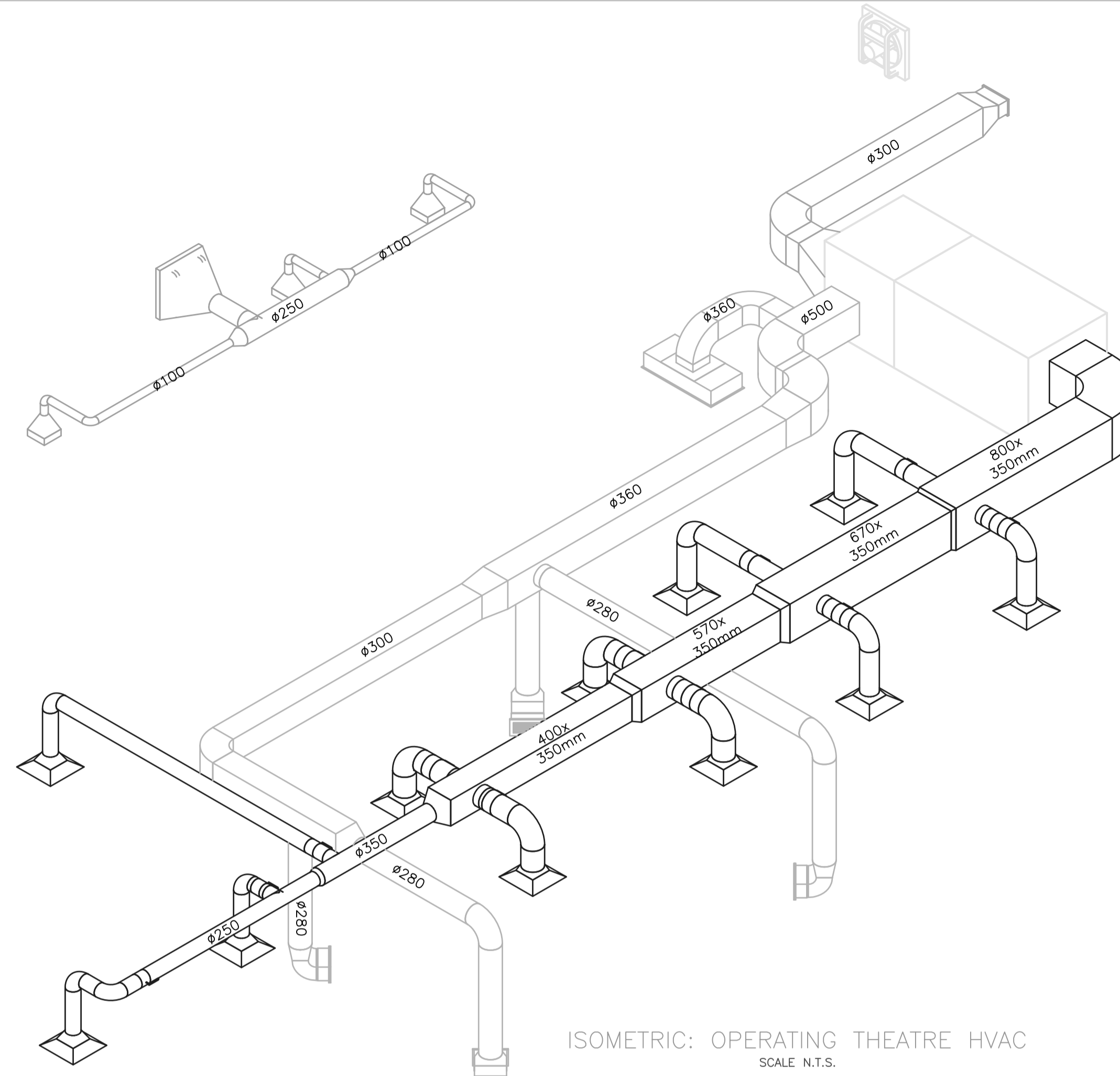


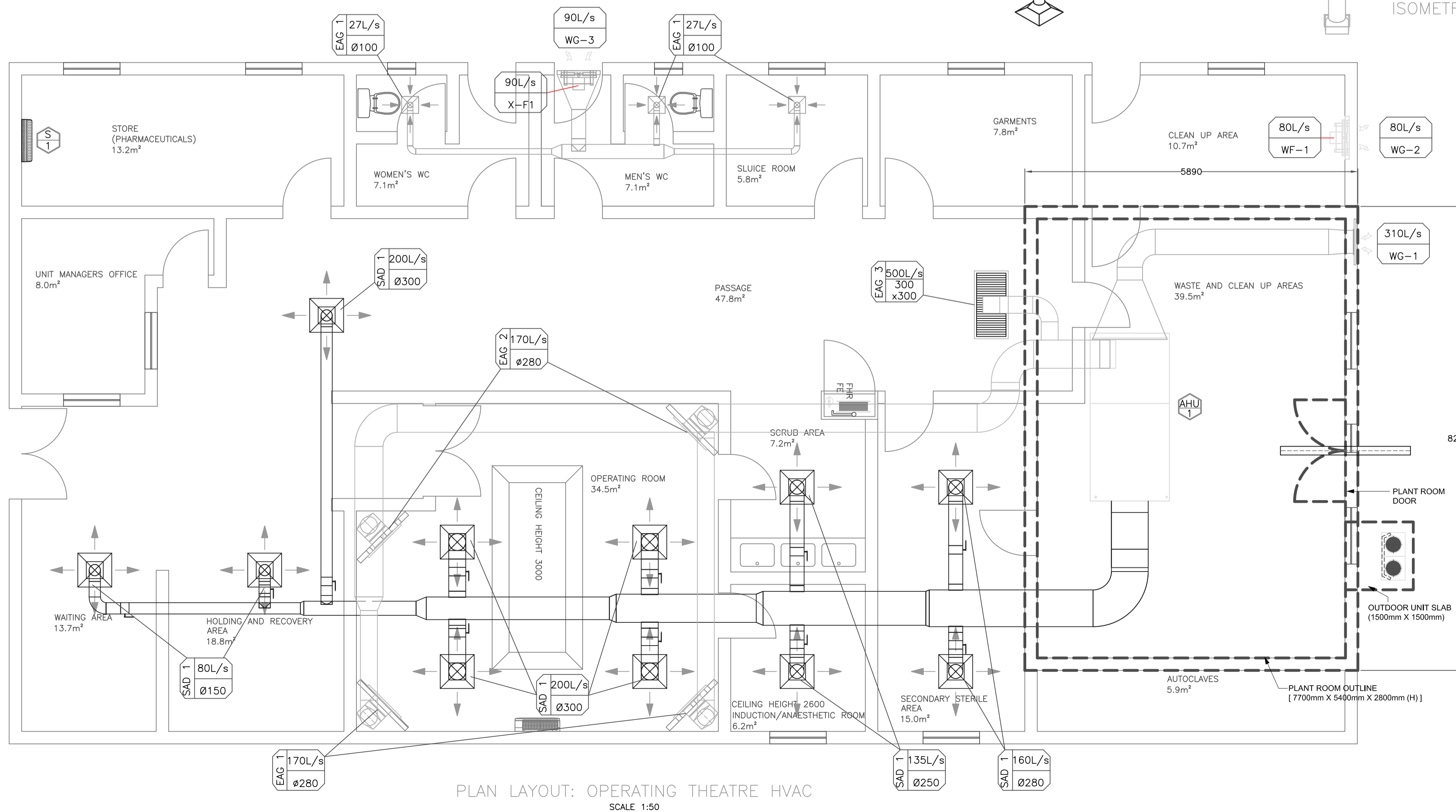
FAN SCHEDULE														Accessories required										Vibration				Electrical connection (Amps Start)		Control					
Code	type	System	Location	Preferre d manufacturer	flow (l/s)	external static pressure (Pa)	estimate total static pressure (Pa)	Max. RPM	Inlet temp.	Mech. Eff. @ duty point	IP rating	Insulatio n Class	noise level (incl. attenuat ors)	sound attenuators	Inlet Cone CW Safety Guard	Flexible couplings	Inlet vanes	Adaptor piece to fit ducting	mounting frame	Sound enclosure as required	Weather cowl	Back draught shutter	Filter box	Primary Filter	Secondary Filter	Carbon Filter	Bird screen	Dark Room cowl	Trip Pad	Rubber Isolator	Spring Hanger	Restrained spring isolator	Concrete Base	Electrical connection (Amps Start)	Control
X-F1	axial flow inline	toilet	roof	AMS AP Systemair AXC	90	120	120	1440	amb.	>80%	55	F	<NC 45	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0.650kW 10A	relay <AHU 1>	
W-F1	wall mounted Propeller	Clean up area	ground	Sodeca	80	120	120	1440	amb.	>80%	55	F	<NC30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	0.550kW 5A	relay <AHU 1>	

AHU - 1	
System	Gobabis Hosp Theatre
Location	Plant Room
Type	DX refrigeration
Spec	Top discharge
Similar to	HC SystemAir
Total cooling capacity de-rated for site conditions	47 kW
Sensible cooling capacity	40.0 kW
Supply air cooling (°C)	21/19 °C
Total heating capacity kW	39
Supply Air Heating (°C)	25 °C
rows / ft ²	47/0
on coil / ambient air (°C)	38 °C / 22 °C db
Cooling	DX refrigeration (VRF or similar)
Heating	25 kW
Total air flow	2.0 m ³ /s
Fresh Air	21% %
Total Ext. Static Pressure required	470 Pa (st)
Total Static pressure incl. filter losses	1250
