HARRISON BROOKES ARCHITECTS

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HOP POLE INN, LIMPLEY STOKE, WILTSHIRE, BA2 7FS

PHASE 1 WORKS – EXTERNAL ENVELOPE

FEBRUARY 2023 V1

CONTENTS

SECTION ONE

1.1 PARTIES AND CONTACTS

1.1.1 Employer

The employer (customer as stated in the contract) will be;
Limpley Stoke Community Benefit Society, 37 Lower Stoke, Limpley Stoke, Wiltshire, BA2 7FR
Contact with the employers will be made via the Employers representative or Architect.

1.1.2 Employers representative

The employer's site representative for the duration of the works will be;
Mr James Sibson
Email: jamessibson@hotmail.com Tel: 07968 873244

1.1.3 Conservation Architect and contract administrator

The Conservation Architect and contract administrator for the works shall be;
Mr Rhys Brookes, Harrison Brookes Architects, 54 Berkley Road, Frome, Somerset BA11 2EE.
Email: Rhys@harrisonbrookes.co.uk Tel: 01373 303453 Mob: 07766 943600

1.1.4 Design Architect

The design Architect responsible for the interior reordering and extensions (note not covered in this document) shall be;
Craig Underdown; DAVID BRAIN PARTNERSHIP, Ralph Allen's Town House, 2 Church Street, Bath, BA1 1NL
Email: Craig@dbpbath.co.uk Tel: 01225 445055 Mob: 07891 554899

1.1.5 Structural Engineer

The Structural Engineer for the works if required shall be;
Mr Peter Blankley, Mann Williams, 7 Old King St, Queen Square, Bath BA1 2JW
Email: PEB@mannwilliams.co.uk Tel: 01225 464419

1.1.6 M&E consultants

The consultants responsible for all building services and building physics shall be:
Greengauge Buildings Energy Consultants, Suite 3 Second Floor, The Old Brewery, Newtown, Bradford-on-Avon BA15 1NF
Email: gerad@ggbec.co.uk Tel: 01225 862605

1.1.7 CDM 2015

The Principal Designer shall be
Mr John Wrightson, of WRL, Ashley House, Silver Street, Wrington, Bristol, BS40 5QE
Email: John@w-p-l.co.uk Tel 01934 861159 Mob: 07775 725026
Mr Rhys Brookes, Harrison Brookes Architects, 54 Berkley Road, Frome, Somerset BA11 2EE.
Email: Rhys@harrisonbrookes.co.uk Tel: 01373 303453 Mob: 07766 94360

1.1.8 The Health and Safety Consultant

The employer's health and Safety Consultant shall be:
Mr John Wrightson, of WRL, Ashley House, Silver Street, Wrington, Bristol, BS40 5QE
Email: John@w-p-l.co.uk Tel 01934 861159 Mob: 07775 725026

1.1.9 Ecologist

Mr Matthew Johns; Green Tree House, 11 Margaret's street, Bradford-on-Avon, Wiltshire, BA15 1NF
Email: info@johnsassociates.co.uk Tel: 012225 723652

1.1.10 EMERGENCY CONTACTS:

Wessex water Tel: 0235 600 4600
Scottish and Southern Electricity Tel: 105 or 0800 072 7282
RUH Bath emergency Department Tel: 01225 428331

1.2 THE SITE & THE WORKS

1.2.1 Works and Site Name

The WORKS as referred to throughout this document shall mean, THE HOP POLE INN, PHASE 1 EXTERNAL FABRIC. The site referred to throughout this document shall mean; HOP POLE INN, LIMPLEY STOKE, WILTSHIRE, BA2 7FS

1.2.2 Location

The location of the site is semi-rural set in a small tightly accessed hamlet of Limpley Stoke, approximately 5 miles from Bath. The building itself is at the junction of a main highway, Lower Stoke and a no through way, Woods Hill. The building sits on a terraced section of land and abuts a highway (Lower Stoke) on the east, a domestic residence on the west (4&5 Woods Hill) with its own land to the north and south. The land to the south comprises a parking area and slopes steeply. To the north is the pub garden which is more level. There is a separate and standalone carpark area to the NE of the building on the opposite side of South Stoke.

The site is to be found at grid reference Grid Ref ST 78152 61055
Works site What 3 Words https://w3w.co/zebra.gifts.motor
Car park What 3 Words https://w3w.co/email.bake.leaned

1.2.3 Brief History and Client setup

The Hop Pole Inn is a much altered public house. Its roots appear to a late C16th Structure with numerous alterations and additions. The most impactful of these being in the Victorian and C20th periods to the north side. It ceased trading as a public house several years ago and has subsequently been bought by the community with a view to creating a community facility. As a result, the client / employer is a body known as the "Limpley Stoke Community Benefit Society" or "LSCBS" for short and represents approximately 500 contributors. Works to repair and extend the pub are being carried out with funds from various sources including government schemes which have particular criteria, not least a very tight timetable. The project is to be undertaken in several phases the first of which is covered in this document and deals with the **PHASE 1 EXTERNAL FABRIC** of the main building only.

PHASE II, which is not covered by this document, will focus on the interior of the existing building and **PHASE III,** which is not covered by this document, deals with the remodelling of the rear elements including landscaping to create a flexible pub offering food and drink. These will follow on but there may some overlap with the PHASE I works. This approach has been taken to ensure the earliest start date on site to meet funding criteria.

1.2.4 Access:

Access to the site is best from the north off the A36 at the junction with the B3108 (Brassknocker Hill) towards Bradford on Avon, and then right off the B3108 up South Stoke towards Freshford. The Inn is 250ms beyond the turnoff.

1.2.5 Bounding properties:

The building extends fully to its east and west boundaries meaning that access between the front and rear of the building is either through the building or via a separate access to the rear which is pedestrian only. This means that access will be required to both the neighbouring property land and the highways owned land to execute the works. Whilst the neighbours are party of the LSCBS this will still require a party wall agreement.

1.2.6 The nature of the Works

The Phase I works are DOMESTIC in scale, however it concerns a listed building in a poor condition and will require a mixture of skillsets from sensitive conservation works to more general builders works. The key elements of the Phase I works can be summarised as follows;

i) Provision of high level access to roofs, chimneys and gables in a range of locations
ii) Reconfiguring chimneys and gable end masonry at high level.
iii) Up grading and relaying of 3 roof slopes to enhance thermal performance

iv) Attic works to allow installation of air handling units and enhancing thermal performance
v) Repair and repointing of elevations
vi) Replacement of windows with leaded lights.
vii) Miscellaneous other smaller items.

