ANNEX 1- ARCHITECTURAL DRAWINGS

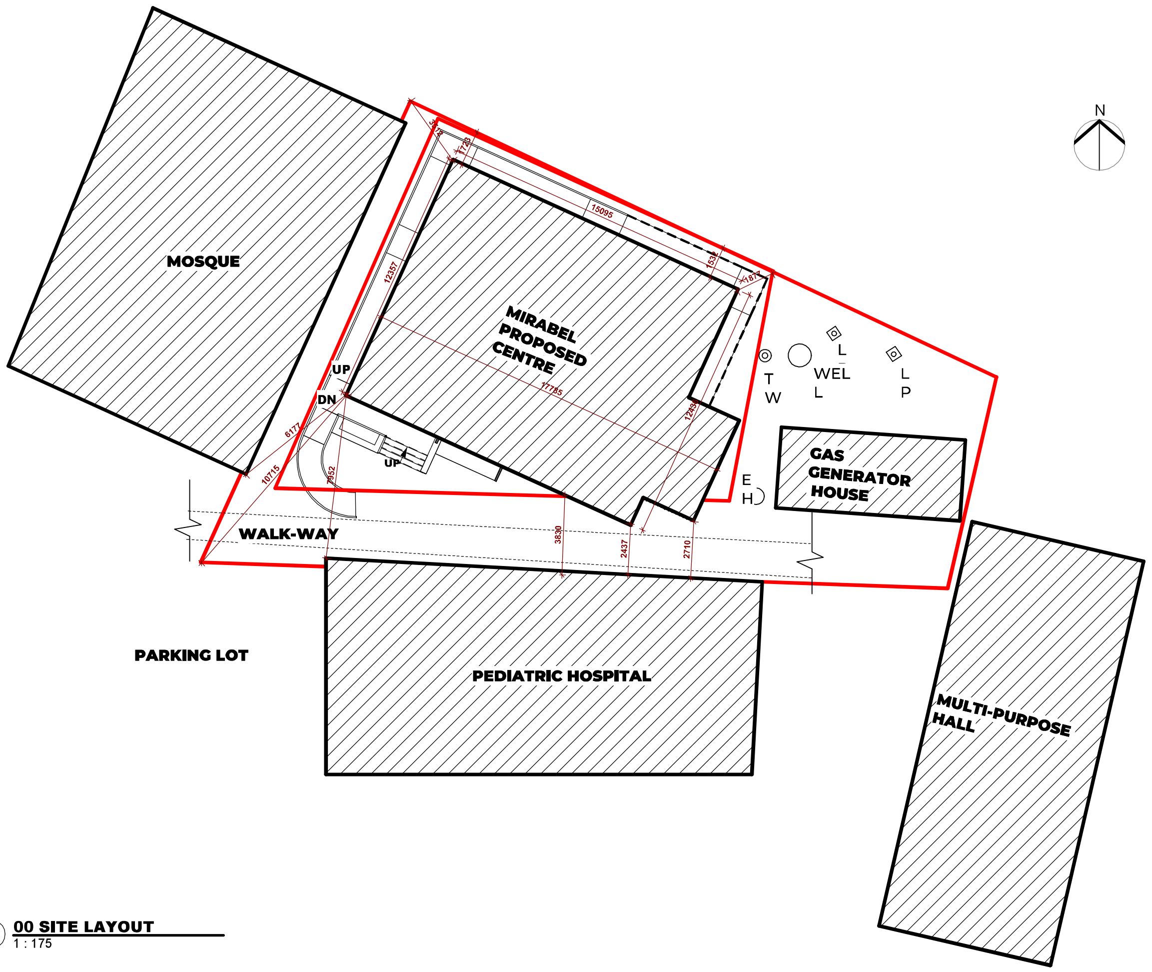
MIRABEL RESCUE CENTRE

LASUTH GENERAL HOSPITAL. IKEJA LAGOS

10/25

SARC

DOCUMENTATION DRAWING



1 **00 SITE LAYOUT**
1 : 175

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

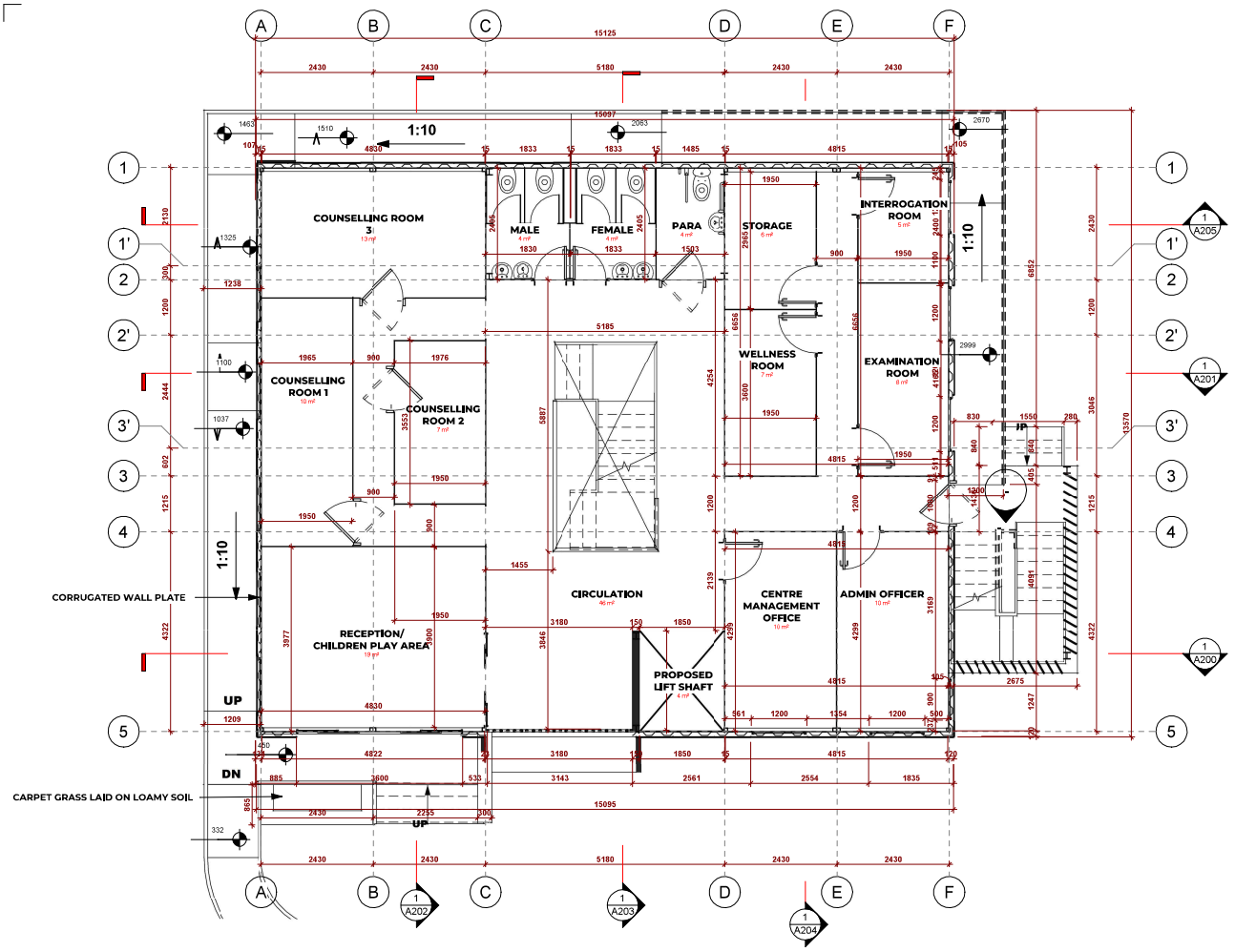
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SITE PLAN

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR

Scale: 1 : 175

Project Ref:	Drawing No:	Revision:
0116	0116-A02	



1 01 GROUND FLOOR
1 : 75

General notes:

Notes/Legends

No.	Notes	Approved	By	Date

Status: DOCUMENTATION DRAWING

Project name: MIRABEL RESCUE CENTRE

Key Plan:

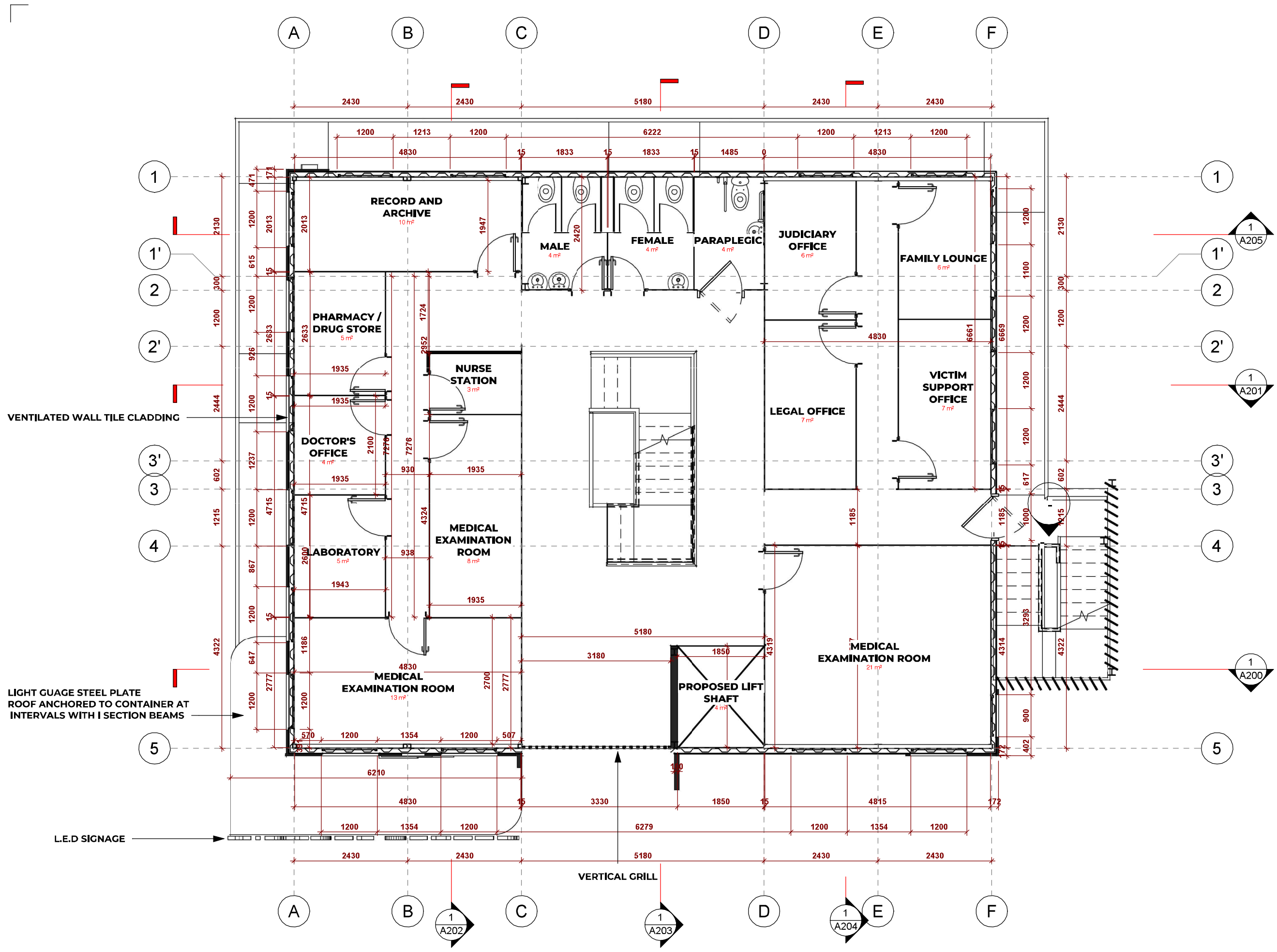
Client: SARC

Project: LASUTH GENERAL HOSPITAL, IKEJA LAGOS

Title: GROUND FLOOR

Date:	Drawn By:	Checked:	Title:
Scale: 1 : 75			

Project No:	Drawing no:	Revision:
0116	0116-A100	



1 02 FIRST FLOOR
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp: DOCUMENTATION DRAWING

Project name: MIRABEL RESCUE CENTRE

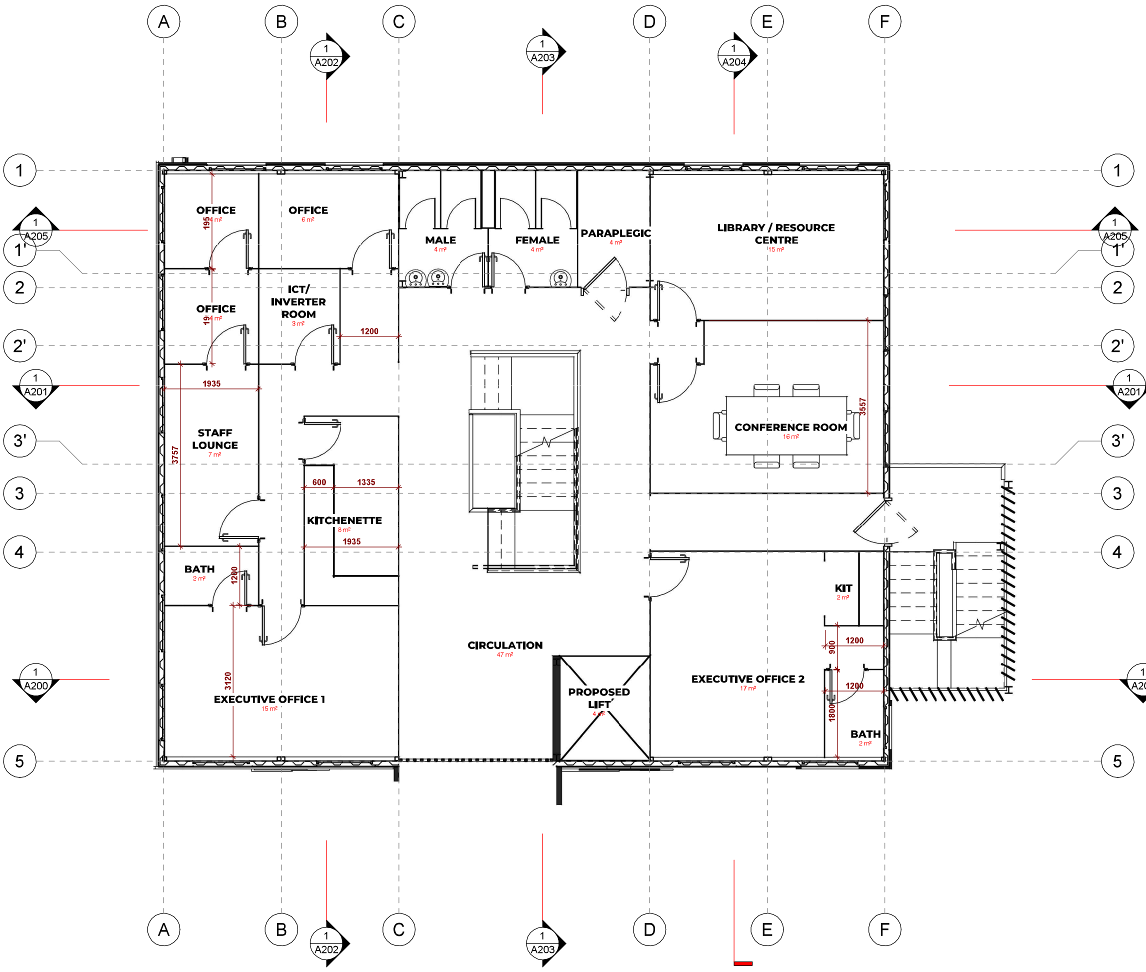
Key Plan

Client: SARC

Project: LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title: FIRST FLOOR PLAN

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR
Scale: 1 : 75		
Project Ref: 0116	Drawing No: 0116-A101	Revision:



1 **03 SECOND FLOOR**
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

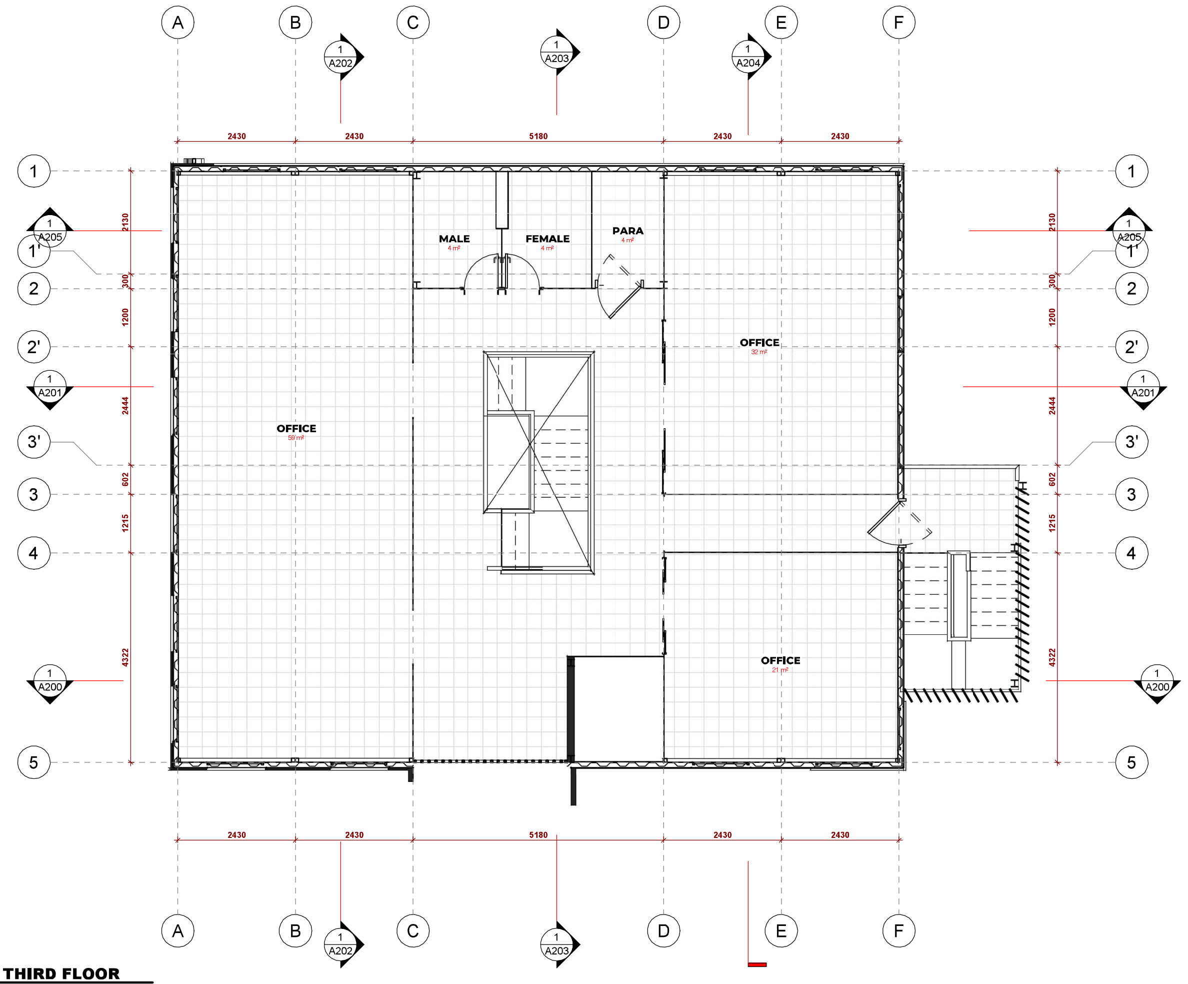
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SECOND FLOOR PLAN

Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR

Scale: 1 : 75

Project Ref:	Drawing No:	Revision:
0116	0116-A102	



1 **04 THIRD FLOOR**
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

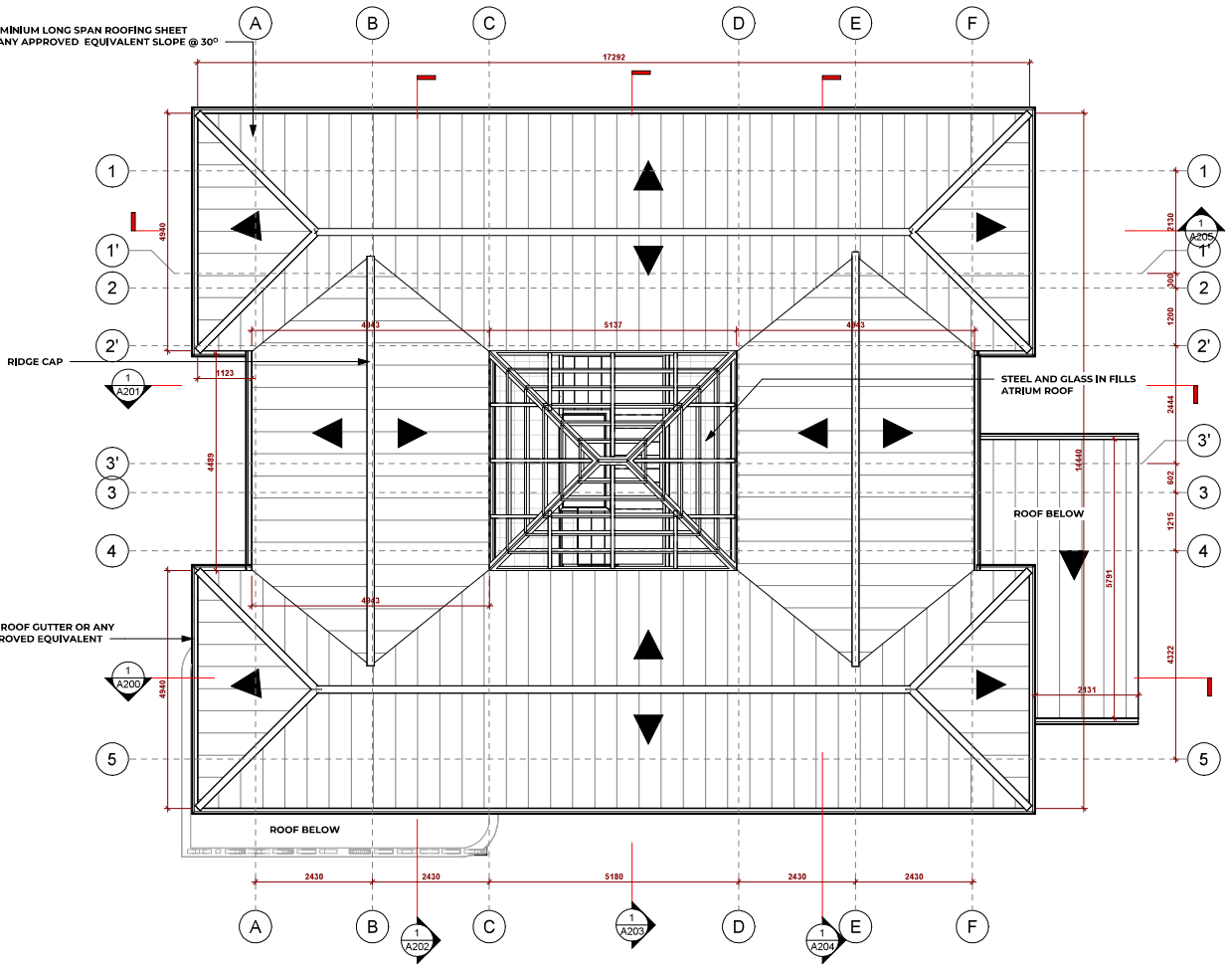
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
THIRD FLOOR PLAN

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR

Scale: 1 : 75

Project Ref:	Drawing No:	Revision:
0116	0116-A103	



1 ROOF PLAN
1 : 75

General notes:

Notes/Legends

No.	Notes	Approved	By	Date

Status
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client
SARC

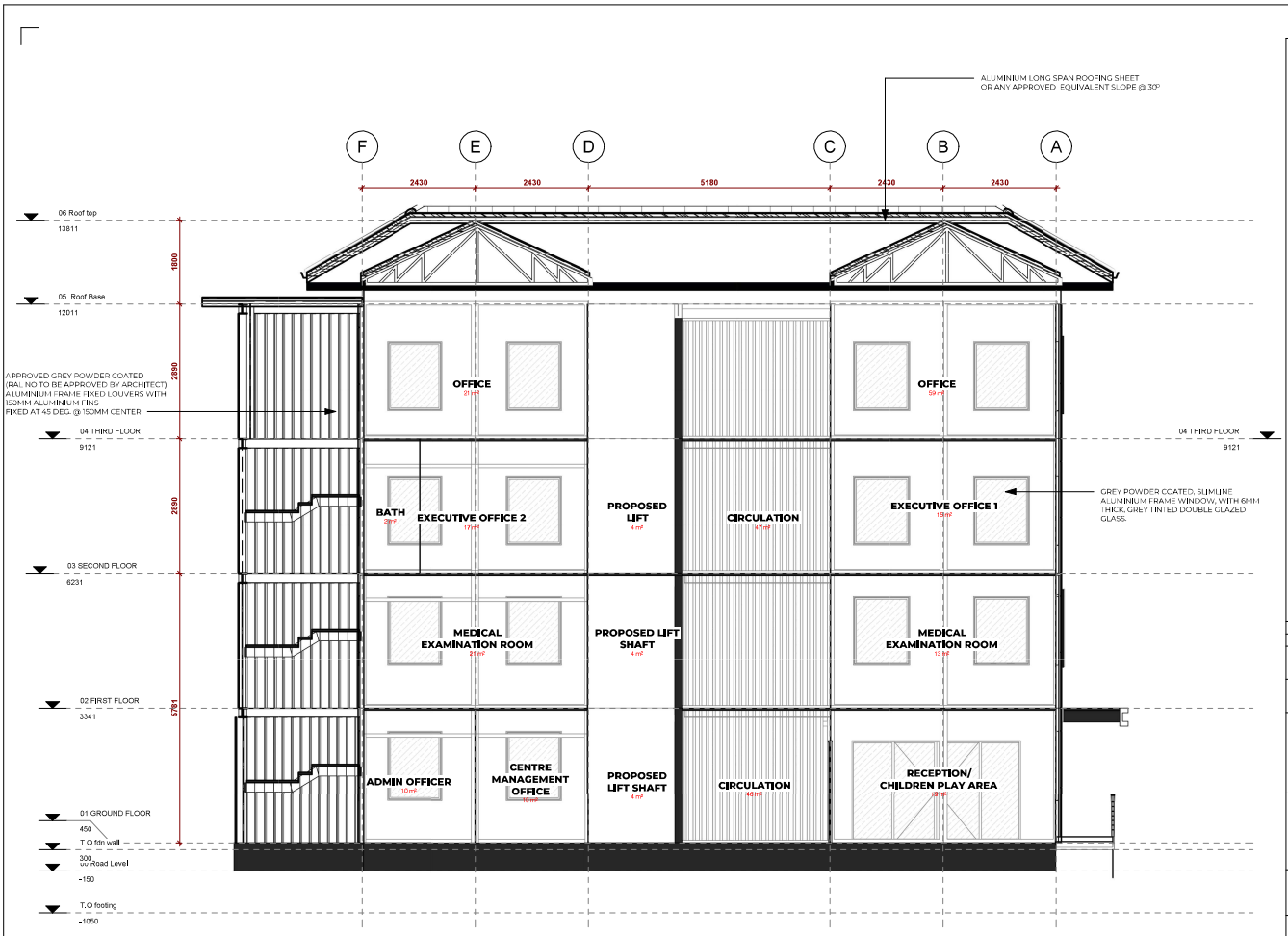
Project
LASUTH GENERAL
HOSPITAL, IKEJA LAGOS

Title
ROOF PLAN

Date	Issued	Drawn By	Checked	Title

Scale : 1 : 75

Project Ref	Drawing no	Revision
0116	0116-A104	



1 SECTION A
1 : 75

General notes:

Notes/Legends

No	Notes	M/M/yy	By	Chkd

Status
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

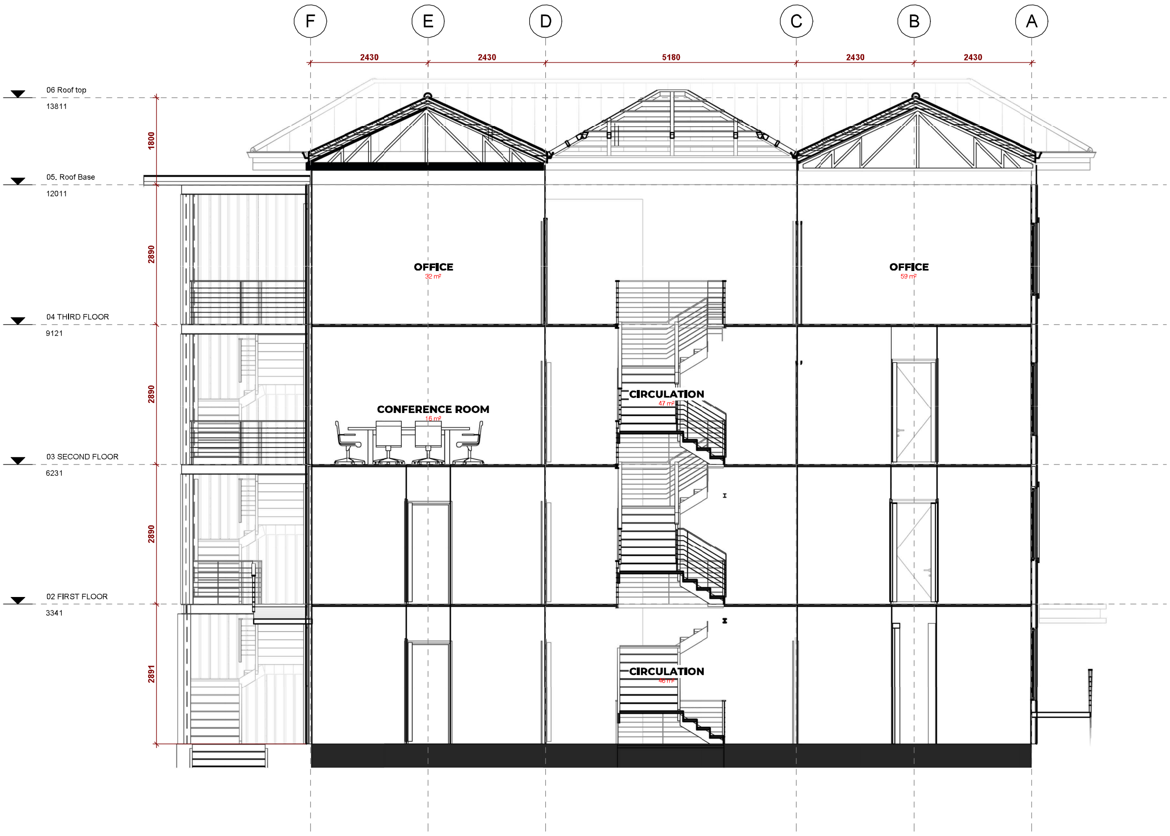
Client
SARC

Project
LASUTH GENERAL HOSPITAL IKEJA LAGOS

Title
SECTION AA

Date	Scale	Drawn By	Checked	Title
	1:75			

Project Ref	Drawing no	Revision
0116	0116-A200	



1 **SECTION B**
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

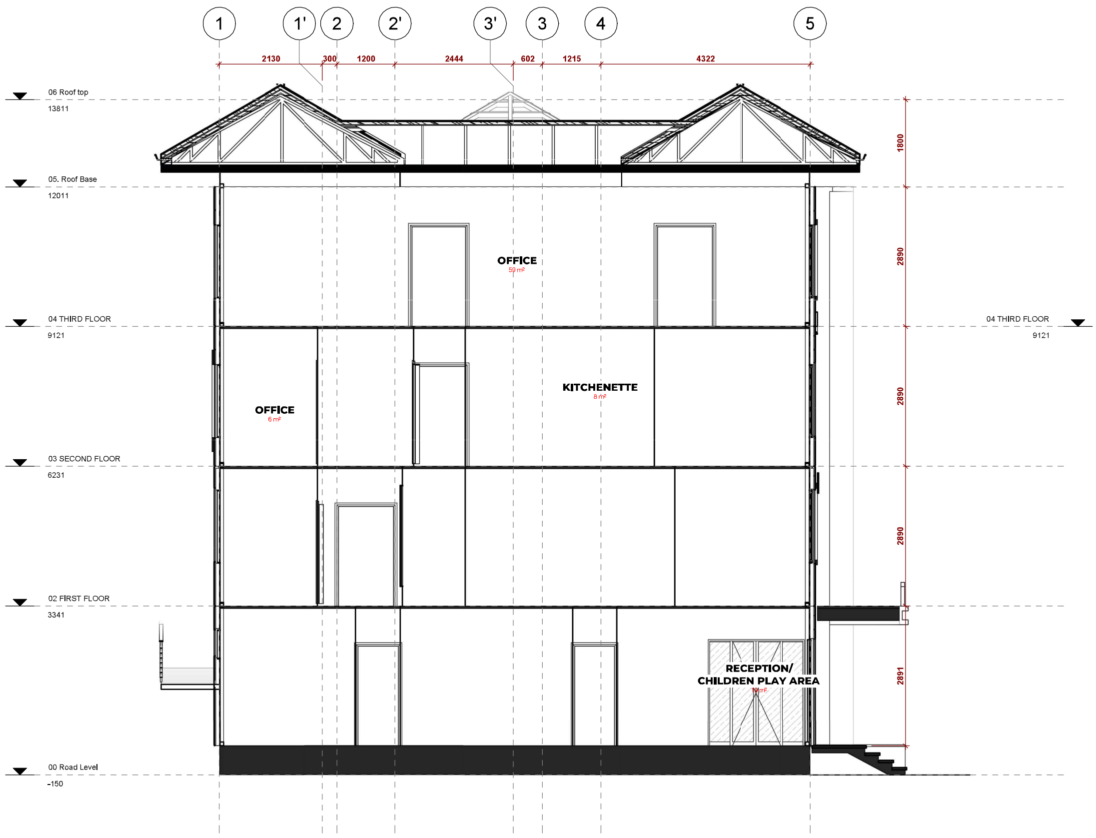
Key Plan

Client:
SARC

Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SECTION BB

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR
Scale: 1 : 75		
Project Ref: 0116	Drawing No: 0116-A201	Revision:



SECTION C
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

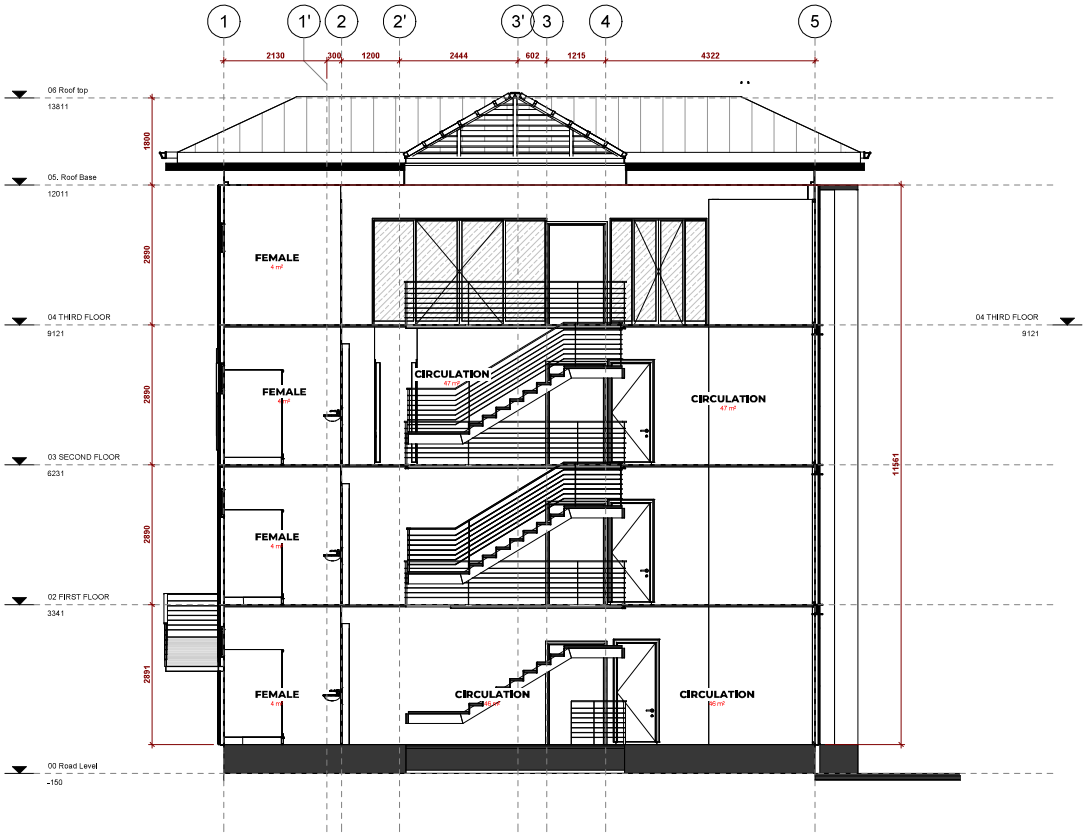
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SECTION CC

Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR

Scale: 1 : 75

Project Ref:	Drawing No:	Revision:
0116	0116-A202	



1 SECTION D
1 : 75

General notes:

Notes/Legends

No.	Notes	MM/DD/YY	By	Chk'd

Status
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Revision

Client
SARC

Project
LASUTH GENERAL HOSPITAL IKEJA LAGOS

Title
SECTION DD

Date	10/25	Drawn By	Checked	Title
Scale	1 : 75			

Project Ref	Drawing no	Revision
0116	0116-A203	

1 SECTION E
1 : 75

General notes:

Notes/Legends

No.	Notes	MM/YY	By	Chk'd

Status
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Location

Client
SARC

Project
LASUTH GENERAL HOSPITAL IKEJA LAGOS

Title
SECTION EE

Date	10/25	Drawn By	Checked	Title
Scale	1 : 75			

Project Ref	Drawing no	Revision
0116	0116-A204	

1 SECTION F
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SECTION FF

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR
Scale: 1 : 75		

Project Ref:	Drawing No:	Revision:
0116	0116-A205	

1 FRONT ELEVATION
1 : 75

General notes:

Notes/Legends

DOCUMENTATION DRAWING

MIRABEL RESCUE CENTRE

SARC

LASUTH GENERAL HOSPITAL IKEJA LAGOS

FRONT ELEVATION

Project Ref: 0116
Drawing no: 0116-A300

1 LEFT SIDE ELEVATION
1 : 75

General notes:

Notes/Legends

DOCUMENTATION DRAWING

MIRABEL RESCUE CENTRE

SARC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

LEFT SIDE ELEVATION

0116 | 0116-A301

1 RIGHT SIDE ELEVATION
1 : 75

General notes:

Notes/Legends

No	Notes	MM/YY	By	Chk'd

Status
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Revision

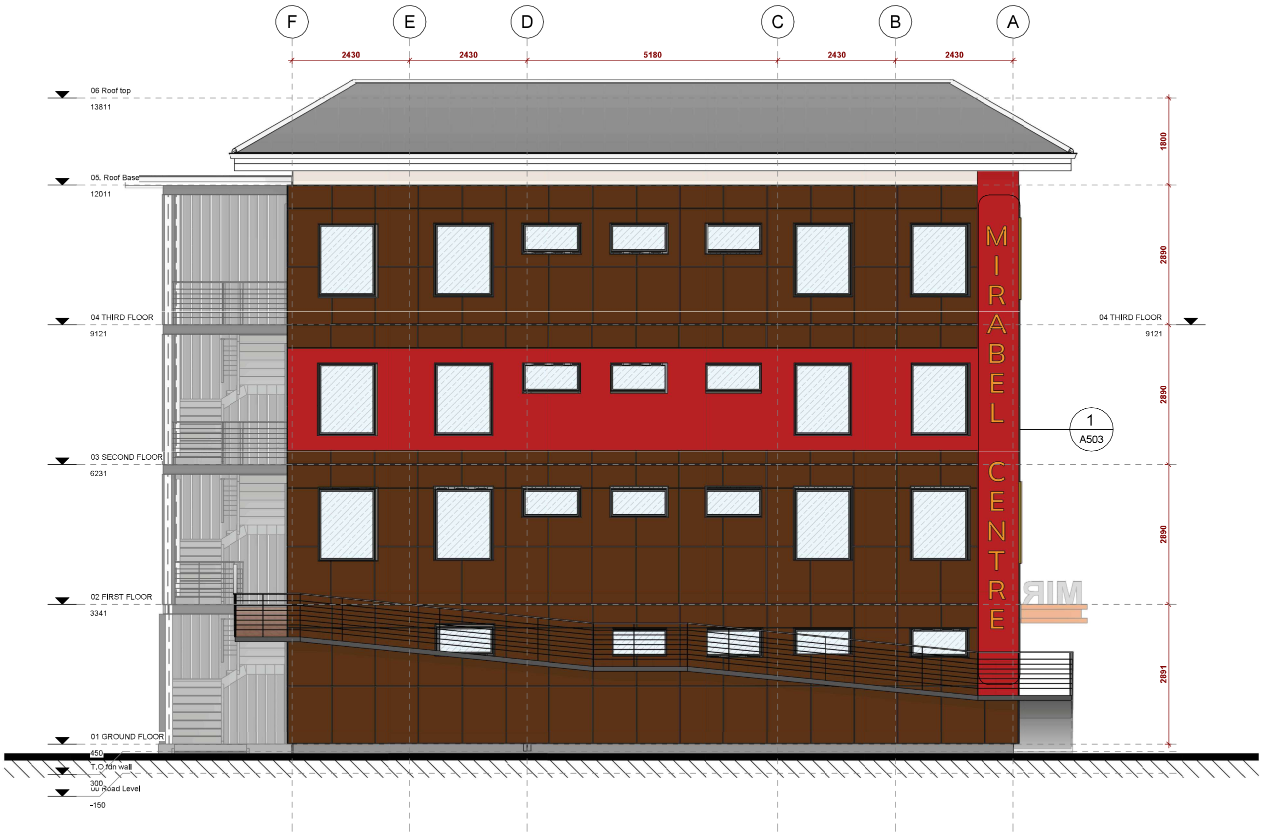
Client
SARC

Project
LASUTH GENERAL HOSPITAL IKEJA LAGOS

Title
RIGHT SIDE ELEVATION

Date	Scale	Drawn By	Checked	Title
	1:75			

Project Ref	Drawing no	Revision
0116	0116-A302	



1 REAR ELEVATION
1 : 75

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

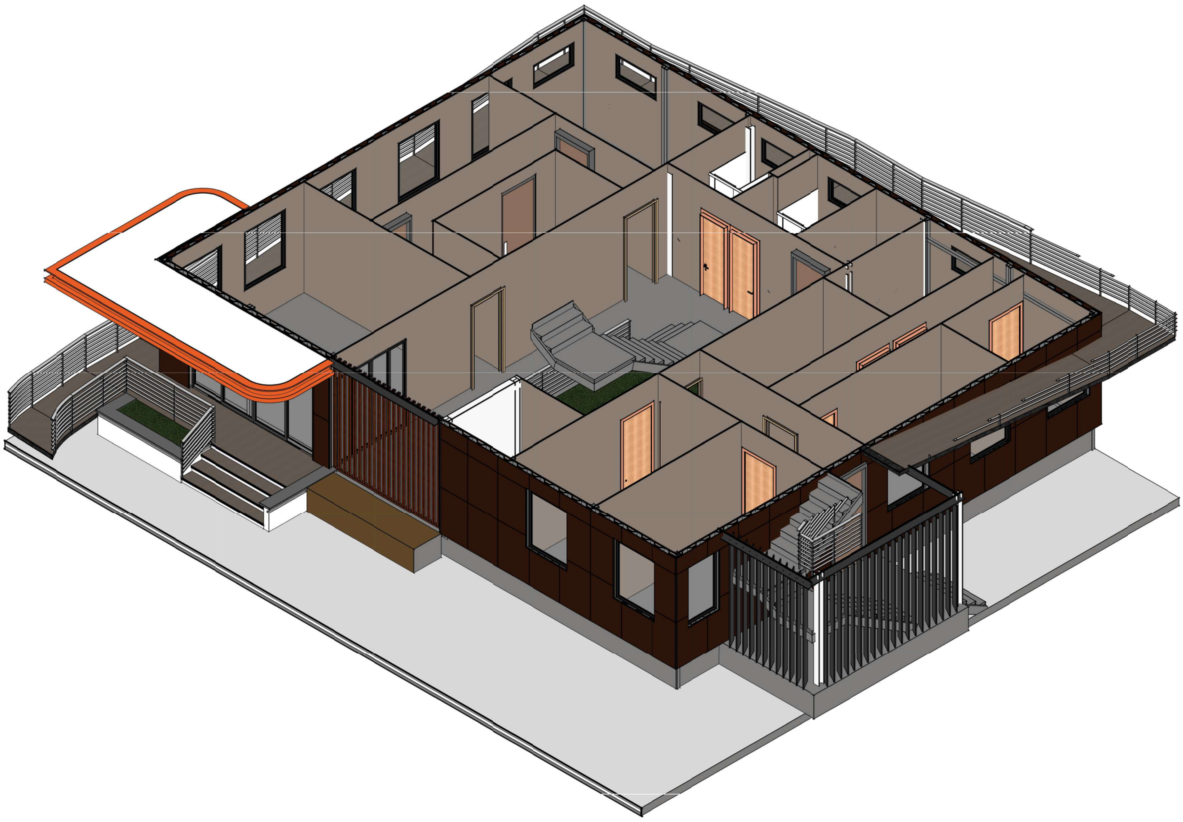
Client
SARC

Project
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title
REAR ELEVATION

Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR
Scale: 1 : 75

Project Ref	Drawing No	Revision
0116	0116-A303	



1 **GROUND FLOOR AXONOMETRIC VIEW**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp

DOCUMENTATION DRAWING

Project name

MIRABEL RESCUE CENTRE

Key Plan

Client:

SARC

Project:

LASUTH GENERAL HOSPITAL. IKEJA LAGOS

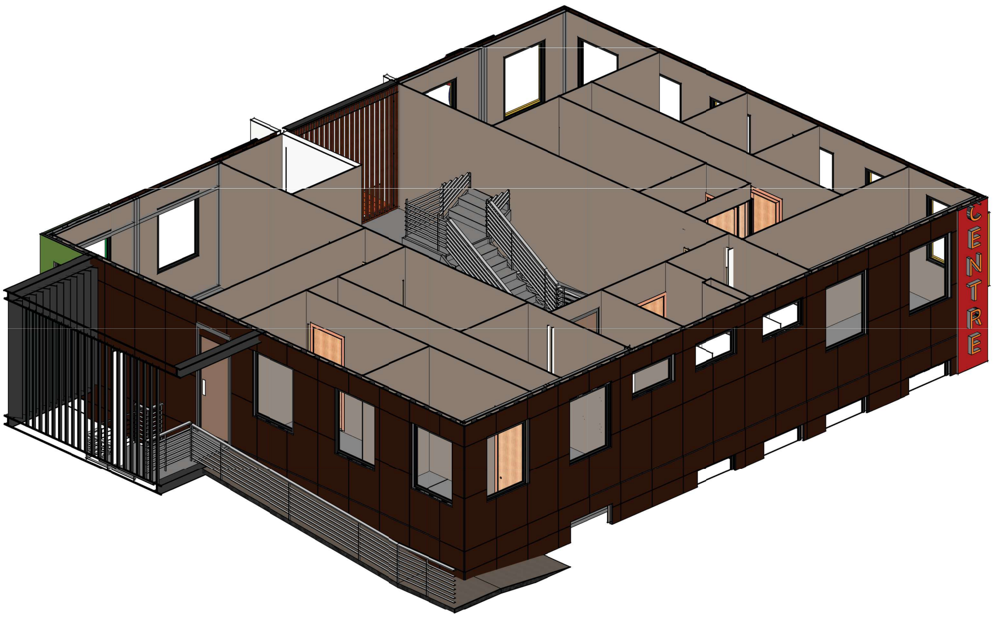
Title:

GROUND FLOOR AXONOMETRIC VIEW

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR

Scale:

Project Ref:	Drawing No:	Revision:
0116	0116-A400	



1 **FIRST FLOOR AXONOMETRIC**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp

DOCUMENTATION DRAWING

Project name

MIRABEL RESCUE CENTRE

Key Plan

Client:

SARC

Project:

LASUTH GENERAL HOSPITAL. IKEJA LAGOS

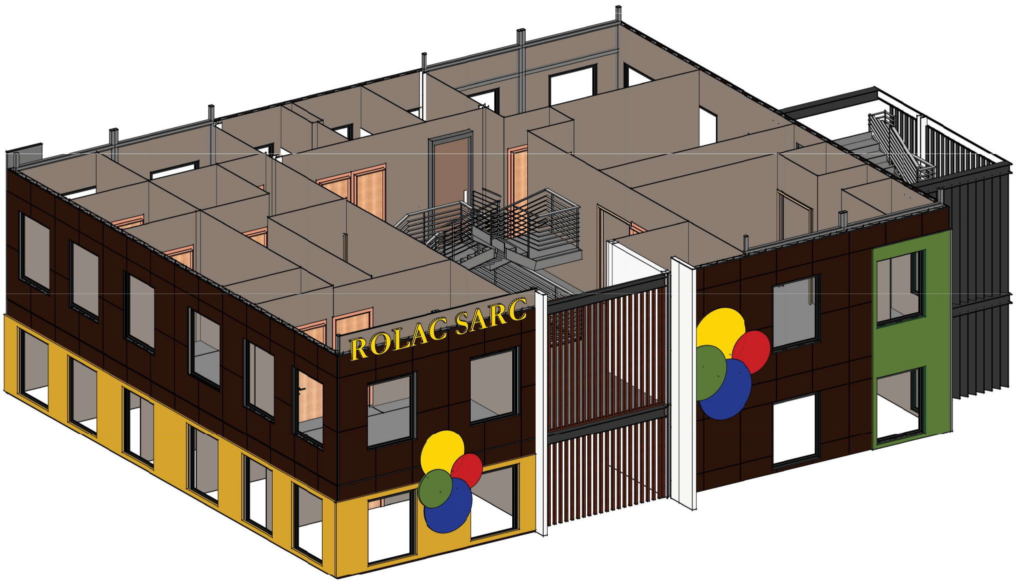
Title:

FIRST FLOOR AXONOMETRIC

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR

Scale:

Project Ref:	Drawing No:	Revision:
0116	0116-A401	



1 **SECOND FLOOR AXONOMETRIC**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

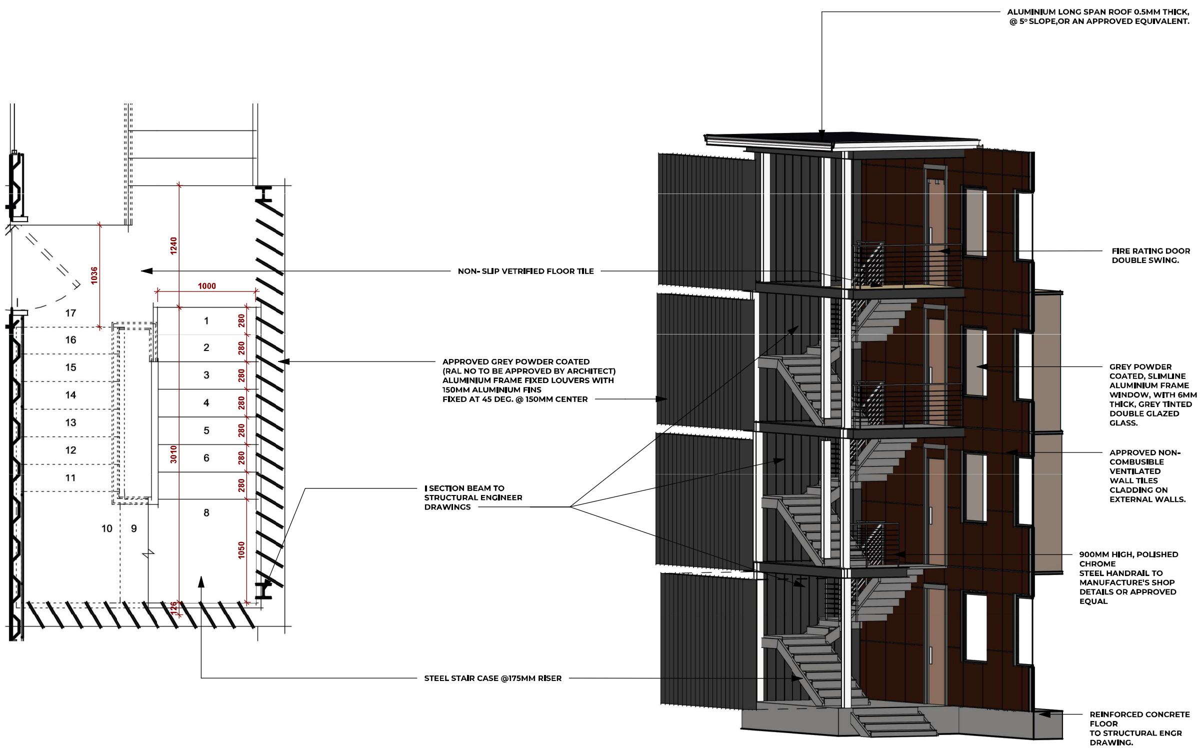
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
SECOND FLOOR AXONOMETRIC

Date: 10/25	Drawn By: KOJO. ARKORFUL	Checked: TEE ENGR

Scale:

Project Ref:	Drawing No:	Revision:
0116	0116-A402	



1 **ESCAPE STAIRS CALLOUT**
1 : 37

2 **ESCAPE STAIR SECTIONAL 3D**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client:
SARC

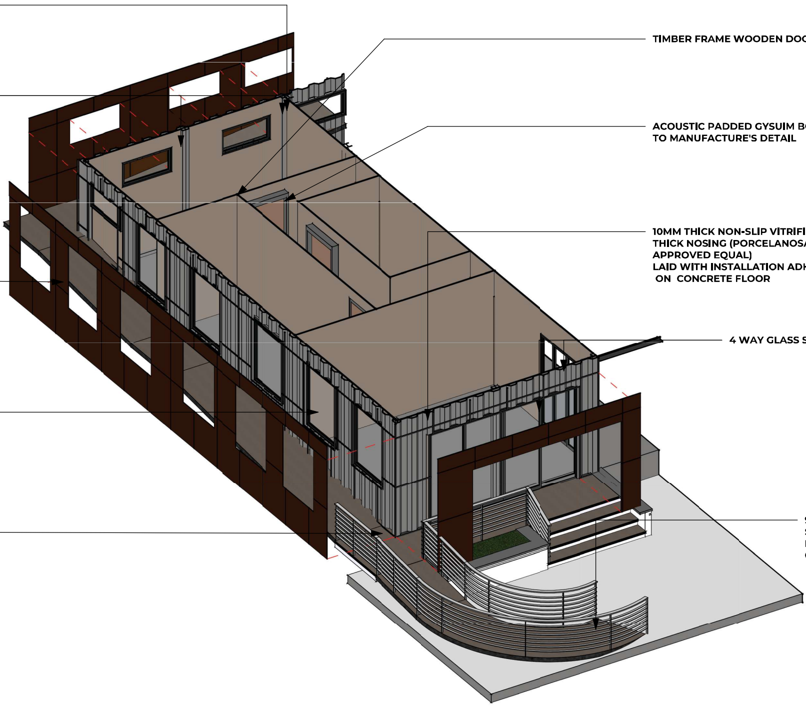
Project:
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title:
DETAILS

Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR

Scale: 1 : 37

Project Ref:	Drawing No:	Revision:
0116	0116-A500	



1 **40 FEET CONTAINER COMBINES**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp: DOCUMENTATION DRAWING

Project name: MIRABEL RESCUE CENTRE

Key Plan

Client: SARC

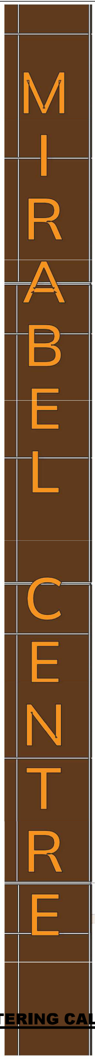
Project: LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title: SECTIONAL VIEW OF CONTAINER WITH FINISHES

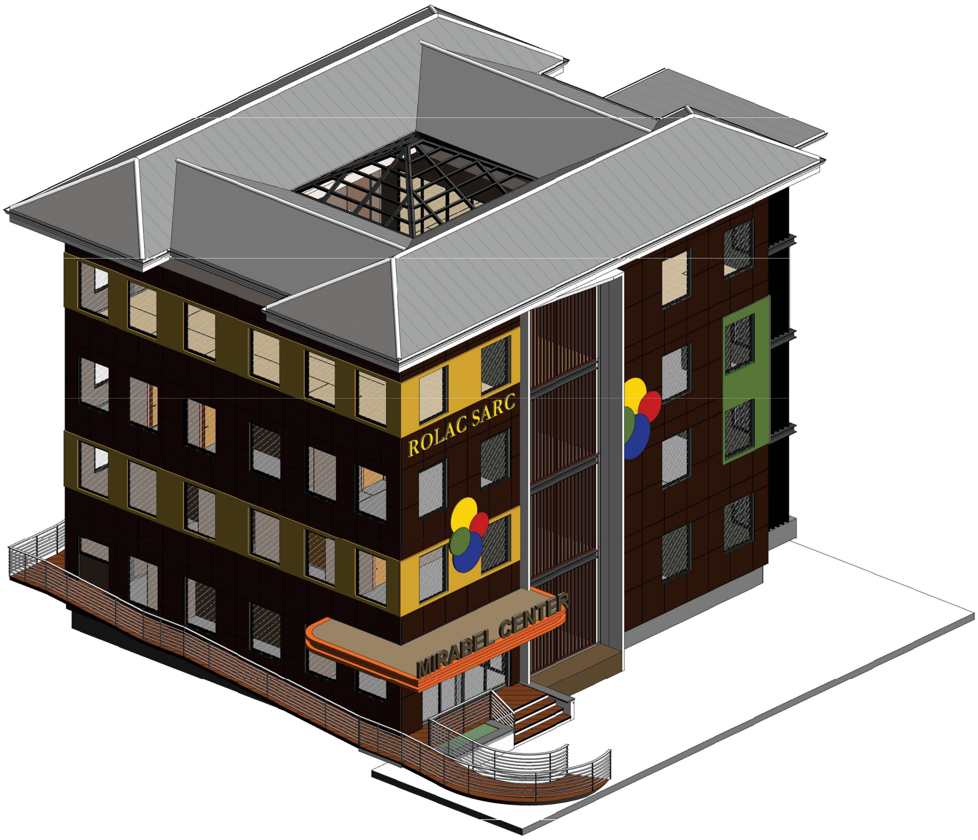
Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR

Scale:

Project Ref:	Drawing No:	Revision:
0116	0116-A501	



1 **LETTERING CALL-OUT**
1 : 35



2 **FRONT 3D VIEW**

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
DOCUMENTATION DRAWING

Project name
MIRABEL RESCUE CENTRE

Key Plan

Client
SARC

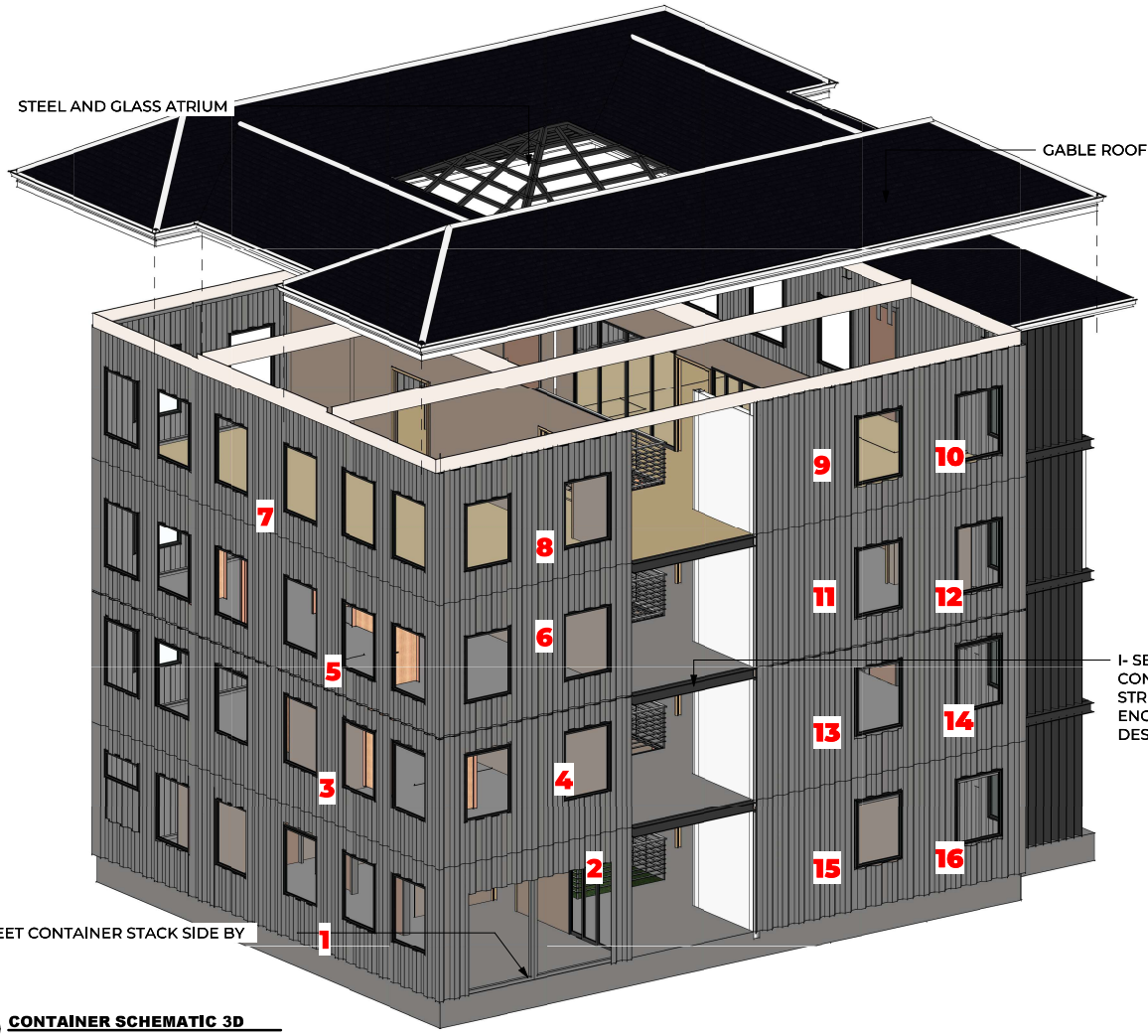
Project
LASUTH GENERAL HOSPITAL. IKEJA LAGOS

Title
L.E.D LETTERING DETAIL

Date: 10/25 | Drawn By: KOJO. ARKORFUL | Checked: TEE ENGR

Scale: 1 : 35

Project Ref	Drawing No	Revision
0116	0116-A503	



1 CONTAINER SCHEMATIC 3D

General notes:

Notes/Legends

DOCUMENTATION DRAWING

MIRABEL RESCUE CENTRE

SARC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SCHEMATIC CONTAINER STACKING

0116 | 0116-A504

ANNEX 2- ELECTRICAL DRAWING

ELECTRICAL DRAWINGS

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

LASUTHGENERAL HOSPITAL. IKEJALAGOS

08/25

ROLAC

ELECTRICAL SERVICES DRAWING

COUNCIL APPROVAL APPLICATION

LIGHTING

NO.	SYMBOLS	DESCRIPTIONS
1		32W LED DECORATIVE MULTICOLOR CEILING MOUNTED LIGHTING FITTING WITH BLUETOOTH
2		COMM-3-405 9W MARS SERIES LED DOWNLIGHT
3		MIRROR LIGHT EFFICIENT LIGHTING FITTING
4		BEDSIDE DROP LIGHT
5		DECORATIVE 18W LED SURFACE MOUNTED LIGHT FITTING LUMINAIRE
6		1 X 26W CFL IP65 ALUMINIUM ALLOY GREY WALL MOUNTED LIGHTING FITTING WITH TOUGHENED
7		15W LED DOWNLIGHTING FITTING.
8		26W LED IP65 ALUMINIUM ALLOY GREY WALL MOUNTED LIGHTING FITTING WITH TOUGHENED
9		40W LED 4000K 600x600mm LIGHT PANEL WITH WHITE BODY FINISH
10		DECORATIVE 15W LED SURFACE MOUNTED LIGHT FITTING LUMINAIRE
11		20W LED SURFACE MOUNTED LIGHTING FITTING
12		COMM-3-405 6W MARS SERIES LED DOWNLIGHT
13	AUD	[illegible]
14		EXTRACTOR FAN
15		EX14W DECORATIVE PENDANT LIGHTING FITTING WITH METAL BODY FROSTED GLASS SHADE
16		CHANDELLIER LIGHTING FITTING MAX. 60W
17		DECORATIVE CHANDELLIER LIGHTING FITTING
18		WALL BRACKET FITTING IN WHITE ENAMELL BODY USING 1 X 20W CFL LAMP(LITETECH)
19		50W LED FLOOD LIGHT
20		WALL BRACKET FITTING IN BRELLIANT WHITE ENAMEL BODY USING 2 X 6W LED LAMPS
21		2 X 36W LED UP AND DOWN LIGHTING FITTING

SWITCH

NO.	SYMBOLS	DESCRIPTIONS
1		10A, 1-GANG 1-WAY SWITCH
2		10A, 1-GANG 2-WAY SWITCH
3		10A, 2-GANG 1-WAY SWITCH
4		10A, 2-GANG 2-WAY SWITCH
5		10A, 3-GANG 1-WAY SWITCH
6		10A, 3-GANG 2-WAY SWITCH
7		DIMMER SWITCH
8	WH	20A DP SWITCH MARKED WATER HEATER WITH NEON INDICATOR.
9	AC	20A DP SWITCH FOR A/C.
10		10A, INTERMEDIATE SWITCH
11		[illegible]
12		ENERGY SAVING ACCESS CONTROL UNIT e.g. VINCARD OR APPROVED EQUAL

CCTV

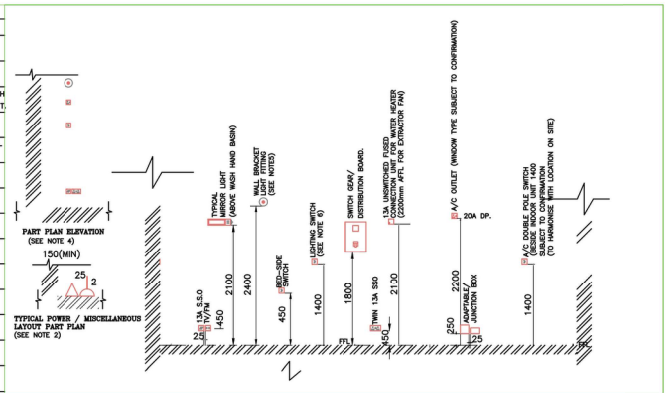
1		*Dome camera. HIK VISION*
2		*Long range bullet camera. HIK VISION*
3	CCTV	CCTV EQUIPMENT COMPRISING OF MATRIX SWITCHER,VCR TIME-LAPSE RECORDER, MONITORS ETC ALL IN IP EQUIPMENT RACK e.g. BOSCH, AXIS OR APPROVED EQUAL

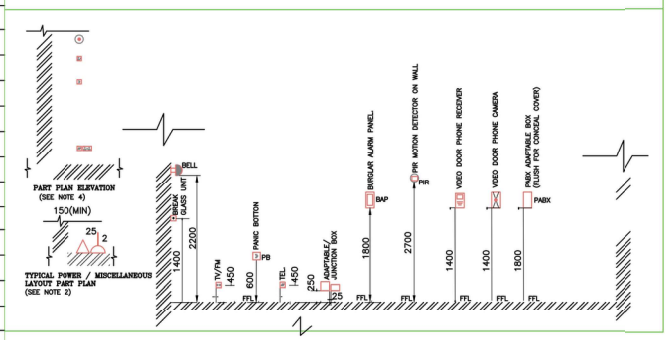
POWER AND MISCELLANEOUS

NO.	SYMBOLS	DESCRIPTIONS
1		13A SP 1-GANG SWITCH SOCKET OUTLET. (SPLASHPROOF TYPE)
2		DITTO BUT 2-GANG.
3		13A FUSED UNSWITCHED CONNECTION UNIT WITH NEON INDICATOR AND FRONT CORD ENTRY POINT.
4		15A SP (A/C) SWITCH SOCKET OUTLET WITH NEON INDICATOR.
5		45A DP COOKER CONTROL UNIT WITH INTEGRAL 13A S.S.O. AND NEON INDICATOR.
6		TV/FM DUAL SOCKET OUTLET.
7		SAT/TV/FM COAXIAL SOCKET OUTLET.
8		TV/FM G.I. ADAPTABLE (JUNCTION) BOX.
9		RJ45 OUTLET TELEPHONE OUTLET. EXAMPLE. MKCIP41)
11		TELEPHONE G.I. ADAPTABLE (JUNCTION) BOX.
12		TPN FUSED ISOLATOR SWITCH.
13		SPN FUSED ISOLATOR SWITCH
14		MCB DISTRIBUTION BOARD.
15		IP66 SHAVER SOCKET
16	HL	HIGH LEVEL.
17	ML	TABLE-TOP LEVEL. (1400mm ABOVE FFL).
18	PABX	TELEPHONE PABX EQUIPMENT.
19	EM	ELECTRICAL MANHOLE
20	T	TELECOMS MANHOLE
21		FIRE ALARM CONTROL PANEL.
26	MDF	MAIN DISTRIBUTION FRAME
28		LOW VOLTAGE SWITCH BOARD (MAIN DISTRIBUTION PANEL)
23		FIRE ALARM MANUAL BREAK GLASS UNIT.
24		ELECTRONIC ALARM SOUNDER EXAMPLE. GENTS BRAND
25		BATTERY OPERATED SMOKE DETECTOR
26		BATTERY OPERATED HEAT DETECTOR
27		10-ZONE CONVENTIONAL FIRE ALARM CONTROL PANEL EXAMPLE. ZETA BRAND
28		AUDIO/VIDEO MONITOR UNIT.
29		AUDIO/VIDEO SPEECH UNIT.

SITE LIGHTING

NO.	SYMBOLS	DESCRIPTIONS
1		36W LED WALL MOUNTED LIGHTING FITTING
		50W LED CIRCULAR SECTION 1MTR. BOLLARD LIGHTING FITTING
		70W LED STREET LIGHT FITTING MOUNTED 3MTRS GALVANISED POLE.
		36W LED WALL MOUNTED FITTING PRISMA GOLD OR APPROVED EQUAL.
		70W WALL MOUNTED FITTING PRISMA KONOS 7374+8175+8179.
		100W WALL MOUNTED ENCLOSED FLOOD LIGHT.





GENERAL NOTES

1) LIGHTING CIRCUIT WERE WIRED USING 3X1.5mmsq. SC PVC CABLE AND BE PROTECTED IN CIRCUIT WITH 10A MCB EXCEPT WHERE STATED OTHERWISE.
2) 13A S.S.O. WERE WIRED IN RING MAINS USING 3x2.5mmsq. SC PVC CABLE AND BE PROTECTED IN CIRCUIT WITH 30A MCB EXCEPT WHERE STATED OTHERWISE.
3) A/C & 15A S.S.O. WERE WIRED USING 3x4mmsq. SC PVC CABLE AND BE PROTECTED IN CIRCUIT WITH 20A MCB EXCEPT WHERE STATED OTHERWISE.
4) COOKER CONTROL CCT. WERE WIRED USING 3x6mmsq. SC PVC CABLE AND BE PROTECTED IN CIRCUIT WITH 30A MCB EXCEPT WHERE STATED OTHERWISE.
5.) WATER HEATER CIRCUIT WERE WIRED IN RADIAL USING 3x4mmsq. SC PVC CABLE AND BE PROTECTED IN CIRCUIT WITH 20A MCB
6) ELECTRIC MANHOLE DIMENSION WERE 300x300x300mm EXCEPT WHERE STATED OTHERWISE.
7) TELECOMS MANHOLE DIMENSION WERE 300x300x300mm EXCEPT WHERE STATED OTHERWISE.
8.) ALL TELECOMMUNICATIONS CONDUIT WIREWAYS WERE INSTALLED USING 25mm uPVC EXCEPT WHERE STATED OTHERWISE.
9.) TELEPHONE WIREWAYS WERE PROVIDED WITH NYLON FABRIC DRAW-WIRES.

FLOOR BOX CONSISTING OF 1 NO 13A DOUBLE SOCKET

General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

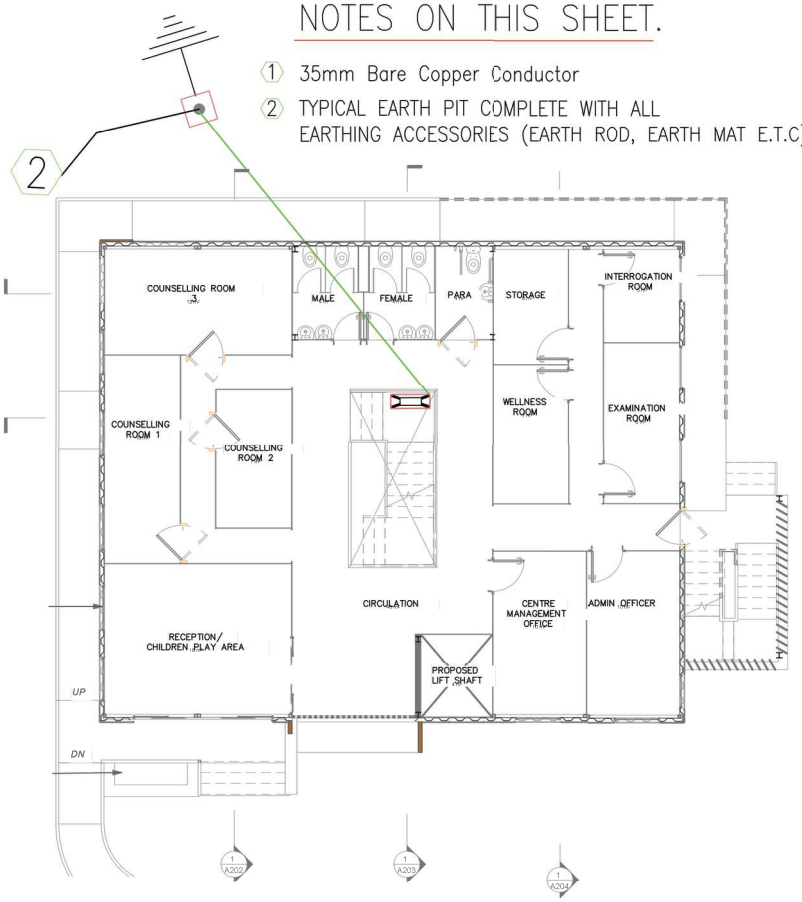
LASUTH GENERAL HOSPITAL, IKEJA LAGOS

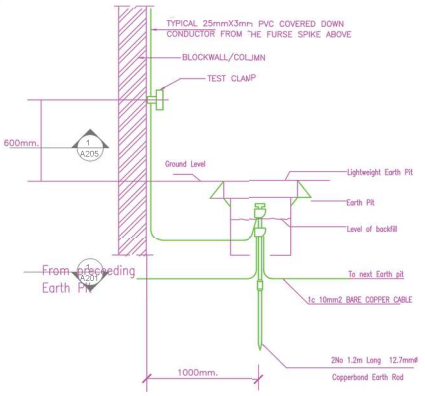
LEGEND

Project No: 0116 | Drawing No: 0116-A100

NOTES ON THIS SHEET.

1. 35mm Bare Copper Conductor
2. TYPICAL EARTH PIT COMPLETE WITH ALL EARTHING ACCESSORIES (EARTH ROD, EARTH MAT E.T.C).





TYPICAL EARTH TERMINATION DETAIL

MAXIMUM OVERALL EARTH RESISTANCE = 0.4ohms

General notes:

Notes/Legends

Rev Notes | By/Chkd

Status
COUNCIL APPROVAL APPLICATION

Project Name
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

Client
ROLAC

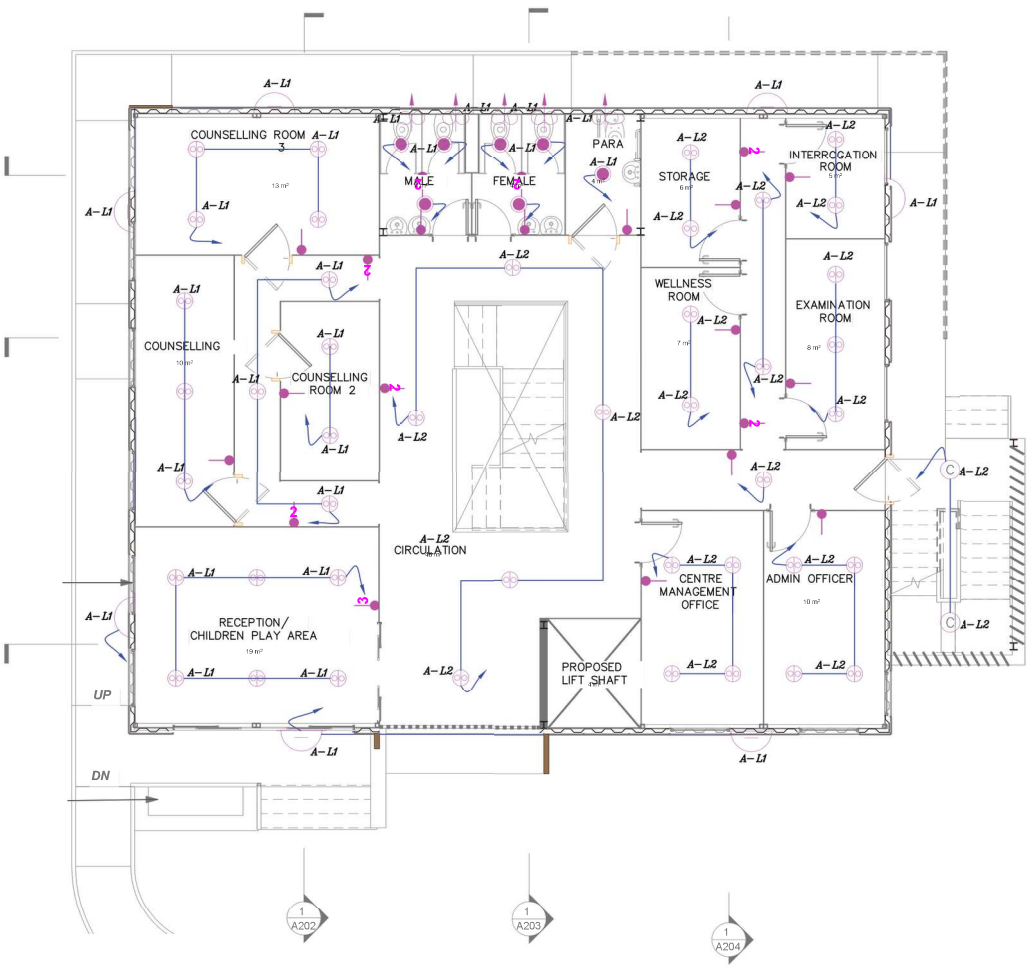
Project
LASUTH GENERAL HOSPITAL, IKEJA LAGOS

Title
EARTHING

Date | Drawn By/Chkd | Checked

Scale: N.T.S

Project No: 0116 | Drawing No: 0116-A100 | Revision



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

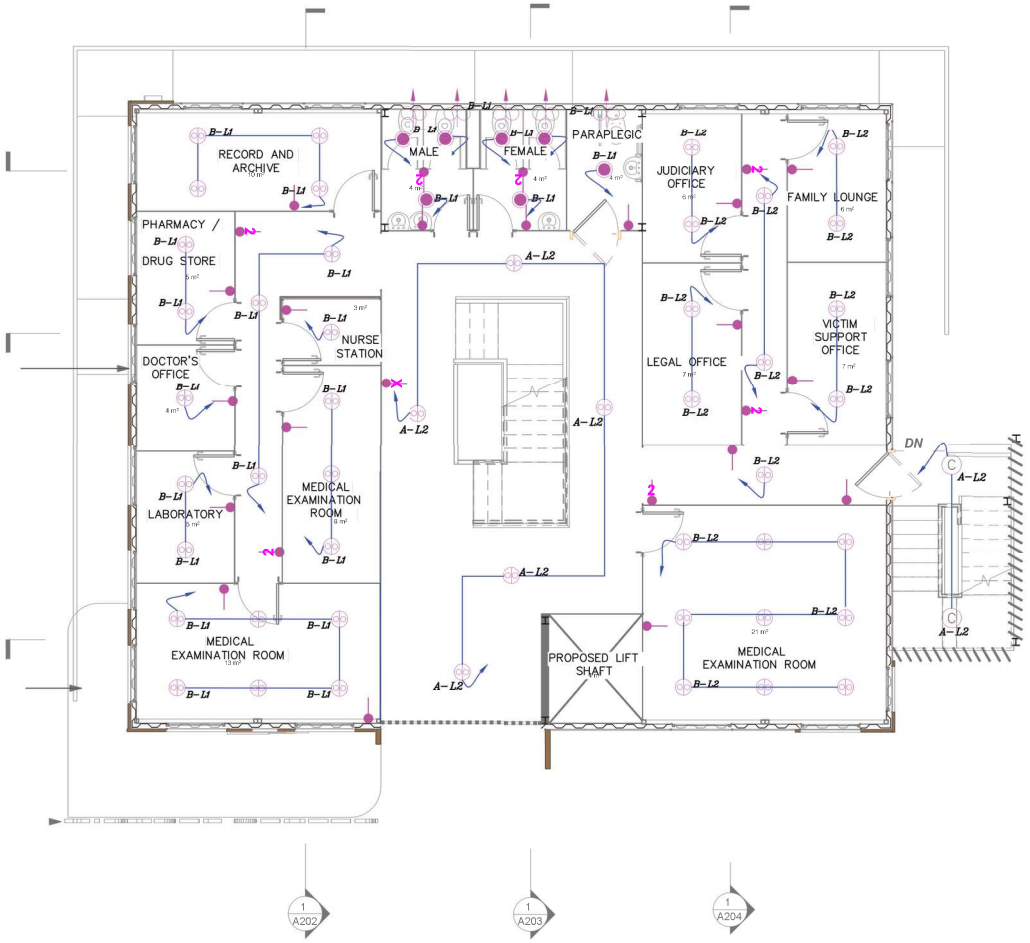
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

GROUND FLOOR PLAN LIGHTING LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

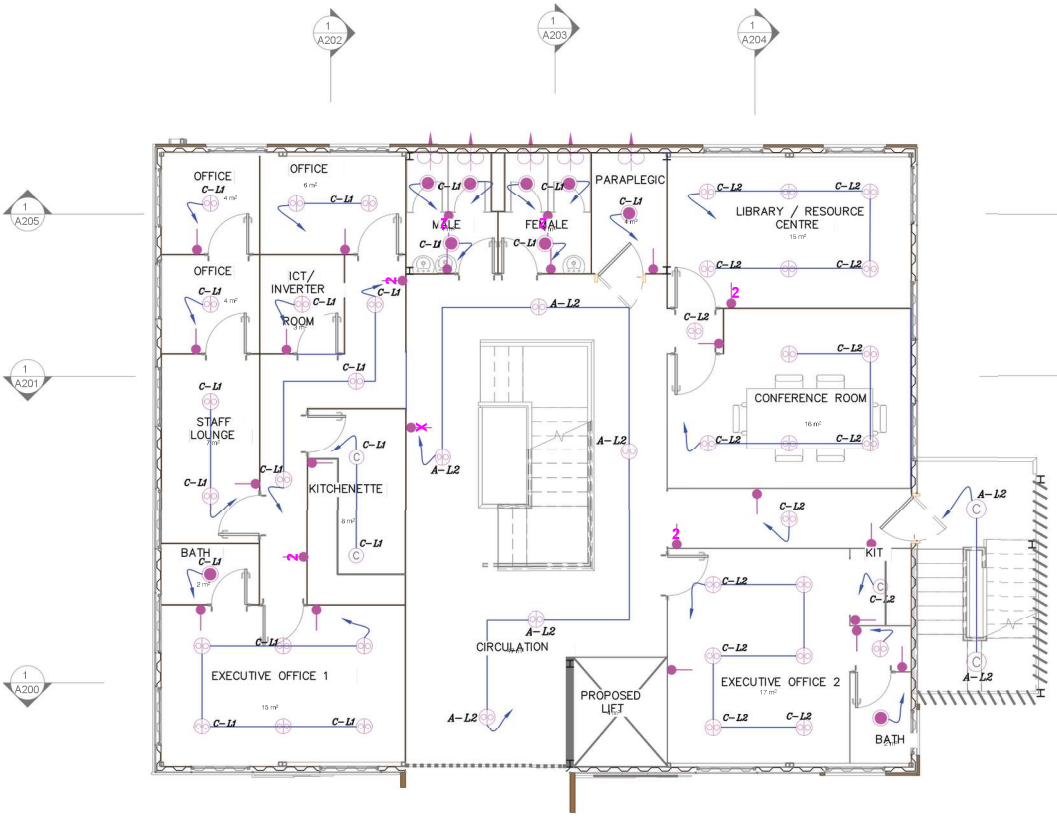
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

