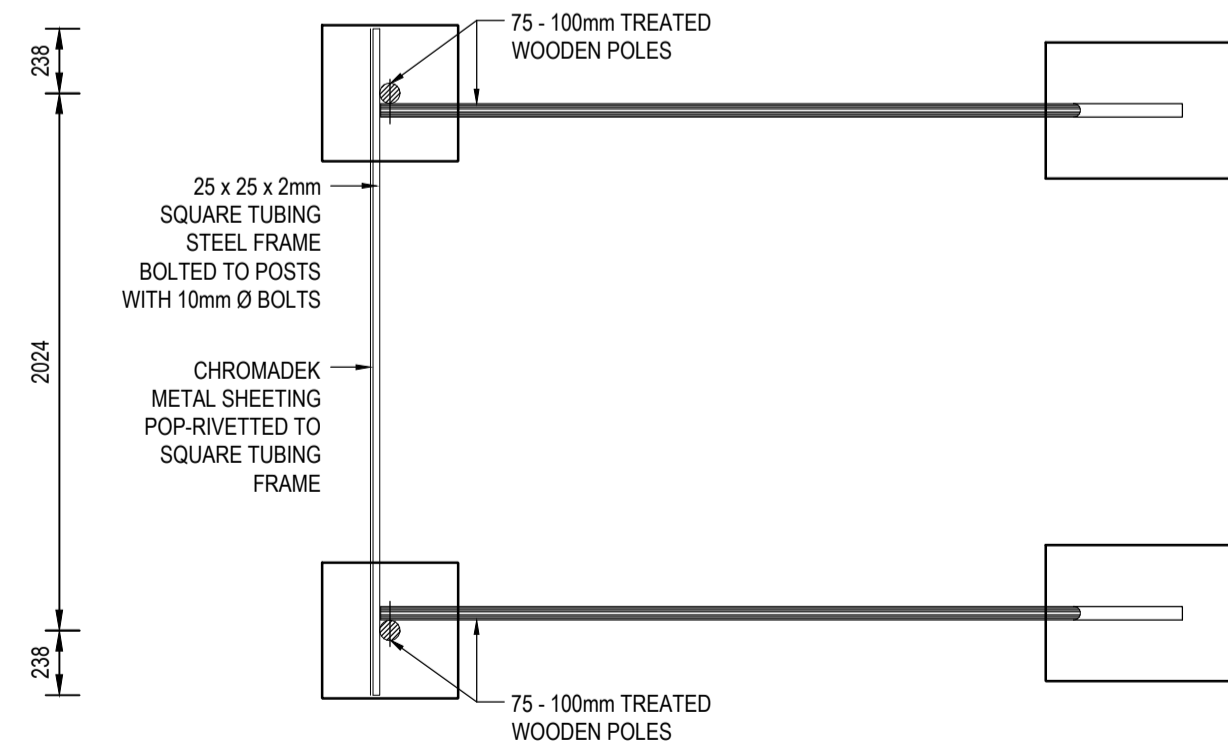
LAYOUT:SITE

DRAWING NO.
1109-CIV-DRG-101

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BACK ELEVATION
N.T.S



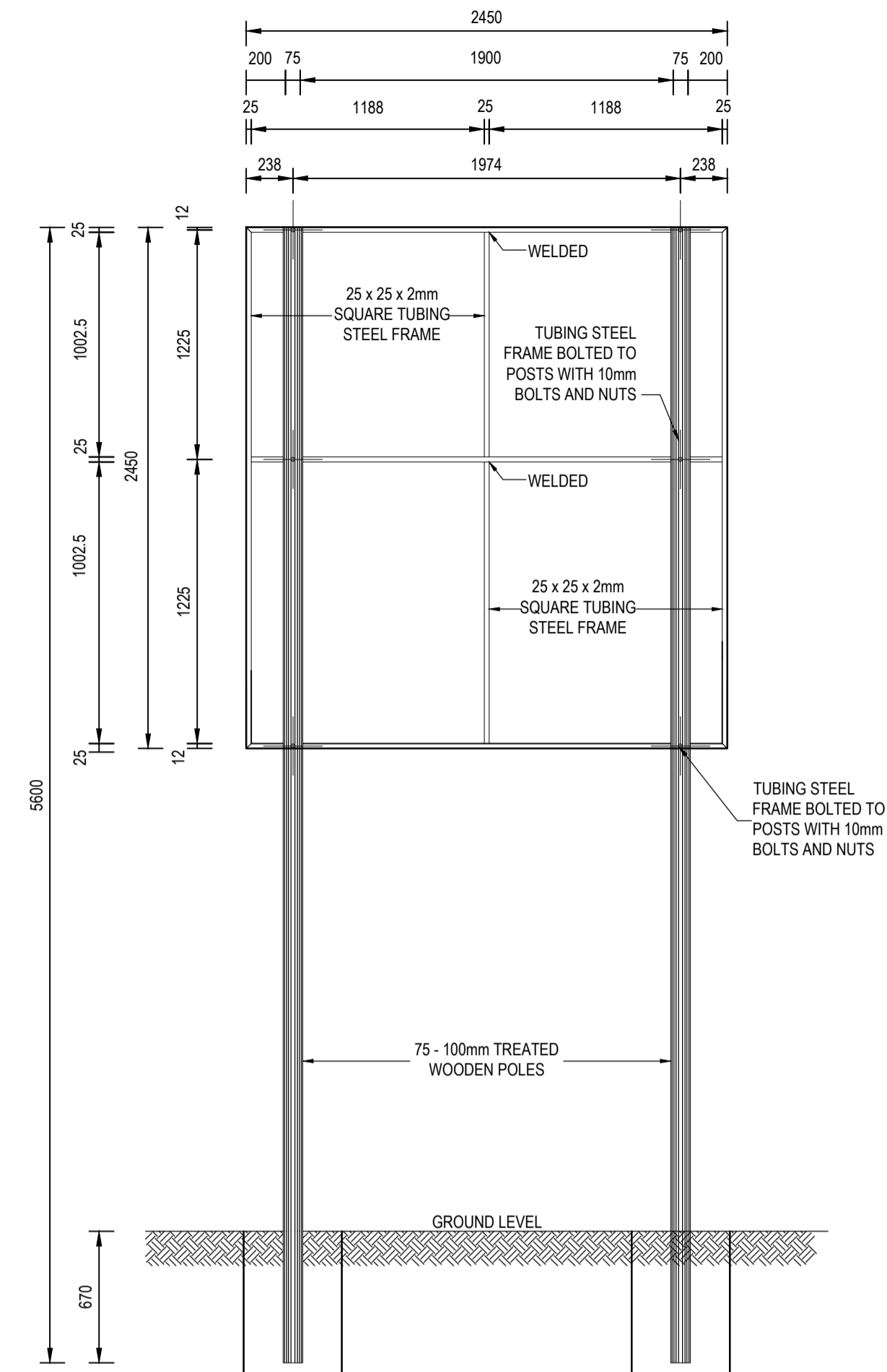
TOP VIEW
N.T.S

CHROMADEK METAL SHEETING: (RUST RESISTANT METAL)
SPRAY PAINTED TO THE CUSTOMER'S SPECIFICATIONS WITH AUTOMOTIVE QUALITY DUCO PAINT.

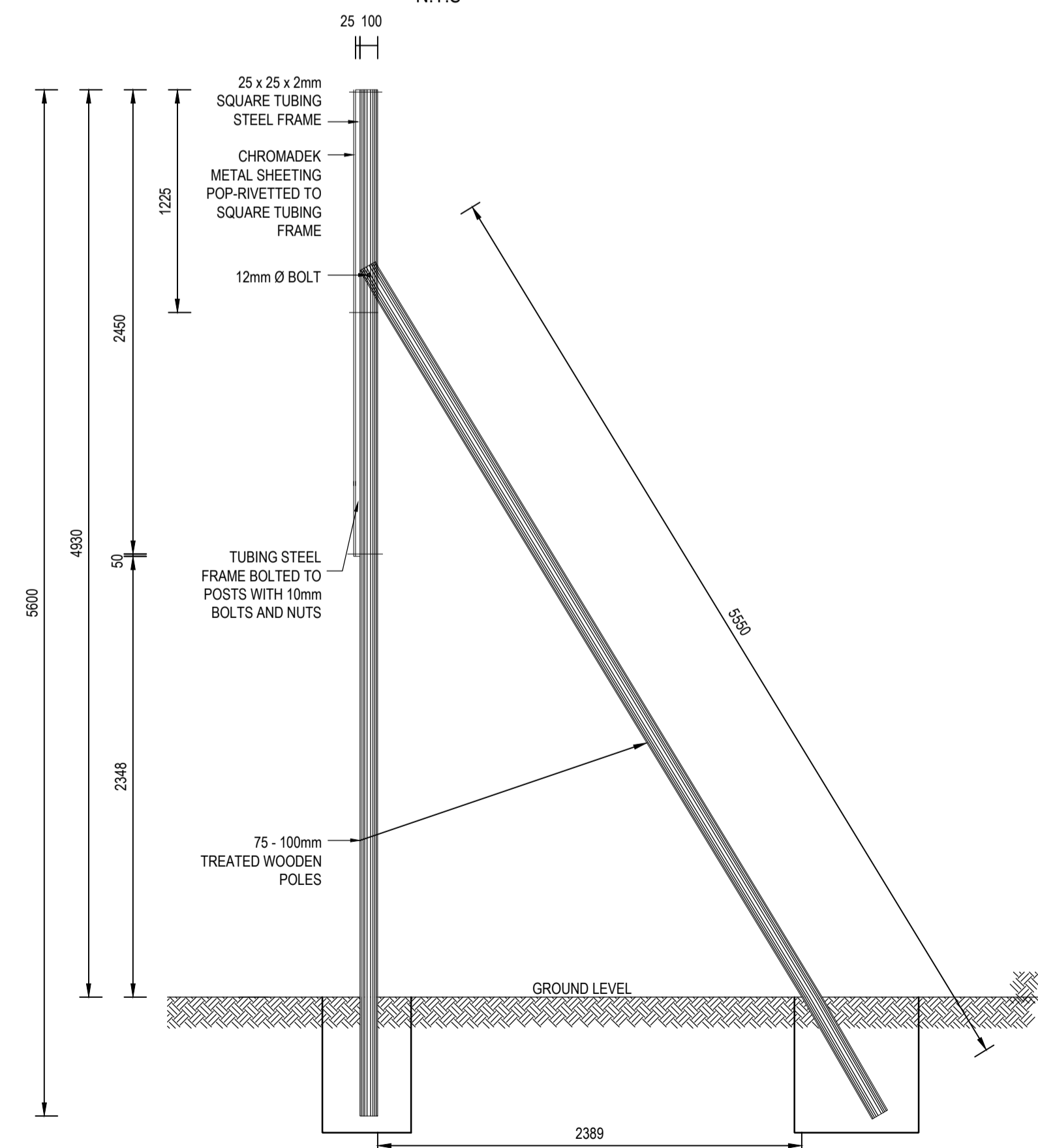
WORDING:
HIGH PERFORMANCE 5 TO 7 YEARS OUTDOOR QUALITY VINYL.

LOGO'S:
UV RESISTANT FULL COLOUR THERMAL PRINT ONTO A HIGH PERFORMANCE OUTDOOR GRADE VINYL SUBSTRATE.
OR
HIGH PERFORMANCE 5 TO 7 YEARS OUTDOOR QUALITY VINYL APPLICATED DIRECTLY TO THE PREPARED CHROMADEK (IF LOGO CONSISTS OF FLAT COLOURS).

NOTE:
1. THE POSITION OF WHERE THE BOARD IS TO BE ERECTED MUST BE APPROVED BY THE ENGINEER AND THE CLIENT.
2. THE BOARD MUST REMAIN UNTIL THE END OF THE RETENTION PERIOD.



BACK ELEVATION
N.T.S



SIDE ELEVATION
N.T.S

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| APPROVED: | SS MNTAMBO | SCALE: | |

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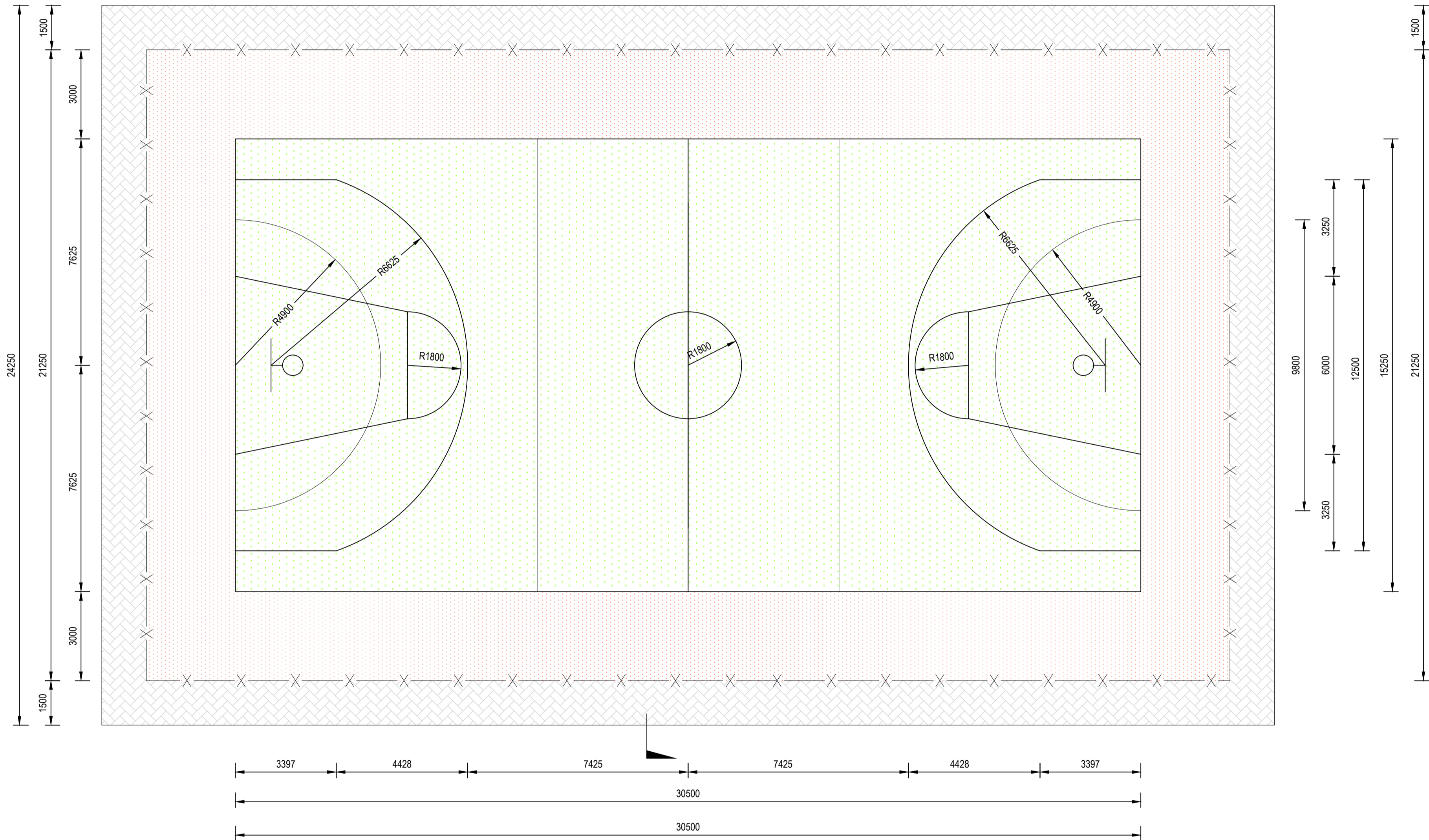
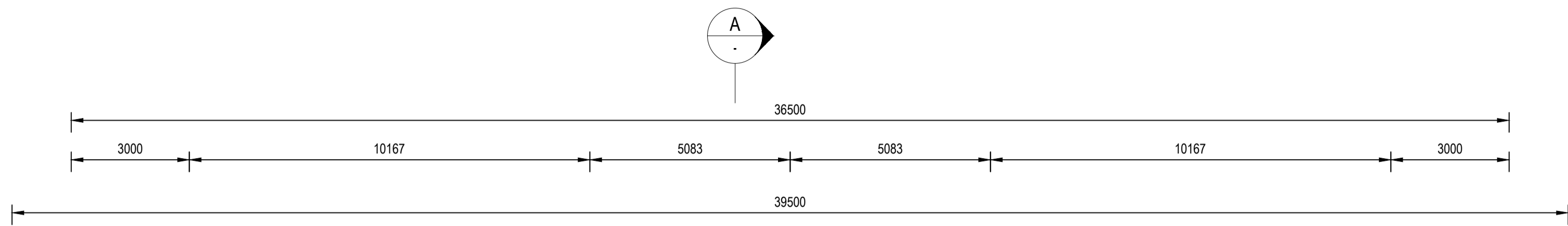
MOHOKARE LOCAL MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA CONSTRUCTION OF SPORTS GROUND_PHASE 2

LAYOUT:
PROJECT NAME BOARD

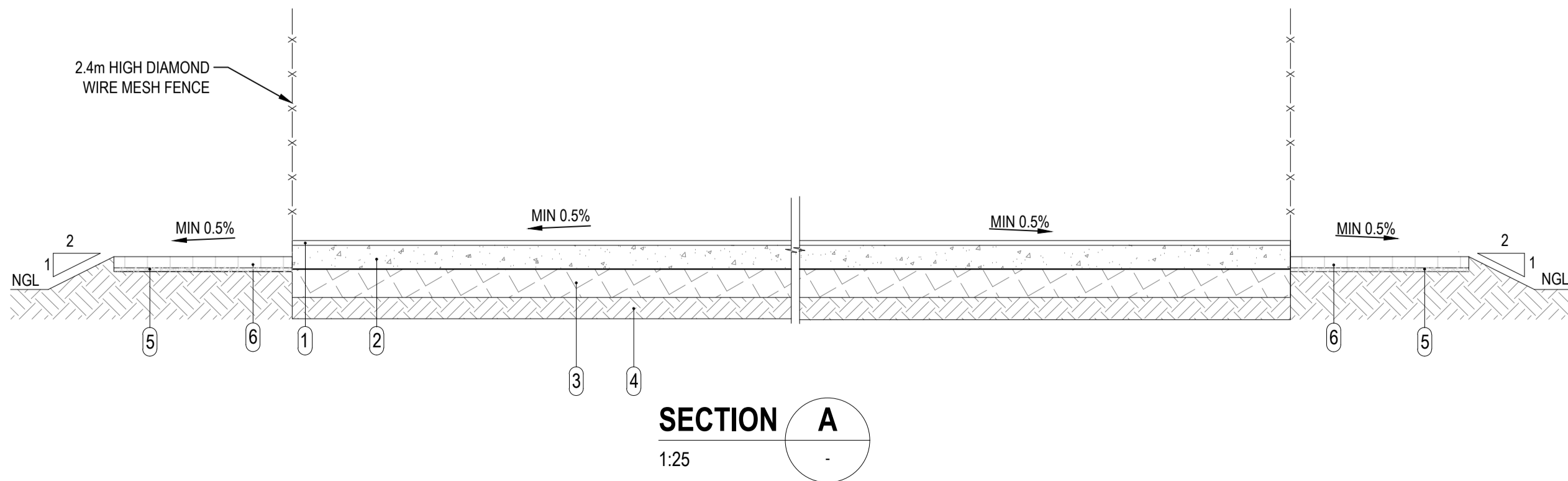
DRAWING NO.
1109-DRG-CIV-102

REVISION
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NETBALL/BASKETBALL COMBI COURT
PLAN VIEW

1:100



| COURTS LAYERS DESIGN | | |
|----------------------|------------------|---|
| ① | SURFACING | : 25mm THICK SCREED WITH MARKINGS AND LINES AS PER THE SDRAWING |
| ② | CONCRETE SURFACE | : 125mm THICK 25MPa SLAB REINFORCED WITH MESH REF NO.245 WITH 40mm COVER FROM THE TOP |
| ③ | SUBBASE | : 150mm G6 COMPACTED TO 95% MODIFIED AASHTO DENSITY |
| ④ | IN-SITU | : RIP AND RECOMPACT IN-SITU EARTH TO 93% MODIFIED AASHTO |
| ⑤ | BEDDING SAND | : 20mm BEDDING SAND |
| ⑥ | APRON | : 60mm 30MPa, TYPE S-A BLOCK PAVING |

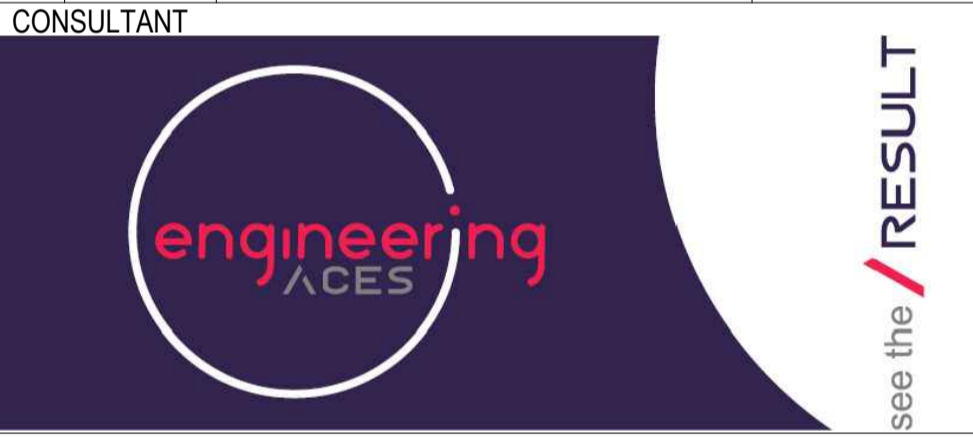
- NOTES:**
1. REMOVE ALL TOPSOIL AND LEVEL EARTH PLATFORM TO CORRECT SITE DEVELOPMENT LEVEL WITH PARTICULAR EMPHASIS ON NATURAL SUB-SOIL DRAINAGE. (SASR NORMS & STANDARDS VOL.2)
 2. RIP AND COMPACT IN-SITU EARTH TO 93% MODIFIED AASHTO. (SASR NORMS & STANDARDS VOL.2)
 3. COURT PAINTED MARKINGS WIDTH TO BE 50mm .

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| CHECKED: | PL MABOHO | SS MNTAMBO Pr Tech Eng-2025302376 | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

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| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
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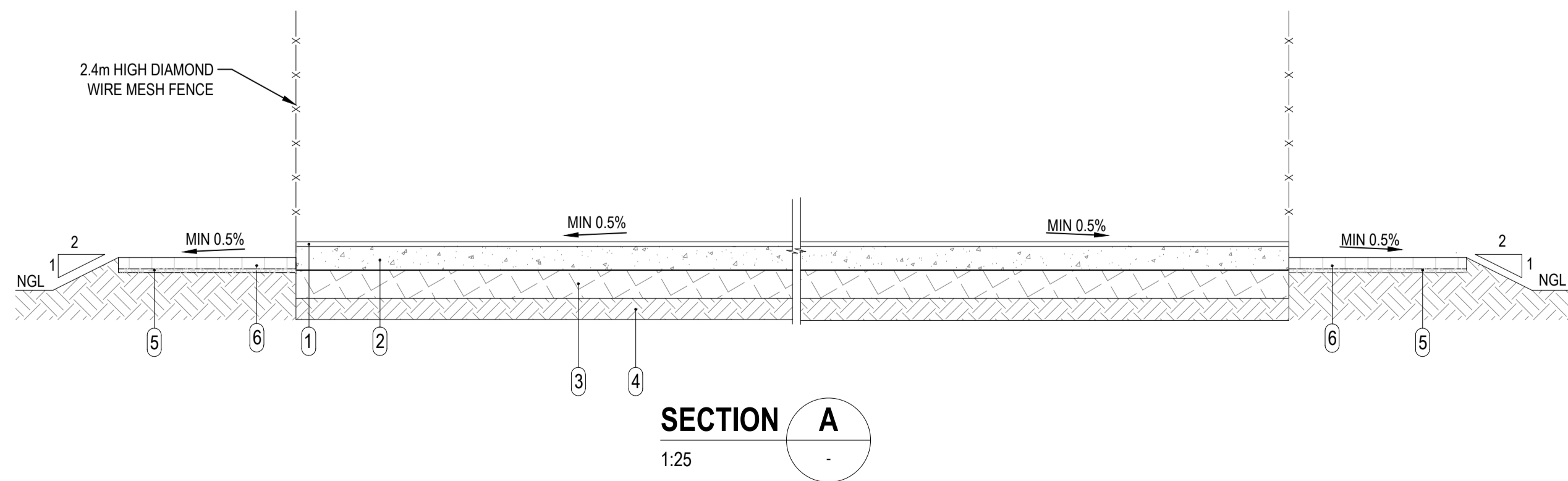
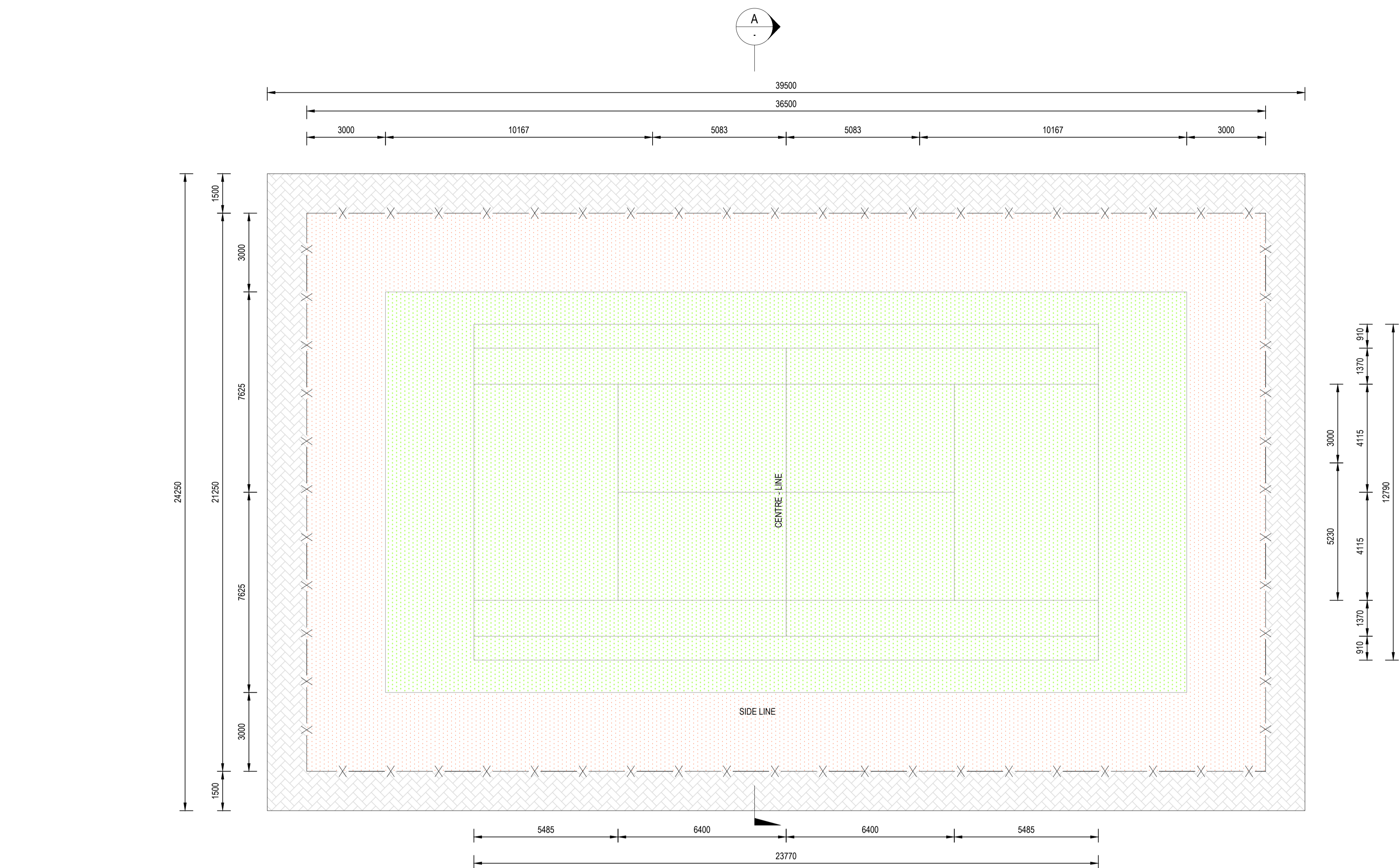
MOHOKARE LOCAL
MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2

LAYOUT:
NETBALL AND BASKETBALL COURT

DRAWING NO.
1109-CIV-DRG-401

REVISION
T0



| COURTS LAYERS DESIGN | | |
|----------------------|------------------|---|
| 1 | SURFACING | : 25mm THICK SCREED WITH MARKINGS AND LINES AS PER THE DRAWING |
| 2 | CONCRETE SURFACE | : 125mm THICK 25MPa SLAB REINFORCED WITH MESH REF NO.245 WITH 40mm COVER FROM THE TOP |
| 3 | SUBBASE | : 150mm G6 COMPACTED TO 95% MODIFIED AASHTO DENSITY |
| 4 | IN-SITU | : RIP AND RECOMPACT IN-SITU EARTH TO 93% MODIFIED AASHTO |
| 5 | BEDDING SAND | : 20mm BEDDING SAND |
| 6 | APRON | : 60mm 30MPa, TYPE S-A BLOCK PAVING |

NOTES:

1. REMOVE ALL TOPSOIL AND LEVEL EARTH PLATFORM TO CORRECT SITE DEVELOPMENT LEVEL WITH PARTICULAR EMPHASIS ON NATURAL SUB-SOIL DRAINAGE. (SASR NORMS & STANDARDS VOL.2)
2. RIP AND COMPACT IN-SITU EARTH TO 93% MODIFIED AASHTO. (SASR NORMS & STANDARDS VOL.2)
3. COURT PAINTED MARKINGS WIDTH TO BE 50mm.

