RUBICON
Building Consultancy

Phase II
Pierremont Hall
Broadstairs
Kent

General Specification

February 2020

Rubicon Building Consultancy Ltd
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1. PRELIMINARIES.

1.1. The property to which this specification relates to is part of a larger office building which has undergone a refurbishment. This is phase II which consists of the demolition of an existing timber framed extension, the rection of a new extension and refurbishment of the existing Council offices.

1.2. Listed Building consent has already been obtained. All works must be carried out in accordance with the current Building Regulations and be checked and approved by the Building Control Surveyor.

1.3. Contractor must carry adequate public and employer's liability insurance. A copy of the policy must be submitted to the Design Consultant and the CDM Principal Designer.

1.4. The Contractor is to have visited the site during tender and prior to start of contract works to fully acquaint himself with the site in terms of access, parking, storage, services and all matters affecting the contract of works.

1.5. A responsible person will be expected to be on site at all times to manage and run the job during the contract.

1.6. JCT Minor works contract is to be signed between Contractor and Client and this will include a £250 per week penalty clause for late completion.

1.7. Payments to the Contractor will be by valuation and certification by the Design Consultant on a 4-weekly basis (14 days to pay on certificate) with a 5% retention on each

certificate. There will be a 6-month retention period after "practical completion" with a 2.5% retention held.

1.8. The Client is:-
Danielle Dunn Town Clerk Broadstairs and St Peters Town Council

1.9. The Design Consultant is:-
Rubicon Building Consultancy Ltd

1.10. All works must be carried out in accordance with this schedule of works and drawings listed in the drawing register.

1.11. This specification is to be read in conjunction with Design Consultants drawing nos. as shown in the drawing register and any structural calculations.

1.12. **Ian Pyne BSc MICE CEng** has been appointed as the structural engineer and will prepared calculations and design of beams/columns for the project.

1.13. Disposal of Rubbish.
All materials must be disposed of via licensed skip or other authorised method of disposal.

1.14. Nuisance.
Appropriate measure should be taken to avoid and prevent nuisance to the occupiers of adjacent offices.

1.15. ***Note***: All notes on the drawing should be considered and any item that is not included in the schedule or is an extension to

any item should be priced and included in the final tender sum.

1.16. If there are some minor discrepancies between the Design Consultant's and this specification, the Design Consultant's drawings always take precedence. Updated drawings may be issued prior to the start of works, if necessary, following the approval of the building regulations.

2. MATERIALS AND WORKMANSHIP CLAUSES.

2.1. Description of materials and workmanship shall apply to the whole works, regardless of headings under which they have been described.

2.2. Unless otherwise specified all materials shall be in accordance with the latest relevant British Standard Specifications, and Workmanship shall not be inferior to that laid down in the latest relevant British Standard Code of Practice. For the purposes of this Contract where the word 'should' occur in a Code of Practice, it is deemed to read 'shall'.

3. DEMOLITION, STRIPPING OUT AND ALTERATIONS.

3.1. Materials arising out of the demolition of work, are, unless otherwise stated, to become the property of the Contractor and he is to allow credit for the same in his Tender and to allow for well watering down to avoid dust.

3.2. In all items of pulling down, demolition and cutting holes in floors, allowance is to be made for properly shoring up and supporting as necessary, all surrounding and adjoining works and including any cutting away and making good found to be required, in connection therewith and for providing all necessary fans, screens, tarpaulins and other coverings and for altering, adapting and maintaining all such temporary works from time to time to suit the progress of the works and for clearing away at completion or when no longer required. All damage that may arise either directly or indirectly by reason of such pulling down or demolition is to be made good by the Contractor at his expense.

3.3. All items of removing, taking out or pulling down shall include for disposal, either on or off site unless otherwise described.

3.4. Where materials are described as placed in store, the Tender is to include for taking to the Employer's store where directed on site and such materials are to remain the property of the Employer.

3.5. All items shall include for making good in all Trades with new materials and workmanship of similar quality to the existing work and where existing finishes are to remain, the making good shall be with new materials to match existing and making out shall be with new materials.

3.6. Where existing services are described to be taken out, the Contractor is to remove pipe work, brackets and fixings and make good holes in walls and floors, facings and holes in roof

and finish.

4. CONCRETE WORK.

4.1. All workmanship should comply with the British Standard Code of Practice B.S. 8110 Part 1. 2. 3.

4.2. Cement shall be ordinary Portland Cement of British manufacture, complying in all respects with B.S. 12.

4.3. All necessary precautions shall be taken to protect consignment from the weather and other adverse conditions, and no cement shall be used of which any part has set by reason of the weather or any other cause.

4.4. Fine Aggregate - Course aggregate shall comply with B.S. 882 and shall consist of natural gravel or crushed stone, well graded from 20mm down to 5mm.

4.5. Concrete Works. All concrete shall have a specified works cube strength of 21 n/mm2 at 28 days obtained in accordance with Clause 209 Designed Concrete Mixes laid down in British Standard Code of Practice B.S. 8110 Part 1. 2. 3. 'The Structural Use of Reinforced Concrete in Buildings.

4.6. Mixing Concrete. Materials for concrete shall be measured in approved gauge boxes.

4.7. The amount of water shall be sufficient enough to give a good workable mix.

4.8. Mixing, unless otherwise approved, shall be carried out in an

approved batch mixer and shall continue until there is a uniform distribution of materials and the mass is uniform in colour and consistency.

4.9. Ready Mixed Concrete. The Contractor may, if he wishes, use ready mixed concrete from a supplier approved by the Design Consultant. The ready mixed concrete shall comply with the B.S. 1926.

4.10. Placing Concrete. All concrete shall be transported and placed as rapidly as possible after mixing and in all cases within 20 minutes, by approved means, to prevent segregation and loss of ingredients.

4.11. Concrete beds are to include all necessary construction joints, which shall be approved in positions by the Design Consultant and Building Control Surveyor.

4.12. Protection. All concrete shall be prevented from drying out too quickly during hot weather, by covering or other means. For covering and protection etc., during frosty weather see 'Preliminaries'. No concrete shall be made with frozen materials or carried out during cold weather after the shade temperature is 4 oC on a falling thermometer or until it reaches 1 oC on a rising thermometer.

4.13. Reinforcement. Mild steel reinforcing rods shall comply with B.S. 4449 and High Tensile deformed steel bars shall comply with B.S. 4449. All steel shall be free from oil, dirt, loose rust scale or other deleterious matter, immediately before the placing of the concrete. Reinforcement shall be cut to length, hooked, bent and cracked as required, securely fixed in position to avoid

displacement during tamping and secured at laps and intersections with binding wire or other approved means.