1.3 LEGAL REQUIREMENTS AND CONSTRAINTS

1.3.1 Listed Building Consents

The building is listed and as such the works are tightly controlled. The proposals detailed in the enclosed drawings and specification although predominantly repairs will also be considered alterations. Technically these works require listed building consent. Given the limited timetable, we have applied for listed building consent assuming some interventions, but the precise detail of the interventions was not fully understood at submission stage and will need to be confirmed by way of condition. This will be the responsibility of the Conservation Architect.
The scope of LBC1 covering the phase 1 works is available to view through the following link.
https://development.wiltshire.gov.uk/pr/s/planning-application/a0i3z000019plcaAAA/pl202300755

1.3.2 Ecology and protected species

There are no recorded bat activities on the site or in the building. This building has been subject to a recent survey dated 30th January 2023. However, the contractor is still obliged to take into consideration that there may be bats in line with good practice as set out in the Conservation of Habitats and Species Regulations 2017.

1.3.3 Asbestos

The building has been fully inspected for asbestos and the areas identified as having asbestos based materials all sit outside of the works area. This included inspection of the attic space. The contractor is to notify the Architect immediately on suspicion of asbestos.

1.3.4 Building Regulations

The flue and insulation works detailed in this specification are subject to building regulations approval which will be carried out under a building notice. This is to be submitted and coordinated by the design architect.

1.3.5 CDM 2015

It is unclear at this stage if Phase I on its own is notifiable, however combined with Phase II it is highly likely to exceed 500 man days on site. The project will therefore be notified to the HSE by way of an F10 notice by the employer and of their representatives.

1.3.6 Party Wall Agreement

The employer and their agents will be responsible for any party wall agreements, but the contractors will be required to abide by the conditions set out in any such agreement. The contractor will be required to provide the necessary information on programming and degree of access required to neighboring properties in order to carry out the works.

1.3.7 Licenses associated with the works

The contractor will be responsible for all licenses associated with scaffold structures, material stores or skips located in the highway and will be liable for all fees associated with these items.

1.4 THE CONTRACT

1.4.1 Form of Contract

The Form of Contract shall be the RIBA Concise Building Contract 2018 including any and all relevant revisions at the time of appointment. Note that this is a digital contract and will be issued electronically.

1.4.2 Terms of the contract.

The terms of the contract and the completion of the contract particulars will be agreed at the pre-contract meeting, this includes all contract particulars. For the sake of preparing pricing documentation the contractor is to take particular note of the items listed below which may have a material impact on the nature of pricing.

1.4.3 Signing

The contract will be signed under hand.

1.4.4 Liquidated Damages

Damages will be limited to demonstrable loss as a result of any overrun.

1.4.5 Rectification Period

The rectification period will be after 12 months from the point of issuing the practical completion certificate. This accounts for the fact that the works are frost sensitive and may require a full season of weathering before defects may become apparent.

1.4.6 Retentions

Retentions will be held at a rate of 5% of the value of the works throughout the works up to the point of practical completion were-upon an additional 2.5% of the value of the works will be released. The final retention will be released on the completion of the rectification period.

1.4.7 Valuations

Valuations will be carried out monthly or as otherwise agreed with the contractor. The contractor is to provide the Architect with a copy of the schedule of works in Excel format detailing percentage completions and detailing any costs of agreed variations.

1.4.8 Site facilities

Water	Provided by the employer at no cost to the contract. Available on site.
Electricity	Provided by the employer at no cost to the contract. Available on site.
Telephone	Provided by the contractor.
Rest facilities	Provided by the contractor.
WC	Provided by the contractor. (some facilities are available in the short term)
Site security	Provided by the contractor.

1.4.9 Working hours.

Working hours will be limited to 8am to 5pm unless otherwise agreed in writing by the employer, Monday to Fridays excluding bank holidays.

1.4.10 Insurances

The contractor will be expected to have “contractors all risks insurance” to the value of the works. The insurance of the properties will remain the responsibility of the employer who will be responsible for informing their insurers of the nature and duration of the works. The employer’s agent has been notified and is arranging a separate policy to cover these works.

1.4.11 Occupation and security of premises.

There will be no requirement to occupy the building. Where the envelope of the building is compromised either by the provision of scaffold access to openings or the removal of elements such as roof coverings the security of the premises will be the responsibility of the Contractor.

1.5 PRICING INFORMATION

1.5.1 Generally

The purpose of this document is to provide a basis upon which a contract sum can be set and to provide a detailed framework for monitoring progress, and cost control.

The Contractor should set prices against the items in The Schedule of Works. Where items are subdivided, prices are to be set against **EACH** subdivision. The prices should then be carried to the summary which should be totaled and entered on the pricing summary form.

Due to the nature of the building and works it is possible that there will be variations once opening up works are carried out and the true extent of the structure's condition becomes evident. The priced items will then act as the basis of variation.

1.5.2 Contract sum

The contract sum shall be a fixed, all-inclusive price based upon the contract documents and a careful inspection of the site, including an allowance for all work and risks. It should include for handing over the Works clean, functional and complete, fit for immediate occupation and use as intended.

1.5.3 Pricing Package

The following digital documents are being provided for pricing purposes:

a) The drawings as listed at the beginning of the Schedule.
b) The Specification of Material and Workmanship
c) The Schedule of Work
d) A Form of Tender pricing summary

1.5.4 Before pricing

Check all documents upon receipt and report any discrepancies. Do not amend documents without written authorization. Inspect the site and ascertain all factors relating to its location, access, ground conditions and working space together with any other factors that may affect the tender.

1.5.5 Access to view the works site.

The building can be viewed by arrangement with the employers' site representative (see 1.1.2) or the Architect (1.1.3)

1.5.6 Prime Cost Sum

A sum (usually referred to as a PC sum and sometimes entered into a bill description as PC prices) provided for work or services to be executed by a nominated statutory authority; such sums or prices exclude contractor's profit.

1.5.7 Provisional Sum

A sum provided for the entire cost of anticipated work that cannot be properly drawn or described. Where work is undertaken against provisional sums on a time and materials basis, the Architect is to be notified in advance and time-sheets are to be sent to the Architect on a weekly basis identifying the work undertaken and the time spent. Copies of invoices for materials are also to be provided. The contract period and programme is to include for all provisional sums described in terms of hours of work in the schedule.

1.5.8 Option pricing

There may be instances in the schedule where options are provided against items of work where we cannot fully determine the nature of an item. Each option will be covered in a separate schedule item. Both items are to be priced but only one item is to be carried forward to the tender total. The item to be carried forward will be highlighted in the schedule clause.

