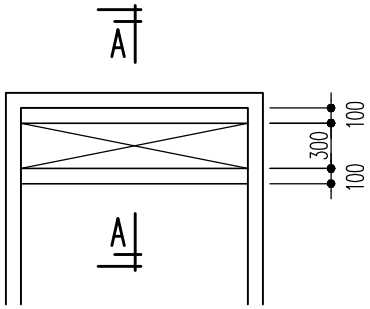
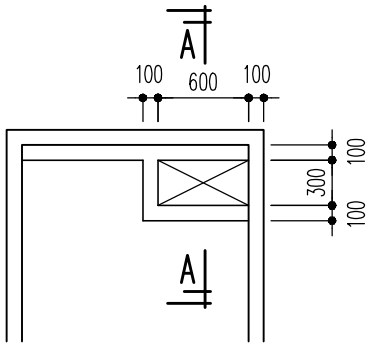
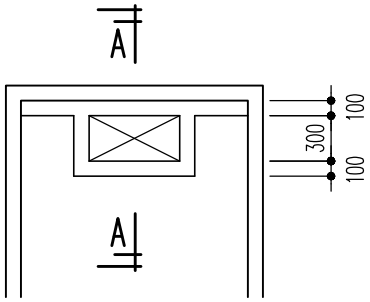


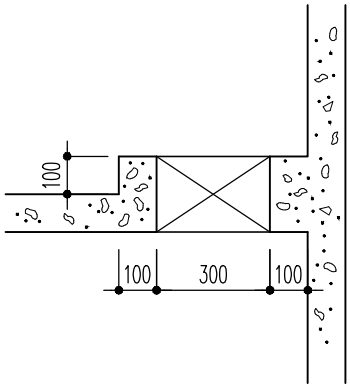

PLAN




PLAN




PLAN




SECTION A – A

NOTE

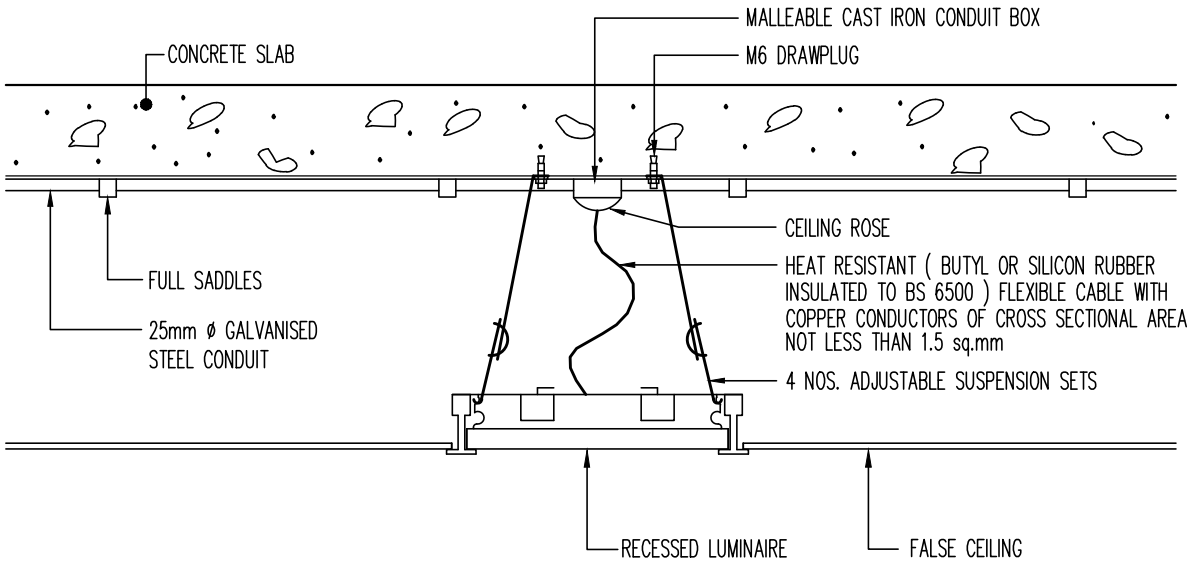
AFTER INSTALLATION OF CABLES, THE ELECTRICAL SUB-CONTRACTOR SHALL PROVIDE APPROVED FIRE STOPPING COMPOUND (e.g. GPG OR OTHER FSB APPROVED MATERIAL) TO EFFECTIVELY SEAL THE EXCESS FLOOR OPENINGS.

Drawing Title: TYPICAL DETAILS OF CONCRETE KERB ( BY MAIN CONTRACTOR )
FOR FLOOR OPENINGS IN ELECTRICAL, COMMUNICATION & TELEPHONE SHAFTS