Fan arrangement	1 duty
Duct Connection F/A	
Duct Connection R/A	
Noise Level	< 60 NC
Primary Filter	G4 (EN179:2002)
Secondary Filter	F9 (EN179:2012)
HEPA filter	H13 (EN 1822:2009)
Humidifier	✓
Heat recovery	✓
VFD	✓
Mixing box & dampers	✓
Smoke detector on	✓
Adaptor pieces to fit ducting	✓
Sound attenuator	✓
Fire Damper	✓
Integrated Control system	✓
S/A Temp sensing	✓
Electrical Connection	380V, ~ kW
Control	✓
Flow modulation filter with pressure drop	✓
Integrate to central control	✓

Diffuser / Grille schedule														Accessories required									
code	type	Pref. Brand	face size	neck size (l/s)	Air Flow (Pa)	Throw (m)	Noise level	material	Finish	deflection	mounting	DBD	Return box/air adaptor piece	mounting frame	fire damper	back draft/barsely damper	Integrator Filter	inlet connection	Roast screen	Telescopic back frame			
SAD 1	circular	EuropAire	500x500	see tag	see tag	20	< NC 25	steel	white		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
EAG 1	toilet extract	EuropAire DVS or S&P	see tag	see tag	20	-	<NC30	ABS	white		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
EAG 2	egg grate	Advantage Ae	400x400	see tag	see tag	20	-	<NC30	ABS	white		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
RAG 3	return air	EuropAire	1200x600	see tag	see tag	20	-	<NC30	aluminium	anodised	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WG-1	weather louvre	Europair WPL	500x500	see tag	see tag	30	-	<NC40	aluminium	anodised	wall	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
WG-2	weather louvre	Europair WPL	300x300	see tag	see tag	30	-	<NC40	aluminium	anodised	wall	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		



ISOMETRIC: OPERATING THEATRE HVAC
SCALE: N.T.S.



