BUILDING SERVICES ENGINEERS

<u>About Marline Engineering Newcastle</u> At Marline, we take a comprehensive approach when designing your new development.

With in-house electrical, mechanical and hydraulic engineers, Marline Engineering makes your engineering design needs a breeze. We are able to adjust, implement and create designs on AutoCAD and REVIT which makes it easy for contractors and builders to build our designs.

We advise you on the most affordable, practical and effective solutions and systems based on the site and legal factors.

As consulting engineers, Marline has also expanded the range of services to provide a wide range of building services disciplines including Air-conditioning, Electrical, Hydraulics, Fire Protection and Lift Services.

Marline has seen a huge amount of growth in the Energy sector. We provide services that go above and beyond the standard regulatory requirements and offer unique solutions to your Section J or JV3 Alternative solution reports. We also offer a fast NABERS and BEEC certification that ensures advertising for commercial properties are fully compliant with the CBD advertising rules and regulations.

With engineering consulting experience that dates back as far as 1975, we're one of the best engineering companies in Australia, and have developed the kind of projects that residential and commercial property developers benefit from.

Our Newcastle engineering firm continues to grow, however our team prides itself on every customer receiving the kind of high quality workmanship and personalised service that our company is known for.

To accommodate the expansion and demand for engineering services within Newcastle and throughout New South Wales, Marline Engineering has almost doubled the number of highly trained employees in the last five years.

Our engineering firm currently employs ten engineers, eight technical assistants and an office administrator. As a result, we continue to be leaders amongst engineering companies in Australia, with a large portfolio and a positive attitude.

PROJECT No: MN15171

CLIENT: CABONNE COUNCIL

ARCHITECT: CABONNE COUNCIL

Mechanical Services CABONNE HOME SUPPORT REFURBISHMENT 70 GASKILL STREET CANOWINDRA, NSW 2804

DRAWING SCHEDULE

ME-00-000 ME-00-001	COVER SHEET LEGEND & NOTES
ME-10-001 ME-10-002	GROUND FLOOR - AIR CONDITIONING & VENTILATION ROOF - AIR CONDITIONING & VENTILATION LAYOUT
ME-30-001	EQUIPMENT SCHEDULES
ME-40-001	DETAILS

ION LAYOUT

REVISED AS REQUESTED

MECHANICAL SERVICES

ME-00-000

DUCIWURK		DUCTAPI
	NEW DUCTWORK (GENERAL SYMBOL) MAXIMUM 0.8 Pa/m	ALL RIGID DUCTING OUTLINED IN BCA SE BRADFORD MU
	EXISTING DUCTWORK	£77777777
<u>↓</u>	HIDDEN DUCTWORK	
<u>}</u> }	DUCTWORK TO BE REMOVED	
	FIRE RATED DUCTWORK	
$\Sigma \otimes$	SUPPLY DUCT - VISIBLE SECTION	<u>+</u>
	SUPPLY DUCT - HIDDEN SECTION	
$\overline{\Sigma} \mathbf{Q}$	EXHAUST DUCT - VISIBLE SECTION	
$[\square]$	EXHAUST DUCT - HIDDEN SECTION	
	FLEXIBLE CONNECTION	<u> </u>
	ALUMINIUM SEMI-RIGID DOMESTIC RANGEHOOD DUCTING	
	FLEXIBLE DUCT - CONNECTED TO MAIN DUCT WITH SPIGOT CONTAINING VOLUME CONTROL DAMPER. PROVIDE ACCESS PANELS IN CEILING WHERE REQUIRED TO BALANCE DAMPERS. FLEXIBLE DUCT TO BE SELECTED AT 1 Pa/m (STRAIGHT LENGTH).	
	FLEXIBLE DUCTWORK MUST NOT ACCOUNT FOR MORE THAN 6m IN LENGTH IN ANY DUCT RUN. FLEXIBLE DUCTING TO COMPLY WITH RELEVANT FIRE HAZARD PROPERTIES AS OUTLINED IN BCA SECTION C1.10 & SPECIFICATION C1.10 AND SET OUT IN AS4254.1.	— R— R— R— R—
— · — · —	EXISTING FLEXIBLE DUCT	
	FLEXIBLE DUCT TO BE REMOVED	— D— D— D— D—
- <u></u>	SPIGOT WITH VOLUME CONTROL DAMPER	
	AIR CONDITIONING FLEXIBLE DUCT BRANCH FITTING COMPLETE WITH R2.0 INSULATION & V.C.D IN EACH BRANCH TAKEOFF	SYMBOLS
\diamond	EXHAUST FLEXIBLE DUCT BRANCH FITTING COMPLETE WITH V.C.D IN EACH BRANCH TAKEOFF	
$\hat{\mathbf{Q}}$	EXHAUST DUCT RISER TO FAN OR COWL ON ROOF ABOVE	
$\overline{\mathbb{A}}$	OUTSIDE AIR DUCT RISER TO SUPPLY FAN OR INTAKE COWL ON ROOF ABOVE	(FCU1)
\bigcirc	ROOF MOUNTED EXHAUST FAN OR COWL	(CU1)