***Alpha Consulting Engineers Pte Ltd***

Drawing No. SE(EI) – 1

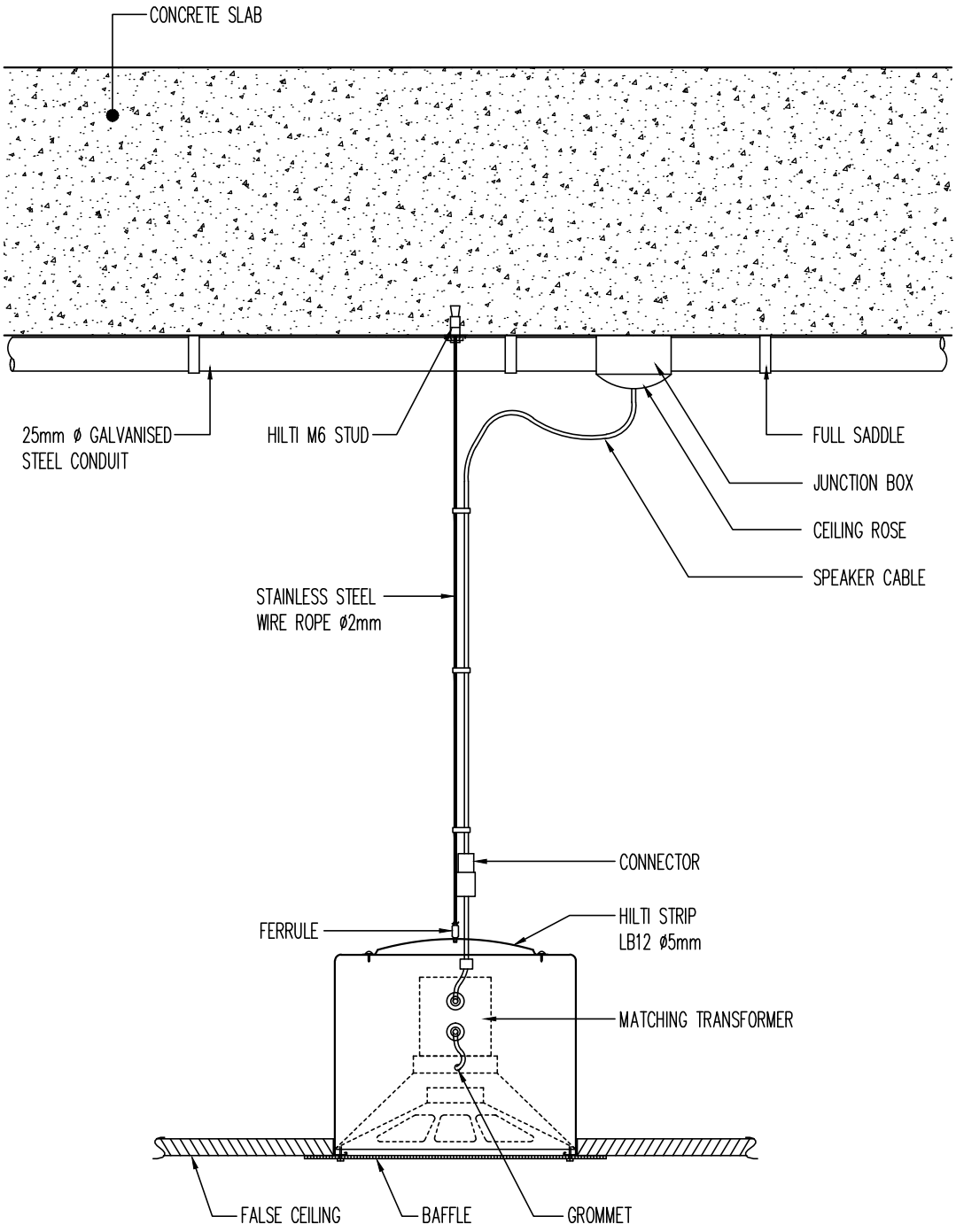
Rev. –




Drawing Title

RECESSED LUMINAIRE MOUNTING DETAILS

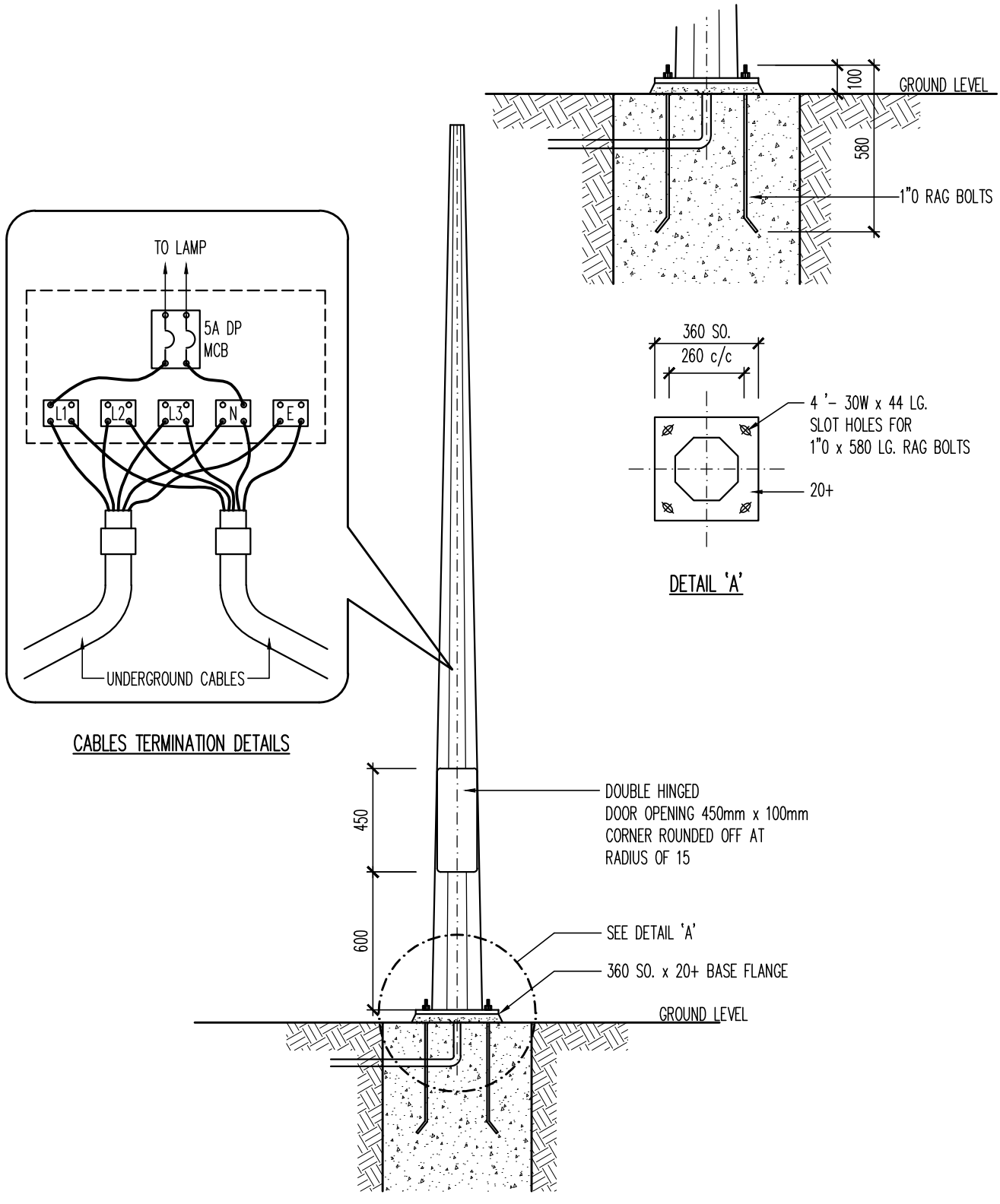
| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 2 | Rev. A |




Drawing Title

RECESSED CEILING LOUDSPEAKER MOUNTING DETAILS

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 3 | Rev. A |

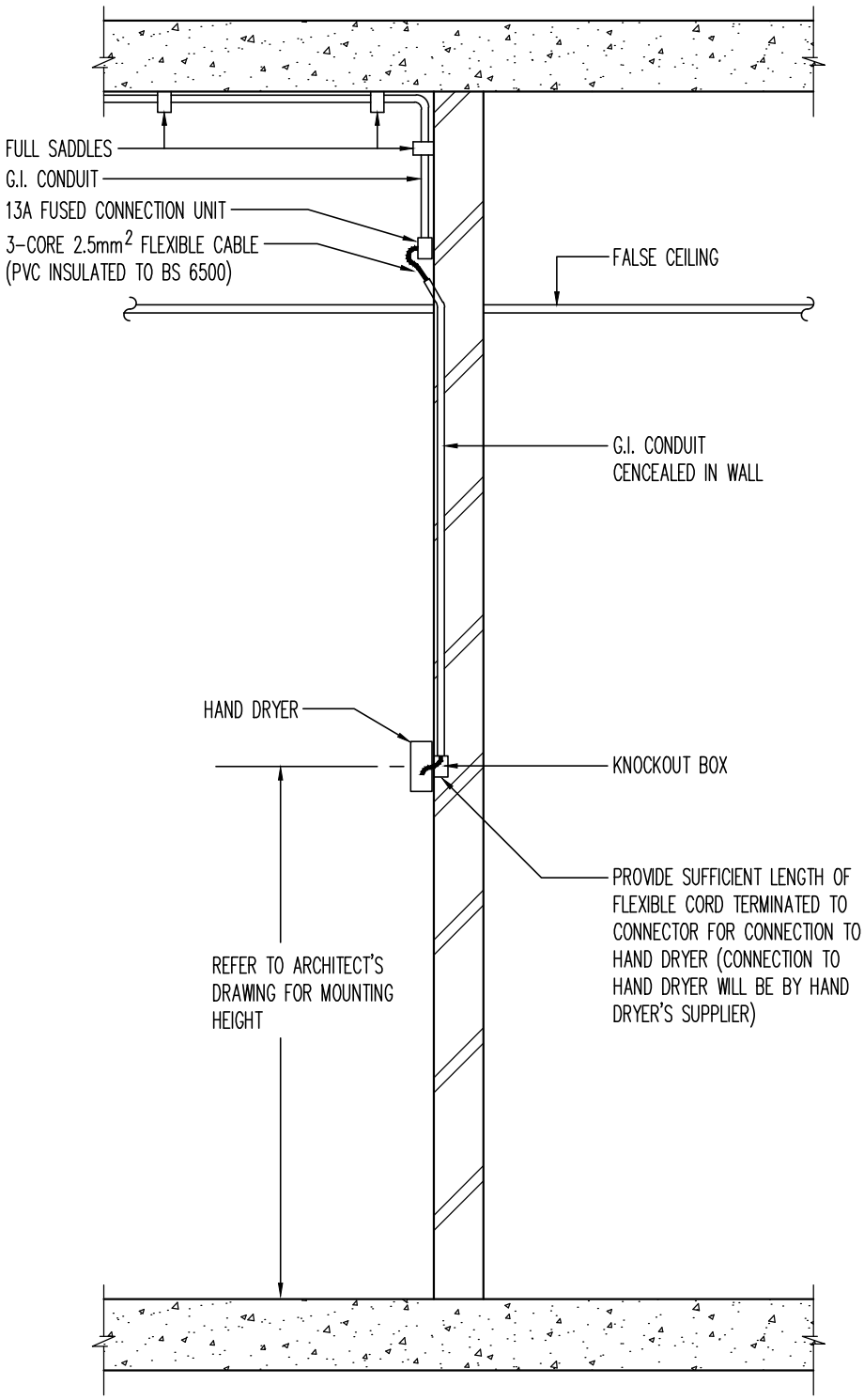



LIGHTING POLE MOUNTING DETAILS

Drawing Title

INSTALLATION DETAILS OF LIGHTING POLE FOR EXTERNAL LUMINAIRE

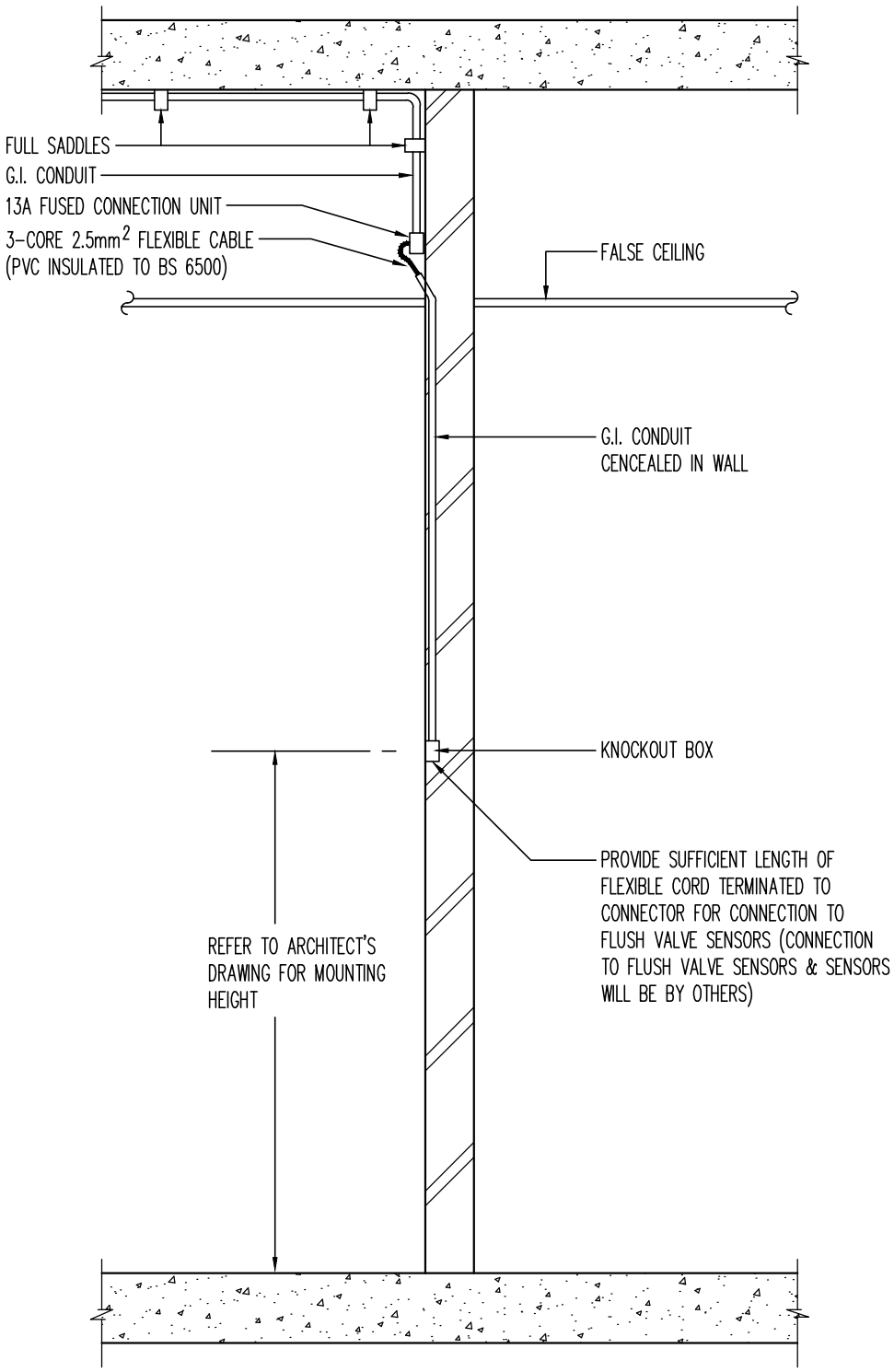
| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 4 | Rev. A |