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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | N QWABE | | DATE |
| CHECKED: | PL MABOHO | SS MNTAMBO Ph Tech Eng-2025020376 | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
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| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
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**ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2**

**LAYOUT:
TENNIS AND VOLLYBALL
COURT**

| | |
|------------------|----------|
| DRAWING NO. | REVISION |
| 1109-CIV-DRG-402 | T0 |

DESIGN & CONSTRUCTION NOTES

GENERAL:

1. All building materials to be SABS approved (stamped where applicable)
2. All workmanship to be carried out in accordance with National Building Regulations and Building Standards Act
(Act 103 of 1977, as amended) and the NHBRC Home Building Manual
3. In case of uncertainty National Building Regulations and the NHBRC Home Building Manual shall take precedence
4. All raft foundations to be accompanied by the Engineer's certificate OR letter signed by the Engineer
5. Foundation inspection to be done on open trench with steel reinforcement in place and when concrete is cast and cured
6. Wall plate inspection to be done on un-plastered walls with all the brick joints visible
7. Final completion (100%) to be done on a complete house (Ready for occupation)

CONSTRUCTION SPECIFICATIONS:

FOUNDATIONS:

1. Foundation shall be as per the Engineer's design and specifications.
2. Foundations shall be inspected and certified by a registered Engineer.
3. On the foundation drawings it must be clearly stated which soil class the design is for
(the geotechnical report used
to design the foundation is required).
4. Trenches must be dug out so that the foundation rests on hard ground, with the trench width and depth conforming
to the Engineer's design.

WALLS:

1. External walls to be double leaf 220mm thick cement NFP bricks (220x110x75) or similar approved (min 7Mpa)
on 250micron DPC. The NFP brick to be built into the door frames and into the "FX7" steel window frames.
2. Internal walls to be 220x110x75mm high special brick and duly bonded (built into) to external walls every
4th course, with DPC and brick force as above. The NFP brick to be built into the door frames and into the "FX7" steel window frames.
3. Provide 2.8mm brick force every 3rd course, as well as every course above windows and doors or as specified by
the engineer. Brick force to be tied securely between internal and external walls.
4. Horizontal DPC in external walls shall be same level as top of concrete floor slab and 150mm above ground level.
5. Horizontal DPC to be laid with mortar above the membrane, which extends over the full width of the wall
including plaster thickness.
6. Cement mortar mix for walls to be of 1:5 proportion by volume, 2 bags cement (1 wheelbarrow) :
5 builders wheelbarrows sand.
7. Building sand to comply with SABS 1090 and be well graded from 5mm downwards.
Sand should be evenly
graded and should not contain an excess of dust or other fine material.
8. Where applicable provide SABS approved waterproofing to shower walls and floor.
9. Openings for waste pipes in walls to be neatly core drilled and not knocked open.

DOOR AND WINDOW FRAMES:

1. "FX7" type steel window frames (1.2mm) or similar approved, to comply with SABS 727.
2. External doors: Meranti Solid hardwood doors / BB Door with T&G pine slats on both sides of the door assisted with a
solid internal frame. Treated with a mixture of linseed oil and turpentine .
3. Internal doors: timber hollow core internal doors to be made out of rail . Stile, hinge block, semi solid composite
board/ grid core paper lock block, composite board cross branding and hardwood face veneer.
4. Provide 3 lever lock set for external doors, and 2 lever lock set for interior doors
5. ND4 type window frame to living room, ND2 type to bedrooms, NC1 type to kitchen and NE1 type to the bathroom.

PLUMBING:

- (All plumbing installation by a registered plumber)
1. Provide a 1700x700mm standard perspex bath with 2 tap holes, securely built-into brick upstand support,
silicone sealed all round against the walls, with cleaning eye with access, with SABS hot and cold water pillar taps
(no plastic taps allowed) Bath to have a Ø50mm waste pipe, an overflow drain outlet and a 400x400mm
openable service hatch.
 2. Provide a ceramic wash hand basin in bathroom min Ø350mm with 2 tap holes and hot and cold SABS pillar
aps. Silicone sealed at wall and securely fixed to wall.
 3. Cistern to be made of porcelain 11 litres water capacity, complete with ball and beta valve, flushing mechanism
and flush pipe.
 4. Water closet pan to be of glazed fire-clay or glazed porcelain, fixed to floor with 1:3 cement mortar mixes. Seat to
be heavy duty plastic type with flap and hinges of similar quality properly fixed to the pan.
 5. Provide 1 stainless steel sink with 2 tap holes and hot and cold SABS pillar taps (no plastic taps allowed) to
kitchen area. Sink to be at least 900mm long and securely fixed to wall, with brackets & silicone sealed
against walls, with sink cupboard or sink unit.
 6. Class B galvanised pipes as per SABS 62 and 509 to be used on in feed pipe (external).
Internally SABS
plastic "Polycop" class 16 or similar approved.

DRAINAGE:

1. Provide one (1) gully with a hose bib tap outside kitchen.
2. All water supply piping to run inside house, only 1 inlet to be visible on exterior
of house not longer/higher than 300mm above T.O.Slab.
3. Provide a Ø50mm vent pipe to the drainage system.
4. Provide rodding eye at head of drain and within 1.5m of connection point, and an inspection eye at each junction.
5. Provide marked covers at ground level for rodding eyes.
6. Drain pipes to be at least 1m away from the walls / foundations.
7. Drain pipe invert level to be min 450mm at head of drain.

FINISHES:

1. Floors to be power floated or have a smooth steel-trowelled finish
2. All steel door and window frames, including concealed areas of these, to be painted with 1 coat of universal
undercoat (oil based) and 2 final coats of enamel paint in addition to factory painted red oxide.
3. External solid doors to be painted with linseed oil.
4. Internal walls to be plastered and painted with undercoat and 2 final coats SABS approved PVA paint with 2
different paint colors as per elevations.

ROOF:

1. SABS approved 0.5mm 'Full Hard', pre-painted chromadek roof sheeting IBR.
2. Galvanized ridge plate, color to match. (overlapped at joints).
3. Trusses to be bolt fixed to timber wallplate, or tied down with 2 strands of 4mm
galvanised roof wire
anchors built in 6 courses deep into walls tied over a nail in purlins.
4. Storm clips on the bottom 2 rows on both eaves, and last 2 rows to the gable ends.

CEILING:

1. Ceiling as per SANS 10400XA
2. A minimum of 2.5m ceiling height
3. 6.4mm Gypsum board ceiling with 135mm thick aerolite insulation to be fitted on 38x38mm, SA Pine branderling
at 450mm c/c painted white, with 75mm standard cornice painted white fitted with Rhino board, and a
610x610mm standard trap door. All ceiling members to be painted white.

GLAZING:

1. Glass area of less than 0.75m² to be 3mm thick
2. All glass more than 0.75m² to be 4mm thick
3. Glass to bathroom to be 4mm obscured glass
4. All putty to be treated with a hardener and finished off with universal undercoat & 2 coats enamel based
paint to final color and finish
5. Glass to comply with SABS 0137

GENERAL:

1. All work to comply with NBR of SA & standards act of SANS 10400
2. All dimensions and levels to be checked and this drawing is not to be scaled under whatever circumstances

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held at Engineering Aces offices

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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | TA MARAIS | TA MARAIS Pr.Arch. D -21015 | DATE |
| CHECKED: | OS MOTHIBI | | |
| APPROVED: | TA MARAIS | SCALE: 1:6 | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
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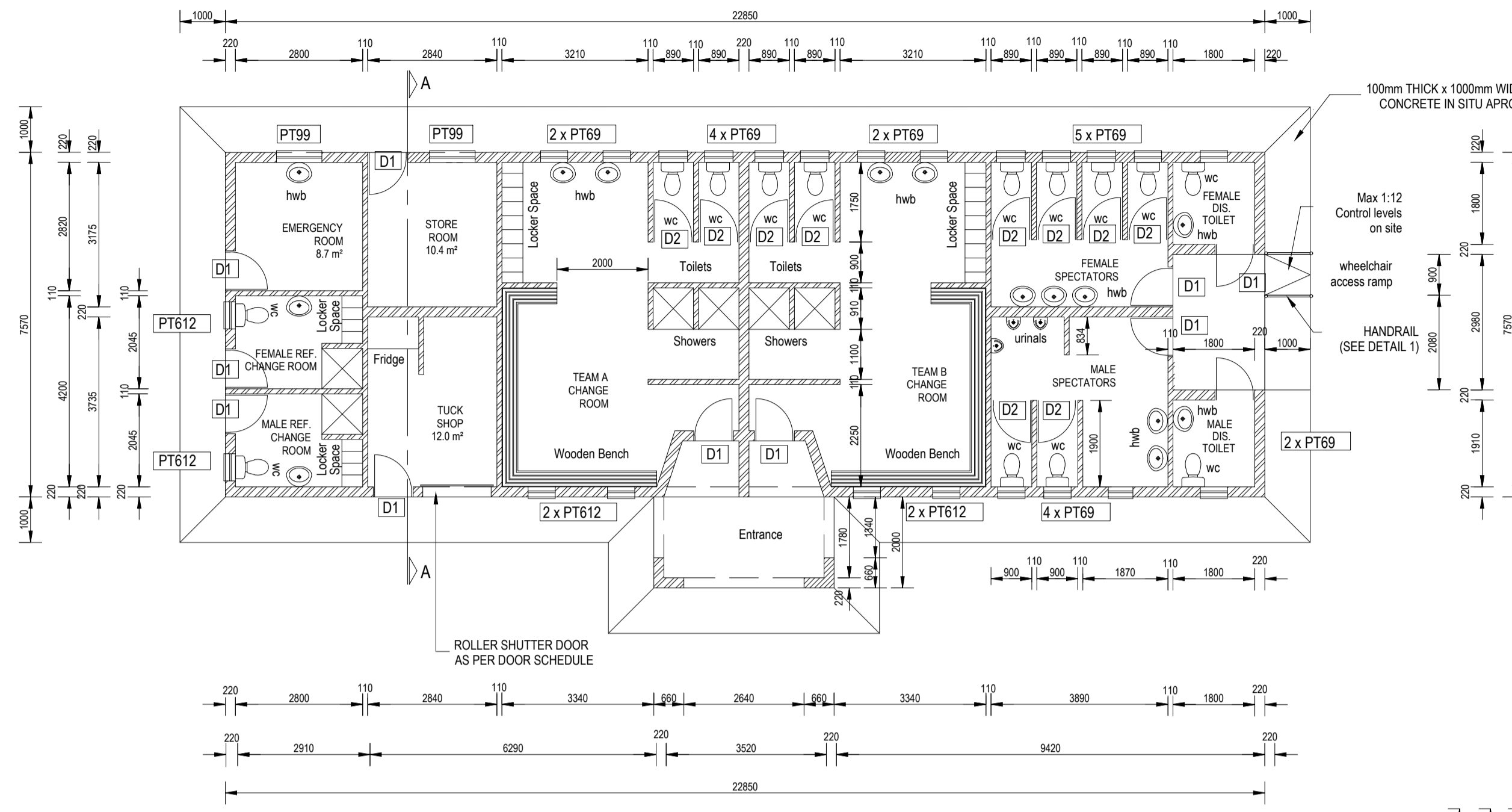
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ROUXVILLE/ROLELEATHUNYA CONSTRUCTION OF SPORTS GROUND_PHASE 2

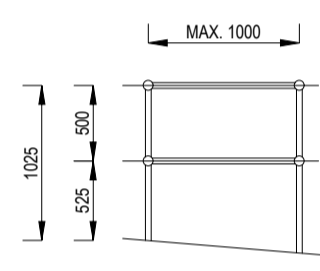
DETAIL :ARCHITECTURAL GENERAL NOTES

DRAWING NO.
1109-DRG-ARC-100

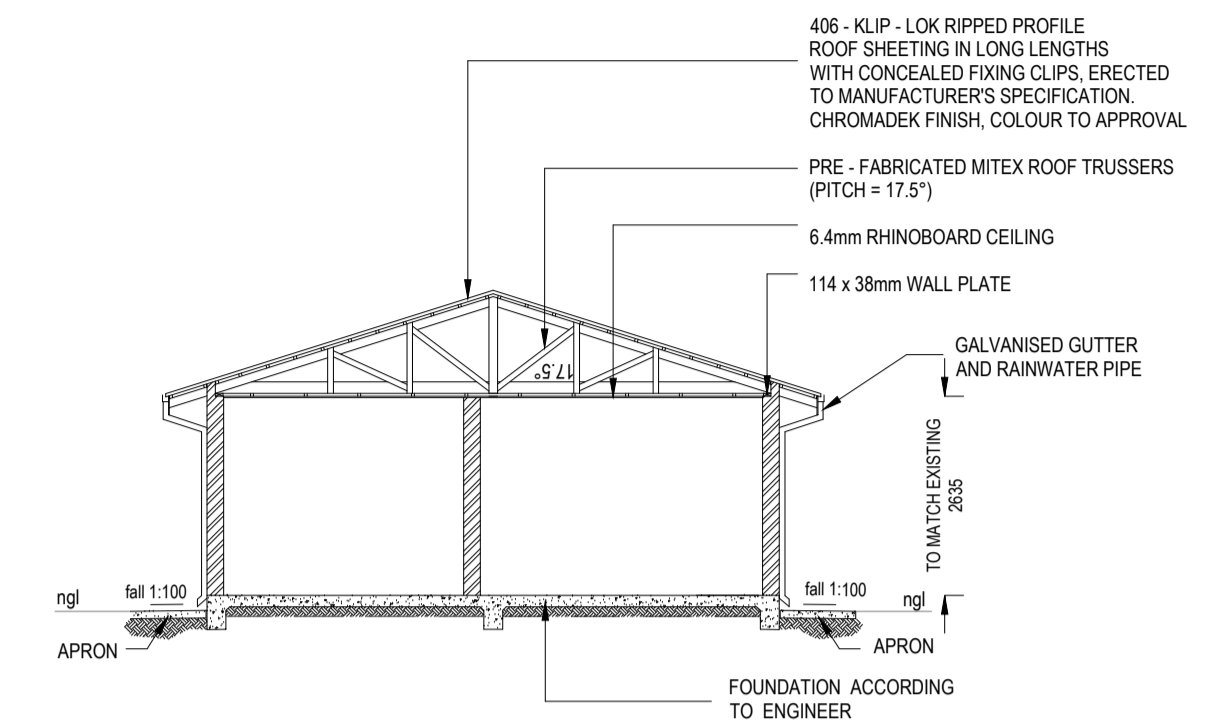
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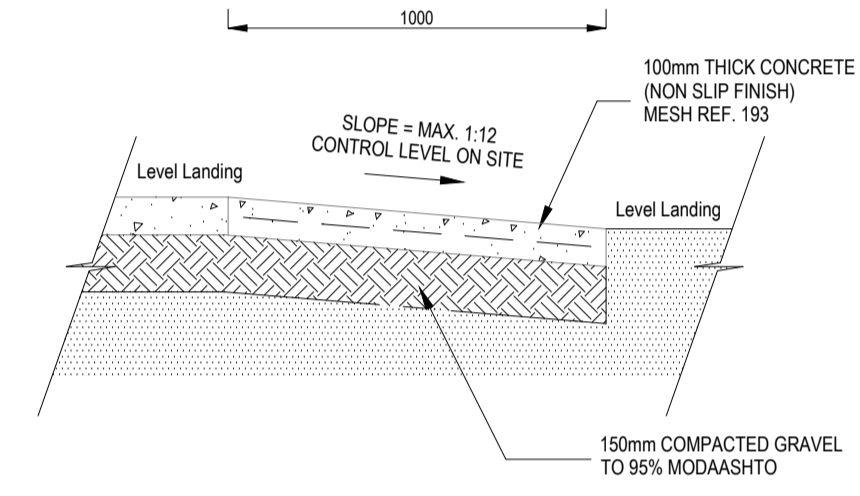
PROPOSED ABLUTION FACILITY
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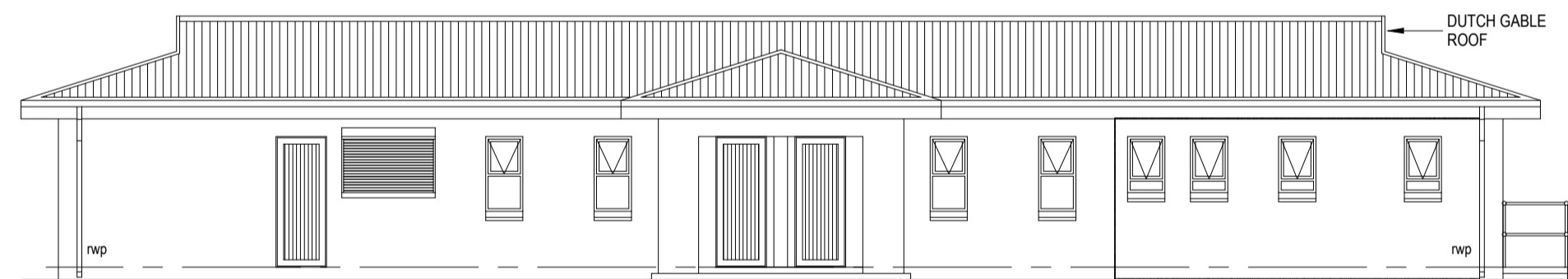
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Scale 1:50



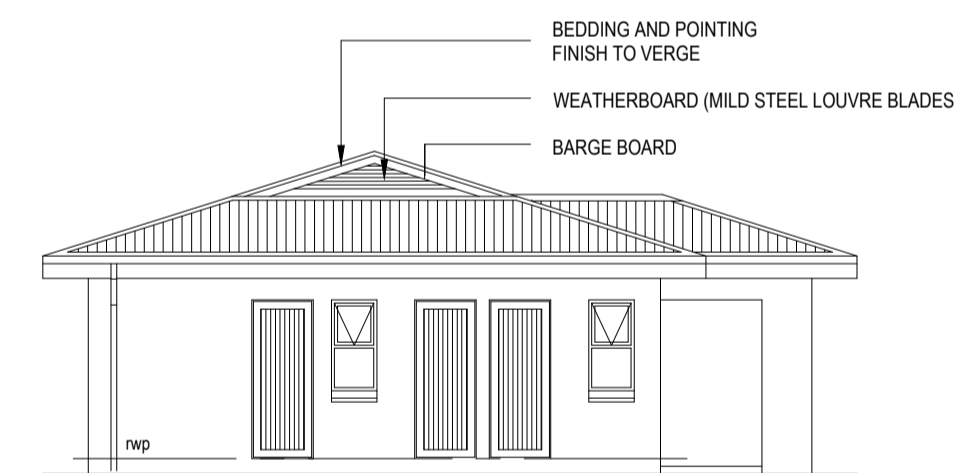
SECTION A - A
Scale 1:100



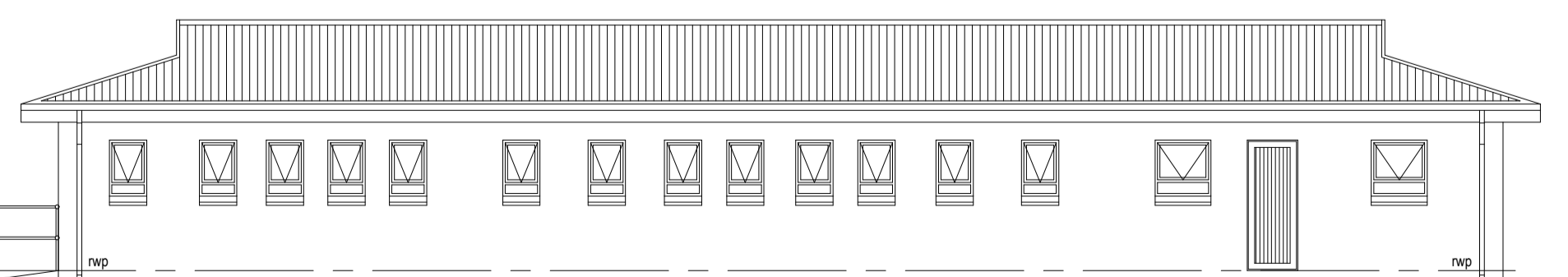
DETAIL OF WHEELCHAIR RAMP
Scale 1:20



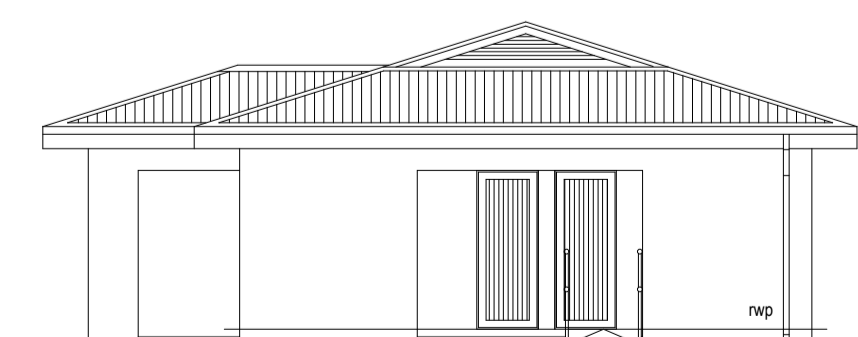
EAST ELEVATION
Scale 1:100



NORTH ELEVATION
Scale 1:100



WEST ELEVATION
Scale 1:100



SOUTH ELEVATION
Scale 1:100

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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | TA MARAIS | | DATE |
| CHECKED: | OS MOTHIBI | TA MARAIS: Pr.Arch. D-21015 | |
| APPROVED: | TA MARAIS | SCALE: AS SHOWN | |

AMMENDMENTS

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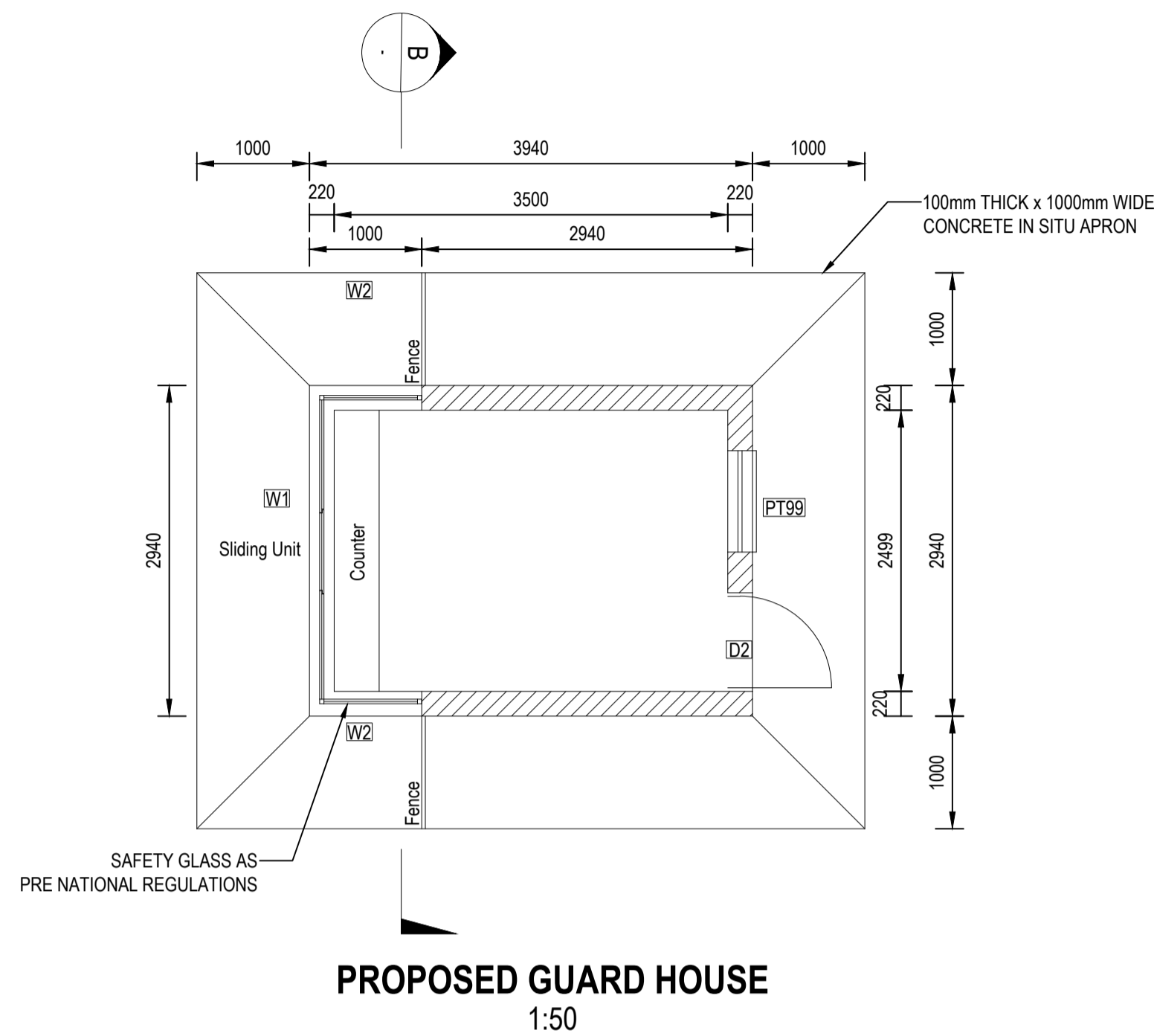


