SPECIFICATION FOR

HIGH LEVEL REPAIR AND MAINTENANCE WORKS

 \mathbf{AT}

ST GRADA AND HOLY CROSS CHURCH

Scott & Company 3 Lemon Villas Truro TR1 2NX

JCD 7531 Tel: 01872 263939 April 2020 Fax: 01872 262299

GENERAL CONDITIONS AND PRELIMS AND DETAILS FOR THE PRE-CONSTRUCTION INFORMATION PACK FOR WORK TO BE UNDERTAKEN AT

Building Name: St Grada and Holy Cross Church **Project:** High Level Repair and Maintenance Works

Client: The Vicar and Churchwardens Contact Name: c/o Paul Racey Address: St Grade Church, Ruan Minor,

Helston, Cornwall TR12 7LQ

Tel No: 01326 291255

Surveyor: David N Scott B Sc Dip Bldg Cons FRICS

Christopher G Hunter B Sc (Hons) MRICS

Joe Davidson B Sc (Hons) MRICS

Scott & Company 3 Lemon Villas Truro TR1 2NX

Tel: 01872 263939

Planning Permission: Obtained LAPP Ref No: Applicable/Not Applicable Yes/No Date: **Conditions** Yes/No Discharged: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 LBC: **Obtained LALBC Ref No:** Applicable/Not Applicable Yes/No **Date:** **Conditions** Yes/No Discharged: 1, 2, 3, 4, 5, 6, 7, 8, 9 10 **Building Regs: Obtained** LABrgs Ref No: Applicable/Not Applicable Yes/No

Date:

Conditions Yes/No

Discharged: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Builder to supply samples Yes/No

Building Listing Grade: I H* II Conservation Area Yes/No

Scheduled Monuments Nearby: Yes/No If yes state number:

CDM Form F10	Preliminary	Complete Sent to HSE
Building*:	Domestic, Commercial, Ecclesiastical, Industrial, Retail, Ruin	
Will be*:	Vacant Occupied Intermittently used during project	
Environment**:	Historic Garden Living Church Yard Bats Owls Rare Plants Scheduled Ancient Monument Urban/Heavily populated/Visited Archaeologically Sensitive Site of Special Scientific Interest Areas of Great Historic Value Areas of Great Landscape Value Areas of Outstanding Natural Beauty National Nature Reserves World Heritage Site Areas	
Licences obtained/ required for**:	Bats Nesting Birds Owls	
Health & Safety File Available/Not Availab		
Asbestos Register: Available/ Not Availal	Obtained -Yes/No	Survey Required Yes/ No
Archaeologist:	Yes/No	Name:
		Contact:
Steeplejack needed:	Yes/No	Name:
		Contact

^{*} Delete where inappropriate **Highlight where relevant

CONTRACT CONDITIONS 1.00 1.01 **Type of Contract:** JCT Minor Works Building Contract 2016 The contract will be executed under hand 1.02 **Employer** The following is to be hereinafter referred to as the Employer: The Vicar and Churchwardens c/o Paul Racey St Grade Church, Ruan Minor, Helston. Cornwall **TR127LQ** 1.03 **Surveyor** 1.04 Christopher G Hunter BSc (Hons) MScCHE MRICS David N Scott BSc Dip Bldg Cons FRICS Joe Davidson BSc (Hons) MRICS whose address/registered office is: 1.05 Scott & Company, 3 Lemon Villas Truro TR1 2NX (01872 263939) 1.06 Form of Agreement and Conditions 1.07 The Agreement and Conditions will be the Joint Contract Tribunal Agreement for Minor Works Building Contract 2016 (MW 2016) with all relevant additions and revisions thereafter. 1.08 Recitals, Articles and Conditions are hereinafter listed and subject to deletions, insertions and amendments as indicated: 1.09 Recitals 1.10 First Recital – Project Description: The employer wishes to have the following Works carried out: High Level Repair and Maintenance Works St Grada and Holy Cross Church

1.11 Second Recital – Contract Documents:

The contract drawings listed in the specification and numbered below:

S789 - 01

hereinafter called the contract drawings and/or a specification* or work schedules*.

*Delete the words work schedules

The priced specification will be annexed to the contract.

1.12 Third recital – Priced Documents:

*delete the words contract specification / work schedules / schedule of rates as appropriate.

- 1.13 | Fourth recital Status of Employer under CIS and Finance Act 2004
- 1.14 Fifth recital Status of project in relation to Construction (Design and Management) Regulations 2015 (the 'CDM Regulations')
- **1.15** | Sixth recital Framework Agreement where applicable
- **1.16** | Seventh recital Supplemental provisions

1.17 | Articles

1.18 Article 1 – Contractor's Obligations

Contractor's obligations – The contractor shall carry out and complete works in accordance with the Contract Documents

1.19 Article 2 – Contract Sum

The agreed contract sum will be inserted when the contracts are drawn.

1.20 Article 3 – Architect / Contract Administrator

The Contract Administrator is the said Scott & Company (Cornwall) Limited of 3 Lemon Villas, Truro, TR1 2NX

1.21 Article 4 - CDM Principal Designer

Under CDM 2015 the principle designer is to be Scott and Company with the assistance of:

JNC Safety Services Woodbine Farm Business Centre Truro Business Park Truro, Cornwall TR3 6BW

1.22 Article 5 - Principal Contractor

To be confirmed

- 1.23 Article 6 Adjudication
- **1.24** Article 7 Arbitration
- 1.25 Article 8 Legal Proceedings
- 1.26 | Contract Particulars
- Particulars to be filled in / amended as per the notes below. Items in italics are to be deleted as necessary.
- 1.28 Fourth Recital and Schedule 2 (paragraphs 1.1, 1.2, 1.5, 1.6, 2.1 and 2.2)
- 1.29 Fourth Recital and clause 4.2

The employer is not a contractor

1.30 Fifth Recital - CDM Regulations

The project is notifiable

1.31 Sixth Recital – framework agreement (if applicable)

If a framework agreement applies the start date, title and parties should be entered into contract when it is drawn up.

Framework agreement-applies / does not apply (delete as appropriate).

1.32 Seventh Recital and schedule 3 – Supplemental Provisions:

- Collaborative working **applies**
- Health and Safety **applies**
- Cost savings and value improvements **applies**
- Sustainable development and environmental considerations **applies**
- Performance indicators and monitoring **applies**
- Notification and negotiation of disputes applies provide contact

1.33 Article 7 – Arbitration

Article 7 and Schedule 1 (Arbitration) *apply/do not apply* (delete as appropriate)

1.34 2.2 - Date for Commencement of Work to be inserted:

TBC

1.35 2.2 - Date for completion to be inserted:

TBC

1.36 2.8 - Liquidated damages

at the rate of £ 500.00

per week

1.37

<u>2.10 – Rectification Period (Snagging / Retention Period):</u>

Three months from the date of practical completion

1.38 4.3 - Interim Payments

The first valuation date is one month after commencement and then monthly thereafter.

