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EB.01.0 CONTRACT DRAWINGS & SPECIFICATION

- EB.01.01 The Contract Drawings are intended to show the general arrangements of the various items of the Works as described in the Specification to be supplied and installed under the Contract. They do not necessarily show exact runs or full details of all accessories, fitting etc, required and in some instances are merely diagrammatic.
- EB.01.02 However, the Specification and Drawings must be understood to cover everything required to make a first class installation and the Electrical Services Installer should include for all items necessary for the proper execution of the Works in his Tender.
- EB.01.03 **Anything shown on the Drawings which is not included in the Specification, or anything herein and not shown on the Drawings shall be deemed to be required as part of the Contract.**
- EB.01.04 Any anomalies, which arise between Drawings or between Drawings and the Specification, should be reported to the Contract Administrator before the Tender is submitted. Such discrepancies must be pointed out at the time of tendering and will not be accepted as a basis for extra claims and work during the progress of the installation. All Contract Drawings and the Specification are the property of the Employer, **which are to be returned with the Tender.**

EB.02.0 WORKING DRAWINGS

- EB.02.01 Notwithstanding the provision of the Contract Drawings the Electrical Services Installer shall be responsible for taking his own particulars and providing at his own expense all necessary working and detail drawings as requested by the Contract Administrator, copies of which must be first submitted for approval before the work is put in hand. Approval of working drawings will not relieve the Electrical Services Installer of his responsibility to ascertain exact building dimensions and location of other services.
- EB.02.02 Where the Electrical Services Installer chooses to prepare the working drawings utilising AutoCAD or equivalent, base building outline discs in .dwg or .dxf format will be provided at cost.

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EB.02.0 WORKING DRAWINGS (Cont'd.)

- EB.02.03 For conduit installations, the Electrical Services Installer shall submit to the Main Contractor for the Contract Administrator's approval, either in electronic format or, five paper copies of drawings showing the proposed route of conduits, dimensioned to show the exact points of vertical runs and positions of outlets for wiring accessories. If any conduits are installed prior to approval, or not in accordance with the approved drawings, the Contract Administrator will be entitled to instruct these to be altered, at the Electrical Services Installer's cost, to comply with his requirements.
- EB.02.04 The Electrical Services Installer will be responsible for taking dimensions from site for all equipment to be specially fabricated such as switchboards, control panels, ductwork, etc. and for preparing his own detailed working drawings from these measurements. Such drawings shall be submitted, either in electronic format or, in triplicate to the Main Contractor for the Contract Administrator's approval before manufacture is commenced.
- EB.02.05 The Contract Administrator's approval of working drawings will not relieve the Electrical Services Installer of his responsibility for errors and incorrect setting out. The Contract Administrator's approval is to be general and is not intended to serve as a check and does not relieve the Electrical Services Installer from furnishing the materials and performing the work as required by the Drawings and Specification.
- EB.02.06 The Electrical Services Installer shall be responsible for any discrepancies, errors or omissions in the working drawings and other particulars supplied by him, whether such drawings and particulars have been approved, in principle, by the Contract Administrator or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or particulars furnished in writing to the Electrical Services Installer by the Contract Administrator.
- EB.02.07 Following the approval of any working drawing the Electrical Services Installer shall formally issue two copies of the approved drawing to both the Main Contractor and the Contract Administrator.

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EB.03.0 SETTING OUT

- EB.03.01 The Contract Drawings are for tendering purposes only and are not to be used for setting out. Except where specific dimensions are given, the Electrical Services Installer will verify all setting out on site and shall make use of all detail, large scale, furniture and internal wall elevation drawings held by the Main Contractor.
- EB.03.02 Notwithstanding the submission, approval and issue of Working Drawings, the exact positions of all lighting points, socket outlets, accessories, distribution boards, cable runs, plant and equipment must be agreed on site with the Contract Administrator before they are set out. Drawings shall not be scaled for this purpose.
- EB.03.03 The Electrical Services Installer shall accurately set out the works and he shall keep them correct in every particular way according to the Drawings and Specification.
- EB.03.04 In all instances where services (gas, hot and cold water, heating, electricity, Telecom. TV, etc.) run in conjunction with and/or parallel to any particular service installation, the setting out of the whole of the services is to be approved by the Contract Administrator before work is commenced on that portion of the installation.

