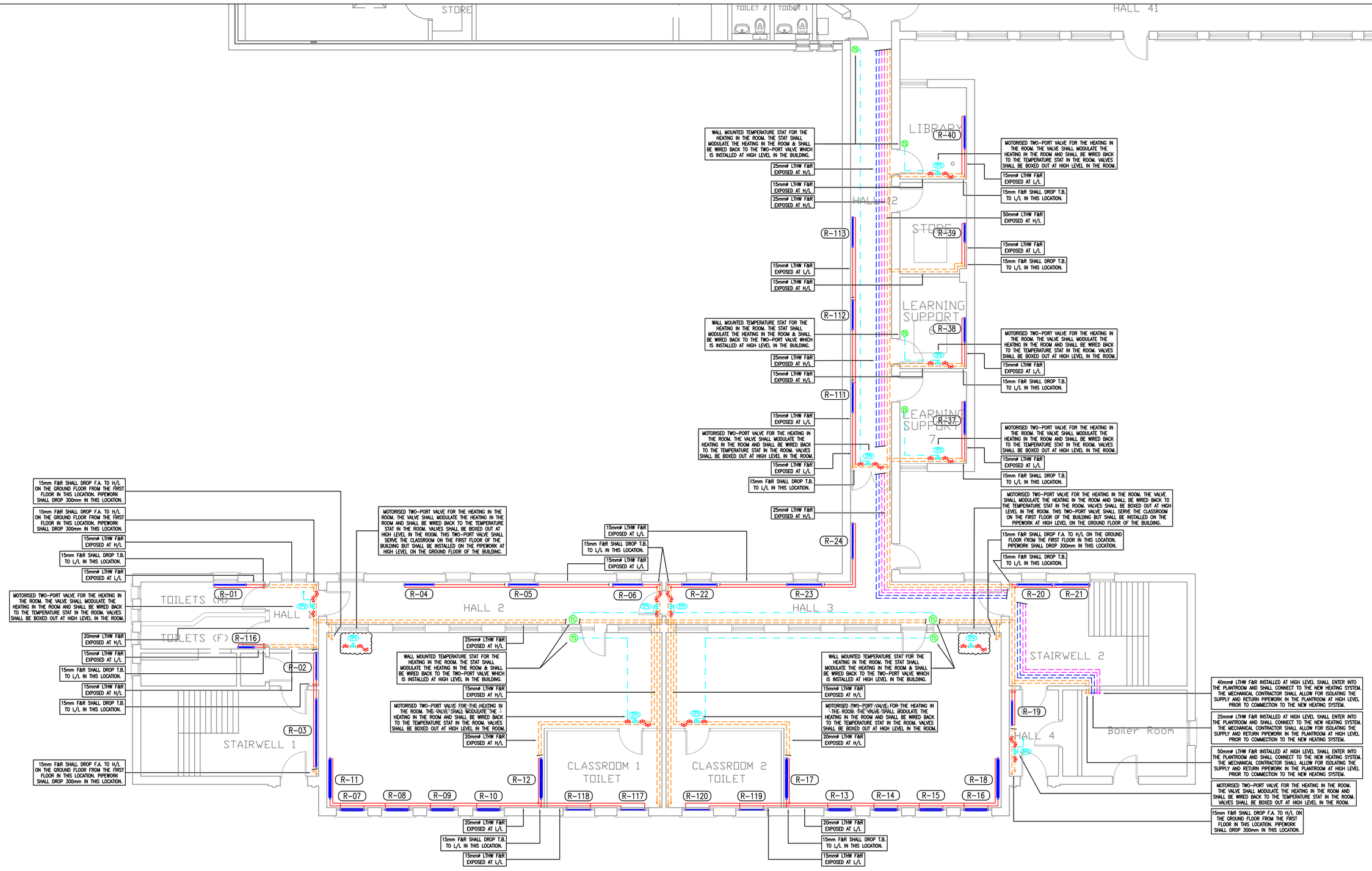
A1



SPACE HEATING SERVICES LAYOUT FOR 'AREA B' OF THE EXISTING BUILDING (SCALE 1:100)