Drawing Title

FIXING DETAILS FOR SUPPLY TO HAND DRYER

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 5 | Rev. A |



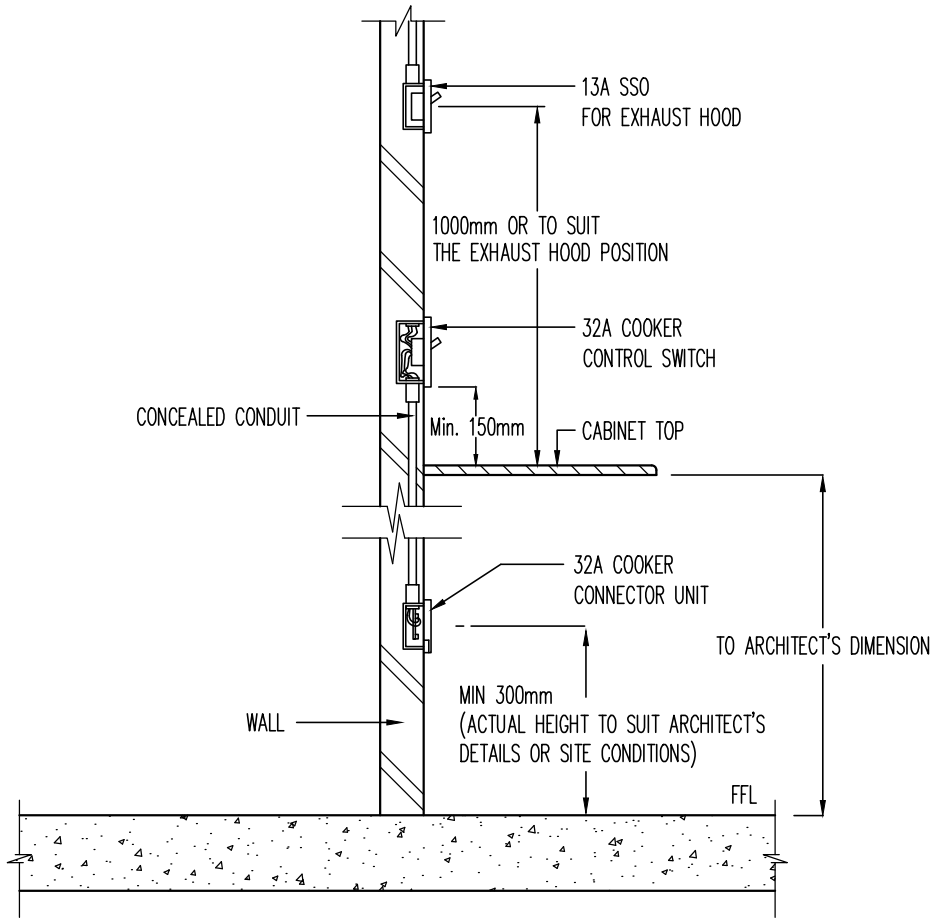

Drawing Title

DETAILS FOR SUPPLY TO W.C. OR URINAL FLUSH VALVE SENSOR

***Alpha Consulting Engineers Pte Ltd***

Drawing No. SE(EI) – 6

Rev. A



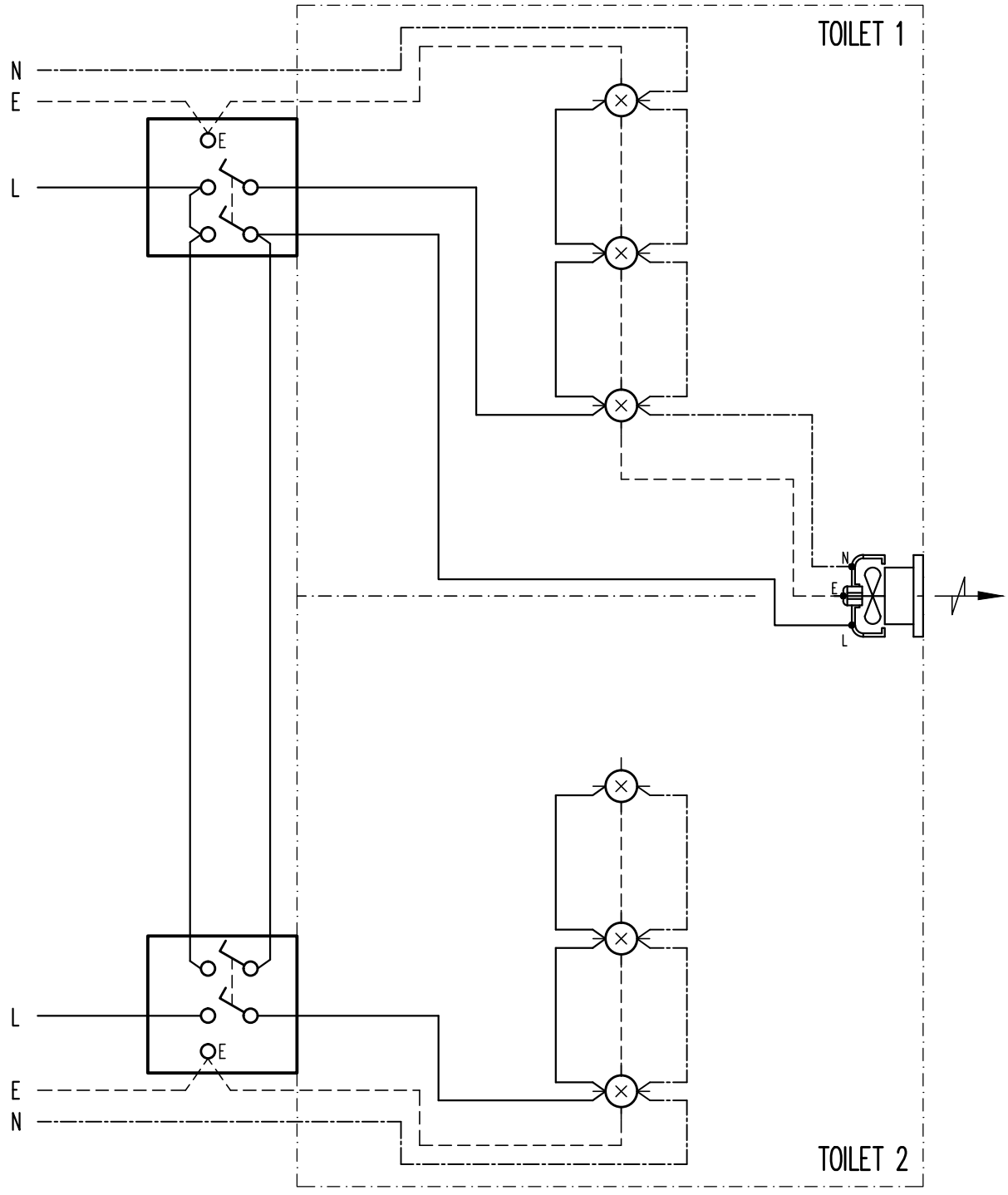

NOTE

THE COOKER CONNECTOR UNIT, COOKER CONTROL SWITCH & 13A SSO SHALL BE LOCATED WITH SUFFICIENT HORIZONTAL CLEARANCE FROM THE COOKER UNITS.

