

ROOF CONSTRUCTION  
"Big Six" OR Profile B 6mm fibre/ cement OR 0.6mm galv. IBR sheeting on 76 X 50 purlins @ max. 1400mm c/c on "gangnail" type trusses @ max 1050mm c/c. Where "gangnail" trusses are not available Contractor to use 150 X 38mm rafters and tiebeams. 114 X 38 struts. All joints to be galv. bolted with M12 bolts.  
CEILINGS : 4mm Nutec fibre/ cement ceiling on 50 X 38 bracing @ 400mm c/c. Joints taped for painting.  
INSULATION : Lay 75mm Aerolite fibreglass or equivalent ESKOM approved insulation layer over ceiling.  
WALLPLATE : 114 X 38 mm to be tied 600mm into bwk. with galv. hoop iron straps  
N.B. Contractor to obtain a certificate of compliance from the manufacturer of the trusses.

## SPECIFICATION

**GENERAL:**  
This specification to be read in conjunction with ESKOM's Standard Specification and General Conditions of Contract.  
Contractor to pay all fees in regard to services supplied by and for the Local Authority.  
Portable latrines to be provided and serviced by Contractor.  
Contractor to include in his pricing for the temporary supply of water and power for construction purposes.

**FOUNDATIONS:**  
To sizes and depths shown. Concrete to be 15 mPa strength.  
Reinforcing as shown on Section A - A

**WALLS:** Below ground : well burnt red hard clay R.O.K. bricks.  
Internal walls : Red clay R.O.K. bricks. (min. compressive strength 7 mPa.)

**REV.1** Facebricks : Smooth or rustic IRONSPOTS min. 35 mPa or to ESKOM approval and start 1 course below final ground line.  
Cavity walls to be 110 - 60 - 110 skins with 60mm cavity

**Brikforce :** 150mm wide galv. to first 4 courses above foundations and top 3 courses below wallplate. Gables 75mm width every 4th course to ridge. Wallties : Galv. "Butterfly" type, 5 per sq metre in wall. 300 c/c at jamps D.P.C. : Gunplas "Brikrip" 375 microns, stepped at floor levels in cavity walls, and around openings.  
**Joints :** Facebrick, 10mm raked, all other joints to be keyed for plastering. Every fourth perpend above stepped dpc to be raked clear to drain cavity.

**Mortar :** 1:4 (cement : sand)

**PLASTERWORK:**  
Internally, 15mm thickness, smooth steel float finish. Mix 1:1:6 (cement:lime:sand). Externally 20mm thickness wood float mix 1:4.

**FLOORS:** SWITCH /RELAY ROOM  
ABE "Korocron" cementitious floor hardener to Manufacturers spec. on 150 mm thickness 30mPa power floated concrete on sand fill compacted in 150mm layers. Reinforcing to be BRC 617 Weldmesh min. 50mm from bottom of slab.

**N.B. FLOOR LEVEL** TO BE LAYED TO A TOLERANCE OF 0.5MM PER METRE WITH A MAXIMUM OF 2.50MM DIFFERENCE OVER THE LENGTH.

**STEPS AND LOADING BAY :** 150mm brush finish 30mPa concrete laid to falls as shown. Reinforcing as Switch rm.

**FLOOR FINISHES:**  
Relay/Switch room: 2 coats Sika Purigo 5S transparent sealer or equal approved applied after commissioning of electrical equipment by ESKOM.

**CEILINGS:** See roof construction.

**DOORS:** Refer to door schedule drg D-DT-5238 sheet 13 for details.

**AIRFILTERS:** To be Winblok W(A)66 fitted with external nat. anodised al. louvre and purpose made al. frame internally. Std burglar bars to be fitted to outside. See detail drg. D-DT-5238 sheet 13.