PLAN LAYOUT: OPERATING THEATRE HVAC
SCALE: 1:50

NOTES

FOR BIDDING PURPOSES

No.	REVISIONS	GRID	ENG.	DATE

CONSULTING ENGINEERS: **BP BURMEISTER & PARTNERS (PTY) LTD CONSULTING ENGINEERS**
8 Eugene Marais street PO Box 1496 WINDHOLE NAMIBIA
Tel: +264-61-379000 Fax: +264-61-379001 bp@burmeister.com.na

DESIGNED	HW	11/12	DRAWN	HW	11/12
PROJECT PARTNER	RONALD KUBAS				
PROJECT MANAGER	ADRIAAN VAN DER MERWE				
DRAWING OFFICE COORDINATOR	HANS MUNGANDA				

CHECKED: DESIGN ENG.	CHECKED: C.O.D.
APPROVED: PROFESSIONAL ENGINEER	Pr. No.
DATE	
APPROVED: CLIENT	
DATE	

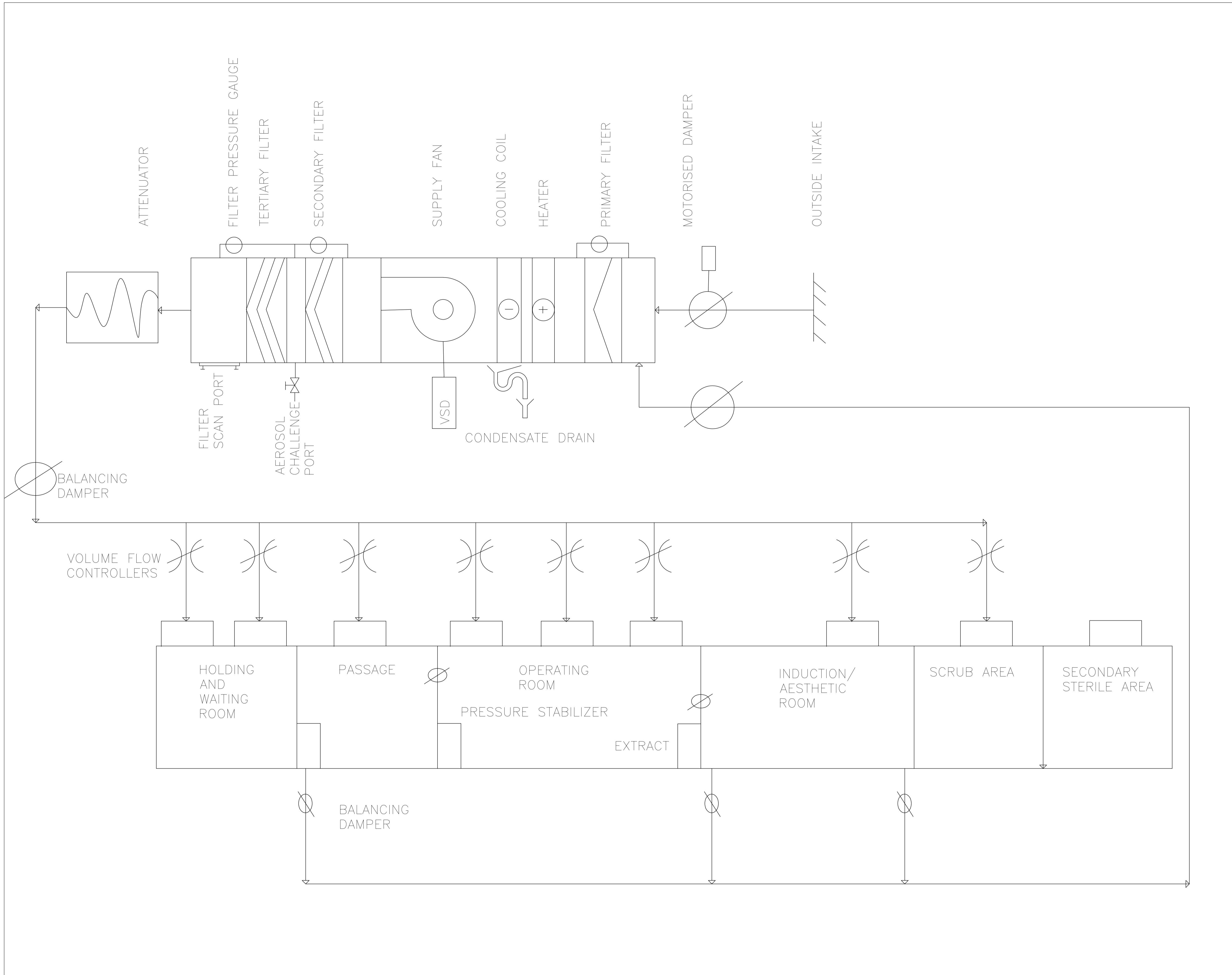
CLIENT: **MINISTRY OF HEALTH AND SOCIAL SERVICES**

DISCIPLINE: **MECHANICAL**
PROJECT TITLE: **GOBABIS DISTRICT HOSPITAL OPERATING THEATRE RENOVATIONS**

DRAWING TITLE: **HVAC LAYOUT & ISOMETRIC**

SCALE: 1:50 A1

CONSULTANT DRAWING NO.: W1237/M7-101	REV. △
CLIENT DRAWING NO.:	REV. △



NOTES

FOR BIDDING PURPOSES

A	LAYOUT AMENDED DUE TO FUTURE HOSPITAL CONSTRUCTION	HW	23/01/13
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CONSULTING ENGINEERS:

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CONSULTING ENGINEERS

8 Eugene Marais street
PO Box 1496
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tsp@burmeister.com.na

DESIGN

DESIGNED	HW	11/12	DRAWN	HW	11/12
----------	----	-------	-------	----	-------

PROJECT MANAGEMENT

PROJECT PARTNER	RONALD KUBAS
PROJECT MANAGER	ADRIAN VAN DER MERWE
DRAWING OFFICE COORDINATOR	HANS MUNGUNDA

QUALITY MANAGEMENT

CHECKED:	DESIGN ENG.	CHECKED:	C.O.D.
APPROVED:	PROFESSIONAL ENGINEER	DATE	Pr. No.
APPROVED:	CLIENT	DATE	

CLIENT:

MINISTRY OF HEALTH AND SOCIAL SERVICES

DISCIPLINE: MECHANICAL

PROJECT TITLE:

GOBABIS DISTRICT HOSPITAL UPGRADING PHASE 1, OMAHEKE REGION

DRAWING TITLE:

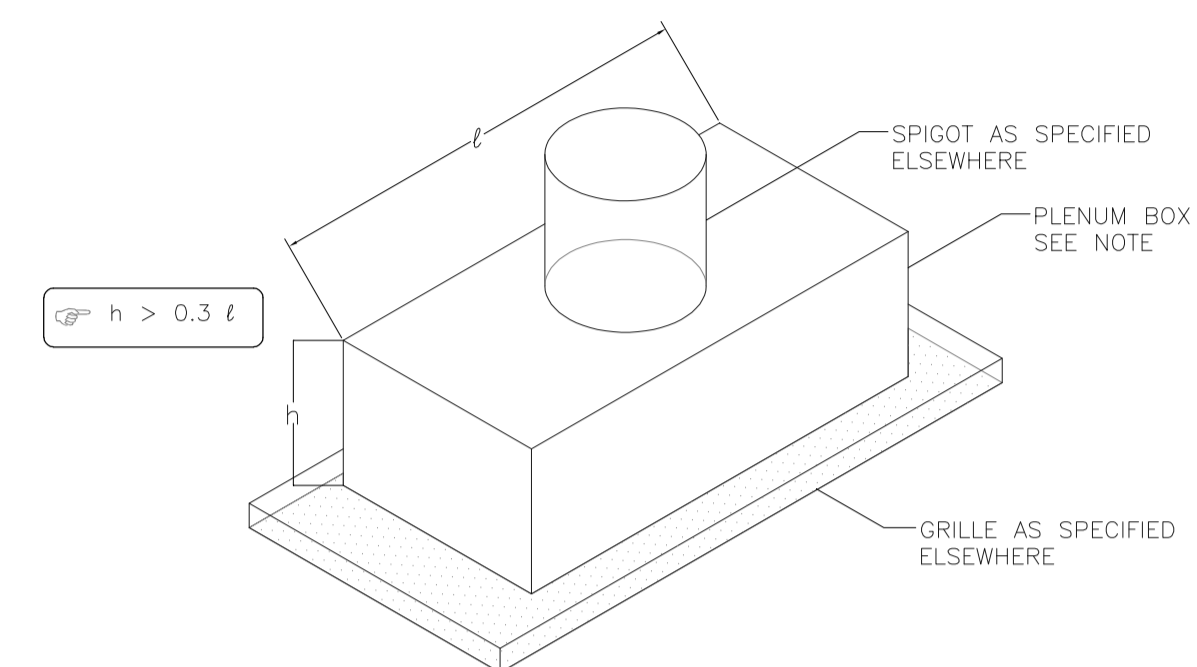
DUCTING SCHEMATIC

SCALE: 1:5 A1

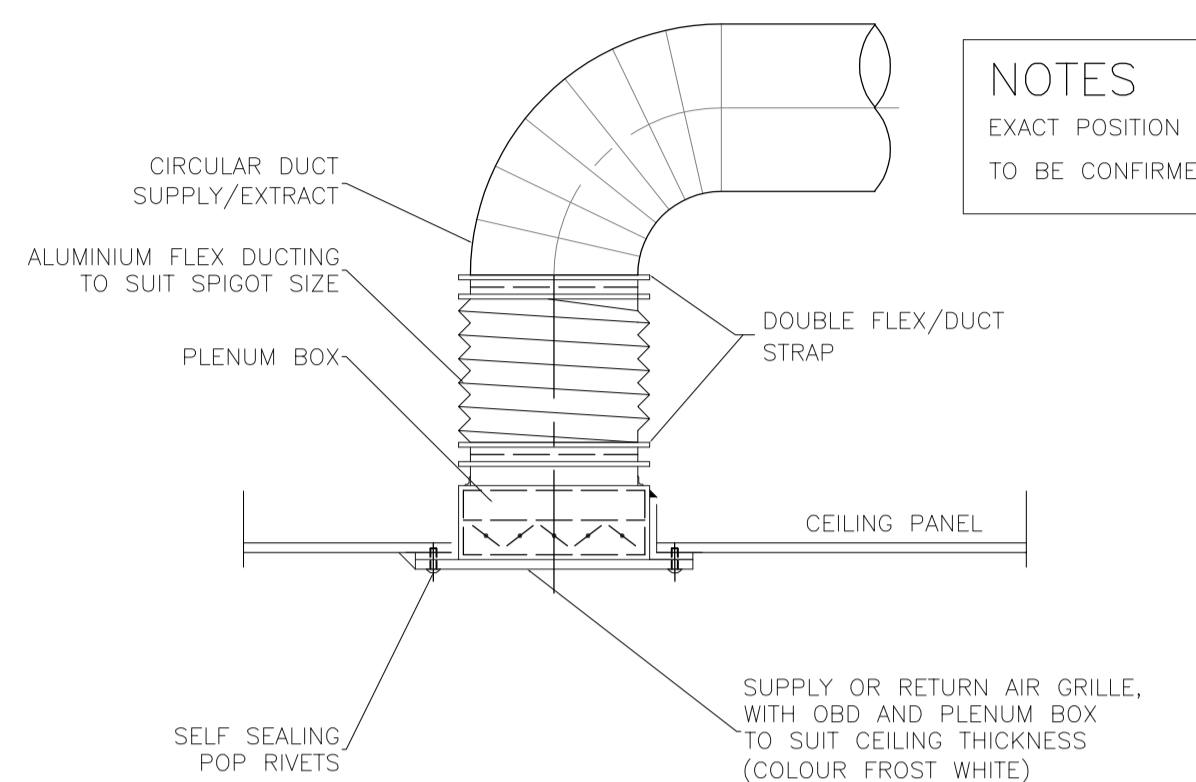
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CLIENT DRAWING NO.:	REV.:
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NOTES