1.39 4.3 – Payments due prior to practical completion:

Requests for payment will be reduced to 95 per cent unless

otherwise stated, which equates to a 5 per cent retention throughout the contract.

Enter rate: 95 per cent

1.40 4.3 - Payments due on or after practical completion:

The percentage of the total amount to be paid to the contractor

will stand at 97.5 per cent unless otherwise stated and agreed.

1.41 4.3 and 4.8 Fluctuations Provision - Contribution, levy and tax changes:

Schedule 2 (Fluctuation Option) applies. Delete this section in

the contract if the project is of such limited duration to make

the provision inappropriate.

1.42 4.3 and 4.8 - % addition for Schedule 2 (paragraph 13):

Percentage addition for fluctuation options if applicable (delete whole provision if not applicable)

If applicable enter rate:

1.43 4.8.1 - Supply of Documentation:

Supply of documentation for computation of amount to be

finally certified (The period is three months unless a different

period is stated)

Enter period: Three months

1.44 | 5.3 - Contractor's public liability insurance:

Injury to persons or property - insurance cover (for any one

occurrence or series of occurrences arising out of one event).

Enter required amount of cover: £5,000,000.00

1.45 5.4A, 5.4B and 5.4C – Insurance of the works etc. (alternative provisions):

5.4B - applies where the works are an extension / alteration to an existing structure and the Employer can obtain the insurance in joint names in compliance with clause $5.4B^{\ast}$

1.46 5.4A & 5.4B – Percentage to cover professional fees:

A percentage to cover professional fees (if no other percentage is stated it shall be 15 per cent)

18%

1.47 7.2 – Adjudication:

Name of adjudicator

1.48 The Royal Institute of Chartered Surveyors

1.49 Schedule 1 (Paragraph 2.1) – Arbitration:

The Royal Institute of Chartered Surveyors

1.50 Attestation

1.51 The agreement should be executed by both the Employer and the Contractor either under hand or as a deed.

2.00 MANAGEMENT & ADMINISTRATION

2.01 Generally

2.02 Contractors to provide on and off site management and administration between main contractor, surveyor, sub contractors, consultants and relevant statutory authorities. Include for establishment charges, overhead costs and profits.

2.03 Liaison

2.04 The contractor is to liaise with the police, local authority and other relevant bodies, or parties concerned as may be required to satisfactorily complete the contract.

2.05 | Conditions Specific to Contract

2.06 Any special conditions appertaining to this contract have been included in the general clauses of this specification, within the Prelims and specifically within Sections 4 & 5 onward, to which reference should be made.

2.07 | Materials – British Standards

2.08 All materials are to be of the specified quality. Where the quality is not specified, it shall be of the best available quality. Samples shall be provided to the surveyor for approval and agreement prior to ordering. Workmanship or materials with current British Standards, Agréement Certificate or Industry agreed Codes of Practice shall be complied with unless otherwise stated. All supply of materials, unless otherwise specifically agreed or specified, must be from suppliers who have complied with British Standards in the manufacture and use of materials and have current Agréement or equivalent European certification. Copies of such certification shall be provided upon request.

2.09 | Proprietary Articles

2.10 Where a proprietary or trade fittings or materials are specified, they are to be stored, assembled, fixed or used in strict accordance with the manufacturer's instructions. If there is any incompatibility between materials as specified which comes to light following consultation with suppliers, the contractor shall advise the surveyor before use and/or ordering

2.11 | Variation Orders

Variation Orders, contract instructions, or AIs shall be issued, as appropriate, to direct any necessary changes, additions or omissions to the contract, expenditure of contingency sums, PC or PS items without prejudice to the intent of the contract. The contractor shall produce full costed details of expenditure under Variations with relevant fully dated time sheets and supporting suppliers' invoices.

2.13 Daywork

2.14 Where authority is given for work to be executed on a daywork basis original vouchers giving full particulars of hours worked, names of craftsmen and labourers, rates of wages paid, description of work executed, materials and plant used must be forwarded to the surveyor no later than the end of the month following in which the works have been executed. The daywork sheets must be numbered in sequence and signed off by the foreman. Payment is not due until agreed by the surveyor.

2.15 | Foreman

2.16 The contractor shall at all times keep a trained and competent supervising employee on site and on larger jobs is expected to have a foreman. Smaller contracts should be provided with a part-time foreman. Any instructions given to either supervising employees, who should be nominated by the contractor at the beginning of the contract, shall be deemed to have been given to the contractor, whether verbally or in writing.

2.17 | CDM Notices

- 2.18 Details within these Preliminaries confirm contractual information as required under the CDM Regulations, 2015. The contractor must ensure that after appointment he/she is in receipt of the HSE Form F10 issued by the client, principal designer or clients CDM Advisor. The Pre-construction Information Pack will be issued by the Principal Designer or his advisor in a separate document.
- 2.19 In addition, the contractor shall comply with his/her duties and requirements under the CDM regulations.

2.20 | Building Regulation Notices

- 2.21 The contractor shall request from the surveyor relevant Building Cards or Notices with the due references, and shall be fully responsible for advising the Building Control Officers of commencement and requesting stage inspections as required. The contractor must obtain the Completion Certificate.
- 2.22 Discharge of Conditions (LBC, PP, Bldg Regs, Faculty & Archaeology)

2.23 The Preliminary information of the contract detailed above confirms the statutory approval status. The surveyor will be responsible for discharging any conditions. The contractor may be asked to supply certain materials for approval by the Conservation and Planning Officer. Trial pits or opening up may be required to satisfy the Building Control Officer. Allowance for archaeological attendance may be required. Copies of any relevant faculty or Listed Building consent approval forms will be provided by the surveyor and may be required to enable zero rating for VAT purposes of any specified work. All associated costs in connection with this should be included in the Preliminaries.

2.24 Licences

2.25 The contractor shall be responsible for obtaining and payment of any necessary licences in connection with dangerous structures, wild life, the use of chemicals, tipping, waste disposal, road crossings, scaffolding and statutory connection charges. Costs in connection with any other licences deemed necessary to complete the work as specified should also be included within the costings.

