Johnson Gillies Limited
Chartered Building Surveyors & Building Consultants

SPECIFICATION OF WORK

LEIGH COMMUNITY CENTRE
71-73 ELM ROAD
LEIGH-ON-SEA
ESSEX
SS9 1SP

10275/TDH/ZM

September 2019

Johnson Gillies Limited
Former HMS Essex
135 Ness Road
Essex
SS3 9ES

SPECIFICATION

FOR

REAR EXTENSION & INTERNAL ALTERATIONS

TO

LEIGH COMMUNITY CENTRE
71-73 ELM ROAD
LEIGH-ON-SEA
ESSEX
SS9 1SP

FOR

LEIGH TOWN COUNCIL
71-73 ELM ROAD
LEIGH-ON-SEA
ESSEX
SS9 1SP

PRELIMINARIES

&

CONTRACT PARTICULARS

PRELIMINARIES & CONTRACT PARTICULARS

PROJECT

The project involves the construction of a rear extension to the existing café and internal alterations generally comprising the following:

- Demolition of existing rear area currently comprised of male toilets and storage facilities.
- Construction of a new single storey rear extension to the existing café including the formation of a new ramp.
- Alterations and reconfiguration of the existing ground floor toilets at the front of the property.
- Formation of a new store
- External repairs & Re-decoration.

ADDRESS OF PROPERTY

Leigh Community Centre
71-73 Elm Road
Leigh-on-Sea
Essex
SS9 1SP

NAMES OF PARTIES

THE EMPLOYER:-

Leigh Town Council

Leigh Community Centre
71-73 Elm Road
Leigh-on-Sea
Essex
SS9 1SP

CONTRACT ADMINISTRATOR (CA) & PRINCIPAL DESIGNER (PD):-

Johnson Gillies Limited

Former HMS Essex
135 Ness Road
Shoeburyness
Essex
SS3 9ES

Tel: 01702 293413

PRINCIPAL CONTRACTOR (PC) :-

For the purposes of the CDM Regulations 2015 the Principal Contractor will be the main contractor tendering for these specified works.

DESCRIPTION	COST (£)
SITE/PROPERTY	
Leigh Community Centre is a large detached commercial property located on Elm Road, Leigh-on-Sea.	
The property is built of loadbearing brickwork walls under a double pitched slate covered roofs.	
The building will be occupied and fully operational by Leigh Town Council during the period of the works. The Town Council offices are in the building and also various rooms/areas are hired out to various local clubs/groups/private parties etc. during the day and the evenings 7 days a week.	
TENDER DOCUMENTS	
The tender documents issued are as follows:-	
Specifications & Documents:- Johnson Gillies Limited specification of works. Johnson Gillies Limited Pre-tender phase health and safety information. LAB Asbestos Consultants Limited asbestos survey report No 1605 dated March 2009.	
Drawings: – **Johnson Gillies Limited Drawings:-** Proposed Rear Elevation 10067/B/03 Ground Floor Demolition Plan 10067/B/04 First Floor Demolition Plan 10067/B/05 Existing Rear Elevation 10067/B/06 WC Works 10275/T/01	

DESCRIPTION		COST (£)
WC Electrical	10275/T/02	
Café Drainage & Heating	10275/T/03	
Café Electrical	10275/T/04	
Roof Works	10275/T/05	
Ramp Detail	10275/D/01	
Roof Detail	10275/D/02	
Wall Detail	10275/D/03	
GF Slab Detail	10275/D/04	

THS Concepts survey drawings:-

1908-001 Ground floor & external plan

1908-002 First floor plan

1908-003 Basement & second floor plan

1908-004 Sections A-A & B-B

1908-005 Front & side elevations

1908-006 Rear Elevation

Crucis Designs Limited – Structural Engineers Drawings

18243 001 – Specification Notes

18243 002 – Foundation structure

18243 003 – First floor structure.

18243 004 – Sections & details 1

18243 005 – Sections & details 2

18243 006 – Sections & details 3

18243 007 – Sections & details 4

DESCRIPTION	COST (£)
The contractor is required to check the numbers of the pages of the specification, tender documents and the drawings numbered above and should they find any missing, duplicated, or indistinct pages or drawings he must inform the contract administrator at once.	
No unauthorised alteration or erasure to the text of the tender documents will be permitted. Any tender containing such alteration or erasure may be rejected.	
TENDER	
Arrangements to visit the property are to be made with Mr Zach Milner of Johnson Gillies Ltd. Tel: 01702 293413, Email: zmilner@johnsongillies.co.uk.	
The contractor shall submit his proposals in the form described in these instructions.	
The Employer and/or their representatives offer no guarantee that the lowest or any tender submitted will be recommended for acceptance or be accepted.	
The Employer and/or their representatives will not be responsible for any costs incurred in the preparation of the tender.	
No liability will be admitted, nor claim allowed, in respect of errors in the tender submitted due to mistakes in the tender documents.	
The contractor must submit a conforming tender complying strictly with the tender documents.	
Pricing of items in the tender documents must include for all associated and ancillary works required to complete the works whether expressed or implied.	
The Contractor is advised to visit the site, ascertain the nature of the works to be undertaken and the condition under which the work will be carried out and any matters which may affect his Tender as no claims on the grounds of lack of knowledge will be entertained. The Contractor is to establish the following: • Existing buildings on/adjacent to the site • How the Community Centre is used. • Access and site restrictions • Health and Safety hazards • Traffic restrictions & parking	
The tendered sums will be regarded as a Lump Sum Tender.	

DESCRIPTION	COST (£)
Tendering to be in accordance with the JCT Tendering Practice Note 2017. Errors: Alternative 2 is to apply. Should examination of a tender find errors of such magnitude which in the opinion of the Employer/contract administrator would result in the Contractor suffering serious financial loss, then the nature and amount of such error(s) will be communicated to the contractor and he will be asked to confirm in writing that he is prepared to abide by his tender or withdraw.	
The Employer has the right to omit any part of the tender submission.	
The tender submitted must remain open for consideration (unless previously withdrawn) until 60 days from the date of submission of tenders.	
If the Contractor cannot tender for any part(s) of the work as defined in the tender documents he must inform the CA as soon as possible stating his reasons for his inability to tender.	
If quantities are included in the specification these must not be relied on to comply with the latest standard of method of measurement in use at the time of receipt of tenders. The quantities given will be indicative only. The contractor is to take his own measurements and calculate his own quantities.	
TENDER SUBMISSION	
The Contractor is required to submit the following documents as part of his tender submission by the date and time stated in the tender letter.	
A) The Form of Tender, completed, signed and dated, consisting of a lump sum in respect of the whole works.	
B) Fully priced specification.	
C) E-mail copies of the completed Form of Tender will not be accepted.	
D) The completed Form of Tender must be submitted in the tender envelope provided.	
CONDITION OF CONTRACT AND CONTRACT SPECIFICATION	
The Conditions of Contract shall be as set out in the Contract Particulars and the Contract Specification shall be those specifications issued with the Tender Documentation.	
The Contractor is to state on his form of tender his contract period. It is intended that the work will commence on a date subject to agreement.	
FORM OF AGREEMENT AND CONDITIONS OF CONTRACT	

DESCRIPTION	COST (£)
The Form of Contract will be that issued by the Joint Contracts Tribunal and known as the JCT Minor Works Contract 2016.	
The Contractor shall allow such sums as he may deem necessary to cover the value of his obligations in complying with the Clauses contained therein, as set forth hereafter.	
SCHEDULE OF RECITALS	
1st The Employer wishes to have the following work carried out: Construction of a rear extension and alterations and reconfiguration of the existing toilets.	
2nd The drawings are numbered/listed in the specification.	
3rd The Contractor is to supply the Employer with a copy of the priced Contract Specification.	
4th Applicable	
5th Applicable	
6th The Framework agreement does not apply	
7th The Supplemental Provisions apply.	
SCHEDULE OF ARTICLES	
Article 1 Contractor's obligations	
Article 2 Contract Sum, exclusive of VAT to be inserted in words and figures.	
Article 3 Contract Administrator (CA) to be Johnson Gillies Limited. The word Architect is to be deleted.	
Article 4 The Principal Designer is to be the CA	
Article 5 Principal Contractor: The main Contractor	
Article 6 Adjudication	
Article 7 Arbitration	
Article 8 Legal proceedings	

DESCRIPTION		COST (£)
CONTRACT PARTICULARS		
Fourth Recital & Schedule 2 - The base date is to be 10 days before the receipt of tenders.		
Fourth Recital & Clause 4.2 – Construction Industry Scheme (CIS) – The Employer at the base date is not a contractor for the purposes of the CIS		
Fifth Recital - CDM Regulations – The project is notifiable.		
Sixth Recital – Framework agreement does not apply.		
Seventh Recital and Schedule 3 Collaborative working applies Health & Safety applies Cost Savings and value improvements applies Sustainable development and environmental consideration applies Performance indicators does not apply Notification and negotiations of disputes applies; nominees to be agreed		
Article 7	Arbitration applies	
Clause 2.2	Date for commencement of the works to be agreed.	
Clause 2.2	Date for Completion to be agreed.	
Clause 2.8	Liquidated damages £2,750 per week.	
Clause 2.10	6 months to be inserted.	
Clause 4.3	The first Interim Valuation Date is to be agreed and thereafter at intervals of one month.	
Clause 4.3	95% to be inserted.	
Clause 4.3	$97^{1}/_{2}$ % to be inserted.	
Clauses 4.3 & 4.8	Contribution, levy and tax fluctuations – to be deleted.	
Clause 4.8.1	3 Months to be inserted.	

DESCRIPTION	COST (£)
Clause 5.3 Contractors Insurance £10,000,000 to be inserted.	
Clauses 5.4A, 5.4B & 5.4C Insurance of the works option 5.4C applies, (works and existing structures insurance by other means)	
Clauses 5.4A.1 & 5.4B Percentage to cover professional fees not applicable.	
Clause 5.4C Insurance arrangements. Leigh Town Council lease the building from the Landlord Southend Borough Council who insure it. The works cannot be insured on a 'joint names basis' with the appointed contractor. Therefore, the contractor will be responsible for insuring the works under their annual contract works insurance policy.	
7.2 & Schedule 1 Insert: The Royal Institution of Chartered Surveyors.	
Attestation The contract is to be executed underhand; to be signed and witnessed by both the Employer (Town Clerk on behalf of the Council) and the Contractor.	
THE CONSTRUCTION (DESIGN & MANAGEMENT) REGULATIONS 2015 (CDM REGS)	
The Construction (Design & Management) Regulations 2015 (CDM Regulations) applies. A pre-tender phase health and safety information document forms part of the tender documents. The contractor is to develop a Construction Phase Health and Safety Plan from and draw on the Pre-tender Health and Safety information. The contractor is to submit to the CA a Construction Phase Health and Safety Plan no later than two weeks before commencement on site. The contractor will not be permitted to start construction work until the CA/Employer has confirmed in writing that the Construction Phase Health and Safety Plan include the procedures and arrangements required by the CDM Regulations.	
DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER	
After execution of the Contract, two copies of the specification (one priced and one un-priced) and two copies of all the drawings will be issued to the Contractor free of charge. Additional hard copies of the specification or drawings will be	

DESCRIPTION	COST (£)
issued on request but will be charged to the contractor.	
PROGRAMME OF WORK	
The contractor is to note the following when determining the sequence/programme of works. There are male toilets on the first floor of the building and these will be used by the users of the building whilst the existing ground floor male toilets are demolished to make way for the new café extension and the new ground floor male toilets are formed in the existing toilet area to the front of the building. There are female and disabled persons toilets on the first floor of the building and these will be used by the users of the building whilst the new ground floor female and disabled persons toilets are formed in the existing toilet area to the front of the building. The contractor does not have to maintain temporary toilets on the ground floor whist the works are being carried out. The works in re-configurating the ground floor toilets to the front area of the building must be carried out in one continuous stage of the works to enable them to be brought back into use as soon as possible. The existing café is to remain in use during the contract. The contractor is to allow for forming a temporary screen across the rear of the café to enable the works to the rear extension to be carried out safely and securely. The Leigh-on-Sea Town Council's offices are in the building and also various rooms/areas are hired out to various local clubs/groups/parties/receptions during the day and the evenings at weekdays and weekends. The Principal Contractor is to liaise with the Council on a weekly basis on the use/occupancy of the various rooms for the proceeding week and adapt the programme/sequence of works accordingly.	
Prior to commencing work on site the contractor is to prepare and submit a detailed programme of works and submit 2 copies to the Contract Administrator.	
The submission of the programme will not relieve the Contractor from his responsibility to apply in writing for instructions, drawings etc. in accordance with the Conditions of Contract.	
A copy of the programme is to be kept on site and progress recorded. If any circumstances arise which may affect the progress of the works proposals are to be put forward or action taken by the Contractor to minimise delay and recover lost time.	
FINANCE	

DESCRIPTION	COST (£)
The Employer reserves the right to take up bank references and to inspect the Contractor's accounts in order to be satisfied about his financial stability.	
Under the Finance No 2 Act 2017 the Contractor will be required to satisfy the Employer before signing the Contract that his company is either a Limited Company or has a Certificate of Exemption from the Inland Revenue. The Contractor is also specifically reminded that it is his duty and responsibility to satisfy himself as to the exemption status of all Sub-Contractors, whether nominated or otherwise.	
WORKING HOURS	
Work is to be carried out between the hours of 8.00am to 5.00pm Monday to Friday and 8:00am and 1:00pm Saturday. No work is to be carried outside these hours or on Sundays or Bank Holidays unless in an emergency or with prior agreement with the Town Clerk. Due to the type of work being carried out and that the building is to be occupied, the contractor will need constant liaison with the Town Council's Facilities Manager. This may affect the exact times of work, times of deliveries etc. which can be undertaken during normal working hours.	
COMPLIANCE WITH SPECIFICATIONS/DRAWINGS	
The works shall be carried out in accordance with this specification, drawings and all other contract documentation.	
The accuracy of dimensions scaled from the drawings is not guaranteed. Obtain from the contract administrator any critical dimensions required but not given on the drawings.	
All dimensions, levels and information given in the drawings or elsewhere in the Contract Documents are to be checked physically on site by the contractor before carrying out the work. The Contractor shall report any discrepancies to the Contract Administrator immediately. The Contractor will be required to rectify at his own expense any works carried out where dimensions/measurements were not physically checked and found subsequently to be incorrect.	
DEFINITIONS	
The Contract Administrator (CA) means the authorised representative of Johnson Gillies Limited.	
Where the words "as described/previously described" occur in any description of works then the full description included elsewhere in the contract specifications	

DESCRIPTION	COST (£)
shall apply.	
Where the words “or similar approved” occur in any description of the works this shall mean a material/supplier/manufacturer that is similar to that specified and to prior approval of the Contract Administrator. The contractor is to provide the Contract Administrator with all necessary documentation describing the similar material etc. at least 5 working days before incorporating the material into the works. Failure to comply may result in the contractor replacing the material at his own expense.	
“Remove” means disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials and debris. Also Includes taking out and disposing of associated pipe work, wiring, ductwork or other services.	
“Fix only” means the contractor is to allow and provide all labour in unloading, handling, storage, protection and fixing in position, including the use of all of items/materials supplied by others, including the use of all necessary tools, plant and equipment and for all necessary fixings, adhesive, sealants etc. to ensure the material/item is fit for purpose.	
“Supply and lay/fix/install” or “provide and lay/fix/install” means the contractor is to allow for ordering, obtaining/purchasing all specified items/materials and provide all labour in unloading, handling, storage, protection and laying/fixing/installing in position all specified items/materials, including the use of all necessary tools, plant and equipment and for all necessary fixings, adhesive, sealants etc. to ensure the material/item is fit for purpose. Unless otherwise stated all items specified or shown on the drawings and schedules are to be supplied and fixed in position.	
“Supplied by Client/client supplied item(s)” means the materials or item will be purchased and supplied to site by the client for subsequent fixing/installation by the Contractor. The Contractor is to request in writing at commencement of the Contract the latest date by which he will require delivery of the materials/item(s). The Contractor is to allow for taking possession of the client supplied materials/item, checking its condition/contents, handling, protection, storage and fixing in position, including the use of all necessary tools, plant and equipment. Once the Contractor takes possession of the client supplied material/item and has checked its condition/contents he will be responsible for the material/item including replacing the item free of charge for any damage caused whilst in his possession.	

DESCRIPTION	COST (£)
"Renew/replace" means taking or cutting out existing item, supplying and fixing new item to match existing, including all fitting in, piecing in and any other preparatory work. Items shall be renewed on a like for like basis.	
Where materials are described to be "removed and set aside for re-fixing" the Contractor shall take all care to reduce the risk of damage in removal, protection, storage and re-fixing and shall replace any damaged or defective work or missing parts at his own expense.	
"Keep for reuse" means do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer or for use in the Works as instructed.	
"Make/making good" means execute local remedial work to designated work and to include walls, floors, ceilings and any other surfaces affected by the works. Make secure, sound and neat. Excludes redecoration and/or replacement unless otherwise stated.	
"Re fix" means fix removed products.	
"Repair" means execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/or replacement unless otherwise stated.	
"Ease" means adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.	
"Match existing" means provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.	
An area specified to be "patched" shall be deemed to refer to a net area not exceeding $1m^2$ unless otherwise described.	
QUALITY STANDARDS/CONTROL A high standard of finish is required in respect of all works whether visible or not. The works shall comply with all relevant British Standards and Codes of Practice as amended and current at the time of the date for receipt of tenders. All work is to be carried out in accordance with good building practice and in accordance with BS 8000 'Workmanship on building sites' All products are to be new unless otherwise specified. Any products which have a limited shelf life and are out of date will not be permitted to be used. All products are to be stored, protected, installed and fixed in accordance with	

DESCRIPTION	COST (£)
the manufacturer's current written instructions. Submit copies to the CA when requested. The Contractor is to check all deliveries, tickets, labels, identification marks and where appropriate the products themselves to ensure that all components comply with the requirements of the specification. The Contractor is to retain copies of instructions and guarantees delivered with components and equipment (failing which, obtain) and register with manufacturer as necessary and hand over in a file to the CA on or before Practical Completion. It is the Contractors responsibility to order the correct quantities of materials to ensure that shortages do not cause delay of the works. Where an approval of a product is specified the requirement for approvals relates to a sample of the product and not to the product as used in the works. Submit a sample to the CA for approval. Do not confirm orders or use the product until approval has been obtained. Retain approved sample. Ensure that the product used in the works matches the approved sample. Where a sample of finished work is specified for approval, obtain approval of the stated characteristics of the approved sample before proceeding with the works. Retain the approved sample until they are no longer required and dispose off site.	
STATUTORY REQUIREMENTS The contractor shall comply with Statutory Requirements and all Local by-laws that apply to the work.	
MANAGEMENT OF THE WORKS Contractors must be a member of the 'Considerate Constructors Scheme' and must adhere to the current 'code of considerate practice'. The CA will require documentation of the Contractors membership of the scheme. The contractor is to co-operate as fully as possible with the residents and the security of the property should not be compromised. All contractors/sub-contractors and their employees must book in and out with the contractor on arrival and departure each day. The contractor shall employ on site a competent Foreman/Contract Manager at all times to oversee and manage the works. The Contractor shall not change the Foreman/Contract Manager without written consent of	

DESCRIPTION	COST (£)
the CA, such consent shall not be unreasonably withheld. The Foreman/Contract Manager shall be provided with a mobile phone. The Contract Administrator shall be supplied with the name and mobile phone number of the Foreman/Contract Manager prior to commencement of the works on site. The Employer is to be supplied with an out of hours emergency contact number of the Contractor prior to commencement of works on site. Prior to signing the contract, the contractor is to supply to the Contract Administrator details of all insurance policies required under the terms of the Contract. If any event occurs, which may give rise to any insurance claim or proceeding in respect of loss or damage to the works or injury or damage to persons or property arising out of the works, forthwith give notice in writing to the Employer, the Contract Administrator and Insurers. Indemnify the Employer against any loss, which may be caused by failure to give such notice. If overtime is to be worked, but this should only be as an emergency, the contractor is to give the Contract Administrator not less than 5 days' notice, specifying times, types, and locations of work to be carried out. Concealed work executed during overtime for which notice has not been given may be required to be opened up for inspection and reinstated at the Contractors expense. Extensions of time – When a notice of the cause of any delay or likely delay in the progress of the works is given under the contract, written notice must also be given of all other causes which apply concurrently. The Contractor shall, as soon as possible, submit to the CA:- - Relevant particulars of the expected effects, if appropriate related to the concurrent causes, - An estimate of the extent, if any, of the expected delay in the completion of the works beyond the Date for Completion, and - All other relevant information required by the CA. Any application for an extension of time in respect of direct loss and expense must be made as soon as practicable and with (or to be followed by) the requisite supporting information so as to afford the CA the opportunity to issue instructions designed (according to circumstances) to	

DESCRIPTION	COST (£)
minimise or avoid that loss and/or expense. **SUPERVISION/INSPECTION** In addition to the constant management and supervision of the works by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors. Provide at all reasonable times access for inspection of the works by the CA. Any defects in the existing construction must be reported to the CA without delay for further instructions. Give the CA at least 5 working days notices before removing scaffolding. Agree times and dates of any tests with the CA to enable the CA and other interested parties to be present. The Contractor is to hand over to the CA all test and completion certificates prior to practical completion. Where work or materials are not in accordance with the contract documents and to the satisfaction of the CA, they shall be rectified at the Contractors own expense. **ACCURACY/ SETTING OUT GENERALLY** <u>Setting out</u> The contractor is to submit details of methods and equipment to be used in setting out the Works. The contractor is to check all levels and dimensions and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding. <u>Appearance and fit</u> Tolerances and dimensions - If these are likely to be critical to the execution of the works or difficult to achieve, as early as possible the contractor is to either submit proposals to the CA or arrange for inspection of appearance of relevant aspects of partially finished work by the CA. General tolerances (maximum): To BS 5606, tables 1 and 2. <u>Levels of structural floors</u> Maximum tolerances for designed levels to be:	

DESCRIPTION	COST (£)
Floors to be self-finished; and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm. Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm. Floors to receive mastic asphalt flooring/ underlays directly: +/- 10 mm. Floors to receive mastic asphalt flooring/ underlay's laid on mastic asphalt levelling coat(s): +/- 15 mm. Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm. Floors to receive unbonded or floating screeds/ beds: +/- 20 mm. **COST CONTROL** Prior to commencement of the works on site the Contractor is to provide to the CA/Employer a schedule of predicted amounts of the monthly valuations. At least 3 days before the end of each established period for interim valuations the Contractor is to submit to the CA details of amounts due under the contract together with all necessary supporting information. The Contractor is as far as possible to submit a price to the CA for any additional instructed works prior to these works being undertaken. Any additional works not priced prior to them works being undertaken, may not be certified for payment by the CA. Dayworks will not be permitted unless agreed in writing by the CA. The Contractor is to give reasonable notice to the CA of the commencement of works for which daywork vouchers are to be submitted. Before submission of the vouchers each voucher must be:- - Referenced to the instruction under which the work is authorised, and - Signed by the person in charge as evidence that the workmen's names, the time spent by each, the plant, tools and materials used. **OPERATIVES** All work shall be undertaken in a proper workmanlike manner by accredited trade's people who are competent and skilled at the trade described. Operatives should be registered with the Construction Skills Certification Scheme.	