SPACE HEATING SERVICES LEGENDS AND SYMBOLS

	NEW WALL MOUNTED STEEL PANEL RADIATOR (ALL RADIATORS SHALL BE A STEEL PANEL RADIATORS)
R-**	NEW SURFACE MOUNTED STEEL PANEL RADIATOR (** DENOTES RADIATOR NUMBER AND TYPE)
TPV	TWO-PORT ROOM MOTORISED VALVE (LINKED TO THERMOSTAT IN ROOM)
IV	ISOLATION VALVE
CV	COMMISSIONING SET (DOUBLE REGULATION VALVE)
DC	DRAIN COCK
TS	WALL MOUNTED ROOM THERMOSTAT (LINKED TO TWO-PORT VALVE)
	CONTROL WIRING BETWEEN TEMPERATURE STAT AND TWO-PORT VALVE
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT HIGH LEVEL FOR 'HEATING ZONE 1' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	DROP/RISE IN HEATING SERVICES PIPEWORK FOR 'HEATING ZONE 1'
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT LOW LEVEL FOR 'HEATING ZONE 1' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT HIGH LEVEL FOR 'HEATING ZONE 2' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	DROP/RISE IN HEATING SERVICES PIPEWORK FOR 'HEATING ZONE 2'
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT LOW LEVEL FOR 'HEATING ZONE 2' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT HIGH LEVEL FOR 'HEATING ZONE 3' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	DROP/RISE IN HEATING SERVICES PIPEWORK FOR 'HEATING ZONE 3'
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK AT LOW LEVEL FOR 'HEATING ZONE 3' (PIPEWORK IS NOT REQUIRED TO BE INSULATED)
	NEW SURFACE RUN LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK DROPPING FROM CEILING LEVEL TO LOW LEVEL.
T.B.	TO BELOW
T.A.	TO ABOVE
L/L	LOW LEVEL
H/L	HIGH LEVEL
F.B.	FROM BELOW
F.A.	FROM ABOVE
TRV	THERMOSTATIC RADIATOR VALVE
AAV	AUTOMATIC AIR VENT
BOE	BOTTOM OPPOSITE END
F&R	HEATING SERVICE FLOW AND RETURN PIPEWORK

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 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY RESOURCES FOR THE SUCCESSFUL CO-ORDINATION OF THE WORKS. THE CONTRACTOR SHALL ALLOW FOR CO-ORDINATING 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.

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

4. EXACT LOCATIONS OF ALL SERVICES TO BE AGREED ON SITE. FINAL LOCATIONS OF ALL SERVICES TO BE CO-ORDINATED ON SITE WITH FIXED FURNITURE LAYOUTS.

5. THE CONTRACTOR SHALL ALLOW FOR ALL DECOMMISSIONING WORKS AS IDENTIFIED ON THE DRAWINGS AND IN THE SPECIFICATIONS.

6. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY SUITABLE FINAL ROUTES FOR PIPEWORK ROUTES. ROUTES THAT ARE INDICATED ON THE DRAWING ARE ONLY INDICATIVE.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MECHANICAL WORKS, ELECTRICAL WORKS, BUILDERS WORKS, BUILDING FINISHES, ETC. AS IDENTIFIED ON THE DRAWINGS AND IN THE SPECIFICATIONS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ELECTRICAL WORKS AND SHALL EMPLOY A SUITABLY QUALIFIED ELECTRICAL TO CARRY OUT ALL THE ASSOCIATED ELECTRICAL WORKS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BUILDERS WORKS AND SHALL EMPLOY A SUITABLY QUALIFIED BUILDING CONTRACTOR TO CARRY OUT ALL THE ASSOCIATED BUILDERS WORKS.

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

11. THE CONTRACTOR SHALL ALLOW FOR DECOMMISSIONING THE EXISTING SPACE HEATING INSTALLATION THROUGHOUT THE EXISTING SCHOOL BUILDING AS INDICATED ON THE DRAWINGS. THE WORKS INCLUDE DECOMMISSIONING AND REMOVING ALL EXISTING RADIATORS, ASSOCIATED HEATING SERVICES PIPEWORK, CONTROLS, ETC. THROUGHOUT THE EXISTING SCHOOL BUILDING.

