Schedule of Works
17 Atwater Court, Lincoln - Loft Conve

OAKLEY ESTATES
SURVEYING AND ACCESS CONSULTANCY

STATUS - COMPLIANCE SUBMISSION AND CC

1	**GENERAL PREAMBLES**	**Quant**	**Rate**	**Total**
1.1	**MATERIALS AND WORKMANSHIP** All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.			
1.2	**PLANNING NOTE** It is recommended that the Agent contact the local Planning authority for advice on all matters concerning permitted development. For the reasons highlighted in red Planning Permission will be sought. A loft conversion for your house is considered to be permitted development and not requiring an application for planning permission, subject to the following limits and conditions: • Materials must be similar in appearance to the existing house. • Volume of enlargement (including any previous enlargement) must not exceed the original roof space by more than: - 40 cubic metres for terraced houses; or - 50 cubic metres otherwise. - Must not exceed the height of the existing roof. - On the principal elevation of the house (where it fronts a highway), must not extend beyond the existing roof slope. • Must not include: - Verandas, balconies* or raised platforms; or - Installation, alteration or replacement of any chimney, flue, or 'soil and vent pipe'. • Side-facing windows must be obscure-glazed; and, if opening, to be 1.7 metres above the floor of the room in which they are installed. • Construction must ensure that: 1. The eaves and ridge of the original roof are maintained (or reinstated). 2. Any enlargement is set back, so far as practicable, at least 20cm from the original eaves. 3. The roof enlargement does not overhang the outer face of the wall of the original house.			
1.3	**Quantities:** All measurements and quantities given in the reports and specification are for guidance purposes only. The Contractor should ascertain all quantities and dimensions for tendering and construction by site measurement or take off from the drawings provided in the case of new build.			
1.4	**Making Good:** The Contractor is to make good all disturbances caused to any items outside the scope of works and return to their pre-existing condition, this will not be deemed as an additional item.			
1.5	**Protection:** The Contractor must allow for all necessary protection within the property and anywhere else on the site as required, to ensure that damage is not caused to any retained structures or finishes.			
1.6	**EXISTING STRUCTURE** Existing structure including foundations, floor, beams, walls, roof and lintels are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.			
1.7	**CDM 2015:** The contractor must comply in full with the Construction (Design and Management) Regulations 2015 and must undertake all roles and responsibilities required of them as Principal Contractor to discharge their duties.			
2	**DORMER CONSTRUCTION**	**Quant**	**Rate**	**Total**
	N.B - Dormer contruction and trimming out details to be strictly in accordance with the sepcialist truss designers specification.			
2.1	**DORMER WALLS** To achieve minimum U Value of 0.18 W/m²K Structure to Engineer's details and calculations. Tiles hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to Structural Engineer's details and calculations. Insulation to be 90mm Celotex GA4000 between studs with 50mm Celotex GA4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.			

