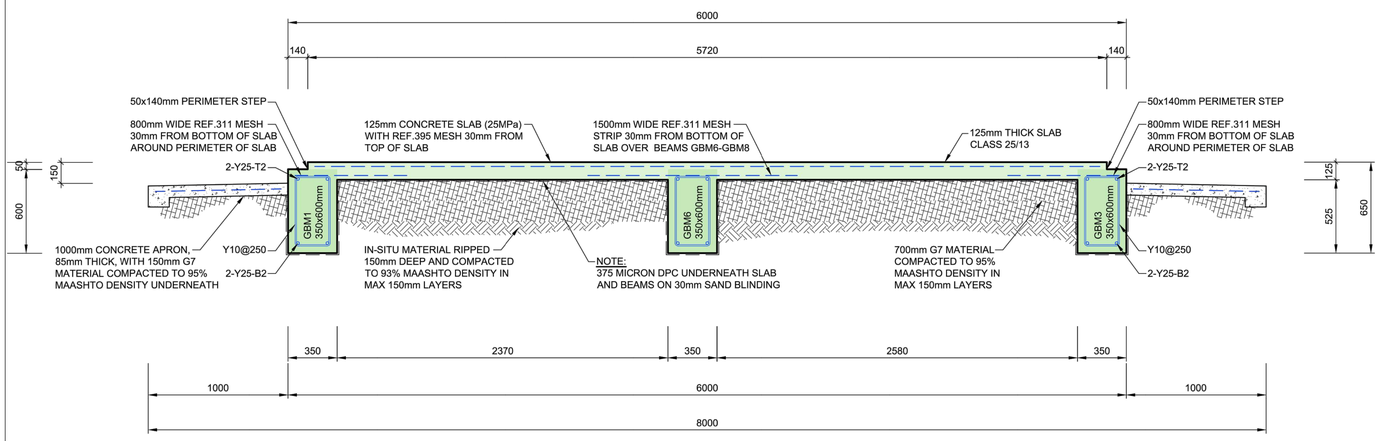
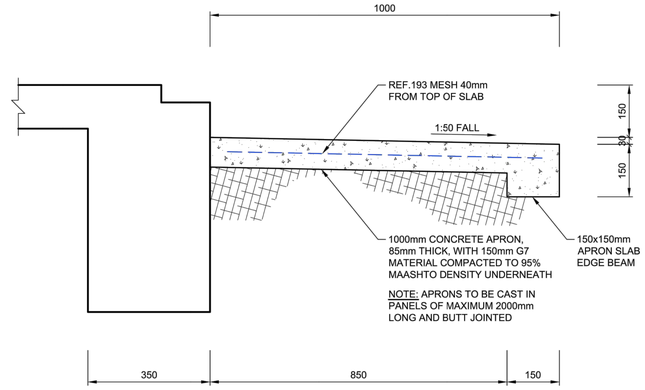
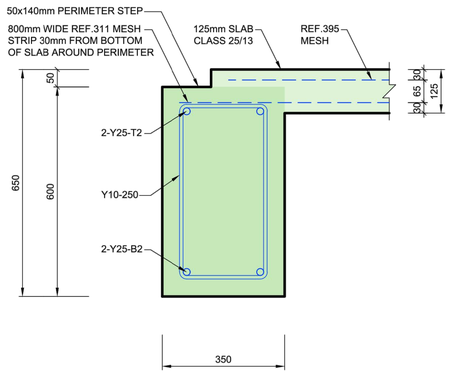