1.5.9 Extra over pricing

Extra over pricing items may also be identified where we are unsure of the scope of the works item. In these instances, we may ask for extra over prices. These are to be carried forward to the tender summary.

1.5.10 Domestic Subcontracts

The Contractor must submit names of any proposed domestic sub-contractors with their priced documents. The employer reserves the right to recommend subcontractors on items of works subject to prior agreement form the main contractor.

1.5.11 Discrepancies

This specification is to be read in conjunction with the contractor's own inspection of the site and any discrepancy found shall be notified to the Architect immediately and the discrepancy shall be rectified or explained before a price is submitted.

Should the contractor become aware after pricing that items have been either accidentally omitted or not accounted for then he/she I to notify the Architect immediately.

1.5.12 Extras

The Contractor shall include for everything necessary for the proper execution of the works and all items which may reasonably be inferred, although not specifically shown on the drawings or mentioned in the specification and schedules. No extras will be allowed unless agreed in writing by the Architect, and they can reasonably be considered to be variation to the scope of works.

1.5.13 Priced Copies

On request, a priced copy of the Schedule of Work (Section 4) showing a detailed breakdown of the pricing (including all divisions) is to be submitted within **3 working days** of the day of request.

1.5.14 Programme

The contractor is to provide a **programme** showing the anticipated order of the works and the anticipated start and completion dates. This programme must also include works by subcontractors.

1.6 VALUE ADDED TAX

1.6.1 VAT

VAT will be applied at a rate of 20% in line with the revised legislation and subsequently amended VAT notice 708.

1.6.2 Pricing

Pricing should be provided excluding VAT.

1.7 PRINCIPAL DESIGNERS RISK ASSESSMENT

1.7.1 Existing site and building fabric.

The building is in reasonable condition, however as with all old buildings there are a number of areas and issues that the contractors need to be aware of and need to be taken into consideration both as part of pricing and undertaking the works. These are set out below in no particular order. We have identified these as being HIGH, MEDIUM and LOW. HIGH risk items will be a constant ongoing risk throughout the work and can affect anyone. MEDIUM risks are more specific to an activity and more limited in who they affect. LOW risks are present and need noting but are unlikely to be a concern. These are risks particular to this building. Normal risks associated with building operations are not identified as it is reasonable to assume that the contractor is aware of these.

a) Public accessibility.
HIGH risk of unauthorized access to the site by unaware persons is high given the number of volunteers and key holders and the community nature of the project.

b) Proximity to highway.
HIGH risk of vehicle impact is an issue especially given the split nature of the site and the likely proximity of scaffolds to the highway.

c) Overhead power lines
HIGH risk to persons on scaffold, reduced access.

d) Overhead telecom lines
MEDIUM risk to persons on scaffold.

e) Sloping ground
LOW in places the ground is sloping at 1:20. This presents a trip hazard and issues with levelling, storing and containing items on site.

f) Fragile roof battens
MEDIUM risk. The battens have failed in numerous instances which will impact on the stripping of the roofs.

g) High retaining wall
LOW risk to persons on site.

h) Nail fixings (100s) to wall.
LOW risk of cuts from jagged and corroded metal.

i) External gas meter
LOW risk of damage to gas installation in the porch.

j) Loose stonework
MEDIUM risk to persons working off the scaffold.

1.7.2 Materials

The works will involve the processing of a number of materials and products all of which should be covered by various H&S or COSHH sheets. The designers have identified the following materials as being of potential risks. The contractor is to ensure that the correct working methods and PPE are adopted to prevent damage to individuals and the wider environment.

a) Bath stone - Potential heavy weights.
b) Hydraulic lime - Caustic material risk of damage to skin eyes & lungs.
c) Epoxy resins - Irritation to skin and eyes. Toxic to aquatic life.
d) Lead work - Potential risk of poisoning from lead carbonate on old lead.
e) Peelaway - Caustic material risk of damage to skin eyes & lungs.

1.7.3 Activities

The activities detailed below will involve risks peculiar to this project. The contractor will be required to assess the risks on site and where necessary prepare risk assessments and brief operatives as to the risks and any mitigation methods. No works should be undertaken until a full understanding of the risks is understood by all parties involved in the works.

a) Dismantling masonry
The works involve dismantling of masonry items whose condition is unclear. This will involve a detailed assessment on site.

b) Working over delicate ceilings.

The works will require access over ceilings that have suffered from water ingress. Their ability to carry load is unclear at the point of writing.

c) Large M&E items

The works involve the installation of some large bits of M&E equipment into the attic space. The size and weight of these is unknown at this stage. Access onto the scaffold and across fragile ceilings will require careful consideration.

d) Roof works.

The works involve working on roofs whose condition is not fully known. The rafter spacings at 360mm giving a clear opening of 310mm is deemed just big enough for a person to fall through.

e) Working in close proximity to the highway.

The contractor is to note that works of will be undertaken in very close proximity to an active highway which will require careful planning.

2.0 PRELIMINARIES

When pricing the works, the contractor should take account of items set out below which may affect the way of working and any other items that would reasonably be considered necessary for the execution of the scheduled works.

2.1 MANAGEMENT

2.1.1 Management

Provide proper management of the works including close supervision of the Contractor's own employees and sub-contractors.

2.1.2 Foreman

The Contractor is to retain a suitably qualified foreman on site at all times whilst works are being carried out.

The foreman's tasks will be;

a) To attend a pre-contract site meeting.
b) To attend all progress meetings.
c) To be present at the time of site inspections by the Architect, or Engineer
d) To ensure that the specification and contract drawings are adhered to in all instances and to notify the Architects of any problems or adjustments relating to the works.
e) Responsible for all labour working on site including sub-contractors.
f) Responsible for site security and for the protection of the building during the works.
g) To ensure that the working area is always kept tidy.
h) Ensure that the works progress in an efficient manner.
i) To ensure that all health and safety precaution are in place and maintained.
j) To ensure that items detailed below are complied with.
k) Ensure that public safety immediately adjacent to the works area is always maintained.

2.1.3 Workmen

The contractor is to ensure that the workforce to be used on the Works is suitably qualified and capable of carrying out scheduled items. The Architect and Employer reserve the right to request the removal from site for the duration of the works any operative who fails to demonstrate due skill and diligence. This will be done by way of a direct request to the foreman.

2.1.4 Works Diary

The contractor is to keep adequate records and provide a hard cover diary recording on a day-to-day basis:

a) Names and trades of the entire workforce on site.
b) Plant on site both in and out of use.
c) Nature of works carried out each day (most important for weather sensitive work)
d) Materials as delivered.
e) Weather conditions, identifying excessively adverse or inclement weather or conditions which could result in either failure to progress works or could result in the failure of works already carried out.