4.14. Form Work. Materials used for form work, design of form work and time which shall elapse before striking shall be to the approval of the Design Consultant. 'Wrought - Form Work' shall include for lining with a suitable material to secure a smooth finish and for subsequently rubbing down surfaces left from the form work with a carborundum stone to leave the concrete surfaces smooth with true arises.

4.15. Precast concrete described as 'finished fair' shall be similarly finished.

4.16. Concrete Lintels and Padstones. Concrete lintels may be precast or cast in-situ. When pre-cast tops shall be clearly marked. Surfaces shall be keyed where to be plastered or finished fair as required.

5. BRICKWORK AND BLOCK WORK.

5.1. Bricks. All bricks shall be the best of their respective kind - hard, square, sound and even in size, to the Design Consultants approval, and shall be stacked and not tipped.

5.2. All bricks shall be acquired from an approved manufacturer and/or reclaimed bricks to match existing, and care is to be taken in their handling, and no damaged bricks shall be used.

5.3. Samples. Samples of all types of bricks, taken at random from the load, shall be provided for approval by the Design Consultant before being used and all subsequent deliveries

shall be up to the standard of the samples provided.

5.4. Sand. Sand for mortar shall be naturally occurring sand or consist of crushed rock or gravel or a combination thereof with naturally occurring sand. It shall be clean and comply in all respects with B.S. 1199 and 1200 and shall be well graded from 5mm down in accordance with Table 1. therein.

5.5. Lime. Lime shall be calcium hydrated, semi-hydraulic building lime complying with (1) B.S. 6925 Class B. for building.

5.6. Proportions for Mortar. Cement mortar shall consist of one part Portland Cement to three parts of sand by volume.

5.7. Gauged mortar shall consist on one-part Portland Cement to two parts of lime, to nine parts of sand by volume, or one part of cement to eight parts of sand by volume and an approved plasticiser.

5.8. Mixing Mortar. Ingredients for all mortars shall be measured in proper gauge boxes on a boarded platform, mixed by means of an approved mechanical batch mixer. All mortars shall be used within an hour of mixing.

5.9. Brick Work. In dry weather all bricks shall be damped with water before being laid and tops of walls left off shall be similarly damped before work is recommenced.

5.10. All bricks shall be well buttered before being laid and all joints shall be thoroughly flushed up as the work proceeds.

5.11. Brick work shall be carried out in a uniform manner, no one portion being raised at one time more than 900mm above another. All prebends, quoins etc., shall be kept strictly true and square, and the whole property bonded together and leveled round.

5.12. Four courses of brick work shall rise 290mm.

5.13. All fair face and faced brick work shall be kept clean and free from splashing. Rubbing or stained brick work will not be permitted.

5.14. Bond. All brick work bonding shall be built to match existing except half brick walls which unless otherwise described, shall be built in stretcher bond. No bats shall be used except where required for bond.

5.15. Pointing. All fair faced brickwork internally shall be pointed with a neat flush joint and fair faced work and facings externally shall be painted to match existing adjacent work.

5.16. Frost. For covering up and protection etc., during frosty weather, see 'Preliminaries'.

5.17. Damp Proof Courses. These are to be bituminous felt to B.S. 743 type 'D'. Lap joints to be a minimum of 300mm. Provide damp proof courses to all new window and door openings to vertical faces. Provide DPC's over window and door lintels.

6. LEAD WORKS.

6.1. Generally. The works described in this specification is to include all jointing material, copper nails, oak and lead wedges, wall hooks, tacks, lead collars, felt or paper underlays, etc., necessary to make the construction perfect. All lead work to LDA guidelines and recommendations.

6.2. Sheet Lead. The sheet lead to be the best English sheet milled, to comply with B.S. 1178: to well and neatly dressed without injury to the surface and is not to be laid in sheets longer than 3 metres or in greater areas than 2.5 m2. Provisions are to be made to allow the lead to expand and contract without injury. No solder is to be used in laying gutters, flats and other work to roofs, etc., except where quite unavoidable. All nailing to be done with copper nails. The flats and gutters to be laid to a minimum fall of 300mm in 3 metres towards drips and outlets, and to be well and neatly dressed into rebated drips and over rolls, with bossed end to rolls and bossed intersections.

6.3. Flashing. The lead where turned up against vertical surfaces (to walls etc.) to be covered by a cover flashing of (Code 4) lead 150mm in height, the upper edge to be dressed to a right angle and inserted 25mm into joint of brick work immediately above the edge of the turned-up portion of the gutter, the remainder of the flashing to be neatly dressed against the turned-up portion of the gutter, the cover flashing to be secured to the wall with lead wedges, and the joint pointed in cement. Lapped joints to flashings to lap 100mm and valleys, ridges and hips not less than 125mm, all edges where necessary to be neatly welted.

7. CARPENTRY AND JOINERY.

7.1. Timber Generally. Timber for carpentry shall be to the approval of the Design Consultant, suitable for the purpose for which it is intended and is to be well seasoned (moisture content not to exceed 22%) and sawn square all round free from splits, excess of wane of discoloured sapwood, injurious open shakes, large loose or dead knots decay and live insect attack and with a relatively small percentage of sound knots. The materials and workmanship for structural timber shall comply with B.S. 5268 Part 2.

7.2. Timber for carcassing shall be Douglas Fir, Western Hemlock or European Whitewood complying with B.S. 881 & 559 and B.S. 4978 and timber for joinery shall be Red or Yellow Deal complying with B.S. 1186 Part 1.

7.3. All timber shall be stored in a dry place and the moisture content when delivered is to such as is appropriate to the use and location of the work. Tanalised timbers shall be used in roof construction and where exposed or built into brick work.

7.4. Ply Wood. Ply wood shall comply with B.S. 6566 and exterior quality shall be used for all external purposes.

7.5. Chipboard. Chipboard for flooring to be graded to B.S. 5669 Type II. Minimum of 18mm thick and all edges are to be supported. All chipboard to be kept dry.

7.6. Selected timber shall be specifically selected as being suitable for either leaving without decoration or for a transparent finish such as oiling, varnishing or polishing and prices shall include for

matching adjacent pieces to the same colour without recourse to staining.

7.7. Sizes. Unwrot timbers shall hold the full dimensions specified. Where finished sizes are specified, timbers must hold up to the sizes given.

7.8. Keep Clean. All wrot surfaces shall be finished with a glass papered or scrapped surface for decorations as required.

