PREAMBLE NOTES FOR BUILDING WORKS

Revised on 20-06-2018

Part I – General rules

SECTION A

- 1. These Bills of Quantities have been measured generally in accordance with the principles laid down in the Method of Measurement of Building Works (First Revision) SLS 573: 1999 published by Sri Lanka Standard Institution.
- 2. Additional items shall not be inserted into, nor any alterations made to, any Bill of Quantities.
- 3. In the Bill of Quantities the item descriptions identify the work that has to be carried out but in the exact nature and extent of work to be performed to be ascertained by reference to the Drawings, Specification and Tendering Conditions. Conditions of Contract as the case may be read in conjunction with the matters listed against the relevant heading and item description as described in the Bill of quantities.
- 4. All items of work specified and or shown on the drawing to be valued by the measurement of such items only as are included in the Bill of Quantities which items to cover all costs incurred by the Contractor in fulfillment of these obligations under the Contract.
- 5. The Quantities stated in the Bill of Quantities are estimates only. They are not be regarded as the exact quantity of work to be done or materials to be supplied or arranging sub-contracts and all work will be measured net except where otherwise stated.
- 6. A price or rate shall be entered against each item in the Bill of Quantities where quantities are stated or not. Items against which no price is entered shall be considered to be covered by or included with other prices or rates in the Bill of Quantities. No claim for omissions on the part of the contractor will be entertained.
- 7. Payment will be made for only those materials, which are installed in the permanent works and taken over to the stocks as specified in the Specifications to the approval of the Engineer. Construction materials supplied and delivered to the site by the Contractor which become surplus to the above requirements shall become the property of the Contractor who shall reimburse the Employer any money that was paid to the Contractor for the supply and delivery to the site of the surplus materials.
- 8. Bids which group several items together in the Bill of Quantities under one price will not be accepted.

Provisional Sum

- 9. Items marked "pro. sum" in the Bill of Quantities are Provisional Sums and shall not to be executed unless ordered by the Engineer. This may be expended wholly or in part as directed by the Engineer.
- 10. The amounts set against any Provisional Sums for supply of materials shall be the net CIF amount adjusted for all discounts and customs duties. The amounts set against any items of profit shall include for all costs in connection with letters of credit, bank charges, interest charges and insurance after the materials come under the control of the Contractor.

Pricing

Pricing Preambles, Drawings and Specifications shall apply reciprocally between sections of the works unless otherwise described.

- 11. The rates and prices entered in the Bill of Quantities shall be deemed to be full inclusive value of the work covered by the several items including the following unless expressly stated otherwise;
 - a) All obligations imposed by the Contract.
 - b) Complying in every respect with the requirements and the considerations of the specifications and drawings.
 - c) All considerations arising from the definitions incorporated into each preamble section.
 - d) The recruitment, bringing to and from the site, accommodating and feeding and all incidental costs and expenses involved in the provision of all necessary skilled and unskilled labour and supervision for fixing erecting and installing or placing of materials and goods in position and all associated costs.
 - e) Supply of materials, goods, inspection, sampling and testing of materials, storage and costs in connection there with including waste and delivery to site and all associated costs.
 - f) Use of scaffolding, plant, equipment and tools.
 - g) Allow for protection of finished surfaces/fittings etc., all casings and temporary coverings and making good and clearing away upon completion of all work sections.
 - h) Establishment charges, overheads and profits.

- i) Selection provision and testing of materials and workmanship as required by the specifications.
- j) All temporary works and construction maintenance works.
- k) Samples to be given for approval.
- 1) Paying fees and giving notice to authorities.
- m) All site investigations, setting out and survey work which may be necessary.
- n) Safety precautions and all measures to prevent and suppress fire and other hazards.
- o) Except where separate items are provided for bringing plant to the site and removing on completion, for providing, transporting to site, setting to work, operating (including all fuel and consumable stores), maintaining and removing from the site upon completion all construction plant and equipment necessary for the execution of the work, including the cost of all tests and other requirements in respect to such plant and equipment.
- p) No allowance shall be made for increase in bulk or for extra working space required and the contractor shall allow for these and any other incidental expenses in his unit rates.
- q) All applicable duties, taxes, charges, government levies, landing charges and transport etc., except VAT for materials and equipment.
- 12. In the event of their being any discrepancies between details on drawings, descriptions in specifications and descriptions in the Bills of Quantities then the rates and pricing shall be deemed to relate to the documents order of precedence set out in the Form of Agreement.

