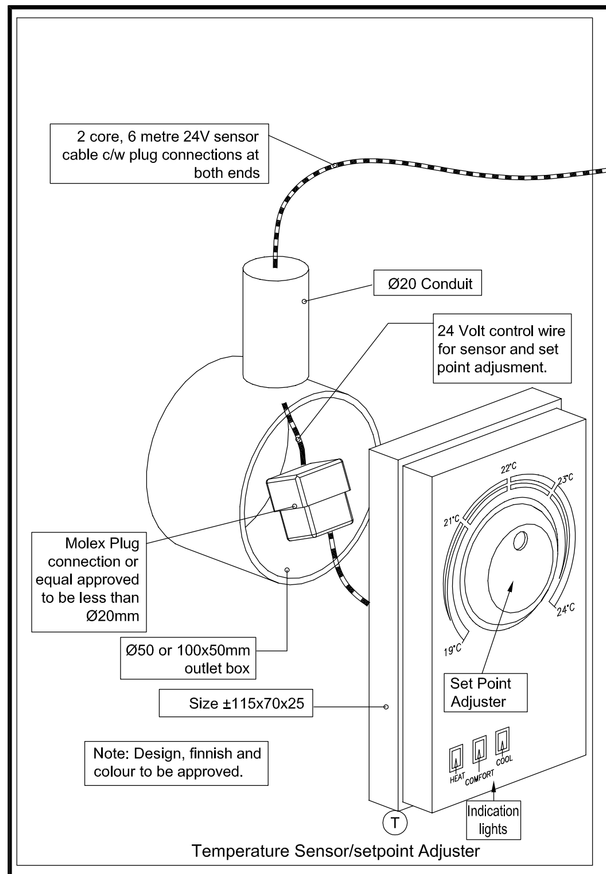
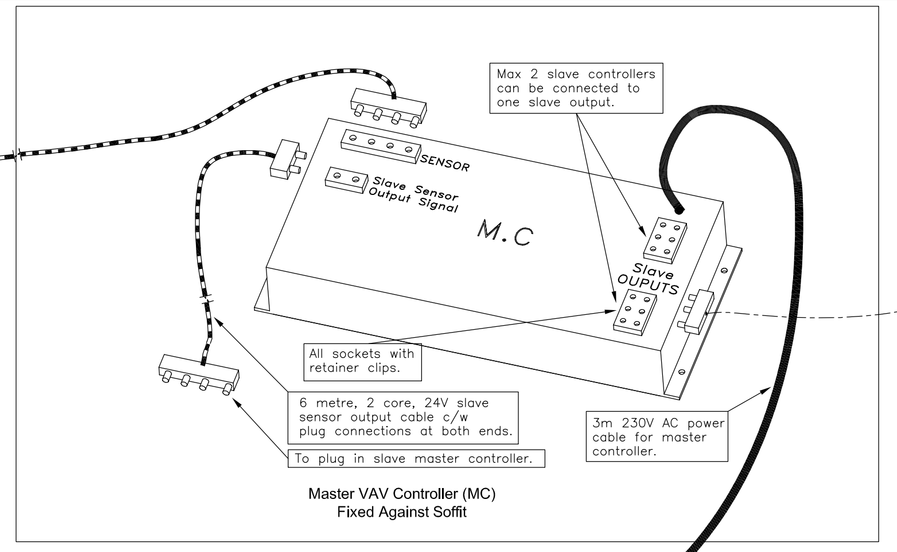
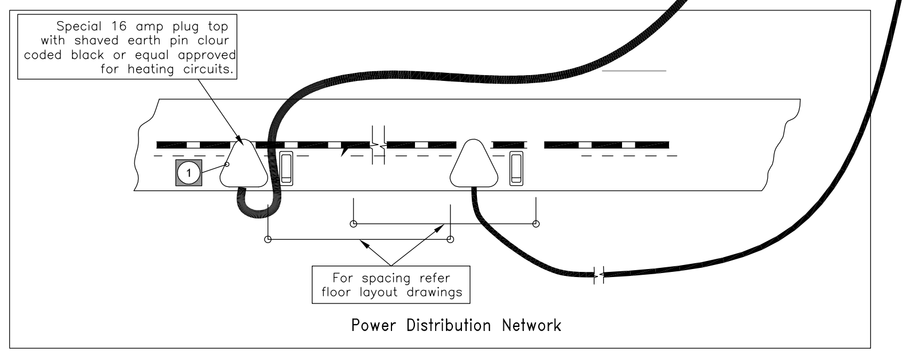
