

CONSTRUCTION PHASE PLAN

FOR

PLUMBING & CENTRAL HEATING

Installation and Gas Maintenance

11 The Close
Iver Heath
South Bucks
SL0 0HE
Tel: 01753717273

Date of Issue	Comments	Ref No.	Authorised by	Revision
16/11/2016	Issue 01	IAGM/_CPP/003	Ian McLaggan	01

Installation and Gas Maintenance

Health and Safety Site Specific Method Statement

Compiled for Installation and Gas Maintenance

Ref No: IAGM/CPP/003

Author: Ian McLaggan

Site Specific Risk Assessment & Method Statement

Location: 47 Walden House
Project Title: Plumbing & Heating
Draft Issue Number: 01
Compiled by: Ian McLaggan
Company Position: Proprietor
Date Issued: 16/11/2016

Project Details

Description of work to be undertaken:

The scope of works to be carried out by Installation and Gas Maintenance comprises of the installation and fitting of central heating system with boiler on new build properties.

Please read this document carefully and implement the requirements of this method statement.

Project Technical Details

Name of Contractor(s): Installation and Gas Maintenance
Address Details: 11 The Close,
Iver Heath,
South Bucks.
SL0 0HE
Telephone No: 01753717273 / 07985588342
Manager Responsible for Safety on Site: Mr Ian McLaggan
Client: London Borough of Wandsworth
Principle Contractor: Grade A Services
Estimated Duration of Work (Weeks): As Per Contract Agreement
Commencing: 17/11/2016
Completion: As Per Programme
No. of Employees: Max 1

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Site Specific Risk Assessment

Risk Assessment Ref. IAGM/ CPP/003

Contract Location: 47 Waldon House

Issue date: 16/11/2016

General Activities / Scope of Work:

The scope of works to be carried out by Installation and Gas Maintenance comprises of the installation and fitting of central heating system with boiler on new build properties.

What are the hazards:	Who might be harmed and how?	Risk Rating			Precautions already in place	What further action is necessary	Residual Risk Rating		
		Probability	Severity	Risk			Probability	Severity	Risk
Falling from height - Stepladders	Serious or even fatal injury could occur if an operator falls from height. Others working below also at risk.	5	5	25	<ul style="list-style-type: none"> <input type="checkbox"/> All access equipment to be compliant with the work at height regulations and secured with a suitable device. Avoid work at height where we can. <input type="checkbox"/> Use work equipment or other measures to prevent falls where we cannot avoid working at height from a step ladder <input type="checkbox"/> Step Ladders will be checked to ensure correct length, type and condition before use <input type="checkbox"/> Step Ladders are subject to routine inspection. <input type="checkbox"/> The ground base for ladder use must be firm and level <input type="checkbox"/> The both legs must be properly extended to form the a frame at the correct angle of rest, the platform and centre locking device must be in place and secured the Step Ladders must be secured against slipping <input type="checkbox"/> Step Ladder work is restricted to that which can be carried out using one hand only such as inspections and short duration tasks. 	<ul style="list-style-type: none"> <input type="checkbox"/> Include work at height in toolbox talk before beginning work on day one. 	1	5	5

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		Probability	Severity	Risk			Probability	Severity	Risk
Slips and trips	All operators, and tradesmen nearby, may suffer sprains, bruising or fractures if they trip over objects, such as work debris, or slip on spillages.	5	3	15	<ul style="list-style-type: none"> <input type="checkbox"/> All operators wear safety boots – ‘no boots, no job’ policy. <input type="checkbox"/> Good housekeeping, e.g. debris put in skip, brush available to use to keep work area clear. <input type="checkbox"/> All trailing cables in work area hung up or otherwise kept out of harm’s way. <input type="checkbox"/> Safe route to job agreed with site manager based on site health and safety plan. 	<ul style="list-style-type: none"> <input type="checkbox"/> Manager to check on-site housekeeping during visits. <input type="checkbox"/> Include in site induction before beginning work on day one. 	1	3	3
Manual handling	Operators risk injury, particularly to the back, from lifting and handling heavy or awkward objects, e.g., Pipe sections.	5	4	20	<ul style="list-style-type: none"> <input type="checkbox"/> Where possible, mechanical means to be used to transport materials. <input type="checkbox"/> Where the movement requires short distances, operatives will use barrows or where this risk is minimal passage of materials between numbers of operatives. <input type="checkbox"/> All materials will be below the recommended guidance for manual handling lifting weight of 25kg. 	<ul style="list-style-type: none"> <input type="checkbox"/> Remind operatives of safe system of work at site induction. 	1	4	4
Working on gas installations	Operatives/client and nearby tradesmen at risk from Explosion, fire, poisoning	3	5	15	<ul style="list-style-type: none"> <input type="checkbox"/> Only trained and authorised plumbers to work on gas installations. <input type="checkbox"/> All plumbers to hold current Gas Safe Register accreditation. <input type="checkbox"/> Plumbers may only work on installations covered by their Gas Safe Register accreditation. 	<ul style="list-style-type: none"> <input type="checkbox"/> All works to be completed to industry standards and guidance at all times. 	1	5	5
Hot works	Operatives and nearby tradesmen at risk from burns/fire.	3	4	12	<ul style="list-style-type: none"> <input type="checkbox"/> All hot works area to be cleared of any debris, fire extinguisher to be kept close at all time, and fire blankets used where needed. Hot works permits will be in place and hot works guidelines will be adhered to. Smoke alarms to be isolated locally. 	<ul style="list-style-type: none"> <input type="checkbox"/> Fire watcher to be appointed who will check for smouldering material for a period of no less than 1 hour after hot works is completed. 	1	4	4

