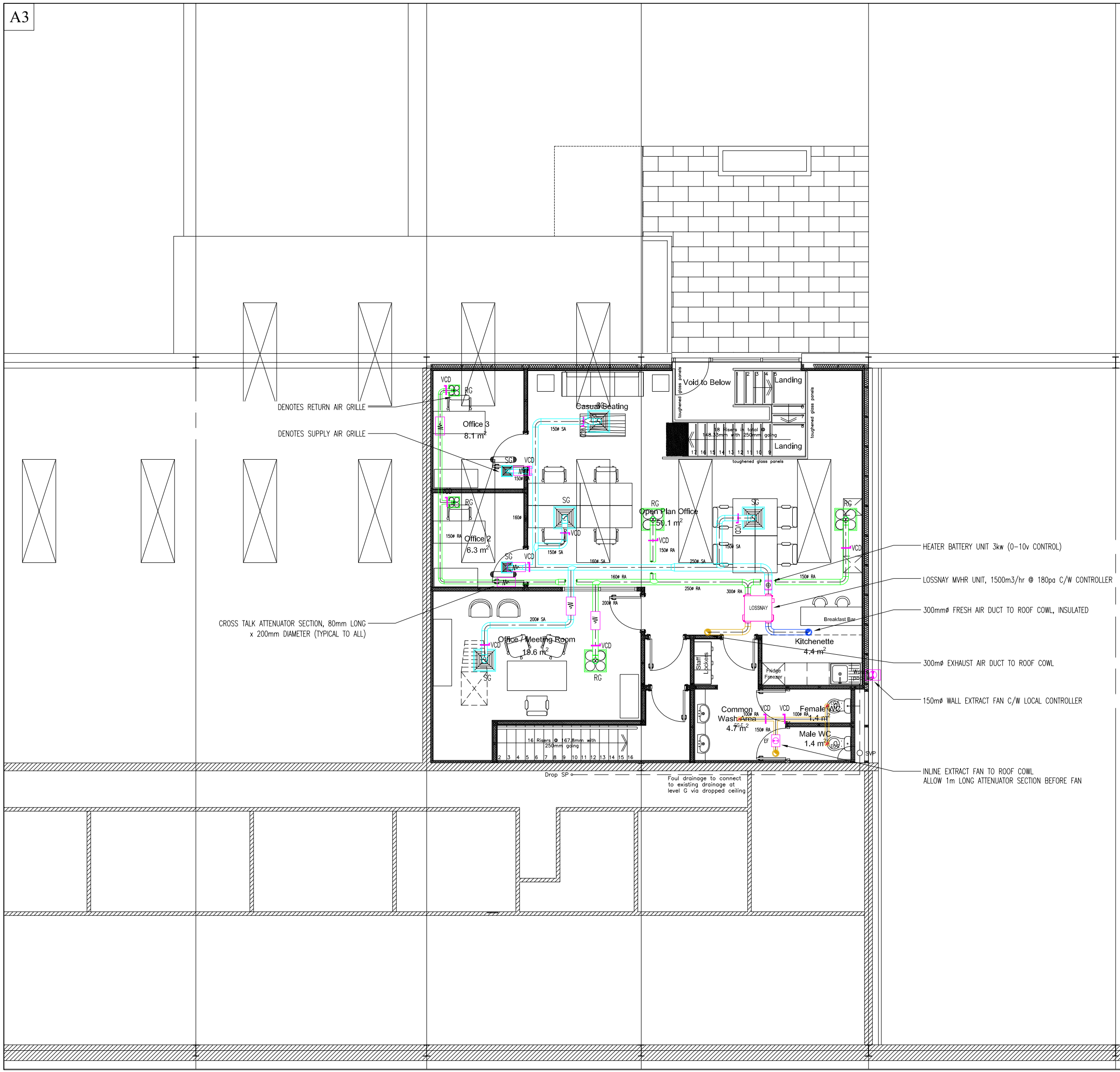
A3



VENTILATION LEGEND:

VCD	VOLUME CONTROL DAMPER
MSFD	MOTORISED SMOKE/FIRE DAMPER
FD	FIRE DAMPER (2 HOUR RATED)
FD	FIRE DAMPER (2 HOUR RATED) AT FLOOR PENETRATION
ATT	ATTENUATOR
CTA	CROSS TALK ATTENUATOR
HB-XX	ELECTRIC DUCT HEATER BATTERY
EF-XX	IN-LINE EXTRACT FAN
DTG-A	300x300 DOOR TRANSFER GRILLE – NON VISION TYPE WATERLOO NSNL OR EQUIVALENT
DTG-B	400x400 DOOR TRANSFER GRILLE – NON VISION TYPE WATERLOO NSNL OR EQUIVALENT
SG-A	400ø CIRCULAR SUPPLY AIR DIFFUSER MADEL DCN SERIES OR EQUIVALENT
SG-B	600x600 SUPPLY AIR DIFFUSER – MULTI-DIRECTIONAL TYPE MADEL PLAY SERIES OR EQUIVALENT
SG-C	600x600 SUPPLY AIR DIFFUSER – 4 WAY TYPE MADEL DBQ SERIES OR EQUIVALENT
SG-CF	600x600 SUPPLY AIR DIFFUSER – 4 WAY TYPE MADEL DBQ SERIES OR EQUIVALENT (DIFFUSER SHALL HAVE A 1 HOUR FIRE RATED PLENUM BOX WITH A 160ø SPIGOT C/W 1 HOUR FIRE DAMPER FOR SA RUN-OUT DUCT CONNECTION)
SG-L2	2000x150mm LINEAR SLOT SUPPLY AIR DIFFUSER MADEL LNG SERIES OR EQUIVALENT
SG-L4	4000x150mm LINEAR SLOT SUPPLY AIR DIFFUSER MADEL LNG SERIES OR EQUIVALENT
RG-A	400ø CIRCULAR RETURN AIR GRILLE MADEL DCN SERIES OR EQUIVALENT
RG-B	600x600 RETURN AIR GRILLE ~~MADEL PLAY SERIES OR EQUIVALENT~~
RG-L2	2000x150mm LINEAR SLOT RETURN AIR GRILLE MADEL LNG SERIES OR EQUIVALENT
RG-L4	4000x150mm LINEAR SLOT RETURN AIR GRILLE MADEL LNG SERIES OR EQUIVALENT
EG-E	100ø RETURN AIR DISC VALVE WATERLOO VC RANGE OR EQUIVALENT
EG-D	160ø EXTRACT AIR DISC VALVE WATERLOO VC RANGE OR EQUIVALENT
EG-E	100ø EXTRACT AIR DISC VALVE WATERLOO VC RANGE OR EQUIVALENT
EG-F	100ø EXTRACT AIR DISC VALVE C/W INTEGRAL FIRE DAMPER (2 HOUR) WATERLOO VCF RANGE OR EQUIVALENT

GENERAL NOTES

1) Do not scale services equipment from this drawing.
2) All dimensions should be checked on site.
3) Any drawing errors or divergences should be brought to the attention of Geaney Engineering Consultants at the address shown below.
4) Drawing to be read in conjunction with all other drawings and documentation.

NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL DRAWINGS & SPECIFICATIONS.
2. THE MECHANICAL CONTRACTOR SHALL CO-ORDINATE ALL SERVICES FULLY WITH ALL TRADES BEFORE COMMENCING WORK.
3. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS SHALL BE TAKEN ON SITE.
4. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY INFORMATION TO ALLOW PROPER CO-ORDINATION OF ALL SERVICES.
5. EXTRA COSTS INCURRED DUE TO THE CO-ORDINATION EXERCISE NOT BEING COMPLETED WILL NOT BE ACCEPTED BY THE ENGINEER.
6. EXACT LOCATION OF ALL SERVICES SHALL BE AGREED WITH THE EMPLOYERS REPRESENTATIVE PRIOR TO COMMENCEMENT ON SITE.
7. ALL SERVICES AS SHOWN ON THIS DRAWING SHALL BE INCLUDED IN THE FINAL TENDER PRICE.
8. SAMPLE OF ALL EQUIPMENT SHALL BE APPROVED BY CLIENT, ARCHITECT AND BUILDING SERVICES ENGINEER PRIOR TO ORDERING.
9. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.

VENTILATION NOTES:

1. DUCTWORK INSTALLATION THROUGHOUT TO BE INSTALLED IN ACCORDANCE WITH HVCA SPECIFICATION DW/144.
2. FIRE DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH HVCA SPECIFICATION DW/145.
3. FIRE DAMPERS SHALL BE INSTALLED WHEREVER A DUCT PENETRATES A FIRE WALL/COMPARTMENT – IT SHALL BE MOUNTED WITHIN THE BUILDING FABRIC AND SECURELY ATTACHED TO IT.
4. MOTORISED SMOKE/FIRE DAMPERS SHALL BE INSTALLED WHEREVER A DUCT PENETRATES A FIRE WALL/COMPARTMENT OF A DEFINED ESCAPE ROUTE. IT SHALL BE MOUNTED WITHIN THE BUILDING FABRIC AND SECURELY ATTACHED TO IT.
5. ALLOW FOR SUPPLYING & INSTALLING ACCESS HATCHES IN THE DUCTWORK AT ALL FIRE DAMPERS.
6. ALL DUCTING AND ASSOCIATED VENTILATION WORKS TO BE CARRIED OUT BY THE MECHANICAL CONTRACTOR.
7. ALLOW FOR POWER SUPPLY & ELECTRICAL CONNECTION TO ALL MECHANICAL ITEMS.
8. DUCTWORK SUPPORTS SHALL GENERALLY BE GALVANISED STEEL SUSPENSION RINGS & FIXINGS SUSPENDED WITH GALVANISED STEEL DROP RODS SECURED TO GALVANISED STEEL SUPPORTS SPANNING THE EXISTING STRUCTURE AT MAXIMUM 1.5m CENTRES – LIAISE WITH STRUCTURAL ENGINEER PRIOR TO COMMENCING WORKS.
9. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR GALVANISED STEEL PLENUM BOXES C/W SUITABLY SIZED SPIGOTS FOR CONNECTION TO ALL GRILLES AND DIFFUSERS.
10. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR SUITABLE GALVANISED STEEL TRANSITION PIECES WHERE DUCTS CONNECT TO LOUVRES & HRU'S.
11. MAINTAIN MINIMUM 1.5m BETWEEN EXHAUST AIR & OUTSIDE AIR INTAKE TERMINALS. FINAL LOCATION OF TERMINALS TO BE AGREED BETWEEN THE MECHANICAL CONTRACTOR AND THE MAIN CONTRACTOR.
12. ALL SUPPLY AIR, RETURN AIR AND OUTSIDE AIR INTAKE DUCTS ABOVE SUSPENDED CEILINGS SHALL BE INSULATED WITH MINIMUM 50mm CLASS 'O' FOIL BACK INSULATION. WHERE NO SUSPENDED CEILINGS ARE PRESENT ALL EXPOSED SUPPLY AIR AND OUTSIDE AIR INTAKE DUCTWORK SHALL BE INSULATED WITH MINIMUM 25mm CLASS 'O' CLOSED CELL INSULATION WITH BUILT IN VAPOUR BARRIER – ARMAFLEX OR EQUIVALENT.
13. ALL CHANGES OF DIRECTION AND BENDS IN THE DUCTWORK INSTALLATION SHALL PERMIT EASY UNOBSTRUCTED AIR FLOW AND INCORPORATE TURNING VANES WHERE REQUIRED.
14. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR OFFSETS AND TRANSITIONS IN DUCTWORK AS REQUIRED FOR COORDINATION WITH SERVICE OPENINGS, STRUCTURAL ELEMENTS AND OTHER SERVICES.
15. WHERE FLEXIBLE DUCT CONNECTIONS ARE REQUIRED THEY SHALL BE THE SAME DIAMETER AS THE ASSOCIATED RIGID DUCT. FINAL CONNECTIONS SHALL BE SECURED WITH A PROPRIETARY WORM DRIVE BAND CLIP.
16. GRILLES AND DIFFUSERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. THE FINAL LOCATIONS OF DIFFUSERS & GRILLES TO BE DETERMINED AND CO-ORDINATED ON SITE.
17. VOLUME CONTROL DAMPERS SHALL BE PROVIDED IN THE DUCTWORK AS INDICATED AND WHERE NECESSARY FOR CONTROL, BALANCING & DISTRIBUTION.
18. ON COMPLETION THE DUCTWORK INSTALLATION SHALL BE THOROUGHLY CLEANED, TESTED AND BALANCED IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS.
19. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR A 1.0m LONG ATTENUATION SECTION ON THE SUCTION SIDE OF ALL FANS.
20. HEAT RECOVERY UNITS SHALL BE INTERFACED WITH THE FIRE ALARM & DETECTION SYSTEM SUCH THAT THEY SHALL SHUT OFF UPON FIRE ALARM ACTIVATION – LIAISE WITH ELECTRICAL CONTRACTOR.
21. THE MAIN CONTRACTOR SHALL SUPPLY & INSTALL ALL EXTERNAL WALL/WEATHER LOUVRES AS INDICATED ON THIS DRAWING – ALL TO BE METAL ANODISED TO SELECTED COLOUR BY MAIN CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR SUPPLYING & INSTALLING SUITABLE INSULATED GALVANISED STEEL PLENUMS TO FACILITATE DUCTWORK CONNECTIONS TO THE WALL LOUVRES.

Revision	Description	Date	Drawn	Checked
1	Construction Issue	May 2026	RJM	CG
0	Construction Issue	April 2024	RJM	CG

GEANEY ENGINEERING CONSULTANTS
STUDIO 22,
WATERFORD BUSINESS PARK,
CORK ROAD,
WATERFORD,
IRELAND.
TEL: 051-879371
FAX: 051-853188
EMAIL: info@geaneyengineering.ie

project title:
Dunhill Eco Centre
Proposed Offices
Dunhill, Co. Waterford

drawing title:
Ventilation Services Layout
First Floor

architect: The E Project Charted Architects

scale: 1:100 @ A3

drawing number: M1

project number: 0595