) A

BLADE DAMPERS NRD = NON-RETURN DAMPER OBD = OPPOSED BLADE DAMPER VCD = VOLUME CONTROL DAMPER

VOLUME CONTROL DAMPER TO ALL BRANCH TAKEOFFS

MOTORIZED DAMPER (RIGID DUCT)

MOTORIZED DUCT DAMPER (FLEXIBLE DUCT)

VARIABLE AIR VOLUME DAMPER EQUAL TO IAS CONTROLS "ZONE STAR" COMPLETE WITH ROOM

SENSOR & WALL CONTROL PANEL

STREAM SPLITTER DAMPER

TURNING VANES REQUIRED IN ALL 90° BENDS EXCLUDING KITCHEN EXHAUST DUCTING
COMBINATION FIRE-SMOKE DAMPER COMPLETE WITH ACCESS PANELS IN ACCORDANCE WITH AS.1682.1, AS.1682.2 & AS.1668.1

FIRE DAMPER COMPLETE WITH ACCESS PANELS IN ACCORDANCE WITH AS.1682.1, AS.1682.2 & AS.1668.1

SMOKE DAMPER COMPLETE WITH ACCESS PANELS IN ACCORDANCE WITH AS.1682.1, AS.1682.2 & AS.1668.1



CT & PIPEWORK INSULATION DUCTING TO COMPLY WITH RELEVANT FIRE HAZARD PROPERTIES AS ED IN BCA SECTION C1.10 & SPECIFICATION C1.10 AND SET OUT IN AS4254.2:-ADFORD MULTITEL HVAC BLANKET 50mm EXTERNAL INSULATION 75mm EXTERNAL INSULATION 25mm INTERNAL & ACOUSTIC INSULATION 50mm INTERNAL & ACOUSTIC INSULATION 75mm INTERNAL & ACOUSTIC INSULATION 100mm INTERNAL & ACOUSTIC INSULATION KINGSPAN PRE-INSULATED DUCTING 30mm THICK - R1.35 RATING KINGSPAN PRE-INSULATED DUCTING 46mm THICK - R2.0 RATING FLEXIBLE DUCTWORK SERVING AIR CONDITIONING SUPPLY, RETURN & RELIEF AIR SYSTEMS TO ACHIEVE AN **R1.0** INSULATION RATING FLEXIBLE DUCTING TO COMPLY WITH RELEVANT FIRE HAZARD PROPERTIES AS OUTLINED IN BCA SECTION C1.10 & SPECIFICATION C1.10 AND SET OUT IN AS4254.1:-• AIRFOIL 3-ZERO FLEXIBLE DUCTING. — R— R— ALL A/C PIPEWORK LINES ARE TO BE INSULATED TO ACHIEVE A MINIMUM R1.7 R-VALUE:- 32mm CSR 'ARMAFLEX' IS TO BE PROVIDED FOR ALL PIPES 13mm INSULATION TO ALL HORIZONTAL DRAINAGE LINES — D— D— FROM THE A/C FAN COIL UNIT **IBOLS**

