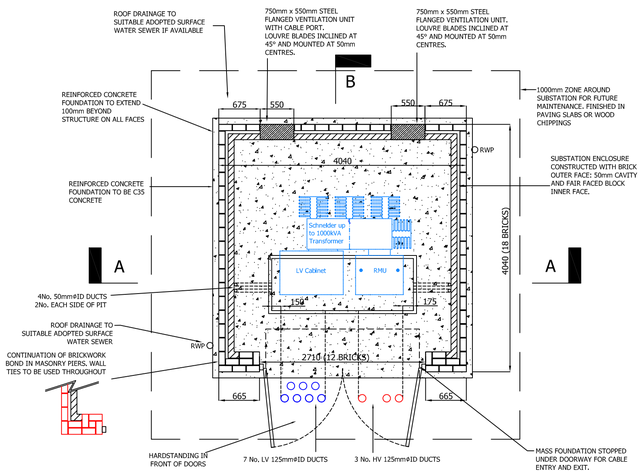
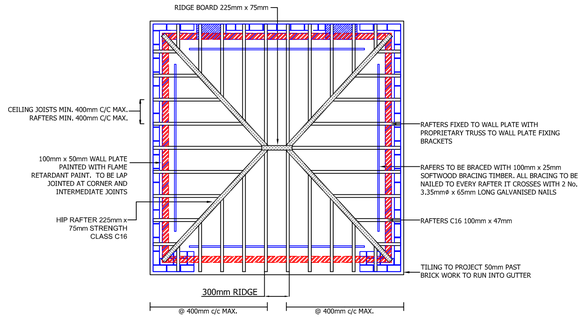
Rev	Revision Note	Date	Drawn by	Approved
1-5	Bunded foundation and valous general amendments added	18/02/11	AS	MS
1-6	Dimension and Earthing amendments	10/06/11	AS	MS
1-7	Door and Eaves details amended, ducts added	29/03/12	AS	MS
1-8	Wording of sub station stamp amended	10/09/14	SW	MS
1-9	Full review of materials and fittings, subsequent updates and amendments made	10/04/18	MCU	MS
2-0	All instances of 'fire board' changed to 'supalux board or equivalent'	25/04/18	MS	MS
2-1	General notes updated	14/06/18	MS	MS

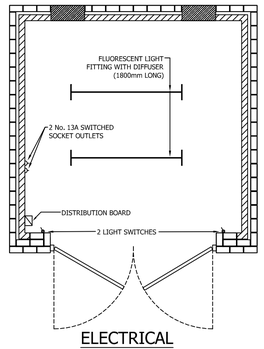
APPROVED FOR CONSTRUCTION



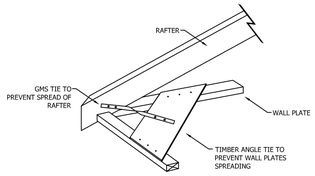
FLOOR PLAN



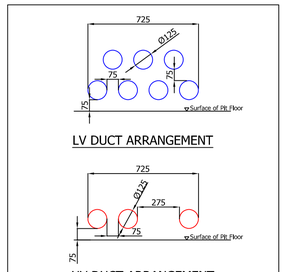
ROOF PLAN



ELECTRICAL LAYOUT



HIPPED ROOF CORNER DETAIL (N.T.S.)



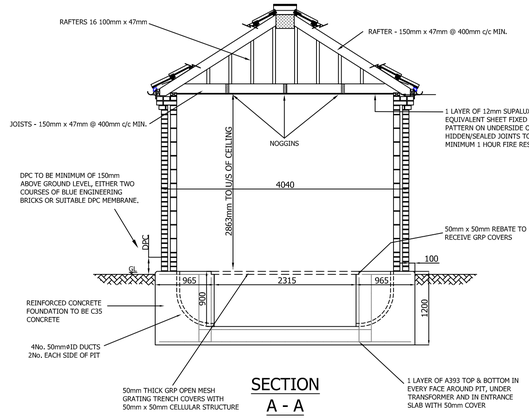
LV DUCT ARRANGEMENT

HV DUCT ARRANGEMENT

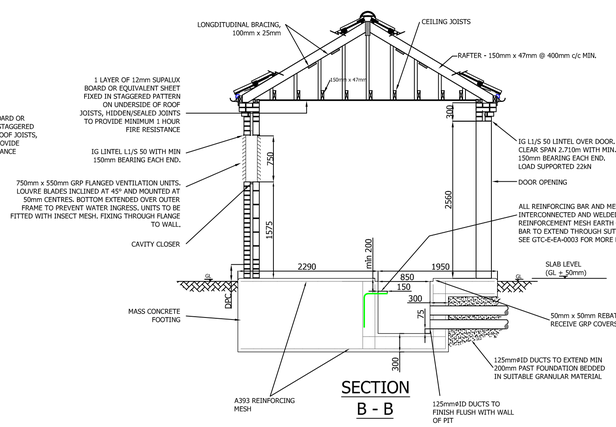
NB:

