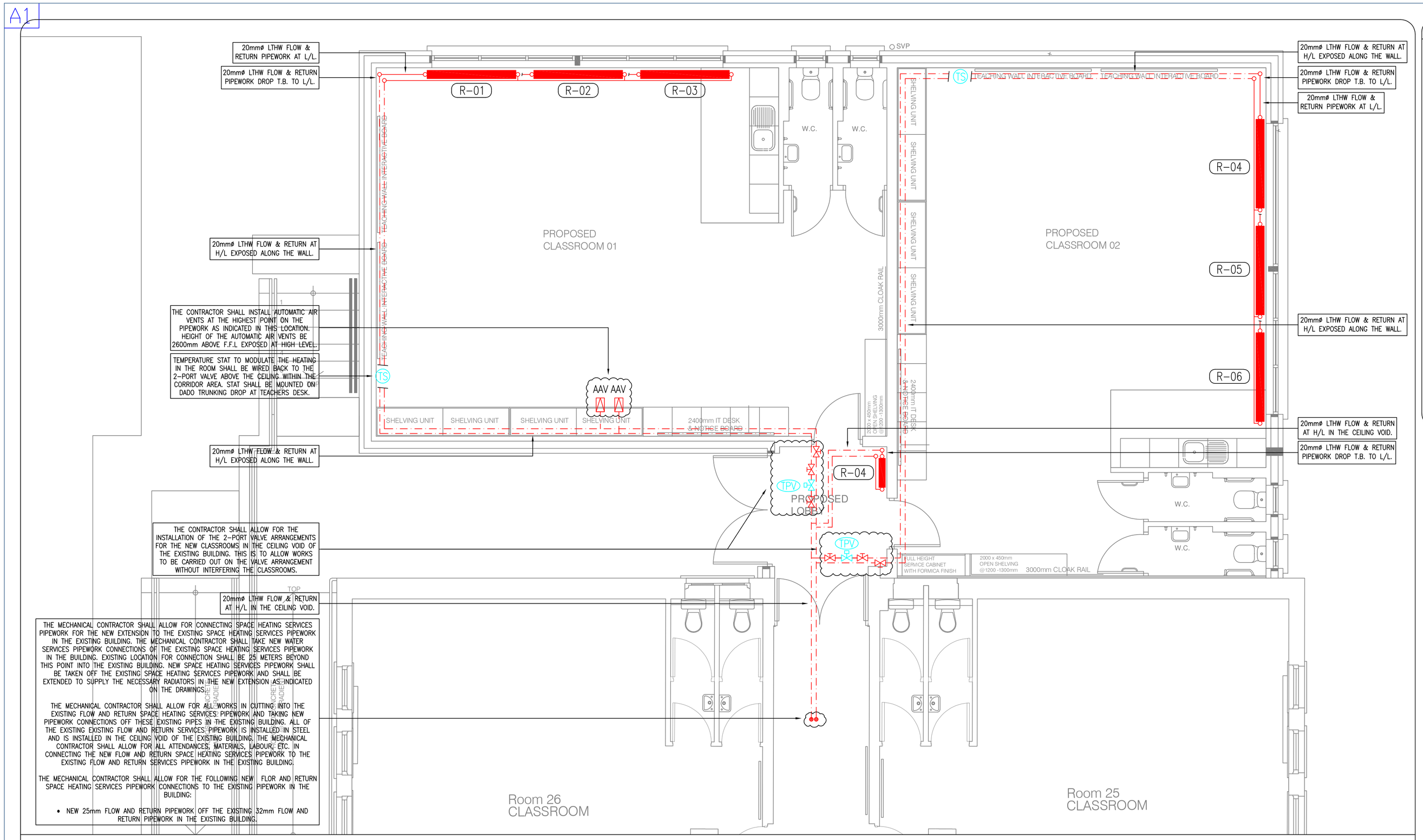
A1



SPACE HEATING SERVICES LAYOUT (SCALE 1:50)