THE EXISTING HEATING CENTRE AND HEATING PLANT IN THE BOILERHOUSE SHALL BE REPLACED IN THE BOILERHOUSE AS PART OF THE WORKS ON-SITE. REFER TO DRAWING 51(M001) FOR DETAILS ON THE NEW BOILER PLANT IN THE EXISTING BOILERHOUSE.

12. THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF NEW LPHW FLOW AND RETURN PIPEWORK FROM THE BOILERHOUSE TO THROUGHOUT THE EXISTING SCHOOL BUILDING TO SUPPLY THE NEW RADIATORS AS INDICATED ON THE DRAWINGS.

13. THE CONTRACTOR SHALL ALLOW FOR THE SUPPLY AND INSTALLATION OF ALL LTHW HEATING FLOW AND RETURN SERVICES PIPEWORK, RADIATORS, TWO-PORT VALVES, STATS, ANCILLARY EQUIPMENT, ETC. THROUGHOUT THE BUILDING AS INDICATED ON THE DRAWINGS. THE 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.

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

15. REFER TO ALL OTHER DRAWINGS FOR SPECIFIC LAYOUT OF REQUIRED SERVICES THROUGHOUT THE EXISTING SCHOOL BUILDING.

16. 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.

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

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

19. RADIATOR CONNECTIONS SHALL BE BOTTOM SAME END UNLESS OTHERWISE STATED. ALL CONNECTIONS TO RADIATORS SHALL BE ø15mm, UNLESS INDICATED OTHERWISE.

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

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

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

23. ALL OF NEW RADIATORS THROUGHOUT THE EXISTING SCHOOL BUILDING SHALL BE STANDARD STEEL PANEL RADIATORS.

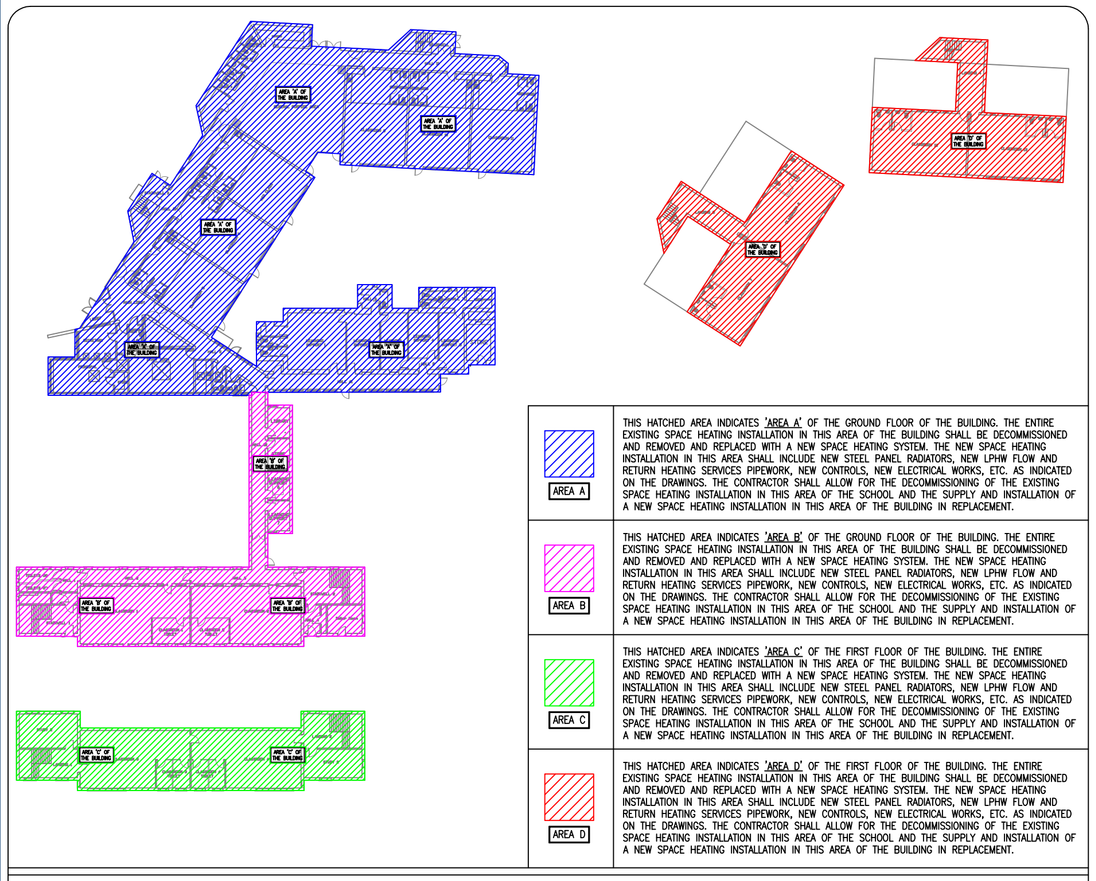
24. DRAIN VALVES SHALL BE PROVIDED AT ALL LOW POINTS THROUGHOUT THE SYSTEM.