DESCRIPTION	COST (£)
The Contractor must produce evidence of skills/ qualifications of an operative when requested by the CA. The Contractor warrants that he has the experience, resources and capability to execute the contract. The Contractor's own domestic Sub-Contractors shall be approved by the Contract Administrator. **USE OF THE SITE/PROPERTY** The Contractor shall work within the site and shall not permit his workmen to trespass onto adjoining property nor in areas within the building not directly associated with the work or specified as out of bounds. The contractor shall provide dust sheets and any other necessary protection as specified to protect all existing property, floors, fittings and effects from being spoiled by the works or the consequences of the works. All damage caused by installing and removing protection shall be made good. The contractor while working on the site shall be responsible for the safe keeping of all items in the building and shall keep these protected and free from damage. The Contractor shall allow for making good any damage caused to the property by his works and for cleaning up after his works. The Contractor is to protect the adjoining properties, including but not limited to boundary walls/fences from damage throughout the contract period. Any damage is to be immediately notified to the contract administrator. Any damage caused by the works is to be made good at the contractor's own expense. The Contractor shall make good all surfaces disturbed to match existing. The Contractor at his own expense shall make good all damage including damage to existing services caused by or due to the works. Clear away all rubbish and debris on a daily basis. Leave the site and works clean and tidy. There is no space on the site for the location of a rubbish skip. The Contractor will have use of the existing disabled and short stay parking bays at the front of the building for a compound area for site accommodation, welfare facilities and a materials/tool storage container. The area is to be securely fenced off with minimum 2 metre high Heras or similar approved wire mesh fencing. The Contractor is to note the	

DESCRIPTION	COST (£)
compound will front onto the public pavement. Provide all necessary warning signage, lighting as necessary. The Contractor is to provide for all temporary protection to the surfaces of the compound as necessary to avoid damage. Any damage caused to the existing parking area and adjacent walling, building and street furniture will be the responsibility of the contractor and made good/replaced at the contractor's own expense. Prior to installing the site accommodation, container etc. the contractor is to allow for all costs in taking a photographic and descriptive condition survey of the existing parking area and adjacent walling, building and street furniture. A copy of the schedule is to be provided to the CA before work commences on site. The space on site for storage of bulk materials is to be agreed with the Town Council but generally all materials are to be brought to site in small loads as and when necessary. Some storage will be permitted to the rear of the building, but the materials are not to block fire escapes, fire exit doors, doorways etc. The exact areas which can be used are to be agreed with the Facilities Manager. Access will be required from the double gates in the rear fence between the property and the adjoining public carpark and the double doors to the rear of the building which lead into the main hall, at all times for delivery of equipment etc. when functions are being held in the main hall. The driveway to the south side of the building is not to be used for the storage of materials. No alcohol will be permitted to be drunk on site. **PARKING** Parking of three contractor's vehicles (Transit type vans or cars) may be permitted, at the Employers discretion, one behind the other on the narrow driveway to the south of the building. The Employer cannot guarantee that the use of the drive will be available for parking at all times during the contract. The Contractor is at his own expense to make his own arrangements to park vehicles off site when the drive is unavailable or where there are more than three vehicles. There is a public pay and display carpark to the rear of the building. **EXISTING PUBLIC & PRIVATE SERVICES**	

DESCRIPTION	COST (£)
The Contractors attention is drawn to the fact that there are existing services present on over or under the site. The contractor is to allow for making all necessary enquiries with the Utility Companies with regard to the location of services. The contractor is to allow for all costs in locating, protecting and maintaining all pipes, ducts, underground & overhead cables, wires, drains, sewers etc. and the like during the execution of the works. The Contractor shall make good at his own expense all damage to services which are due to any circumstance within his control. **EXISTING SERVICES WITHIN THE BUILDING** Prior to commencing work the Contractor is to allow for assessing the existing services within the building which may be affected by the works and allow for maintaining, altering and adapting the services as necessary or providing safe temporary connections/installations, so as to maintain all services to the unaffected areas of the building. Especially fire alarms, smoke detectors, emergency lighting, intruder alarms, security lighting. Remove all temporary connections/installations when no longer required and make good. The Contractor should make adequate provision for services including unobstructed routes and fixings. Wherever possible ducts, chases, and holes are to be formed during construction rather than cut. **DELIVERY & STORAGE OF MATERIALS** See also preliminaries section – Use of the site/property. Large and heavy deliveries by lorry must be undertaken from Elm Road. Then moved by hoist, trollies or manhandled into position. The space on site for storage of bulk materials is to be agreed with the Town Council but generally all materials are to be brought to site in small loads as and when necessary. The scaffolding shall not be used for the storage of materials unless it has been specifically designed for such use. **TEMPORARY BUILDINGS AND WELFARE FACILITIES** See also preliminaries section – Use of the site/property. The Contractor is to provide all temporary welfare facilities for use by his	

DESCRIPTION	COST (£)
operatives and all sub-contractors. The Contractor is to provide all temporary sanitary facilities for use by his operatives and all sub-contractors. It is assumed that these will need to be located at the rear of the building. The exact location of the temporary sanitary facilities is to be agreed on site with the CA/Town Council. The temporary sanitary and welfare facilities must be kept clean at all times. Provision is to be made for temporary water supplies to the sanitary and welfare facilities. A first aid box is to be provided and distinctively marked and in charge of a responsible person. The first aid box is to be kept in an area accessible by any operative and all operatives to be made aware of the location. **SECURITY** Safeguard the works, the site, any access thereto, and materials and plant against damage and theft at all times. The contractor is to take all reasonable precautions to prevent unauthorised access during out of work hours. Any scaffolding is to be alarmed to detect unauthorised access and be linked to a 24-hour manned security station. The contractor is to co-operate as fully as possible with the Town Council and the security of the property should not be compromised. All operatives and sub-contractors must book in and out with the contractor on arrival and departure each day. **WATER FOR THE WORKS** All water for the works is to be clean and uncontaminated. If other than mains supply is proposed provide evidence of suitability. Test to BS EN 1008 if instructed. The contractor is to arrange for water for the works with Essex & Suffolk Water and pay for all connection and disconnection charges, for all water used and all other charges. The Contractor is to arrange and pay for all temporary supplies. **LIGHTING & POWER FOR THE WORKS** The Contractor is to arrange for lighting and power for the works.	

DESCRIPTION	COST (£)
The existing buildings supplies can be used free of charge. **CROSSOVER AND HARD STANDINGS** Prior to works commencing on site it is advised that the contractor makes a photographic and descriptive record of the condition of the pavements, roads, drives, kerbs, verges and crossings and submit a copy to the CA. Provide and maintain all necessary hard standings and crossings on or to the site and maintain access to the existing and adjoining properties at all times. Clear away on completion and make good disturbed to match existing. Any damage caused by the contractor to the pavements, roads, drive, kerbs, verges, crossings and street furniture shall be made good to the satisfaction of the Local/Highways Authority at his own expense. Provide all necessary temporary barriers, fences, signs, notices, lights etc. **MAINTENANCE OF PUBLIC AND PRIVATE ROADS** Maintain and keep clean all public and private roads, paved areas, footpaths, kerbs and the like in the vicinity of the site which are used by any traffic in connection with the contract works. **STABILITY OF EXISTING BUILDINGS** The Contractor shall be responsible for the stability of the existing structures on the site that may be affected by his works. The Contractor shall provide and maintain during the execution of the works all shoring, needling, planking and strutting and other temporary supports necessary and shall take all other measures and precautions to preserve the safety and stability of the existing structures and neighbouring structures. Allow to provide temporary structural support to all openings in the fabric of the building.	

DESCRIPTION	COST (£)
TEMPORARY WORKS, SCAFFOLDING ETC. Provide and maintain all necessary temporary scaffolding roof, netting, fencing, hoarding, fans, planked footways, guard rails, cover boards and the like, and any lighting for the protection of persons and to comply with Statutory requirements. All scaffolding must comply in all respects with the Safety Regulations and must conform with the requirements of BS EN 12811, Part 1,2003 and must be inspected before use, after adverse weather conditions and at least once a week; records of such inspections being kept in Register F91-Part 1. All records of inspection should be kept on site and made available for inspection by CA /PD. The scaffolding should be tagged at access to first lift giving evidence of when the scaffolding was last inspected. Only independently tied scaffolding is permitted. Drilling of existing walls etc. for Hilti or similar ties will be permitted subject to agreement with the CA. All tie holes are to be made good on completion of the works. Putlog scaffolding is not permitted. The scaffolding is to be alarmed and provided with a telephone link a security company base station to deter unauthorised access. Access ladders must be removed from site at the end of each working day or chained and padlocked to the scaffolding above first floor lift to reduce the risk of unauthorised access. Care should be taken when erecting scaffolding not to a) block manholes, services, or similar access points within the footpath or road, b) Entrances into the building and c) Fire exits. The Contractor is to provide an emergency number for the scaffolding sub-contractor to the Employer and Contract Administrator for use in an emergency. A temporary screen is to be formed across the rear of the existing café to provide security and weather protection whilst the rear extension is being constructed. See The Works Section of this specification.	

DESCRIPTION	COST (£)
NOISE CONTROL The Contractor shall comply with all statutory requirements relating to control of noise. All mechanical plant shall be properly silenced and shall be operated only when necessary. The Contractor shall take all reasonable steps at his own expense to minimise nuisance by noise. Where noisy works are unavoidable the contractor is to liaise with the Town Council as to the most suitable time for these works to be carried out so as to minimise the disturbance to the users of the building. The use of all radios or other audio devices will be prohibited. **POLLUTION** Take all reasonable precautions to prevent pollution of the site, works and general environment. If pollution occurs inform the appropriate authorities and CA without delay and provide them with all necessary documentation. **NUISANCE** Take all necessary precautions to prevent nuisance to the Town Council and occupiers of the building, adjoining owners and general public from water, smoke, dust, rubbish, noise, vehicles and other causes. **FIRE** Take all necessary precautions to prevent loss, damage or injury from fire. Include for providing appropriate fire extinguishers around the site. All fire escape routes, doors, stairs etc. are to be kept clear at all times The contractor is to formulate and maintain a written fire escape plan prior to commencement of works on site and supply the CA and the Town Council with a copy. Smoking will not be permitted inside the property or on the roof. Operatives will not be permitted to congregate on the pavement outside the property to smoke. Smoking will be confined to the temporary storage compound at the front of the property. No bonfires will be permitted on site.	

DESCRIPTION	COST (£)
PROTECTING FROM INCLEMENT WEATHER AND BUILDING OPERATIONS Provide for carefully covering up and protecting the works and the property generally or any adjoining property exposed by these works from inclement weather or from the effects of any building operation. The Contractor is to provide all temporary weathering, screens etc. to protect the existing building from the vagaries of the weather whilst the rear extension is being constructed. The Contractor will be responsible at his own expense to make good, replace or repair any damaged caused due to the inadequacies of the weathering. Prevent work from becoming wet or damp where this may cause damage. **WASTE DISPOSAL** The Contractor is to provide for removing all waste materials, rubbish and debris (including all sub-contractor/nominated sub-contractors waste and rubbish) from site, both as it accumulates from time to time and on completion. All waste materials, rubbish and debris shall be bagged up and removed from site on a daily basis. Waste materials, rubbish and debris will not be allowed to accumulate on the roof or within the grounds of the property. Waste materials, rubbish and debris must not be allowed to accumulate on the scaffolding so as to cause undue loading, safety of the scaffolding or waste to be blown about during windy weather. Ensure that all non-hazardous material is disposed of at a tip approved by a Waste Regulation Authority. Hazardous materials and their containers are to be removed from site on a regular basis and disposed of at a tip approved by a Waste Regulation Authority in accordance with relevant regulations. Retain all waste transfer documentation on site. **ASBESTOS** An Asbestos report forms part of the tender documentation. The contractor is to ascertain if any materials are suspected to contain asbestos prior to undertaking any work on them. Any suspect asbestos containing materials shall be reported to the contract administrator	

DESCRIPTION	COST (£)
immediately for further instructions. All asbestos works shall be carried out by a registered asbestos contractor and carried out strictly in compliance with the Control of Asbestos Regulations 2012. **CLEANING THE WORKS AND SITE** The Contractors is to provide for cleaning the works and the areas of operation and existing work marked by his operations and removing stains and touching up paintwork and leaving the whole of the works and site clean and tidy during the course of the works and on completion to the satisfaction of the Contract Administrator. **NOTICE BOARDS AND ADVERTISING** The Contractor shall not erect any name board or advertisement and the same will not be allowed on any hoarding, scaffolding or other apparatus without written approval of the Town Council/CA. **FACILITIES FOR SUB-CONTRACTORS** The Contractor is to ascertain and provide all facilities and attendance required by the Sub-Contractors whether nominated or otherwise and make full allowance in his tender for making such provision.	

WORKMANSHIP & MATERIALS

DEMOLITION & ALTERATIONS

GENERAL

The Contractor is advised to price all demolition and alteration works on site and should carefully inspect the site and present structure etc. In order to ascertain the exact nature of the demolition works prior to submitting a tender, as no claim on the grounds of want of knowledge will be entertained.

Before commencing work the Contractor must examine all available information, carry out a survey of the structure(s), site, services and surrounding area, and submit to the CA a survey report with method statement covering how the structure (s) is proposed to be demolished and for all temporary propping. The contractor shall also provide a programme showing his intended timings and the order of execution he intends to adopt.

Report to the CA any survey bench marks or other survey information found on the structures to be demolished. Do not remove or destroy unless instructed in writing by the CA.

Except where otherwise stated none of the materials arising from the demolitions may be used in the works without the CA's Consent in writing. All materials remain the property of the contractor unless otherwise specified.

All materials or debris arising from the demolitions shall not be allowed to build up excessively prior to removal from site.

All demolitions and alterations are to be carried out in such a manner as to cause as little inconvenience as possible to adjoining owners and the general public. The Contractors attention is drawn to the requirements of BS 5228 Part 1 1984 as to minimising the impact of site noise on the neighbourhood.

The Contractor is to be responsible for the full safety and protection of those parts of the building which are to remain, including the provision of dust sheets, temporary dust and weatherproof screens, tarpaulins and the like. Reduce dust by periodically spraying demolition works with water.

All demolition works are to be undertaken by hand unless otherwise agreed prior to commencement of the works. Demolition is to be carried out to BS 6187:1982 and in accordance with the HSE guidance note GS29/1,2,3, and 4.

The Contractor is to be entirely responsible for the correct execution of the demolition, and is also responsible for designing, protecting, and maintaining all necessary shoring and the protection of the existing building, and shall take every precaution necessary to prevent injury to persons or property on the site and neighbouring properties and persons.

The Contractor is held responsible for all demolition and shall bear all costs of any reinstatement work necessary if any over-demolition occurs.

Before works commence on site the contractor shall provide a programme showing his intended timings and the order of execution he intends to adopt.

All demolition shall be carried out in a safe and stable manner and at no time shall any partial demolished structure stand out at a height above any other partially demolished structure. No dangerous portions of the structure shall remain standing during idle periods or overnight and where this is unavoidable, such portions shall be adequately strutted and propped to ensure their stability until the work recommences.

The Contractor shall protect all propping, shoring and other temporary supports from falling debris
.
The Contractor is to take adequate precautions to prevent fire or explosion caused by gas or vapour.

All cutting and demolition plant and equipment shall be suitable types and standards for the location and type of work.

All dangerous openings shall be adequately signed, protected with suitable barriers and illuminated.

Inform the CA of any unrecorded voids, tanks, chemicals etc. discovered during demolition works. Agree with the CA the methods for safe removal, filling etc.

Inform the CA of any unrecorded voids, flues, services etc. discovered during demolition and agree with the CA the methods for infill, removal, making good etc.

EXCAVATION & EARTHWORKS

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with this specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or statutory Approving Authority.

BRITISH STANDARDS

The work shall comply with all relevant current British Standards as amended at the start of the works and in particular with:
BS 6031 Code of Practice for Earthworks.

MATERIALS

Materials to be used on site, the positions where they may be used and the source which they come from are subject to the approval of the Contract Administrator.

GENERALLY

Materials shall be free from tree roots, timber, vegetable matter, building rubbish, plaster, frozen materials, toxic materials, expansive shales and all harmful matter. Except for topsoil and turf, all materials shall be free from loam and topsoil.

Excavations shall be protected against freezing and frozen materials shall not be used as back fill.

SELECTED EXCAVATED MATERIALS

Selected excavated materials shall exclude clay lumps greater than 75mm and stones greater than 50mm.

SOIL

Soil for backfilling around foundations or to make up levels shall be dry, clean subsoil free from vegetable matter, roots and rubbish.

HARDCORE

Hardcore shall consist of broken brick/broken concrete of maximum 75mm size. The hardcore shall have sufficient graded aggregate added to ensure that all voids are filled.

NATURAL STONE

Natural stone shall possess a grading which makes the material easily compactable and shall contain sufficient fine material to ensure that all voids are filled.

HOGGING

Hogging shall consist of a well graded mixture of gravel, sand and clay. The amount of clay shall be just sufficient to bind the material together.

GRANULAR MATERIAL

Shall consist of natural sands, gravel, crushed rocks or crushed concrete. The material shall be well graded in accordance with the relevant British Standards.

Fill containing expansive material or chemicals are not acceptable to support ground bearing concrete floor slabs. Fill material shall be free from hazardous materials, physically unaffected by change in water content, and provide consistent support to ground bearing slabs. Materials that include recycled or secondary materials should comply with relevant waste regulatory requirements. Well graded, inert fill containing no hazardous materials, which passes a 150mm x 150mm screen in all directions, will be suitable as support for ground bearing floors (with a maximum lump size of 63 mm).

It shall have a California Bearing Ratio (CBR) of 30% of more.

PEA SHINGLE

Shall consist of uniformly graded gravel or broken stone of maximum size 12mm and minimum size of 5mm.

ROCK

Rock shall be deemed to comprise any material which cannot be removed without the use of wedges, compressed air, special plant or explosive.

BLINDING

Blinding shall be sand, fine gravel, PFA or other fine materials free from dust, well rolled and consolidated.

The use of shale either as hardcore or blinding to hardcore will not be permitted.

Surfaces to hardcore are to have sufficient blinding material applied to fill the surface to provide a close smooth surface.

EXCAVATING

GENERALLY

Should the proper depth of any excavations be exceeded for any reason but subject to prior agreement with the CA or as required by the Building Control Officer, the Contractor at his own expense, refill such excessive depth solid to the proper level with concrete (7N /20mm) as specified in the concrete section.

SERVICES

Prior to commencing any excavations, the Contractor shall check for the presence of any pipes, cables, drains or other such services. No claims will be entertained in respect of any damaged caused by the Contractor to any services.

SOFT SPOTS

Should the bottom of any excavation be found soft or otherwise unsound, the formation level shall be excavated to such further depths as the CA may direct and this extra depth to be filled with concrete and the concrete and excavation shall be measured as an extra to the contract.

EARTHWORK SUPPORT

Earthwork supports shall properly support all excavations to ensure the safety of operatives and the works, and to the satisfaction of the CA. The Contractor will be responsible for the design and safety of the earth work supports

DISPOSAL

Surplus excavated materials required to be removed from site shall be deposited at an approved waste site. The Contractor shall pay for all charges and fees.

GROUND WATER

The bottom of excavations shall be kept free from ground and surface water by pumping or other means during and throughout the progress of the works.

COMPACTION

SMALL AREAS

Small areas of backfilling shall be laid in layers not exceeding 150mm deep and each layer thoroughly compacted using mechanical rammers.

LARGE AREAS

The methods of laying and compacting large areas of backfilling unless stated hereafter shall be agreed with the Contract Administrator. Among the factors to be agreed are the depth of layers, the weight and type of the compacting machinery and the number of passes to be made

CONCRETE WORKS

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with this specification and the Structural Engineers specifications E10, E20, E30 and E41 and drawings issued and forming part of the Contract Documents.

Where the Contract Administrators specification and the Structural Engineers specification differs the requirements of the Structural Engineers specification shall take preference.

BEAM AND BLOCK AND PLANK FLOORS

The works shall be carried out in accordance with this specification and the Structural Engineers specifications and drawings issued and forming part of the Contract Documents.

Block and block floors shall comprise of pre-cast beams, concrete blocks and toppings as detailed on the drawings and specified in the manufacturer's literature.

BRICKWORK & BLOCKWORK

BRICKWORK & BLOCKWORK

(All reference to brickwork contained within this section also applies to blockwork)

MATERIALS & PROPERTIES

Common bricks shall comply with BS EN 771-1, with mean compressive strength of 20N/mm^2

Engineering brickwork shall comply with BS EN 771-1 with mean compressive strength of 75N/mm^2

Common blockwork shall comply with BS EN 771-1 with mean compressive strength of 7.3N/mm^2

MORTARS

Cement: the cement used in mortar shall be either Portland Cement to BS12:1991 or "Ordinary and rapid hardening Portland Cement" or "Portland Glass Furnace Cement to BS146:1991" or "Sulphate resisting Portland Cement BS4027:1991".

The use of high alumina cement is not permitted.

Lime: lime used in mortar is to be high calcium lime or semi hydraulic lime to conform to the requirements of BS890:1972.

Sand: sand for mortar should comply with requirement of BS1199 and 1200: 1976 and the grading shall be as shown in Table 1 of BS1200. Sand which has been in contact with sea water should not be used unless the Supervising Officer is satisfied that it is washed adequately and no trace of deleterious salts remain.

Water: water should be clean and free from harmful impurity. Where the quality of supply is doubtful the water should be tested in accordance with BS3148:1980 Methods of test for water for making concrete.

Plasticisers: the use of plasticisers will not be permitted unless specified by the CA.

Proportioning: all the mortars for brickworks are to be of the proportions specified for strength as approved by the Contract Administrator and as indicated on the drawing, and all in accordance with BS5390.

Reconstitution: mortars shall be used before the initial set takes place. Normally this is within one hour of the cement being added. any mortar left after this time is to be discarded; on no account may mortars be reconstituted.

STORAGE & MATERIALS

Bricks: bricks shall be carefully unloaded by hand or crane and neatly placed on the site in neat stacks and prepared areas free from all ashes or sulphate bearing soil. Stack or packs shall be protected from rain while allowing full circulation of air. No bricks shall be built into the work until two days have elapsed from the time of drawing from kiln except as otherwise agreed.

Bricks delivered in packs and handled by crane shall not be placed directly on to new slabs without first consulting the Contract Administrator and also taking precaution to prevent excessive deflection.

Cement: cement shall be stored well above ground level on a timber floor in a dry structure. Consignment shall be placed so as to permit inspection and use in the order of delivery. cement affected by dampness shall not be used.

Hydrated Lime: shall be stored in the same way as cement.

Sand: shall be stored where it will not become contaminated.

ACCURACY OF BUILDING

Dimensions: horizontal dimensions shall be set out with the steel tape supported throughout its length. Angles set out by measurement of a builder's square shall be checked by instrument if they govern lines over 15m long. Great care must be taken in setting out walls on concrete suspended slabs to see that each storey height of wall is in line with that below.

Alignment & Levelling: all brickwork shall be built plumb and true to line and level to a tolerance of 5mm in any storey height or 6m length.

Uniformity: all brickwork should be carried out in a uniform manner. No one proportion of any section of the work shall rise more than 1m above the general level.

BRICK LAYING

Wetting Bricks: if necessary, the suction of bricks will be adjusted by wetting so as not to exceed 20 grams/cm sq/minimum, care being taken to avoid damage in frosty weather.

Filling of Joints & Frogs: single frogged bricks should be laid frog upper most on a full bed of mortar. Double frogged bricks shall be laid with a deeper frog upper most. All frogs shall be filled with mortar. All cross joints shall be filled by well buttering the ends of the bricks and then sliding it in to position against its neighbour. Collar joints (lays parallel with the outside face) shall be filled by buttering the stretcher side. All joints must be solidly filled and the thickness of joints should not exceed 12mm.

Cutting of Bricks: cutting of bricks should be kept to a minimum standard special bricks used wherever possible to maintain bond. When cutting of units is necessary, a bolster shall be used, in preference to a trowel.

Forming Chases & Holes: sleeves, chases and holes shall, as far as possible be provided during the erection of the brickwork, all purpose made chase units shall be built in position agreed by the CA. Chasing of completed walls or the formation of the holes shall only be carried out with the written approval of the CA and then only with a tool designed to cleanly cut the bricks. No horizontal or diagonal chases will be permitted.

Pallet Slips: pallet slips or other materials intended for fixing shall not be built on to walls without the written approval of the CA.

Protection Against Weather: the contractor is responsible for avoiding the effect of frost. In any period of interruption through rain and at the completion of each days brick laying freshly laid brickwork shall be protected.

Dampproof Courses: horizontal and vertical dampproof courses shall be "Hyload" to be obtained from Ruberoid Building Products Limited unless otherwise specified/agreed. All joints should be lapped at least 150mm at angles and joints and laid on a level cement mortar as described and neatly pointed where exposed, all in accordance with BS5628:Part III:1985 Materials and Components, Design and Workmanship.

Horizontal damp proof courses shall be placed at 150mm minimum above finished ground levels and shall adjoin where appropriate the damp proof membrane.

Concrete Blocks: Aerated concrete blocks shall be from an approved source and shall be thoroughly mature before leaving the factory and approved by the CA. Blocks shall be

bedded and jointed in gauged mortar and properly bonded at intersections and angles. Care should be taken to keep blocks thoroughly dry when stored on site and before plastered to avoid moisture movement.

Where fair walls are required, care should be taken in selecting blocks to provide a smooth surface ready for direct decoration.

Use of damaged blocks shall not be permitted in these areas. Joints should be flush pointed as the works proceed.

Wall Ties: wall ties for use on external walls shall be stainless steel in strict accordance with BS1243 and positioned at maximum horizontal centres of 900mm and maximum vertical centres of 450mm and staggered, maximum 300mm centres around openings.