2.2	**DORMER WARM ROOF** (imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²) To achieve U value of 0.15 W/m²K Glass reinforced plastic (GRP) system with aa fire rating and a current BBA or other approved accreditation be laid in compliance with manufacturers details by flat roofing specialist, on 22mm External Quality Plywood Decking with 150mm Celotex XR4000 on sw firings to minimum 1 in 40 fall on sw treated 44 x 170mm C24 flat roof joists at 600mm c/cs, as per WE. Consulting Engineers details provided by WE. Consulting Engineers. Cross-ventilation to be provided on opposing sides by a proprietary eaves ventilation strip to give 25mm continuous ventilation, with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a continuous 50mm air gap above the insulation for ventilation. Provide 12.5mm plasterboard over vapour barrier to the underside of the insulation. Plasterboard to be fixed joists and finished with a plaster skim. Provide restraint to flat roof by fixing using of 30 x 5 x 1200mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.			
2.3	**LEAD WORK AND FLASHINGS** All lead flashings, any valleys or soakers to be Code 5 lead and laid in accordance with BS 5534and BS EN 12588. Flashings to be provided to all jambs and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc.			
2.4	**LEAD VALLEYS** Lead-lined valleys to be formed using Code 5 lead sheet. Valley lead and two tiling fillets to be supported on min 19mm thick and 225mm wide marine ply valley boards on either side of the rafters. Lead to be laid in lengths not exceeding 1.5m with min 150mm lap joints and be dressed 200mm under the tiles. Roofing tiles to be bedded in mortar placed on a tile slip to prevent direct contact. Valley to have a minimum 100mm wide channel (125mm minimum for pitches below 30°). All work to be in accordance with the roof cladding manufacturer's details and BS 5534and BS EN 12588.			
3	**ROOF ALTERATIONS**	**Quant**	**Rate**	**Total**
	N.B -New truss to be installed as per the specialist truss manafacturers design and specification. The eaves height will be reinstated but the ridge height will riase some 30mm and planning permission has duly been applied for.			
3.1	**UPGRADE OF PITCHED ROOF** (imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²) Vented roof – pitch 22-45° To achieve U-value 0.16 W/m²K Existing roof structure to be assessed by a Structural Engineer and any alterations to be carried out in strict accordance with Structural Engineer's details and calculations, which must be approved by building control before works commence on site. The existing roof condition must be checked and be free from defects, as required by the Building Control Officer, any defective coverings or felt to be replaced in accordance with manufacturer's details. Roof construction - 47 x 100mm Grade C24 rafters at existing 600mm centres. Insulation to be 100mm Celotex GA4000 infilled between rafters and 60mm under rafters. Fix 12.5mm plasterboard (joints staggered) over VCL. Finish with 3mm skim coat of finishing plaster to the underside of all ceilings. (Cavity of 25mm provided by fixing battens between plasterboard and under rafter insulation - recommended where insulation under rafters exceeds 50mm). Maintain a 50mm air gap above insulation to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents in accordance with manufacturer's details.			
4	**SECOND FLOOR UPGRADE**	**Quant**	**Rate**	**Total**
4.1	**INSULATION OF SECOND FLOOR** Ensure first floor achieves modified half-hour fire resistance. New second floor –Joists to be 50mm minimum from chimney breasts. (as per trus mnafacturers details). Provide min 20mm t and g chipboard or timber board flooring. In areas such as kitchens, utility rooms and bathrooms flooring to be moisture resistant grade in accordance with BS EN 312. Identification marking must be laid upper most to allow easy identification. To upgrade to half hour fire resistance and provide adequate sound insulation, lay minimum 150mm Rockwool insulating material or equivalent on chicken wire between joists and extend to eaves. Chicken wire to be fixed to the joists with nails or staples, these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208. Joists spans over 2.5m to be strutted at mid span, use 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1200mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1, at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x ¾ depth solid noggins between joists at strap positions. All work to be in accordance with BRE-Digest 208, first floor ceiling to be checked for suitability in accordance with guide, if found to be unsuitable, first floor ceiling to be over boarded with 12.5mm Fire-line board.			
5	**FIRST FLOOR WALLS**	**Quant**	**Rate**	**Total**

5.1	**STUD ASHLAR/DWARF WALL** To achieve minimum U Value of 0.18 W/m²K Construct stud wall using 100mm x 50mm head and sole plates and vertical studs (with noggins) at 400mm centres or to Structural Engineer's details and calculations. Insulation to be 90mm Celotex GA4000 between studs with 50mm Celotex GA4000 over. Provide vcl and 12.5mm plasterboard over internal face of insulation. Finish with 3mm skim coat of finishing plaster All junctions to have water tight construction, seal all perimeter joints with tape internally and with silicon sealant externally.			
5.2	**OTHER INTERNAL STUD PARTITIONS** 100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm c/cs. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (e.g.100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions to be built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm plasterboard with skim plaster finish. Plasterboard to be taped and jointed complete with beads and stops.			
6	**STAIRS**	**Quant**	**Rate**	**Total**
6.1	**STAIRS** Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS585 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm. Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width and length of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight. Cupboard doors may open across the top landing where the swing is a minimum of 400mm from the tread. Min 2.0m headroom measured vertically above pitch line of stairs and landings. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.			
7	**FIRE SAFETY**	**Quant**	**Rate**	**Total**
7.1	**MEANS OF ESCAPE (converting a bungalow)** Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. The window should have an unobstructed clear openable area that is at least 0.33m² and have no clear dimension less than 450mm high or 450mm wide. The bottom of the openable area should be not more than 1100mm above the floor. The window should enable the person to reach a place free from danger from fire.			
7.2	**SMOKE DETECTION** Provide a linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard. System to be mains powered with battery back up. At least one smoke detector to be provided in each hallway and landing. In hallways exceeding 7.5m in length, no point within the hallway should exceed 7.5m from the nearest detector and no bedroom door should be further than 3m from the nearest smoke alarm. If ceiling mounted they should be 300mm from the walls and light fittings. Mains-wired, interlinked smoke detector to be provided to the circulation spaces, including the newly formed second floor landing and principal living rooms.			
7.3	**COMPARTMENTATION** The new and existing stairway must be enclosed in a protected structure that achieves 30mins fire resistance; any new doors must be FD20 fire doors and any existing doors must be replaced or upgraded to an FD20 standard. Fire doors will be required to all habitable rooms and cupboards opening into the protected stairway			
8	**ELECTRICAL**	**Quant**	**Rate**	**Total**
8.1	**COMPLIANCE** All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a Competent Person registered under a Competent Person Self Certification Scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to Building Control on completion.			
8.2	**ELECTRICAL FIXRURES** Allow for the electrical fixtures and fitting as shown on Drawing Squirrels/DWG/03 - Proposed First Floor Plan. Final positioning to be agreed with the client on site prior to installation .			
8.3	**INTERNAL LIGHTING** Install low energy light fittings that only take lamps having a luminous efficiency better than 80 lumens per circuit watt. All fixed to have lighting capacity (lm) 185 x total floor area, to comply with Part L of the current Building Regulations and the Domestic Building Services Compliance Guide.			
8.4	**FOLLOW UP NOTES** All new wiring is to be chased into walls or run through floor voids and protected as required. Routes to following standard guidelines and to be vertical.			