FIRST FLOOR PLAN LIGHTING LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

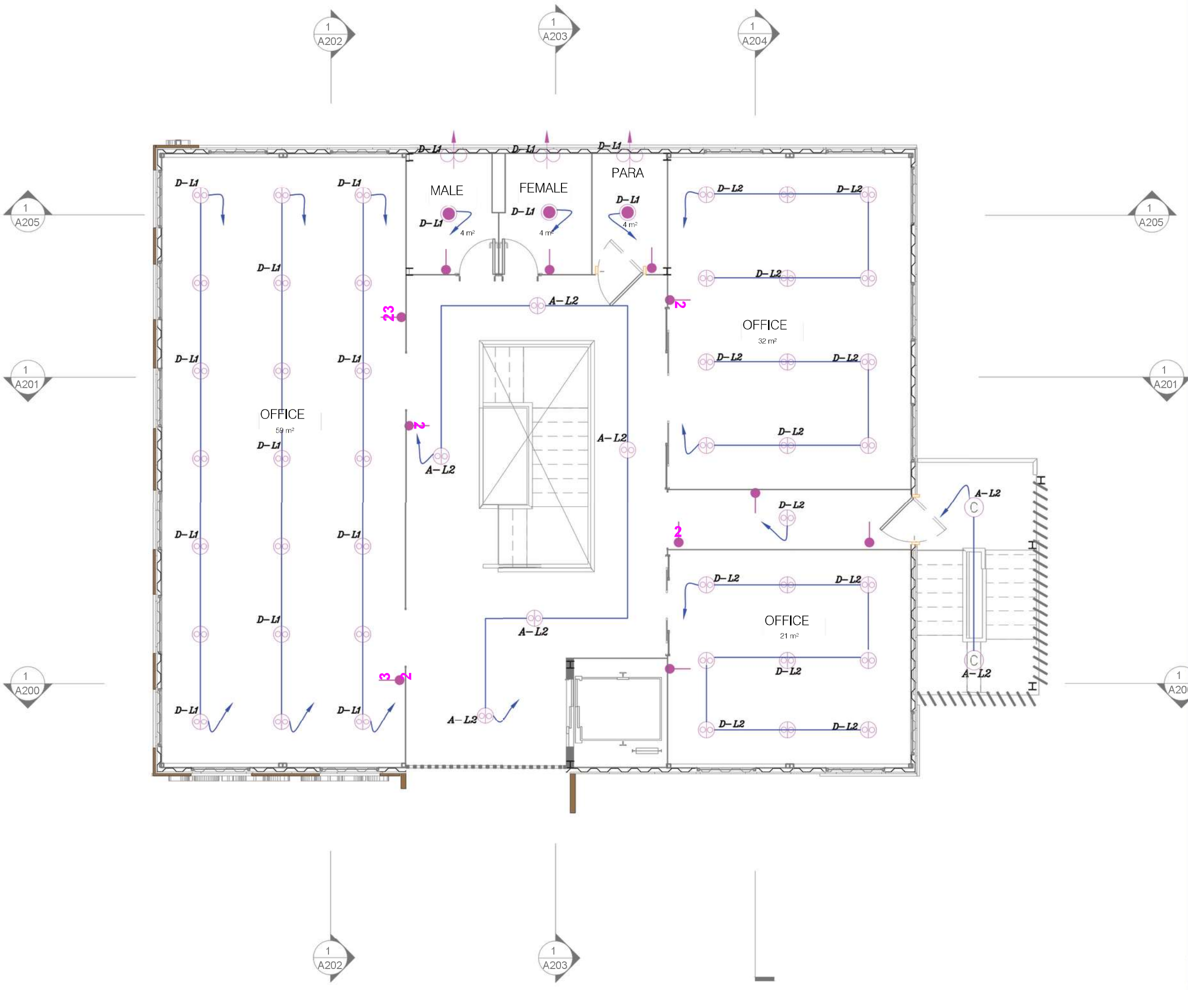
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SECOND FLOOR PLAN LIGHTING LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp
COUNCIL APPROVAL APPLICATION

Project name
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

Client
ROLAC

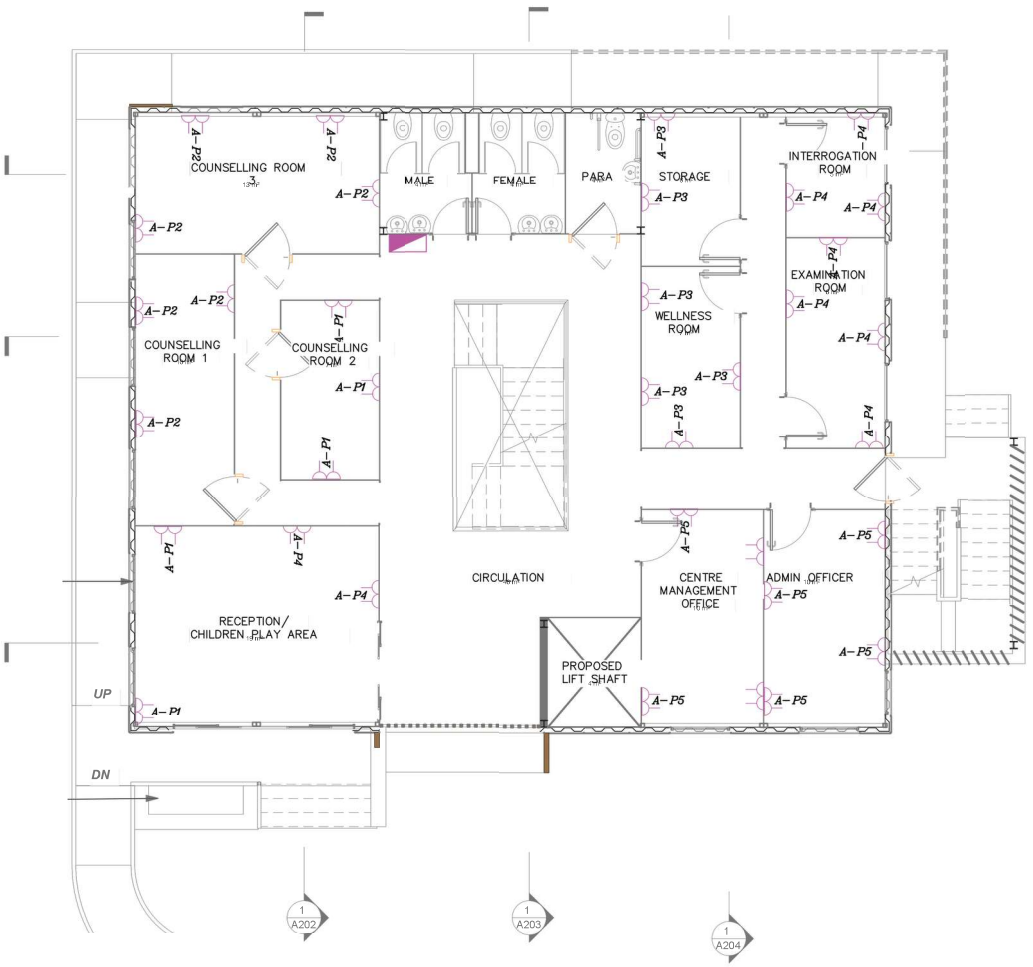
Project
LASUTH GENERAL HOSPITAL, IKEJA LAGOS

Title
THIRD FLOOR PLAN LIGHTING LAYOUT

Date: 08/25	Drawn By: KOJO.A	Checked:

Scale: 1:75

Project Ref:	Drawing No:	Revision:
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

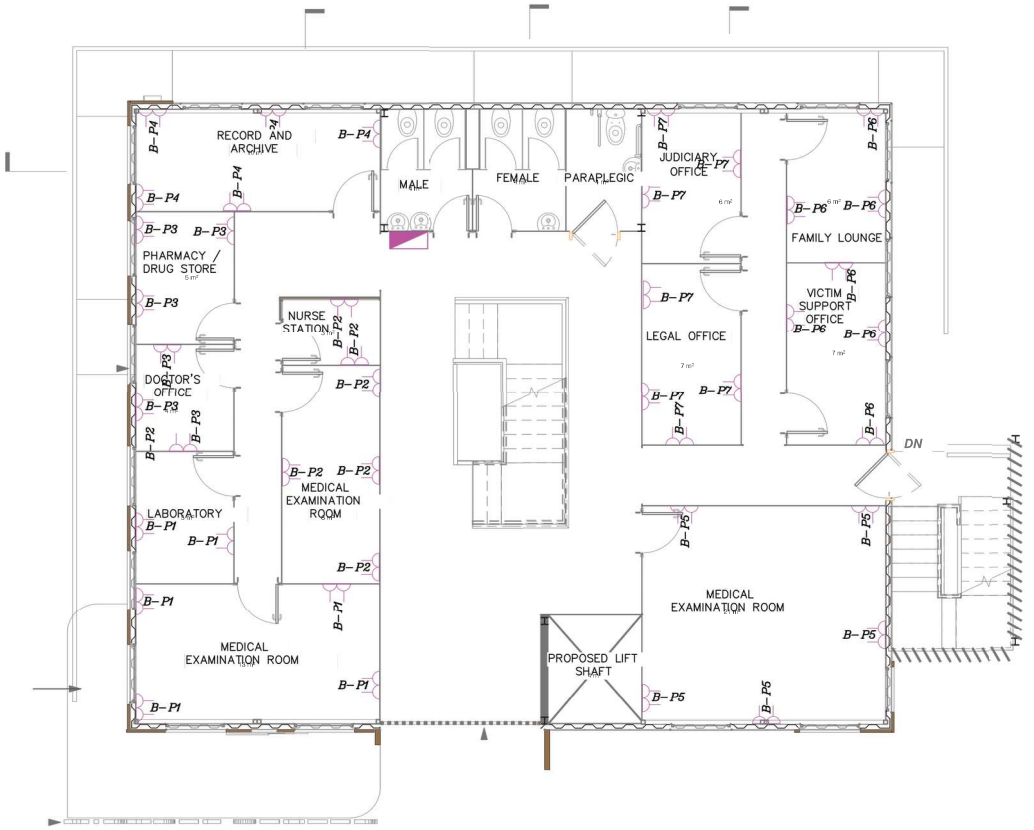
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

GROUND FLOOR PLAN POWER LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

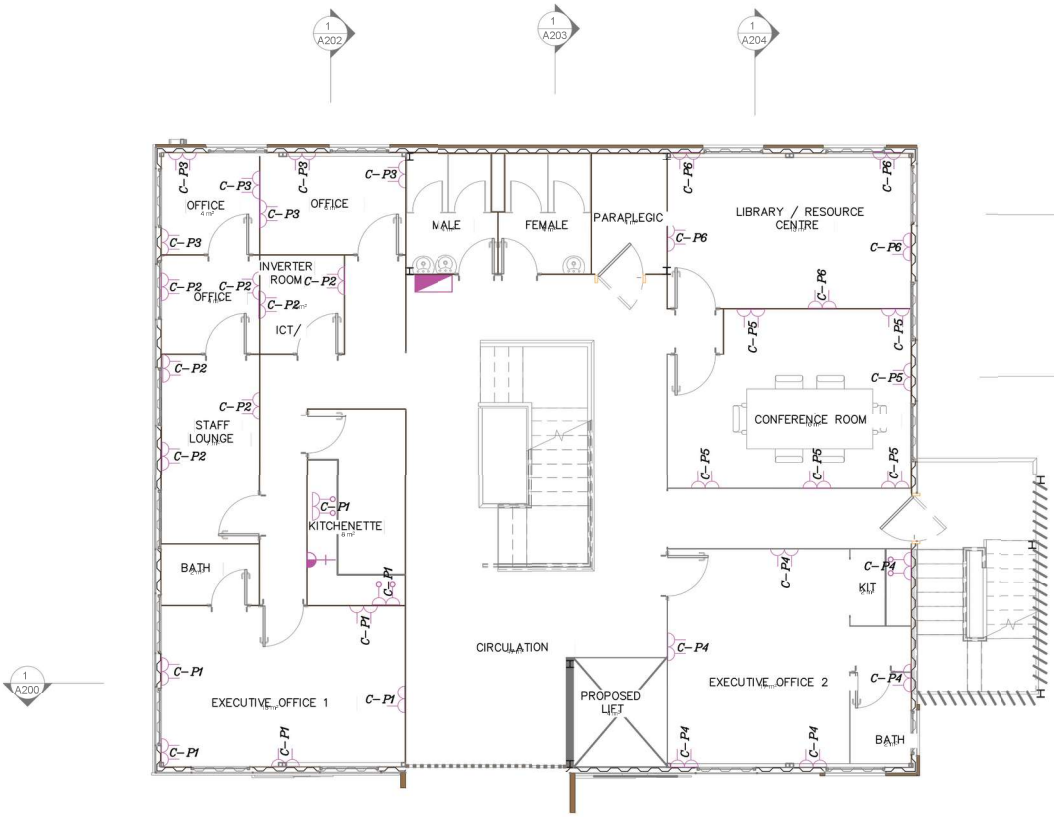
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

FIRST FLOOR PLAN POWER LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

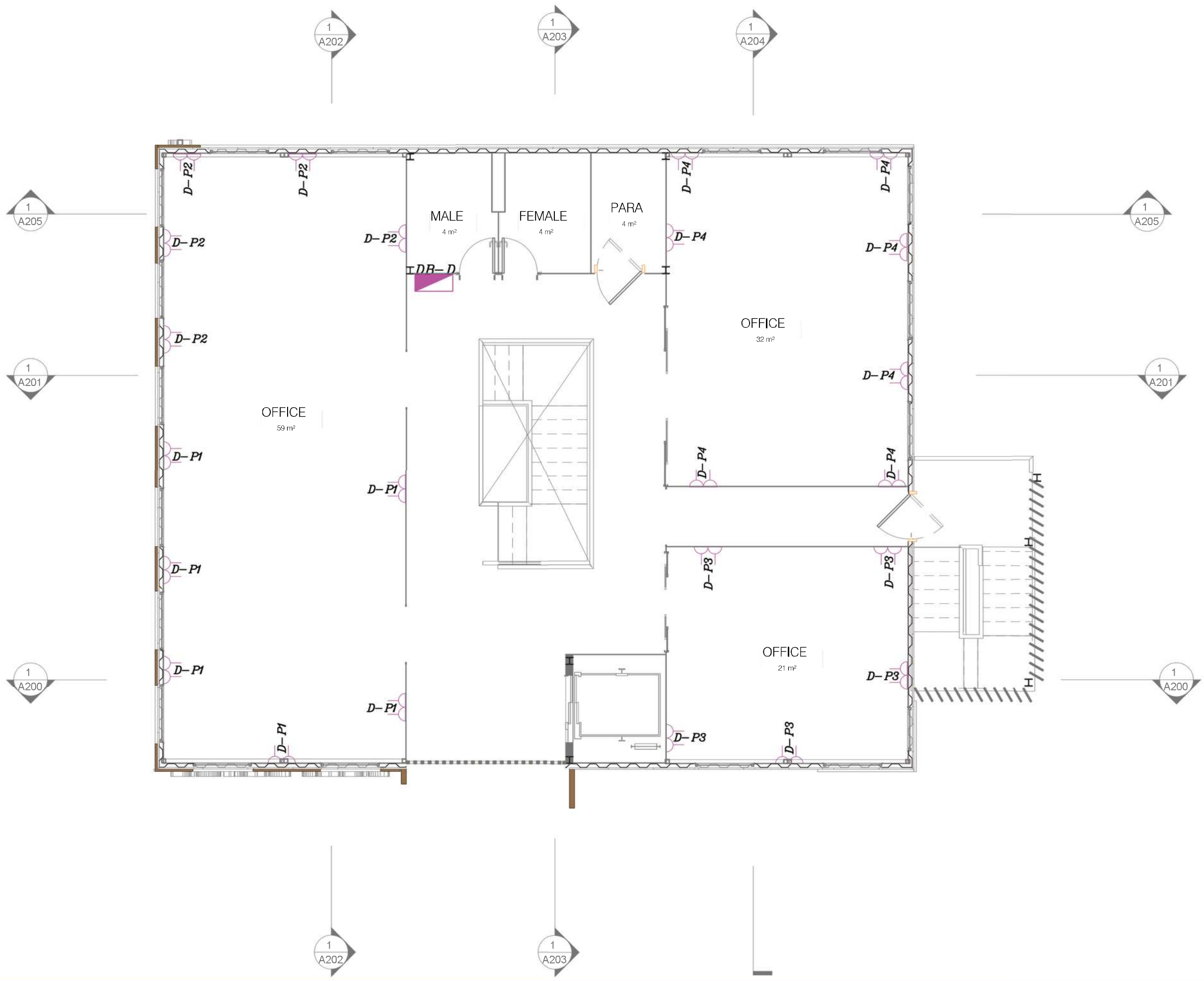
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SECOND FLOOR PLAN POWER LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp

COUNCIL APPROVAL APPLICATION

Project name

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

Client

ROLAC

Project

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

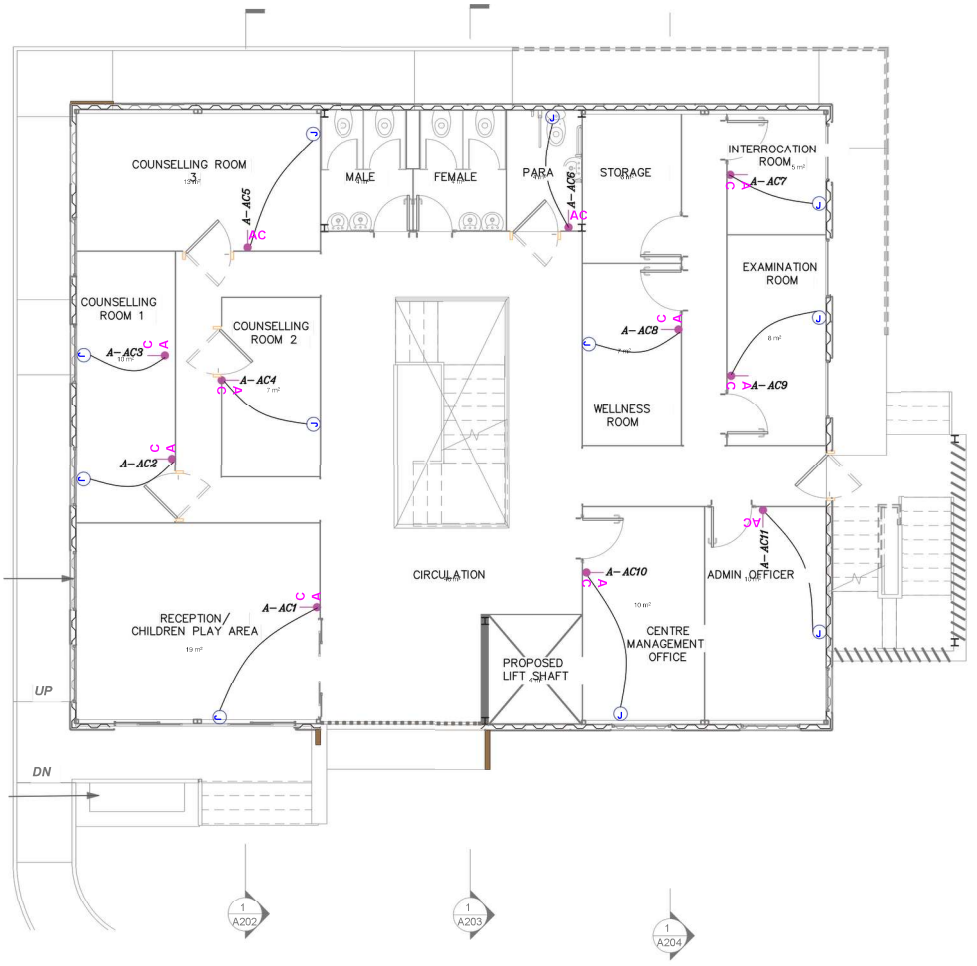
Title:

THIRD FLOOR PLAN POWER LAYOUT

Date: 08/25	Drawn By: KOJO.A	Checked:

Scale: 1:75

Project Ref:	Drawing No:	Revision:
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

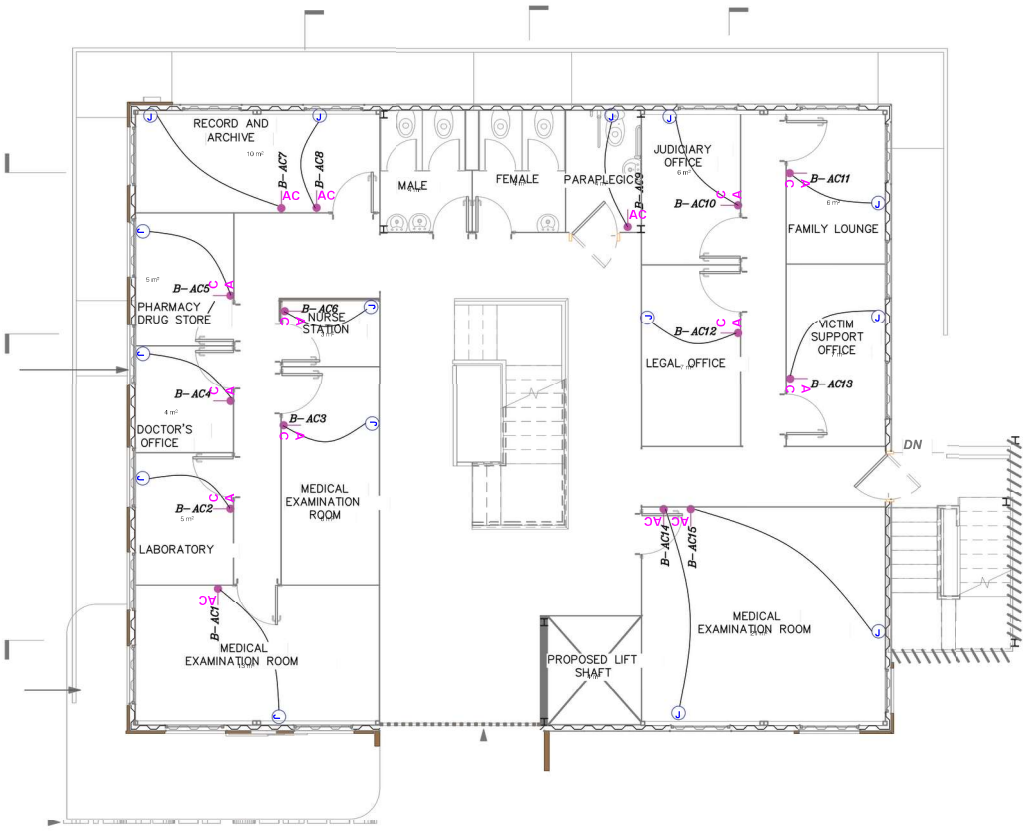
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

GROUND FLOOR PLAN AC LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

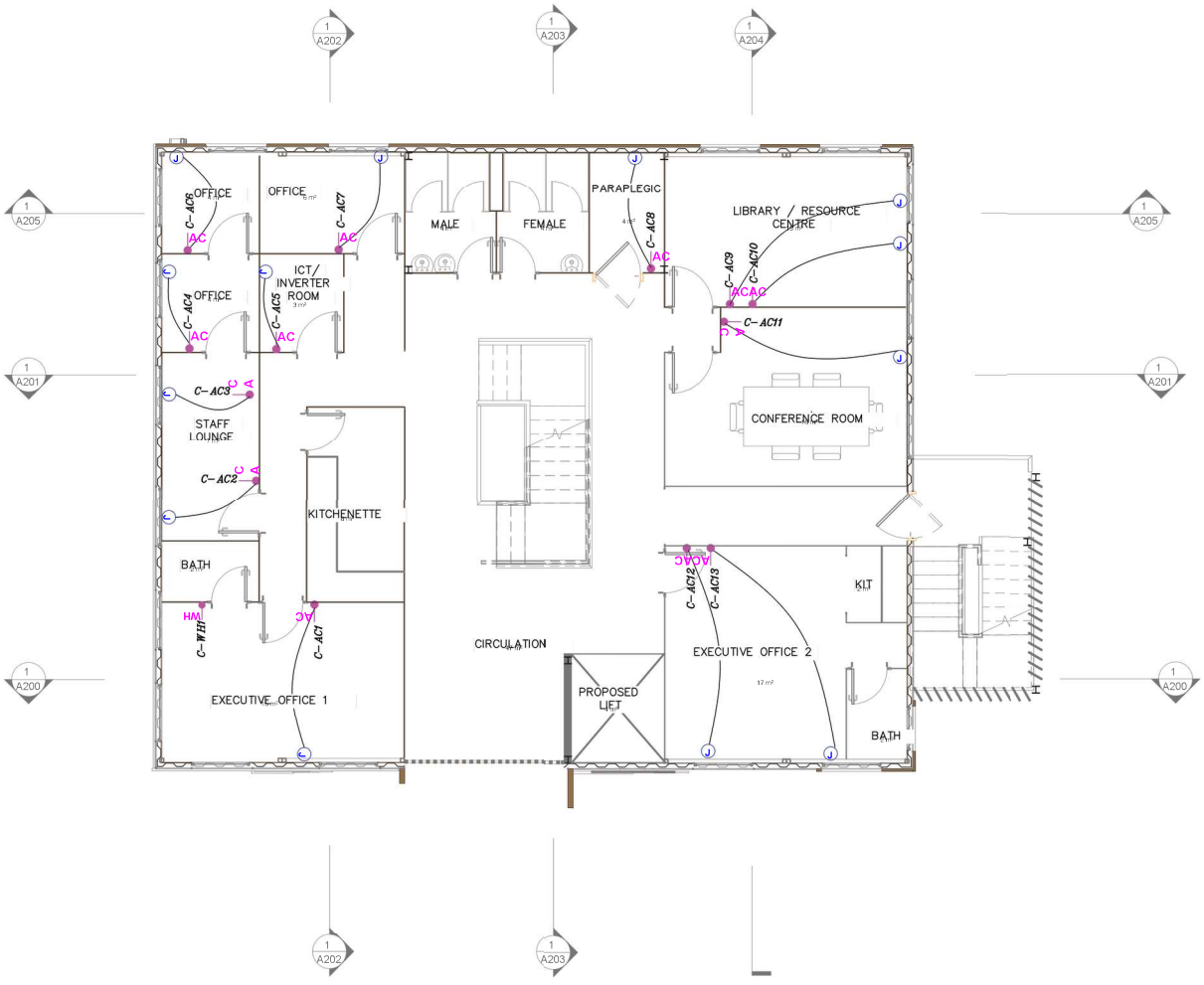
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

FIRST FLOOR PLAN
AC LAYOUT

0116 | 0116-A100



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

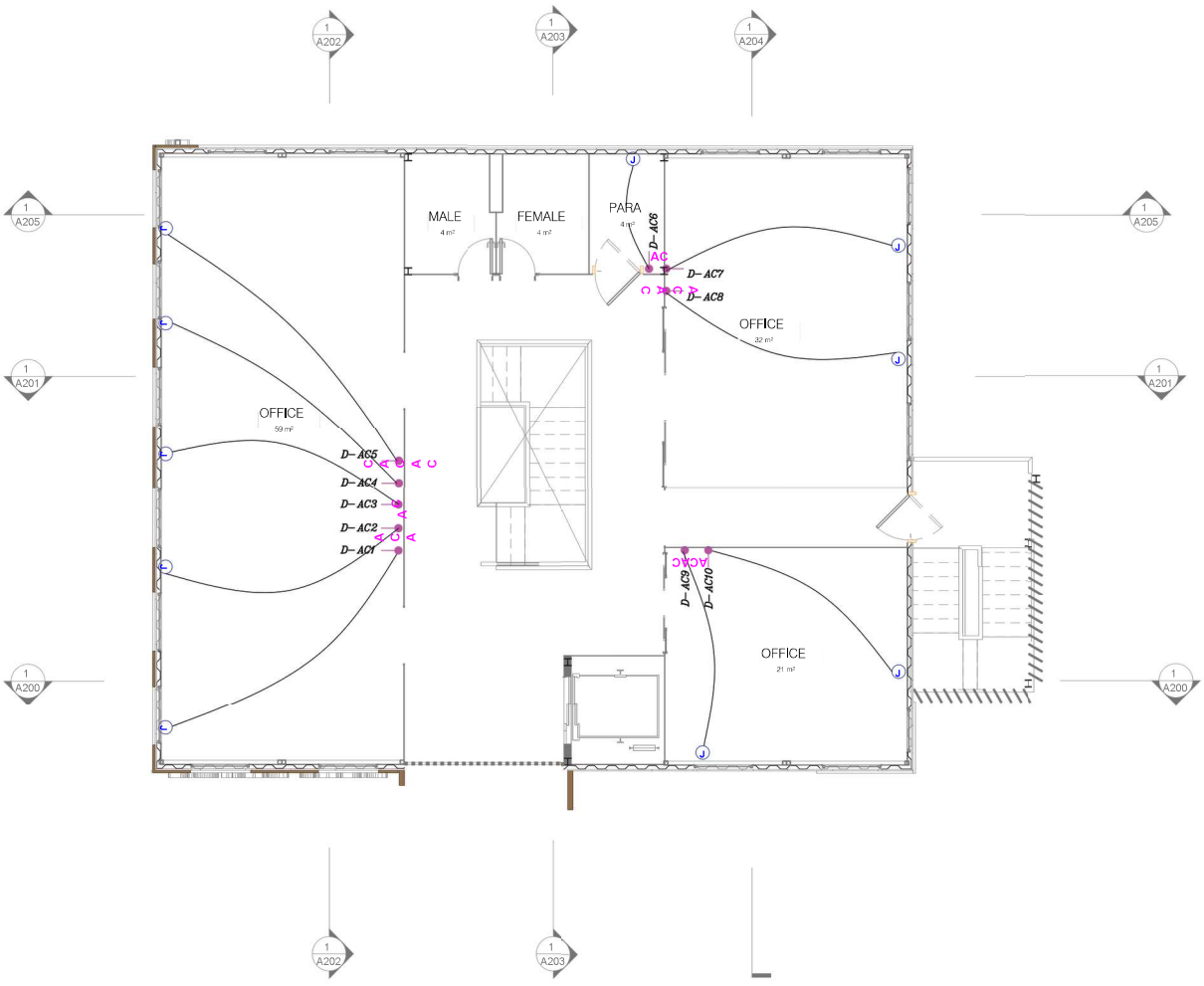
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SECOND FLOOR PLAN AC LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

Rev	Notes	By/Chkd

Status
COUNCIL APPROVAL APPLICATION

Project Name
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

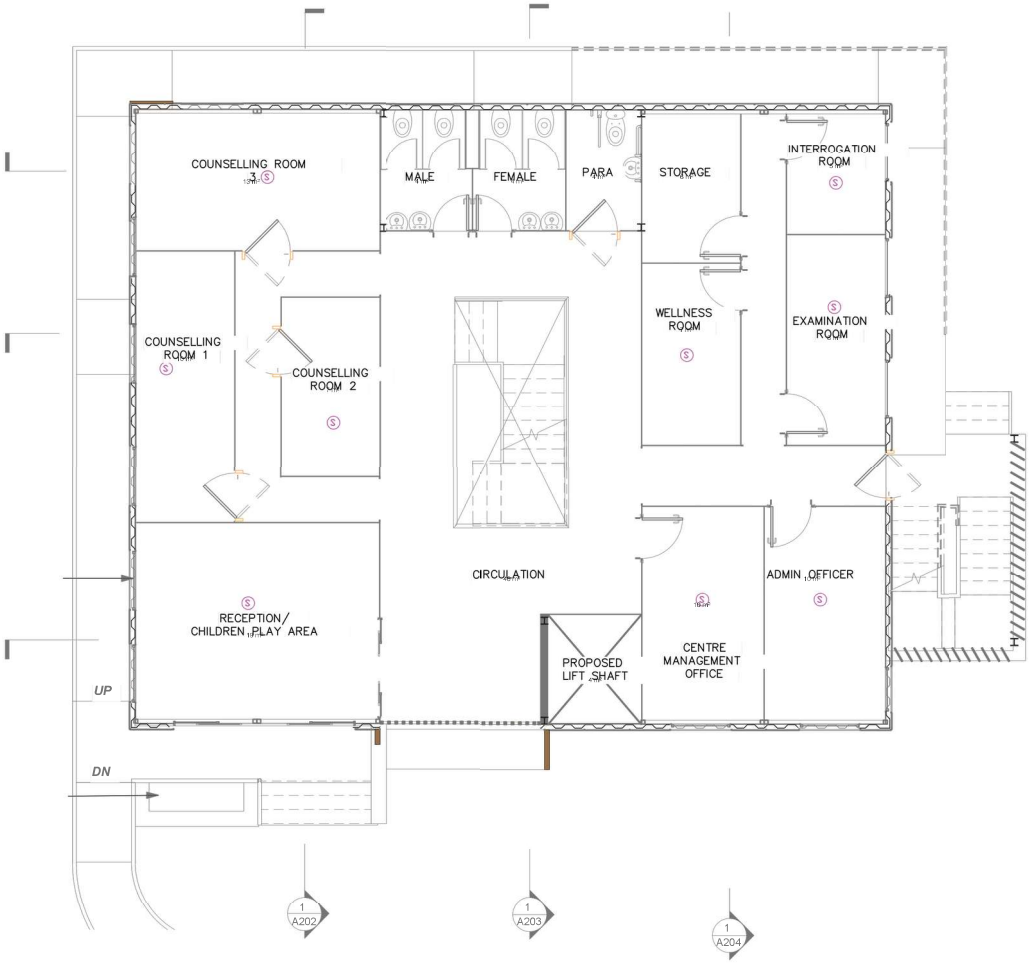
Client
ROLAC

Project
LASUTH GENERAL HOSPITAL, IKEJA LAGOS

Title
THIRD FLOOR PLAN
AC LAYOUT

Date	Drawn By	Checked
Scale: 1:1		

Project No.	Drawing No.	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

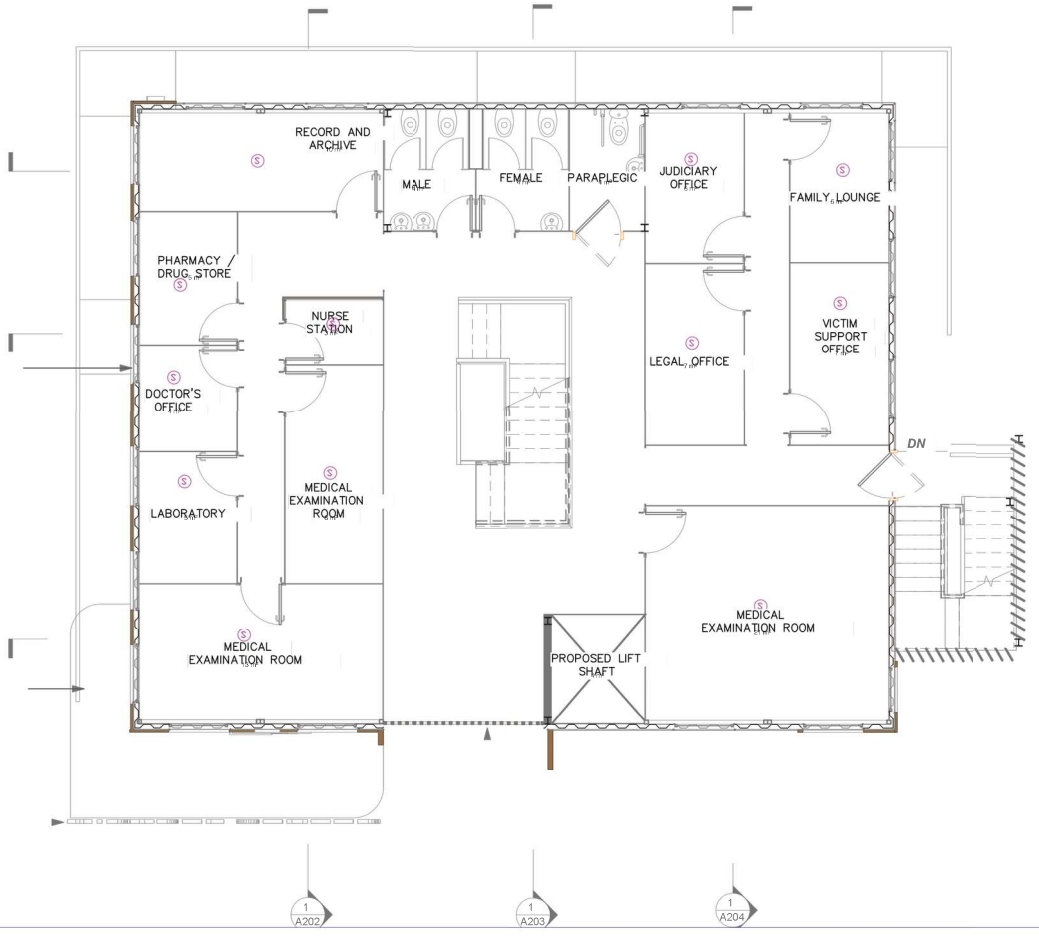
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

GROUND FLOOR PLAN
FIRE ALARM LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

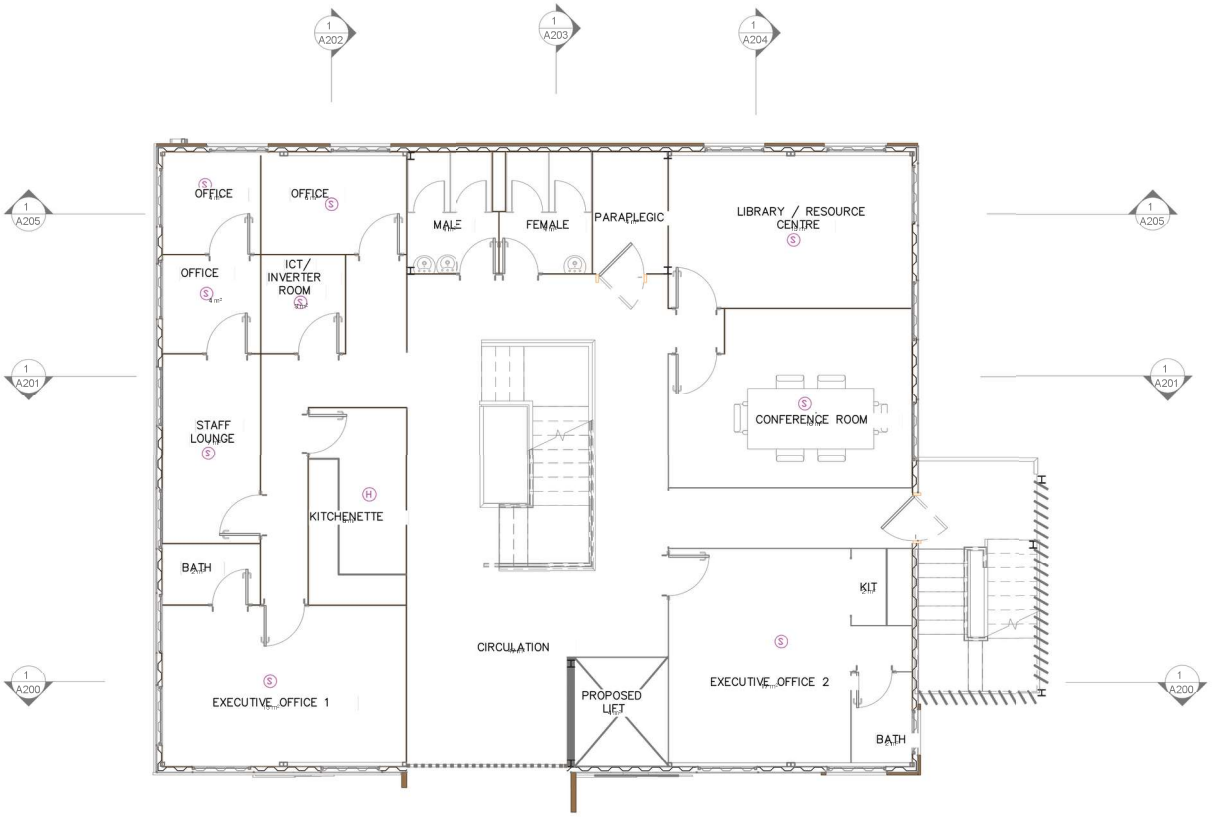
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

FIRST FLOOR PLAN
FIRE ALARM LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SECOND FLOOR PLAN
FIRE ALARM LAYOUT

0116 | 0116-A100

General notes:

Notes/Legends

Rev	Notes	dd.mm.yy	By	Chkd

Stamp

COUNCIL APPROVAL APPLICATION

Project name

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

Client

ROLAC

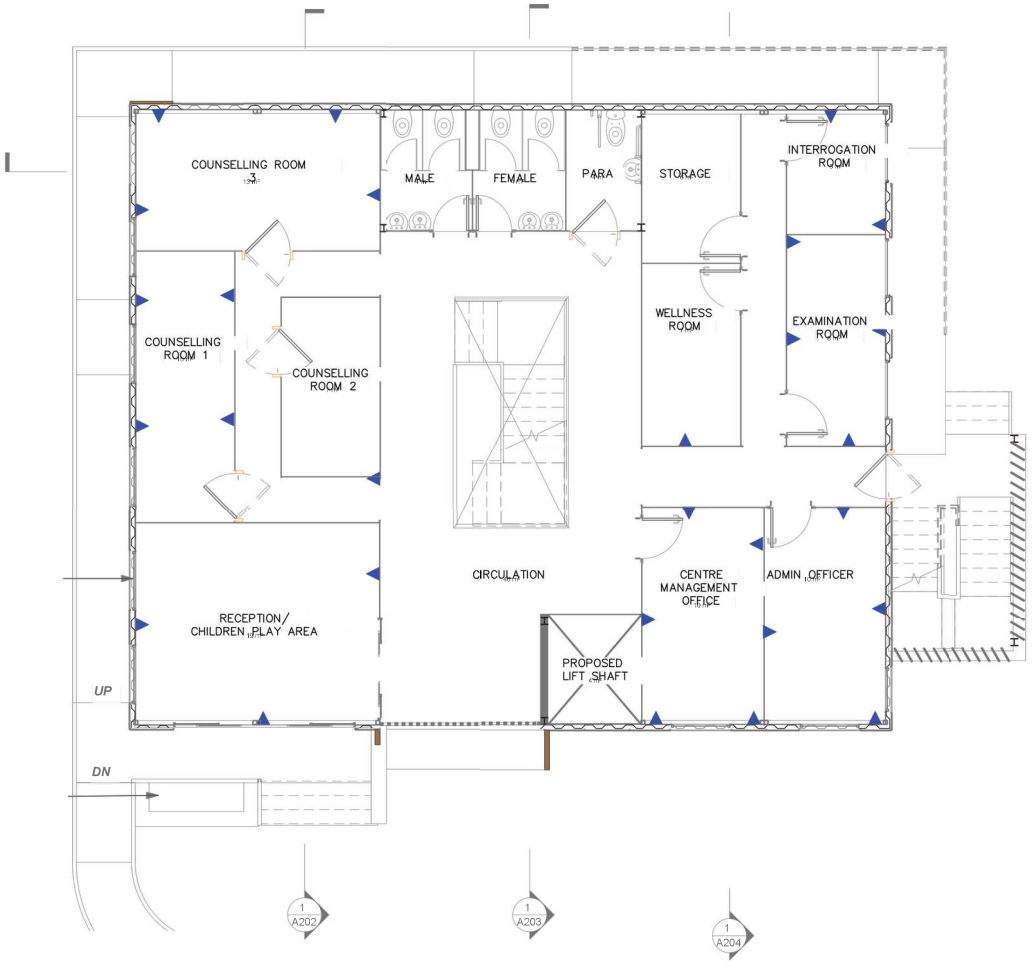
Project

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

Title:

THIRD FLOOR PLAN
FIRE ALARM LAYOUT

Date: 08/25	Drawn By: KOJO.A	Checked:
Scale: 1:75		
Project Ref: 0116	Drawing No: 0116-A100	Revision:



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

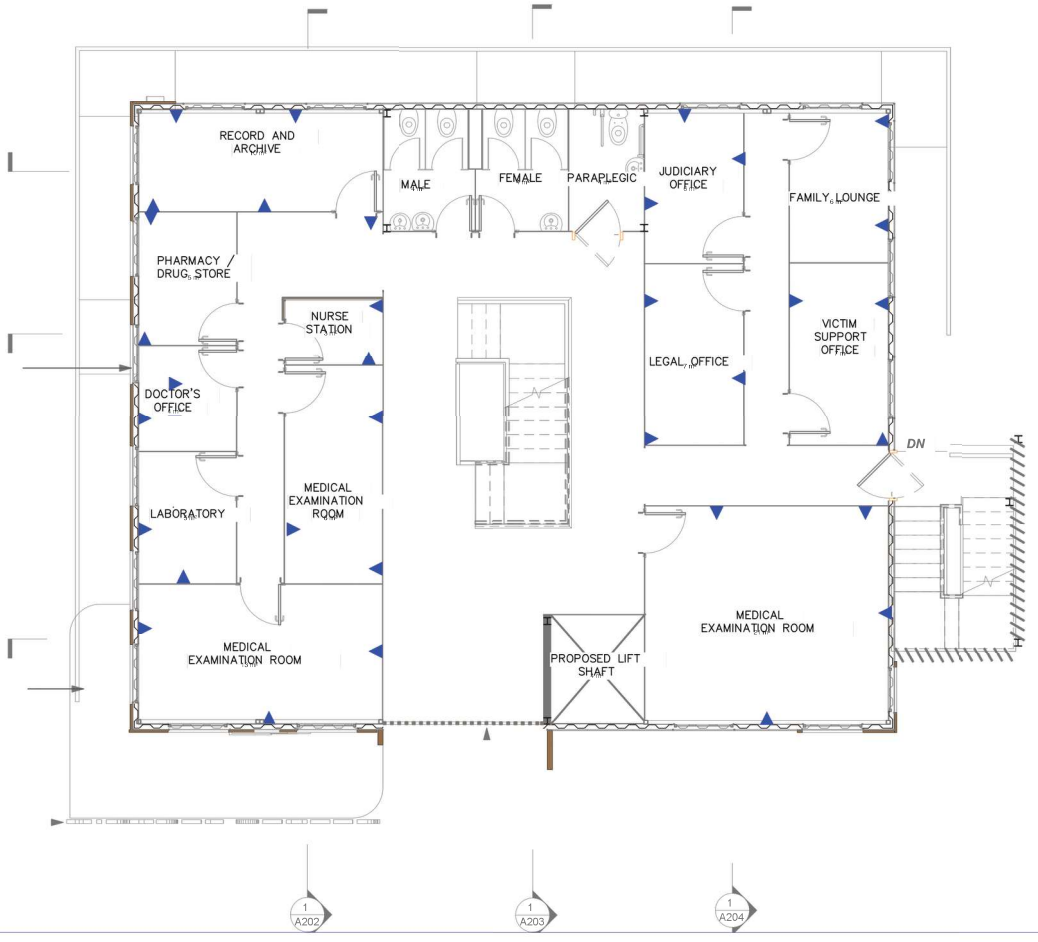
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

GROUND FLOOR PLAN
DATA & VOICE LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

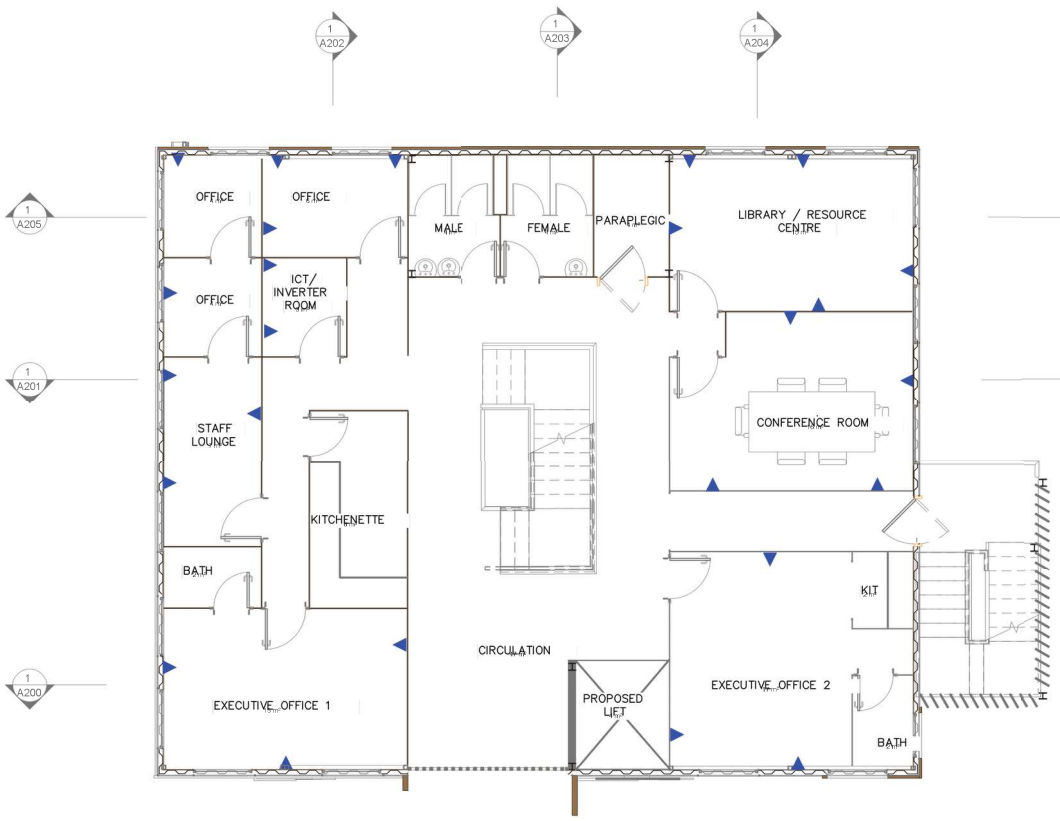
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

FIRST FLOOR PLAN
DATA & VOICE LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL
APPLICATION

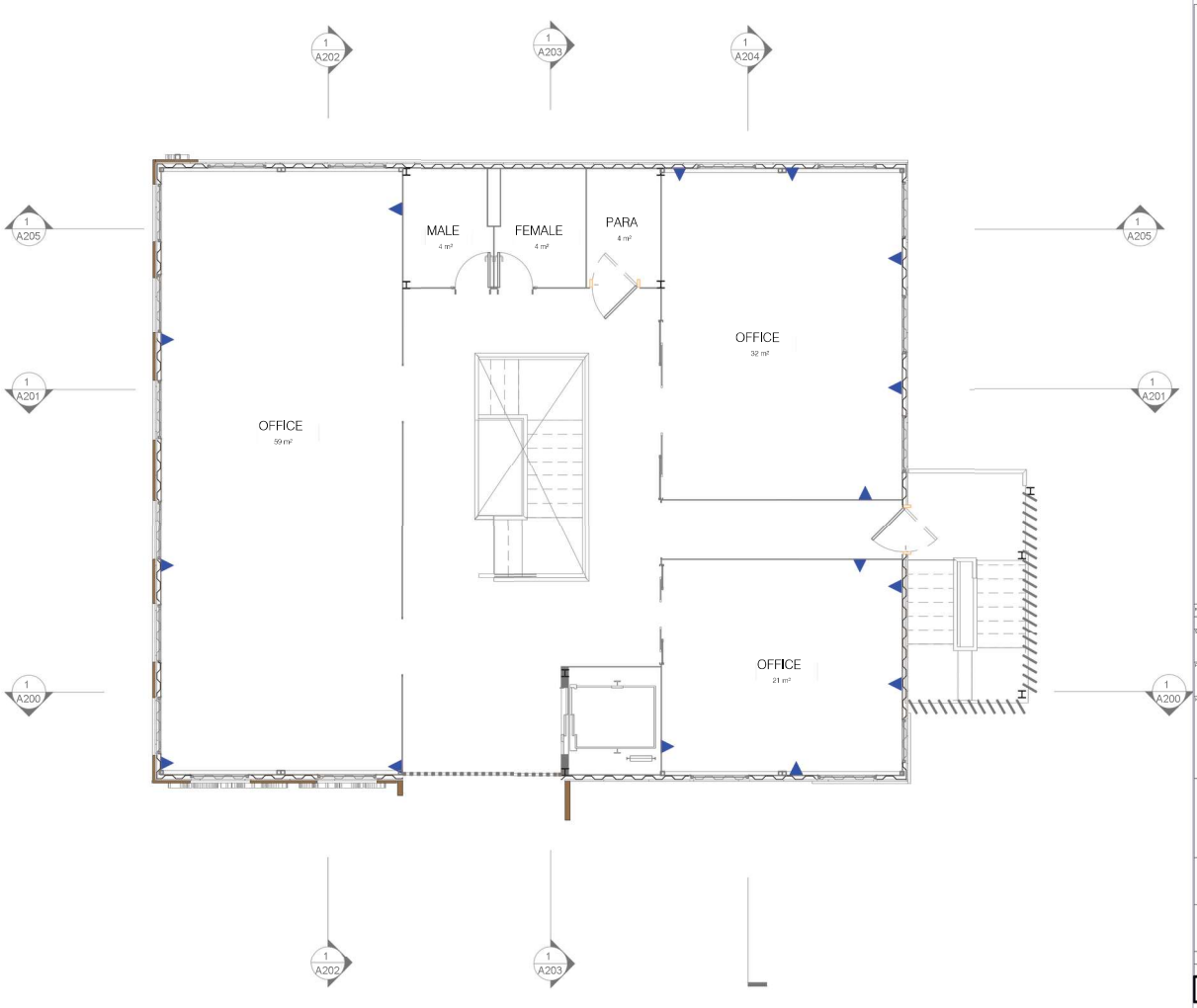
MIRABEL SEXUAL ASSAULT
REFERRAL CENTER

ROLAC

LASUTH GENERAL
HOSPITAL, IKEJA LAGOS

SECOND FLOOR PLAN
DATA & VOICE LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

Rev Notes By Chkd

Status
COUNCIL APPROVAL APPLICATION

Project Name
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

Key Plan

Client
ROLAC

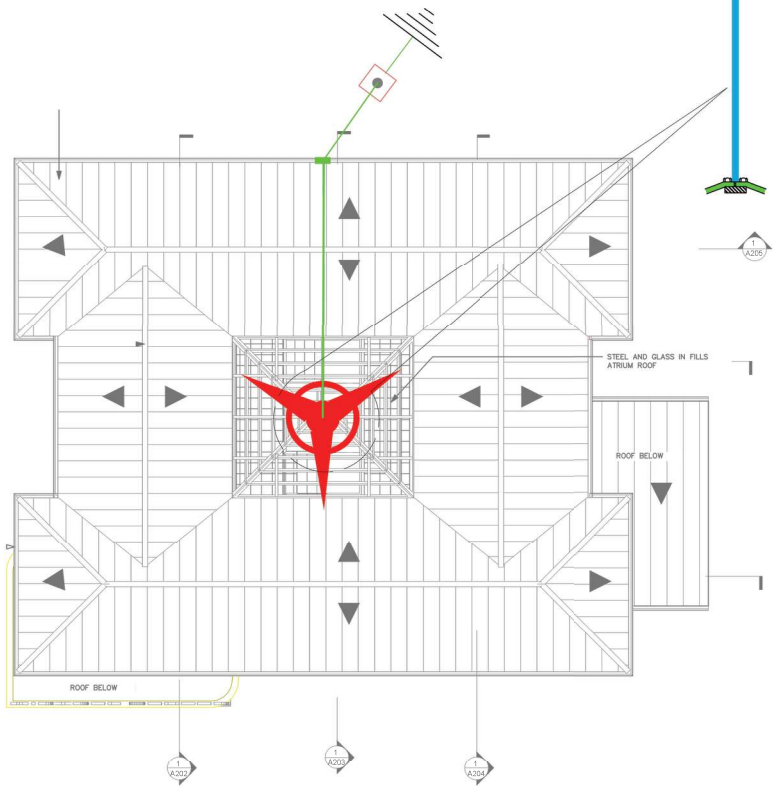
Project
LASUTH GENERAL HOSPITAL, IKEJA LAGOS

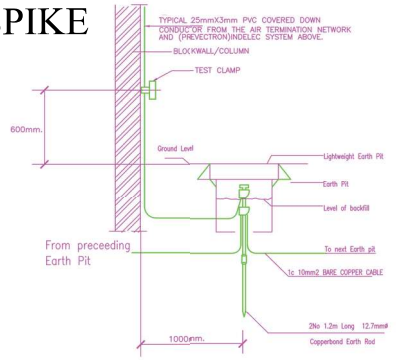
Title
THIRD FLOOR PLAN
DATA & VOICE LAYOUT

Date | Drawn By | Checked

Scale: 1:50

Project No	Drawing No	Revision
0116	0116-A100	





DETAIL 'A': TYPICAL EARTH TERMINATION DETAIL

MAXIMUM OVERALL EARTH RESISTANCE = 0.4ohms

General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

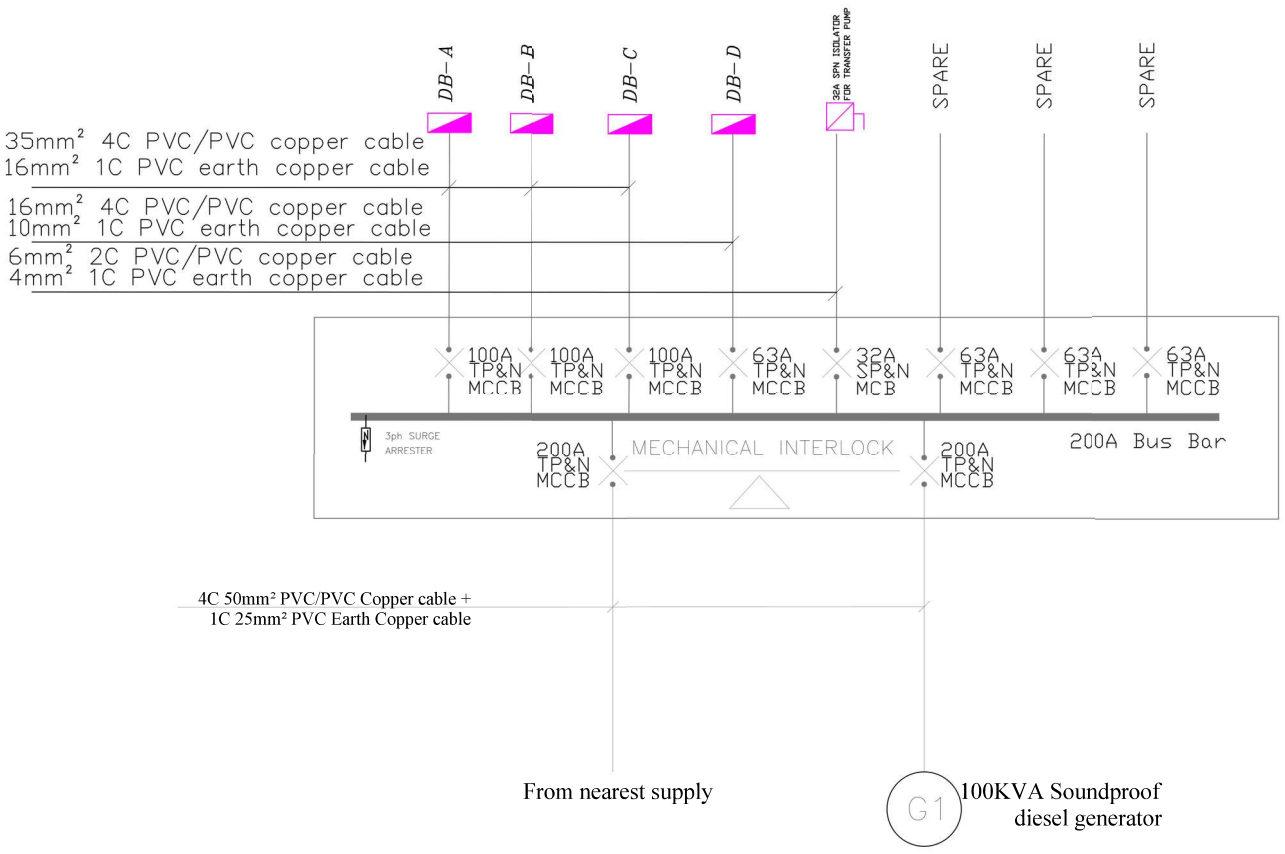
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

ROOF PLAN LIGHTNING AND PROTECTION LAYOUT

Project No	Drawing No	Revision
0116	0116-A100	



General notes:

Notes/Legends

COUNCIL APPROVAL APPLICATION

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

ROLAC

LASUTH GENERAL HOSPITAL, IKEJA LAGOS

SCHEMATIC

0116 | 0116-A100

ANNEX 3- STRUCTURAL PLAN

MIRABEL SEXUAL ASSAULT REFERRAL CENTRE

LASUTH GENERAL HOSPITAL. IKEJALAGOS

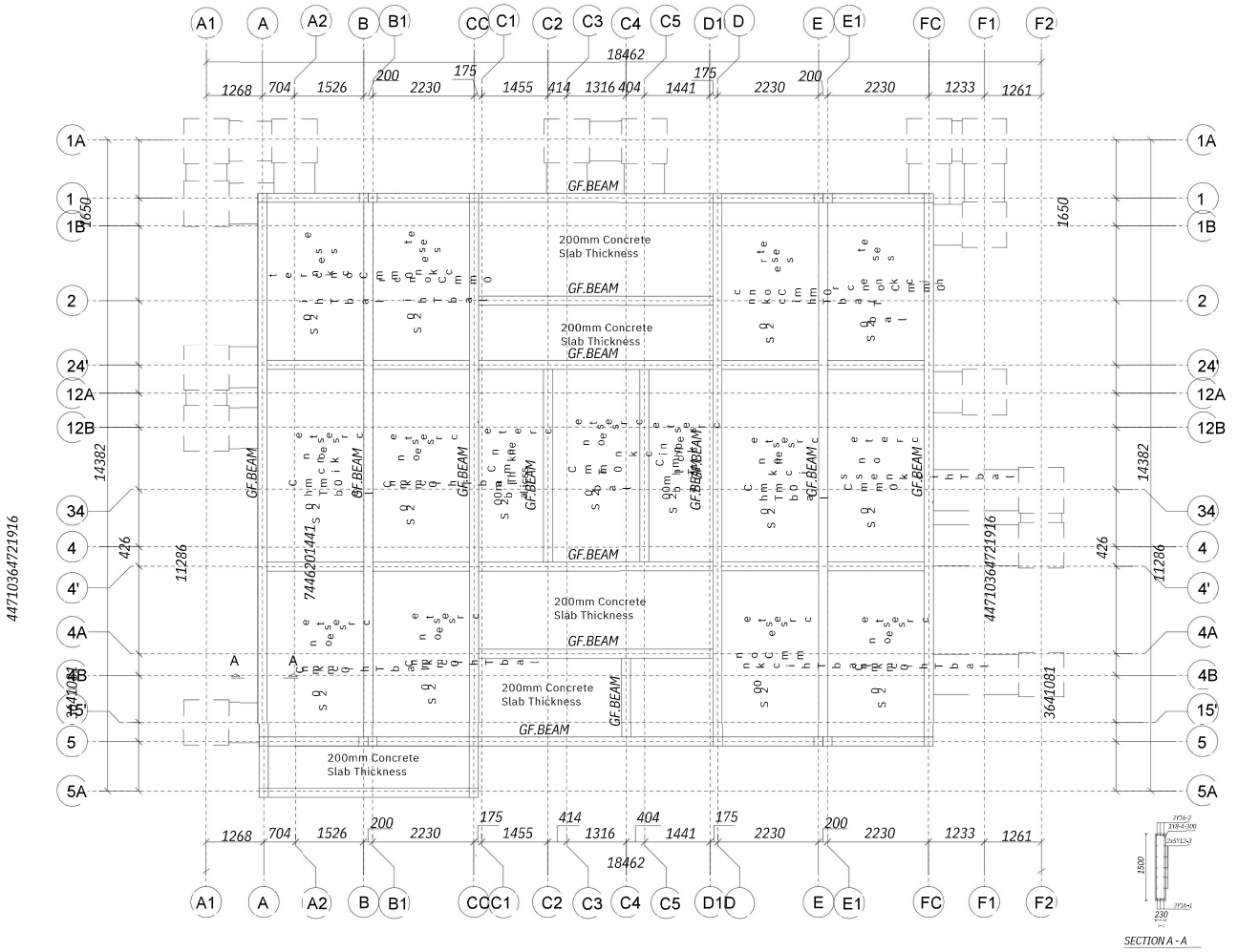
09/25

RC:493135

STRUCTURAL DRAWINGS

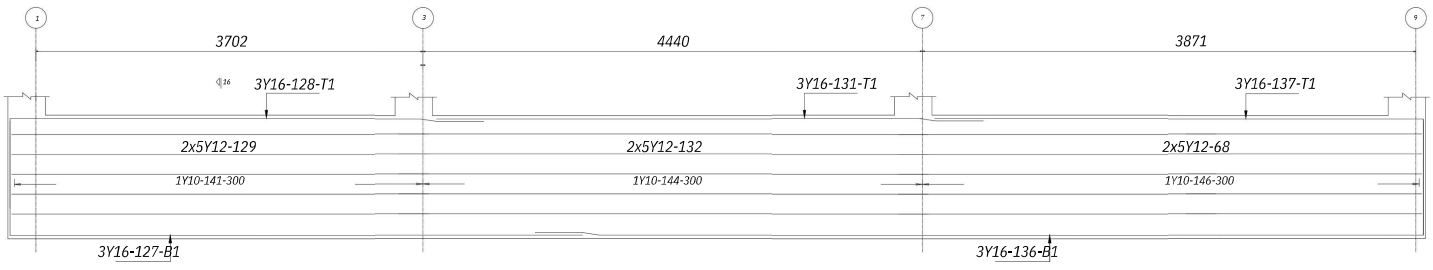
OLUTEE ENGINEERING INTL. LTD

COUNCIL APPROVAL APPLICATION

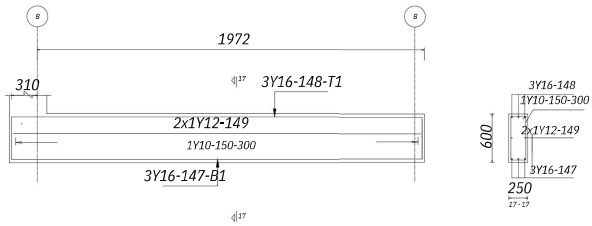


SECTION A - A

Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**FOUNDATION LAYOUT**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	01

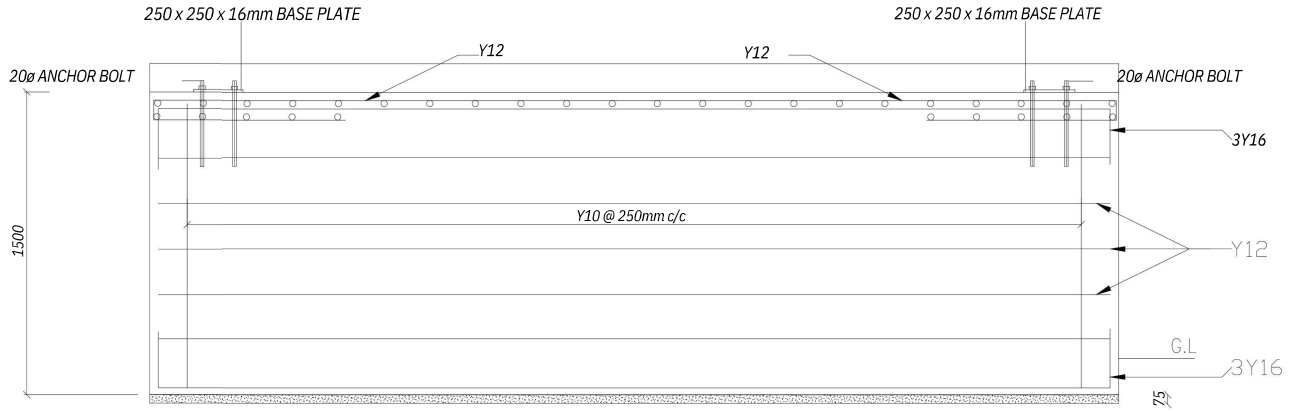


GF.BEAM (250x1500)



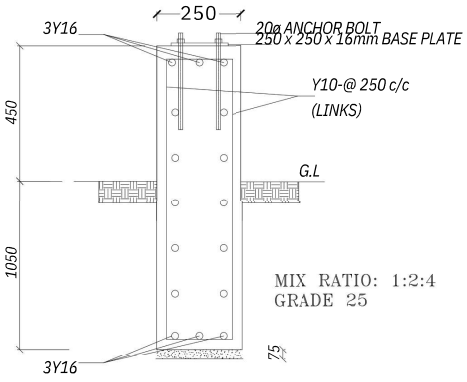
BR.BEAM (250x600)

Project PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	**Client** ROLAC	**Drawing Title:** **R.C DETAILS OF GROUND FLOOR BEAMS**	**Notes:** ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	**DESIGNED :** A.C.C **CHECKED :** T.O **DRAWN :** A.C.C **SCALE :** N.T.S **DATE:** AUG. 2025	**SHEET:** 02



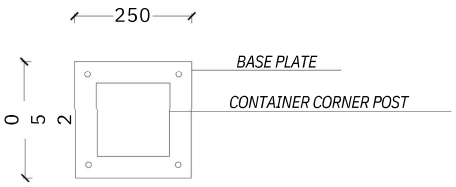
SECTION A1-A1

MIX RATIO: 1:2:4
GRADE 25



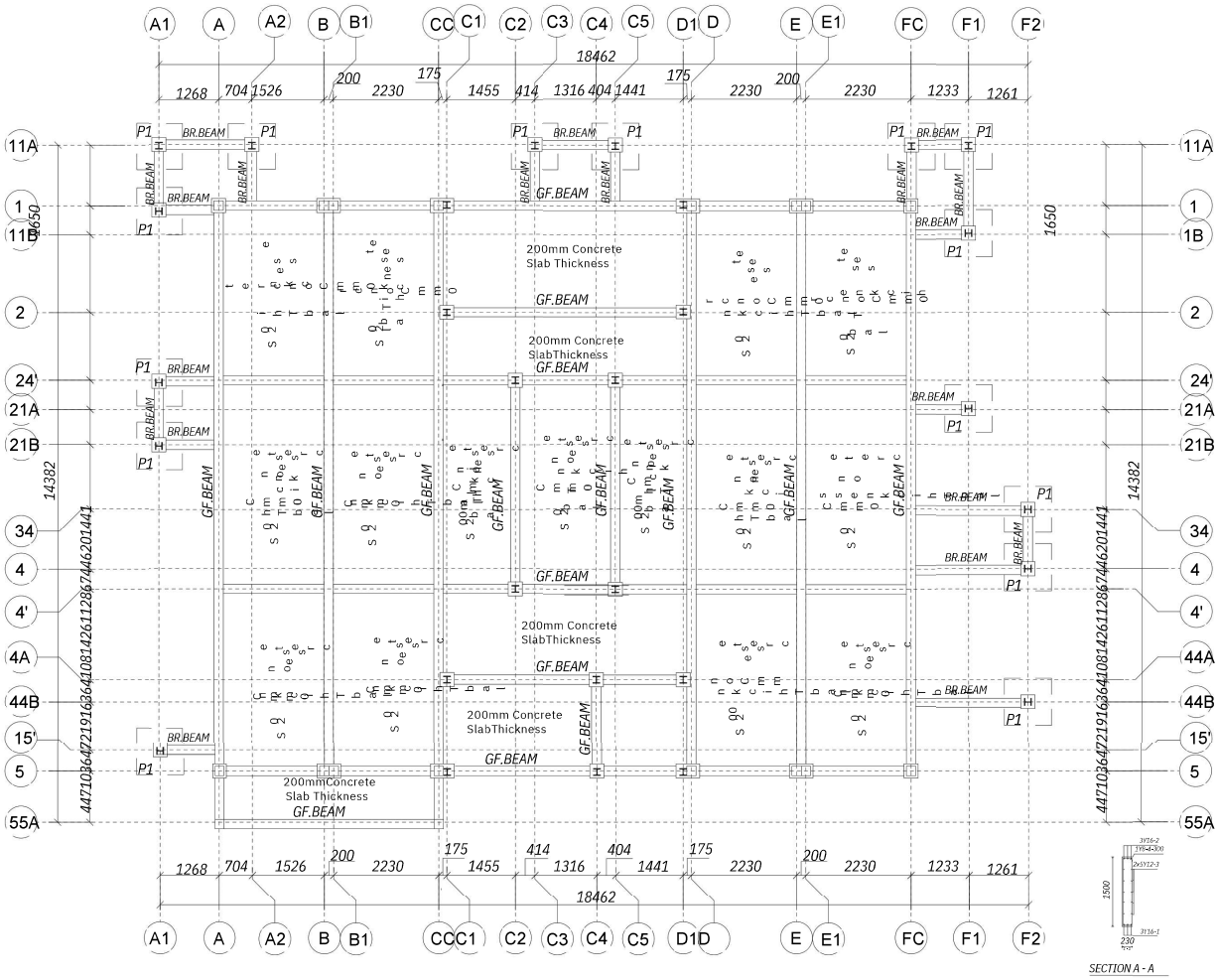
MIX RATIO: 1:2:4
GRADE 25

SECTION A-A

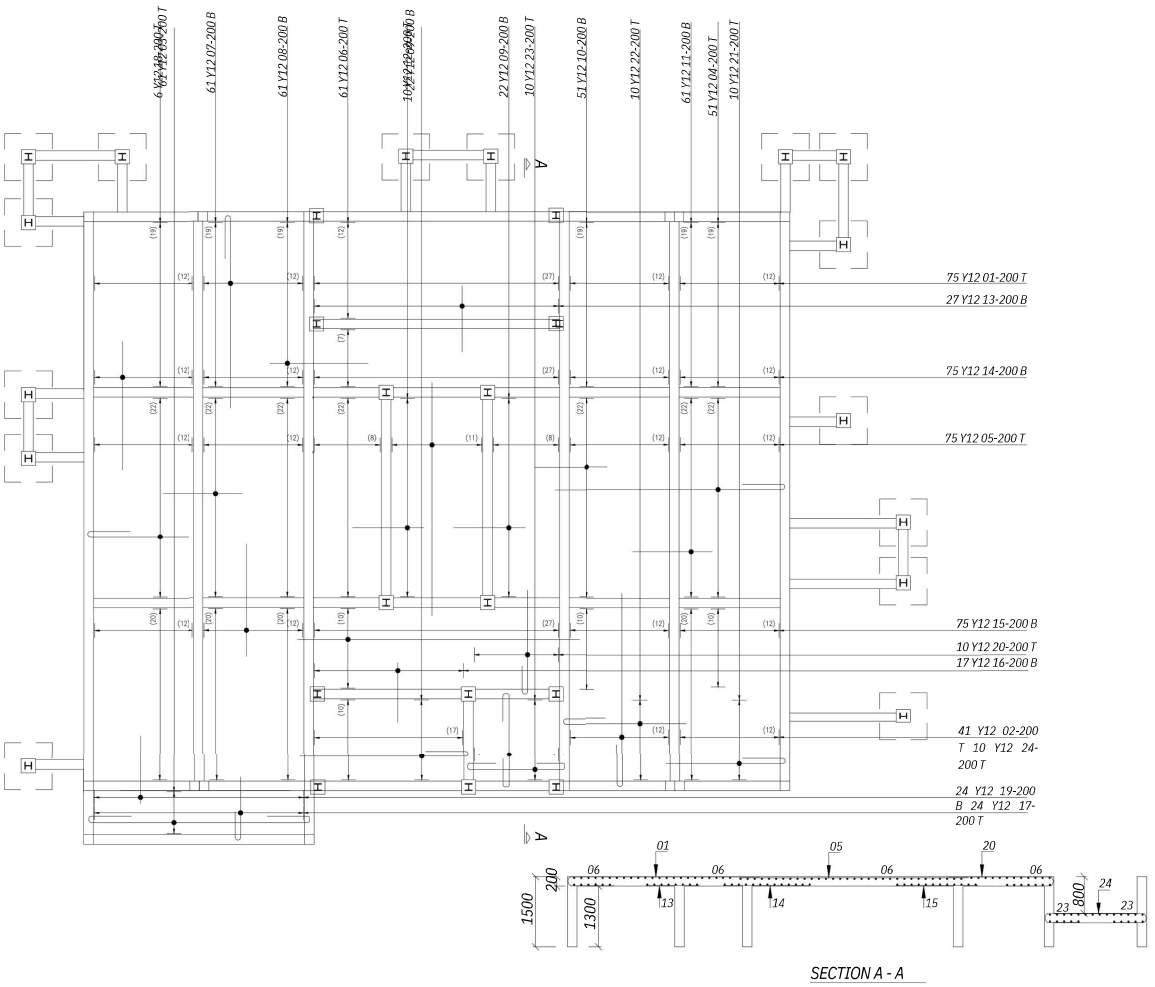


FOUNDATION BASE PLATE
(16 NO THUS)

Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**R.C DETAILS OF GROUND FLOOR BEAMS**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	03

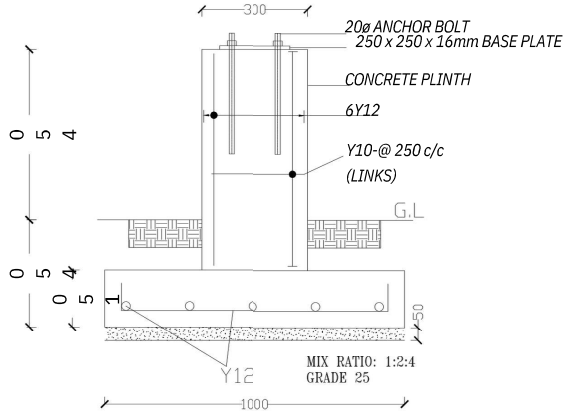


Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**STANCHIONS POSITION LAYOUT**	**ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED.** Drawing No.: **F-18**	RC:493135	**DESIGNED :** A.C.C **CHECKED :** T.O **DRAWN :** A.C.C **SCALE :** N.T.S **DATE:** AUG. 2025	04

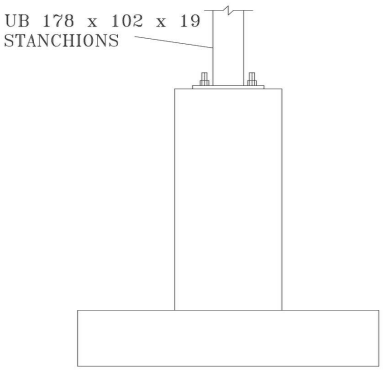


SECTION A - A

Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**R.C DETAILS OF GROUND FLOOR SLAB**	**ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED.** Drawing No.: **F-18**	RC:493135	**DESIGNED :** A.C.C **CHECKED :** T.O **DRAWN :** A.C.C **SCALE :** N.T.S **DATE:** AUG. 2025	05

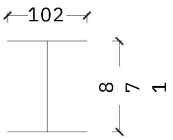


SECTION B–B

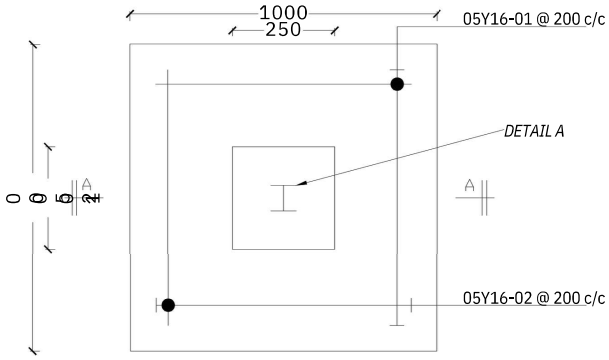


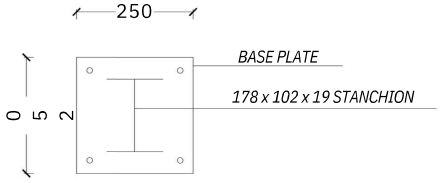
FOUNDATION CROSS SECTION

DETAIL A



UB 178 x 102 x 19
STANCHIONS

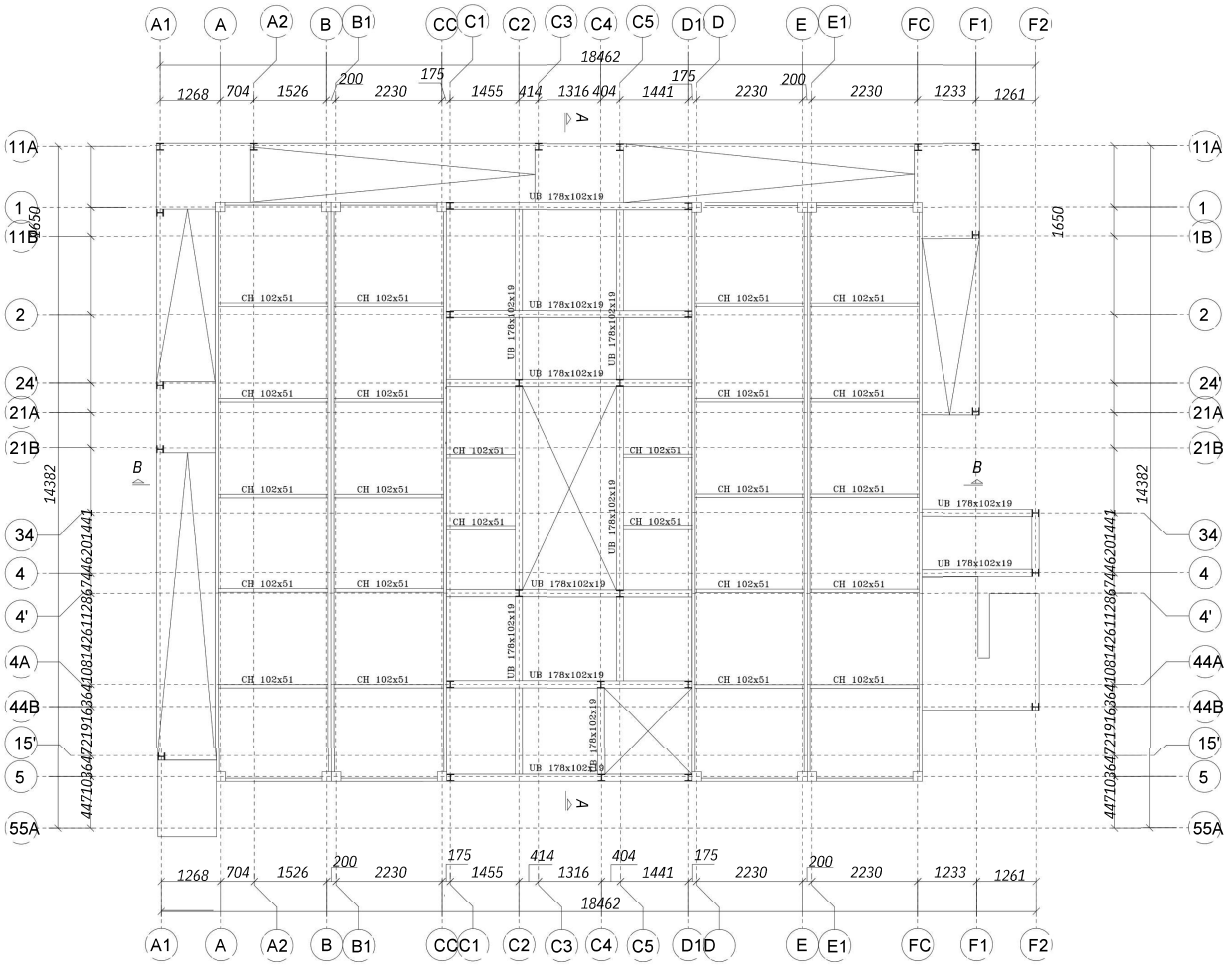




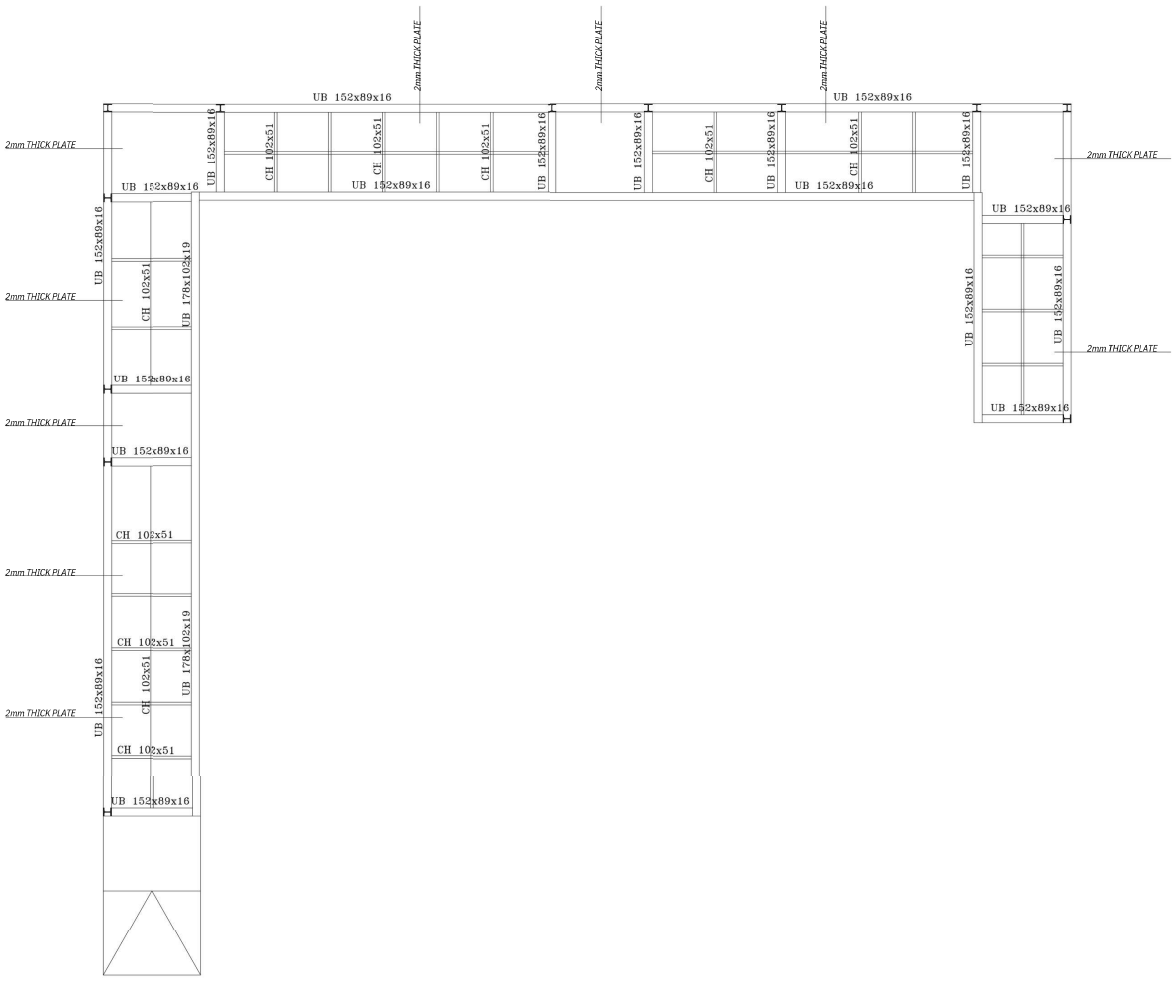
FOUNDATION BASE PLATE
(29 NO THUS)

TYPICAL PAD BASE 1
(15 NO THUS)

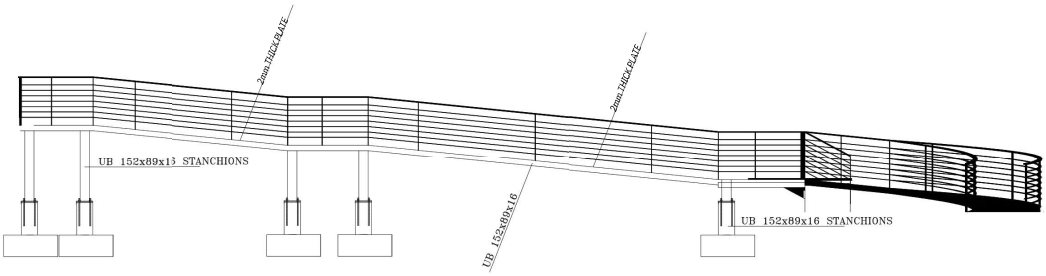
Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**PAD BASE DETAILS**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	06

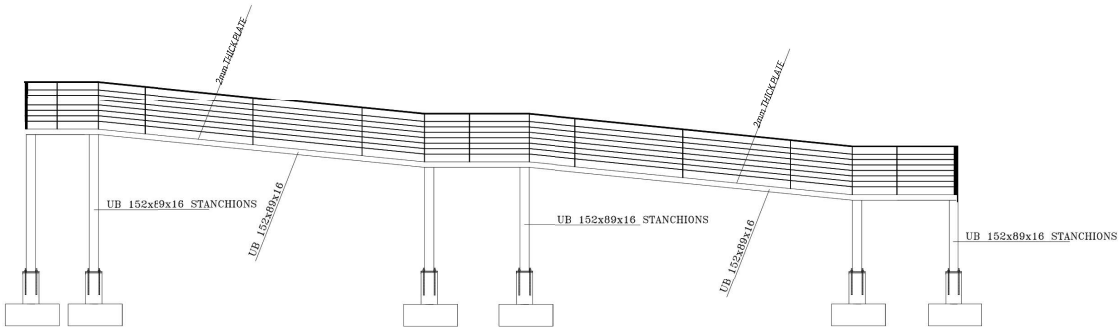


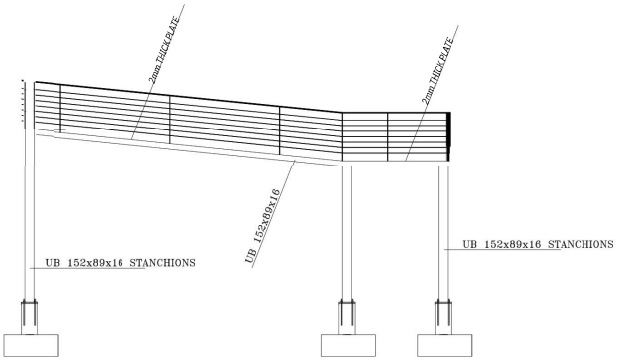
Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**FIRST FLOOR LAYOUT**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	07



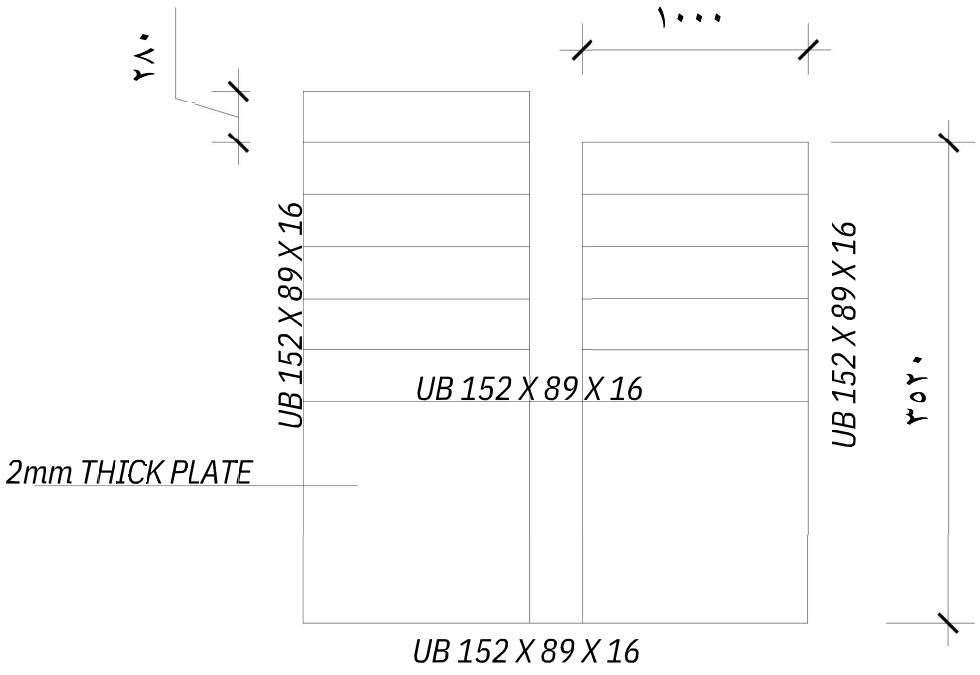
Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	RAMP DETAILS \	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	09







Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	RAMP DETAILS ٢	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	10



Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	STAIRCASE DETAILS	ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	11

SECTION A - A

Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**ELEVATION SECTION 1**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	12

SECTION B - B

Project	Client	Drawing Title:	Notes:			SHEET:
PROPOSED MIRABEL SARC AT 1-5 OBA AKINJOBI WAY, IKEJA 101233, LAGOS STATE, NIGERIA.	ROLAC	**ELEVATION SECTION 2**	ALLDIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED. Drawing No.: F-18	RC:493135	DESIGNED : A.C.C CHECKED : T.O DRAWN : A.C.C SCALE : N.T.S DATE: AUG. 2025	13

ANNEX 4- MECHNICAL DRAWING

Mechanical Drawings

MIRABEL SEXUAL ASSAULT REFERRAL CENTRE

MECHANICAL SERVICES DRAWING

COUNCIL APPROVAL APPLICATION

GENERAL NOTES

1) WORK TO FIGURED DIMENSIONS ONLY.
2) THESE DRAWINGS MUST NOT BE SCALED.
3) CONSULTANTS ARE TO BE NOTIFIED OF ANY DISCREPANCY BETWEEN THESE DRAWINGS AND THOSE ISSUE BY OTHERS.
4) LEGEND.

