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PREFACE

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Date of Assessment: 7th June 2010

Date of Review: June 2012

INTRODUCTION

This report relates to a water source Risk Assessment carried out by Mr Chris Wilson of Freston Water Treatment Ltd on the 7th June 2010 on behalf of Hampshire County Council. The survey was carried out at Lakeside School, Winchester Road, Chandlers Ford, Eastleigh, Hampshire SO53 2DW. During the course of the survey water systems within the properties were risk assessed. These sources were chosen as being fully representative of the overall domestic water systems and outlets within the buildings.

The survey and Risk Assessment were undertaken in order to comply with the Health and Safety Executive requirements on the control and prevention of Legionellosis. The Risk Assessment has been carried out in accordance with ACoP L8 - The control of Legionella bacteria in water systems (Approved Code of Practice and Guidance).

The survey has been limited to the terms of reference agreed between Hampshire County Council and Freston Water Treatment Ltd. Observations relating to system conditions and other factors applicable to the requirements of L8 have been recorded during the survey and specific references are made to compliance with these documents in the Observations section of the report.

A Summary of Recommendations concludes the report. ACoP L8 places responsibility on employers and others to prepare a scheme for preventing or controlling the risk from Legionellosis. Adoption of a monitoring scheme in conjunction with a regime of preventative maintenance and associated record keeping will meet these requirements.

BACKGROUND TO LEGIONELLA

Legionella is the bacterium that causes Legionnaires disease. Of this bacterium, Legionella pneumophila is the species most commonly associated with disease outbreaks. Legionnaire's disease is identified as a pneumonia type of infection of the lower respiratory tract. The infection is most commonly acquired by the inhalation of airborne droplets or particles containing viable Legionella. Exposure to Legionella can also cause a short feverish illness without pneumonia known as Pontiac Fever.

Research indicates that Legionella can occur in hot and cold water services.

Sediment, scale, and organic materials present in water systems, can provide nutrients and give protection for Legionella. Legionella has been shown to colonise certain types of water fittings, pipe work and materials used in the construction of water systems.

The formation of bio films within water systems is undesirable and may also provide harbourage and favourable conditions for Legionella growth. Legionella is most likely to proliferate in water systems that have a temperature between 20°C and 50°C. Human blood temperature of approximately 37°C is the most ideal temperature for proliferation. Stagnant water within the above temperature range appears to provide the ideal conditions for proliferation of Legionella.

Once a risk has been identified and assessed, a scheme should be prepared for preventing or controlling it. The risk is heightened when conditions are not monitored and control of the system is lost, thereby allowing Legionella to proliferate.

Legionella will survive at temperatures below 20°C but is considered to be in a dormant state with no growth activity. The bacterium does not survive temperatures maintained consistently at 60°C or above.

ASSESSMENT OF RISK

The Legionella risk

Legionnaire's disease is most commonly caused by the inhalation of water droplets contaminated with the Legionella bacteria. It is therefore important that systems susceptible to colonisation by Legionella and which incorporate a potential means for creating and disseminating water droplets should be identified and the risk they present assessed.

The assessment must be completed for routine system operation and also for circumstances such as breakdown, abnormal operation, commissioning or other unusual circumstances.

Risk assessment categories:-

- A) The potential for the formation of droplets.
- B) The condition of the water.
- C) Water temperature.
- D) The water turnover rate.
- E) The susceptibility of persons exposed to droplets.
- F) The population density exposed to droplets.

In undertaking the Risk Assessment and drawing up precautions, particular attention must be paid to situations where the population exposed contains a relatively high number of people susceptible to Legionella, due to their age and in many cases poor health.

Risk Assessment Review

The Risk Assessment should be reviewed every 2 years as stated in the HSE's ACoP L8 or otherwise for any of the reasons below:-

- 1) Changes are made to plant or water systems or its use.
- 2) Changes are made to building use in which the water system is installed.
- 3) New information about risks or control measures becomes available.
- 4) Results of checks indicate that control measures are no longer effective.

OBSERVATIONS

General and specific observations on the systems made during the course of the survey are recorded and the more general requirements of L8 are commented where applicable, although references are made to compliance with the requirements of L8.

Compliance with ACoP L8 may be classified into two distinct categories:

- a) Management Procedures - The management procedures, which have been implemented, to ensure that all control measures, record keeping and monitoring are adequate and effective.
- b) Systems Conditions - The physical conditions of the water systems in the building must be considered when assessing the risk from Legionellosis.

This report therefore addresses the above categories. A general overview of existing Management Procedures is included and followed by comprehensive observations of the Systems Conditions as seen during the course of the survey.

General Management Compliance

ACoP L8 para 23 - Identify Sources of Risk

Observations

The assessments are detailed in the relevant section of this report.

General Management Compliance

ACoP L8 para's 39, 53 and 66 - Prepare a Scheme for Preventing or Controlling the Risk - Implement and Manage Precautions - Maintain Records

Observations

A regime of repair and breakdown maintenance should be implemented for the buildings at Lakeside School for all of the water services and systems. Procedures and records for the various maintenance activities must be documented and the Written Scheme recommendations be implemented in order to control Legionellosis. The precautions taken must be documented within an operational logbook.

Further Action Required

A Logbook should be prepared and records kept within it, as outlined in our recommendations.

The logbook, documentation and operation should be audited on a periodic basis in order to ensure that the system conditions and precautionary procedures are being carried out satisfactorily.

The precise procedures relating to the precautionary measures, i.e. cleaning of water cistern systems and calorifiers together with start up and shut down procedures for calorifiers, should be maintained within the logbook system and updated as required. The details of persons who are trained and competent to undertake the works should also be recorded in the logbook along with details of the training undertaken. This also applies to specialist contractors who may undertake part of these duties.

The Risk Assessment report relates to observations made and information supplied at the time of the survey. Every effort has been made to examine as much of the water system as possible although some areas, such as pipe work beneath floors or behind walls would not have been inspected due to restricted access.

SITE SURVEY

A responsible person should be appointed to take day-to-day responsibility for the Written Scheme.

If the assessment shows that there is a reasonably foreseeable risk and it is reasonably practicable to prevent exposure or control the risk from exposure, the person on whom the statutory duty falls (see paragraph 23) should appoint a person or persons to take managerial responsibility and to provide supervision for the implementation of precautions. (Paragraph 39 HSE's ACoP L8)

It appears that there is no dedicated water systems logbook in place or monthly temperature monitoring of the hot and cold outlets or calorifier being carried out. I would recommend a logbook be produced along with a written scheme and temperature monitoring be commenced as soon as is practicable.

System Reference	Lakeside School
Location	Site Buildings
Method	Visual Assessment and Temperature Profiling

HOT WATER STORAGE

Hot water storage at Lakeside School is by two combi boiler / calorifiers and one calorifier. The two combi boiler / calorifiers No.'s 1 and 2 are located within the main boiler room and supply the whole site with the exception of the Residential Block which has its own calorifier. The units are manufactured by Hoval Boilers (UK) Ltd and are identical. They are of a stainless steel construction and directly heated by gas. Both units have fibre type insulation under outer metal outer casings. There is no return system fitted to either unit. Both units are fed from the cold water storage Cistern No. 1. I would recommend that the calorifier be purged to drain to check the water quality on at least a six monthly period and recorded within a water systems logbook when carried out, I was informed that it is unknown if this is being carried out. There is a pigtail type dead leg to a gauge on the flow pipe and this should be removed as soon as is practicable.