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Soldering, use of blow torch	Operatives and nearby tradesmen at risk from Burns, fire, electricity, inhalation of potentially hazardous fumes	3	4	12	<ul style="list-style-type: none"> <input type="checkbox"/> Only trained and qualified plumbers to complete soldering works. <input type="checkbox"/> Portable CO2 fire extinguisher to be sited next to the works at all times. <input type="checkbox"/> The person soldering to keep their head out of the flux fume at all times. The use of RPE to be considered if flux fume levels are considerable. <input type="checkbox"/> Low risk flux to be used whenever practicable. Instructions on MSDS to be followed at all times. <input type="checkbox"/> Gloves to be worn when handling hot pipes etc. 	<ul style="list-style-type: none"> <input type="checkbox"/> Hot works permit to be arranged with client prior to work commencing. Terms of permit to be followed at all times. Copy of completed permit to be supplied to client on completion of work. 	1	4	4
Fire/explosion	All operatives in the vicinity could suffer from smoke inhalation or burns.	3	5	15	<ul style="list-style-type: none"> <input type="checkbox"/> Suitable fire extinguisher kept in site office and welfare block. <input type="checkbox"/> Good housekeeping monitored by supervisor. 	<ul style="list-style-type: none"> <input type="checkbox"/> Supervisor to brief all workers on first day on emergency arrangements agreed with principal contractor. 	1	5	5
Use of hand tools – Injuries to hands, feet, body and eyes	Operatives could suffer injuries when using hand tools.	3	4	12	<ul style="list-style-type: none"> <input type="checkbox"/> Management monitor tools for deterioration through use. Tools to be replaced when necessary. <input type="checkbox"/> Operatives instructed on the correct method of use and of maintenance requirements at induction. <input type="checkbox"/> Suitable eye protection to be provided whenever there is a risk of flying objects or pieces of the tool breaking off. 	<ul style="list-style-type: none"> <input type="checkbox"/> Sharp tools to remain sheathed when not in use. 	1	4	4
Electricity	Operatives and others risk potentially fatal injuries if they receive a shock from faulty electrical equipment.	4	5	20	<ul style="list-style-type: none"> <input type="checkbox"/> Site manager to supply 110 v temporary supply. <input type="checkbox"/> Staff know to check all cables, leads etc. of all powered tools/ equipment before use, and to report all faults to their supervisor. 	<ul style="list-style-type: none"> <input type="checkbox"/> During site induction on day one, manager to reinforce rules on electrical safety. 	1	5	5

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Work in roof spaces or under floors containing MMMF insulation	Operative - Exposure to MMMF material and dust can cause respiratory irritation. Fibres may enter skin and cause irritation	2	3	6	<input type="checkbox"/> Where MMMF insulation needs to be disturbed it must be rolled back carefully to minimise fibre release. <input type="checkbox"/> Respiratory protection such as a facemask to be worn at all times during the work. <input type="checkbox"/> Long sleeved overalls must be worn at all time during the work.	<input type="checkbox"/> Include in site induction before beginning work on day one	1	3	3
Welfare	Good welfare facilities reduce risk of dermatitis, help good hygiene etc.	3	4	12	<input type="checkbox"/> Agreement with site manager that staff may use site welfare facilities – toilets, washing facilities with hot and cold water and mess room/kitchen.	<input type="checkbox"/> Tell staff about facilities at site induction on day one.	1	4	4

PROBABILITY = Likely (5) - Probable (4) - Possible (3) - Remote (2) - Improbable (1)
SEVERITY = Catastrophic (5) - Major (4) - Reportable (3) - Serious (2) - Minor (1) **RISK** = PROBABILITY x SEVERITY
 * Residual risk is the level of risk that remains after suitable and sufficient control measures are introduced.

