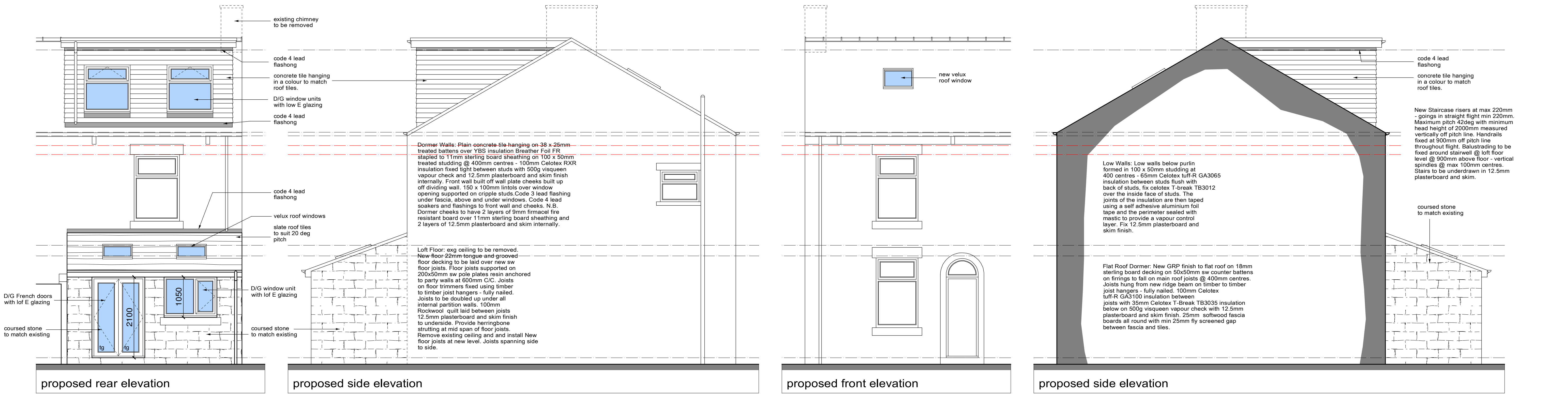




**Foundations:**  
650 x 300mm concrete trench fill taken down to firm bearing strata at min 900mm below ground level. Foundations to be taken down to invert of any drain within 1000mm of excavation.

**Drainage:**  
New drains bridged where passing through footings. Drains passing under building to be encased in 150mm concrete. All new drainage to be 100mm diameter Polypropylene Underground or similar drainage system. Pipes laid to self cleansing fall on 150 bed pea shingle. New gullies to be roddable NB Drainage systems to be checked on site to determine - combined or separate systems - if separate ensure foul and surface water are connected to correct drainage system.

**Structural Steel:**  
All structural steel to be encased in a minimum 18mm Gypsum plaster to give minimum half hour fire protection.

**Ground Floor Construction rear extension:**  
150mm concrete slab with floated finish on visqueen on 100mm Kingspan TR70 Thermofoam or equivalent insulation on 1200 gauge DPM lapped into DPC on 25mm sand blinding on consolidated hardcore. Provide 25mm ridged insulation to the edge of slab. Provide 100mm dia duct pipe through to air bricks with cavity trays over to vent any exg air bricks. U Value to be 0.18W/m<sup>2</sup>K

**External Walls traditional:**  
100mm coursed stone to match existing. 150mm cavity with cavity wall batts - 100mm thermolite black inner leaf dry lined in 12.5mm plasterboard and 100mm on Drywall dabs. Stainless steel double triangle wall ties (min 59mm embedment) 750mm horizontal c/c & 450 vertical c/c staggered and doubled up at all window and door reveals. Cavities to be closed at all reveals and at eaves - using Thermabate insulated cavity closers. NB all masonry below ground level to be in concrete common brick. DPC to be fixed at min 150mm above ground level. Provide cavity fill to 225mm below damp proof course. U Value to be 0.18W/m<sup>2</sup>K

**Partitions:**  
Stud walls formed in 100 x 50mm studding at 400 centres with 12.5mm plasterboard and skim finish both sides. All walls between WC & bedrooms to have 50mm sound deadening insulation between.

