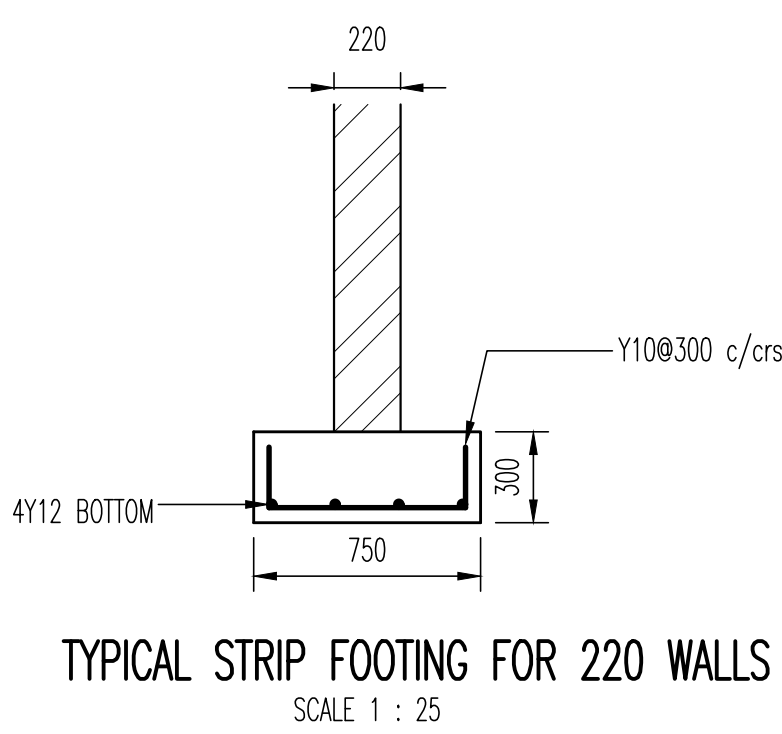
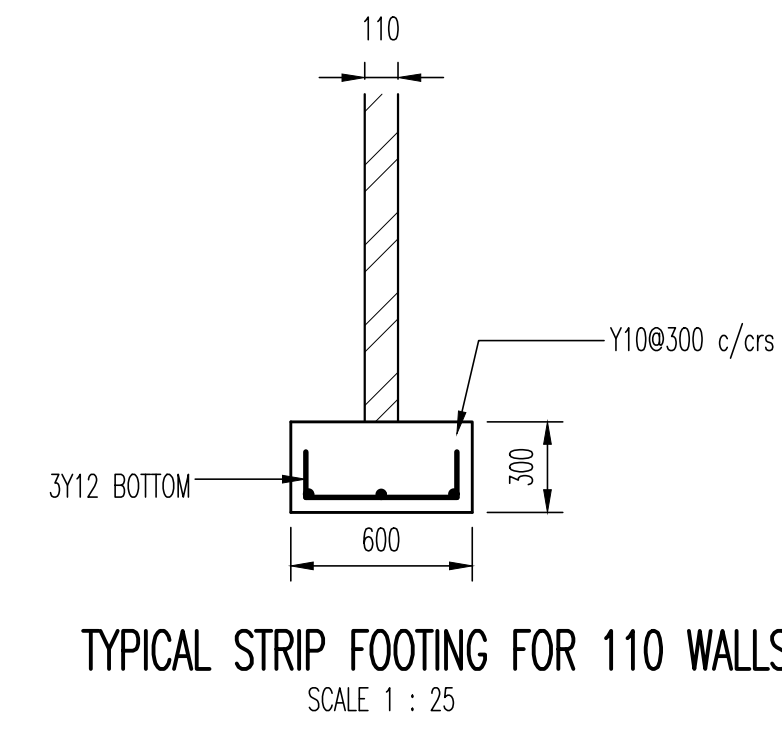