Proportions for Mortars: the cement mortar for the brickwork below ground level shall consist of one part of Portland Cement to four parts of sand by volume. The gauged mortar shall consist of one part of Portland Cement to four parts of sand, by volume.

The gauged mortar for use around the engineering bricks is to be one-part Portland Cement to three parts of sand by volume.

Mixing Mortars: the ingredients for all mortars shall be measured in proper gauge boxes on a boarded platform, the ingredients being turned over twice dry and twice while water is added through a rose. Alternatively, mixing may be by means of an approved mechanical batch mixer. All mortar should be used within an hour of mixing.

Brickwork: in dry weather all bricks should be well soaked with water before being laid and the tops of wall left off shall be similarly wetted before work is commenced. Unless otherwise described four courses of brickwork shall rise 300mm. All fair faced and faced brickwork shall be kept clean. Rubbing or staining brickwork will not be permitted.

Bond: brickwork shall generally be built in English Bond except half brick walls which, unless otherwise described, shall be built in stretcher bond. No bats shall be used, except where required for bond.

Pointing: all fair faced, brickwork internally shall be pointed with a neat flush joint and facing externally shall be pointed to a neat tooled joint.

Frost: no brickwork shall be carried out during frosty weather except with the written permission of the CA who will give special direction as to the manner in which the work is to be performed. Such direction by the CA shall not relieve the contractor of his responsibility for protecting the work against frost.

All brickwork laid during the day shall, in seasons liable to frost, be properly covered up at night with felt, sacking, boards or other approved non conducting material. Should any brickwork be damaged by frost, the brickwork shall, at the discretion of the CA, be pulled down and be made good at the contractor’s own expense. Such remedial work shall not give rise to any claim for an extension of time.

Keep Clean: faced work shall be perfectly clean and no rubbing down of brickwork will be allowed. Scaffold boards shall be turned back during heavy rain and at night to avoid splashing. Heads of walls shall be covered during hot weather and at the end of each days works to prevent collection of water and staining.

Any putlog holes shall be neatly and solidly filled in so as to be completely inconspicuous.

Sheathing Felt: shall comply with BS747.

ROOF SLATING

PROTECTION

The Contractor is to allow for temporary weather protection during the works to the roof. The building must remain weather tight as far as practicable during the whole period of the works. On completion all temporary weather protection must be removed and all works and items disturbed made good to match the existing.

SLATES

Replacement slates must be natural slates and match the existing in all respects.
The colour of replacement slates must match the existing.
The slates are to be fixed in accordance with BS 5534 Code of Practice for slating & tiling and BS 8000 Workmanship on building sites: Part 6, Code of Practice for slating and tiling of roofs and claddings.
Each slate shall be twice nailed (nails to comply with BS 1202 Specification for Nails) to each batten a minimum of 25 mm from the edge of the slate with composition nails a minimum of 35 mm long.
Verges shall be formed with a slate under cloak with a projection of between 50 and 75 mm and shall be bedded and pointed in cement mortar.
Lead soakers shall be used on all side abutments together with flashings to match existing.
Lead apron flashings shall be used for top edge abutments.
Eaves shall be formed with a double course of slates head nailed and shall overhang eaves gutters or parapet gutter between 38 and 50 mm.
Ridges, hips and valleys shall be formed with lead covings.

BATTENS

Battens shall be 38 mm x 19 mm sawn softwood pressure impregnated to BS EN 1313-1:1997 and shall be spaced to the gauge required and nailed to each rafter with composition nails a minimum of 70 mm long.

ROOFING MEMBRANE

Rhinovent Pro Breathable Membrane or similar approved shall be laid over the rafters before fixing the battens.
The membrane is to be installed in accordance with the manufacturers written instructions.
Laps –minimum 150mm horizontal lap.

Submittals
Submit manufacturer's product data and installation instructions to CA before installation.

Delivery, storage & handling

Materials and products to be delivered in unopened factory labelled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage.

LIGHTNING CONDUCTORS

Specialists

The lightning conductor specialists to be a member of the Association of Technical Lightning Access Specialists (ATLAS).

Design
The design and installation of the lightning conductor(s) to be in accordance with IEC/BS EN 62305: 2006 – Protection against lightning.
Part 1: General principles
Part 2: Risk management
Part 3: Physical damage to structures and life hazard
Part 4: Electrical and electronic systems within buildings.
IEC/BS EN 62561 series - Lightning protection system components are fit for purpose by performance testing.

The system is to allow and include for all air terminals, down conductors and ground terminations.

Completion
On completion of the installation the specialist contractor shall provide to the CA all appropriate certification of the installation and requirements for maintenance and inspection of the system.

WOODWORK

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with the specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or any Statutory Approving Authority.

MATERIALS

Timber

All timber shall be well seasoned, bright, sound, cut square and straight grained and shall be free from discoloured sapwood, wane, shakes, dry, loose or dead knots, or any other defects which will render it unsuitable for its intended use.

Timber for carpenter's work shall be in accordance with BS 4978, BS4471 and CP 112 and shall have a moisture content of not more than 20% and not less than 15% of the dry weight at the time of fixing. The timber for structural use shall be graded in accordance with BS 4978.

Timber for joiner's work shall be in accordance with BS 1186 part 1 Class 1S for hardwood and clear finished softwood, and Class 2 for softwood which is not concealed. Timber shall be used in accordance with the uses permitted in tables A & B. Timber for flooring shall be graded and sized in accordance with BS 1297 and shall be in accordance with CP 201 Part 2.

Plywood

Plywood shall be in accordance with BS EN 636

Wood Chipboard

Wood chipboard shall be in accordance with BS 5669.

Orientated Strand Board (OSB)

Orientated strand board shall be in accordance with BS EN 300
Medium Density Fibreboard (MDF)

Medium density fibreboard shall be in accordance with BS EN 622-5:2009.

Treated Timber

Treated timber shall be pressure impregnated with an approved preservative complying with the requirements of BS 3452 or 3453 in areas subject to insect attack and BS 4072 in conditions subject to fungal decay, constructional timber shall be treated in accordance with BS 5268 Part 5.

All cut surfaces and notches made on site shall be treated with a suitable brush applied preservative.

Glues

Glues shall be in accordance with BS 1203/1204 and the appropriate grade shall be selected according to use and location.

WORKMANSHIP

Storage

Timber shall be stacked clear of the ground and protected from the weather.
Priming

All softwood door and window frames and linings are to be delivered to site primed. Priming shall be carried out with the correct primer as specified under painting.
Jointing, fixing and assembly.

The workmanship generally shall comply to the requirements of BS 1186 Part 2 and CP 112.

All framed work shall be cut out and put together immediately upon receipt of the details but shall not be glued and wedged up until ready for immediate fixing.

External joinery shall be put together with a WBO grade adhesive to BS 1204.

Where nails are used for fixing softwood the nails are to be punched in.

All screws are to be countersunk. Screws for fixing hardwood are to be either sunk or pelleted or if exposed are to be brass. Screws for fixing ironmongery to be matching. Plugging for fixing timbers shall be at 400mm centres unless otherwise described.

Skirtings and the like shall be in single lengths wherever possible and jointed with splayed heading joints otherwise.

Studding

Studding to partitions, casings etc unless otherwise described, shall be executed in 100 x 50mm members.
There shall be a sole and head plate and vertical studs at not more than 600mm centres.

Noggins shall be provided at not less than 900mm centres vertically.

Defective work

Any new joinery that splits, shrinks or warps is to be renewed or replaced without charge.
Repairs to old joinery generally.

Broken or damaged members which are described to be repaired shall be cut out and new sections of timber let in, glued and pinned and shaped or moulded to match existing member.

Renovating timber boarded floors

The renovating of timber boarding floors shall include removing all linoleum, carpet or other overlays and all tacks and fixings. All floor brads shall be punched in and boards made secure, any missing brads to be replaced. Where joists are too worn to provide adequate fixing for floor brads the worn sections shall be cut out and new timber let in. Any missing, split or otherwise defective boards shall be replaced. Any unevenness between adjacent boards shall be planed off.

FRAMED STRUCTURAL STEEL WORK

GENERAL

The works shall be carried out in accordance with this specification and the Structural Engineers specification and drawings.

Where the Contract Administrators specification and the Structural Engineers specification differs the requirements of the Structural Engineers specification shall take preference.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or any Statutory Approving Authority.

GENERAL REQUIREMENTS /INFORMATION

SCOPE

This Specification relates to the supply, fabrication and erection of the steelwork superstructure of the project. Any variations from this Specification must be by the written consent of the Contract Administrator.

RESPONSIBILITY

Inspection and acceptance of materials and workmanship by the Contract Administrator/Structural Engineer shall not in any way relieve the Steelwork Subcontractor of the responsibility for ensuring that the materials and workmanship comply with the Specification.

STANDARDS

Where Standards are not quoted the materials or fittings shall be in accordance with the latest editions of the relevant British Standards where such exists or otherwise to the specification of the CA.

STORAGE, ETC

The Steelwork Subcontractor shall include in his tender for delivery of materials and equipment to site, unloading, storing and distribution around site.

PLANT, TOOLS ETC

The Steelwork Subcontractor shall provide all necessary plant, equipment and tools for the satisfactory execution of the works.
DRAWING PROGRAMME

On his appointment the Steelwork Subcontractor shall agree the final date for submission to the Contract Administrator/Structural Engineer for approval a programme for the production of workshop and erection drawings and drawings of temporary and other works.

CONSTRUCTION PROGRAMME

The Steelwork Subcontractor will be required to carry out the works in accordance with the programme and progress chart prepared by the Contractor.

A detailed programme for the fabrication, delivery and erection of all steelwork shall be prepared by the Steelwork Subcontractor in conjunction with the Contractor for approval by the Contract Administrator.

SITE INSPECTION

The Steelwork Subcontractor shall be deemed to have visited the site and to have satisfied himself as to the nature of the existing roads and access to site, the area available for storage of materials and to have obtained generally his own information on all matters affecting the execution of the work. No additional costs will be allowed to a Steelwork Subcontractor who fails to appreciate the existing conditions.

DESIGN

The structural steelwork shown on the drawings and described in this specification has been designed to BS 5950 where applicable, unless stated otherwise.

Complete the design and detailing of connections to BS 5950 to satisfy loading requirement specified or otherwise calculable from the information given.

DESIGN CONSTRAINTS

Unless required or permitted otherwise, comply with the following when completing the design and detailing of the work:

Position members forming bracing systems or girders of lattice construction so that their lines of action intersect at a point.

Bolts to be grade 8.8 and not less than 20 mm diameter.

Not less than two bolts to be used in any connection.

Welds to be 6mm fillet welds unless noted otherwise on the drawings.

DRAWINGS, ETC

Before preparing detailed fabrication drawings, submit:
Calculations for all major connections.
General arrangement drawings with individual steel members clearly identified.

MATERIALS AND PRODUCTS

Hot-rolled steel sections not covered by other British Standards shall be to BS 4: Part 1 and shall be made from steel to BS EN 10025: Grade S275.

Hot-rolled steel hollow sections shall be to BS 4848: Part 2 and shall be made from steel to BS EN 10210-1: 1994 Grade S275JZH.

Hot-rolled steel angles shall be to BS 4848: Part 4 and shall be made from steel to BS EN 10025: Grade S275.

Steel plates shall be to BS EN 10025: Grade S275.

Black bolts, screws and nuts: Steel for Grade 4.6 bolts shall be to BS 4190 and steel for Grade 8.8 bolts to BS 3692. Dimensions shall be to BS 4190.

Black cup and countersunk head bolts, screws and nuts shall be to BS 4933: Grade 4.6. Washers shall be to BS 4320.

High strength friction grip bolts and associated nuts and washers are to be to BS 4395 Parts 1 and 2, load-indicating type as specified by the Engineers, tightened in accordance with BS 4604 Parts 1 and 2.

Holding down bolts: Black bolts shall be to BS 4190.

Expanding bolts and nuts shall be to the approval of the Engineer.

Electrodes for welding shall be in accordance with BS 5135.

Where welding is required between different grades of material, the choice of electrode shall be that relating to the higher yield stress material.

Electrodes shall be stored in their original cartons or bundles in dry conditions and adequately protected from adverse weather effects.

SPECIFICATION

Comply with the latest edition of the National Structural Steelwork Specification (hereinafter called the NSSS) unless specified otherwise in this section.
Ensure that a copy of the NSSS is available at all times during the course of the Works at the fabrication shop and on site.

RESPONSIBILITY FOR ERRORS

The Structural Engineer will check Steelwork Subcontractor’s drawings and calculations for compliance with his requirements. The approval of the Structural Engineer shall not in any way relieve the Steelwork Subcontractor of his responsibility for any errors which his drawings or calculations may contain.

POSITIONING OF STRUCTURE

The Steelwork Subcontractor shall be responsible for ensuring the final accuracy of the positions and levels of the steelwork on completion.

SUBCONTRACTING

Should the Steelwork Subcontractor consider it necessary to subcontract any work under a licensed agreement, approval of the Subcontractor must first be obtained from the Contract Administrator before proceeding with any work. It will be the responsibility of the Contractor to ensure the Subcontractor works in accordance with this Specification.

ERECTION METHOD STATEMENT

To be submitted at least 21 days before starting erection of steelwork, including details of (with drawings if necessary):
Method and sequence of erection.
Type of cranage.
Temporary guys and bracing proposed for use during erection.

STARTING

The permission of the CA shall be obtained before starting to erect steelwork.

DEFECTS

The Contract Administrator shall be informed of any defects due to detailing or fabrication errors. Approval shall be obtained of methods of rectification before starting remedial works.

FABRICATION GENERALLY

GENERAL REQUIREMENTS

Inform Contract Administrator when fabrication is due to start. Do not fabricate steelwork for which the drawings have not been checked by Contract Administrator/Structural Engineer. Before fabricating, ensure that surface condition of steel which is to be coated complies with requirements specified for cleaning.

Ensure that fabrication processes do not cause changes in properties of materials resulting in noncompliance with specified requirements.

FABRICATION DRAWINGS AND CALCULATIONS

All fabrication drawings shall give complete information necessary for fabrication and welding and shall be submitted in duplicate to the Contract Administrator/Structural Engineer for approval. The Steelwork Subcontractor shall provide as required by the Structural Engineer calculations for the design of details, which depart from the established design or are required for temporary and other works.

FABRICATION DRAWINGS
The Steelwork Subcontractor shall prepare all the necessary working drawings giving complete information for the fabrication of the component parts of the structure including weld details and location, type and size of bolts, etc. He shall submit two copies of all design/production information to the Contract Administrator/Structural Engineer for inspection. The Contract Administrator/Structural Engineer will inspect the design/production information, record his comments and return them to the Fabricator.

The Contract Administrator/Structural Engineer will require two weeks for such examination of the design/production information. Unless and until it is confirmed that re-submission is not required, the Steelwork Subcontractor shall re-submit drawings as necessary for further checking and comments and incorporate any further amendments required.

QUALITY OF WORK

Steelwork shall be fabricated in accordance with BS5950.Parts shall be cut, shaped and assembled to ensure accurate erection. Proprietary components shall be used in accordance with the Manufacturer's recommendations. The Structural Engineers permission shall be obtained before starting fabrication.

MANUAL CUTTING

Approval must be obtained for thermal cutting by hand.

COMPRESSION MEMBERS

In compression members at splices, caps or bases which are dependent on contact for transmission of compressive stress the ends shall be prepared so that the butting faces are in full contact over an area sufficient to transmit the full load without exceeding the permitted stress in bearing. Where not in full contact the gap must not exceed 0.25 mm.

ACCURACY AND ALLOWANCE IN FABRICATION

The Steelwork Subcontractor shall ensure that the completed parts and members are accurate both in section and elevation so as to ensure that erection to the specified tolerance takes place without introducing permanent stress in the structure.

Overall straightness	1 in 500
Overall length	+ 2 mm
Flatness of connection flanges measured at plate edge	+ 1 mm

CORROSION PREVENTION OF ASSEMBLIES

Structural Hollow Sections should be sealed by welding to give a corrosion free interior.

MARKING

Submit details of proposed methods of identifying and recording materials and components to ensure correct use and location in the structure
Marks to be placed in positions such that they will be visible for checking after erection.
Marking of weathering steel to be on surfaces which will not be exposed to view in the completed work.
Marking of steel that is to be blast cleaned, pickled, metal sprayed or galvanised to be done in such a way that subsequent treatment cannot obliterate the marking.

HARD STAMPING
Notwithstanding NSSS clause 4.1.3(ii), hard stamping must not be used except where specified on the drawings by the Contract Administrator.

FAYING SURFACES FOR HSFG JOINTS

Check faying surfaces in steel 25 mm thick or more for deformities such as bowing, twist or rippling which may reduce slip factor to below design limit. Agree remedial measures with Contract Administrator/Structural Engineer.

END CONNECTIONS

Ensure that angle cleats, if used, project beyond ends of simply supported members.

HOLLOW SECTIONS

Ensure that insides of sections are dry and clear of debris before sealing ends and openings.

BASE PLATES

Make 25 mm diameter holes in all base plates more than 1 sq m in area to allow the escape of air when grouting after erection of columns.

WELDING

WELDING GENERALLY

Welding generally shall be to BS 5135 unless specified otherwise.

PREPARATION

The correct fusion bevel must be achieved to form a smooth contour free from irregularities. Surfaces should also be free of any deleterious matter likely to affect the ease of welding and the efficiency of the connection. Where hollow section bracings have ends flattened for bolted connections, ends must be effectively sealed.

WELDING SEQUENCE

The welding sequence shall be such that distortion is reduced to the minimum practicable and local distortion is rendered negligible in the final structure.

CONDITIONS

Welding shall be carried out in workshops or under similar controlled conditions. When surfaces to be welded are wet or where the ambient temperature is 0°C or less, the sections to be welded should be heated until they are warm to the touch for a distance of not less than 75 mm on either side of the joint.

PRE-HEAT FOR WELDING

Pre-heat for welding shall be in accordance with BS 5135. A check shall be made of the temperature at the root of the weld preparation immediately prior to welding to verify that the pre-heat temperature has been achieved at that location.

WELDING ON SITE

Notwithstanding NSSS clause 8.7, site welding is not permitted unless shown on drawings or otherwise approved. When permitted, ensure suitable, safe conditions. Do not weld when ambient temperature is below 0°C or surfaces are wet.

TACK WELDS

Particular attention shall be paid to the quality of tack welds which shall be deposited by qualified welders. The throat thickness of tack welds shall be times the thickness of the thicker part joined or 50 mm, whichever is the smaller.

Where necessary, the extremities of tack welds shall be dressed by grinding or chipping to facilitate proper fusion when they are incorporated in the root run. All cracked tack welds shall be completely removed and replaced by a tack weld of sound quality. Backing material shall not be tack welded internally to SHS.

BUTT WELDS

Run on and run off plates shall be used to ensure full throat thickness at ends of butt welds as follows:-

Material for plates shall be identical to material being welded.

Plates shall be prepared in the same manner as parts being joined.

After completion of welding, plates shall be removed and surfaces of joined parts ground, where plates were attached, to make smooth.

Plates shall be identified and retained for inspection when instructed.

End-to-end connections of hollow sections must be assembled using backing strips in accordance with the details shown in Appendix C of BS 5135. On assembly the maximum permissible misalignment shall be 1.5 mm. After tack welding the root gap shall not be less than the minimum shown for the applicable weld preparation.

BRANCH CONNECTIONS IN HOLLOW SECTIONS

End preparation of branch connections for fillet and butt welding shall be in accordance with the recommendation in Appendix C and D of BS 5135. Special care shall be taken to shape accurately the end of one hollow section to fit the other. For fillet welds, good fit-up between the end of the branch and the main is important. Gaps at any point must not exceed the limits shown in Appendix C of BS 5135. Where gaps of this nature occur in highly stressed joints requiring pre-heat, then the pre-heat should be increased by 50°C.

BUTT WELDS IN HOLLOW SECTIONS

Backing Material

Backing material forming backing bars or backing rings shall be of welding quality mild steel with a carbon content not exceeding 0.25% and a sulphur content not exceeding 0.06% or, alternatively, shall be of the same material as the parent metal and 20 to 25 mm wide.

MANUAL METAL ARC WELDING - BUTT WELD JOINTS

One of the following techniques shall be used:
360° roll for CHS or flat position for RHS.
180° roll for CHS or semi-positional for RHS using the vertical-up technique.
Fully positional CHS and RHS using the vertical-up technique.

ROOT RUNS

The root of the weld shall be deposited using 2.5 mm or 3.25 mm electrodes. There shall be complete fusion between weld metal, parent metal and backing strip.

COMPLETION OF WELD

Following deposition of the root run or runs the weld may be completed by either of the following procedures:

Manual metal arc welding using the recommended electrodes
OR
An approved automatic or semi-automatic welding process.

REQUIREMENTS OF COMPLETED WELDS

In all welds there shall be complete interfusion between the weld and the parent metal.

SHAPE OF PROFILE

Unless the weld is dressed flush, there shall be external weld overfill (reinforcement). The height of overfill shall be restricted to 10% of the thickness of the thinner part joined and this shall be substantially symmetrical about the centre line of the joint.

SMOOTHNESS OF JOINT IN THE WELD

The join in a weld run where welding has been recommenced or completed shall show no pronounced hump or crater in the weld surface.

QUALITY OF WELD

The weld metal as deposited shall be free from weld defects such as cracks, slag inclusions, gross porosity, cavities, etc. The weld metal shall be properly fused with the parent metal without serious undercutting or overlapping, but slight intermittent occurrences may be disregarded, provided that the undercut or overlap does not form a sharp notch.
Any undercutting should be made good by the deposition of additional weld metal.

REMOVAL OF WELD OVERFILL (reinforcement)

Where butt welds are to be ground flush with parent metal it is essential that the foregoing specification is adhered to prior to grinding. On completion of grinding the parent member must not be reduced below the design thickness.

CORRECTIONS OF FAULTY WELDS

Where welds do not comply with the requirements of this Specification the defective portion shall be removed. This shall then be re-welded and re-inspected in accordance with this Specification.

WELDING PLANT AND EQUIPMENT

The welding plant and equipment employed shall be in accordance with BS 638.

ADDITIONAL WELDS

Do not place any welds (including tack welds) not shown on drawings, without approval, even for temporary attachment or repair of faulty plates.

WELDING CURRENT

The strength of the current shall be within the range recommended by the Manufacturer of the particular electrode being used and shall be towards the upper limit of the range rather than the lower. Suitable tong test ammeters shall be provided by the Fabricator for measuring the current when requested by the CA.

WELDING PROCEDURE

Evidence of Welders' competence to undertake specified work shall be provided. Welders must have been tested to BS 4872: Part 1 using the same electrodes class and welding positions which will be used in the work. Extent of qualifications and requirements for re-qualification of welders shall be to BS 5950.

QUALIFICATION OF WELDING OPERATORS

Welding operators whom the Steelwork Subcontractor proposes to employ on works under this Specification must be approved in accordance with the requirements of BS EN 287: Part 1: 1992.

SUPERVISION OF WELDING

Welding shall be carried out under the direction of an experienced and competent supervisor.

Records (such as a marked up General Arrangement drawing) must be kept of all major welds as required by the Contract Administrator (eg tension member butt welds) to ensure non-destructive testing results and welding operators responsible for the work can be identified accordingly. Hard stamping of finished work for this purpose will not be permitted.

WELDING OF STRUCTURAL HOLLOW SECTIONS

In addition to the general provision of this Specification the welding of structural steel hollow sections shall conform with BS 5135. The CA shall have the right to be given facilities to inspect material and assemblies before commencement of welding.

Steelwork comprising hollow members shall be continuously welded and the interior of members shall be kept clean, dry and free from loose scale, etc and also shall be completely sealed.

FINISHING WELDS

Carefully dress welds to remove slag by light hammering, wire brushing or other methods that do not deform the surface of the weld.

BOLT ASSEMBLIES

HOLES

When using drifts, holes shall not be distorted or enlarged. Any misalignment of holes shall be reported to the CA. If faulty member is not rejected, hole shall be reamed to correct position.

MOISTURE

To prevent access of moisture, bolt holes in sealed hollow sections and tubes shall be sealed. Details of proposed method shall be submitted and approval obtained.

TAPER WASHERS

Taper washers shall be placed under bolt heads and nuts bearing on sloping surfaces of joists and channels.

HSFG BOLTS

HSFG bolts are to be used and tightened in accordance with BS 4604 Parts 1 and 2.

SPRING WASH

To BS 4464.