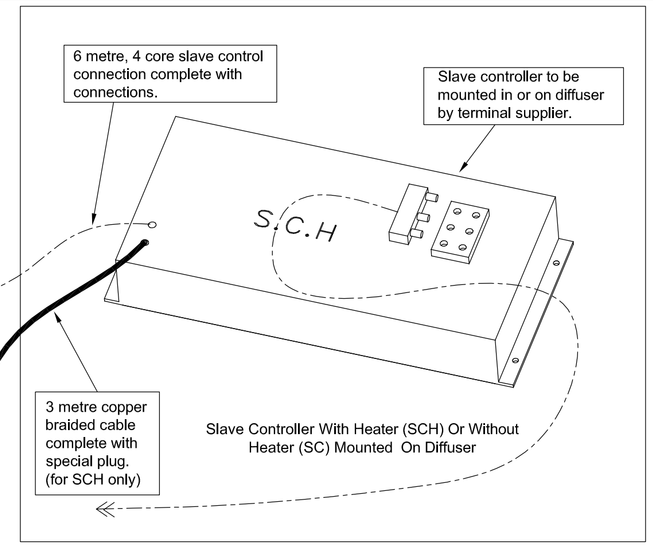
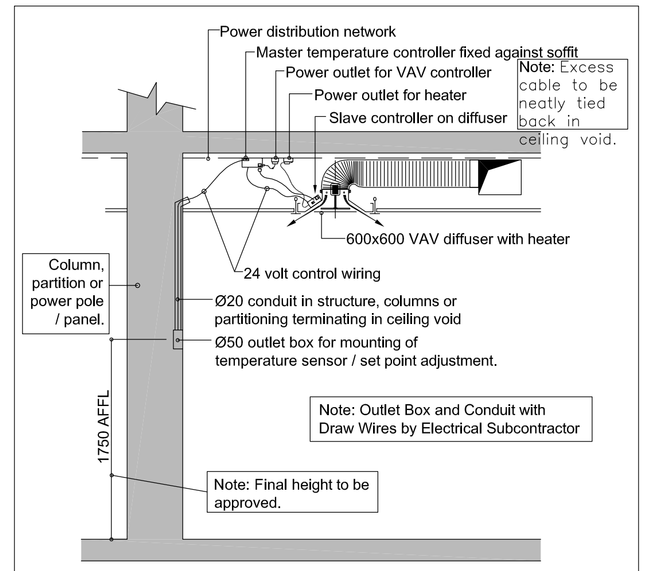
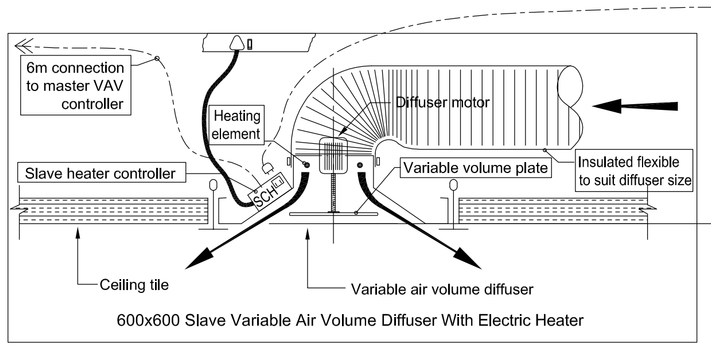