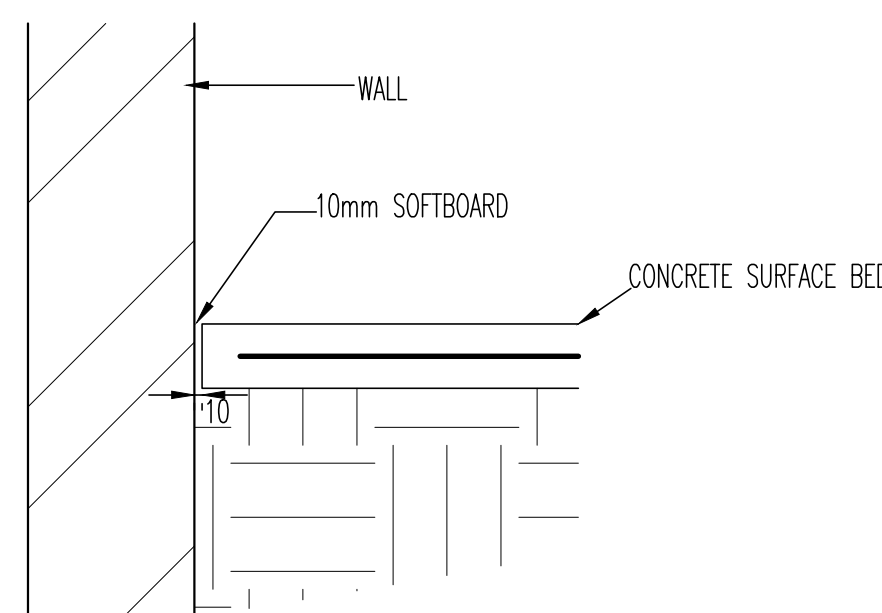
FOUNDATION LAYOUT
SCALE 1 : 50



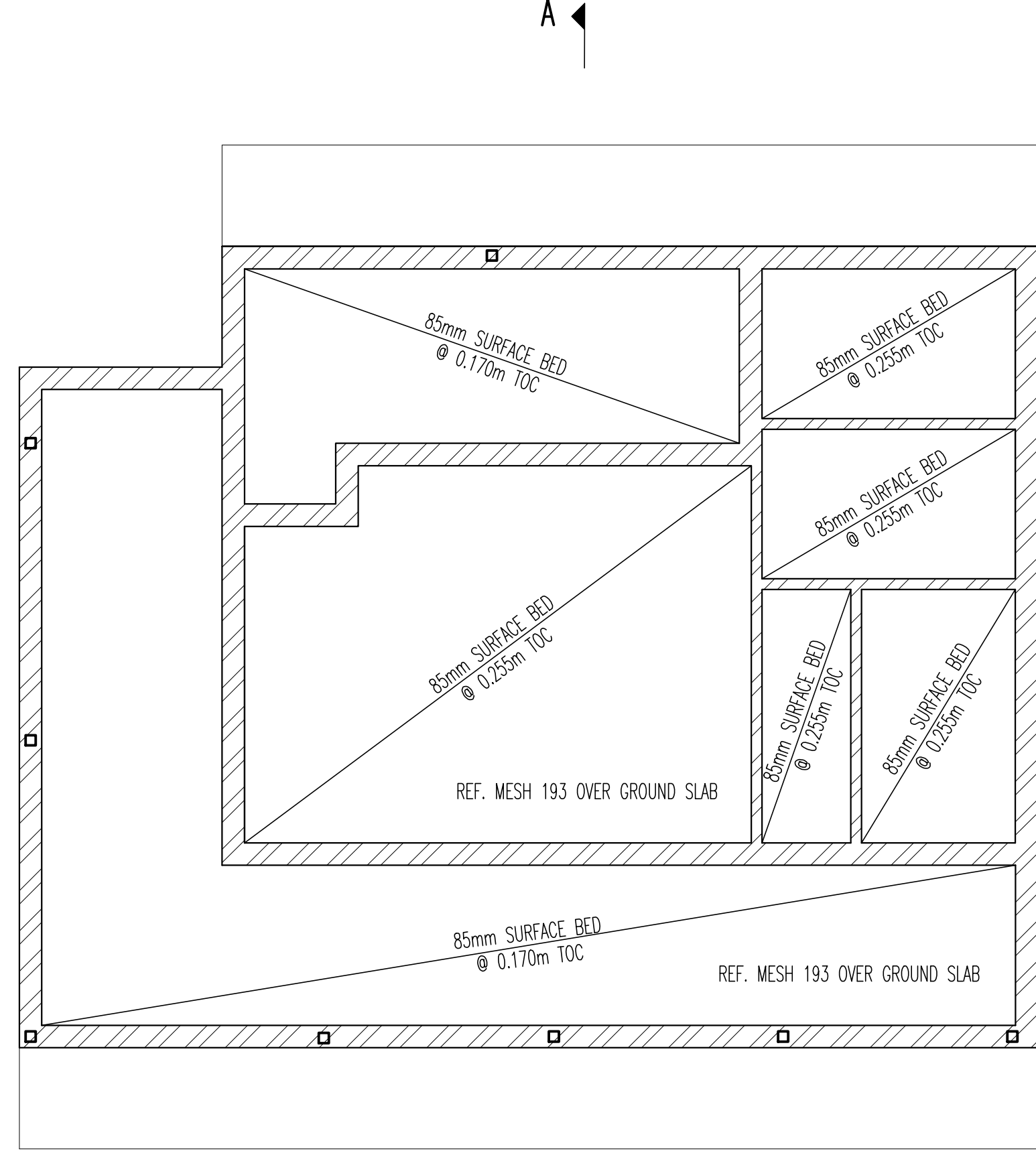
TYPICAL STRIP FOOTING FOR 220 WALLS
SCALE 1 : 25



TYPICAL STRIP FOOTING FOR 110 WALLS
SCALE 1 : 25

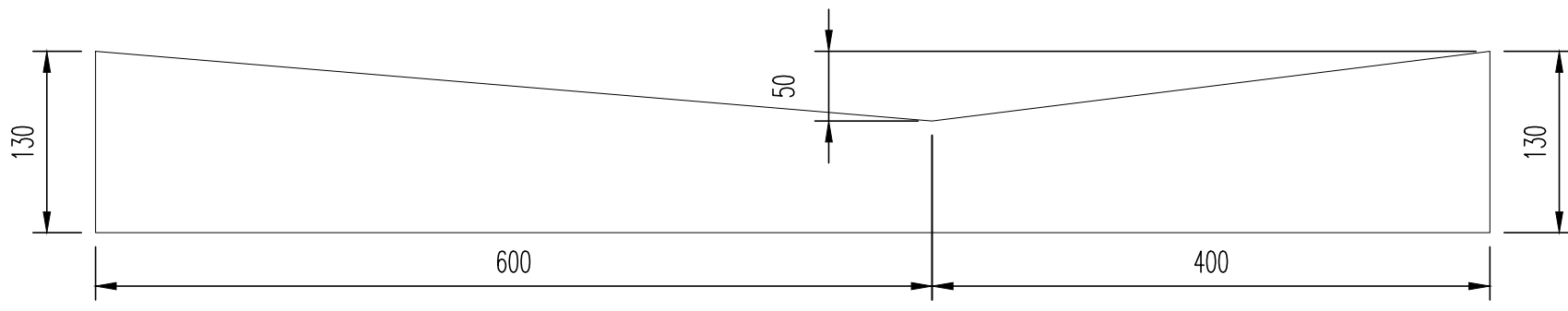


CONCRETE SURFACE BED EXPANSION JOINT DETAIL
SCALE 1 : 10

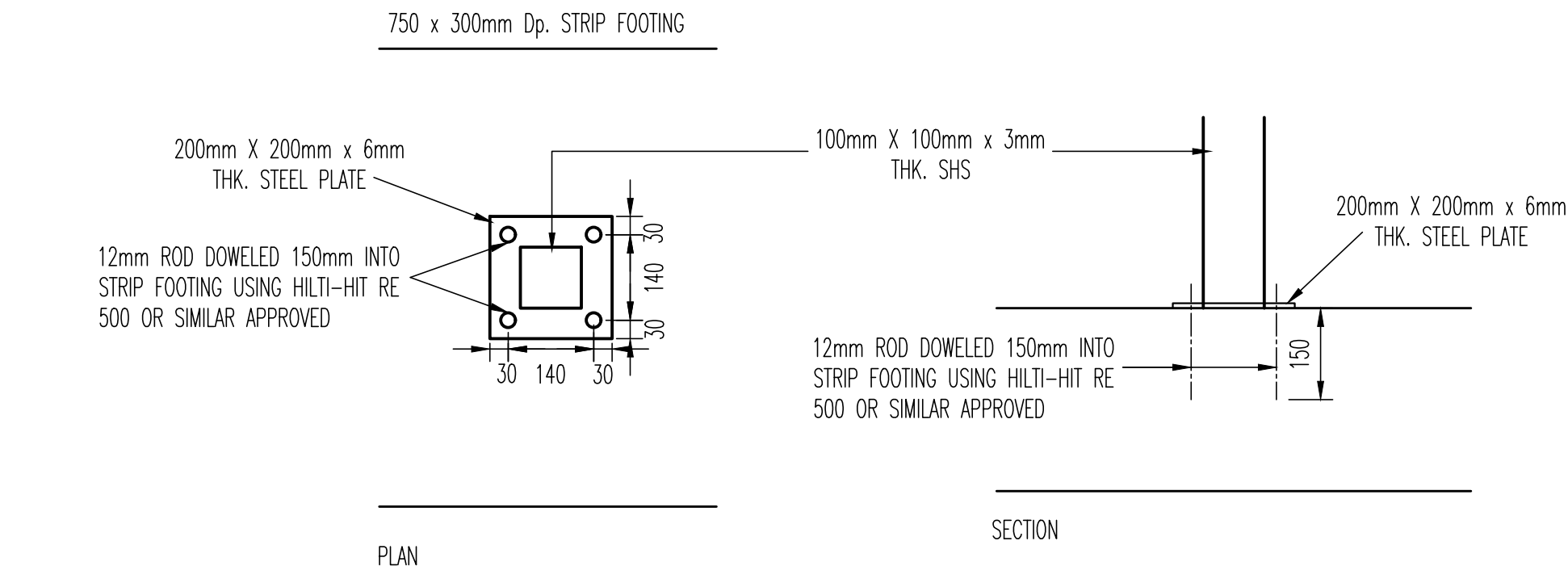


GROUND SLAB LAYOUT
SCALE 1 : 50

| BENDING SCHEDULE TO SABS 82 | | | | | | | | | |
|-----------------------------|-------------|--------------|----------------|------------|-------|---|---|---|-----|
| TOTAL No. OFF | No. IN EACH | BSP DIA MARK | CUTTING LENGTH | SHAPE CODE | A | B | C | D | E/R |
| GROUND BEAM NO. K1 | | | | | | | | | |
| 4 | 4 | Y12-01 | 2650 | 20 | 2650 | | | | |
| 5 | 5 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K2 | | | | | | | | | |
| 4 | 4 | Y12-02 | 8450 | 20 | 8450 | | | | |
