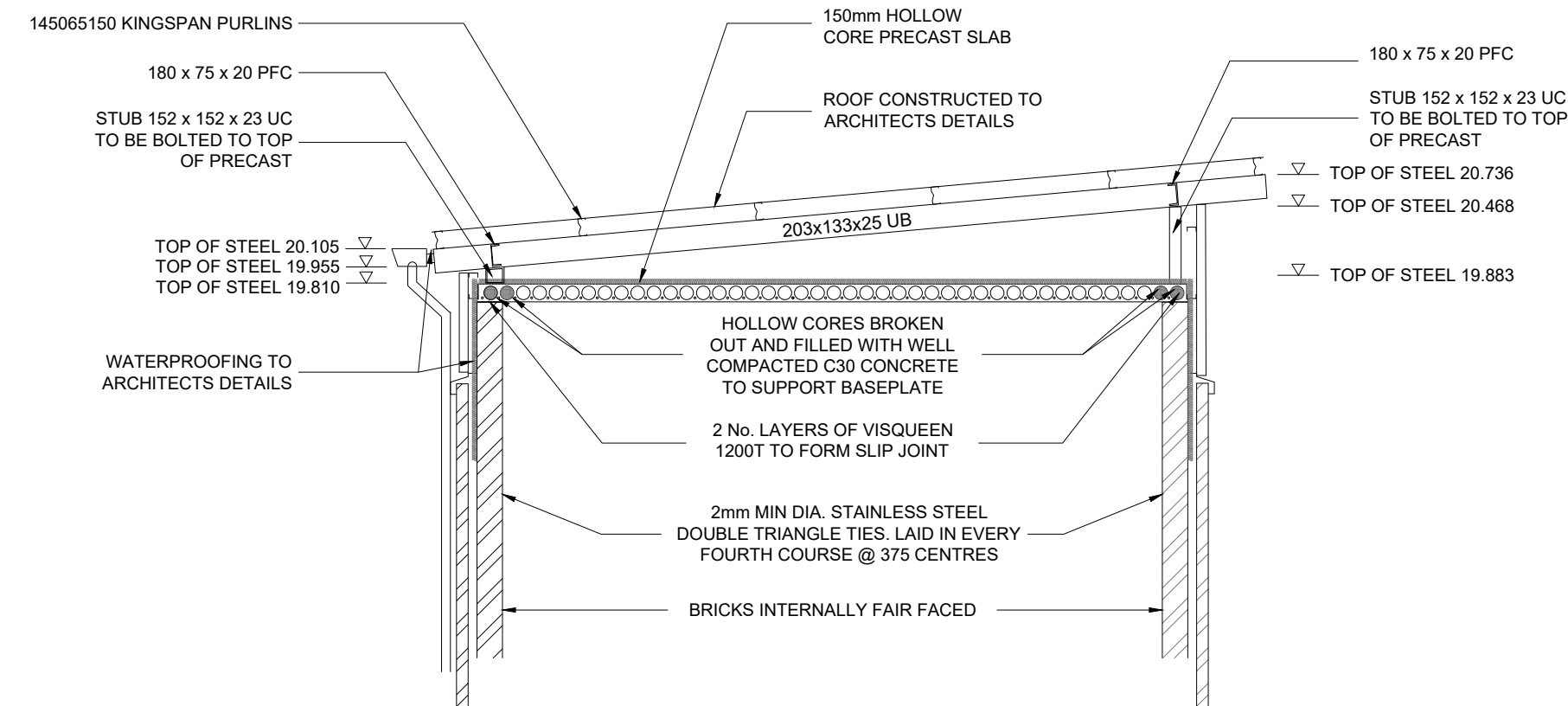
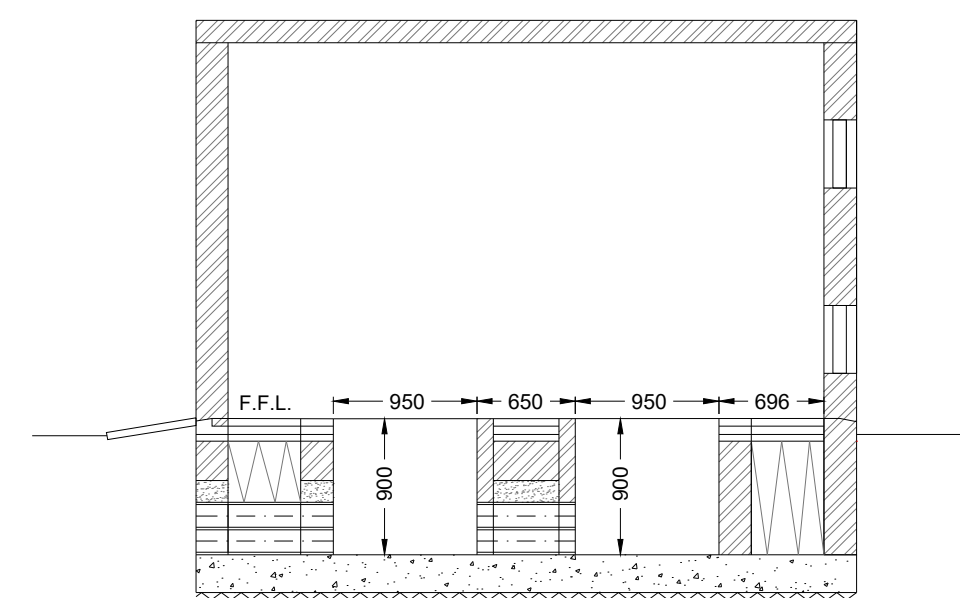
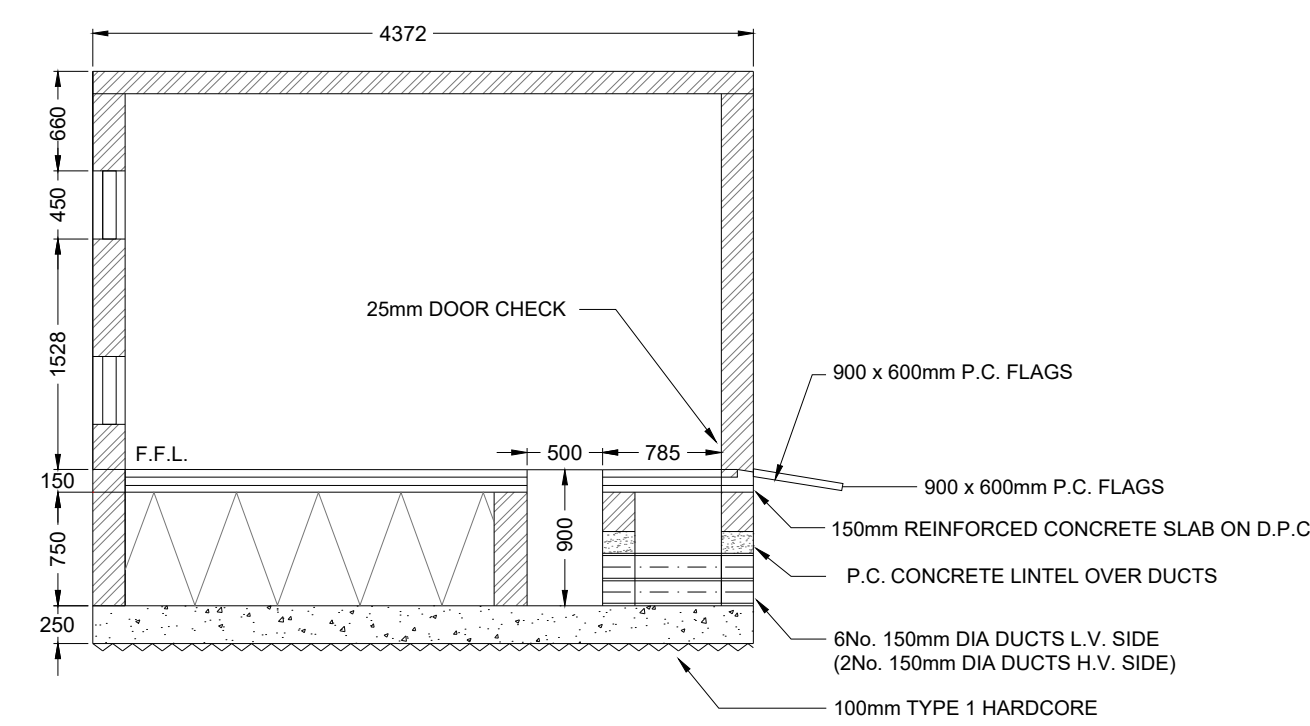




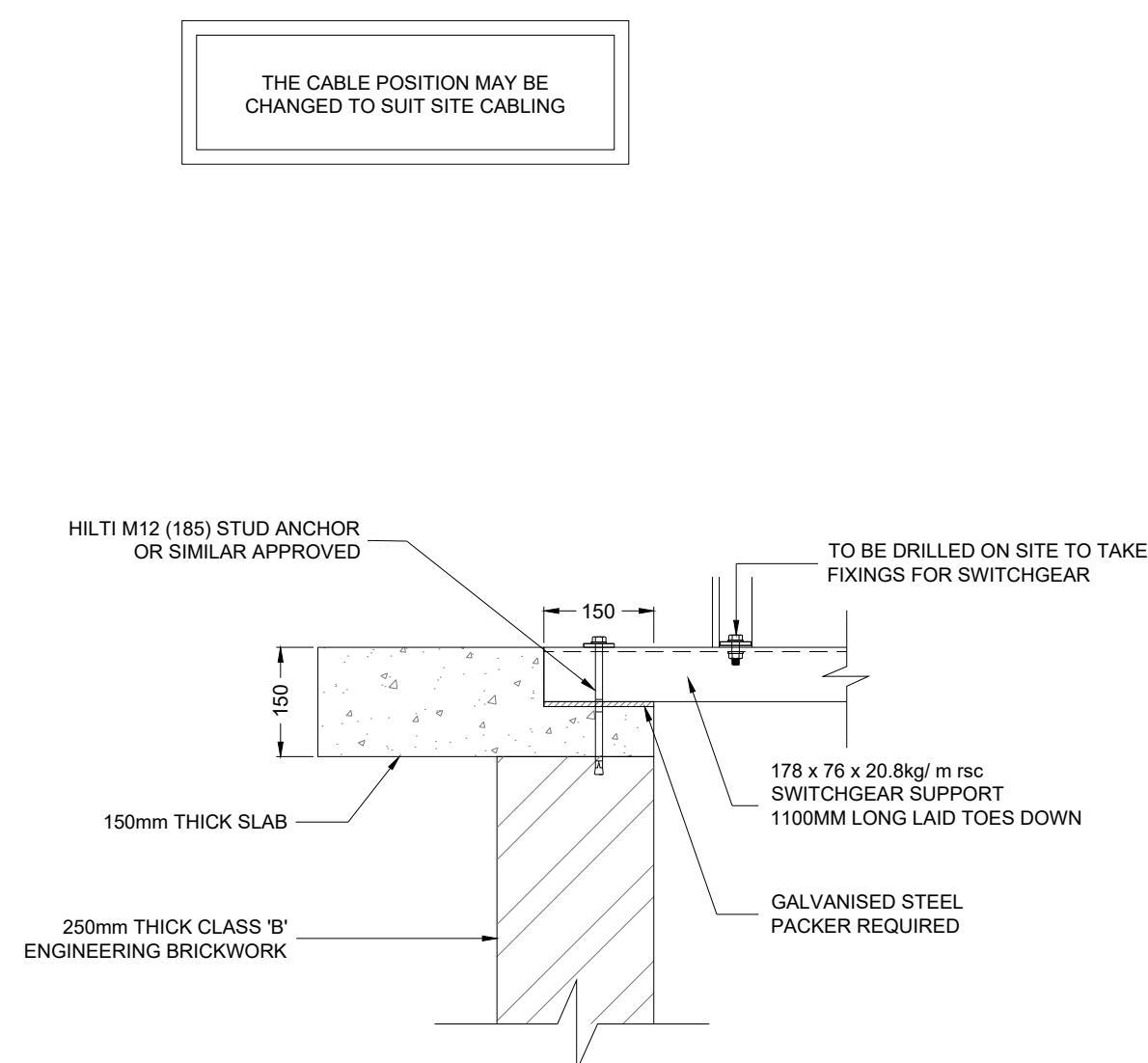
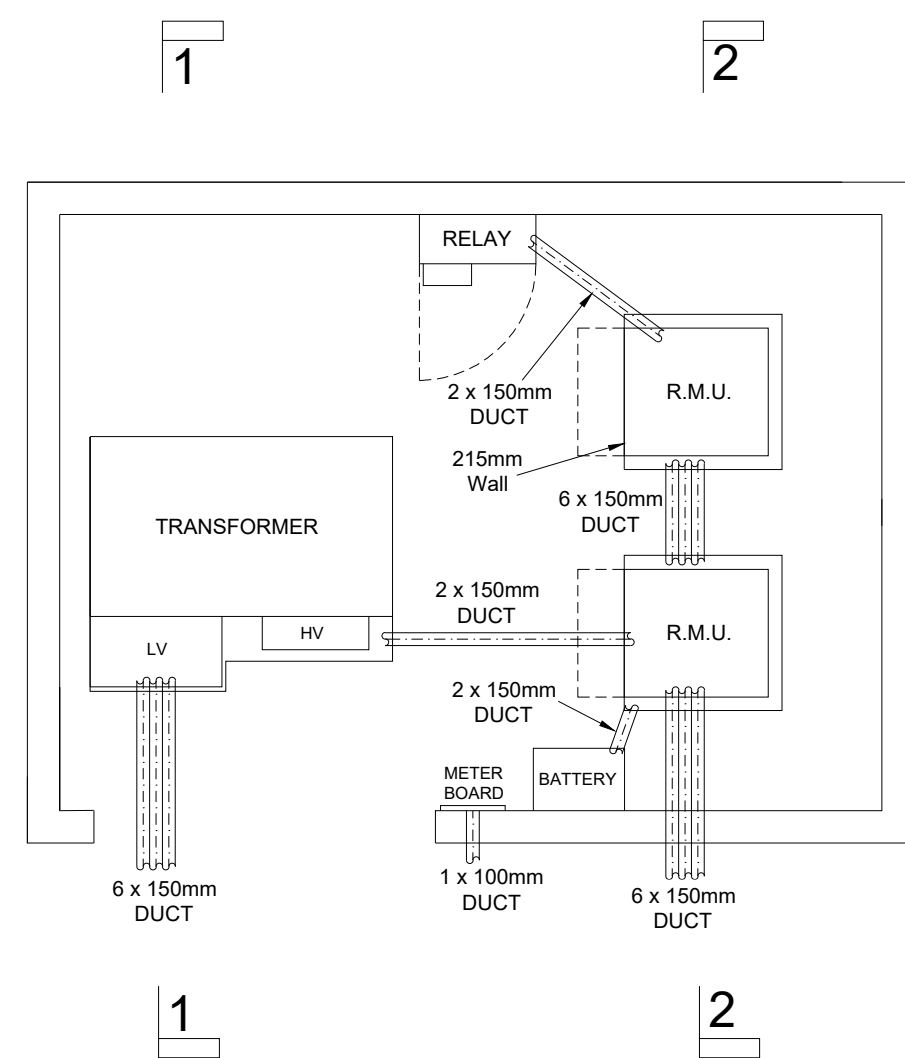
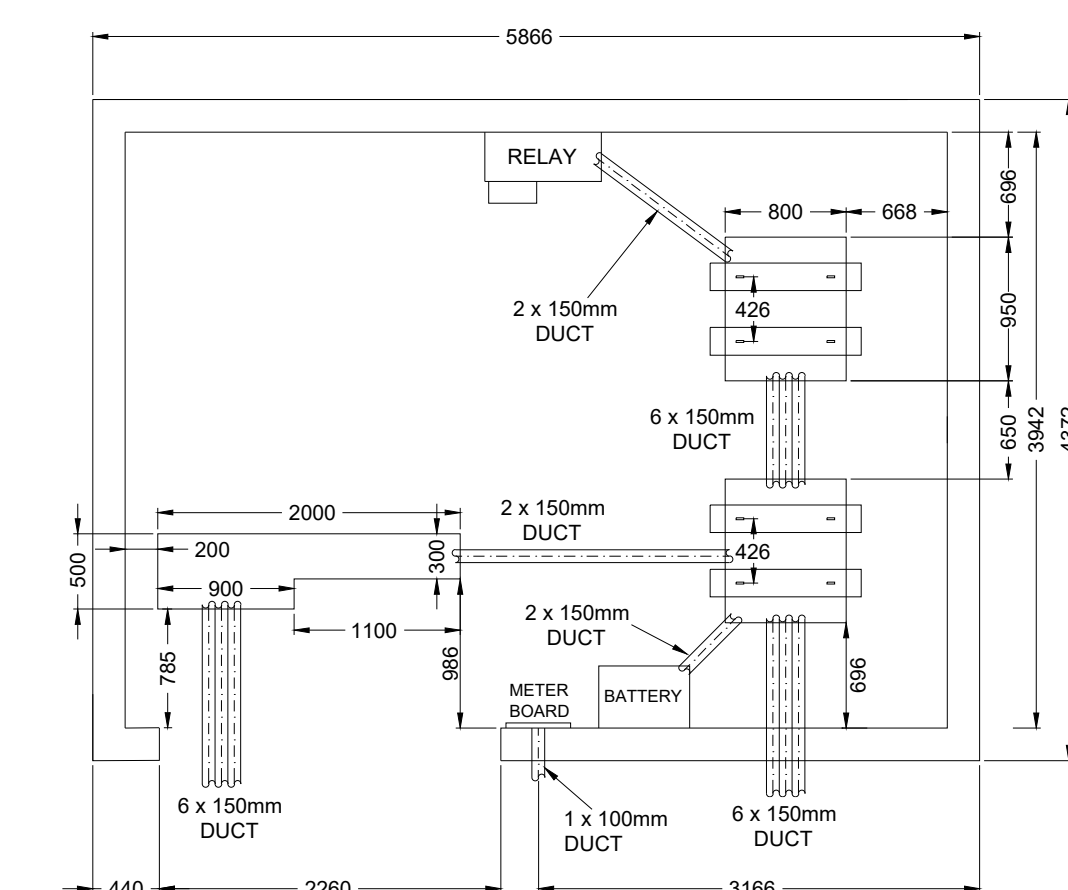
Specific Secondary Substation Notes

1. The concrete to be in accordance with the specification and attain the relevant cube crushing strength at 28 days.