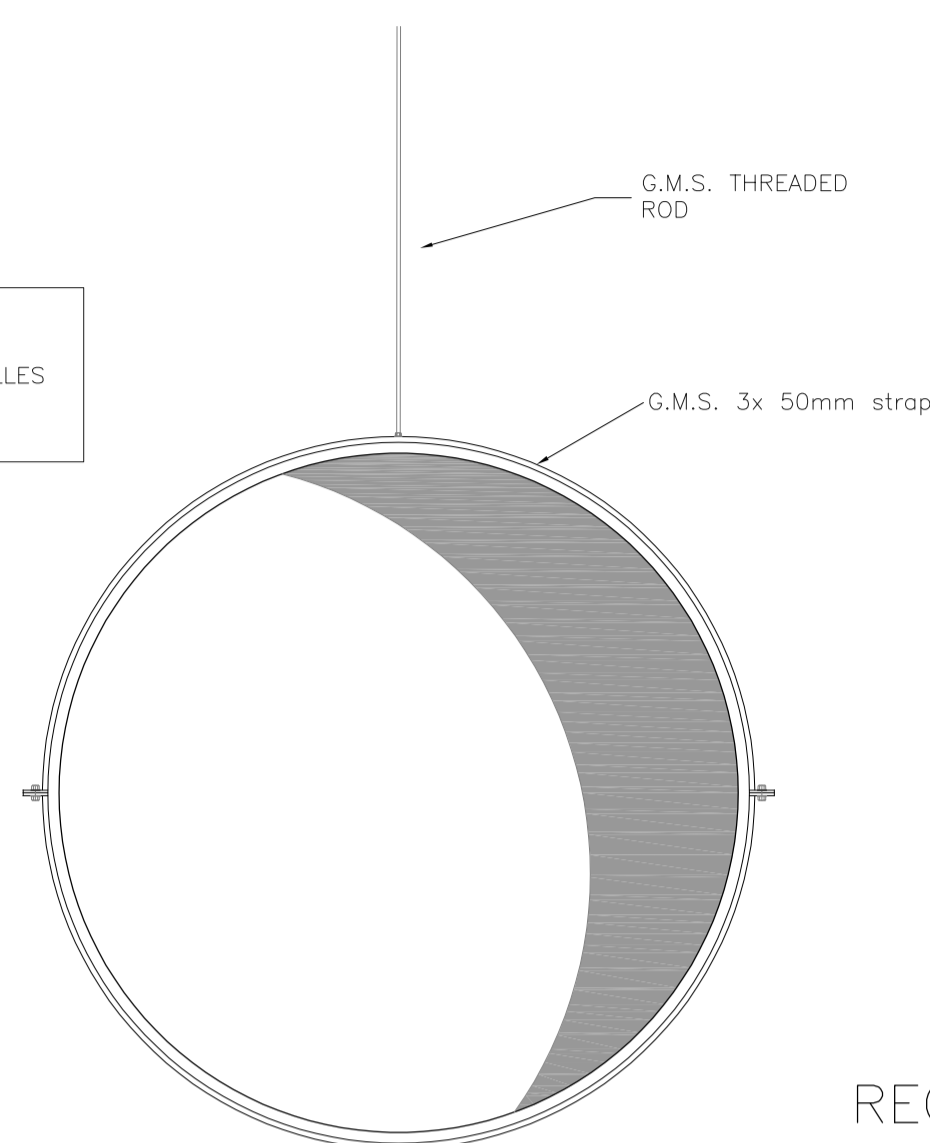


GENERIC DETAIL OF DIFFUSER / GRILLE PLENUM BOX
N.T.S.

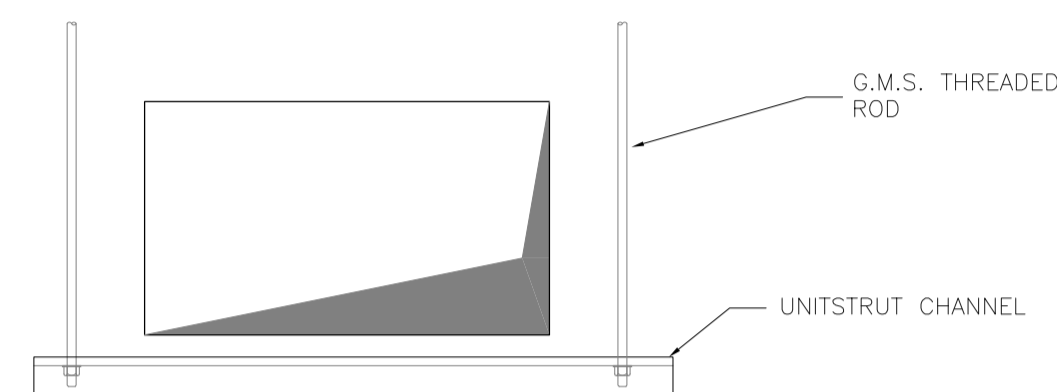


TYPICAL DETAIL CEILING DIFFUSER/GRILLE INSTALLATION
N.T.S.

