

ELECTRICAL SERVICES

**FOR**

**E.Y.N CHURCH GURKU**

@

NEAR IDP CAMP KARU LG NASARAWA STATE.

# ELECTRICAL LEGEND

| SYMBOL  | DESCRIPTION   | SYMBOL  | DESCRIPTION                         |
|---|---|---|-------------------------------------|
|    | WIRELESS ROUTER   |    | 2 GANG 2 WAY SWITCH                 |
|    | 1x9w energy saver ceiling mounted (recessed and surface) fitting 'Thorn Novaline'     |    | DISTRIBUTION BOARD + ASSOCIATED RCD |
|    | 1x18W CEILING MOUNTED FITTING   |    | 5x20w Chandelier                    |
|    | 1x40W EXTERNAL LIGHT FITTING  |    | 1x15 AMP SOCKET OUTLET              |
|    | KIOSK SWITCH FOR FENCE LIGHT  |    | 1X13 AMP SOCKET OUTLET              |
|    | 40W EXTERNAL LIGHT FITTING  |    | 4500 COOKER CONTROL UNIT            |
|    | Intercom  |    | 3000W WATER HEATER POINTS           |
| <b>S E</b>  | SMOKE EXTRACTOR   |    | TELEPHONE OUTLETS                   |
|    | 3 GANG 1 WAY SWITCH   |    | TELEVISION AERIAL OUTLET            |
|    | 1 GANG 1 WAY SWITCH   |    | LIGHTING KIOSK                      |
|    | BED SWITCH  |    | ELCB                                |
|    | 1x9w with energy saving, ceiling mounted (recessed and surface) fitting 'Thorn Konic' |    | 2x13AMP SOCKETS OUTLET              |
|    | 2 x 40W FLOURESCENT   |    | FIRE ALARM PANEL                    |
|    | 9W ENERGY SAVING BULBS  |    | OUTDOOR COLOUR CAMERA               |
|    | 1x 9W RECESS BALL EYE LIGHTING FITTING  |    | 9W DELTA WALL MOUNTED LIGHTING      |
|   | 1x 9W DECORATIVE LIGHTING FITTING   |   | TP&N NEPA METER + CUT-OUT FUSES     |
|  | FIRE ALARM CONDUIT  |  | INDOOR COLOUR CAMERA                |
|  | FIRE ALARM  |  | Internet Con                        |
|  | 85W CEILING FAN + REGULATOR   |  | WATER HEATER SWITCH                 |

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

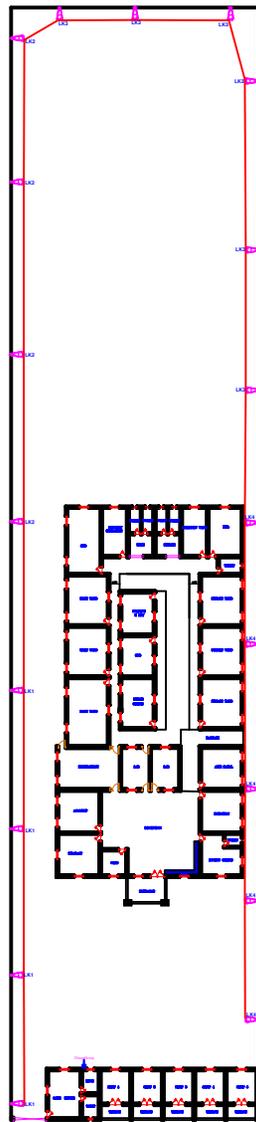
**E.Y.N CHURCH GURKU**

SHEET TITLE

|             |                |          |
|-------------|----------------|----------|
| DESIGNED BY | TITUS          | SHEET NO |
| CHECK BY    | ENGR. B. HAMSU |          |

**E1**

|                | LK1 | LK2 | LK3 | LK4 | SPARE |
|----------------|-----|-----|-----|-----|-------|
| DESCRIPTION    |     |     |     |     |       |
| CONNECTED LOAD | 160 | 160 | 200 | 200 |       |
| MC RATIO       | 10  | 10  | 10  | 10  |       |
| NO OF POINTS   | 4   | 4   | 5   | 5   |       |
| IGA TYP        |     |     |     |     |       |
| 720W           |     |     |     |     |       |



PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

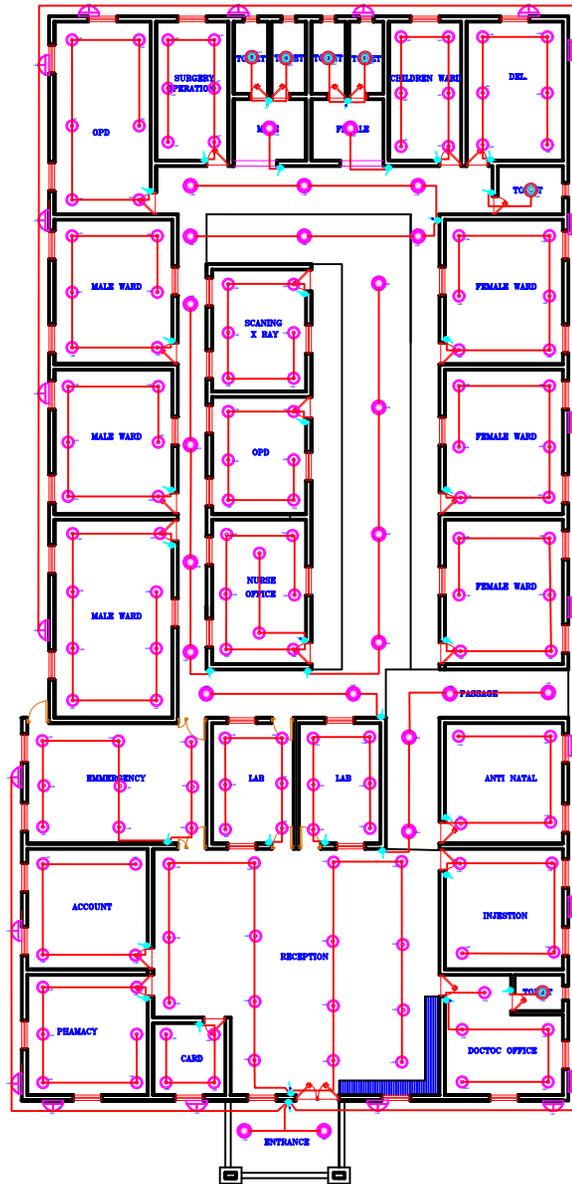
**E.Y.N CHURCH GURKU**

SHEET TITLE

**SITE ELECTRICAL LIGHTING PLAN**

| DESIGNED BY | TITUS          | SHEET NO |
|-------------|----------------|----------|
| CHECK BY    | ENGR. B. HAMSU |          |

**E3**



SHEET TITLE

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

**E.Y.N CHURCH GURKU**

GROUND FLOOR ELECTRICAL LIGHTING PLAN

| DESIGNED BY | TITUS          | SHEET NO  |
|-------------|----------------|-----------|
| CHECK BY    | ENGR. B. HAMSU | <b>E4</b> |
|             |                |           |