———	PIPES AT LOW LEVEL.
———	PIPES AT HIGH LEVEL.
———	PIPES INSIDE CEILING VOID
— — —	PIPES BELOW FLOOR OR HIDDEN FROM VIEW
	PUMP
	ISOLATING VALVE (SHUT OFF VALVE)
	NON RETURN VALVE
	BALL FLOAT VALVE
	BIB TAP
FE	PORTABLE FIRE EXTINGUISHERS
	FOOTVALVE STRAINER.

BCWS	BOOSTED COLD WATER SUPPLY
CWS	COLD WATER SUPPLY
HWS	HOT WATER SUPPLY
MWS	PUBLIC WATER MAIN SUPPLY
WP	WASTE PIPE
SWP	SOIL WASTE PIPE
SP	SOIL PIPE
VP	VENT PIPE
RWO	RAINWATER OUTLET
RWP	RAINWATER PIPE
HL	HIGH LEVEL (>= 2100mm)
LL	LOW LEVEL (<= 450mm)
ML	MEDIUM LEVEL (1400mm)
TA	TO ABOVE
TB	TO BELOW
FA	FROM ABOVE
FB	FROM BELOW

CEF	CEILING MOUNTED EXTRACT FAN.
EF1	WALL TYPE EXTRACTOR FAN. CAP: 300m/hr
FBU	FREE BLOW UNIT AIRCONDITIONER CAPACITY : 48,000 BTU/HR.
SU/T1	WALL MOUNTED SPLIT UNIT AIRCONDITIONER TYPE 1 CAPACITY : 24,000BTU/HR
SU/T2	WALL MOUNTED SPLIT UNIT AIRCONDITIONER TYPE 2 CAPACITY : 18,000BTU/HR
SU/T3	WALL MOUNTED SPLIT UNIT AIRCONDITIONER TYPE 3 CAPACITY : 12,000BTU/HR
SU/T4	WALL MOUNTED SPLIT UNIT AIRCONDITIONER TYPE 4 CAPACITY : 9,000BTU/HR
DOS	
WHB	WASH HAND BASIN.
W.C	WATER CLOSET
FE	FIRE EXTINGUISHER
FD	FLOOR DRAIN.
K/SK	KITCHEN SINK (1B/1D)
WC	EXPOSED CISTERN WATER CLOSET SUITE.
WHB	WASH HAND BASIN.
BTH	BATH TUB
SHR	SHOWER
	JACCUZZI
	BIDET
EF	EXTRACTOR FAN.
REF	REFRIGERANT PIPE
CU/T	CONDENSING UNIT
E.W.H	ELECTRIC WATER HEATER
I.E.W.H	INSTANTANEOUS ELECTRIC WATER HEATER
MH	MANHOLE/INSPECTION CHAMBER
CE/RE	CLEANING EYE/RODDING EYE
COND	CONDENSATE PIPE
	DIESEL OIL SUPPLY.

APPROVAL COLUMN

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT: RoLAC

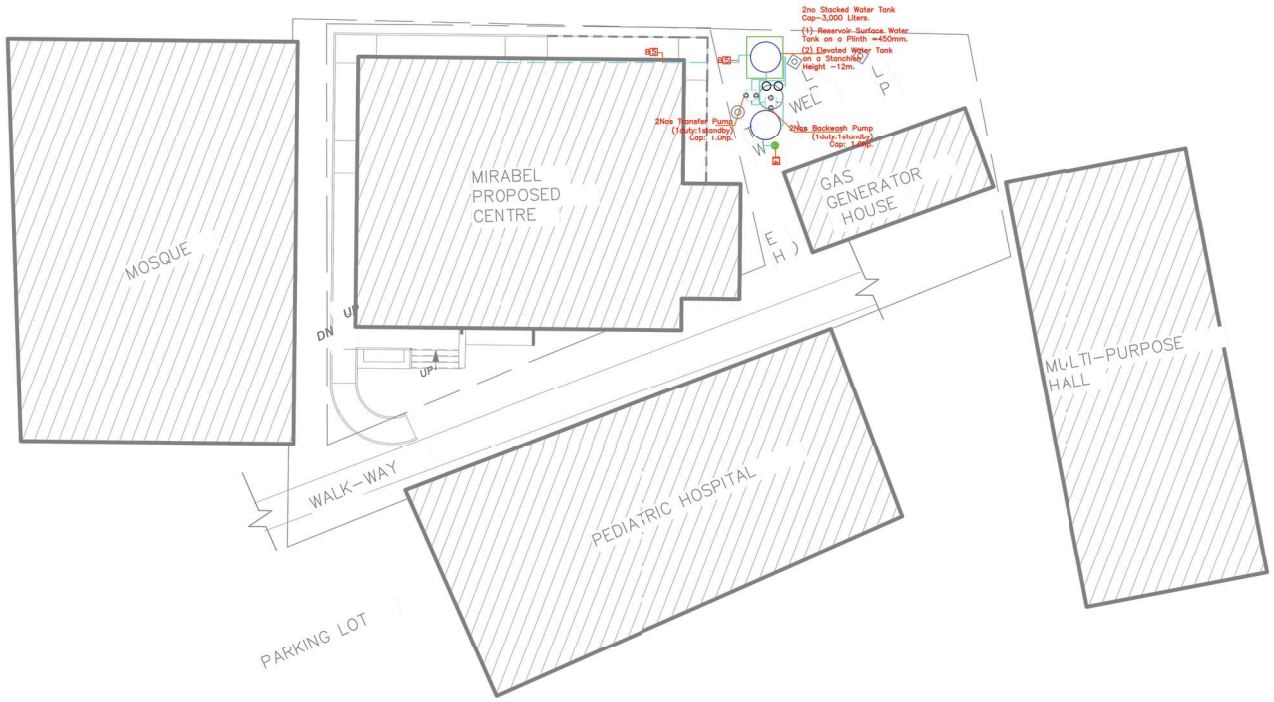
PROJECT: MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE: LEGEND.

SCALE: N.T.S

SHEET NO: L

APPROVAL COLUMN



SHEET NOTES:

[1] #15 COLD WATER LINE
[2] #20 COLD WATER LINE
[3] #25 COLD WATER LINE
[4] #32 COLD WATER LINE
[5] #50 COLD WATER LINE
[6] #40 COLD WATER LINE
[7] #15 HOT WATER LINE
[8] #50 COLD WATER LINE
[9] I.E.W.H=15 LITERS @ LOW LEVEL.
[A] E.W.H=30 LITERS @ HIGH LEVEL.
[B] E.W.H=50 LITERS @ HIGH LEVEL.
[C] #15 BIB TAP
[D]
[E] BORE HOLE
[F] 2NOSWATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=50m.
[G] DOSING PUMP.
[H] WATER TANK SURFACE/UNDERGROUND. DIM: 2.0mL X 2.0mW X 2.0mD.
[I] #20 HOT WATER LINE
[J] #75 COLD WATER LINE
[K] DOSING PUMP
[L] AIR BLOWER
[M] 2NOS WATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=30m.
[N] 2NOS CYLINDRICAL PRESSURE FILTER.
[O] DRAIN LINE.
[A] INSIDE CEILING VOID.
[B] INSIDE GROUND.
[C] RISES TO LOW LEVEL.
[D] RISES TO ABOVE.
[E] FROM BELOW.
[F] TO BELOW.
[G] TO ABOVE.
[H] FROM ABOVE.
[I] TO ROOF TANK.
[J] TO GATE HOUSE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

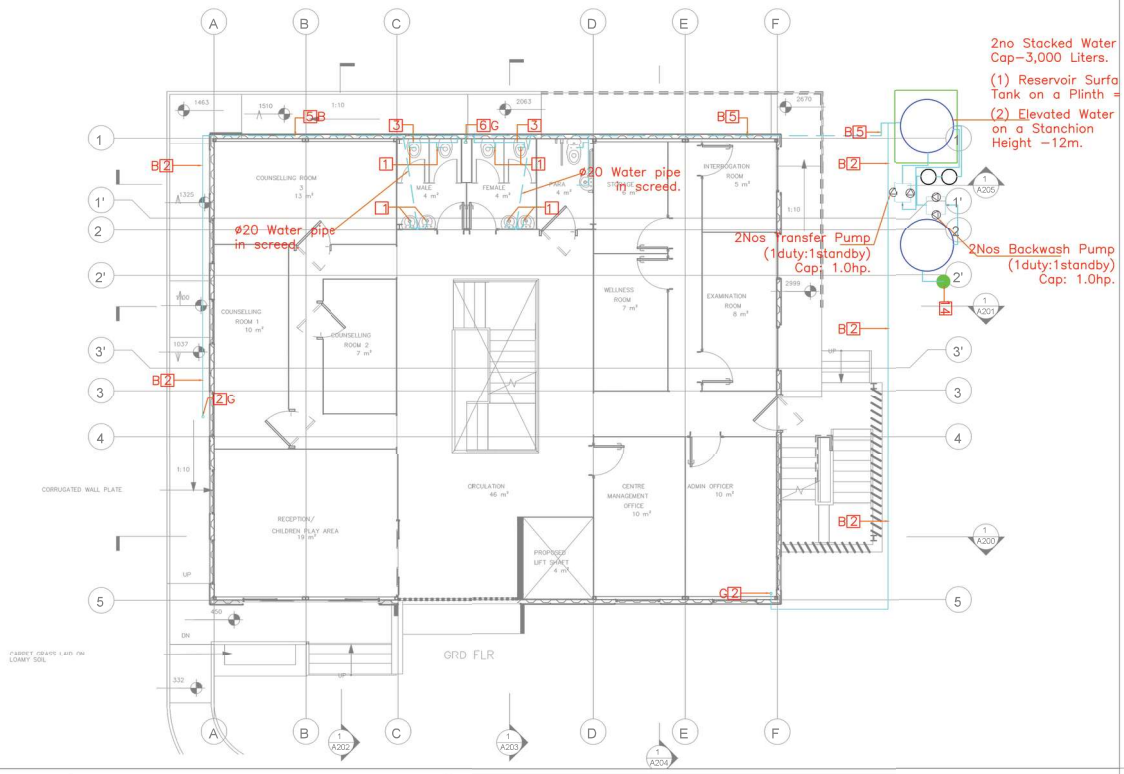
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SITE PLAN.
WATER SUPPLY LAYOUT.

SCALE: 1:175 @ A3.

SHEET NO:
P-1

APPROVAL COLUMN



SHEET NOTES:

1 ø15 COLD WATER LINE
2 ø20 COLD WATER LINE
3 ø25 COLD WATER LINE
4 ø32 COLD WATER LINE
5 ø50 COLD WATER LINE
6 ø40 COLD WATER LINE
7 ø15 HOT WATER LINE
8 ø50 COLD WATER LINE
9 I.E.W.H=15 LITERS @ LOW LEVEL.
10 E.W.H=30 LITERS @ HIGH LEVEL.
11 E.W.H=50 LITERS @ HIGH LEVEL.
12 ø15 BIB TAP
13
14 BORE HOLE
15 2NOSWATER TRANSFER PUMP(1DUTY,ISTANDBY). FLOW RATE=2m3/hr @ Head=50m.
16 DOSING PUMP.
17 WATER TANK SURFACE/UNDERGROUND. DIM: 2.0mL X 2.0mW X 2.0mD.
41 ø20 HOT WATER LINE
42 ø75 COLD WATER LINE
43 DOSING PUMP
44 AIR BLOWER
45 2NOS WATER TRANSFER PUMP(1DUTY,ISTANDBY). FLOW RATE=2m3/hr @ Head=30m.
46 2NOS CYLINDRICAL PRESSURE FILTER.
47 DRAIN LINE.
A INSIDE CEILING VOID.
B INSIDE GROUND.
C RISES TO LOW LEVEL.
D RISES TO ABOVE.
E FROM BELOW.
F TO BELOW.
G TO ABOVE.
H FROM ABOVE.
I TO ROOF TANK.
J TO GATE HOUSE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

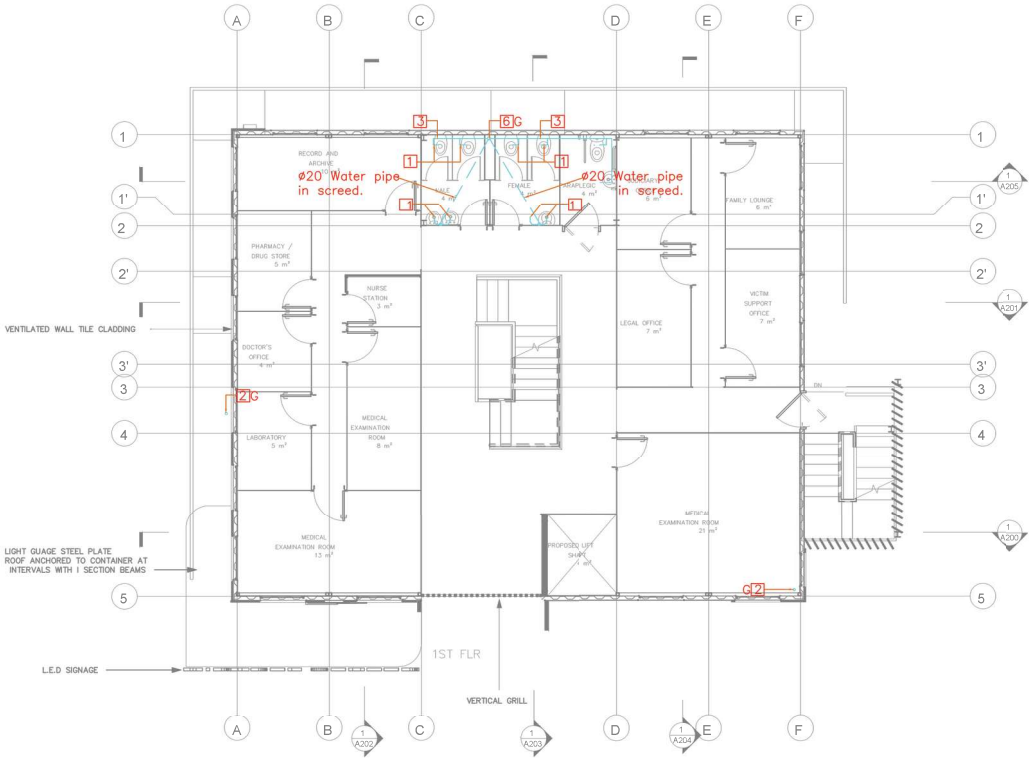
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SITE & GRD FLR PLAN.
WATER SUPPLY LAYOUT.

SCALE: 1:100 @ A3.

SHEET NO:
P-1

APPROVAL COLUMN



SHEET NOTES:

1. #15 COLD WATER LINE
2. #20 COLD WATER LINE
3. #25 COLD WATER LINE
4. #32 COLD WATER LINE
5. #50 COLD WATER LINE
6. #40 COLD WATER LINE
7. #15 HOT WATER LINE
8. #50 COLD WATER LINE
9. L.E.W.H=15 LITERS ● LOW LEVEL.
10. E.W.H=30 LITERS ● HIGH LEVEL.
11. E.W.H=50 LITERS ● HIGH LEVEL.
12. #15 BIB TAP
13.
14. BORE HOLE
15. 2NOSWATER TRANSFER PUMP(1DUTY,ISTANDBY). FLOW RATE=2m3/hr @ Head=50m.
16. DOSING PUMP.
17. WATER TANK SURFACE/UNDERGROUND. DIM:- 2.0mL X 2.0mW X 2.0mD.
18. #20 HOT WATER LINE
19. #75 COLD WATER LINE
20. DOSING PUMP
21. AIR BLOWER
22. 2NOS WATER TRANSFER PUMP(1DUTY,ISTANDBY). FLOW RATE=2m3/hr @ Head=30m.
23. 2NOS CYLINDRICAL PRESSURE FILTER.
24. DRAIN LINE.
25. INSIDE CEILING VOID.
26. INSIDE GROUND.
27. RISES TO LOW LEVEL.
28. RISES TO ABOVE.
29. FROM BELOW.
30. TO BELOW.
31. TO ABOVE.
32. FROM ABOVE.
33. TO ROOF TANK.
34. TO GATE HOUSE.

NOTES:
1. Drawings not to be scaled, use dimensions given;
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

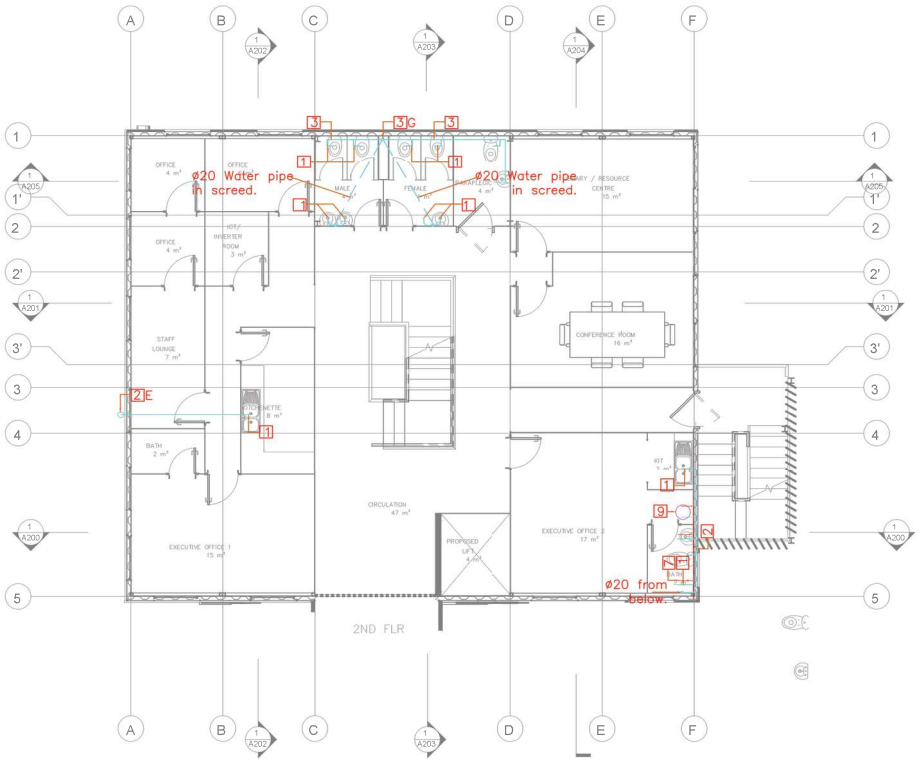
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
1ST FLR PLAN.
WATER SUPPLY LAYOUT.

SCALE:- 1:100 @ A3.

SHEET NO:
P-2

APPROVAL COLUMN



SHEET NOTES:

1. #15 COLD WATER LINE
2. #20 COLD WATER LINE
3. #25 COLD WATER LINE
4. #32 COLD WATER LINE
5. #50 COLD WATER LINE
6. #40 COLD WATER LINE
7. #15 HOT WATER LINE
8. #50 COLD WATER LINE
9. I.E.W.H=15 LITERS @ LOW LEVEL.
10. E.W.H=30 LITERS @ HIGH LEVEL.
11. E.W.H=50 LITERS @ HIGH LEVEL.
12. #15 BIB TAP
13.
14. BORE HOLE
15. 2NOSWATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=50m.
16. DOSING PUMP.
17. WATER TANK SURFACE/UNDERGROUND. DIM: 2.0mL X 2.0mW X 2.0mD.
18. #20 HOT WATER LINE
19. #75 COLD WATER LINE
20. DOSING PUMP
21. AIR BLOWER
22. 2NOS WATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=30m.
23. 2NOS CYLINDRICAL PRESSURE FILTER.
24. DRAIN LINE.
25. INSIDE CEILING VOID.
26. INSIDE GROUND.
27. RISES TO LOW LEVEL.
28. RISES TO ABOVE.
29. FROM BELOW.
30. TO BELOW.
31. TO ABOVE.
32. FROM ABOVE.
33. TO ROOF TANK.
34. TO GATE HOUSE.

NOTES:
1. Drawings not to be scaled, use dimensions given;
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
R.oLAC

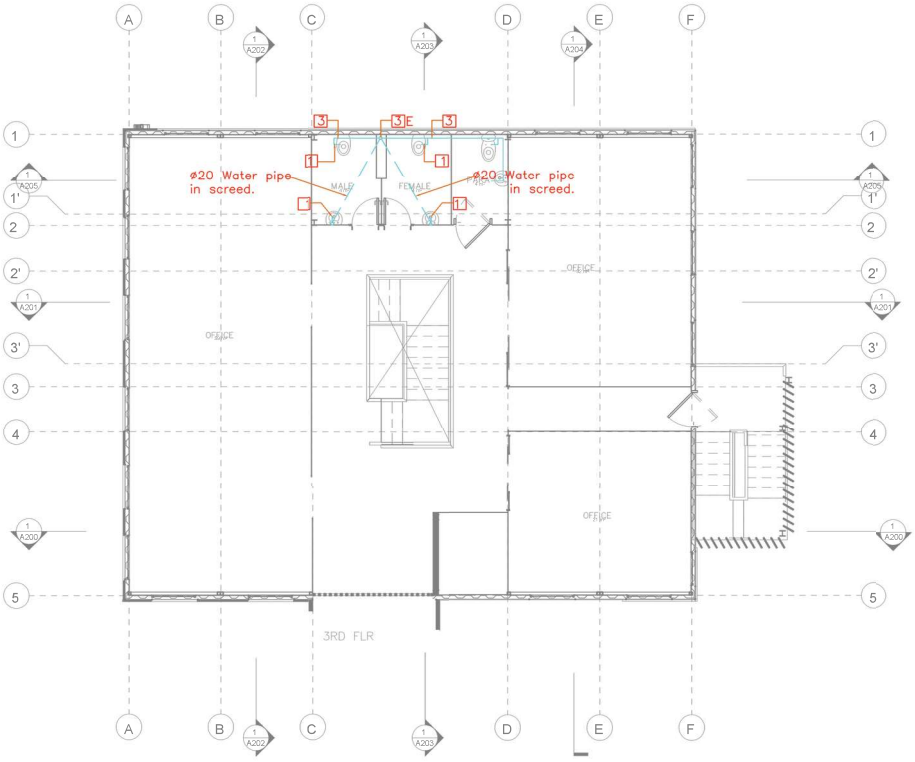
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
2ND FLR PLAN.
WATER SUPPLY LAYOUT.

SCALE:. 1:100 @ A3.

SHEET NO:
P-3

APPROVAL COLUMN



SHEET NOTES:

1. ø15 COLD WATER LINE
2. ø20 COLD WATER LINE
3. ø25 COLD WATER LINE
4. ø32 COLD WATER LINE
5. ø50 COLD WATER LINE
6. ø40 COLD WATER LINE
7. ø15 HOT WATER LINE
8. ø50 COLD WATER LINE
9. I.E.W.H=15 LITERS @ LOW LEVEL.
10. E.W.H=30 LITERS @ HIGH LEVEL.
11. E.W.H=50 LITERS @ HIGH LEVEL.
12. ø15 BIB TAP
13.
14. BORE HOLE
15. 2NOSWATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=50m.
16. DOSING PUMP.
17. WATER TANK SURFACE/UNDERGROUND. DIM: 2.0mL X 2.0mW X 2.0mD.
18. ø20 HOT WATER LINE
19. ø75 COLD WATER LINE
20. DOSING PUMP
21. AIR BLOWER
22. 2NOS WATER TRANSFER PUMP(1DUTY,1STANDBY). FLOW RATE=2m3/hr @ Head=30m.
23. 2NOS CYLINDRICAL PRESSURE FILTER.
24. DRAIN LINE.
25. INSIDE CEILING VOID.
26. INSIDE GROUND.
27. RISES TO LOW LEVEL.
28. RISES TO ABOVE.
29. FROM BELOW.
30. TO BELOW.
31. TO ABOVE.
32. FROM ABOVE.
33. TO ROOF TANK.
34. TO GATE HOUSE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

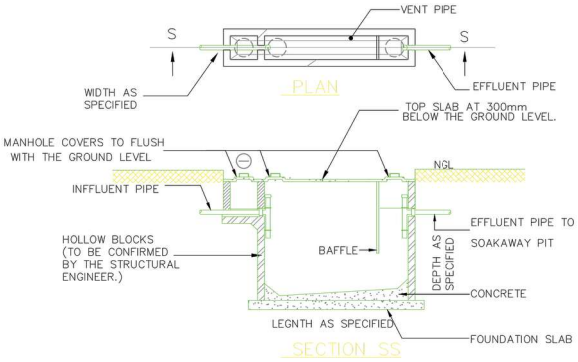
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
3RD FLR PLAN.
WATER SUPPLY LAYOUT.

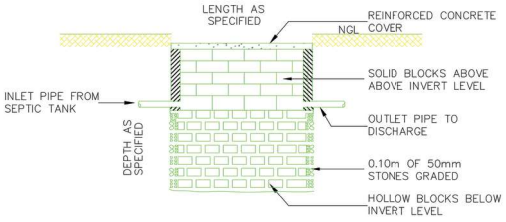
SCALE: 1:100 @ A3.

SHEET NO:
P-4

APPROVAL COLUMN



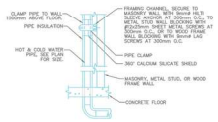
1 DETAILS OF SEPTIC TANK
NO SCALE



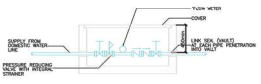
2 DETAIL OF SOAKAWAY PIT
NTS

SCHEDULE OF MANHOLE SIZES

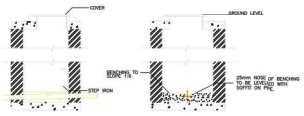
DEPTH TO INVERT MM	BRANCHES	SIZE MM (L X W)	COVERS MM
900 OR LESS	Q, 1 OR 2	700 X 750	600 x 600
	3	900 X 750	600 x 600
	4 OR MORE	1200 X 750	600 x 600



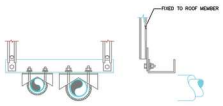
3 PIPE RISER SUPPORT DETAIL
NO SCALE



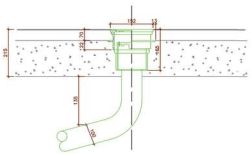
DOMESTIC WATER BACKFLOW 4 PREVENTER VAULT



5 MANHOLE DETAILS
NO SCALE



6 PIPE HANGER DETAIL
NTS



7 FLOOR CLEAN OUT INSTALLATION DETAIL

NOTES:
1. Drawings not to be scaled, use dimensions given;
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

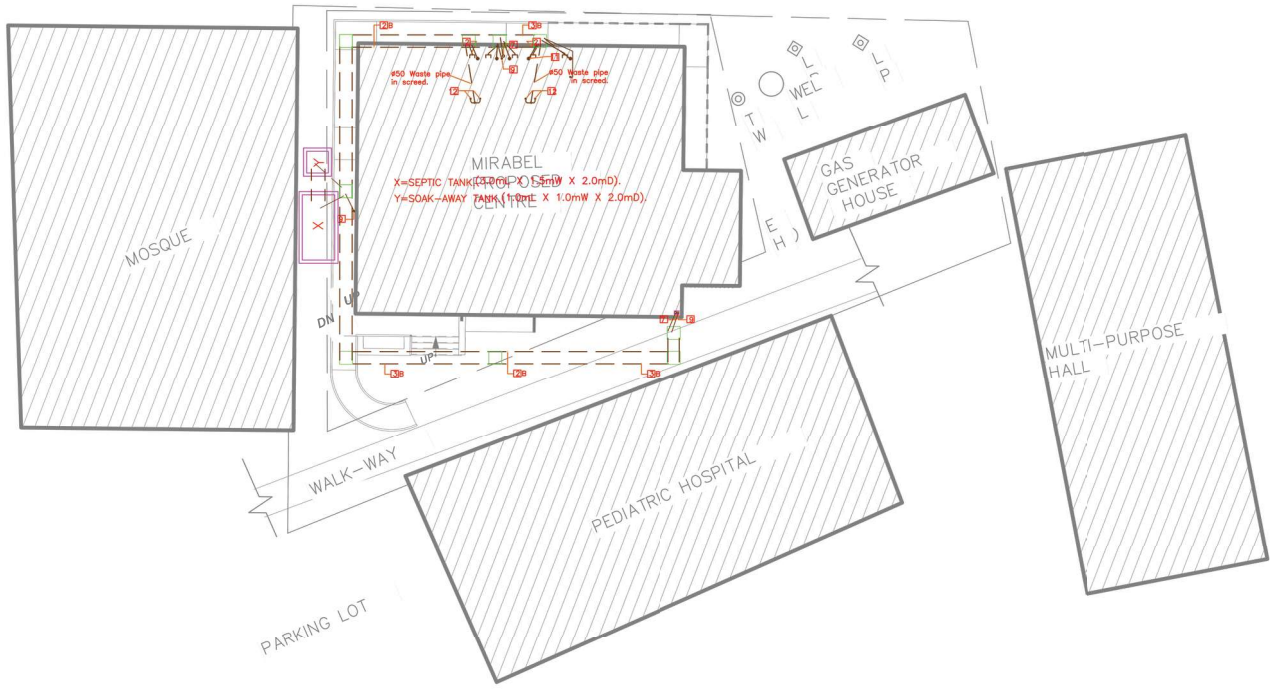
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SECTIONAL DETAILS.

SCALE:. N.T.S

SHEET NO:
M-1



APPROVAL COLUMN

SHEET NOTES:

1 ø50 WASTE WATER PIPE.
2 ø100 SOIL PIPE.
3 ø100 WASTE PIPE.
4 ø100 SOIL PIPE TO BELOW.
5 ø50 WASTE PIPE TO BELOW.
6 ø75 RAIN WATER PIPE FROM ABOVE.
7 ø100 SOIL PIPE FROM ABOVE.
8 ø75 RAIN WATER PIPE TO BELOW.
9 ø50 WASTE PIPE FROM ABOVE.
10 ø50 OUTLET.
11 ø50 FLOOR DRAIN OUTLET.
12 ø32 OUTLET.
13 ø38 OUTLET.
14 ø75 RAIN WATER OUTLET.
15 TO SEPTIC TANK.
16 TO SITE GUTTER.
17 ø100 RAIN WATER OUTLET.
18 ø100 RAIN WATER PIPE TO BELOW.
19 ø100 RAIN WATER PIPE FROM ABOVE.
A INSIDE CEILING VOID.
B INSIDE GROUND.
C LOW LEVEL.
D TO BELOW.
E FROM ABOVE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

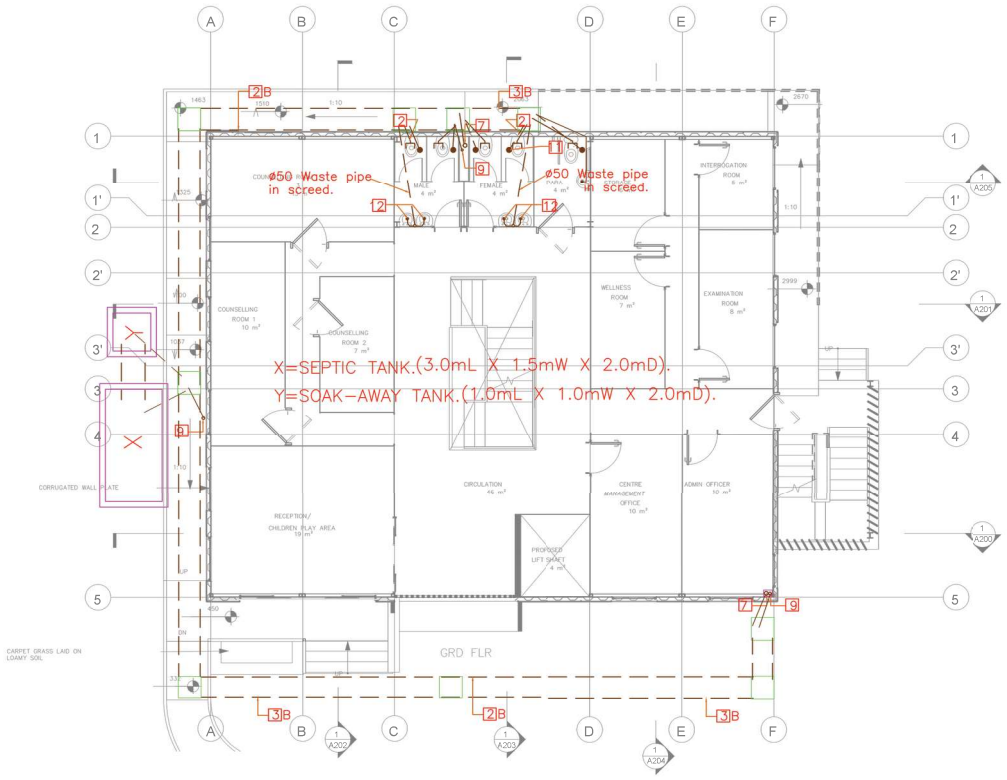
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SITE PLAN.
DRAINAGE LAYOUT.

SCALE: 1:100 @ A3.

SHEET NO:
P-5



APPROVAL COLUMN

SHEET NOTES:

1 ø50 WASTE WATER PIPE.
2 ø100 SOIL PIPE.
3 ø100 WASTE PIPE.
4 ø100 SOIL PIPE TO BELOW.
5 ø50 WASTE PIPE TO BELOW.
6 ø75 RAIN WATER PIPE FROM ABOVE.
7 ø100 SOIL PIPE FROM ABOVE.
8 ø75 RAIN WATER PIPE TO BELOW.
9 ø50 WASTE PIPE FROM ABOVE.
10 ø50 OUTLET.
11 ø50 FLOOR DRAIN OUTLET.
12 ø32 OUTLET.
13 ø38 OUTLET.
14 ø75 RAIN WATER OUTLET.
15 TO SEPTIC TANK.
16 TO SITE GUTTER.
17 ø100 RAIN WATER OUTLET.
18 ø100 RAIN WATER PIPE TO BELOW.
19 ø100 RAIN WATER PIPE FROM ABOVE.
A INSIDE CEILING VOID.
B INSIDE GROUND.
C LOW LEVEL.
D TO BELOW.
E FROM ABOVE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

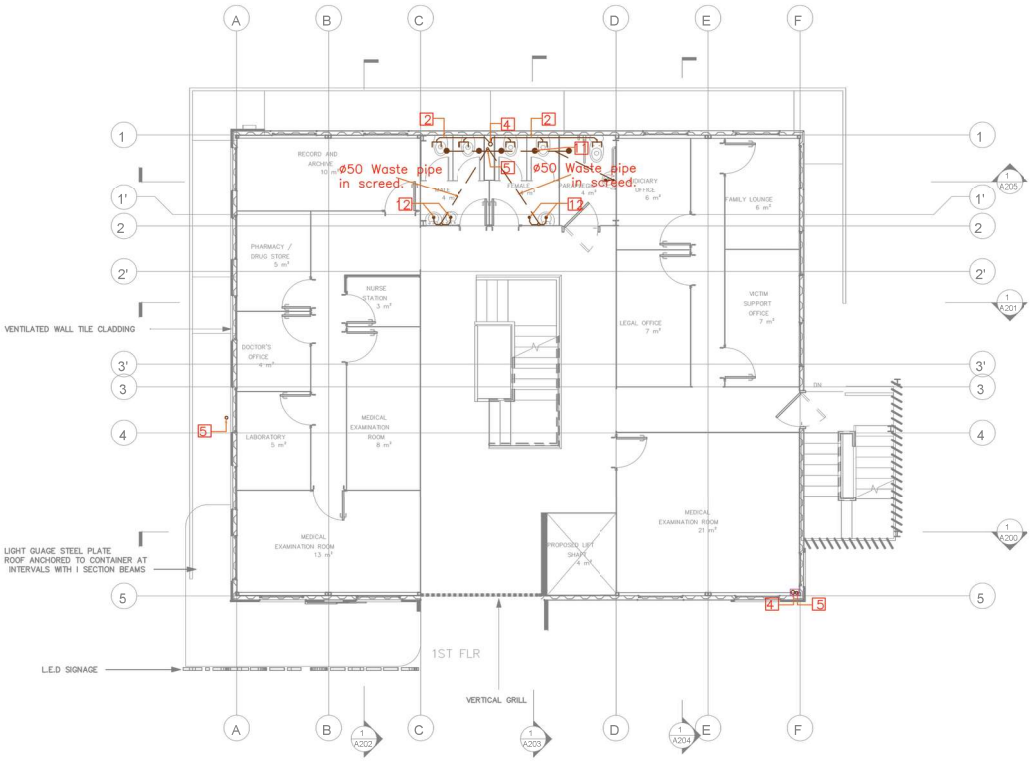
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SITE & GRD FLR PLAN.
DRAINAGE LAYOUT.

SCALE:. 1:100 @ A3.

SHEET NO:
P-5



APPROVAL COLUMN

SHEET NOTES:

1. ø50 WASTE WATER PIPE.
2. ø100 SOIL PIPE.
3. ø100 WASTE PIPE.
4. ø100 SOIL PIPE TO BELOW.
5. ø50 WASTE PIPE TO BELOW.
6. ø75 RAIN WATER PIPE FROM ABOVE.
7. ø100 SOIL PIPE FROM ABOVE.
8. ø75 RAIN WATER PIPE TO BELOW.
9. ø50 WASTE PIPE FROM ABOVE.
10. ø50 OUTLET.
11. ø50 FLOOR DRAIN OUTLET.
12. ø32 OUTLET.
13. ø38 OUTLET.
14. ø75 RAIN WATER OUTLET.
15. TO SEPTIC TANK.
16. TO SITE GUTTER.
17. ø100 RAIN WATER OUTLET.
18. ø100 RAIN WATER PIPE TO BELOW.
19. ø100 RAIN WATER PIPE FROM ABOVE.