Drawing Title

INSTALLATION DETAILS FOR COOKER CONTROL UNIT & EXHAUST HOOD

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 7 | Rev. – |



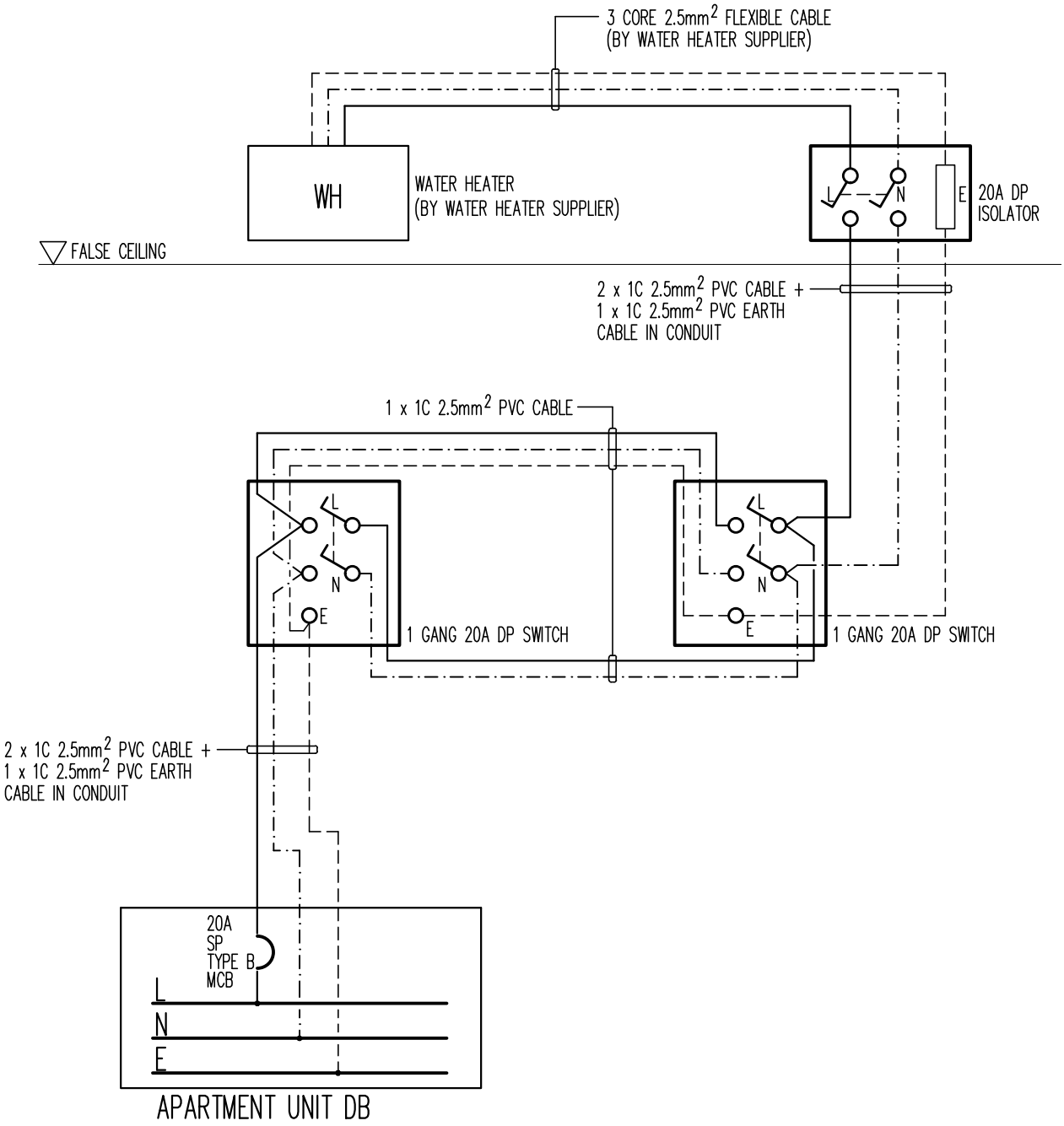

Drawing Title

TYPICAL CONNECTION OF AN EXHAUST FAN SERVING TWO OR MORE TOILETS

***Alpha Consulting Engineers Pte Ltd***

Drawing No. SE(EI) – 8

Rev. A



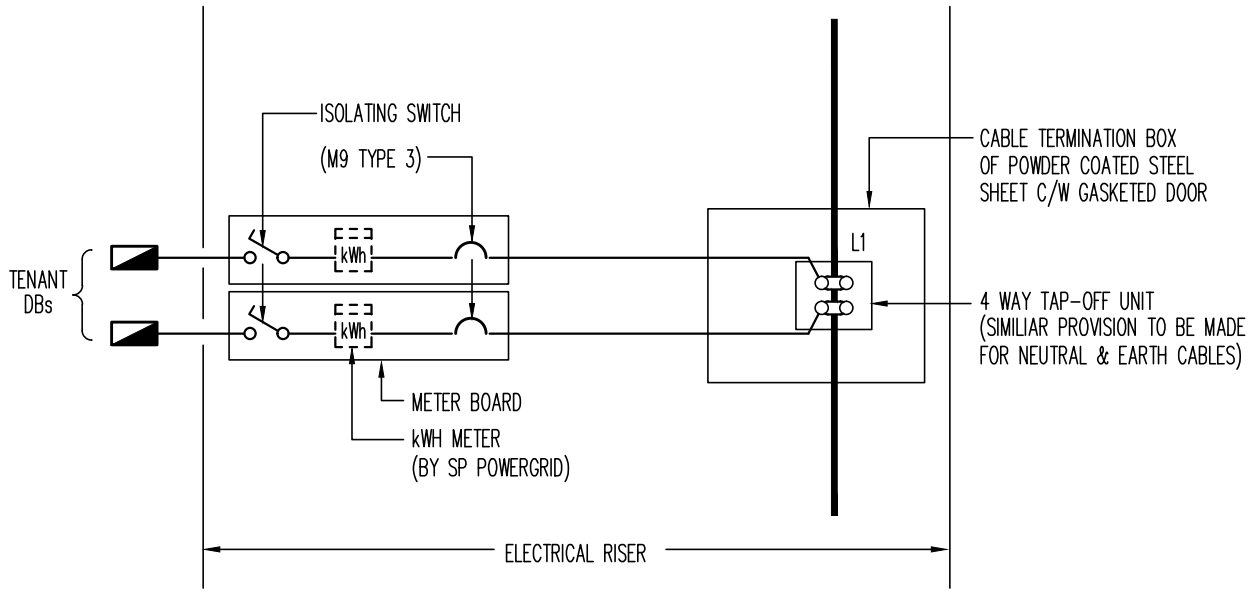

NOTES

1. 3 CORE 2.5mm² FLEXIBLE CABLE – PVC INSULATED TO BS 6500.
2. 3 CORE 2.5mm² FLEXIBLE CABLE TO BE SUPPLIED BY WATER HEATER SUPPLIER AND TERMINATED IN 20A DP ISOLATOR BY EMA LICENSED ELECTRICIAN.
3. 1 GANG 20A DP SWITCH MANUFACTURED TO COMPLY WITH IEC 60669 & SS227 WITH NEON MARKED "WATER HEATER".

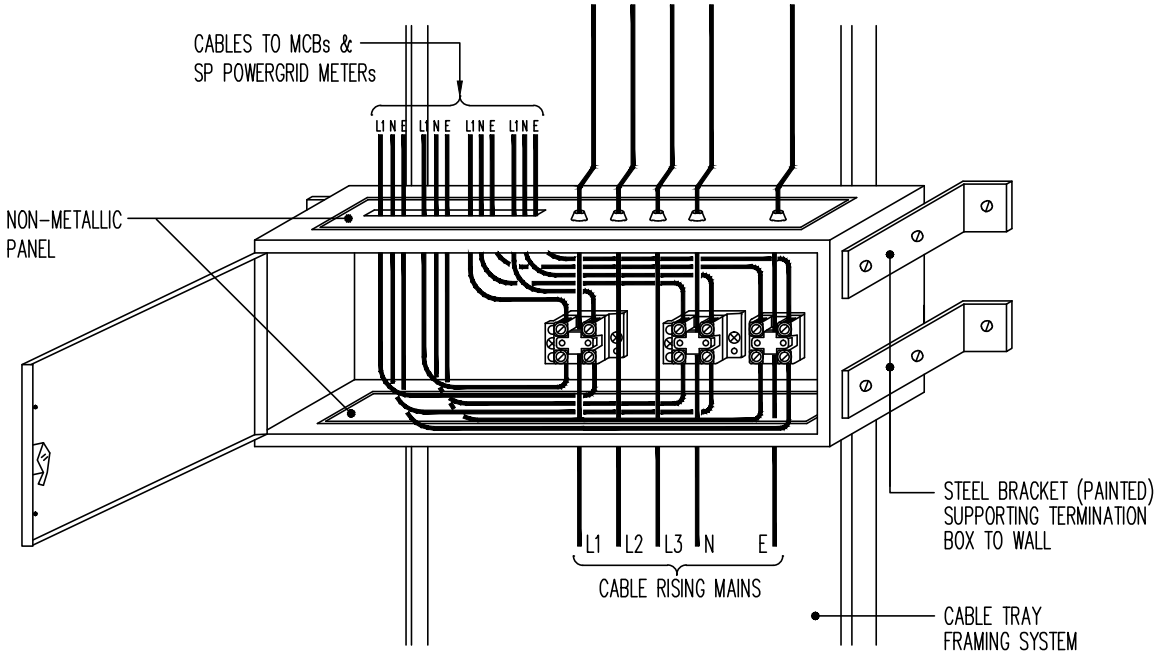
Drawing Title

CIRCUITING OF HOT WATER HEATER CONTROLLED BY TWO (2) PARALLEL SWITCHES

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 9 | Rev. C |




TYPICAL CIRCUIT FOR SINGLE PHASE




CABLE TAP-OFF FROM RISING MAINS

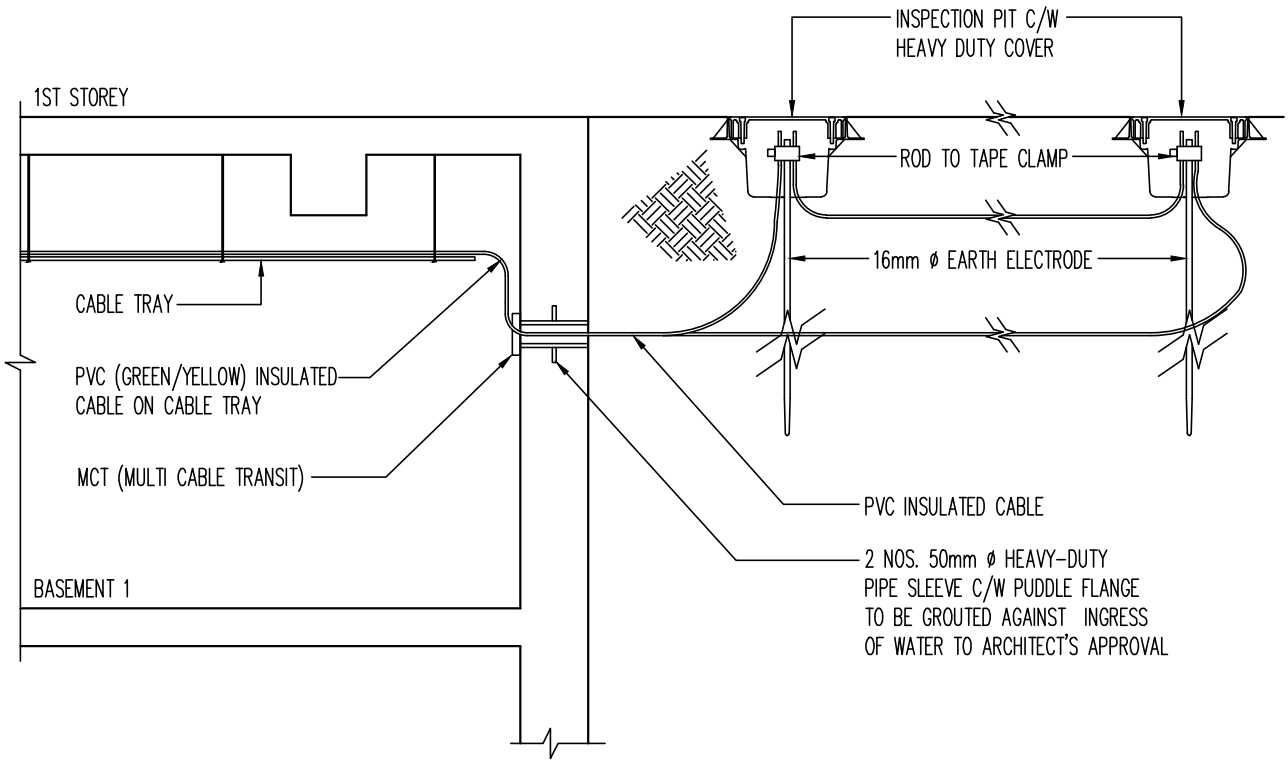
Drawing Title

CABLE TERMINATION BOX DETAILS

**Alpha Consulting Engineers Pte Ltd**

Drawing No. SE(EI) - 10

Rev. A




Drawing Title

TYPICAL ARRANGEMENT OF EARTHING POINT THROUGH RETAINING WALL

| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 11 | Rev. B |
|---|---|---|