EB.04.0 BUILDERS' WORK

- EB.04.01 The following work shall be deemed to be Builders' Work, which shall be provided by the Main Contractor: -
- a) Cutting away through walls, floors and ceilings for passage of conduits etc. and making good after.
 - b) Chasing of walls for conduits, accessory boxes and the like.
 - c) Auxiliary timber noggins and the like for supporting luminaires and ceiling mounted accessories.
 - d) All underground pipe ducts, lighting column pits, trenching etc.
 - e) All painting other than that outlined in Clause EB.07 of the Specification.
 - f) Removal and replacement of other parts of the building fabric as may be necessary.

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EB.04 BUILDERS' WORK (Cont'd.)

- g) Items of general and special attendance referred to on the Forms of Tender or associated documents.

- EB.04.02 The Electrical Services Installer shall inform the Main Contractor of the location and details of any of the above Builders' Work required by marking out on site or, if requested, by drawings.
- EB.04.03 The Electrical Services Installer shall be responsible for the accuracy of the Builders' Work information and shall recompense the Main Contractor for any abortive work carried out due to inaccurate information.
- EB.04.04 The Electrical Services Installer shall be fully responsible for the levels and squareness of accessories when fitted to chases etc., and to this end will ensure the accuracy of all works carried out in this connection by the Main Contractor.
- EB.04.05 The Electrical Services Installer shall permit nothing to be done which may injure the stability of the works and no cutting through floors, walls, etc. will be allowed, other than where required by the Drawings, without the sanction of the Contract Administrator.

EB.05.0 FIRE PROTECTION

- EB.05.01 When holes are cut through wall or floors to enable conduit, trunking, cables or ducts to pass through, the Main Contractor must make them good with incombustible material. Internal fire barriers in conduit, trunking, ducts, etc. shall be the responsibility of the Electrical Services Installer.

EB.06.0 FIXINGS

- EB.06.01 The Electrical Services Installer shall include for all drilling and plugging for the erection of all materials and equipment required by the Specification. This shall include the fixing of metalwork, screws, clips, bolts, brackets, saddles, etc. for the proper support of conduits, boxes, cables, accessories fusegear etc. and for the suspension or support of lighting fittings, cable trays etc.
- EB.06.02 In any building partially or fully occupied by the Employer or other person's noise and hindrance whilst carrying out any of the above shall be kept to a minimum.

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EB.06.0 FIXINGS (Cont'd.)

EB.06.03 The Contract Administrator's and the Main Contractor's approval shall be obtained as to all methods of fixing proposed before the work is commenced and, in particular, the approval shall be obtained, in writing, before welding, drilling, burning, cutting, cartridge injecting or altering structures or foundations in any way.

EB.06.04 The Electrical Services Installer shall rectify at his own expense any damage whatsoever caused by negligence on the part of his workmen to decorations, paintwork, building fabric or structure etc.

EB.07.0 PAINTWORK

EB.07.01 The Electrical Services Installer shall be responsible for protecting all electrical equipment that has been installed from damage, and shall thoroughly clean all equipment before it is handed over. Any damaged paintwork shall be made good in a colour and type of paint to match the original.

EB.07.02 Mild steel or iron brackets or other items to be built in are to be painted before building in. In the case of materials or plant which is delivered to the site already primed, the Electrical Services Installer shall ensure that the primer is suitable for the type of paint to be subsequently applied, and shall make good any damage to the primer before further coats are applied.