2.26 Infrastructure Charges

2.27 Where the contract involves new connections to or adaptations of existing services where infrastructure charges are to be levied by any of the statutory bodies, service suppliers or highways, these charges shall be included within the tender figure. Relevant connection charges for Services over and above infra structure charges shall also be included for. This may have to be in the name of the Client. Adjustment to the accounts will be made as appropriate, having allowed for such costs in the tender.

2.28 Services

2.29 Where electricity, gas, water oil or drainage is required where none exists, the contractor shall be responsible for any temporary connections, service charges and fees in connection with the use of the same. Where existing services are present, these should be fully tested and checked for compliance with current Regulations, but may be used economically by the contractors on site, subject to final ratification of the client. Upon completion any services used shall be reinstated, serviced, cleaned and left in an orderly fashion for safe use by the client upon completion.

2.30 | Electric

2.31 Electrical work must be carried out by an approved member of the National Inspection Council for Electrical Installations — Installation Contracting and must conform to the latest editions of the IEE Regulations and local electric supply company. If, on small works, electrics are executed, following agreement with the contract administrator by a contractor who is not registered, this work must be certified separately by a registered contractor as being compliant at the full cost to the contractor. An unregistered electrician will only be permitted following agreement by the contract administrator. His work must be independently certified.

2.32 | Plumbing Work

2.33 Work on natural gas appliances can only be executed by a Gas Safe registered plumber. In addition to this works to LPG appliances required execution by a plumber with all additional certification necessary and cover should. Work on oil fired appliances must be undertaken by OFTEC registered installers. All other work must be executed by a fully registered and competent plumber who has current practice certificates. The plumber must be registered to undertake connection work to the mains water supply by South West Water, or their equivalent. No additional costs for such compliance and certification will be borne by the contract.

2.34 Protection

2.35 The contractor is responsible for the full protection of all electrical fittings, plant, pipe organs, historic fabric, glass, planting and landscaping, paths, roads, footpaths and fences, drains and other existing services throughout the period of contract. Proposals for protection shall be included within the tender, and agreed with the surveyor. Costs for protection shall be allowed within the Preliminary section. Upon completion include for carefully removing any protection and making good and reinstating as required.

2.36 | Lighting

2.37 The contractor shall provide adequate lighting to allow the project to be executed safely at both high and low level. Full lighting should be provided around the site for security and safety. Scaffolding should be fully lit with warning lights where next to footpaths or roadways. For buildings that remain in occupation during the works the contractor is to allow for temporary lighting where the existing lighting, external or internal, is obscured by scaffolding or other elements necessary to undertake the works. A proposal for lighting should be developed and agreed with the contract administrator prior to installation. All wired lighting should be installed by NIC EIC accredited electricians in full accordance with all relevant codes of practice, regulations and standards. For tendering purposes the contractor is to allow for low energy fluorescent strip lights. Light levels should be sufficient to enable continued safe use of the building.

2.38 | Fences and Cordoning Off

2.39 The contractor will be required to comply with the requirements of the insurance company and ensure that the base of the scaffolding is suitably cordoned off and protected to stop miscreants climbing up the same and gaining access to the site or building. Where possible the perimeter of the site shall be fully cordoned off. All excavations and trenches shall be suitably cordoned off and marked.

2.40 Notices

- 2.41 The contractor shall fix notices around the site to advise the public of the danger of the construction site. Details shall include the need to wear hard hats and suitable protection, details in connection with restricted access and signing in, details in connection with contact numbers. All notices shall incorporate standard approved symbols which shall comply with current Health and Safety Legislation and Codes of Practice.
- 2.42 The signs should also say "No Smoking or naked flames in uncontrolled areas".

2.43 | Shoring and Strutting / Other Temporary Works

- 2.44 All temporary works will required designs by suitably trained persons. All opening out of the masonry shall be fully supported and strutted. Where leaning or dangerous walls require buttressing, this shall be designed by a structural engineer, who shall be engaged and paid for by the client following discussion with the surveyor unless the weakness has arisen following work incorrectly executed by the contractor. Trenching or excavation of pits shall only be undertaken following the development of an appropriate risk assessment which has been issued to and approved by the Principal Designer and the Contract Administrator. All propping and shoring work shall be undertaken with the support of a detailed method statement prepared by the contractor.
- 2.45 The contractor shall provide and maintain during the execution of the works all shoring, strutting, needling and other supports and shall take all other precautions necessary to preserve the stability of the building, both new and existing, together with all other property which may be endangered or affected by the work.
- 2.46 The contractor shall also protect all the same against damage and/or settlement and no part of these protected measures shall be taken down or removed until all risk of damage and/or settlement is passed

2.47 | Scaffold

- 2.48 Full scaffolding in accordance with the Work at Height Regulations 2005, BS EN 12811-1 and NASC Guideline TG20 13 should be employed throughout the building works. Include for hoists, protection zones to lift materials from ground level. No material should be carried up ladders. All ladders should be fixed at top and bottom. Access points between lifts shall be provided with adequate space and handrails. Scaffold shall be provided with full kick boards all round and safety rails. The scaffolding should be checked weekly by suitably trained persons and a register of that checking kept for inspection by the contract administrator. Monthly inspections by the scaffolders should be put in hand. All scaffolding shall be provided with plastic end caps where the poles abut masonry. Mechanical fixings of masonry shall only be put in hand in agreed places following consultation with the contract administrator. Should adjustments be required because scaffolding is considered not to be in compliance, these costs will not be borne by the contract.
- 2.49 Where a scaffolding roof structure is required full engineering supporting details must be provided to confirm the loading. The proposal must be discussed and agreed with the contract administrator prior to execution. The scaffolding shall not rest on any ridge line, roof structure, parapet or masonry without a full and detailed assessment and agreement confirming loadings and competence. The main contractor must check the scaffolders' insurance before execution of work and throughout the period scaffolding is on site. Copies shall be provided to the Contract Administrator.
- 2.50 The base of the scaffolding should be fully cordoned off with corrugated sheeting to at least two lifts to stop miscreants climbing up the scaffolding. All scaffolding lifts where masonry, pointing, cleaning or conservation works are being put in hand should be provided with netting all round to stop debris falling to the ground or causing damage to the public. Where buildings have existing lightning conductor systems the scaffolding must be connected to the lightning conductor by the retained steeplejack and the earthing tested to ensure compliance to the scaffolding and the main building. A Certificate must be provided to the Contract Administrator.
- 2.51 At the end of the working day all ladders and other access routes must be immobilised.

2.52 | Temporary Building

2.53 Provide, erect and maintain any temporary weatherproof lock up sheds, offices, mess rooms or other temporary buildings in compliance with CDM Regulations 2015 that may be required for the performance of this contract. Keep in a clean and sanitary condition. Alter, shift and adapt from time to time as necessary. The location of all such temporary buildings to be agreed between the Contract Administrator, Client and Contractor prior to erection. Detailed requirements in accordance with CDM 2015 and the details provided in the pre-construction CDM information pack.