There are no temperature gauges on the calorifiers and I would recommend that gauges are fitted to the flow pipework on each unit for monthly temperature monitoring to be carried out.

L8 recommends that calorifiers are checked internally for scale and sludge on an annual basis. I was informed that it is unknown if this is being carried out.

L8 recommends hot water storage to be 60.0°C and the return to be maintained at 50.0°C at all times.

The temperature of the stored water within the calorifier at the time of the survey was:-

Calorifier No 1	Storage	53.4°C	Not Satisfactory
Calorifier No 1	Return		No Return Fitted
Calorifier No 2	Storage	46.0°C	Not Satisfactory
Calorifier No 2	Return		No Return Fitted

The flow temperatures on both units is too low and I would recommend that the calorifiers be adjusted to increase the temperatures to a minimum of 60°C at all times

Calorifier No. 3 is located within the Plant Room in the Residential Block and supplies all the hot water in that block only. The calorifier was manufactured by MHS Boilers Ltd and is a Gemini model. It is indirectly heated by an internal coil from the heating boiler and has fibre type insulation under a soft plastic outer casing. The calorifier is fed from the mains cold water system and has a return system fitted with one pump which appeared to be working correctly. I would recommend that the calorifier be purged to drain to check the water quality on at least a six monthly period and recorded within a water systems logbook when carried out, I was informed that it is unknown if this is being carried out.

There are no temperature gauges on this unit and I would recommend that gauges are fitted to the flow and return pipework for monthly temperature monitoring to be carried out.

L8 recommends that calorifiers are checked internally for scale and sludge on an annual basis. I was informed that it is unknown if this is being carried out.

L8 recommends hot water storage to be 60.0°C and the return to be maintained at 50.0°C at all times.

The temperature of the stored water within the calorifier at the time of the survey was:-

Calorifier No 3	Storage	64.1°C	Satisfactory
Calorifier No 3	Return	55.1°C	Satisfactory

PHOTOGRAPHS

Main Boiler Room

Combi boiler / calorifier No.'s 1 and 2.



Residential Block Plant Room

Calorifier No. 3.



COLD WATER STORAGE

Domestic cold water storage at Lakeside School consists of two domestic cold water storage cistern located in the roof space of the Office Block. There is a single feed and expansion tank in the main plant room that supplies the heating boilers and two vessels in the Residential Block that supplies the fire sprinkler system. As both systems are 'closed systems' they create no aerosol in normal circumstances and are not a Legionella risk and are therefore not covered by this report.

The domestic cold water storage cisterns are of a sectional GRP construction with polystyrene sheet insulation. The access to the lids of both vessels is so small that I could not survey the lids or internally. I was informed that neither vessel has been cleaned and disinfected in at least 5 years and as the access to carry out this work is so restrictive I feel it is unlikely that a satisfactory result could be achieved and I would therefore recommend that both vessels are disconnected and the outlet pipework be converted to a mains cold water supply. It must be ensured that when carrying out this work that no dead legs are created.

There is a single returning vent pipe into the lid of both cisterns and I would recommend that they are removed and piped to a foul drain via an air gap. There is a valved bypass pipe connecting the two outlet pipes and this is acting as a dead leg and should be opened once a week to flush it.

Cistern No. 1 supplies the down service outlets on site and Cistern No. 2 supplies combi boiler/ calorifiers No.'s 1 & 2.

PHOTOGRAPHS

Office Block Roof Space

External view of cold water storage
cisterns No.'s 1 and 2.



DOMESTIC WATER DISTRIBUTION

Domestic water services should operate at temperatures that prevent the proliferation of Legionella. L8 specifies that hot water should be stored at no less than 60°C and distributed at no less than 50°C, obtainable at user outlets within one minute of opening. Cold water should be stored and distributed at no more than 20°C.

Domestic hot water within Lakeside School distributes from three calorifiers. Combi boilers / Calorifier No.'s 1 & 2 are located within the main Boiler Room and supply the whole site with the exception of the Residential Block which has its own calorifier. Calorifier No. 3 is located within the Residential Block Plant Room and supplies hot water to that block only.

Domestic cold water within Lakeside School is supplied by two cold water storage cisterns located within the Office Block roof space. Cistern No. 1 supplies the following areas:-

Laundry

Laundry Toilet

All of the Old School cold outlets

The Headmasters house - although now isolated

Office Block - First Floor Kitchen

Office Block - First Floor Flat-Bathroom

Office Block - Ground Floor Disabled Toilet

Office Block - Ground Floor Office Toilet

Cistern No. 2 supplies Combi boiler / Calorifier No.'s 1 & 2 only.

Mains cold water within Lakeside School supplies the domestic cold water storage cisterns, the boilers feed and expansion tank, the Residential Block fire sprinkler system, the combi boiler / calorifier No.'s 1 & 2, The Residential Block cold outlets and all cold outlets not stated above.

In all areas of distribution and use, inspection, test and measurement was undertaken at representative positions in order to evaluate conditions and areas of potential risk.

At the time of the survey (within one minute) these hot water outlets within the buildings were recorded as follows:-

Lakeside School	
Hot Water Outlet Temperatures	
Office Block First Floor Flat Bathroom Wash Basin	46.8°C Inlet to TMV Not Satisfactory 42.5°C TMV Outlet Satisfactory
Boiler Room /Laundry Block Laundry Sink	49.1°C Inlet to TMV Not Satisfactory 43.4°C TMV Outlet Not Satisfactory
Main School Block Main Kitchen Sink	50.1°C Satisfactory
Main School Block Staff Male Toilet Wash Basin	47.3°C Inlet to TMV Not Satisfactory 42.9°C TMV Outlet Not Satisfactory
New Building Food Technology Room Sink	Inlet to TMV No Access 43.1°C TMV Outlet Satisfactory
Residential Block Ground Floor Bathroom nr Plant Room Wash Basin	Inlet to TMV No Access 33.4°C TMV Outlet Satisfactory
Residential Block First Floor Toilet at far end of the building	53.1°C Inlet to TMV Satisfactory 40.8°C TMV Outlet Satisfactory
Residential Block Ground Floor Kitchen Sink	52.6°C Inlet to TMV Satisfactory 44.3°C TMV Outlet Not Satisfactory

L8 recommends that the hot water should achieve 50°C, obtainable at user outlets within one minute of opening.

TMV's (Thermostatic Mixing Valves) are fitted to ensure that the water temperature at hot water outlets does not exceed 43°C and scald users.

The hot water supplying the TMV's should be 50°C at the TMV inlet as recommended in L8.

At the time of the survey (within two minutes) the cold water outlets within the buildings were as follows:

Lakeside School	
Cold Water Outlet Temperatures	
Office Block First Floor Flat Bathroom Wash Basin	19.6°C Satisfactory
Boiler Room /Laundry Block Laundry Sink	19.8°C Satisfactory
Main School Block Main Kitchen Sink	19.8°C Satisfactory
Main School Block Staff Male Toilet Wash Basin	20.8°C Not Satisfactory
New Building Food Technology Room Sink	18.6°C Satisfactory
Residential Block Ground Floor Bathroom Near Plant Room Wash Basin	18.7°C Satisfactory
Residential Block First Floor Toilet at far end of the building Wash Basin	18.4°C Satisfactory
Residential Block Ground Floor Kitchen Sink	18.8°C Satisfactory

L8 recommends cold water should be stored and distributed at no more than 20°C.