SHEET TITLE

PROJECT

**PROPOSED CLINIC  
DEVELOPMENT**

CONTENT

**ELECTRICAL  
DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

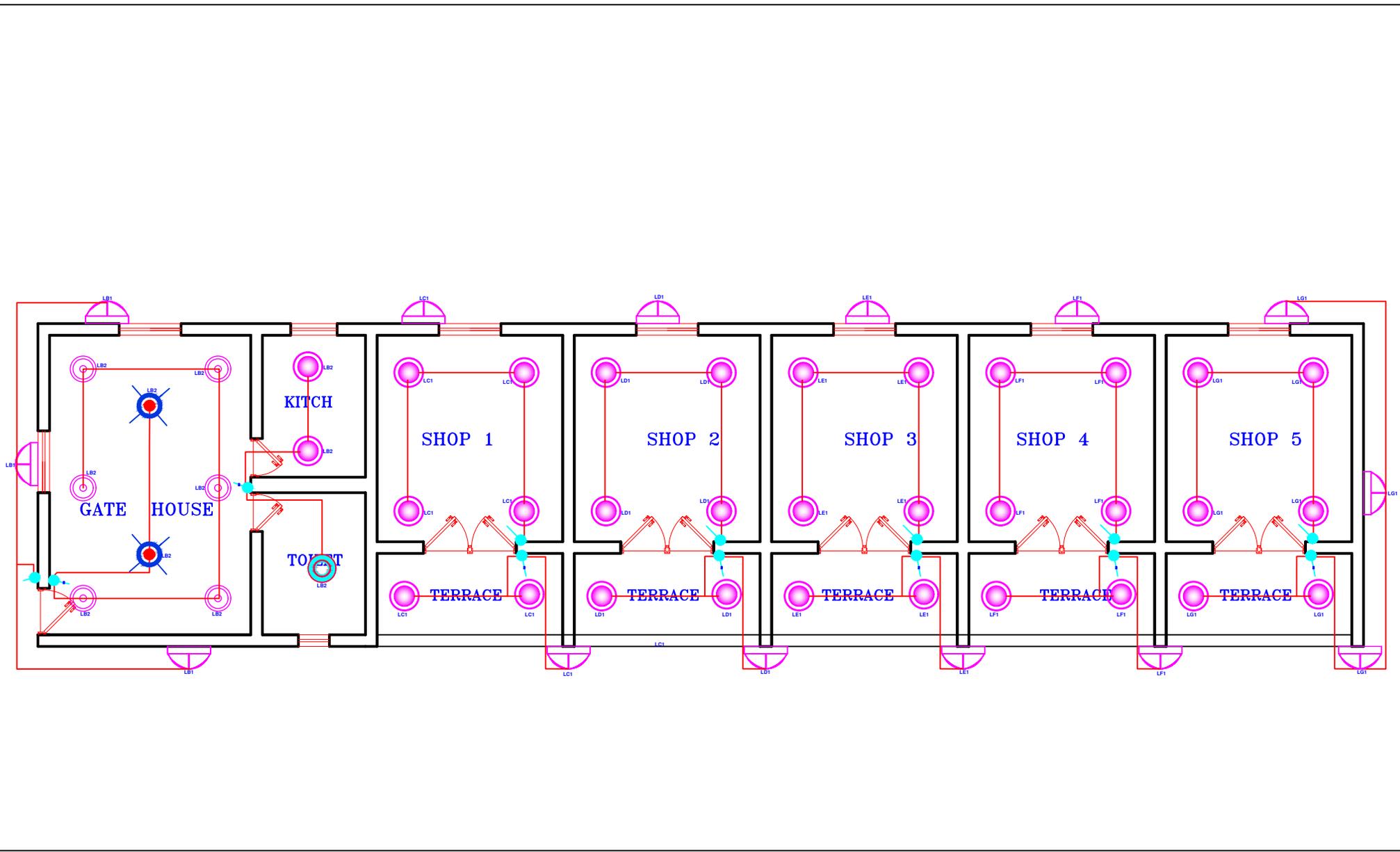
CLIENT

**E.Y.N CHURCH GURKU**

GROUND FLOOR ELECTRICAL SOCKETS PLAN

|             |                |          |
|-------------|----------------|----------|
| DESIGNED BY | TITUS          | SHEET NO |
| CHECK BY    | ENGR. B. HAMSU |          |

**E5**



SHEET TITLE

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

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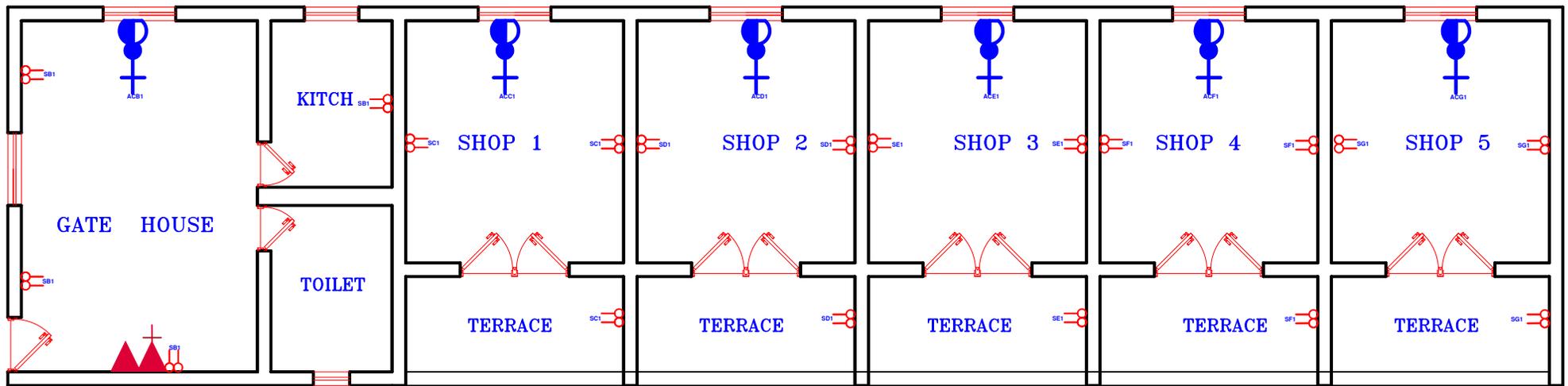
CLIENT

**E.Y.N CHURCH GURKU**

SECURITY AND SHOPS FLOOR ELECTRICAL LIGHTING PLAN

|             |                |          |
|-------------|----------------|----------|
| DESIGNED BY | TITUS          | SHEET NO |
| CHECK BY    | ENGR. B. HAMSU |          |

**E6**



PROJECT

**PROPOSED CLINIC  
DEVELOPMENT**

CONTENT

**ELECTRICAL  
DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

**E.Y.N CHURCH GURKU**

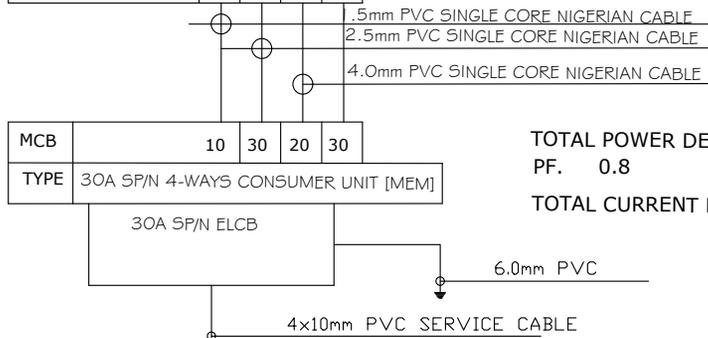
SHEET TITLE

SECURITY AND SHOPS FLOOR ELECTRICAL SOCKETS PLAN

|             |                 |           |
|-------------|-----------------|-----------|
| DESIGNED BY | TITUS           | SHEET NO  |
| CHECK BY    | ENGR. B. HAMISU | <b>E7</b> |



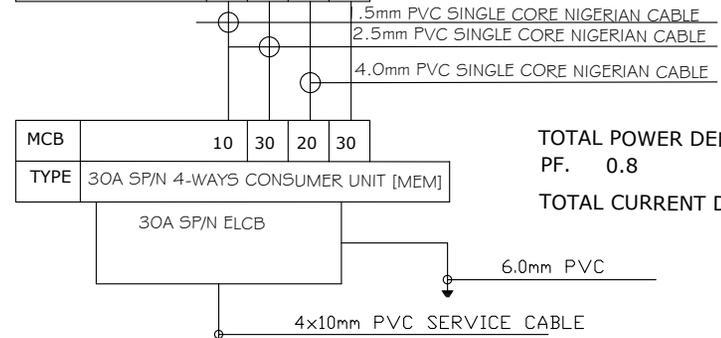
| CIRCUIT NO       | LB1 | SB2 | SB1  | ACB1 | TOTAL |       |
|------------------|-----|-----|------|------|-------|-------|
| PHASE & LOAD     | RED | 96  | 86   | 960  | 1500  | 2,642 |
| PEAK LOAD        | 120 | 108 | 1600 | 1500 |       |       |
| WAY NO           | 1   | 2   | 3    | 4    |       |       |
| NO OF POINTS     | 4   | 11  | 8    | 1    |       |       |
| DIVERSITY FACTOR | 0.8 | 0.8 | 0.6  | 1    |       |       |



TOTAL POWER DEMAND 2,642W  
PF. 0.8  
TOTAL CURRENT DEMAND 12.1A

PLAN ANALYSIS FOR LOAD SCHEDULE FOR P/G HOUSE CU-B

| CIRCUIT NO       | LC1 | SC1  | ACC1 | SPARE | TOTAL |       |
|------------------|-----|------|------|-------|-------|-------|
| PHASE & LOAD     | RED | 107  | 720  | 1500  |       | 2,327 |
| PEAK LOAD        | 134 | 1200 | 1500 |       |       |       |
| WAY NO           | 1   | 2    | 3    | 4     |       |       |
| NO OF POINTS     | 8   | 4    | 1    | 1     |       |       |
| DIVERSITY FACTOR | 0.8 | 0.6  | 1    |       |       |       |



TOTAL POWER DEMAND 2,327W  
PF. 0.8  
TOTAL CURRENT DEMAND 10.6A

PLAN ANALYSIS FOR LOAD SCHEDULE FOR CU-C

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

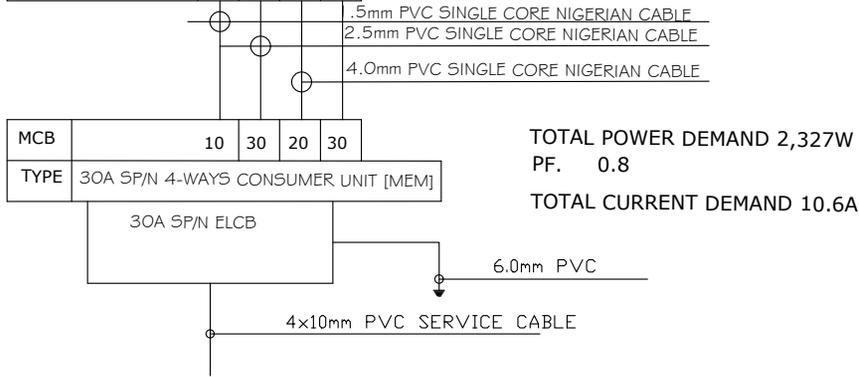
CLIENT

**E.Y.N CHURCH GURKU**

SHEET TITLE

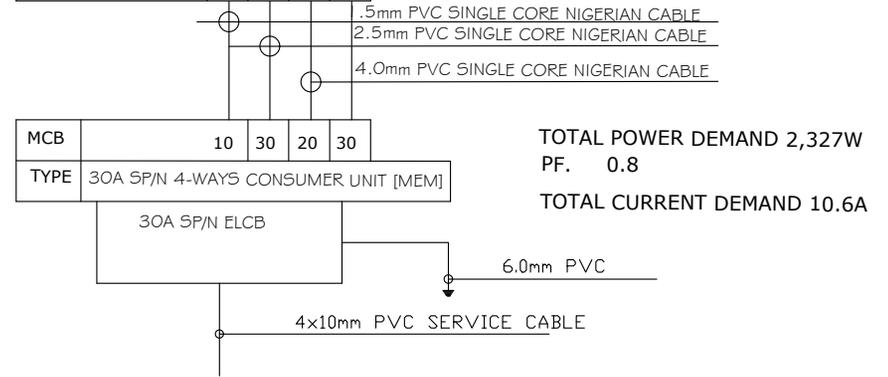
|             |                |           |
|-------------|----------------|-----------|
| DESIGNED BY | TITUS          | SHEET NO  |
| CHECK BY    | ENGR. B. HAMBU | <b>E9</b> |

| CIRCUIT NO          | LD1 | SD1  | ACD1 | SPARE | TOTAL |
|---------------------|-----|------|------|-------|-------|
| PHASE & LOAD<br>RED | 107 | 720  | 1500 |       | 2,327 |
| PEAK LOAD           | 134 | 1200 | 1500 |       |       |
| WAY NO              | 1   | 2    | 3    | 4     |       |
| NO OF POINTS        | 8   | 4    | 1    | 1     |       |
| DIVERSITY FACTOR    | 0.8 | 0.6  | 1    |       |       |



