PROPOSED REPLACEMENT RESIDENTIAL DWELLING
23 WISBECH ROAD, LONG SUTTON, LINCOLNSHIRE. PE12 9AG

Internal Walls:
All new internal walls at ground floor level are to be 100mm 'Thermalite Turbo' blockwork or equal approved blockwork clad both side with dot and dab plasterboard and a plaster skim. All new supporting walls constructed at ground floor level are to be taken down to a new concrete foundation as detailed and specified by the Structural Engineer. All walls taken down foundation are to have a 'Hyload' poly horizontal D.P.C. or equal approved to be installed a minimum of 150mm above finished ground level in complete accordance with manufacturers details and recommendations and to be fully lapped with D.P.M. layer located within the ground floor construction. Internal walls at first floor level are to be 100mm thk. timber studwork clad both side with plasterboard and a plaster skim finish. The internal void is to be filled with a minimum of 25mm thk. mineral wool insulation in order to to achieve a minimum 40db rating. Structural Lintels over openings within the supporting internal blockwork walls at ground floor are to be 'Catnic BSD100' or equal approved. Lintels over the are to be checked for suitability by the Structural Engineer prior to installation. All lintels to be as designed by manufacturer and to be installed with a minimum 150mm end bearing at each end. Non load bearing blockwork walls at ground floor level are to be built of the pre cast concrete floor structure, the manufacturer is to be made aware of the prior to the design and manufacture of the concrete floor.

Suspended Ground Floor Construction:
Floor construction to consist of the following elements: Precast suspended beam and block floor by 'Millbank' or equal approved manufacturer designed and detailed by the chosen manufacturer for the loads and spans as indicated on the preliminary suspended ground floor plan layout.1200 gauge 'Visqueen' or equal approved D.P.M. layer to be laid over the completed floor slab. D.P.M. to have a minimum overlap between sheets of 150mm and all joints are to be sealed with jointing tape as per manufacturers instructions and recommendations. Seal around all pipe and services penetrations with a proprietory top hat arrangement as per manufacturer instructions. Allow for sufficient excess sheeting for laps with the D.P.C. layer located with the external wall construction. 150mm 'Rockwool Thermal Rockfloor' insulation to be laid over the completed D.P.M. layer within the floor construction. All joints to be butted on the floor slab prior to the placement of the 75mm thk. floor screed being applied over the top. Floor screed to be trowelled to a smooth finish. Perimeter ' upstand insulation to be installed around the external perimeter of the floor screed to prevent cold bridging with the external wall. Contractor to ensure under floor ventilation to current building regulations with the insertion of Telescopic Adjustable Ventilators (TAR) by Cavity Trays Ltd. or equal approved into the external wall construction at low level. TAR's to be installed at a maximum of 2.000m centers to comply with current building regulations. Vents to be inserted to ensure cross ventilation is achieved beneath the entire suspended floor construction.

Warm Roof Construction:
New roof construction to consist of the following elements: softwood factory made prefabricated gangnail roof trusses @ 600mm c/c, secured to 100mm x 50mm softwood timber wallplate with propriatory truss clips by 'Expamet Building Products' or equal approved. 100mm x 50mm softwood timber wallplate with propriatory clips by 'Expamet Building Products' or equal approved installed at maximum 2.000m centers to strap the roof structure firmly to the external wall construction. Galvanised steel lateral restraint straps to be installed to the gable wall construction at maximum 2.000m c/c over a minimum of three rafters above installed on top of the rafters. Noggings to be installed directly below the straps to prevent distortion of the roof trusses in accordance with BS EN 845-1. 25mm. 150mm thk. 'Kingspan Kooltherm K107' style roof insulation to be installed between the roof trusses with a further 32.5mm 'Kinspan Kooltherm K118' with bonded plasterboard style insulation installed directly below the rafters to prevent cold bridging occurring through the timber rafters. A layer of 'Kingspan Nilvent.17' breather membrane or equal approved laid over the top of the timber rafters in accordance with manufacturers recommendations and instructions held in position with treated 38mm deep softwood timber counter battens installed over the timber trusses. New 38mm treated softwood timber tile battens are to be installed across the roof at centres to suit the chosen roof tile which will complete the roof construction.