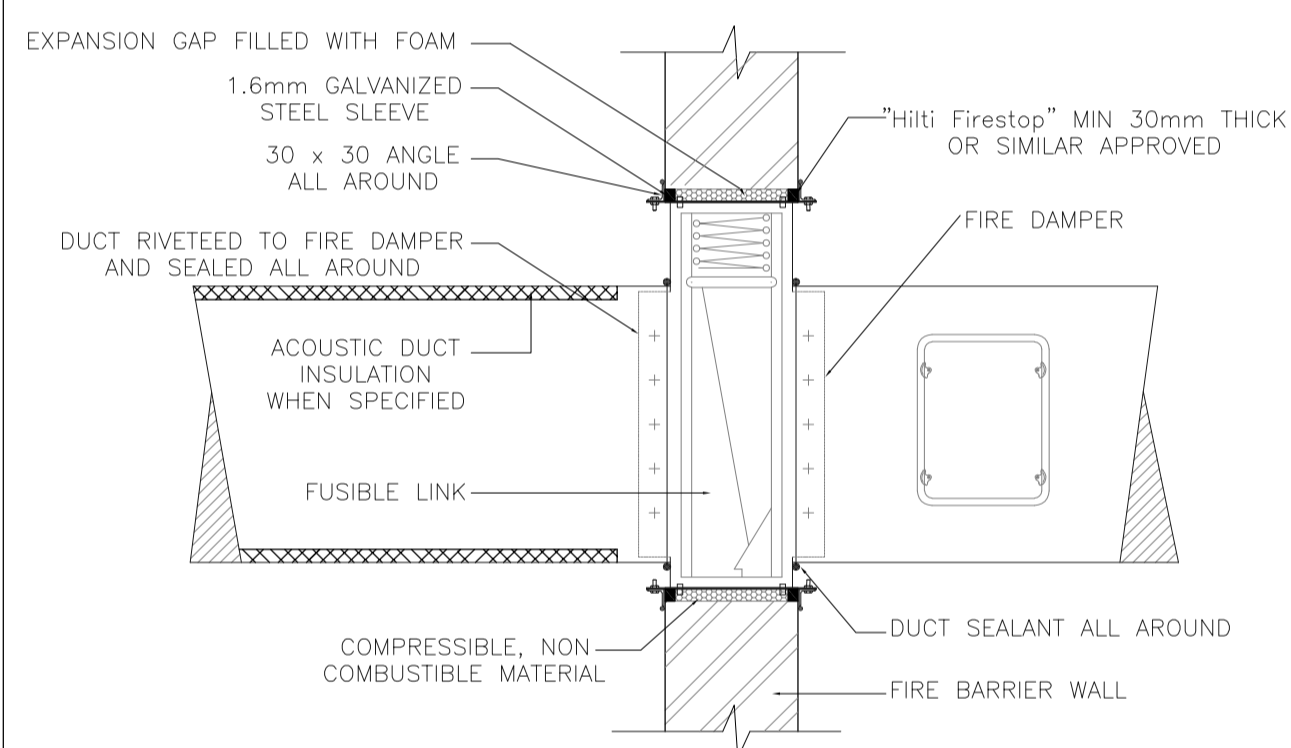
NOTES
EXACT POSITION OF ALL DIFFUSERS AND GRILLES TO BE CONFIRMED ON SITE



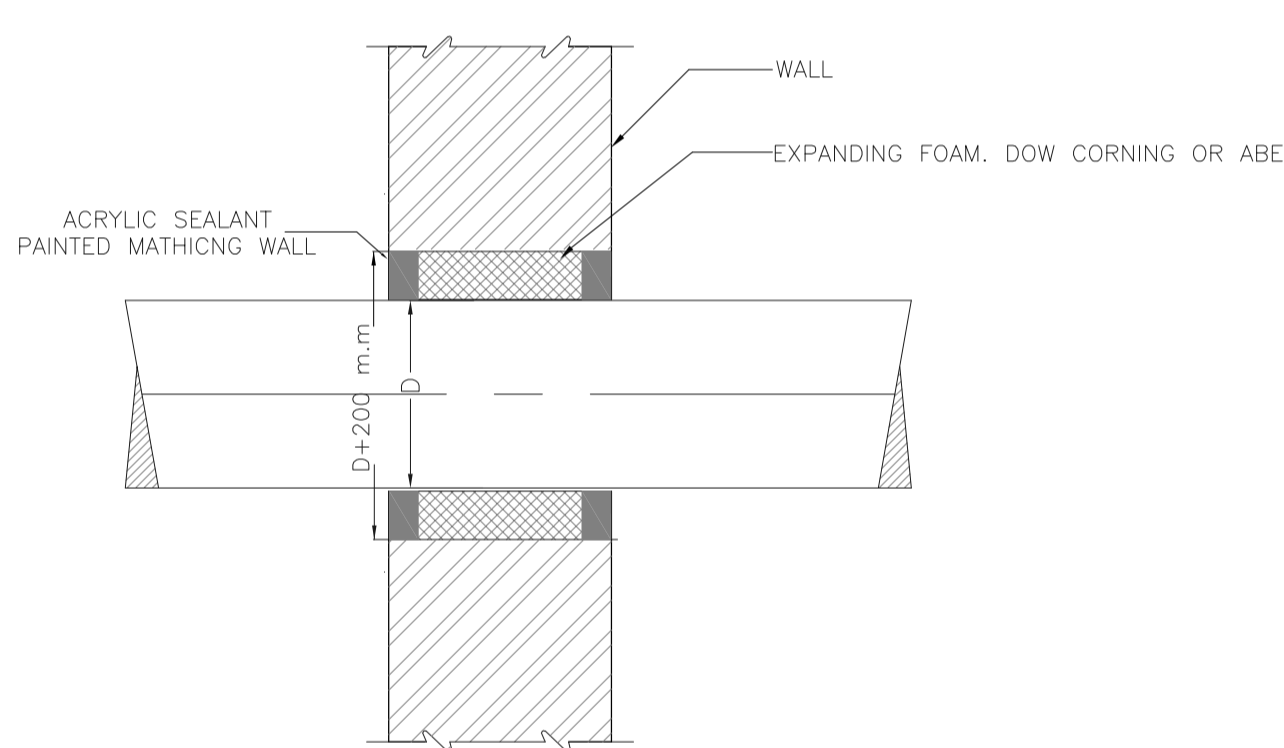
SPIRAL DUCT HANGERS
N.T.S.