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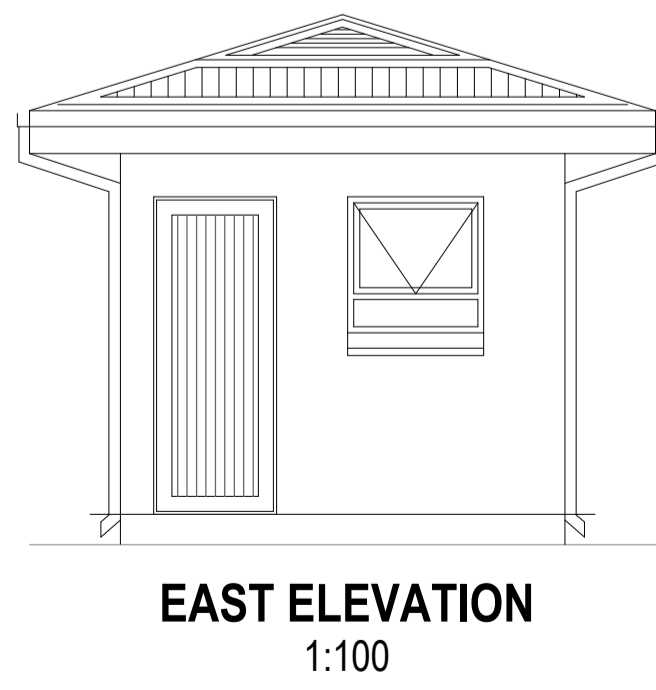
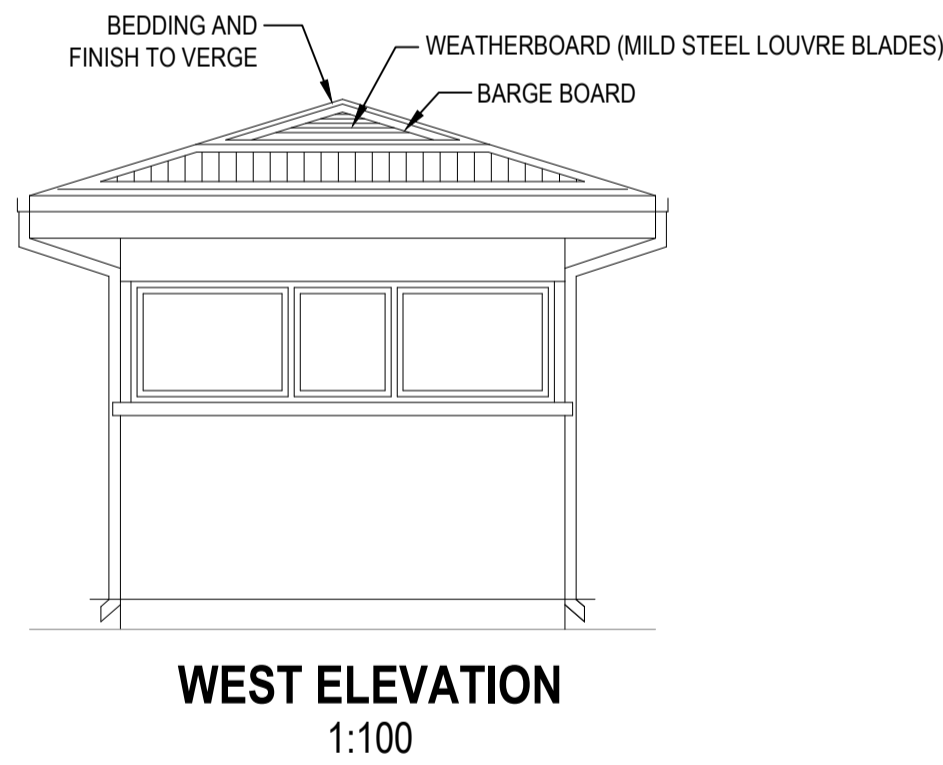
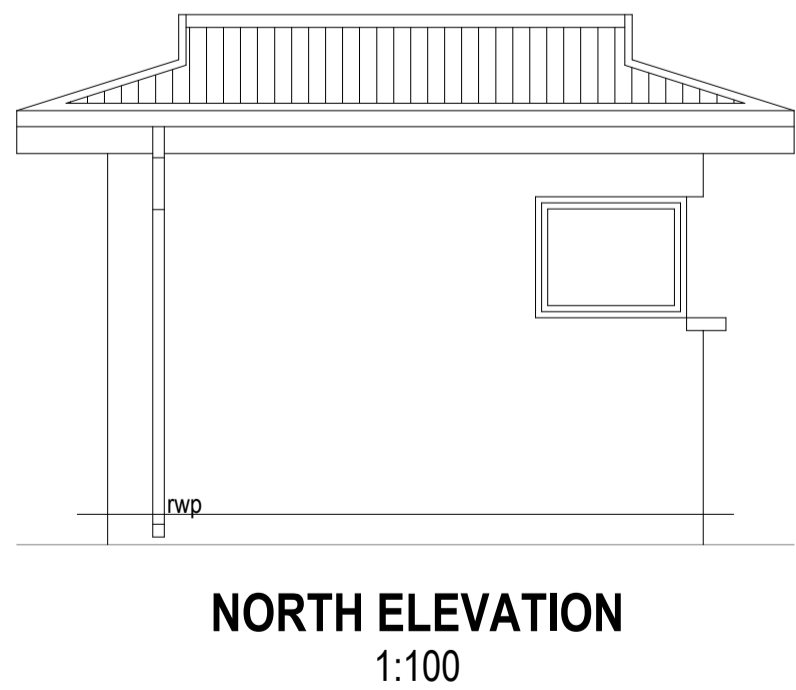
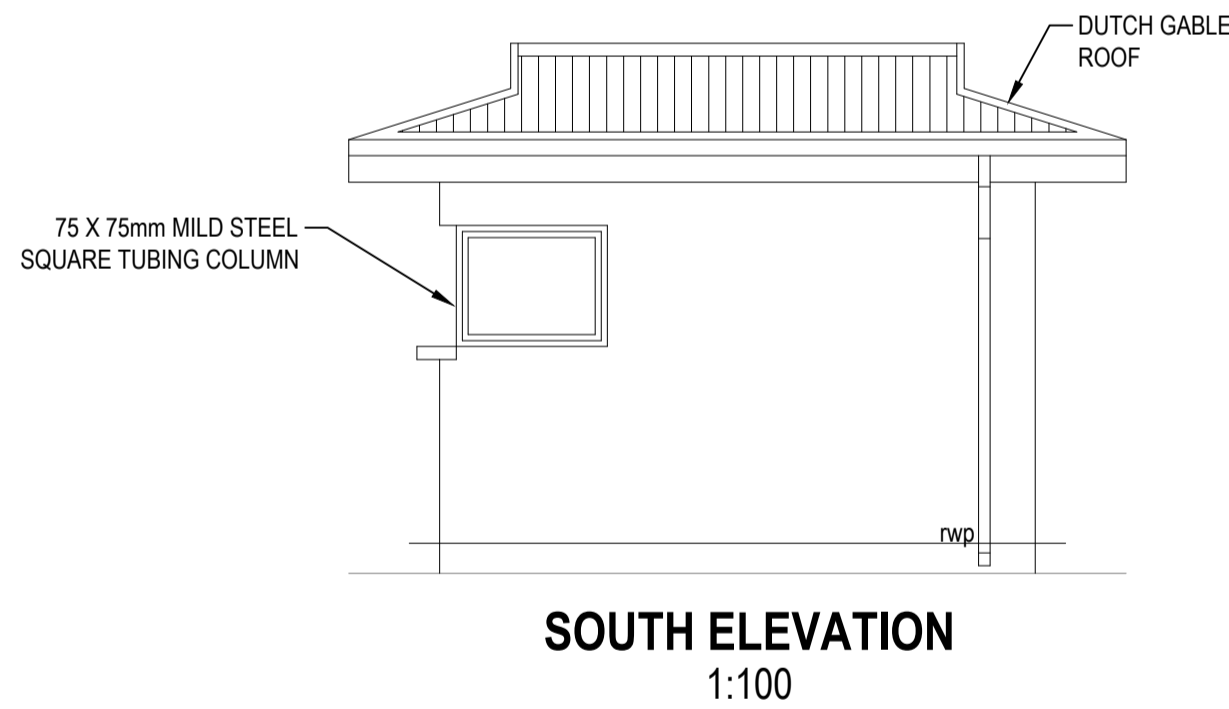
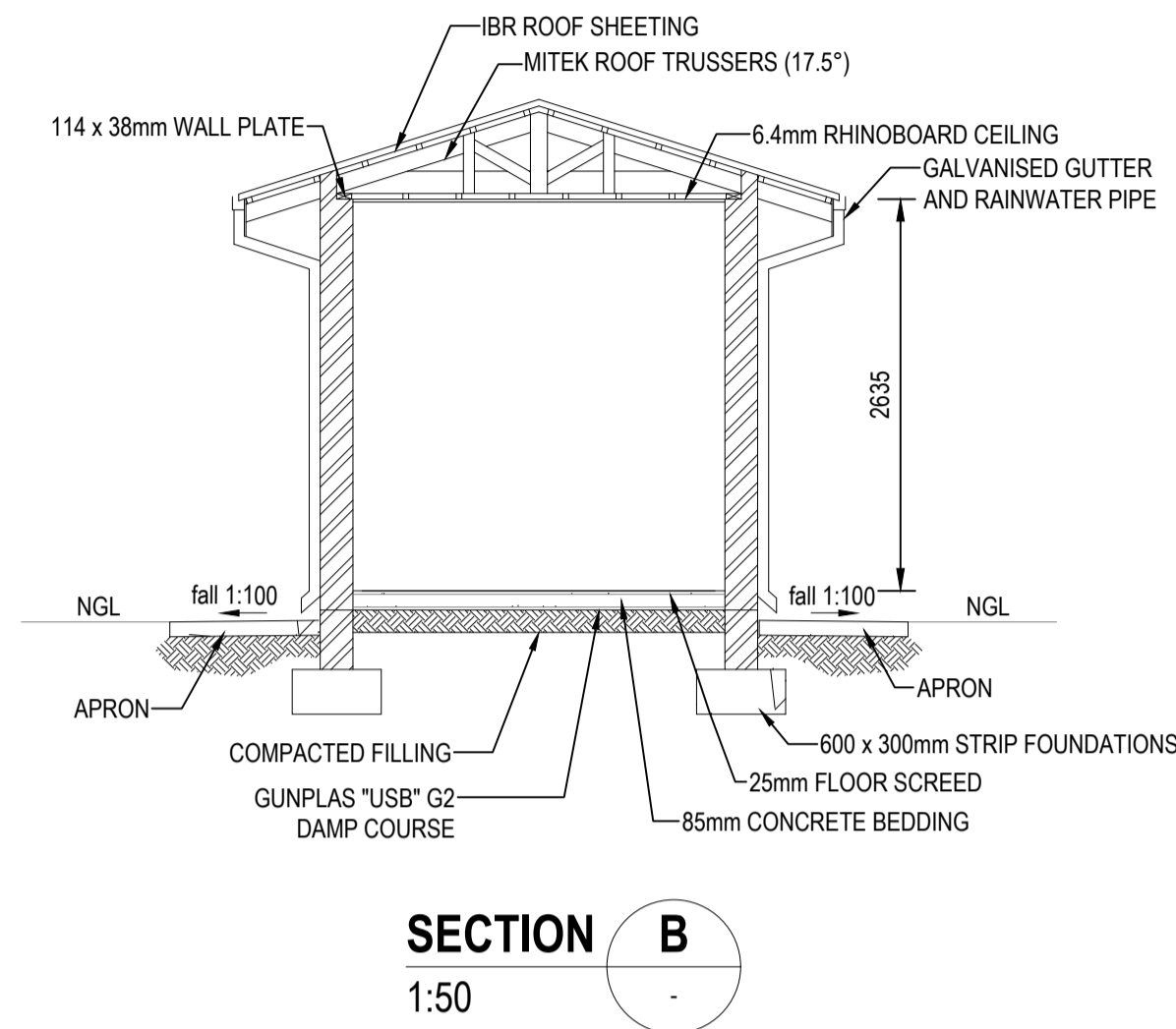
MOHOKARE LOCAL
MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2

LAYOUT:
ABLUTION AND
CHANGING ROOMS



PROPOSED GUARD HOUSE
1:50




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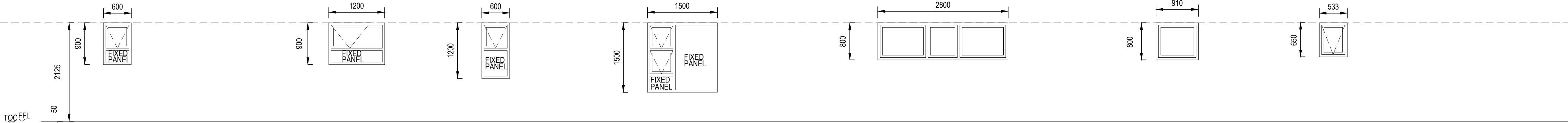
MOHOKARE LOCAL
MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE 2

LAYOUT:
GUARD HOUSE

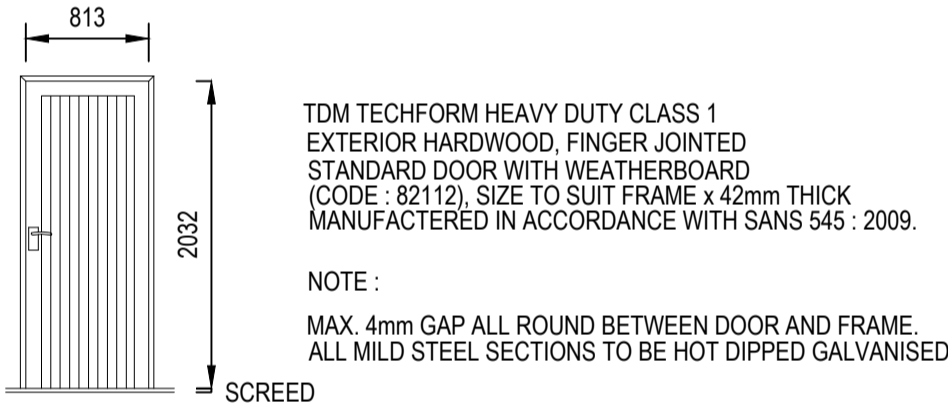
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| 1109-ARC-DRG-102 | T0 |

WINDOW SCHEDULE



| | | | | | | | | |
|-----------------------|---|-------|--------|----------|----|-------------|------------------------|-----|
| WINDOW NO.'S | PT 69 | PT 99 | PT 612 | PTT 1515 | W1 | W2 | WINDOW NO.'S | NE1 |
| WINDOW TYPE | FIXED BOTTOM GLASS PANEL WITH TOP HUNG OPENING OUT | | | | | WINDOW TYPE | FULL PANE STEEL WINDOW | |
| FRAME TYPE | ALUMINIUM SHOPFRONT CLIP44 268 OR EQUAL APPROVED | | | | | | | |
| GLAZING | 4mm FLOATGLASS OR 6mm SAFETY GLASS AS PER NATIONAL BUILDING REGULATIONS | | | | | | | |
| IRONMONGERY | HANDLE : ALUMINIUM HANDLE TO MATCH HINGES : TO MANUFACTURER'S SPEC'S | | | | | | | |
| FINISH | POWDER COATED - ANP 3056 | | | | | | | |
| OPENING IN BRICK WALL | W & H = AS PER DIM'S ABOVE | | | | | | | |

DOOR SCHEDULE



SOLID HARDWOOD DOOR (D1)



WC CUBICLE DOOR (D2)

Drawing signed for approval
held at Engineering Aces offices

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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | TA MARAIS | TA MARAIS Pr.Arch.D-21015 | DATE |
| CHECKED: | SS MNTAMBO | | |
| APPROVED: | TA MARAIS | SCALE: 1:100 | |

AMMENDMENTS

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CONSTRUCTION OF SPORTS
GROUND_PHASE 2

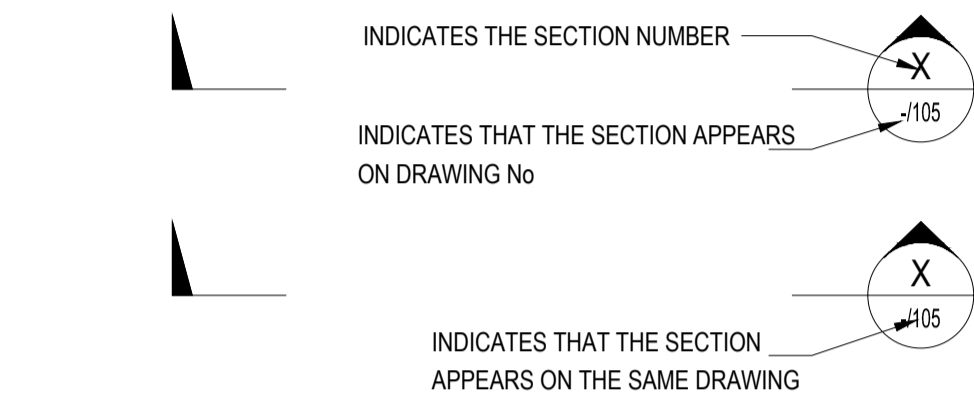
DETAILS:
WINDOW & DOOR
SCHEDULE

THE FOLLOWING GENERAL NOTES ARE TO BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS WHERE APPLICABLE:

1. PLAIN AND REINFORCED CONCRETE
2. LOAD-BEARING MASONRY
3. STRUCTURAL STEELWORK
4. CONCRETE SCREED
5. TIMBER STRUCTURES

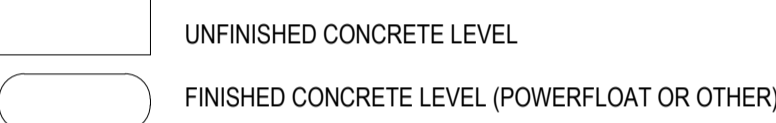
GENERAL:

- G1. LEGEND INDICATING SECTIONS AND DETAILS:



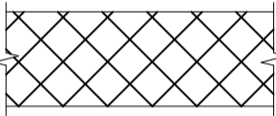
- G2. ALL BASES AND COLUMNS ARE SYMMETRICAL ON GRIDLINES UNLESS OTHERWISE INDICATED.

- G3. ALL LEVELS ON DRAWINGS REFER TO THE TOP OF CONCRETE UNLESS OTHERWISE INDICATED.



- G4. DIMENSIONS OF BEAMS ARE SHOWN AS WIDTH x DEPTH.

- G5. CONTINUOUS LOADBEARING SLIDING SUPPORTS ARE INDICATED AS FOLLOWS:



- G7. ALL BEAMS AND STRUCTURAL SLABS MUST BE PROVIDED WITH AN UPWARD CAMBER AS SHOWN BELOW UNLESS INDICATED OTHERWISE:
- CANTILEVERS SPAN DIVIDED BY 200
- ALL OTHER SPANS SPAN DIVIDED BY 500

- G7. JOINTS INDICATED IN SURFACE BEDS, SLABS AND BEAMS ARE ALSO TO BE CONSTRUCTED IN BRICK WALLS, SCREEDS AND FINISHES.

- G8. THE CONTRACTOR MUST ENSURE THAT ALL EMBEDDED ITEMS AND PENETRATIONS FOR SERVICES HAVE BEEN PROVIDED FOR AND POSITIONED ACCORDING TO THE LATEST DRAWINGS OF ALL DISCIPLINES BEFORE CASTING CONCRETE.

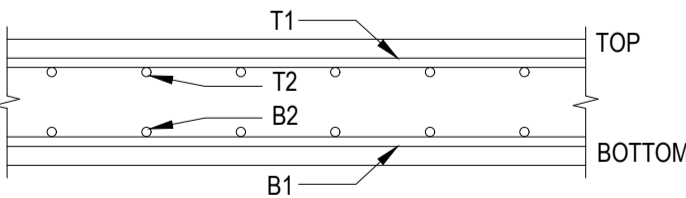
- G9. PROVISIONS FOR PROPS UNDER SLABS AND BEAMS: THE CONTRACTOR MUST ENSURE THAT BEAMS AND/OR SLABS HAVE SUFFICIENT STRENGTH AND/OR ARE ADEQUATELY PROPPED TO CARRY CONSTRUCTION LOADS FROM ABOVE. DISCUSS WITH ENGINEER. THE CONTRACTOR TO ENSURE THAT THE NECESSARY PROVISION IS MADE IN THE SUPPORTWORK FOR 2 SLABS TO SUPPORT THE WET WEIGHT OF ONE SLAB. e.g FOR THE CASTING OF LEVEL 5 SLAB SUPPORTWORK MUST BE PROVIDED FROM LEVEL 3.

- G10. ENGINEER TO CONFIRM FOUNDATION EXCAVATION LEVELS ON SITE. EXTRA EXCAVATION DOWN TO ACCEPTABLE MATERIAL SHALL BE BACKFILLED WITH MASS CONCRETE, UNLESS OTHERWISE SPECIFIED.

- G11. REFER TO ARCHITECTS DRAWINGS FOR CONCRETE FINISHES, GROOVES, CHAMFERS, ETC. UNLESS OTHERWISE SHOWN ALL SMOOTH SURFACE CONCRETE CORNERS ARE TO BE PROVIDED WITH 20x20mm CHAMFERS.

- G12. STORAGE OF CEMENT: CEMENT SHALL NOT BE STORED FOR LONGER PERIODS THAN 6 WEEKS WITHOUT THE APPROVAL OF THE ENGINEER.

- G13. SYMBOLS DENOTING LAYERS OF REINFORCEMENT IN SLABS:



- G14. ALL CONCRETE MIX DESIGNS, FORMWORK STRIPPING TIMES AND CURING PROCEDURES TO BE APPROVED BY THE ENGINEER BEFORE COMMENCING WITH CONSTRUCTION OF ANY CONCRETE WORK.

- G15. ALL CONTRACTORS QA DOCUMENTATION TO BE FORWARDED TO THE ENGINEER FOR APPROVAL BEFORE COMMENCING WITH CONSTRUCTION OF ANY STRUCTURAL WORK.

- G16. CONTRACTOR TO CHECK ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

- G17. THE TOP OF ALL VERTICAL CONCRETE ELEMENTS THAT SUPPORT HORIZONTAL CONCRETE ELEMENTS TO BE WELL SCABBLED AND CLEANED PRIOR TO CASTING CONCRETE.

CONCRETE:

- C1. MATERIALS AND MIX PROPORTIONS:
- 1.1 THE GRADES FOR CONCRETE & STRENGTH @ 28 DAYS UNLESS OTHERWISE INDICATED SHALL BE AS FOLLOWS:

| | |
|-----------------|-------------------|
| STRIP FOOTINGS | CLASS 30/19 30MPa |
| PAD FOOTINGS | CLASS 30/19 30MPa |
| PILES | CLASS 30/19 30MPa |
| SURFACE BEDS | CLASS 30/19 30MPa |
| COLUMNS | CLASS 30/19 30MPa |
| WALLS | CLASS 30/19 30MPa |
| SLABS | CLASS 30/19 30MPa |
| BLINDING LAYERS | CLASS 10/19 10MPa |
| MASS CONCRETE | CLASS 10/19 10MPa |

- 1.2 WHEN READY MIXED CONCRETE IS USED, TEST CUBES ARE TO BE TAKEN ON SITE WHILST CASTING IN ACCORDANCE WITH SANS REQUIREMENTS.

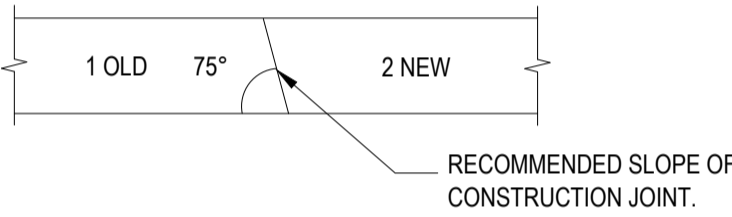
- C2. CONCRETE COVER OVER REINFORCEMENT UNLESS SHOWN DIFFERENTLY:
- | | |
|-----------------------|--------------------------------|
| SURFACE BEDS | = 40mm FROM TOP |
| SLABS AND BEAMS | = 40mm |
| COLUMNS | = 40mm |
| PILE CAPS/FOUNDATIONS | = 50mm (OR AS INDICATED ON BS) |
| GROUND BEAMS | = 50mm |
| STAIRS | = 40mm |
| RETAINING WALLS | = 50mm |

- C3. CASTING OF CONCRETE IN EXCESS OF 3.5m HIGH IS NOT PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER. C256;
- C4. REINFORCEMENT SHALL BE INSPECTED BY THE ENGINEER ONLY AFTER IT HAS BEEN COMPLETELY FIXED IN POSITION, FORMWORK IS CLEAN, SPACERS ARE PLACED IN POSITION AND AFTER THE CONTRACTOR HAS INSPECTED IT ITSELF AND ALL QA DOCUMENTATION HAS BEEN SIGNED OFF BY THE MAIN CONTRACTOR AND RELEVANT SUB-CONTRACTORS. C256;

- C5. WELDING OF REINFORCEMENT IS NOT ALLOWED UNLESS IT HAS BEEN APPROVED BY THE ENGINEER IN WRITING.

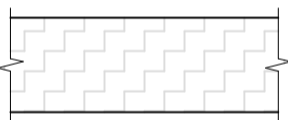
- C6. CONSTRUCTION JOINTS IN SLABS/BEAMS: THE POSITION OF ALL CONSTRUCTION JOINTS TO BE APPROVED BY THE ENGINEER IN WRITING.

BEFORE COMMENCING TO CAST NEW CONCRETE (AS INDICATED BY 2) THE SURFACE OF THE OLD CONCRETE (INDICATED BY 1) SHALL BE CLEANED AND CHIPPED TO EXPOSE THE AGGREGATE AND SHALL BE KEPT WET FOR 2 HOURS BEFORE CASTING. THE OLD CONCRETE MUST BE SLUSHED WITH CEMENT BEFORE CASTING.



- C7. 50mm BLINDING LAYER IS TO BE PROVIDED UNDER ALL BASES UNLESS INDICATED OTHERWISE (CLASS 10/19 CONCRETE).

- C8. SHRINKAGE STRIPS IN CONCRETE FLOORS SHALL NOT BE CAST WITHIN 21 DAYS OF CASTING THE LAST SURROUNDING SLAB. NOTE THAT THE BAY CONTAINING THE SHRINKAGE STRIP MUST REMAIN PROPPED UNTIL ALL CONCRETE HAS REACHED THE THE REQUIRED AGE.



- C9. CONSTRUCTION JOINTS:
- 9.1 NO HORIZONTAL JOINTS SHALL BE ALLOWED IN BASES OR OTHER DEEP ELEMENTS.
- 9.2 CONSTRUCTION/BUTT JOINTS ARE TO BE FORMED ACCORDING TO SPECIFICATION.
- 9.3 ALL PIPES THROUGH JOINTS SHALL BE PROVIDED WITH AN EXPANSION JOINT OR FLEXIBLE COUPLING - THIS INCLUDES ALL CABLE SLEEVES, CONDUITS AND PIPES.
- 9.4 NO VERTICAL CONSTRUCTION JOINTS SHALL BE MADE IN ELEMENTS DIRECTLY EXPOSED TO THE WEATHER EXCEPT WHERE INDICATED OTHERWISE.

- C10. REFER TO PROJECT SPECIFICATION FOR DEGREE OF ACCURACY OR AS SPECIFIED ON DRAWINGS.

- C11. ALL SLAB PANELS WITH UPSTAND BEAMS TO REMAIN PROPPED UNTIL THE UPSTANDS HAS BEEN CAST AND IS 14 DAYS OLD. THE TOP OF THE SLAB TO BE WELL SCABBLED AND CLEANED AND A WET TO DRY EPOXY TO BE PROVIDED TO THE ENGINEER'S APPROVAL.

SURFACE BED:

- SB1. SAWN JOINTS TO BE PROVIDED WITHIN 24 HOURS AFTER CASTING OF CONCRETE.