EB.07.03 All items that are to be painted shall have an under-coating and a finishing coat in addition to a primer appropriate to the material being painted, the finishing coat shall be to a colour to be approved by the Contract Administrator.

EB.07.04 All paints, including priming, undercoats and finishing coats shall be of the best quality, and shall be obtained from a Firm approved by the Contract Administrator, and are to be used in accordance with the Maker's instructions. Painting shall be done in accordance with the best practices in the Trade, all surfaces to be painted, must be thoroughly prepared, including removal of dust, grease and protective coatings, and in the case of iron and steel, the removal of rust and scale by abrasion, followed by the application of an anti-rust solution to remove pitted rust.

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EB.08.0 WORKMANSHIP

- EB.08.01 Workmanship shall conform to the highest standard of current electrical installation practice. The Contract Administrator reserves the right to reject any work, which in his opinion does not meet such a standard.
- EB.08.02 Rejected work shall be rectified immediately or taken down within two days and corrected as soon as is practically possible.

EB.09.0 MATERIALS

- EB.09.01 Unless otherwise specified all material to be used throughout the installation shall be new and shall be of British or EEC manufacture.
- EB.09.02 All materials shall be of the best of their particular type and the Electrical Services Installer may be called upon to submit for approval samples of the various materials intended for use in the execution of the work. All materials are to comply with the appropriate British Standard Specification where such is available.
- EB.09.03 Materials, which are specified, to be supplied by a particular Manufacturer shall **not** be varied without the written approval of the Contract Administrator.
- EB.09.04 Notwithstanding any negotiations, which the Contract Administrator may have had with any particular Manufacturer regarding items of equipment, which are specified, the Electrical Services Installer shall still be responsible for final negotiations to ensure that the equipment is entirely suitable and fully conforms to all requirements.
- EB.09.05 The above negotiations will probably have taken place early in the design process and therefore quantities may have changed. It is the Electrical Services Installer's responsibility to verify the correct quantities and execute the orders accordingly.
- EB.09.06 All catalogue numbers shall be checked to ensure that that number specifies a complete accessory, fuseboard, luminaire, etc.. Should any number only partially specify an item this shall be reported before the tender is submitted. The use of specified catalogue, type, make or model numbers without checking as above will not be considered as justification for any additional financial claims and the complete item will be required to be installed as part of the Contract.

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EB.09.0 MATERIALS (Cont'd.)

- EB.09.07 When for any reason the Electrical Services Installer proposes a change from the specified materials for approval, he shall provide samples, free of charge, to the Contract Administrator for evaluation together with all back up technical and other reference information requested by the Contract Administrator.
- EB.09.08 The Electrical Services Installer shall ensure that all materials, which are installed or stored on site, are properly protected. The Contract Administrator reserves the right to reject any materials which are damaged or corroded due to poor storage, installation, or lack of protection, or materials which do not comply with the Specification.
- EB.09.09 **Rejected materials, whether installed or stored, shall be removed from site within two days and replaced as soon as is practically possible.**
- EB.09.10 It shall be the Electrical Services Installer's responsibility to ensure that all materials are ordered and delivered to site in sufficient time so as to enable him to complete his work within the period of contract. No additional claims will be allowed for non-compliance.

EB.10.0 PRODUCTS SPECIFIED BY NAME

- EB.10.01 It should be noted that, for tender purposes, the reference to any particular item or product within this specification lays down the parameters required for that product. These parameters will include type and standard of aesthetic finish, applied technology/inter-component compatibility, thermal capabilities, technical suitability and physical dimensions.
- EB.10.02 Alternative products may be offered if full details are submitted in writing, at the submission of any tender, as referred to in Clause EB.09.07, for evaluation and approval by the Contract Administrator. Any such alterations shall be detailed in the form of a separate schedule indicating any projected cost savings against any scripted product.
- EB.10.03 Any proposed 'equal and approved', alternatives will not be considered after the stage of tender acceptance. The offer and acceptance of any tender will be deemed to have established the full specification of the products included therein and the only parameters for re-consideration thereafter will be due to availability parameters, if notified in writing to the Contract Administrator at least 4 weeks prior to the programmed delivery date.