Persons at Risk	Probability		Severity		5	4	3	2	1	
	Likely (L)	5	5	C	L	Pr	Po	R	Im	
P – Public	Likely (L)	5	5	C	25	20	15	10	5	1-6 Acceptable
E – Employee	Probable (Pr)	4	4	Ma	20	16	12	8	4	
C – Contractor	Possible (Po)	3	3	R	15	12	9	6	3	8-25 Not Acceptable
V – Visitor	Remote (R)	2	2	S	10	8	6	4	2	
	Improbable (I)	1	1	Mi	5	4	3	2	1	

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Control Measures to Reduce Risks

Tools/Equipment Required:

- Portable Non Powered Hand Tools
- Portable Electrical Tools (Drills etc)
- Hand Held Gas Primus Bottles
- Fire Extinguisher
- Heat Resistant Mats
- Dust Sheets
- Water Gauges
- Stepladder (Class 1 - EN131)

PPE Requirements:

- As per site rules (Mandatory)
- Face/Eye Protection
- Protective Overalls
- Hand/Arm Protection
- Safety Gloves
- Safety Boots at all times (Mandatory)
- Dust masks FFP2S as a minimum

Access to the Place of Work

*Prior to commencement of work all Installation and Gas Maintenance operatives will receive a Tool box talk on the working within occupied premises.

1. Installation and Gas Maintenance vehicles will be parked in a suitable area so that they do not present a hazard to other road users and the occupiers of the premises being worked within.
2. Formal contact will be made with the occupiers of the premises to be worked within prior to Installation and Gas Maintenance operatives entering the premises.
3. As far as reasonably practicable Installation and Gas Maintenance will not allow their operatives to work alone within occupied premises.
4. Installation and Gas Maintenance operatives will carry out a pre-work inspection to ascertain the condition of the working areas and to identify any hazards within the working area. They will ensure that any hazards present are controlled by suitable safe practices.
5. If required, any access into Confined spaces (Attics, Lofts etc), will be carried out in compliance with the confined spaces specific risk assessment.
6. All access equipment must be in good condition and subject to the company inspection regime.
7. Installation and Gas Maintenance operatives will at all times act courteously and with respect to residents of the premises.

Access Equipment to Be Used

1. All access equipment will be subject to the duties imposed upon the user within the Construction (Design and Management) Regulations 2015 & Work at Height Regulations.
2. Ladders shall only be used for short term duration and light work. In the event of a ladder being used the following shall apply; the work only requires one hand, the work area can be reached without stretching, the ladder can be fixed to prevent slipping and a good handhold is available.
3. Step ladders shall only be used in compliance with the above. No work shall take place from the last step on the top of the ladder unless it has been specifically designed for this purpose.
4. All site rules and conditions must be strictly adhered to and any person failing to do so will be subject to Installation and Gas Maintenance disciplinary action and may be removed from site.
5. Ladders / Step ladders must be checked to ensure correct length, type and condition before use.
6. Ladders / Step ladders are subject to a planned maintenance program.
7. The ground base for the ladder must be firm and level.
8. Damaged ladders will be reported immediately to the client.
9. The ground base for ladder / Step ladders use must be firm and level
10. The correct angle of rest for a ladder is 75 degrees, or a base to height ration of 1:4
11. Ladders must be secured against slipping at the top or at the bottom.
12. Ladders must always be secured as a sole precaution against movement.

The Workplace

1. The general working areas will be secured / isolated by means of warning signage.
2. The work areas shall be clear of all obstructions and safe to work in. In the event of a confined space working, all work must be carried out in compliance with the specific risk assessment.
3. Isolation of local services will be carried out by the Principal Contractor's appointed competent persons. (GAS SAFE Registered)
4. Suitable isolation equipment will be attached to any isolated service to prevent unauthorised reinstatement.
5. All repair, maintenance, installation and removal work shall be carried out in total compliance with current industry standards and legislation.
6. All testing and commissioning shall be carried out in compliance with current industry standards and legislation. A record of the same shall be kept in the company records.