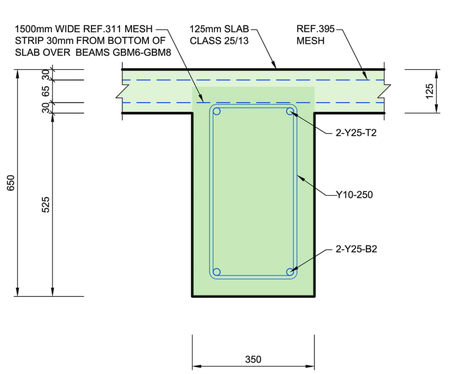
SECTION A-A
RAFT FOUNDATION
SCALE 1:25



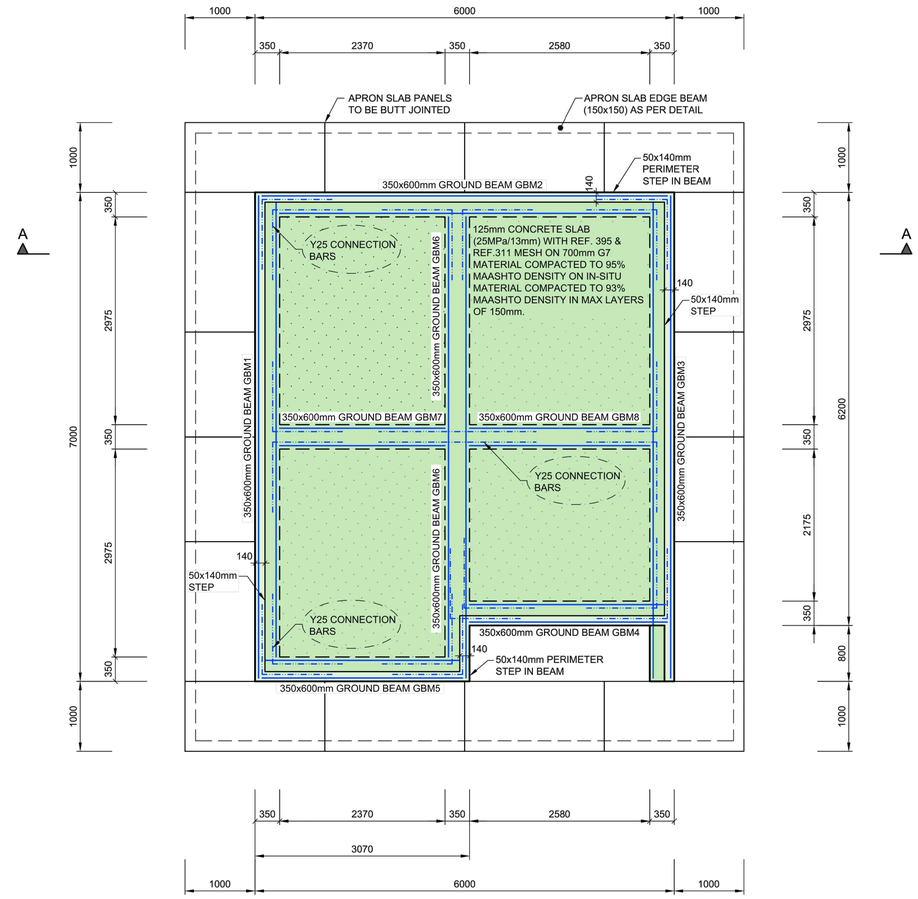
SECTION :
CONCRETE APRON
SCALE 1:10



DETAIL: 350x600mm
GROUND BEAMS GBM1-GBM5
SCALE 1:10



DETAIL: 350x600mm
GROUND BEAMS GBM6-GBM8
SCALE 1:10



RC RAFT SLAB FOUNDATION LAYOUT

MEMBER		WAPENING / REINFORCEMENT					STANDAARD-BUIGINGS / STANDARD BENDINGS							
MEMBER & SIZE	No. OFF	MERK MARK	TIPE TYPE	No. PER UNIT	TOTAAL TOTAL	LENGTE LENGTH	KODE CODE	A	B	C	D	E	GEWIG MASS	
RAFT SLAB & BEAMS	33	GROUND BEAM REINFORCING												
		GROUND BEAM GBM1 (350x600mm)												
		01	Y25	4	132	6900	20	6900					3 506.58	2 BOTTOM / 2 TOP
		02	Y10	26	858	1600	60	500	250				847.02	LINKS @ 250 c/c
		GROUND BEAM GBM2 (350x600mm)												
		03	Y25	4	132	5900	20	5900					2 998.38	2 BOTTOM / 2 TOP
		02	Y10	22	726	1600	60	500	250				716.71	LINKS @ 250 c/c
		GROUND BEAM GBM3 (350x600mm)												
		04	Y25	4	132	6900	20	6900					3 506.58	2 BOTTOM / 2 TOP
		02	Y10	26	858	1600	60	500	250				847.02	LINKS @ 250 c/c
		GROUND BEAM GBM4 (350x600mm)												
		05	Y25	4	132	3150	20	3150					1 600.83	2 BOTTOM / 2 TOP
		02	Y10	11	363	1600	60	500	250				358.35	LINKS @ 250 c/c
		GROUND BEAM GBM5 (350x600mm)												
		06	Y25	4	132	2950	20	2950					1 499.19	2 BOTTOM / 2 TOP
		02	Y10	10	330	1600	60	500	250				325.78	LINKS @ 250 c/c
		GROUND BEAM GBM6 (350x600mm)												