- ALL DUCT SIZES REFER TO INTERNAL DIAMETER
- DUCTS SHOWN AS VIEWED FROM INSIDE PIT
- SCALE - 1:20

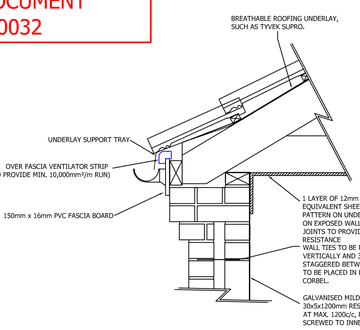
FOR MORE FOUNDATION DETAIL PLEASE REFER TO GTC SUBSTATION DRAWING GTC-E-EA-0003 AND SUBSTATION DOCUMENT GE-TGI-IG-0032



SECTION A - A



SECTION B - B



INDICATIVE EAVES DETAIL - TO VARY DEPENDANT ON TILE CHOICE (NOT TO SCALE)

GENERAL NOTES

1. IF IN DOUBT - ASK !!! DO NOT SCALE
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS IN THIS SERIES AND THE GTC SUBSTATION SPECIFICATION.
3. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND BUILDING PRACTICE.
4. ALL DIMENSIONS TO BE CHECKED PRIOR TO STARTING THE WORKS ON SITE. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY.
5. CONTRACTOR TO ASCERTAIN THE LOCATION OF SERVICES ON SITE PRIOR TO STARTING THE WORK.
6. IF REQUIRED, WATER CAPTURE RECESS OF DIMENSIONS 150mm X 150mm X 25mm TO BE CREATED IN CABLE PIT. MAXIMUM PERMISSIBLE DEPTH IS 25mm TO AVOID INTERFERENCE WITH REINFORCEMENT AND TO MAINTAIN FULLY BUNDED PIT.

ELECTRICAL NOTES

THE SUPPLY FOR THE SUBSTATION POWER AND LIGHTING WILL BE TAKEN FROM THE TRANSFORMER MOUNTED FUSE CABINET AUXILIARY FUSE WAY USING 6mm² COPPER SWA PVC CABLE TO SUPPLY A SINGLE PHASE 25A STREET LIGHTING CUT OUT MOUNTED BELOW THE POWER AND LIGHTING FUSE BOARD. THIS WILL FEED A 100A CONSUMER UNIT WITH A MINIMUM OF 4 MCB CONTROLLED WAYS 2No 16A FOR POWER AND 1No 6A FOR LIGHTING WITH A SPARE 16A WAY FOR SPECIAL REQUIREMENTS SUCH AS SCADA OR REMOTE ACTUATOR UNITS. EACH OUTGOING WAY WILL BE LABELED TO IDENTIFY CIRCUITS.

ALL INTERNAL WIRING TO BE CONTAINED IN 20mm HIGH IMPACT BLACK PVC CONDUIT AND ALL ACCESSORIES WILL BE NON METALLIC HIGH IMPACT AND FULLY INSULATED AND WEATHERPROOF AND SOURCE FROM A QUALITY MANUFACTURER (e.g. MEM OR MK).

TWO 13A SWITCHED SOCKET OUTLETS WITH 30mA RCD PROTECTION WILL BE PROVIDED IN A CONVENIENT LOCATION ON THE LEFT HAND SIDE OF THE SUBSTATION.

TWO 1800mm FLUORESCENT LAMP UNITS WITH POLYCARBONATE COVERS TO AT LEAST IP56 SPECIFICATION WILL BE FITTED TO THE CEILING AND CONTROLLED BY A TWO-WAY NON METALLIC FULLY INSULATED LIGHTING SWITCH FIRRED 1350mm ABOVE FINISHED FLOOR LEVEL ON THE WALL ADJACENT TO EACH DOOR.

THE SOCKETS ARE TO BE WIRED IN 2.5mm² COPPER CABLE AND THE LIGHTING WIRED IN 1.5mm² COPPER CABLE.

THE ELECTRICAL INSTALLATION IS TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF BS7671 - IEE WIRING REGULATIONS

FOR SUBSTATIONS WITH SEPARATE HV AND LV EARTHING (HOT EARTHING)

CARE MUST BE TAKEN WITH LIGHTING AND SOCKET SUPPLIES TO AVOID THE POSSIBILITY OF MAKING CONTACT BETWEEN DIFFERENT EARTHING SYSTEMS.