Abbreviations

13. The following abbreviations are used in the Bill of Quantities and carry the meanings as listed hereby.

m	- metre
m²	- square metre
m³	- cubic metre
mm	- milli metre
nr	- number
kg	- kilogramme

t	- tonne
h	- hour
pc sum	- prime cost sum
pro. sum	- provisional sum

Payments

- 14. Payment against any item in the Bill of Quantities will be made only if such item has actually been carried out by the contractor.
- 15. Difference in the method of billing and in the phraseology used in various parts of the Bill of Quantities will not to be recognized as a basis of any claim for an increase in the Contract price.
- 16. In the Bills of Quantities, if any materials/ fittings are described by using a trade name, it is only for the purpose of indicating the minimum level of quality and standard required. The Bidder may use any other material/ fittings, which are considered as equivalent or higher in quality and standard to those specified therein subject to the approval of the "Engineer"
- 17. No amendment which has not been authorized in writing by the Engineer shall be made to these Bills of Quantities.

Measurement

- 18. All measurements are net and the rates shall include for all laps (except for steel reinforcement where the quantity of laps is included in the BOQ quantity), waste, working space and trade or traditional allowances.
- 19. Dimensions used in calculating quantities shall be taken to the nearest 10mm (i.e. 5mm and less than 5mm shall be disregarded).

Builder's Work

- 20. Holes, mortises, pockets, grooves, chases and the like and items described as "built in" and "cast in" shall include making in its fullest sense and through, around, into over and up to the items concerned.
- 21. The Contractor shall obtain from all sub-contractors (weather nominated or otherwise) their requirements for all recesses, chases, holes and the like in order that they may be built in or formed as the work proceeds. No additional charges shall be allowed for cutting recesses, chases and holes and the like after the construction of the works.

<u>Cleaning after Completion</u>

- 22. The Contractor should leave the whole of the works ready for immediate occupation to the satisfaction of the Engineer including the following :
 - a) Cleaning and touching the buildings both inside and out, leaving all surfaces free of cracks, blemishes or splashes.
 - b) Easing, oiling and adjusting and making good of finishes to all fittings, doors, windows, ironmongery and the like.
 - c) Cleaning and polishing all marble glass, anodised aluminium and sanitary ware, including the removal of all protective coverings, paint splashes and the like. Replacements of all or any chipped, cracked or broken items
 - d) Balancing of air conditioning installations where applicable.
 - e) Removal of rubbish, debris or excess spoil from the site area and raking over and cleaning all unused parts of the site area.

<u>Fix only</u>

- 23. The expression "fix only" used in these Bills of Quantities means that the Contractor shall provide the following facilities :
 - a) Fixing with all necessary accessories and the like.
- b) Supplying full size templates, giving and marking dimensions and taking responsibility for their accuracy.
- c) Getting in, protecting, handling, distribution and placing in position and assembling as required.
- d) Casing up and protection, including clearing away protection on completion of the works including sub-contractor works.

- e) Full cost of replacement of any items which are damaged, broken, lost or stolen after the acceptance of the items from the supplier or Employer and until handing over the complete works.
- f) Other necessary and usual facilities and documentation.

Supply only

24. The expression "supply only" used in these Bills of Quantities means that the Contractor is to provide for everything in connection with such items except fixing in position.

Sub – Contractors

- 25. When subcontracts whether nominated or not, are utilized, the main contractor's "attendance" means that Contractor shall provide the following minimum attendances and facilities:
 - a) Use of Contractor's administrative arrangements.
 - b) Use of Contractor's facilities at site.
 - c) Use of temporary works at site.
 - d) Clearing away rubbish from the central point of collection.
 - e) Supplying full size setting out templates and giving and marking dimensions and taking responsibility for their accuracy.
 - f) Providing working space and stores.
 - g) Other necessary and usual facilities, documentation, general inter-trades attendance, labour and assistance.

The Contractor shall allow for any additional costs incurred due to sub-contractors different working hours from and extended hours to those works by the Contractor.

Prime Cost Sums in Unit Rates

26. Certain rates within the Bills of Quantities will include Prime Cost Sums. The material specification and fixing details will be specified. The Contractor is to include against each heading the necessary uplifts and additions required to give his final rate. This rate will then be carried to the relative places within the Bills of Quantities.

These prime cost sums are subject to alteration and no additional claim will be allowed for the varying of these items.

