COMMUNITY INFRASTRUCTURE DEPOT 252 COAL ROAD, MUSWELLBROOK NSW 2333 MECHANICAL SERVICES

DUCTWORK LEGEND

| | FIRE RATED DUCTWORK |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| | MINIMUM 'R2.0' INTERNAL THERMAL / ACOUSTIC INSULATION |
| | MINIMUM 'R3.0' INTERNAL THERMAL / ACOUSTIC INSULATION |
| $\begin{array}{c} \diamond \\ \diamond \diamond \diamond \diamond \diamond $ | MINIMUM 'R2.0' EXTERNAL THERMAL INSULATION |
| X | NEW DUCTWORK |
| | |



OPEN END - SUPPLY AIR DUCT

OPEN END - EXHAUST/RETURN AIR DUCT

DUCT SET UP IN DIRECTION OF ARROW (SD - SET DOWN)

(AIRFOIL BLADES)

BRANCH DUCT CONNECTION WITH SPLITTER DAMPER

MITRE BEND WITH TURNING VANES

FIRE DAMPER C/W DUCT MOUNTED ACCESS PANEL - TO BE INSTALLED WITH ADJACENT CEILING ACCESS PANEL (on upstream side where accessible)

FD: FIRE DAMPER IFD: INTUMESCENT FIRE DAMPER SD: SMOKE DAMPER



INTERNALLY INSULATED TRANSFER AIR DUCT

NEW ACOUSTIC FLEXIBLE DUCTWORK C/W SPIGOT WITH BUTTERFLY DAMPER - SIZE AS PER TABLE (Note: Maximum TOTAL length to be 5.0m). FOR FLEXIBLE DUCTWORK NO GREATER THAN 3.0m IN LENGTH, PROVIDE THERMAL INSULATION TO ACHIEVE A MINIMUM 'R' VALUE OF 1.0 FOR FLEXIBLE DUCTWORK OF LENGTHS GREATER THAN 3.0m, PROVIDE THERMAL INSULATION TO ACHIEVE A MINIMUM 'R' VALUE IN ACCORDANCE WITH SPECIFICATION J5.2-3, TABLE 3, NCC. (WHERE TWO OR MORE FLEXIBLE DUCTS HAVE BEEN JOINED BY RIGID DUCTWORK, THE CUMULATIVE LENGTHS SHALL BE USED FOR THIS PURPOSE).

FLEXIBLE DUCTWORK WITH INSULATED SPIRAL WOUND DUCT INSERT WHERE REQUIRED TO MAINTAIN TOTAL FLEXIBLE LENGTH OF 5.0m

SQUARE TO ROUND TRANSITION

SINGLE BLADE VOLUME CONTROL DAMPER

MULTI BLADE VOLUME CONTROL DAMPER (M - MOTORISED)

NON-RETURN DAMPER

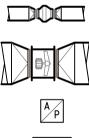
OPPOSED BLADE DAMPER

DUCT MOUNTED ACCESS PANEL

DIFFUSERS AND GRILLES LEGEND

| | SUPPLY AIR REGISTER - |
|----------------|--------------------------------|
| → | INTAKE AIR REGISTER/LOUVRE |
| ← | EXHAUST AIR REGISTER/LOUVRE |
| | SUPPLY AIR DIFFUSER |
| | RETURN/EXHAUST AIR DIFFUSER |
| | SUPPLY AIR SWIRL DIFFUSER |
| | AIR TRANSFER DUCT |
| | AIR FLOW |
| | NATURAL VENTILATION |
| _ ◄-\ | SUPPLY/RETURN/EXHAUST AIR FLOW |
| | |
| (<u>110</u>) | — AIR FLOW - L/s |

EQUIPMENT LEGEND



IN-LINE CENTRIFUGAL FAN

ACCESS PANEL - BY BUILDER

AXIAL FAN

MECHANICAL SWITCHBOARD

SENSORS & CONTROL POINTS LEGEND

| ĊP | CONTROL POINT COMPLETE WITH DIGITAL LED DISPLAY, THERMOSTAT, TEMPERATURE SET-POINT ADJUSTMENT, ON/OFF SWITCH, FAN SPEED ADJUSTMENT AND PROGRAMMABLE TIMER |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | SENSOR: E - ENTHALPY H - HUMIDITY P - PRESSURE S - SMOKE T - TEMPERATURE CO - CARBON MONOXIDE |
| T | ABOVE CEILING SENSOR MOUNTED WITHIN RETURN AIR DUCT. LEGEND AS ABOVE |
| | DOOR UNDERCUT: 25mm BY BUILDER |
| DG | DOOR GRILLE |
| ŚW | ON/OFF SWITCH |