[200]	GRILLE TYPE S = SUPPLY E = EXHAUST R = RETURN OR RELIEF AIRFLOW L/s
(FCU1)	AIR CONDITIONING SINGLE SPLIT INDOOR FAN COIL UNIT REFERENCE
CU1)	AIR CONDITIONING SINGLE SPLIT OUTDOOR CONDENSING UNIT REFERENCE
(EF1)	FAN REFERENCE SF = SUPPLY EF = EXHAUST OAF = OUTSIDE AIR CPEF = CARPARK EXHAUST CPSF = CARPARK SUPPLY GEF = GARBAGE EXHAUST KEF = KITCHEN EXHAUST KSF = KITCHEN SUPPLY TEF = TOILET EXHAUST
(EC1)	ROOF COWL REFERENCE EC = EXHAUST COWL OAC = OUTSIDE AIR COWL No. = REFERENCE NUMBER
AP	CEILING OR DUCT ACCESS PANEL
	ACCESS POINT
AG	ACCESS GRILLE

GRILLE REFERENCE

UNDERCUT DOOR 20mm

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25mm

UC

GRILLES	
A	SUPPLY AIR GRILLE - 3 WAY
\bowtie	SUPPLY AIR GRILLE - 4 WAY
\square	SUPPLY AIR GRILLE - 4 WAY ADJUSTABLE CURVED BLADE DIFFUSER
\bigotimes	SQUARE SWIRL DIFFUSER
	ROUND SWIRL DIFFUSER
\bigcirc	CIRCULAR SUPPLY AIR GRILLE
	CEILING LINEAR SLOT OR BAR DIFFUSER
	JET DIFFUSER
Υ΄ Υ΄ Υ΄ Υ΄ Υ΄ Υ΄	CONTINUOUS LINEAR BAR GRILLE IN SIDE WALL
	RETURN OR EXHAUST AIR GRILLE
Ø	CIRCULAR EXHAUST AIR GRILLE
a Haraka	RELIEF GRILLE OR LOUVRE
Р <mark>А</mark>	DOOR GRILLE A - 600 x 200 C - 600 x 450 B - 600 x 300 D - 600 x 600

PIPEWORK & DRAINAGE

— D— D— D— D—	DRAINAGE PIPEWORK				
— R— R— R— R—	REFRIGERANT PIPEWORK No. = SYSTEM REFERENCE NUMBER IF APPLICABLE)				
— R/D— R/D— R/D—	REFRIGERANT & DRAINAGE PIPEWORK				
OTD	TUNDISH				
OOG	OVERFLOW GULLY				
OBD	BALCONY DRAIN				
	IN-GROUND DILUTION TRENCH				
BC]	VRV/VRF HEAT RECOVERY BRANCH SELECTOR / CONTROLLER UNIT				
—_CP	CONDENSATE PUMP				

ELECTRICAL & CONTROLS

	CONTROL SWITCHWIRE
MSSB	MECHANICAL SWITCHBOARD
CCP	CENTRAL CONTROL PANEL
œ	CONTROL PANEL
3	SENSOR
\otimes	MANUAL CONTROL SWITCH
\odot	CO MONITORING SENSOR
\bigcirc	THERMOSTAT
(AH)	AFTER HOURS PUSHBUTTON
(H)	HUMIDITY SENSOR
\heartsuit	VELOCITY SENSOR
\bigcirc	PRESSURE SENSOR
R	REED SWITCH

VENTILATION EQUIPMENT



DOMESTIC RANGEHOOD

AIR CONDITIONING EQUIPMENT



4	28.11.24
3	21.11.24
2	22.10.24
1	23.09.24
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Project