PLAN ANALYSIS FOR LOAD SCHEDULE FOR CU-D

| CIRCUIT NO          | LC1 | SC1  | ACC1 | SPARE | TOTAL |
|---------------------|-----|------|------|-------|-------|
| PHASE & LOAD<br>RED | 107 | 720  | 1500 |       | 2,327 |
| PEAK LOAD           | 134 | 1200 | 1500 |       |       |
| WAY NO              | 1   | 2    | 3    | 4     |       |
| NO OF POINTS        | 8   | 4    | 1    | 1     |       |
| DIVERSITY FACTOR    | 0.8 | 0.6  | 1    |       |       |



PLAN ANALYSIS FOR LOAD SCHEDULE FOR CU-E

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

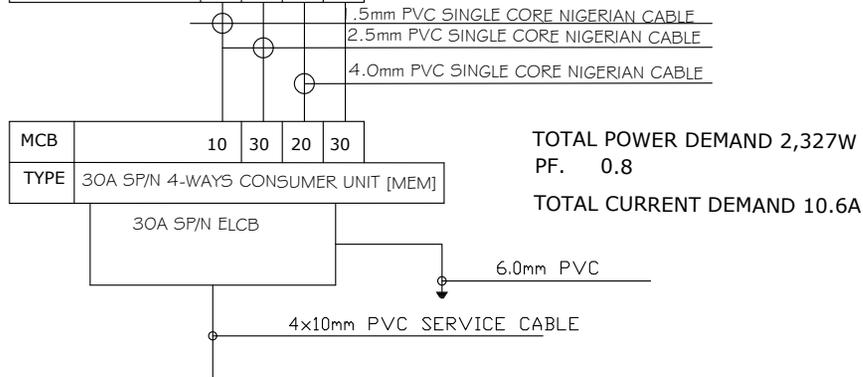
**E.Y.N CHURCH GURKU**

SHEET TITLE

| DESIGNED BY | TITUS          | SHEET NO |
|-------------|----------------|----------|
| CHECK BY    | ENGR. B. HAMSU |          |

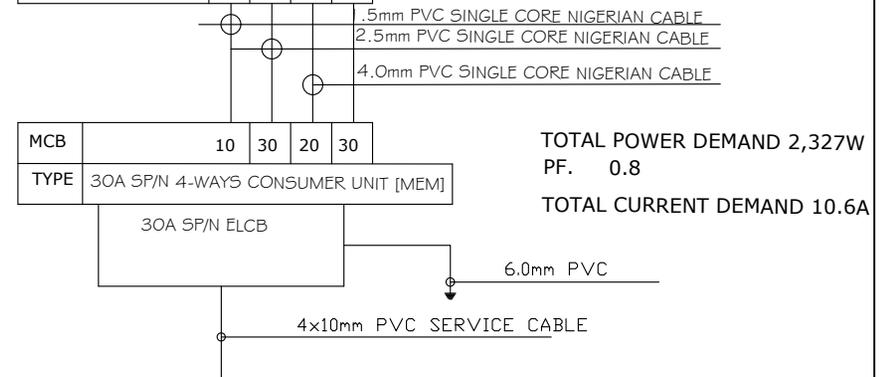
**E10**

| CIRCUIT NO       | LF1 | SF1  | ACF1 | SPARE | TOTAL |
|------------------|-----|------|------|-------|-------|
| PHASE & LOAD     | RED | 107  | 720  | 1500  |       |
| PEAK LOAD        | 134 | 1200 | 1500 |       | 2,327 |
| WAY NO           | 1   | 2    | 3    | 4     |       |
| NO OF POINTS     | 8   | 4    | 1    | 1     |       |
| DIVERSITY FACTOR | 0.8 | 0.6  | 1    |       |       |



PLAN ANALYSIS FOR LOAD SCHEDULE FOR CU-F

| CIRCUIT NO       | LG1 | SG1  | ACG1 | SPARE | TOTAL |
|------------------|-----|------|------|-------|-------|
| PHASE & LOAD     | RED | 107  | 720  | 1500  |       |
| PEAK LOAD        | 134 | 1200 | 1500 |       | 2,327 |
| WAY NO           | 1   | 2    | 3    |       |       |
| NO OF POINTS     | 8   | 4    | 1    |       |       |
| DIVERSITY FACTOR | 0.8 | 0.6  | 1    |       |       |



PLAN ANALYSIS FOR LOAD SCHEDULE FOR CU-G

PROJECT

**PROPOSED CLINIC DEVELOPMENT**

CONTENT

**ELECTRICAL DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

**E.Y.N CHURCH GURKU**

SHEET TITLE

|             |                |          |
|-------------|----------------|----------|
| DESIGNED BY | TITUS          | SHEET NO |
| CHECK BY    | ENGR. B. HAMSU |          |

**E11**

# SUB LOAD SUMMARY

DB-A=49,599W

CU-B=2,642W

CU-C=2,327W

CU-D=2,327W

CU-E=2,327W

CU-F=2,327W

CU-G=2,327W

LIGHTING KIOSK=720W

**TOTAL LOAD=64,596W**

**CUMMULATIVE CURRENT=147.1A**

PROJECT

**PROPOSED CLINIC  
DEVELOPMENT**

CONTENT

**ELECTRICAL  
DRAWING**

LOCATION

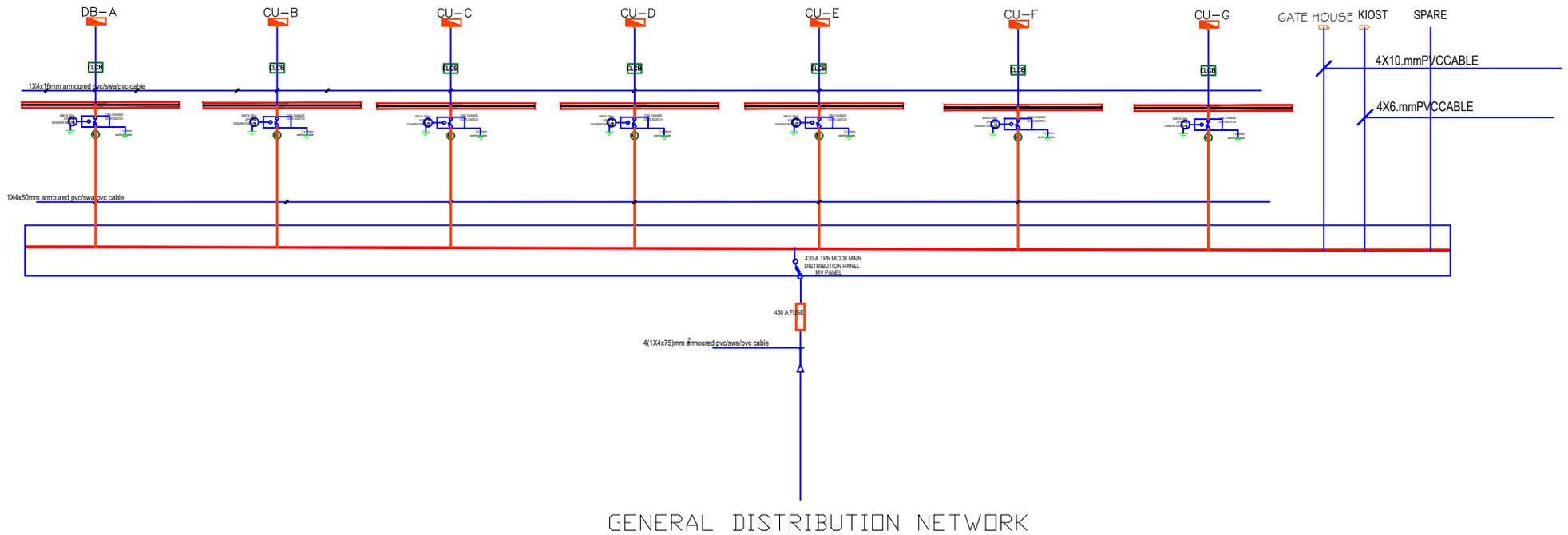
NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

**E.Y.N CHURCH GURKU**

SHEET TITLE

| DESIGNED BY | TITUS           | SHEET NO   |
|-------------|-----------------|------------|
| CHECK BY    | ENGR. B. HAMBUS | <b>E12</b> |