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EB.11.0 TESTING AND COMMISSIONING

- EB.11.01 At an early stage of the Project the Electrical Services Installer shall compile a programme of testing and commissioning of all services contained in this Specification document.
- EB.11.02 The Electrical Services Installer shall further provide a method statement supported by risk assessments detailing the procedures for carrying out the on site tests.
- EB.11.03 The opportunity shall be afforded to the Contract Administrator, or his appointed representative, to witness all or any tests carried out either on site or at manufacturer's works, and to facilitate this, the Electrical Services Installer shall give not less than **eight days notice** of tests to the Contract Administrator.
- EB.11.04 The Electrical Services Installer shall provide all necessary facilities and equipment to carry out all tests and inspections either on site or at manufacturer's works.
- EB.11.05 An 'approved' engineer shall be appointed by the Electrical Services Installer to supervise the whole of the testing, commissioning, performance testing and instruction of Client's staff together with all specialised personnel (including manufacturer's representatives) and all of their activities shall be co-ordinated by him.
- EB.11.06 All equipment, material and systems contained in this Specification document shall be tested and if such inspection/test fails, the process shall be repeated until satisfactory results are obtained.
- EB.11.07 Comprehensive records of all commissioning and testing shall be maintained and shall contain the following information:-
- a) Project title
 - b) Details and date of test
 - c) Instruments used, serial numbers, calibration dates
 - d) Signatures of those witnessing test
 - e) Electrical Services Installer's name
 - f) Specific location of the item(s) in the Works

All such documentation shall be included in the O & M manuals.
Fuel for testing shall be provided by the Electrical Services Installer.

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EB.12.0 COMPLETION DETAILS

- EB.12.01 At the completion and final hand over of the project, the Electrical Services Installer is required to have carried out the following: -
- a) fully completed all works detailed in the Specification and shown on the Contract Drawings.
 - b) fully completed all works relating to Variations to the Contract, for which Contract Administrator's Instructions have been issued, thus forming part of the Contract.
 - c) submitted to the Contract Administrator, via the Main Contractor, all duly completed inspection and Completion Certificates.
 - d) submitted to the Contract Administrator, via the Main Contractor, Record Drawings.
 - e) submitted to the Contract Administrator, via the Main Contractor, a Maintenance Manual and Job Profile.
- EB.12.02 All of the above shall be produced in such a format as to allow for ease of inclusion into the Building Log Book.

EB.13.0 INSTRUCTION PERIOD

- EB.13.01 After an installation has been completed, tested and handed over to the Employer, and when instructed, the Electrical Services Installer shall supervise and be completely responsible for the running of the plant detailed in this Specification, for a period during which he shall demonstrate to the persons appointed by the Employer to be in charge, the running conditions, operation of the plant, correct setting and maintenance controls etc. to attain the desired results.
- EB.13.02 The Electrical Services Installer should ensure that the person(s) are familiar with the positions of switchgear, distribution boards, consumer units etc., and facilities for the isolation of the installation, particularly under emergency conditions. The instructional period may not take place immediately on completion, but when considered desirable by the Contract Administrator.
- EB.13.03 Any particular project requirements concerning the instructions shall be detailed elsewhere in the Particular Specification.