Surface Water Drainage:
New 115mmØ half round UPVC rainwater gutter by 'Hepworth' or equal approved manufacturer to be connected to new 75mmØ rainwater dowpipes by the same manufacturer. New rainwater pipes to be secured to the external walls with propriatory wall brackets at centres as specified by manufacturer. Downpipes to be connected to 110mmØ UPVC underground drainage pipeworklaid to a fall of 1:150 to surface water soakaways located as indicated a minimum of 5.000m from any building or road and a minimum of 2.500m from any site boundary. They should not be located in areas of unstable land. Soakaway's are also to be located away from drainage fields or other soakaways so as not to exceed the overall soakage capacity of the ground. New soakaways to consist of 1.200m x 1.200m square x 1.500m deep excavation backfilled with selected clean brick rubble, 1000g D.P.C. located a minimum of 300mm below finished ground level to prevent the soakaway being filled in with loose material and a minimum 150mm topsoil. A detailed soakaway percolation test is to be carried out and the results approved by building control prior to construction on site.

Foul Water Drainage:
New foul drainage pipework to be 100mmØ by 'Hepworth' or equal approved manufacturer laid to a fall of 1:80 to existing anglian water foul drainage sewer located within Wisbech Road. Pipework to be connected via new plastic manholes at change of direction and pipework junctions to allow for easy access and cleaning as required. Manholes to be installed in complete accordance with manufacturers in instructions and recommendations. New back inlet gullies to be located at waste pipe locations bedded on a minimum 75mm thk .concrete base and back filled with selected as dug material, compacted by hand around the gully. A suitable plastic grating to be installed to the top of the gull and a precast sound provided to complete to gully. Integral waste pipe dimensions are to be as follows:

Appliance	Minimum depth pipe and traps	Depth of Trap seal	Type of Trap
W.C.	75mm	50mm	-
W.H.B.	32mm	75mm	Bottle Trap
Sink	40mm	75mm	Bottle Trap
Bath	40mm	75mm	'P' Trap
Shower	40mm	75mm	'P' Trap with Top access

Foul Water Drainage Continued:
Foul drainage pipework bedding to be 100mm minimum depth of 10mm single sized rounded aggregate in the base of the trench for pipe bedding. The trench is then to be backfilled with a mininum 150mm depth above the crown of the pipe with selected as dug material, compacted by hand in layers not exceeding 100mm thk., followed by as dug material laid over and compacted in layers of maximum 300mm depth. A final layer of 150mm set a side top soil is to be used to complete the backfilling process. All drainage pipework located under areas which may be subject to vehicular loading are to be protected with a reinforced concrete slab cast over the top of the pipes with a flexible filler and a minimum of 75mm granular material beneath the concrete slab all in accordance with current building regulations.

Staircase:
New staircase to be constructed to a minimum clear internal width of 900mm and a maximum pitch of 42° in accordance with current building regulations. The rise of the staircase is to be maximum 220mm and the minimum going to be 220mm (dimensions to be checked on site prior to fabrication of the staircase). Guarding to the staircase and landing area is to be a minimum of 1100mm above the finished landing level and a minimum of 900mm above the pitch line of the finished staircase all in accordance with current building regulations. All guarding to be designed and constructed to prevent the passage of a 100mm sphere passing between the apertures of the balusters. All guarding to be so designed so it is not easily climbable by children.

