



FOUNDATION AND REINFORCED CONCRETE

- AS STATED ON DRAWING OR TO SUIT THE SITE CONDITIONS.
- REINFORCING CUTO TO BE PLACED TO PROVIDE AT LEAST A 4 HOUR FIRE RATING (30min MINIMUM).
- REINFORCING SHALL BE PLACED AS SHOWN TO ACHIEVE AN INCREASE IN COMPRESSION PRESSURE AT FORMATION LEVEL.
- REINFORCING SHALL BE PLACED ON 50mm (2in) SLEAK MIX CONCRETE SLABING ON 120mm GAUGE GEOWEBBEMENT, ON SAND BANDING, ON WELL COMPACTED TOP OF EXISTING CONCRETE.
- REINFORCING BARS TO BE ELECTRICALLY CONTINUOUS.

FLOOR SLAB

- TO THE STRUCTURAL ENGINEER'S SPECIFICATIONS TO SUIT LOADS LOWDOWN SHOWN, THE REINFORCING ROUTE IS TO BE CAPABLE OF SUITING THE EQUIPMENT LOAD.
- STANDARD FLOOR SLAB THICKNESS OF 225mm MINIMUM REINFORCED CONCRETE.
- REINFORCING SHALL BE PLACED TO PROVIDE A MINIMUM COMPRESSIVE STRENGTH OF 40N/mm² AFTER 28 DAYS. CONCRETE WORKED FINISHED WITH STEEL FLOOR TO WITHIN 10mm OF FINISH.
- REINFORCEMENT TO DEVELOPER'S STRUCTURAL ENGINEER'S REQUIREMENTS.

GRP ENCLOSURE

- SUPPLIED AND INSTALLED BY UK POWER NETWORKS, USUALLY DELIVERED TO SITE IN 10'x10'x10' RACK UNITS OR AS AVAILABLE ON REQUEST.
- TOTAL WEIGHT OF GRP ENCLOSURE IS 80KG.
- GRP ENCLOSURE TO BE SUPPLIED WITH 10'x10'x10' UK POWER NETWORKS PADLOCK, THE FIREHOLD SECTION BELOW THE DOORS IS REMOVABLE TO FACILITATE FULFILL
- KEEP 100mm CLEARANCE MINIMUM ABOVE ENCLOSURE FOR PRESSURE RELEASE AT
- ALLOW 600mm C/C REAR HEADROOM FOR THE REMOVAL OF THE ENCLOSURE DURING MAINTENANCE OR REPLACEMENT OF THE TRANSFORMER.
- MAXIMUM C/C ON TOP OF ENCLOSURE TO BE 1000mm.
- ENCLOSURES MUST NOT BE DISTURBED - TO BE REINFORCED WITH CONCRETE AREA OF 500mmx500mm.
- STANDARD COLOURS ARE MID BROWN 04-20 OR DARK GREEN 14-40 TO BS4800.

DUCTS

- 100mm INTERNAL DIAMETER 12MM WALL THICKED HIGH DENSITY POLYETHYLENE DUCTING TO BS 1524 OR BS EN 13763, LAMB LAYED AND
- NUMBER AND ENTRY POSITIONS SHALL BE VERIFIED BY UK POWER NETWORKS.

INFILL TO AREA AROUND CABLES

- INFILL TO BE PLACED TO PROTECT ALL CABLE DUCTS, FILL TRENCHES WITH SAND WITH 100mm ABOVE TOP DUCT AND TO A MINIMUM OF 500mm below TOP OF GRABINGS.

GRP GRABINGS AND SUPPORTS

- USE APPROVED 3mm DEEP REINFORCED GRP GRABTINGS: ONE TYPE WITH GRIFFED SURFACE AND ONE TYPE WITH SMOOTH SURFACE.
- GRABTINGS SHALL BE FLUSH WITH TOP OF FOUNDATION AND SECURELY SUPPORTED.
- REMOVED WITH CARE WITHOUT NOTICEABLE FLOORING OR SLIDING.
- GRABTINGS TO BE USED FOR FLOORING FOR ALL CABLES. GRP GRABTINGS CAN BE SEPARATED WITH LEVELS WHILE STIFFLY REMAINING STABLE.
- SUPPORTS FOR GRP GRABTINGS TO BE 100mmx100mmx100mm UNGLAZED.

REFERENCES	
SHEET 2	EARTHING LAYOUT
SHEET 3	SMALL POWER AND LIGHTING LAYOUT
EAS 07-000	APPROVED EQUIPMENT LIST - C&I
EAS 02-000	APPROVED EQUIPMENT LIST - CABLES & DUCTS
EDS 07-0119	SUBSTATION ELECTRICAL SERVICES
EDS 07-3101	PRE-DESIGN REQUIREMENTS FOR SECONDARY SUBSTATIONS
EDS 07-3102	SECONDARY SUBSTATION C&I: DESIGN STANDARD

EQUIPMENT WHICH MAY BE USED WITH THIS DESIGN

- UNIT SUBSTATION WITH A 1500KVA TRANSFORMER OR BELOW.
- MICRO SUBSTATION.
- COMPACT SUBSTATION.

C	26-10-18	Design revised to show 1500kVA transformer	UA	RDH
			UA	UKPN
B	05-01-18	Equipment positioning dimension added.	UA	RDH
			UA	UKPN
A	09-08-17	ORIGINAL	UA	RDH
			UA	UKPN
Version	Date	Description	Checked	Dm.
			Approved	Designed



TITLE	UNIT OR PADMOUNT SUBSTATION IN A GRP ENCLOSURE CIVIL LAYOUT
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SCALE	NTS	@A1	APPROVED	Version C
DRAWING NO. EDS 07-3102.01 Sht 1 of 3				
SITE		SECONDARY SITES		