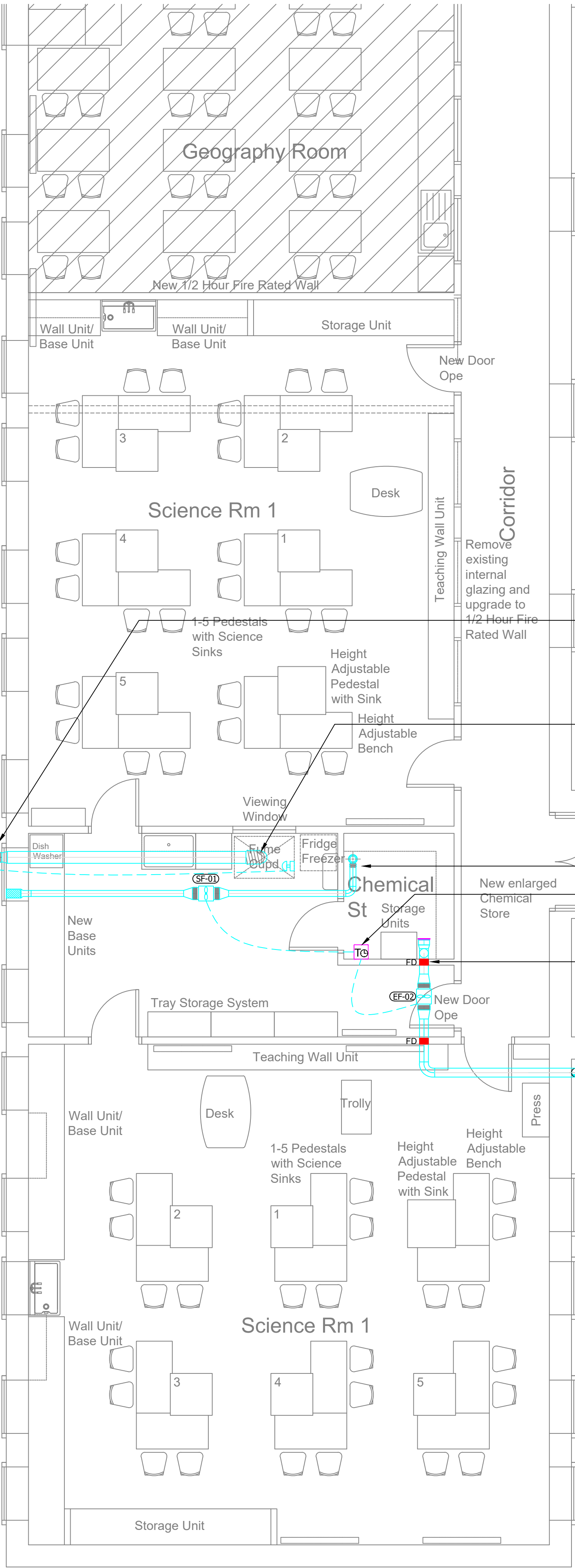




EXTRACT FAN SCHEDULE						
REF	DESCRIPTION	DUTY m³/s	ELECTRICAL	FUSE RATING (HRC)	CONTROL	ACCESSORIES
EF-01	ANTI CORROSIVE, SINGLE INLET, DIRECT DRIVE CENTRIFUGAL FAN	0.250@ 250Pa	240V/1Ø/50Hz	RC – 0.24A	VIA FUME CUPBOARD	BACK DRAUGHT SHUTTER, SOUND ATTENUATOR, EXTERIOR WALL MOUNTING BRACKET, MOTOR WEATHER COVER
EF-02	EXTRACT FAN	0.035@ 100Pa	240V/1Ø/50Hz	XX A	SCIENCE PREP CHEMICAL STORE - CONTROL VIA TIMECLOCK TO RUN 30Mins EVERY 8 HOURS	INTEGRAL GRILLE, BACKDRAUGHT SHUTTER, DISCHARGE WEATHER LOUVER
SF-01	SUPPLY FAN	0.030@ 100Pa	240V/1Ø/50Hz	XX A	SCIENCE PREP CHEMICAL STORE - CONTROL VIA TIMECLOCK TO RUN 30Mins EVERY 8 HOURS	INTEGRAL GRILLE, BACKDRAUGHT SHUTTER, DISCHARGE WEATHER LOUVER

GENERAL VENTILATION NOTES

COMPONENTS FOR SHEET METAL DUCTWORK SHALL BE MANUFACTURED TO A HIGH STANDARD OF CONSTRUCTION AND FINISH. GENERALLY TO COMPLY WITH THE SPECIFICATION FOR SHEET METAL DUCTWORK, DW/144, AS PUBLISHED BY THE HEATING AND VENTILATING CONTRACTORS' ASSOCIATION (HVCA).