**SERVICE TRENCHES:** Walls to be bagged brick, all trench covers and channels by contractor. Refer to D-DT-5238 Sh.13 for trench details. edging. Trench covers as shown ex 4.5mm thk. "vastrap" with 25mm dia lifting holes.

**SWITCHGEAR RACK OUT STEEL PLATES :** Contractor to fix in position (after installation of switchgear by specialist contractor) 3mm thick X 1225mm galv. plates with CSK s/steel screws @ 500mm c/c. Contractor to refer to Design Document as to extent (length) of plates required.

**PAINTER:** Galv. steel: Galvkleen followed by 1 coat calcium plumbate primer, 1 coat universal undercoat, 1 coat gloss enamel.

Trench covers: one coat red lead primer, 1 coat u/ undercoat, 2 coats eggshell enamel. Colour: light grey to ESKOM approval.

Internal walls & ceilings: 1 filler coat, 2 coats Dulux "Wash 'n Wear" pva, or similar approved, colour white. Final coat to be applied by contractor only after commissioning of all electrical equipment by Eskom.

Rafters ends and sprockets : 1 coat pink primer, 2 coats flat enamel. Colour - white.

**WATER SUPPLY :** Run in 15mm copper from water tank/ municipal supply to external tap. (Cobra No. 108LK)

THIS DRAWING IS THE NEW OFFICIAL REVISION.  
IT SUPERCEDES ALL OTHER PUBLISHED DRAWINGS.

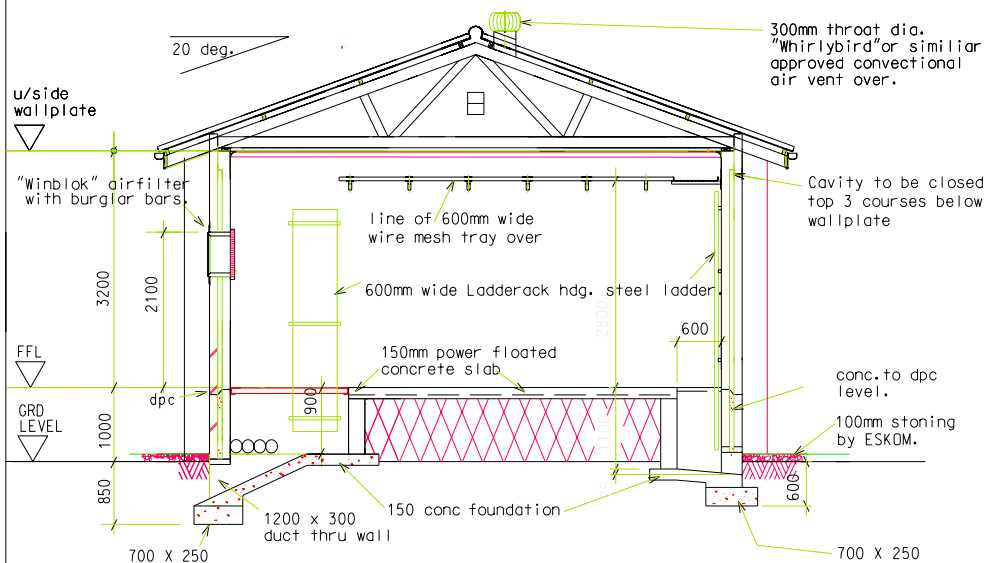
5238 SH.16		LIGHTING AND POWER LAYOUT	
5238 SH.13		DETAILS AND DOOR SCHEDULE	
D-DT-		REFERENCE DRAWINGS:	
1	D-DT-5074 CHANGED TO D-DT-5238	FBM	B.P.H.
0	DRAWING NO. CHANGED FROM D-DT-5074	V22	J.F.S.
REV	REVISION DESCRIPTION	BY	CHKD
		DATE	PROJECT NO.