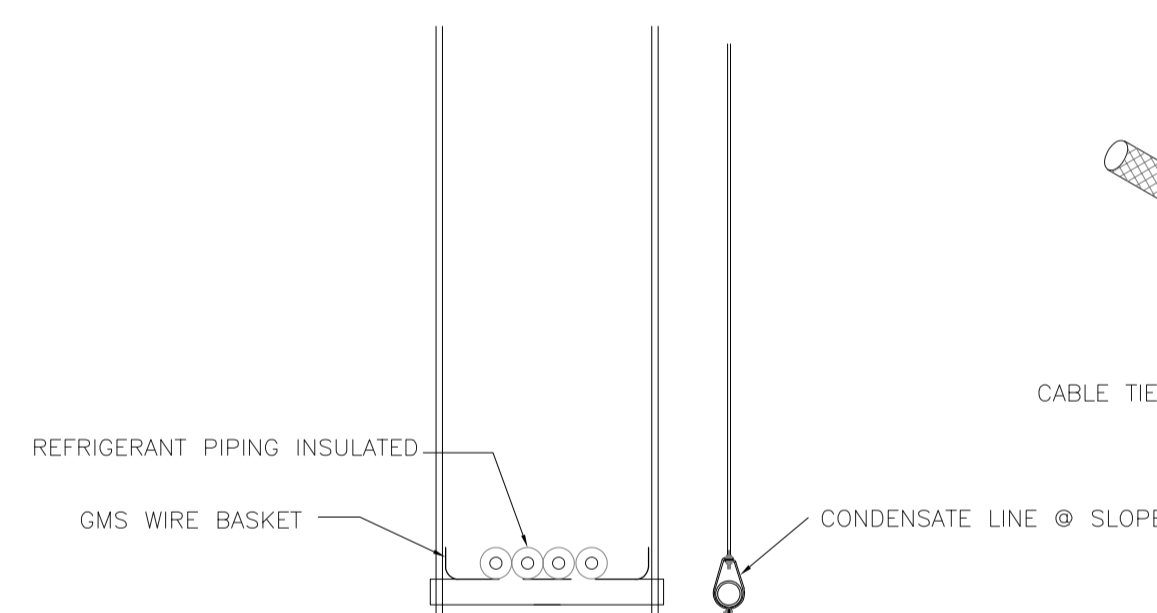
RECTANGULAR DUCT HANGERS
N.T.S.



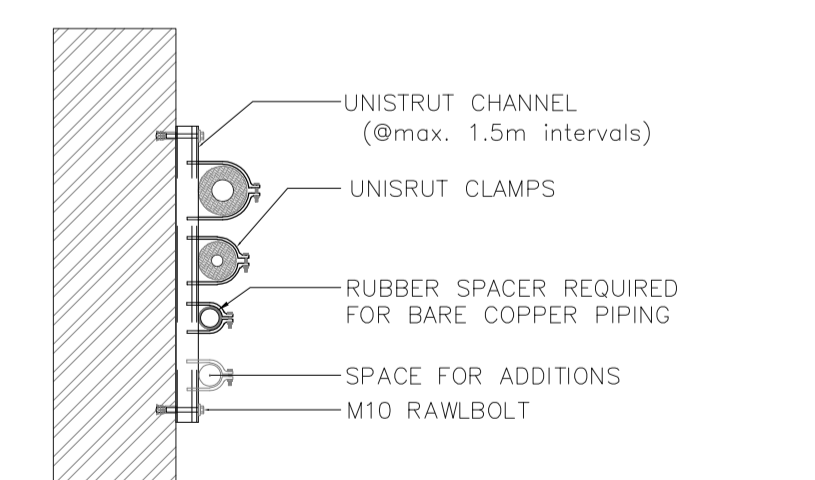
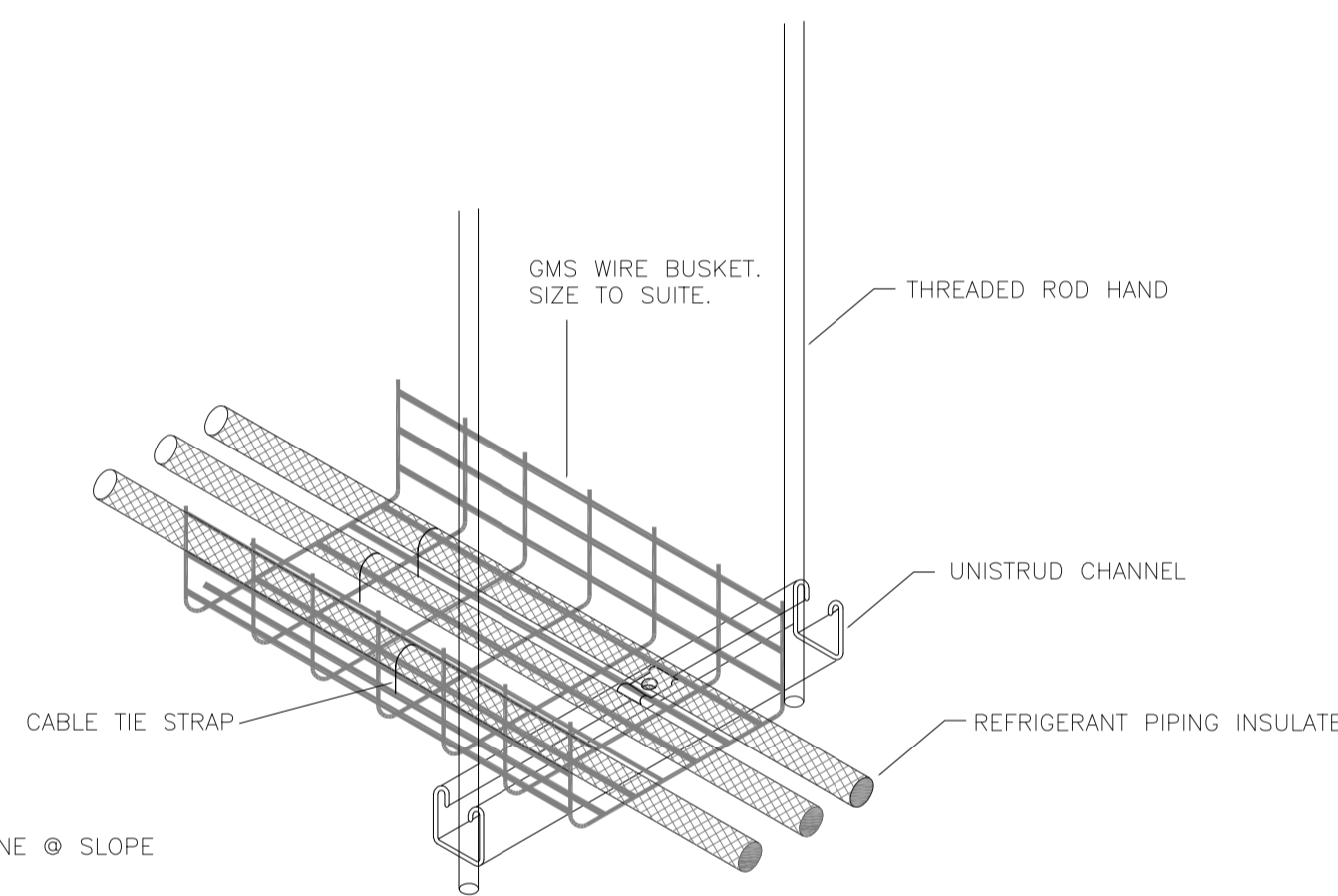
SHUTTER FIRE DAMPER (WALL MOUNTED DETAIL)