2.54 | Temporary Sanitary Accommodation

- 2.55 Neither the contractor nor any of his sub contractors to use existing sanitary accommodation or washing facilities without prior consent, unless they are located within the confines of his working area. If none exists within his working area, and has not been provided by the client, he is to provide, erect and maintain suitable sanitary accommodation and washing facilities. All in compliance with CDM Regulations 2007.
- **2.56** Re-locate and reinstate as necessary for the execution of the contract.

2.57 | Telephone

2.58 Under no circumstances is the contractor or his sub contractors to be allowed to use the existing telephone facilities on the site. The contractor and his sub contractors are to make their own arrangements, and must either bring in a new land line if the reception for mobile phones is variable or provide mobiles. It is essential at all times to have telephone communication with the site for Health and Safety and administration reasons. The contractor shall include for an Answer phone facility.

2.59 | First Aid and Emergency

- 2.60 The contractor must undertake a risk assessment to determine the first aid requirements and ensure that a responsible person is provided on site, who is trained in First Aid. The site shall have within it a fully equipped First Aid box, which should be kept clean and up to date throughout the contract period. In addition, the contractor must maintain an accident book registering all accidents, injuries or other events that require medical attention.
- **2.61** A list must be maintained of all emergency contact telephone numbers and addresses.

2.62 | Noise

- 2.63 The contractor is to keep the noise on the site as low as can be practicably obtained. Use mufflers and acoustic enclosures if necessary. Use electric power tools and plant wherever possible with suitable circuit protection.
- 2.64 Unless otherwise agreed, radios or other similar devices are not to be permitted on site. To comply with BS 5228 Code of Practice for Noise Control on Demolition and Construction Sites. Ascertain the local authority's requirements in this respect. Engage a "considerate contractor's construction site policy".

2.65 | Nuisance Generally

2.66 Prevent smoke, dust, fumes, spillage, pollution of waterways and any other forms of nuisance. Do not dump any waste in other than authorised tipping areas or skips. Comply with all reasonable requests from the public and adjoining occupiers. No burning of material is to be permitted on site. Should rats or other vermin become prevalent during the contract, take suitable action in liaison with the local authority to eradicate the same.

2.67 | Waste / Waste Management Plan

2.68 The principal contractor will compile and implement methodologies specific to the project to ensure correct handling and disposal of waste.

2.69 Traffic Management

2.70 The principal contractor will compile and implement a suitably adequate Traffic Management Plan to maintain the Health, Safety and Welfare of all persons affected by his activities.

2.71 Weather Protection

2.72 The contractor shall provide all necessary protection to the building works. No work shall be executed prior to impending frost. Where frost does arise a suitable arrangement should be made for bringing in gentle heating equipment and for sheeting down and protecting vulnerable external elements. All work should stop when the temperature drops below 3°C. Where the wind chill factor goes below this, whilst the ambient air temperature is above 3°C the area worked upon must be fully protected with plastic sheeting to control the ambient air temperature within the working area.

2.73 All parts of the structure should be fully protected against rain whilst being worked upon, and for at least one week after completion, or until the fabric has suitably dried/cured. In excessively hot weather, all mortar work shall be fully damped down, misted with a spray mister and protected with damp hessian cloths in front of the pointing or mortar work. Work should stop in excessively adverse conditions. Where excessively hot temperatures are experienced or where there are drying winds, or where temperatures exceed 20°C, the area worked on should be hung with damp hessian cloths, which must be kept damp throughout the daytime and left saturated at night. The walling should be provided with a mist spray to keep the wall damp but not running.

2.74 Drying Out

2.75 The contractor is permitted to use gentle heat for drying out of internal accommodation during less clement months. By separate arrangement, if there is existing heating within the building, the existing plant may be used subject to the payment of fuel costs. The interior of buildings must be kept well vented whilst also being secure.

2.76 Testing

- 2.77 The contractor is to allow for costs to providing energy and attendance required for testing the plumbing and engineering installations and making all necessary arrangements with the appropriate authorities for the installation of meters and to be
- **2.78** responsible for all costs until the meters are handed over.

2.79 | Cleaning

- 2.80 Throughout the contract the site is to be kept clean and tidy.
 Rubbish is to be removed. No debris is to accumulate to cause either a Health or Safety hazard, nor fire risk. The site should be kept fully clean and, as far as practicable, dust free when decorators are on site.
- Upon completion all surfaces are to be cleaned down. The glass is to be fully polished inside and out throughout the working area. Any sanitary ware, fittings, tiling, marble and sheet flooring shall be fully cleaned down, washed and polished as appropriate. Any plant with filters within it, which has been used during the term of the contract shall be serviced and the filters cleaned.
- 2.82 The contractor in addition is to sweep all flues, clean all gutters, pipes and sanitary fittings, flush drains and remove all rubbish and debris arising from the contract work.

2.83 Handover

- 2.84 Upon completion the contract administrator will issue a practical or partial completion certificate, where necessary highlighting work still to be completed. This will signify the commencement of the defects liability period. The contractor is to hand over at that stage, all keys, locks, security equipment, codes, operating manuals and details of any on-going licences or contracts, enabling the building to be used fully as intended.
- **2.85** The contractor must leave the work secure against unauthorised entry.

2.86 | Health and Safety, Operation and Maintenance Files

- 2.87 At practical completion of the project, the contractor is to compile with relevant sub contractors, a complete set of marked up working drawings, detailing services as fitted, utilising drawings provided for the tender.
- 2.88 In addition full operation and maintenance manuals shall be provided detailing all matters in connection with maintenance, warranties, contracts, service requirements and Health and Safety. This document shall be passed directly to the Principal Designer / CDM Advisor, whose duty it is to complete a Health and Safety File and issue this to the client. The Practical Completion Certificate will not be issued until the PD is satisfied with the documentation received.

2.89 Visit the Site

2.90 The contractor is to visit the site before submitting his tender in order that he may obtain information as to the means of access and acquaint himself with the nature of the site. The contractor is to make himself thoroughly conversant with the nature of the work to be carried out and must allow in his tender for checking all dimensions and levels where necessary for the proper completion of the Works.

2.91 | Incidental Work Costs

The contractor is to include for any incidental items which are necessary to complete the Works to the true intent and meaning of the Contract specification and Contract Drawings.

2.92 Credits

2.93 All scrap building materials removed from the site shall become the property of the contractor unless otherwise specified and he is to make allowance for this when making up his tender.