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DATE: 10/12/2002  
CHKD: J.F. SCHOLTZ  
DATE: 10/12/2002  
DRAWN: C. GRAY  
DATE: 09/12/2002

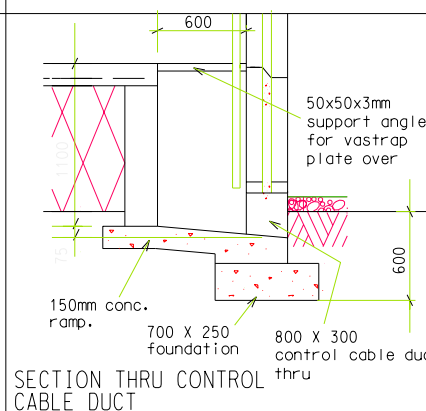
NATIONAL STD. (CONVENTIONAL ROOF)  
"COMBO" CONTROL BUILDING TYPE 5  
DETAIL PLAN, SECTIONS & ELEVATIONS

D-DT-5238  
16 5 1

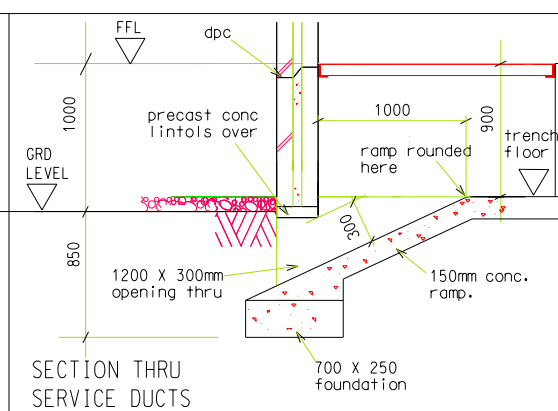


SECTION A - A  
SCALE 1 : 50

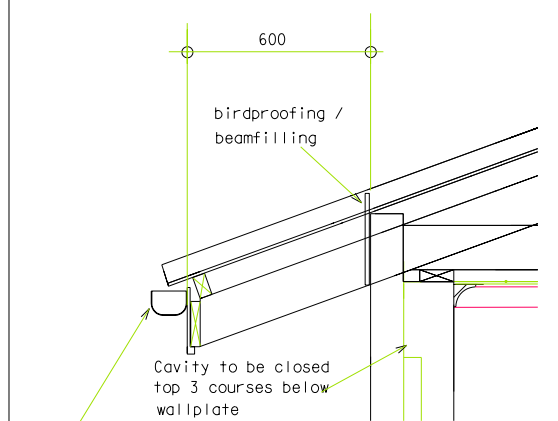
**FOUNDATIONS GENERALLY :**  
TYPE 1 : For compact non cohesive soils consisting of gravels and sands located above the water table NO reinforcing is required.  
TYPE 2 : For stiff or firm cohesive soils consisting of clays and silts the foundation to have a single layer of BRC Weldmesh 617 placed in the centre of the foundation, i.e 125mm from bottom of foundation bottom.  
TYPE 3 : For soils consisting of soft clays and silts or submerged soils the foundation and the reinforcement to be designed by a registered Civil Engineer.