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EB.14.0 OPERATION & MAINTENANCE MANUALS

- EB.14.01 Prior to the issue of the Practical Completion Certificate for Works, comprehensive Operation & Maintenance Manuals finalised in detail and approved shall be provided. It is advised that great importance will be placed upon the quality, accuracy, clarity and completeness of the Operation & Maintenance Manuals and upon their being made available promptly.
- EB.14.02 A complete draft copy of the manual must be submitted not less than **8 weeks before** the date of Practical Completion. Any amendments necessary in the light of any comments shall be made and the manual re-submitted for the Contract Administrator's approval.
- EB.14.03 Only after the Contract Administrator's approval are the final copies of the manual to be produced.
- EB.14.04 The finalised copies are to be provided to the Contract Administrator not less than **2 weeks before** the date of Practical Completion.
- EB.14.05 Failure to issue these in time will result in withholding the Practical Completion Certificate, or alternatively the Contract Administrator may produce them and the **actual** production cost will be contra-charged to the Electrical Services Installer.
- EB.14.06 From time to time, as required throughout the execution of the Works, evidence of adequate and accurate records, to enable the ultimate completeness and accuracy of the Operation & Maintenance Manuals, shall be progressively examined as the work on site proceeds.
- EB.14.07 All Operation & Maintenance Manuals shall be provided in triplicate together with CD-ROM containing all documentation, following the issue of one set for approval.
- EB.14.08 The Operation & Maintenance Manuals shall be adequate for the following purposes:-
- (a) To record clearly the layout of the various sections of the Works as actually installed, and to identify and locate all component parts thereof especially isolation points, distribution boards etc.
 - (b) To make it possible to comprehend the extent and purposes of the Works and the method of operation thereof.

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EB.14.0 OPERATION & MAINTENANCE MANUALS (Cont'd.)

EB.14.08 Cont'd

- (c) To set out clearly the extent to which maintenance and servicing is required and how, in detail, it should be executed.
- (d) To provide sufficient and readily accessible information properly to facilitate the ordering of spares and replacements.

EB.14.09 The Operation & Maintenance Manuals shall be correlated so that the terminology and the numerical and/or other references used therein are consistent with and similar to those used in the physical identification of component parts of the Works.

EB.14.10 Operating and Maintenance Instructions shall be provided and shall comprise the following as applicable (all contained in volumes strongly bound in flexible covers and suitable for heavy usage over a long period), written to be read in conjunction with the Record Drawings:

- (a) A general description of the scope, purpose and manner of working of each system or apparatus forming part of the Works.
- (b) A detailed description of the scope, purpose and manner of working of each system of automatic controls and/or monitoring instruments.
- (c) A detailed description of the scope, purpose and manner of working of each system of special services.
- (d) Data on general design parameters and normal operating conditions (e.g. voltage, current etc.) based on commissioning tests.
- (e) Clear and comprehensive instructions for the switching on, starting up, running and closing down of each such system or apparatus.
- (f) Clear and comprehensive instructions for dealing with emergency conditions for each system or apparatus.
- (g) Instructions in respect in respect of any precautionary measures from time to time necessary (e.g. against corrosion or freezing).

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EB.14.0 OPERATION & MAINTENANCE MANUALS (Cont'd.)

EB.14.10 Cont'd

- (h) Instructions in respect of the care of apparatus when subject to seasonal disuse.

- (i) Instructions as to the nature, extent and frequency of servicing necessary to properly maintain the Works in good condition and as to the materials to be used for the purpose. This information may be supported in detail, but not replaced by, maintenance instructions provided by the suppliers of particular component apparatus.

- (j) The names and addresses of suppliers of all major components of the Works as may be required to obtain spare parts or replacements.

EB.14.11 Copies of manufacturers' data shall be supplied with respect to the nature, type and method of operation of individual pieces of equipment, together with their detailed maintenance instructions. Such data, in the form of individual booklets and the like, shall be indexed and cross-referenced to the Operating and Maintenance Instructions and presented suitably protected in box files or folders.

EB.14.12 An asset list of all equipment and services together with all associated technical information pertinent to such services and information shall be included.

EB.14.13 A copy of all Test Certificates, Inspection and Test Records, Commissioning and Performance Test Records (including, but not limited to, insulation tests, earth fault level tests, fire alarm commissioning tests) for the installations and equipment, etc., used in the installations.