2.1.5 Programme

Prior to the onset of works the contractor is to provide a programme detailing the sequencing of the works and any critical dates. Provide copies to the consultants and update the programme as required so that all parties can determine when information becomes due and drawdown of funds will be required. The programme should allow for all special measures such as curing times of mortars and protections of finished works. The programme will be listed as a contract document and any variation to the programme will need to be agreed in writing.

2.1.6 Meetings

The Contractor's representative and/or the site foreman are to attend regular site meetings, nominally every week. These will be held at the works. In addition, the site foreman is to meet all consultants and

Employer's representatives during their site visit should these not coincide with the site meetings Progress meetings will be conducted on a monthly basis prior to valuing the works. These meetings will be attended by both the Employers and Contractors representative and all necessary Consultants.

2.1.7 Notifications

The Contractor is to notify the Architect of any site visits required or decisions to be taken at least 5 working days in advance.

The contractor shall be responsible for making all necessary notifications relating to legislation (refer to section above).

The contractor is to notify and liaise with police, fire brigade, local and highway authorities and all others concerned with the works as necessary.

2.1.8 Photographic Records

The contractor will be responsible for taking a photographic record of the condition of the site and the site compound before establishment of the site and make available to the Architect copies of the images either digitally or in print form.

A digital photographic record is to be kept as works progress showing all exposed areas of construction revealed as part of the works.

2.2 SITE SET UP

2.2.1 Compound

The main contractor's compound is to be located in the Pub carpark to the NE of the site. This is to contain all welfare facilities, including site cabin and WC. Materials delivered to site are to be contained at the front of the building within a secure area. Details of the site setup are suggested on drawing HBA 345-002-P1. The contractor will be responsible for agreeing the final layout with the employer.

2.2.2 Restrictions on access

Access to the site is relatively easy but South Stoke is a single carriageway and runs very close to the buildings on the street. Turning is possible using Wood's Hill. Access is suitable for cars, vans, and small lorries. Access by large lorries such as pantechnicons and articulated lorries is not practical.

2.2.3 Parking (Special provision)

The parking areas both in front of the building and the designated car parking areas are currently used by the local garage to store cars. These will be removed by the garage owner before the commencement of works. Station Garage tel: 01225 723154. Three parking places are to remain in the carpark for disabled access and local residents. This will require direct agreement with the employer's representative.

2.2.4 Parking on site is limited and should be confined to the car park. The area in front of the building is to be used for loading and unloading only and may require control to prevent residents blocking access.

2.2.4 Contractor's Equipment & Facilities

Provide the following which shall be deemed to include all incidental items required by the Contractor:

a) Hoarding, barriers, covers and everything necessary for safety and weather protection.
b) Plant, tools, vehicles, scaffolding and temporary equipment of every description.
c) Access into and around the site including hard standings and storage areas.
d) Temporary buildings including welfare facilities, pay all legally demandable rates and charges.
e) Telephone facilities. (Mobile number will be adequate)
f) Adequate means of water disposal, to ensure that water from any source does not collect on the site and is not free to enter into the open watercourse and or pond on the site.

2.2.5 Welfare Facilities

It has been estimated that a 24 x 9 foot Oasis unit with integral WC can be sited in the carpark at the

north end. This location mitigates nuisance to the residents.

2.2.6 Water Supply

There is a water supply to the building which can be used by the contractor.

There is no water supply to the car park. Water for use in the welfare facilities will need to be delivered to site. The contractor will be responsible for all refills of the unit's water storage tank. (Nominally 400 ltr storage)

2.2.7 Power Supply

There is power to the building which can be used by the contractor.

There is no power supply to the carpark. The contractor will be permitted to take an overhead line over the highway from the garden store if deemed necessary or power could be generated using the Oasis LPG power system. The contractor will be responsible for all LPG needed for the duration of the works.

2.2.8 Advertising

The contractor is entitled to erect direction signage to aid deliveries, but no other form of advertising will be permitted.

2.2.9 Protections

The contractor will be responsible for the protection of the works and any items contained within them up to the point of completion. Any damaged or defective goods incorporated into the works are to be removed and replaced at no cost to the Employer. Any damage to existing fabric resulting from lack of adequate protection will need to be made good at no expense to the Employer.

2.3 WORKING LIMITATIONS

2.3.1 Hot Works Ban.

The following activities will be banned from the works area unless agreed in writing by the architect.

- Thermal cutting and welding
- Soldering and brazing
- Blowlamps and blowtorches
- Grinding and abrasive work likely to cause sparks.

2.3.2 Safe Hot Works Areas Away From The Works

Should hot works, such as lead burning, be necessary then these should be undertaken in a designated **HOT WORKS AREA** away from the main body of the works.

Hot works areas should comply with the following.

a) Be clearly defined and fire separated from the main building and scaffold.
b) Not be used for the storage of materials other those being fabricated.
c) Not contain gas cylinders others than those being used in the works, and these must be stored vertically and be fitted with a regulator and flash back arrestor.
d) Be maintained clean and clear of combustible debris such as wood shavings.
e) Have a non-combustible heat insulating deck and sides where area abuts other structures. Note that sheets must overlap and be taped to avoid gaps.
f) Be designed in such a way that sparks, or other molten items are fully contained.
g) Have firefighting equipment appropriate to the materials being treated and the equipment in use.
h) Items prepared in the hots work area can only be incorporated into the works once cold to the touch.
i) Not have gas burners running unattended

2.3.3 Smoking Ban

No smoking will be permitted in the works area, on the scaffold or in the gardens. Smoking is permitted at ground level only in gravelled areas.

2.3.4 Noise & Disturbance

The building is in a domestic environment. Noise and other disturbance are to be kept to an absolute minimum. Prevent all forms of pollution or nuisance especially to water courses and surrounding properties. The Contractor shall organize his work so not to provide grounds for complaint under the Control of Pollution Act, 1974.

2.3.7 Dust Control

Certain activities included in the schedule of works are likely to generate dust. Where this is the case, the contractor is to take all necessary care to ensure that dust is kept to an absolute minimum. Where practical, all surfaces are to be washed down before and after dust generating activities. Wet hessian or other dust screens are to be used where there is a risk of windblown dust. The outfall from dust generating tools is to be directed to produce the minimum nuisance, and reasonable judgement should be made as to prevailing winds which may result in a nuisance.

