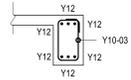


PLAN ON R.C. RAFT SLAB

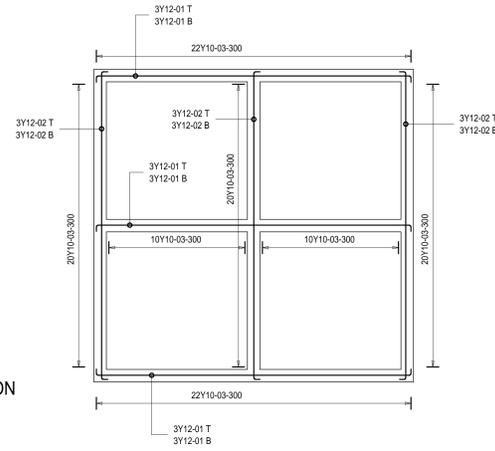
Concrete apron slab :
125mm thk. x 20MPa concrete aprons with 250mm x 250mm edge beam reinforced with mesh ref 193 placed 30mm from top, cast in alternate panels of max. 2000mm on fill compacted to 95% Mod AASHTO. Soil to be poisoned in accordance with SABS 1165. Certificate must be provided.

100mm thk. x 25MPa power floated (steel float finish) r.c. raft slab with 40mm deep x 250mm wide r.c. downstand beams, slab reinforced with Mesh Ref. 193 (min. 300mm laps) placed at 50mm cover from the top of the slab on 250µm SABS approved DPM on soil improvement as shown on sections. Soil to be poisoned in accordance with SABS 1165. Certificate must be provided.



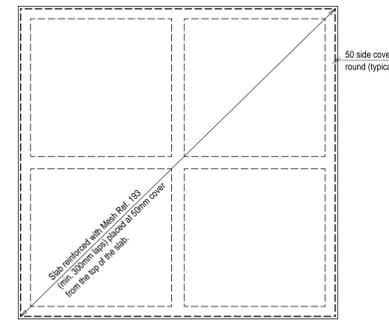
TYPICAL BEAM SECTION

50mm cover to stirrups



RAFT SLAB BEAMS REINFORCEMENT LAYOUT

50mm cover to stirrups



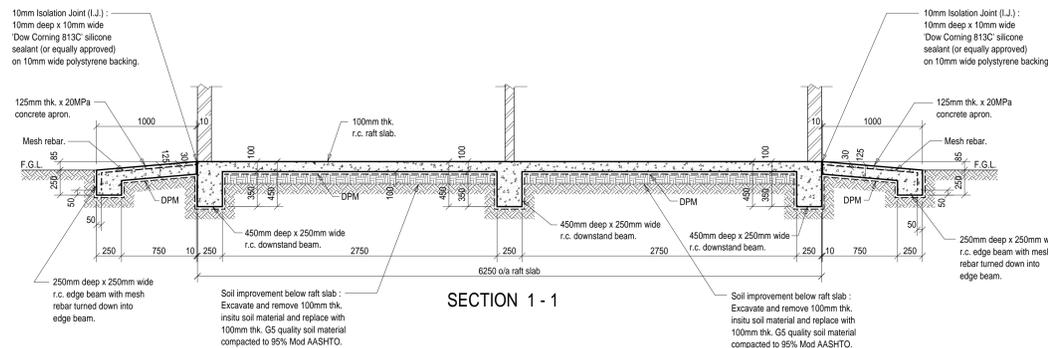
RAFT SLAB REINFORCEMENT LAYOUT

50mm side cover

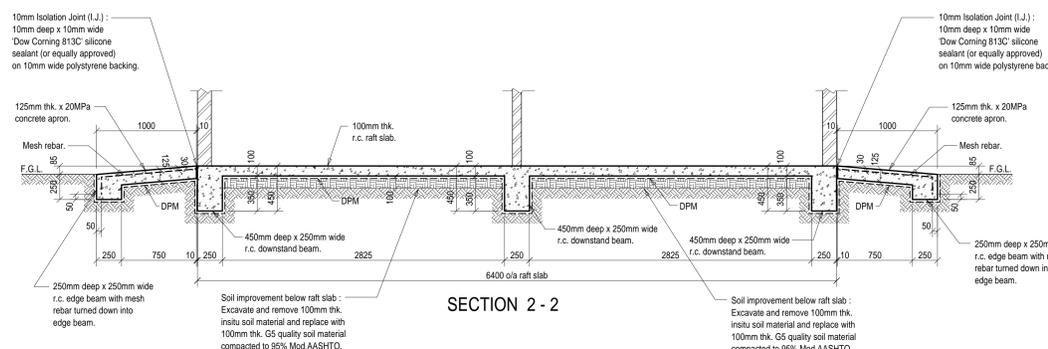
| MEMBER | No OF | BARS PER MEMB | DIA. | LENGTH | TOTAL NUM-BER | MARK | S C | BENDING | | | | | | |
|-----------------|-------|---------------|------|--------|---------------|------|-----|---------|-----|-----|---|-----|--|--|
| | | | | | | | | A | B | C | D | E/r | | |
| RAFT SLAB BEAMS | 1 | 18 | Y12 | 6500 | 18 | 01 | 35 | 6300 | | | | | | |
| | | 18 | Y12 | 6350 | 18 | 02 | 35 | 6150 | | | | | | |
| | | 124 | Y10 | 1150 | 124 | 03 | 60 | 350 | | | | | | |
| R | 8 | 10 | 12 | 16 | 20 | 25 | 32 | 40 | TOT | | | | | |
| Y | | | | | | | | | | 293 | | | | |
| TOT | | | | | | | | | | 293 | | | | |

BLOCKWORK NOTES:

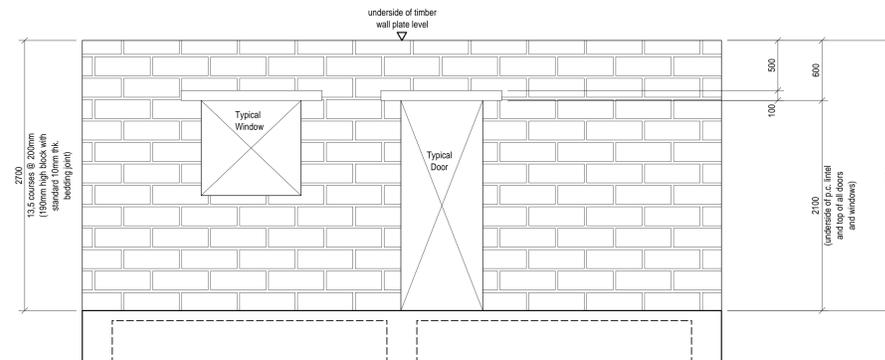
- All walls - Concrete block M140 to be Class B - 3.5 MPa.
- Mortar to be Class 2 (5 MPa at 28 days).
- Brickforce in every 2nd course in blockwork below top of window / door level and brickforce in every course above top of window / door level.
- 'U' blocks to be used above doors and windows and reinforced with 1Y12 in addition to being filled with 20MPa concrete. See Typical 'U' Block Detail.
- All reinforcing to 'U' blocks to be inspected and approved by the Engineer prior to filling with concrete.
- All blockwork above 'U' blocks to be filled with 20 MPa concrete.



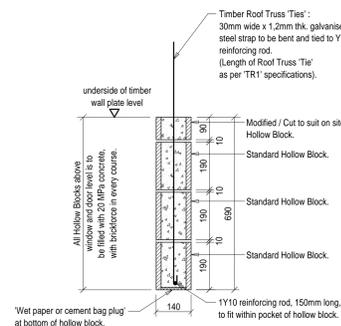
SECTION 1 - 1



SECTION 2 - 2

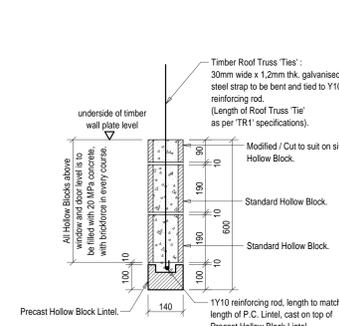


TYPICAL ELEVATION



REVISED ROOF TRUSS TIE DOWN DETAIL FOR HOLLOW BLOCKS ADJACENT TO WINDOWS AND DOORS

Note: This detail applies to only the front and rear of this building, where Roof Truss 'Tie Downs' are required.



REVISED ROOF TRUSS TIE DOWN DETAIL FOR HOLLOW BLOCKS WITH LINTEL OVER WINDOWS AND DOORS

Note: This detail applies to only the front and rear of this building, where Roof Truss 'Tie Downs' are required.

General Notes:

- All levels and dimensions to be checked on site.
- This drawing is to be read in conjunction with the Architectural drawings.
- All concrete work is to comply with SABS 1200G.
- Concrete Class :-
 - a) Pilecaps & Ground Beams = 25 MPa
 - b) Strip Footings & Beams = 25 MPa
 - c) Columns, Shear Walls & Lift Shaft Walls = 30 MPa
 - d) Slabs, Beams & Staircases = 25 MPa
 - e) Retaining Walls = 25 MPa
 - f) Surface Bed Slabs = 30 MPa
 - g) Raft Slabs = 30 MPa
 - h) Raft Slab Ground Beams = 30 MPa
 - i) Blinding = 10 MPa
- Cover to reinforcement :- As indicated on drawings.
- All foundation excavations are to be inspected by the Engineer prior to casting of concrete.
- All reinforcing fixing is to be inspected by the Engineer prior to casting of concrete.
- Six concrete cubes to be taken per pour. Three cubes to be tested at seven days, the remainder at twenty eight days. The results are to be forwarded to the Engineer for review and approval.
- The Contractor is to construct a blinding layer if soil conditions result in reinforcement cover not being maintained.
- All structural concrete is to be cured for a minimum of five days.
- All brickwork shown hatched are load bearing. All load bearing brickwork is to be 14MPa NFX bricks in Class 2 mortar. The top of all load bearing brickwork (at all concrete interfaces) is to receive 2 layers of 3 ply malthoid placed on a smooth rendered surface.
- All single skin brickwork is to be stopped 2 courses below the soffit of the slab and completed after the props have been removed.
- All concrete plaster and brickwork plaster interfaces to receive V-joints.
- The Engineer requires 24 hours notice for all inspections.

| REV | DESCRIPTION | BY | DATE |
|-----|-------------|----|------|
| | | | |
| | | | |
| | | | |

PI PRELIMINARY YR 11/11/2021

professional person M.NAIR PTEchEng registration 200670211



PROJECT
LAMONTVILLE NORTHWEST RECTIFICATION PROJECT

DETAILS
NEW RAFT FOUNDATION FOR TYPICAL 40m² HOUSE CONCRETE & REINFORCEMENT LAYOUT & DETAILS



| DESIGNED | Y.R. | COPYRIGHT RESERVED | SCALES |
|-------------|--------------|--------------------|-----------------|
| DRAWN | Y.R. | | 1:50 |
| APPROVED | M.N | PL | DATE 11/11/2021 |
| DRAWING No: | UCE114 / 300 | | REV P1 |

In the absence of a Geotechnical Report, this Raft Foundation has been designed to the minimum requirements as per NHBC Home Building Manual Part 1 : Section 2. The final design of the Raft Foundation will be determined by the Site Classification as per the Geotechnical Report.

PRELIMINARY