ALL OPENINGS FOR PASSAGE OF DUCTWORK TO BE MADE GOOD AND AIR TIGHT BY MAIN CONTRACTOR AFTER INSTALLATION OF ALL SERVICES.

ALL FANS SHALL BE MOUNTED WITH ANTI-VIBRATION MOUNTINGS. ALL FANS SHALL BE PROVIDED WITH MATCHED FLEXIBLE DUCTWORK CONNECTIONS.

ALL BRANCHES TO HAVE VCD's INSTALLED.

EXTRACT FANS
PROVIDE A DEDICATED MECHANICAL EXTRACT VENTILATION SYSTEM SERVING THE CHEMICAL STORE. THE EXTRACT SYSTEM SHALL OPERATE VIA A TIME CLOCK SET TO VENTILATE THE SPACE FOR 30MINUTES EVERY 8HOURS AND MAINTAIN THE STORE UNDER NEGATIVE PRESSURE RELATIVE TO ADJACENT ROOMS. EXTRACT AIR SHALL DISCHARGE DIRECTLY TO EXTERNAL ATMOSPHERE AND SHALL NOT BE RECIRCULATED.

THE VENTILATION SYSTEM SHALL PROVIDE A MINIMUM OF 2 AIR CHANGES PER HOUR WITHIN THE CHEMICAL STORE. WHERE THE ROOM IS OCCUPIED FOR PREPARATION WORK OR PROLONGED ACCESS, PROVISION SHALL BE MADE TO INCREASE VENTILATION RATES TO NOT LESS THAN 5 AIR CHANGES PER HOUR.

EXTRACT GRILLES SHALL BE LOCATED AT LOW LEVEL TO REMOVE HEAVIER-THAN-AIR VAPOURS, WITH MAKE-UP AIR PROVIDED FROM AN ADJACENT AREA OR DIRECTLY FROM OUTSIDE. THE EXTRACT FAN AND ASSOCIATED COMPONENTS SHALL BE SUITABLE FOR USE IN A CHEMICAL STORAGE ENVIRONMENT.

THE INSTALLATION SHALL COMPLY WITH CURRENT DEPARTMENT OF EDUCATION GUIDANCE, HEALTH AND SAFETY AUTHORITY REQUIREMENTS, AND RELEVANT CIBSE AND BUILDING SERVICES STANDARDS.

DUCTWORK SUPPORTS
DUCTWORK, BOTH CIRCULAR AND RECTANGULAR, HIGH VELOCITY AND LOW VELOCITY SHALL BE SUPPORTED IN ACCORDANCE WITH THE HVCA SPECIFICATION DW/144.

INSULATION
ALL DUCT INSULATION SHALL BE FACED WITH "BRIGHT CLASS O" GLASS REINFORCED ALUMINIUM FOIL LAMINATE CONTINUOUSLY BONDED TO THE INSULATION AT THE MANUFACTURER'S WORKS.

THE INSULATION SHALL BE BONDED TO THE DUCTWORK WITH IDENDEN 10-88 INSULATION ADHESIVE AND SECURED BY IDENDEN INSULATION SUPPORT PINS OR BANDING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

FLEXIBLE DUCTWORK
WHERE FLEXIBLE DUCTWORK IS INDICATED OR REQUIRED BETWEEN RIGID DUCTWORK AND PARTICULAR COMPONENTS (CEILING MOUNTED GRILLES) OR ITEMS OF EQUIPMENT, THE INTERNAL DIAMETER OF THE RIGID DUCTWORK AND OF THE SPIGOT SERVED SHALL BE EQUAL. THE USE OF FLEXIBLE DUCT BETWEEN RIGID SECTIONS OF SHEET METAL DUCTWORK TO CHANGE DIRECTION OR PLANE SHALL NOT BE PERMITTED, EXCEPT WHERE INDICATED OR EXPRESSLY AUTHORISED BY THE ENGINEER. BENDS OR OFFSETS IN FLEXIBLE DUCTING SHALL BE OF THE SLOW TYPE AND THE MINIMUM OF DUCTING REQUIRED BETWEEN TWO FIXTURES SHALL BE INSTALLED IN ALL INSTANCES. FLEXIBLE DUCTWORK TO GRILLES SHALL NOT EXCEED 1M IN LENGTH WITHOUT WRITTEN PERMISSION BY THE ENGINEER OR PASS THROUGH FIRE COMPARTMENT WALLS, FLOORS OR CAVITY BARRIERS.