7.9. Defective Work. All joinery that splits, shrinks or warps from that of seasoning, unsoundness of bad workmanship shall be removed and replaced without charge.

7.10. Preparation. Framed work shall be prepared and knocked together loosely, as soon as practicable after the Contract has been signed and glued up when required for use. Joinery to be painted shall be knotted and primed before leaving the shop.

7.11. Fixing. Where soft wood or hard wood is to be planted on, nails shall be punched, and the hole stopped.

7.12. All screws used for fixing soft wood or hard wood are to be brass screws for exterior works or steel screws to be used for interior works.

7.13. All work described as plugged shall be fixed with 'Philplug' or approved cold caulking compound well rammed into drilled holes and finished flush.

7.14. Unless otherwise described, plugging for fixing timber shall be at such intervals as will provide adequate fixing to the approval of

the Design Consultant.

7.15. The quality of the available types of timber and the quality of the workmanship in joinery shall be in accordance with B.S. 1186 Parts 1 and 2.

7.16. Timber shall be sound, well-conditioned, properly seasoned to suit the particular use, free from defects or a combination of defects rendering it unsuitable for the purpose intended.

7.17. Softwood shall be 'Douglas Fir No. 1. Clear land Better'. Dimensions in soft wood shall comply with B.S. 4471.

7.18. Structural Timbers. All structural timbers shall be to B.S. 4978 and B.S. 5268 Part 2 and shall be treated with anti-wood worm fluid.

7.19. Hard Wood. Sample of each type of hardwood or representative sections for use in the works shall be previously submitted by the Contractor for the Design Consultant's approval.

7.20. Hardwood shall be best quality oak, mahogany, walnut (English or African) or Beech in solid and veneers to first class quality where required on drawings. A balancing veneer will be used on the backs of all veneered work.

7.21. Blockboard shall be grade 'S' bonded internally in accordance with B.S. 3444.

7.22. Laminboard shall comply with B.S. 3444.

7.23. All sizes stated for joinery are finished sizes.

7.24. Stud Partitions. All stud partitions to have head and sole plates and shall be soundly constructed with studs at a maximum of 400m centres and noggins at 600mm centres and at plasterboard edge junctions. Allow for providing noggins at suitable heights to provide fixings for sanitary fittings, cupboards, etc. as indicated on the drawings.

7.25. Skirting Boards. The Contractor is to allow for providing new MDF. skirtings, where necessary to match existing.

7.26. Prices for joinery work shall include for all straight cutting and removing all sharp arises.

7.27. Joinery Standards. All joinery shall be properly wrought and executed to the detailed drawings and fitted together with approved adhesive with all joints well-constructed and fitted joints wedged up solid. All glued joints to be cross tongued together in the best possible manner where shown. Any joinery that splits, shrinks, flues or warps is to be removed and replaced at the Contractors expense.

7.28. Where joinery is to be nailed, these are to include for punching home nail heads and stopping off flush with the general surface.

7.29. All joinery where exposed to view, is to be wrought and finished to an absolutely smooth surface with glass papers, so that plane marks do not show.

7.30. All screw fixings are to be strictly in accordance with the detailed drawings of the joinery fittings.

7.31. All timber is to be sawn, planed, drilled or other machined or worked to the correct sizes and shapes shown on the drawings.

7.32. When natural finish or finish for staining is specified, the timber in adjacent pieces shall be matched or uniform in colour and grain.

7.33. Any fixing required on site shall be carried out by means of 'Rawlplugs' or other equal and approved methods at 300mm centres.

7.34. Loose joints must be used where provision must be made for shrinkage or other movements acting other than in the direction of the stresses or fixing or loading.

7.35. Glued joints are to be used where provision need not be made for shrinkage or other movements in the connections and where sealed joints are required.

7.36. Members in construction to be jointed by gluing are to be of similar conversion. All surfaces to be glued are to be kept clean, free from dirt, dust, oil and other contamination. Adequate pressure should be applied to glued joints to ensure intimate contact and maintained whilst the glue is setting.

7.37. Mixing, application and setting conditions shall be in accordance with the glue makers instructions.

7.38. All molded work shall be accurately worked to the details

supplied by the Design Consultant. All mouldings shall be worked on the solid, except where otherwise stated.

7.39. Where 'bending' is specified, the work is to be performed by saw-kerfing, keying, backing veneer, laminating or steaming to the satisfaction of the Design Consultant.

7.40. Circular work shall be built up with an appropriate number of pieces cut to the required shapes.

7.41. Pieces shall be put together in two or three thicknesses so that they break joint and shall be secured with oak keys and wedges.

7.42. Veneering shall be carried out in an approved manner, and to the entire satisfaction of the Design Consultant.

7.43. Facilities are to be given for the Design Consultant to inspect all work in progress in shops and on the site.

7.44. Joinery is to be kept safe and waterproof during transit. It is to be handed and stacked carefully to avoid damage, to the entire satisfaction of the Design Consultant.

7.45. All arises on exposed timber in the finished work shall be rubbed down with glass paper.

7.46. Adhesives. Adhesives shall comply with B.S. 1204 type WBP.

7.47. All items of joinery shall have packing blocks fixed to bases which shall not be removed until items are in their final position.

7.48. Adequate packing shall be provided between the factory of the manufacturer and the final site.

7.49. Screws, Nails, Bolts etc. Screws shall comply with B.S. 1210 and nails with B.S. 1202. Other fixing accessories shall comply with B.S. 1494. Nails for fixing joinery having an external exposed face shall be sherardized in accordance with B.S. 1202 Part 1.

7.50. All screws damaged in driving in shall be removed and replaced with new and matching screws.

7.51. Where screwing is required on exposed surfaces they should be countersunk and pelleted with matching timber pellets, with grain and colour to match surrounding timber or veneer.

7.52. Joinery items should be bracketed at joints with metal angles, etc. Where specified on the drawings.

7.53. All nails, springs, etc. are to be punched and puttied.

7.54. All cutting edges of tools are to be sharp to avoid 'burnishing'. The surface of any plywood to be glued should be lightly dressed with glass paper. Glass paper must not be allowed to clog and cause 'burnishing'.

7.55. Priming shall comply with B.S. 2523. No priming is to be applied to glued surfaces. Prime and touch up surfaces as necessary during the progress of the work.

7.56. The Contractor must take into account the temperature and humidity differences between the place of manufacture and the building into which the items are to be placed so that no

movement occurs in the joints. Any work that warps, cracks etc., will be rejected.