LOAD INDICATING WASHERS

When placed under bolt head, prevent bolt turning when tightening.

When placed under nut, protect nibs with a hardened washer and prevent both washers from turning when tightening.

SEALED HOLLOW SECTIONS

Seal bolt holes to prevent access of moisture. If method of sealing is not specified, submit proposals for approval.

ERECTION

BEFORE COMMENCING ERECTION

Not less than 7 days before proposed start date, check foundations and other structures to which steelwork will be attached for accuracy of setting out, and holding down bolts for position, protruding length, condition and slackness.

Report any inaccuracies and defects to Main Contractor and CA without delay.
Obtain permission of CA to commence erection.

ACCURACY

Steelwork shall be erected to achieve levels of accuracy so that in relation to BS 5606: Tables 2 and 3:
All achieved sizes fall within the permissible deviations.
Approximately two thirds of achieved sizes fall within one third of the permissible deviations.

ERECTION STRESSES

Steelwork shall not be distorted and shall not exceed limiting stresses specified in BS 5950 during erection unless otherwise approved.

ERECTION BRACING

All temporary erection bracing necessary to ensure stability of the building during erection shall be provided. It shall be removed when it is safe to do so, timing to be agreed with the Main Fabricator.

MODIFICATIONS

Inform CA of any defects due to detailing or fabrication errors.

Obtain approval of methods of rectification before starting modification or remedial work.

COLUMN BASES

Raise or lower to levels specified on the drawing(s) using sawn steel packs or folding wedges not larger than necessary for the purpose.

Position packs symmetrically around perimeter of base plate; do not use a single central pack.

Notify CA when the space beneath any column base is less than, or over 25mm greater than the specified dimension.

Check accuracy of erection and correct all errors before filling and bedding beneath bases and carrying out any other adjacent work.

Completely fill bolt pockets and the space beneath column base plates with high strength non-shrink grout unless noted otherwise.

Cement: Ordinary or rapid hardening Portland cement to BS 12 Fine aggregate: To BS 882, Grading limit M.

MOVEMENT JOINTS

Coat sliding surfaces with molybdenum disulphide grease before connecting.
Ensure that bolts are in centre of slotted holes after erection of structure and that the joint is free to move.

INSPECTION/TESTING OF STEELWORK

INSPECTION OF MATERIALS AND FIXINGS

The Steelwork Subcontractor and his suppliers shall afford the requisite facilities at all reasonable times and at all places for inspection and testing to be carried out by the CA, structural engineer, or Independent Inspectors appointed by the CA.

The inspection and acceptance of materials, sections and fixings, etc, by the CA shall not in any way relieve the Steelwork Subcontractor of his own responsibilities for ensuring that the materials, parts and fixings are sound, and of the requisite quality for the work.

PHYSICAL TESTS, ETC OF MATERIALS

Physical tests and chemical analyses of all materials, or all batches of materials, shall be made according to the appropriate British Standard and all the requirements of this Specification, unless otherwise agreed by the Engineer.

TEST CERTIFICATES

Unless otherwise agreed by the CA, the Steelwork Subcontractor, immediately on receipt of each test certificate covering the aforementioned physical tests and chemical analysis, shall send three copies to the CA.

INSPECTION OF FINISHED ITEMS

The Steelwork Subcontractor shall provide facilities to carry out NDT (non-destructive tests) on welded joints in completed weldments, if so required by the CA/Structural Engineer. Should there be any defective welds then the Steelwork Subcontractor will be required to carry out repairs or rectification and re-test the welds. It may be required that rectification will be carried out under the supervision of the CA and/or Structural Engineer.

No fabricated steelwork shall be dispatched to the site before it has been inspected and approved, except with the written permission of the CA. The Steelwork Subcontractor shall give at least ten days' notice to the CA whenever finished items will be ready for inspection and the CA will attend for the purpose of carrying out the inspection without unreasonable delay unless he proposed to defer such inspection to site and advises the Steelwork Subcontractor accordingly.

RESULTS OF TESTS

The results of all tests shall be submitted to the CA, for his inspection. The CA's decision on the acceptability of all welds shall be final.

PAYMENT FOR TESTS AND EXAMINATION OF WELDING OPERATORS

The Fabricator shall bear the cost of all material, labour and production of test pieces necessary for the qualification of welding operators. The CA shall bear the cost of assessing the test pieces and non-destructive testing.

PROTECTIONS

Protections of finished fabricated items shall be in accordance with notes on the drawings or design specification.

INSPECTION

Permit the CA, and/or an independent inspection authority appointed by him, to inspect the work at all reasonable times and at all places where it is being carried out. Provide all facilities, hand tools, lighting, etc. as necessary to ensure adequate inspection.

WELD TESTING

Works/site testing of welds and materials will be carried out by a specialist subcontractor as directed by the CA. All elements to be tested before erection must be made available by prior arrangement with the CA and testing subcontractor.

PRODUCTS

When requested by CA submit a copy of test certificates for any material or product.

DEFECTIVE WORK

As soon as possible after any part of the work or any materials are known or suspected to be defective, submit proposals to CA for further testing, inspection or replacement and obtain instructions.

GENERAL REQUIREMENTS FOR PROTECTIVE COATING WORK
SURFACES NOT REQUIRING COATING

All steelwork to be encased in concrete.

OPERATIVES

Operatives must be appropriately skilled and experienced in the use of specified materials and methods of application.

COATING MATERIALS

Wherever possible, to be from one manufacturing batch. Where more than one batch is to be used, keep separate, allocate to distinct parts or areas of the work, and inform the CA accordingly.

Check that all coating materials to be used are recommended by their manufacturers for the particular surface and conditions of exposure, and that they are compatible with each other.

TYPE OF COATING FOR ALL STEELWORK

Painting shall be applied to prepared surfaces as indicated in Clause G10/720. Steelwork coatings are to comply with BS 5493, in accordance with the following:-
Environment: Interior of building normally dry.
Life to first maintenance 10-20 years.
System reference (Table 4.BS 5493) SD2 or SE1

To all un-galvanised steelwork built into masonry of external walls, apply one coat of Black Bituminous paint to BS 3416, brush applied in one coat to 150 microns (NB Bitumen coatings to be applied only to those parts of the steel section built into masonry or within cavities, to avoid incompatibility with intumescent coating system to be applied to sections exposed internally).

After erection damage to all shop paintwork to be made good.

PREPARATION MATERIALS AND ANCILLARIES

Types recommended by their manufacturers and the protective coating manufacturer for the surfaces being prepared.

GALVANISING

All cutting, welding and drilling must be completed beforehand. Provide all necessary vent and drain holes in approved locations and seal to approval after galvanising.

INSPECTION

Permit coating manufacturers to inspect the work in progress, including surface preparation and take samples of their products if required. Do not comply with any directions or requests given by the coating manufacturer's representative unless and until confirmed by CA.

Notify CA of projected dates for start of surface preparation and coating.

Give CA at least 7 days' notice before coated members or components leave the works.

HANDLING AND STORING COATED STEELWORK

Use methods and equipment which will minimise chafing, chipping and other damage to coated components.

Ensure an adequate drying/curing period for each coat before handling.

Use suitable packings, lashings, lifting harnesses, nylon slings, rubber protected chains and chocks, etc.

Stack coated components clear of the ground, separated by timber chocks, and so that ponding does not occur.

PROTECTION

Adequately protect freshly applied surface coatings from damage.

Exhibit 'Wet paint' signs and provide protective barriers where necessary.

Protect surfaces adjacent to those being covered.

REMEDIAL WORK

Lack of adhesion, etc. must be made good by complete removal, preparation and reapplication.

Early degradation of coatings by blistering, peeling, flaking, cracking, as instructed.
Inadequate dry film thickness or surface defects due to adverse weather may, depending on the type of paint, be remedied by rubbing down and applying further coat(s), as instructed.
Mechanical damage to coatings must be made good by local cutting back of coatings, preparation and reapplication of all coats to leave a neat, continuous and flat finish.
Where damage to coatings or subsequent surface preparation has exposed bare metal, it must be thoroughly cleaned and primed within two hours.

PREPARATION FOR PAINTING

OFFSITE PREPARATION AND PAINTING

To be carried out under cover in properly lit, heated and ventilated conditions. Select sequence of working from one of the following and inform CA before starting work:
Fabricate - blast clean - prime as specified
Blast clean - fabricate - prime as specified (Immediately before priming remove flash rust with a light overall sweep blast), or

Blast clean - prime with a weldable prefabrication primer recommended by the manufacturer of the specified primer - fabricate - prime as specified (Thickness of post-fabrication priming coat may be reduced if and as recommended by manufacturer).

INACCESSIBLE SURFACES

The sequence of working must be such as to ensure that surfaces inaccessible after assembly receive the full specified treatment and coating system including, if necessary local shop application of site coatings.

SURFACE TREATMENT

The Steelwork Subcontractor will be responsible for surface preparation and factory applied priming coats, together with touching up damaged paintwork on site.

The Main Contractor will be responsible for site applied finishing coats.

MANUAL CLEANING OF NEW STEELWORK

Chip, scrape, disc sand and grind surfaces to remove all fins, burrs, sharp edges, weld spatter, loose rust and loose scale to leave a clean but unpolished surface to BS 7079. Thoroughly degrease and clean down. If using water-based cleaners, remove subsequent rusting back to grade St 2.

Apply primer without delay.

PREPARATION FOR SITE WELDING OF SHOP PAINTED STEELWORK

Blast clean and mask weld areas before coating surrounding areas. If more than one coat is applied to surrounding areas, step each 30 mm back from edge of preceding coat. Remove masking immediately before welding.

Alternatively prepare and shop paint weld areas as specified, then grind off to bare steel immediately before welding.

TREATMENT OF SITE WELDED JOINTS IN PAINTED STEELWORK

After welding, and without delay, remove all scale and weld spatter from the weld areas by grinding or chipping, abrade to remove all traces of rust, wash with clean water and allow to dry.

Prime without delay and apply further coatings to the weld areas to match the surrounding painted areas.

BOLTED JOINTS (NON-FRICTION GRIP)

Where steelwork is to be shop painted, ensure that the full shop specification is applied to joint faces.

Where steelwork is to be erected with a mill finish then site painted, prepare and prime joint faces before erection and allow to dry.

Immediately before assembling bolted joints in externally exposed steelwork, apply a further coat of primer and bring the surfaces together while still wet.

Before applying site coatings to externally exposed steelwork, seal all crevices to bolts and joint perimeters with a compatible mastic.

FAYING SURFACES OF FRICTION GRIP JOINTS

Blast clean and mask before coating surrounding areas. The masking must adequately protect the faying surface from deterioration and contamination.
If more than one coat is applied to surrounding areas, step each 30 mm back from edge of preceding coat.

Remove masking immediately before bolting, check faying surfaces are free from adhesive and clean with solvent if necessary.

FRICTION GRIP JOINTS IN SHOP PAINTED STEELWORK

After final tightening of bolts, and without delay, thoroughly degrease and clean bare steel at joint edges and prime as specified.

Seal all crevices to bolts and joint perimeters with a compatible mastic.

Apply further coatings to surrounding areas to match adjacent shop painted areas before applying specified site coatings.

UNCOATED FASTENINGS

After erection, thoroughly degrease and clean and, without delay, apply coating(s) to match surrounding shop painted areas before applying specified site coating(s).

GALVANISED FASTENINGS

After erection, thoroughly degrease and clean and apply a suitable etch primer before applying specified site coating(s).

SITE PREPARATION OF SHOP PAINTED STEELWORK

Carry out all necessary remedial work as specified. Prepare all surfaces by abrading and/or washing down as recommended by manufacturer before applying coats.

SITE PREPARATION OF GALVANISED SURFACES FOR PAINTING

Thoroughly degrease. If metal coating is defective obtain instructions before proceeding. Remove any white corrosion products with a stiff brush, wash off and allow to dry before applying specified etching wash or primer.

PAINTING

SUITABILITY OF CONDITIONS

Do not apply coatings:-
To surfaces affected by moisture or frost.

Unless the steel temperature is at least 3°C above the dew point with conditions stable or improving.
Unless the relative humidity is below 85%.
When heat is likely to cause blistering or wrinkling.

Take all necessary precautions including restrictions on working hours, providing temporary protection and allowing extra drying time, to ensure that coatings are not adversely affected by climatic conditions before, during and after application.

Application of coatings will be taken as joint acceptance by the Main Contractor and Subcontractor of the suitability of surfaces and conditions within any given area.

APPLYING COATINGS

Multiple coats of the same material must be of a different tint to ensure that each coat provides complete coverage.

Apply coatings to clean, dust free, suitably dry surfaces in dry atmospheric conditions and after any previous coats have cured adequately.

Apply coatings evenly to give a smooth finish of uniform thickness and colour, free from brush marks, nibs, sags, runs and other defects.

Keep all surfaces clean and free from dust during coating and drying. Adequately protect completed work from damage.

FILM THICKNESS

Check the thickness of each coat during application using a wet film thickness wheel or comb gauge in accordance with BS 3900:Part C5.

After each coat has dried measure the total accumulated dry film thickness using a magnetic or electromagnetic meter, checked against standard shims and recalibrates regularly against a smooth steel reference plate, the number and position of measurements to be as directed by the Contract Administrator. Carry out all measurements in the presence of the Contract Administrator unless otherwise directed.

Over any square metre of coating the average accumulated dry film thickness must equal or exceed the specified thickness, with no reading less than 75% of the specified thickness.
If at any stage the accumulated dry film thickness is deficient, the Contract Administrator may require application of additional cost(s) at no extra cost.

The dry film thickness of the top-coat must be sufficient to give an even, solid, opaque appearance.

STRIPE COATS

Where specified, brush apply an additional stripe coat to all external angles, nuts and bolt heads, rough weld seams, and areas which are difficult to coat.

COLOUR OF TOP COAT

To be selected by Contract Administrator (unless already specified). Colour of preceding coat to be as recommended by the paint manufacturer to suit the top coat colour.

COATING MATERIALS

Coating materials shall be delivered in sealed containers clearly labelled with the following information:-
Type of material.
Brand name, if any.
Intended use.
Manufacturer's batch numbers.
Relevant safety precautions.

ABRASIVE AND CLEANING AGENTS

Abrasive papers and blocks, cleaning agents, etching solutions and other ancillary products shall be recommended by the Coating Manufacturer.

PREPARATION OF MATERIALS

Materials shall be prepared as follows:
Different coating materials shall not be intermixed.
Materials shall not be thinned without the permission of the Contract Administrator.
Materials shall be stirred to attain an even consistency before use unless otherwise recommended by Manufacturers.

CONTAMINATION

Brushes and spraying equipment shall be free from deleterious solvents, thinners and cleaning agents.

MANUFACTURER'S RECOMMENDATIONS

Coating materials shall be stored, prepared and applied to Manufacturer's recommendations.

Coatings shall not be applied before previous coats have hardened sufficiently.

VENTILATION

It shall be ensured that spaces in which coatings are to be applied are well ventilated.

CLEANLINESS

All brushes, tools and equipment shall be kept clean.

All surfaces shall be brushed down immediately before coating and kept clean and free from dust during coating and drying.

BRUSHING

Coatings shall be worked into all recesses, edges, intersections and over surfaces generally to obtain a uniform and continuous film.

SPRAY PAINTING

Spray painting shall be applied with a gun recommended by the Paint Manufacturer to give a uniform and continuous film covering to all recesses, edges, intersections and surfaces generally.

ROLLER COATING

Roller coating shall not be used for first priming coat of any system.

PRIME
Manually cleaned surfaces shall be primed as soon as possible after cleaning, and in any case on the same day.

Flame cleaned surfaces shall be primed while still hand warm.

Chemically cleaned surfaces shall be primed after they have dried and on the same day as completion of cleaning.

Blast cleaned surfaces shall be primed as soon as possible after cleaning and drying and in any case within four hours.

SHADING

Different shades of colours shall be used for successive coats. Approval of selected shades shall be obtained.

PRE-FABRICATED PAINTING

Each coat shall be stepped back 30 mm from the previous coat adjacent to joints which are to be welded after completion of painting.

LEAD

LEAD SHEET

Lead sheet for flashings should conform to British Standard EN 12588:2006 – Lead and lead alloys-rolled lead sheet for Building Purposes which sets down requirements - including chemical composition and tolerance on thickness - that control the quality of lead sheet used for flashings and other building work. BS En 12588 provides for a range of six thicknesses defined in millimetres. For easy identification these have Code numbers - 3, 4, 5, 6, 7 and 8. Thus the substance of lead sheet is specified by its BS code number or, alternatively, by its thickness in millimetres.

WIDTH
The coils are available in widths from 150mm to 600mm in steps of 30mm, i.e. 150mm, 180mm, 210mm up to 600mm. Lead sheet for flashing purposes is usually supplied in 3m or 6m coils although other lengths and widths are available on request.

The ends of coils of lead sheet may also carry colour markings for easy recognition as shown.

ACCESSORIES

Clips – copper

Copper or tinned copper clips should be not less than 50mm wide. The thickness will depend on the exposure of the building (see Fixings - clips and clipping) but should not be less than 0.6mm
.
Clips - stainless steel
These should be cut from austenitic stainless steel sheer or strip not less than 50mm wide and 0.38mm thick.

Clips - lead
Lead is only suitable for clips in sheltered locations and the thickness of the sheet used should not be less than the thickness of the flashing.

NAILS

Nails should be large-headed copper or austenitic stainless steel, with an annular ring, helical ring or serrated shank not less than 19mm long. The shank diameter of copper nails should not be less than 3.35mm or, for stainless steel, not less than 2.65mm.

SCREWS

Screws should be brass or stainless-steel complying with BS1210, not less than 19mm long and 3.35mm in diameter.

DESIGN CONSIDERATIONS

Specifying Thickness

For most flashing applications, Codes 3, 4 and 5 lead sheet will be adequate although on important historic buildings or on positions of extreme exposure the thicker codes are often specified.

Contact with Other Materials

Lead sheet can be used in contact with another metal such as copper, zinc, iron, aluminium and stainless steel except when lead and aluminium are used together in a marine environment.

The use of lead sheet in contact with aluminium in marine conditions is not recommended.

Thermal Movement

Regular expansion joints are required in lead flashings. For flashings it is important that each individual piece of flashing is no longer than shown below.

Code 3, Soakers, max length 1000mm

Code 4, Flashings, max length 1500mm

Code 5, Flashings, max length 1500mm

DPCS

Mortars made from Portland cement contain free lime which, in the presence of moisture can initiate a slow corrosive attack on lead. Lead sheet built into brickwork as a damp proof course (e.g. chimney trays) should be protected with a thick coat of bitumen paint on both surfaces but flashings turned into brick or masonry joints up to 40mm do not require this protection
.

Patination of External Leadwork

A coat of Patination Oil should be applied to flashings as soon as practical after fixing. The oil should be applied no later than the end of the day's work.

Patination Oil should be applied evenly with a soft cloth and, in vulnerable locations such as mansard flashings, fixed over dark grey slates or tiles, it is important to oil under the lower edge of the flashings and between the laps.

Clips along the edges of flashings should be turned over after the oil has been applied.

Joints

With abutment flashings laps should not be less than 100mm increasing to 150mm for locations that are exposed to high wind and rain. For secret gutters and pitched valley gutter linings laps should conform to a vertical weathering height of not less than 75mm.

Fixings - Wedges
Lead wedges should be driven into joints (with a hammer and plugging chisel) to hold the 25mm turn-in of the flashings securely and to a depth sufficient for the mortar pointing to conceal the wedges. Spacing should not exceed 450mm.

With step flashings one wedge, placed centrally, is sufficient for each step except on low pitched roofs where the longer steps may require two wedges to ensure that both ends are firmly fixed
.
Where flashings are fixed at the head by nails or screws (e.g. a mansard flashing) the fixings should be spaced about 150mm apart not less than 25mm from the top edge.

Fixings - Clips and Clipping

The free edge of a lead flashing must always be adequately clipped to prevent lifting and distortion in high wind conditions. For sheltered exposures, clips fixed at the top with a clip at each lap joint and at about 500mm centres will be adequate. In more exposed situations, additional restraint will be needed.

Clips - Spacing and Thickness

Clips should be spaced at between 300 and 500mm centres depending on the exposure. However it should be noted that ridge, hip and mansard flashings are particularly vulnerable to wind-lift.

Normally 0.6mm thick tinned copper sheet or 0.38mm tern-coated stainless steel are used for clips. However, for high exposure situations a thicker sheet (0.7 copper or 0.46 stainless steel) should be used. In positions of extreme exposure, it may be necessary to fit a continuous clip.

When flashing over glass or patent glazing, in moderate and severe exposures 0.46-0.7mm stainless steel should be used. With these thicker materials the clip should be pre-bent and then flattened, using seaming pliers once the flashings have been fitted.

HEALTH AND HYGIENE

The Control of Lead at Work Regulations and the supporting Approved Code of Practice relate to the precautions required to protect people who are exposed to lead arising from work activities.

In most cases the use of the lead sheet in building does not create a significant exposure to lead, although it is essential not to eat, drink or smoke in a place liable to be contaminated by lead and also to thoroughly wash hands, arms and face at the end of each working session.

When lead welding is carried out for short periods of time in the open air there is no significant hazard but when stripping old lead sheet where the underside is heavily corroded or when lead welding in unventilated conditions, additional precautions must be observed. Further information is contained in the booklet Control of Lead at Works, available from the Lead Development Association.

PLASTERWORK

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with the specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or any Statutory Approving Authority.

MATERIALS

Cement
Cement shall be ordinary Portland Cement to BS EN 197-1
Lime

Lime shall be hydrated lime to BS EN 459.

Sand

Sand for internal plastering with gypsum plasters shall comply with BS 1199.
Sand for external renderings, internal plastering with lime and Portland Cement and floor screeds shall comply with BS EN 12620.

Water

Water shall be clean and free from all harmful matter.

Plasters
Gypsum plasters shall comply with BS 5492:1990
Premixed lightweight plasters shall comply with BS 5492:1990

Plasterboard

Plasterboard shall comply with BS EN 13950:2005.

Plasterboard which is to be decorated or receive lining paper shall be self finished gypsum wall board.

Plasterboard which is to receive a setting coat only of plaster shall be gypsum lath with rounded edges.

Expanded metal lathing

Metal lathing for plastering shall be plain or ribbed expanded 22 gauge mesh to BS EN 13658.

Plaster beads

Metal plaster beads and the like shall be Expamet obtained from The Expanded Metal Co. Ltd. or other similar and approved beads.

Air Vents

Air vents to rooms shall be fibrous plaster pattern of sizes to suit vent apertures.

Mastic for pointing.

Mastic for pointing shall be white polysulphide mastic to BS 4254.

WORKMANSHIP

Generally

Standards of workmanship generally shall comply to BS 5492 for internal plastering and BS 5262 for external rendered finishes.

Arrises and edges

Metal angle beads shall be used on all vertical and horizontal edges. Stop beads shall be used on all exposed plaster edges and where plaster abuts other surfaces without being masked by a cover fillet.

Plastering or rendering to walls and ceilings.

Plastering or rendering generally shall be in two coat work nominal thickness 13mm.

Brick, block and concrete surfaces shall be keyed for plaster or rendering as required by raking out joints, hacking or applying a suitable bonding agent.

Plasterboard backings shall be not less than 9mm thick generally and fixed with galvanised clout nails and the joints between boards covered with jute scrim. Where board joints occur additional timber noggins shall be provided for fixing if required, so that boards are fixed on all four edges.

Plastering to plasterboard on walls and ceilings.

Plastering to plasterboard backings on walls or ceilings shall be a setting coat only except that additional thickness of plaster is required to bring tapered joints out level.

Making out and making good to old plastered surfaces.

All loose plaster to solid or metal lathing backings shall be cut back and the surfaces to be plastered keyed as required. All surfaces shall be thoroughly brushed down and wetted before plastering.

Allow for dubbing out in cement and sand as found necessary in order to finish new plaster surfaces level with existing.

Where fireplaces, doors, windows etc, have been removed and the openings sealed for plastering, the old plaster is to be cut back until a straight edge can be levelled across the opening in all directions.

Plastering damp walls

Walls affected by rising dampness are to have skirtings removed and plaster hacked off the walls up to 450mm above the highest point of the damp plaster as detected by a moisture meter. After being allowed to dry out for the maximum possible time they are to have the joints raked out and re-plastered with cement and sand (1:3) rendering coat gauged with a proprietary waterproofing/salt retardant liquid as recommended by the manufacturer of the liquid. The floating coat is to be cement and sand (1:4) and the setting coat to be a porous plaster mix not over trowelled.