		07	Y25	4	132	6900	20	6900					3 506.58	2 BOTTOM / 2 TOP
		02	Y10	26	858	1600	60	500	250				847.02	LINKS @ 250 c/c
		GROUND BEAM GBM7 (350x600mm)												
		08	Y25	4	132	2700	20	2700					1 372.14	2 BOTTOM / 2 TOP
		02	Y10	10	330	1600	60	500	250				325.78	LINKS @ 250 c/c
		GROUND BEAM GBM8 (350x600mm)												
		09	Y25	4	132	2900	20	2900					1 473.78	2 BOTTOM / 2 TOP
		02	Y10	11	363	1600	60	500	250				358.35	LINKS @ 250 c/c
		GROUND BEAM CONNECTION BARS												
		10	Y25	36	1188	2500	37	1250					11434.50	CORNER BAR
		11	Y25	4	132	2750	20	2750					1 397.55	CONNECTION BAR
													36 922.14	TOTAL
		RAFT SLAB REINFORCING												
		12	REF.395	48m²	1584m²								6 259.00	MESH
		13	REF.311	35m²	1155m²								3 593.33	MESH
		CONCRETE APRON REINFORCING												
		14	REF.193	39m²	1287m²								2 484.63	MESH
													12 336.96	TOTAL

REINFORCING SCHEDULE

NOTES:
SITE STORM WATER.
1. NO PONDING OF WATER IS PERMITTED WITHIN 1.5m OF THE BUILDING CONCRETE APRON.
2. TRIM AND SHAPE FOUNDATION EARTHWORKS TO ACCOMMODATE SITE DRAINAGE.

GENERAL:
1. ALL MATERIALS AND WORKMANSHIP ARE TO BE IN ACCORDANCE OF THE STANDARD SPECIFICATIONS, SABS 1200, AND THE STANDARDS REFERRED TO THEREIN.

2. CONCRETE STRENGTH:
RAFT SLAB & BEAMS = 25MPa/13mm AT 28 DAYS
CONCRETE APRON = 25MPa/13mm AT 28 DAYS
3. PROPER CONCRETE SPACERS TO BE USED.
4. NO CONCRETE SHALL BE CAST WITHOUT THE APPROVAL OF THE ENGINEER. (EXCAVATIONS & REINFORCING.)