2.94 **Historic Fabric and Archaeology** 2.95 It is a categorical requirement of the contract that should any historic fabric, stone, lead, slate, timbers or buried archaeology, either above or below ground, be found that the surveyor should be informed immediately and direction sought. Where materials are removed which are marked with dates, names, references or symbols, these must be suitably recorded and set aside for the surveyor's directions for retention on site. In this context we are specifically considering marks on historic lead, stone, and glass either above or below ground. 2.96 Similarly, should any roofing timbers or surfaces come to light that have limewash or other decorative schemes upon them, these should be similarly recorded and notice given to the surveyor. None of these items, in whatever format, shall be disturbed or damaged without prior notification and direction from the surveyor.

3.00 LABOUR AND WELFARE

3.01 Insurances

- Provide liability insurance and all other insurances for work people required by the National Insurance Acts and other relevant Acts, Regulations and Agreements in order to properly fulfil all contractor's duties as an employer.
- 3.03 Undertake, and where relevant, insure in the employer's and jointly in the employer's name contract works as required by the JCT Contract. Evidence of insurances to be provided by the contractor.

3.04 | Safety, Health and Welfare

3.05 The contractor is to prepare the Construction Phase Health and Safety plan incorporating all necessary risk assessments and method statements and other information and submit to the Principal Designer / CDM Advisor. Provide everything necessary for the safety, health and welfare of all persons on site at all times in compliance with the relevant Acts, Regulations and Bye Laws, with specific reference to the CDM Regulations 2015.

3.06 | Safety Equipment

3.07 Provide hard hats, gloves and masks for all operatives and protective clothing and footwear. Spare hard hats are to be provided on site for visitors.

3.08 Harnesses

- 3.09 Suitable protection and, if necessary, harnesses and training in the use of, should be provided for all operatives where identified by risk assessments and method statements and in accordance with the Work at Height Regulations 2005.
- **3.10** Where contractors are working over open areas on high roofs or platforms without protection below, suitable fall protection must be provided.

3.11 Lifting

3.12 The contractor shall provide suitable equipment for lifting in accordance with the Provision and Use of Work Equipment Regulations 1998 (PUWER) and the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER). All bagged and other material shall be suitably sized to comply with current EEC legislation. Lifting equipment should be provided on site, including, where necessary, hoists.

3.13 | Medical Training

- All sites shall have an operative who has had suitable medical training in First Aid. Ideally this operative should be responsible for the First Aid equipment, notices and emergency procedures.
- 3.15 Smoking
- **3.16** No smoking is permitted on site.
- 3.17 Blow Lamps and Hot Works
- 3.18 No hot works will be allowed on the site in accordance with The National Trust 'General Requirements for Building Works.' A copy of this is enclosed with the specification. Contractor to ensure a robust 'permit to work' procedure is implemented and is agreed by the Principal Designer / CDM Advisor.
- 3.19 Chemicals
- 3.20 All noxious chemicals or materials shall be stored in a secured pound or lock-up shed. Work with such materials must comply with the current COSHH Regulations.
- 3.21 Storage
- 3.22 All materials should be fully stored safely on site to enable easy access, loading and usage and to limit manual lifting. Full details of proposals for lifting of equipment to high levels should be included within the Construction Phase Health and Safety plan.
- **3.23** | Protection (Ref also 2.34 and 2.43)
- 3.24 Full protection shall be provided to the working areas, excavations and trenching and working areas shall be so marked to avoid the risk of inadvertently falling within the same. All excavation should be shored where safe access is required for working within. Any areas where work is being executed over roof areas or above structures in which the general public will have access shall be fully protected to reduce the risk of objects falling through the same. Any scaffolding over a regularly used access way shall be fully sheeted below and around to form a plywood boxed access way for the full depth of the scaffolding up to the access door, with a raked projecting canopy beyond the scaffolding to afford further protection, all as agreed with the contract administrator on site.
- 3.25 Visitors
- 3.26 Visitors shall only be permitted on site by prior arrangement. All visitors must sign in and out of the working area and must be accompanied at all times. All visitors should be provided with suitable safety hats and equipment. Unless suitably trained they shall be kept well away from all working areas, excavations and moving plant.

3.27 | Security

3.28 Safeguard the works from theft, vandalism or other damage by persons. Ensure that the security of adjacent property is not lessened due to the works activities. Prevent work people from trespassing upon adjacent properties.

3.29 Overtime

3.30 Give notice of proposed overtime in order that the site security and/or supervision can be arranged and clients informed where relevant.

3.31 WELFARE

- 3.32 The contractor shall provide a rest area with washing facilities in accordance with the CDM Regulations 2015. Sanitation should be provided and adequately cleansed according to use.
- 3.33 A list should be displayed in the rest area indicating all emergency contact numbers for minor and serious emergencies being:
 - 1. Local Hospital
 - 2. Accident and Emergency
 - 3. Fire
 - 4. Police
 - 5. Health & Safety Executive

A book shall be kept on site in which a full record of incidents should be notified of the impending work and special access arrangements that may be required in an emergency.

3.34 | Continuing Liaison

- 3.35 The principal contractor and sub-contractor's Health & Safety Plans are to be submitted to the Principal Designer / CDM Advisor in order that these may be considered prior to work being put in hand.
- 3.36 In the event of design changes being required due to site difficulties, the Principal Designer / CDM Advisor is to be notified immediately in order that the Health & Safety implications can be ascertained and pre-construction information pack can revised.

3.37 | Tenderer's Obligations

- 1. All tenderers should note that, if appointed, they will be required to fulfill the role of Principal Contractor under the Construction (Design and Management) Regulations 2015 and by submitting a tender confirm their willingness to take that role.
- In order to assess the suitability of the tenderer as a Principal Contractor, his responses to the CDM Questionnaire contained within the appendix to the Preconstruction Phase CDM Information pack must be submitted with the tender.
- 3. Tenderers should note that their key tasks as a Principal Contractor during the construction phase will be:
 - a. To develop and implement his Health & Safety Plan.
 - b. To be reasonably satisfied that when arranging for a subcontractor to carry out construction work, they are competent and have made adequate provision for Health & Safety.
 - c. To obtain and check risk assessments and method statements from sub-contractors.
 - d. To ensure the co-ordination and cooperation of contractors (particularly under the Management of Health & Safety at Work Regulations 1992).
 - e. To ensure training for Health & Safety is carried out.
 - f. To have appropriate communication between contractors on site for Health and Safety.
 - g. To make arrangements for discussing Health & Safety matters with people on site.
 - h. To allow only authorised people on site.
 - i. To display notification details.
 - j. To monitor Health & Safety performance.