Provisional Quantity Items

27. Items in the Bill of Quantities designated as "Provisional Quantity" in the description column indicate that the quantities for the work covered by such items are the best possible estimates that can be made in advance of the execution of the work, or that the provision of such facilities as are described in the items, may not, in the event, be required under the Contract. All items so designated will be used only at the direction and discretion of the Engineer, and if not used either wholly, or in part shall, as to the amount not used, be deducted from the Contract Sum. Where such items consist of a "item", the contractor shall enter a **lump sum** which shall be the price for the work if executed, as distinct from a 'Provisional Sum' as defined herein. No claim will be entertained in respect of overhead charges or any other costs which may allegedly result from the omission of all or part of the work covered by such "Provisional Quantity" items.

Items in Unit Rates

28. The rates and sums entered by the Contractor against all "item" in the Bill of Quantities shall bear the cost of carrying out the work described in the Contract.

Part II

SECTION C1: DEMOLITIONS

01. Rates for Demolitionshall include demolishing, dismantling and removing etc. with the minimum damage to the material in the process of dismantling, temporary supporting and protecting existing work and adjacent properties against damage, dust and weather and stacking all serviceable materials as directed and disposal of debris from site

including temporary screenings and spraying water periodically to reduce the amount of dust.

- 02. All serviceable materials in demolished structures shall be the property of the Employer.
- 03. Necessary approvals to be taken from suitable authority prior to disposal of demolished parts.
- 04. Temporary support incidental to demolitions which is at the discretion of the Contractor. Support is deemed to include nails, wedges and bolts.
- 05. The Contractor shall provide all necessary hoardings, fans, guard rails, barriers, temporary lighting and warning signs for the purpose of safeguarding the public and the rights of way around the building and shall maintain and remove same on completion.
- 06. Clear away all debris, excess materials and temporary works and leave the site in a tidy condition on completion.

SECTION C2: ALTERATIONS

- 01. Shoring & scaffolding incidental to the work disturbed by such shoring and scaffolding is deemed to be included within each item.
- 02. Alterations are deemed to include:
 - a.) Disposal of materials other than those remaining the property of the employer or those for re-use.
 - b.) Work incidental to alteration.
 - c.) All new fixing or joining material required.
 - d.) Making good for all existing surfaces and structures.

SECTION C3: REPAIRS AND MAINTENANCE

- 01. Shoring and scaffolding incidental to the work and making good all work disturbed by such shoring and scaffolding is deemed to be included.
- 02. Items are deemed to include:
 - a.) Disposal of materials.
 - b.) Incidental works.

03. Formwork and making good to match existing are deemed to be included.

SECTION D: EXCAVATION AND EARTH WORK

- 01. The quantities of material excavated and used as filling are measured net using dimensions from the drawings, with no allowance for bulking, shrinkage or waste. No allowance shall be made for any extra transport required due to bulking.
- 02. The volume of disposal of excavated material measured shall be the difference between the total net volume of excavation and the net volume used for filling. Disposal of excavated material shall be deemed to be disposal off the site unless otherwise stated in item description, and where disposal on site is required, the location shall be stated in the item description.
- 03. Removing of trees stumps shall be included, grubbing up roots, disposal of materials as specified and filling voids.
- 04. Rates for filling shall be deemed to be included for compaction.
- 05. Rates for excavation shall be deemed to include for the following.
 - a.) Excavating by whatever means are necessary including hand excavation in any kind of ground, except rock.
 - b.) Over break including filling with mass concrete to the levels required by the Engineer.
 - c.) Trimming or grading ground to produce level surfaces or surfaces to falls or slopes.
 - d.) Ramming and compacting sides and bottoms of excavations.
 - e.) Additional excavation for working space arising out of any cause, as excavation measured net unless otherwise specified in item description.
 - f.) Any hand excavation required around existing services or the like.
 - g.) Compliance with relevant acts, by laws and regulations relating to excavations and earth work supports.
 - h.) Dewatering and earthwork support where necessary.

- i.) Inspection of Site.
- 06. The method of measurement and re-measurement will be entirely at the discretion of the Engineer but generally will be as follows :
 - a.) Where there is no reduced level excavation, other excavations will be measured from natural ground level.
 - b.) In instances where there is excavation to reduce levels other excavations will be measured from the reduced level.
- 07. The tenderer at the time of preparing the tender shall ascertain the prevailing laws and regulation as to the legal requirements of blasting rock and shall allow in his prices accordingly.
- 08. Rates for excavation in rock requiring blasting shall include for:
 - a.) Obtaining all necessary permits and taking precautionary measures during blasting operation.
 - b.) Complying with all regulations and instructions issued by relevant government or local government authorities.
 - c.) Additional Insurance cover; if necessary.
- 09. Earth work support
 - a) Provisional quantities of earth work support (planking and strutting) are given in the BOQ.
 - b) Payment for earth work supports will only be considered if physically carried out at the site.