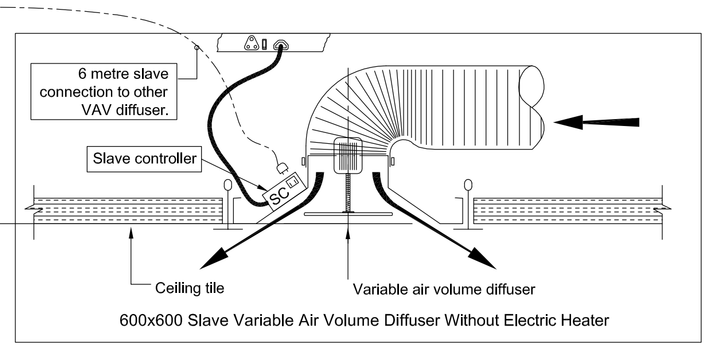




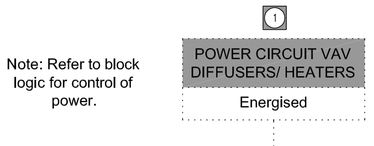


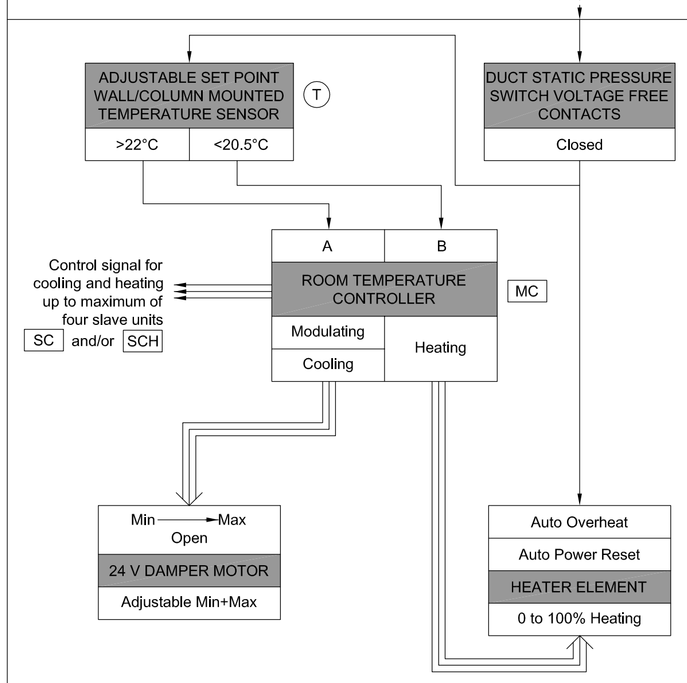






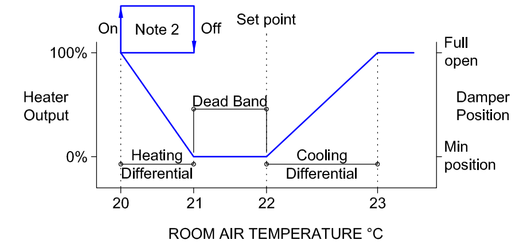
Plug-in Arrangement for Control and Power