| 24 | 24 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K3 | | | | | | | | | |
| 4 | 4 | Y12-03 | 4600 | 20 | 4600 | | | | |
| 12 | 12 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K4 | | | | | | | | | |
| 4 | 4 | Y12-04 | 2600 | 20 | 2600 | | | | |
| 4 | 4 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K5 | | | | | | | | | |
| 3 | 3 | Y12-05 | 3350 | 20 | 3350 | | | | |
| 8 | 8 | Y10-200 | 800 | 35 | 500 | | | | |
| GROUND BEAM NO. K6 | | | | | | | | | |
| 3 | 3 | Y12-06 | 3200 | 20 | 3200 | | | | |
| 6 | 6 | Y10-200 | 800 | 35 | 500 | | | | |
| GROUND BEAM NO. K7 | | | | | | | | | |
| 4 | 4 | Y12-07 | 8350 | 20 | 8350 | | | | |
| 21 | 21 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K8 | | | | | | | | | |
| 3 | 3 | Y12-08 | 3250 | 20 | 3250 | | | | |
| 8 | 8 | Y10-200 | 800 | 35 | 500 | | | | |
| GROUND BEAM NO. K9 | | | | | | | | | |
| 3 | 3 | Y12-09 | 4650 | 20 | 4650 | | | | |
| 10 | 10 | Y10-200 | 800 | 35 | 500 | | | | |
| GROUND BEAM NO. K10 | | | | | | | | | |
| 4 | 4 | Y12-10 | 8450 | 20 | 8450 | | | | |
| 22 | 22 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K11 | | | | | | | | | |
| 4 | 4 | Y12-11 | 1750 | 20 | 1750 | | | | |
| 2 | 2 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K12 | | | | | | | | | |
| 4 | 4 | Y12-12 | 6550 | 20 | 6550 | | | | |
| 15 | 15 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K13 | | | | | | | | | |
| 4 | 4 | Y12-13 | 7150 | 20 | 7150 | | | | |
| 20 | 20 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K14 | | | | | | | | | |
| 4 | 4 | Y12-14 | 10450 | 20 | 10450 | | | | |
| 36 | 36 | Y10-100 | 950 | 35 | 650 | | | | |
| GROUND BEAM NO. K15 | | | | | | | | | |
| 4 | 4 | Y12-15 | 1250 | 20 | 1250 | | | | |