GENERAL

- Thermostatic Mixing Valves (TMV's) are fitted in many areas of Lakeside School; these valves should be serviced and maintained to the manufacturers recommendations. I was informed that this was last carried out on the 4th June 2010.
- Infrequently used outlets are ideal areas for the proliferation of bacteria. Areas where the outlets are not used at least on a weekly basis should be removed or put on a weekly flushing regime (without creating an aerosol) and recorded. This is currently being carried out monthly and recorded.
- Dead leg pipework are ideal areas for the proliferation of bacteria and should be removed or put on a twice weekly flushing regime (without creating an aerosol) and recorded.

Dead legs were found in the following areas:-

- Main Kitchen on the right side of the dishwasher on the cold pipe
 - Main Boiler Room a pigtail dead leg is on the hot flow pipe.
 - The Headmasters House the water in this building has been isolated but it should be ensured that no dead legs remain from the valve where it has been isolated to the mains cold water underground stop cock.
- The shower heads and hoses must be cleaned and disinfected quarterly and recorded when carried out as recommended in L8. No records could be found and it is unknown if this is being carried out.

- It is unknown when Legionella or bacteriological samples were last taken and I would recommend that this is carried out if temperatures fall outside of the limits as detailed in L8.
- Monthly temperature monitoring of the calorifier is not being carried out and I would recommend that this is commenced as soon as is practicable.
- Monthly temperature monitoring of the hot and cold outlets is only being carried out on one outlet a month. The water temperatures of every sentinel outlet must be taken monthly and recorded. Other representative basis should have temperatures taken on a monthly rotational basis so that over a period of 12 months all outlets will have been covered. I would recommend that temperature monitoring is commenced as soon as is practicable and all results be recorded within a logbook.
- Some of the cold outlets have elevated cold water temperatures and I would recommend that all hot and cold domestic pipework is adequately insulated against heat loss / gain.
- There is a mains cold water fed bib tap in the Boiler Room on the far wall which has a hose pipe attached to it. The hose pipe feeds a hose pipe reel that is fixed to the wall. The hose is un-insulated and in a warm environment this will create ideal conditions for the proliferation of bacteria including Legionella. I would recommend that the hose pipe is fixed as close to the bib tap as possible and is drained after every use before rolling back onto the reel. The hose must be flushed and drained every week when not used.

- There is a water softener in the Main Kitchen for the dishwasher and this should be serviced and maintained in-line with the manufacturer's recommendations. I was informed that it is unknown if this is currently being carried out.
- There is an inline water filter on the water cooler in the Dining Area and this should be cleaned / replaced inline with the manufacturer's recommendations. It is unknown if this is being carried out.

RECORDS

It is recommended that a water quality log book be produced for the site to include records of weekly, monthly, quarterly, six monthly and annual procedures. These should be carried out as recommended in this Risk Assessment.

Details of the responsibilities they hold should be included together with items listed as follows:

Maintenance carried out on water systems

Cleaning and disinfection of water cisterns

Inspection of water storage cisterns

Monthly temperature monitoring

Flushing of infrequently used outlets

Annual inspections of calorifiers

Purging of calorifiers

Faults and defects to be recorded

Audit sheet for inspections of the logbook and dated when completed

All of the above should be included in the water systems logbook and signed for when completed.

ADDITIONAL PHOTOGRAPHS

Office Block Roof Space

Dead leg on the valved bypass pipe.



Boiler Room

Un-insulated feed pipe to hose reel.



Main Kitchen

Water softener.



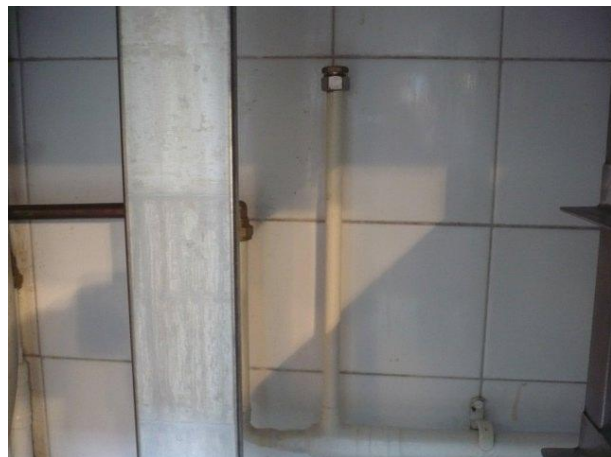
Boiler Room

Dead leg pigtail pipe on hot flow pipe.



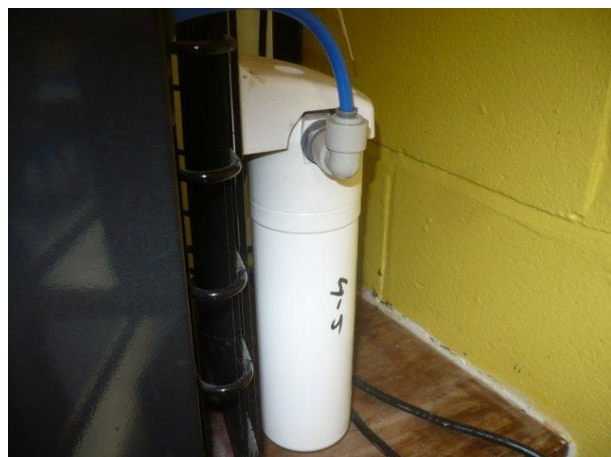
Main Kitchen

Dead leg on the cold pipe on the right
on the dishwasher.