RAFT FOUNDATION:
1. REMOVE TOPSOIL CONTAINING ROOTS AND ORGANIC MATERIAL UP TO 75mm DEEP. TO BE CONFIRMED BY ENGINEER ON SITE. REMOVE 700mm OF EXISTING IN-SITU MATERIAL.
2. THEN RIP AND RE-COMPACT IN-SITU MATERIAL TO A DEPTH OF 150mm TO 93% MAASHTO DENSITY.
3. IMPORT APPROVED G7 FILL MATERIAL AND COMPACT TO 95% MAASHTO DENSITY. COMPACTION RESULTS TO BE SUPPLIED TO THE ENGINEER PRIOR TO EXCAVATION OF GROUND BEAMS. ONCE APPROVED, EXCAVATION OF THE GROUND BEAMS CAN COMMENCE.
4. THE SIDES AND BOTTOMS OF RAFT BEAMS AND THE ENTIRE AREA UNDER THE RAFT SLAB MUST BE LINED WITH 375 MICRON DPC. ALL JOINTS TO BE OVERLAPPED A MINIMUM OF 150mm AND TAPED TOGETHER.
5. THE TOP 250mm OF THE RAFT SLAB OR ANY VISIBLE HORIZONTAL/VERTICAL SURFACE MUST HAVE A SMOOTH OFF-SHUTTER (STEEL) FINISH.
6. REINFORCING IN BEAMS SHALL BE PLACED CENTRALLY AND WITH 50mm COVER TOP, BOTTOM, AND SIDES.
7. MESH TO BE PLACED 30mm FROM TOP OF SLAB.
8. MINIMUM LAP LENGTH OF MESH =400mm.
9. MINIMUM LAP LENGTH OF REINFORCING STEEL = 50xØ
10. CONCRETE APRONS SHALL BE 1000mm WIDE x 85mm THICK (25MPa/13mm) WITH A 150mm THICKENED TOE AND SLOPED A MINIMUM OF 30mm AWAY FROM THE RAFT FOUNDATIONS.
11. APRONS TO BE CAST IN PANELS OF MAXIMUM 2000mm LONG AND BUTT JOINTED. MESH REF.193 REINFORCING WITH 40mm COVER FROM TOP OF APRON SLAB.
QUALITY CONTROL TESTS TO BE DONE
A. CONCRETE CUBE TESTS:
1. 1 SET OF CUBES (3) REQUIRED FOR EVERY 30m³ (5 TRUCKS) OF CONCRETE PLACED.
2. SAMPLES TO BE TAKEN FROM DIFFERENT BATCHES AND RANDOMLY CHOSEN.
3. AT LEAST ONE SAMPLE SHALL BE TAKEN FROM EACH DAY'S PLACING OF DIFFERENT GRADES OF CONCRETE.
4. TESTS TO BE PERFORMED BY A SANAS APPROVED LABORATORY.
5. ALL CONCRETE TEST CUBES MUST BE SUPPLIED TO THE ENGINEER WITHIN 7 DAYS OF REACHING AGE (7 AND 28 DAYS) FOR APPROVAL.

REV No	DATE :	DESCRIPTION:
A	11-01-2024	ISSUED FOR INFORMATION

REVISIONS
SIZE ON ORIGINAL DRAWING 100 mm

HDA

INSTITUTION
HOUSING DEVELOPMENT AGENCY

STAND /ERF/PLOT DESCRIPTION

SERVICE
CONSTRUCTION OF ENGCOBO 1854

CONTRACT	BUILDING OCCUPANCY CLASSIFICATION	PROJECT STAGE
	A3	5

DISCIPLINE
STRUCTURAL DESIGNS

WORK DESCRIPTION - SUB DIVISION
40M2 HOUSE PLAN LAYOUT TYPE

DRAWING DESCRIPTION
RAFT REINFORCEMENT LAYOUT

FILE No.			ITEM No.
DESIGN	LIZWELETHU KHUMALO	REARABILOE MANETHOA	DRAWN
SCALE	1:100	JABU MAHLANGU	CHECKED

RESPONSIBLE PROFESSIONAL

DATE	NAME	SIGNATURE	PR NUMBER
11/01/2024	JABU MAHLANGU		20180159

DRAWING CO-ORDINATED

DATE	NAME		
09/01/2024	REARABILOE MANETHOA		

CONSULTANT :
TRIAKON
Waterford Court Block D20, 234 Glover Ave, Die Hoewes 0157

CADD SYSTEM	AUTO CAD	P03-2302-E1854-04-REV A	FILE NAME
SIZE:	DRAWING NUMBER		REV
A1			A