- k. To pass all technical, trade, safety and servicing information, along with as built drawings suitably marked up showing cable runs, service pipes, hazards and safety issues for the future maintenance and well being of both occupants, contractors and users of the building to the Principal Designer / CDM Advisor in the form of a suitably marked, indexed and bound file. It is a specific obligation of the principal contractor to collect and collate such information and hand it over at practical completion for assessment and approval by the Principal Designer / CDM Advisor. Two copies of the file should be provided. The file should also detail personnel, subcontractors, suppliers, agents and merchants through whom material or services have been obtained. All as detailed within the 'Information Pack' The retention will not be released until the file is complete and handed over.
- 4. The appointed tenderer is required to acquaint himself with all aspects of the CDM Regulations whether or not specifically highlighted here and ensure compliance with all aspects and co-operation with the Principal Designer / CDM Advisor at all stages and co-ordination with all other parties as may be appropriate.
- 5. The tenderer must allow for all costs that may be incurred in complying with this section and in complying with all aspects of the CDM Regulations.

4.00 STANDARDS AND WORKMANSHIP 4.01 Detailed below are some guide standards which should be utilised for the purposes of tendering unless otherwise specifically specified within the documents. 4.02 These cover areas of work as anticipated or potential work which may arise during the contract and should be referred to if instructions are given beyond the scope of the work as tendered. Inclusion of items detailed below does not infer that work specific to the use of these materials will be instructed. 4.03 The following Schedule of Works are given as a guide to the detailed scope of the works to be executed. 4.04 The Contractor should allow in his prices for the full extent of the work shown on the drawings and other documents issued with this Specification or implied by the descriptions which follow. 4.05 No claims will be entertained by the Contractor's failure to appreciate the full scope of the works and price accordingly. The terms "provide", "lay" and "fix" are deemed to mean supplying 4.06 the materials and laying and fixing. "Fix only" in relation to materials so supplied shall be deemed to include taking delivery, unloading, storing, moving to position and fixing as required. 4.07 The Contractor will be responsible for estimating his own quantities for the work to be carried out and he will be required to submit a Schedule of Rates if his tender is being considered for acceptance. 4.08 Where provisional quantities are given, the Contractor is required to price these items by including both a unit rate and extending the amount; these amounts will be adjusted during the running of the contract. 4.09 All works included hereinafter are to be carried out strictly in accordance with the manufacturer's instructions. Should the Contractor wish to use alternative products then he must obtain prior approval from the Contract Administrator that the product is at least equal to the product referred to in this Specification. 4.10 Where materials, goods or workmanship are described in this Specification as being subject to the Contract Administrator approval the Contractor is to submit to the Contract Administrator any samples and/or other evidence of the suitability of the materials or goods as the Contract Administrator may require.

- Where and to the extent that materials, goods and workmanship are fully specified in this Specification they are to be suitable for the purposes of the Works as stated or reasonable to be inferred from the Contract documents, in accordance with good building practice and standards normal within the particular trade, including the relevant provisions of the current BSI documents and Building Regulations.
- 4.12 All materials used, shall, unless otherwise described, be new, sound and of a quality not less than that required by the appropriate British Standard.
- 4.13 The Contractor shall locate and mark all services affected by the works including all liaison with any Statutory Authority where necessary.
- 4.14 The Contractor shall ensure that all site staff are aware of the sites that have special ecological significance.
- 4.15 The Contractor shall ensure that all site staff responsible for supervising and controlling the works are experienced in the type of work and that all plant and equipment used is of a suitable type and standard for the location and type of operation.

4.16 MORTAR MIXES

- 4.17 Mortar mixes are for bedding of stone and masonry will be either a lime mortar being 1 part of lime putty to 3 parts of sound selected approved aggregate. For the purpose of tendering the contractor shall include within his costings for the addition of gauged selected brick dust to act as a pozzolan. This should only be used if instructed on site. Full proportions will be given subject to colouring and sampling.
- An alternative, subject to instructions on site, is for the use of an hydraulic lime mortar, being St Astier and obtained from the Cornish Lime Company, Brims Park, Old Callywith Road, Bodmin PL31 2DZ, telephone 01208 79779, mixed 1part of lime to 2½ parts of sand, utilising an approved selected aggregate as below.

4.19 **POINTING MIX**

- 4.20 An approved pointing mix will be selected for the external stonework to comply with the general requirements of mortar analysis as detailed below, where two options are put forward.
- 1. The pointing mix shall be a lime mortar with aggregate. The aggregate shall be a mix of locally sourced materials with Option A being 1 part of lime putty to 3 parts of sound selected approved aggregate. Again for tendering purposes include for gauging with pozzolan as above only as specifically directed by the Surveyor. The contractor must include for mature lime (minimum 3 months).

- This is to be well cut and worked either by hand or with a roller mixer to work in the aggregate/sand to form the coarse stuff. The pointing mix of mortar should stand for a minimum of 7 days under cover prior to use to rest and mature. For the purpose of the tender the contractor shall allow for 4 no samples of pointing panels of pointing to each different wall surface and masonry area to be prepared and inspected by the Surveyor and, where relevant, English Heritage for approval. Maximum number of 12 samples should be allowed in total of approximate size of half a square metre.
- 2. The Alternative B mortar to be used is a hydraulic lime and mortar utilising the NHL2 St Astier unless otherwise directed. The mortar is to be obtained from the Cornish Lime Company. The lime is to be mixed with approved aggregate as detailed above and below.
- 4.24 For the purpose of tendering only, and subject to selection on site, the contractor shall allow for the mortar to be a mix of CLS25 (subject to availability). Again the sand mixes and the blended sands are available from the Cornish Lime Company, Brims Park, Old Callywith Road, Bodmin PL31 2DZ, telephone 01208 79779.
- 4.25 When undertaking the pointing all joints should be raked out to a depth of at least 40 mm or the equivalent of 1½ times the width of the mortar joint whichever is the greater. All loose material shall be brushed out and joints should be flushed out with water and then damped down prior to re-pointing with a mist sprayer. The pointing should be kept well off the face of the stonework which should be kept clean at all times. Pointing should be undertaken with a flexible steel pointing iron to enable sufficient spring to push the mortar into the open joints to exclusion. The finished mortar pointing shall be flush with the stonework and weather the jointing of the stones. No proud, strapped, recessed, or bucket handled joints are to be entertained. Upon completion all mortar joints should be marginally proud and then beaten/brushed back subject to the mortar utilised. Ensure that an adequate ram into the joint is achieved along with some exposure of the base aggregate. No brushing marks or smearing shall be entertained.
- 4.26 The lime putty mortar (Mix A) shall be beaten back with a churn brush at the end of the day and then re-beaten the following day subject to drying and assessment. If the mortar takes a long time to carbonate or dry because of inclement conditions, a further beating back may be needed to ram the mortar into the joint and overcome any problems of hairline shrinkage cracks between the mortar and its stonework.
- 4.27 The hydraulic mortar (Mortar B) will require pushing into the joint and brushing fairly soon after application. No further beating or ramming should be allowed after the initial set, which will be fairly rapid compared to the lime putty. This will only break down the bond and will not achieve an adequate key.