PROJECT  
**PROPOSED CLINIC DEVELOPMENT**

CONTENT  
**ELECTRICAL DRAWING**

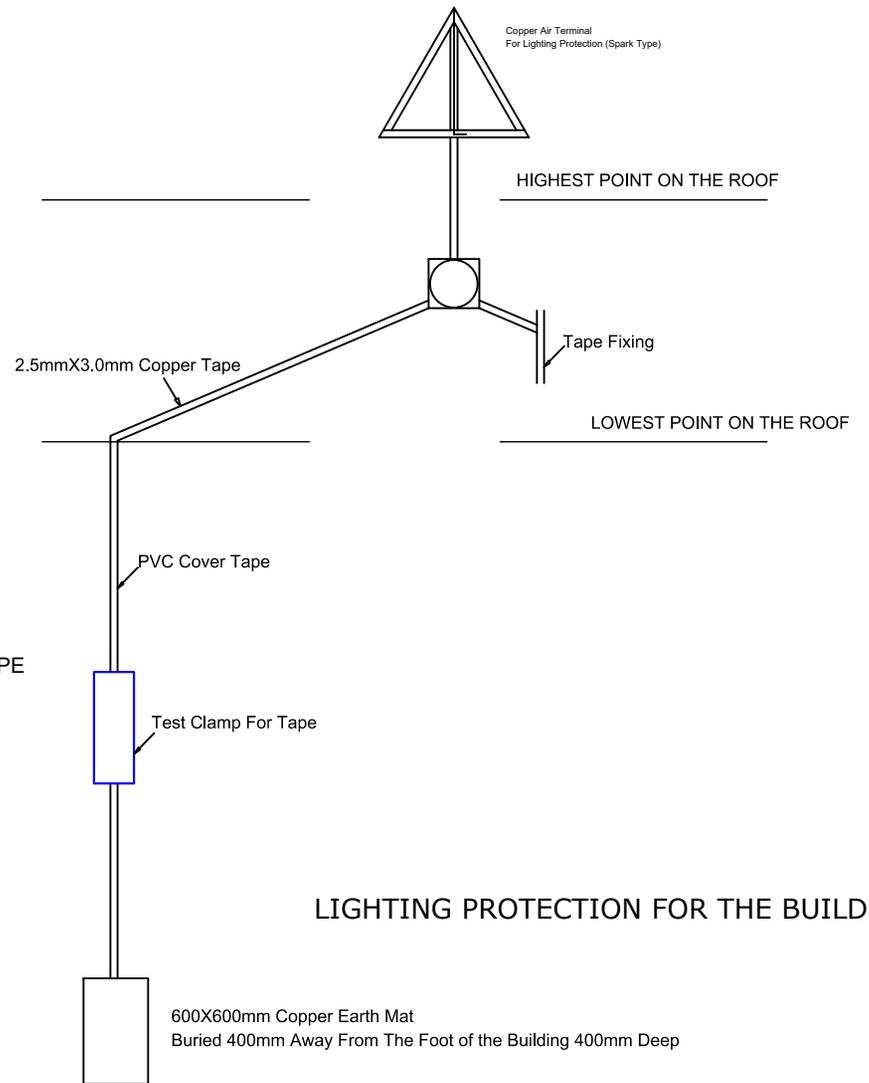
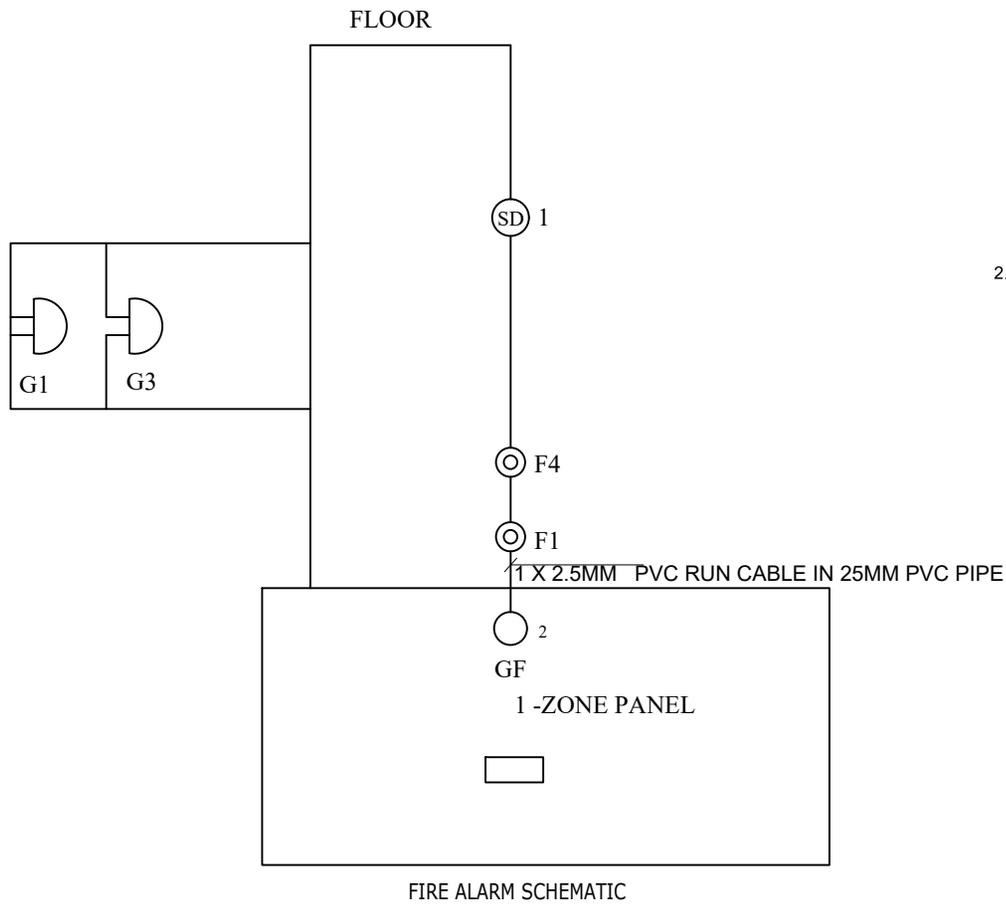
LOCATION  
**NEAR IDP CAMP KARU LG NASARAWA STATE.**

CLIENT  
**E.Y.N CHURCH GURKU**

SHEET TITLE  
**DISTRIBUTION BOARD**

|             |                 |          |
|-------------|-----------------|----------|
| DESIGNED BY | TITUS           | SHEET NO |
| CHECK BY    | ENGR. B. HAMBUR |          |

**E13**



SHEET TITLE

PROJECT

**PROPOSED CLINIC  
DEVELOPMENT**

CONTENT

**ELECTRICAL  
DRAWING**

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CLIENT

**E.Y.N CHURCH GURKU**

| DESIGNED BY | TITUS          | SHEET NO |
|-------------|----------------|----------|
| CHECK BY    | ENGR. B. HAMSU |          |

**E14**

MECHANICAL SERVICES

**FOR**

**E.Y.N CHURCH GURKU**

**@**

**NEAR IDP CAMP KARU LG NASARAWA STATE.**

# MECHANICAL DESIGN LEGEND

| MECHANICAL |  | LEGEND |   |
|------------|--|--------|---|
| SYMBOLS    | DESCRIPTION  |        |   |
|            | WC<br>WATER CLOSET   |        | 050mm PVC, WASTE PIPE                   |
|            | WHB<br>WASH HAND BASIN   |        | FIRE HOSE REEL                          |
|            | BATHUB   |        | G.I. COLD WATER PIPE                    |
|            | FD<br>FLOOR DRAIN  |        | 75mm Diameter G.I. FIRE SERVICE PIPE    |
|            | UPVC SOIL, WASTE PIPE  |        | NON-RETURN VALVE                        |
|            | CEILING CONCEALED DUCT TYPE  |        | GATE VALVE                              |
|            | MAN-HOLE<br>MANHOLE MODEL: LGLM-1000CC<br>CAPACITY: 1000LITRE<br>AIR FLOW RATE: 50m <sup>3</sup> /min<br>A/C UNIT DIMENSION: 1300mm(W)x400mm(H)x600mm(D) |        | INSPECTION CHAMBER<br>450mmx450mmx450mm |
|            | TEE  |        | MAN-HOLE<br>600mmx600mmx600mm           |
|            | TEE LOOKING UP   |        | WATER METER                             |
|            | TEE LOOKING DOWN   |        | ELECTRIC WATER PUMP                     |
|            | FLANGE   |        | 9 kg CLASS ABC FIRE EXTINGUISHER        |
|            | UNION  |        | 6 kg Co. FIRE EXTINGUISHER              |
|            | ELBOW 90°  |        | HYDRANT HOSE CABINET                    |
|            | ELBOW LOOKING UP   |        | CO PORTABLE EXTINGUISHER                |
|            | ELBOW LOOKING DOWN   |        | DRY CHEMICAL EXTINGUISHER               |
|            | FIRE HYDRANT   |        |   |
|            | HOSE REEL CABINET, SURFACE MOUNT   |        |   |
|            | SIDE WALL PENDENT SPRINKLER HEAD   |        |   |
|            | SELF OPERATED PRESSURE REGULATING PRESSURE REGULATING VALVE  |        |   |

| SYMBOL | DESCRIPTION        | SYMBOL | DESCRIPTION                       | SYMBOL | DESCRIPTION                     |
|--------|--------------------|--------|-----------------------------------|--------|---------------------------------|
|        | Water closet suite |        | Inspection chamber with vent pipe |        | Water meter                     |
|        | Wash hand basin    |        | Manhole with cover                |        | Non return valve                |
|        | Kitchen sink       |        | Soil waste pipe                   |        | FIRE HYDRANT REEL               |
|        | Hot water Heater   |        | SEPTIC TANK/SOAK AWAY             |        | Bath Tub                        |
|        | Floor Drain        |        | Cold water pipe                   |        | Water Filter                    |
|        | Cold water pipe    |        | Drainage waste pipe               |        | Under Ground Water Storage Tank |
|        | Hot water pipe     |        | Fe-ABC, 9kg                       |        | Over Head Water Storage Tank    |
|        | Drainage pipe      |        | FeCO <sub>2</sub> 9kg             |        | 1HP XPEL AIR FAN                |
|        |                    |        | Gate valve                        |        |                                 |