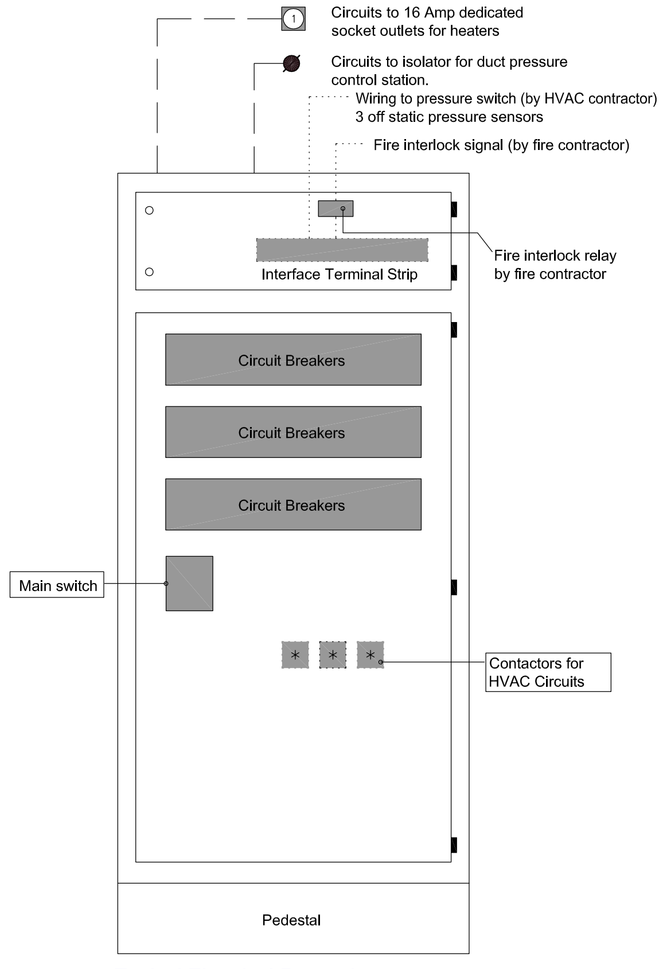


Operating Sequence for VAV Terminal

Note 1: Cooling, Heating and Dead Band differentials to be adjustable
Note 2: Heating can be on/off or proportional by selector switch on master controller

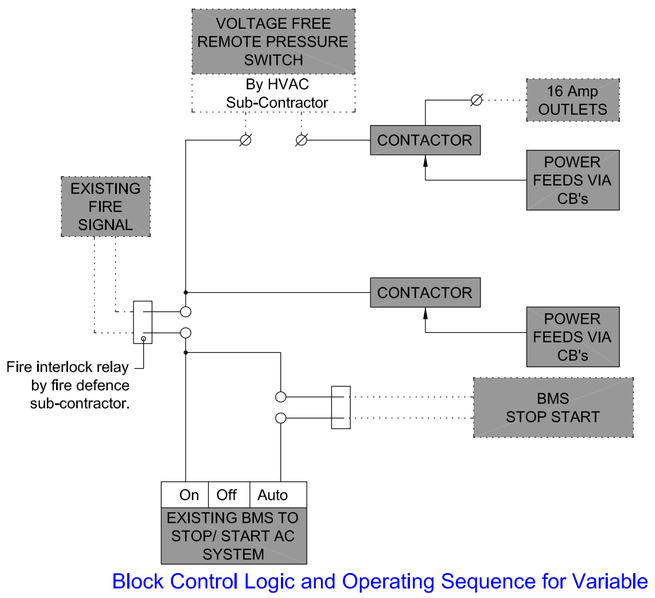


Control Logic for VAV Terminal



Typical Electrical Power Arrangement

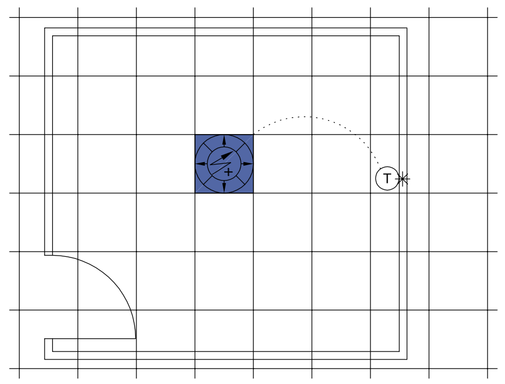
BY HVAC CONTRACTOR



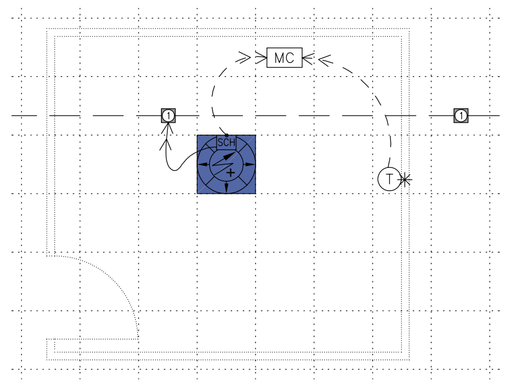
Block Control Logic and Operating Sequence for Variable Air Volume Diffusers