- When hacking out and preparing joints for re-pointing in the designated areas, the Contractor must undertake all work by hand. It is imperative that no disc cutters are allowed on site. These are not controllable and will damage the adjacent stones and bedding. The arrases and leading edges of all stonework must be respected and must not be damaged by the hacking out exercise. Only loose pointing should be removed off the face of the stone. It is likely that some of the stonework may have more resilient mortar attached to it. A full assessment with the Contract Administrator will be required. Where bed joints kiss or are so tight that to rake out the pointing would cause damage, this would not be expected to be undertaken. Again, full consultation with the Contract Administrator will be required.
- All mortar will require full protection against inclement conditions. Dry stonework should be mist sprayed before commencement and then in excessively dry, windy or hot conditions, the mortar will require spraying to slow down the carbonation. A mist spray should be used. Protection from drying winds and hot sun will be needed and provided by hanging damp hessian cloths in front of the areas that have been worked upon. Where winds are strong and accelerate drying, additional windbreak sheeting must be allowed for within the tender price and scaffolding costs.
- 4.30 Where excessively inclement wind and rain or cold is experienced, the mortar must be fully protected from outwash or wetting.
- 4.31 Lime mortar and lime water run off will affect the pH of surrounding stones and will kill lichens and mosses. Unless otherwise directed, these must be worked round and must not be scraped off or removed from the masonry.
- 4.32 Hydraulic lime mortar must generally be used within two hours of mixing. Large batches for bedding or pointing should not generally be pre-made or stored on site. The mortar should not be knocked up for re-use if it starts to mature and go off. The mortar must be fully protected after mixing and batching and kept out of excessive weather conditions, wet or sunshine or excessive drying winds.
- 4.33 We would note that hydraulic lime mortar has a different setting time dependent upon the ambient temperature and prevailing weather conditions. On occasions in the warmer summer months, hydraulic mortar will obtain an initial set as rapidly as a cement mortar. However, in colder, wetter situations the set may take in excess of one or two days. The mix therefore needs to be very carefully managed and its setting time needs to be monitored. The residual moisture in the core of the wall into which the pointing is to be placed will also affect the setting time. This has to be factored into calculations that time of use, preparation and dressing and finishing.

- When raking out the joints, large voids may be found, either within the core of the wall, or following the removal of ivy or other plant growth. These voids will need to be packed out to exclusion utilizing shard stones and gallets with the approved lime mortar, fully packing in the voids up to the pointing face.
- Where large stones abut with large mortar joints at the uneven angles of uncut, undressed stone, it could be necessary to pack out the mortar joints, both to increase the life of the pointing, and to add strength with shard stones and gallets. These should be taken from a stockpile of small stones gleaned from the site. They should be bedded in the horizontal alignment and not bedded at an angle or in the vertical. They should be cut to fit in with the void, and pointed in as they are laid.
- 4.36 The pointing exercise with the large voids should allow for, where they exist, a two stage packing and pointing exercise.
- **4.37** Pockets, recesses, ledges, etc, as existing and constructed for the purpose of the function of the building should be retained.

4.38 AGGREGATES

- 4.39 All aggregate that is approved shall be stored in a dry area fully sheeted and shall not be wet, or saturated or contaminated by ground waters, salts or agricultural effluent while stored for use.
- 4.40 Unless otherwise directed the approved sand and aggregate blends shall be obtained from the Cornish Lime Company, Brims Park, Old Callywith Road, Bodmin PL31 2DZ, telephone 01208 79779 using proven approved sand blends to mix with.
- The contractor is at liberty to put forward alternatives after tendering and subject to detailed approval by the Contract Administrator

4.42 WALL PLASTER (LIME BASED ONLY)

- 4.43 Generally all specified lime wall plastering shall be undertaken following full raking out of all mortar and bed joints to ensure a sound key. All loose, friable and dry material shall be removed and all joints and backing shall be mist sprayed or flushed out to reduce the suction of the base against the plaster.
- The mortar mix for the wall plaster should either be Mix A, being a lime putty one part of lime putty as above to 3 parts of approved aggregate, or a NHL2 hydraulic lime of 2½ to 1. Allow for a minimum of 3 no coats unless otherwise stated with an additional coat for deep dubbing out on uneven work, damaged or make up is required to be attended to, again subject to instructions on site.

The mortar mix for the wall plaster shall, where wholesale replastering is being instructed, be formed from hydraulic lime mortar, being NHL3.5 one part of lime 2½ parts of sand using CLS25. The Contractor is to apply a thrown/hurled first coat onto the wall, having undertaken the preparation to provide an initial bond. Thereafter allow for applying 1 no dubbing out first coat and 2 no further coats, nominally between 8mm and 10mm in thickness. Allow for deep dubbing out in addition for uneven work. Any loose stonework consolidation is to be executed as a separate exercise as detailed separately. Allow for damping down between coats to provide adequate bond. Full protection from the weather must be provided at all times especially where weather extremes are expected. Successive coats should be bonded following the cross keying principles using a devil float to improve the bond.

4.46 CEILING PLASTER (LIME PUTTY BASED ONLY)

- All specified ceiling plaster should be applied to hazel or oak lath and shall be a 3 coat system with the first coat being 9mm of one part lime putty to 3 parts sand with hair added at the rate of 7 Kg per m³ being fine alkali resistant goat's hair or similar approved. The first coat shall be cross keyed and the second coat apply being 6 mm of 1:3 hair reinforced coating followed by a final setting coat of 5 mm being 3 parts lime putty to 2 parts fine sand.
- 4.48 Full protections will be required subject to prevailing weather conditions. The surfaces to be re-coated should be damped down to reduce suction. Allow the use of a mist sprayer.

4.49 LATHS

- 4.50 Laths shall be hazel or chestnut riven laths being a nominal 38 x 10 mm positioned to allow a nominal 10 mm gap for the plaster key.
- The laths shall be fixed with stainless steel 25 mm jagged shanked nails to the ceiling rafters or studs.
- All nail fixings to the timbers shall be of stainless steel. Any lap of the sheets should not be positioned so to preclude the squeezing of the first coat of plaster through the laths to enable the bond to be maintained. No loose or unsecured edges will be permitted. Where these exist they must be supported on noggins and studwork and should be included within the tenderer's costings.