25. UNLESS INDICATED, THE SIZE OF ISOLATION VALVES, DRAIN VALVES, COMMISSIONING VALVES, ETC. SHALL MATCH THE INDICATED LINE SIZE OF THE PIPEWORK, WHERE THE EQUIPMENT IS INDICATED.

26. THE CONTRACTOR SHALL ALLOW FOR ALL NECESSARY BUILDERS WORKS FOR THE MECHANICAL AND ELECTRICAL INSTALLATIONS THROUGHOUT THE BUILDING.

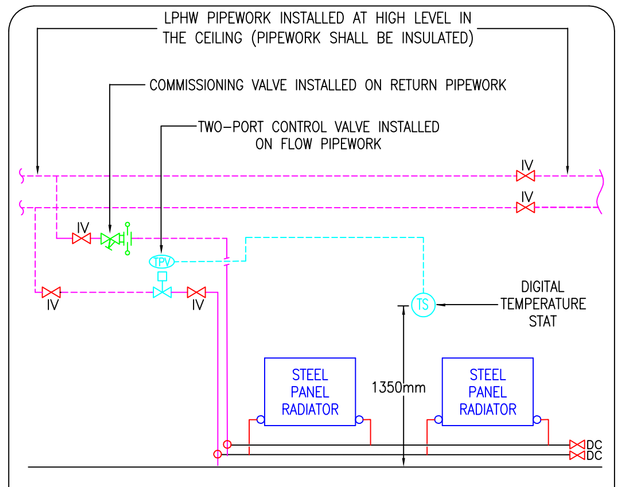
27. THE CONTRACTOR SHALL ALLOW FOR ALL BENDS, ELBOWS AND NECESSARY PIPEWORK IN ORDER TO INSTALL THE COMPLETE HEATING SYSTEM.

28. THE CONTRACTOR SHALL REFER TO THE PARTICULAR SPECIFICATION AND 51(M002) FOR THE RADIATOR SCHEDULE FOR THE RADIATORS TO BE INSTALLED THROUGHOUT THE BUILDING.