2.3.8 Radio Ban

Due to the domestic setting of the site there will be a radio ban on the site. For safety reasons this ban extends to the use of personal audio equipment which can pose a health and safety risk when working in close proximity to other workers.

2.3.9 Rubbish

The Contractor shall clear and cart away all rubbish including litter during the Works and finally at the completion of the contract.

2.3.10 Outside Working Area

The Contractor is to ensure that all areas adjacent to the site are kept clean and tidy and that there is no risk to public safety or that of animals. Public foot paths and rights of way around the site are to be maintained and are to be protected from the works at all times.

2.3.11 Security

The awkward nature of the site will mean that access into the building will have to be through a works area. This combined with the volunteer and community nature of the project will inevitably provide challenges relating to security.

2.3.12 Hot weather

In excessively hot weather the use of lime based mortars may be adversely affected. The contractor is to ensure provision is made as and when necessary to ensure that works are protected from excessive heating and rapid drying and, make necessary adjustments to preparation procedures to ensure adequate pre-wetting.

2.4 COMPLETION & HANDOVER

2.4.1 Maintenance Manual

A full maintenance manual will be required. Details of all products used in the works are to be included giving the name and address of manufacturer, product name, code and full details of colour or other details that would be required for precise replacements to be obtained. Full operating and maintenance instructions for all equipment are to be supplied to the Architect for inclusion in the maintenance manual.

2.4.2 Handover

a) Remove all temporary marking, coverings and protective wrapping unless otherwise Instructed.
b) Clean the works thoroughly, removing all splashes, deposits, efflorescence, rubbish, and surplus materials consequent upon the execution of the work.
c) Leave the works secure.

2.4.3 Defective Work

As soon as possible after any part of the work is known or suspected to be defective, submit proposals to the Architect for further testing, opening up, inspection, making good or removal and re-execution and obtain instruction. Wherever inspection or testing shows that the work is not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to establish the acceptability of the work, such measures:

a) will be at the expense of the Contractor.
b) will not be considered as grounds for an extension of time.

2.4.4 Making Good Defects

Make arrangements with the Architect and give reasonable notice of the precise dates for access to the various parts of the works for the purpose of making good defects.

2.5 CDM REGULATIONS AND H&S COMPLIANCE

2.5.1 CDM Regulations.

The contractor as part of his/her duties will be expected to comply with all aspects of the CDM regulations. Risk assessments and method statement will be expected to be provided for all aspects of the job that are deemed a potential risk.

2.5.2 Subcontractors

The activity of subcontractors not directly part of the contractors organisation will also be expected to prepare the necessary assessments where necessary in collaboration with the main contractor so that all parties are aware of any potential risks.

2.5.3 COSHE certificates

Coshe certificates will be required for all materials likely to pose a risk to health. These are to be kept on site and will need to be accessible to all operatives on site.

2.5.4 First aider and fire fighting equipment.

The contractor will be required to provide staff trained in first aid, an emergency medical kit and fire fighting equipment on site at all times

3.0 MATERIALS AND WORKMANSHIP

A **GENERAL REQUIREMENTS**

This section is to be read in conjunction with all other sections. If any part of this document is detached for use by other parties, ensure a copy of this section is also provided.

Definition of the term "Approved"

The term "approved" shall be understood to mean that the use of a particular material, unit, component or method will be subject to the written approval of the Architect. Unless otherwise specified in the written approval, approval is limited to the visual appearance of the work, materials or components involved and shall not relieve the contractor from compliance with the specification.

Descriptions

The descriptions in this specification/schedule of works are to be taken in a comprehensive sense and the rates are to include for everything and all associated work necessary for the execution of the work described in an efficient manner, including:

a) Materials and components as specified and all labour in fitting and fixing in position including cutting and wastage.
b) Use of plant, tools and temporary works of every description.
c) All matters of general application as set forth in sections 1 and 2 and this section.

British Standards

Where materials, articles and/or workmanship are specified to be in accordance with a BS and/or BSCP this is deemed to mean the latest issue of the British Standard Specification or British Standard Code of Practice together with any amendments. Note that British Standards and Codes of Practice are designed as minimum standards for new work and are not always relevant to work on historic buildings.

Setting Out

Check the levels and dimensions of the site against those shown on the drawings and record the results on a copy of the drawings. Notify the Architect in writing of any discrepancies and obtain instructions before proceeding.

Before Commencing

Liaise with all parties concerned and arrange liaison between trades. Do not start or continue any part of the work until:

a) Environmental conditions are suitable for the type of work involved.
b) Supervisors are satisfied that operatives understand what is required.
c) Related preceding work is fully completed and, if necessary, tested and approved.

Weather

Specified requirements for weather precautions and protection refer to rain, frost, snow, sleet, gales, excessive sunshine, drying winds, flooding or any other state of the weather which could cause damage or otherwise interfere with the execution of the works.

Delivery Procedure

Arrange and programme deliveries to the site so that materials:

a) Are dispatched suitably protected, if liable to damage.
b) Arrive in a sequence suited to incorporation into the works.
c) Arrive in quantities that minimize site storage but do not delay the works.
d) Do not cause a nuisance or obstruction outside the compound area

Record of Deliveries

Maintain for inspection complete records of sources of supply of specified materials. Retain delivery tickets and certificates. Record any batch numbers on containers etc. if not shown on delivery tickets.

Single Sources

Where a choice of manufacturer or source of supply is allowed for any particular product or material, the whole quantity required to complete the work must be of the same type, manufacture and/or source. Do not change without approval. Produce written evidence of sources of supply when requested by the Architect.

Good Practice	Where and to the extent that materials, products and workmanship are not fully specified they are to be: a) Suitable for the purposes of the works stated in or reasonably to be inferred from the contract documents. b) In accordance with good building practice, including the relevant provisions of the current BSI documents.
Manufacturer's Instructions	Handle, store, prepare and use or fix each product in accordance with manufacturer's printed or written recommendations/instructions. Inform the Architect if these conflict with any other specified requirements.
Proprietary Brands	Should the contractor wish to obtain the materials from firms or sources other than those specified, prior approval in writing for every item must be obtained from the Architect.
Materials Delays	The Employer reserves the right to place orders in advance of the signing of the contract for materials, the supply of which is likely to delay the progress of the works, and the Contractor shall confirm such orders after signing the contract.
Samples	Where approval of products or materials is specified submit samples or other evidence of suitability. Do not confirm orders or use materials until approval has been obtained. Retain approved samples on site for comparison with products and materials used in the works. Remove when no longer required.
Trial Panels	Where trial panels of finished work are specified, obtain approval of stated characteristic(s) before proceeding with the works. Retain approved samples on site for comparison with the works. Remove samples which are not part of the finished works when no longer required.
Craftsmanship	Undertake work by or under the direct supervision of operatives with suitable training, experience and competence. Craftsmen shall undertake work requiring special skill. Do not permit apprentices to work un-supervised.
Appearance and Fit	Wherever satisfactory accuracy, fit and/or appearance of the work are likely to be critical or difficult to achieve obtain approval of proposals or of the appearance of the relevant aspects of the partially finished work as early as possible.
Cleanliness	Keep the works and the equipment used for its construction clean. Accumulate debris in suitable pre-determined areas and promptly remove from site. Remove any graffiti as soon as applied, including that applied to hoardings and temporary works. Keep all gutters, down pipes and drains clear and flush out on completion.
Protection Generally	Protect the works, during construction and as portions reach completion, against any form of damage or deterioration. Such protection shall include coverings, guard rails, temporary heating or other appropriate methods. Any heating required for protection to be approved in advance and in writing by the Architect.