8.5	Allow inclusion of the following: Fixings of every description • Conduit fixings including couplers, bushes, block nuts, clips etc. • Cable clips and saddles • Earthling clamps • Cable bonding nipples • Isolating bushes • Minor accessories			
8.6	Agree cable routes and ascertain precise locations for outlets, luminaries, appliances, control gear and other equipment before commencing the installations. Allow for accessibility of wall mounted switches and socket outlets which is from 450mm up to 1200mm.			
8.7	All recessed lights are to be fire rated. The IP rating of each fitting is to be suitable for the room and intended use.			
8.8	Allow for engraved switched plates for major appliances.			
9	**VENTILATION**	**Quant**	**Rate**	**Total**
9.1	**BACKGROUND VENTILATION** Controllable background ventilation at least 1700mm above floor level to be provided to new habitable rooms and kitchens at a rate of min 8,000mm², and to bathrooms at a rate of min 4000mm. Background ventilators to be tested to BS EN 13141-1. Background ventilator equivalent area and operation to be measured and recorded.			
9.2	**EXTRACT FOR SHOWER ROOM** Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 l/s. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the door to aid air circulation. Ventilation provision in accordance with the Domestic Ventilation Compliance Guide. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.			
10	**WASTE AND DRAINAGE**	**Quant**	**Rate**	**Total**
10.1	**RAINWATER DRAINAGE** The rainwater goods of the main dwelling are not required to alter. The rainwater from the new dormer windows will discharge onto the existing roof			
10.2	**UNDERGROUND FOUL DRAINAGE** Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1			
10.3	**WASTE DISCHARGE** The foul waste here will be connected into the existing soil stack that is situation in close proximity. A rodding eye is to be provided where the W/C connects.			
10.4	**ABOVE GROUND DRAINAGE** All new above ground drainage and plumbing to comply with BS EN 12056-2 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti-vac bottle traps and rodding eyes to be provided at changes of direction. Size of wastes pipes and max length of branch connections (if max length is exceeded then anti-vac traps to be used). Wash basin - 1.7m for 32mm pipe 3m for 40mm pipe. Bath/shower - 3m for 40mm pipe 4m for 50mm pipe. WC - 6m for 100mm pipe for single WC. All branch pipes to connect to 110mm soil and vent pipe terminating min 900mm above any openings within 3m. Or to 110mm upvc soil pipe with accessible internal air admittance valve complying with BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting. Waste pipes not to connect on to SVP within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate. Supply hot and cold water to all fittings as appropriate.			
10.5	**PIPEWORK THROUGH WALLS** Where new pipework passes through external walls the pipe work is to be provided with 'rocker pipes' at a distance of 150mm either side of the wall face. The 'rocker pipes' must have flexible joints and be a maximum length of 600mm. Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe: mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.			
10.6	**GENERAL** Supply and install as necessary all waste pipework in accordance with part H of the building regulation to fittings as detailed below. Run pipe work in an unobtrusive manor as possible. Clip all pipework to wall and provide adequate rodding eyes at changes of directions as required by length.			
11	**HEATING AND PLUMBING**	**Quant**	**Rate**	**Total**