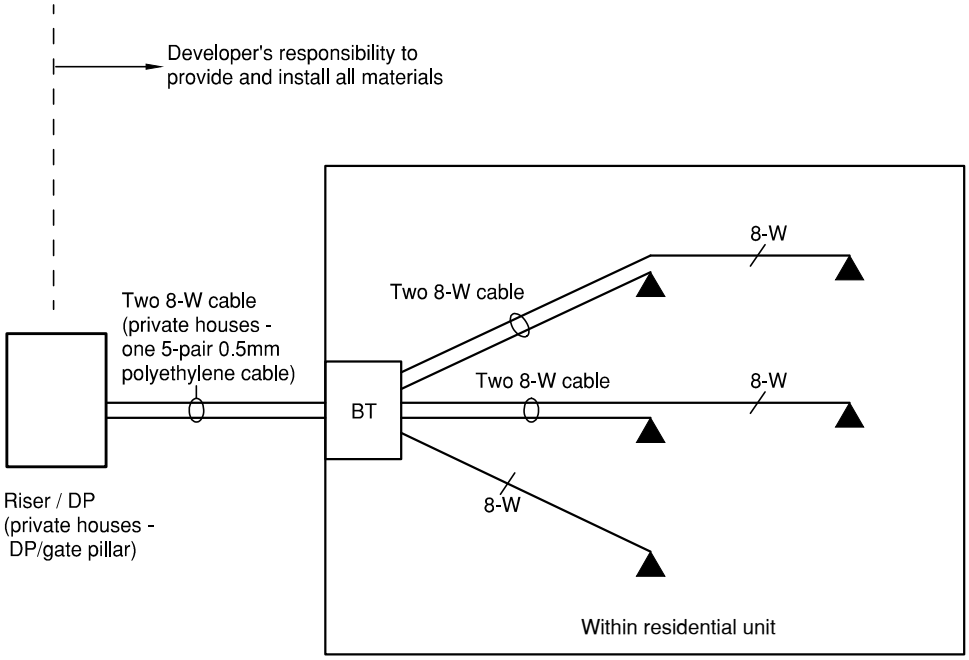
Drawing Title

TELEPHONE WIRING FOR RESIDENTIAL BUILDINGS – DETAILED CONNECTIONS

**Alpha Consulting Engineers Pte Ltd**

Drawing No. SE(EI) – 12

Rev. –




LEGEND

DP : Distribution point

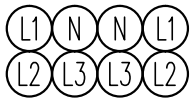
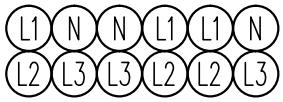
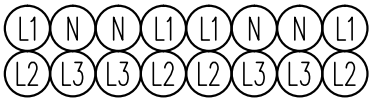
BT : Block Terminal

▲ : Telephone socket

Drawing Title

# TELEPHONE WIRING CONFIGURATIONS FOR RESIDENTIAL BUILDINGS

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 13 | Rev. – |

| MODE | CONFIGURATION |
|---|---|
| TWO CONDUCTORS<br>PER PHASE |  |
| THREE CONDUCTORS<br>PER PHASE |  |
| FOUR CONDUCTORS<br>PER PHASE |  |

NOTES:

1. Multiple parallel cables where specified shall be laid in the manner as illustrated above and to the cable manufacturer's recommendations to avoid unequal distribution of current between conductors.
2. Earth conductors shall be located so as not to disturb the symmetry of the groups as illustrated.