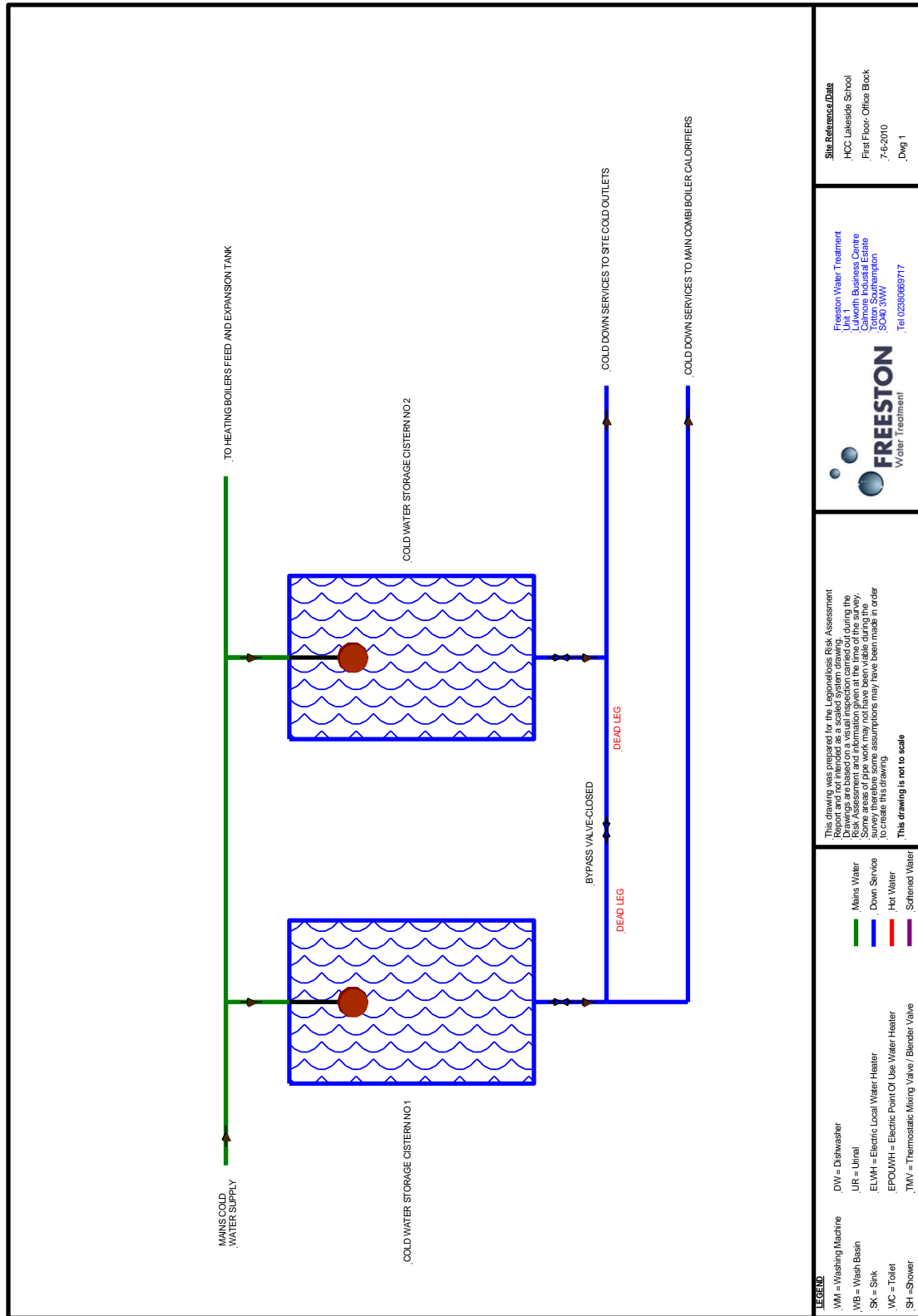


Servery

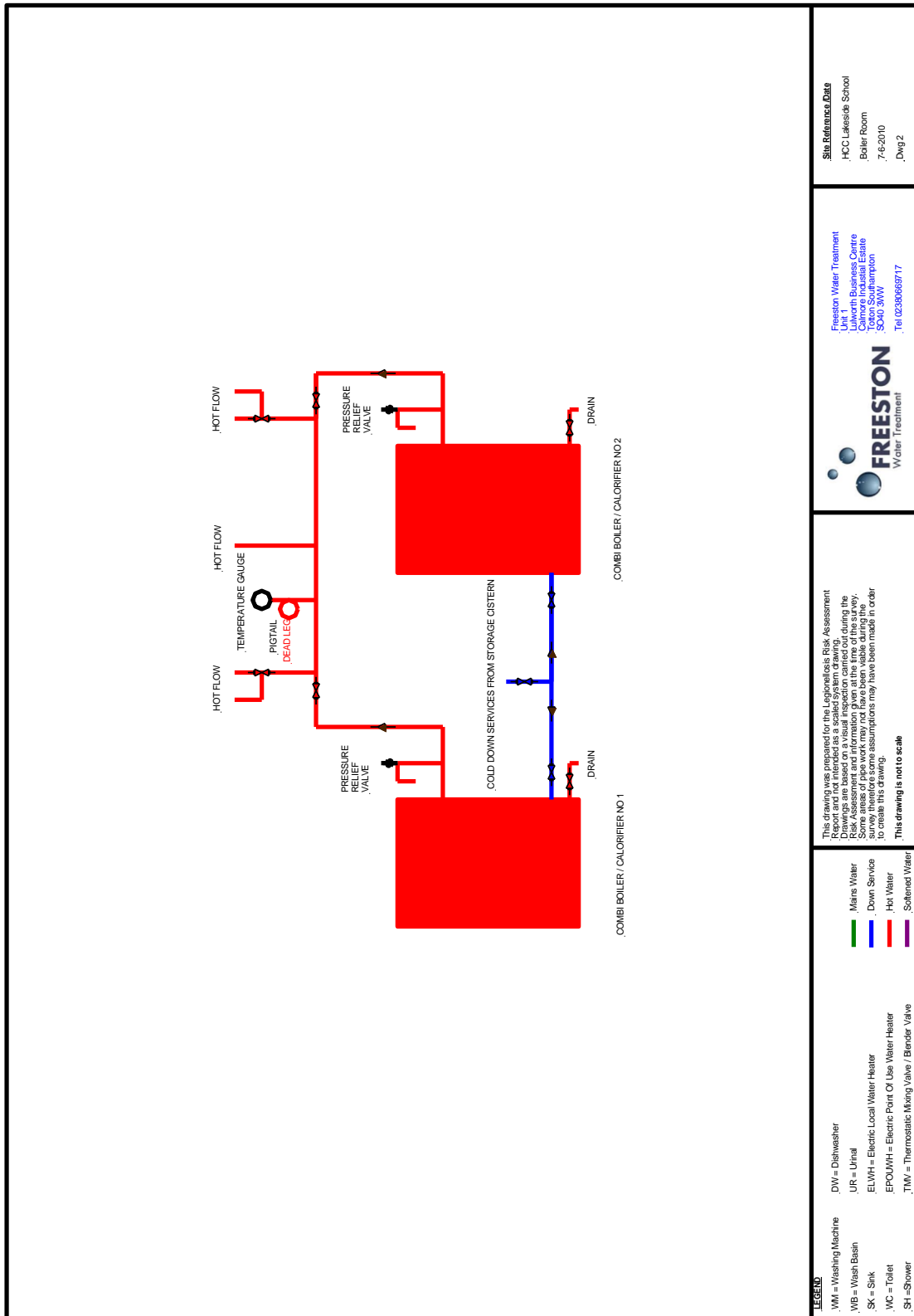
Water filter on the water cooler.