**Heating:**  
Mode of heating to extension as yet unknown if a new boiler to be fitted this is to have a Class A SEDBUK energy efficiency rating. NB All plumbing work to be carried out by GAS SAFE registered installer Hot water & heating systems to comply with Domestic Heating Compliance guide.

**Doors and Windows:**  
All new windows to be double glazed and have trickle vents not less than 8000mm<sup>2</sup>. All windows adjoining a door or a glazed door or less than 800mm above floor to be in toughened glass to BS6206 or EN12150. New and replacement windows and roof lights fully draught proofed & double glazed in Optiwhite (outer pane) 16mm argon filled air space with aluminium spacer bar with an inner pane of low emissivity 'k' glass to give a 'U' value of 1.4W/m<sup>2</sup>K or window energy rating band C certificates of compliance to be provided to building control on completion. New windows to habitable rooms without alternative at least 1no opening light with a clear opening of 450 x 750mm. Top hung Windows to have assist arms and stays to keep up

**Flashings:**  
Code 4 lead stepped and straight flashings with DPC cavity trays over at all abutments.

**En Suite Plumbing:**  
WC to have 100mm connection to existing soil pipe. shower to have 75mm deep seal anti vac traps with 38mm diameter wastes basin to have 75mm deep seal anti vac trap with 32mm diameter waste. All wastes bossed in to existing soil pipe.

**Ventilation:**  
Unless otherwise stated, room ventilation will be provided by natural means. Windows to incorporate; opening lights at least equal to 1/20th floor area, along with controllable trickle vents with an equivalent area of 5,000mm<sup>2</sup>. Where opening restrictors are to be provided the opening lights to be increased in size to 1/10th of the room floor area. Wet room areas to be afforded mechanical extract ventilation using the following extract rates:  
Kitchen 30 Litres/sec (adjacent to the hob)  
60 Litres/sec elsewhere  
Utility Room 30 Litres/sec  
Bathroom 15 Litres/sec  
Sanitary accommodation 6 Litres/sec.  
In addition, controllable trickle vents with equivalent area of area of 2,500mm<sup>2</sup>. All extracts to open air. Extractor to have minimum 15mins over run. Bathroom extractor to be connected to light switch.

**Lighting:**  
One third of the primary light fittings in the proposed extension (minimum one) to be of a type which will only receive high efficiency lamps.

**En Suite Plumbing:**  
WC to have 100mm connection to existing soil pipe. shower to have 75mm deep seal anti vac traps with 38mm diameter wastes basin to have 75mm deep seal anti vac trap with 32mm diameter waste. All wastes bossed in to existing soil pipe.

**Any new gas boiler to be min 90% SEDBUK condensing wall mounted with balanced fuel/stainless steel guard to outlet. Flues discharge in accordance with manufacturers instructions & to Building Regulations ADJ. Copy of the Building Regulations Compliance Certificate from your GAS SAFE installer to be provided. All new radiators to be provided with thermostatic valves. Provide a carbon Monoxide monitor when installing any boiler.**

**Roof Construction rear extension:**  
Roof tiles to suit 20deg pitch on sw tanalised battens on Kingspan Nilvent 17 Breathable Membrane with counter batten on 150x50mm sw rafters at 400mm c/c. 100 x 75 wall plates bedded on and strapped to blockwork @ 200mm centres. 300mm Rockwool insulation laid in 2no layers between and across ceiling joists - pack eaves with insulation. Ceiling joists underdrawn 12.5mm plasterboard and skim. Vaulted section Fix 125mm Kingspan K7 insulation tight between rafters ensuring 25mm air space is maintained over insulation. Fix 42.5mm Kingspan Kooltherm insulation across rafters to eliminate cold bridging - 500 gauge visqueen vapour barrier over insulation - fix 12.5mm plasterboard with 3mm plaster skim. Double up rafters to the side of velux windows. U Value to be 0.15W/m<sup>2</sup>K