SECTION THRU CONTROL CABLE DUCT



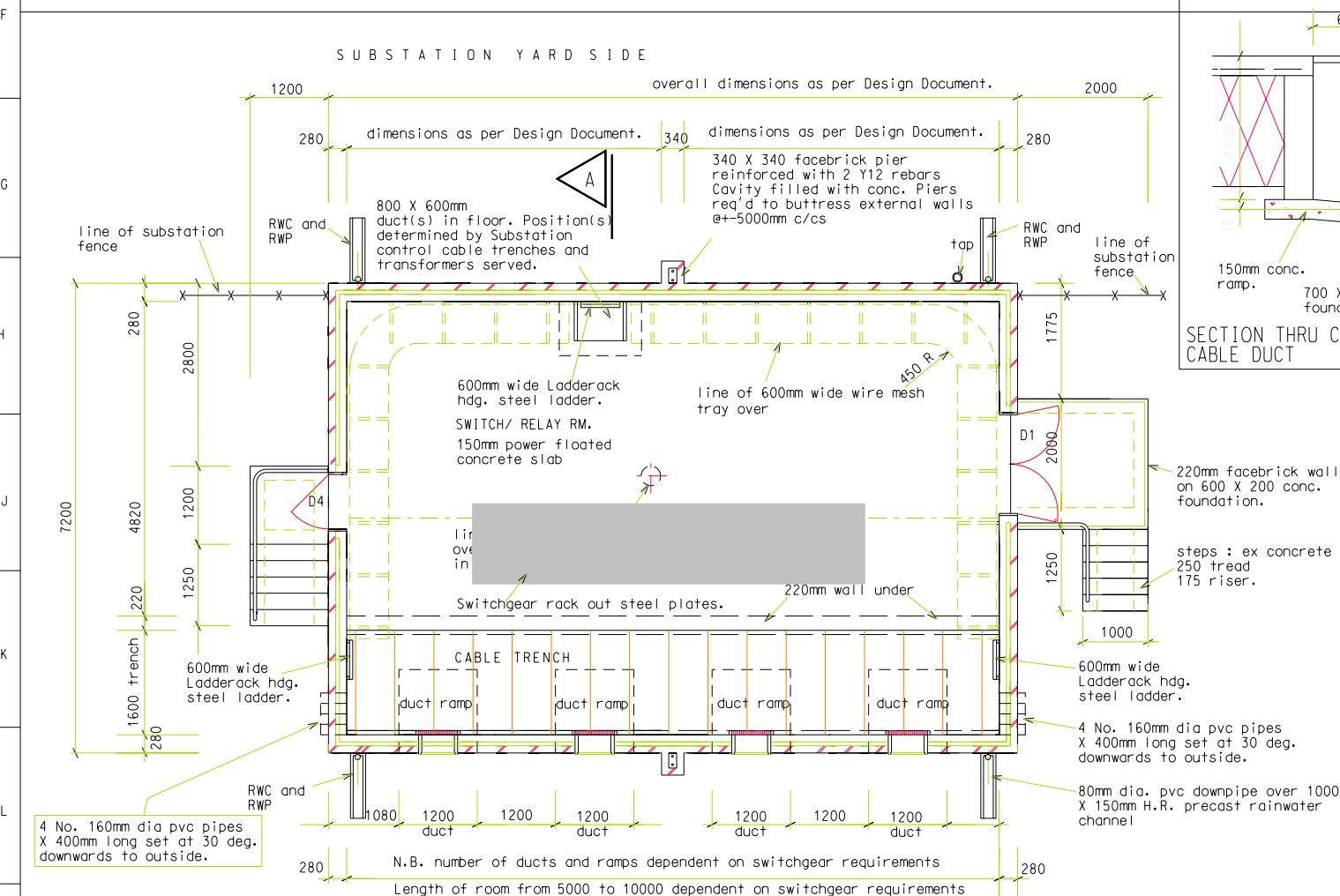
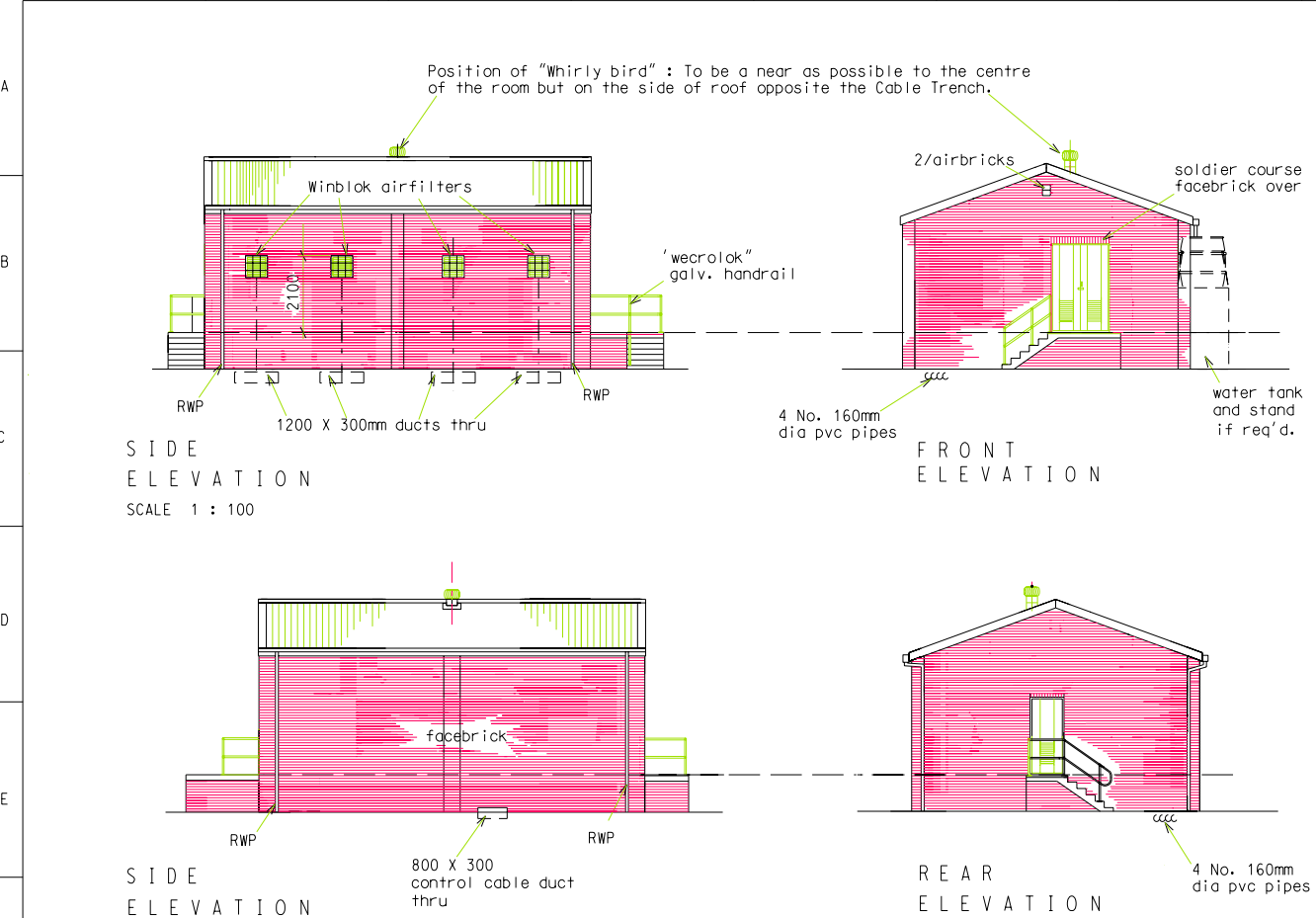
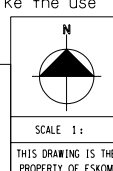
SECTION THRU SERVICE DUCTS



**GUTTERS :** 120 X 80 D shape upvc or similar on 225 X 9 mm upvc fascia or similar on 144 X 44 S.A. pine backing piece. Sprockets P.A.R. for painting.

**DETAIL AT EAVES**  
N.B. Where climatic conditions are desert like the use of gutters can be dispensed with.

THIS DRAWING HAS BEEN CREATED ON A C.A.D. SYSTEM AND ANY AMENDMENT TO THE DRAWING MUST BE EFFECTED ONLY ON THE SAME C.A.D. SYSTEM



PLAN TYPE 5. (RELAY/SWITCH RM)

SCALE 1 : 50