- SB2. FOR DETAILS OF DAMP PROOF COURSE UNDER SURFACE BEDS SEE TYPICAL SURFACE BED DRAWINGS AND DETAILS.

- SB3. BACKFILL AROUND COLUMNS AND WALLS TO COMMENCE EVENLY.

- SB4. CONSTRUCTION JOINTS IN FLOOR CHANNELS TO LINE UP WITH SURFACE BED JOINTS.

- SB5. ALL PIPED SERVICES AND CABLES MUST BE LAID DURING OR SOON AFTER THE CONSTRUCTION OF COLUMN AND SHAFT BASES.

- SB6. UNLESS OTHERWISE SPECIFIED, ALL FILL UNDER SURFACE BEDS SHALL BE G7 MATERIAL, COMPACTED IN LAYERS OF 150mm THICK TO 93% MOD AASHTO DENSITY.

- SB7. MINIMUM LAP LENGTH OF MESH REINFORCEMENT IS 400mm UNLESS NOTED OTHERWISE.

- SB8. REFER TO ARCHITECT'S DETAILS FOR TOP SURFACE FINISH, UNLESS OTHERWISE SHOWN.

- SB9. ALL DOWEL BARS ARE TO BE 100% STRAIGHT, LEVEL AND AT RIGHT ANGLES TO THE JOINT DIRECTION. THE ENDS OF DOWEL BARS SHALL BE CUT AND NOT SHEARED AND BE SMOOTH.

- SB10. SAWN JOINTS TO BE CUT AT RIGHT ANGLES TO CONSTRUCTION JOINTS UNLESS INDICATED OTHERWISE.

- SB11. SOILCRETE TO BE CAST IN CONFINED BACKFILLING SPACES BELOW SURFACE BEDS WHERE THE WIDTH IS LESS THAN 600mm.

STRUCTURAL STEEL:

- S1. ALL STEELWORK SHALL BE FABRICATED IN ACCORDANCE WITH PROJECT SPECIFICATION.

- S2. ALL BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF 2 BOLTS UNLESS NOTED OTHERWISE.

- S3. ALL GUSSET PLATES SHALL BE 8mm THK. UNLESS NOTED OTHERWISE.

- S4. ALL WELDS SHALL BE 6mm (MIN) FILLET WELDS AND SHALL BE SEALED UNLESS NOTED OTHERWISE.

- S5. FOR FULL PENETRATION FIELD WELDS, BACKING PLATES SHALL BE USED. TACK WELD BACKING PLATE TO APPROPRIATE MEMBER FOR SHIPMENT.

- S6. FOR FULL PENETRATION SHOP WELDS, BACKING PLATES MAY BE USED OR BACK-UP FILLET WELD MAY BE USED AT FABRICATION OPTION UNLESS NOTED OTHERWISE.

- S7. SLOTTED HOLES ALLOWING 25mm TOTAL HORIZONTAL ADJUSTMENT (12mm EACH SIDE) SHALL BE PROVIDED WHEN ONE OR BOTH ENDS OF A STEEL MEMBER CONNECTS INTO CONCRETE OR MASONRY.

- S8. DRILLED HOLES FOR BOLTED CONNECTIONS SHALL BE 2mm LARGER THAN THE BOLT DIAMETER UNLESS NOTED OTHERWISE.

- S9. HOLES IN STRUCTURAL BASE PLATES SHALL BE 4mm LARGER THAN THE ANCHOR BOLT DIAMETER FOR M20 BOLTS AND SMALLER, AND 6mm LARGER FOR M24 BOLTS AND LARGER.

- S10. EDGE DISTANCE FOR CONNECTIONS SHALL BE IN ACCORDANCE WITH SANS 10162 UNLESS NOTED OTHERWISE.

- S11. OMIT PAINT WITHIN 50mm OF FIELD WELDED CONNECTIONS.

- S12. SHOP SPLICING OF MEMBERS WILL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL OF THE DESIGN ENGINEER. APPROVED SPLICES SHALL HAVE A CAPACITY OF 100% OF THE SPLICED MEMBER AND ACCEPTANCE SHALL BE SUBJECT TO THE RESULTS OF NON DESTRUCTIVE TESTS. COST OF SPLICING AND TESTING SHALL BE BORNE BY THE FABRICATOR.

- S13. BURRS AND ROUGH EDGES SHALL BE GROUND PRIOR TO WELDING END PLATES CLEATS, BRACKETS OR PAINTING.

- S14. ALL FIELD WELDS SHALL BE SHOWN THUS:



- S15. HOLD OUT-TO-OUT DIMENSIONS EXACT FOR ALL CONTINUOUS RUNS OF BEAMS TO AVOID AN ACCUMULATIVE ERROR.

- S16. ALL RELEVANT DIMENSIONS SHALL BE CHECKED ON SITE BEFORE MANUFACTURE OF STRUCTURAL STEEL COMMENCES.

- S17. ALL WELDING AND SURFACE PREPARATION SHALL BE DISCUSSED, INSPECTED AND APPROVED BY THE ENGINEER IN CONJUNCTION WITH THE SANS, OR OTHER APPROVED INSPECTION AGENCY.

- S18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE UNTIL ALL ELEMENTS HAVE BEEN ERECTED AND FIXED IN POSITION.

- S19. WORKSHOP DETAIL DRAWINGS SHALL BE CHECKED BY THE ENGINEER BEFORE MANUFACTURE OF STRUCTURAL STEEL COMMENCES.

- S20. ALL STEEL TO BE GRADE 350W. ONLY STEEL SECTIONS WITH THE GRADE 350W MARKING SHALL BE ACCEPTED.

- S21. PAINT SPECIFICATION: SEE PROJECT SPECIFICATION WITH FINAL PAINT COLOUR TO ARCHITECT'S SCHEDULES.

- S22. GROUT:
- a) NON METALIC, NON SHRINK GROUT, TO BE APPROVED BY ENGINEER BEFORE USE. MINIMUM COMPRESSIVE STRENGTH REQUIRED AT 28 DAYS IS 30 MPa. APPLICATION AS PER APPROVED PRODUCT SPECIFICATIONS.
- b) ALL GROUTING UNDER MECHANICAL EQUIPMENT IS TO BE DONE BY OTHERS. GROUTING UNDER STRUCTURAL STEEL PLATES BY MAIN CONTRACTOR.

- S23. HOT-DIP GALVANIZING OF STRUCTURAL STEEL SHALL BE DONE ACCORDING TO THE REQUIREMENTS OF SANS 121 UNLESS NOTED OTHERWISE.

- S24. ALL STRUCTURAL STEEL UNDER GROUND LEVEL TO BE PAINTED WITH 2 LAYERS EPOXY-TAR.

- S25. ALL BOLTS TO BE GRADE 8.8 UNLESS NOTED OTHERWISE.

SPECIFICATION FOR SOILCRETE:

- SC1. SOILCRETE SHALL CONSIST OF AN APPROVED SOIL OR GRAVEL MIXED WITH 5% BY MASS OF PORTLAND CEMENT AND ONLY SUFFICIENT WATER TO GIVE IT A CONSISTENCY THAT WILL PERMIT THE SOILCRETE TO BE PLACED, USING VIBRATORS.

- SC2. THE AGGREGATE USED FOR SOILCRETE SHALL PREFERABLY BE A SANDY MATERIAL BUT MAY CONTAIN LARGER PARTICLES UP TO 38mm AND SHALL HAVE A PLASTICITY INDEX OF LESS THAN 10.

- SC3. DETRIMENTAL PERCENTAGES OF SILT AND CLAY MUST BE AVOIDED AND THE AGGREGATE SHALL BE OBTAINED FROM AN APPROVED SOURCE.

- SC4. THE SOILCRETE SHALL BE MIXED ON SITE USING SUITABLE CONCRETE MIXERS AND THE WATER AND CEMENT CONTENTS SHALL BE CAREFULLY CONTROLLED.

- SC5. SOILCRETE SHALL BE PLACED AND THOROUGHLY COMPACTED BY MEANS OF CONCRETE VIBRATORS SO THAT ALL VOIDS ARE FILLED.

BACKFILLING:

- BF1. ALL BACKFILLING BEHIND RETAINING WALLS, BELOW SURFACE BEDS, UNDER STAIRS ON FILL AND ALL JOCKEY SLABS SHALL BE G7 MATERIAL COMPACTED IN 150mm THICK LAYERS TO 93% MOD AASHTO DENSITY, UNLESS OTHERWISE SHOWN.

- BF2. ALL MATERIAL USED FOR BACKFILLING IS TO BE TESTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER, UNLESS OTHERWISE SHOWN.

- BF3. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF ONE DRY DENSITY TEST PER 100 sqm WITH THE MINIMUM NUMBER OF TESTS PER AREA 3. DRY DENSITY TEST SHALL BE DONE AT A MINIMUM OF EVERY 900mm OF BACKFILLING, UNLESS OTHERWISE SHOWN.

MASONRY:

- B1. ALL BRICK WALLS TO BE OF SOLID HARD BURNED CLAY BRICKS WITH A COMPRESSIVE STRENGTH OF NOT LESS THAN 14MPa LAID ON A CLASS II MORTAR WITH A 28 DAY COMPRESSIVE STRENGTH OF 7MPa AS SPECIFIED IN SANS 10164 PART 1-1987 (CODE OF PRACTICE FOR THE STRUCTURAL USE OF MASONRY). REFER TO TYPICAL DRAWINGS FOR DETAILS OF LOAD BEARING WALLS.

- B2. BRICKFORCE: MINIMUM DIAMETER OF BRICKFORCE = 2.8mm YIELD STRENGTH = 485 MPa LAP LENGTH = 400mm MIN

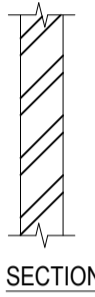
- B3. BRICKFORCE TO BE PLACED IN THE FIRST FIVE LAYERS OF BRICKWORK ON FOOTINGS AND FLOOR SLABS, THEREAFTER TO BE PLACED IN EVERY 4th LAYER IN ALL BRICK WALLS. PLACE BRICKFORCE IN THE FIRST 5 LAYERS OF BRICKWORK OVER ALL WINDOW AND DOOR OPENINGS. BRICKFORCE TO BE PROVIDED IN TOP FIVE LAYERS OF BRICKWORK BELOW SLAB SOFFITS FOR ALL LOAD BEARING BRICKWALLS AND WALLS SUPPORTING ROOF TRUSSES.

- B4. ALL BRICKWORK SHOWN IS LOAD BEARING BRICKWORK UNLESS OTHERWISE SHOWN.

- B5. PLACE 20mm SOFTBOARD ON TOP OF ALL NON-LOAD BEARING WALLS.

- B6. 2 LAYERS OF DPC SLIP SHEET TO BE PLACED ON TOP OF ALL LOAD BEARING BRICKWALLS. TOP OF BRICKWORK TO BE LEVEL AND SMOOTH.

- B7. LOAD BEARING BRICK WALLS ARE SHOWN AS FOLLOWS:



- B8. ALL INTERNAL AND EXTERNAL BRICK WALLS ARE SUPPORTED BY STRIP FOUNDATION UNLESS OTHERWISE SHOWN.

- B9. ALL WALL TIES TO BE GALVANISED TO SANS - 28 - 1986. GALVANISED COATING OF MILD STEEL TO HAVE A MINIMUM MASS OF 750 g/m² OF ZINC.

- B10. PROVIDE 10mm JOINT IN ALL BRICKWORK AT MAXIMUM SPACING AS SHOWN ON TYPICAL BRICKWORK DETAILS DRAWINGS, BUT NOT LESS THAN 8m INTERVALS.

- B11. ALL LINTOLS TO BE PROVIDED STRICTLY IN ACCORDANCE WITH THE MANUFACTURES SPECIFICATIONS.

- B12. NO BRICKWORK TO COMMENCE ON PROPPED SLABS.

- B13. PLASTER WORK TO WALLS AT ALL DOORS AND WINDOW OPENINGS TO BE REINFORCED WITH CHICKEN MESH AS SHOWN BELOW:

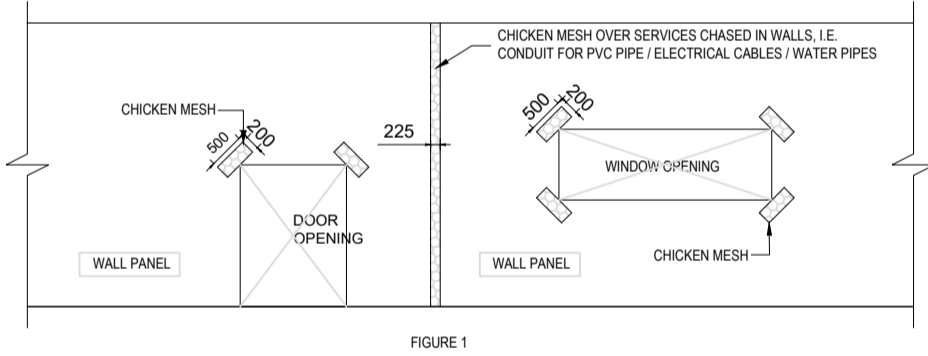


FIGURE 1

STRUCTURAL TIMBER:

- T1. PREFABRICATED TIMBER ROOF TRUSSES AND PURLINS ARE TO BE DESIGNED ACCORDING TO THE SPECIFICATION, AND SUPPLIED BY A MITEK OR SIMILAR APPROVED SUPPLIER.

- T2. TIMBER ROOF TRUSSES ARE TO BE DESIGNED IN ACCORDANCE WITH SANS 10163 PART 1 - 2003 (CODE OF PRACTICE FOR THE STRUCTURAL USE OF TIMBER). LOADS ARE TO COMPLY WITH SANS 10160 - 2010 (CODE OF PRACTICE FOR THE BASIS OF STRUCTURAL DESIGN AND ACTIONS FOR BUILDINGS AND INDUSTRIAL STRUCTURES).

- T3. WORKSHOP DETAIL DRAWINGS SHALL BE CHECKED BY THE ENGINEER BEFORE COMMENCING WITH MANUFACTURING OF TIMBER ROOF TRUSSES.

- T4. FOR THE DESIGN OF TIMBER ROOF TRUSSES REFER ALSO TO AURECON SPECIFICATION FOR TIMBER STRUCTURES.

- T5. ALL TRUSSES TO BE FABRICATED IN A FACTORY BY A TIMBER TRUSS FABRICATOR WHO HAS BEEN AWARDED A "CERTIFICATE OF OF COMPETENCE" BY THE INSTITUTE FOR TIMBER CONSTRUCTION.

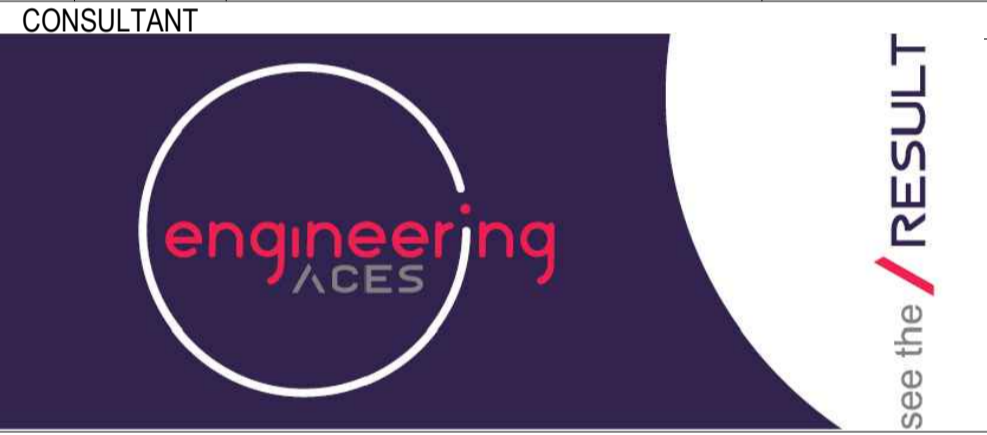
- T6. LOADS ON TIMBER ROOF STRUCTURE:
- ROOF CLADDING: ALLOWANCE AS FOR SPECIFIC CLADDING REQUIREMENT
- CEILINGS: 25kg/m²
- DUCTS & CABLES: AS PER ELECTRICAL ENGINEERS DRAWINGS
- WIND LOADING: 100 YEAR RETURN PERIOD
- TERRAIN CATEGORY 2
- BUILDING CLASS B
- HEIGHT OF ROOF ABOVE GROUND LEVEL 3.5m
- HEIGHT ABOVE SEA LEVEL 1440m

Drawing signed for approval
held at Engineering Aces offices

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| DESIGNED: | L SEROBE | DATE |
| CHECKED: | OS MOTHIBI | SS MNTAMBO Pr Tech Eng 2025302376 |
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ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE2

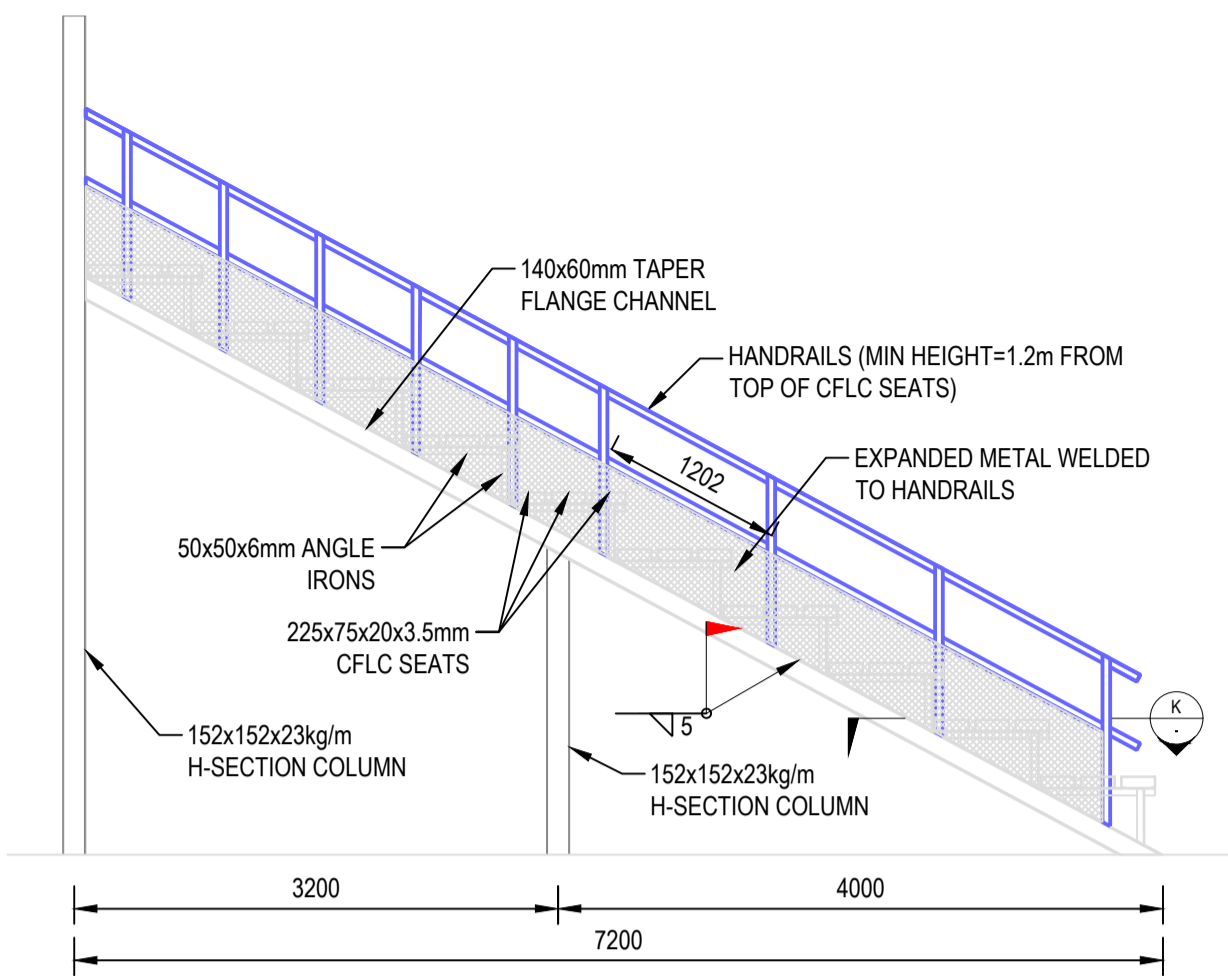
GENERAL NOTES

DRAWING NO.

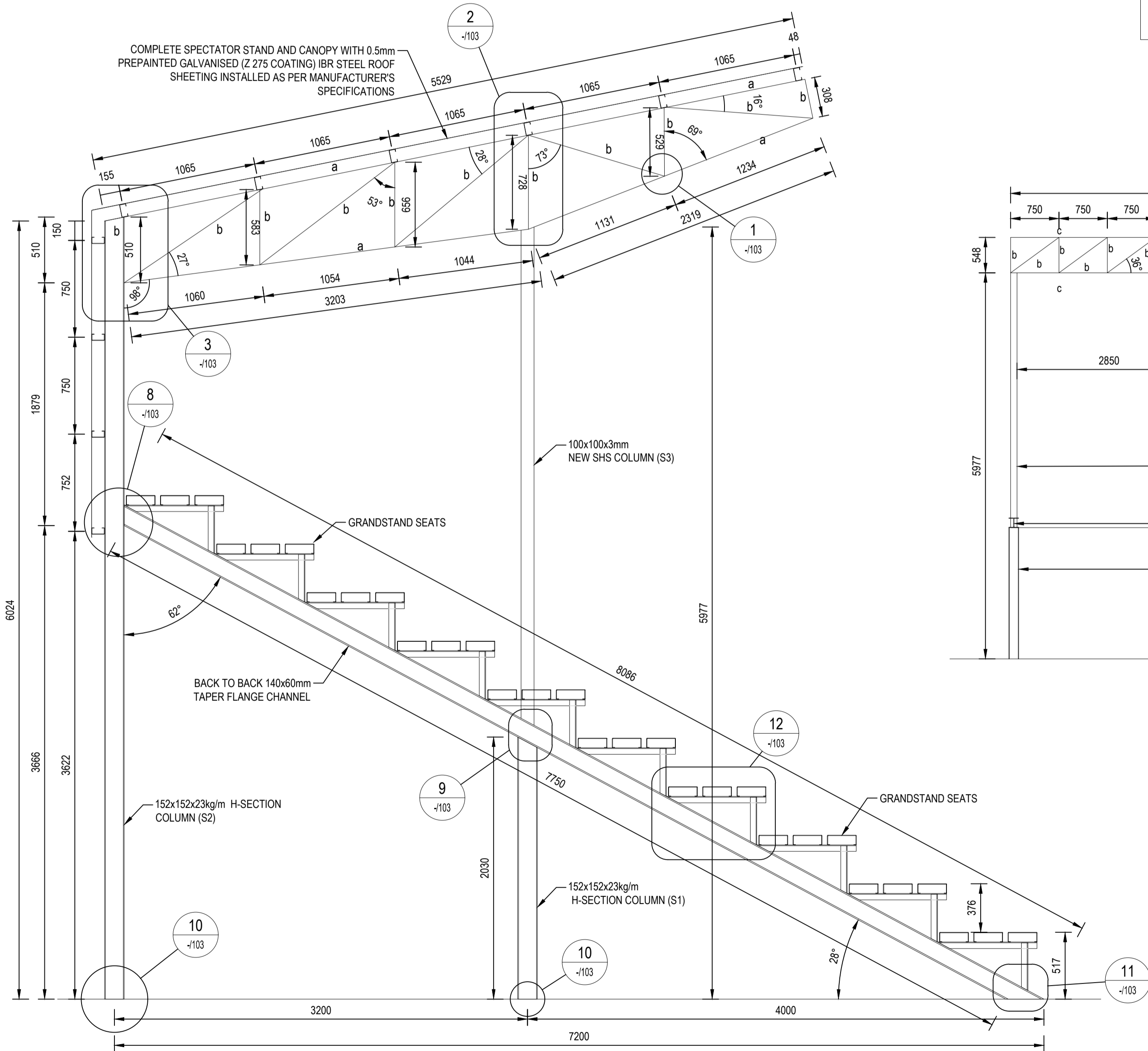
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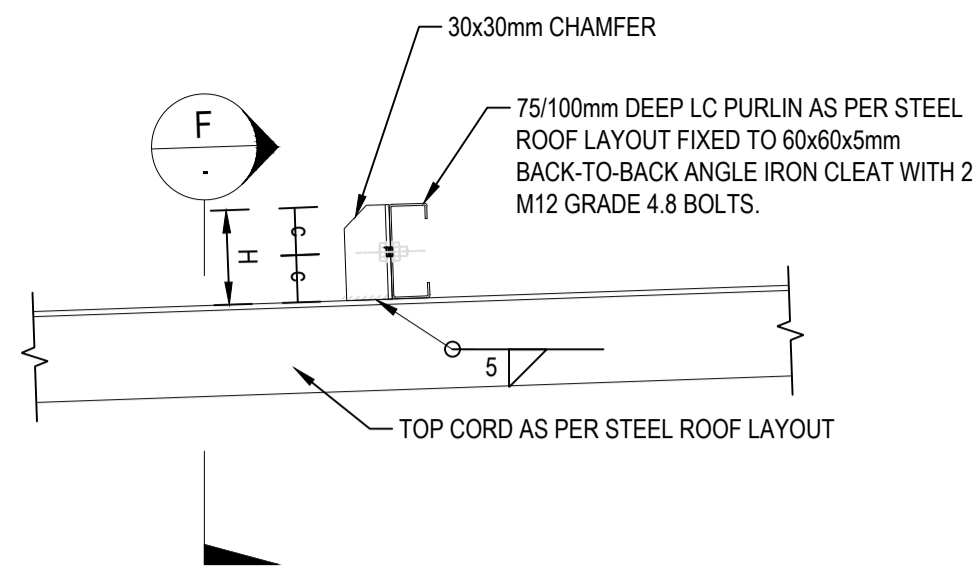
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**TYPICAL GRAND STAND
FRAME WITH HANDRAILS**
1:50



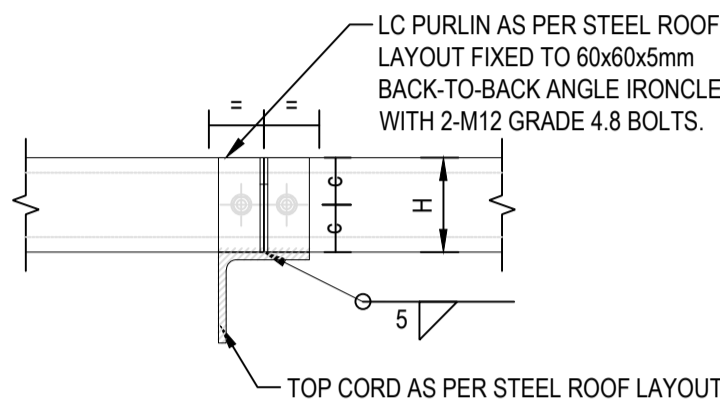
TYPICAL GRAND STAND FRAME 2
SECTION B
1:25



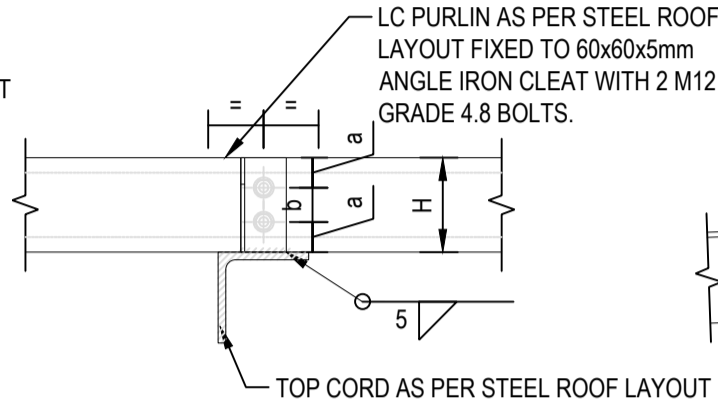
TYPICAL PURLIN CONNECTION DETAIL
1:10

| BOLT SPACING FOR PURLIN CONNECTION | | | |
|------------------------------------|--------|--------|--------|
| H (mm) | a (mm) | b (mm) | c (mm) |
| 75 | | | 37.5 |
| 100 | | | 50 |
| 125 | | | |
| 150 | | | |
| 175 | | | |
| 200 | | | |
| 225 | | | |
| 250 | | | |