EB.15.0 RECORD DRAWINGS

EB.15.01 Prior to the issue of the Practical Completion Certificate for the Works, comprehensive Record Drawings finalised in detail and approved shall be provided. It is advised that great importance will be placed upon the quality, accuracy, clarity and completeness of the Record Drawings and upon their being made available promptly.

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EB.15.0 RECORD DRAWINGS (Cont'd.)

- EB.15.02 Draft copies of the drawings must be submitted not less than **8 weeks** before the date of Practical Completion. Any amendments necessary in the light of any comments shall be made and the drawings re-submitted for the Contract Administrator's approval.
- EB.15.03 Only after the Contract Administrator's approval are the final copies of the drawings to be produced.
- EB.15.04 The finalised drawings are to be provided to the Contract Administrator not less than **2 weeks** before the date of Practical Completion
- EB.15.05 Failure to issue these in time will result in withholding the Practical Completion Certificate, or alternatively the Contract Administrator may produce them and the **actual** production cost will be contra-charged to the Electrical Services Installer.
- EB.15.06 From time to time, as required throughout the execution of the Works, evidence that adequate and accurate records such as will ensure the ultimate completeness and accuracy of the Record Drawings shall themselves be progressively examined as the work on site proceeds.
- EB.15.07 All Record Drawings shall be provided in triplicate, following the issue of one set for approval. In the case of drawings and diagrams prepared by the installers, they shall be produced on AutoCAD v 2008, with 3 no CD-ROMs and 3 no sets of prints provided.
- EB.15.08 Drawings prepared by suppliers of component items shall be in the same form as above, except where they are incorporated in Instruction Manuals when paper is acceptable.
- EB.15.09 The Record Drawings shall include the information listed in the following paragraphs, as applicable. All such drawings shall clearly be endorsed **RECORD DRAWING** near to the title block and shall be drawn to a scale of not less than one hundredth full size, which shall show the following as installed:-
- (a) The location, including level if buried, of Public Service connections provided, together with the points of origin and termination, size and materials of cables, voltages, pipes and/or other relevant information.

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EB.15.0 RECORD DRAWINGS (Cont'd.)

EB.15.09 Cont'd

- (b) Location, identity, size and details of all apparatus and control equipment served by, or associated with, each of the various services. The information with respect to size and details may be presented in schedule form subject to the prior agreement of the Contract Administrator.
- (c) The location and identity of each room or space housing plant, machinery or apparatus.
- (d) Main and sub-main cables, showing original, route, termination, size and type of each cable.
- (e) Lighting conduits and final sub-circuit cables showing origin, route, termination, and size of each, together with number and size of cables within each conduit. The drawings shall indicate for each conduit of cable whether it is run on the surface or concealed, e.g. in wall chase, in floor screed, cast in-situ, above false ceiling.

These drawings shall also indicate locations of luminaires, distribution boards, switches, draw-in-boxes and outlet boxes, and shall indicate circuitry.

- (f) Single and three-phase power conduits and final sub-circuit cables generally the same detail as (b) foregoing, and showing locations of power distribution boards, motors, isolators, starters, remote control units, socket outlets and other associated equipment.
- (g) Other miscellaneous equipment, conduits and cables generally to the same details as (b) foregoing.
- (h) Location of all earth tapes, earth electrodes, and test points other than in (f) hereof.
- (i) Lightning conductor air terminals, conductors, earth electrodes and test clamps.

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EB.15.0 RECORD DRAWINGS (Cont'd.)

EB.15.09 Cont'd

- (j) Distribution diagram, or diagrams, which shall show size, type and length (to within one yard for imperial measure or one metre for metric measure) of each main and sub-main cable, together with the measured earth continuity resistances for each.
- (k) Control wiring diagrams, which shall show all equipment supplies as part of the Works.
- (l) Manufacturer's drawings and internal wiring diagrams which shall show all special equipment supplied as part of the Works.
- (m) Schedule of luminaires installed which state location, manufacture and type or catalogue number together with the type or manufacturer's reference, voltage and wattages of the lamps installed.