The Contractor shall obtain the prior approval of the Engineer before carrying out any alternative method of earth work supports than specified in the Contract.

- 10. Termite Protection/ Applying Insecticides.
 - a.) The quantity measured in the BOQ is the plinth area of the building in square meters. The bidder shall assess the actual quantity of area to be treated and shall allow in the unit rate accordingly.
 - b.) Rate shall include for providing guarantee as per contract.

SECTION E1: PILING

- 01. The rates for piling work shall include for the following:
 - a.) Concrete placed in excess of the completed length.
 - b.) Work below the specified bottom.
 - c.) Permanent casing deemed to include driving heads and shoes.
 - d.) Cutting off tops of piles is deemed to include preparation and integration of reinforcement into pile cap or ground beam and disposal.

SECTION F1: INSITU CONCRETE

- 01. The rates for all concrete work shall include for the following:
 - a.) All costs incurred in determining the mixes to satisfy the specification (including any admixtures).
 - b.) Supplying all material (including any admixtures), storing, mixing, transporting, placing and compaction (whether by hand or vibration).
 - c.) Excavation as required below previously filled levels and back filling (except where separate items are provided).
 - d.) Roughening the surface of previously executed work as required in order to provide the necessary bond with new concrete.
 - e.) Achieving specified tolerance.
 - f.) Forming sloping, falls and the like.
 - g.) Forming holes or boxing out for pipes, bolts, frames for covers and other steel work.
 - h.) Building in cable conduit, pipes, junction boxes etc. (no deductions required)
 - i.) Forming 25mm chamfers an all external arises to exposed concrete. (no deductions required)
 - j.) Forming all construction joints, keys, stop ends, temporary stops and shuttering of other than permanently exposes faces (except where separate items are provide)
 - k.) Curing the concrete and all measures to protect freshly poured concrete from direct sunlight and wave action.

- 1.) Toweling, rubbing down etc. and making good the concrete surfaces to provide the specified finishes.
- m.) The cost of control testing throughout the period of concreting and for the testing of concrete and remedial work ordered by the Engineer consequent to the results of control tests falling below the minimum specified.
- n.) Overtime working to maintain continuity of casting.
- o.) A daily return to the Engineer showing the quantities of cement and the volume of concrete placed and compacted in position, of each class of concrete in each section of the works and temporary works.
- p.) All costs incurred in determining the mixes and testing of materials, making and testing of all test cubes to satisfy the specifications.
- q.) All remedial work ordered by the Engineer consequent to the result of test failing below the minimum specified.
- 02. Concrete shall be transported from the place of mixing to the place of final deposition as rapidly as practicable by means which will prevent segregation, or loss of, or addition to the ingredients. It shall be deposited as near as practicable in its final position so as to avoid re-handling or discharging through chutes, troughs and the like. All skips, vehicles or containers used for transporting the concrete shall be thoroughly clean.
- 03. Concrete shall be deposited in its final position immediately after mixing. It shall be carefully placed in position and not tipped from a height exceeding 1.25 meters. No retempering of partially set concrete shall be permitted.
- 04. The rates for reinforced concrete shall include for working concrete around reinforcement.
- 05. All concrete is to be deposited in layers not exceeding 230mm thick and shall be thoroughly tamped to exclude any voids, and in reinforced work shall be carefully packed around reinforcement and against the forms to ensure good surfaces free from "honeycombing". Great care must be taken to ensure that the reinforcement is not displaced from its correct position during concreting.
- 06. As far as possible sections of the work shall be completed in one operation. If it is necessary to join up with work which has been stopped the surface shall be hacked and

roughened, thoroughly cleaned and coated with cement slurry (1:1) before concreting is resumed.

07. Cutting or forming chases, rebates, and grooves, forming holes and subsequently making good around pipes, sleeves, conduits, ducting metal sections and fittings and for forming all holes or openings.

SECTION F2: FORMWORK

- 01. The rate for formwork shall include;
 - a.) All necessary boardings, supports, erecting, framing, cutting, angles, cleaning, wetting and treatment before placing concrete and removal.
 - b.) Formwork to beam, column, lintel and casings is deemed to include ends.
 - c.) Deductions will be made for openings more than 0.50 m² in area.
 - d.) Waste of forms, whether straight or curved, for coating to prevent adherence of concrete, for the provision of temporary and permanent openings.
 - e.) Carefully coating with shutter oil ensuring that no shutter oil is applied to surfaces of reinforcement.
 - f.) Easing, striking, removing and cleaning and preparing for re-use and removal when no longer required.
 - g.) Other than contact surface of the concrete, such as overlaps and passings at angles shall be included.
 - h.) Shortening struts or shapes and re-strutting or re-shoring where required.
 - i.) Rubbing down, filling and making good the surface of concrete after removal of shuttering.
 - j.) Cutting or notching shutters or moulds to in-situ or pre cast concrete around projecting reinforcement.