2. Foundations to be set on undisturbed organic strata, that provide the required minimum design ground bearing capacity.
3. A flat, level and smooth floor surface is essential for installation of the floor. Tolerances to finish level to be not more than 1mm permissible deviation on the floor, shall not exceed 1mm in 1m or 3mm in 3m. Floors to be cured, repaired and painted with non-slip floor paint to comply with H.S.D. category 1.
4. All brickwork below D.P. to be H.S.D. category 1.
5. 75N/mm² mean compressive strength and max 7% C.A. and durability designation F2 (SE-engineering brickwork mass and 10% salt bond exceedance) for the 1st and 2nd class concrete bricks to be H.D. category 1 mm 20N/mm² mean compressive strength, max 12% M.A. and durability designation F1 S1 for the 3rd class internal bricks to be H.D. category 1 mm 20N/mm² class II concrete bricks, size to match external facing bricks with a mean compressive strength of not less than 20N/mm² class II mortar.
6. Lines of collar joint double stretcher walls to be tied together by means of 4mm min diameter, stainless steel double-triangle ties (or better) laid in every 4th course at 1m centres and set in the mortar joints. The ties are to be staggered. Where cavity wall construction is proposed the constructor shall confirm by structural design calculation to satisfaction of energy networks that the proposed cavity wall construction has adequate thermal insulation. The cavity tie to be staggered. Where cavity wall construction is proposed the constructor shall confirm by structural design calculation to satisfaction of energy networks that the proposed cavity wall construction has adequate thermal insulation.