VRV MASTER CONTROL PANEL

ABBREVIATIONS

| AC | AIR CONDITIONING UNIT |
|--------|---------------------------------|
| AF | AIR FILTER |
| AHU | AIR HANDLING UNIT |
| AP | ACCESS PANEL |
| CU | CONDENSING UNIT |
| EF | exhaust fan |
| FW | FLOOR WASTE |
| MCC | MOTOR CONTROL CENTRE |
| MSSB | MECHANICAL SERVICES SWITCHBOARD |
| MVCD | MOTORISED VOLUME CONTROL DAMPER |
| NRD | NON RETURN DAMPER |
| OBD | OPPOSED BLADE DAMPER |
| SF | SUPPLY AIR FAN |
| TEF | TOILET EXHAUST FAN |
| TD | TUNDISH |
| U.N.O. | UNLESS NOTED OTHERWISE |
| VCD | VOLUME CONTROL DAMPER |
| | |

RULES AND REGULATIONS

ALL WORK PERFORMED SHALL BE COMPLETE WITH ALL NECESSARY EQUIPMENT FOR ITS SATISFACTORY OPERATION, CONTROL AND MAINTENANCE UNDER ALL NORMAL CONDITIONS OF SERVICE AND SHALL COMPLY IN ALL RESPECTS WITH THE REGULATIONS AND BY-LAWS OF:

(a) STATUTORY AUTHORITIES.

(b) BUILDING CODE OF AUSTRALIA.

(c) THE STANDARDS ASSOCIATION OF AUSTRALIA (IN PARTICULAR THE REQUIREMENTS OF AS1668 PARTS 1 and 2 AND AS2107)

(d) THE AUSTRALIAN REFRIGERATION AND AIR CONDITIONING CODE OF GOOD PRACTICE HB 40.

(e) WIRING RULES TO AS3000.

(f) THE LOCAL SUPPLY AUTHORITY.

(g) ANY OTHER AUTHORITIES HAVING JURISDICTION OVER THIS INSTALLATION.

WORKS BY BUILDER

01. ALL FLOOR, ROOF, WALL OR CEILING PENETRATION WITH trimmings.

02. CUTTING OF SUSPENDED CEILINGS FOR SUPPLY AIR DIFFUSERS, GRILLES AND RETURN AIR INLETS.

03. CUTTING AND MAKING GOOD AS NECESSARY OF CHASES OR PROVIDING CONDUITS IN COLUMNS AND WALLS FOR THERMOSTATS, CONDENSATE DRAINPIPES.

04. PROVISION OF EXTERNAL UNDER FLASHING TO EXTERNAL PENETRATIONS (OVER FLASHING IS TO BE PROVIDED BY MECHANICAL CONTRACTOR).

05. ALL LOUVRES, PENETRATIONS, MAKING GOOD, UNDERCUT DOORS, BULKHEADS AND ACCESS PANELS SHALL BE BY THE BUILDER.

PROJECT NOTES

01. CONSTRUCTION AND INSTALLATION OF DUCTWORK SHALL BE IN

ACCORDANCE WITH AS1668 AND AS4254. 02. ALL DUCT DIMENSIONS ARE CLEAR INTERNAL DIMENSIONS EXCLUDING THE THICKNESS OF INSULATION. 03. ELECTRICAL CONTRACTOR SHALL PROVIDE SUB-MAIN POWER TO THE MECHANICAL BOARDS. MECHANICAL CONTRACTOR SHALL TERMINATE POWER AT THE BOARDS AND SHALL RUN POWER AND CONTROL WIRING TO MECHANICAL EQUIPMENT VIA ISOLATION SWITCHES.

04. ALL INFORMATION CONTAINED WITHIN THE EQUIPMENT SCHEDULES IS FOR TENDERING PURPOSES ONLY.

05. THE SERVICES INDICATED ON THE DRAWINGS SHOW THE GENERAL DESIGN INTENT AND SCHEMATIC ROUTES. THE CONTRACTOR SHALL DETERMINE THE EXACT ROUTING OF THE SERVICES ON SITE AND COORDINATION WITH ALL TRADES.