B SCAFFOLDING / LIGHTNING PROTECTION & FAULSEWORK

B1 DESIGN

Governing Body — All works are to be carried out in accordance with good practice and in line with National Access and Scaffolding Confederation guidelines.

Special Conditions — The structure to be scaffolded is a listed building and therefore care needs to be exercised in carrying out all scaffolding works so as not to damage the structure. Some elements of the structure may be fragile. Bearing off existing fabric will not always be possible without additional internal support and propping. The contractor will be required to make his own assessment of the existing structure and its capacity to take load. Additional support can be provided by the appointed engineer.

The scaffold is primarily required for use by masons to repoint walls and dismantle sections of masonry, roofers to renew roof coverings and the flue lining company to access chimney heads. This will have a significant bearing on how the scaffold is detailed especially in terms of connections to the building and ledgers which should not hinder access.

The site is awkward due to a combination of sloping ground, proximity to the highway, limited ground bearing on the east and north elevations and the west elevation being a party wall.

Scope of Works — The scaffold is required to allow the following tasks to be undertaken.

Task 1 Access to all 4 elevations for to enable general masonry repairs full surface of building.
Task 2 Access to all parts of the gable ends to allow partial dismantling and rebuilding.
Task 3 Access to all 3 chimneys to allow dismantling and rebuilding.
Task 4 Access to roof slope 2 and 3 for retiling.
Task 5 Access to porch roof slopes SL3 & 4 for retiling.
Task 6 Access from highway to beer cellar roof SL 5 for retiling.
Task 7 Provide lifting point and access for air conditioning plant to be installed in roof void.
Task 8 Provide adequate protection against weather.

Scaffold Type — Due to the short height of the building and the need to access all parts of the elevations the scaffold is to be free standing independent of the structure and in **no way** fixed to the fabric of the building. Putlogs and anchor fixings will not be acceptable. Capped ledgers will be acceptable but must be adjustable to allow for access.

Designs — Any designs prepared by the contractor are to be issued to the architect and agreed prior to erection.

B2 MATERIALS

Generally — All materials to be used are to be adequate for their purpose, to the satisfaction of the Architect / Engineer and to confirm to the latest applicable British Standard.

Metal Scaffolding — All metal scaffolding is to be to British standard 1139: parts 1 to 4. All steel scaffolding is to be hot dipped galvanized.

Un-galvanized, bent, corroded, dented, part sawn or otherwise defective tubes are unacceptable and if included in the works will be condemned.

Couplings, base plates and split joist pins are to be to BS:1139 and in good condition to allow tight secure connections between tubes.

Tube Caps — Plastic tube caps are to be used on **ALL** standards, ledgers and braces. This is particularly important where tubes abut masonry as movement in the scaffold can result in erosion of

stone faces.

Scaffold Boards — Scaffold boards for use as decking and kickboards are to be to British Standard 2482. Split, decayed or partly sawn through boards will not be accepted. Shortened boards will be acceptable.

Ladders — Ladders are to be to British standard 1129 and produce standard 2037. Ladders with missing, broken, or otherwise defective rungs will not be accepted.

Acro Props — Any telescopic props and or struts used during dismantling, jacking or propping works are to be to British standard 4047.

Roof Sheeting — Roof Sheeting is to be 24 gauge CI fully galvanised temporary roof sheets nominally 8 ft long and secured with scaffold sheet clips.

Side Sheeting — Side sheeting is to be FLAME RETARDANT debris netting, non-absorbent, non-staining, free of all advertising and of sufficient strength to resist anticipated wind loading, and debris impact without tearing or excessive distortion. Sheeting is to be fixed in such a manner so that it can be repeatedly repositioned.

Materials Winch — Provision should be made for the siting of a materials winch on the scaffold suitable of allowing the access of materials and equipment to all levels of the scaffold and as identified on the scaffold drawings and agreed with the main contractor.

Electrodes — Electrodes shall be single length be 12.5mm diameter 1200mm long.

Bonds — Bonds shall be as short as is reasonably possible. Bonds are to be made of 50mm^2 standard copper conductor or equivalent, sheathed in green PVC. Connection to rods and scaffold are to be by purpose made clamps.

Labelling — Each earth bond is to be labelled with a “Traffolite” or similar plastic inscribed label white on black in 6mm minimum lettering stating “SCAFFOLDING SAFETY EARTH”

B3 WORKMANSHIP

Survey — The Contractor is responsible for making a thorough inspection of the site to determine all factors which may affect erection of the scaffold including:

a) Location of services below ground.
b) Paths and access routes, door and emergency escape routes.
c) Elements of the building that are delicate and where special care will be needed to avoid damage, this is to include on the ground identified in the contract drawings.
d) Elements of the building which require bridging or where standards centring will have to be modified, such as over basement stairs and access paths.
e) All issues relating to highways.

Health and Safety Regulations

a) The Contractor shall comply with all legal obligations currently in force.
b) The Contractor shall ensure that a competent person inspects all material to be used for any scaffold prior to erection.
c) On completion the scaffold is to be inspected within 7 days and a certificate of completion is to be issued prior to use by any workers.
d) Further inspection shall be carried every 7 days and at the time of any alteration to the scaffolding. Any faults found must be put right prior to the scaffolds continued use.

Method Statement — The Contractor shall provide a full method statement identifying materials to be used, method of working, chain of command and responsibility of site personnel.

Boarding and Guarding

Working and access platforms are to be fully boarded in such a manner as to provide a safe and secure platform. No boards shall be cantilevered.

a) Defective boards are to be removed from site.
b) Handrails and toe boards must be provided to all boarded scaffold lifts.
c) Boarding is to be secured against wind uplift or slippage.