A. INSIDE CEILING VOID.
B. INSIDE GROUND.
C. LOW LEVEL.
D. TO BELOW.
E. FROM ABOVE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimensions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

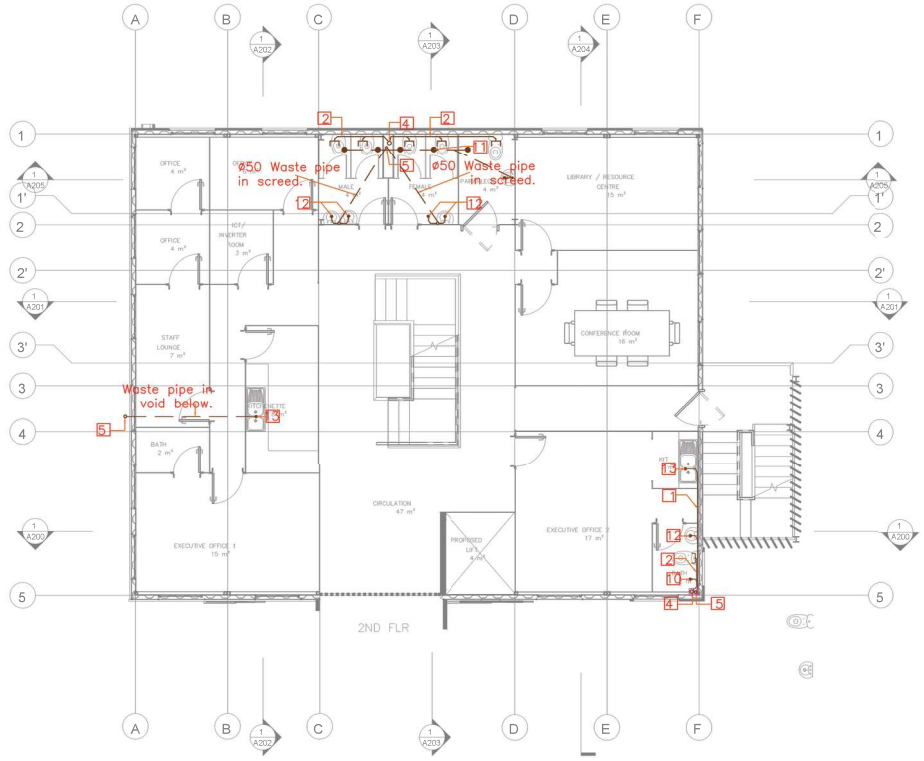
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
1ST FLR PLAN.
DRAINAGE LAYOUT.

SCALE: 1:100 @ A3.

SHEET NO:
P-6

APPROVAL COLUMN



SHEET NOTES:

1 ø50 WASTE WATER PIPE.
2 ø100 SOIL PIPE.
3 ø100 WASTE PIPE.
4 ø100 SOIL PIPE TO BELOW.
5 ø50 WASTE PIPE TO BELOW.
6 ø75 RAIN WATER PIPE FROM ABOVE.
7 ø100 SOIL PIPE FROM ABOVE.
8 ø75 RAIN WATER PIPE TO BELOW.
9 ø50 WASTE PIPE FROM ABOVE.
10 ø50 OUTLET.
11 ø50 FLOOR DRAIN OUTLET.
12 ø32 OUTLET.
13 ø38 OUTLET.
14 ø75 RAIN WATER OUTLET.
15 TO SEPTIC TANK.
16 TO SITE GUTTER.
17 ø100 RAIN WATER OUTLET.
18 ø100 RAIN WATER PIPE TO BELOW.
19 ø100 RAIN WATER PIPE FROM ABOVE.
A INSIDE CEILING VOID.
B INSIDE GROUND.
C LOW LEVEL.
D TO BELOW.
E FROM ABOVE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

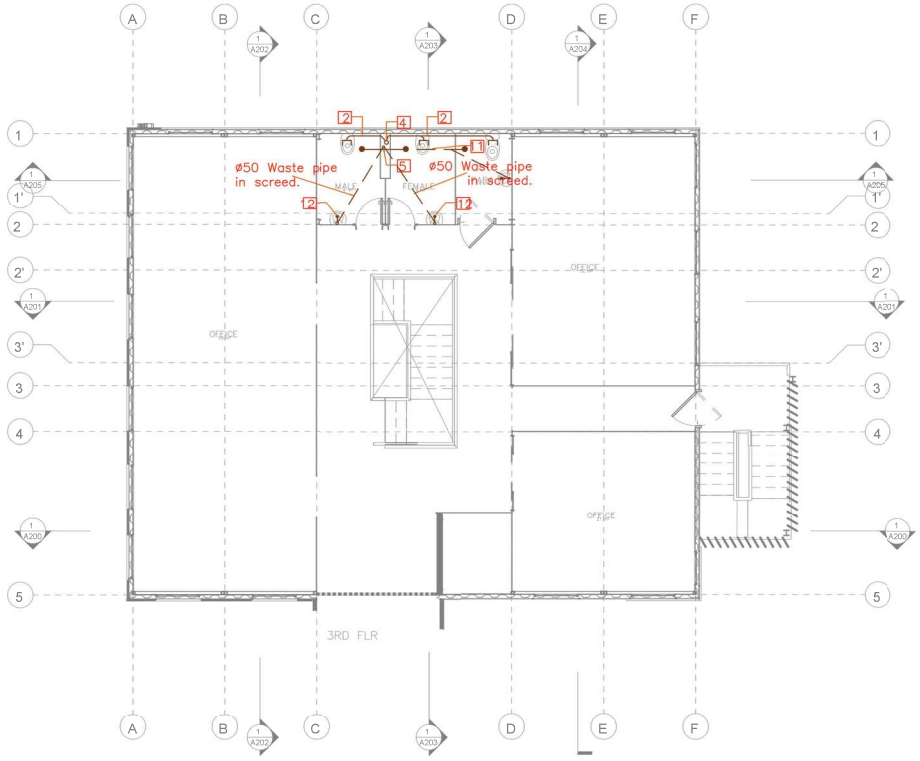
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
2ND FLR PLAN.
DRAINAGE LAYOUT.

SCALE:. 1:100 @ A3.

SHEET NO:
P-7



APPROVAL COLUMN

SHEET NOTES:

1 ø50 WASTE WATER PIPE.
2 ø100 SOIL PIPE.
3 ø100 WASTE PIPE.
4 ø100 SOIL PIPE TO BELOW.
5 ø50 WASTE PIPE TO BELOW.
6 ø75 RAIN WATER PIPE FROM ABOVE.
7 ø100 SOIL PIPE FROM ABOVE.
8 ø75 RAIN WATER PIPE TO BELOW.
9 ø50 WASTE PIPE FROM ABOVE.
10 ø50 OUTLET.
11 ø50 FLOOR DRAIN OUTLET.
12 ø32 OUTLET.
13 ø38 OUTLET.
14 ø75 RAIN WATER OUTLET.
15 TO SEPTIC TANK.
16 TO SITE GUTTER.
17 ø100 RAIN WATER OUTLET.
18 ø100 RAIN WATER PIPE TO BELOW.
19 ø100 RAIN WATER PIPE FROM ABOVE.
A INSIDE CEILING VOID.
B INSIDE GROUND.
C LOW LEVEL.
D TO BELOW.
E FROM ABOVE.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

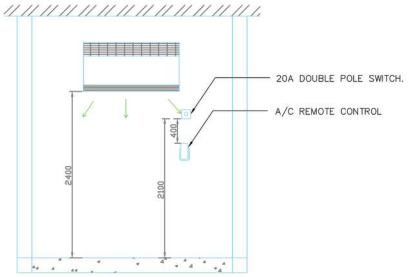
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
3RD FLR PLAN.
DRAINAGE LAYOUT.

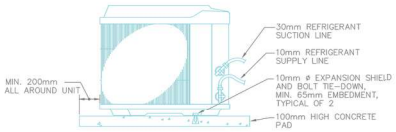
SCALE:. 1:100 @ A3.

SHEET NO:
P-8



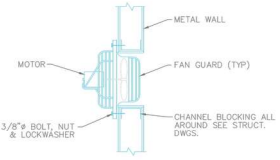
1 FRONT ELEVATION FOR TYPICAL A/C INSTALLATION

NO SCALE



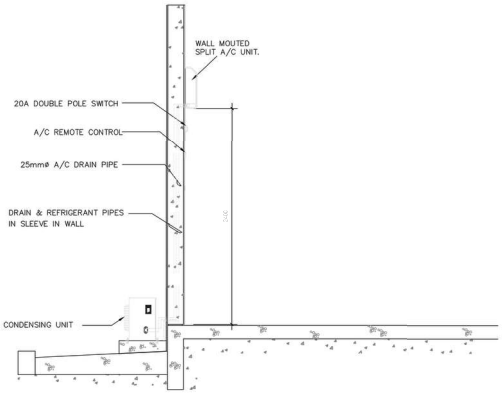
2 CONDENSING UNIT DETAIL

NO SCALE MHVEQ19A



3 WALL FAN MOUNTING DETAIL

NTS



4 TYPICAL AC INSTALLATION DETAIL

NO SCALE

APPROVAL COLUMN

NOTES:
1. Drawings not to be scaled, use dimensions given;
2. All dimensions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

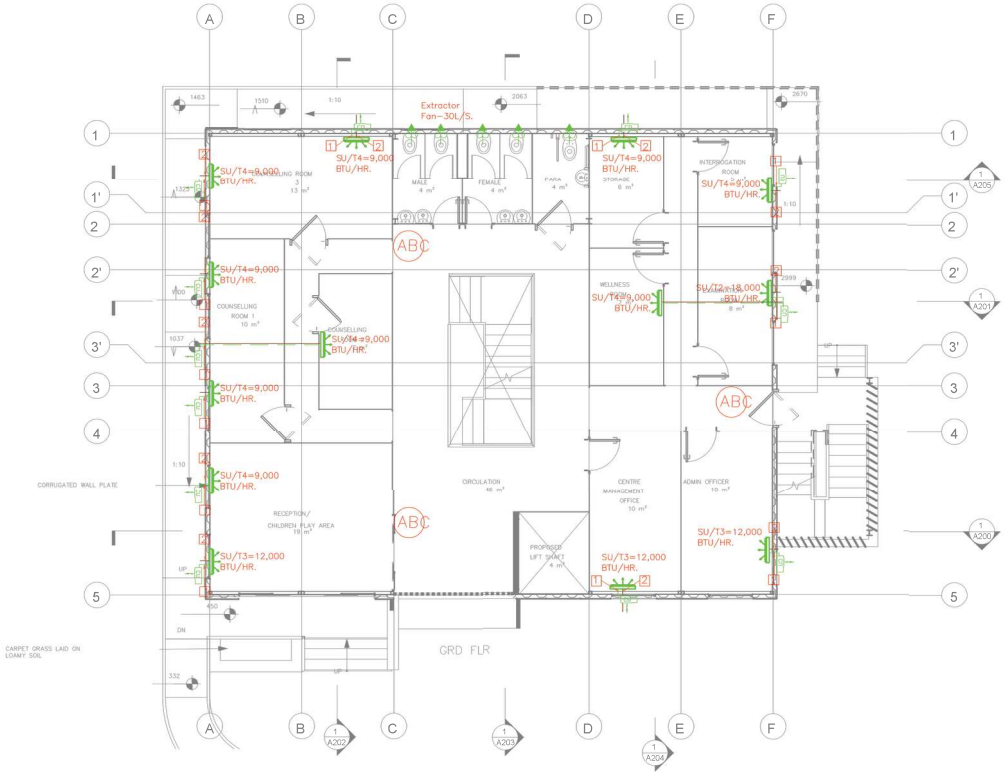
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
SECTIONAL DETAILS.

SCALE:. N.T.S

SHEET NO:
M-2

APPROVAL COLUMN



SHEET NOTES:

[1] 2NOS REFRIGERANT PIPES INSIDE WALL.
[2] #25MM CONDENSATE PIPE INSIDE WALL.
[3] 2NOS STACKED OUT-DOOR UNITS.
[4] 2NOS REFRIGERANT PIPES INSIDE SLAB.
[5] #25MM CONDENSATE PIPE INSIDE SLAB.
[6] DRAIN TO NEAREST WASTE WATER MAN-HOLE ON SITE.
[7] #110MM AIR VALVE OUTLET.
[8] #150MM UPVC PIPE INSIDE CEILING VOID.
[9] SU/T1=24,000 BTU/HR.
[A] SU/T2=18,000 BTU/HR.
[B] SU/T3=12,000 BTU/HR.
[C] SU/T4=9,000 BTU/HR.
[D] #25MM CONDENSATE PIPE TO BELOW.
[E] #25MM CONDENSATE PIPE FROM ABOVE.
[F] PROPOSED DUCT-100MM X 100MM.
[G] #25MM CONDENSATE PIPE INSIDE CEILING VOID.

LEGEND:

= HIGH WALL SPLIT UNIT.
= UNITARY OUT-DOOR.
= WALL MOUNTED EXTRACTOR FAN (TOILET TYPE - 20L/S).
= WALL MOUNTED EXTRACTOR FAN (KITCHEN TYPE - 50L/S).
ABC = CLASS A,B,C FIRE EXTINGUISHER.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimensions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:
RoLAC

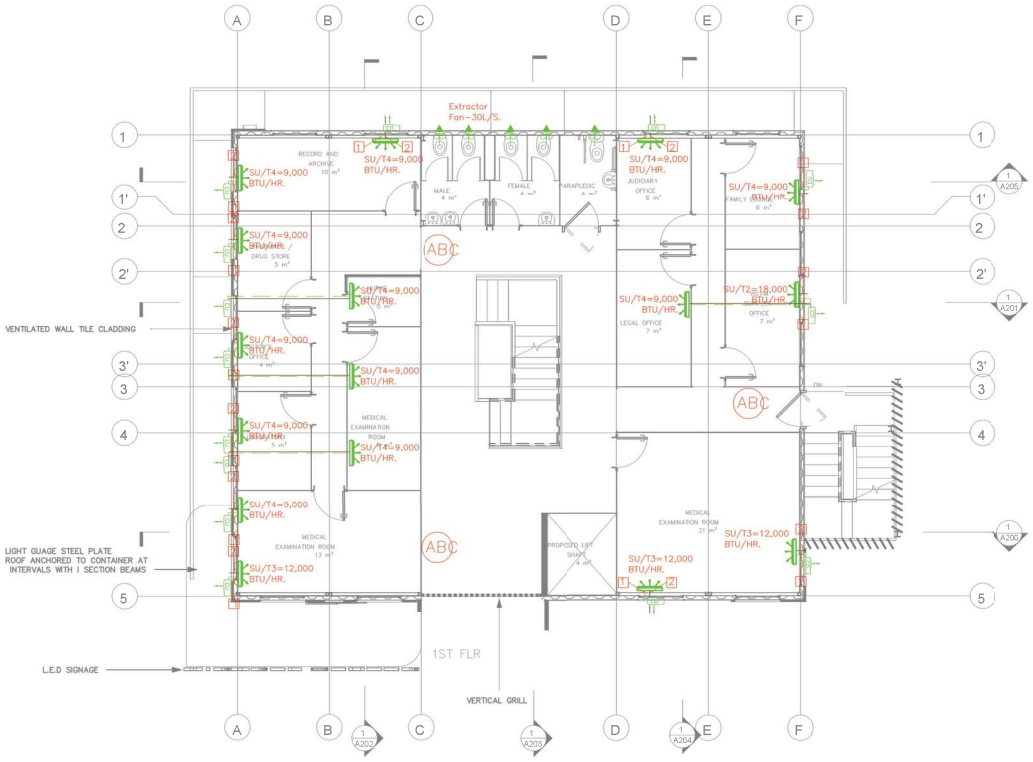
PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
GRD FLR PLAN.
A/C & FIRE FIGHTING LAYOUT.

SCALE:, 1:100 @ A3.

SHEET NO:
AC-1

APPROVAL COLUMN



SHEET NOTES:

1. 2NOS REFRIGERANT PIPES INSIDE WALL.
2. #25MM CONDENSATE PIPE INSIDE WALL.
3. 2NOS STACKED OUT-DOOR UNITS.
4. 2NOS REFRIGERANT PIPES INSIDE SLAB.
5. #25MM CONDENSATE PIPE INSIDE SLAB.
6. DRAIN TO NEAREST WASTE WATER MAN-HOLE ON SITE.
7. #110MM AIR VALVE OUTLET.
8. #150MM UPVC PIPE INSIDE CEILING VOID.
9. SU/T1=24,000 BTU/HR.
10. SU/T2=18,000 BTU/HR.
11. SU/T3=12,000 BTU/HR.
12. SU/T4=9,000 BTU/HR.
13. #25MM CONDENSATE PIPE TO BELOW.
14. #25MM CONDENSATE PIPE FROM ABOVE.
15. PROPOSED DUCT-100MM X 100MM.
16. #25MM CONDENSATE PIPE INSIDE CEILING VOID.

LEGEND:

- = HIGH WALL SPLIT UNIT.
- = UNITARY OUT-DOOR.
- = WALL MOUNTED EXTRACTOR FAN (TOILET TYPE - 20L/S).
- = WALL MOUNTED EXTRACTOR FAN (KITCHEN TYPE - 50L/S).
- ABC = CLASS A,B,C FIRE EXTINGUISHER.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

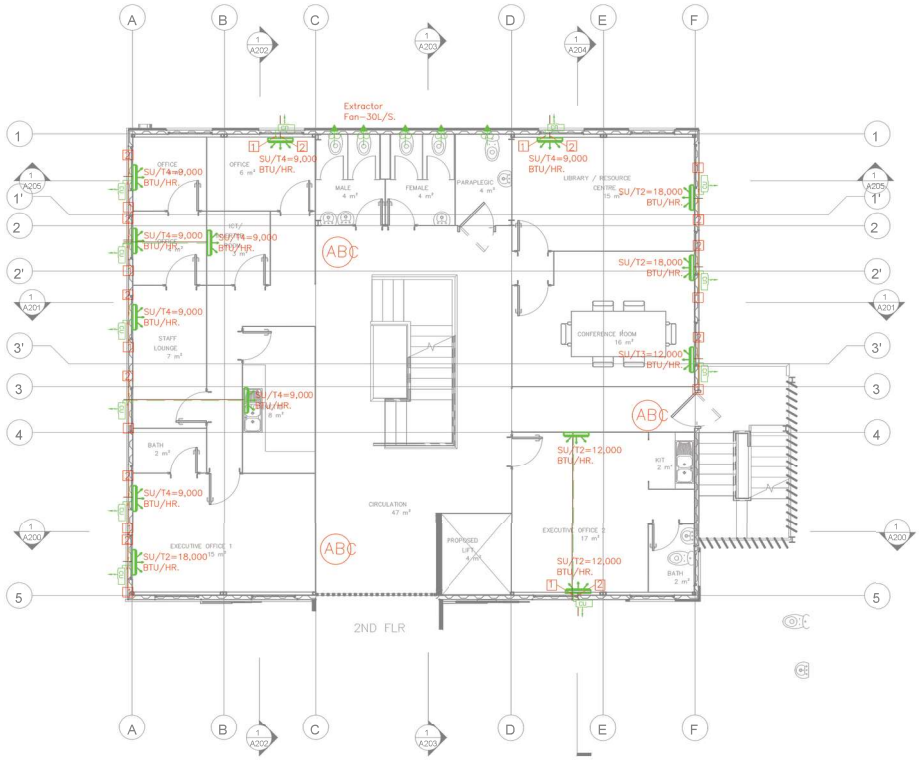
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
1ST FLR PLAN.
A/C & FIRE FIGHTING LAYOUT.

SCALE: 1:125 @ A3.

SHEET NO:
AC-2



APPROVAL COLUMN

SHEET NOTES:

1. 2NOS REFRIGERANT PIPES INSIDE WALL.
2. #25MM CONDENSATE PIPE INSIDE WALL.
3. 2NOS STACKED OUT-DOOR UNITS.
4. 2NOS REFRIGERANT PIPES INSIDE SLAB.
5. #25MM CONDENSATE PIPE INSIDE SLAB.
6. DRAIN TO NEAREST WASTE WATER MAN-HOLE ON SITE.
7. #110MM AIR VALVE OUTLET.
8. #150MM UPVC PIPE INSIDE CEILING VOID.
9. SU/T1=24,000 BTU/HR.
10. SU/T2=18,000 BTU/HR.
11. SU/T3=12,000 BTU/HR.
12. SU/T4=9,000 BTU/HR.
13. #25MM CONDENSATE PIPE TO BELOW.
14. #25MM CONDENSATE PIPE FROM ABOVE.
15. PROPOSED DUCT-100MM X 100MM.
16. #25MM CONDENSATE PIPE INSIDE CEILING VOID.

LEGEND:

= HIGH WALL SPLIT UNIT.
= UNITARY OUT-DOOR.
= WALL MOUNTED EXTRACTOR FAN (TOILET TYPE - 20L/S).
= WALL MOUNTED EXTRACTOR FAN (KITCHEN TYPE - 50L/S).
ABC = CLASS A,B,C FIRE EXTINGUISHER.

NOTES:
1. Drawings not to be scaled, use dimensions given.
2. All dimensions are to the nearest mm and must be read with the actual dimensions on site.
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs, ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

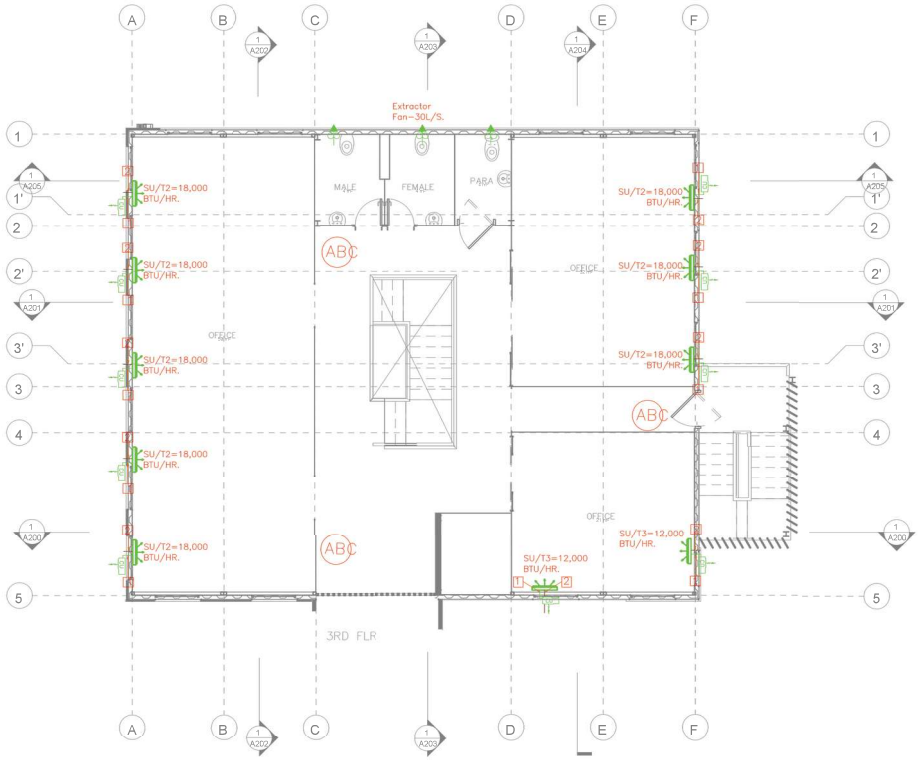
CLIENT:
RoLAC

PROJECT:
MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:
2ND FLR PLAN.
A/C & FIRE FIGHTING LAYOUT.

SCALE: 1:100 @ A3.

SHEET NO:
AC-3



APPROVAL COLUMN

SHEET NOTES:

1. 2NOS REFRIGERANT PIPES INSIDE WALL.
2. #25MM CONDENSATE PIPE INSIDE WALL.
3. 2NOS STACKED OUT-DOOR UNITS.
4. 2NOS REFRIGERANT PIPES INSIDE SLAB.
5. #25MM CONDENSATE PIPE INSIDE SLAB.
6. DRAIN TO NEAREST WASTE WATER MAN-HOLE ON SITE.
7. #110MM AIR VALVE OUTLET.
8. #150MM UPVC PIPE INSIDE CEILING VOID.
9. SU/T1=24,000 BTU/HR.
10. SU/T2=18,000 BTU/HR.
11. SU/T3=12,000 BTU/HR.
12. SU/T4=9,000 BTU/HR.
13. #25MM CONDENSATE PIPE TO BELOW.
14. #25MM CONDENSATE PIPE FROM ABOVE.
15. PROPOSED DUCT-100MM X 100MM.
16. #25MM CONDENSATE PIPE INSIDE CEILING VOID.

LEGEND:

= HIGH WALL SPLIT UNIT.

= UNITARY OUT-DOOR.

= WALL MOUNTED EXTRACTOR FAN (TOILET TYPE - 20L/S).

= WALL MOUNTED EXTRACTOR FAN (KITCHEN TYPE - 50L/S).

ABC = CLASS A,B,C FIRE EXTINGUISHER.

NOTES:

1. Drawings not to be scaled, use dimensions given;
2. All dimnebsions are to the nearest mm and must be read with the actual dimensions on site;
3. All details to be read along with relevant engineers details.
4. Any discrepances between the architectural drawing specs. ans any other drawings to be referred to the Architect for clarification.
5. No alteration shall be made on the drawings without the approval of the Architect.

CLIENT:

RoLAC

PROJECT:

MIRABEL SEXUAL ASSAULT REFERRAL CENTER

SHEET TITLE:

3RD FLR PLAN.

A/C & FIRE FIGHTING LAYOUT.

SCALE:. 1:100 @ A3.

SHEET NO:

AC-4

ANNEX 5A- SOIL REPORT

REPORT

ON

SUB-SOIL (GEOTECHNICAL) INVESTIGATION

AT THE SITE OF DESIGN AND CONSTRUCTION

OF

MIRABEL CENTER (LASUTH)

A PROPOSED STRUCTURAL DEVELOPMENT

AT

LASUTH, IKEJA, LAGOS STATE

SEPTEMBER, 2025

BY
DEXTOL GLOBAL GEOPHYSICAL
IBADAN, OYO STATE

TABLE OF CONTENT

1.0 INTRODUCTION

Our Client **MIRABEL CENTER LASUTH** desires to carry out a proposed structural development on the property located at LASUTH, Ikeja, Lagos state.

In other to carry out a safe and economic design and construction of the proposed building structure at the site, it is necessary to determine the nature, strength and suitability of the sub-soil at the project site to carry the proposed development.

Consequently, our firm, ***Dextol Global Geophysical was*** commissioned by the client to carry out the sub-soil (geotechnical) investigation at the project site at LASUTH, Ikeja, Lagos state.

This is the report of the geotechnical investigation that was carried out at the project site. It is prepared and presented on completion of the field investigation. It contains the description of the field tests and the methodology for data acquisition and deductions made from observation of site physical features e.g. topography, groundwater condition.

2.0 LOCATION OF THE PROJECT SITE

The project site is located on a piece of land at LASUTH, Ikeja, Lagos state.

Accessibility to the project site is fair via a paved road. The project site generally low-lying.. The sketch map of the project site showing the investigation points is presented in Figure 1.

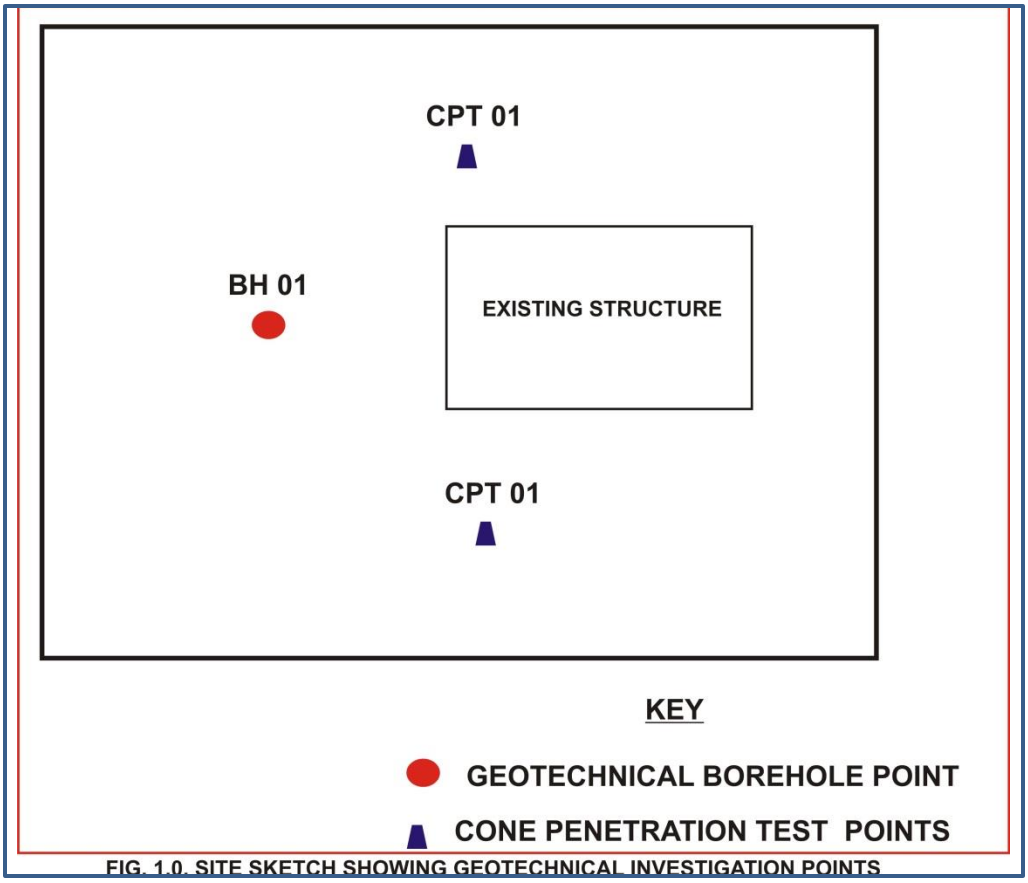


FIG. 1.0. SITE SKETCH SHOWING GEOTECHNICAL INVESTIGATION POINTS

3.0 PURPOSE AND SCOPE OF WORK

The main objective of the site investigation was to carry out sub-soil test to determine the sub-soil stratigraphy of the project site and provide engineering parameters that will guide the Structural Engineer in the design of the foundation of the proposed building construction at the site.

Consequently, the works embodied in this contract include the following:

- Carrying out ONE (1) Standard Penetration Test to refusal point at depth
- Carrying out TWO (2) Cone Penetration Test to refusal point at depth
- Analyses, preparation and submission of sub-soil (geotechnical) investigation report. The schedule of investigation at the project site is presented below:.

TABLE 1: SCHEDULE OF INVESTIGATION

Investigation Type	Depth (m)	Groundwater Level (m)
STANDARD PENETRATION TEST		
Geotechnical Borehole 01	**-9.00m**	**SWL**
CONE PENETRATION TEST		
Cone Penetrometer Test 01	**-2.00m**	**SWL**
Cone Penetrometer Test 02	**-2.50m**	**SWL**

4.0 GENERAL GEOLOGY OF THE PROJECT SITE

The geology of Lagos State is mainly sedimentary of tertiary and quaternary sediments. Tertiary sediments are unconsolidated sandstones, grits with mudstone band and sand with layers of clay. Quaternary sediments are recent deltaic sands, mangrove swamps and alluvium near the coast. The state is located on sedimentary rock mainly of sand and alluvium. The major soil groups are juvenile, organic- hydromorphic and ferrallitic soils. The geologic succession in Lagos spans through the Cretaceous Abeokuta Formation, which unconformably overlies the rocks of the Basement Complex, to the Quaternary Deltaic Plain Sands. The Benin Formation consists largely of sands/ sandstones with lenses of shales and clays.

5.0 FIELDWORK

The fieldwork was carried out on the 5th of SEPTEMBER, 2025 and it involved carrying out ONE (1) Geotechnical borehole Points and TWO (2) Cone Penetration Test Points.

Geotechnical Borehole

Geotechnical borehole were drilled for soil sampling (disturbed and undisturbed) to a refusal depth of -9.00 m below the natural ground level at the site of investigation. Groundwater was not encountered in the borehole drilled at the site. The strata-log of the geotechnical boreholes is presented in Figures 2 while the summary of the descriptive logs of the geotechnical borehole are presented in section 6.0.

Geotechnical borehole is a very valuable method of sub-soil investigation for the assessment of soil strength and deformability characteristics. It involves collecting disturbed and undisturbed soil samples from the pits at specific intervals for laboratory tests such as grain size analysis, consistency limits, quick undrained triaxial test, and oedometer consolidation test hence providing parameters that will aid in determining the strength and deformation characteristics of the sub-soil.

The preparation for and methods of taking samples together with their size, preservation and handling were in accordance with the British Standard Code of Practice for Site Investigations B.S.5930:1981.

All the soil samples obtained were examined and registered in terms of color, consistency, texture and structure.

The soil samples were taken to the engineering soil laboratory and subjected to soil classification test and strength tests which includes: triaxial test, consolidation test, sieve analysis and Atterberg's limit.

6.0 FIELD TESTS RESULT AND ANALYSIS

6.1 Sub-Soil Stratification

The sub-soil stratification of the geotechnical borehole point is described below:

BH 01

0.00 - 0.25m	- Dark brown gravely Silty SAND
0.25 – 0.75m	- Dark brown CLAYEY SAND
0.75 - 2.25m	- Brownish firm SANDY CLAY with occasional gravel.
2.25 - 3.00m	- Brownish stiff SANDY CLAY with occasional gravel.
3.00 - 4.50m	- Reddish brown ferrugenized Lateritic CLAY with Hardpan inclusions
4.50 - 6.00m	- Reddish brown ferrugenized very stiff Lateritic CLAY with Hardpan Inclusions
6.00 - 9.00m	- Hardpan/decomposed rock

Groundwater was not encountered in the Borehole drilled at this location.

6.2. Soil Penetration Resistance based on SPT 'N' Values.

The Standard Penetration Test (SPT) was carried out in the geotechnical borehole in accordance with procedures set out in BS. 1377:1975, Test 19 in subsoil while drilling progressed.

As seen in Table 2 presented below, the results of the SPT data recorded for the sub-soil at this location for the proposed development was quite similar, varying between medium and high values in the sub-soil at this site with depth.

TABLE 2: THE SUMMARY OF SPT 'N' VALUES FROM THE GEOTECHNICAL BOREHOLES AT THE PROJECT SITE

Depth (m)	**BH 01 (GWL: -NILL)**
- 1.50	8
-3.00	13
-6.00	23
-9.00	**>50**

Consequently, the sub-soil at the shallow depth is generally composed of hard soil materials on the weathered bedrock. These translate to appreciable bearing capacity values in the sub-soil at this site.

These values were thereafter corrected for overburden pressure, hammer efficiency, drill rod type, sampler type and borehole diameter to get the generalized 'N_{corr}' value below:

TABLE 3: THE SUMMARY OF SPT 'N_{corr}' VALUES FROM THE GEOTECHNICAL BOREHOLES AT THE PROJECT SITE

Depth (m)	**BH 01 SPT 'N' Value**	**BH 01 SPT 'N_{corr}' Value**
- 1.50	8	6
-3.00	13	10
-6.00	23	18
-9.00	**>50**	**>40**

FIGURE 1.

BOREHOLE LOG

Project: ENGINEERING SOIL INVESTIGATION. **Location:** LASUTH, LAGOS STATE

Borehole No: BH 01 **G.P.S. Coordinates.** N6° 35'29.83488" E6° 20'30.19596"

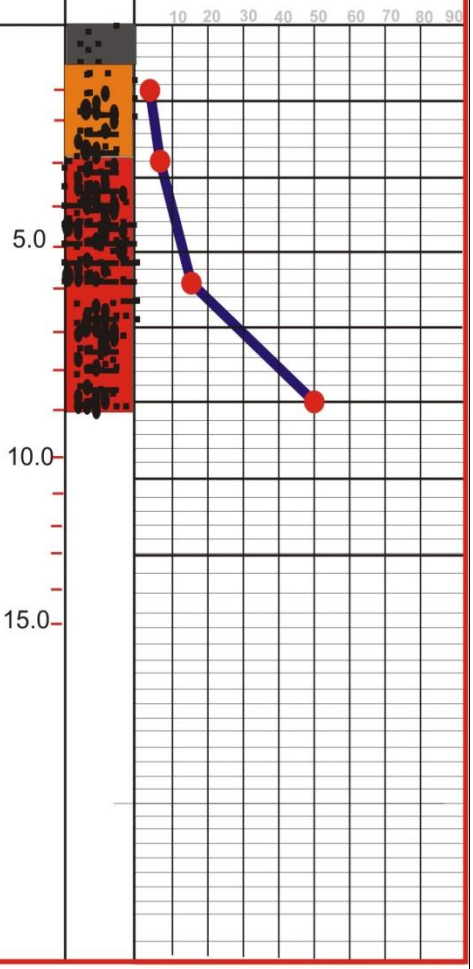
Boring Method: Percussion (Shell and Auger) **Groundwater level:** NILL

Date begun: 5-09-2025 **Date completed:** 5-09-2025

Strata Description	No. of blows per 150 mm	150 mm	150 mm	Samples Type & No.	Depth (m)
Dark Brown gravely silty SAND Dark Brown CLAYEY SAND Brownish firm to stiff SANDY CLAY with occassional gravel	3	4	4	D1 D2 S1 U2	
	5	6	7	D3 S2	
Reddish brown Ferrugenized Lateritic CLAY with HARDPAN inclusions				D4	
Reddish brown Ferrugenized very stiff Lateritic CLAYwith HARDPAN inclusions	8	10	13	D5 S3	5.0
HARDPAN/DECOMPOSED ROCK	50	-	-	D6 S4	10.0 15.0

Standard Penetration Test Blows per 300mm

10 20 30 40 50 60 70 80 90



Logged by..Adeyemi I.....

Key

Gravel | Sand | Clay | Silt | S1 SPT | D1 Disturbed sample

U1 Undisturbed sample | Groundwater Level | Peat | Laterite

FRAYNES

DEUTSCH CONE PENETROMETER TEST GRAPHS (CPT 01 TO CPT 02)

FIGURE 1

DEUSTCH CONE PENETROMETER TEST

PROJECT: ENGINEERING SOIL INVESTIGATION
CLIENT: MIRABEL CENTER LASUTH
LOCATION: LASUTH, LAGOS STATE
REMARKS: STOPPED AT -2.00 m MAXIMUM ANCHORAGE

DATE: SEPTEMBER, 2025
TEST NO: 01
MACHINE: 2.5 Ton
GROUNDWATER LEVEL: NILL

Depth (m)	Cone Resistance	Friction (Kg/cm²)
0	0	
-0.25	5	
-0.5	8	
-0.75	10	
-1	20	
-1.25	50	
-1.5	85	
-1.75	90	
-2	100	
-2.25		
-2.5		
-2.75		
-3		
-3.25		
-3.5		
-3.75		
-4		
-4.25		
-4.5		
-4.75		
-5		
-5.25		
-5.5		
-5.75		
-6		
-6.25		
-6.5		
-6.75		
-7		
-7.25		
-7.5		
-7.75		
-8		
-8.25		
-8.5		
-8.75		
-9		
-9.25		
-9.5		
-9.75		
-10		
-10.25		
-10.5		
-10.75		
-11		
-11.25		
-11.5		
-11.75		
-12		

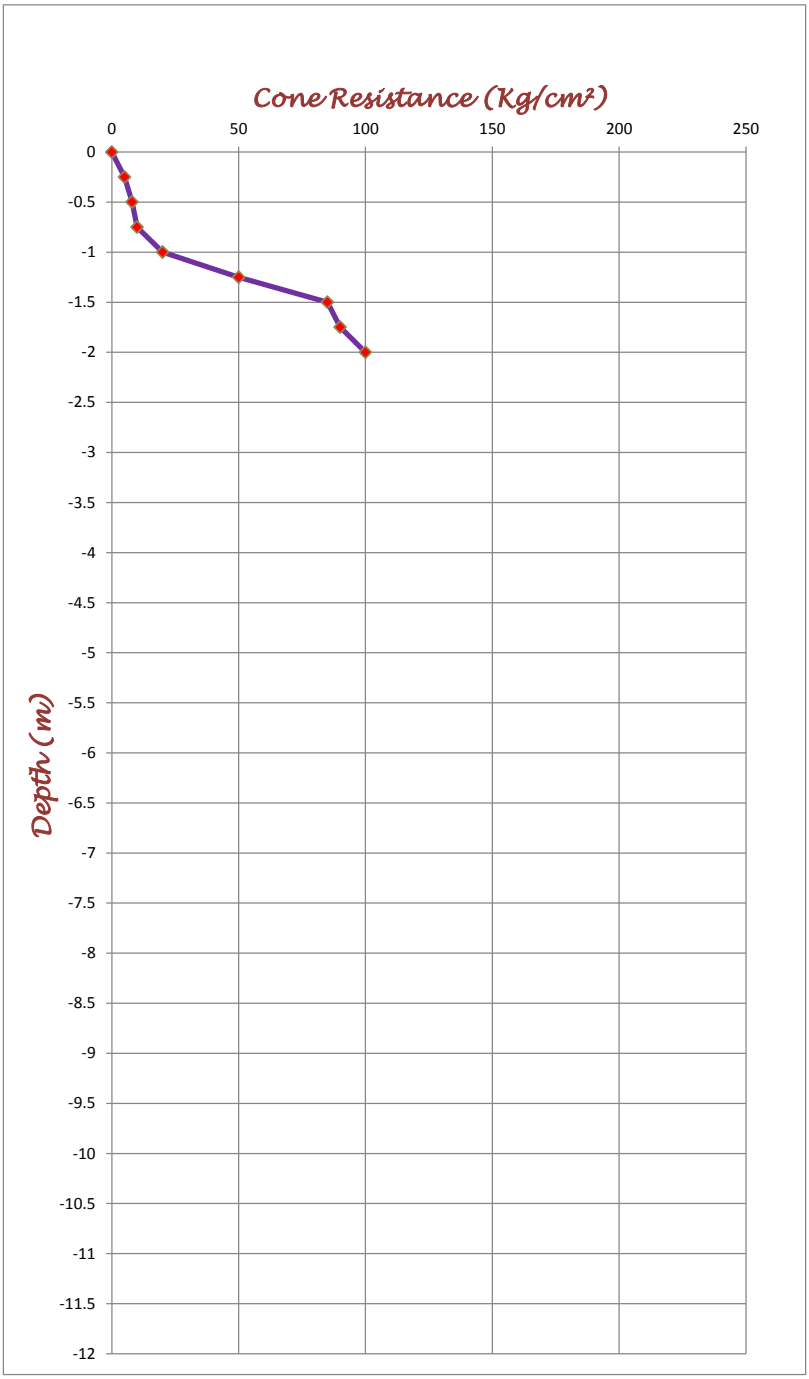


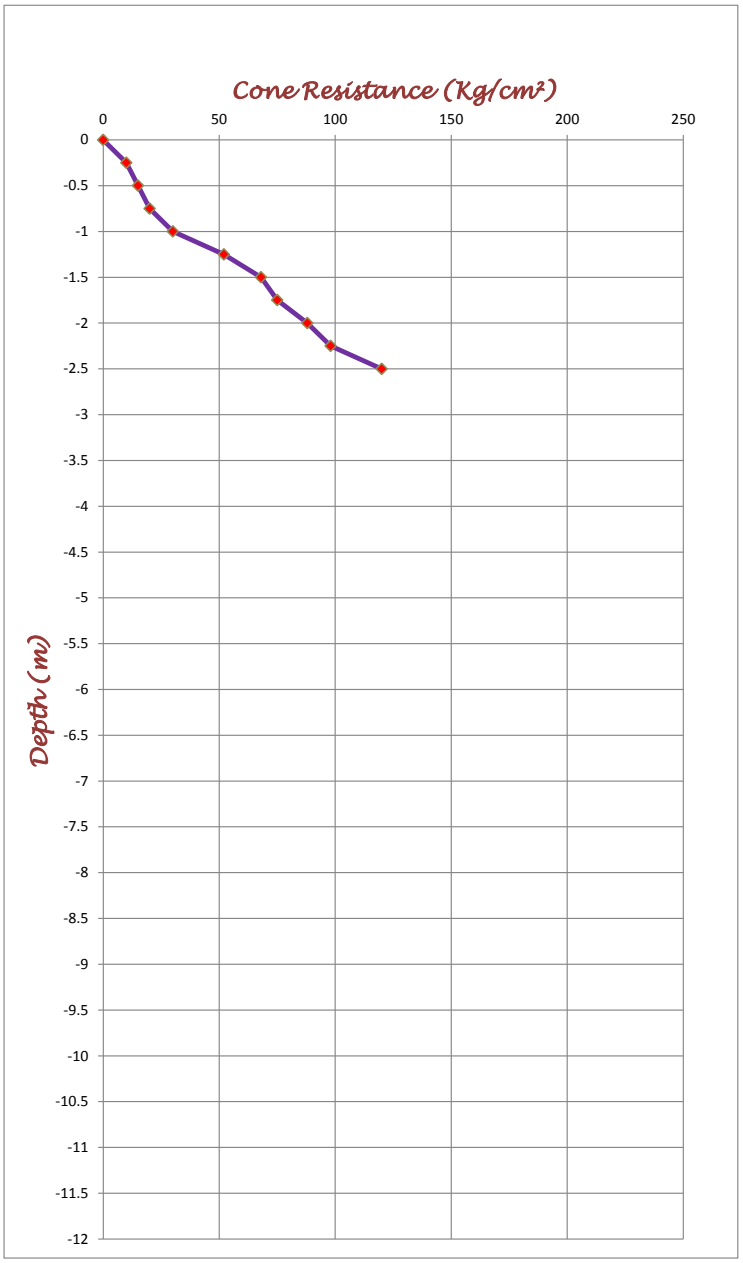
FIGURE 2

DEUSTCH CONE PENETROMETER TEST

PROJECT: ENGINEERING SOIL INVESTIGATION
CLIENT: MIRABEL CENTER LASUTH
LOCATION: LASUTH, LAGOS STATE
REMARKS: STOPPED AT -2.50 m MAXIMUM ANCHORAGE

DATE: SEPTEMBER, 2025
TEST NO: 02
MACHINE: 2.5 Ton
GROUNDWATER LEVEL: NILL

Depth (m)	Cone Resistance	Friction (Kg/cm²)
0	0	
-0.25	10	
-0.5	15	
-0.75	20	
-1	30	
-1.25	52	
-1.5	68	
-1.75	75	
-2	88	
-2.25	98	
-2.5	120	
-2.75		
-3		
-3.25		
-3.5		
-3.75		
-4		
-4.25		
-4.5		
-4.75		
-5		
-5.25		
-5.5		
-5.75		
-6		
-6.25		
-6.5		
-6.75		
-7		
-7.25		
-7.5		
-7.75		
-8		
-8.25		
-8.5		
-8.75		
-9		
-9.25		
-9.5		
-9.75		
-10		
-10.25		
-10.5		
-10.75		
-11		
-11.25		
-11.5		
-11.75		
-12		



6.2. CONE PENETRATION TEST INTERPRETATION

CPT 01: The soil resistance value (kg/cm^2) at -0.00 m to 1.00 m is 0 kg/cm^2 20 kg/cm^2. The values increased from 50 kg/cm^2 to 90 kg/cm^2 at -1.00 m to -1.75m (STIFF TO VERY STIFF CLAY) and 100 kg/cm^2 at a refusal depth of -2.00 m (VERY STIFF CLAY), hence translating to an appreciable bearing capacity of the sub-soil strata.