— MECHANICAL —— ELECTRICAL —— HYDRAULIC —— FIRE —— ENERGY —— NABERS —— STORMWATER —— SECTION J —— BEEC —

CABONNE HOME SUPPORT REFURBISHMENT 70 GASKILL STREET CANOWINDRA, NSW 2804

NOTES - GENERAL MECHANICAL WORKS

- 1. ALL DUCTWORK OTHER THAN EXHAUST DUCTWORK NOT IN THE CONDITIONED SPACE SHALL BE EXTERNALLY INSULATED UNLESS INDICATED OTHERWISE.
- 2. DUCTWORK DIMENSIONS SHOWN ARE CLEAR INTERNAL AIRWAYS DIMENSIONS.
- 3. ALL AIR CONDITIONING DUCTWORK SHALL BE INSULATED TO ACHIEVE THE MINIMUM R-Values IN ACCORDANCE WITH BCA SECTION J.
- 4. DIFFUSERS, GRILLES AND REGISTERS ARE TO BE INSTALLED WITH PLENUM BOXES INTERNALLY INSULATED TO ACHIEVE THE R-Values IN ACCORDANCE WITH BCA SECTION J.
- 5. ALL FLEXIBLE & RIGID DUCTING TO COMPLY WITH RELEVANT FIRE HAZARD PROPERTIES AS OUTLINED IN BCA SECTION C1.10 & SPECIFICATION C1.10 AND SET OUT IN AS4254.1 AND AS4254.2.
- 6. ALL AIR CONDITIONING PIPEWORK SHALL BE INSULATED TO ACHIEVE THE MINIMUM R-Values IN ACCORDANCE WITH BCA SECTION J.
- 7. ALL FLEXIBLE DUCTWORK SHALL COMPLY WITH AS4254 AND BCA SECTION J. DUCT TAKE OFFS ARE TO BE FITTED WITH SPIGOTS COMPLETE WITH VOLUME CONTROL DAMPERS.
- 8. ALL DUCTWORK CONNECTED WITHIN 3m UPSTREAM OR DOWNSTREAM OF A VENTILATION FAN (OTHER THAN FOR A KITCHEN EXHAUST DUCT) SHALL BE PROVIDED WITH A MINIMUM OF 50mm INTERNAL & ACOUSTIC INSULATION (UNLESS SHOWN OR NOTED OTHERWISE).
- 9. TURNING VANES REQUIRED IN ALL 90° BENDS EXCLUDING KITCHEN EXHAUST DUCTING.
- 10. PROVIDE COLORBOND COVER OVER ALL EXPOSED REFRIGERANT PIPE & CABLING.
- 11. EQUIPMENT IS TO BE MOUNTED ON ANTI-VIBRATION MOUNTS AS SPECIFIED.
- 12. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT FLOOR LAYOUTS & REFLECTED CEILING PLAN FOR FINAL LOCATION OF DIFFUSERS, GRILLES & ACCESS PANELS.
- 13. THE MECHANICAL CONTRACTOR IS REQUIRED TO UNDERTAKE A FULL CO-ORDINATION OF MECHANICAL SERVICES INSTALLATIONS WITH THE BUILDING STRUCTURE AND OTHER SERVICES PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORKS. TO DETERMINE AND CO-ORDINATE ALL MECHANICAL SPATIAL REQUIREMENTS FOR SYSTEMS.
- 14. THE MECHANICAL CONTRACTOR IS TO FULLY CO-ORDINATE WITH THE TRUSS MANUFACTURER PRIOR TO TRUSS DESIGN AND MANUFACTURER ALL SPATIAL REQUIREMENTS FOR MECHANICAL SYSTEMS WITHIN THE ROOF SPACE. ANY MODIFICATION WORK REQUIRED AFTER TRUSSES ARE CONSTRUCTED SHALL BE AT NO COST TO THE CLIENT.
- 15. PAINT ALL EXPOSED DUCTWORK. COLOUR TO NOMINATED BY SUPERINTENDENT.
- 16. ROOF MOUNTED FANS AND COWLS ARE TO MATCH THE ROOF COLOUR. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL LOCATIONS.
- 17. PROVIDE WEATHER COVER OVER EXTERNAL FLEXIBLE CONNECTIONS & EXPOSED CONTROL EQUIPMENT. EXTERNAL DUCTWORK TO BE CROSS BROKEN TO PREVENT PONDING.
- 18. ROOF PENETRATIONS SHALL BE OVERFLASHED TO APPROVAL AND SEALED WATER TIGHT.
- 19. INTERNAL DUCTWORK AND FITTINGS VISIBLE THROUGH GRILLES/DAMPERS TO BE PAINTED MATTE BLACK.
- 20. PROVIDE ACCESS DOORS TO FILTER PLENUMS COMPLETE WITH CHROME PLATED HEAVY DUTY HINGES AND LATCHES.
- 21. EQUIPMENT SHALL BE AS SPECIFIED. ALTERNATIVES ARE SUBJECT TO WRITTEN APPROVAL.
- 22. PROVIDE NON-RETURN SELF CLOSING DAMPERS IN DUCTWORK SERVING GENERAL DUCTED EXHAUST SYSTEMS. DAMPER RESISTANCE TO FULLY OPEN SHALL NOT EXCEED 10Pa. REFER TO FAN SCHEDULE AND TYPICAL DETAILS FOR FURTHER INFORMATION.
- 23. EACH INDOOR FAN COIL UNIT IS TO BE PROVIDED WITH A WIRED CONTROLLER COMPLETE WITH WEEKLY SCHEDULE TIMER.
- 24. ALL DUCTED SYSTEMS TO BE PROVIDED WITH REMOTE SENSORS.
- 25. ALL DUCTED INDOOR FAN COIL UNITS ARE TO BE INSTALLED ABOVE A CONDENSATE SAFE TRAY. DUCTED UNITS ARE TO BE SPRING MOUNTED. REFER TO TYPICAL DETAIL ON LAYOUT DRAWINGS.
- 26. OUTDOOR CONDENSING UNITS ARE TO BE MOUNTED ON 100mm HIGH CONCRETE PLINTHS AT GROUND LEVEL U.N.O. OR GALVANISED WALL BRACKETS. PROVIDE WITH RUBBER ANTI-VIBRATION MOUNTS UNDER UNITS FEET.
- 27. OUTDOOR CONDENSING UNITS ARE TO BE PROVIDED WITH DRAINAGE PIPEWORK TO DISCHARGE TO THE NEAREST DRAINAGE POINT. PROVIDE THE MANUFACTURES DRAINAGE KITS AND/OR A CONDENSATE DRAIN TRAY UNDER CONDENSER TO COLLECT ALL CONDENSATE
- 28. THE ELECTRICAL TRADE IS TO PROVIDE POWER & CONTROLS TO ALL MECHANICAL EQUIPMENT. MECHANICAL TRADE IS TO MAKE FINAL CONNECTIONS. FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.
- 29. THE ELECTRICAL TRADE IS TO PROVIDE POWER SUPPLY & CONTROL TO EACH EXHAUST FAN. FULLY CO-ORDINATE INSTALLATION WITH ELECTRICAL TRADE.