Making out and making good to old plasterboard surfaces or backings

Plasterboard backings shall be cut and fitted accurately into the openings to be made out and the joints scrimmed and the whole plastered with the same number of coats as existing.

Where existing openings in self finished plasterboards are to be sealed all existing cut boards around the old opening are to be removed and reinstated with whole new boards.

Beds and backings

Beds and backings for floor and wall finishings shall be in cement and sand mixed in the proportions (1:3) by volume and shall be laid to the thickness required by the schedule of works or the drawings. Beds shall be finished with a wood float or steel trowel according to the requirements of the floor finish to be received.

Wall tiling

Joints of tiling shall be pointed in white cement unless otherwise stated. Junctions between tiled splashbacks and sanitary appliances or worktops shall be pointed in white mastic.

Floor tiling

Any floor tiling shall be laid in accordance with CP 202 and flexible sheet and tile flooring in accordance with CP 203 Part 2.

VINYL FLOORING

GENERALLY

WORKMANSHIP GENERALLY

All bases must be rigid, dry, sound, smooth and free from grease, dirt and other contaminants before coverings are applied. - Finished coverings must be accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

SAMPLES

Before placing orders, submit for approval a representative sample of each type of covering. Ensure that delivered materials match samples.

LAYOUT

Set out sheet coverings so that seams and cross seams are kept to a minimum. Cross seams will not be permitted.

MARKING

Ensure that materials are delivered to site in original packing, clearly marked with batch number.

STORAGE

Store materials in a clean, warm, dry, well ventilated place. Keep in original packing until conditioning commences.

COMMENCEMENT

Do not lay materials until building is weathertight, wet trades have finished their work, the building is well dried out, all paintwork is finished and dry, conflicting overhead work completed, and floor service outlets, duct covers and other fixtures around which the

materials are to be cut have been fixed. Inform CA not less than 48 hours before commencing laying.

CONDITIONING

Before laying commences thoroughly condition materials by unpacking and separating in the spaces where they are to be laid. Maintain resilient flooring rolls in an upright position, unroll carpet and keep flat on a supporting surface. Minimum conditioning time and temperature to be as recommended by manufacturer. Extend period by a factor of 2 for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

ENVIRONMENT

Before, during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after the building is occupied.

PREPARING BASES

SUITABILITY OF EXISTING BASES AND CONDITIONS

Before commencing work the subcontractor must confirm (through the Main Contractor) that existing bases will, after the specified preparation, be suitable to receive the specified coverings.

Laying of coverings will be taken as further acceptance of the suitability of the bases and also of the conditions within any given area.

DAMPNESS

Where coverings are to be laid on new wet-laid bases: Ensure that drying aids have been turned off for not less than 4 days, then test for moisture content using an accurately calibrated hygrometer in accordance with BS 5325, Annexe A or BS 8203, Annexe A. Take readings in all corners, along edges, and at various points over the area being tested. Do not lay coverings until all readings show 75% relative humidity or less.

SMOOTHING UNDERLAYMENT COMPOUND

Manufacturer and reference: Ardex UK Ltd, Arditex ‘NA’ smoothing compound. - Apply to base at a minimum thickness of 3mm in accordance with manufacturer’s product data sheet incorporating aggregate for applications more than 12mm thick. Allow to dry before laying floor tiling/sheeting.

EXISTING FLOOR COVERING TO BE REMOVED

Completely remove covering and as much adhesive as possible. Skim with smoothing underlayment compound to give a smooth, even surface.

LAYING COVERINGS

COLOUR CONSISTENCY

In any one area/room use only coverings from the same production batch to prevent banding or patchiness resulting from colour/flash variation.

ADHESIVE FIXING GENERALLY

Adhesive: when not specified otherwise, type to be as recommended by covering/underlay manufacturer as appropriate or, in the absence of such recommendation, type to be approved. Use a primer where recommended by adhesive manufacturer. Allow to dry thoroughly before applying adhesive. Spread adhesive evenly and lay covering, pressing down firmly and rolling laterally and transversely (if recommended) to ensure full contact and a good bond overall. Reroll (if recommended) within 30 minutes. Remove all surplus adhesive from exposed faces of coverings as the work proceeds. Trowel ridges and high spots caused by particles on the substrate will not be accepted.

ADHESIVE FIXING – ALTRO SHEET FLOORING

Altro Wood Safety is recommended that the material is laid from sheet to sheet with a random pattern match and that cross joints should be avoided where possible. Ensure that all sheets are laid out in the same direction. The end plank on both sides of the sheet are wider than the rest of the planks on the sheet. Place the material in position on the floor and overlap the wider planks on both sides of the sheet. Cut-in material along plank joint lines. Fold (do not roll) the material back along half its length. When adhesive is ready, refold material back onto adhesive. Repeat for second half of material.

Cut Altro butterfly internal and external mitres

SEAM WELDING

Do not commence welding of coverings until a minimum of 24 hours after laying or until adhesive has completely set. - Cut groove, 3 mm wide by 2/3 the depth of material, evenly along each joint using: - Altro hand grooving tool or - Automatic grooving machine fitted with diamond blade. Hot-weld using hot air welding gun (fitted with high speed welding nozzle) and Altro welding rod. Select colour of rod to match floor covering. Cut off surplus weld rod with spatula. Do not chemical weld. Form a neat, smooth, strongly bonded joint, flush with finished surface.

DOORWAYS

Make joint on centre line of door leaf unless specified otherwise.

SEALANT

Manufacturer and reference: Altromastic 100 by Altro Floors, colour to match floorcovering. - Location: To all exposed edges of flooring material around all protrusions through floor and pipework as necessary.

SELF-COVED SKIRTINGS - GENERAL

Cove former: Altro 38R. Securely bond to base and background. - Turn flooring material up wall and securely bond to cove former and background, with top edge straight. Accurately mitre at corners. Height minimum 100mm. Top edge Altro C7 capping seal Hot weld joints and mitred corners with matching Altro welding rod. Do not Chemical weld.

JUNCTIONS BETWEEN SELF-COVED SKIRTINGS AND DOOR FRAMES/ARCHITRAVES:

Trim back of cove formers in proximity to door openings and terminate self-coved skirtings against side of architraves.

FOOT TRAFFIC

After laying, keep floor covering free from foot traffic until adhesive is set.

COMPLETION

CLEANING GENERALLY:

Remove all scrap, dust and dirt. Carefully remove adhesive and other marks from coverings and adjacent surfaces, using approved cleaning agents and methods.

PROTECTION

Cover flooring with clean dust sheets, or other non-staining suitable material to prevent damage from dirt and traffic prior to Practical Completion. Ensure any material with printed information on one face is laid with printed face uppermost.

PLUMBING

DESIGN

The contractor will be responsible for the design of plumbing works and gas fitting installation included in the schedule of works. The sizes quoted are notional assumed sizes. The contractor is to confirm all sizes from his design of the installation and where these vary from the notional sizes scheduled, he is to draw the Contract Administrators attention to the disparity.

DRAWINGS

It is not anticipated that design or record drawings of the installations will be required.

DEFECTS LIABILITY

The contractor shall maintain and keep the installation in full working order, including all necessary repairs of defects for a period of twelve months from the date of practical completion of the works.

EMERGENCY CALL OUT

During the defects liability period the contractor shall provide the employer with an emergency call out facility. He shall provide to the employer all necessary telephone numbers so that direct access can be made to a competent operative if necessary.

LABELLING

All plant item valves, stopcocks etc shall be labelled with non fade indelible ink onto suitable identification labels.

DEMONSTRATION OF SYSTEM

The contractor shall allow, where appropriate, to demonstrate the workings and adjustments of the installation to a person nominated by the employer and where appropriate, he is to hand over operating and maintenance manuals to the said person

RE USE OF OLD MATERIAL

The re use of old or second hand materials is strictly forbidden.

STANDARDS

All design shall incorporate and all installation work is to be carried out with the various manufacturer's recommendations and requirements and shall comply with all applicable statutory instruments and regulations.

COPPER PIPE WORK FOR LOW PRESSURE HOT WATER HEATING AND HOT AND COLD WATER SERVICES

Copper pipe work shall comply with BS EN 1057

Fittings shall comply with BS.8537:2010 and generally shall be copper capillary fittings with integral solder rings of lead free solder.

The ends of all pipes are to be reamed to the full bore of the pipe.
Pipes are to be so arranged that expansion and contraction do not distort the installation.
All made beds or sets are to be free of buckling or distortion.

STEEL PIPE WORK FOR GAS SERVICES

Steel pipe work shall comply with BS.1387 (EN 10255) and shall be screwed.
Fittings shall be of best quality malleable iron. Screwed joints shall be made with a proprietary gas sealing compound.

TESTING OF PIPE WORK

All plumbing, pipe work, fittings, plant and equipment shall be tested hydraulically to a pressure equivalent to one and a half times the working pressure. All gas pipe work shall be air tested.

ELECTRICAL INSTALLATIONS

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with the specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or any Statutory Approving Authority.

MATERIALS

Generally

Materials are to comply with the BS 7671 (formally the Institution of Electrical Engineers (IEE) Wiring Regulations and any other relevant British Standards.

Cables, conduits and accessories

Cables, conduits and accessories used for wiring must be suitable for the purposes used and must be consistent throughout the installation.

Fittings

Ceiling roses, light switches, socket outlets or spur connectors and the like are to be white plastic of approved pattern or as described in the schedule of works.

All switches and outlets are to be flush pattern or as described in the schedule of works.

Consumer unit

The consumer unit shall be a neat and compact metal clad unit with mini circuit breakers (not fuses). Sufficient ways should be provided for proposed installation together with spare ways for future installation.

Immersion heater

Electric immersion heaters shall be 3 kw/1 kw split element type to BS 3456.

Cooker control units

Cooker control units shall be flush metal cased and clad to BS 4177, finished to match other fittings.

WORKMANSHIP

Generally

The entire installation is to be designed and installed by the Contractor to the requirements of this specification and the drawings and/or schedule of works.

The installation is to comply with the latest IEE Regulations and any requirements of the local electricity company. The builder shall carry out such tests as may be required to satisfy these requirements.

Conduit/cable

All conduit/cable shall be hidden, no surface wiring of any sort will be allowed.

Cable buried in plaster if not in a conduit system must be protected by trunking or other suitable covers against accidental penetration from nails and drills.

Conduit if used shall be securely and neatly fixed with proper clips to the various backgrounds over which it passes.

PVC sheathed or other types of cables laid in roof spaces or under floors shall be set out neatly and systematically.

Fittings

Switch plates, socket outlets and the like shall be fixed squarely and flush with wall surfaces.

Socket outlets shall be generally positioned 200mm above floor level or worktops, light switches 1400mm above floor level.

Builders work

Cables under flooring shall be drawn through holes drilled at mid-depth of joists and not notched into the tops of joists.

Holes through existing or new floors, walls and ceilings shall be provided as required and made good whether or not specifically mentioned elsewhere.

Chases shall be provided in walls where required to hide wiring or conduit.

Suitable blockboard backboards shall be provided for meters and consumer units and the like.

GLAZING

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with the specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or any Statutory Approving Authority.

MATERIALS

Clear sheet glass

Clear sheet glass for glazing generally shall be ordinary quality (OQ) to BS 952.

Obscured glass

Obscured glass for glazing to bathrooms and lavatories etc, shall be glass to BS 952 Part 2.

Wired glass

Wired glass shall be to BS 952. That for glazing to rooflights and the like shall be cast and for glazing to fire resisting doors and the like shall be Georgian wired float glass unless otherwise stated.

Putties

Linseed oil putty shall be to BS 544.

Putty for glazing to metal shall be an approved proprietary brand.

WORKMANSHIP

Glazing

Standards of workmanship generally shall comply to BS 6262.

Glazing with putty

Glass is to be well back puttied and sprigged, front putties cut to clean lines and surplus back putties cut away.

Glazing with beads

Glass is to be bedded in wash leather strip and beads fixed firmly with brads or cups and screws as specified.

Wired and fluted glass

Any glass with horizontal or vertical wires or patterns is to be cut so that the wires or patterns are parallel to the sash or other framing.

Glazing to old sashes

Where cracked or broken glass is to be renewed the old putties shall be completely hacked out, care being taken in the case of wood sashes not to damage the rebates.

DECORATION WORKS

COMPLIANCE WITH SPECIFICATIONS

The works shall be carried out in accordance with this specification and all other relevant specifications and drawings.

OCCUPATION OF PROPERTY

Where the property will remain occupied during the repairs and redecoration. The Contractor shall agree a sequence of working with the occupier and the Contract Administrator and shall allow to work in this sequence.

PROTECTION OF PROPERTY

The Contractor shall provide dust sheets and any other necessary protection to protect all existing property, floors and floor coverings, furniture, fittings and effects from being spoiled by the works. He shall protect all parts of the building not being worked on from the effects of the work.

MOVING FURNITURE ETC

The Contractor shall allow for moving furniture, fittings and effects as necessary to do the works. They shall be stored in the property and protected from damage. On completion of the work all furniture fitting and effects shall be replaced.

RADIATORS, FITTINGS AND CUPBOARDS

Decorations shall be carried out behind radiators and small wall fittings.

Radiators shall be drained and swung down or removed to do the work. On completion the radiator shall be reinstated the heating system refilled and tested.

All surface fixed ironmongery and small wall hung fittings shall be removed to do the work and replaced on completion.

Where internal surfaces of cupboards or fitments and the like are formed by the building's walls or ceilings these surfaces shall be repaired and redecorated.

FLOOR COVERINGS

If it is not necessary to move floor coverings to do the work, the coverings shall be properly protected from being spoiled by the works.

If is necessary to move the floor coverings to do the work, the coverings shall be carefully unfixed, taken up, rolled up, stored on site and properly protected during the works. On completion, the floor covering shall be re-laid and re-fixed. The Contractor shall allow for employing specialist tradesman to take up and re-fix the floor coverings.

MAKING GOOD DAMAGE

Make good all damage caused by or due to the works.

CLEANING UP

On completion of the works the Contractor shall provide for cleaning the building inside and out, removing stains and touching up paintwork or polished work.

Clear away all rubbish and spoil. Leave the site and works clean and tidy.

DRYING OUT

The Contractor shall provide for adequate drying out during the work and shall provide all necessary labour, appliances fuel and power for this. Dehumidifiers shall be used in preference to heater for drying out.

CHOICE OF MATERIALS AND COLOUR SCHEMES

All finish materials and all colours and colour schemes shall be to the Employer's approval.

MATERIALS

Porous masonry, concrete, plaster or timber surfaces shall be treated with a proprietary stabilising solution in accordance with the manufacturer’s instructions prior to decoration being applied.

Knotting is to be in accordance with BS 1336.

Stopping for timber shall be composed of pure white lead and linseed oil putty (1:2) with a small portion of cold size added or alternatively an approved proprietary stopping may be used.

All paints are to be obtained from only one approved manufacturer and any instructions or recommendations strictly followed.

Unless otherwise defined in the Schedule of Works, all bare plaster surfaces, new or old, are to receive one mist coat and two full coats of paint.

Unless otherwise stated in the Schedule of Works, all new wood, metal or plaster or render surfaces are to be primed and painted with two undercoats and one finishing coat internally and primed and painted one undercoat and two finishing coats externally and previously painted wood, metal or plaster surfaces are to be painted one undercoat and one finishing coat.

Unless otherwise stated in the Schedule of Works finishing coat(s) on wood or metal shall be gloss finishing.

Where internal surfaces are to be varnished, two coats of varnish shall be applied. Exterior work which is to be varnished shall have four coats.

WORKMANSHIP

Standards of workmanship generally shall comply with BS 8000: Part 12: 1989.

All previously painted work shall be prepared and brought forward to provide an even and true surface free of blemishes and depressions ready to receive paint to the full specification herein stated.

Any item herein stated to be burnt off and pickled off shall be so treated and prepared and painted as new work.

All new plaster surfaces are to be thoroughly dried, brushed down, splashes of mortar, plaster etc removed and all holes, cracks and imperfections filled and made good before decorating.

Existing papered plaster surfaces are to stripped by washing down, scraping and sandpapering.

Where existing surfaces are lined with paper, the lining paper shall be made good as necessary with the same weight and quality paper before painting.

Existing painted plaster surfaces are to be washed down to remove dirt and grease and all loose paint removed by scraping and sandpapering.

Existing water painted or distempered surfaces are to be sealed before paint of any type is applied or alternatively all traces of the old paint washed off. For the purposes of the number of coat of paint to be applied such surfaces shall be considered bare plaster.

New work to rendered surfaces externally which is to be painted is to be lightly brushed down and prepared in accordance with the paint manufacturer's instructions.

Existing surfaces are to be prepared by brushing to remove dust and loose paint. Any loose rendering is to be cut out and made good to match existing. Any defunct holdbats, screws, nails, plugs or other fixings are to be removed and the rendering made good. Defunct wiring and cable clips are to be removed.

New woodwork to be painted shall be rubbed down with sand paper, knots covered with shellac knotting, primed surfaces stopped and suitable internal or external stopping as appropriate, rubbed down and cleaned off.

Open grain surfaces of plywood and the like shall be adequately filled.

New woodwork to be clear varnished, lacquered or polished shall be rubbed down with fine sand paper and any pin holes or small imperfections filled with matching colour filler.

Existing painted woodwork shall be washed down to remove dirt and grease and rubbed down with pumice stone or waterproof abrasive paper and water to produce a smooth and level surface.

Where existing paintwork is crazed, blistered or flaking then burning off must be carried out down to the bare wood, which should then be brought to a smooth and level surface by sand papering. All nails, cables, clips and other defunct fixing shall be removed and all holes and imperfections stopped and filled and rubbed down. Bare patches are to be primed and brought forward as necessary.

All metal work to be painted is to be wire brushed to remove rust scale and cleaned down with white spirit to remove grease and dirt. Bare patches in old work are to be primed and brought forward as necessary.

Copper pipes shall be degreased with a solution of one part acetone to three parts benzole.

Before painting of wood or metal surfaces all ironmongery that is not to be painted is to be removed and cleansed and refixed when the paintwork is hard.

The priming coat and each undercoat shall be well rubbed down with fine sandpaper and stopped and touched up prior the application of the succeeding coat of paint.

No external painting is to be carried out in wet, foggy or frosty conditions. No painting externally or internally is to be carried out on surfaces which are damp.

The appropriate grade of adhesive must be for various types and weights of wallpaper. Fungicidal adhesive must be used with vinyl coated papers.

Paper in any one room must be from the same batch to ensure proper matching of patterns and colours. Paper shall be hung butt jointed vertically and without horizontal joints, pattern joints must be properly aligned. The finished surface should be free from bubbles, tears and staining.

UNDERGROUND DRAINAGE WORK

GENERAL

COMPLIANCE WITH SPECIFICATIONS

The work shall be carried out in accordance with this specification and all other relevant specifications and drawings.

DEFECTIVE WORKMANSHIP

Any work which does not comply with this specification shall be rejected and made good to the satisfaction of the Contract Administrator.

PROTECTION

The works shall be protected from damage at all times. Any damage shall be made good to the satisfaction of the Contract Administrator.

APPROVAL

The works shall be to the satisfaction of the Contract Administrator and if applicable to the satisfaction of the Local Authority and/or other statutory Approving Authority

BRITISH STANDARDS

The works shall comply with all relevant current British Standards as amended at the start of the work and in particular with:

BS 65 Specification for vitrified clay pipes, fittings and joints
BS 78 Specification for case iron spigot and socket pipes and fittings

BS 497	Specification for manhole covers, road gully gratings and frames
BS 1247	Specification for manhole step irons
BS 3921	Specification for clay bricks
BS 4660	Specification for UPVC underground drainpipes and fittings
BS 5911	Precast concrete pipes and fittings for drainage and sewerage
BS 8301	Code of practice for building drainage

MATERIALS AND WORKMANSHIP

CONCRETE WORKS

Concrete and concrete work shall comply with the Specification for Concrete Work.

EARTHWORKS

Earthworks and back filling material shall comply with the Specification for Earthworks.

PEA SHINGLE FOR CLASS B BEDDING

Pea shingle for bedding flexibly jointed pipes shall consist of gravel or broken stone of maximum size 12mm and minimum size 5mm uniformly graded.

DRAINPIPES

Drainpipes shall be vitrified clay, concrete, plastic or ductile iron conforming with the appropriate British Standard.

GULLIES

Gullies shall be vitrified clay, precast concrete or plastic and shall comply with the requirements of the relevant British Standard and shall be tested for leakage before use.

FILTER MEMBRANES

Filter membranes where indicated on the drawings shall be Terram manufactured by ICI or similar approved membranes.

GENERAL

All drains and associated drainage works shall be watertight in accordance with the testing procedures herein.

EXCAVATIONS

All excavations shall be to the gradients and levels indicated on the drawings and all shoring necessary shall be provided to ensure the stability of the Works and adjacent structures.
All trenches are to be of sufficient width to permit proper construction and to give a clearance of at least 150mm, or a quarter of the pipe diameter whichever is the greater, between the outside of the barrel of the pipe and the face of the trench or earthwork support. Trenches shall be excavated to the minimum width necessary to carry out the works.

If any ground is disturbed to a depth greater than required, the ground so disturbed shall be replaced by lean concrete, granular material Type 2 or such other material as the Contract Administrator shall direct, up to the correct formation level, at the Contractor's own expense.

JOINTING AND BEDDING

Pipes shall be jointed with an approved flexible joint. A short length of pipe shall be provided adjacent to all chambers to aid this flexibility. Pipes shall be bedded in one of the following ways:

CLASS A BEDDING
This shall consist of a mass concrete cradle of Grade 20 concrete flexibly jointed with 12mm boards of compressible material inserted at pipe joints and carried through the full depth of the concrete. Haunching shall be provided where indicated on the drawings.

CLASS B BEDDING

This material shall consist of pea shingle and shall be laid up to the mid height of the pipe for the full width of the trench.

BACK FILLING OF TRENCHES

PIPE SURROUND

All pipes shall be surrounded with material as indicated on the drawing or in the schedule of works to a level of 300mm above the crown of the pipe. Compaction shall be carried out by hand to ensure damage does not occur to the pipe.

REMAINDER OF BACK FILL

The remainder of the trench shall be back filled with a specified or approved material.
The back fill shall be carried out in layers not exceeding 150mm and each layer shall be thoroughly compacted with mechanical rammers. Trench supports shall be removed as the work proceeds and the Contractor shall take every precaution to ensure that the sides of the trench are thoroughly compacted as the supports are removed.

BACK FILLING OF MANHOLE EXCAVATIONS

All voids remaining after the building of the manhole shall be back filled with a specified or approved material.

The compaction of the back fill and the withdrawal of shoring shall be carried out as described for back filling trenches.

TESTING DRAINS AND MANHOLES

Testing shall be agreed with the Contract Administrator and Local Authority before commencement of the works. Tests shall be carried out on a completed length of drain after back filling of the trench in accordance with one of the following methods:

WATER TEST

The lower end of the length of drain under test shall be closed by a properly fitted plug, and a temporary vertical standpipe 1.2 metres high of the same diameter as the run under test shall be connected to the upper end by a 90 degree bend.

The head of water on any test shall not exceed 6m above the crown of the pipe at the low end of the run. If necessary,y the run shall be tested in stages so that a 6m test head is not exceeded.

The standpipe shall be filled to a head of 1.2 metres and after allowing for an initial fall of level through absorption and displacement of air, an inspection shall be made for leaks. After on hour, the standpipe shall be topped up to 1.2 metres at 10 minute intervals over the next thirty minutes and the amount of water added each time shall be note. The test shall be considered satisfactory if the level has not dropped by more than the figures shown in Table 1 BS8000 Part 14 Table 2.

AIR TEST

All branches and openings shall be closed with expanding disc stoppers or air bags. The length of pipe under test shall then be subjected to an internal air pressure equivalent to 100mm head of water. The pressure shall be measured by a manometer.

After the required pressure has been reached pumping shall cease and the test shall be regarded as satisfactory if the loss of pressure does not exceed the equivalent of 25mm head of water after five minutes.

FAILURE OF TEST

If the test results are not satisfactory, the Contractor shall, at his own expense, trace the source of leakage and repair the drain or carry out such remedial works as may be considered necessary by the Contract Administrator.

BEDDING OF GULLIES

Gullies shall be bedded on and surrounded with 150mm minimum thickness of Grade 20 concrete.

MANHOLES

All manholes shall be constructed either of semi-engineering brickwork or precast concrete rings bedded in 1:3 cement/sand mortar. Covers shall be as indicated on the drawings or in the schedule of works.

