

**Low Temperature Hot Water General Notes:**

- LTHW heating pipework shall be carried out in 'press fit' mild steel.
- Drain cocks shall be provided at all low points and equal tee air bottles at high points in accordance with BS 2879.
- Automatic air vents will be permitted within plant areas only. Inaccessible air vents shall be extended in 15mm copper pipework to low level within nearest accessible plant or store area complete with needle valves.
- All equipment shall be installed in accordance with relevant manufacturers recommendations and accepted good practice. Valve and union connections shall be provided to isolate all equipment.
- Flushing points and drain cocks are to be installed at strategic locations in accordance with the flushing strategy.
- All LTHW heating systems shall be commissioned by an approved reputable commissioning specialist to achieve the flow rates as detailed and shall be witnessed by the Engineer.
- Refer to heating schematic for provision of isolation and balancing valves. Contractor shall allow for isolation valves where the LTHW F&R pipework rises between floors.
- Ensure all LTHW flow and return pipework hole diameters within floor joists are not greater than 0.25 times the depth of a joist or 65mm and located between 0.25 and 0.4 times the span of the support.
- Where pipework runs up through the stairwells the contractor shall include to box in the pipework, where new radiators are shown on piers the contract shall include to box out to the radiators.

Radiator Schedule											
Reference	Area Served / Location	Manufacturer	Model	Type	Width (mm)	Height (mm)	Ambient Temperature (°C)	Room Heat Loss (KW)	Rad Output (KW)	Flow Rate (kg/s)	TRV & LSV
RAD 3/01	179 CLASSBASE	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1800	950	21	-	3.436	0.0409	✓
RAD 3/02	179 CLASSBASE	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1800	950	21	-	3.436	0.0409	✓
RAD 3/03	180 CLASSBASE	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1800	950	21	-	3.436	0.0409	✓
RAD 3/04	180 CLASSBASE	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1800	950	21	-	3.436	0.0409	✓
RAD 3/05	189 QUIET ROOM	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	2000	650	21	-	2.267	0.0270	✓
RAD 3/06	184 CIRCULATION	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1200	1050	19	-	2.514	0.0299	✓
RAD 3/07	183 STORE	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	2000	650	15	-	2.267	0.0270	✓
RAD 3/8	173 CIRCULATION	SENSOTHERM	SAFERAD LST - MODEL C	SEP2	1000	1050	19	-	2.011	0.0239	✓

- Notes
- Radiators selected on 82/71°C LTHW F&R.
  - \*RAD EXC is the existing column radiator.

**Notes**

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All other design team elements, where indicated, have been imported from the consultant's drawings and reference should be made to the individual consultant's drawings for exact setting out, size and type of component.

Discrepancies and / or ambiguities within this drawing, between it and information given elsewhere, must be reported immediately to the engineers for clarification before proceeding.

All works are to be carried out in accordance with the latest British Standards and Codes of Practice unless specifically directed otherwise in the specification.

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**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

Refer to the relevant Construction (Design and Management) documentation where applicable.

It is assumed that all works on this drawing will be carried out by a competent contractor, working where appropriate to an approved method statement.