7. The concrete sub-soil requires the following waterproof coating and provision must be made to shed rainwater from the building externally, to prevent water from being picked roof. Internal/External faces of concrete sub roof to be finished flat. All external faces to be cured, prepared, primed and finished with a two coat high-performance (Aliphatic) polyurethane waterproofing membrane (top grade) with glass fibre mat reinforcement to install to E.C. grade.

1No. coat of LPL bonding primer then
2No. coats of LPL Decothane
obtained from Liquid Plastics 01772 259 781
(or equal system)

All finishes to be applied strictly in accordance with the manufactures recommendations.
All proposals regarding construction of the pitched roof must be submitted to energy networks for comment before work commences.

Ventilation unit opening sized for 1000kVA transformers shall be a minimum 550x750mm. Typical ventilation indicated may not be adequate in certain supply conditions which might require additional or alternate ventilation arrangements.



General Notes

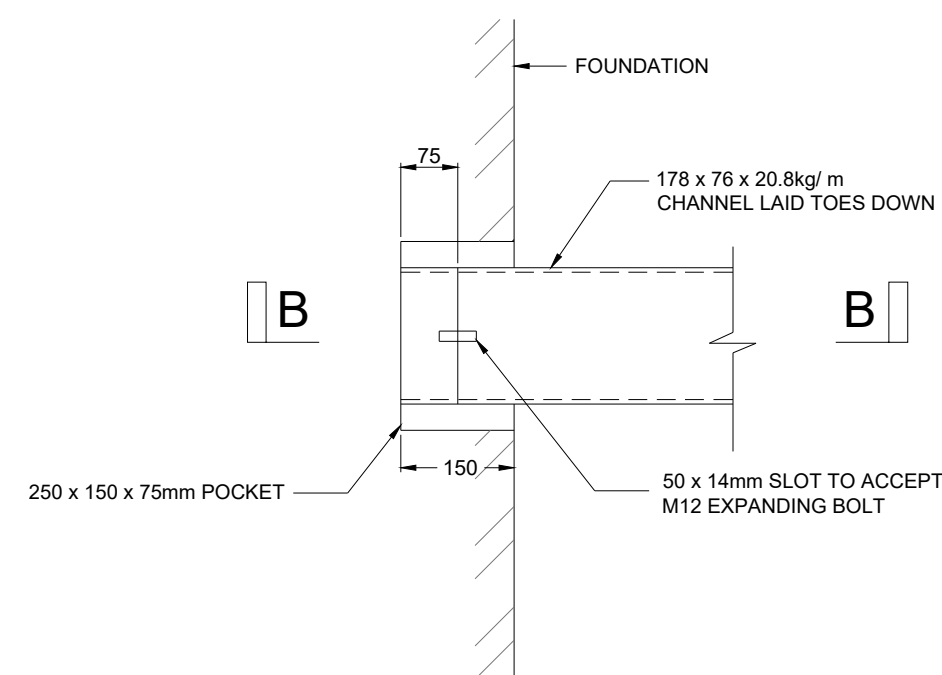
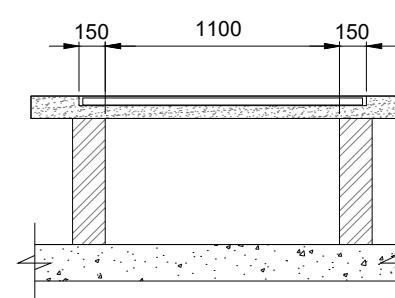
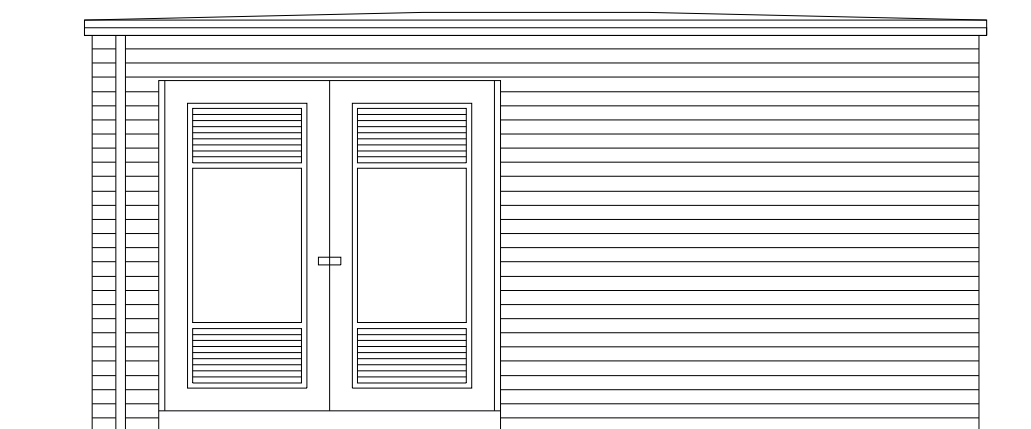
1. All cable ducts to be approved type and to project beyond brickwork by 300mm min, unless stated otherwise.
2. The external end of all cable ducts to be fireproof sealed with expanding foam or similar approved material.
3. Temporary pipe covers are required for cable cells, trenches and pits.
4. Floor finish is critical, to be laid flat, level and true with a smooth power or steel float devol of tread marks to +3mm in 3m and 1mm in 1m expressed as a maximum permissible deviation from the straight edge, level and true.
5. 2No. coats of non-slip concrete floor paint to be applied to floor, in accordance with the manufacturers instructions. Colour grey or black to apply 2No. coats of anti-slip emulsion to lay internally, colour magrola or equivalent.
6. All ducts built through walls to be fully sealed all around the circumference of their barrels (3mm 35mm) with mortar and to be flush pointed.