7.57. Structural Steel Work. All mild steel shall be of the best quality and shall conform in all respects to the requirements of B.S. 4360 and shall be free from rust, scale or pitting. Rolled sections shall conform in all respects to B.S. 4. If requested by the Design Consultant, the Contractor shall provide the manufacturers test certificates to prove the quality of the steel.

7.58. During fixing, precautions shall be taken to avoid damage to other persons and materials on site and the work shall be securely bedded and if necessary, temporarily braced in position and be correctly aligned in its final position.

8. DRAINAGE.

8.1. Bye-Laws. Drainage work shall comply with the requirements of the Local Authority's Bye-Laws and shall be executed to the satisfaction of the local Public Health Inspector.

8.2. Water Regulations and Bye Laws The whole of the sanitary installation shall comply with bye-laws of the Local Authority and shall be carried out to the satisfaction of the Design Consultant and the Public Health Inspector.

8.3. PVC Soil and Waste Pipes. If PVC soil and waste pipes are specified for works above ground internally and externally to the building these are to be supplied by Polypipe Ltd., or Terrain Ltd., or Marley Ltd. All manufacturer's instructions are to be followed.

8.4. All new external rainwater, soil and waste stacks and branches to be in black cast iron suitably painted.

8.5. Overflow Pipes. All sanitary fittings to be provided with PVC overflow pipes fitting at the top of the sanitary fitting the pipes to be run to and through outside wall to discharge 300mm from the face of the wall. Provide good fall to this pipe and the outlet.

8.6. Access for Rodding. The plumber to allow for providing at all bends and elbows in new soil and waste pipes access plates and cleaning eyes for rodding. The positions of these access points to be agreed between the plumber and the Design Consultant on site.

8.7. Rainwater Goods. All pipes and gutter to be securely fixed and manufacturers fixing instructions to be used where provided for a particular product.

9. WATER SUPPLIES.

9.1. Statutory Requirements. The Contractor shall ascertain the requirements of the Water Board's bye-laws and shall comply therein. The hot and cold-water installation shall be to the regulations of the Water Board or Local Authority with regard to stop costs, drain off points etc. The Contractor shall allow for testing all water pipes and wastes and fittings before and after they are covered by the trades.

9.2. Copper Tubes. Light gauge copper tubes for hot and cold-water services shall comply with B.S. 2871 Table. Pipes shall be jointed with approved compression type fittings or approved

capillary type fittings complying with B.S. 864 Part 2.

9.3. Stop Cocks/ Iso-valves. Provide and fix brass stop taps or iso-valves (appropriate to materials used) as indicated on the plans to isolate individual fittings or ranges of fittings. See B.S. 1010 Part 2.

9.4. Covering (lagging) to Pipes. Plumber to allow for providing adequate lagging to water pipes on the roof, in the roof spaces related to the property, or anywhere that frost could affect the pipes.

9.5. Tests. All new pipe runs are to be pressure water tested for a minimum of 24 hours prior to final decorations and floor finishes being applied. Any leaks to be repaired and pipes re-tested.

9.6. New Hot and Cold Services Pipes. All pipe work to be concealed in floors, walls, ducts and false ceilings. All hot water pipes and central heating pipes are to be lagged.

9.7. Cold water pipes to be kept away from hot water pipes to prevent transfer of heat to cold services.

10. ELECTRICAL INSTALLATION.

10.1. Compliance with Regulations. All electrical work shall comply with the requirements of the Seeboard and the current edition of the regulations for the Electrical Equipment of Building issued by the Institution of Electrical Engineers. It is a condition that a recognized self-certification for Part P person is required and a

certificate lodged with Building Control and the client when finished.

10.2. Notices and Fees. The electrical contractor shall serve all notices upon the Seeboard for testing and shall pay all fees in connection therewith. The electrician must be a Part P accredited competent person.

10.3. Position of Electrical Point etc. The electrical layout drawings indicate the general requirements, but the electrician shall in all cases check with the Design Consultant the exact positions of all outlets, heights of switch plates etc. before proceeding with the installations.

10.4. Concealment of the Wiring. All wiring shall be concealed, and all accessories shall be flush.

10.5. Sizes and Types of Cable. The minimum size of cable used for wiring ring circuits shall be in accordance with IEE Regulations.

10.6. Cables for internal wiring shall be installed and sheathed with PVC and shall be twin with earth or three core with earth and shall comply with the latest edition of B.S. 6004 and 6500.

11. PLASTER WORK AND OTHER FINISHES.

11.1. Cement. Cement shall be as described in Concrete Work.

11.2. Sand. Sand shall be as naturally occurring as possible or consist of crushed rock or gravel or a combination thereof with naturally occurring sand. It shall be clean and shall comply with B.S.1199 and 1200.

11.3. Water. Water shall be as described in Concrete Work.

11.4. Carlite Plastering. **Note:** Carlite plaster, in the bonding of finishing plaster, is not permitted to be used in this building. It is the responsibility of the Main Contractor to ensure that this requirement be met by the personnel on site be they nominated or otherwise.

11.5. Plaster Board. Plasterboard shall be 12mm thick to B.S. 1230 fixed with 21mm sherardized nails. Joints shall be covered with jute scrim 50mm wide and filled with plaster and finished with a skim coat of 3.0 mm thick vermiculite gypsum plaster.

11.6. Mixing. All materials shall be stored, measured, mixed and used in accordance with recognized good practice, as set out in B.S. 5492. In particular, adequate time must be allowed for one coat to dry out before the next is applied.

11.7. Portland cement/sand mixes for screed and plain face shall be used within two hours of mixing.

11.8. Workmanship Generally. All surfaces shall be cleaned down and the surfaces of brick work, concrete or similar materials shall be wetted before plastering.

11.9. All plastering and rending shall be executed in a proper and workmanship like manner with true and even surfaces and all arises, and angles shall be left perfect.

11.10. Prices for plastering and rending shall include for raking out

joints of brickwork and for finishing surfaces with a steel trowel or wood float as directed by the Design Consultant. Prices for old walls shall include for any necessary dubbing.

11.11. Wall Tiling. Glazed wall tiles are to comply with B.S. 6431 and are to be fixed with an approved adhesive and grouted in accordance with manufacturer's instructions.

12. GLAZING.

12.1. Glass. Glass shall comply with B.S. 952 and be of British manufacture. Sheet glass shall be ordinary or safety glazing to BS 6206 if in "critical locations" glazing quality.