4.53 | LIME

Lime Mortar A or putty used on site should be fully slaked mature lime putty in excess of three months in age and must be supplied by the Cornish Lime Company unless otherwise agreed in writing. Hydraulic lime must be from fresh sources/purchases having been obtained specifically for the project and not taken from old stock. The bags must be stored on pallets, lifted away from the damp, but off the ground. They must be protected from damp and weather and stored in suitable containers to protect them from damage

- 4.55 All plasters and mortars shall be mixed with the aggregate to form a coarse stuff and laid to prove for a period of 7 days prior to applications (subject to weather conditions).
- 4.56 Mortar B. Hydraulic lime mortars shall be made from St Astier hydraulic lime mixed as 2½ parts of sand/aggregate to one part of lime and, unless otherwise instructed, NHL2 should be utilised.

4.57 AIR ENTRAINERS, WATERPROOFERS, COLOURANTS, SALT INHIBITORS

4.58 The Contractor is not permitted to use any modern liquid soap or chemical air entrainers, plasticizers, salt inhibitors or colourants in any of the mortar mixes, unless specifically instructed or agreed on site with the Contract Administrator.

4.59 GAUGING

4.60 No gauging of mortars shall be permitted nor mixing with cement unless specifically agreed in writing with the surveyor. Tendering as detailed above shall allow only for a brick dust pozzolan, again subject to selection and gauging and sampling.

4.61 LIMEWASH

- All limewash shall be mixed from 3 months slaked lime putty and should be cut and mixed to a milky consistency. All areas for limewashing should be damped down prior to the application for the limewash for a period of no less than 24 hours being left between coats. Unless otherwise stated 7 no coats shall be tendered for.
- Where pigmentation is required to achieve a specific colour as selected by the client natural pigments will be utilised and sufficient limewash should be mixed to make sure that the room is coated in one mix application to ensure colour continuity.

4.64 TIMBER

- 4.65 All softwood utilised within the project shall be top quality slow grown heart wood from sustainable European growers. No African, Asian or Middle & South American imported timber will be permitted without specific consent. All softwood will be pressure impregnated preserved with a permethrine preservative. All timber applications shall be environmentally sound and approved by English Nature and shall not be harmful to bats. All cut ends of joinery shall be treated with a preservative prior to insertion within the building or within joinery repairs. Timber must be FSC or PEFC certified with appropriate Chain of Custody paperwork.
- 4.66 Timber used for decking of the lead bays should be prepared, cut and laid in accordance with the carpentry section. Details concerning the treatment of the timber or otherwise are contained within this section.

4.67 Oak utilised within the project shall be English Oak at least 4 years felled. The oak shall have been properly cut and stacked for through flow ventilation prior to being cut to size. Any oak brought to the site shall either be stacked and weighted on site or placed within the main structure immediately to overcome the problems of dimensional instability. All new oak to be sawn.

4.68 MASONRY

4.69 Granite

4.70 Any granite utilised within the project will have to be approved by the Surveyor within the quarry prior to any extraction or cutting of granite to ensure a true and satisfactory match to the existing composition and colour of the granite in form and texture.

4.71 Killas

Any work on the Killas salt stone should, where possible, incorporate salvaged stone laid on its natural bed cut by hand. Stone will have to be approved and selected by the Surveyor in the quarry.

4.73 Pentewan Style Stone

4.74 Any making up of deficiencies of Pentewan style stone for crenellations and dress details will have to be approved by the Surveyor following suitable sourcing.

4.75 Slate Slabs

4.76 Any slate slabs utilised within the project will have to be approved by the Surveyor from samples or from within the quarry prior to ordering. The finished texture will have to be agreed for the situation and location and colour approved.

4.77 Samples

4.78 The Surveyor will expect to have presentation of 6 no samples of stone from different sources for the granite, killas, Pentewan and Slate stone for selection or other as selected.

4.79 PLAQUES

4.80 The contractor is to include within his costings at completion to fix to the masonry / woodwork in an agreed position at the west end of the building (if so requested) sponsors and / or funders plaques being no more than three in number requiring no more than four screws per plaque with the plaque size being no greater than 300x200mm. The plaque will be supplied by the client. Final fixing positions and methodology to be agreed between client and surveyor.

4.81 **DESCRIPTION OF MATERIALS & WORKMANSHIP** 4.82 The following details are given as a guide to the detailed scope of the works to be executed. 4.83 The Contractor should allow in his prices for the full extent of the work shown on the drawings and other documents issued with this Specification or implied by the descriptions which follow. 4.84 No claims will be entertained by the Contractor's failure to appreciate the full scope of the works and price accordingly. 4.85 The terms "provide", "lay" and "fix" are deemed to mean supplying the materials and laying and fixing. "Fix only" in relation to materials so supplied shall be deemed to include taking delivery. unloading, storing, moving to position and fixing as required. 4.86 Where provisional quantities are given, the Contractor is required to price these items by including both a unit rate and extending the amount; these amounts will be adjusted during the running of the contract. 4.87 All works included hereinafter are to be carried out strictly in accordance with the manufacturer's instructions. Should the Contractor wish to use alternative products then he must obtain prior approval from the Contract Administrator that the product is at least equal to the product referred to in this Specification. 4.88 Where materials, goods or workmanship are described in this Specification as being subject to the Contract Administrator approval the Contractor is to submit to the Contract Administrator any samples and/or other evidence of the suitability of the materials or goods as the Contract Administrator may require. 4.89 Where and to the extent that materials, goods and workmanship are fully specified in this Specification they are to be suitable for the purposes of the Works as stated or reasonable to be inferred from the Contract documents, in accordance with good building practice and standards normal within the particular trade, including the relevant provisions of the current BSI documents and Building Regulations. 4.90 All materials used, shall, unless otherwise described, be new, sound and of a quality not less than that required by the appropriate British Standard. 4.91 The Contractor shall locate and mark all services affected by the works including all liaison with any Statutory Authority where necessary.

- The Contractor shall ensure that all site staff are aware of the sites that have special Ecological, Archaeological and Heritage significance and have been fenced off by the Ecological Consultant. The Contractor to immediately notify the Ecological Consultant, Archaeologist or the Contract Administrator if the fences are damaged so that a replacement fence can be erected. The Contractor to pay all costs.
- 4.93 The Contractor shall ensure that all site staff responsible for supervising and controlling the works are experienced in the type of work and that all plant and equipment used is of a suitable type and standard for the location and type of operation.