Design and Erection

Scaffolding is to be designed and erected so that:

a) The scaffolding complies with the recommendations of BS5973 parts 1 and 2 as appropriate and should be free standing.
b) Loads are adequately transmitted to ground
c) No loads are placed on any part of the existing structure or boundary walls other than at ground level.
d) Tying through window openings and into the masonry is to be avoided.
e) No HILTI or other anchor fittings are to be introduced into the masonry. Where these have been introduced previously then these fittings can be reused and the holes made good on completion.
f) No damage of any kind will be caused to the building or finishes (see protection below).
g) Loads of necessary materials are adequately supported.
h) Loads are adequately spread at ground level to avoid damage to drains and other underground services, concrete or stone paving.
i) Access is maintained to services (e.g. inspection chambers etc).
j) Lift positions are selected to provide platforms at the optimum level for undertaking all works inclusive of the work being carried out by both domestic and named sub-contractors.
k) The contractor is to be entirely responsible for the safety and stability of the scaffold and protection provided for the public both during and after erection.
l) Doors and means of escape are not impeded.

Protection

The fabric of the building is to be protected against damage by the scaffolding or during scaffold construction, dismantling or transport of materials. The contractor is to ensure that:

a) No part of the scaffold is placed in such a way that it abrades the masonry.
b) Plastic caps are placed on all tube ends adjacent to masonry and other building surfaces.
c) Paving, railings, plants etc are adequately protected.
d) Any damage caused is made good at the contractor's own expense.

Ladder Access

Ladder access is to be provided to all scaffold lifts. The ladder to the first two lifts must be removed at the end of each working day and locked away. Ladders are to be erected the correct way up. Ladders are to be tied at all times and set at a pitch of no more than 1 in 4. Access ladders should extend 1m above the working platform to ensure safe use.

Completion

The contractor will be required to present the Planning supervisor with a completion certificate on completion of the scaffolding and prior to its use by the contractor.

Striking

Scaffold is to be struck in part on in whole only after receiving written authorization from the Architect (such approval to be requested by the contractor).

Lightning Protection

The scaffold is to be adequately earthed against the possibility of a lightning strike.
The installation of the lightning protection and earthing system is to be undertaken and certified by an approved contractor. A test certificate will be required to prove that the test resistance value to earth of the system in OHMS does not exceed the product given by 10 times the number of electrodes used. The whole earth termination network shall have a combined resistance to earth not exceeding 10 OHMS, excluding bonding to other metal part of the building.

C DEMOLITIONS / DISMANTLING AND ALTERATIONS

Definitions: **Demolition** as defined in this document will mean the complete removal of a specified item from the works.

Dismantling as defined in this document will mean the taking down or temporary removal of specified items which are then to be retained for reintroduction into the works.

Consents All areas detailed for demolition / dismantling in the enclosed schedule of works have been granted listed building consent and planning permission for demolition consents.

Recording As the works detailed in this document relate to a Listed Building / Structure special emphasis will be made on the recording of the works;

a) All elements to be dismantled are to be numbered and their position recorded.
b) The archaeologist/ Architect is to be provided all and every access in order to carryout recording works. Where an archaeologist is not present then the recording works set out in the items below is to be carried out.
c) A photographic record of the areas to be dismantled or demolished is to be made in sufficient detail to enable the identification of each and every numbered element effected by the dismantling or demolition works to enable accurate reconstruction. 2 Sets of print (1 set of digital data) are to be provided, one of which is for the Architect.
d) Where necessary photographic records are to be supplemented by dimensioned drawings. Where demolition relates to joinery or other detailed items drawings should be at 1:5 minimum, or profiles should be taken at 1:1.
e) No dismantling or demolition is to be undertaken until records have been completed.

Protection of Works All areas adjoining the demolition / dismantling works not included in the schedule are to be adequately protected to ensure that they remain undamaged by the works.

All items removed as part of the demolition / dismantling works scheduled for reuse are to be adequately protected and stored until such a time as they are reincorporated into the works.

Where demolition / dismantling results in elements of the building becoming venerable to weather or unsafe these areas are to be protected and made safe at the end of each period of work and at the end of each working day.

Authorisation Prior to undertaking any scheduled work to the building which constitutes demolition or dismantling the contractor is to obtain authorisation from the Architect.

Notice of Demolition The Contractor is to give all notices due to the Health and Safety Executive as required by Law in the form of an F10 notification. Copy attached.

Standards All works are to be carried out in accordance with BS 6187 Demolition and in line with HSE guidance notes GS 29 parts 1,3, and 4

Method Statements Prior to carrying out any works the contractor is to undertake a detailed site inspection to. identify all risks above, and below ground pertaining to the work which may or may not be covered under the schedule of works items but will affect the process of demolition.

A method statement clearly setting out the method in which the demolition works are to be undertaken is then to be provided for approval the property insurers.

Salvage All salvageable materials arising from the dismantling or demolition works are to be carefully cleaned off and set aside for reuse. The contractor shall include in his rates all necessary

methods of working required by this condition.

Salvaged materials not to be reused as part of the works and with a salvage value are to be removed from site and any salvage value credited to the employer or stored on site in a location agreed with the employer.

Services — Where demolition or dismantling works involve the diversion of services, cables, or ducts, these are to be included as part of the works.

25kg loads — As part of the works there is likely to be some dismantling of elements in excess of 25kg in weight. Under no circumstance are elements of historic fabric to be cut and or otherwise damaged to comply with 25kg handling parameters. Large elements such as stones will need to be handled in the traditional way with levers, winches, Lewis hooks or other approved and safe methods. Where necessary method statements will be required.

D MASONRY WORKS

NOTE The existing stonework of the structure constitutes its archaeology and gives the building its character. For this reason, there will always be a presumption that only stones that are structurally, rather than visually, deficient will be candidates for repair and or replacement. A full assessment of the stonework is to be carried out by the architect prior to the scheduling of the repairs on the completion of the scaffold. Where replacement of stone is required, it may be a condition of the LBC and require final approval from the Local Planning Authority. This fact will need to be factored into the programming of the works.

D1 MATERIALS

New Stone Generally

New stone agreed by sample shall be:

a) From one quarry bed.
b) Properly seasoned as recommended by the quarry and brought to the proper condition for use.
c) Free from any defects that could adversely affect the integrity of the stone in use, e.g. vents, cracks, clay beds or fissures.
d) Free from any defects on the faces visible in the completed work that could mar the appearance of the stonework.
e) Marked with the natural or quarry bed on the bed of each worked stone.
f) The supplier must confirm quarry and/or bed of origin.