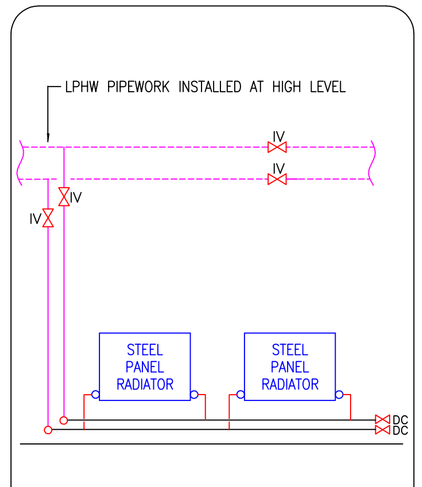


AREA A	THIS HATCHED AREA INDICATES 'AREA A' OF THE GROUND FLOOR OF THE BUILDING. THE ENTIRE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING SHALL BE DECOMMISSIONED AND REMOVED AND REPLACED WITH A NEW SPACE HEATING SYSTEM. THE NEW SPACE HEATING INSTALLATION IN THIS AREA SHALL INCLUDE NEW STEEL PANEL RADIATORS, NEW LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK, NEW CONTROLS, NEW ELECTRICAL WORKS, ETC. AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ALLOW FOR THE DECOMMISSIONING OF THE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE SCHOOL AND THE SUPPLY AND INSTALLATION OF A NEW SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING IN REPLACEMENT.
AREA B	THIS HATCHED AREA INDICATES 'AREA B' OF THE GROUND FLOOR OF THE BUILDING. THE ENTIRE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING SHALL BE DECOMMISSIONED AND REMOVED AND REPLACED WITH A NEW SPACE HEATING SYSTEM. THE NEW SPACE HEATING INSTALLATION IN THIS AREA SHALL INCLUDE NEW STEEL PANEL RADIATORS, NEW LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK, NEW CONTROLS, NEW ELECTRICAL WORKS, ETC. AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ALLOW FOR THE DECOMMISSIONING OF THE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE SCHOOL AND THE SUPPLY AND INSTALLATION OF A NEW SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING IN REPLACEMENT.
AREA C	THIS HATCHED AREA INDICATES 'AREA C' OF THE FIRST FLOOR OF THE BUILDING. THE ENTIRE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING SHALL BE DECOMMISSIONED AND REMOVED AND REPLACED WITH A NEW SPACE HEATING SYSTEM. THE NEW SPACE HEATING INSTALLATION IN THIS AREA SHALL INCLUDE NEW STEEL PANEL RADIATORS, NEW LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK, NEW CONTROLS, NEW ELECTRICAL WORKS, ETC. AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ALLOW FOR THE DECOMMISSIONING OF THE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE SCHOOL AND THE SUPPLY AND INSTALLATION OF A NEW SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING IN REPLACEMENT.
AREA D	THIS HATCHED AREA INDICATES 'AREA D' OF THE FIRST FLOOR OF THE BUILDING. THE ENTIRE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING SHALL BE DECOMMISSIONED AND REMOVED AND REPLACED WITH A NEW SPACE HEATING SYSTEM. THE NEW SPACE HEATING INSTALLATION IN THIS AREA SHALL INCLUDE NEW STEEL PANEL RADIATORS, NEW LPHW FLOW AND RETURN HEATING SERVICES PIPEWORK, NEW CONTROLS, NEW ELECTRICAL WORKS, ETC. AS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL ALLOW FOR THE DECOMMISSIONING OF THE EXISTING SPACE HEATING INSTALLATION IN THIS AREA OF THE SCHOOL AND THE SUPPLY AND INSTALLATION OF A NEW SPACE HEATING INSTALLATION IN THIS AREA OF THE BUILDING IN REPLACEMENT.

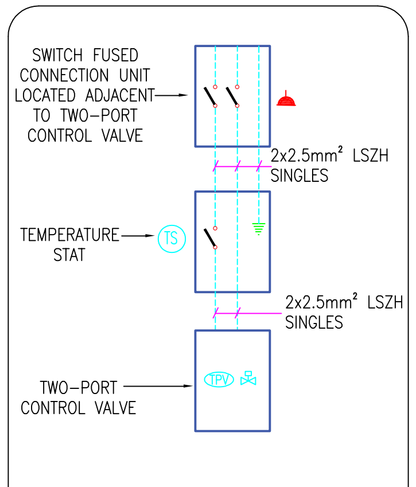
KEY PLAN OF THE ENTIRE BUILDING (SCALE 1:500)



TYPICAL SPACE HEATING PIPEWORK DETAIL FOR ROOM WITH TWO-PORT VALVE AND THERMOSTAT ARRANGEMENT



TYPICAL SPACE HEATING PIPEWORK DETAIL FOR CORRIDORS/TOILETS



TYPICAL 2-PORT MOTORISED CONTROL VALVE WIRING DETAIL

REV	DATE	PREPARED BY/PROJECT ENGINEER	QUALITY CHECK BY:
T1	10.03.26	J. O'SULLIVAN	G. BENNDORF

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CO. WICKLOW.
Y14 YN98.

Drawing Title
SPACE HEATING SERVICES INSTALLATION LAYOUT FOR FOR 'AREA B' OF THE EXISTING SCHOOL BUILDING.

Architect

Drawing No:
56(M002)

Job No.	Drawn by:	Scale:	Rev.
26-052	J.O'S	1:100 on A1	T1