- 02. The rates for wrought formwork / formwork to produce a special finish shall include for the following:
 - a.) Any necessary rubbing down or filling allowed by the specification to produce the finish required.
 - b.) Cutting out and re-casting unsatisfactory work or work not fulfilling the requirements of the specification or carrying out remedial or any other work required by the Engineer as an alternative to cutting out substandard work.

SECTION F3: REINFORCEMENT IN INSITU CONCRETE

Rates for reinforcements shall be included;

- 01. Cleaning, straightening where necessary, cutting, bending, fabricating, placing in position, holding and supporting including temporary fixing supports, hangers and binding wire, ties, spaces, chairs etc. to complete the work.
- 02. Fabric reinforcement is deemed to include laps, tying wire all cuttings & bending and spacers and chairs which are at the discretion of the Contractor.

SECTION F4: PRE-CAST AND PRE-STRESSED CONCRETE

- 01. Pre-cast units are deemed to include moulds, reinforcements, bedding, fixing temporarily supports, cast in accessories.
- 02. Pre-tensioned units are deemed to include moulds, reinforcements, grooves and rebates erection fittings, fixing, temporary support, cast in accessories and pre-tensioning.
- 03. Degreasing straightening, cutting to length, assembling, hoisting and fixing are deemed to be included.
- 04. Expendable items such as cones, wedges, anchor plates, spacers and the like are deemed to be included.
- 05. Forming a fair face in accordance with the specification to all exposed surfaces.

SECTION G1: BRICK WORK / BLOCK WORK

- 01. The rates for masonry walls shall include for the following;
 - a) Extra material for curved work.
 - b) Material testing at a recognized laboratory, provision of certificates.
 - c) Small quantities and any extra labour in forming kerbs.
 - d) Straight, raking, curved and circular rough or fair cutting, plumbing at angles, cutting and bonding at angles, openings and intersections.
 - e) All necessary keys for in-situ finishings, building into and / or against adjacent work, wedging and pinning up to soffits.
 - f) Grouting up at back of walls built against other construction.
 - g) All necessary cast in wall ties at any junctions between different types of constructions such as brick work + block work, brickwork + concrete work, block work + concrete work and the like.
 - h) All necessary expansion, construction, contraction joints, slip-strip or the like.
 - i) Infill block work is deemed to include for infill material.

SECTION G2: STONE WORK

- 01. Rates for stone work shall be included;
 - a.) Extra stone for joints.
 - b.) Extra materials for curved work.
 - c.) Mortises (other than linear item) holes, stops and arises.
 - d.) Raking out joints to form key.
 - e.) Labours in eaves filling.
 - f.) Labours in returns, ends and angles.
 - g.) Dressed margins to rubble work.
 - h.) Leveling uncoursed work.
 - i.) Rough and fair square cutting.

- j.) Centering.
- 02. Battering and tapering walls are deemed to include the extra materials required.
- 03. Work is deemed to include extra materials for bonding.

SECTION G3: ACCESSORIES / SUNDRY ITEMS FOR BRICK/ BLOCK/ STONE WALLING

- 01. Accessories are deemed to include;
 - a.) Rough and fair cutting on walls around accessories.
 - b.) Bedding and pointing accessories.
 - c.) Extra materials for curved works.
- 02. Fillets are deemed to include ends and angles.
- 03. Pointing in flashings is deemed to include cutting or forming grooves and chases.
- 04. Joint work is deemed to include preparation, cleaners, primers and sealers.
- 05. Air bricks, ventilating of grating of gratings and the like are deemed to include any necessary forming of openings, liners, cavity closers and damp proof courses.

SECTION H: WATER PROOFING

- 01. RATES FOR WATER PROOFING SHALL INCLUDE FOR;
 - a.) Cleaning, washing and preparation of surfaces to receive Water Proofing treatment.
 - b.) Construction of mortar fillets at slab/wall and wall/wall intersections.
 - c.) Cost of procurement and submission of certificates and warranties as specified.
 - d.) Testing the effectiveness of the water proofing treatment by ponding as directed and rectification if required.
 - e.) Laps, notching, bending, cutting waste etc. of pre-formed membrane.
- 02. Work is deemed to include internal and external angles, angle fillets, arrises, edges, intersections on work to cross falls.