11.1	**HEATING** Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations. The energy performance of the new components to be assessed. The results should be recorded and given to the building owner. All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.			
11.2	All pipework to be compliant with current building regulations is to be concealed where possible. New pipework is be installed in the most efficient routes to serve the system and not necessarily use existing routes, the routes are to be confirmed with the Contract Administrator.			
11.3	Allow for all local isolation values and stopcocks to each appliance and air vents and drain cocks to ensure the installation can be easily fitted, vented and maintained.			
11.4	All piping must be Copper in material with soldered joints. All piping should have the correct clips and spaced. The distance between pipe clips, or any pipe supports, is dependent on the size of pipe, wall thickness. The larger the diameter, and greater the wall thickness, the wider the spacing should be between the supports/clips			
11.5	All exposed pipework (where unavoidable) shall be Boxed in or painted as appropriate. Generally vertical pipe drops should be boxed in to avoid the risk of burns in areas of high circulation (such as hallways or near doors)			
11.6	Pipework in unheated spaces shall be insulated to comply with the maximum permissible heat loss and labelled accordingly			
12	**WINDOWS**	**Quant**	**Rate**	**Total**
12.1	**SAFETY GLAZING** All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current building regulations. i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.			
12.2	**NEW AND REPLACEMENT WINDOWS** New and replacement windows to be double glazed with 16-20mm argon gap and soft coat low-E glass. Window Energy Rating to be Band B or better and to achieve U-value of 1.4 W/m²K. The door and window openings should be limited to 25% of the loft room floor area. Insulated plasterboard to be used in reveals to abut jambs and to be considered within reveal soffits. Fully insulated and continuous cavity closers to be used around reveals. Windows and door frames to be taped to surrounding openings using air sealing tape.			
15	**ENSUITE BATHROOM**	**Quant**	**Rate**	**Total**
15.1	Supply and install W/C, as specified by the client. Complete with cistern and spatulate handle- include for all connections and modifications to pipework. Waste pipework to go straight back where ever possible.			
15.2	Supply and install WHB as specified by the client, including pair lever action chrome taps, trap; including provision of 1000mm overflow waste and 1000mm copper cold water supply. Complete with brackets, new taps and waste fitting, pipework including any adjustments, provide new service valves if not already installed, complete with new plug and chain, plastic trap, connect to waste and test all joints. silicone sealant between splashback and basin, cross bond and remove waste and debris.			
15.3	Supply & install shower cubicle, as specified by the client, prepared floor including waste adaptor & waste fitting:- 1500 x 820mm AKW code 21064 (Waste pipe priced separately) Undertake the supply and installation of new tray, rigidly connected with isolation valves, make connection to waste pipework, include for all plumbing sundries including waste, with new trapped rod-able waste outlet suitable for the location and discharged into the sewer. The tray is to be installed strictly in accordance with the manufacturer's fitting instructions. Include full height glass screen.			
15.4	Install electric shower unit as specified by the client. Complete with hose, shower head, riser rail and incorporating advanced temperature stabiliser for constant temperature control. Make all connections to water supply including running additional pipework as necessary, provide new service valve. Make electrical connections including provision of double pole switch, cable, conduit and, RCBO protection, 45amp double pole switch, test, provide certificate. Make good all finishes on completion, and remove waste and debris. Plumbing and electrics are to be buried in the wall or concealed above ceiling.			
15.5	Supply and install towel rail, including wiring, test, provide certificate, building work, and making good.			
15.6	Fix new, wall tiling as specified by the client, to prepared surface. Tiles to be fixed in accordance to manufacturers recommendations using waterproof grouting. Provide stop end quadrants to all edges of tiling. Seal edges to appliances with a neat bead of silicone seal {white} to BS 5889 type B fungicide. Polish wall tiling with a dry cloth when joints are hard. Cut tiles to be kept to a minimum, as large as possible in unobtrusive locations. Extent of tiling to be agreed with the client.			
16	**Floor Coverings**	**Quant**	**Rate**	**Total**