Benching shall be constructed using Grade 20 concrete finished with 25mm of 1:3 cement/sand rendering built up vertically to the level of the top of the incoming pipe and then sloped back at an angle of 1:12.

Brickwork manholes shall be corbelled as indicated on the drawings or as necessary to support the cover.

Precast concrete manholes shall have wall sections with mortared joints in 1:3 cement/sand mix. Where indicated the manhole rings shall be surrounded with 150mm Grade 20 concrete. Joints in the concrete surround shall not coincide with the joints in the wall sections.

In all manholes deeper than 1m step irons shall be provided at 300mm centres and staggered with the first iron set 450mm below cover level.

COMPLETION OF THE WORKS

At the completion of the Works, the Contractor shall flush out all drain runs to ensure that all debris is removed.

TOLERANCES
Pipelines shall be laid within the following tolerances provided that:
a) No pipe shall be laid to a back fall
b) Any allowable tolerance in line or level does not result in a step in the pipe invert or line
Tolerances in level of invert at Manholes+ or - 15mm
Tolerance in gradient of pipe run+ or - 5% of the specified gradient
Tolerance in line on plan+ or - 25mm over a length of 12.5 metres

RECORDS

The Contractor shall supply as built drawings showing positions and depths of all drainage.

THE WORKS

Item	Description	Cost (£)
1.0.0	**GENERAL & ENABLING WORKS**	
1.0.1	Allow and include the Contingency sum of £15,000 for any unforeseen works to be expended on the instruction of the CA.	
1.0.2	Frame up and form temporary plywood screen across rear of the existing café as shown on the drawings to provide a secure, safe and weather-proof barrier between the site of the rear extension and the café. Screen to be positioned across the full width of the existing café from the right hand door jamb to the existing cupboard adjacent to the bar to the wall on the opposite side. The screen is to be full height from floor to ceiling and consist of 50x100mm softwood timber studs at 600mm centres complete with sole & head plates, noggins etc. Line inside face of studwork with 12mm plywood screwed to studs and to the external face with 18mm external grade OSB Board nailed to studs. Paint plywood to café side of screen with two coats emulsion paint. Colour to be agreed with CA/Employer. On completion of the extension works allow for removing screen and disposing off site. Make good all surfaces where disturbed. Allow for neatly cutting back existing vinyl flooring in existing café from existing rear wall to the line of the temporary partition. Remove debris from site.	
1.0.3	Whilst the enlarged opening is formed between the main front entrance hallway and the front toilets, frame up and form a full height temporary studwork partition faced with plywood on the reception side and incorporating a plywood door fitted with a padlock (to prevent unauthorised entry into the existing toilet area during out of work hours). The temporary screen is to be positioned to cause minimal restriction of the entrance hallway (note the limited width of the main entrance hallway which will be in constant use by staff and users of the centre at all times during the course	

Item	Description	Cost (£)
	of the works) but to allow the works in enlarging the opening to be carried out. Prior to erecting screen exact position to be agreed with Employer & CA. Once the opening has been enlarged allow for the temporary screen and door to be altered/adapted and re-positioned within the new opening to enable the works to the reconfigured toilets to be carried out. On completion of the toilet works allow for removing screen and disposing off site. Make good all surfaces where disturbed.	
1.0.4	To the existing opening (which will be exposed to the elements when the existing rear lean-to storeroom is demolished to construct new rear extension) temporarily block up opening with a secure plywood and OSB board faced stud partition as previously described in 1.0.2. On completion of the extension works allow for removing screen and disposing off site. Make good all surfaces where disturbed and leave ready for installation of new door later specified.	
1.0.5	Before isolating and stripping out existing water supply pipework to the toilets the contractor is to allow for all costs in investigating water supplies, routes etc. to ensure that supplies are maintained to all other sanitary fittings, boilers, sinks etc elsewhere in the building. The Contractor is to allow for all necessary temporary supplies, connections, diversions etc so as to maintain water supplies elsewhere in the building.	
1.0.6	Allow and include a Provisional Sum of £3,000 for the Employers security alarm contractors to disconnect, remove, relocate and reinstate detectors etc. as necessary to enable the works to be carried out and to reinstate detectors etc. in the various areas on completion of the works. Allow and include a sum for Contractors overheads and profit. Including liaising with alarm contractors. The existing alarm system is to remain in operation at all	

Item	Description	Cost (£)
	times during the course of the works.	
1.0.7	Allow and include a Provisional Sum of £2,000 for the Employers fire alarm contractors to disconnect, remove/ relocate the existing fire alarm call points, detectors, sounders etc. and all associated wiring as necessary to enable the works to be carried out. Allow and include a sum for Contractors overheads and profit. Including liaising with alarm contractors. The existing alarm system in the building is to remain in operation at all times during the course of the works.	
1.0.8	Allow and include for all builders work in connection with the security and fire alarm systems.	
1.0.9	Due to the age of the building it is suspected that some of the older layers of paint to the timber windows and doors could contain lead which is a hazard to health. Prior to stripping and sanding timber windows and doors as specified the Contractor is to allow for taking samples of paint to each window and door specified to be painted and having them tested at an approved laboratory. The Contractor is to provide to the CA evidence/certification of testing.	
1.0.10	On completion of the works allow for a thorough clean of the work areas including removing all labels, cleaning windows and external doors internally and externally.	
2.0.0	**ALTERATION WORKS/RECONFIGURATION WOKS TO GROUND FLOOR FRONT TOILETS**	
2.0.1	Remove existing door and frame between office to be incorporated into the reconfigured toilets and the main Council Offices and dispose off site. Prepare opening and block up with 100mm thick dense concrete blockwork laid in 1:1:6 mortar. Tie blockwork into jambs of opening with ‘L’ shaped galvanised metal cramps screw fixed to jambs at each course.	

Item	Description	Cost (£)
	Make good surfaces where disturbed to match existing. Plaster both sides of new blockwork with two coat plaster finishing level and smooth with adjoining plaster. Leave ready for plaster skim coat and decoration later specified. Provide and fix to Main Council office side of blockwork new timber skirting board to match existing and leave ready for decoration later specified. Allow for all temporary dust sheets, floor protection, polythene screens etc. as necessary to enable works to be carried out as the main Council office will be in use during the works.	
2.0.2	Remove existing door and frame to cupboard in office and dispose off site. Prop walling above door opening and remove section of plastered masonry walling and lintol and dispose of debris from site. Cut out and remove plastered masonry nib to right hand side of cupboard door and dispose of debris from site. At ceiling level provide and build in 2 no. new 150 x 100mm reinforced concrete lintols with minimum 150mm end bearing to support first floor walling above. On completion of the installation of the lintols remove all temporary props and make good surfaces disturbed. Make good existing plaster around opening where disturbed leaving level and smooth with existing plaster and leave ready for decoration specified elsewhere. Include for priming surfaces with PVA as necessary etc. Plaster concrete lintols with two coat plaster and leave ready for decoration specified elsewhere. Include for all angle beads, priming surfaces with PVA as necessary etc. Make good plastered ceiling where disturbed and leave ready for plaster skim coat and decoration specified elsewhere. Make good section of existing floor to match existing and leave ready for new floor finishes later specified.	

Item	Description	Cost (£)
2.0.3	Allow and include for removing all pelmets, blinds, shelves, skirting boards etc. in office and dispose off site. Make good surfaces where disturbed to match existing.	
2.0.4	Before any works are carried out to the existing opening from main entrance hallway into toilets allow for investigation works by the Structural Engineers. The Contractor is to allow for opening up section of the existing ceiling, floors and walls as required by the Structural Engineer and making good on completion of the investigation works.	
2.0.5	The Contractor is to allow for the following work in forming an enlarged opening between the main entrance hallway and toilets. The exact works to be agreed on site once the Structural Engineers have carried out their investigation works. Needle and prop existing walling above the existing opening and the adjacent walling to enable opening to be enlarged to width as shown on drawings. Carefully demolish by hand existing sections of walling either side of existing opening and dispose off site, including for removing the existing lintol/beam over the existing opening. Make good jambs in engineering brickwork laid in 1:3 mortar and leave ready for plastering. For tendering purposes only, provisionally allow for providing and installing over enlarged opening 203 x 203 x 46 steel beam over opening with minimum 225mm end bearing on 215 x 225 x 150mm concrete padstones. Exact size of beam and padstones to be agreed on site by the Structural Engineer. Height of underside of beam to be agreed on site. On completion of the installation of the beam remove all temporary needles and props and make good surfaces disturbed. Provide and fix timber framing to steel beam and encase in two layers of 12.5mm plasterboard with staggered joints and plaster skim finish. Include for all angle beads etc. Plaster new brickwork jambs with 2 coat plaster with	

Item	Description	Cost (£)
	plaster skim finish. Leave new plaster level and smooth with adjoining existing plaster. Include for all angle beads, priming surfaces with PVA as necessary etc. Make good existing plaster around opening where disturbed leaving level and smooth with existing plaster. Include for priming surfaces with PVA as necessary etc. Around new jambs and adjacent walling provide and fix new wrot softwood skirting boards to match existing and leave ready for painting as specified elsewhere.	
2.0.6	Isolate mains water services supplying these areas, make safe and strip out all hot and cold-water pipework and dispose of off site. Make good surfaces where disturbed to match existing.	
2.0.7	Dismantle doors and frames to disabled toilet, ladies' toilets and two doors connecting office area, dispose off-site.	
2.0.8	Dismantle and remove internal partitions between cubicles in ladies' toilets, including cubicle doors, and dispose off-site. Make good surfaces where disturbed to match existing.	
2.0.9	Disconnect and make safe all existing wastes and waste pipework connected to sinks and toilets and dispose off-site. Make good surfaces where disturbed to match existing.	
2.0.10	Disconnect, make safe and carefully remove existing high level electric hot water heater in the existing accessible toilet. Set aside and protect heater ready for re-fixing later specified. Remove all electrics and water pipework and dispose off site. Make good surfaces where disturbed to match existing.	
2.0.11	The 2 no existing warm air hand driers are on contract hire from BioDrier, Unit 3, Woodlands Business Park, Burlescombe, Devon, EX16 7LL. Freephone: 0800	

Item	Description	Cost (£)
	3285708. The Contractor is to allow for all cost for BioDrier to disconnect and remove the driers and re-installing at a later date.	
2.0.12	Disconnect, make safe and carefully remove toilet roll holders, dispensers, mirrors and other utilities to wall surfaces. Check with CA/Employer if any of the items are to be retained before disposing off site. Make good surfaces where disturbed to match existing.	
2.0.13	Strip out all existing wiring to lights, switches, hand driers, hot water heaters, sockets etc. in existing toilets and adjoining office (to be incorporated into reconfigured toilets) and dispose off site. Allow for removing all conduit, trunking etc. Make good surfaces where disturbed to match existing.	
2.0.14	Disconnect, make safe and remove existing glass mounted window fan in Ladies toilets. Remove all existing wiring and dispose of fan and wiring off site. Take out pane of glass and replace with new pane of obscure glass to match existing.	
2.0.15	Remove all sinks, basins and toilets including all cisterns and dispose off site. Make good surfaces where disturbed to match existing.	
2.0.16	Remove all ceramic tiling from wall surfaces. Allow for removing all areas of skim coat plaster coated with tile adhesive and making good plaster where it comes away when the tiles are removed. Leave walls ready for re-plastering with a skim coat specified elsewhere. Allow for disposing of all tiles and associated debris from site.	
2.0.17	Drain down existing radiators in toilets and adjoining office, disconnect and cap off existing pipework in location to be	

Item	Description	Cost (£)
	agreed with CA. Remove existing radiators including all brackets, valves, pipework etc. and dispose off site. Make good surfaces where disturbed to match existing.	
2.0.18	Take up all existing vinyl floor coverings, including all skirtings to existing toilets and carpet to office and dispose off site. Remove all adhesive from floor surfaces and leave ready for reconfiguration works and new floor finishes later specified.	
2.0.19	Take down existing false ceiling over existing toilet lobby area and dispose off site. Include for removing all timberwork and making good surfaces where disturbed.	
2.0.20	Demolish internal walling as shown on drawings and dispose of all debris off site. Leave ready for construction of new internal partitions for disabled, ladies' and male toilets. Note the existing wall between the existing office and the existing Ladies Toilets is built of brickwork up to half height and timber studwork above. Make good existing plaster walls where disturbed leaving level and smooth with existing plaster and leave ready for plaster skim coat and decoration specified elsewhere. Make good plastered ceilings where disturbed and leave ready for plaster skim coat and decoration specified elsewhere. Make good section of existing floor to match existing and leave ready for new floor finishes later specified.	
2.0.21	Frame up and form new timber studwork partitions to form new male, female and accessible toilets as shown on drawings. Form stud partitions in 100 x 50mm sawn softwood studs at 400mm centres. Include for timber sole plate with DPC	

Item	Description	Cost (£)
	under, head plate, noggins, forming door openings, and high level door opening to storage area above false ceiling over lobby as specified below. etc. Provide and fix to both sides of studwork 12.5mm plasterboard with plaster skim finish and leave ready for decoration specified elsewhere. All stud partitioning to be taken up to full height of area, including beyond new false ceiling/storage area over lobby as specified below.	
2.0.22	Over lobby area to new toilets frame up and form new false ceiling/storage area. Height of ceiling to be approximately 2200mm (exact height to be agreed on site with CA). Within cupboard is to be fitted an electric hot water heater later specified. Form ceiling in 50 x 100mm C16 treated sawn softwood joists at 400mm centres with 18mm chipboard on top of joists and 12.5mm plasterboard and skim on underside. Joists to be supported on joist hangers off 50 x 100mm C16 timber wall plates resin bolted to existing masonry walls at 500mm centres and off new stud partitions. Frame up and form new door opening into high level storage area above urinals in Male Toilets. Provide and install new softwood door linings complete with door stops. Provide and hang on pair 75mm steel but hinges a pair of plywood faced flush doors with rebated closing edge (Approximate size 600mm wide x 1100mm high – exact size to be determined on site) and fitted with a cupboard lock supplied with two keys. Leave ready for decoration.	
2.0.23	To all existing plastered walls, partitions and ceilings to former toilets and office coat with PVA primer in accordance with manufacturers recommendations and skim with two coats multi finish skim plaster. Leave ready for decorating later specified.	
2.0.24	Provide and fix to new door openings 130 x 32mm wrot softwood door linings complete with door stops.	

Item	Description	Cost (£)
	To new door linings provide and fix 839mm wide plywood faced flush solid core doors on 1 ½ pairs of 100mm stainless steel butt hinges to Ladies and Gents toilets. Leave ready for decorating.	
2.0.25	To new door lining to accessible toilet provide and fix plywood faced flush solid core door on 1 ½ pairs of 100mm stainless steel butt hinges to give a minimum 900mm clear opening between door stops. Leave ready for decorating.	
2.0.26	Supply and install white coloured Venesta Award or similar approved toilet cubicle partitions and doors to form new cubicles as shown on drawings. Include for all infill panels, fittings, ironmongery etc. Allow and include for a screw fixed removable panel to service void adjacent to cubicles in Ladies Toilets as shown on drawing. Panel to be formed in similar material to the toilet cubicles. Include for all timber framing as necessary.	
2.0.27	Supply and install 5 no. Armitage Shanks Sandringham 21 Close Coupled Horizontal Outlet WC Pans and cisterns.	
2.0.28	Supply and install 6no. Armitage Shanks Sandringham 21 Full Pedestal Basin, one tap hole, 550mm, complete with Armitage Shanks Sandringham 21 Basin Mixer Bathroom Tap with waste outlet.	
2.0.29	Supply and install 2 no. Armitage Shanks S610301 Wall-Mounted Urinal Bowls White 275 x 350 x 360mm complete with high level Vitreous china Regal cistern (size to suit 2 urinals), wall hangers, stainless steel flush pipe set, back inlet water spreaders waste outlets and wall mounted Armitage Shanks OP-43261 - Vitreous China Urinal Division with Hanger.	
2.0.30	Provide and install in the Accessible toilet Armitage shanks Doc M Contour 21 Right Hand Pack comprising • Raised height WC pan, 75cm projection • Seat, no cover, top fixing hinges and retaining buffers • Water saving cistern with spatula lever • Hand rinse washbasin, 37cm	

Item	Description	Cost (£)
	• TMV3 WRAS approved thermostatic mixer tap with copper tails • Grab rail straight, 60cm long x 4 • Grab rail straight, 45cm long to back of door • Hinged support rail, 80cm long with toilet roll holder. For tendering purposes allow for stainless steel rails and grey WC seat. Exact colours to be agreed with Employer when colour scheme of walls and floor is known. • All sanitary fittings, including grab rails, must contrast visually with background wall and floor colours. • Wall finishes and floor coverings must contrast with each other in terms of colour and texture.	
2.0.32	Install existing electric hot water heater at high level in storage cupboard above false ceiling in lobby. Exact position to be agreed on site with Employer & CA. Leave ready for new water and electric connections and form forming cupboard (later specified) around heater.	
2.0.33	Allow and include for altering/adapting and extending hot and cold-water pipework and connecting to new WC's, wash hand basins, urinals and hot water heater Include for all pipework, pipe brackets, isolation valves etc.	
2.0.34	Allow and include for providing and installing all solvent welded plastic waste pipework to WC's, basins and urinals and connecting to drains, soil pipes, gullies as shown on drawings. Include for all bottle traps, pipes, pipe brackets, stub stacks complete with air relief valves, connections to drains etc.	
2.0.35	In the Accessible toilet provide and install an emergency assistance alarm system to comply with Document M of the Building Regulations comprising visual and audible indicators to confirm that an emergency call has been received, a reset button reachable from a wheelchair and the WC, a signal that is distinguishable visually and audibly from the fire alarm, alarm pull cord with two bangles one at 100mm, the other at 800mm to 1000mm above floor level.	

Item	Description	Cost (£)
2.0.36	From where existing central heating pipework has been cut off to remove existing radiators alter/adapt and extend in new pipework to new radiator positions shown on drawings. Include for all pipework, pipe brackets etc. Provide and install new Stellrad or similar approved LST (low surface temperature) steel radiators (Contractor to size LST radiators to suit condition and size of rooms) The surface temperature should not exceed 43°C, when the heating system is operating at the maximum design output. Provide and install all mounting brackets, valves etc.	
2.0.37	Alter and adapt existing lighting circuits as necessary and provide and install new 1500mm fluorescent strip light complete with diffusers as shown on drawings. Lights to be switched as shown on drawings. Allow and include for all wiring, white plastic light switches etc.	
2.0.38	Alter, adapt and extend new wiring as necessary to re-positioned 3 No. electric hot water heaters. Include for all necessary conduit, fused spur switches etc. and leave ready for installation and connection of hand driers by contract hire company.	
2.0.39	Provide and install 3 No. Vent Axia Traditional T Series or similar approved wall mounted mechanical extract fans in positions shown on drawings. Contractor to determine exact size of fan required for each toilet. Size and performance of fan to be in accordance with the requirements of the Building Regulations. Fans to be controlled by automatic air quality sensors. Allow and include for all grilles, core drilling holes through walls, ductwork/telescopic liners, electrical wiring & connections etc.	
2.0.40	Allow and include for all builders work in connection with the plumbing, heating, electrical and ventilation	

Item	Description	Cost (£)
	installations.	
2.0.41	Prepare existing floor surfaces, provide and lay Ardex UK Ltd, Arditex 'NA' 3mm thick levelling screed. Over screed provide and lay new 2mm thick Altro Wood effect Safety sheet vinyl flooring laid in accordance with manufacturers written instructions. Colour to be agreed with CA/Employer. Allow and include for PVC Welded joints, Solvent free flooring adhesive, jointing/threshold strips to doorway etc. Allow to form 100mm self-coved skirtings in accordance with the manufacturers written instructions to all walls. Include form forming all internal and external mitre PVC welded joints, cove formers and sealant. Altro Limited. Works Road, Letchworth Garden City, Hertfordshire. SG6 1NW. Telephone 01462 480480	
2.0.42	In accessible toilet provide and install 1No. 500 x 450mm wall mounted mirror. Allow and include for all mirror fixings.	
2.0.43	In toilets provide and install 3No. 500 x 400mm wall mounted mirrors in positions to be agreed with CA/Employer. Allow and include for all mirror fixings.	
2.0.44	Allow and include the PC Sum of £150 for the supply and delivery of toilet roll holders, soap dispensers etc. Include for taking delivery, protecting and storing items, disposing of packaging. Include Contractors overheads and profit.	
2.0.45	Allow and include for installing the following items:- 4 No. wall mounted soap dispensers 5 No. toilet roll holders	
2.0.46	Above wash hand basins provide and install 150 x 150mm standard white ceramic wall tiles, two courses high and full width of basins. Include for all adhesive, white coloured waterproof grout and white silicone sealant between basin	

Item	Description	Cost (£)
	and tiles.	
2.0.47	To door to the accessible toilet provide and fix combined mortice latch and accessible Bathroom stainless steel Turn & Release set, pair 19 mm stainless steel round safety lever handles, 150mm stainless steel kick plate, 150mm brushed stainless steel disabled persons symbol sign.	
2.0.48	To doors to male and female toilets provide and fix Briton or similar approved overhead door closers (type to suit size and weight of doors), 150mm brushed stainless steel male and female symbol signs, 300 x 75mm brushed stainless steel push plates, brushed 150 mm stainless steel kick plates to both sides of door, on inside of doors 225mm stainless steel D pull handles and stainless steel floor mounted cylinder door stops.	
2.0.49	To newly plastered walls, partitions and ceilings paint one mist coat and two full coats emulsion paint. (Colours to be agreed with CA & Employer.	
2.0.50	To existing metal framed windows to former office and existing toilets, strip back existing paint to bare metal with an approved chemical paint stripper. Prepare and paint metal windows with approved metal primer, replace all cracked, missing and defective glazing putties, paint with approved metal primer and two full coats white gloss paint. Include for easing all hinges and casement catches/handles and removing existing paint from edges of glass to a neat line. Clean down prepare and paint existing painted timber sub frames and window boards one undercoat and one full gloss coat.	
2.0.51	To new woodwork clean down, prepare, knot, prime, stop and paint two undercoats and one full gloss coat.	
2.0.52	To existing painted woodwork, clean down, prepare and paint one undercoat and one full gloss coat.	
3.0.0	**CAFETERIA EXTENSION**	
3.0.1	Disconnect, make safe and carefully remove existing external flood light and set aside on site for re-fixing later	

Item	Description	Cost (£)
	specified.	
3.0.2	Disconnect, make safe and remove all lights, switches, sockets and other electrical fittings electrical fittings in existing gent's toilets, lobby, stores and corridor to be demolished and dispose off site.	
3.0.3	Disconnect, make safe and remove all sanitary ware, heating and plumbing items, including all water pipework, waste pipework, soil and vent pipes etc. in the existing gent's toilets and dispose off site. Include for isolating all water and drainage connections.	
3.0.4	The existing warm air hand drier is on contract hire from BioDrier, Unit 3, Woodlands Business Park, Burlescombe, Devon, EX16 7LL. Freephone: 0800 3285708. The Contractor is to allow for all cost for BioDrier to disconnect and remove the drier and re-installing at a later date.	
3.0.5	Disconnect, make safe and remove toilet roll holders, dispensers, mirrors and other utilities to wall surfaces. Check with CA/Employer if any of the items are to be retained before disposing off site.	
3.0.6	Carefully remove existing fire extinguisher complete with bracket and protect and set aside on site for re-fixing in new extension later specified.	
3.0.7	Once all services are disconnected, made safe and removed completely demolish the existing Gents toilets and lobby down to floor slab level. Including all roofs, walls, partitions, windows, doors, rainwater goods, lead flashings etc. Remove all demolition material from site. Make good existing walls remaining where disturbed to match existing. Note care to be taken when demolishing the lean to roof as not to damage the existing 110mm diameter horizontal waste pipe from the WC's in the first floor Ladies Toilets	

Item	Description	Cost (£)
	which run along the wall through the lean to roof space before it connects into the existing vertical soil & vent pipe.	
3.0.8	The first floor cleaners cupboard above the lobby to the Gents Toilets is also to be demolished. See specification item 4.0.0 below.	
3.0.9	Once all services are disconnected, made safe and removed completely demolish the existing corridor down to floor slab level. Including all roofs, walls, partitions, windows, doors, rainwater goods etc. Remove all demolition material from site. Make good existing walls remaining where disturbed to match existing.	
3.0.10	Hack off all plaster finishes and paint finishes to existing walls being retained to the men's toilets, storerooms and corridor and leave ready for re-plastering later specified. Remove all debris from site.	
3.0.11	Break out existing concrete floors to Gents toilets, lobby and corridor. Including all steps and walling between floor levels and 150mm below ground levels. Remove debris from site.	
3.0.12	Needle and prop existing rear walling to café to enable whole of ground floor wall to be demolished. Note the existing floor to the café is a suspended timber floor. Allow for taking up sections of existing floor as necessary to enable adequate support off sub-floor/ground. Contractor to provide all necessary temporary propping/shoring/boarding to existing first floor window and opening to reduce the risk of movement and damage to the window during the formation of the new opening and installation of the new beams. Note the window is a single glazed timber framed leaded light window. The leaded lights are fragile. Remove temporary propping/shoring/boarding on completion of the works and make good surfaces disturbed.	