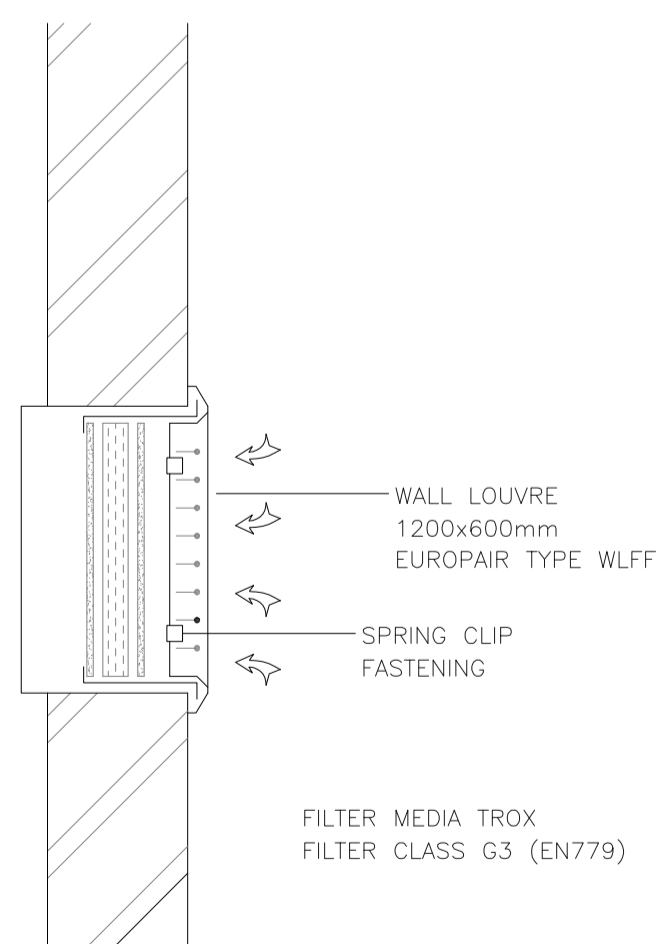
DUCT PENETRATION THROUGH EXTERNAL WALL



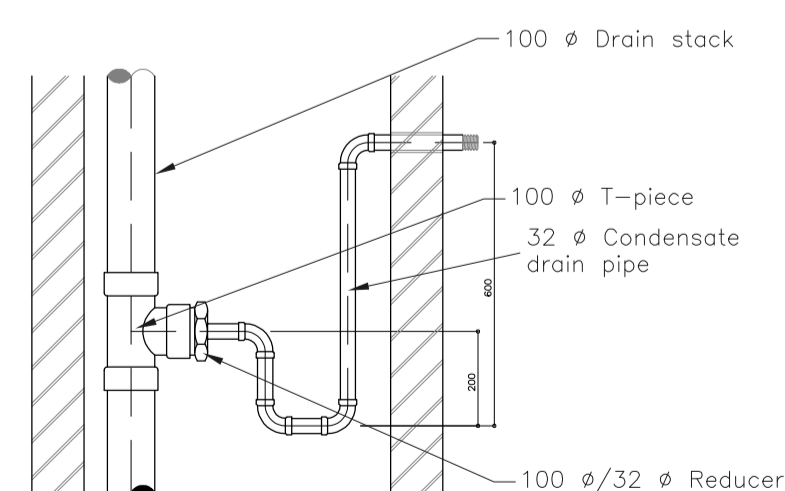
WIRE BASKET REFRIGERANT PIPE HANGER
N.T.S.



GENERIC DETAIL PIPE SUPPORT IN SERVICE SHAFTS & PLANT ROOMS



WALL MOUNTED INTAKE GRILLE /W FILTER



CONDENSATE DRAIN CONNECTION TO STACK

FOR BIDDING PURPOSES

A LAYOUT AMENDED DUE TO FUTURE HOSPITAL CONSTRUCTION

23/01/13

REVISIONS

CONSULTING ENGINEERS: 8 Eugene Marais street PO Box 1496 WINDHOEK NAMIBIA Tel: +264-61-379000 Fax: +264-61-379001 ep@burmeister.com.na

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DESIGNED: HW 11/12 DRAWN: HW 11/12

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PROJECT PARTNER: RONALD KUBAS

PROJECT MANAGER: ADRIAAN VAN DER MERWE

DRAWING OFFICE COORDINATOR: HANS MUNGUNDA

QUALITY MANAGEMENT

CHECKED: DESIGN ENG. CHECKED: C.O.D.

APPROVED: PROFESSIONAL ENGINEER

DATE Pr. No.

APPROVED: CLIENT

DATE

CLIENT:

MINISTRY OF HEALTH AND SOCIAL SERVICES

DISCIPLINE: MECHANICAL

PROJECT TITLE:

GOBABIS DISTRICT HOSPITAL OPERATING THEATRE RENOVATIONS

DRAWING TITLE:

HVAC STANDARD DETAILS

SCALE: N.T.S. A1

CONSULTANT DRAWING NO.: W1237/M7-301

CLIENT DRAWING NO.:

REV. A

REV. A