EB.16.0 CIBSE LOG BOOK

EB.16.01 The Electrical Services Installer shall ensure that in addition to clauses EB.14 and EB.15 all the necessary information for the compilation of a log book, as described in CIBSE TM 31, suitable for the property shall be provided in tabulated asset register format to enable completion by the User Client.

EB.16.02 Each item of equipment provided on the project shall be given an unique registered number which shall be printed (not hand written) on self adhesive labels (of size not greater than 75mm x 50 mm) which shall be affixed to the exterior of the item and cross referenced to the equipment asset register

EB.16.03 The format of the numbering sequence and presentation shall be confirmed by the Contract Administrator prior to the commissioning period when all tabulation shall be checked.

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EB.17.0 DEFECTS LIABILITY, MAINTENANCE & SERVICING

- EB.17.01 Notwithstanding the conditions of the Contract the Electrical Services Installer shall be responsible for any defects which may occur, for a period of 12 months from Practical Completion, in the entire electrical installation detailed in the Specification with the exception of GLS Tungsten lamps for which the Employer will take responsibility.
- EB.17.02 Following notification of a defect the Electrical Services Installer shall rectify the item within 24 hours except as may be agreed otherwise with Contract Administrator.
- EB.17.02 The Client will carry out maintenance to the installation in accordance with the documentation issued by C.L.A.W. for all building engineering services thus ensuring that such installation is maintained and serviced correctly thus meeting all statutory requirements.

EB.18.0 USE OF ELECTRICAL SERVICES PRIOR TO HANDOVER

- EB.18.01 It may be essential that the electrical system is used prior to the practical completion or even before the whole electrical installation is fully completed.
- EB.18.02 In such circumstances the Client may agree, providing that agreement as to the costs etc. can be reached with the Main Contractor and the following requirements are adopted.
1. The Contract Administrator is satisfied that the system is sufficiently advanced.
 2. The requirements of the Management of Health and Safety at Work Regulations 1999 (3242), the Electricity Supply Regulations 1988 (1057), and the Electricity at Work Regulations 1989 (635), are fully carried out.
 3. That in accordance with Regulation 16 of the Electricity at Work Regulations 1989 (635) the Electrical Services Installer will provide the services of a competent person.
 4. The appointed competent person will be responsible for the following:-
 - a) The operation and control of the electrical system or systems.

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EB.18.0 USE OF ELECTRICAL SERVICES PRIOR TO HANDOVER (Cont'd.)

EB.18.02 Cont'd

- b) Ensuring that the electrical system in the area to be energised is electrically complete and free from danger and mechanically safe and that no unauthorised alterations take place. (Danger as defined in the Electricity at Work Regulation 1989(635)).
- c) Connection of all equipment to the system by means of permanent connections, or suitable correct type plug tops.
- d) Have authority to immediately disconnect or refuse supply to equipment, which, in his opinion, is electrically unsafe or unsatisfactory or would cause damage to the system and/or accessories.

EB.18.03 The provision of these services is not included in the Sub-Contract, and as such they shall be chargeable to the Main Contractor.

EB.18.04 The defects liability period will commence from the date of practical completion even though the electrical services are used previously.

EB.19.0 EMERGENCY CALL OUT

EB.19.01 For the duration of the contract and for the defects period an Emergency Call Out Service must be available 24 hours per day at all times including week-ends and bank holidays.

EB.19.02 The Call Out is to be covered as soon as possible and the operative attending site must be on site within 2 hours of receiving the Emergency Call Out notice.

EB.19.03 If the Electrical Services Installer is unable to respond to the call out within the time specified, attendance by others operating on a representative basis for the Electrical Services Installer will be acceptable but the standard and performance of the representative is entirely the responsibility of the Electrical Services Installer.