Item	Description	Cost (£)
	Contractor to provide detailed method statements on the type and method of needling and propping the walling for checking by the Structural Engineer. Note the total load for prop design is 65 KN/m unfactored. Take out existing large window, fire exit door, side lights and door to Gents Toilets and dispose off site. Demolish existing solid brickwork walling down to approximately 800mm below existing floor level as shown on Structural Engineers drawing 18234/004. The Structural Engineer assumes the wall is 450mm thick. Contractor to check thickness and report to Engineers and CA if found otherwise. Remove all debris from site. Allow and include for making good existing surfaces to match existing. On completion of insertion of new steel beams and posts, later specified, allow and include for removing all temporary needles and props and making good walls, ceilings and floors to match existing.	
3.0.13	Break up and excavate existing tarmac and concrete courtyard including existing ramp, steps and dispose of all debris from site. Include for breaking out existing inspection chamber, drainage channel and gullies including grubbing up drains etc. Backfill excavations with compacted excavated fill. Remove all debris from site.	
3.0.14	Over whole area of new extension excavate as necessary to reduced levels, provide and lay 75mm well compacted hardcore, 1200 gauge polythene DPM and 75mm of concrete, leaving a minimum of 225mm void between top of concrete and underside of concrete floor beams later specified.	
3.0.15	Excavate and breakout existing brick footings/concrete	

Item	Description	Cost (£)
	foundations (assume for estimating purposes 600x 225 concrete strip foundations with bottom of foundations 750mm below ground levels) as necessary to existing walls of demolished buildings to enable new foundations as shown on Structural Engineers drawings to be built). Remove all debris and excavated material from site.	
3.0.16	Extend foundation trenches where existing foundations broken out to 1000mm deep below ground level and excavate new 500mm wide x 1000mm deep foundation trenches where existing foundations have not had to be broken out. The ground is assumed to be firm clay. Allow and include for all earth work support, protection to trenches, barriers, keeping excavations free of surface and ground water etc. Excavations are not to be exposed overnight to rain. Where excavations are exposed overnight to rain the contractor at his own expense is to clean the excavations of excess soil and water and blind base of excavations with 50mm of mass concrete. Level and ram bottom of excavations. Remove all debris from site.	
3.0.17	Allow and include the Provisional Sum of £300 for excavating and making good soft spots as required by the Structural Engineer or Building Control Surveyor.	
3.0.18	Provide and cast new FND3 grade mass concrete trench fill foundations to sleeper walls as shown on Structural Engineers drawings.	
3.0.19	Provide and cast new RC 25/30 grade concrete trench fill foundation as shown on Structural Engineers drawings to foundation to rear glazed wall to extension. Cast into top of concrete reinforcing bars as shown on Structural Engineers drawings and bending & bar weight schedules.	

Item	Description	Cost (£)
	Fabricate reinforcing cage as shown on Structural Engineers drawings and bending & bar weight schedules to concrete ground beam on-line of demolished rear wall to existing café. Provide and cast new RC 25/30 grade concrete to foundation. Include for mass concrete infill to existing footings (as shown on Structural Engineers drawings), timber formwork etc.	
3.0.20	Build up sleeper walls off the new concrete foundations in three courses of 100mm engineering brick as shown on Structural Engineers drawings in M6 grade mortar (1:3 Masonry cement: sand or 1:$^1/_2$:4 Portland Cement:lime:sand) Incorporate 3no. 215 x 65mm terracotta air bricks into mid height of each wall and provide and lay a Hyload or similar DPC to top of each wall.	
3.0.21	Build up walling in Engineering brickwork laid in M6 grade mortar (1:3 Masonry cement: sand or 1:$^1/_2$:4 Portland Cement:lime:sand) off new ground beam to support end of new beam and block floor and end of existing timber joists to existing café floor as shown on Structural Engineers drawings. Allow for incorporating 3No. 215 x 65mm terracotta air bricks into walls to provide cross ventilation into void beneath existing timber floor to café. Exact detail to be agreed on site with CA. Provide and lay Hyload or similar DPC to top of each wall and vertically between the two walls.	
3.0.22	Build up walling beneath new external glazed wall as shown on drawings in 100mm dense concrete blockwork inner leaf (minimum compressive strength 7.3 N/mm^2) cavity and 100mm brickwork to match existing brickwork laid in M6 grade mortar (1:3 Masonry cement:sand or 1:1/2:4 Portland Cement:lime:sand). Include for all wall ties, lean mix cavity fill etc. To top of each leaf provide and bed Hyload DPC.	

Item	Description	Cost (£)
	Provide and install 3no air vents below DPC level ducted through walling with telescopic vents to ventilate underfloor void.	
3.0.23	Provide and install Milbank Concrete Products Limited T155 Beam & Block floor to new extension in single alternate configuration. Milbank Concrete Products Ltd Earls Colne Business Park, Earls Colne, Colchester, Essex, CO6 2NS. United Kingdom Tel: 01787 223931 Between beams provide and lay 440 x 100mm dense concrete blocks (Max density 1450Kg/m^3) brush over with a 4:1 dry mix of sharp sand and cement to fill the gaps, consolidating both the beams and blocks into a solid structure.	
3.0.24	To new opening formed in existing rear wall of café, fabricate and install new 200 x 100 x 5 Rolled Hollow Sections (RHS) (S355) double columns complete with 420 x 230 x 12mm thick mild steel base plates welded to columns with 6mm fillet welds and holes formed for holding down bolts. Columns to be set out a minimum of 100mm off face of existing walls. Allow and include for installing M16 resin anchor bolts with 200mm embedment into reinforced concrete foundations as shown on Structural Engineers drawings. Base plates to be bedded on 20mm thick high strength grout. Provide and install temporary formwork around base plates and encase columns up to floor level in concrete. Remove formwork on completion. To top of columns, weld 210 x 190 x 12mm thick mild steel cap plate with 6mm fillet welds and holes for fixing bolts.	

Item	Description	Cost (£)
	All steelwork to be in accordance with the Structural Engineers notes on drawing 18234/001, include for steelwork to be factory primed with two pack zinc phosphate epoxy primer with DFT of 80 microns.	
3.0.25	To new columns specified above provide and install 2no. 300 x 200 x 10 (S355) RHS beams bolted to cap plates with 2no HB12-1 hollow bolts per beam as shown on the Structural Engineers drawing 1823/006. Dry pack between tops of beams and underside of existing first floor walling with 1:3 cement:sand. To either side of ends of beams provide and fix mild steel clamp plates with through bolts as shown on the Structural Engineers drawing 1823/006. All steelwork to be in accordance with the Structural Engineers notes on drawing 18234/001, include for steelwork to be factory primed with two pack zinc phosphate epoxy primer with DFT of 80 microns.	
3.0.26	Fabricate and install new 152 x 152 x 23 universal steel columns and 25 x 102 x 22 universal cranked steel beams to rear glazed wall as shown on Structural Engineers drawings. Include for all steel cap plates, end plates, separation plates, welds, bolts etc. as shown on Structural Engineers details 4-4, 5-5 & 6-6 on drawing 18234/006. Include for 300 x 225 x 12mm thick mild steel base plates welded to columns with 6mm fillet welds and holes formed for holding down bolts. Allow and include for installing M16 resin anchor bolts with 200mm embedment into reinforced concrete foundations as shown on Structural Engineers drawings. Base plates to be bedded on 20mm thick high strength grout. All steelwork to be in accordance with the Structural Engineers notes on drawing 18234/001, include for steelwork to be factory primed with two pack zinc phosphate epoxy primer with DFT of 80 microns.	

Item	Description	Cost (£)
3.0.27	Carefully cut out existing brickwork walling at ridge level to the new extension for the casting of a new concrete padstone and installation of new steel ridge beam. Remove all debris from site. Frame up and form temporary shuttering and cast new concrete padstone 440 x 100 x 215mm concrete padstone. Allow for removal of shuttering on completion. On completion of the installation of the new ridge beam allow for making good the existing brickwork around beam and padstone and leave ready for plastering.	
3.0.28	Fabricate and install new 254 x 146 x 43 universal steel ridge beam as shown on Structural Engineers drawings. Include for all end plates, welds, bolts etc. as shown on Structural Engineers detail 5-5 on drawing 18234/006. Allow for building end of ridge beam onto new concrete padstone in existing brick walling. All steelwork to be in accordance with the Structural Engineers notes on drawing 18234/001, include for steelwork to be factory primed with two pack zinc phosphate epoxy primer with DFT of 80 microns.	
3.0.29	Fabricate and install new 254 x 146 x 43 universal steel gutter beams as shown on Structural Engineers drawings. Include for all end plates, welds, bolts etc. as shown on Structural Engineers detail sections 4-4 & 9-9 on drawing 18234/006. All steelwork to be in accordance with the Structural Engineers notes on drawing 18234/001, include for steelwork to be factory primed with two pack zinc phosphate epoxy primer with DFT of 80 microns.	
3.0.30	Form rear walling as shown on drawings in 100mm dense concrete block outer leaf laid in 1:1:6 cement:lime:sand mortar, 100mm cavity and 100mm Thermalite Turbo or similar approved insulation block laid in 1:1:6 cement:lime:sand mortar.	

Item	Description	Cost (£)
	Include for providing and installing 5mm Kingspan Kooltherm K108 board insulation in cavity complete with all plastic wall tie fixings/clips etc. Include for providing and installing 225mm Ancon or similar approved stainless steel wall ties in accordance with workmanship and materials section of the specification. Provide and install Furfix or similar approved wall starters to existing walls in accordance with manufacturer's instructions including mastic sealant between new walling and existing. Allow and include for Ancon No Drill or similar approved masonry to steel restraint fixings to tie the insulation block inner leaf of walling to steel columns at 225mm centres. To prevent cold bridging across steelwork provide and fix 25mm thick Kingspan Kooltherm K108 cavity board insulation to face of steelwork web extending minimum 50mm	
3.0.31	To external face of new blockwork walling prepare and apply two coats sand/cement render (overall thickness not less than 20mm) and leave ready for decoration. Include for all stainless-steel angle beads, stop beads etc.	
3.0.32	To top of ridge beam and gutter beams provide and bolt 47 x 150 treated sawn C16 softwood headers with G4.6 UNO bolts at 900mm centres as shown on Structural Engineers drawings. Provide and install 48 x 48 x 4 mm square steel washer plates beneath nut to all bolts. Include for drilling bolt holes in beam flange.	
3.0.33	Frame up and form new roof with 47 x 200mm treated sawn C24 softwood rafters and 47 x 100mm treated sawn C16 softwood ceiling joists at 400mm centres as shown on Structural Engineers drawings. Include for 32 x 170mm approx treated sawn softwood ridge board, forming opening for roof lights and doubling up rafters either side of rooflights (later specified), trimmers, noggins, blocking to perimeter of all boards, notching	

Item	Description	Cost (£)
	timbers over steels, blocking between web of steel ridge beam etc. To underside of rafters and ceiling joists provide and fix 12mm plywood sheathing board nailed at 150mm centres.	
3.0.34	Frame up and form timber structure/ladder frame to gutters in 47 x 250mm treated sawn C16 softwood as shown on Structure Engineers drawings. Include for cutting blocking to suit web of steel beams, all M12 coach screws at 500 centres, drilling holes through web of steel beams, resin bolting ladder frame to existing walling at 500mm centres. Provide and install 48 x 48 x 4 mm square steel washer plates beneath nut to all resin bolts. All resin anchors to be installed into brickwork and not mortar joints. Prior to installing wall plates rake out brickwork mortar joints to a minimum 25mm deep for full lengths of walls (8 no. joints) and repoint in cement mortar to give a sound wall line to 2no. courses above and below wall plate.	
3.0.35	Provide and install 125mm thick Kooltherm K7 insulation board between rafters as shown on drawings in accordance with manufacturers written instructions. To underside of sarking boarding to underside of rafters provide and fix 32.5mm Kooltherm K118 insulated plasterboard in accordance with manufacturers written instructions. Include for extending insulated plasterboard around beam boxing and for filling void to ladder frame with 125mm Kooltherm K7 insulation board.	
3.0.36	To roof provide and lay over rafters Tyvek or similar approved breathable fabric membrane in accordance with the requirements of the manufacturers written instructions. Over membrane provide and fix 38 x 25mm treated sawn softwood counter battens and 50 x 25mm slate battens. To battens provide and fix new 500 x 300mm Welsh slates to BS EN 123261 (colour to match main roof)	

Item	Description	Cost (£)
	with minimum 125mm head lap fixed with copper nails in accordance with the requirements of BS 5534 and BS 8000 Part 6 Include for double course at eaves, slate and a half at the verges etc.	
3.0.37	Provide and mechanically fix clay angle ridge tiles to new roof. Tiles to match those on main roof.	
3.0.38	Carefully remove a section of projecting pier at gutter level to left hand wall to enable new gutter and ladder framing to be installed. Corbel out brickwork above gutter and make good walling below to match existing. Remove all debris from site.	
3.0.39	At abutment of new roof slates and existing walling provide and install code 3 lead soakers. Rake out mortar joints to existing walling a minimum depth of 25mm and provide and install code 4 stepped lead flashings dressed over upstands to lead soakers. Fix flashings into brickwork joints minimum 25mm and fixed with lead wedges and pointed in mortar. Include for extending leadwork to form an apron flashing above gutters.	
3.0.40	Provide and install 4 no. new double-glazed central pivot Velux roof lights (ref: GGL PK08) with extra low energy glazing and white painted internal finish to new roof. Allow and include for flashing units.	
3.0.41	Provide and install new 25mm external grade plywood barge boards to verge of new roof. Allow and include for all timber framing, fixings and soffits above façade glazing etc. Leave ready for decoration.	

Item	Description	Cost (£)
	Provide and install new GRP gutters as shown on drawings. Include for timber angle fillets, WPB ply base boards and dressing into new rainwater hopper heads. etc. Fall of gutter 1 in 60. Rake out mortar joints to existing walling a minimum depth of 25mm and provide and install code 4 lead flashings dressed over upstands to GRP gutter. Fix flashings into brickwork joints minimum 25mm and fixed with lead wedges and pointed in mortar.	
3.0.42	Provide and install uPVC rainwater hopper heads and downpipes to new GRP gutters and connect to new drainage connections. Include for all bends, brackets, fixing to walls etc.	
4.0.43	Allow and include the PC Sum of £5,500 for the manufacture, supply and installation of the aluminium framed façade glazing and doors to the rear of the café as shown on the drawings by a specialist contractor. The Contractor is to allow a lead in period of 8 weeks from date of confirmation of measurements for the manufacture and delivery of the façade glazing and doors. Allow and include for 2 ½ % main Contractors Discount. The Contractor is to allow for all general attendance on the specialist including welfare facilities, electricity supplies, removal of rubbish, temporary protection etc. The Contractor is to allow for all costs in liaising with specialist installers prior to and during installation, including liaising regarding measuring up prior to manufacture, programming delivery etc. It is assumed that the frames and glazing will be delivered and un-loaded from the road at the front of the property. The Contractor is to provide for all assistance in off-loading the aluminium frames and façade glazing and for transporting/man-handling the frames and glazing to the rear of the building. Note: The presence of a speed bump in the access driveway.	

Item	Description	Cost (£)
	The Contractor is to provide clear working areas and access such as scaffold or mobile towers to enable the works to be carried out in a safe and secure manner. The specialist supplier and installer has not included for provision of mock-ups, prototypes etc. Depending on the lead in/delivery times/programming of the works the Contractor shall, at his own discretion, allow for all costs in framing up temporary frame formers of the exact size of the façade glazing. The Contractor is to allow for all costs with regard site hose testing the glazing on completion of installation in accordance with the specialist supplier and installer's recommendations. The Contractor is to allow for all temporary weather proofing/covering of the facade openings whilst the facade glazing and doors are being manufactured to enable works to continue internally.	
3.0.44	To plasterboard to ceilings and around boxing apply scrim tape to all joints and apply 3mm plaster skim coat and leave ready for decoration.	
3.0.45	To the steel beams and columns to the new opening between the existing café and the new extension provide and fix 12mm thick Promat Supalux fire resistant boarding to provide 60 minutes fire resistance. Boarding to be fixed in accordance with manufacturer's instructions. Boarding to sides of beams to be taken up to underside of ceilings.	
3.0.46	To all existing and new walls, piers etc. to new extension clean down prepare and dot & dab fix 12.5mm square edged plasterboard with plasterboard adhesive. Scrim tape all plasterboard joints, prepare and plaster plasterboard with 3mm multi-finish plaster skim coat. Leave ready for decoration specified elsewhere. Allow and include for all angle beads etc.	
3.0.47	To beam and block floor (specified elsewhere) provide and lay 1200 gauge polythene DPM lapped to DPC in wall and all joints lapped and taped, 90mm Kingspan Kooltherm	

Item	Description	Cost (£)
	K103 insulation board, 500 gauge polythene separation layer with all joints lapped and taped and 65mm 1:3 cement:sand screed laid level with existing café floor. All as shown on detailed drawing. Allow and include for 25mm thick Kingspan Kooltherm insulation board to form upstand to perimeter walls. Leave ready for new floor finishes later specified.	
3.0.48	To the existing opening between corridor (being demolished) and the rear hallway partially build up one side of the opening in 75 x 50 mm sawn softwood framing with 12.5mm plasterboard and plaster skim both sides. To reduced size opening provide and fix 32mm thick wrot softwood door lining complete with door stopes to suit 838mm wide door and height of existing opening of 2005mm To both sides of door lining provide and fix 50mm wide wrot softwood splayed architraves and a cover strip/quadrant mould to head of lining. To lining hang plywood faced FD60 fire door complete with intumescent strips and smoke seal on 1 ½ pairs steel butt hinges suitable to maintain 60 minutes fire resistance. Provide and fix to door Briton or similar approved overhead door closer to suit weight of door, a mortice latch, a pair SAA lever handles and PVC screw fixed FIRE DOOR KEEP SHUT circular signs. Leave door, studwork etc. ready for painting later specified.	
3.0.49	Alter and extend existing café radiator heating system and provide and install new Stellrad or similar approved radiators in positions shown on drawings. Heating contractor design size of radiators to suit size of new extension. Include for all wall brackets, pipework, valves etc. Allow for insulation all pipework below floor level and where pipework is exposed for preformed plastic pipe coverings or painting with metal undercoat and finishing	

Item	Description	Cost (£)
	coat of radiator paint.	
3.0.50	Allow and include the PC Sum of £1,000 for the supply and delivery of lights and ceiling fan. Include for taking delivery, protecting and storing items, disposing of packaging. Include Contractors overheads and profit.	
3.0.51	Alter and extend existing café lighting circuits and install new ceiling lights and central fan as shown on drawing 10275/T/04. Include for all wiring, white plastic MK or similar approved switches etc.	
3.0.52	Alter and extend the existing electrical circuits and install new white plastic double socket outlets as shown on drawing 10275/T/04. Include for all wiring, back boxes, connection to existing circuits etc.	
3.0.53	Install existing flood light, previously set aside, in position shown on drawing. Include for all wiring and white plastic MK or similar approved switch etc.	
3.0.54	Above new rear doors provide and hang a 3-hour maintained Razor or similar approved LED fire exit hanging sign from ceiling complete with suspension wire system. Approximate size 300 x 160mm, Razor Ref E/RZ/M3/LED/H with running man and arrow down depiction on sign. Reference E/PIC/RZ/AD Connect sign to electrical circuits in accordance with manufacturer's instructions.	
3.0.55	Alter and adapt existing fire alarm system and install new break glass fire alarm call point to the left hand side of the new fire exit door. Include far all necessary wiring and connections to existing system.	

Item	Description	Cost (£)
3.0.56	Re-hang existing fire extinguisher (previously removed and set aside) on existing bracket, adjacent to new fire exit doors.	
3.0.57	Provide and fix rigid plastic FIRE ACTION sign adjacent to fire alarm call point by new fire exit doors.	
3.0.58	Prepare new external render walls and paint two coats Sandtex or similar approved smooth masonry paint.	
3.0.59	To walls of extension, provide and fix new softwood moulded skirting boards (size and type to match existing café). Leave ready for painting.	
3.0.60	Clean down prepare and paint new plastered ceilings, walls, boxing to beams etc. one mist coat and two full coats emulsion (colour to be agreed with Employer/CA).	
3.0.61	Clean down, prepare, knot, prime, stop and paint all new internal and external woodwork two undercoats and one full gloss coat.	
3.0.62	Clean down, prepare and paint existing radiators and associated pipework in existing café area and paint one coat approved metal undercoat and one coat metal gloss finishing coat.	
3.0.63	To new beam and block floor and section of existing café floor up to the line of the temporary screen provide and lay Ardex UK Ltd, Arditex 'NA' 3mm thick levelling screed. Over screed provide and lay new 2mm thick Altro Wood effect Safety sheet vinyl flooring laid in accordance with manufacturers written instructions. Colour to be agreed with CA/Employer. Allow and include for PVC Welded joints, Solvent free flooring adhesive, jointing/threshold strips to doorways and junction with existing vinyl floor covering to existing cafe, sealant to edges of vinyl at junctions with new skirting boards. etc. Altro Limited, Works Road, Letchworth Garden City,	

Item	Description	Cost (£)
	Hertfordshire. SG6 1NW. Telephone 01462 480480.	
4.0.0	**DEMOLITION OF FIRST FLOOR CLEANERS CUPBOARD & ALTERATIONS**	
4.0.1	Investigate and trace all hot & cold water, waste pipework etc. in the first floor cleaners cupboard, drain down, make safe, disconnect and remove all pipework. Dispose of all debris from site.	
4.0.2	Remove sink in the first floor cleaners cupboard and dispose off site.	
4.0.3	Investigate and trace all waste electrical connections in the first floor cleaners cupboard, make safe, disconnect and remove all electrical fittings and wiring.	
4.0.4	Carefully remove existing door, frame and architraves and dispose off site. Hack off existing plaster to existing door reveals & head. Carefully cut back existing vinyl flooring to existing first floor corridor as necessary and remove existing screed/concrete through door opening. Make good surfaces where disturbed.	
4.0.5	Carefully demolish the existing first floor cleaner's cupboard including all walls, floor, window and flat roof. Salvage and clean off undamaged bricks as necessary to enable the making good of the existing walling and partial building up of the existing door opening (later specified). Include for removing all rainwater goods, flashings etc. Allow for making good areas where disturbed, including cutting out brickwork where existing walling to store adjoins the retained main walling and tooth and bonding in brickwork salvaged from the demolition of the store walls. Brickwork bond to be maintained. Made good brickwork to be bedded and pointed in lime based mortar to match existing mortar in type, texture and colour.	

Item	Description	Cost (£)
	Remove all debris from site.	
4.0.6	Hack off all plaster finishes and paint finishes to existing wall which is to become part of the external wall. Including removing all skirting boards as necessary. Clean down brickwork to remove all traces of plaster & paint using brushes, water and approved chemical cleaner. Type of cleaner to avoid damaging brickwork. Rake out brickwork joints to a minimum depth of 25mm and repoint with lime based mortar to match existing mortar in type, texture and colour. Remove all debris from site.	
4.0.7	Partially build up existing door opening in brickwork facing (salvaged from the demolition of the store) with a concrete block backing off existing walling (for tendering purposes assume size to be built up 800 mm wide x 800 mmm high). New walling to be the full thickness of the existing walling. The brickwork to be toothed and bonded into existing brickwork, laid in a Flemish bond pattern to match existing walling and bedded and pointed in a lime based mortar to match existing mortar in type, texture and colour. Concrete block walling to be mechanically tied into existing walling with metal angle ties. Leave blockwork walling to be plastered later specified.	
4.0.8	Provide and install new purpose made double glazed timber framed small pane fan light window (for tendering purposes approximate size 800mm wide x 1200 mm high) to match the existing windows to the adjacent Ladies Toilets. Include for all glazing bars, sealed double glazed units, ironmongery, 25mm thick internal bull nosed softwood window board etc. Leave ready for painting later specified.	
4.0.9	Plaster new walling and existing reveals in bonding coat with finishing coat plaster leaving level and smooth with	

Item	Description	Cost (£)
	existing plastered surfaces. Leave ready for decorating.	
4.0.10	To width of built up door opening provide and fix new softwood moulded skirting board to match existing. Scarf new skirting into existing. Make good existing skirting board where disturbed. Leave ready for painting. Make good existing vinyl flooring.	
4.0.11	Clean down, prepare, knot, prime, stop and paint new window (internally & externally), window board and skirting board two undercoats and one full gloss coat.	
4.0.12	To existing section of skirting board to left of former door opening up to projecting pier clean down, prepare and paint one undercoat and one full gloss coat.	
4.0.13	To newly plastered section of wall and reveals paint one mist coat and two full coats emulsion (type and colour to match existing walls). To existing section of painted plaster wall above new window and to left of new window opening up to projecting pier and also to the 4no. lengths of vertical pipework clean down, prepare and paint one full coat emulsion (type and colour to match existing walls/pipes).	
4.0.14	Clean down, prepare, knot, prime, stop and paint new doors, frame and plywood boarding three coats approved wood stain.	
4.0.15	Clean down, prepare existing rendered walls and underside of concrete floor/stairs within new store and paint two coats Sandtex or other approved masonry paint.	
4.0.16	Alter/extend existing electrics and install two new external type bulkhead lights switched from a new light switch adjacent to new doors. Allow and include for all builders work in connection with the new lighting.	