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7. At the completion of the work, the area will be cleared and handed back to the client in a safe and good condition.

Hand tools.

8. All tools provided must be assessed to ensure that they are fit for purpose; the fit for the environment in which they are to be used and they are in good working condition.
9. Visual checks must be completed by operatives on tools prior to their use.
10. Tools are required to be suitable for the purpose for which they will be used.
11. Eye protection is to be provided and used whenever work is done using scrapers, electric sanders or other tools where there is a risk of flying particles or other pieces of the tool breaking off.
12. Open-bladed knives, screwdrivers, and other sharp tools are to be carried and used so not to cause injury to the user or others.
13. All tools should be kept clear of unnecessary grease, moisture or dirt.
14. Any moveable / adjustable parts should be lightly oiled to protect against corrosion and to prevent wear and misalignment.
15. Sharpening activities must only be carried out by professionals as it is a relatively skilled job.
16. Tools should not be left lying around, they constitute a severe tripping hazard and they are liable to get damaged.
17. Site supervisor to monitor hand tools which can deteriorate with time to ensure they are sharpened or replaced as necessary, and ensure that the tools are being used correctly
18. Specific checks should be made as followed:
 - Chisels for mushroom heads;
 - Hammer and file handles for deterioration;
19. Open-ended spanners for splayed jaws;

Details Work Sequence

*Where required the Client / Principal Contractor must provide risk assessments to Installation and Gas Maintenance operatives who may be exposed to any hazards from either the Clients / Principal Contractors or other contractor's operations.

1. Isolation of local gas supply will be carried out by Principal Contractor appointed competent persons. (GAS SAFE and ACS Registered) at the meter point. This must be disconnected from the mains cock, and the cock fitted with a cap to prevent the escape of gas. All isolation of gas supplies will be carried out in compliance with current industry standards and legislation.
2. Isolation of any electrical equipment at a consumer unit must be undertaken by a Principal Contractor appointed competent person.
3. Suitable isolation warning tape / sign will be attached to any isolated service to prevent unauthorised reconnection.
4. All pipe runs where required will be completed prior to the installation of heating system.
5. Dust sheets to be used to minimise damage to existing furniture and fittings.
6. All hot work will be subject to strict compliance with the Company's health and safety procedures including permit to work systems.
7. Portable Fire extinguishers will be available at all times.
8. The competent person must carry out a pre-installation inspection in accordance with GAS SAFE, ACS, manufacturers' guidance and installation procedures.
9. Carry out the pre-assembly of the boiler in accordance with manufactures guidance.
10. Carry out any pipe connection alterations.
11. Run pipe work as required, securing pipe runs above ceiling voids and around designated walls.
12. Dress radiators with valves and mark out positions as required by client.
13. Fix radiators to wall using brackets.
14. Run flow and return pipes from boiler to radiators.
15. Pipe up radiators.
16. Supply and fit boiler jig to wall following installation guide.
17. Hang and pipe up boiler.
18. Fit flue to boiler following manufacturer's guidelines.
19. Run condensate line from boiler to external wall, connect blow off to boiler to terminate externally all within manufacturers guidelines.

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20. Fill up then flush out system.
21. Carry out gas supply sound test.
22. Carry out spillage test.
23. On failure of spillage test follow ACS gas installation guidance. "DO NOT USE APPLIANCE NOTICES MUST BE PLACED ON THE APPLIANCE"?
24. All flue testing and installation and commissioning shall be carried out in compliance with current industry standards and legislation. A record of the same shall be kept in the company records.
25. At the completion of the work, the area will be cleared and handed back to the client in a safe and good condition.

Plant and Equipment to be Used - Mechanical and Electrical

Not Applicable

Materials Handling and Storage

1. As far as reasonably practicable all materials will be below the recommended guidance for manual handling lifting weight of 25kg.
2. In the event of any item weighing above that recommendation, mechanical aids / team lift will be provided to reduce the likelihood of injury from manual handling.
3. All materials will be stored in a designated area within the premises to prevent contact with the occupiers.
4. All materials will be secured to ensure the safety of the occupiers at the end of the working day.

Power Sources and Isolations Required include details of any Permit to Works (Hot work, Electric Isolations etc.