SECTION J: STRUCTURAL METAL WORKS

- 01. RATES FOR STRUCTURAL METAL WORKS SHALL INCLUDE FOR;
 - a.) All shop fabrication work, marking, delivery, unloading, hoisting, erecting and fixing.
 - b.) Allowance for rolling margin.
 - c.) The weight of weld metal in welded constructions.
 - d.) Members of any length.
 - e.) Cutting to size and shape and joints in the running length.
 - f.) Notches, holes, slots, mitres, ends and for all drilling and splay cut ends.
 - g.) Grinding to a smooth finish, unless otherwise required.
 - h.) After fabrication wire brushed to clean the surface and spray painted with two coats of quick drying metal primer Zinc phosphate.
 - i.) Rates for galvanising or similarly treated work are to include for the treatment of all ends to the approval of the Engineer.
- 02. "Welding" is deemed to be in accordance with the specification and for the material to which it is to be used. Gusset plates, shoe plates, ends, caps, cleats, brackets, stiffeners, bolts, etc., have been included in the weights of the associated steel work in which they occur.

SECTION K: METAL WORKS

- 01. The rates for metal works shall include for the following:
 - a.) All fabrication work, handling, delivery, unloading, hoisting, fitting and fixing in position.
 - b.) Joints in the running length.
 - c.) Angles in the running length.
 - d.) Holes, notches, slots and the like.
 - e.) Fixing with appropriate non-corroding countersunk screws including holes unless otherwise described.

- f.) Riveted and bolted work shall include rivets, bolts and holes.
- g.) Approved protection to cut ends or holes in galvanized work or other applied finish.
- h.) Metal door frames shall include for assembling, fixing with clamps, and filling with mortar, temporary supports and removal of base ties.
- i.) Floor plates, duct covers and the like shall include narrow widths laying in position and for all holes, slots and the like making good.

SECTION L: WOOD WORK

SECTION L1: CARPENTRY

- 01. All timber shall be measured as the net length, unless otherwise stated and all sizes given are finishing sizes.
- 02. All timber shall be well seasoned and treated against termite attack before fixing in position.
- 03. Rates for carpentry shall include;
 - a.) Any type of cutting required sewing, notching, drilling, trimming framing jointing, splayed edges and the like hoisting and fixing in position completed with nails, spikes, plugs screws, and gluing and priming to joints and ends.
 - b.) Forming splayed edge, grooves, champers, scribed and rounded edge, beveling molding and the like.
 - c.) Plugging, wedging, nuts and washers with bolts, spokets, pins and the like.
 - d.) Rebating, sinking, grooving, mortising.
 - e.) Applying two coats of an approved wood preservative before fixing.
- 04. Protection and keeping cleaning for staining polishing or painting.
- 05. Cleats, packers tapered pieces of timber & the like are deemed to be included with structural timbers.

SECTION L2: JOINERY

- 01. Rates for Joinery Work shall include for:
 - a.) Any type of cutting required, sewing, making notching, drilling, trimming, planning forming and jointing and the like fixing in position complete with nails, spikes plugs screws and gluing and priming to joints and ends.
 - b.) Forming splayed and tongued edges, rebates mortises grooves, champers, scribed and rounded edge, beveling molding, margin and the like and rounded corners, sinkings.
 - c.) Working to states sizes, for all short lengths making mitres, joints and ends.
 - d.) Necessary bolts, metal clips, anchors, rawlplugs, grips and fixing joinery.
 - e.) Gluing, dowelling, plugging, wedging on a pin and the like.
 - f.) Punching heads and filling with approved filler if nails or pins are used for fixing.
 - g.) Counter sunking and palleting if brass screws are used for fixing.
 - h.) Painting rebates of frames before fixing glass.
 - i.) Bedding in cement mortar filling and hanging to frame lining.
 - j.) Protection and keeping clearing for staining polishing or painting.
 - k.) Framing together all work in accordance with the best practices.
 - 1.) Priming backs before fixing.
 - m.) Drilling and making good

SECTION L3: IRONMONGERY

- 01. The rates for ironmongery shall include for the following:
 - a) Mortises, sinkings and the like.
 - b) Removing before and replacing after decoration.
 - c) Testing, easing and adjusting including oiling and leaving in perfect working order.
 - d) Adhering strictly to mastering and sub-mastering schemes.
 - e) Supplying and labeling at least two keys for each and every lock and handing to the employer's representative.

f) Master key if required by the specification or drawings.