SPACE HEATING SERVICES LEGENDS

	WALL MOUNTED RADIATOR
R-*	SURFACE MOUNTED RADIATOR (* DENOTES RADIATOR NUMBER AND TYPE)
TPV	2-PORT ROOM MOTORISED VALVE (LINKED TO THERMOSTAT IN ROOM)
	ISOLATION VALVE
	COMMISSIONING SET (DOUBLE REGULATION VALVE)
DC	DRAIN COCK
TS	WALL MOUNTED ROOM THERMOSTAT (LINKED TO 2-PORT VALVE)
	CONTROL WIRING
AAV	AUTOMATIC AIR VENT
BOE	BOTTOM OPPOSITE END
F&R	FLOW AND RETURN
	SURFACE RUN LPHW FLOW AND RETURN PIPEWORK
	DROP/RISE IN PIPEWORK
	LPHW FLOW & RETURN PIPEWORK AT HIGH LEVEL EXPOSED (VISIBLE)
T.B.	TO BELOW
T.A.	TO ABOVE
L/L	LOW LEVEL
H/L	HIGH LEVEL
D.T.L.L.	DOWN TO LOW LEVEL
F.B.	FROM BELOW
F.A.	FROM ABOVE

GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL MECHANICAL, ELECTRICAL, ARCHITECTURAL AND STRUCTURAL DRAWINGS & SPECIFICATIONS.

2. THE CONTRACTOR SHALL CO-ORDINATE FULLY WITH ALL OTHER TRADES BEFORE COMMENCING WORK. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL THE NECESSARY INFORMATION TO ALLOW THE MAIN CONTRACTOR CO-ORDINATE ALL SERVICES.

3. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR CO-ORDINTATING THE MECHANICAL INSTALLATION WITH THE ELECTRICAL CONTRACTOR ON SITE. EXTRA COSTS INCURRED DUE TO THE CO-ORDINATION EXERCISE NOT BEING COMPLETED WILL NOT BE ACCEPTED BY THE ENGINEER.

4. DO NOT SCALE THIS DRAWING. ALL DIMENSIONS TO BE TAKEN ON SITE.

5. THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL MECHANICAL SERVICES INDICATED ON THIS DRAWING.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY SUITABLE FINAL ROUTES FOR PIPEWORK, MECHANICAL SERVICES, ETC. AS INDICATED ON THE DRAWINGS.

7. NEW MAINS RUN OF MECHANICAL PIPEWORK SHALL BE INSTALLED IN THE AREAS AS INDICATED. THIS IS INDICATIVE ONLY AND IF THE CONTRACTOR FINDS A MORE CONVENIENT ROUTE FOR THE MECHANICAL SERVICES ON SITE THEN THAT WILL BE ACCEPTABLE.

8. FINAL LOCATION OF ALL ITEMS OF PLANT/EQUIPMENT/PIPEWORK, ETC. SHALL BE AGREED ON SITE WITH THE EMPLOYERS REPRESENTATIVE AND THE CLIENT.

9. ALL SERVICES THROUGH FIRE BARRIERS SHALL BE SLEEVED EACH SIDE OF THE BARRIER. THE MAIN CONTRACTOR SHALL ALLOW FOR FIRE PROOFING THE OPES AFTER SERVICES IS INSTALLED.

10. THE CONTRACTOR SHALL ALLOW FOR ALL NECESSARY LABOUR, WIRING AND ATTENDANCES IN COMPLETING ALL THE MECHANICAL WORKS AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS.

11. THE CONTRACTOR SHALL REFER TO THE KEY PLAN ON THE DRAWING WHICH INDICATES WHERE WORKS WILL BE REQUIRED TO BE CARRIED OUT IN THE BUILDING.