DRAWINGS



<p>LEGEND</p> <ul style="list-style-type: none"> .WM = Washing Machine .WB = Wash Basin .SK = Sink .WC = Toilet .SH = Shower .DW = Dishwasher .UR = Urinal .ELWH = Electric Local Water Heater .EPOUWH = Electric Point Of Use Water Heater .TMV = Thermostatic Mixing Valve / Blender Valve 	<p>This drawing was prepared for the Legionellosis Risk Assessment Report and not intended as a scaled system drawing. Risk Assessment and information given at the time of the survey. Some areas of pipe work may not have been visible during the survey. Assumptions may have been made in order to create this drawing. This drawing is not to scale</p>	<p>FREESTON Water Treatment</p> <p>Freston Water Treatment Lutworth Business Centre Calmore Industrial Estate SO40 3YW Tel: 0238068977</p>	<p>Site Reference/Date HCC Lakeside School First Floor, Office Block 7-6-2010 .Dwg 1</p>
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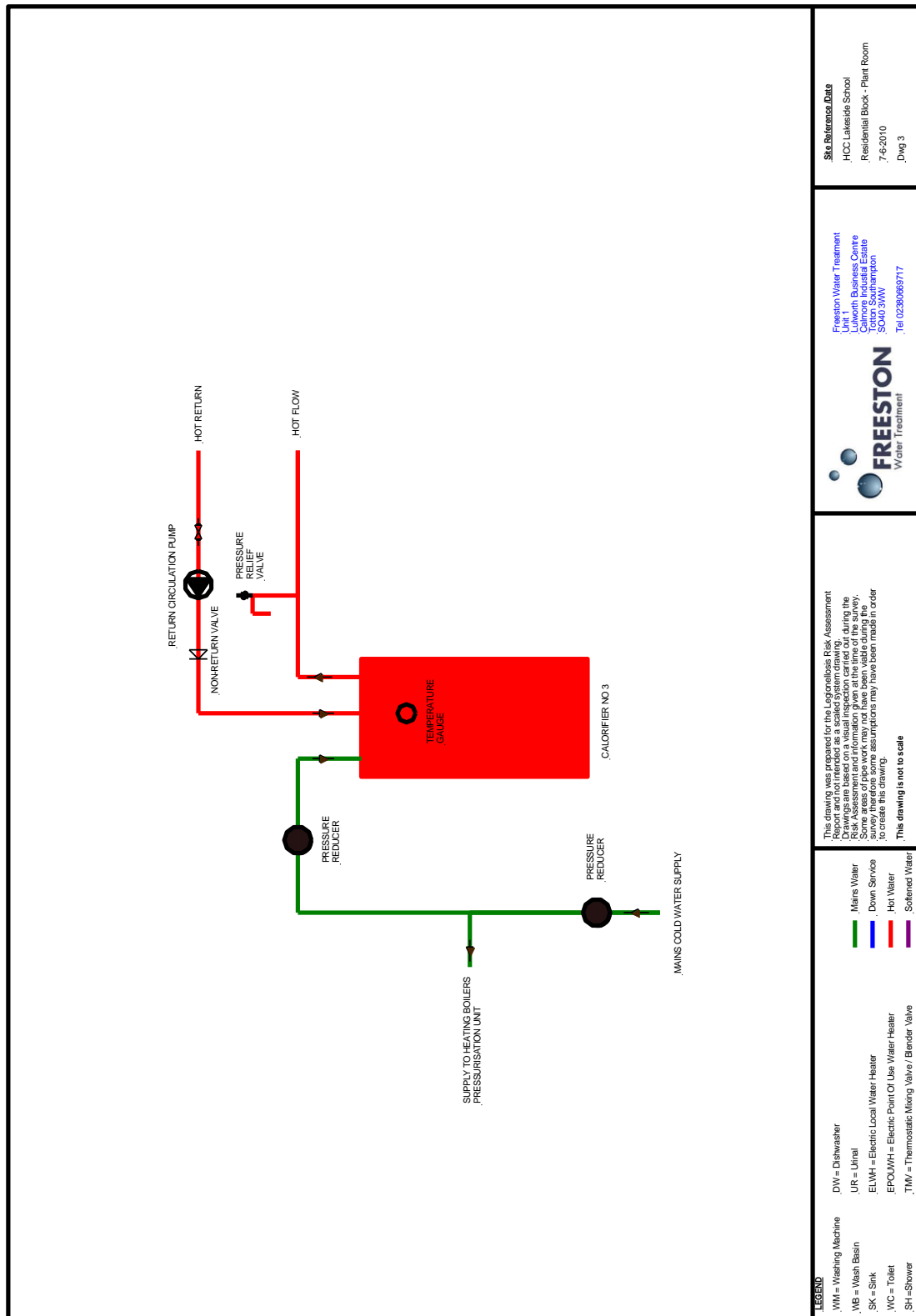


Site Reference/Date
 .HCC Lakeside School
 .Boiler Room
 .7-6-2010
 .Dwg 2

FRESTON
 Water Treatment
 .Freston Water Treatment
 .Lymington Business Centre
 .Calmore Industrial Estate
 .Lymington
 .SO40 3AW
 .Tel: 0238068977

This drawing was prepared for the Legionellosis Risk Assessment Report and not intended as a scaled system drawing during the Risk Assessment and information given at the time of the survey. Some areas of pipe work may not have been visible during the survey and our assumptions may have been made in order to create this drawing.
 .This drawing is not to scale

LEGEND
 .WM = Washing Machine
 .WB = Wash Basin
 .SK = Sink
 .WC = Toilet
 .SH = Shower
 .DW = Dishwasher
 .UR = Urinal
 .ELWH = Electric Local Water Heater
 .EPQWH = Electric Point Of Use Water Heater
 .TMV = Thermostatic Mixing Valve / Blending Valve
 .Mains Water
 .Down Service
 .Hot Water
 .Softened Water



LEGEND

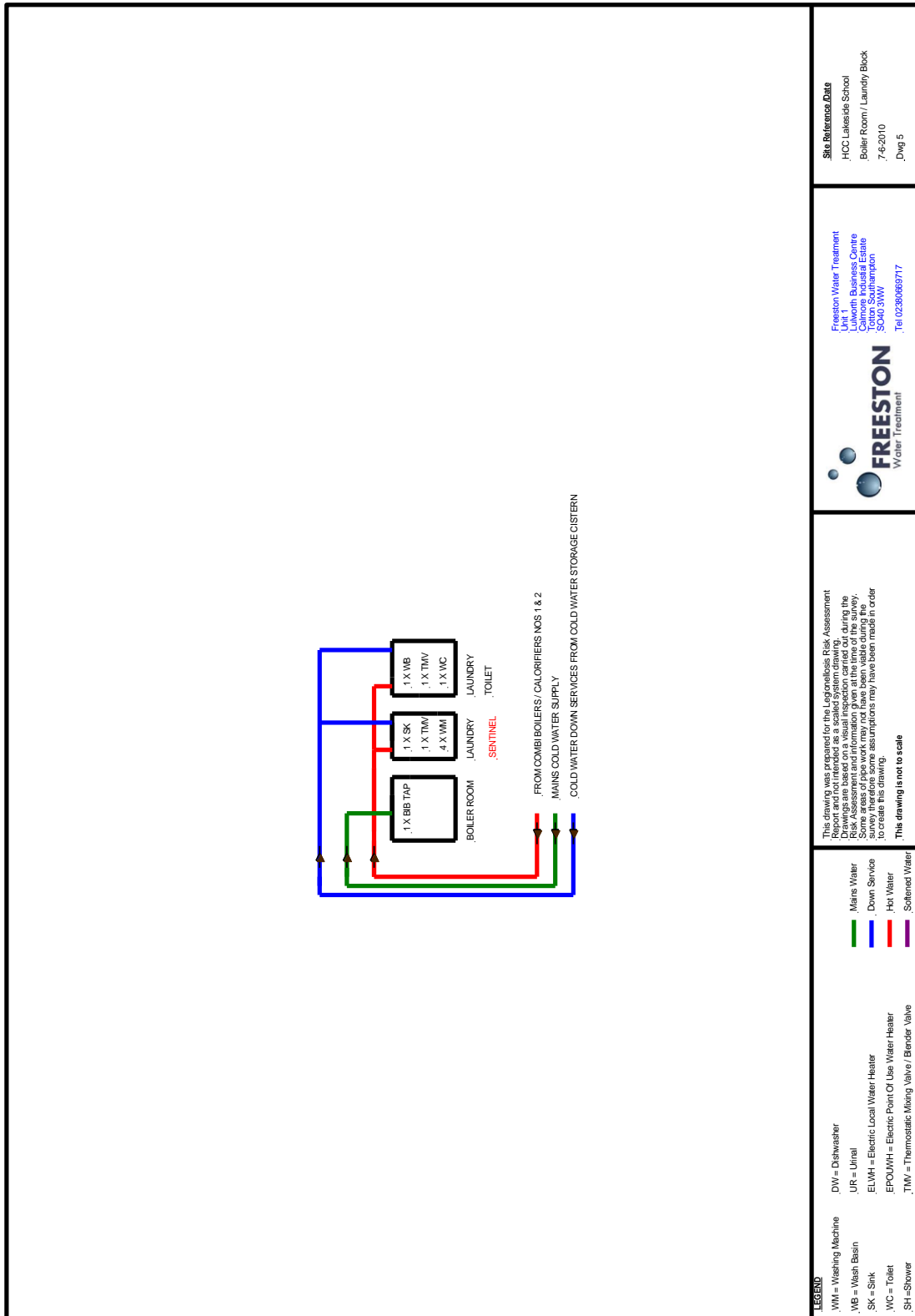
.WM = Washing Machine	.DY = Dishwasher	.Mains Water
.WB = Wash Basin	.UR = Urinal	.Down Service
.SK = Sink	.ELWH = Electric Local Water Heater	.Hot Water
.WC = Toilet	.EPOUMH = Electric Point Of Use Water Heater	.Softened Water
.SH = Shower	.TMV = Thermostatic Mixing Valve / Blender Valve	