SEISMIC PROVISIONS

- 1. TO ENSURE SAFETY TO OCCUPANTS AND TO PREVENT DAMAGE TO THE BUILDING AND SERVICES IN THE EVENT OF AN EARTHQUAKE THE INSTALLATION OF ALL MECHANICAL SYSTEMS SHALL COMPLY WITH AS 1170.4 - 2007 EARTHQUAKE ACTIONS IN AUSTRALIA.
- 2. THE CONTRACTOR SHALL ENGAGE THE SERVICES OF GRIPPLE AUSTRALIA OR APPROVED EQUAL TO PROVIDE A SYSTEM AND CERTIFICATION TO COMPLY WITH AS 1170.4.
- 3. PIPES AND DUCTS ALL DUCTWORK AND PIPEWORK SHALL BE PROVIDED WITH RESTRAINTS IN ACCORDANCE WITH THE SEISMIC RESTRAINT MANUAL: GUIDELINES FOR MECHANICAL SYSTEMS DATED 1991, AS PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION INC. SMACNA) AND IN ACCORDANCE WITH AS1170.4.
- 4. PLANT AND EQUIPMENT ALL PLANT AND EQUIPMENT SHALL BE SECURELY FIXED TO THE BUILDING STRUCTURE. FIXINGS SHALL BE CAPABLE OF WITHSTANDING SEISMIC LOADS DETERMINED IN ACCORDANCE WITH AS 1170.4 AND BE CAPABLE OF RESISTING BOTH HORIZONTAL AND VERTICAL SEISMIC FORCES. ANTI-VIBRATION MOUNTS SHALL BE OF THE "HOUSED" TYPE CAPABLE OF WITHSTANDING THESE LOADS. PAYING PARTICULAR ATTENTION TO THE ATTACHMENT OF HEAVY COMPONENTS SUCH AS CHILLERS, COOLING TOWERS, BOILERS, TANKS AND SWITCHBOARDS TO PREVENT MOVEMENT AND DAMAGE UNDER EARTHQUAKE CONDITIONS.