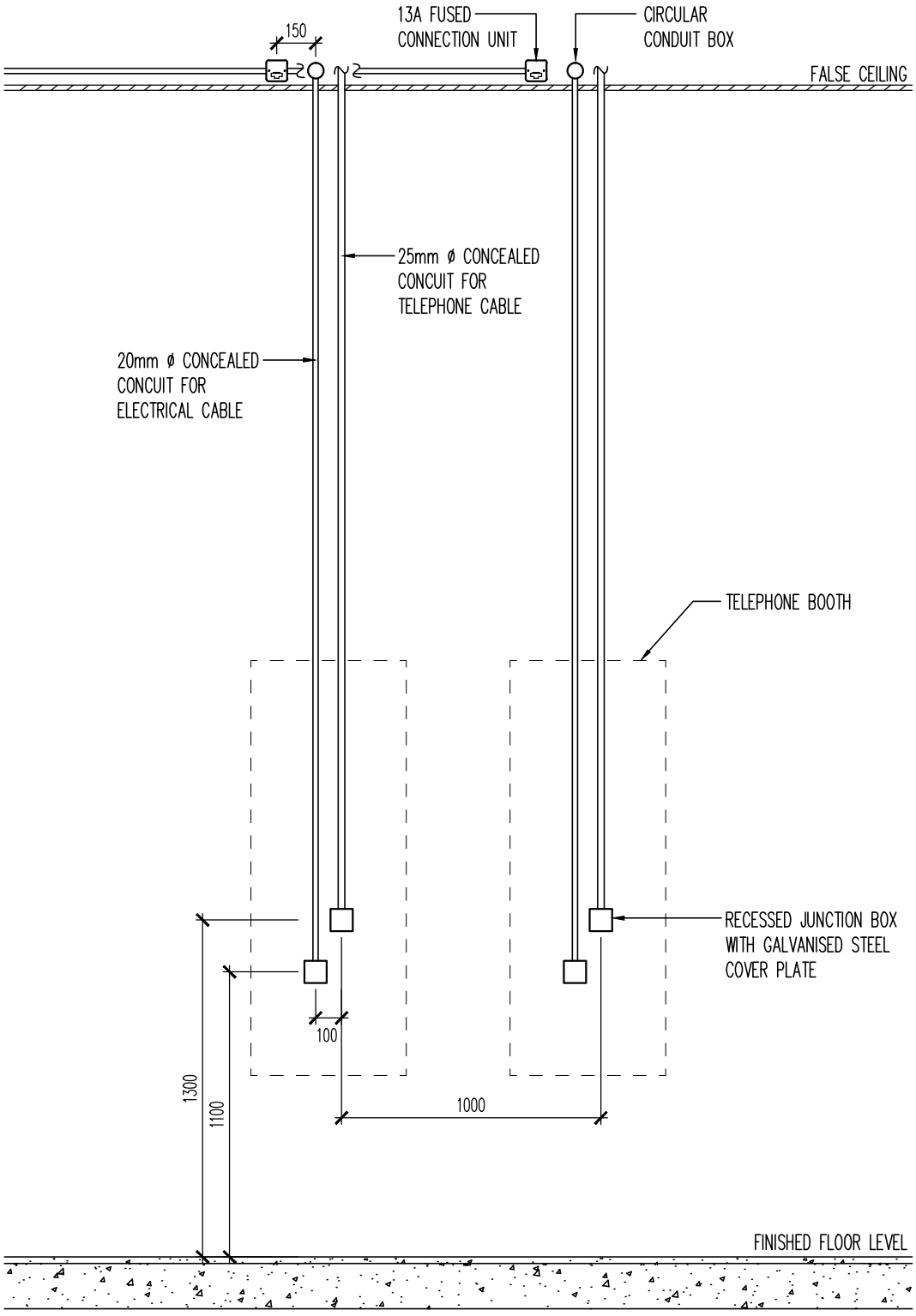
Drawing Title

PHASE CONFIGURATION FOR SINGLE-CORE CABLES IN PARALLEL

**Alpha Consulting Engineers Pte Ltd**

Drawing No. SE(EI) - 15

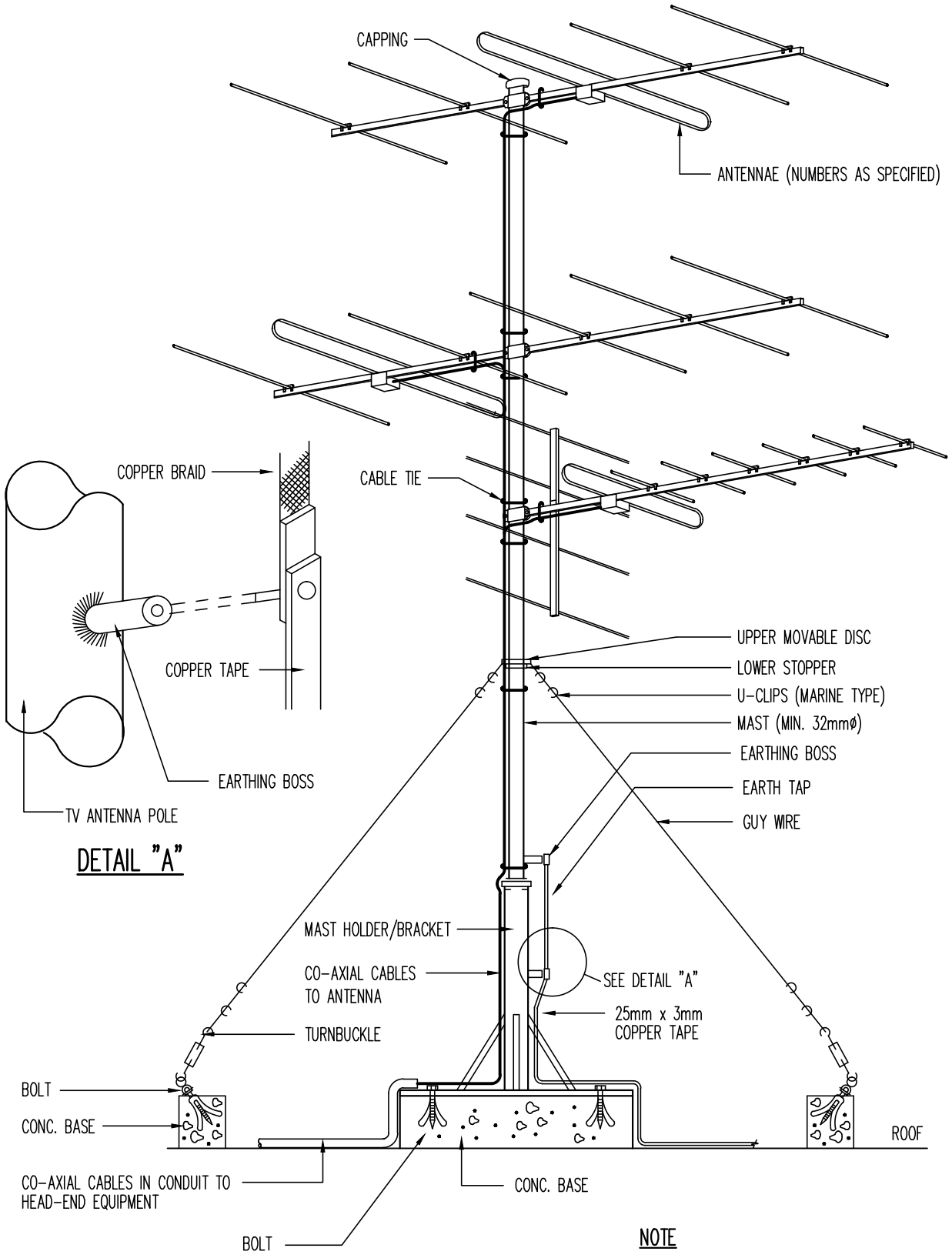
Rev. -




Drawing Title

CONDUITS FOR WALL MOUNTED PUBLIC TELEPHONE BOOTH

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 16 | Rev. A |



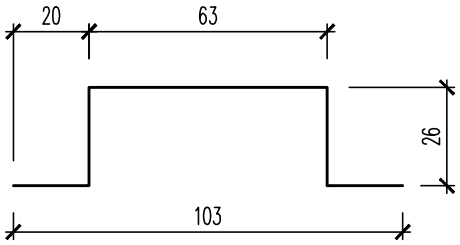

NOTE

CO-AXIAL CABLES FROM THE ANTENNAE SHALL BE CLAMPED IN A WORKMANLIKE MANNER ONTO THE MAST.

Drawing Title

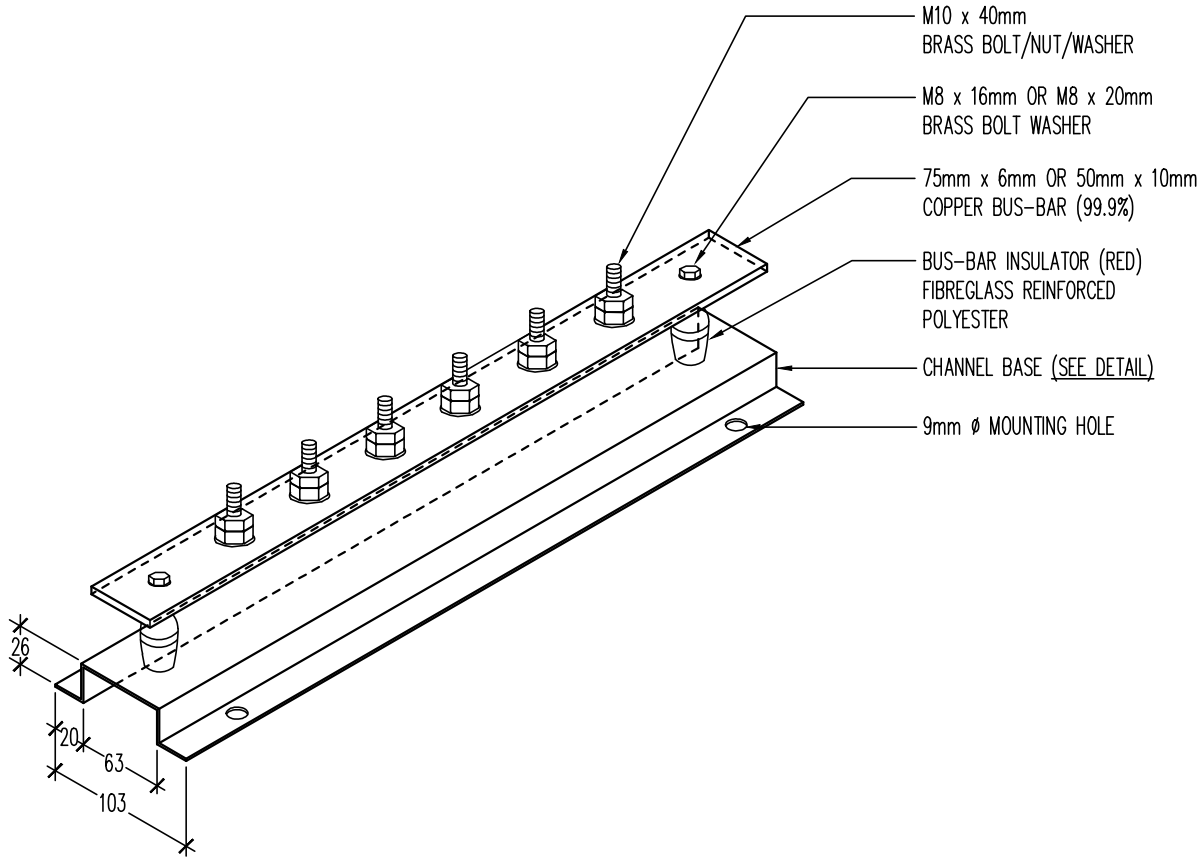
# INSTALLATION DETAILS FOR MATV AERIAL MAST

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 18 | Rev. – |




## DETAIL OF CHANNEL BASE

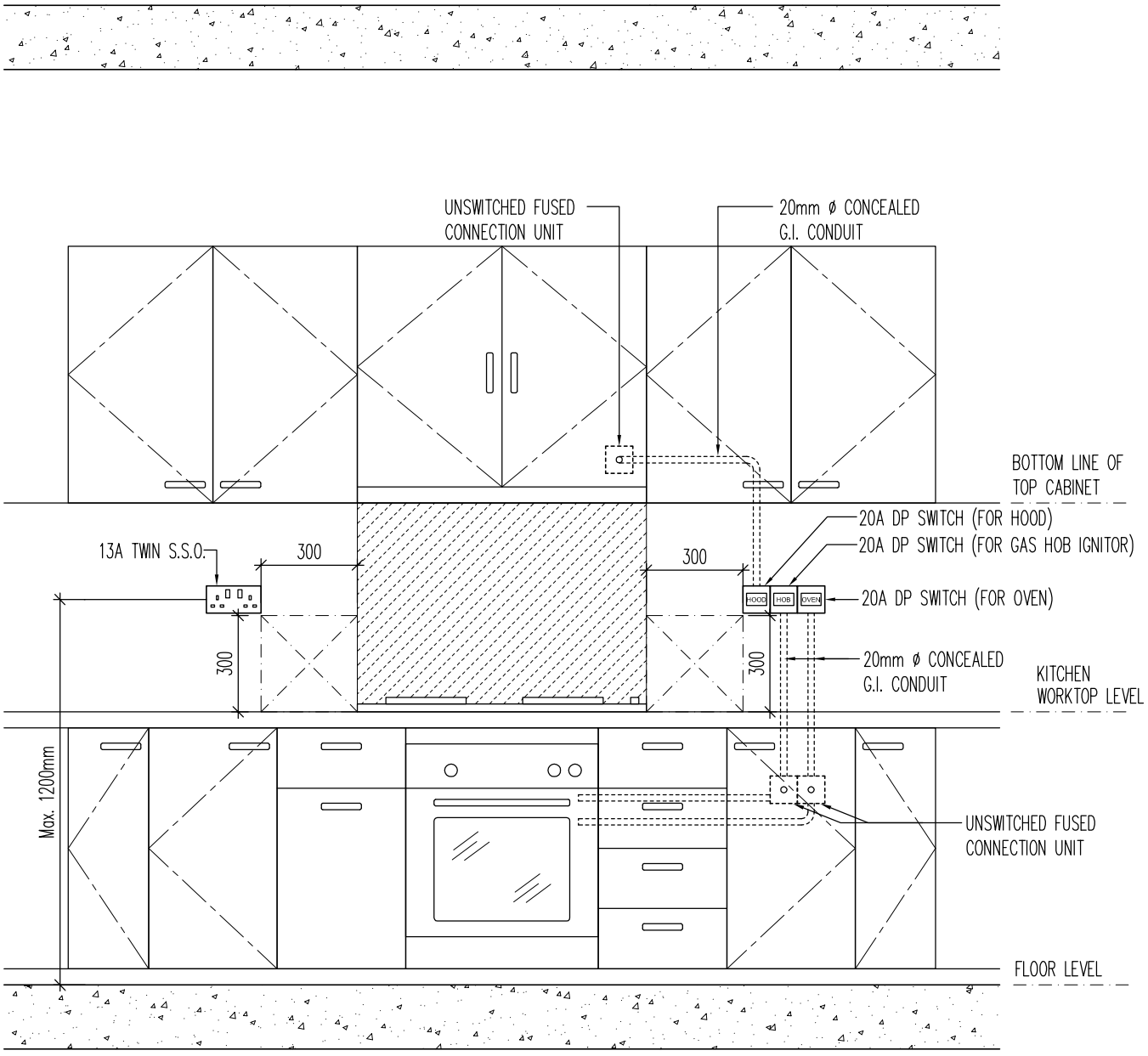
CHANNEL BASE TO BE ELECTRO-GALVANISED
WITH ORANGE EPOXY POWDER FINISH




Drawing Title

DETAILS OF EARTH BAR

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) - 19 | Rev. - |




NOTES:

1. SWITCH SOCKET OUTLET TO BE MOUNTED AT A MINIMUM HEIGHT OF 150mm ABOVE THE KITCHEN WORKTOP.
2. NO SWITCH SOCKET OUTLET OR SWITCH TO BE MOUNTED AT THE 300mm x 300mm WALL SPACE AT BOTH SIDES OF THE HOB AS SHOWN ABOVE.
3. UNSWITCHED FUSED CONNECTION UNITS FOR GAS HOB IGNITOR AND OVEN TO BE INSTALLED IN A SEPERATE COMPARTMENT, SEGREGATED FROM GAS PIPE CONNECTION TO THE HOB.