13. METAL WORK.

a) The Contractor shall submit complete shop drawings when required by the Design Consultant for his/her approval.

b) Mild steel shall conform to B.S. 4360: Weldable structural steels.

c) Mild steel plates, angles, flats etc., shall comply with BS4: part 1. Hollow steel sections of circular and rectangular profile shall comply with BS4: Part 2.

d) Electroplated coatings of chromium shall comply with B.S. 1224.

e) Brass shall be the best quality and brass for chroming will be the best for this purpose.

14. PAINTING AND DECORATING.

14.1. Emulsion, Primers and Paint. All emulsion, primers and paints shall

be obtained from approved manufacturers and the preparation of surfaces and the application for emulsions, primers and paints shall be executed strictly in accordance with the instructions and specifications of the manufacturer. Primers shall comply with B.S. 2523 as appropriate.

14.2. Colour. All tints of colour shall be selected by the Design Consultant and each coat shall be in a different colour.

14.3. Allow for preparing and colouring walls for areas of one metre square as samples for the Design Consultants approval.

14.4. Preparation of surfaces. In addition to the specific processes described below and / or in the manufacturer's instructions and specifications, all surfaces shall be cleaned free from all dirt, grease, oil or other deleterious matter. No paint shall be applied to damp surfaces, nor shall any paint work be carried out in adverse weather conditions.

14.5. Preparation of all new plastered surfaces shall include the removal all efflorescence, the cutting out of defective plaster and making good, filling slight cracks and cutting out large cracks and filling with cement, level with surrounding surface and making good all defects.

14.6. Preparation of ferrous metal surfaces shall include for removing all rust, scale, oil, grease or dirt and touching up primer when primed at works.

14.7. Preparation of wood surfaces shall include for filling as necessary with an approved filler and rubbing down and

bringing to a smooth surface and in the case of windows and doors for removing and re-fixing ironmongery.

14.8. Window rebates shall be cleaned, primed and painted on undercoat before glazing.

14.9. Large or loose knots shall be cut out and replaced with sound wood and small knots treated with two thin coats of knotting.

14.10. All wood surfaces to be painted shall be treated with primer before fixing.

14.11. All coats shall be thoroughly dry and hard before subsequent coats are applied and shall be rubbed down with fine glass paper before the next coat is applied.

14.12. Knotting shall mean, the application of two coats of best shellac quality knotting to B.S. 1336.

14.13. Stopping shall be with linseed oil putty.

14.14. Primer for Internal Wood Work. Primer for internal wood work shall be an approved leadless white or light grey priming paint not darker than that of B.S. 4800 which shall be compatible with the subsequent costs and obtained from the same maker.

14.15. Primer for Oily or Resinous Timber. Primer for British Columbia pine (Douglas Fir) or other oily or resinous timber shall be a special ready mixed primer obtained from the maker of the undercoat and finishing coats and shall be applied in accordance with maker instructions.

14.16. Oil paints. Hard gloss, semi-gloss and flat oil paints and their respective undercoats shall be the best quality of their respective kinds.

14.17. Lead Oil Paint. Richer shades shall contain the maximum amount of white lead possible, consistent with the colour and a statement of the amount shall be obtained from the maker.

14.18. Polyurethane Lacquer. Polyurethane lacquer shall be single pack polyurethane lacquer as listed, interior or exterior quality.

14.19. Approvals. Upon notification by the Design Consultant, the preparation of all surfaces must be seen and approved by the Design Consultant before any coatings are applied.

14.20. Iron and Steel. Before fixing, rust, millscale, welding slag and flux residue shall be removed from iron and steel surfaces by wire-brushing, scraping, hammering, flame cleaning, etc. Metal surfaces to be finished absolutely smooth.

14.21. Remedying Defects Due to Defective Materials. All unsatisfactory materials shall be immediately removed from the site, and any work executed with such defective materials shall be made good by the Contractor at his own expense upon instruction and to the satisfaction of the Design Consultant.

14.22. Knotting. Knotting shall comply with B.S. 1336. Stopping. Stopping for: -

1. Internal wood work and plywood shall be putty complying with B.S. 544 and shall be tinted to match the colour of the

undercoat.

2. Clear finished wood work shall be a stopping tinted to match the surrounding wood work.

14.23. Malpractices. In order to eradicate any malpractice by way of unauthorised addition of thinners of driers, or other adulteration of paint, the attention of the Contractor is especially drawn to the following: -

1. Adequate supervision during the painting work must be given by the Contractor to ensure that the paint is not adulterated.

14.24. Same Makers Materials Used for Coating. While materials for the works may be obtained from several makers, undercoats and finished coats for any particular surface must be obtained from the same maker (i.e.: one maker's finishing coat must not be applied over another makers undercoat).

14.25. Colour Range. Painting decorating schemes shall be carried out in colours selected by the Design Consultant and in accordance with samples shown.

14.26. Approval of Brands. Where required the Contractor shall seek in writing approval from the Design Consultant for all brands of paint, he/she wishes to use.

14.27. Delivery. All paints, varnishes and other surface coatings shall be delivered in sound and sealed containers labelled clearly by the manufacturer.

14.28. Linseed Oil/Danish Oil. Refined linseed oil shall comply with B.S.

6900. Boiled linseed oil shall comply with B.S. 6900.

14.29. White Spirit. White spirit shall comply with B.S. 245.

14.30. Turpentine shall be of approved standards.

14.31. Primer for iron and steel work shall be: -
Calcium plumbate priming paint complying with B.S. 3698 Type A.
Lead based priming paint complying with B.S. 2523 Type B, which shall be used as directed in the Tables of painting and Decorating.

14.32. Plywood and Blockboard. Surfaces to be painted shall be filled as required with a first class proprietary filler then rubbed down and all dust and loose materials brushed off. After priming all imperfections shall be stopped, rubbed down and brushed off.

14.33. Woodwork to be Painted. All surfaces to be finished smooth to an approved and first-class standard.

14.34. Woodwork to Receive a Clear Finish. All holes and imperfections in surfaces to receive a clear finish shall be stopped and the whole surface shall be rubbed down and all dust brushed off.

WORKMANSHIP.

14.35. Stirring of Materials. The contents of all cans and containers of all materials must be properly and thoroughly stirred before and during use and shall be suitable strained as and when

necessary.

14.36. Manufacturer's Instructions. All materials shall be used strictly in accordance with the instructions issued by the manufacturers concerned.

14.37. Priming of Joinery. All joinery shall be primed. Primer shall not be applied while the timber is in any way damp. Primers shall be applied as soon as possible after inspection and acceptance of the joinery by the Design Consultant.