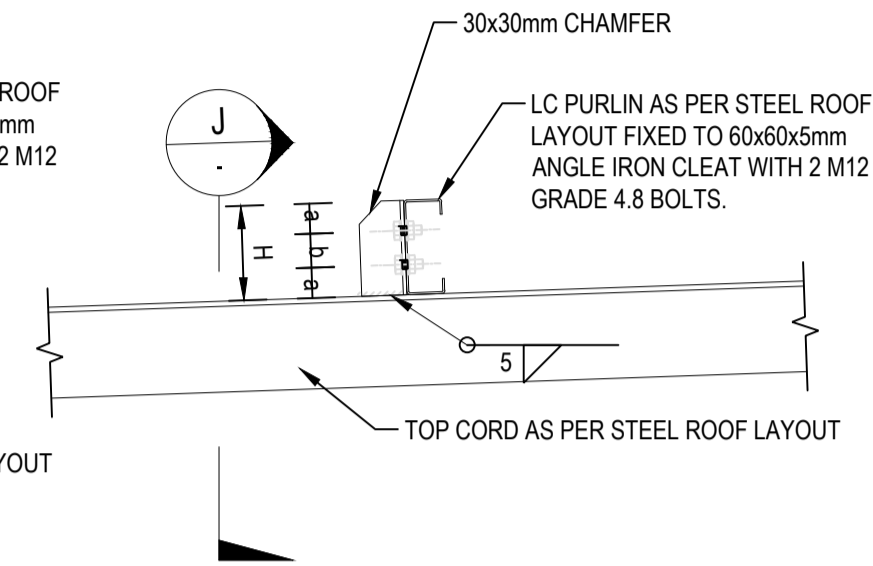
PURLINS ARE TO BE SPLICED ON THE SUPPORT RAFTER. BACK TO BACK ANGLE IRON CLEATS ARE TO BE USED AT SPLICE POSITION



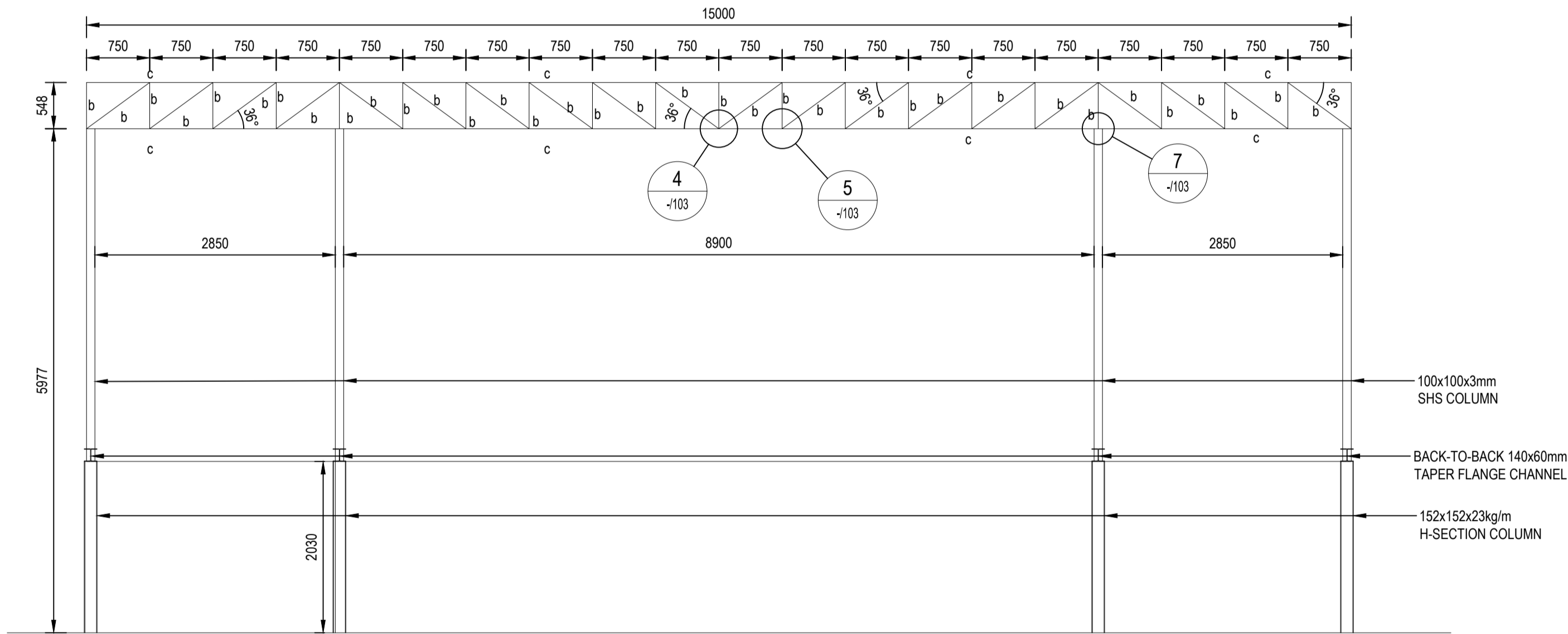
SECTION F
1:10



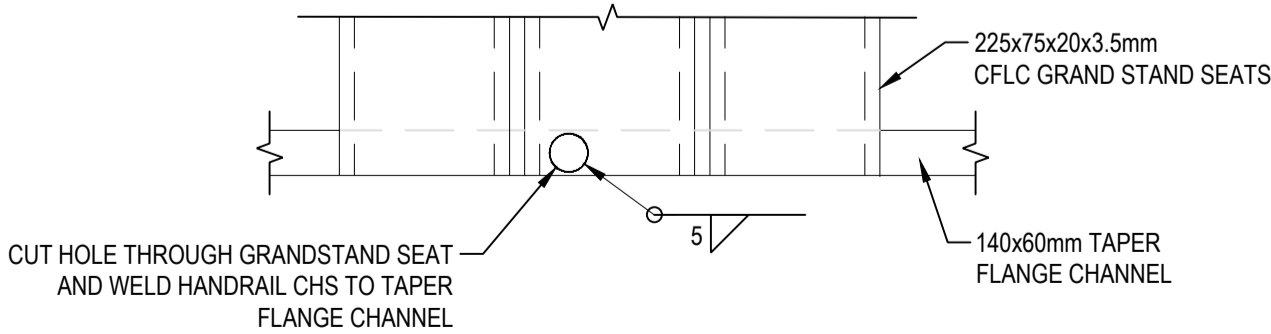
SECTION J
1:10



TYPICAL PURLIN CONNECTION DETAIL
1:10



TYPICAL GRAND STAND FRAME 3
SECTION A
1:50



SECTION K
1:10

STEEL LEGEND:

a: 60x60x4mm ANGLE IRON
b: 50x50x3mm ANGLE IRON
c: 70x70x6mm ANGLE IRON
S1: 152x152x23kg/m H-SECTION COLUMN
S2: 152x152x23kg/m H-SECTION COLUMN
S3: 100x100x3mm SHS

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE SHOWN.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS 1109-STR-DRG-100, 102 & 103

*Drawing signed for approval
held at Engineering Aces offices*

| | | | |
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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | L SEROBE | | DATE |
| CHECKED: | OS MOTHIBI | SS MNTAMBO Pr Tech Eng 2025302376 | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
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| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
| | | | |
| | | | |
| | | | |

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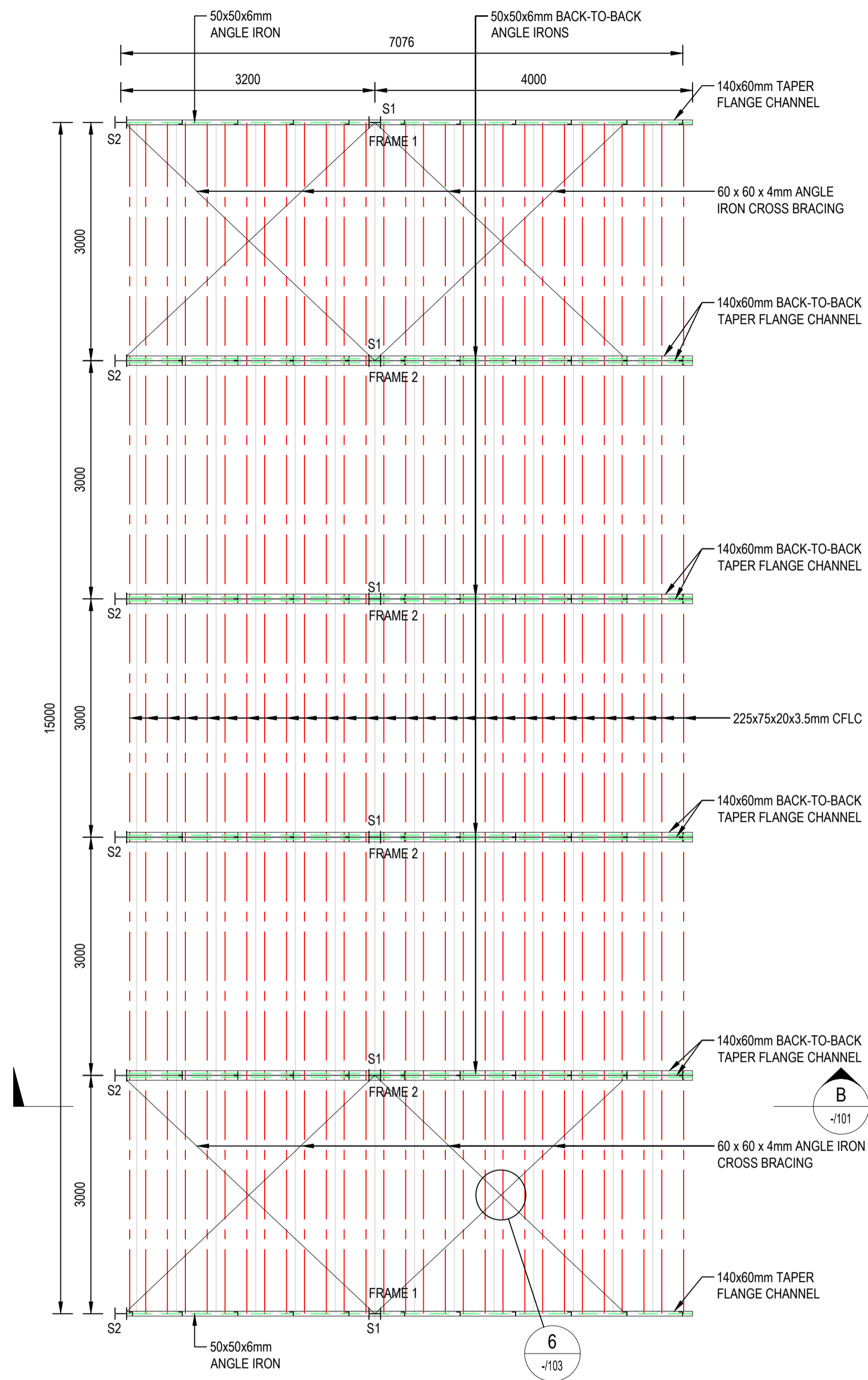
**MOHOKARE LOCAL
MUNICIPALITY**

**CONSTRUCTION OF SPORTS
GROUND_PHASE 1**

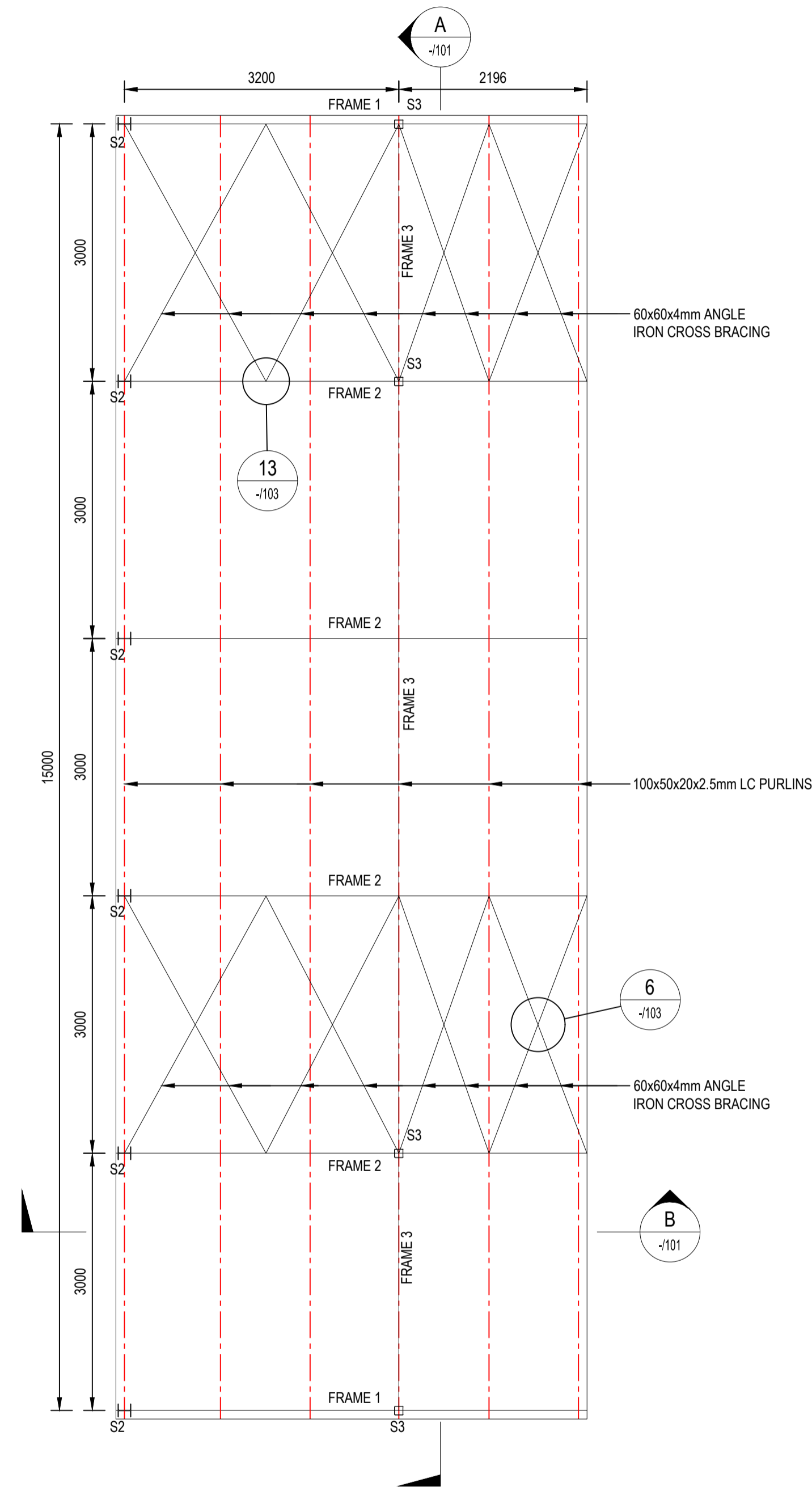
**DETAILS:
GRANDSTAND**

DRAWING NO.
1109-STR-DRG-101

REVISION
T0



PROPOSED GRAND STAND STEEL SEATING LAYOUT
1:50



GRAND STAND STEEL ROOF LAYOUT
1:50

STEEL LEGEND:

- a: 60x60x4mm ANGLE IRON
b: 50x50x3mm ANGLE IRON
c: 70x70x6mm ANGLE IRON
S1: 152x152x23kg/m H-SECTION COLUMN
S2: 152x152x23kg/m H-SECTION COLUMN
S3: 100x100x3mm SHS

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE SHOWN.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRAWINGS 1109-STR-DRG-100, 101 & 103

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| DESIGNED: | L SEROBE | | DATE |
| CHECKED: | OS MOTHIBI | SS MNTAMBO Pr Tech Eng 2025302376 | |
| APPROVED: | SS MNTAMBO | SCALE: | AS SHOWN |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
|-----|------------|----------------|------------|
| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
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| | | | |