SPACE HEATING SERVICES NOTES:

12. THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL LTHW HEATING FLOW AND RETURN SERVICES PIPEWORK AND ALL ANCILLARY EQUIPMENT THROUGHOUT THE BUILDING AS INDICATED ON THE DRAWINGS.

13. FINAL LOCATION OF ALL ITEMS OF PLANT/EQUIPMENT/PIPEWORK ROUTES, ETC. SHALL BE AGREED ON SITE WITH THE EMPLOYERS REPRESENTATIVE AND THE CLIENT.

14. REFER TO ALL OTHER DRAWINGS FOR SPECIFIC LAYOUT OF REQUIRED SERVICES THROUGHOUT THE BUILDING.

15. ALL PIPES IN CEILING VOIDS, BOX-OUTS ATTIC SPACES AND OTHER NON-OCCUPIED AREAS ARE TO BE INSULATED. INSULATION SHALL BE FOILED BACK MINERAL WOOL INSULATION. INSULATION SHALL BE FITTED TO ALL CONNECTIONS, BENDS, TEE'S AND VALVES.

16. THE CONTRACTOR SHALL ENSURE ALL RADIATORS ARE MEASURED IN RELEVANT LOCATIONS PRIOR TO ORDERING.

17. FINAL LOCATIONS OF ALL RADIATORS TO BE CO-ORDINATED ON SITE WITH FIXED FURNITURE LAYOUTS.

18. RADIATOR CONNECTIONS SHALL BE BOTTOM OPPOSITE END UNLESS OTHERWISE STATED RADIATOR CONNECTIONS TO BE 15mm FOR RADIATORS UP TO 4000 WATTS & 22mm ABOVE 4000 WATTS. ALL CONNECTIONS TO RADIATORS SHALL BE ø15mm, UNLESS INDICATED OTHERWISE.

19. ALLOW FOR INSTALLING 2-PORT VALVES C/W STATS ON PIPEWORK TO RADIATORS IN CLASSROOMS AS INDICATED. SEE DETAIL ON DRAWING FOR PIPING ARRANGEMENT OF 2-PORT VALVES IN ROOMS.

20. AUTOMATIC AIR VENTS SHALL BE PROVIDED AT ALL HIGH POINTS THROUGHOUT THE SYSTEM.

21. THE MECHANICAL CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL ITEMS INDICATED ON THIS DRAWING i.e. RADIATORS, LPHW FLOW AND RETURN SERVICES PIPEWORK, CONTROLS, TWO-PORT VALVES, ETC.

22. THE HEATING SYSTEM FLOW AND RETURN LPHW PIPEWORK SHALL BE INSTALLED IN MEDIUM GRADE BLACK MILD STEEL TUBE.

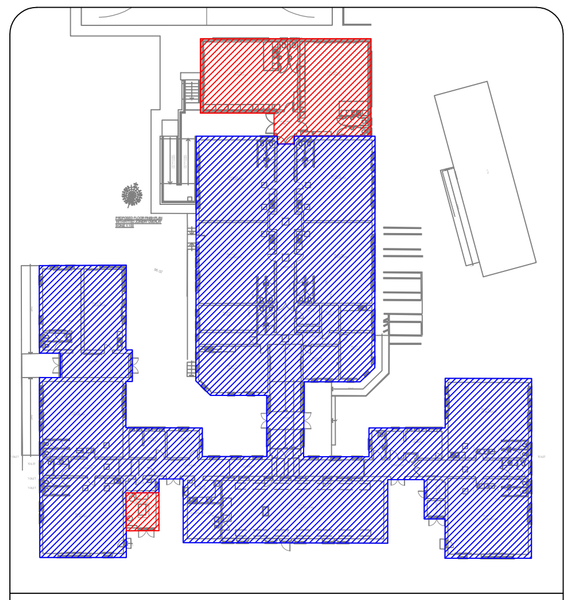
23. ALL PIPEWORK IS SIZED BASED ON A FLOW TEMPERATURE OF 80 DEGREES CELSIUS AND A RETURN TEMPERATURE OF 60 DEGREES CELSIUS.