- Electrical sources either connected to the existing appliances or in immediate vicinity
- Gas supplies turned off at the meter and disconnected from the meter cock.
- Permit to work issued by the main contractor for isolation and for any hot working.

Training Requirements

- GAS SAFE

Hazardous Substances

1. Reference should be made to the COSHH Assessment Manual for full details of safety requirements.
2. Jointing compounds

Supervision and Coordination of Activities

1. The designated foreman will manage all activities on a daily basis and their responsibility is to control the working areas and interface Installation and Gas Maintenance activities with the occupiers, Principal Contractor, other trades and contractors.
2. The Foreman will have overall responsibility for the safe coordination of Pipe Solutions Plumbing & Heating Service's scope of works.
3. He will highlight any unsafe conditions or actions and will inform the operative, Principal Contractor and occupier if so required.

Environmental Considerations

Site environmental considerations issued by the Principal contractor must be adhered to at all times.

1. Under no circumstances must any waste materials, fuels or any other contaminate be allowed to enter the domestic drainage system.
2. All insulation and package materials will be disposed of in compliance with the company's environmental policy.
3. These include for general waste, timber, waste plastics and cardboard etc. and special waste.
4. As far as reasonably practicable, noise will be kept to a minimum whilst on occupied domestic premises.
5. Foul and abusive language will not be tolerated and operatives found using such language or gestures will be removed from site immediately.
6. Transistor radios will not be permitted on occupied premises unless permission has been given by the Principal Contractor.
7. The use of Mobile phones must only be used where necessary as site rules.

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Protection of the Public

1. Operative shall exchange information with the principal contractor/client representative for the works to ensure full reciprocal knowledge of existing hazards, demarcation of areas of responsibility and work hazards.
 2. Access equipment will be provided to ensure maximum safety of workers and occupants.
 3. Details of existing services will be obtained before the start of works.
 4. COSHH assessments shall be available for any materials used.
 5. Dust emissions to be minimised and/or contained to work area e.g. use exhaust ventilated tool, dampening work before or during clean up of area.
 6. Physical barriers and notices will be installed to isolate works from occupants.
 7. Work to be co-ordinated to reduce risks to third parties from trip hazards, no materials or tools to be left unattended on the public access thoroughfare, comprehensive signage/barriers to be used.
 8. Fire exit routes will be kept free from obstruction, or alternative routes to be clearly signed.
 9. When working within public thoroughfares, walkways, exclusion zones, other suitable measures to protect the public to be installed.
 10. Site Supervisor monitoring to include: initial checks to ensure safe systems of work are in place, that barriers and signage have not been removed or tampered with and that working areas are left safe and secure at the end of each work period.
 11. Regular liaison will take place with the client's representative for the works to co-ordinate work and eliminate hazards to them.
 12. Installation and Gas Maintenance traffic will be kept to a minimum and will only be for the purpose of delivering material and the transport of operatives to and from the premises.
 13. Vehicles will be parked in a suitable area so that they do not present a hazard to other road users and the occupiers of the premises being worked within.
- Local road traffic and pedestrian safety is paramount.

Waste Disposal Arrangements

1. All waste will be disposed of in compliance with current industry standards and legislation.
2. All waste will be segregated to ensure the reduction of waste.
3. All waste will be removed from the premises at the end of each working day
4. Burning of waste materials on domestic premises is strictly prohibited

Review of Method Statement

The site-specific supervisor responsible for the works will ensure that the work area has been inspected and is free from risk of injury or that suitable and sufficient measures have been taken to comply with current health and safety legislation prior to any work being undertaken.

All operatives will attend induction training and receive the method statement explanation. Operatives will be given the risk COSHH, noise and PPE assessments where applicable. Method statements and all the above-mentioned assessments will be closely monitored for compliance and where a safer alternative to the system of work can be improved, the method statement will be updated accordingly and the agreed system adopted. The company will encourage any new initiatives to a safer system of work by consultation with the work force, Supervisors and Managers for continuous improvement.

Communication of Risk Assessment and Method Statement

1. All operatives will be instructed of the risk assessment and method statement for their scope of works as part of the Tool Box Talk procedures prior to commencing work.
2. They must ensure they fully understand the work involved, the hazards and the level of risk they may be exposed
3. Following instruction, they each must sign the register attached
4. Each operative must work to the method statement, any deviation must be authorised by Installation and Gas Maintenance site manager and in agreement from the client.
5. Any operative not working to the specific method statement will be subject to disciplinary action.