SECTION N: PARTITIONS / LININGS / SUSPENDED CEILINGS

- 01. The rates for partitions shall include for the following;
 - a.) Fair joints.
 - b.) Additional labour for overhead work.
 - c.) Plaster for touching up.
 - d.) Trims and beds.
 - e.) All integral components, holes and the like performed at factory.
 - f.) Pattered work is deemed to include all extra work involved.
- 02. Partitions linings are deemed to include the following where part of the partition system, where not part of the partition system, they are measured in accordance with appropriate work section rules;
 - a.) Head and sole plates.
 - b.) Studs, stiffening sections, fringes and channels.
 - c.) Metal resilient bars.
 - d.) Jointing bars.
 - e.) Insulation and barriers.
 - f.) Fillets, battens and the like.
- 03. Openings are deemed to include additional integral components, ironmongery, glass linings and the like.
- 04. Cubical partitions are deemed to include framing, stiffening, connecting and fixing devices, supporting legs and brackets.
- 05. Suspended ceilings etc are deemed to include;
 - a.) Working over and around obstructions.
 - b.) Support work and accessories for fittings.
 - c.) Suspension and framed members.

- d.) Cutting.
- e.) Rates shall also be deemed to include any depth between the soffit of the slab to which the ceiling is suspended and the finished level.
- 06. Work incorporating integral fittings is deemed to include additional hangers, framing and the like.
- 07. Access panels are deemed to include edge trim and fixings.
- 08. Bridging is deemed to include additional fixings.

SECTION P: ROOF COVERING / ROOF PLUMBING

- 01. The rates for Roof covering and roof plumbing shall include for the following:
 - a.) Hoisting and placing roofing materials in position.
 - b.) Laps, straight cutting, raking cutting, curved cutting and waste.
 - c.) Nails, screws, clips, rivets, straps and the like.
 - d.) Work to falls and cross falls.
 - e.) Cutting ends, angles, intersections, bending, turning in to grooves, wedging, dressing, trimming and dressing over angle fillets, Fixing nuts, limpets etc..
 - f.) Forming voids $\leq 0.10 \text{ m}^2$ other than holes.
 - g.) Joints in the running length and brackets including cutting and fixing for gutters and down pipes.
 - h.) Any Guarantee for finished work as per contract
 - i.) Apply paint to all exposed faces of roof plumbing as directed.

SECTION Q: PLUMBING / SANITARY INSTALLATIONS

- 01. The rates for plumbing / sanitary installations shall include for the following:
 - a.) Complying with the relevant Sri Lanka or British Standard and with the regulations of the local authorities and other controlling bodies.
 - b.) Pipes where diameter is less than or equal 50mm diameter, fittings are included in the pipe work items.

- c.) Cutting and waste of pipe etc. and jointing pipes.
- d.) Solder, rivets, screws, nails, clips, brackets, running sockets, straps etc.
- e.) Connecting pipes to sanitary fixtures and appliances,
- f.) Laying, chasing, burying and fixing pipes and fittings making good all worked disturbed.
- g.) All laps, straight cutting and waste.
- h.) Chipping concrete/ masonry work where necessary.
- i.) Testing installation as required.
- j.) Applying painting to all exposed faces of pipe work as directed.
- 02. The rates for sanitary fittings and the like shall, 'unless otherwise described or implied, include for the following:
 - a.) Assembling component parts including suitable bedding compounds.
 - b.) All necessary plugging and brass screwing.
 - c.) Joints to water services with straight or bent proprietary connectors
 - d.) Joints to waste soils or drain pipes 'with approved proprietary connectors.
 - e.) Cleaning off all protective wrappers and leaving ready for use.
 - f.) Leaving taps and valves greased, clean and in full working order.

SECTION S: ELECTRICAL INSTALLATIONS

- 01. The rates in general shall include for the following
 - a.) All cutting, short lengths and small quantities.
 - b.) All joints in the running length and all connections.
 - c.) All considerations arising from the specification.
 - d.) All necessary conduits, cables, fittings, screws, nails, clips, brackets, junction boxes, straps, 3 core flexible cables, ceiling roses, GI chains, fan hooks and the like.
 - e.) Pipe sleeves through walls.

- f.) Assembling component parts.
- g.) Cleaning off all protective wrappers and leaving ready for use.
- h.) Leaving all equipment, etc., clean and in full working order.
- i.) Draw wires 'in empty conduits.
- j.) Consulting and co-operating with other trades.
- k.) Giving notices, obtaining permits, paying fees etc.
- I.) Provision of shop drawings and circuit diagrams including conduit layout drawings etc.
- m.) Labeling switch and distribution boards and other equipment.
- n.) Providing samples of switches and other fittings.
- o.) Earthing the installation.
- p.) Testing installations as required by the Engineer and submission of certificate of conformance of Electrical Installations to IEE regulations by a Chartered Electrical Engineer registered with the Ceylon Electricity Board.
- q.) Submitting charts/ lists indicating the country of origin and performance of all equipment offered.
- r.) Cabling and conduiting shall be inclusive of all sleeves, joints, etc., as required to connect the incoming supply to the Main Distribution Board.