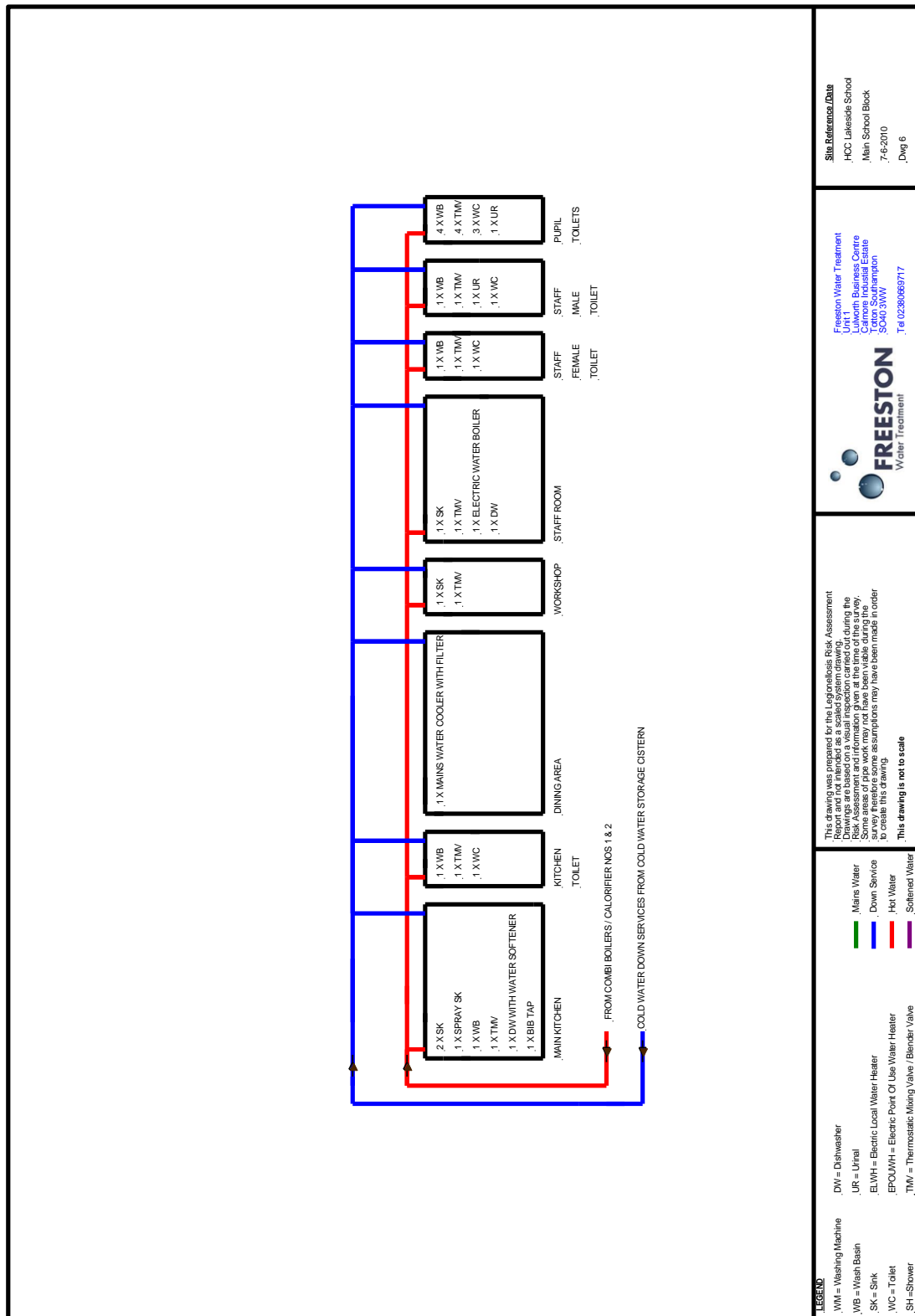
This drawing was prepared for the Legionellosis Risk Assessment. Drawings are based on a visual inspection carried out during the Risk Assessment and information given at the time of the survey. The survey, therefore, some assumptions may have been made in order to create this drawing. **This drawing is not to scale**