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Drawing Title **GROUND FLOOR AIR CONDITIONING & VENITLATION** LAYOUT

Discipline ^{Scale} 1:50 @ A1 MECHANICAL SERVICES Drawing No. Job No. ME-10-001 - 4 MN15171





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Project CABONNE HOME SUPPORT REFURBISHMENT 70 GASKILL STREET CANOWINDRA, NSW 2804



AIR CONDITIONING & VENITLATION LAYOUT

MECHANICAL SERVICES Drawing No. ME-10-002 Job No. 4 MN15171

AIR CO	NDITIONING SCHEDUL	.E														ROOM CONDITIONS: 23.	5 +/- 1.5 °C		AMBIENT C	CONDITIONS:	SUMMER WINTER	38.7 °C DB 22.8 °C WB -0.9 °C
FAN COIL REF. No.	AREA SERVED	TYPE	MANUFACTURER	FAN COIL UNIT MODEL No.	TOTAL COOL kW	SENS. COOL kW	HEATING kW	SUPPLY AIR L/s	RETURN AIR L/s	OUTSIDE AIR L/s	DIMENSIONS H x W x D	WEIGHT kg	SOUND dBA	ELECTRICAL MCA - Ph	COND. UNIT REF No.	TYPE	COND. UNIT MODEL No.	DIMENSIONS H x W x D	WEIGHT kg	SOUND dBA	ELECTRICAL R.L.A Ph	CIRCUIT BREAKER
FCU1A	LIBRARY	DUCTED	DAIKIN	FXMQ125PAVE	10	8.8	7.2	605	515	90	300x1400x700	45	44	3.4	CU1	HEAT PUMP VRF	RXYMQ9AY1	1430x940x320	138	-	15-3	20
FCU1B	LIBRARY	DUCTED	DAIKIN	FXMQ125PAVE	10.8	9.3	7.3	620	510	110	300x1400x700	45	44	3.4								
FCU2	MEETING	DUCTED	DAIKIN	FXMQ50PAVE	5	3.6	3.6	370	280	90	300x1000x700	35	41	1.6	CU2	HEAT PUMP	RXYMQ3A2V4A	990x940x320	71	-	13.2	20
FCU3	CHS OFFICE	DUCTED	DAIKIN	FXMQ80PAVE	7.1	6	4.8	400	330	70	300x1000x700	35	43	2.3	CU3	HEAT PUMP	RXYMQ3A2V4A	990x940x320	71	-	13.2	20
FCU4A	COORD RM	CASSETTE	DAIKIN	FXZQ20AVM	1.2	0.9	0.8	100	100	20	260x575x575	16	32	0.3	CU4	HEAT PUMP VRF	RXYMQ3A2V4A	990x940x320	71	-	13.2	20
FCU4B	RECEPTION	CASSETTE	DAIKIN	FXZQ20AVM	1.3	1	0.8	100	100	20	260x575x575	16	32	0.3								
FCU5	FOYER	DUCTED	DAIKIN	FXMQ80PAVE	7.3	6.5	5	480	435	45	300x1000x700	35	43	2.3	CU5	HEAT PUMP	RXYMQ4A2V4A	990x940x320	71	-	13.2	20

FAN SCHEDULE					
REF. No.	EF1	EF2	OAF1	OAF2	OAF3
SERVES	TOILETS	SERVER ROOM	OFFICE	RECEPTION	SUBFLOOR
AIR FLOW L/s	165	50	20	20	100
EST. RESISTANCE Pa	100	100	80	80	100
FAN TYPE	ROOF	ROOF	IN LINE	IN LINE	ROOF
MAX SPEED rpm	1875	1200	2066	2066	1200
dBA AT 3m	55	48	30	30	48
MOTOR SIZE W - No. PH	160-1	160-1	20-1	20-1	160-1
UNIT SELECTION (FANTECH)	CEEC25V	CEEC25V	JETLINE-125ECO	JETLINE-125ECO	CEEC25V
REMARKS	REFER NOTES 1-5	REFER NOTE 6	REFER NOTES 1-5	REFER NOTES 1-5	REFER NOTES 1-5

NOTES:

INTERLOCK FAN TO LIGHTING FOR AREA SERVED. PROVIDE A 10 MINUTE RUN ON TIMER TO OPERATE FAN FOR

A FURTHER 10 MINUTES AFTER LIGHTING IS TURNED OFF. FAN CONTROLLED FROM ON/OFF CONTROL SWITCH.

PROVIDE BACKDRAFT SHUTTER TO SUIT FAN SELECTION.

PROVIDE 2-SPEED CONTROL SWITCH C/W ON/OFF AND HI/LO SELECTOR. CONTROL SWITCH TO BE PROVIDED

WITH A NEON RUN LIGHT INDICATING OPERATION AND STATUS OF HI/LO SPEEDS. PROVIDE ADJUSTABLE WALL TEMP SENSOR TO OPERATE FAN WHEN INTEMP REACHES SPECIFIED UPPER LIMIT.