AIR TERMINALS, GRILLES AND LOUVRES
THESE SHALL BE AS MANUFACTURED BY GILBERTS (BLACKPOOL) LTD, OR EQUAL AND APPROVED AND OF THE SIZES, TYPES AND HANDLING THE AIR VOLUME AS DETAILED WITHIN THE SCHEDULES. EACH SUPPLY AND EXHAUST GRILLE SHALL BE FABRICATED IN ALUMINIUM WITH A STOVE ENAMELED WITH A COLOUR FINISH AS SELECTED BY THE ARCHITECT.

ALL SUPPLY AND EXHAUST GRILLES SHALL BE COMPLETE WITH A PURPOSE MADE GRILLE BOX TO SUIT THE GRILLE DIMENSIONS AND WITH A SUITABLY SIZED CIRCULAR OR RECTANGULAR SPIGOT PIECE TO CONNECT TO THE MAIN DUCTING.

EACH SUPPLY AND EXTRACT GRILLE SHALL BE SUPPLIED AND FITTED WITH A MULTI-BLADE VOLUME CONTROL DAMPER FITTED BY THE MANUFACTURERS.

LIAISON BETWEEN THE ALL CONTRACTORS ON SITE

THE MAIN CONTRACTOR, THE MECHANICAL CONTRACTOR & THE ELECTRICAL CONTRACTOR SHALL REMAIN IN CONSTANT COMMUNICATION WITH EACH OTHER AND OTHER EMPLOYED SPECIALISTS/SUPPLIERS. THE MECHANICAL & ELECTRICAL CONTRACTORS MUST AGREE CO-ORDINATION ROUTES OF SERVICES AND PLACING OF PLANT AND EQUIPMENT ASSOCIATED WITH THE PROPOSED WORKS, SHOULD THERE BE ANY CLASHING OF SERVICES. THE MECHANICAL AND ELECTRICAL CONTRACTORS SHALL RELOCATE AND RESOLVE THE ISSUES AT THEIR OWN EXPENSE.

THE MECHANICAL CONTRACTOR SHALL TIMEOUSLY INFORM THE ELECTRICAL CONTRACTOR OF ALL THEIR POWER AND CABLE REQUIREMENTS E.G. FOR THE VENTILATION FANS, THE CONTROLS INSTALLATIONS, ETC. LIKEWISE THE ELECTRICAL CONTRACTOR IS TO DETERMINE FROM THE MECHANICAL CONTRACTOR FINAL LOCATIONS OF ALL ITEMS OF MECHANICAL PLANT AND EQUIPMENT PRIOR TO FIRST FIX WORKS TO ABLE INSTALLATION OF SUPPLIES TO CORRECT LOCATIONS.

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MECHANICAL CONTRACTOR TO INCLUDE FOR FIRE DAMPERS WHERE DUCT PASSES THROUGH FIRE RATED WALLS.

MECHANICAL CONTRACTOR TO ENSURE VENTILATION DUCT IS COORDINATED WITH THE LIGHTS/STRUCTURAL BEAMS.



Proposed Floor Plan

IPSUM ENGINEERS operate a Quality Assurance System to ISO 9001.

SERVICE INFORMATION ONLY TO BE TAKEN FROM THIS DRAWING.

Use figure dimensions - DO NOT SCALE FROM THIS DRAWING.

Where Architects details are shown on this drawing, these are indicative and reference should be made to the appropriate Architect's drawing.

Rev.	Date	Description	Eng.	App.

Drawing number.

PL-M57-001

Client.

SCOIL MHUIRE BUNCRANA

Architect.

AL ARCHITECTS LTD
OFFICE 8B
THE COURTYARD
LOWER MAIN STREET
LETTERKENNY
CO.DONEGAL

Project.

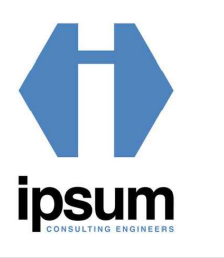
REFURBISHMENT OF SCIENCE ROOMS
SCOIL MHUIRE BUNCRANA
CO.DONEGAL

Service.

MECHANICAL

Drawing Status.

TENDER



Mechanical & Electrical
Consulting Engineers

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Letterkenny, County Donegal, Ireland
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Eng./CAD	CMcC	Checked.	RD
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Title.

SCIENCE CLASSROOMS 1 & 2
SECOND FLOOR

VENTILATION SERVICES LAYOUT

Scale(s).	1:50 @ A1	Date.	MAY.2026
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Project Number.	6447	Revision.	T0
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Drawing number.

PL-M57-001