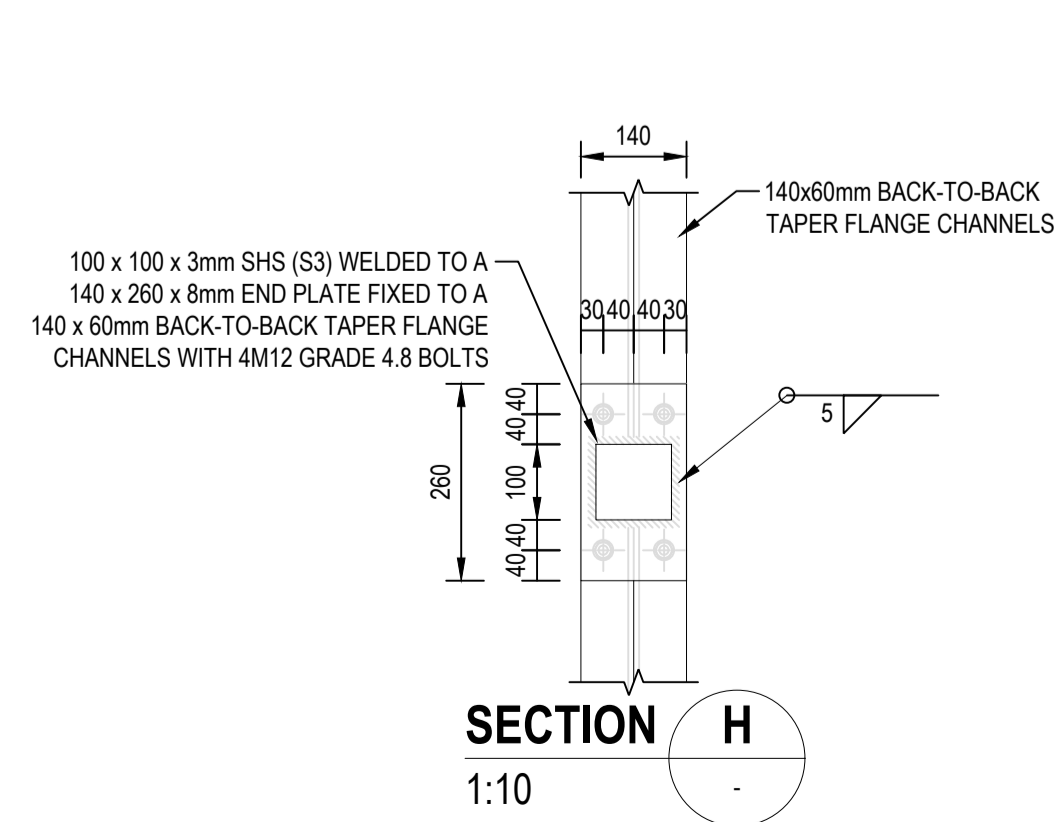


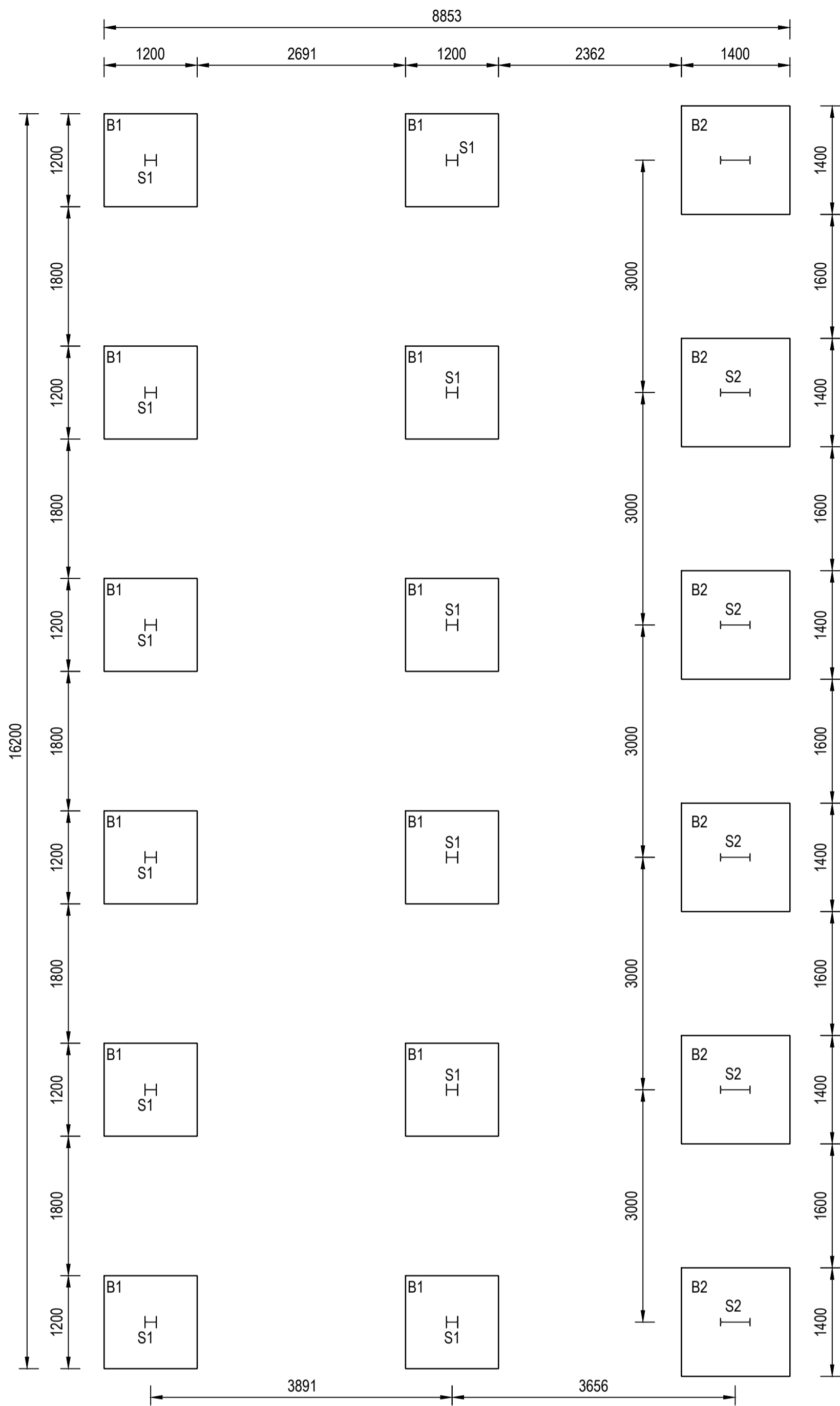
MOHOKARE LOCAL
MUNICIPALITY

CONSTRUCTION OF SPORTS
GROUND_PHASE 1

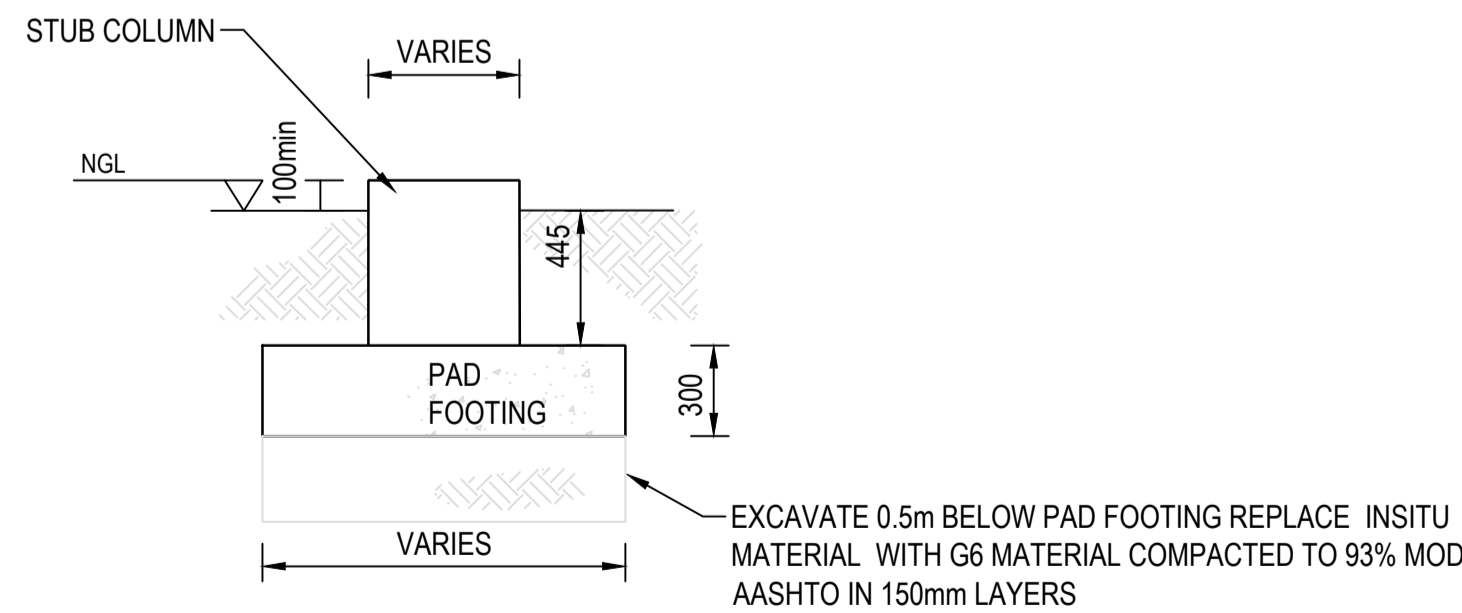
LAYOUT:
GRANDSTAND ROOF AND
SEATING

| | |
|------------------|----------|
| DRAWING NO. | REVISION |
| 1109-STR-DRG-102 | T0 |

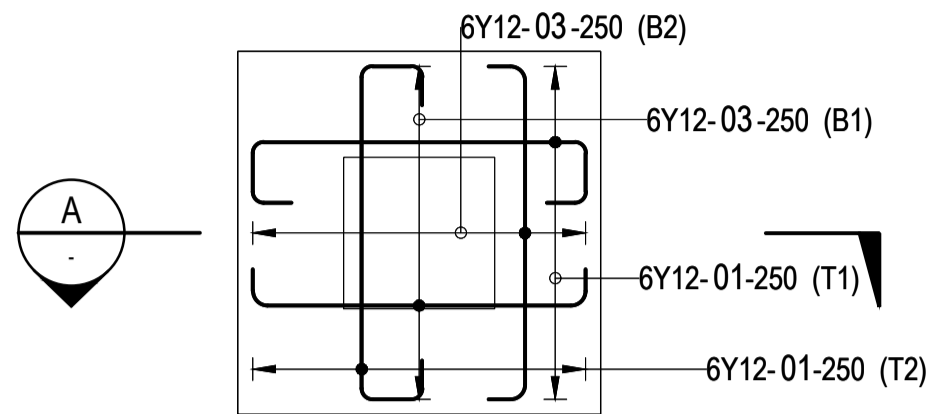




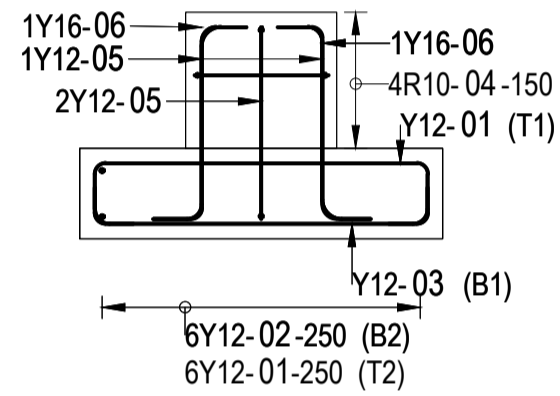
GRAND STAND PAD FOUNDATION LAYOUT
1:50



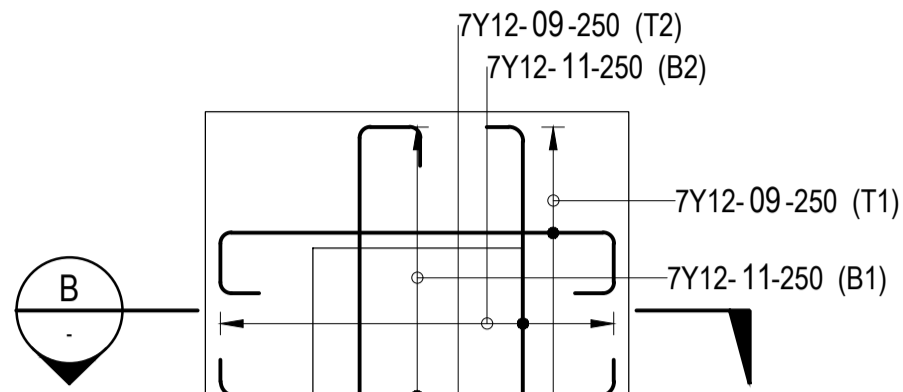
TYPICAL PAD FOUNDATION DETAIL
1:25



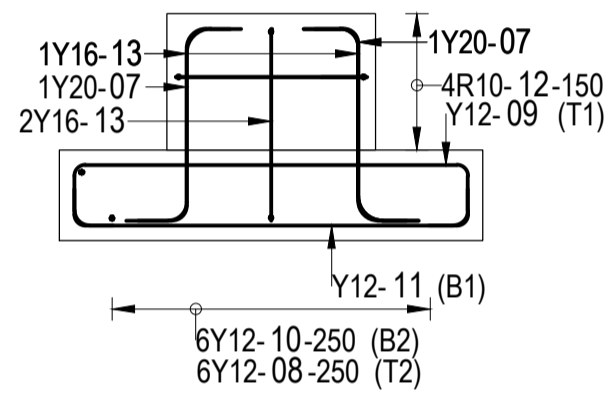
B1 BASE (12 OF)
1:25



SECTION A
1:25



B2 BASE (6 OF)
1:25



SECTION B
1:25

| MEMBER | NO OF | NO BARS | DIA | CUT LENGTH | TOTAL | BAR MARK | SC | A | B | C | D | E/R | kg |
|--|-------|---------|-----|------------|------------|----------|------|-------------|-------|-------|-----|-------|------|
| B1 | 12 | 24 | Y12 | 1620 | 288 | 01 | 55 | 120 | 200 | 1100 | 200 | [120] | 414 |
| | 12 | 24 | Y12 | 1320 | 288 | 03 | 35 | 1100 | | | | | 338 |
| | 12 | 4 | R10 | 1920 | 48 | 04 | 60 | 440 | 440 | | | | 57 |
| | 12 | 7 | Y12 | 900 | 84 | 05 | 54 | 160 | 630 | [160] | | | 67 |
| | 12 | 5 | Y16 | 870 | 60 | 06 | 54 | 160 | 630 | [160] | | | 82 |
| B2 | 6 | 3 | Y20 | 930 | 18 | 07 | 54 | 200 | 630 | [200] | | | 41 |
| | 6 | 14 | Y12 | 1830 | 84 | 09 | 55 | 120 | 200 | 1300 | 200 | [120] | 136 |
| | 6 | 14 | Y12 | 1500 | 84 | 11 | 35 | 1300 | | | | | 112 |
| | 6 | 4 | R10 | 2280 | 24 | 12 | 60 | 440 | 630 | | | | 34 |
| | 6 | 4 | Y16 | 870 | 24 | 13 | 54 | 160 | 630 | [160] | | | 33 |
| | | | | | | | | | | | | | |
| | 6 | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | TOTAL | | | |
| R | | | 91 | | | | | | | | | | 91 |
| Y | | | | | 1067 | 115 | 41 | | | | | | 1224 |
| TOTAL | | | 91 | 1067 | 115 | 41 | | | | | | | 1314 |
| 58 VICTORIA ROAD WILLOWS BLOEMFONTEIN 9501 Tel: 051 430 0994 | | | | Date | 25/08/2025 | Ref Dwg | -/ | Revision | 0 | | | | |
| | | | | Det. by | T KHUNONG | Job No | 1109 | Schedule No | KHS01 | | | | |

CONCRETE :

B1: 1200x1200x300mm DEEP BASE WITH 500x500 STUB COLUMN

B2: 1400x1400x300mm EXISTING DEEP BASE WITH 690x500 STUB COLUMN

STRUCTURAL STEEL:

S1: 152x152x23 H-SECTION

S2: 140x60mm BACK-TO-BACK TAPER FLANGE CHANNELS

- ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE SHOWN.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE DRAWINGS 1109-STR-DRG-100, 101, 102 & 103

Drawing signed for approval
held at Engineering Aces offices

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| DRAWN: | N QWABE | TENDER DRAWINGS | |
| DESIGNED: | L SEROBE | SS MNTAMBO Pr Tech Eng 2025302376 | DATE |
| CHECKED: | OS MOTHIBI | | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
|-----|------------|----------------|------------|
| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
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MOHOKARE LOCAL MUNICIPALITY

CONSTRUCTION OF SPORTS GROUND_PHASE 1

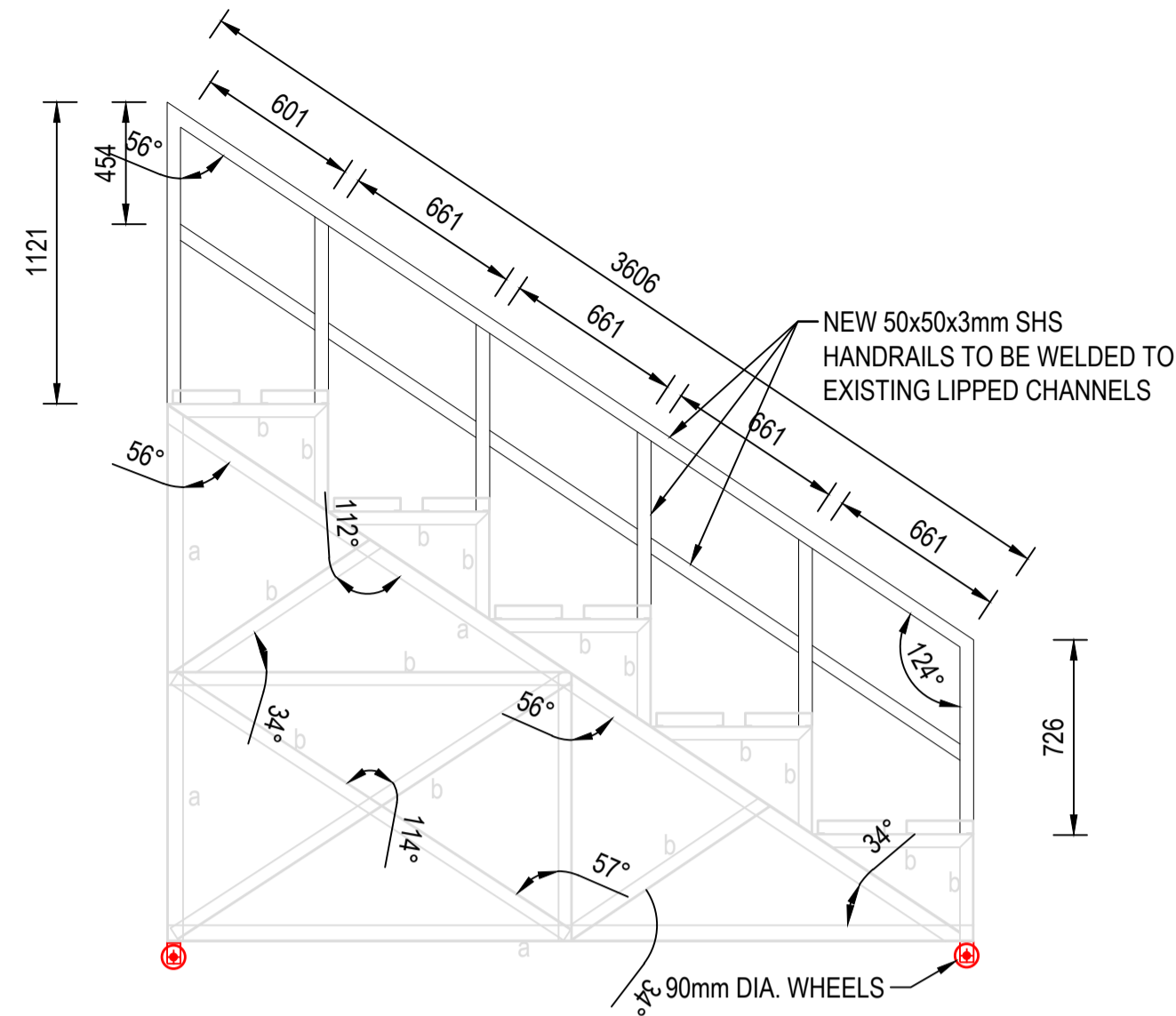
DETAILS: FOUNDATIONS REINFORCEMENT AND BENDING SCHEDULE

DRAWING NO.

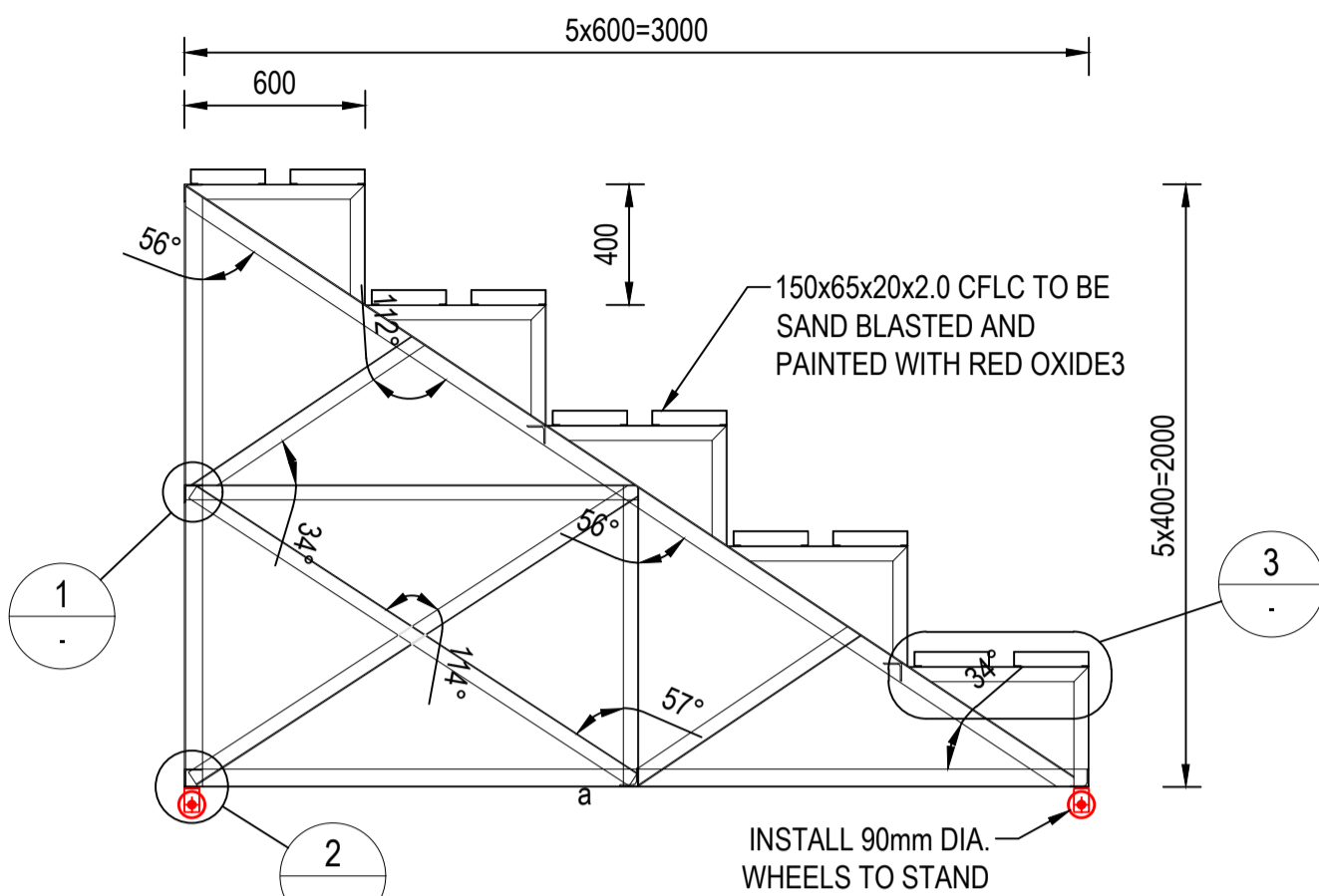
1109-STR-DRG-104

REVISION

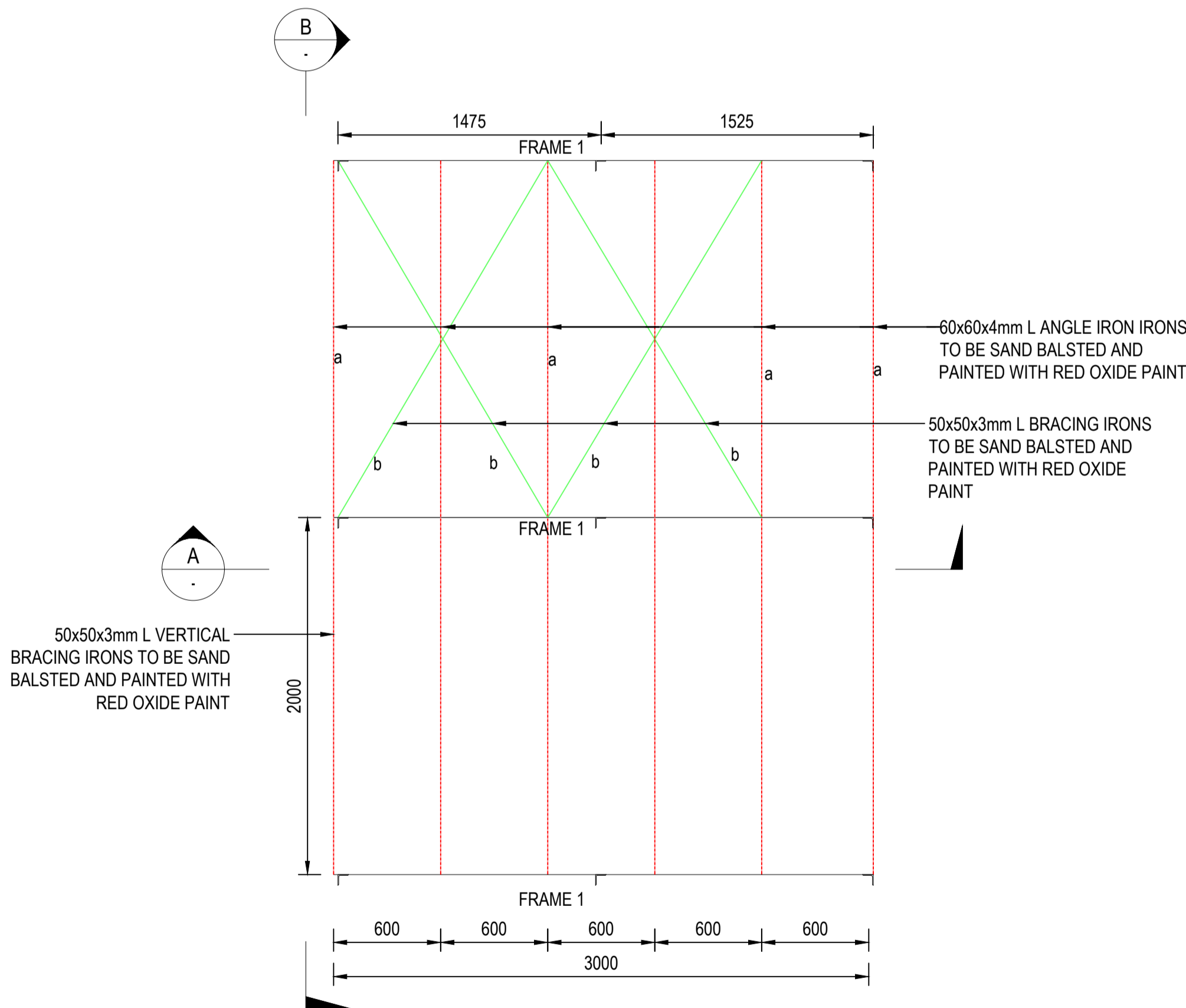
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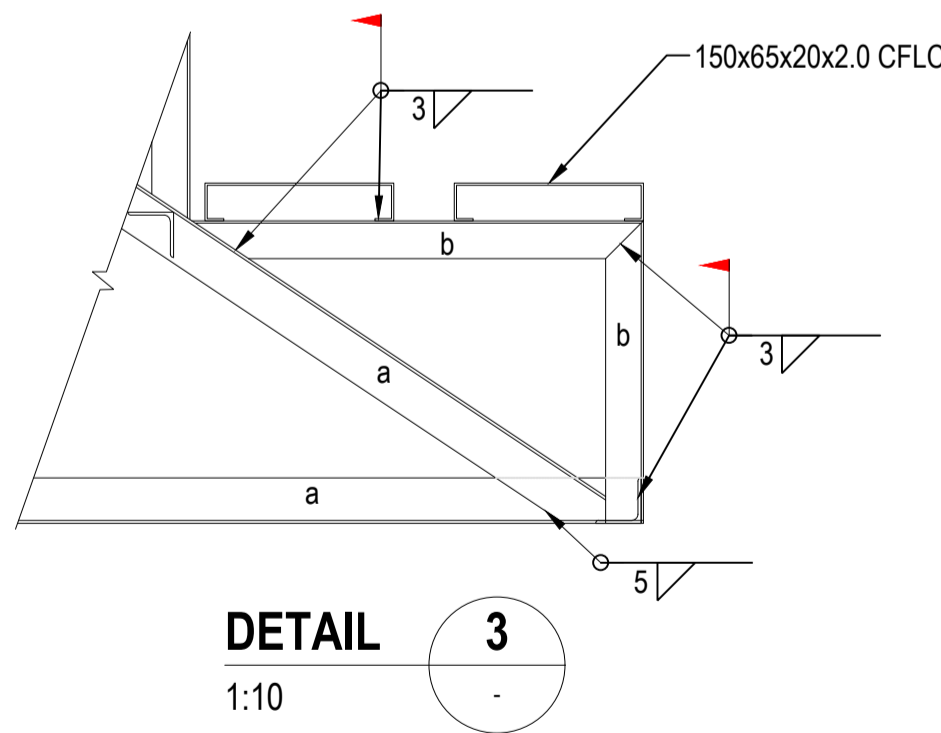
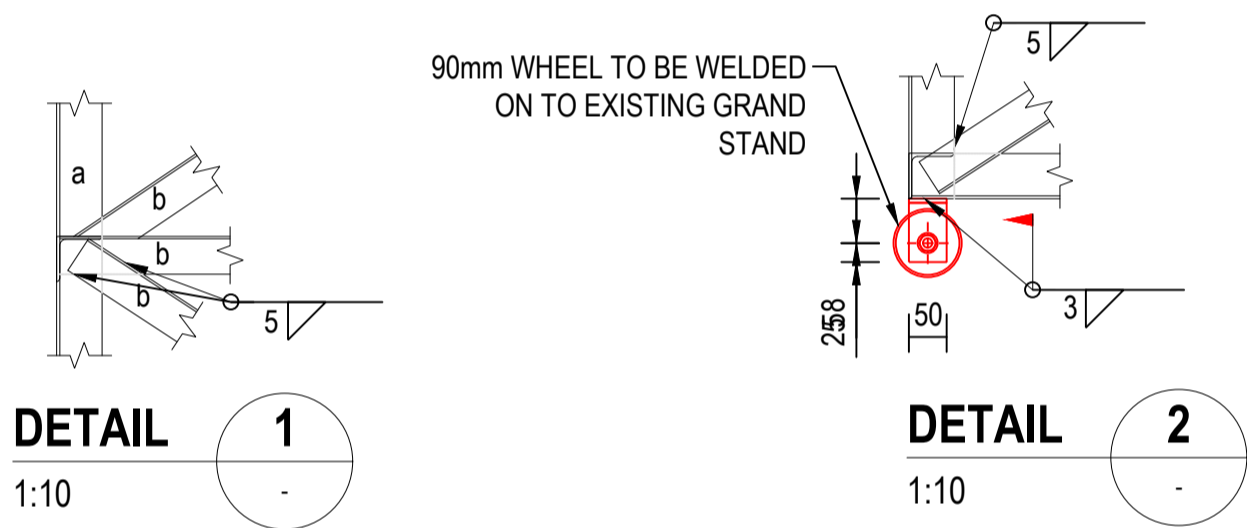
TYPICAL FRAME 1 WITH HANDRAILS
1:25



**TYPICAL FRAME 1
SECTION A**
1:25



MINI STAND LAYOUT
1:25



NOTES:

1. ALL STRUCTURAL STEEL TO BE SAND BLASTED AND PAINTED WITH CORROSION PROTECTION PER SUPPLIER'S SPECIFICATIONS
2. METHODS OF APPLICATION TO CONFORM TO SABS 1200HC
3. ALL DAMAGED MEMBERS TO BE REPLACED AS PER ENGINEER'S INSTRUCTION

*Drawing signed for approval
held at Engineering Aces offices*

| | | | |
|-----------|------------|-----------------------------------|------|
| DRAWN: | L MTHEMBU | TENDER DRAWINGS | DATE |
| DESIGNED: | L SEROBE | | |
| CHECKED: | OS MOTHIBI | SS MNTAMBO Pr Tech Eng:2025302376 | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
|-----|------------|----------------|------------|
| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
| | | | |
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| | | | |