14.38. Extent of Internal Priming. All concealed surfaces of joinery are to be primed or sealed.

14.39. Condition of Priming. If by the time that the work is to receive the first undercoat, the priming coat has in any way deteriorated or has been damaged, the affected portions or the whole if necessary, shall be rubbed down and re-primed.

14.40. Coatings. All coatings hall be allowed to dry thoroughly before succeeding coats are applied. Primer coats minimum 1 no. Undercoats minimum 2 no. Top coat minimum 2 no.

14.41. Rubbing Down. All undercoats for cellulose paints and clear finishes shall be rubbed down to a smooth surface with abrasive paper and all dust removed before the succeeding coat is applied. Note - all coats up to final coat to be rubbed down before application.

14.42. Protection of Wet Surfaces. Adequate care must be taken to protect surfaces while still wet, by the use of screens and 'wet

paint' signs where necessary.

14.43. Damage to Adjoining Surfaces. Care must be taken when storing materials, preparing surfaces or painting etc., not to damage or stain other work. The Contractor shall remove all such stains, make good and touch up.

14.44. Cleanliness. All spray guns, tools and equipment shall be kept in a clean condition and surfaces shall be clean and free from dust during painting. Painting shall not be carried out in the vicinity of other operations which might cause dust.

14.45. Removal of ironmongery. All surfaces fixed with ironmongery, fittings etc., except hinges, shall be removed before painting and re-fixed on completion if necessary.

15. DEMOLITION, EXCAVATION AND STRIPPING OUT WORKS.

15.1. The buildings security is to be maintained at all times.

15.2. Allow for removing walls as noted on plans. A method statement must first be provided for this work and adequate temporary support provided.

15.3. Allow for removing all obsolete hooks, nails, clips, and plaster, wiring from all internal external walls and from all timbers that are due to be exposed.

15.4. Allow for stripping out all replacement services from the property: electrical cabling and fittings and cold-water plumbing, where applicable.

15.5. General Note: any timber from stripping out may not be burnt on site. All other waste material from the works is to be sorted and removed from site to be reused, recycled or discarded by a method approved of by local authority requirements.

15.6. Check the drainage run, and in conjunction with the Design Consultant decide the most economical route and excavate for new drainage runs.

15.7. On completion of the works allow for making good external ground where disturbed by these works. Any damage to property will be made good by the contractor at his expense. Position of any site compound is to be agreed with the client.

16. BUILDING WORKS.

16.1. Foundations: Construct new trench fill foundations to size and depth as shown (subject to site inspection) Concrete to be GEN 3 mix – refer to general specification about concrete.

16.2. Walls below ground. To be formed in Class A concrete blocks and face brickwork up to DPC in 1:3 cement mortar. Cavity to be filled to ground level with lean mix concrete.

16.3. Ground Floor Construction: 75mm sand/cement fibre reinforced screed on 1000-gauge polythene vapour barrier on 150mm Celotex XR4150 floor insulation, or similar approved, on 1200-gauge polythene DPM. 25mm perimeter insulation upstand required at abutment of screed to external walls. DPM & DPC installed as per manufacturer's recommendations, on 150mm deep proprietary beam and block floor. DPM to link with DPC. Beams to be designed and manufactured in accordance with

BS 8110: 1985 and to be installed in accordance with the manufacturer's technical literature and agreement certificate.

16.4. Infill blocks to be 440 x 215 x 100 standard blocks manufactured in accordance with B.S. 6073: parts 1 & 2: 1981 and having a minimum crushing strength of 7N/mm2 and a maximum self-weight of 1325 kg3. Beams to have end bearings of at least 90mm and placed on a DPC and bearing on 40mm coursing slips.

16.5. Walls above DPC level. To consist of 300mm overall thickness with 20mm 2 coats cement and sand render on100mm blockwork outer skin, 100mm cavity and 100mm Hemlite or similar and approved lightweight aggregate blockwork (3.5N/mm2) inner skin. Cavity to be fully filled with Superwall 32 Batts (thermal conductivity 0.32). 13mm Lightweight Plaster finish or dot and dab with 3mm skim. 225mm Stainless steel wall-ties spaced at 450mm max. centers horizontally & vertically staggered at 450mm max. centers. At all openings wall-ties to be placed within 150mm of reveals and spaced 225mm vertically. Provide dpc to brick outer skin 150mm minimum above finished ground level and lean mix concrete cavity fill to within 225mm of lowest DPC. Wall cavities to be closed at window and door reveals with proprietary cavity closers.

16.6. Lintels. All lintels to be as designed CG90/100 lintels to be provided over window and other openings complying with BS5977: Part 2 and having a minimum end bearing of 150mm except where bearing on inner skin of cavity walls. Provide to external wall lintels weep holes at 450mm centres (minimum of two per lintel). If appropriate, where lintels are used in external walls, provide dpc tray over. Where lintels have a solid bottom

plate, 20mm thermal plasterboard to be applied to underside, to comply with Part L. All lintels in cavity walls to be insulated to prevent cold bridging.

16.7. Provisions should be made to limit thermal bridging around openings to the lintels, jambs and sills i.e.:- proprietary closers(Thermabate) to the jambs and sills with a min. k-value of 0.45 W/m²K and recess the frame a minimum of 30mm over the closer.

16.8. ROOF CONSTRUCTION: WARM FLAT ROOF
(imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²)To achieve U value 0.18 W/m²K

16.9. Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood over 120mm Kingspan Thermaroof.

16.10. Insulation bonded to vcl on 22mm external quality plywood decking or similar approved on sw firings to minimum 1 in 80 fall on sw treated 47 x 220mm C24 flat roof joists at 400mm ctrs to give a max span of 5.08m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm foil backed plasterboard and skim. Provide cavity tray to existing house where new roof abuts existing house.

16.11. Provide restraint to flat roof by fixing of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall.

16.12. WINDOWS To be timber sash to match existing painted white manufactured to suit the structural openings and style indicated on the drawings.

16.13. To be double glazed and to achieve a U-value of 1.6 W/m2 K or better).

16.14. SAFETY GLAZING - Glazed areas in external and internal walls to be of safety glazing in the following areas: -within 800mm of floor level to windows and screens etc., and within 1500mm of floor level to doors and also side panels immediately adjacent to doors for a minimum width of 300mm. Where glazing within the above areas is in panes not exceeding 250mm wide and 0.5m in area then 6mm annealed glass may be used.

16.15. INTERNAL DOORS: To ensure transfer of air throughout the dwelling, all internal doors to rooms to have 10mm gap to bottom edge. All internal doors to rooms to be 838mm wide doors to give 750mm clear opening.