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EB.19.0 EMERGENCY CALL OUT (Cont'd.)

- EB.19.04 In the event of failure by the Electrical Services Installer to respond to the call out within the time stipulated, the Client reserves the right to employ and pay others to carry out the work involved and the costs incurred will be deducted by the Client from any monies due to the Electrical Services Installer under this contract or will be recoverable from the Electrical Services Installer by the Client as a debt.
- EB.19.05 This latter action will in no way invalidate the guarantee inherent in the defects liability period implicit in the terms of the contract.
- EB.19.06 The cost to the Electrical Services Installer of putting the equipment and associated Electrical Systems into working order will be at the Electrical Services Installer's expense and at no cost to the Client unless the work involved or the fault attended to is deemed by the Client to be outside the terms of the contract.
- EB.19.07 To facilitate the call out procedure the Installer **upon** placing of an order with him for the contract works will be required to give a Call Out telephone number or numbers where 24 hour contact will be available and the Client will give corresponding 24 hour Call Out contact numbers for the relay of information.
- EB.19.09 Included in this Emergency Call Out Procedure is the attendance to any operational fault or breakdown to any temporary plant that may be installed as part of the contract.

EB.20.0 COMPLIANCE WITH REGULATIONS

The whole of the installation carried out under this contract must comply with the following regulations and requirements, together with the latest revisions and amendments or substitutes, which apply at the time of installation.

- a) Building Regulations.
- b) Local Authority Bye-Laws, Regulations and Notices.
- c) British Standards, whether applicable in part or whole.
- d) Relevant British Standard Codes of Practice.
- e) BS 7671: 2008, Requirements for Electrical Installations Wiring Regulations Seventeenth Edition.

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EB.20.0 COMPLIANCE WITH REGULATIONS (cont'd)

- f) Management of Health and Safety at Work Regulations 1999 (3242).
- g) Electrical Equipment (Safety) Regulations 1994 (3260).
- h) The Electrical Services Installer carrying out the Works to be registered with the National Inspection Council for Electrical Installation Contractors (N.I.C.E.I.C.).
- i) The intruder alarm / C.C.T.V. Installation Specialists shall be registered with the National Inspection Council for Security Systems. (N.A.C.O.S.S.).
- j) The Radio, Television & Satellite Aerial Specialist shall be registered with the Confederation of Aerial Industries Ltd. (C.A.I.).
- k) The local Fire Authorities requirements.
- l) The relevant C.I.B.S.E. requirements.
- m) The Construction (Design and Management) Regulations 2007 (3140)
- n) Work Equipment Regulations 1998 (2306)
- o) Manual Handling Operations Regulations 1992 (2793)
- p) Workplace (Health Safety and Welfare) Regulations 1992 (3004)
- q) Personal Protective Equipment at Work Regulations 2002 (1144)
- r) Display Screen Equipment Regulations 1992 (2792)
- s) Asbestos Licensing Regulations 1998 (3233)
- t) The Control of Asbestos at Work Regulations 2002 (2675)
- u) Construction (Head protection) Regulations 1989 (2209)
- v) Construction (Health, Safety and Welfare) Regulations 1996 (1592)
- w) Control of Lead at Work Regulations 2002 (2676)

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EB.20.0 COMPLIANCE WITH REGULATIONS (cont'd)

- x) Control of Substances Hazardous to Health Regulations 2002 (2676)
- y) Pollution Prevention and Control Act 1999
- z) Waste Management Licensing Regulations 1994 (1056)
- aa) The Waste Electrical and Electronic Equipment (Amendment) Regulations 2007 (3454)
- bb) Reporting of Injuries, Disease and Dangerous Occurrences Regulations 1995 (3163)

EB.21.0 PRESENCE OF ASBESTOS

EB.21.01 The Contractor shall be vigilant with regard to the presence of asbestos and strictly adhere to the Authority's standing orders with regard to the necessary procedures to be adopted.