## LEGEND (pipe schedule)

| s/no | description  | CWSP/HWP  | WWP       | SWP        | s/no | description        | CWSP/HWP  | WWP       | SWP        |
|------|--------------|-----------|-----------|------------|------|--------------------|-----------|-----------|------------|
| 1    | water closet | 13mm dia. | --        | 100mm dia. | 6    | wash hand basin    | 13mm dia. | 50mm dia. | --         |
| 2    | kitchen sink | 13mm dia. | 50mm dia. | --         | 7    | inspection chamber | --        | --        | --         |
| 3    | water heater | 13mm dia. | --        | --         | 8    | man hole           | --        | --        | 150mm dia. |
| 4    | shower tray  | 13mm dia. | 50mm dia. | --         | 9    | septic tank        | --        | --        | 150mm dia. |
| 5    | floor drain  | --        | 50mm dia. | --         | 10   | soak-away pit      | --        | --        | 150mm dia. |

## MANHOLE / INSPECTION CHAMBER SCHEDULE

| CHAMBER TYPE       | LENGTH X BREADTH | DEPTH                  |
|--------------------|------------------|------------------------|
| MANHOLE            | 650mm X 650mm    | THIS WILL VARY ON SITE |
| INSPECTION CHAMBER | 450mm X 450mm    | //                     |

## AIR CONDITIONING

|  |   |
|--|---|
|  | INDOOR A/C SPLIT UNIT, 230V, 1HP=735.75, 1.5HP=1,103.63 50HZ, |
|  | AIR COOLED CONDENSING UNIT                                    |

drg. title MECHANICAL DRAWING

project

**PROPOSED CLINIC DEVELOPMENT**

### NOTES

- All Dimensions are in mm.
- Every Fixture shall have its own isolating valve.
- All Drainage pipes shall be UPVC.
- All Cold water supply pipes shall be UPVC pipes.
- All hot water pipe shall be galvanized pipe to BS1345
- All manhole and inspection chamber shall be recess to finished ground floor level.

### LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CHECK BY

ENR. S. S. ISA

PHONE NO.

scale

TO FIT

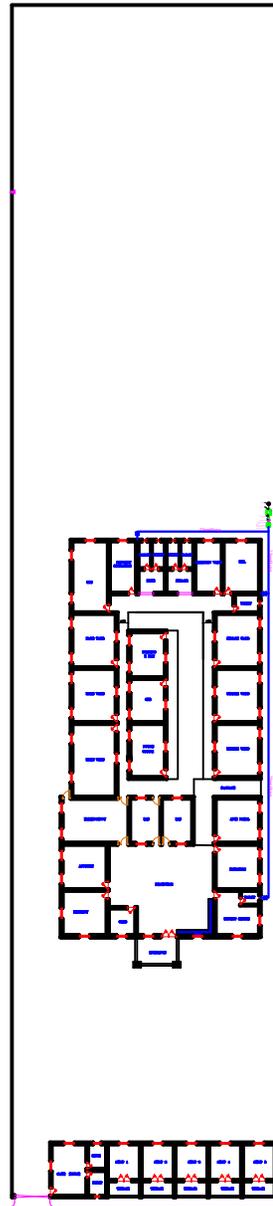
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CLIENT

**E.Y.N CHURCH GURKU**

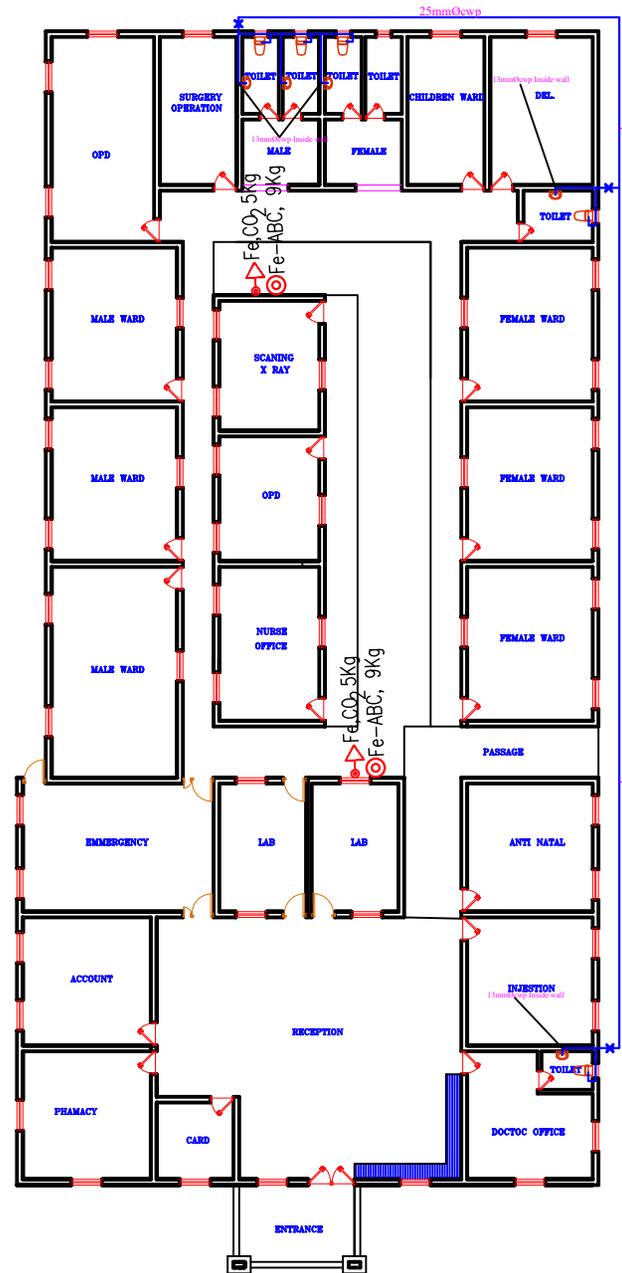
sheet no

**MO1**



ACCESS ROAD

|  |                        |                                       |  |                           |                 |
|--|------------------------|---------------------------------------|--|---------------------------|-----------------|
| <b>drw. title</b> MECHANICAL DRAWING                 | <b>SHEET TITLE</b>     | <b>LOCATION</b>                       | <b>CHECK BY</b> ENR. S. & RA                           | <b>CLIENT</b>             | <b>sheet no</b> |
| <b>project</b><br><b>PROPOSED CLINIC DEVELOPMENT</b> | SITE WATER SUPPLY PLAN | NEAR IDP CAMP KARU LG NASARAWA STATE. | <b>PHONE NO.</b><br><b>scale</b> TO FIT<br><b>date</b> | <b>E.Y.N CHURCH GURKU</b> | <b>MO2</b>      |



drg. title MECHANICAL DRAWING

project **PROPOSED CLINIC DEVELOPMENT**

SHEET TITLE

GROUND FLOOR WATER SUPPLY AND FIRE EXTINGUISHER PLAN

LOCATION

NEAR IDP CAMP KARU LG NASARAWA STATE.

CHECK BY

ENR. S. & SA

PHONE NO.