Implication: The soil resistance range within depth -0.00 to -1.00m shows that the soil layer is relatively firm/moderate. The soil shows significantly better resistance values at -1.25m to a competent load bearing-stratum at the refusal point of -2.00m which infers adequate strength, suggesting this zone can support moderate to heavy loads.

CPT 02: : The soil resistance value (kg/cm^2) at -0.00 m to 1.00 m is 0 kg/cm^2 30 kg/cm^2. The values increased from 52 kg/cm^2 to 98 kg/cm^2 at -1.00 m to -2.25m (STIFF TO VERY STIFF CLAY) and 120 kg/cm^2 at a refusal depth of -2.50 m (VERY STIFF CLAY), hence translating to an appreciable bearing capacity of the sub-soil strata.

Implication: The soil resistance range within depth -0.00 to -1.00m shows that the soil layer is relatively firm/moderate. The soil shows significantly better resistance values at -1.25m to a competent load bearing-stratum at the refusal point of -2.50m which infers adequate strength, suggesting this zone can support moderate to heavy loads.

6.3 Laboratory Analyses

Laboratory analyses such as soil classification tests – Grain size analysis and Atterberg, quick undrained triaxial test, oedometer consolidation tests were carried out on the representative soil samples from the ONE (1) geotechnical boreholes drilled at the project site**.**

KEY SOIL PARAMETERS

- **Bulk density – 2.08 Mg/m^3**
- **Cohesion - 65 KN/m^2**
- **Angle of internal friction- 9^0**
- **% fines – 8 % – 25 %**
- **% Sand- 66% -89%**
- **% Gravel - 1% - 13%**
- **Soil classification: SC**
- **Plasticity index- 21% - 22%**
- **Liquid limit: -35% - 38%**
- **Compressibility: medium**

SUMMARY OF LABORATORY TEST RESULTS OF LASUTH, LAGOS STATE

BH/ Sample No.	TYPE	Depth (m)	Particle Size Distribution % Passing: 2.00 Mm	425 µm	63 µm	2 µm	Nat. M.C %	Atterberg Limits LL % Dw	PL % dw	PI % Dw	γB Mg/m³	SG	Quick Undrained Triaxial Tests. Dia. Type (mm)	σ3 KN/m²	Cu KN/m²	Ø Deg.	Soil Class (UCS)	Oedometer Consolidation Tests. Stress Range KN/m²	Mv m²/MN	Cv m²/yr
BH 01																				
	D	**0.75**	**99**	**91**	**10**		**12**	**35**	**14**	**21**										
	U	**1.00**	**98**	**90**	**25**		**13**	**38**	**17**	**21**	**2.08**		**38**	**100**	**65**	**9**		**50 - 100**	**0.154**	**2.8**
	D	**2.25**	**91**	**89**	**20**		**13**							**200**				**100 - 200**	**0.159**	**2.9**
	D	**3.00**	**90**	**86**	**24**									**400**				**200 - 400**	**0.143**	**3.0**
																		400 - 800	**0.145**	**3.0**
	D	**5.75**	**89**	**88**	**23**		**12**	**37**	**15**	**22**										
	D	**7.50**	**87**	**85**	**8**		**14**													

7.0 DEDUCTIONS AND RECOMMENDATIONS

Generally, the sub-soil stratification at this site is as shown by the geotechnical borehole drilled on the project site.

The lithology consists essentially of Dark brown gravely silty SAND, Dark Brown CLAYEY SAND, Brownish firm SANDY CLAY, Brownish stiff SANDY CLAY with occasional gravel, and Reddish Brown Ferrugenized Lateritic SANDY CLAY with Hardpan inclusions. Groundwater was not encountered in the drilled geotechnical borehole.

Soil characteristics

The sub-soil at this location is classified as I**NORGANIC CLAYS (CH**) of high plasticity and **SC** based on the Unified Soil Classification System **(UCS).** The Atterberg's Limits values are moderate with plasticity Index between 21% to 22%, and liquid limits values ranged between 35 % to 38 %. From the Atterberg limits results it can be deduced that the soil is of medium compressibility. Gravel content is between 1 % to 13 %, while the sand content varies between 66 % and 89 %. The fines (silt and Clay) content varied between 8% and 25%.

Groundwater

Groundwater was encountered at surface level in the geotechnical boreholes drilled during this investigation which could be sampled or tested. However, as a result of the appreciable number of fines in the subsoil, hence there can be a softening of the soil with increase in moisture content.

Design/Allowable bearing Pressure

In other to arrive at the bearing pressure values for the design of the foundation of the proposed structural development at the project site, the allowable bearing pressure and settlement estimates were carried out and used to compute for various footing sizes (1.00 m, 1.50 m, 2.00 m, 3.00 m), using the data generated from the field (In-situ) tests and the laboratory oedometer consolidation settlement tests.

The following **design allowable bearing pressure (ABP)** values and settlement were computed for the sub-soil at this site. The result of the Computations is presented in table 8 below**.**

The settlement of the soil is within the range of 4.77 mm to 90.63 mm.

TABLE 8: ALLOWABLE BEARING PRESSURE (ABP) AND SETTLEMENT ESTIMATES FOR SHALLOW FOUNDATION AT THE PROJECT SITE

M_v	σ	B (m) = 1.5		B (m) = 2.25		B (m) = 2		B (m) = 3	
(m2/MN)	(KN/m2)	H (m)	S (mm)	H (m)	S (mm)	H (m)	S (mm)	H (m)	S (mm)
	30	1	4.77	1.5	7.155	2	9.54	3	14.31
	40	1	6.36	1.5	9.54	2	12.72	3	19.08
	50	1	7.95	1.5	11.925	2	15.9	3	23.85
	60	1	9.54	1.5	14.31	2	19.08	3	28.62
	70	1	11.13	1.5	16.695	2	22.26	3	33.39
	80	1	12.72	1.5	19.08	2	25.44	3	38.16
	90	1	14.31	1.5	21.465	2	28.62	3	42.93
0.159	100	1	15.9	1.5	23.85	2	31.8	3	47.7
	110	1	17.49	1.5	26.235	2	34.98	3	52.47
	120	1	19.08	1.5	28.62	2	38.16	3	57.24
	130	1	20.67	1.5	31.005	2	41.34	3	62.01
	140	1	22.26	1.5	33.39	2	44.52	3	66.78
	150	1	23.85	1.5	35.775	2	47.7	3	71.55
	170	1	27.03	1.5	40.545	2	54.06	3	81.09
	180	1	28.62	1.5	42.93	2	57.24	3	85.86
	190	1	30.21	1.5	45.315	2	60.42	3	90.63

PAD FOUNDATION DESIGN

DEPTH (meters)	FOOTING DIMENSIONS (L X B) (meters)	ABP (KN/m^2)	SETTLEMENT (mm)
1.50	1.0 X 1.0	120	28.62
	2.0 X 1.5		31.01
	1.5 X 1.5		34.98
	3.0 X 2.0		38.16

The settlement of the sub-soil ranged from 5.13mm to 97.47mm, hence suitable for SHALLOW FOUNDATION as it is within the maximum tolerable settlement limits (≤40mm in SANDY soils and ≤65mm on CLAYEY soils).

Consequently, an allowable bearing pressure (ABP) value of 120 KN/m^2 may be adopted for the design of the PAD foundation of the proposed structural development at this site at depth of -1.50 meters, provided it satisfies the Structural Engineers requirements for the proposed building.

It is advisable that the pads be tied together to mitigate settlement and ensure better rigidity of the structure.

Foundation Construction Works

Foundation excavation trench opened at this site during construction must be completely backfilled and compacted quickly to protect it from moisture and water on completion of foundation works. Topographically, the project site is on a low-lying terrain.

For concrete works, we recommend the use of rich, dense mix of ordinary Portland cement to satisfy the standard equivalent to CLASS 2 in the Code of Practice for foundations B.S. 8004: 1984, together with good embedment of reinforcement in all concrete structures at this project site.

The observations and deductions made in this report are based on the ground condition as revealed by the position of the geotechnical borehole and soil sampling which were carried out at the project site as well as visual site observation and laboratory tests on the recovered disturbed and undisturbed soil samples.

The structural/foundation design Engineer for the project shall appraise the prevailing sub-soil conditions as presented herein along with the proposed structures foundation option to arrive at the best choice of foundation type for the proposed development at the site.

PREPARED BY:

ADEYEMI IFEOLUWA O (MNAEGE, MNMGS)

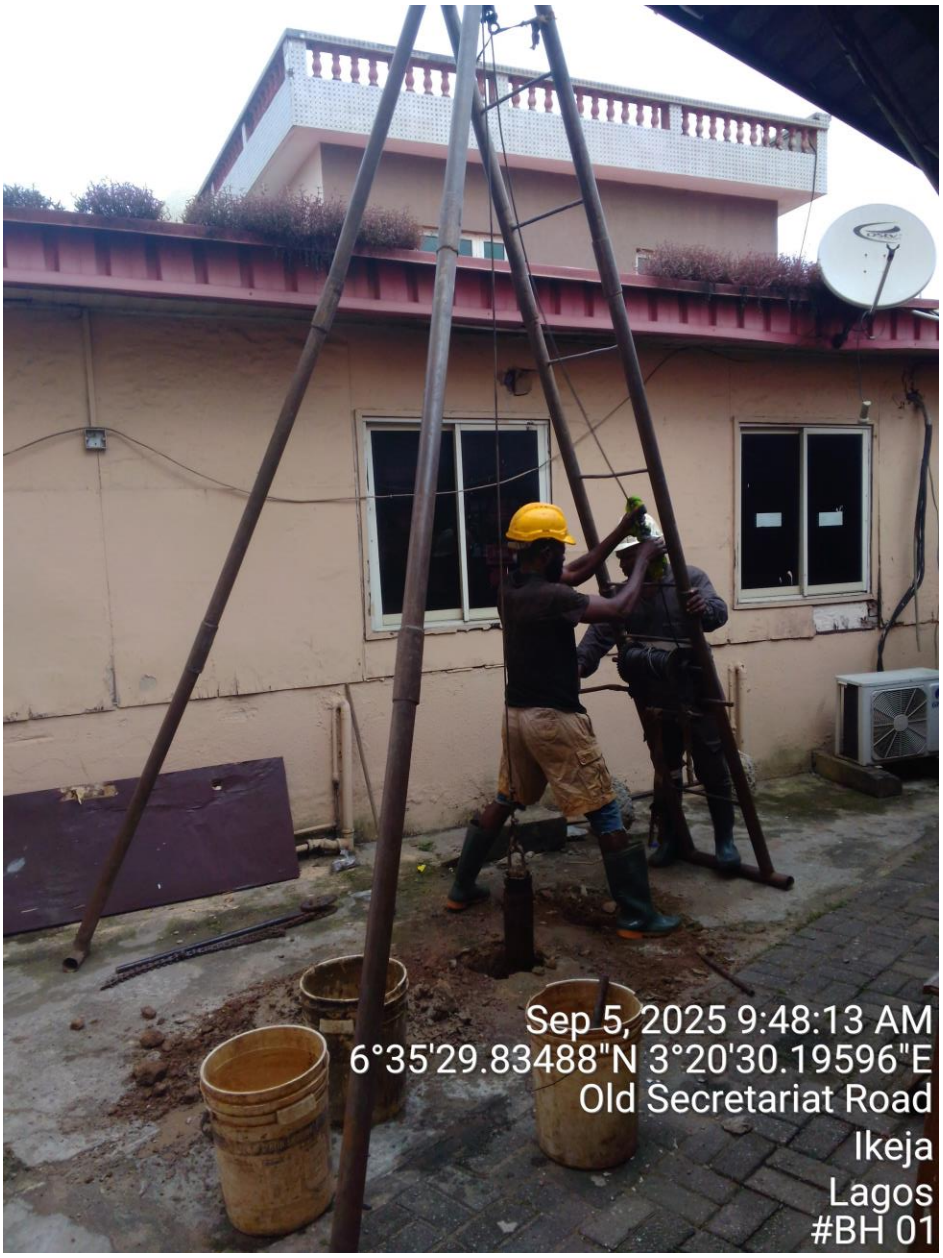


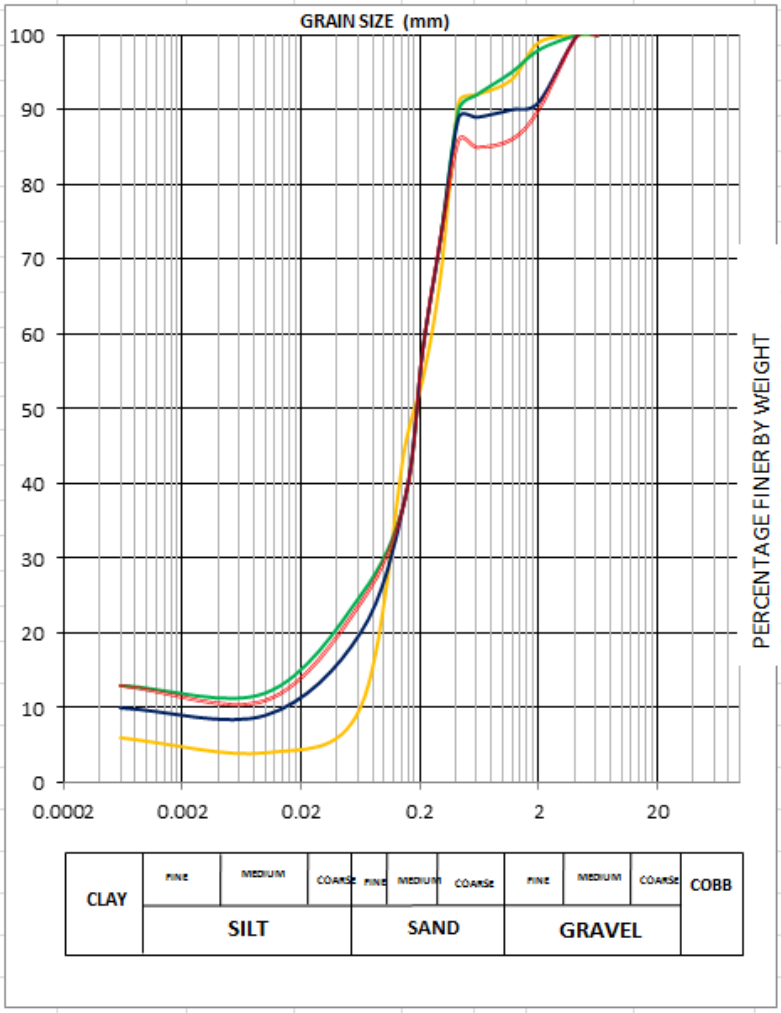
Fig 1.0: GEOTECHNICAL INVESTIGATION BEING CARRIED OUT ON SITE

Fig 2.0: GEOTECHNICAL INVESTIGATION BEING CARRIED OUT ON SITE

APPENDIX

PARTICLE SIZE DISTRIBUTION

Location:	LASUTH, LAGOS STATE	**Job ref.**	
Test Method: BS 1377-2:1990:9		**Borehole/ Pit no.:**	BH 01

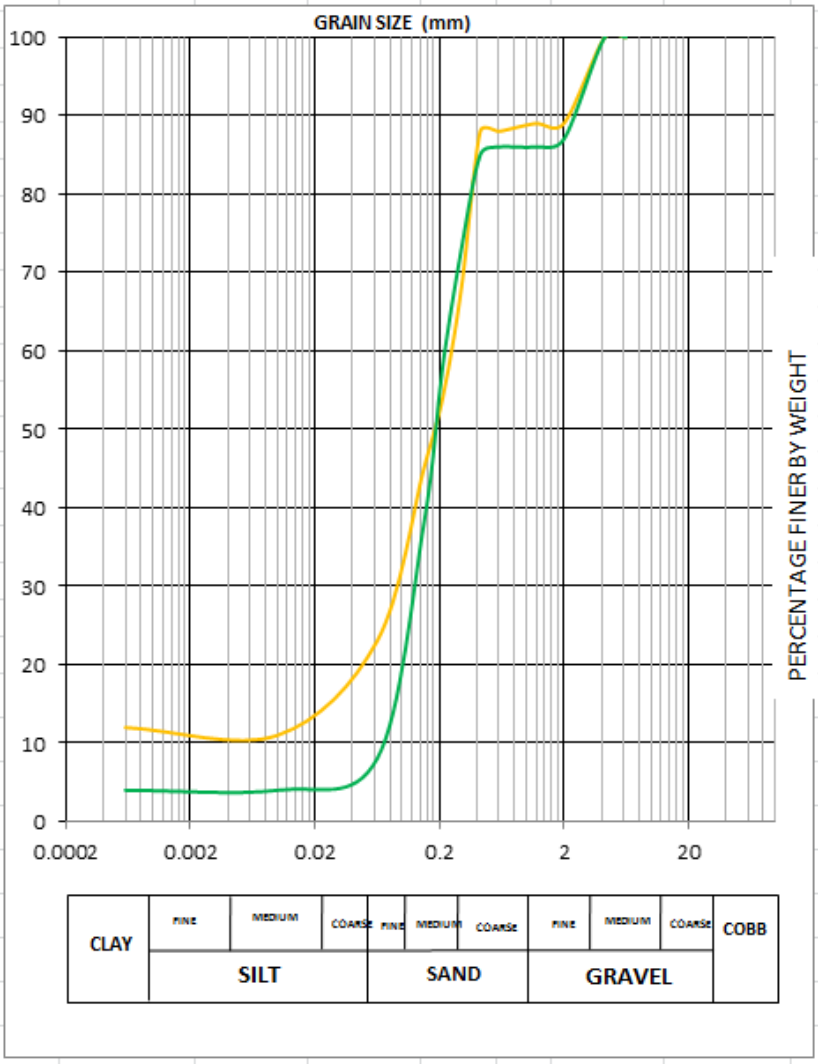


Symbol	Sample No.	Depth (m)	Classification
	1	0.75	BROWN SANDY CLAY
	2	1.00	BROWN SANDY CLAY
	3	2.25	LIGHT GREY SAND
	4	3.00	LIGHT GREY SAND

Grain size analysis curve BH 01

PARTICLE SIZE DISTRIBUTION

Location:	LASUTH, LAGOS STATE	**Job ref.**	
		Borehole/ Pit no.:	BH 01
Test Method: BS 1377-2:1990:9			

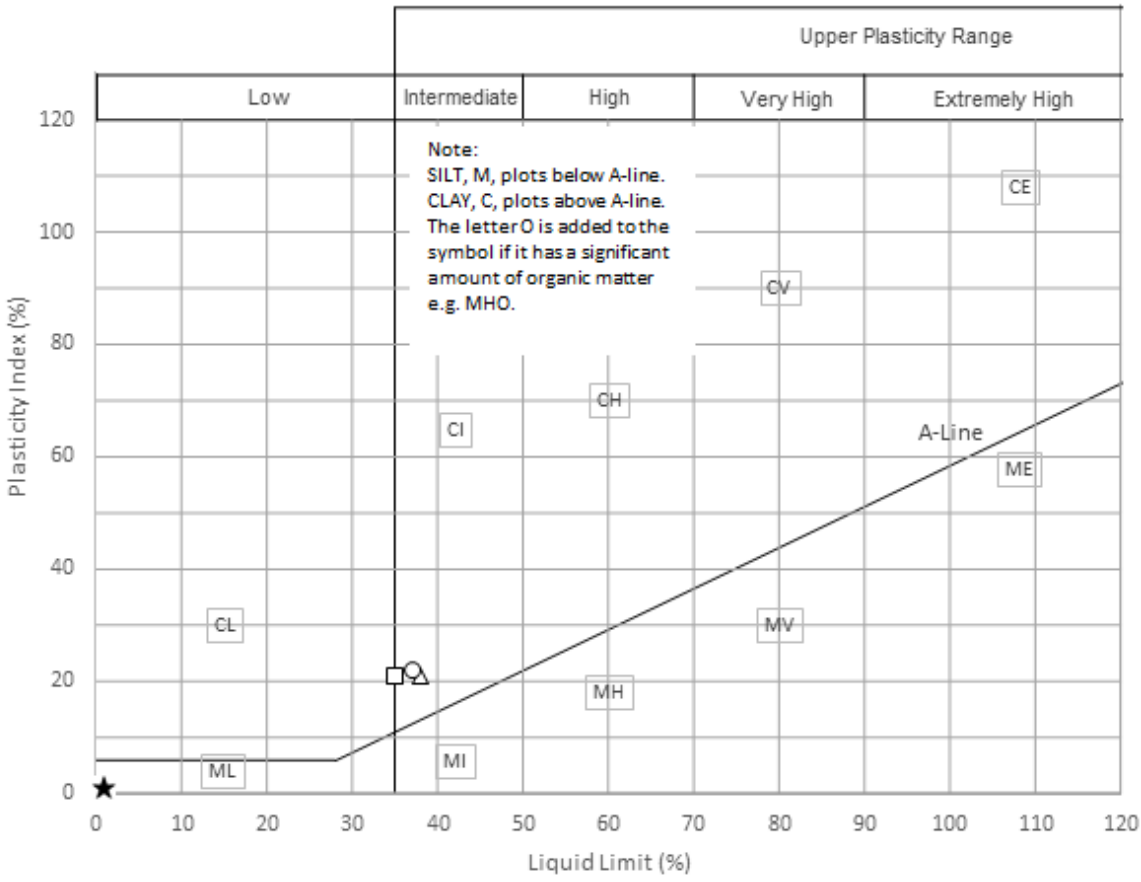


Symbol	Sample No.	Depth (m)	Classification
	1	5.75	BROWN SANDY CLAY
	2	7.50	BROWN SANDY CLAY

Grain size analysis curve BH 01

Atterberg Limits

PROJECT NAME	LOCATION	BH NO	
MIRABEL CENTER LASUTH	IKEJA	BH 01	



Symbol	Sample	Depth (m)	Natural Moisture Content	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)
□	BH 01	0.75	12	35	14	21
△	BH 02	1.00	13	38	17	21
○	BH 03	5.75	12	37	15	22

Combined Cassagrande plot of soil samples at project site

LABORATORY QUICK UNDRAINED COMPRESSION TEST

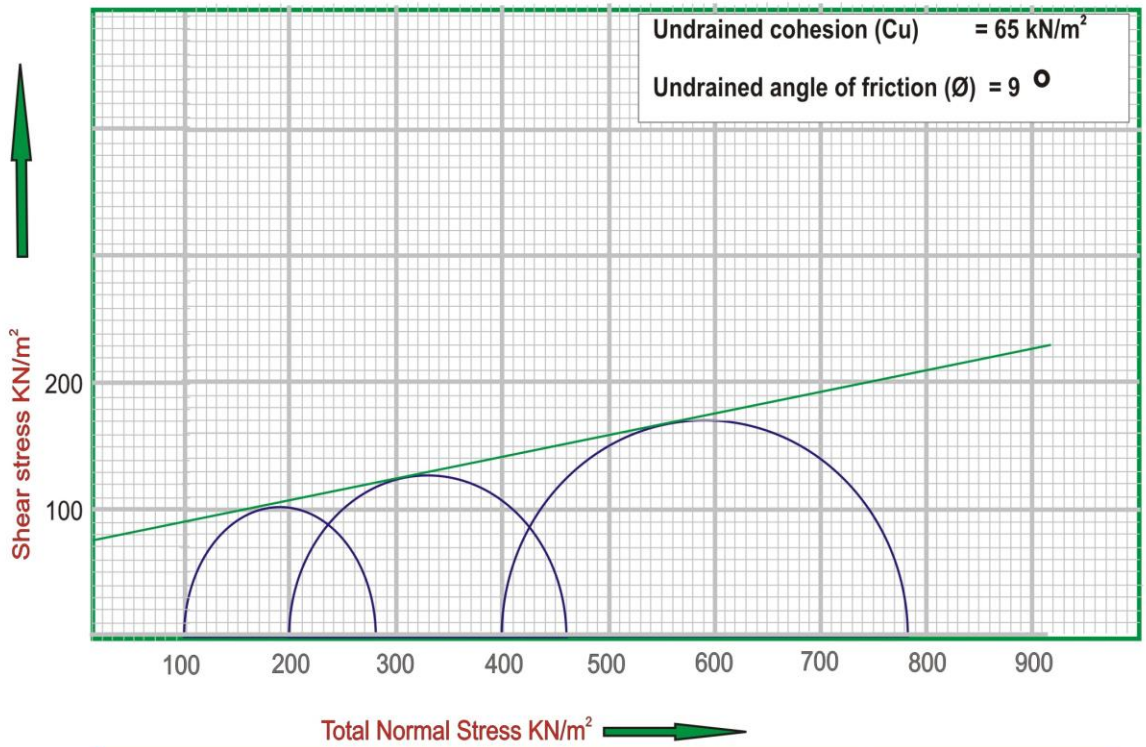
MOHR'S CIRCLE DIAGRAM

PROJECT: MIRABEL CENTER, LASUTH

BH NO..: BH 01

SAMPLE NO: 3 SAMPLE TYPE: Undisturbed Sample

DEPTH: -1.00 m DATE: SEPTEMEBR. 2025



Cell Pressure σ_3 (KN/m^2)	Max. Deviation Stress $\sigma_1-\sigma_3$ (KN/m^2)	Total Normal Stress (KN/m^2) σ_1
100	170	280
200	260	460
400	380	780

THE END

THANK YOU

ANNEX 5B- SUBSOIL GEOTECHNICAL INVESTIGATION

REPORT

ON

SUB-SOIL (GEOTECHNICAL) INVESTIGATION

AT THE SITE OF DESIGNAND CONSTRUCTION

OF

MIRABEL CENTER (LASUTH)

A PROPOSED STRUCTURAL DEVELOPMENT

AT

LASUTH, IKEJA,LAGOS STATE

SEPTEMBER, 2025

BY
DEXTOL GLOBALGEOPHYSICAL
IBADAN, OYO STATE

TABLE OF CONTENT

1.0 INTRODUCTION

Our Client ***MIRABEL CENTER LASUTH*** desires to carry out a proposed structural development on the property located at LASUTH, Ikeja, Lagos state.

In other to carry out a safe and economic design and construction of the proposed building structure at the site, it is necessary to determine the nature, strength and suitability of the sub-soil at the project site to carry the proposed development.

Consequently, our firm, ***Dextol Global Geophysical was*** commissioned by the client to carry out the sub-soil (geotechnical) investigation at the project site at LASUTH, Ikeja, Lagos state.

This is the report of the geotechnical investigation that was carried out at the project site. It is prepared and presented on completion of the field investigation. It contains the description of the field tests and the methodology for data acquisition and deductions made from observation of site physical features e.g. topography, groundwater condition.

2.0 LOCATION OF THE PROJECT SITE

The project site is located on a piece of land at LASUTH, Ikeja, Lagos state.

Accessibility to the project site is fair via a paved road. The project site generally low-lying.. The sketch map of the project site showing the investigation points is presented in Figure 1.

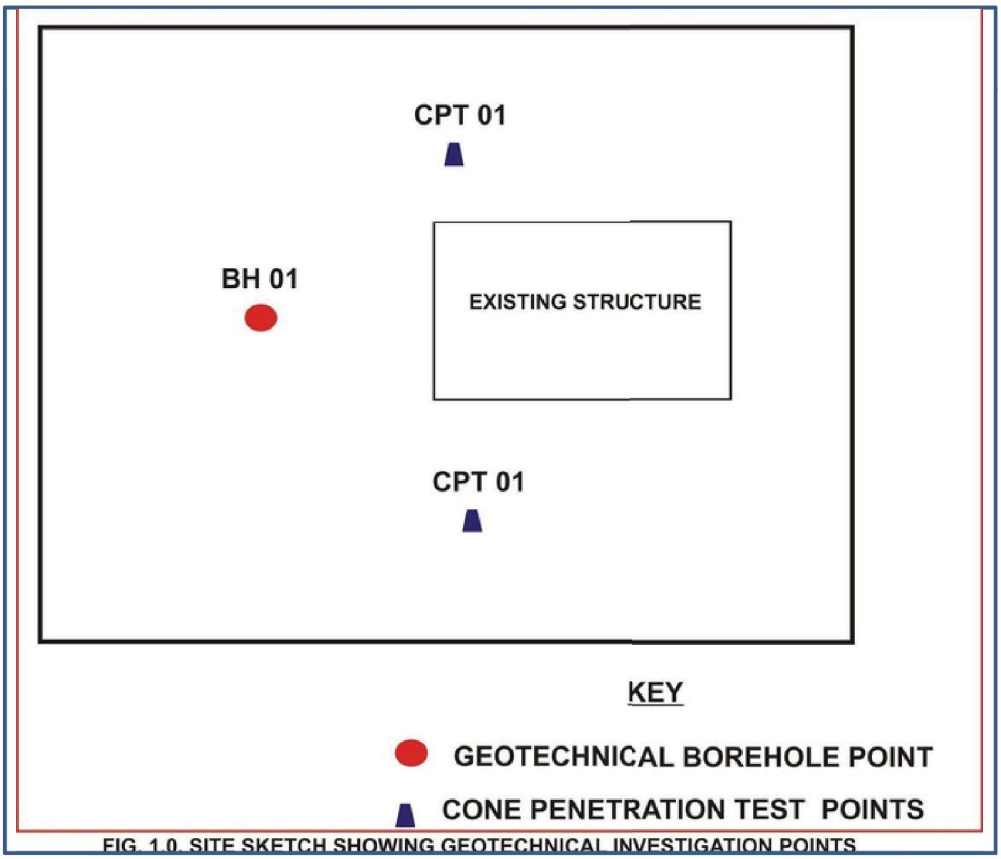


FIG. 1.0 SITE SKETCH SHOWING GEOTECHNICAL INVESTIGATION POINTS

3.0 PURPOSE AND SCOPE OF WORK

The main objective of the site investigation was to carry out sub-soil test to determine the sub-soil stratigraphy of the project site and provide engineering parameters that will guide the Structural Engineer in the design of the foundation of the proposed building construction at the site.

Consequently, the works embodied in this contract include the following:

Carrying out ONE (1) Standard Penetration Test to refusal point at depth
Carrying out TWO (2) Cone PenetrationTest to refusal point at depth
Analyses, preparation and submissionofsub-soil (geotechnical) investigation report. The schedule of investigation at the projectsite is presented below:.

TABLE 1: SCHEDULEOF INVESTIGATION

Investigation Type	*Depth (m)*	*Groundwater Level (m)*
STANDARD PENETRATION TEST		
GeotechnicalBorehole 01	***-9.00m***	***SWL***
CONE PENETRATION TEST		
Cone Penetrometer Test 01	***-2.00m***	***SWL***
Cone Penetrometer Test 02	***-2.50m***	***SWL***

4.0 GENERAL GEOLOGY OF THE PROJECT SITE

The geology of Lagos State is mainly sedimentary of tertiary and quaternary sediments. Tertiary sediments are unconsolidated sandstones, grits with mudstone band and sand with layers of clay. Quaternary sediments are recent deltaic sands, mangrove swamps and alluvium near the coast. The state is located on sedimentary rock mainly of sand and alluvium. The major soil groups are juvenile, organic- hydromorphic and ferrallitic soils. The geologic succession in Lagos spans through the Cretaceous Abeokuta Formation, which unconformably overlies the rocks of the Basement Complex, to the Quaternary Deltaic Plain Sands. The Benin Formation consists largely of sands/ sandstones with lenses of shales and clays.

5.0 FIELDWORK

The fieldwork was carried out on the 5th of SEPTEMBER, 2025 and it involved carrying out ONE (1) Geotechnical borehole Points and TWO (2) Cone Penetration Test Points.

Geotechnical Borehole

Geotechnical borehole were drilled for soil sampling (disturbed and undisturbed) to a refusal depth of -9.00 m below the natural ground level at the site of investigation. Groundwater was not encountered in the borehole drilled at the site. The strata-log of the geotechnical boreholes is presented in Figures 2 while the summary of the descriptive logs of the geotechnical borehole are presented in section 6.0.

Geotechnical borehole is a very valuable method of sub-soil investigation for the assessment of soil strength and deformability characteristics. It involves collecting disturbed and undisturbed soil samples from the pits at specific intervals for laboratory tests such as grain size analysis, consistency limits, quick undrained triaxial test, and oedometer consolidation test hence providing parameters that will aid in determining the strength and deformation characteristics of the sub-soil.

The preparation for and methods of taking samples together with their size, preservation and handling were in accordance with the British Standard Code of Practice for Site Investigations B.S.5930:1981.

All the soil samples obtained were examined and registered in terms of color, consistency, texture and structure.

The soil samples were taken to the engineering soil laboratory and subjected to soil classification test and strength tests which includes: triaxial test, consolidation test, sieve analysis and Atterberg's limit.

6.0 FIELD TESTS RESULT AND ANALYSIS

6.1 Sub-Soil Stratification

The sub-soil stratification of the geotechnical borehole point is described below:

BH 01

0.00 - 0.25m	- Dark brown gravely Silty SAND
0.25 – 0.75m	- Dark brown CLAYEY SAND
0.75 - 2.25m	- Brownish firm SANDY CLAY with occasional gravel.
2.25 - 3.00m	- Brownish stiff SANDY CLAY with occasional gravel.
3.00 - 4.50m	- Reddish brown ferrugenized Lateritic CLAY with Hardpan inclusions
4.50 - 6.00m	- Reddish brown ferrugenized very stiff Lateritic CLAY with Hardpan Inclusions
6.00 - 9.00m	- Hardpan/decomposed rock

Groundwater was not encountered in the Borehole drilled at this location.

6.2. Soil Penetration Resistance based on SPT 'N' Values.

The Standard Penetration Test (SPT) was carried out in the geotechnical borehole in accordance with procedures set out in BS. 1377:1975, Test 19 in subsoil while drilling progressed.

As seen in Table 2 presented below, the results of the SPT data recorded for the sub-soil at this location for the proposed development was quite similar, varying between medium and high values in the sub-soil at this site with depth.

TABLE 2: THE SUMMARY OF SPT 'N' VALUES FROM THE GEOTECHNICAL BOREHOLES AT THE PROJECT SITE

Depth (m)	***BH 01 (GWL: -NILL)***
- 1.50	8
-3.00	13
-6.00	23
-9.00	***>50***

Consequently, the sub-soil at the shallow depth is generally composed of hard soil materials on the weathered bedrock. These translate to appreciable bearing capacity values in the sub-soil at this site.

These values were thereafter corrected for overburden pressure, hammer efficiency, drill rod type, sampler type and borehole diameter to get the generalized 'Ncorr' value below:

TABLE 3: THE SUMMARY OF SPT 'Ncorr' VALUES FROM THE GEOTECHNICAL BOREHOLES AT THE PROJECT SITE

Depth (m)	***BH 01 SPT 'N' Value***	***BH 01 SPT 'Ncorr' Value***
- 1.50	8	6
-3.00	13	10
-6.00	23	18
-9.00	***>50***	***>40***

FIGURE 1. **BOREHOLE LOG**

Project: ENGINEERING SOIL INVESTIGATION. **Location:** LASUTH, LAGOS STATE

Borehole No: BH 01 **G.P.S. Coordinates.** N6° 35'29.83488" E6° 20'30.19596"

Boring Method: Percussion (Shell and Auger) **Groundwater level:** NILL

Date begun: 5-09-2025 **Date completed:** 5-09-2025

Strata Description	No. of blows per 150 mm	150 mm	150 mm	Samples Type & No.	Depth (m)
Dark Brown gravely silty SAND Dark Brown CLAYEY SAND				D1	
Brownish firm to stiff SANDY CLAY with occassional gravel	3	4	4	D2 S1	
	5	6	7	U2 D3 S2	
Reddish brown Ferrugenized Lateritic CLAY with HARDPAN inclusions				D4	
Reddish brown Ferrugenized very stiff Lateritic CLAYwith HARDPAN inclusions	8	10	13	D5 S3	5.0
HARDPAN/DECOMPOSED ROCK				D6	
	50	-	-	S4	10.0 15.0

Standard Penetration Test Blows per 300mm

10 20 30 40 50 60 70 80 90

Logged by: Adeyemi I.