APRON DETAIL
SCALE 1 : 5



DETAIL 'I' 100 x 100 x 3mm SHS END PLATE CONNECTION
SCALE 1 : 10

GENERAL NOTE:

- The implementing agent will give direction whether a pit will be sealed or un-sealed depending on the outcome of the ground water protocol.
- The contractor will be responsible for excavation the pit, whatever the ground conditions, higher cost.
- All blocks to be rfx engineering blocks for the whole substructure.
- Section a-a shows the arrangement for an un-sealed pit, for sealed pits the outside wall of the substructure must be solid with no open vertical joints.
- The bottom of the pit will include a 500mm thick concrete base to ensure the pit is fully sealed.
- Central dividing walls must be constructed with fully mortared joints for the full depth.
- The outer wall of the pit must have a minimum thickness of 200mm.
- The pit must be 1 course of bricks above the natural ground level.
- The slabs will be designed and approved by the implementing agent.
- The rain water harvesting tank must be equipped with a flood valve and connected to the main water supply within the school yard, where it is available.
- Taps in all wash hand basin must be charcoal pvc Pro.
- Close taps to ensure reliable water conservation, which must be able to close at minimum 15kpa pressure.
- Vent pipes to secured to the walls outside the ablation facilities
- 3m 110mm Ø vent pipe (black - uv) fixed with 3 110mm holder bats
- 110mm fly screen used at vent end Charlock VIP 200 toilet pedestal to be complete with seat lid, Grade R: Char Bambi (drop (kiddie pan)
- pipes from sinks & urinal outlets to soakaway pit (50mm pvc)
- pipes from gutters to fill tank (75mm pvc)
- pipe form tank to sinks (15mm polycop) fitting to be done internally