BY ELECTRICAL CONTRACTOR

Cellular Office



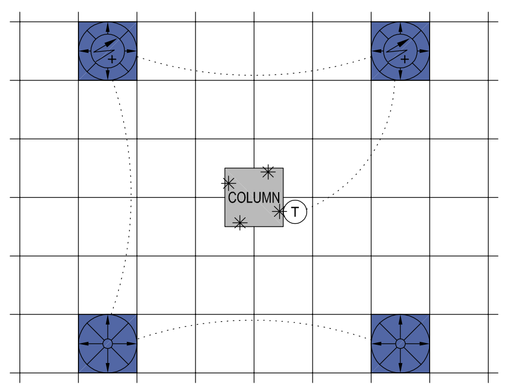
Reflected Ceiling Layout for Cellular Office on Second Fix Drawings



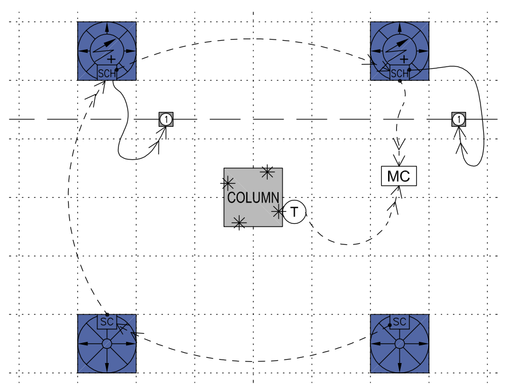
Note: Plug-in Arrangement Drawings to be prepared by HVAC subcontractor

Plug-in Arrangement Required to Achieve Second Fix Layouts for Cellular Office.

Open Plan Office



Reflected Ceiling Layout for Open Plan Office on Second Fix Drawings



Note: Plug-in Arrangement Drawings to be prepared by HVAC subcontractor

Plug-in Arrangement Required to Achieve Second Fix Layouts for Open Plan Office.

Revisions:

Rev.	Description	Date	By
0	Issued for Tender	01.11.2017	FMB

Division of Work:

Electrical Subcontractor

1. Electrical distribution boards and power distribution.
2. Ø50mm Outlet box mounted at 1750 affl. and Ø20mm conduit (c/w draw wire) terminating in ceiling void.
3. Control logic and timers as per block logic.

Terminal Control Supplier

1. Configuration for heaters on/off or proportional control to be set in factory prior to delivery to site.
2. Installation of optional supply air temperature inversion control and temperature probe in factory.
3. Installation of optional lighting output and touch button on sensor if specified.
4. Presenting of dead band (between 0.5 to 1°C) and differentials for cooling and heating (0.5 to 2°C) in factory.
5. Select "on" of "off" at power up. Factory preset prior to delivery to site.
6. Co-ordination with VAV supplier for mounting details on diffuser.
7. Supply and delivery of controllers to VAV terminal supplier's premises.

Legend:

- 600x600 VAV diffuser with electric heater (Refer specification)
- 600x600 VAV diffuser without electric heater (Refer specification)
- 1 - Heater power outlet box
- 2 - VAV diffuser power outlet box
- SC - Slave controller
- SCH - Slave controller with heater
- MC - Master VAV controller
- T - Temperature sensor/setpoint adjuster
- ✳ - Conduit for thermostat
- >> - Plug connection
- ○ - Internal terminal
- ⌀ - External terminal
- — — — - Power network from floor distribution board
- - - - - - - - - - Low voltage control distribution
- ———— - Mains power to terminals

Notes:
- Maximum 2kW heater per diffuser.
- Maximum 2 slave units with heaters can be connected to a master controller.

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SPOORMAKER & PARTNERS
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS

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Project:

SARS ALBERTON

Drawing Title:

Ceiling VAV
Digital Terminal
Control Arrangement Drawing
with No BMS

Designed	Drawn	Checked		Passed	Date	Size
		Quality	Design	PR Eng.		A1
MD	FMB	SE	MD	HLR	01.11.2017	Scale
						NTS

Drawing Status: **Issued for Tender**

Project Number	Division	Service	Drawing Number	Revision
17389	M	A	110	0