Key

Gravel | Sand | Clay | Silt | S1 SPT | D1 Disturbed sample

U1 Undisturbed sample | Groundwater Level | Peat | Laterite

FRAYNES

DEUTSCH CONE PENETROMETER TEST GRAPHS (CPT 01 TO CPT 02)

FIGURE 1

DEUSTCH CONE PENETROMETER TEST

PROJECT: ENGINEERING SOIL INVESTIGATION
CLIENT: MIRABEL CENTER LASUTH
LOCATION: LASUTH, LAGOS STATE
REMARKS: STOPPED AT -2.00 m MAXIMUM ANCHORAGE

DATE: SEPTEMBER, 2025
~~TEST~~ NO: 01
~~MACHINE~~: 2.5 Ton
GROUNDWATER LEVEL: NILL

Depth (m)	Cone Resistance	Friction (Kg/cm²)
0	0	
-0.25	5	
-0.5	8	
-0.75	10	
-1	20	
-1.25	50	
-1.5	85	
-1.75	90	
-2	100	
-2.25		
-2.5		
-2.75		
-3		
-3.25		
-3.5		
-3.75		
-4		
-4.25		
-4.5		
-4.75		
-5		
-5.25		
-5.5		
-5.75		
-6		
-6.25		
-6.5		
-6.75		
-7		
-7.25		
-7.5		
-7.75		
-8		
-8.25		
-8.5		
-8.75		
-9		
-9.25		
-9.5		
-9.75		
-10		
-10.25		
-10.5		
-10.75		
-11		
-11.25		
-11.5		
-11.75		
-12		

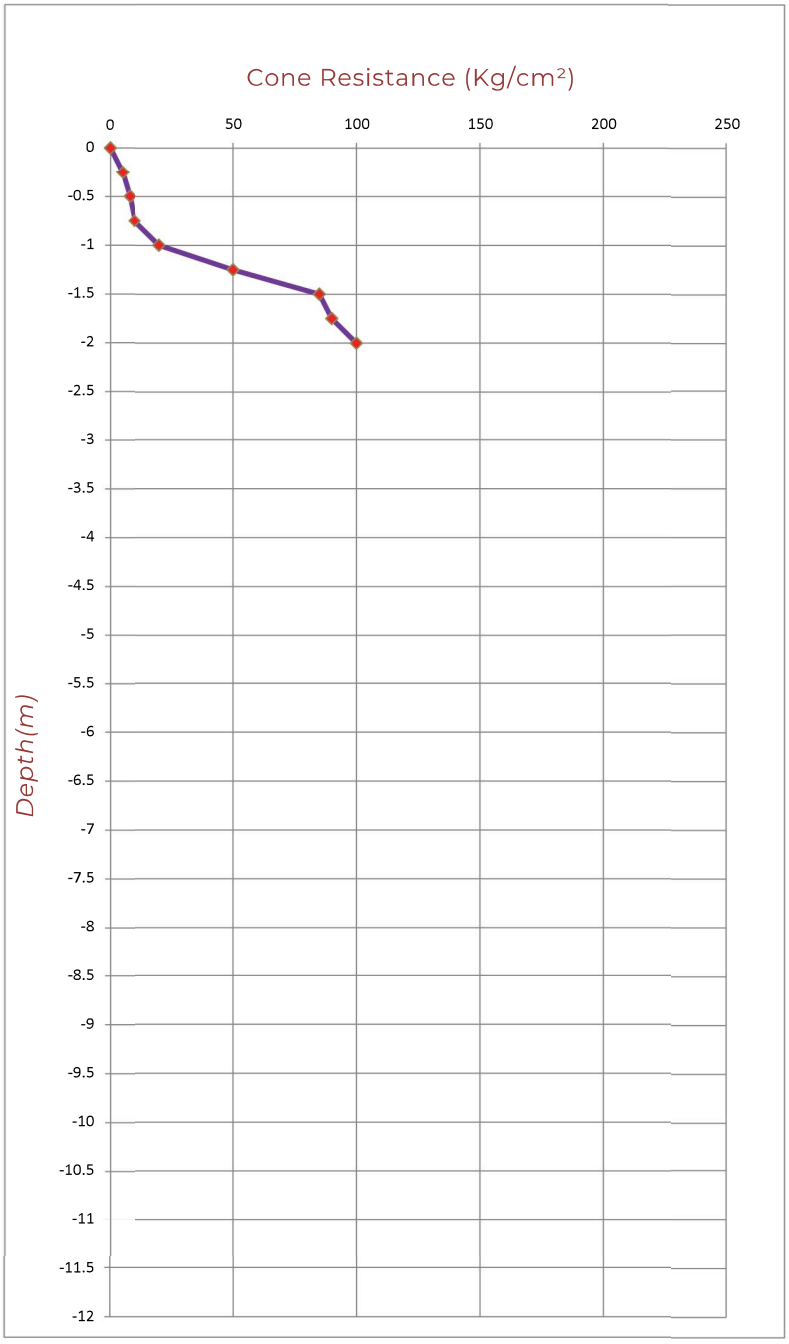


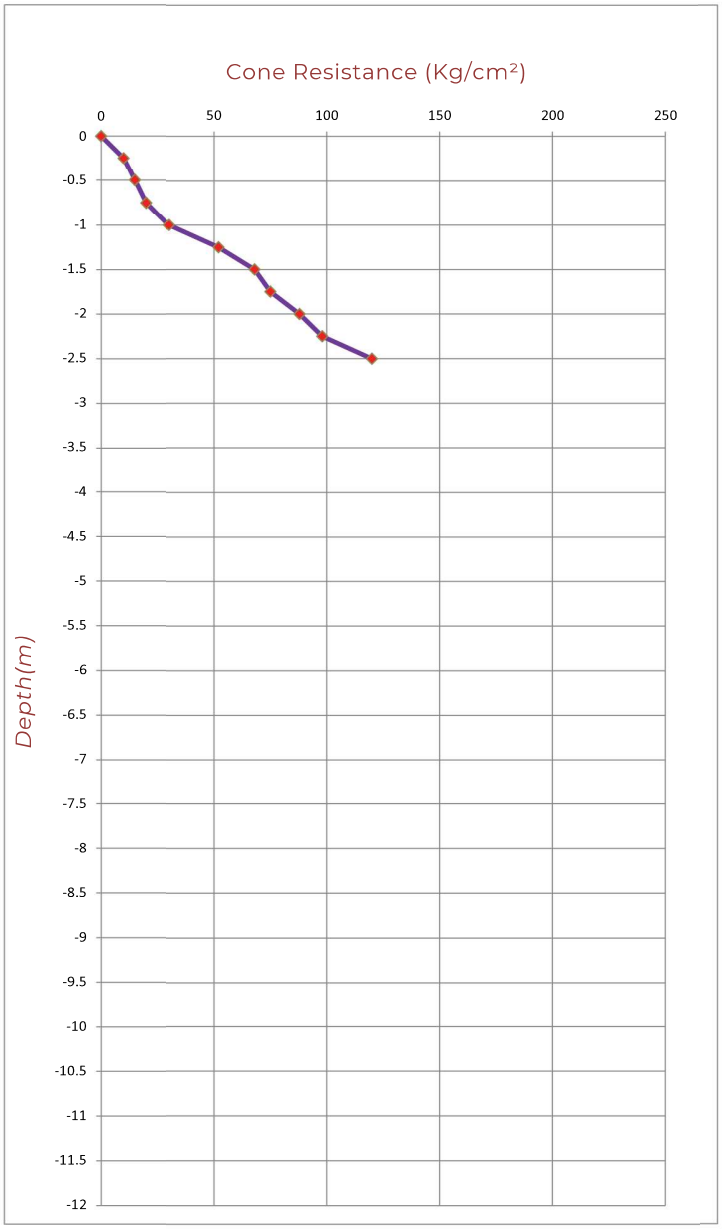
FIGURE 2

DEUSTCH CONE PENETROMETER TEST

PROJECT: ENGINEERING SOIL INVESTIGATION
CLIENT: MIRABEL CENTER LASUTH
LOCATION: LASUTH, LAGOS STATE
REMARKS: STOPPED AT -2.50 m MAXIMUM ANCHORAGE

DATE: SEPTEMBER, 2025
TEST NO: 02
MACHINE: 2.5 Ton
GROUNDWATER LEVEL: NILL

Depth (m)	Cone Resistance	Friction (Kg/cm²)
0	0	
-0.25	10	
-0.5	15	
-0.75	20	
-1	30	
-1.25	52	
-1.5	68	
-1.75	75	
-2	88	
-2.25	98	
-2.5	120	
-2.75		
-3		
-3.25		
-3.5		
-3.75		
-4		
-4.25		
-4.5		
-4.75		
-5		
-5.25		
-5.5		
-5.75		
-6		
-6.25		
-6.5		
-6.75		
-7		
-7.25		
-7.5		
-7.75		
-8		
-8.25		
-8.5		
-8.75		
-9		
-9.25		
-9.5		
-9.75		
-10		
-10.25		
-10.5		
-10.75		
-11		
-11.25		
-11.5		
-11.75		
-12		



6.2. CONE PENETRATION TEST INTERPRETATION

CPT 01: The soil resistance value (kg/cm) at -0.00 m to 1.00 m is 0 kg/cm^2 20 kg/cm^2. The values increased from 50 kg/cm^2 to 90 kg/cm^2 at -1.00 m to -1.75m (STIFF TO VERY STIFF CLAY) and 100 kg/cm^2 at a refusal depth of -2.00 m (VERY STIFF CLAY), hence translating to an appreciable bearing capacity of the sub-soil strata.

Implication: The soil resistance range within depth -0.00 to -1.00m shows that the soil layer is relatively firm/moderate. The soil shows significantly better resistance values at -1.25m to a competent load bearing-stratum at the refusal point of -2.00m which infers adequate strength, suggesting this zone can support moderate to heavy loads.

CPT 02: : The soil resistance value (kg/cm) at -0.00 m to 1.00 m is 0 kg/cm^2 30 kg/cm^2. The values increased from 52 kg/cm^2 to 98 kg/cm^2 at -1.00 m to -2.25m (STIFF TO VERY STIFF CLAY) and 120 kg/cm^2 at a refusal depth of -2.50 m (VERY STIFF CLAY), hence translating to an appreciable bearing capacity of the sub-soil strata.

Implication: The soil resistance range within depth -0.00 to -1.00m shows that the soil layer is relatively firm/moderate. The soil shows significantly better resistance values at -1.25m to a competent load bearing-stratum at the refusal point of -2.50m which infers adequate strength, suggesting this zone can support moderate to heavy loads.

6.3 Laboratory Analyses

Laboratory analyses such as soil classification tests – Grain size analysis and Atterberg, quick undrained triaxial test, oedometer consolidation tests were carried out on the representative soil samples from the ONE (1) geotechnical boreholes drilled at the project site.

KEY SOIL PARAMETERS

- ***Bulk density – 2.08 Mg/m ^{3}***
- ***Cohesion - 65 KN/m ^{2}***
- ***Angle of internal friction- 9 ^{0}***

% fines – 8 % – 25 %

% Sand- 66% -89%

% Gravel - 1% - 13%

Soil classification: SC

Plasticity index- 21% - 22%

Liquid limit: -35% - 38%

Compressibility: medium

SUMMARY OF LABORATORY TEST RESULTSOF LASUTH, LAGOS STATE

BH/ Sample No.	TYPE	Depth (m)	Particle Size Distribution % Passing: 2.00 Mm	425 □m	63 □m	2 □m	Nat. M.C %	Atterberg Limits LL % Dw	PL % dw	PI % Dw	□B Mg/m3	SG	Quick Undrained Triaxial Tests. Dia. Type (mm)	3 KN/m2	Cu KN/m2	Ø Deg.	Soil Class (UCS)	Oedometer Consolidation Tests. Stress Range KN/m²	Mv m2/MN	Cv m2/yr
BH 01																				
	D	***0.75***	***99***	***91***	***10***		***12***	***35***	***14***	***21***										
	U	***1.00***	***98***	***90***	***25***		***13***	***38***	***17***	***21***	***2.08***		***38***	***100***	***65***	***9***		***50-100***	***0.154***	***2.8***
	D	***2.25***	***91***	***89***	***20***		***13***							***200***				***100-200***	***0.159***	***2.9***
	D	***3.00***	***90***	***86***	***24***									***400***				***200-400***	***0.143***	***3.0***
																		400-800	***0.145***	***3.0***
	D	***5.75***	***89***	***88***	***23***		***12***	***37***	***15***	***22***										
	D	***7.50***	***87***	***85***	***8***		***14***													

7.0 DEDUCTIONS AND RECOMMENDATIONS

Generally, the sub-soil stratification at this site is as shown by the geotechnical borehole drilled on the project site.

The lithology consists essentially of Dark brown gravely silty SAND, Dark Brown CLAYEY SAND, Brownish firm SANDY CLAY, Brownish stiff SANDY CLAY with occasional gravel, and Reddish Brown Ferrugenized Lateritic SANDY CLAY with Hardpan inclusions.
Groundwater was not encountered in the drilled geotechnical borehole.

Soil characteristics

The sub-soil at this location is classified as I***NORGANIC CLAYS (CH***) of high plasticity and ***SC*** based on the Unified Soil Classification System ***(UCS).*** The Atterberg's Limits values are moderate with plasticity Index between 21% to 22%, and liquid limits values ranged between 35 % to 38 %. From the Atterberg limits results it can be deduced that the soil is of medium compressibility. Gravel content is between 1 % to 13 %, while the sand content varies between 66 % and 89 %. The fines (silt and Clay) content varied between 8% and 25%.

Groundwater

Groundwater was encountered at surface level in the geotechnical boreholes drilled during this investigation which could be sampled or tested. However, as a result of the appreciable number of fines in the subsoil, hence there can be a softening of the soil with increase in moisture content.

Design/Allowable bearing Pressure

In other to arrive at the bearing pressure values for the design of the foundation of the proposed structural development at the project site, the allowable bearing pressure and settlement estimates were carried out and used to compute for various footing sizes (1.00 m, 1.50 m, 2.00 m, 3.00 m), using the data generated from the field (In-situ) tests and the laboratory oedometer consolidation settlement tests.

The following ***design allowable bearing pressure (ABP)*** values and settlement were computed for the sub-soil at this site. The result of the Computations is presented in table 8 below**.**

The settlement of the soil is within the range of 4.77 mm to 90.63 mm.

TABLE 8: ALLOWABLE BEARING PRESSURE (ABP) AND SETTLEMENT ESTIMATES FOR SHALLOW FOUNDATION AT THE PROJECT SITE

M_v	σ	B (m) = 1.5		B (m) = 2.25		B (m) = 2		B (m) = 3	
(m2/MN)	(KN/m2)	H (m)	S (mm)	H (m)	S (mm)	H (m)	S (mm)	H (m)	S (mm)
	30	1	4.77	1.5	7.155	2	9.54	3	14.31
	40	1	6.36	1.5	9.54	2	12.72	3	19.08
	50	1	7.95	1.5	11.925	2	15.9	3	23.85
	60	1	9.54	1.5	14.31	2	19.08	3	28.62
	70	1	11.13	1.5	16.695	2	22.26	3	33.39
	80	1	12.72	1.5	19.08	2	25.44	3	38.16
	90	1	14.31	1.5	21.465	2	28.62	3	42.93
0.159	100	1	15.9	1.5	23.85	2	31.8	3	47.7
	110	1	17.49	1.5	26.235	2	34.98	3	52.47
	120	1	19.08	1.5	28.62	2	38.16	3	57.24
	130	1	20.67	1.5	31.005	2	41.34	3	62.01
	140	1	22.26	1.5	33.39	2	44.52	3	66.78
	150	1	23.85	1.5	35.775	2	47.7	3	71.55
	170	1	27.03	1.5	40.545	2	54.06	3	81.09
	180	1	28.62	1.5	42.93	2	57.24	3	85.86
	190	1	30.21	1.5	45.315	2	60.42	3	90.63

PAD FOUNDATION DESIGN

DEPTH (meters)	*FOOTING DIMENSIONS (L X B) (meters)*	*ABP* $(KN/m)^2$	*SETTLEMENT (mm)*
1.50	*~~1.0 X 1.0~~*	*120*	
	2.0 X 1.5		*28.62*
	~~1.5 X 1.5~~		*31.01*
	3.0 X 2.0		*34.98*
			38.16

The settlement of the sub-soil ranged from 5.13mm to 97.47mm, hence suitable for SHALLOW FOUNDATION as it is within the maximum tolerable settlement limits (≤40mm in SANDY soils and ≤65mm on CLAYEY soils).

Consequently, an allowable bearing pressure (ABP) value of 120 KN/m^2 may be adopted for the design of the PAD foundation of the proposed structural development at this site at depth of -1.50 meters, provided it satisfies the Structural Engineers requirements for the proposed building.

It is advisable that the pads be tied together to mitigate settlement and ensure better rigidity of the structure.

Foundation Construction Works

Foundation excavation trench opened at this site during construction must be completely backfilled and compacted quickly to protect it from moisture and water on completion of foundation works. Topographically, the project site is on a low-lying terrain.

For concrete works, we recommend the use of rich, dense mix of ordinary Portland cement to satisfy the standard equivalent to CLASS 2 in the Code of Practice for foundations B.S. 8004: 1984, together with good embedment of reinforcement in all concrete structures at this project site.

The observations and deductions made in this report are based on the ground condition as revealed by the position of the geotechnical borehole and soil sampling which were carried out at the project site as well as visual site observation and laboratory tests on the recovered disturbed and undisturbed soil samples.

The structural/foundation design Engineer for the project shall appraise the prevailing sub-soil conditions as presented herein along with the proposed structures foundation option to arrive at the best choice of foundation type for the proposed development at the site.

PREPARED BY:

ADEYEMI IFEOLUWA O (MNAEGE, MNMGS)

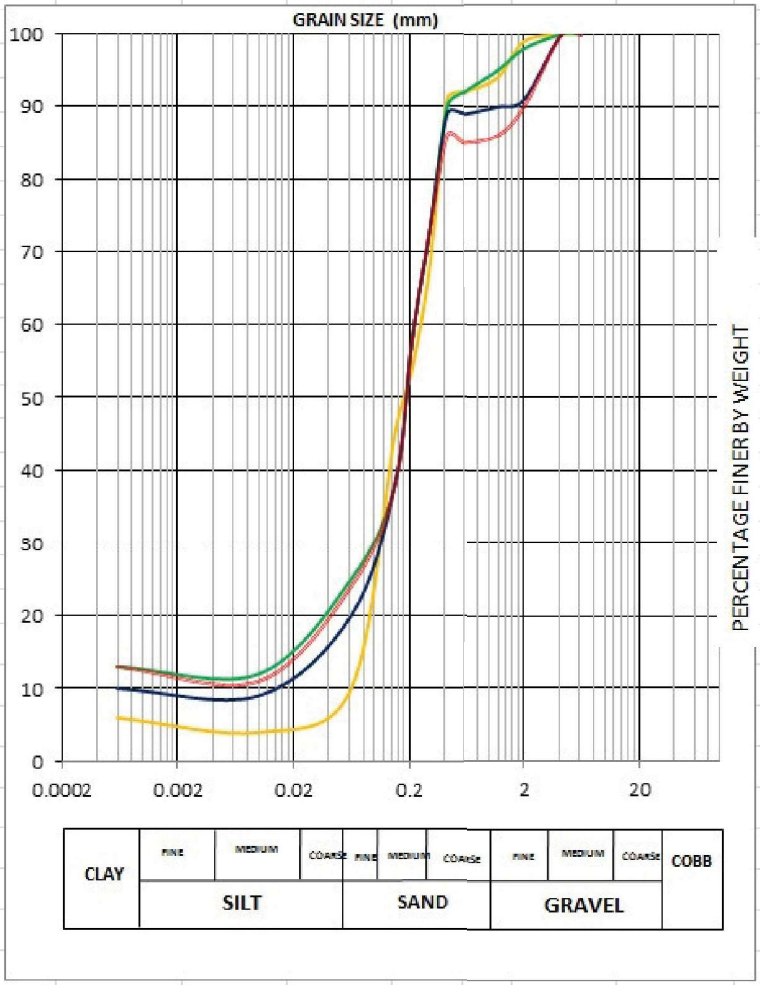
F***ig 1.0: GEOTECHNICAL INVESTIGATION BEING CARRIED OUT ON SITE***

F***ig 2.0: GEOTECHNICAL INVESTIGATION BEING CARRIED OUT ON SITE***

APPENDIX

PARTICLE SIZE DISTRIBUTION

Location:	LASUTH, LAGOS STATE	Job ref.	
Test Method: BS 1377-2:1990:9		Borehole/ Pit no.:	BH 01

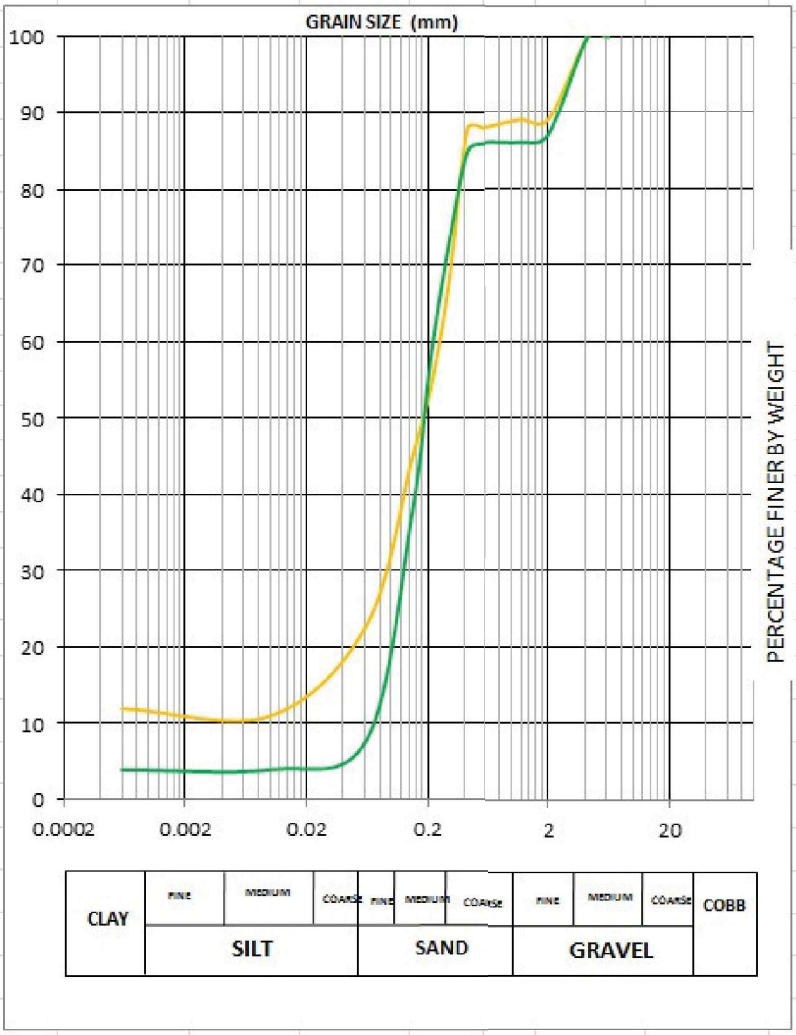


Symbol	Sample No.	Depth (m)	Classification
	1	0.75	BROWN SANDY CLAY
	2	1.00	BROWN SANDY CLAY
	3	2.25	LIGHT GREY SAND
	4	3.00	LIGHT GREY SAND

Grain size analysis curve BH 01

PARTICLE SIZE DISTRIBUTION

Location:	LASUTH, LAGOS STATE	**Job ref.**	
Test Method: BS 1377-2:1990:9		**Borehole/ Pit no.:**	BH 01

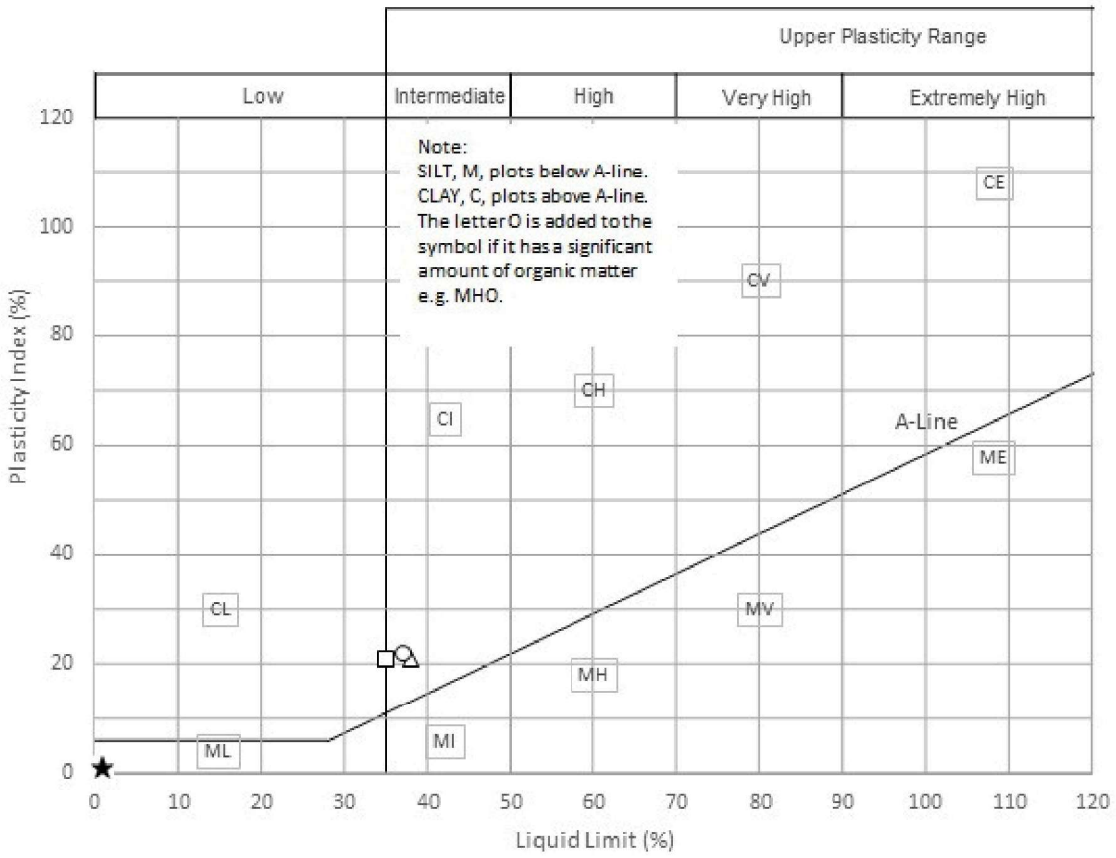


Symbol	Sample No.	Depth (m)	Classification
	1	5.75	BROWN SANDY CLAY
	2	7.50	BROWN SANDY CLAY

Grain size analysis curve BH 01

Atterberg Limits

PROJECT NAME	LOCATION	BH NO	
MIRABEL CENTER LA SUTH	IKEJA	BH 01	



Symbol	Sample	Depth (m)	Natural Moisture Content	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)
□	BH 01	0.75	12	35	14	21
△	BH 02	1.00	13	38	17	21
○	BH 03	5.75	12	37	15	22

Combined Cassagrande plotof soil samples at project site

LABORATORY QUICK UNDRAINED COMPRESSION TEST

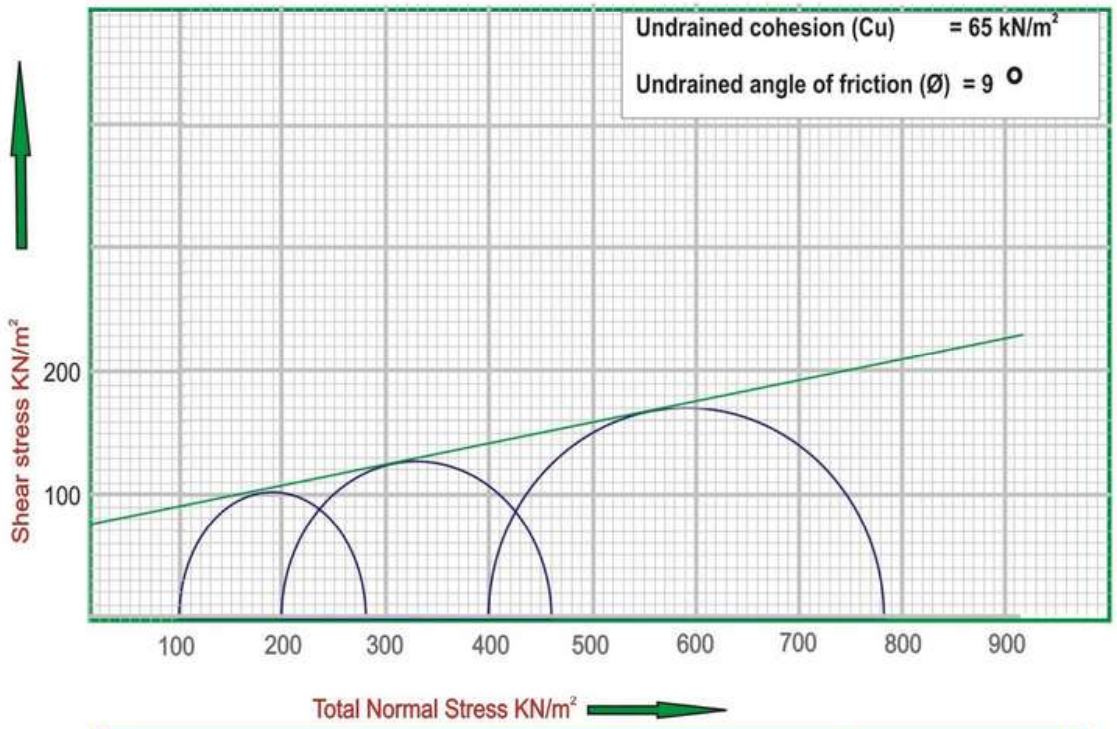
MOHR'S CIRCLE DIAGRAM

PROJECT: MIRABEL CENTER, LASUTH

BH NO..: BH 01

SAMPLE NO: 3 SAMPLE TYPE: Undisturbed Sample

DEPTH: -1.00 m DATE: SEPTEMEBR. 2025



Cell Pressure σ_3 (KN/m²)	Max. Deviation Stress $\sigma_1-\sigma_3$ (KN/m²)	Total Normal Stress (KN/m²) σ_1
100	170	280
200	260	460
400	380	780

ANNEX 6A- CONTAINER SELECTION CHECKLIST

Container Selection Checklist:

This checklist shall be used by QA/QC inspectors and procurement staff when selecting, modifying, and approving containers for use in the Mirabel SARC project.

☐ Confirm container type: 40-ft High Cube (preferred) or 40-ft GP (only if required).

☐ Verify material: Corten steel with mill certificates provided.

☐ Check CSC plate: serial number, stacking rating, and max gross weight (valid and legible).

☐ Inspect physical condition: no corrosion pitting/perforations, severe dents, twist, or racking.

☐ Corner castings intact: bolt holes round, not ovalized; plumb and square verified.

☐ Structural soundness: corner posts, rails, and cross-members undeformed and load-bearing.

☐ Welds on modifications: executed per approved WPS/PQR, with NDT reports (VT, PT/MT).

☐ Surface preparation: abrasive blast Sa 2½, coating DFT measurements recorded.

☐ Protective coating: zinc-rich primer, epoxy intermediate, PU topcoat, cavity wax in enclosed areas.

☐ Insulation suitability: sufficient internal headroom for rockwool/PIR insulation and linings.

☐ Weighbridge ticket provided post-modification (target 7.5–9.5 t per module).

☐ Lifting lugs and handling gear certified; lifting plan approved.

☐ Documentation complete: inspection reports, welder certificates, coating logs, weighbridge records.

ANNEX 6B- INSTRUCTION TO BIDDERS

INSTRUCTION TO BIDDERS (ITB)

Project: Mirabel Sexual Assault Referral Centre (SARC), LASUTH, Lagos

Client: International IDEA (RoLAC 2 Programme)

Consultant: Olu Tee Engineering International Ltd

Document Purpose: Practical instructions to bidders consistent with ToR; to be read together with the tender notice/RFP, Drawings, BoQ, and QA/ITP.

1. SCOPE OF WORK

1.1 The Contractor shall construct, fit-out, and commission the container-based Mirabel SARC facility strictly in accordance with the Issued-for-Tender (IFT) drawings, BoQ, and these Instructions.

1.2 Works include civil/foundations, off-site container preparation, on-site assembly, architectural finishes, MEP (electrical, mechanical HVAC split units, plumbing/drainage), and testing & commissioning.

1.3 The Contractor shall coordinate with the Consultant for all submittals, inspections, and hold/witness points as detailed in the QA/QC ITP.

2. BIDDER ELIGIBILITY & QUALIFICATIONS

2.1 The Bidder shall demonstrate experience delivering at least two (2) modular/containerized or steel-frame building projects of similar scale within the last five (5) years.

2.2 The Bidder shall provide current registrations, tax compliance, and relevant professional licenses (e.g., COREN/ARCON-affiliated personnel where applicable).

2.3 The Bidder shall identify a Project Manager, Site Engineer, QS, and HSE Officer with CVs and certifications.

3. SITE VISIT & DUE DILIGENCE

3.1 The Bidder shall attend the pre-bid site visit (when scheduled) and is responsible for examining site conditions, access constraints, and logistics.

3.2 The Bidder shall allow for all temporary work and protection of existing hospital operations.

4. TECHNICAL REQUIREMENTS

4.1 Containers: The Contractor shall use ISO-certified 40-ft High Cube (HC) Corten steel containers in sound structural condition with valid CSC plates. No perforations/pitting; no severe dents/twist/racking. Corner castings shall be intact with round, non-ovalized bolt holes; interfaces shall be plumb and square (vertical ±5 mm; diagonal squareness within 3 mm at 2 m).

4.2 Structural Integrity: Corner posts, rails, and cross-members shall remain loadbearing after modifications. All structural works shall comply with the Structural Engineer of Record (SER) calculations and the final IFC drawings.

4.3 Welding & Fabrication: Execute welding per approved WPS/PQR. Perform NDT (VT and PT/MT as applicable). Submit weld maps and NDT reports in the QA dossier.

4.4 Surface Prep & Coatings: Blast-clean to Sa 2½ (ISO 8501-1). Record Dry Film Thickness (DFT) for each coat. Protective system: zinc-rich primer + epoxy intermediate + polyurethane topcoat. Apply cavity wax to enclosed voids after services integration.

4.5 Insulation & Interiors: Verify headroom prior to procurement. Provide rockwool (≥75 mm) or PIR insulation to meet thermal/acoustic requirements, coordinate with linings and services.

4.6 HVAC (Split Units): Provide and install split-unit AC per schedule and drawings. At commissioning, verify a 10–12°C supply-air temperature reduction within 20 minutes of start-up for each indoor unit.

4.7 Plumbing & Drainage: Provide complete cold/hot water distribution, sanitary drainage, and fixtures. Plumbing scope is separate from AC but coordinated under MEP.

4.8 Electrical: Install per drawings and schedules, including earthing ≤0.4 Ω, lighting (LED), small power, and dedicated AC circuits. Provide PV-ready conduits and space for inverter/batteries as shown in drawings.

4.9 Rainwater Harvesting (RWH): Provide gutters/downpipes to storage tank with first-flush diverter, leaf guards, and coarse filtration (200–500 µm) pre-tank. Include pump and disinfection point for non-potable reuse (cleaning/irrigation).

4.10 Sustainability: Fit LED lighting, low-flow fixtures, adequate insulation/ventilated façade details, and cable pathways for future PV integration as indicated.

4.11 Lifting/Handling & Weight: Provide certified lifting lugs. Submit weighbridge tickets for each container module (target post-mod mass typically 7.5–9.5 t).

5. DRAWINGS, APPROVALS, AND SEQUENCING

5.1 Build strictly to the latest IFT/IFC drawings and the BoQ. No deviation shall occur without written instruction from the Consultant.

5.2 Statutory approvals (LASPPPA, LASBCA, LASEPA, Fire Service, NCPWD, and others as applicable) shall be observed. Work that requires approvals shall not proceed until sign-offs are in place.

5.3 Off-site prefabrication may proceed in parallel with on-site foundation works and curing, subject to QA/ITP witness/hold points and approvals sequencing.

6. QA/QC, TESTING AND ITP HOLD POINTS

6.1 The Contractor shall comply with the Inspection & Test Plan (ITP) including hold/witness points for: concrete slump and cube tests; weld NDT; coating DFT; earthing resistance; plumbing hydrostatic tests; electrical functional tests; and HVAC commissioning.

6.2 No work shall proceed beyond a hold point until the Consultant has reviewed and accepted relevant test results and inspection records.

6.3 The Contractor shall submit a QA dossier including WPS/PQR, NDT reports, DFT logs, weighbridge tickets, material certificates, and commissioning sheets.

7**. HEALTH, SAFETY & ENVIRONMENT (HSE)**

7.1 The Contractor shall implement a HSE Plan compliant with Nigerian labor laws and local regulations, including LASEPA environmental controls, fire safety, and hospital access protocols.

7.2 Provide PPE, method statements, risk assessments (JSA), and emergency procedures. Maintain clean site logistics within the hospital precinct.

8. SUBMITTALS

8.1 The Contractor shall submit the following prior to procurement/installation: shop drawings, product data sheets, method statements, WPS/PQR, ITP/QC checklists, samples/mockups (where requested).

8.2 As-built drawings and O&M manuals shall be submitted at handover, including warranties and commissioning certificates.

9. PROGRAMME AND MILESTONES

9.1 The Contractor shall submit a detailed programme (Gantt) reflecting a four-month delivery with parallel off-site fabrication and on-site works.

9.2 Dates/timelines shall be re-aligned to the award date as applicable. Any slippage and recovery plans shall be notified within five (5) working days.

10. BOQ & PRICING INSTRUCTIONS

10.1 Prices shall be based on the provided BoQ (NIQS format). Where discrepancies arise between drawings and BoQ descriptions, the more stringent requirement shall govern, and the Bidder shall notify queries before bidding close.

10.2 The Edited BoQ and the cost plan summaries form the pricing baseline for evaluation. All rates shall be deemed to include preliminaries, overheads, and profit unless otherwise stated.

10.3 Provisional sums (if any) and prime cost items shall be clearly identified.

11. BID FORMAT & SUBMISSION

11.1 Submit a single PDF (technical + financial) and an editable BoQ (XLSX) as instructed in the RFP.

11.2 Technical: methodology, programme, QA/QC approach, HSE plan, team CVs, relevant experience, approvals strategy, and shop drawings list.

11.3 Financial: completed BoQ, grand summary, allowances, and list of exclusions (if any).

11.4 Validity: Bid validity and submission deadline shall follow the RFP. Late submissions will not be accepted.

12. CLARIFICATIONS AND ADDENDA

12.1 Bidders shall submit clarification questions within the timeframe stated in the RFP. Responses and any addenda issued shall form part of the ITB and be acknowledged in the bid.

12.2 No verbal instructions are binding unless confirmed in writing.

13. EVALUATION REFERENCE

13.1 Evaluation shall follow the RFP criteria and scoring matrix issued by the Client. Compliance with these Instructions, QA/ITP alignment, and completeness of the BoQ will be key determinants.

This Instruction to Bidders must be read together with ToR, the tender notice/RFP, the Drawings (IFT/IFC), the BoQ, the QA Management Plan, and the QA/QC ITP Pack.

ANNEX 6C- MIRABEL SARC GLOSSARY OF ABBREVIATIONS

Mirabel SARC — Glossary of Abbreviations (A–Z)

Alphabetical list of abbreviations used across ToR, RFP, ITB, drawings, QA/QC plans, HSE plan, BoQ, and minutes.

Abbreviation	Full Term	Definition / Project Context	Key Source Docs
AC	Air Conditioner	Split-unit cooling equipment per schedule and drawings.	Design Report; ITP
ARCON	Architects Registration Council of Nigeria	Professional council; architects' seals and compliance.	Regulatory Constraints
BoQ / BOQ	Bill of Quantities	Itemized schedule of works, quantities, and rates (NIQS format).	BoQ Files; RFP
BPP	Bureau of Public Procurement	Procurement oversight body (referenced where applicable).	Procurement Context
COC	Certificate of Conformity	Document certifying compliances of materials/equipment.	QA Dossier
COREN	Council for the Regulation of Engineering in Nigeria	Engineering practice regulator; engineers' seals and compliance.	Regulatory Constraints
CSC	Convention for Safe Containers	International convention; containers must carry a valid CSC plate.	Container Checklist
DFMA	Design for Manufacture and Assembly	Approach emphasizing off-site fabrication and modular assembly.	Methodology/Programme

DFT	Dry Film Thickness	Measured thickness of protective coatings; recorded per coat.	ITP; Coatings
G+3	Ground plus Three Floors	Stacking reference used in preliminary corner-reaction notes.	Design Report Annex B
HC	High Cube (Container)	40-ft high-cube ISO container type specified for modules.	Design Report; Container Checklist
HSE	Health, Safety and Environment	Site safety and environmental management requirements.	HSE Plan; ToR; ITB
HVAC	Heating, Ventilation and Air Conditioning	Mechanical systems for thermal comfort and air quality (split units).	Design Report; ITP
IFC	Issued for Construction	Final, signed drawing set for construction.	Drawings; ITB
IFT	Issued for Tender	Drawing/spec set issued for bidding purposes.	Drawings; RFP
ISO	International Organization for Standardization	Reference standards (e.g., ISO 8501-1 for surface preparation).	Coatings; QA
ITF	Industrial Training Fund	Training contributions and compliance (where applicable).	Corporate Compliance
ITP	Inspection and Test Plan	Matrix of hold/witness points, inspections, and acceptance criteria.	QA/QC ITP Pack

JSA	Job Safety Analysis	Task-based risk assessment required before high-risk works.	HSE Plan
LASBCA	Lagos State Building Control Agency	State agency for building control, stage approvals and supervision.	Regulatory Constraints
LASEPA	Lagos State Environmental Protection Agency	Regulator for environmental standards and site HSE/EM safeguards.	Regulatory Constraints; HSE
LASPPPA	Lagos State Physical Planning Permit Authority	State authority for planning permits and development approvals.	Regulatory Constraints
LASUTH	Lagos State University Teaching Hospital	Project host institution and site for Mirabel SARC.	Approvals; Meeting Minutes
LED	Light-Emitting Diode	Energy-efficient lighting type required in sustainability section.	Design Report
LSSC	Lagos State Safety Commission	State regulator for safety practices and site audits.	Regulatory Constraints; HSE
MEP	Mechanical, Electrical and Plumbing	Combined services package covering HVAC, power/lighting, water/drainage.	Design Report; ELECT DESIGN
MT	Magnetic Particle Testing	NDT method for detecting surface/near-surface discontinuities in ferromagnetic materials.	ITP; Fabrication

NCPWD	National Commission for Persons with Disabilities	Federal body for accessibility compliance (ramps, lifts, signage).	Regulatory Constraints; Design
NDT	Non-Destructive Testing	Testing methods that do not damage the part (e.g., VT, PT, MT).	ITP; Fabrication
NIA	Nigerian Institute of Architects	Professional association referenced for architect sign-offs.	Regulatory Constraints
NIQS	Nigerian Institute of Quantity Surveyors	Professional body; NIQS format adopted for BoQ.	BoQ Files
NSITF	Nigeria Social Insurance Trust Fund	HSE/social insurance compliance for contractors.	Corporate Compliance
O&M	Operations and Maintenance	Manuals and instructions required at handover.	Handover Requirements
PIR	Polyisocyanurate	Thermal insulation option; alternative to rockwool.	Design Report
PPE	Personal Protective Equipment	Mandatory safety gear for all site personnel.	HSE Plan
PQR	Procedure Qualification Record	Records demonstrating the WPS produces compliant welds.	ITP; Fabrication
PT	Penetrant Testing	Liquid penetrant NDT for surface-breaking defects in non-ferrous/ferrous metals.	ITP; Fabrication

PU	Polyurethane	Topcoat finish in the protective coating system.	Coatings Spec
PV	Photovoltaic	Solar power readiness: conduits, inverter space, cable pathways.	Design Report (Sustainability)
QA	Quality Assurance	Planned and systematic activities to ensure quality requirements are met.	QA Management Plan
QC	Quality Control	Operational techniques to meet quality requirements (inspections/tests).	QA Management Plan; ITP
RAMS	Risk Assessment and Method Statement	Safety and quality planning documents for critical activities.	HSE; QA/ITP
RFP	Request for Proposals	Bidding document stating submission rules and evaluation criteria.	RFP drafts
RoLAC	Rule of Law and Anti-Corruption Programme	EU/International IDEA programme funding and overseeing this assignment.	RFP/ToR; Cover Memos
RWH	Rainwater Harvesting	Gutters, downpipes, first-flush, filtration, storage for non-potable reuse.	Design Report (Sustainability)
SARC	Sexual Assault Referral Centre	Specialized clinical and psychosocial support centre; Mirabel SARC is within LASUTH.	Needs Assessment; Site/Design Reports

SER	Structural Engineer of Record	Engineer responsible for structural design and sign-off.	Design/Calculations
ToR	Terms of Reference	Scope, objectives, and deliverables of the consultancy/works.	ToR drafts
VT	Visual Testing	Visual examination of welds/surfaces for defects.	ITP; Fabrication
WPS	Welding Procedure Specification	Approved method for performing welds on structural works.	ITP; Fabrication

ANNEX 7- CONSTRUCTION TIMELINE

Olu Tee
Engineering Intl Ltd
RC:493135

KM 35, Lekki-Epe Expressway,
Ibeju-Lekki, Lagos.
info@olutee-ng.com
01-2932794
www.olutee-ng.com

Activity	Start Date	Finish Date	Duration (weeks)
Mobilization & Site Setup	2025-12-01	2025-12-08	1
Site Clearance & Preliminary Works	2025-12-08	2025-12-15	1
Geotechnical Confirmation & Surveys	2025-12-15	2025-12-22	1
Foundation Works (excavation, RC pads, bea	2025-12-22	2026-01-19	4
Offsite Container Prefabrication	2025-12-22	2026-02-02	6
Container Delivery & Onsite Installation	2026-02-02	2026-02-23	3
Structural Reinforcements & Exoskeleton Tie	2026-02-02	2026-02-16	2
Roofing & Weatherproofing	2026-02-16	2026-03-02	2
MEP Rough-ins (plumbing, electrical, AC pipi	2026-03-02	2026-03-16	2
External Cladding & Insulation	2026-03-16	2026-03-30	2
Internal Partitions & Finishes	2026-03-16	2026-03-30	2
Final MEP Installations	2026-03-16	2026-03-30	2
Fire Safety & Accessibility Installations	2026-03-30	2026-04-06	1
Testing, Commissioning & QA/QC	2026-04-06	2026-04-07	1
Regulatory Inspections & Approvals	2026-04-07	2026-04-07	1
Training & Handover	2026-04-07	2026-04-07	1