16.16. GROUND FLOOR INTERNAL PARTITIONS: Ground floor load bearing and non-load bearing partitions to be 100mm min. blockwork having a crushing strength of 3.5 N/mm2 with plaster to both sides.

16.17. ROOM VENTILATION: Windows and external doors to habitable rooms and sanitary accommodation to have total openable areas of at least 1/20th of the floor area. Windows and/or doors to habitable rooms to be fitted with trickle ventilators. NOTE: 4000mm2 ventilators fitted to all windows

16.18. SMOKE ALARMS: Provide inter-connected mains operated

smoke detectors where indicated on the floor plans conforming to BS 5446: Part 1. ***NOTE***: - Smoke detectors to be hardwired at the distribution board and wired to a separately fused circuit at the distribution board in accordance with the IEE wiring regulations.

16.19. ELECTRICAL INSTALLATION: To be designed, installed, inspected and tested to provide reasonable protection to people from fire or injury, all in accordance with BS 7476.

16.20. In rooms throughout light switches, socket outlets, sockets, telephone jack points, doorbell pushes and outlets for other appropriate equipment to be positioned at heights between 450mm and 1200mm from finished floor level.

16.21. INTERNAL LIGHTING: 100% of fixed lighting appliances are to be energy efficient.

16.22. EXTERNAL LIGHTING: To be TP24 energy efficient and of the type that automatically extinguish when there is enough daylight and when not required at night. All intruder lighting to be 150W maximum and fitted with PIR and daylight sensor. All external lighting is to cater for the needs of people who have visual impairments.

16.23. PLUMBING: Soil and vent pipe(s) to be of 110 Upvc positioned where indicated on the floor plans and to terminate 900mm above head of windows and taken through to ridge to suitable proprietary ridge or tile ventilator. Provide lintel over all branch drains where passing through wall.

16.24. Relevant fittings are to have the following waste sizes:- Wash hand basin and bidet to have 32mm diameter wastes, kitchen sink and dishwasher to have 38mm dia. wastes, baths and urinals to have 40mm dia. wastes, showers and washing machines to have 50mm dia. wastes. Where wastes lengths exceed 1700mm then 32mm dia. wastes increase to 38mm Where waste lengths exceed 3000mm then 38mm and 40mm dia. waste to increase to 50mm dia. All wastes to be in PVC-u internally, all with 75mm deep seal traps, with no connection to soil and vent pipe within 200mm below w.c entry. All plastic wastes to incorporate rodding eyes at all changes in direction, with access doors and rodding eyes to be provided at base of stacks.

16.25. Access panels to be provided at bottom of stack encasements and shower trays for access to rodding eyes. Joints to w.c pans made with plastic pan connectors with all joints formed by solvent welding. All expansion joints to have rubber W section sealing rings. All pipe work to be supported at 1000mm minimum intervals with overflow from low level cisterns to discharge through external walls. Soil and vent pipes passing through rooms to be encased in 15.5mm plasterboard and skim on nominal softwood framing, with 50mm of unfaced mineral wool quilt having a min. density of 10 kg/m2 wrapped full height around perimeter of pipe. Stacks to run up into roof with a 75mm flexible hose, terminated through a ridge vent terminal. Terminal should finish at least 900mm above highest opening light within 3000mm. All above ground drainage/plumbing installation to comply with BS 5572 :1978. Plumbing installation to be tested as work proceeds and on completion of work, with

an air test carried out on all internal sanitary and rainwater pipe work.

16.26. SURFACE WATER RUN OFF: Ensure that peak run-off rates and annual volumes of run-off will be no greater than the previous conditions for the development site. Provide soakaways where possible and areas of porous paving.

16.27. HOT WATER SERVICES: All hot water pipes within unheated areas to be insulated. The whole of the space heating system and controls together with the hot water system to be carried out in complete accordance with the requirements set out in Non Domestic Services Compliance Guide. On completion of installation commissioning certificate is to be provided and to be made available to the building control body, paragraphs 1.47 to 1.50. Information on the operation and maintenance of heating and hot water systems to be provided for the occupier, paragraph 1.51. Insulation of pipes and ducts to be carried out in complete accordance with paragraphs 1.52 & 1.53. ***NOTE:-*** Full details of heating and hot water storage installation to be provided.

16.28. RAINWATER GOODS: All rainwater drainage installation and design to be in strict accordance with Marley, or sim. approved, plumbing and drainage recommendations and requirements.

16.29. Drainpipes to be 100mm dia. PVC-u, or equal approved, on 150mm pea shingle bed with level surround to pipe crown, to discharge into surface water sewer.

16.30. DRAINAGE: Surface Water Drains: - 100mm dia. PVCu or equal

and approved on 150mm pea shingle bed with level surround to pipe crown, taken to surface water sewer in road.

16.31. Foul Drains: - 100mm diameter upvc or equal and approved, laid at 1:80 connected to existing foul water sewer in adjoining land. All below ground drainage to be surrounded in 150mm pea shingle and where shallower than 900mm in vehicular areas protected with R.C. lid or if shallower than 600mm in garden areas, protected with paving or concrete cover.

16.32. Where drains pass through walls either a) an opening is to be formed providing 50mm clearance all round and the gap sealed with suitable rigid sheet material with reinforced 1:2:4 concrete lintels, 150mm deep with a minimum of 150mm end bearing reinforced with 1 no. 12.5 mm dia bar per 100mm width and 50mm minimum concrete cover, or b) the pipe is built in with flexible joints, 150mm max from either side of the wall and connected with rocker pipes of maximum 600mm length, fitted with flexible joints. Pipe lines under suspended floors to be bedded and surrounded in 150mm pea shingle.

16.33. Inspection chambers to be minimum 600mm deep formed off 150mm thick concrete slab with 225mm semi engineering brick walls with channel, slippers, concrete haunching. Where proprietary 600mm dia. PVC-u inspection chambers are used, these are to be fit for the purpose having regard to access to invert level of channel and installed in accordance with the manufacturer's instructions. Medium duty Cast Iron covers to be fitted.

17. CARPENTRY WORKS.

17.1. As noted above construct new internal stud walls as per drawings in 100 x 50 and 70x50 mm treated C16 studwork at 400 mm centres. Provide for cross bracing studs / additional noggins where necessary to suit bathroom and shower fittings & other. Run RW5 quilt insulation between studs to all rooms except storage cupboards 12.5 Gyproc Wallboard 10 plasterboard and skim to studs. Provide 100x50 studs with Tyvek breathable sheathing felt and 10 ply or OSB to external walls with only a single leaf, (all at ground level), with care in lapping the dpms between wall and floor. Provide a Celotex lining over the 1500g dpm to 225 solid ground floor walls with a 500g polythene VCL and support to external wall with a tan 25x50 battens upon which the Gyproc 12.5 Wallboard can be fixed.