16.1	Provide flooring to all areas as per clients specification - in every instance the flooring to be laid strictly in accordance with manufacturer's specifications. Where flooring is to be made up of more than one piece, it is to be formed from the minimum number of separate pieces required to fully finish the flooring and up stands. Flooring should be adhered with the appropriate manufacturer's adhesive and all joints must be cut in, grooved and hot welded. All internal/external mitres of vinyl in wet areas to be hot welded and any exposed edges to sanitary ware, pipe work etc to be sealed with mastic in matching colour, doorway edges are to be finished with a suitable aluminium edging strip allowing for easing & adjusting doors where required. Ensure a silicone seal is added around the base of the toilet and WHB. Inclusive of all jointing, welds etc			
17	**Part L - Conservation of Fuel and Power**			
17.1	**HEATING** Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations. The energy performance of the new components to be assessed. The results should be recorded and given to the building owner. All accessible pipes to be insulated to the standards in Table 4.4 Approved Document L.			
17.2	**CONTINUITY OF INSULATION AND THERMAL BRIDGING** The building fabric to be constructed so that the insulation is reasonably continuous across newly built elements. Drawings to be provided for junctions to prevent thermal bridging, guidance in Building Research Establishment's BR 497 or other independently assessed thermal junction details to be followed. Before elements are concealed, photographs of the details and an on-site audit to be undertaken to confirm that the designed details have been constructed in line with the guidance in Appendix B.			
17.3	**LIMITING HEAT LOSSES AND GAINS** In accordance with Table 4.4 Approved Document L Insulation to be provided to: - Primary circulation pipes for domestic hot water. - Primary circulation pipes for heating circuits where they pass outside the heated living space and voids to be insulated. - Pipes connected to hot water storage vessels for at least 1m from the point at which they connect to the vessel. Secondary circulation pipework.			
18	**Condensation**			
18.1	**CONDENSATION** Walls, floors and roof of the building to be designed and constructed so that their structural and thermal performance will not be adversely affected by interstitial condensation, surface condensation or mould growth. Account to be taken of the building's form and orientation in relation to topography, prevailing winds, sunlight and over-shadowing, and the rate at which humidity is generated. Materials with the highest vapour resistance should be located on the warm side of a thermal element. VCLs to be provided where necessary. The junctions between elements are designed to Accredited Construction Details or guidance of BRE IP17/01] and BS 5250:2011+A1:2016 Code of practice for control of condensation in buildings to be followed.			
19	**Hot and Cold Water Supply**			
19.1	**WATER EFFICIENCY** The estimated water consumption not to exceed 125 litres per person per day in accordance with Approved Document G2 (or 110L per-person if required by the planning conditions) . Water Efficiency to be calculated using the 'Water Efficiency Calculator for New Dwellings' or from the list of fitting from the 'Table of fittings' in ADG to comply with part G. The results submitted to building control before works commence on site. Water calculation to be in compliance with Code for Sustainable Home Level 3/4 as stipulated by the local Planning Authority. Example calculation below; WC 5/3 (dual flush) Taps (excluding kitchen taps) 4 Baths 180 Shower 8 Kitchen sink taps 6 Washing machine 8.17 (not supplied) Dishwasher 1.25 (not supplied) Water recycling 0 (not supplied) Predicted per capita consumption (Code) 103.28			
19.2	**COLD WATER SUPPLY** There must be a suitable installation for the provision of a wholesome water supply in accordance with Approved Document G. Cold water supply to be provided to washbasins, bidets, baths, WCs, showers, any place when drinking water is drawn off and to any sink provided in areas where food is prepared. Supply of wholesome cold water to comply with section 67 of the water industry act 1991 and the Water Supply Regulations 2000.			

19.3	**HOT WATER SUPPLY** All bathrooms, washbasins, bidet, baths and showers to be provided with adequate hot and cold wholesome water supply in accordance with Approved Document G3. Washbasin with hot and cold water supply to be provided in or adjacent to all rooms containing a WC. A sink with hot and cold wholesome water also to be provided to any area where food is being prepared.			
20	**COMPLETION**			
20.1	The contract will not be considered complete until all certificates are provided. Required information is listed below; (List not Exhaustive) • NICEIC Minor Works Installation Works Certificates; • NICEIC Electrical Installation Condition Report; • Building Control certificates (or competent person scheme registrations); • Others Gas Safe/OFTEC/ETC • Client Documents? **PRACTICAL COMPLETION WILL NOT BE ISSUED UNTIL ALL CERTIFICATES ARE RECEIVED.**			
21.2	Allow to undertake a thorough professional clean of the internal and external areas on completion and leave the site in a tidy condition. Include for cleaning windows internally and externally as part of this.			