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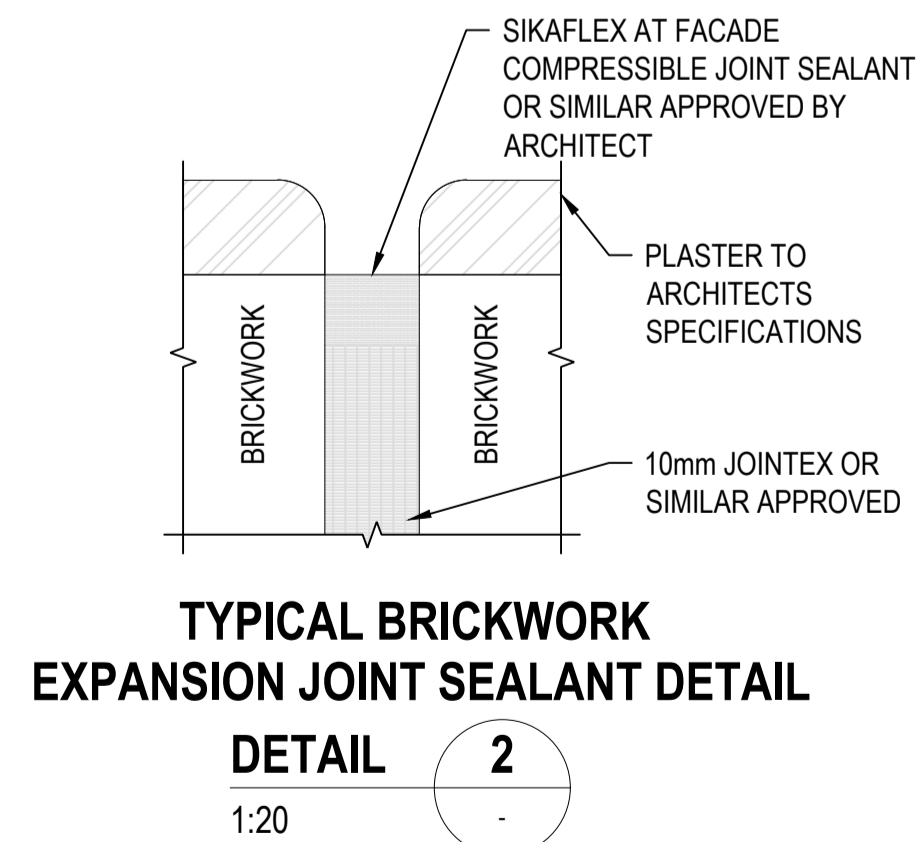
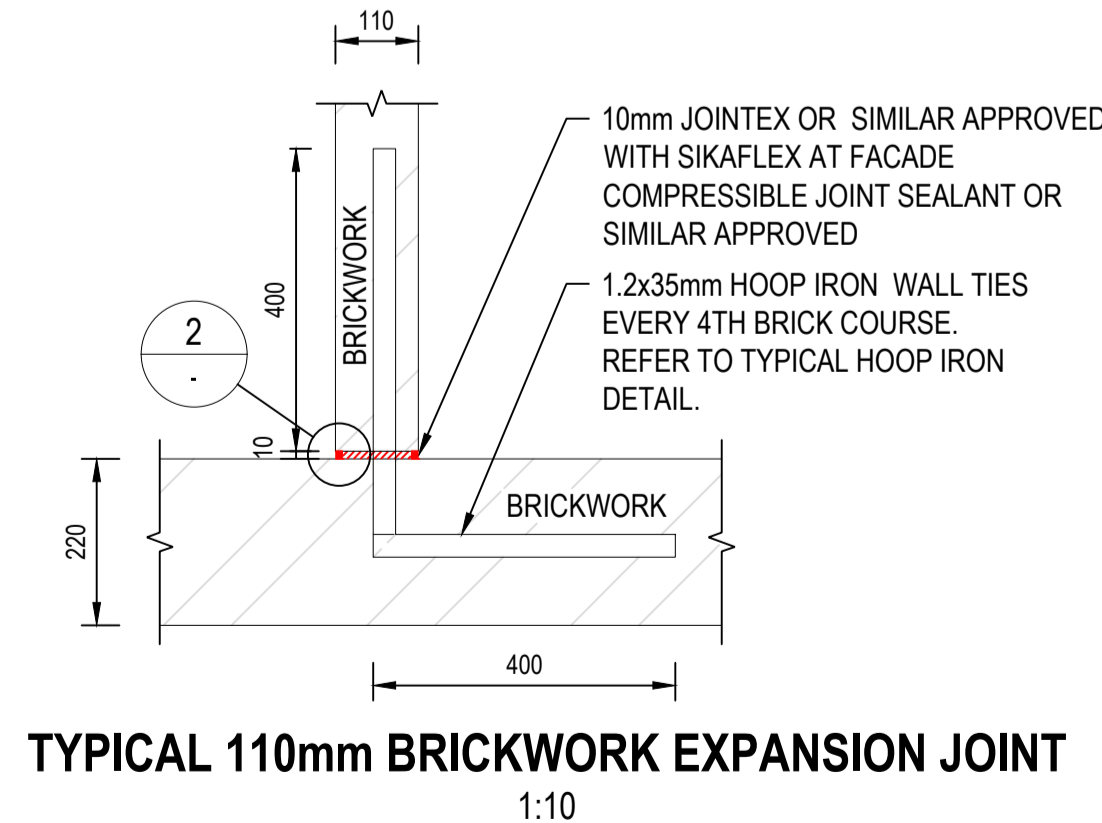
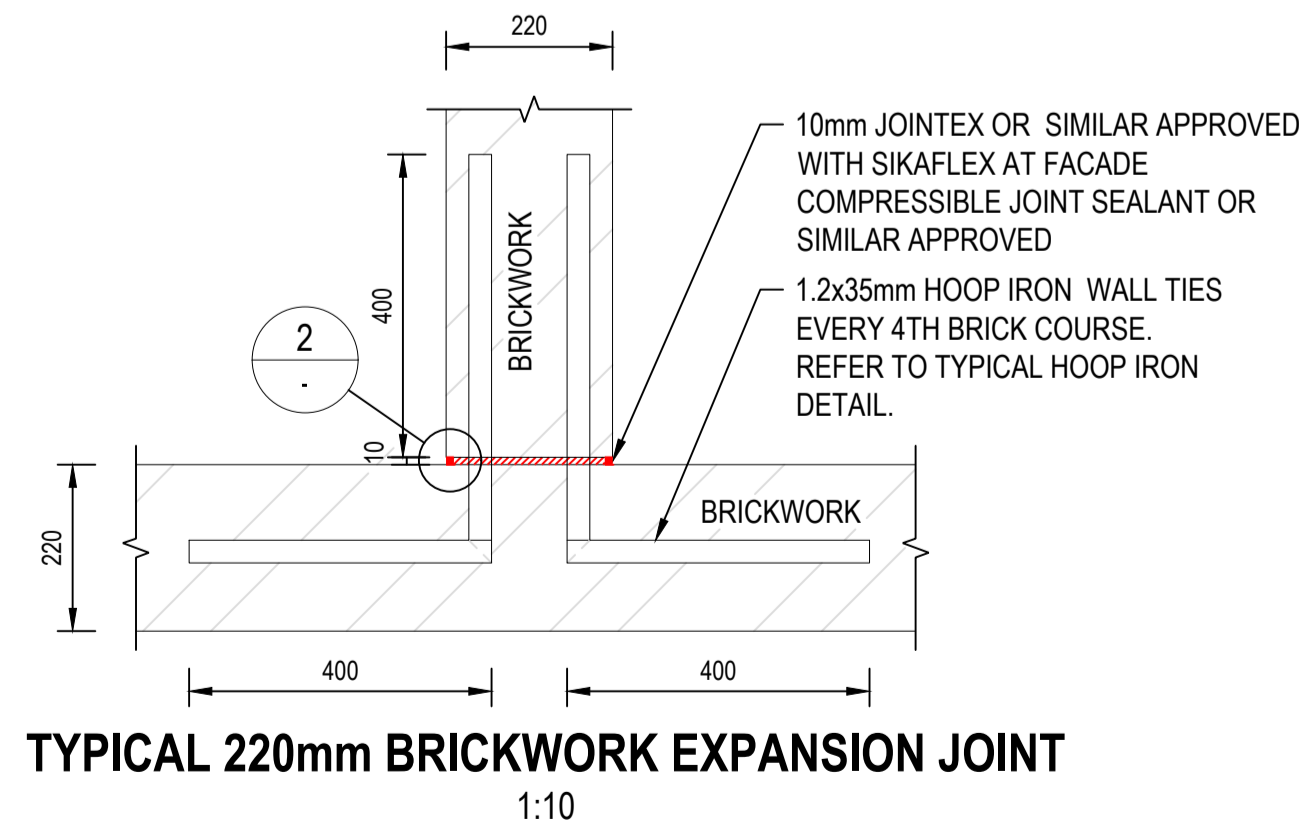
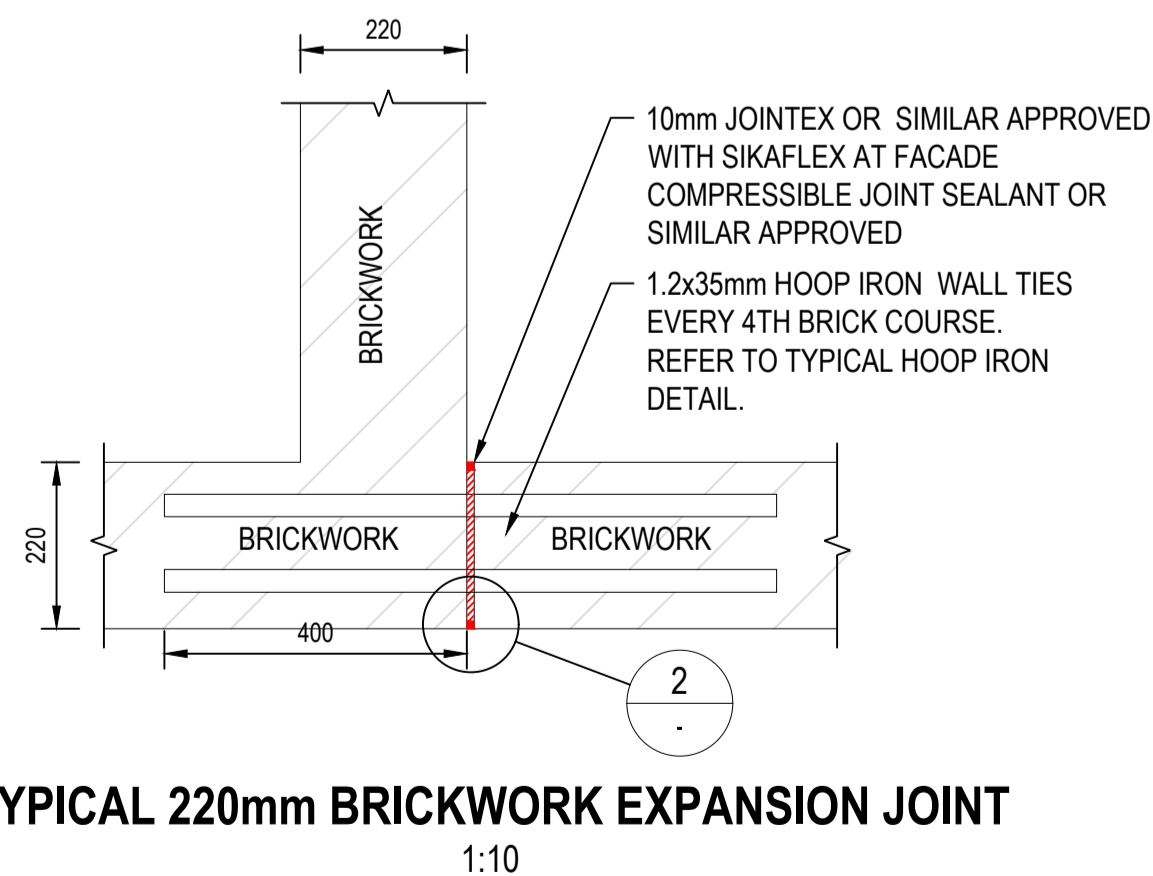
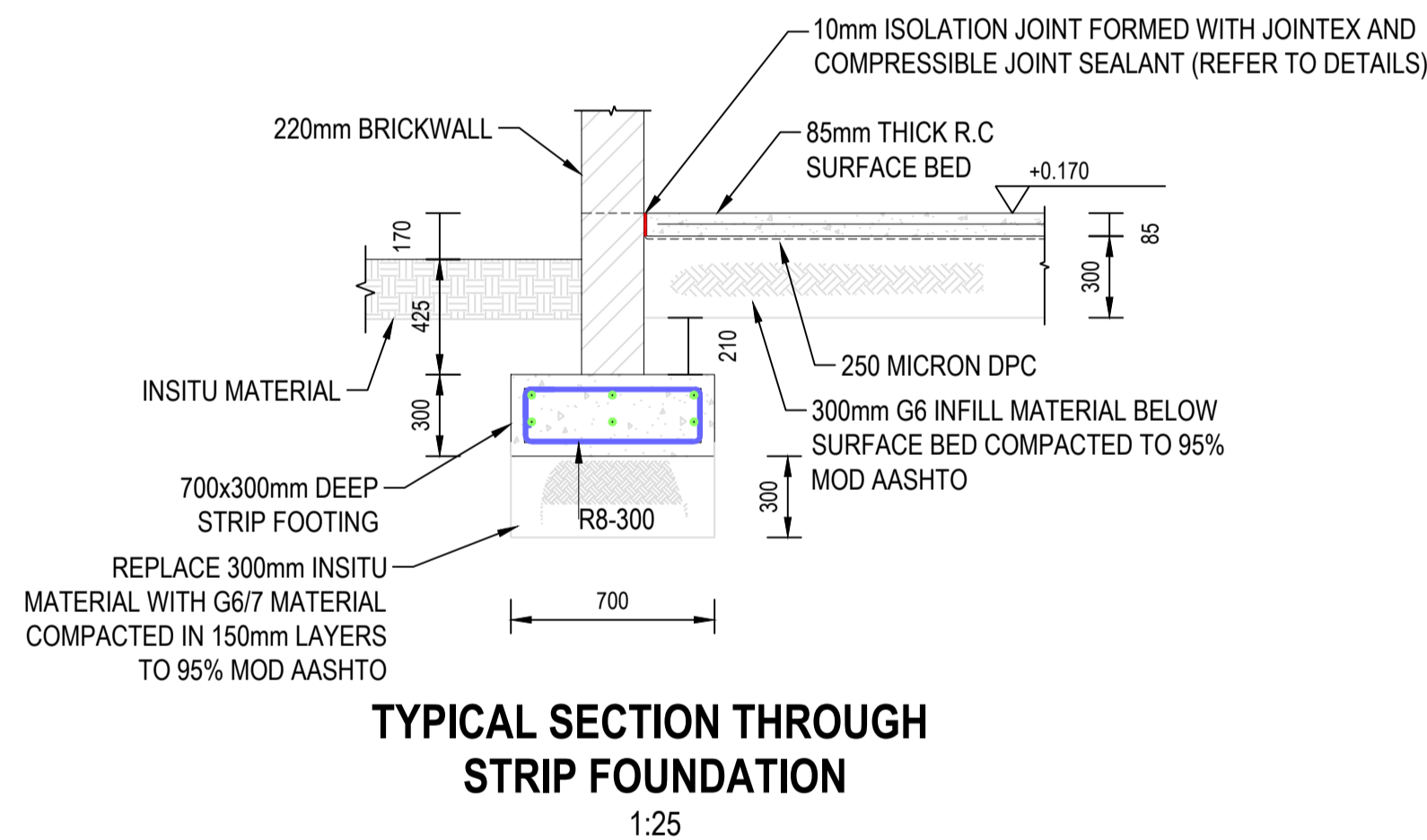
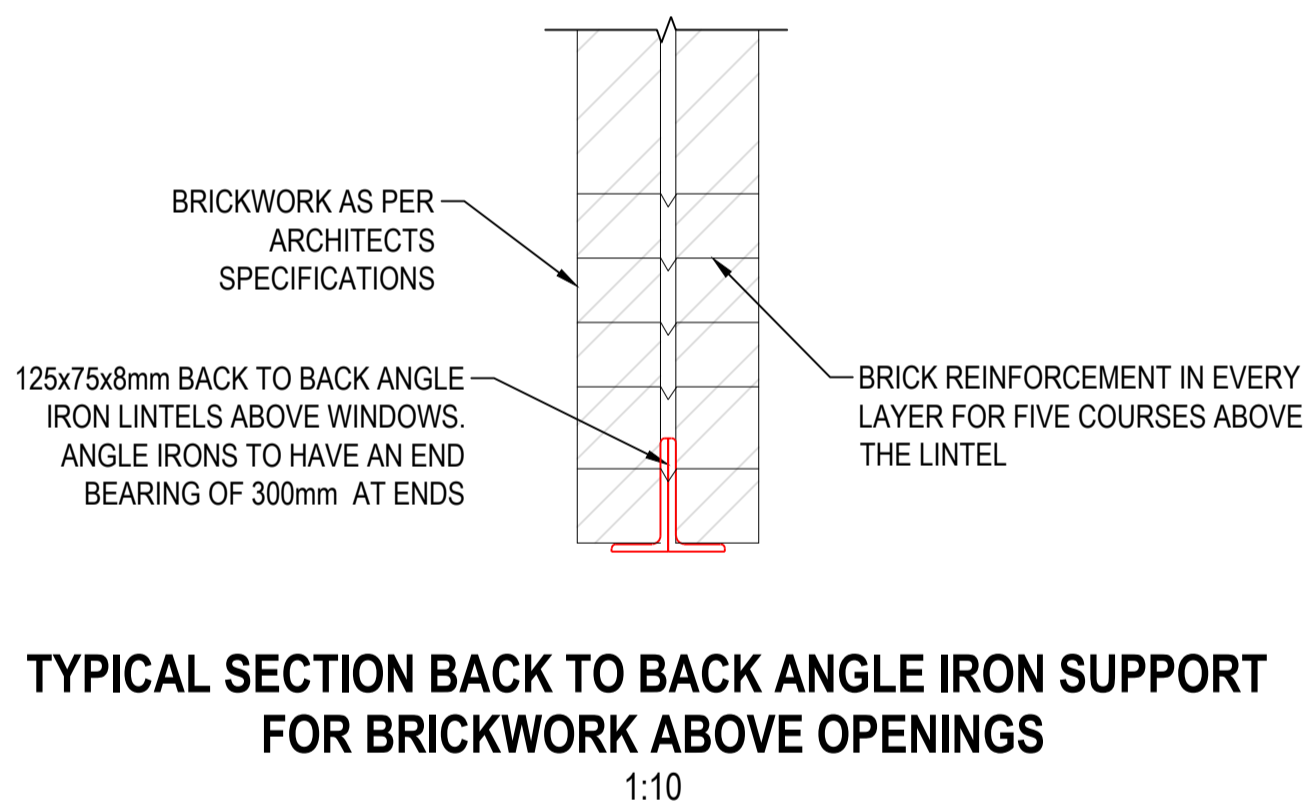
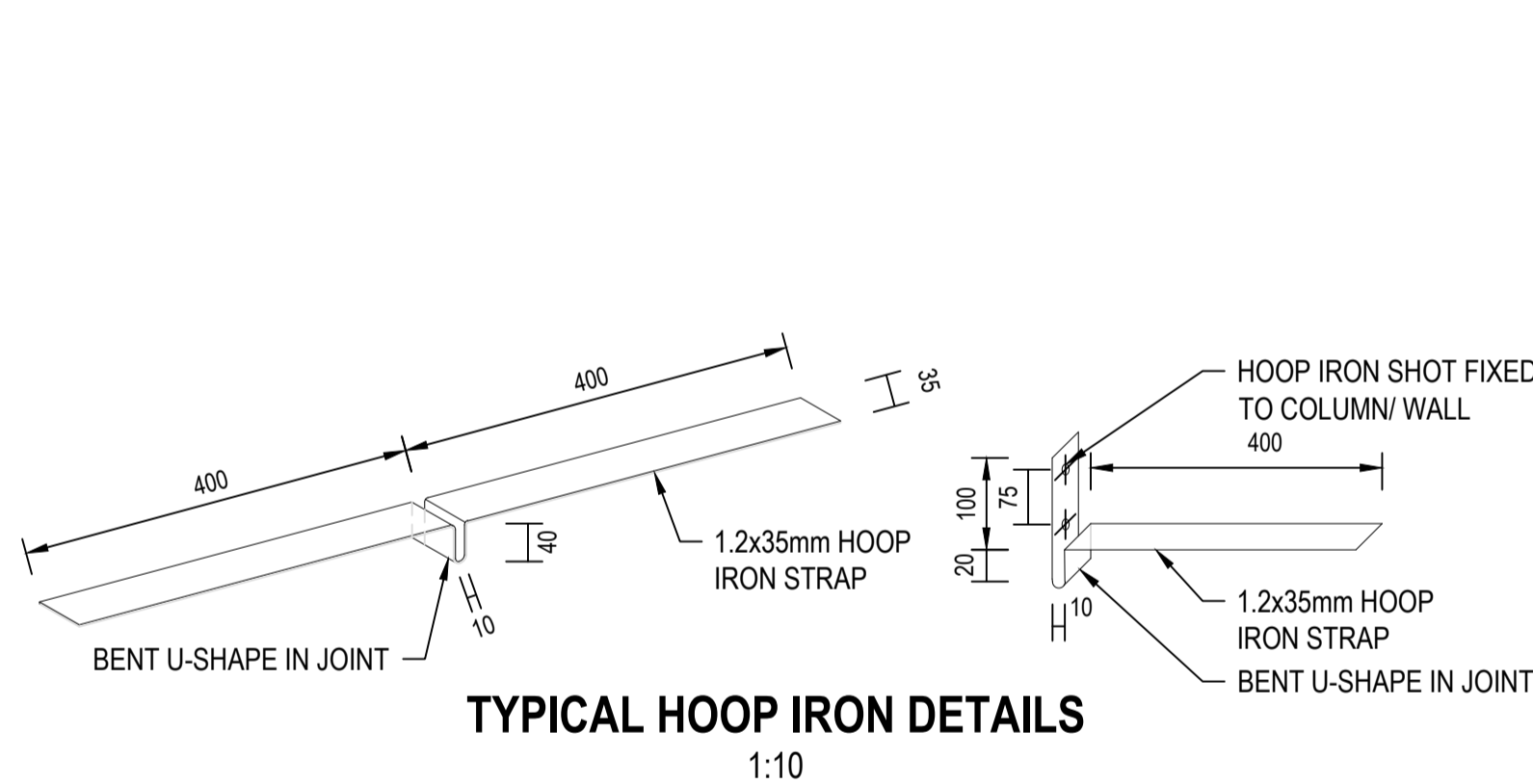
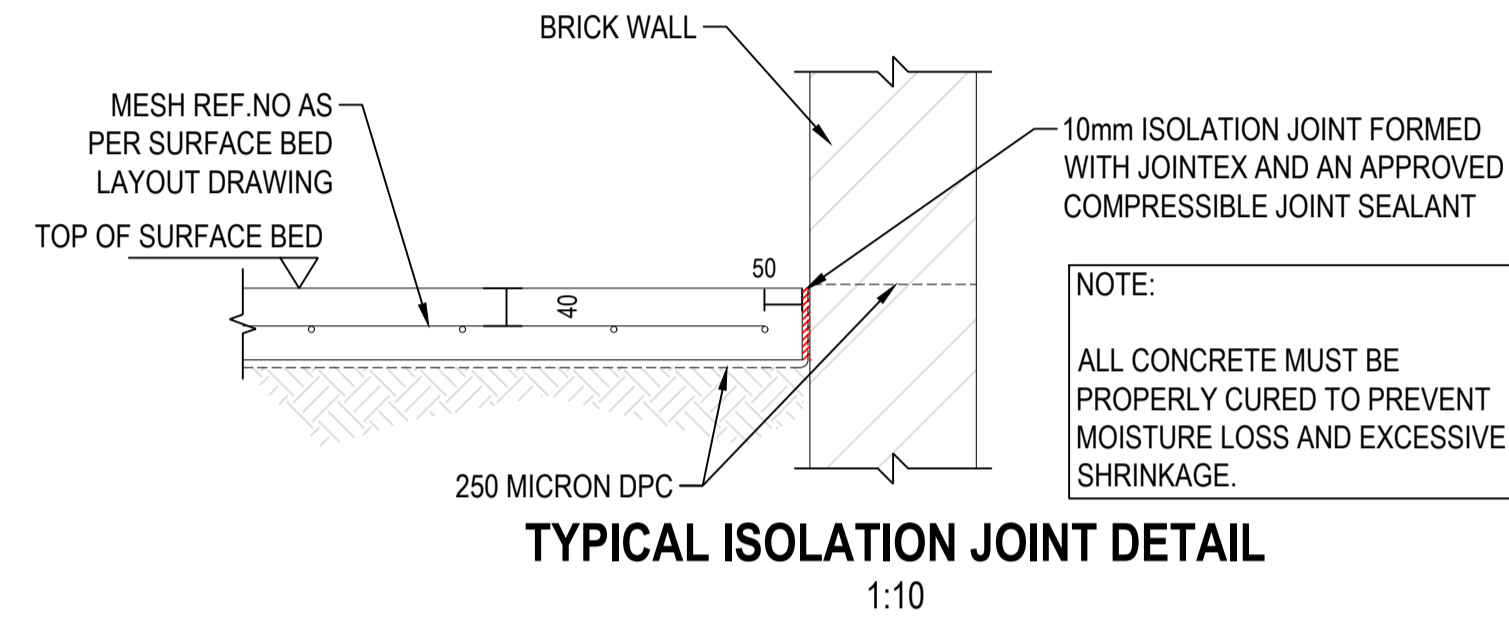
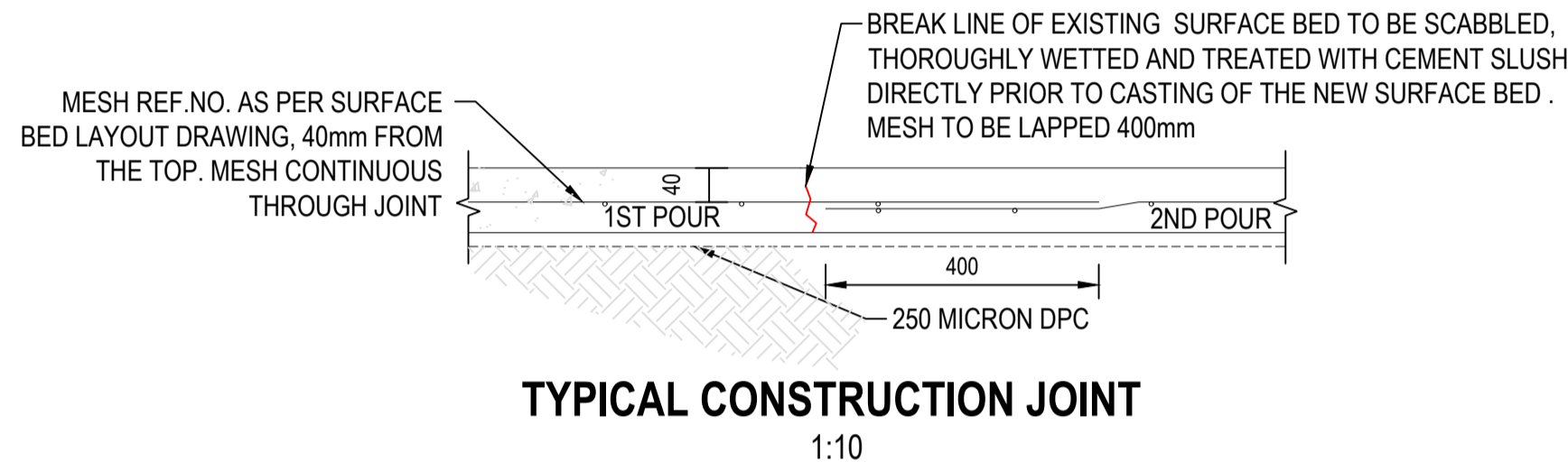
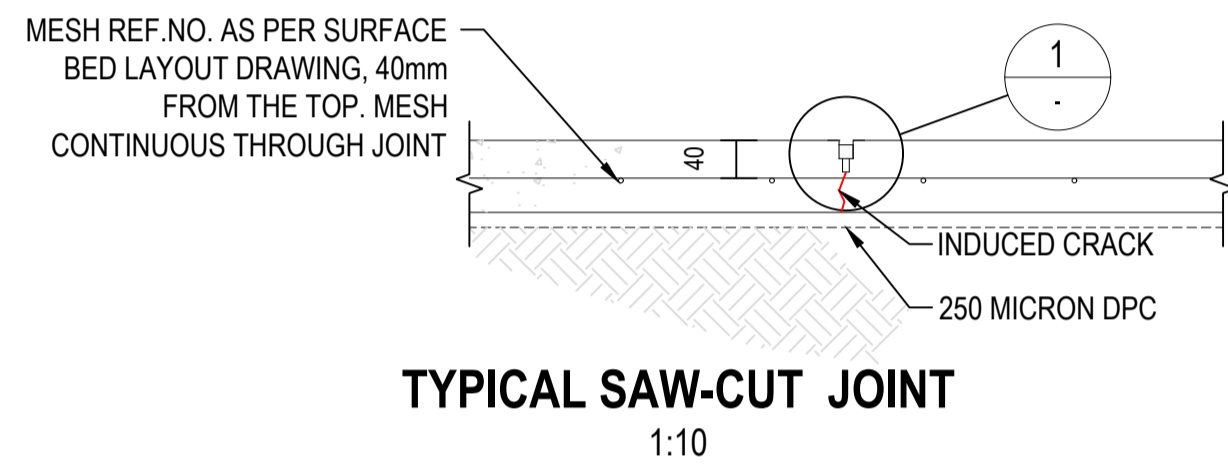
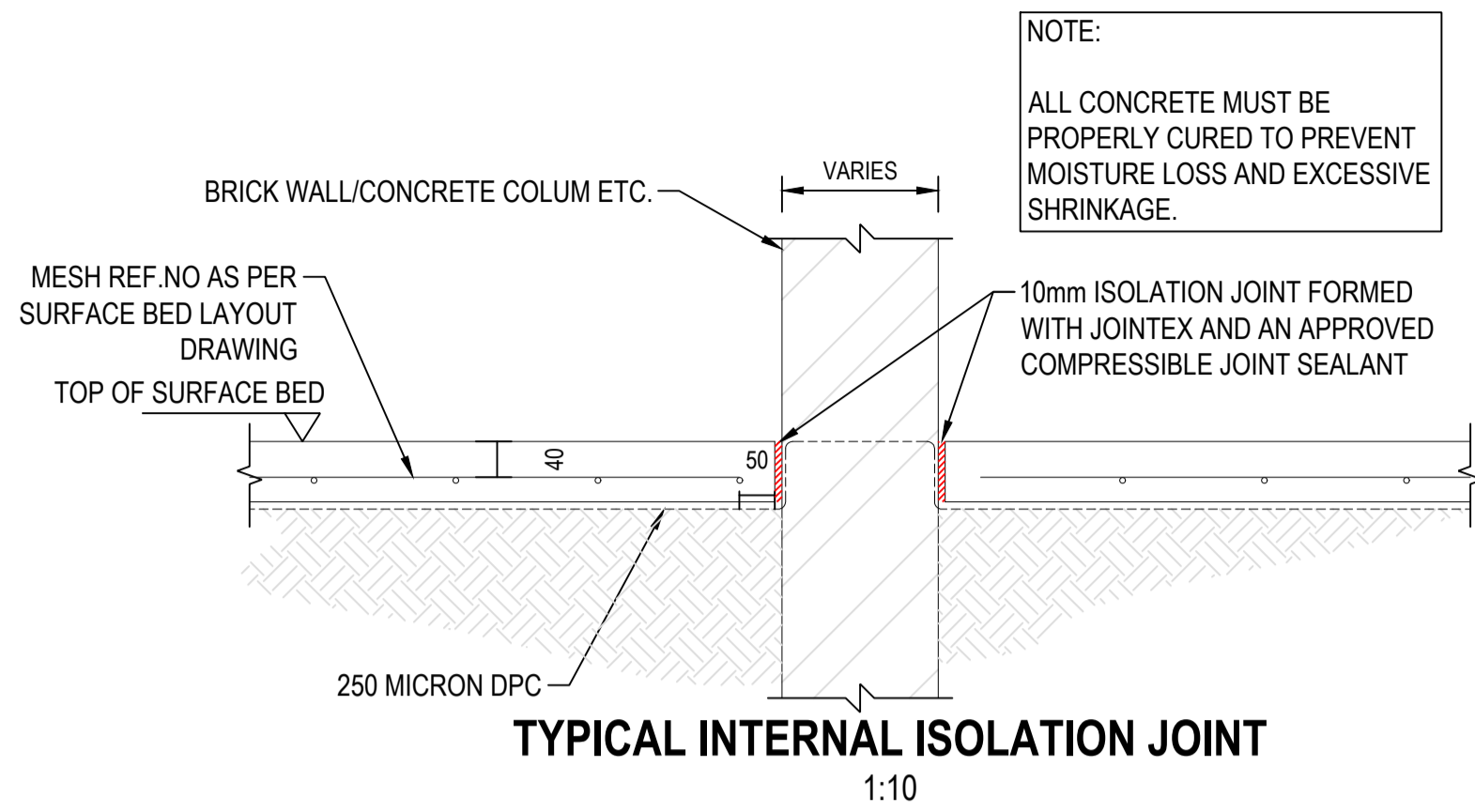
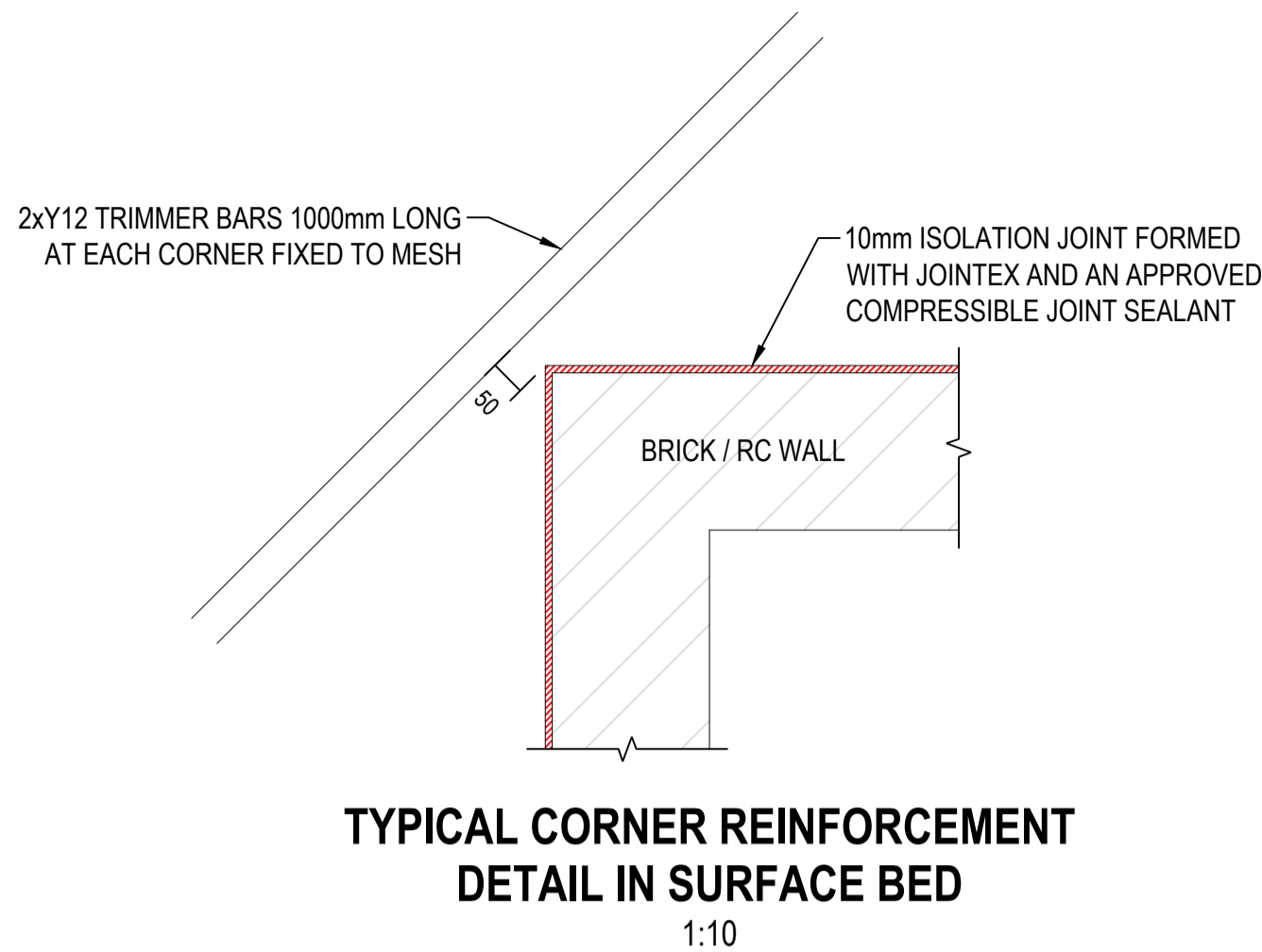
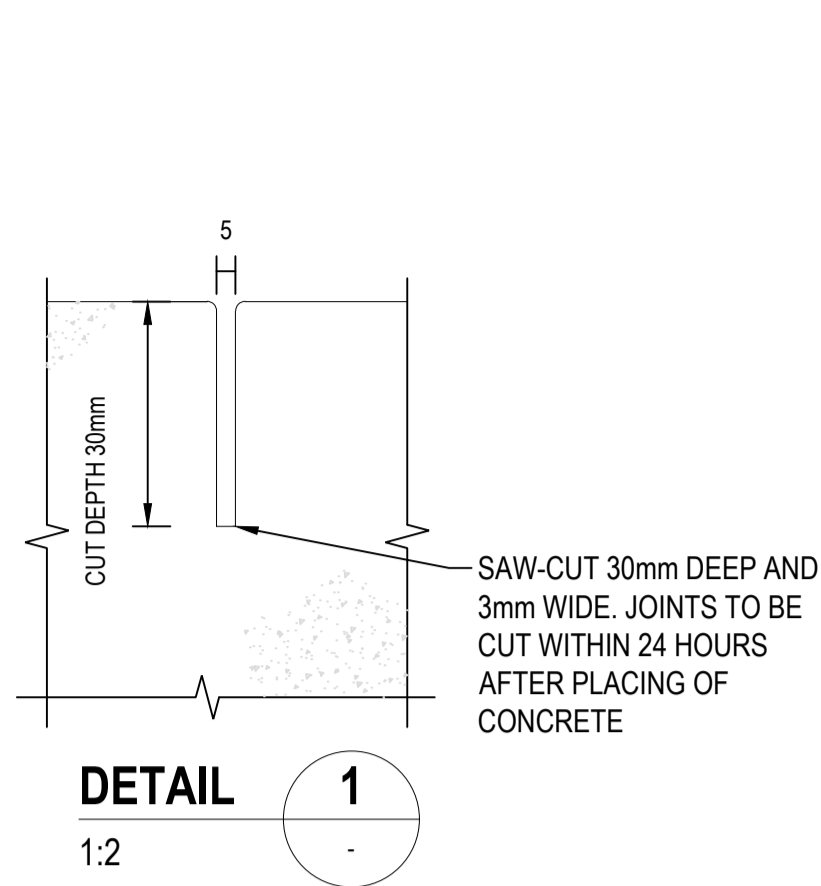
**MOHOKARE LOCAL
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**ROUXVILLE/ROLELEATHUNYA
CONSTRUCTION OF SPORTS
GROUND_PHASE2**