Item	Description	Cost (£)
5.0.0	**DRAINAGE**	
5.0.1	Prior to commencing works the contractor is to allow for all costs for a specialist drainage company to carryout a CCTV inspection of the whole of the underground drainage system and provide the CA with a marked up drawing of the drainage runs including size of pipes, the invert depths of all inspection chambers/manholes etc. a drainage report and a video of the drains. The contractor is to allow for freeing and lifting all inspection chamber covers and access points. The contractor is to note that it appears that some of the drains run beneath the building. There is an internal inspection chamber in store off the ground floor reception area.	
5.0.2	Break out and remove existing inspection chambers, gullies and drains as shown on drawings in rear courtyard area where new café extension is to be built. Dispose of all debris from site.	
5.0.3	On the line of existing drain at rear of building break up tarmac surface, excavate and expose existing drain (invert of existing drain is approximately 460mm). Remove all debris from site. Allow for keeping excavations free from ground and surface water. Break out existing drain (assume to be a 100mm diameter salt glazed clay drain) excavate as necessary and provide and install a new 450mm diameter proprietary PVC chamber bedded and encased in concrete in accordance with manufacturer's instructions. Include for cast iron circular cover Class B125 for medium duty and connecting to existing drain. Backfill around chamber with compacted granular material as necessary. Making good existing tarmac surface to match existing specified elsewhere.	

Item	Description	Cost (£)
5.0.4	To right hand corner of new café extension break up existing surface and excavate trench for new rainwater and foul drains as shown on drawings. Remove all debris from site. Allow for keeping excavations free from ground and surface water. Provide and install new 110mm diameter uPVC drains bedded and surrounded in pea gravel and back filled over with granular material in accordance with manufacturer's instructions. Include for rest bends, connections to new inspection chamber etc. and leave ready for connection of soil pipe and rainwater pipe specified elsewhere. Making good existing tarmac surface to match existing specified elsewhere.	
5.0.5	To left hand corner of new café extension break up existing surface and excavate trench for new rainwater drain for rainwater pipes as shown on drawings. Remove all debris from site. Allow for keeping excavations free from ground and surface water. Provide and install new 110mm diameter uPVC drains bedded and surrounded in pea gravel and back filled over with granular material in accordance with manufacturer's instructions. Include for rest bends, connections to existing inspection chamber etc. and leave ready for connection of rainwater pipe specified elsewhere. Making good existing inspection chamber and tarmac surface to match existing specified elsewhere.	
5.0.6	Cut out and break up floor in existing accessible toilet and excavate as necessary to expose existing drain from existing stub stack. Alter and adapt existing drain as necessary and connect new swept rest bend to drain to allow a new stub stack to be formed in new position shown on drawings. Remove all excavate material and debris from site	

Item	Description	Cost (£)
	including existing stub stack. Bed and backfill over drain and rest bend with GEN 1 concrete up to 50mm below existing floor level. Coat concrete with two coats liquid applied bitumen damp proof compound and lay new 1:3 cement:sand screed leaving level with existing floor. Leave ready for connection of wastes, stub stacks specified elsewhere.	
5.0.7	Cut out and break up channels in existing concrete floors in new male toilet area for new drains as shown in blue on drawing. Excavate as necessary and dispose of all excavated material from site. Bed and backfill over drains with GEN 1 concrete up to 50mm below existing floor level. Coat concrete with two coats liquid applied bitumen damp proof compound and lay new 1:3 cement:sand screed leaving level with existing floor. Allow and include for breaking through existing external walls and building in 140 x 100mm concrete lintols with minimum 150mm end bearing over the drains. Include for all rest bends etc and leave ready for connection of wastes, stub stacks specified elsewhere.	
5.0.8	Break up existing tarmac surface and excavate trenches from new foul drains under floor to new inspection chamber as shown on drawings. For estimating purposes assume trenches to be 750mmm deep below existing floor level. Remove all debris from site. Allow for keeping excavations free from ground and surface water. Provide and install new 110mm diameter uPVC drain bedded and surrounded in GEN 1 concrete in accordance with manufacturer's instructions. Allow for connecting drains to new inspection chamber later specified.	

Item	Description	Cost (£)
	In position shown on drawings break up tarmac surface, excavate as necessary for new inspection chamber. Level and ram bottom of excavation. Remove all debris from site. Allow for keeping excavations free from ground and surface water. Provide and install a new 450mm diameter x approximate 500mm deep proprietary PVC chamber bedded and encased in GEN 1 concrete in accordance with manufacturer's instructions. Include for cast iron circular cover and frame for heavy duty vehicular use. Backfill with compacted granular material as necessary. Make good existing tarmac surface to match existing	
5.0.9	From new inspection chamber to existing manhole break up existing tarmac and excavate as necessary new drainage trench (for estimating purposes assume average depth 600mm). Excavate down the external face of the existing brick built manhole (Invert of existing manhole approximately 1500mm) for new back drop drain and connection into existing drain. Remove all debris from site. Allow for keeping excavations free from ground and surface water. Provide and install new 110mm diameter uPVC drain from new inspection chamber to back drop into existing manhole, bedded and surrounded in GEN 1 grade concrete in accordance with manufacturer's instructions. To outside face of existing manhole provide and install 110mm diameter uPVC vertical back drop drain from ground level to top of existing drain. Provide and fix to top of pipe at ground level a rodding point with screw down	

Item	Description	Cost (£)
	metal access plate suitable for use in vehicular drives. Provide and install 'Y' connection to connect new drain to vertical pipe. Break out existing drain as necessary (assume existing is a salt glazed drain) and connect/install new 'Y' connection from new back drop drain into existing drain. Surround new back drop drain in GEN 1 concrete and back fill excavation with compacted hardcore. Making good existing tarmac surface to match existing specified elsewhere.	
5.0.10	Allow and include for water testing all new drains and inspection chambers on completion of drainage installation.	
6.0.0	**MAIN ENTRANCE, RECEPTION LOBBY, READING AREA & EXISTING CAFE**	
6.0.1	Take up existing floor covering to Main Entrance Area, reading area and buggy park (up to line of café) and dispose off site. Remove all existing adhesive and prepare existing concrete surface and provide and lay Ardex UK Ltd, Arditex 'NA' 3mm thick levelling screed. Over screed provide and lay new 2mm thick Altro Wood effect Safety sheet vinyl flooring laid in accordance with manufacturers written instructions. Colour to be agreed with CA/Employer. Allow and include for PVC Welded joints, Solvent free flooring adhesive, jointing/threshold strips to doorways and junction with existing floor coverings to be retained, sealant to edges of vinyl at junctions with existing skirting boards. etc. Altro Limited. Works Road, Letchworth Garden City, Hertfordshire. SG6 1NW. Telephone 01462 480480.	
6.0.2	Allow to investigate the damp penetration above front entrance door. It appears to be due to water tracking along	

Item	Description	Cost (£)
	the electrical cable. Allow for disconnecting, re-locating and re-connecting cable to location agreed with CA and for repairing and making good existing front entrance door frame where existing cable passed through. Include for all new wiring as necessary.	
6.0.3	Disconnect, make safe, remove and set aside existing lights on site for reuse. Carefully take down the cracked, defective and water damaged lath and plaster ceiling to the main entrance hallway between the main entrance doors and the opening into the front toilets. Remove all timber laths and de-nail joists. Remove all debris from site. Prior to installing new ceiling, allow for CA to check condition of existing joists. Provide and fix to underside of existing joists 2 no. layers 12.5mm plasterboard with staggered joints and 3mm plaster skim finish. Re-fix existing lights previously set aside for re-use. The contractor is to allow for carrying out the above work during out of normal working hours/weekends. The exact timing of the works to be agreed with Employer as the area of work is the main entrance into the Community Centre and is in constant use. Leave ready for redecoration of ceiling later specified.	
6.0.4	Allow and include the provisional sum of £500 to replace/repair any decay affected joists over the main entrance hallway.	
6.0.5	To existing walls of café which are painted purple above the picture rail and green below clean down, prepare and apply two coats obliteration coats of white emulsion paint and two full coats of emulsion (colour to be agreed).	
6.0.6	To all existing walls in main entrance lobby, reception area and buggy parking/reading area clean down and prepare	

Item	Description	Cost (£)
	walls and paint two full coats vinyl silk emulsion (Colour to be agreed).	
6.0.7	To all existing plastered ceilings in Main Entrance, Lobby and existing café clean down, prepare and paint two full coats vinyl silk white emulsion. To new plastered ceiling in main entrance paint one mist coat and two full coats vinyl silk white emulsion. Include for painting all down-stand beams, trunking, conduit etc. Allow and include for stain blocking any stained plaster around the recently installed lantern light over the buggy parking/reading area and above main entrance door.	
6.0.8	Allow and include the Provisional Sum of £250 for plaster repairs to ceilings, especially around lantern light.	
6.0.9	Clean down, prepare and paint all existing painted woodwork with two undercoats and one full gloss coat. Include for all skirting boards, picture rails, doors, door frames and linings, architraves, mouldings, archways and all other woodwork	
6.0.10	Existing varnished/stained bar/café counter is NOT to be re-varnished/stained.	
7.0.0	**ROOM 1**	
7.0.1	Take up existing vinyl tile floor covering to whole of room and dispose off site. Carefully break out existing painted cement mortar fillet skirting and other skirting boards. Make good existing walling to receive new coved skirtings later specified. Remove all existing adhesive and prepare existing concrete surface and provide and lay Ardex UK Ltd, Arditex 'NA' 3mm thick levelling screed. Over screed provide and lay new 2mm thick Altro Wood effect Safety sheet vinyl flooring laid in accordance with manufacturers written instructions. Colour to be agreed with CA/Employer.	

Item	Description	Cost (£)
	Allow and include for PVC Welded joints, Solvent free flooring adhesive, jointing/threshold strips to doorways and junction with existing floor coverings etc. Allow to form 100mm self-coved skirtings in accordance with the manufacturers written instructions to all walls, piers, projections etc. Include form forming all internal and external mitre PVC welded joints, cove formers and sealant. Altro Limited. Works Road, Letchworth Garden City, Hertfordshire. SG6 1NW. Telephone 01462 480480.	
7.0.2	Allow for making good/touching in decorations where disturbed in the installation of the new floor coverings to match existing.	
8.0.0	**NEW STORAGE AREA**	
8.0.1	Investigate and trace all pipework, electrics etc. in the store under the stairs at the end of the passageway/fire escape route adjacent to the main hall, make safe, disconnect and remove all fixtures & fittings, pipework and electrics etc. Dispose of all debris from site. Make good surfaces which are to be retained to match existing.	
8.0.2	Remove existing window and door and demolish whole of existing brickwork walling infill. Dispose of debris from site. Make good existing wall, floor and soffit surfaces where disturbed.	
8.0.3	In position shown on drawings frame up and form new treated softwood door frame the full width of the passageway and 2100 mm high. Provide and hang to new frame 2 No. solid core plywood	

Item	Description	Cost (£)
	faced external doors on steel butt hinges. Provide and fix to one doors leaf 150mm door bolts with keeps set into concrete floor and door head and to the other leaf 5 lever security mortice lock with three keys. Frame up and form treated sawn softwood framing above door frame up to underside of concrete floor/underside of concrete stairs above. Provide and fix to both side of framework 12mm plywood.	
8.0.4	To existing six pane window to main hall, which is to be enclosed by the enlarged store, clean down glazing, prepare and apply obscure film to glass. (Approximate overall size of window 1700mm wide x 2065mm high)	
8.0.5	Clean down, prepare, knot, prime, stop and paint new woodwork two undercoats and one full gloss coat.	
8.0.6	Clean down, prepare and paint all walls and soffits two full coats Sandtex or similar approved masonry paint.	
9.0.0	**BASEMENT**	
9.0.1	Remove existing Acrow props supporting existing corroded steel beams and hand back to Employer. Provide and install necessary needles and props to enable existing corroded steel beams to be removed. Cut out complete beams and remove from site. Make good surfaces where disturbed. Provide and build in new reinforced concrete beams etc as shown on Structural Engineers drawings (exact information to be sent under separate cover when received from Engineers). Include for all necessary formwork, propping etc. Remove existing needles and props and make good surfaces where disturbed.	
9.0.2	Provide and install all propping of existing floor as necessary to install new steel beam adjacent to basement stairs. Cut out existing structure as necessary to enable new steel	

Item	Description	Cost (£)
	beam to be installed. Provide and build in new steel beam etc as shown on Structural Engineers drawings (exact information to be sent under separate cover when received from Engineers). Include for all necessary propping etc. Remove existing props and make good surfaces where disturbed.	
9.0.3	Provide and fix to beam treated sawn softwood blocking and framing. To blocking and framing provide and fix 12mm thick Promat Supalux fire resistant boarding to provide 60 minutes fire resistance. Boarding to be fixed in accordance with manufacturer's instructions.	
10.0.0	**EXTERNAL REPAIRS & REDECORATION**	
10.0.1	Externally to the existing timber framed large curved headed first floor east window above the new café extension, protect the existing leaded light glazing, strip all paint back to bare timber using scrapers and an approved chemical stripper, sand back, rake out and replace all damaged and missing glazing putties, cut back over puttying and over painting to create the best consistent line, rake out joints and fill with wood filler, face fill with wood filler and sand of indented timber, repair moulding detail lines, prime all timber and paint two undercoats and two full coat Weathershield finishing coat (colour to match existing). Allow for sealing around edge of window between frame and brickwork in white coloured flexible external grade acrylic sealant. The Contractor is to allow for all masks, gloves, protective equipment/clothing etc.	
10.0.2	To all rear and side (West & South) elevation timber window and door frames strip all paint back to bare timber using scrapers and an approved chemical stripper, sand back, rake out and replace all damaged and missing glazing putties, cut back over puttying and over painting to create the best consistent line, rake out joints and fill with wood filler, face fill with wood filler and sand of indented timber, repair moulding detail lines, prime all timber and	

Item	Description	Cost (£)
	paint two undercoats and two full coat Weathershield finishing coat (colours to match existing). Allow for sealing around edge of windows and doors, between frames and brickwork in coloured flexible external grade acrylic sealant colour to match as near as possible the colour of the frames. The Contractor is to allow for all masks, gloves, protective equipment/clothing, access platforms/scaffolding etc. to enable the works to be carried out.	
10.0.3	Cut out cement mortar infill to 2No. holes in brickwork on south elevation where old flue pipes have previously been removed. Size of hole not exceeding 225mm diameter. Carefully cut out damaged bricks as necessary and infill walling with yellow stock bricks salvaged from demolition of rear toilets. Bed and point in mortar to match existing. Remove all debris from site.	
10.0.4	Rake out defective mortar joints to south elevation brickwork walling to a minimum depth of 25mm and repoint with a sand lime mortar of a mix to match the original mortar. Remove all debris from site. The Contractor will have to use a mobile tower scaffold or a cherry picker to carry out the re-pointing works above 2 metres in height. Scaffolding cannot be erected along the south elevation as this will block the narrow access drive. For estimating purposes allow for re-pointing 60 m^2 of brickwork in isolated areas. Exact areas of brickwork to be agreed with CA on site.	
10.0.5	To curved headed timber framed window to staircase on south elevation carefully remove the 4 panes of glass to the central section of window and set aside on site for re-use. Carefully cut out the 3 defective timber glazing bars and replace with new rebated bars to match existing in size and detail. Re-glaze window using existing glass previously set aside, include for all sprigs, putties etc.	

Item	Description	Cost (£)
	Allow and include for a specialist leaded light restoration contractor to carefully remove 1 no. small pane of cracked glass and replace with glass to match existing in size, texture, colour etc. To whole of window externally strip all paint back to bare timber using scrapers and an approved chemical stripper, sand back, rake out and replace all damaged and missing glazing putties, cut back over puttying and over painting to create the best consistent line, rake out joints and fill with wood filler, face fill with wood filler and sand of indented timber, repair moulding detail lines, prime all timber and paint two undercoats and two full coat Weathershield finishing coat (colour to match existing). Allow for sealing around edge of window between frame and brickwork in white coloured flexible external grade acrylic sealant. The Contractor is to allow for all masks, gloves, protective equipment/clothing, access platforms/tower scaffolding etc. to enable the works to be carried out.	
10.0.6	Lead cover flashing missing over the curved head to the door case to the fire exit on the south elevation. Rake out existing mortar joints as necessary to a minimum depth of 25mm, prepare existing brickwork walling above cornice, prepare cornice. Provide and fix code 5 lead covering to top of curved headed cornice dressed up wall minimum 150mm and dressed down and welted over front edge. Allow for joining sections of lead with 150mm laps. Provide and install code 4 lead stepped cover flashing over upstand. Flashings chased into brickwork joints minimum 25mm and fixed with lead wedges and pointed in mortar. Allow as necessary for removing pieces of old lead in joints where old flashings have been previously removed. Rake out and re-point mortar joints to 4 courses of brickwork above flashings in mortar to match existing	
10.0.7	To left hand west gable elevation (To the left of the new café extension) rake out existing mortar joints to existing brickwork to a minimum depth of 25mm, prepare existing brickwork walling and repoint with a sand lime mortar of a	

Item	Description	Cost (£)
	mix to match the original mortar. The chimney and top section of brickwork has recently been re-pointed when the roof works were carried out to this section of the building. Approximate area of chimney and walling previously re-pointed 33m^2. The contractor is to allow for re-pointing the remainder of the wall down to ground level.	
10.0.8	Provide all necessary access platforms, cherry picker etc to enable existing gutters, downpipes and fascia boards to be removed and replaced. Take down existing cast iron gutters and downpipes as shown on drawing 10275/T/05 and dispose off site. Include for removing all brackets and other fittings. For tender purposes allow for taking down all the existing timber fascia boards and soffits and replacing with new treated timber fascia boards and soffits to match existing. Prior to removing fascia boards and soffits allow for CA to inspect and agree if all boards and soffits need to be removed or if just isolated repairs are needed. Allow and include a Provisional sum of £250 for repairs to feet of existing rafters and other timber works as agreed on site with CA. To fascia boards provide and fix new black coloured 100mm half round uPVC gutters. Include for all brackets, clips, fixings, angles, running outlets, hopper heads, stop ends, branches etc. To gutters provide and fix new 63mm uPVC black coloured downpipes complete with brackets, shoes, bends etc. Include for connections to new drains and existing gullies and to new gutters. Allow for water testing gutters and downpipes on completion of installation.	
10.0.9	At present the rainwater downpipes from the left hand (as facing from rear) main roof and the adjoining roof over meeting room above the café discharge onto the cleaner's cupboard roof which is being demolished. To main roof gutter remove existing downpipe and gutter outlet. Reinstate plastic gutter where outlet removed to	

Item	Description	Cost (£)
	match existing. Remove end and section of gutter at left hand corner; provide and install new plastic gutter outlet complete with stop end. To outlet provide and install new plastic rainwater downpipe and connect to drain. Allow for connecting hopper head from box gutter to new café extension into new rainwater downpipe. To the adjoining roof over meeting room above the café provide and install new plastic hopper head and rainwater downpipe to discharge into new box gutter to café roof. Include for all bracket's rainwater shoe etc. Allow for water testing gutters and downpipes on completion of installation.	
11.0.0	**EXTERNAL AREAS**	
11.0.1	Break up existing tarmac in area of new ramp, excavate to reduced levels and remove debris/excavated material from site. Excavate foundation trenches as shown on drawings for new walls to ramp, level and ram bottom of excavations and remove excavated material from site. Cast new foundations as shown on drawings in FND3 grade mass concrete. Off new concrete foundations build up new 215mm thick yellow stock brick walls in Flemish bond pattern (walls are NOT to be built in two skins of stretcher bond) in 1:3 cement:sand mortar. Finish top of wall with Engineering brick on edge capping. Allow for cutting bricks on the angle as necessary. Back fill slopes and landings of ramp with hardcore compacted in 100mm thick layers to gradients shown on drawings. Form slopes and landings in 100mm thick PAV1 concrete to gradients shown on drawings. Surface of concrete to be tamped. Provide and install air brick and uPVC ducting to under floor air vents as shown on drawings.	

Item	Description	Cost (£)
	Provide and fix to top of brick walls new 1100mm high stainless steel tubular railing system as shown on drawings. Include for all stainless steel wire balustrading, fixing brackets etc. Contractor is to allow for taking all necessary site dimensions prior to ordering railings.	
11.0.2	Allow for making good existing tarmac surfaces where disturbed around new ramp, rear walling to café extension and new drainage/inspection chamber to match existing. The Contractor is also to allow for cutting out and making good areas of tarmac damaged due to the execution of the works, storage of materials, works vehicles etc.	
11.0.3	Allow and include the provisional sum of £200 for repairs to areas of tarmac and external paving damaged/defective prior to the works being carried out.	
11.0.4	Take out existing acoustic fence panel as shown on drawings and dispose off site. Leave opening ready for new gates later specified.	
11.0.5	Provide and install new treated timber posts and a pair of new purpose made acoustic gates to match existing fence/gates complete with hinges, bolts, hasp & staple etc. Suggested suppliers or other similar approved:- Jacksons Fencing Stowting Common Ashford Kent TN25 6BN Tel 01233 750393 Web : www.jacksons-fencing.co.uk Email : info@jacksons-fencing.co.uk	
11.0.6	Allow and include for making good areas of tarmac where disturbed during the installation of the new gates.	
12.0.0	**LIGHTNING CONDUCTOR**	
12.0.1	A lightning conductor system has been partially installed. The Contractor is to allow for a specialist lightning	

Item	Description	Cost (£)
	conductor specialist to alter/adapt and extend the existing conductors and install new as necessary. Remove existing conductors attached to buildings/ structures to be demolished. The drawing 10275/T/05 show the location of the existing conductors.	
12.0.2	Allow and include for breaking up surfaces and excavate to form new earthing pits as shown on drawings. Remove all debris from site. Provide and install new pit boxes complete with earthing rods. Allow for connecting conductors to earthing rods.	
12.0.3	On completion of installation allow to test system and provide all necessary certification.	
12.0.4	Allow and include for making good areas of tarmac where disturbed during the installation of the new pits.	
12.0.5	Allow and include for all builders work in connection with the installation of the lightning conductors and pits. Including providing all necessary high level access equipment such as scaffold towers, hoists, cherry picker etc. and all other general attendance on the specialist contractor.	

	To Summary **£**	

SUMMARY	
Preliminaries	**£**
Workmanship and Materials	**£**
The Works	**£**
Tender Sum	**£**
VAT 20%	**£**
Grand Total	**£**

DAYWORK RATES

LABOUR

The Contractor is to state his day work rate for all the classes of Labour to be employed on the site. The rates are to include for all overheads, on costs, travelling time, transport and travel costs, disbursements, site supervision, non-productive overtime (where worked) and all costs of employing labour.

	Per hour £ p
BRICKLAYER	
CARPENTER	
PAINTER/DECORATOR	
ROOFER	
GLAZIER	
PLASTERER	
ELECTRICIAN	
PLUMBER/HEATING ENGINEER	
GROUND WORKER	
STEEL WORKER	
LABOURER	

MATERIALS

Charged at invoice price plus % £……..

PLANT

Charged as plant hire invoice plus % £……..

TRANSPORT

Contractors transport including fuel, oil, licenses etc.

and driver £…….. per hour