scale

TO FIT

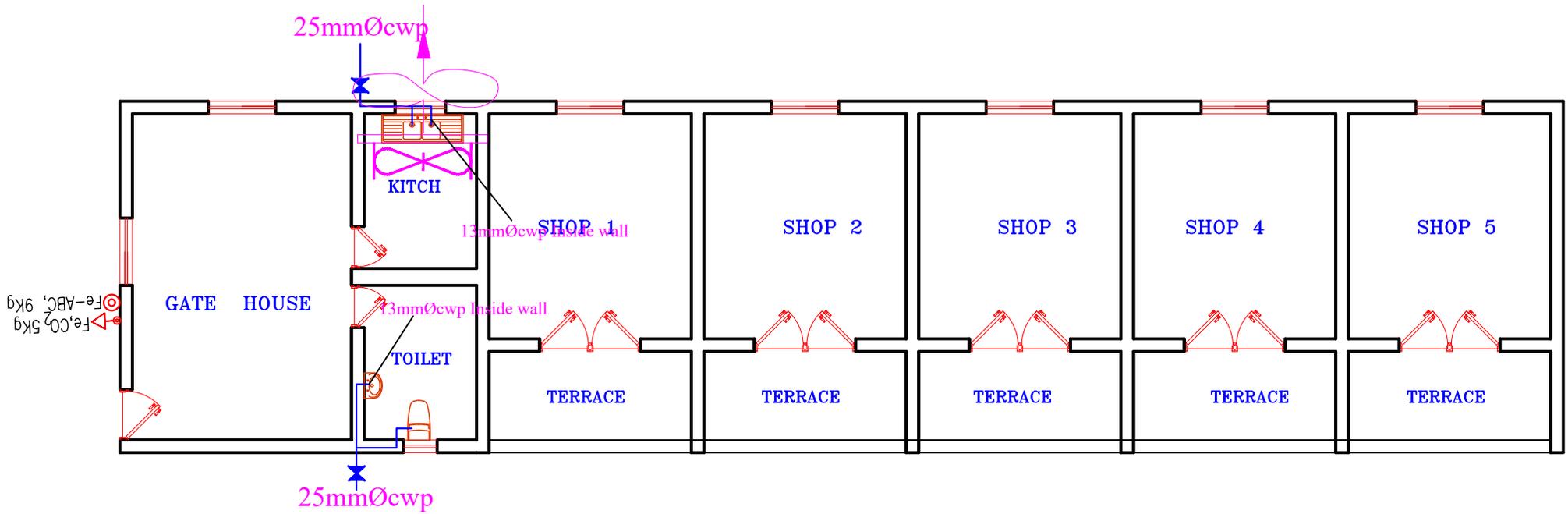
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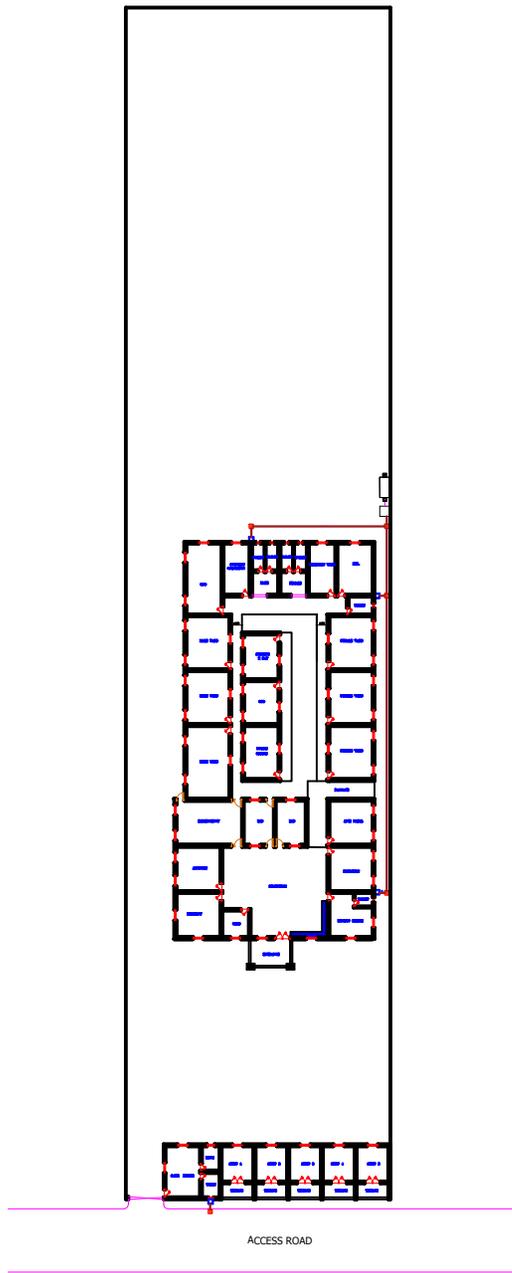
**E.Y.N CHURCH GURKU**

sheet no

**MO3**

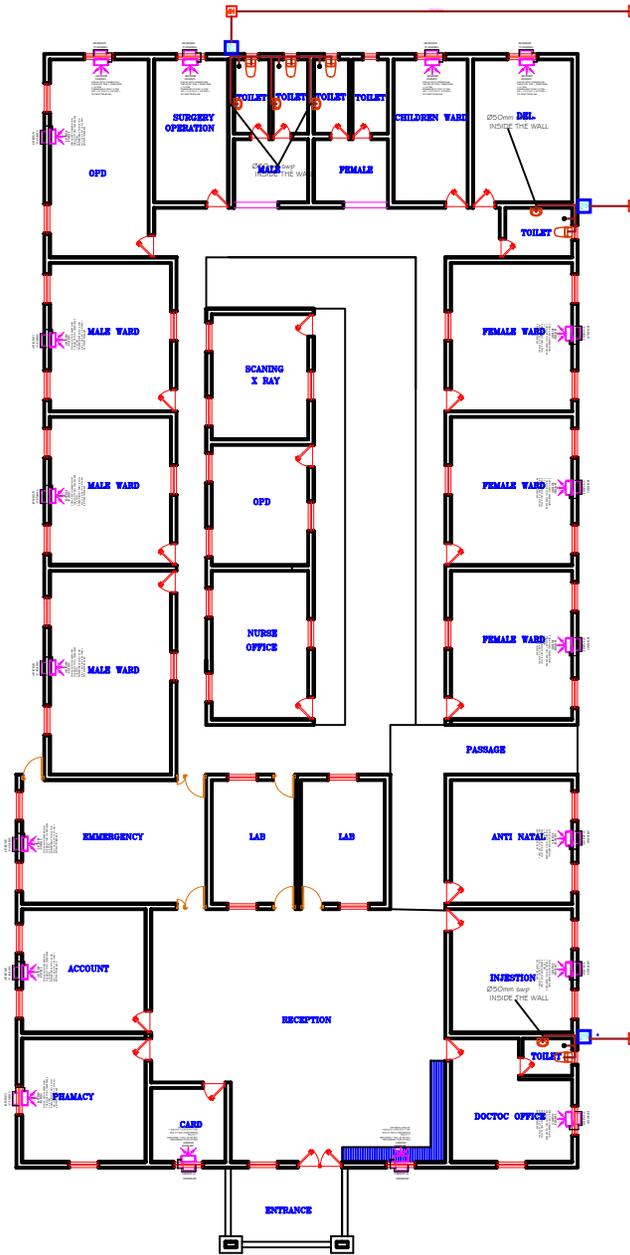


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|-------------------|--|---------------------------------------|------------------|----------------|---------------------------|-----------------|
| <b>drw. title</b> | MECHANICAL DRAWING   | <b>LOCATION</b>                       | <b>CHECK BY</b>  | DHR. S. S. ISA | <b>CLIENT</b>             | <b>sheet no</b> |
| <b>project</b>    | <b>PROPOSED CLINIC DEVELOPMENT</b>                               | NEAR IDP CAMP KARU LG NASARAWA STATE. | <b>PHONE NO.</b> |                | <b>E.Y.N CHURCH GURKU</b> | <b>MO4</b>      |
|                   | SECURITY AND SHOPS FLOOR WATER SUPPLY AND FIRE EXTINGUISHER PLAN |                                       | <b>scale</b>     | TO FIT         |                           |                 |
|                   |  |                                       | <b>date</b>      |                |                           |                 |

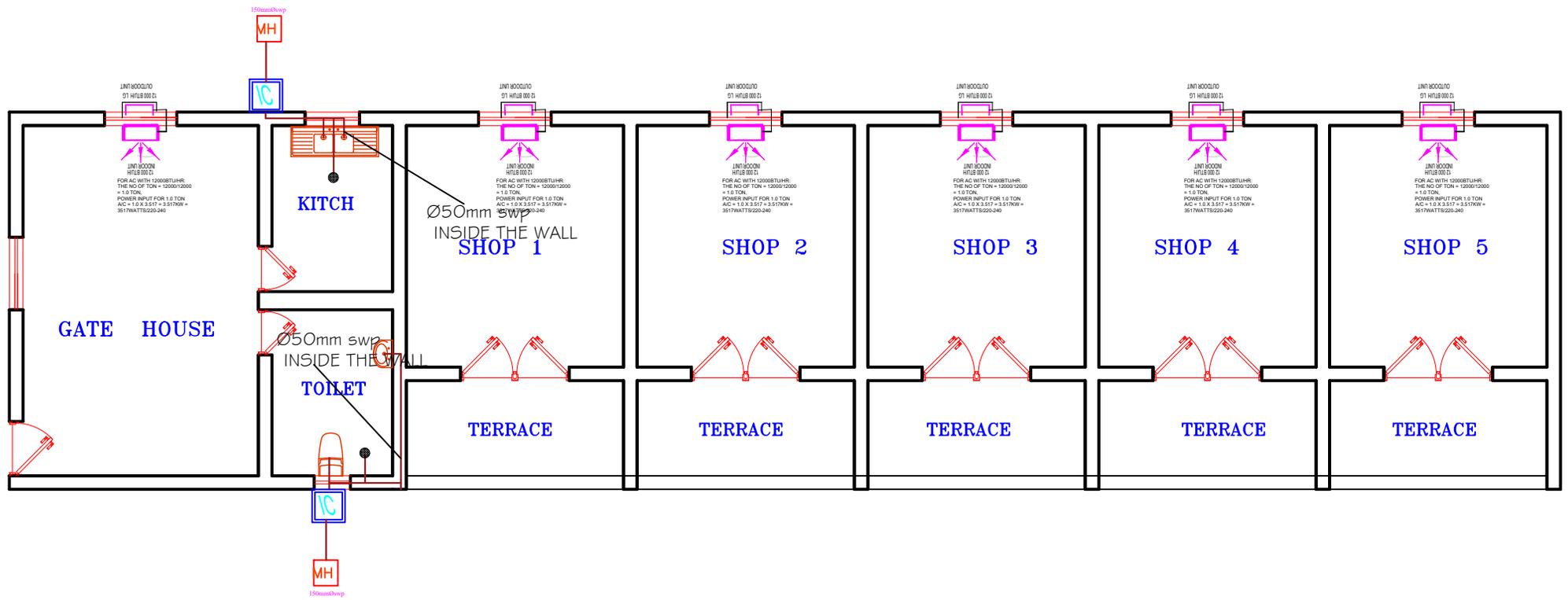


ACCESS ROAD

|   |   |  |                                   |                                     |                        |
|---|---|--|-----------------------------------|-------------------------------------|------------------------|
| <b>drw. title</b><br>MECHANICAL DRAWING       | <b>SHEET TITLE</b><br>SITE DRAINAGE LAYOUT PLAN | <b>LOCATION</b><br>NEAR IDP CAMP KARU LG NASARAWA STATE. | <b>CHECK BY</b><br>ENR. S. S. ISA | <b>CLIENT</b><br>E.Y.N CHURCH GURKU | <b>sheet no</b><br>MO5 |
| <b>project</b><br>PROPOSED CLINIC DEVELOPMENT |   |  | <b>PHONE NO.</b><br>TO FIT        |                                     |                        |
|   |   |  | <b>scale</b><br>TO FIT            |                                     |                        |
|   |   |  | <b>date</b>                       |                                     |                        |