SECTION T: FLOOR/ WALL/ CEILING FINISHES

General notes

- 01. Thicknesses of plaster work, bedding, backing etc. given in the description of items are the optimum thickness required.
- 02. Finished work must conform in all respect to the approved samples.
- 03. Pointed edges special tiles or the like to ceramic or clay tiles, marble work and the like shall be deemed to be included.
- 04. Brushing and cleaning off and damping down all backgrounds.
- 05. Square and rounded edges coving at wall, floor and ceiling junctions, quirks, wee-joints and making good to frames and the like.

06. Dubbing out as necessary to take up tolerances in the structure and cambers in floors and the like.

SECTION T1: FLOOR FINISHES.

- 01. Rates for floor finishes shall include for:
 - a.) Straight raking curved and circular cuttings and all consequent wastage.
 - b.) All setting out temporary rules, screeds, template and supports.
 - c.) Curing and cleaning off / down upon completion.
 - d.) Spacers, cover guards, etc. to tiling or the like.
 - e.) All labours and making good around pipes, ducting and fittings and the like.
 - f.) Joints between different surfaces.
 - g.) Finishing to slopes and cross falls.
 - h.) All normal cutting arises, rounded edges, bedding and pointing, grouting.
 - i.) Chipping or any extra thickness required to finish the true level.

SECTION T2: WALL AND CEILING FINISHES.

01. Rates for wall finishes shall include for:

- a.) Straight raking curved and circular cuttings and all consequent wastage.
- b.) All setting out temporary rules, screeds, template and supports.
- c.) Curing and cleaning off / down upon completion.
- d.) Spacers, cover guards, etc. to tiling or the like.
- e.) All labours and making good around pipes, ducting and fittings and the like.
- f.) Wall finishing accessories such as chicken mesh, angle beads and the like.
- g.) Forming arises and stopping against joinery work, metal work etc.
- h.) Internal and external angles.
- i.) Chipping or any extra thickness required to finish the true level.
- 02. Rates for ceiling finishes shall include for:
 - a.) Planning of underside of frame work to receive ceiling sheets / planks.

- b.) Planning and grooving of timber planks if used.
- c.) All labour for making good around pipes, ducting and fittings and the like.
- d.) Framing/drilling for holes, complete with all necessary nails, spikes, screws etc.
- e.) Hoisting and fixing in position
- f.) All laps straight cutting and waist
- g.) All timber members to be treated with wood preservative.
- h.) Preparing exposed surfaces and painting as specified or directed.
- i.) Internal and external angles.
- j.) Ceiling finishing accessories such as chicken mesh, angle beads and the like.

SECTION V: PAINTING

- 01. The rates for painting shall include for:
 - a.) Preparation of surfaces, cleaning down
 - b.) Smoothing, knotting, stopping etc.
 - c.) Protecting floors, walls and fittings etc.
 - d.) Removing and replacing doors furniture and cleaning upon completion.
 - e.) Providing painting to an approved colour scheme and design.
 - f.) Working at any height, working to returns, pointing in any colour, multi-colour work if any, and painting in small quantities.
 - g.) Rates for glazed general surfaces, glazed windows and the like (measured flat over glass irrespective of size of pane), shall include for work to edges and glazing rebates, returns and moldings of frames, mullions, transoms, architraves, and the like.

Note:-

Painting and similar work to timber surface, metal surfaces, PVC surfaces and any other surfaces requiring painting have been measured with the relevant items.

<u>SECTION W: DRAINAGE SYSTEMS (SURFACE / BELOW GROUND /</u> <u>AGRICULTURAL)</u>

- 01. The rates for underground drainage shall include for the following;
 - a.) Short lengths, joints and cutting at manholes.
 - b.) Cutting and fixing pipe work to fittings.
 - c.) Testing.
- 02. The rates for excavating trenches deem to include for following;
 - a.) Earth work support.
 - b.) Back filling.
 - c.) Disposal of surplus excavated materials.
 - d.) Trimming excavations.
 - e.) Special protection of pipe.
- 03. Foundation and haunching is deemed to include formwork and reinforcement.
- 04. Pipes are deemed to include pipe supports.
- 05. Accessories are deemed to include jointing to pipes with all necessary additional couplings flanges, etc. and bedding in concrete.