

PETER R JONES & ASSOCIATES

31 STEELES ROAD

M&E SERVICES BLUEPRINT

July 2019

PREAMBLE

- 1 The following sets out proposals (inter alia) for the Mechanical and Electrical services for the House.
- 2 The provision takes into account that the House is Listed but needs a modern approach to the services to be provided. The new provision will be sympathetic to the Listing status of the House and distribution will generally be concealed.
- 3 Scheme drawings and schematics will be produced for the new provision.
- 4 At completion instruction will be given by the installing Contractor to the Client on the operation of the new plant and systems.
- 5 O&M data and record drawings will also be provided by the Installing Contractor.
- 6 Test certificates for fixed services will be issued to Building Control by the Installing Contractor.
- 7 A drainage survey and report has been undertaken (note:- not by PRJ&A) but is inconclusive due to the lack of manholes to carry out such investigation. Further input will be required to establish drainage connections/routes.
- 8 The proposed Mechanical Services scheme has endeavoured to work in line with current Building Regulations in respect of boiler type, heating zoning of the upper and lower levels of the House and for mechanical ventilation of 'wet' rooms, utility room and kitchen.

BRIEF EXISTING

- 1 The heat for the House is generated by a single gas fired condensing boiler known as the 'Summer' boiler'). The relative feed and expansion tank is located in the main loft.
- 2 Heat emitters are generally radiators and towel rails connected by a network of copper distribution pipework. Skirting heating is present in the entrance hall.
- 3 2 no. vented hot water cylinders provide the domestic service for the House. They are installed in separate locations. 1 no. is heated by the boiler and the other by electrical means.
- 4 The incoming gas service runs to a meter located in the basement utility room.
- 5 The incoming water runs to a stopcock believed to be in the utility room or the external cupboards nearby (to be validated). The incomer is believed to be 15mm only. There is a cold water storage tank in the main loft.
- 6 Domestic piped services distribute to the various sanitary ware and fittings.
- 7 The incoming electrical supply runs to a head and meter located in the basement utility room. From this point outgoing distribution serves boards, sockets and lighting. The condition of the mains electrical cable in the utility room looks in poor condition and in need of replacement
- 8 External gutters and stacks are generally a mixture of black metal and plastic. There is a foul drainage stack of old lead pipe at the front of the House.

PROPOSED MECHANICAL & DRAINAGE SERVICES

- 1 The indicative scheme for the Mechanical Services is illustrated on accompanying drawings nos. PJA/9899/ME1-4 inclusive.
- 2 The intention is to install a new water main complete with meter from the Thames Water termination point at the site boundary adjacent to the main entrance run to serve the kitchen sink, boosted water break tank and outside taps. A water conditioner or softener will be installed.
- 3 The proposal is to relocate the gas meter to a new housing at the street boundary rather than retain it in the House. A new gas supply will be run to the House from the meter pipework and new pipework carcass will be carried out within the House to serve the new boiler, the kitchen hob effect fires.
- 4 The kitchen range will have an extract canopy with fan and ductwork to the building face.
- 5 'Wet' rooms and the utility room will be provided with mechanical extract ventilation.
- 6 A single gas fired unvented wall hung condensing boiler will provide the heat source to supply radiators and towel rails around the House together with heat to the hot water cylinders mentioned later.
- 7 A new network of heating flow and return will be distributed to serve the heat emitters and cylinders.
- 8 Self-finish cast sectional radiators will be installed throughout the House as a theme.
- 9 The heating system will be complete with pump set, zone/local controls, pressurisation unit(s) and expansion vessel.
- 10 The heating system will have water treatment chemicals introduced.
- 11 'Wet' rooms will have electric mat underfloor heating.
- 12 A carbon monoxide detector/alarm will be provided adjacent to the boiler.
- 13 Domestic water services for the House will be boosted using a 'Scuba' break tank with integral booster pumps. The existing cold water storage tank in the loft will become redundant. From the booster, a new cold boosted supply will split to serve the cold water distribution for the House and the hot water cylinders/hot water supply.
- 14 Domestic hot water will be generated by 2 no. unvented hot water cylinders linked together. The hot water system will have secondary flow and return distribution, the return being fitted with a hws circulator.
- 15 The domestic water system will be chlorinated and certificated.
- 16 A system of above ground foul drainage and wastes/ traps will be provided for the house with connection to the ground drainage and with vent terminals at roof level.
- 17 A system of surface water drainage will be provided for the house with connection to roof gutters and designated outlets on the terraces.

- 18 Gutters and external surface water/foul stacks will be renewed in traditional black cast style. The existing lead pipe will be retained. The drainage systems on the external faces of the building will be reconfigured to achieve a better visual look.

PROPOSED ELECTRICAL SERVICES

- 1 The intention is to replace the existing mains supply from the street with new.
- 2 New electrical distribution will be carried out throughout the House complete with distribution boards, sockets and light switches. Socket and light switches type/finish are yet to be selected.
- 3 The lighting scheme including external is yet to be finalised. Relevant details will be provided once finalised and where necessary.
- 4 A Fire detection system will be provided for the House. Fire Alarm systems for larger houses are covered by Building Regs Part B - Fire Safety Vol 1 ,page 13 clauses 1.5-1.7. For 3 or more storeys LD2 classification is required but with L2 detector coverage viz. all escape routes plus every room adjoining the escape route.
- 5 An AV/data system will be installed in the House. Heating controls may be part of the AV system or stand alone.
- 6 A security system will be provided for the House including door entry and CCTV. Any detectors and cameras will be discreetly located. Relevant details will be provided once finalised and where necessary.