|                   |   |                                       |                  |                |                           |            |
|-------------------|---|---------------------------------------|------------------|----------------|---------------------------|------------|
| <b>drw. title</b> | MECHANICAL DRAWING                                    | <b>LOCATION</b>                       | <b>CHECK BY</b>  | ENR. S. S. ISA | <b>sheet no</b>           |            |
| <b>project</b>    | <b>PROPOSED CLINIC DEVELOPMENT</b>                    | <b>SHEET TITLE</b>                    | <b>PHONE NO.</b> |                | <b>E.Y.N CHURCH GURKU</b> |            |
|                   | GROUND FLOOR DRAINAGE LAYOUT AND AC INSTALLATION PLAN | NEAR IDP CAMP KARU LG NASARAWA STATE. | <b>scale</b>     | TO FIT         |                           | <b>MO6</b> |
|                   |   |                                       | <b>date</b>      |                |                           |            |



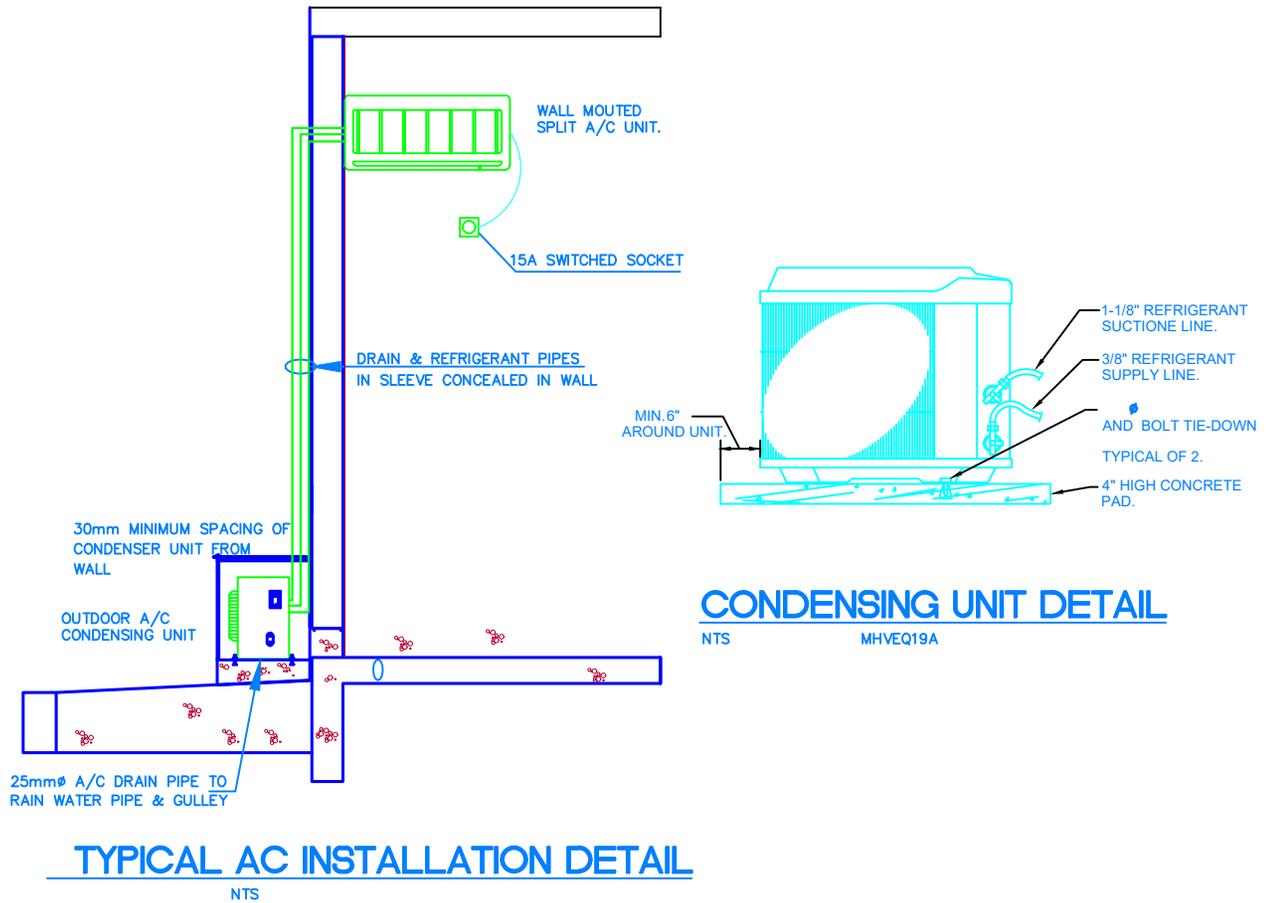
|                   |                                    |  |  |                                       |  |                  |                |                           |            |                 |  |  |
|-------------------|------------------------------------|--|--|---------------------------------------|--|------------------|----------------|---------------------------|------------|-----------------|--|--|
| <b>Org. title</b> | MECHANICAL DRAWING                 | <b>SHEET TITLE</b>   |  | <b>LOCATION</b>                       |  | <b>CHECK BY</b>  | DHR. S. S. ISA | <b>CLIENT</b>             |            | <b>sheet no</b> |  |  |
| <b>project</b>    | <b>PROPOSED CLINIC DEVELOPMENT</b> | <b>SECURITY AND SHOPS FLOOR DRAINAGE LAYOUT AND AC INSTALLATION PLAN</b> |  | NEAR IDP CAMP KARU LG NASARAWA STATE. |  | <b>PHONE NO.</b> |                | <b>E.Y.N CHURCH GURKU</b> | <b>MO7</b> |                 |  |  |
|                   |                                    |  |  |                                       |  | <b>scale</b>     | TO FIT         |                           |            |                 |  |  |
|                   |                                    |  |  |                                       |  | <b>date</b>      |                |                           |            |                 |  |  |

THE POWER INPUT FOR THE A/Cs;,  
 POWER INPUT FOR 1 TON A/C COOLING  
 CAPACITY = 3.517KW,  
 BUT : 1 TON = 12000 BTU/HR;

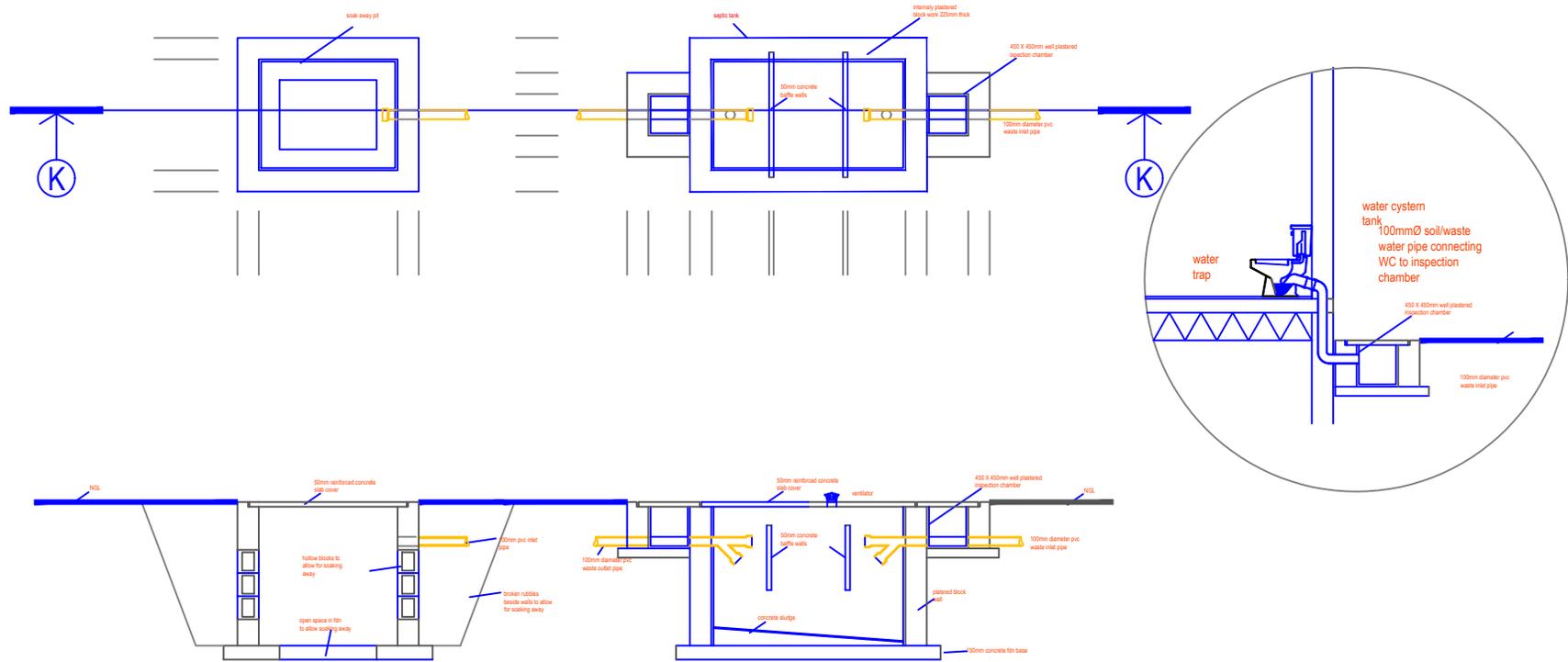
FOR AC WITH 18000BTU/HR: THE NO OF  
 TON = 18000/12000 = 1.5 TON,  
 POWER INPUT FOR 1.5 TON A/C = 1.5 x  
 3.517 = 5.276KW = 5276watts/220-240v.;