Drawing Title

# TYPICAL INSTALLATION DETAIL OF ELECTRICAL OUTLET FOR COOKER HOOD, HOB & OVEN

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 20 | Rev. D |

Drawing Title

PROVISION OF 50mm PVC LINK PIPE FOR PRIVATE HOUSES ( Eg : BUNGALOW Etc. )

***Alpha Consulting Engineers Pte Ltd***

Drawing No. SE(EI) – 21

Rev. –

**Alpha Consulting Engineers Pte Ltd**

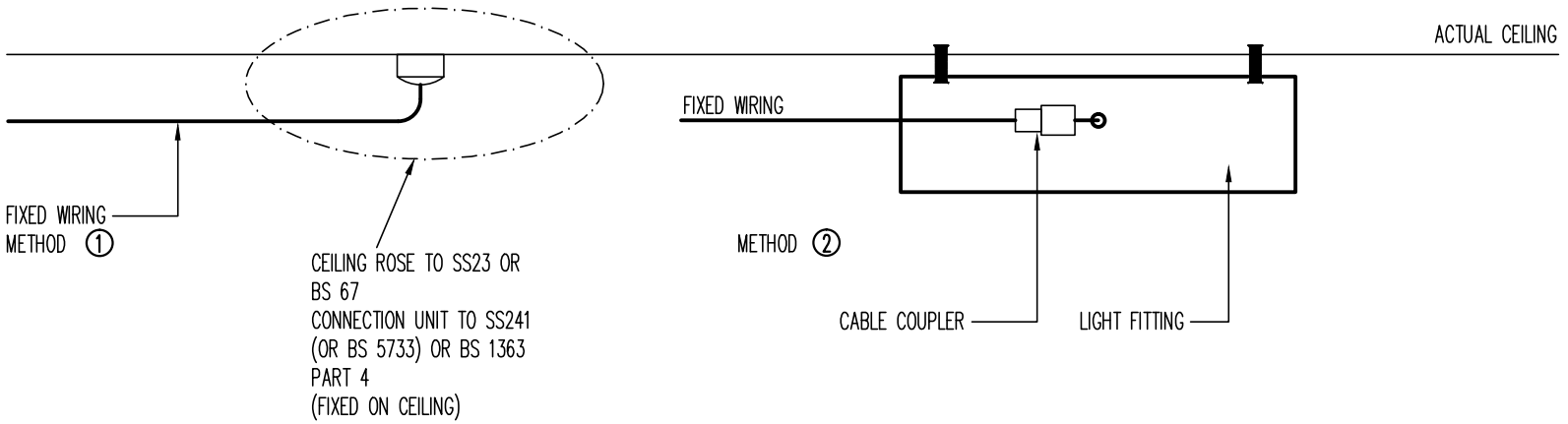
Drawing Title: LIGHTING POINT (SURFACE) FIXING REQUIREMENTS

Drawing No.: SE(EI) - 23

Rev.: A

NOTE:

THE INSTALLATION METHOD FOR LIGHTING POINT(S) SHALL COMPLY WITH CLAUSE **553-04-01L IN CP5: 1998** AS ILLUSTRATED IN FIGURE 1 (FOR ACTUAL CEILING) AND FIGURE 2 (FOR CONCEALED CEILING BOARD). THESE METHODS SHALL BE APPLICABLE TO BOTH DOMESTIC AND NON-DOMESTIC INSTALLATION(S).




METHOD 1:

CEILING ROSE OR CONNECTION UNIT MUST BE PROVIDED **IF** NO LIGHT FITTING IS INSTALLED AT THE TIME OF TESTING. THE CEILING ROSE OR CONNECTION UNIT MUST BE MOUNTED ON THE CEILING.

METHOD 2:

THE USE OF CABLE COUPLER IS ACCEPTABLE **ONLY IF** THE LIGHT FITTING IS INSTALLED AT THE TIME OF TESTING AND THE CABLE COUPLER HAS TO BE ENCLOSED INSIDE THE LIGHT FITTING. LEW/LEC ARE TO ENSURE THAT THE FEMALE CONTACTS OF THE CABLE COUPLER ARE CONNECTED TO THE SUPPLY SIDE AND THE MALE CONTACTS TO THE LUMINAIRE.

FIGURE 1 : LIGHTING POINT(S) INSTALLED ON ACTUAL CEILING

Alpha Consulting Engineers Pte Ltd

Drawing Title

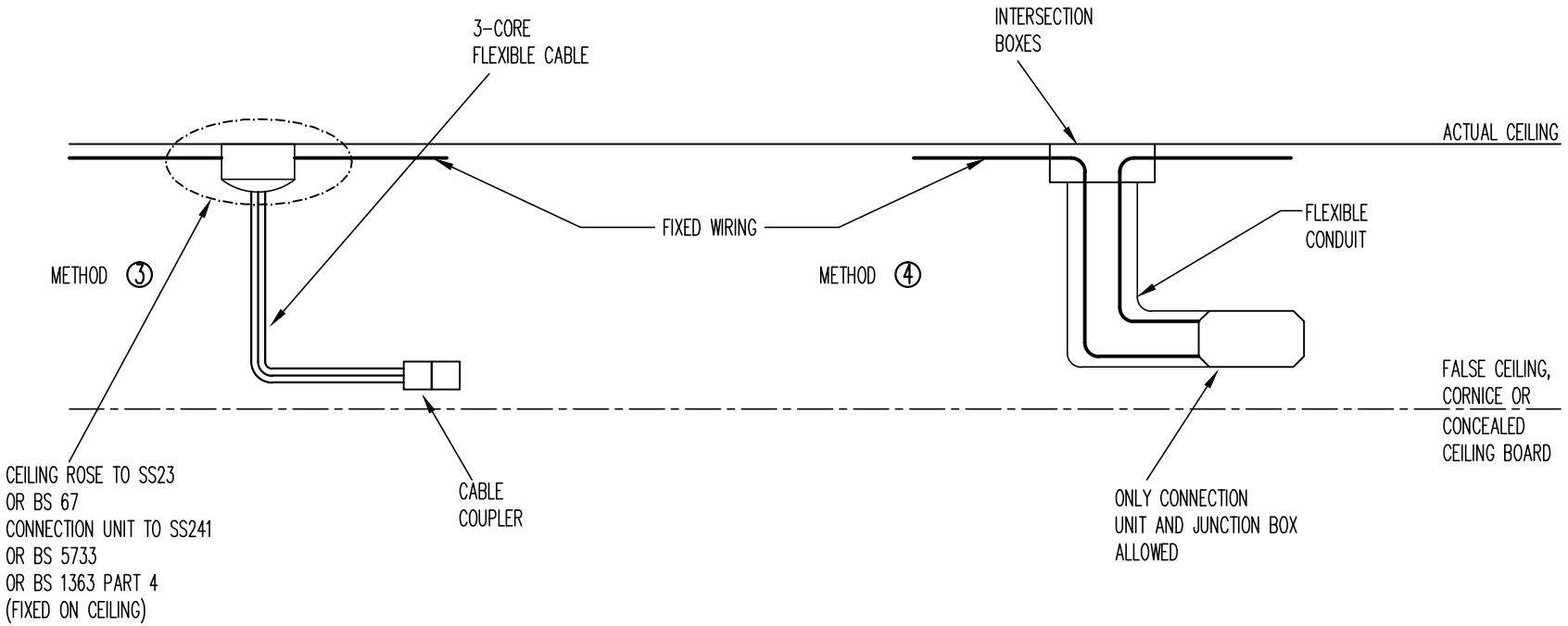
LIGHTING POINT (RECESSED CEILING) FIXING REQUIREMENTS

Drawing No.

SE(EI) - 24

Rev.

A




METHOD 3:

THE USE OF CABLE COUPLER IS ACCEPTABLE ONLY IF CEILING ROSE OR CONNECTION UNIT IS MOUNTED AT THE ACTUAL CEILING. FLEXIBLE CABLE CAN THEN BE USED TO TAP OF FROM THE CEILING ROSE OR CONNECTION UNIT TO THE CABLE COUPLER FOR FUTURE CONNECTION TO LUMINAIRE.

METHOD 4:

IF INTERSECTION BOX IS PROVIDED AT THE ACTUAL CEILING INSTEAD OF CEILING ROSE OR CONNECTION UNIT, THEN ONLY THE USE OF CONNECTION UNIT OR JUNCTION BOX, FOR LOOPING IN AND OUT THE LIGHTING CIRCUIT, ON THE CONCEALED CEILING BOARD IS ACCEPTABLE. THE CONNECTION UNIT OR JUNCTION BOX NEED NOT BE MOUNTED ON THE CONCEALED CEILING BOARD. THE USE OF CEILING ROSE, FOR LOOPING IN AND OUT, ON THE CONCEALED CEILING BOARD IN THIS CASE IS NOT SUITABLE.