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50mm

100mm ON A1 ORIGINAL

FILTERS FOR ALL DUCTED AIR CONDITIONING SYSTEMS SHALL BE OF THE DRY MEDIA EXTENDED SURFACE DISPOSABLE TYPE WITH FOLLOWING PROPERTIES. RATING DEPTH mm 50 NOTES: PROVIDE CHROME PLATED HEAVY DUTY HARDWARE ON FILTER ACCESS PANELS. PROVIDE ALL FILTER MODULES TO THE SAME PHYSICAL DIMENSIONS, WHERE POSSIBLE. FILTERS TO BE SELECTED AT NOT MORE THAN 1.8m/s FACE VELOCITY.

FILTER SCHEDULE - G4

AVERAGE EFFICIENCY TO TEST DUST No.1 AS 1324	25%
AVERAGE EFFICIENCY TO TEST DUST No.4 AS 1324	90%
CLEAN RESISTANCE AT RATED CAPACITY	50Pa
FINAL RESISTANCE	125Pa
FILTER SELECTION	CAMFIL FARR

FLEXIBLE DUCT SCHEDULE				
INTERNAL DIAMETER mm	AIR FLOW L/s			
150	0 - 45			
200	46 - 90			
250	91 - 150			
300	151 - 250			
350	251 - 350			
400	351 - 420			
450	421 - 500			
500	501 - 650			

NOTE:

FLEXIBLE DUCT TO BE 4 ZERO. AIR CONDITIONING DUCT TO BE INSULATED AND HAVE AN ACOUSTIC CORE. PROVIDE MULTIPLE FLEXIBLE DUCTS WHERE AIRFLOW EXCEEDS 500L/s.

SUPPLY DIFFUSER SCHEDULE						
LEGEND LF41 FF41 CSD-25	= LAY-IN FRAME 4-WAY BLOW DIFFUSER = FLUSH FACE 4-WAY BLOW DIFFUSER = 4 SLOT LINEAR SLOT DIFFUSER					
REF. No.	TYPE	NOMINAL FACE SIZE mm	NECK SIZE mm			
S1	LF41/FF41	600 x 600	150 x 150			
S2	LF41/FF41	600 x 600	225 x 225			
S3	LF41/FF41	600 x 600	300 x 300			
S4	CSD-25	1534 x 220	1500 x 193			

RETURN/EXHAUST GRILLE SCHEDULE

LEGEND EC	= EGGCRATE RETURN/EXHAUST AIR GRILLE					
REF. No.	TYPE	FACE SIZE mm	NECK SIZE mm			
E1	EC	150 x 150	135 x 135			
E2	EC	200 x 200	185 x 185			
E3	EC	250 x 250	235 x 235			
E4	EC	300 × 300	285 x 285			
R1	EC	300 × 300	285 x 285			
R2	EC	600 × 300	585 x 285			
R3	EC	600 × 600	585 x 585			
R4	EC	1200 x 600	1185 x 585			

— MECHANICAL —— ELECTRICAL —— HYDRAULIC —— FIRE —— ENERGY —— NABERS —— STORMWATER —— SECTION J —— BEEC —

Rev Date

2 28.11.24 REVISED AS REQUESTED 1 21.11.24 100% ISSUE FOR REVIEW Reason for Issue

SM SM SM SM Drawn Design Verify

CABONNE HOME SUPPORT REFURBISHMENT 70 GASKILL STREET

CANOWINDRA, NSW 2804



Scale N.T.S @ A1 Discipline **MECHANICAL SERVICES** Drawing No. ME-30-001 Job No. Rev 2 MN15171



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50mm

100mm ON A1 ORIGINAL

– MECHANICAL —— ELECTRICAL —— HYDRAULIC —— FIRE —— ENERGY —— NABERS —— STORMWATER —— SECTION J —— BEEC – CABONNE HOME SUPPORT REFURBISHMENT 2 28.11.24 REVISED AS REQUESTED MJ SM 70 GASKILL STREET 1 21.11.24 100% ISSUE FOR REVIEW MJ SM CANOWINDRA, NSW 2804 Rev Date Reason for Issue Drawn Design Verify