AT HOT SITES ALL FITTINGS, SWITCHES AND CONDUIT MUST BE NON-METALLIC AND FULLY INSULATED TO THE SPECIFICATION ABOVE.

ALL 13A SOCKETS (INCLUDING SOCKET OUTLETS IN THE TRANSFORMER MOUNTED FUSE CABINET) MUST BE PROTECTED BY A 30mA RCD WITH THE EARTH TERMINAL CONNECTED TO THE HV STEELWORK

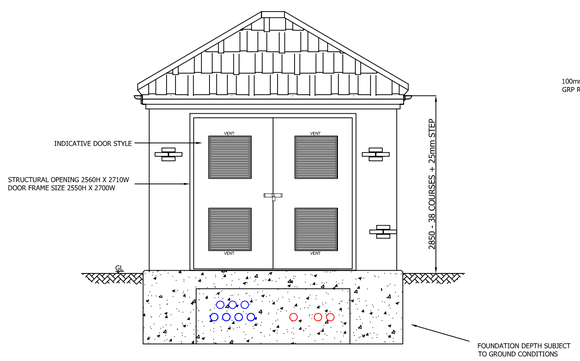
LIGHT SWITCH
13A SWITCHED SOCKET OUTLET
DISTRIBUTION BOARD
FLUORESCENT LIGHT (1800mm LONG) INCLUDING DIFFUSER

APPROVED SUPPLIERS

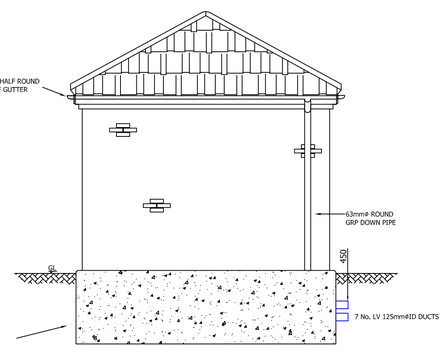
GTC APPROVED - GRP SUBSTATION DOORS, STEEL VENTILATORS AND GRP TRENCH COVERS
WOLSELEY (FORMALLY UTILITY POWER SYSTEMS), CARWOOD ROAD, CHESTERFIELD TRADING ESTATE, CHESTERFIELD, DERBYSHIRE, S41 9QB
Tel: 0344 251 1666
Fax: 01246 459315
Email: sales@utilitypowersystems.co.uk

GTC APPROVED - STEEL DOORS AND VENTILATORS AND GRP TRENCH COVERS:
SUNRAY ENGINEERING LTD, KINGSNORTH INDUSTRIAL ESTATE, WOOTON ROAD, ASHFORD, KENT, TN23 6LL
Tel: 01233 639030
Fax: 01233 625137
Email: sales@sunraydoors.co.uk

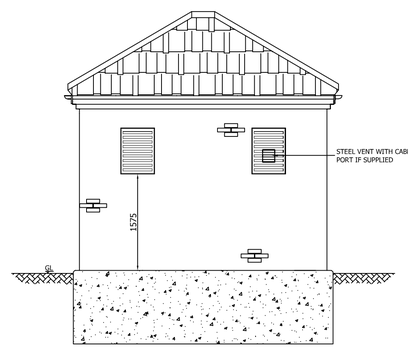
GTC APPROVED - STEEL DOORS AND VENTILATORS:
BRADBURY ENGINEERING, DUNLOP WAY, QUEENSWAY INDUSTRIAL ESTATE, SCUNTHORPE, NORTH LINCOLNSHIRE, DN16 3RN
Tel: 01724 271999
Fax: 01724 271888
Email: sales@bradburyuk.com



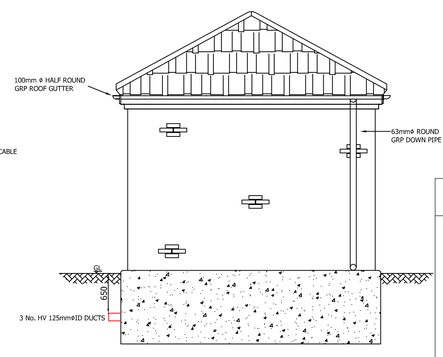
FRONT ELEVATION



SIDE ELEVATION



REAR ELEVATION



SIDE ELEVATION

Drawing Scale : 1:50
O.S.REF : N/A
Network Number : N/A
Project Number :
Drawing Number : GTC-E-SS-0012_R2-1_1_of_1

CLOSE COUPLED SUBSTATION
PYRAMID ROOF DETAIL
GENERAL ARRANGEMENT

SHEET SIZE A1