FOR AC WITH 12000BTU/HR: THE NO OF  
 TON = 12000/12000 = 1.0 TON,  
 POWER INPUT FOR 1.0 TON A/C = 1.0 x  
 3.517 = 3.517kw = 3517watts/220-240v.;

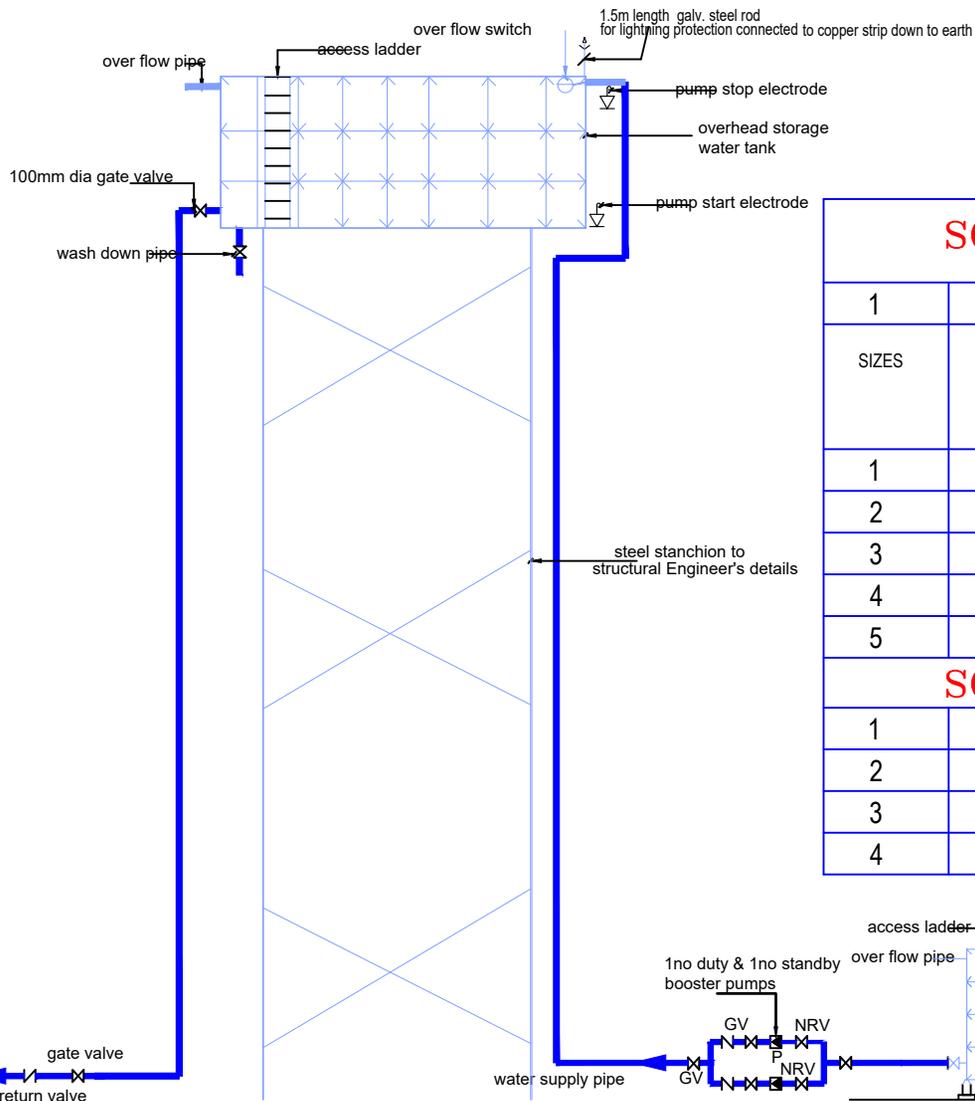
FOR AC WITH 9000BTU A/C: THE NO OF  
 TON = 9000/12000 = 0.75 TON,  
 POWER INPUT FOR 0.75 TON = 0.75 x  
 3.517 = 2.638KW = 2638watts/220-240v.



|                   |                                    |                    |  |                                       |  |                  |               |                           |  |                 |  |
|-------------------|------------------------------------|--------------------|--|---------------------------------------|--|------------------|---------------|---------------------------|--|-----------------|--|
| <b>drg. title</b> | MECHANICAL DRAWING                 | <b>SHEET TITLE</b> |  | <b>LOCATION</b>                       |  | <b>CHECK BY</b>  | ENR. S. S. SA | <b>CLIENT</b>             |  | <b>sheet no</b> |  |
| <b>project</b>    | <b>PROPOSED CLINIC DEVELOPMENT</b> |                    |  | NEAR 1DP CAMP KARU LG NASARAWA STATE. |  | <b>PHONE NO.</b> |               | <b>E.Y.N CHURCH GURKU</b> |  | <b>MO8</b>      |  |
|                   |                                    |                    |  |                                       |  | <b>scale</b>     | TO FIT        |                           |  |                 |  |
|                   |                                    |                    |  |                                       |  | <b>date</b>      |               |                           |  |                 |  |



|  |                    |                                      |                                   |                           |                 |
|--|--------------------|--------------------------------------|-----------------------------------|---------------------------|-----------------|
| <b>drw. title</b><br>MECHANICAL DRAWING              | <b>SHEET TITLE</b> | <b>LOCATION</b>                      | <b>CHECK BY</b><br>ENR. S. S. ISA | <b>CLIENT</b>             | <b>sheet no</b> |
| <b>project</b><br><b>PROPOSED CLINIC DEVELOPMENT</b> |                    | NEAR IDP CAMP KARU LG NASARAWA STATE | <b>PHONE NO.</b>                  | <b>E.Y.N CHURCH GURKU</b> | <b>MO9</b>      |
|  |                    |                                      | <b>scale</b><br>TO FIT            |                           |                 |
|  |                    |                                      | <b>date</b>                       |                           |                 |

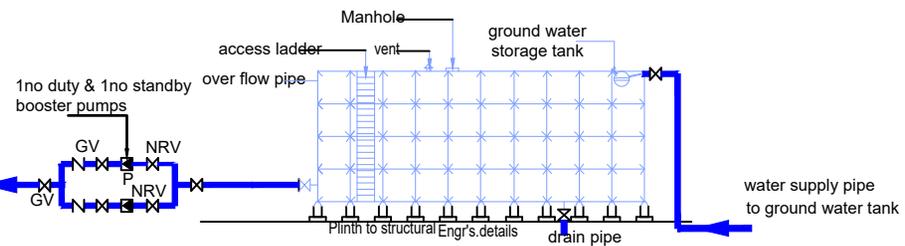


### SCHEDULE OF SEPTIC TANK

| 1     | 2               | 3           | 4                                | 5          | 6      | 7              |
|-------|-----------------|-------------|----------------------------------|------------|--------|----------------|
| SIZES | NUMBER OF USERS | CAPACITY    |                                  | DIMENSIONS |        |                |
|       |                 | CUBIC METER | NUMBER OF PERSONS M <sub>3</sub> | LENGHT     | BREATH | DEPTH AT INLET |
| 1     | 10              | 4.0         | 40.0                             | 1800       | 1200   | 1850           |
| 2     | 15              | 4.7         | 52.5                             | 2100       | 1200   | 1850           |
| 3     | 20              | 5.3         | 70.0                             | 2400       | 1200   | 1850           |
| 4     | 50              | 8.5         | 25.0                             | 3000       | 1800   | 1575           |
| 5     | 100             | 13.9        | 26.0                             | 4200       | 2100   | 1575           |

### SCHEDULE OF SOAK-AWAY PIT

|   |  |  |  |  |      |      |
|---|--|--|--|--|------|------|
| 1 |  |  |  |  | 900  | 900  |
| 2 |  |  |  |  | 1400 | 1200 |
| 3 |  |  |  |  | 1500 | 1500 |
| 4 |  |  |  |  | 1800 | 1800 |



| drg. title         | SHEET TITLE                 | LOCATION                             | CHECK BY  | ENR. S. S. ISA | CLIENT             | sheet no |
|--------------------|-----------------------------|--------------------------------------|-----------|----------------|--------------------|----------|
| MECHANICAL DRAWING |                             |                                      | PHONE NO. |                | E.Y.N CHURCH GURKU | M10      |
| project            | PROPOSED CLINIC DEVELOPMENT | NEAR IDP CAMP KARU LG NASARAWA STATE | scale     | TO FIT         |                    |          |
|                    |                             |                                      | date      |                |                    |          |