FIGURE 2 : LIGHTING POINT(S) INSTALLED ABOVE CONCEALED CEILING BOARD

Drawing Title

HOME NETWORKING WITH BROADBAND INTERNET ACCESS VIA ADSL MODEM

***Alpha Consulting Engineers Pte Ltd***

Drawing No. SE(EI) – 25

Rev. A

NOTE :

HUB, CABLE MODEM, WEB CAMERA SERVER, PCs, TELEPHONES BY HOME OWNER

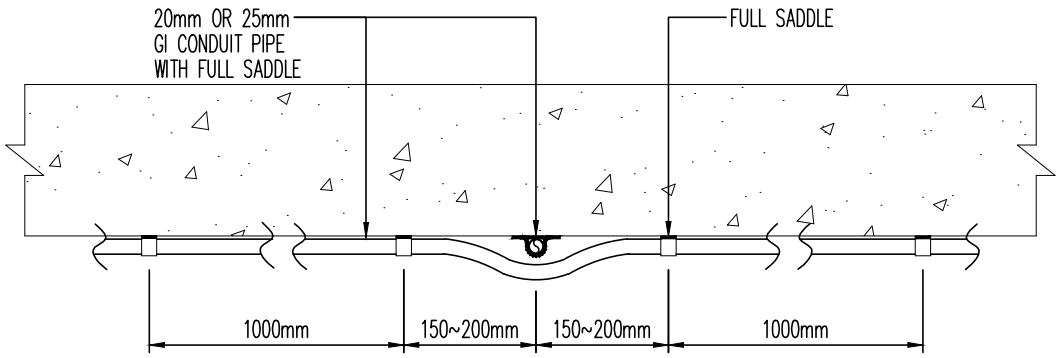
LEGEND

- TV — SCV OUTLET
- DATA POINT
- CABLES LAID BY SUB-CONTRACTOR
- CABLES LAID BY HOME OWNER

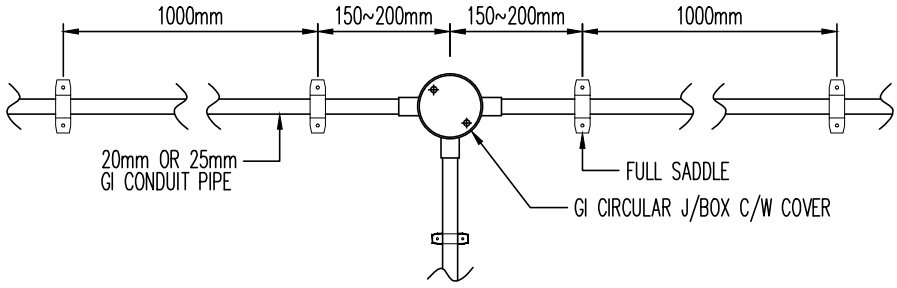
Drawing Title

HOME NETWORKING WITH BROADBAND INTERNET ACCESS VIA SCV TV OUTLET

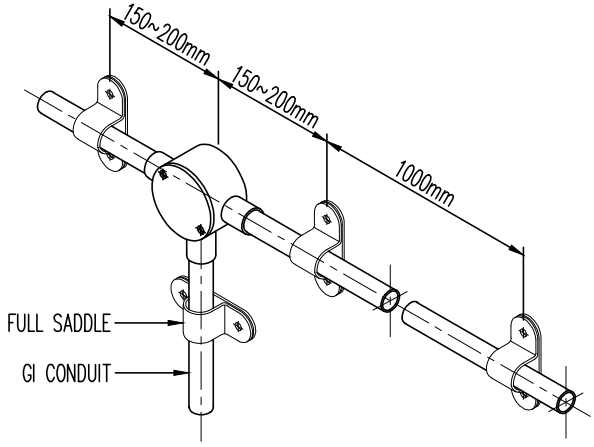
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 26 | Rev. A |
|---|---|---|




## GI CONDUIT PIPE OVERLAPPING



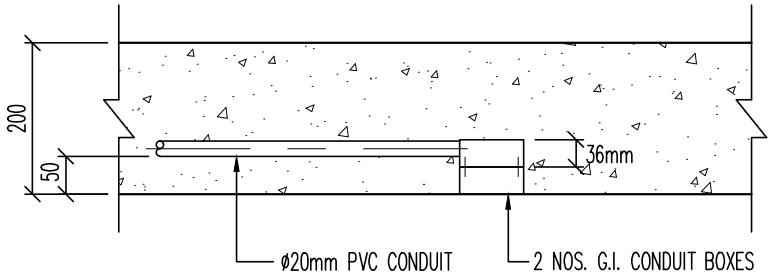

## SURFACE GI CONDUIT PIPE INSTALLATION




Drawing Title

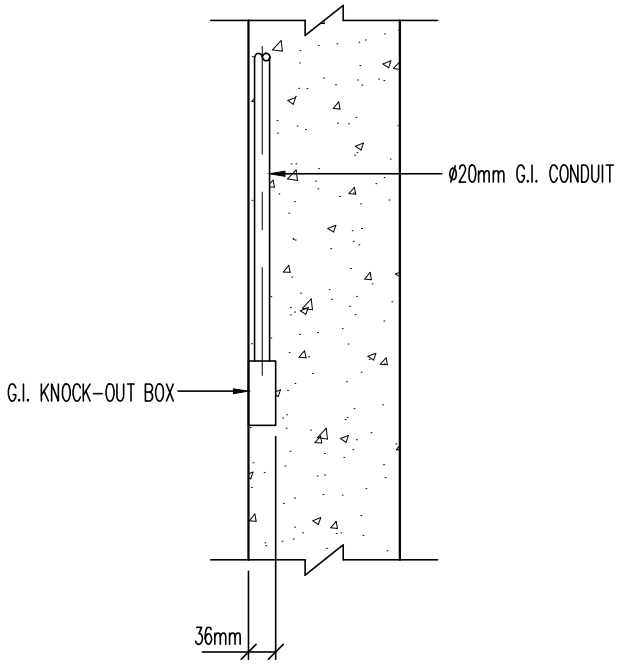
TYPICAL ELECTRICAL GI CONDUIT PIPE INSTALLATION DETAIL

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 27 | Rev. A |




## PVC CONDUIT IN SLAB

SCALE 1 : 10



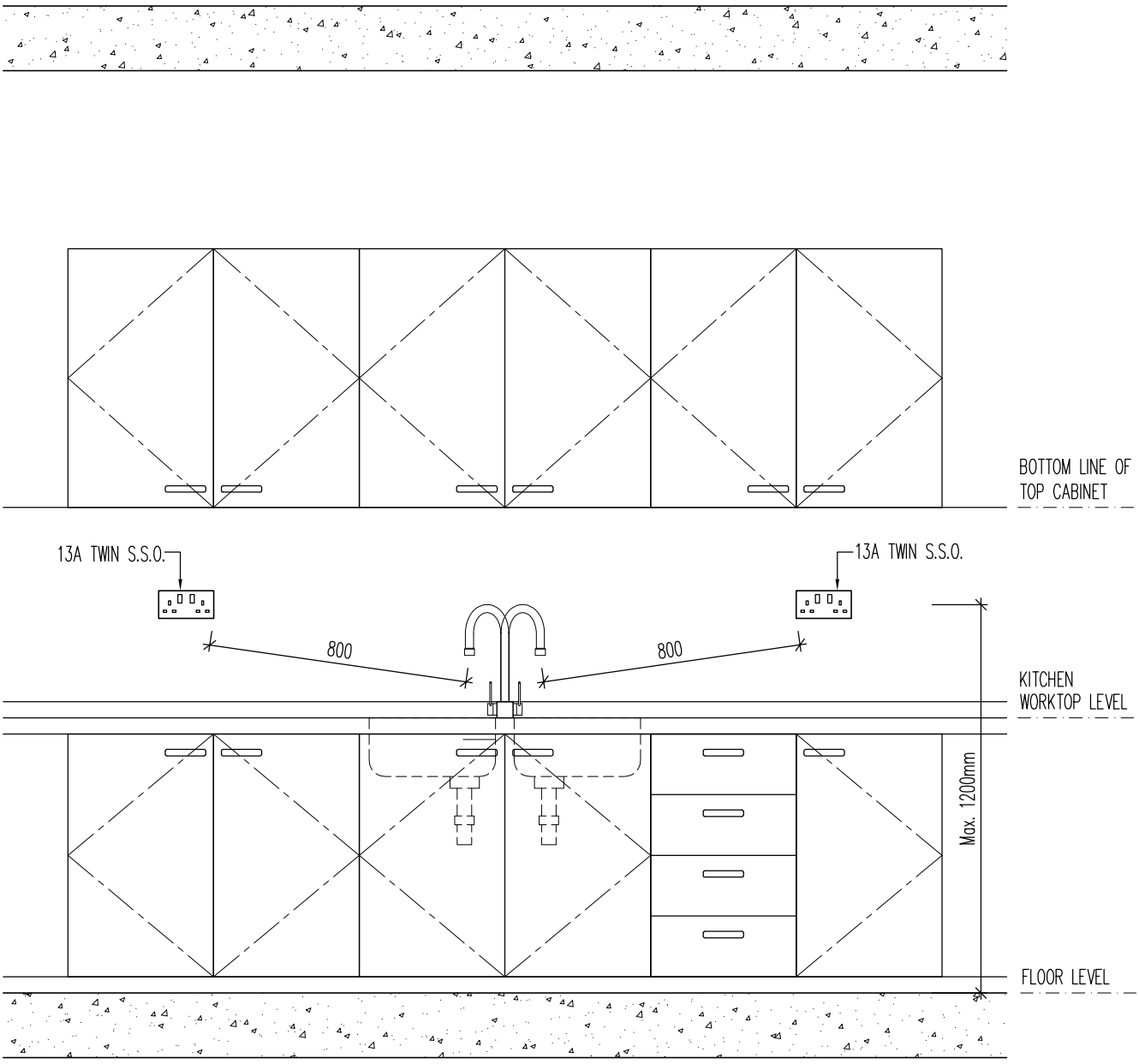

## G.I. CONDUIT ONLY AT HOUSEHOLD SHELTER

SCALE 1 : 10

Drawing Title

CONCEALED CONDUIT IN SLAB / HOUSEHOLD SHELTER FOR CONDOMINIUM

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No. SE(EI) – 28 | Rev. A |




NOTES:

1. SWITCH SOCKET OUTLET (SSO) TO BE INSTALLED AT A MINIMUM DISTANCE OF 800mm AWAY FROM TAP.
2. FOR SWIVELABLE TAPS, THE DISTANCE BETWEEN THE TAP AND THE SSO SHALL BE MEASURED WITH THE TAP SWIVELLED TO ITS EXTREME LEFT OR RIGHT POSITION AS THE CASE MAYBE.
3. AN IP 55 PROTECTIVE COVER MUST BE INSTALLED ON THE SSO IF THE DISTANCE BETWEEN THE TAP AND THE SSO IS LESS THAN 800mm.

Drawing Title

TYPICAL INSTALLATION DETAIL OF SWITCH SOCKET OUTLET MOUNTED NEAR SINK

| | | |
|---|---|---|
| ***Alpha Consulting Engineers Pte Ltd*** | Drawing No.<br>SE(EI) – 29 | Rev.<br>A |