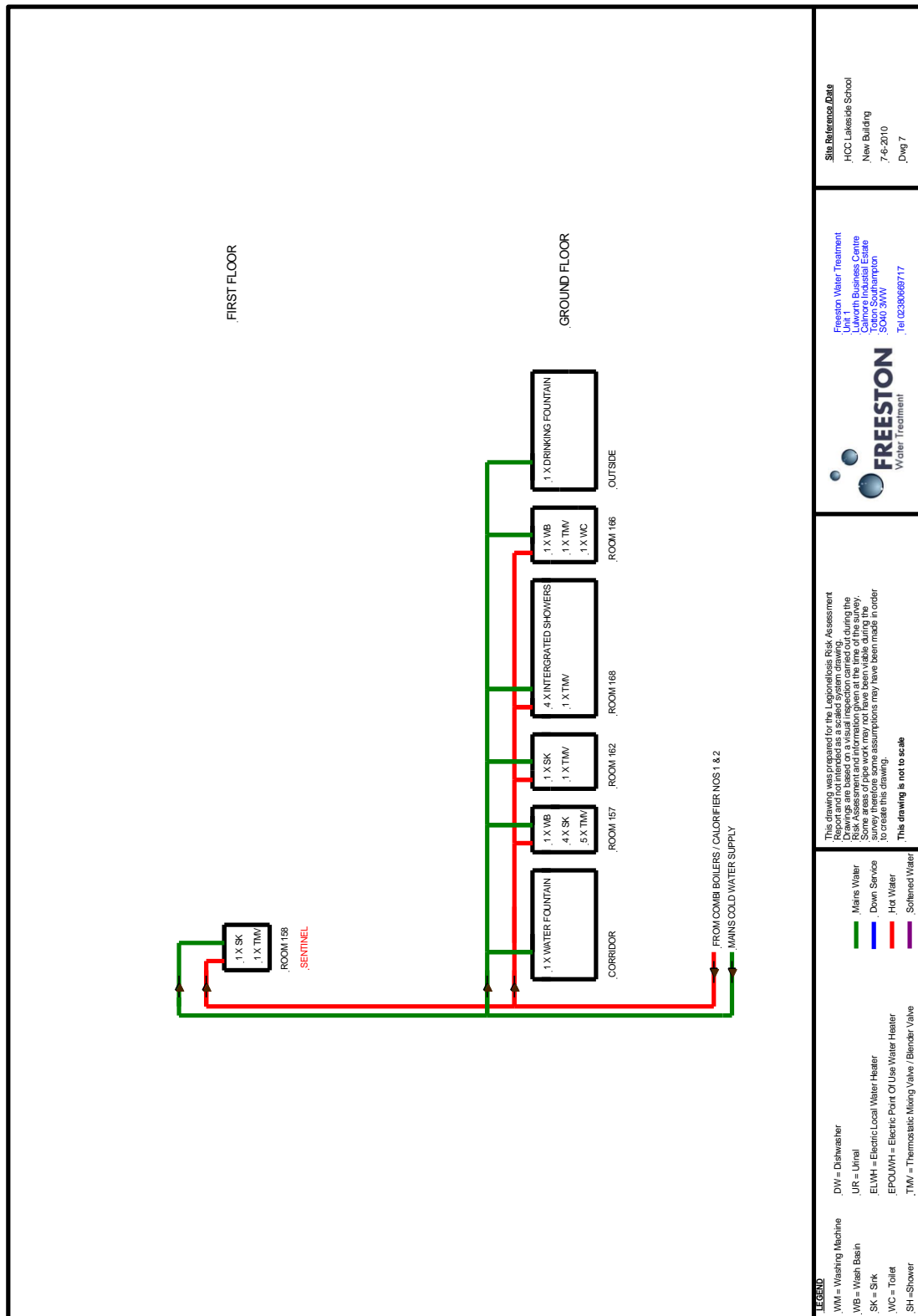
FRESTON
Water Treatment

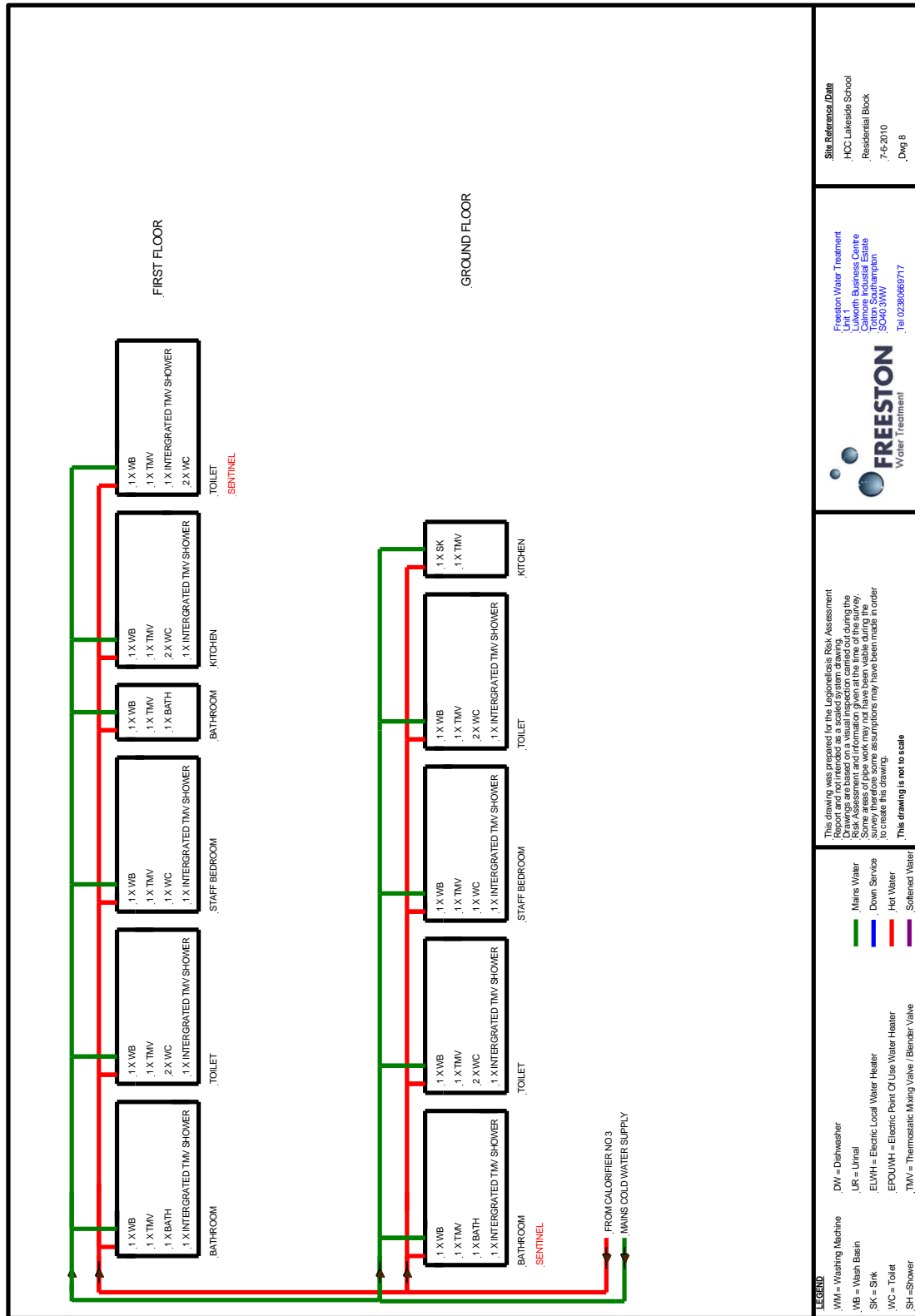
Freston Water Treatment
Unit 1
Lutworth Business Centre
Lutworth Road
Totton, Southampton
SO40 3WV
Tel: 02380688777