24. ALL SURFACE MOUNTED LPHW PIPEWORK SHALL BE MEDIUM GRADE BLACK MILD STEEL TUBE.

25. THE MAJORITY OF THE RADIATORS THROUGHOUT THE BUILDING SHALL BE SURFACE MOUNTED.

27. THE NEW SPACE HEATING SYSTEM SHALL CONNECT TO THE EXISTING HEATING SYSTEM IN THE EXISTING BOILERHOUSE AND SHALL BE LINKED INTO 'HEATING ZONE 1'. THE CONTRACTOR SHALL CONNECT INTO THE EXISTING 40mm PIPEWORK AT HIGH LEVEL.

28. SOME OF THE NEW PIPEWORK SHALL RUN WITHIN THE EXISTING ATTIC SPACE OF THE BUILDING IN ORDER TO SERVE THE NEW EXTENSION. REFER TO THE DRAWING FOR ROUTE OF PIPEWORK IN THE ATTIC SPACE.



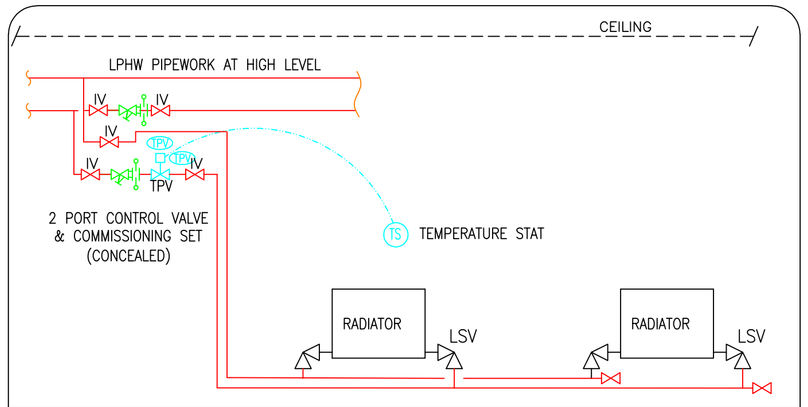
AREA OF THE BUILDING WHERE MINIMAL WORKS SHALL BE CARRIED OUT OTHER THAN CONNECTING EXISTING SERVICES TO THE NEW SERVICES WITHIN THE NEW EXTENSION OF THE BUILDING.

NEW EXTENSION OF THE BUILDING. THE MAJORITY OF THE WORKS SHALL BE CARRIED OUT IN THIS AREA OF THE BUILDING.

KEY PLAN OF THE BUILDING (SCALE 1:500)

RADIATOR SCHEDULE

Reference		Qty	Location	Output Per Rad (Watts)	Length (mm)	Height (mm)	Width (mm)	Type	Connection
RAD:	R-01 to R-03	3	New Classroom 01	2413	1630	440	180	MAXW.044.163.180.233.WT	BOE
RAD:	R-04 to R-06	3	New Classroom 02	2413	1630	440	180	MAXW.044.163.180.233.WT	BOE
RAD:	R-07	1	Proposed Lobby	718	630	440	130	MAXW.044.063.233.WT	BOE



TYPICAL SPACE HEATING PIPEWORK DETAIL FOR CLASSROOM

REV	DATE	PREPARED BY/PROJECT ENGINEER	QUALITY CHECK BY:
T1	22.06.26	J. O'SULLIVAN	G. BENNDORF

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BRAY,
CO. WICKLOW.

Drawing Title: SPACE HEATING SERVICES LAYOUT.

Architect: MCLOUGHLIN ARCHITCTURE
Unit 4B, Elm House
Millennium Park, Naas
Co.Kildare, Ireland
Tel. 045 854 900

Drawing No: 56(M001)

Job No.	Drawn by:	Scale:	Rev.
21-008	J.O'S	AS INDICATED	T1