**DETAILS:
MOVABLE MINI STAND**

DRAWING NO.
1109-STR-DRG-105

REVISION
T0



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| APPROVED: | SS MNTAMBO | SCALE: | AS SHOWN |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
|-----|------------|----------------|------------|
| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |
| | | | |
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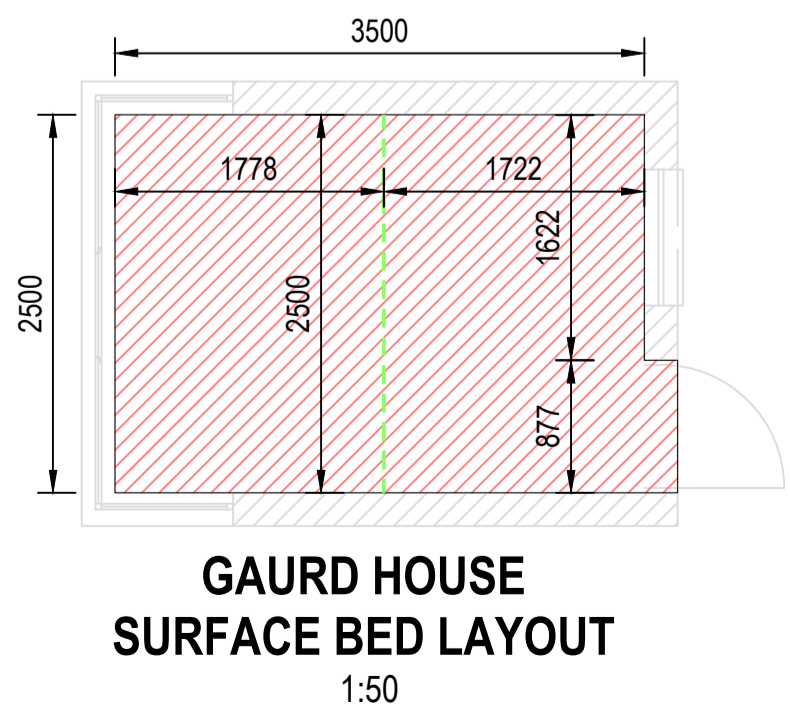
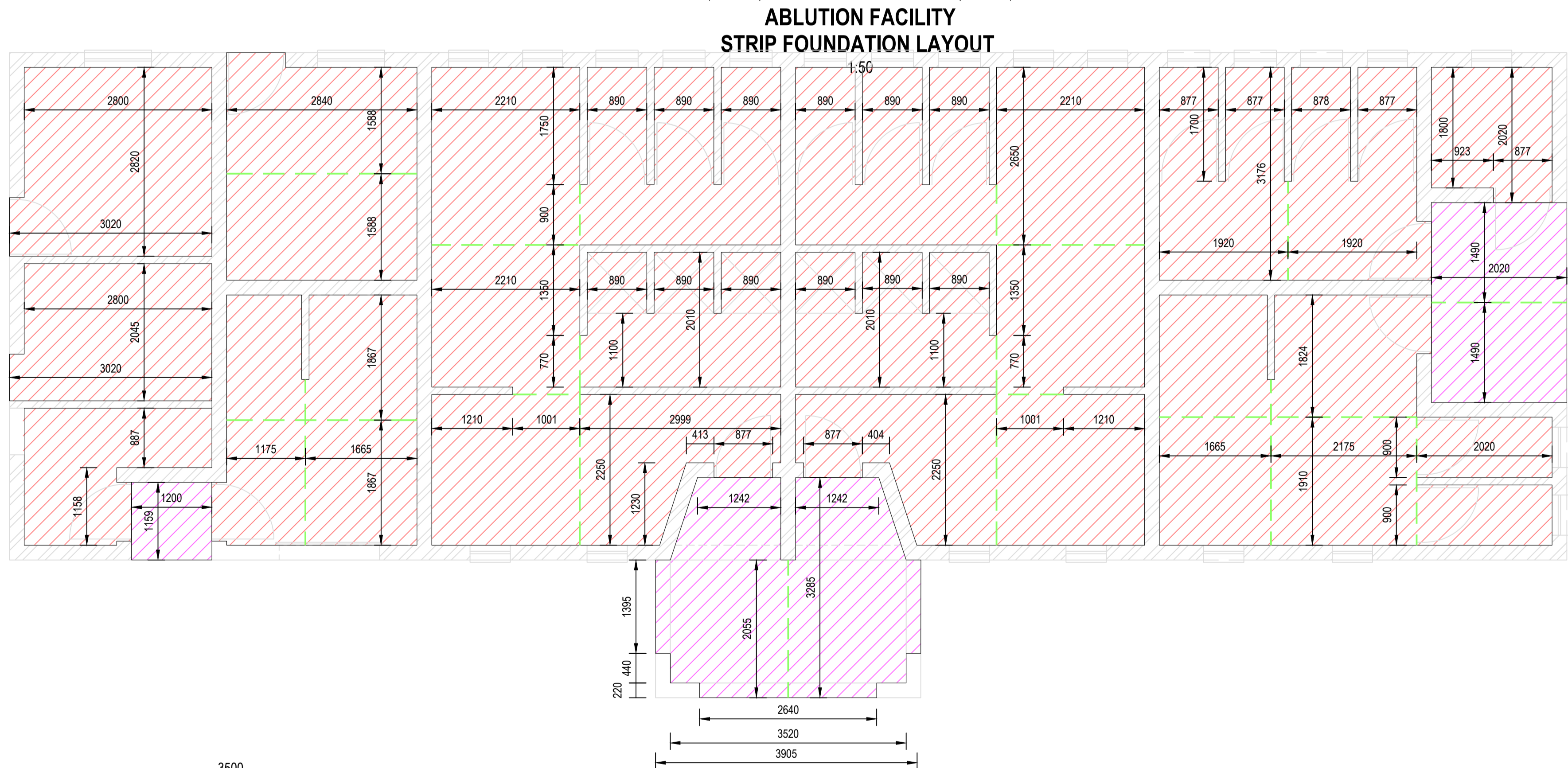
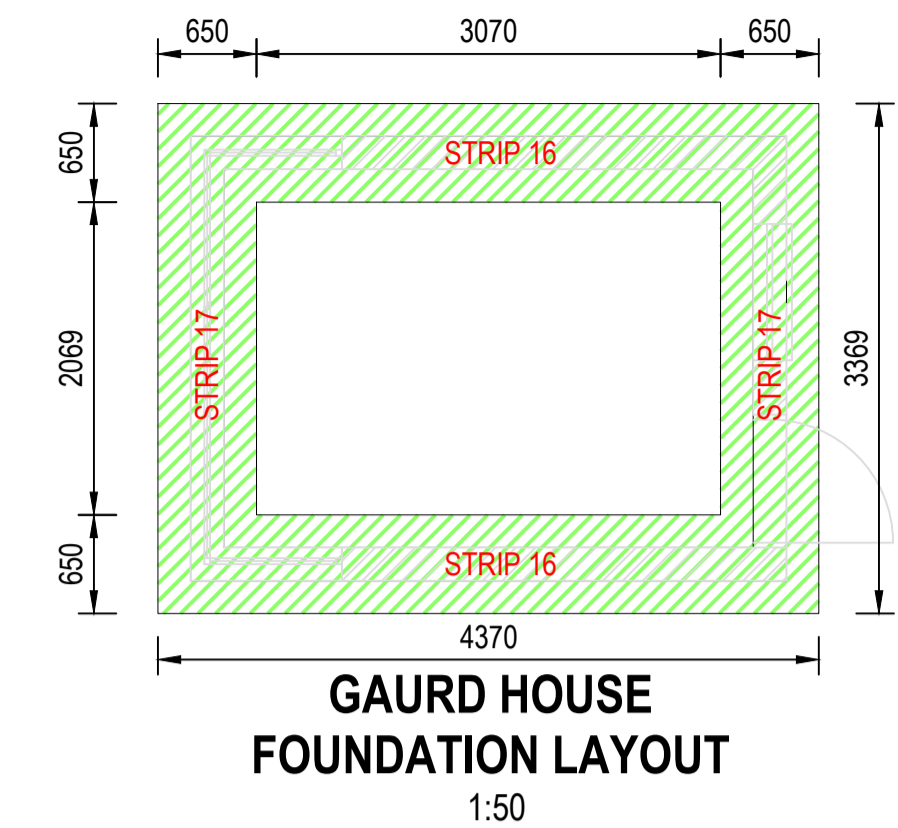
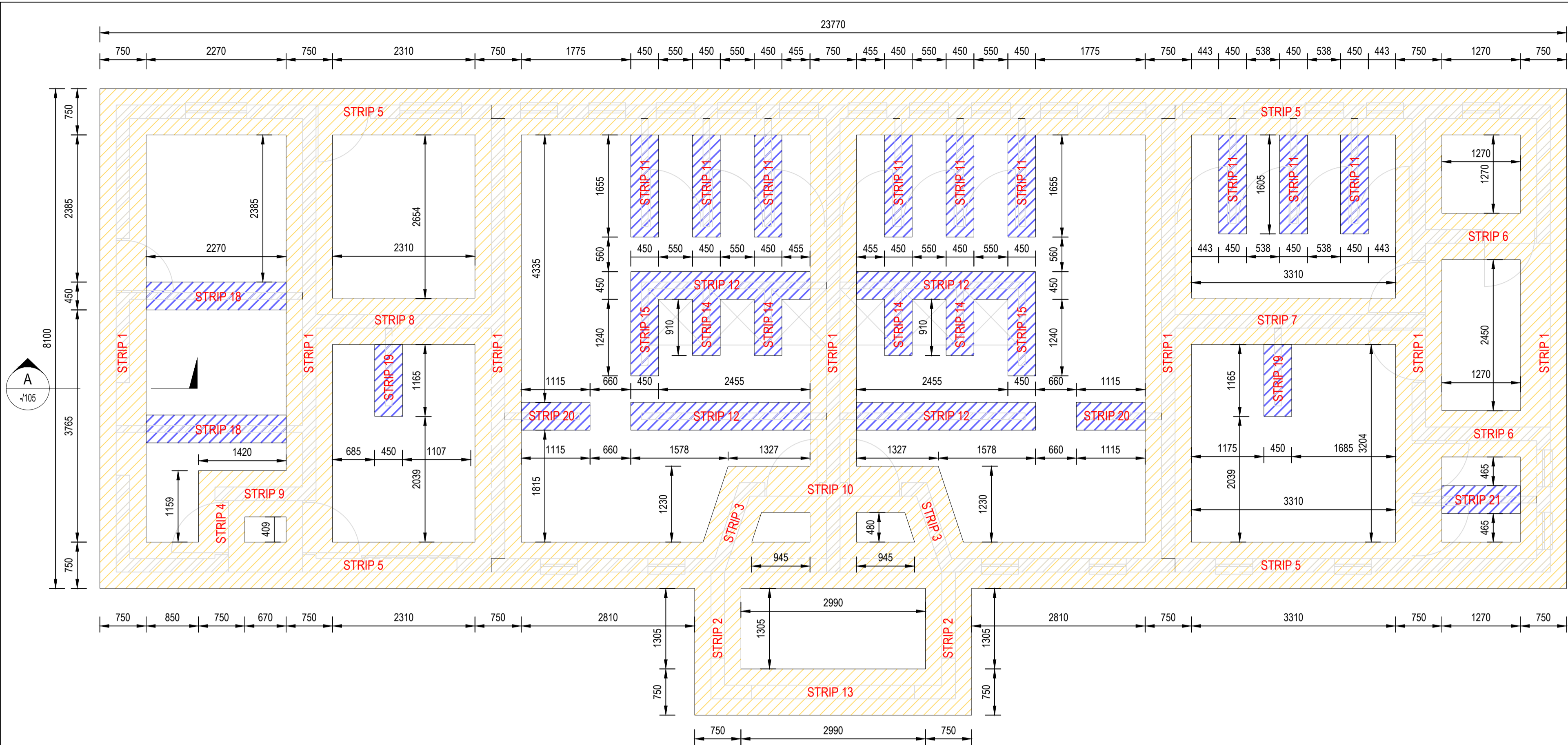
MOHOKARE LOCAL MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA CONSTRUCTION OF SPORTS GROUND_PHASE2

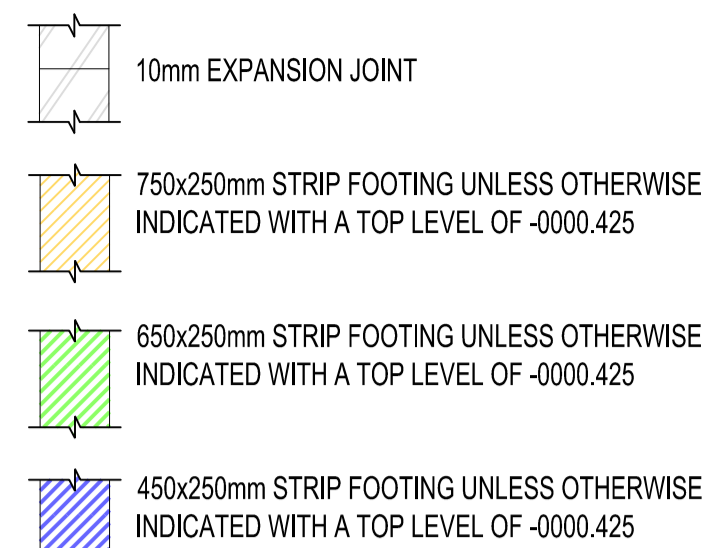
GENERAL DETAILS

DRAWING NO.
1109-STR-DRG-106

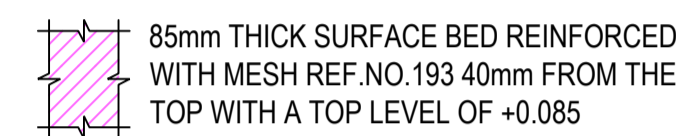
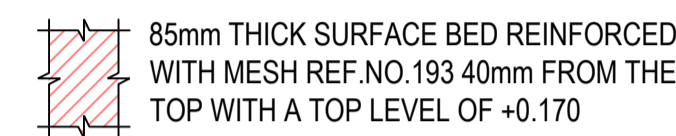
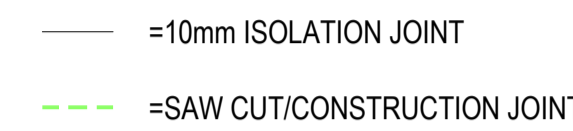
REVISION
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FOUNDATION LAYOUT LEGEND:



SURFACE BED LEGEND



Drawing signed for approval
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| CHECKED: | OS MOTHIBI | SS MNTAMBO Pr Tech Eng 2025302376 | |
| APPROVED: | SS MNTAMBO | SCALE: AS SHOWN | |

AMMENDMENTS

| REV | DATE | DESCRIPTION | APPROVED |
|-----|------------|----------------|------------|
| T0 | 20/08/2025 | TENDER DRAWING | SS MNTAMBO |



MOHOKARE LOCAL MUNICIPALITY

ROUXVILLE/ROLELEATHUNYA CONSTRUCTION OF SPORTS GROUND_PHASE2

ABLUTION FACILITY AND GUARD HOUSE FOUNDATION AND SURFACE BED LAYOUT

DRAWING NO.
1109-STR-DRG-107

REVISION
T0

| MEMBER | NO OF | NO BARS | DIA | CUT LENGTH | TOTAL | BAR MARK | SC | A | B | C | D | E/R | kg |
|----------|-------|---------|-----|------------|-------|----------|----|--------|-----|-------|---|-----|------|
| STRIP 1 | 7 | 28 | R8 | 1750 | 196 | 01 | 60 | [650] | 150 | | | | 135 |
| | 7 | 6 | Y12 | 8200 | 42 | 02 | 35 | [8000] | | | | | 306 |
| STRIP 10 | 1 | 13 | R8 | 1750 | 13 | 01 | 60 | [650] | 150 | | | | 9 |
| | 1 | 6 | Y12 | 3500 | 6 | 02 | 35 | [3300] | | | | | 19 |
| STRIP 11 | 9 | 8 | R8 | 1150 | 72 | 01 | 60 | [350] | 150 | | | | 33 |
| | 9 | 6 | Y12 | 2100 | 54 | 02 | 35 | [1900] | | | | | 101 |
| STRIP 12 | 4 | 12 | R8 | 1150 | 48 | 01 | 60 | [350] | 150 | | | | 22 |
| | 4 | 6 | Y12 | 3350 | 24 | 02 | 35 | [3140] | | | | | 71 |
| STRIP 13 | 1 | 16 | R8 | 1750 | 16 | 01 | 60 | [650] | 150 | | | | 11 |
| | 1 | 6 | Y12 | 4600 | 6 | 02 | 35 | [4380] | | | | | 25 |
| STRIP 14 | 4 | 6 | R8 | 1150 | 24 | 01 | 60 | [350] | 150 | | | | 11 |
| | 4 | 6 | Y12 | 1450 | 24 | 02 | 35 | [1260] | | | | | 31 |
| STRIP 15 | 2 | 7 | R8 | 1150 | 14 | 01 | 60 | [350] | 150 | | | | 6 |
| | 2 | 6 | Y12 | 1800 | 12 | 02 | 35 | [1590] | | | | | 19 |
| STRIP 16 | 2 | 16 | R8 | 1550 | 32 | 01 | 60 | [550] | 150 | | | | 20 |
| | 2 | 6 | Y12 | 4450 | 12 | 02 | 35 | [4260] | | | | | 47 |
| STRIP 17 | 2 | 12 | R8 | 1550 | 24 | 01 | 60 | [550] | 150 | | | | 15 |
| | 2 | 6 | Y12 | 3450 | 12 | 02 | 35 | [3260] | | | | | 37 |
| STRIP 18 | 2 | 14 | R8 | 1150 | 28 | 01 | 60 | [350] | 150 | | | | 13 |
| | 2 | 6 | Y12 | 3900 | 12 | 02 | 35 | [3670] | | | | | 42 |
| STRIP 19 | 2 | 8 | R8 | 1750 | 16 | 01 | 60 | [650] | 150 | | | | 11 |
| | 2 | 6 | Y12 | 2000 | 12 | 02 | 35 | [1810] | | | | | 21 |
| STRIP 2 | 2 | 11 | R8 | 1750 | 22 | 01 | 60 | [650] | 150 | | | | 15 |
| | 2 | 6 | Y12 | 2900 | 12 | 02 | 35 | [2700] | | | | | 31 |
| STRIP 20 | 2 | 7 | R8 | 1750 | 14 | 01 | 60 | [650] | 150 | | | | 10 |
| | 2 | 6 | Y12 | 1950 | 12 | 02 | 35 | [1760] | | | | | 21 |
| STRIP 21 | 1 | 10 | R8 | 1750 | 10 | 01 | 60 | [650] | 150 | | | | 7 |
| | 2 | 6 | Y12 | 2900 | 12 | 02 | 35 | [2670] | | | | | 31 |
| STRIP 3 | 2 | 8 | R8 | 1750 | 16 | 01 | 60 | [650] | 150 | | | | 11 |
| | 2 | 6 | Y12 | 2200 | 12 | 02 | 35 | [2000] | | | | | 23 |
| STRIP 4 | 1 | 8 | R8 | 1750 | 8 | 01 | 60 | [650] | 150 | | | | 6 |
| | 1 | 6 | Y12 | 2000 | 6 | 02 | 35 | [1800] | | | | | 11 |
| STRIP 5 | 2 | 6 | Y12 | 8600 | 12 | 01 | 20 | [8570] | | | | | 92 |
| | 2 | 12 | Y12 | 8250 | 24 | 02 | 34 | [8150] | | | | | 176 |
| | 2 | 80 | R8 | 1750 | 160 | 03 | 60 | [650] | 150 | | | | 110 |
| STRIP 6 | 2 | 10 | R8 | 1750 | 20 | 01 | 60 | [650] | 150 | | | | 14 |
| | 2 | 6 | Y12 | 2900 | 12 | 02 | 35 | [2670] | | | | | 31 |
| STRIP 7 | 1 | 17 | R8 | 1750 | 17 | 01 | 60 | [650] | 150 | | | | 12 |
| | 1 | 6 | Y12 | 4900 | 6 | 02 | 35 | [4710] | | | | | 26 |
| STRIP 8 | 1 | 14 | R8 | 1750 | 14 | 01 | 60 | [650] | 150 | | | | 10 |
| | 1 | 6 | Y12 | 3900 | 6 | 02 | 35 | [3710] | | | | | 21 |
| STRIP 9 | 1 | 8 | R8 | 1750 | 8 | 01 | 60 | [650] | 150 | | | | 6 |
| | 1 | 6 | Y12 | 2300 | 6 | 02 | 35 | [2070] | | | | | 12 |
| | 6 | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | TOTAL | | | 1192 |
| Y | | | | | | | | | | | | | 485 |
| R | | | | | | | | | | | | | 485 |
| TOTAL | | | | | | | | | | | | | 1677 |

ENGINEERING ACES
100 VICTORIA ROAD, WILLOWBROOK
TEL: 081 430 0994

Date: 27-08-2025 Ref Dwg: -/ Revision: 0
Det. by: T.KHUNONG Job No: 1109 Schedule No: MHE-AB-01