Electrical and Lighting:
Install first fix electrical sockets and switches as work proceeds. All electrical circuit wiring is to conform to current Institute of Electrical Engineers (IEE) 17th edition installation guides 1 to 7 and to BS 7671. Energy saving 'Double D' light bulbs to be fitted throughout the dwelling. All electrical work to meet the requirements of part 'P' of the current building regulations and must be designed, installed and tested by a competent and qualified person. Prior to completion the local authority should be satisfied that part 'P' of the current building regulations has been complied with fully. All new electrical switches and any additional electrical socket outlets to be located between 450mm and 1200mm above finished floor level in order to comply with current DDA requirements. All new lighting to have a luminous efficiency greater than 40 lumens per circuit watt and to be controlled at the rate of one switch per room (less than 25m² per switch). External lighting to be controlled by sensor with manual switch over ride facility. Lighting to be designed to ensure that it will automatically extinguish when there is enough daylight and when they are not needed. External lighting to have a luminous efficiency greater than 40 lumens per curcuit watt. The new consumer unit is to be set so the switches are located between 1350 and 1450mm above finished floor level. Contractor to ensure that all electrical outlets are installed above the predicted floor level to comply with current building regulations.

Building Security:
Contractor to ensure that the external doors of all the properties are to be installed with secure doorsets either manufactured to PAS24:2012 or designed and manufactured in accordance with appendix B or approved document 'Q' of the current building regulations. Letterplates where installed are to be a maximum size of 260mm wide x 40mm deep and are to be located so as to prevent or hinder people from trying to remove keys internally with a sick or other device, this can also be prevent with the addition of an internal flap of other features. The main front door should also be installed with a door chain or door limiter to prevent unwanted access. New windows are to be designed to meet the requirements set out in PAS24:2012. All frames are to be mechanically fixed to the structure in accordance with the manufacturers installation instructions.

Approved Document 'R'
New building work must be carried out so as to ensure that the new dwelling is equipped with a high speed ready in building physical infrastructure up to a network termination point for high speed electronic communications. Internally a suitable location should be identified for at least one network point for each dwelling. Suitable ducting should be installed to connect the network point to the access point. All works to be in accordance with part 'R' of the current building regulations.

Windows & Doors:
New windows and doors to be doubled glazed casement style in accordance with particular specification for each dwelling as detailed on the appropriate drawings. All Windows to have trickle ventilation equal to 8000mm² in accordance with current building regulations . New windows and doors to be fitted with a suitable draughting strip to comply with current building regulations. Opening windows and doors to be equal to a minimum of 1/20th of the floor area to achieve the required rapid ventilation requirements for building regulations.INT7 is to be installed with a continuous 10mm gap under the door in accordance with current building regulations. Escape windows are to provide a minimum area of 0.33m² with a minimum width of 450mm and a minimum height of 450mm. The bottom of the openable area should be located between a maximum of 1100mm and a minimum of 800mm above finished floor level

Glazing:
All glazing lower than 1500mm above finished floor level is to be toughened glass in accordance with BS 6206:1981. All remaining glass is to be laminated in accordance with BS7950 and PAS 024. Windows to achieve a 'U' value of 1.4w/m²k in accordance with current building regulations.

Heating Appliance:
New balanced flue to be inserted into the external cavity wall construction. The flue is to be located a minimum of 600mm from any openable window or door in accordance with current building regulations. The terminal is to be protected with a durable guard where it may come into contact with people. The terminal is to be located so as to prevent the entry of matter which may restrict the flue. A new gas fired boiler which is to be designed and specified by a specialist heating contractor is to be installed complete with a programmer,delay room thermostats, t and t and TRV's fitted to all radiators within the property. The installer of the heating system must be a competent person, and the holder of suitable commissioning certificates. The hot water supply to the baths for the properties is to be limited to 48°c with the use of an in line blending valve or other appropriate temperature control device. On completion all certificates are required to be submitted to the council prior to installation. Hot water storage system to be designed and installed in accordance with BS6700:2006 + A1:2009 Specification for the design, installation, testing and maintance of services supplying water for domestic use. The standard boiler specification should have a SEDBUK rating of 89.5% or better.

Extractor Fans:
New mechanical extractor fans are to be installed within the following areas to comply with current building regulations.