7. After the substitution is commissioned, the contractor shall return the cable cell to its original condition, i.e. finish on the surface 2No. below F.F.L. and finish with 1No. layer of visqueen 1200T and 50mm thick topping of sand/cement screed 3:1 level with adjacent floor surface.
8. On completion of all cabling and cabling, the contractor shall seal all cable ducts.
9. All cable ducts to be hot dipped galvanised before assembly and any damage during assembly to be wire brushed and treated with an approved zinc rich paint.
10. Where otherwise stated all bollards to be 100mm diameter high tensile grade 8 with 8 pin 100mm stems.

General Notes

The electrical plant contained within this substation can under certain circumstances suffer a disruptive failure resulting in fire or explosion. The 11kV switchgear also contains sulphur hexafluoride gas (Sf6) - please refer to relevant COSHH data.

Earthing Notes

1. All earthing to be carried out in accordance with ENATS 41 - 24 and comply to company approval.
2. Earthing points to be provided as required to suit local conditions.
3. Outer earth loop to be continuous and installed 1000mm outside building 1000mm finished ground level. Earth loop to be bonded to substation earth as shown.
4. All earth tape to be connected to main structural support steelwork (where available).
5. Joints to be bolted and coated with bituminous paint to 150mm below chipping level.
6. All cable sheaths and armouring to be bonded to earth bar.



REV	DRAWN	CHECKED	APPROVED	DATE
DRAFT				
SP Ref No: 00000000 Emergency No:0800 001 5400				
LAND OWNER ADDRESS:			DEVELOPER ADDRESS:	
APTUS CONTRACT NUMBER:			AP****	
DRAWING:				
X TYPE SUB - IDNO 3				
DRAWN: N.BOULD	CHECKED: CHECKED	APPROVED: APPROVED	DATE: 05/01/2023	
SHEET NO: 1 OF 1 SCALE: 1:50 @ A1 REV: -				
DEVELOPMENT:				
DRAWING NO:				
AP-----APT.HV.XX.GF.Y.120003				
Aptus MULTI-UTILITIES MASTERED Aptus House, Unit 19-20, Barrs Folds Road, Wingates Industrial Estate, Bolton, BL5 3XP Tel : 01204 325000				
SITE ENTRANCE GRID REF EASTINGS: EASTINGS NORTHINGS: NORTHINGS ACCREDITED				
REF: PRJ11100233864-3P				