06. ANY DISCREPANCIES BETWEEN THE DOCUMENTATION AND THE EXISTING SITE CONDITIONS FOUND DURING THE TENDER STAGE NEED TO BE BROUGHT TO THE ATTENTION TO THE CONSULTING ENGINEER AND ANY COST ALLOWANCES MADE FOR SUCH DISCREPANCIES.

07. THESE ARE NOT SHOP DRAWINGS. SHOP DRAWINGS SHALL BE PREPARED AND SUBMITTED FOR APPROVAL BEFORE INSTALLATION.

08. EXTERNAL STATIC PRESSURES HAVE BEEN GIVEN AS A GUIDE FOR TENDERING PURPOSES ONLY. ALL PRESSURE DROPS SHALL BE CALCULATED BY THE CONTRACTOR FOR THE ACTUAL EQUIPMENT EMPLOYED AND THE DUCT RUNS.

09. ALL EQUIPMENT TO BE PROVIDED WITH LOCAL ELECTRICAL ISOLATORS.

10. PROVIDE ALL NECESSARY STRUCTURAL SUPPORTS FOR MECHANICAL EQUIPMENT, PIPEWORK, DUCTWORK AND WIRING.

11. ANCILLARY SUPPORTS FOR MECHANICAL EQUIPMENT SHALL BE PROVIDED.

12. FANS SHALL BE INSTALLED ON VIBRATION ISOLATORS.

13. WHERE AN EXHAUST SYSTEM IS SERVING AN AIR CONDITIONED SPACE AND/OR WHERE MOTORISED OUTSIDE AIR INTAKES ARE LOCATED, SELF-CLOSING DAMPERS MUST BE PROVIDED TO CLOSE WHEN SYSTEMS ARE INACTIVATED.

14. ALL EXPOSED DUCTWORK (INCLUDING CLIPS, SCREW HEADS etc) ARE TO BE PAINTED/POWDERCOATED IN COLOURS AS NOMINATED BY THE ARCHITECT.

15. ALL EXPOSED GRILLES, COVER PLATES, CASSETTE COVERS, DIFFUSERS etc ARE TO BE PAINTED/POWDERCOATED IN COLOURS AS NOMINATED BY THE ARCHITECT.

16. ALL ROOF COWLS, ROOF VENTS etc ARE TO BE PAINTED/POWDERCOATED IN COLOURS AS NOMINATED BY THE ARCHITECT, GENERALLY IN THE SAME COLOUR AS THE ADJACENT ROOF SHEETING U.N.O.

17. ALL LOUVRES SHALL BE FITTED WITH VERMIN PROOF WIRE MESH INSIDE.

18. ALL EQUIPMENT SHALL BE TREATED FOR CORROSION RESISTANCE.

19. BALANCE AND COMMISSION ALL SYSTEMS AND SUBMIT BALANCING FIGURES FOR REVIEW.

20. CERTIFICATION OF INSTALLATION SHALL BE SUBMITTED. 21. TWELVE MONTHS ROUTINE WARRANTY AND MAINTENANCE CONTRACT SHALL BE PROVIDED.

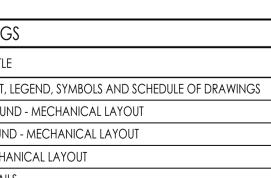
22. OPERATING AND MAINTENANCE MANUALS WITH THE COMMISSIONING DATA AND AS-INSTALLED DRAWINGS SHALL BE PREPARED AT THE END OF THE INSTALLATION.

| SCHEDULE OF DRAWING | | |
|---------------------|---------------|--|
| DRAWING No. | DRAWING TITL | |
| ME-0000 | COVER SHEET, | |
| ME-1000 | LOWER GROU | |
| ME-1010 | UPPER GROUN | |
| ME-1020 | ROOF - MECH | |
| ME-9000 | TYPICAL DETAI | |
| ME-9001 | EQUIPMENT SC | |
| | | |

PIPEWORK LEGEND

MCP

| | REFRIGERANT PIPEWORK |
|-----|----------------------|
| · · | Condensate pipework |
| | TUNDISH |
| FW | FLOORWASTE |
| | |



CHEDULES



ARCHITECT

ARCHITECTS NEWTOWN NSW 2042

BUILDING SERVICES ENGINEER

L1, 15 Atchison Street, St Leonards NSW 2065

Ph: (02) 9437 1022 general@erbas.com.au

www.erbas.com.au

PROJECT

COMMUNITY

INFRASTRUCTURE DEPOT

252 COAL ROAD,

MUSWELLBROOK NSW 2333

DRAWING TITLE MECHANICAL SERVICES COVER SHEET, LEGEND, SYMBOLS AND SCHEDULE OF DRAWINGS

DRAWN **| Jh**

SCALE at A 1 NTS

PROJECTNO.