CONSTRUCTION NOTES

- FOUNDATIONS**
 - Foundation to be 700mm wide x 250 thick, 25 mpa concrete strip footing under all walls.
 - They are to sit on firm compacted ground (excavated trenches) with a minimum of 700mm below ground level and to engineers approval upon inspection.
- BACKFILL**
 - Fill & imported fill to be approved clean earth, well watered & rammed in layers not exceeding 150mm in depth and thoroughly consolidated to a density of 95% mod ashto.
- FLOORS**
 - All to Engineers detail and specification.
- WALLS**
 - All walls are to comply with "Part K" of the National Building Regulations.
 - COROBRIK COMMONS to be used where to receive plaster COROBRIK ENGINEERING Bricks to be used below ground level in foundation walls.
 - Brickforce to every 3rd course up to window head height thereafter all courses from window head to underside of wallplate. Galvanised crimp wire wall ties (7 per square metre - laid staggered)
 - External face of inner skin to be painted bitumen paint. 375 micron embossed damp-proof membrane stepped below all window cills.
 - Where plaster is required internally (13 - 16mm thick) ratio must be 1:5 cement:sand mix. Beam filling to underside of roofing sheets.
 - Control joints to be provided in accordance with engineers specifications & must be sealed with 12mm deep polysulphide sealant with backing strip and integrated softboard.
 - All internal brickwork to have brickforce at every third course of brickwork.
 - All founding and / or retaining wall to Structural Engineers details.
 - P.C. lintols to be installed over all new openings whereas walls to be plastered and painted.
 - All Facebrick on edge lintols strictly to eng. detail
- ROOF**
 - Salfitra 0.5mm thick AZ150ZincAl Widedek profile roof sheeting, fixed to intermediate steel purlins at 1600mm centres and to ridge and eaves purlins at 1350mm centres, 12x55mm long class3 metal self drilling screws at every second crest at intermediate purlins and every crest at eaves purlins all in accordance with the manufacturer's recommendations.
 - The sheeting shall be Widedek trapezoidal type profile as manufactured by Salfitra Roofing.
 - The profile shall be roll-formed with 5 trapezoidal ribs at 191mm centres with a nett cover of 760mm.
 - The rib height shall be 29mm and shall be fixed in accordance with the manufacturer's recommendations.
 - Widedek sheeting the recommended minimum pitch for slopes in excess of 15m is 10° and for slopes less than 15m is 7.5°
 - Widedek sheeting can be ordered in any length, subject to transport limitations up to 13.2m. Longer lengths require special transport arrangements.
 - Purlin spacings are dependant on both downward loading and negative suction loading caused by wind. The engineer should be consulted to calculate the load (kN/m²) for particular application

CONCRETE MIX RATIO'S

| STRENGTH | UNIT CEM | UNIT SAND | UNIT STONE |
|----------|----------|-----------|------------|
| 10MPa | 2 | 3.5 | 3.5 |
| 15MPa | 2 | 3 | 3 |
| 25MPa | 2 | 2.5 | 2.5 |
| 30MPa | 2 | 2 | 2 |

| DATE | REVISION | DRAWN |
|----------|--------------|-------|
| 10/07/13 | FOR APPROVAL | S.Z |
| 11/02/14 | FOR APPROVAL | S.Z |
| 28/02/14 | FOR APPROVAL | S.Z |

CLIENT
DEPARTMENT
of
EDUCATION
PROVINCE OF KWAZULU-NATAL

TECHNICAL CONSULTANT

GANT
PROJECT MANAGEMENT (PTY) Ltd.
CONSULTING ENGINEERING
BUILT ENVIRONMENT PROFESSIONALS

JHB OFFICE :
P.O. BOX 568
PRIVATE BAG X1
JUKESKEI PARK
2153
(011) 792 2359
E-mail :
stephan@gant.co.za

| NAME | SIGNATURE | DATE | SHEET SIZE |
|-----------|-------------|----------|--------------------|
| DESIGNED | NSH SINDANE | 13/09/22 | A0 |
| DRAWN | NSH SINDANE | 13/09/22 | SCALE |
| VERIFIED | | | 1:200 (1:100) 1:50 |
| VALIDATED | | | DATE 13/09/22 |

IMPLEMENTING AGENT

DBSA
Development Bank
of Southern Africa

DEVELOPMENT BANK OF
SOUTH AFRICA
1258 LEVER ROAD
HEADWAY HILL
MIDRAND
1685
TEL: 011 313 3029
E-MAIL: vusik3@dbsa.org

PROJECT:
DBSA KWAZULU NATAL SCHOOLS
SCHOOL IMPROVEMENT PROJECT

TITLE:
HLUTHANKUNGU PRIMARY SCHOOL
EMIS NO. 500157916

DESCRIPTION:
SNP KITCHEN FOUNDATION AND STRUCTURAL DETAILS

19/04/01 GL 1528