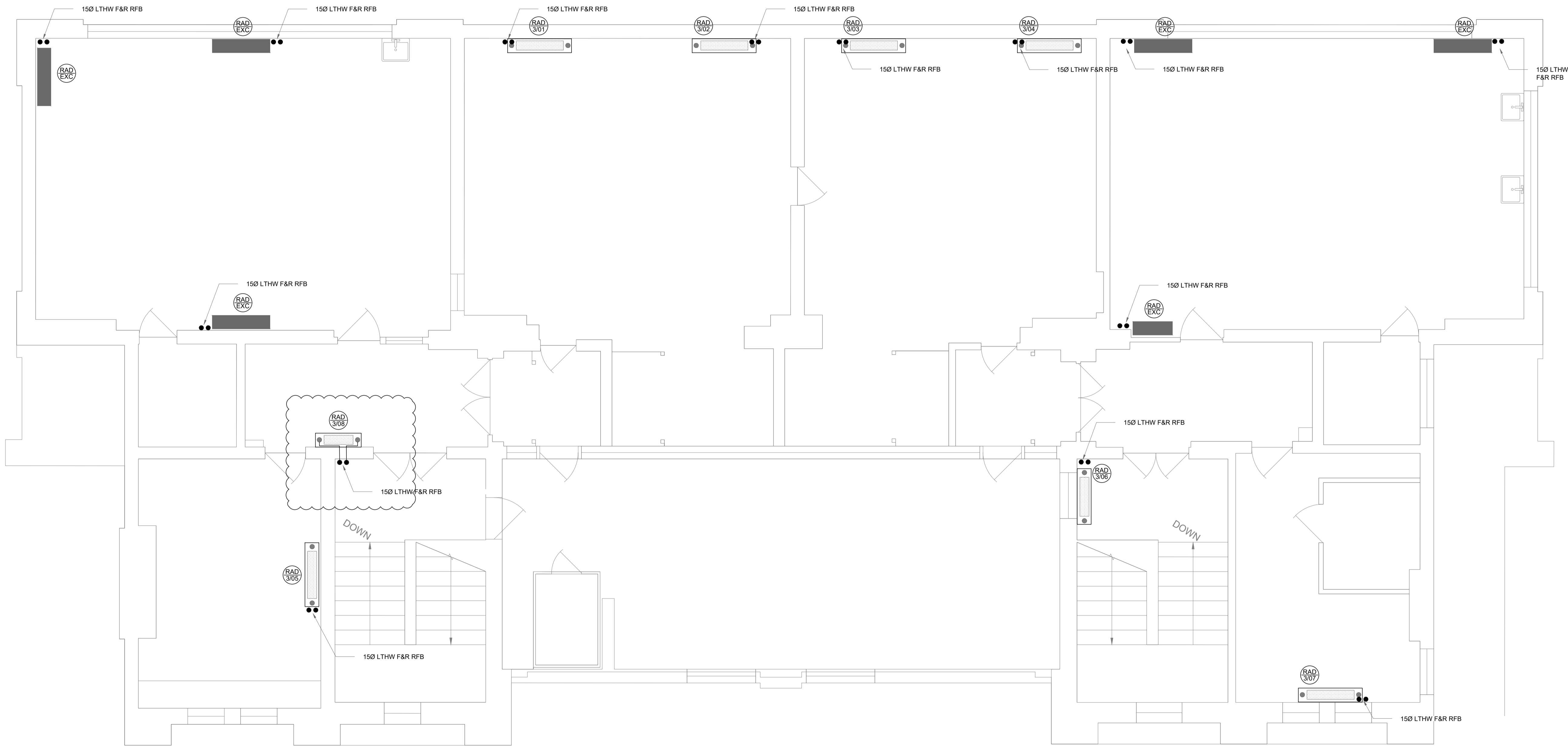
**Project Notes**

The Contractor shall ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the installation. No claim will be considered on the grounds of the lack of site knowledge.

The Contractor shall be responsible for the final coordination of all new and existing services, with the building structure, architecture and fixed furniture and equipment.

The Contractor shall allow for all required changes in height and direction not identified on the drawing and the final setting out of all plant, equipment and services shall be agreed on site with the Engineer.

The Contractor shall be responsible for any temporary access or lifting equipment required to carry out the works.



- Legend:**
- Services run in Floor Void
  - Services at Low Level
  - Services at High Level
  - Services Within Ceiling Void
  - [T] Zonal Thermostat linked to BEMS
  - [V] Isolation Valve / Ball Valve
  - [CV] Commissioning Valve Set
  - [2P] 2-Port Control Valve
  - [PI] Pressure Independent Control Valve
  - [EB] Expansion Bellow (by Specialist)
  - DTLL Drop to Low Level
  - RTA Rise to Above
  - RFB Rise From Below
  - DTB Drop to Below

T1	Pipework Alterations	JC/US/BV	24.01.19
T0	Tender Issue	JC/UC/BV	Dec'18
Rev	Description	By / Chk'd / App'd Date	



Client  
London Borough of Camden

Project  
New End Primary School

Drawing Title  
**Mechanical Services Drawing  
Proposed Heating Layout  
Third Floor**

Purpose of Issue		Status	
<b>Tender Issue</b>		<b>D2</b>	
Project No.	Scale @ A1	Date	
<b>30202</b>	<b>1/50</b>	<b>Dec'18</b>	
Revision	Drawn By	Check By	Approved By
<b>T1</b>	<b>JC</b>	<b>JS</b>	<b>BV</b>

A1 Drawing Identifier  
Project: Origin Zone Level Type Role Class Number  
NEP BPC XX 03 DR M 560 0009  
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