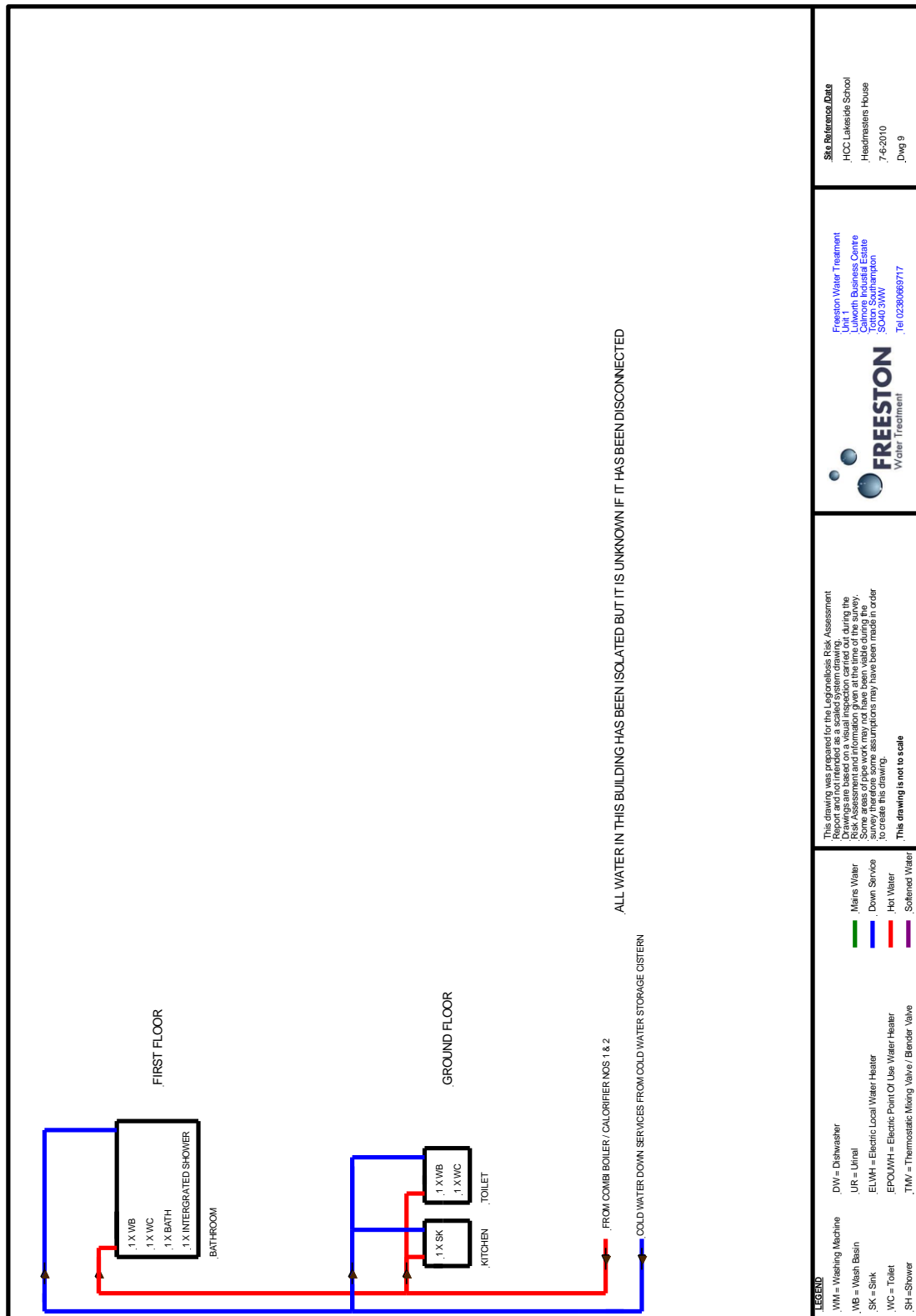
Site Reference Data
HCC Lakeside School
Residential Block - Plant Room
7-6-2010
Dwg 3











<p>LEGEND</p> <ul style="list-style-type: none"> .WM = Washing Machine .WB = Wash Basin .WC = Toilet .SK = Sink .UR = Urinal .D.V. = Dishwasher .ELWH = Electric Local Water Heater .EQUWH = Electric Point Of Use Water Heater .TMV = Thermosatic Mixing Valve / Blendr Valve 	<ul style="list-style-type: none"> █ Mains Water █ Down Service █ Hot Water █ Softened Water 	<p>Site Reference Data</p> <p>HCC Lakeside School Headmasters House 7-6-2010 Dwg 9</p>
<p>FRESTON Water Treatment</p>		
<p>Freston Water Treatment Unit 1 Luworth Business Centre Luworth Road Totton Southampton SO40 3WV Tel: 0238068877</p>		
<p>This drawing was prepared for the Legionellosis Risk Assessment Drawings are based on a visual inspection carried out during the Risk Assessment and information given at the time of the survey. The survey was carried out on 7/6/2010. Some assumptions may have been made in order to create this drawing. This drawing is not to scale</p>		

WRITTEN SCHEME

	Task		Frequency
1	Prepare site logbook for the Site.		ASAP
2	Flush infrequently used outlets.		Weekly
3	Record hot water calorifier flow and return temperatures.		Monthly
4	Record cold water outlet temperatures.		Monthly
5	Record hot water outlet temperatures.		Monthly
6	Record cold water cistern temperatures.		Six Monthly
7	Clean and descale shower head and hoses.		Quarterly
8	Purge hot water calorifier to drain and record.		Six Monthly
9	Inspect, clean and disinfect cold water storage cisterns if required.		Annually
10	Internally inspect hot water calorifier annually and descale if required.		Annually

REMEDIAL RECOMMENDATIONS

Legionella Risk Category Key

1 = Insignificant risk.

2 = Controlled risk monitoring is being carried out maintain this standard.

3 = Risk is controlled, but deteriorating conditions could increase risk.

4 = Potential hazards identified.

5 = Risk Uncontrolled.

Site Reference/ Address	Remedial/Recommendations	Priority	Date Actioned	Signature
<u>Hot Water Storage & System</u> HCC Lakeside School	Commence monthly temperature monitoring of the domestic hot water systems; sentinel outlets. Record within a logbook.	5		
	Commence monthly temperature monitoring of the hot water calorifier flow water temperature. Record within a logbook.	5		
	Purge calorifiers to drain on at least a six monthly basis and record when carried out.	3		
	If access allows, visually inspect the calorifiers internally for scale and sludge on an annual basis.	3		
	Adjust Combi boilers / calorifier No.'s 1 & 2 to achieve a minimum storage temperature of 60°C.	5		
	Fit temperature gauges to flow pipes on combi boiler / calorifiers No.'s 1 & 2.	3		
	Fit temperature gauges to flow and return pipes on the Calorifier No. 3.	3		

Site Reference/ Address	Remedial/Recommendations	Priority	Date Actioned	Signature
<u>Cold Water Storage</u> HCC Lakeside School	Commence monthly temperature monitoring of the domestic cold water systems; sentinel outlets. Record within a logbook.	5		
	Disconnect the cisterns and convert the outlet pipes to the mains cold water supply. Ensure no dead legs are created.	5		
	Remove the vent pipes from the cold water storage cisterns and vent to a foul drain via an air gap.	3		

Site Reference/ Address	Remedial/Recommendations	Priority	Date Actioned	Signature
<u>Distribution</u> HCC Lakeside School	Remove dead leg pipe work or put on a weekly flushing regime and record in the logbook when carried out	5		
	I would recommend Bacteriological and Legionella water samples be taken if the temperatures fall out of the recommended limits.	5		
	Continue weekly flushing of any low use outlets etc and record when carried out.	3		
	Clean and descale showerheads at least quarterly. Record when carried out.	3		
	Ensure all domestic hot and cold pipe work is insulated within the building.	4		
	Re-site the hose reel in the Boiler Room next to the bib tap.	5		
	Ensure that the water softener is serviced and maintained in-line with the manufacturer's recommendations.	3		
	Ensure that the filter on the water cooler is cleaned / replaced in-line with the manufacturer's recommendations.	3		