SYD23603

DRAWING No.

ME-0000

designed **in**

CHECKED -

REVISION

P3

IORTH POINT

ARCHITECTS LEVEL 2 5 WILSON STREET

TEL.(02) 9319 3077

CLIENT MUSWELLBROOK SHIRE COUNCIL

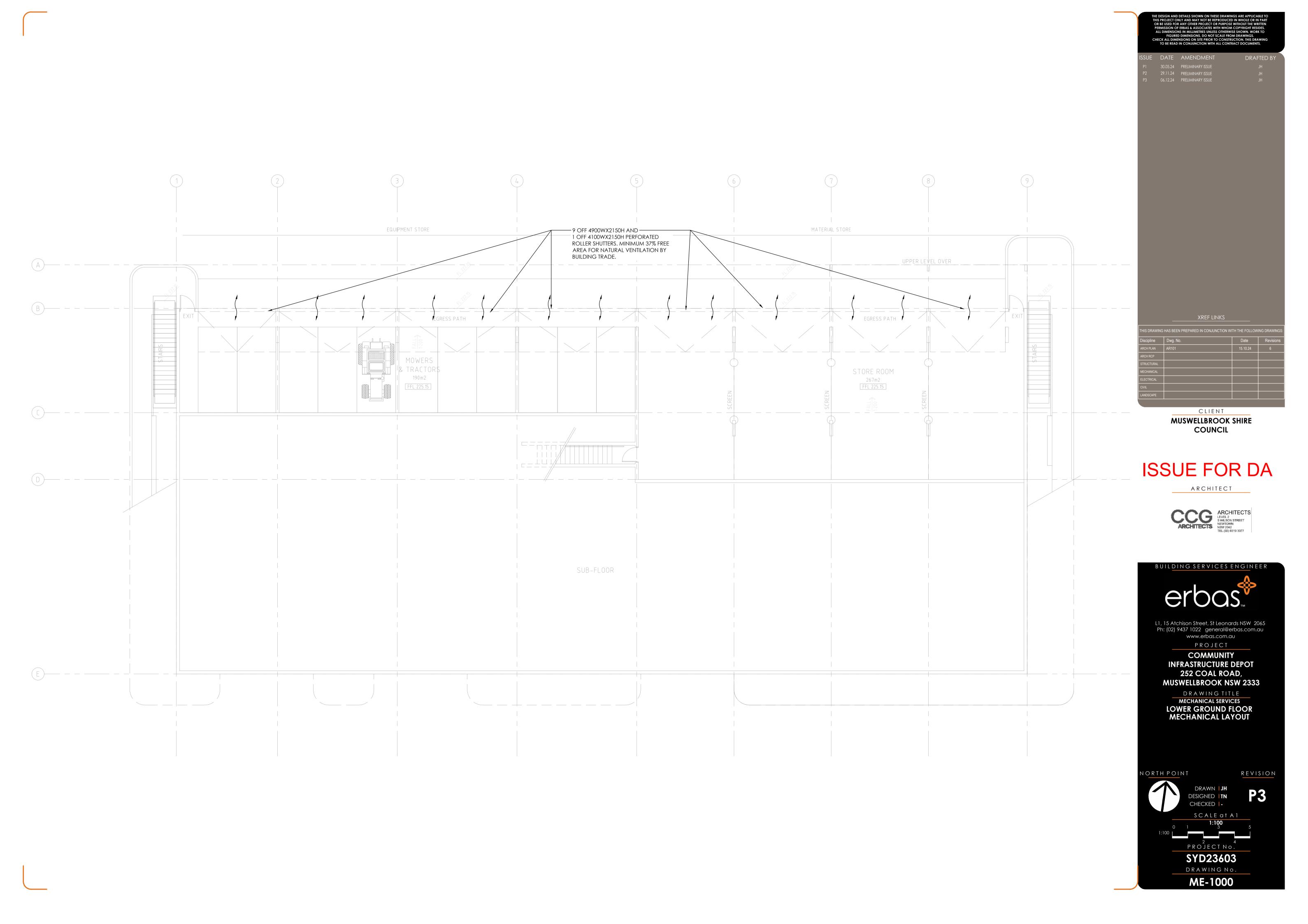
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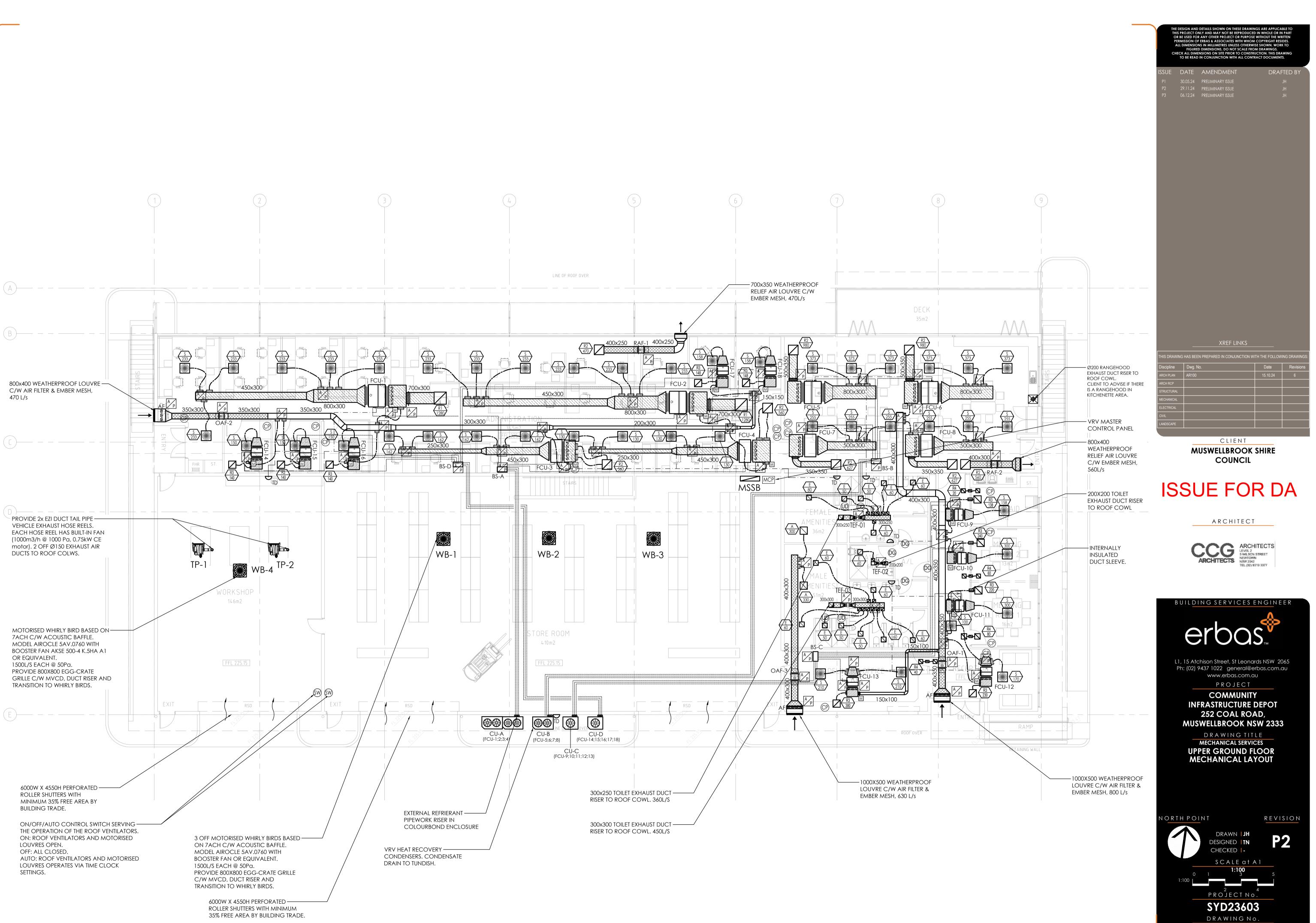
IS PROJECT ONLY AND MAY NOT BE REPRODUCED IN WHOLE OR IN PA OR BE USED FOR ANY OTHER PROJECT OR PURPOSE WITHOUT THE WRITTE

URED DIMENSIONS, DO NOT SCALE FROM DRAWINGS IONS ON SITE PRIOR TO CONSTRUCTION. THIS DR D BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMEN

DRAFTED BY

DATE AMENDMENT





ME-1010