17.2. Run new ex 25 x 150 mm MDF skirting boards to match existing to new wall areas throughout ready for decorating.

17.3. Supply and fit ex 19 x 75 mm architraves to match existing to all new door frames.

17.4. Boxings: Allow for forming boxings for pipework, drains and stacks to WC, using s/w carcassing and 12.5mm moisture resistant plasterboard, with quilt insulation inserted to all voids.

18. DOORS AND WINDOWS.

18.1. Contractor is to employ specialist joinery window company to manufacture and deliver new windows to site.

18.2. Contractor and joiner are responsible for checking all dimensions on site prior to manufacture of joinery and window items.

18.3. Requirement all doors to be FD30s doors. Allow for 3 no. hinges per door.

19. DRAINAGE.

19.1. Building Inspector to approve drainage works before infilling of new drains.

19.2. Allow for all excavations in relation to new drainage and for lining out trenches in well compacted beach with concrete benching over drains under building. Back fill with hardcore and or MOT top soil to garden areas. Allow for P.C. lintels over drains where passing through external wall.

19.3. Supply and install 1 no. new 450 mm polypropylene inspection chamber with UCL cast iron covers as supplied by Marley or Osma.

19.4. Run foul drain to existing manholes and thence to existing sewage treatment plant. Provide Building Inspector if requested with details of existing plant and position and inverts.

19.5. FOUL DRAINAGE (below ground): Underground drains and branches to be 110mm dia PVCu, on and surrounded by 150mm pea shingle, to fall minimum 1:80 to positions as shown on plan. Lintels to be provided over drains where passing

through walls. All drains to be tested upon completion to the satisfaction of the Building Inspector. Any defective drains to be replaced and re-tested. PC lintels above, to have 150mm end bearings. Ensure adequate propping whilst forming openings.

19.6. FOUL DRAINAGE (above ground): All pipework in uPVC with patent joint/seals. Svp's to terminate min. 1m above highest window opening with durable cage, or to tile vent. Stub stack to terminate above level of highest waste connected to it. Waste pipe sizes:-Svp, stub stack and w.c branches - 110mm dia. Basin (less than 1700mm run) - 32mm dia.
Kitchen sink and bath (and basins and bidet with run exceeding 1700mm) up to 3m run - 40mm dia. Baths up to 3m run, kitchen sink and bath with run up to 4m - 50mm dia. All sanitary ware to have min. 75mm deep seal traps anti-syphon traps Provide McAlpine traps to all showers; all sanitary pipework and building drainage to comply generally with BS5572 & BS 8301 and Building Regulations Part H1.

20. PLUMBING

20.1. The Contractor is to calculate radiators, a minimum of 20 degrees C to offices. Take account of high ceilings as appropriate when calculating heat output. The actual height, length, position and size of radiators are to be agreed with the Design Consultant, and proposals as to their position.

20.2. The Contractor is to provide and install all necessary pipework fittings, etc. for efficient complete working hot water system. Provide adequate and correct bore pipework throughout. All hot water from electric boilers.

20.3. Provide and install all necessary stopcocks on the services for the adequate control of the system.

20.4. Engineer to thoroughly test all his new pipework for leaks prior to re-decoration of floors and walls. Contractor will be held responsible for any damage caused by joint leaks to new pipework.

20.5. All pipework must be concealed within structure. Exposed pipework is unacceptable, unless agreed by Design Consultant beforehand. Any pipes to ground floor are to be run in ply floor channels, with any screw fixed covers.

20.6. All new hot water system is to be installed in accordance with materials and workmanship clauses in this specification and current Building Regulations.

21. ELECTRICS AND LIGHTING AND FIRE ALARM.

21.1. All new electrics to be carried out in accordance with IEE Regulations.

21.2. Where possible, all cables are to be concealed in the structure and within stud walls. No surface wiring will be allowed except where there is any external lighting, in which case this is to be confirmed by Design Consultant on site.

21.3. Electrical contractor to agree with Design Consultant exact positions of all power points and light fittings prior to installation. See electrical drawings as a guide as to what is required. Location must comply with Building Regulation's requirements.

21.4. Supply and fit additional power circuits as indicated in black

MK-UK Ltd. Plastic or similar, to connect with existing.
13-amp double power points.
13-amp fused spurs.
(note height of power points to Kitchen and Utility Room worktops as below).

21.5. Supply and install service points as indicated.
CT100 cable for TV/FM/Satellite
7 pair BT cable for telephones.

21.6. Supply and install lighting points and switching as indicated.

21.7. Supply and fit total 12 no. extractor fans to Kitchen, shower and bathrooms. All fans switched via humidistat with manual override switch.

21.8. ***Note: -*** Positions of new lights switches to walls should be 1100mm (centre of switch) above floor. Positions of new power points should be 450mm above floor throughout property (to underside of power point). Utility and Kitchen power point positions to be agreed on site. Power point positions around new joinery items to be confirmed by Design Consultant prior to fitting.

21.9. Ensure all pipework, sinks etc. are correctly earthed in accordance with I.E.E, Regulations.

22. DECORATING AND PLASTERWORK.

22.1. All ceilings are to be thoroughly prepared with mist coat of emulsion and 2 no. top coats of white emulsion paint.

22.2. All walls to above noted areas are to be thoroughly prepared with mist coat of emulsion and 2 no. top coats of emulsion paint (colour to be confirmed by Client). Use acrylic eggshell instead of emulsion in the kitchen, and in the bathrooms

22.3. Take care not to paint out exposed timbers. Protect as necessary.

22.4. All internal woodwork being doors, skirtings, architraves etc. are to be primed, undercoated and painted in 2 no. top coats of eggshell paint (colour to be confirmed by Client).

22.5. Apply 2no. u/coats and 2 top coats to strings of staircase and balustrade.

22.6. Decorator to allow for all necessary protection of floors, sanitary ware, fitting etc. during decorating works. Dust sheets, masking tape, etc. are to be allowed for.

22.7. Contractor is to include for thoroughly cleaning down site and work areas on completion of works. Proper protection must be provided to all areas before commencing decorating works.

22.8. Touch in all paintwork after making good to all areas affected by building works such as walls, doors, stairs, ceilings, external render etc.