Room	Minimum Intermittent Extract Rate
Kitchen	60 l/s
Utility	30 l/s
WC / Bathroom	15 l/s

The extractor fan located within the kitchen can be reduced to 30l/s if it is located adjacent to the hob. If an extractor is installed within a bathroom without an openable window then a minimum 10mm wide gap is required beneath the door. In the location where a bathroom or ground floor W.C. does not have a window, the extract fan is to be installed with a 15minute overrun facility. Door INT7 is to have a continuous 10mm gap under the door as there is no window to the room.

Smoke / Heat Detectors:
All new smoke and heat detectors are to be electrically powered and wired on a separate electrical circuit to other equipment, detectors also to be installed with a separate back up battery supply in the event of a power failure on site. All detectors are to be installed in complete accordance with BS 5446: part 1:, Smoke alarms to be located within circulation spaces between sleeping and places where fires are mostly likely to occur ie. kitchens. The minimum requirement is to have a least one form of detection either a smoke or heat detector located at each habitable floor level. In the locations where the kitchen form part of the normal living accommodation without a dividing wall a heat detector is to be installed. All smoke detectors on the various levels to be interconnected so if one alarm is triggered, whether it is a heat or smoke detector all the other alarms sound.
The smoke alarms are to be sited to conform to the following criteria.

- At least one smoke alarm is located within the circulation space within 7.500m of all doors leading to habitable rooms
- The alarms are ceiling mounted and a minimum of 300mm from walls and light fittings
- The sensor located within a smoke detector is between 25mm and 600mm below the ceiling level.
- The sensor located within a heat detector is between 25mm and 150mm below the ceiling level.

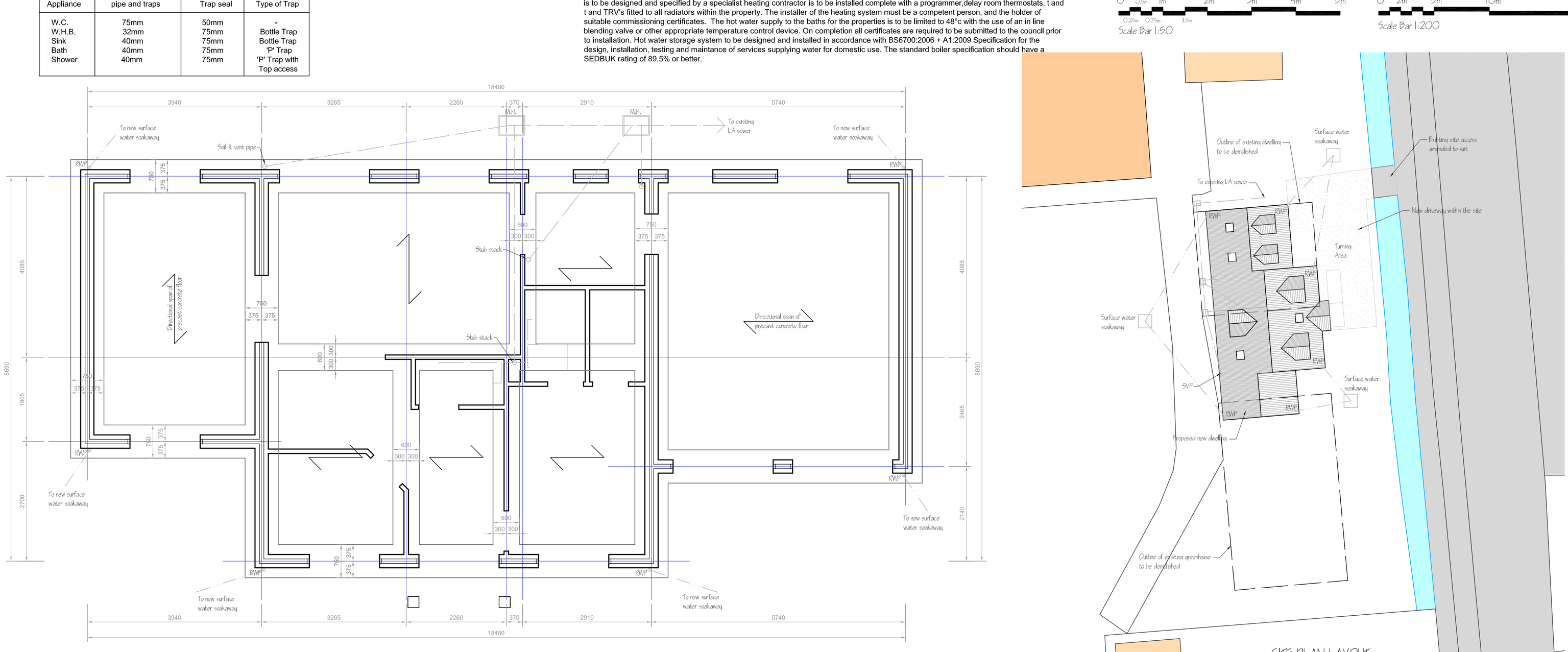
Carbon monoxide detectors to be installed into all rooms with a solid flue burning appliance. the location is to comply with the following building regulations requirements:

- on a ceiling at least 300mm from any wall or if located on a wall as high as possible (above doors and windows but not within 150mm of the ceiling
- between 1.000m and 3.000m horizontally from the appliance

Air Pressure Testing:
On completion all buildings to be pressure tested by an approved contractor in accordance with current building regulations, all properties are to achieve an APR of 6 as specified within the SAP calculations.

Internal Timber Floor above an Unheated Space:
The first floor construction over the ground floor garage is to be as follows:The timber prefabricated attic roof trusses are to form the floor construction, in between the ceiling joists a layer of 150mm 'Rockwool Flexi' insulation is to be installed with the manufacturers instructions and recommendations. Contractor to ensure that a minimum 20mm thick unventilated void is to be maintained between the top of the insulations and the underside of the finished first floor construction. The ceiling within the garage below is to consist of two layers of 12.5mm thk. plasterboard, joints staggered, taped and a plaster skim applied to ensure a minimum of 30minutes fire resistance in accordance with current building regulations. The first floor layer is to be a minimum of 18mm thk. chipboard. This construction will achieve a 'U' value of 0.25w/m²k.'

Dormer Cheek Construction:
Treated timber 100mm x 50mm studwork frame constructed to form the base of the dormer window framework supporting the roof construction above. Layer of 'TLX Silver' insulation to be installed on the rear of the studwork frame as directed by the manufacturer, on completion a 38mm x 38mm timber tile batten to be fixed through to the stud frame, followed by a layer of 12.5mm thk. plasterboard and skim. Internally a between the timber studs a layer of 35mm thk. phenolic foam insulation, 'Kingspan' or equal approved is to be installed, level with the external face of the construction. Externally a 22mm thk. plywood sheathing layer is to be installed followed by 'WEB UV ' breather membrane to allow the movement of any moisture trapped within the construction. 38mm x 38mm treated timber tile battens are to be installed externally and the dormer cheek construction is to be completed with the addition of the timber cladding as indicated on the proposed elevations. Timber to be decorated as directed by client.



PRELIMINARY FOUNDATION & SUSPENDED FLOOR LAYOUT

SITE PLAN LAYOUT

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CLIENT: MR. & MRS. T. PARKER
PROJECT: PROPOSED REPLACEMENT DWELLING
TITLE: PRELIMINARY FOUNDATION & SUSPENDED FLOOR LAYOUT, SITE LAYOUT & CONSTRUCTION INFORMATION

REV	DATE	DESCRIPTION
A	21.03.18	ADDITIONAL INFORMATION ADDED FOR BUILDING REGULATIONS APPROVAL

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PROJECT No: 18/721 | DRAWING No: (GA)1020 | REVISION: A
DRAWN: S.S. | CHKD: S.S. | SCALE: 1:100@A1 1:200@A3 | DATE: 21.03.18
STATUS: PRELIMINARY

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