Stone Type

Calcareous Oolitic Limestone:
New dressed stone for use in repairs to architectural features are to be agreed by sample. Samples of the following stones are to be provided and examined on site.

a) Stoke Ground Base Bed
Bath Stone Group Stoke Hill Mine, Midford Lane, Limpley Stoke, Nr Bath BA2 7GP
Email: info@bathstone.com Tel: 01225 723792

b) Hartham Park stone T2 Basebed
Lovell Stone Group, Downs Quarry, Kingston Rd, Swanage, Dorset, BH19 3JP
Email: sales@lovellpurbeck.com Tel: 0333 2511149

c) Hartham Park Ground stone
Lovell Stone Group, Downs Quarry, Kingston Rd, Swanage, Dorset, BH19 3JP
Email: sales@lovellpurbeck.com Tel: 0333 2511149

Stone Samples

Whilst suggestions have been made above as to the type of stone required for the works, additional and alternative samples may be required to achieve a good geological, colour and character match. The contractor will be responsible for arranging alternative samples until a final stone is agreed.

Core Material:

Core material is to be sound clean limestone based materials free from organic or ferrous materials and shaped to suit on site.

Metal Fixings

Dowels and other metal fixings associated with masonry to be fabricated from austenitic stainless steel grade 316. or phosphor bronze. The use of mild steel fixings into stones is prohibited.

D2 WORKMANSHIP

General

The minimum of disturbance is permitted to the existing stonework. All new work must be adjusted to suit the lines of the existing. Irregularities are to be retained except for where they are scheduled items.

Existing Tooling

To ensure continuity of character any new stones will be required to be dressed using the same techniques as the original stonework some of which have been prepared using a stone axe. Some new stonework is to be similarly dressed to an approved sample.

Dimensions

The contractor is to ensure the following:

a) Where stones are dimensioned, they are done so in the following way: length of face x depth into wall x bed height.
b) All stone sizes are to be determined by measurement on site and not from drawings, or schedules which are indicative only and have been prepared without the benefit of full access.
c) Where stones are un-dimensioned, or their sizes are left to the contractor's discretion then stones dimensions must not be greater or less than examples of similar stones on site.
d) site dimensions should be taken in imperial and converted into metric.

Stone Selection

New stone to be incorporated into the existing building is to be carefully selected so that the grain, texture, and colour are as close as possible to the existing stone. The contractor is to ensure that he communicates accurately to the stone supplier the exact nature of the stone that is required. Where a quarry supplies several varying stone grades the contractor must be clear as to which grade is required. Stone which is delivered to site must be checked to ensure the following:

a) The stone is free from material defects, such as, spalls, chips, vents, cracks, staining, excessive soft beds or any other such defect which would affect either the visual or structural performance of the stone.
b) All stones are to be sized correctly in accordance with their bedding direction.
c) All stones are to be marked up so as to be identifiable from the fixing schedule.

Transport and Storage

Transport all stone with minimum handling. When new stone is delivered to site the stone is to be stored carefully under cover, protected from accidental damage and not in contact with the soil or other contaminants. Cover with non-staining tarpaulins and protect from rain and freezing. Stone is to be stacked in a manner that permits identification markings to be easily seen and that permits stones to be used by sequence of fixing.

Replacement of stonework

Where individual stone replacement is indicated on the drawings and or schedule or is instructed as part of the works:

a) The contractor is to take a measured and photographic record of the affected area prior to cutting out.
b) The contractor is to cut out the affected blocks with great care so as not to damage the arrises of the adjacent stones. The depth of the cutting out will be dependent on individual stones but in most cases is assumed to be the full depth of the stone and not less than 150mm.
c) The contractor is to ensure that stones are removed in such a way that the stability of the structures is not comprised. Where necessary, blocking of openings with timber packers and wedges may be required to ensure stability.
d) Any loose core or stonework disturbed during cutting out is to be made good by the resetting of stones and or core material in approved mortars. Where necessary, localised grouting of voids may be required.
e) Replacement stones are to be carefully cut so that the joints between the new and existing stones match the original details and are as tight as possible.
f) Where the removal of stone has revealed cramps the new stones may require pinning. The method of pinning is to be agreed on site with the Architect.
g) Any works to carved or moulded sections is to be finished insitu to ensure that lines run through correctly. Existing stones must not be adjusted under any circumstances.
h) Historic marks, such as strike marks, graffiti and old fixings holes on stones designated to be replaced will require recording prior to the completion of the removal of existing stones. The contractor is to notify the Architect in all such instances.

Laying & Fixing

a) Provide adequate lifting plant to unload and handle stones into position.
b) Thoroughly wet new and adjoining stones before fixing.
c) Lay stones so that the bedding plane of the stone is correctly aligned.
d) Lay stones on a full even bed of mortar as specified.
e) Horizontal and vertical joints to be of widths to match existing masonry or as approved by the Architect.
f) Fill all joints and joggle joints solid. Hollow bedding is not permitted.
g) Fit and grout solid all dowels and cramps etc. as the works proceed.
h) If grouting of any joints is essential, this must be carried out in the same mortar as used for bedding. The use of Ordinary Portland Cement is forbidden.
i) Fixing may not be carried out unless temperatures actual or anticipated, is at least 5°C above freezing.

Iron Cramps

All iron cramps encountered during the work are to be cut out and replaced with non-ferrous cramps, taking care to avoid causing further damage to surrounding stonework.

Finishing

All new dressed stones and indents are to be finished to an approved sample that reflects the characteristics of the earlier masonry. Any machined stones are to be left with an allowance for hand finishing to exposed surfaces. All new fixed stone is to be from other defects which detract from the appearance of the stone.

Protection and Cleaning

Ensure the following;

a) As work progresses, ensure all finished or delicate areas of masonry are protected with firmly fixed protections to prevent damage. Where necessary, supervise the erection and striking of scaffolding to ensure that no incidental damage is caused to the masonry.
b) All facework is to be kept clean from staining during construction and at completion of the works.
c) On completion of the works, the stonework is to be cleaned down from top to bottom to approval as the scaffold is being taken down.

E MORTARS FOR BEDDING, POINTING & PLASTIC STONE REPAIR

GENERAL The mortars to be used in the construction of the walls reflect a number of phases of adjustment. Whilst a significant number of areas have been over pointed with cement the base mortar will always be used as a guide to match mortars.

E1 MATERIALS

Lime Putty Lime putty is to be a minimum period of 1 year old and must have been stored in an airtight container with adequate cover of water. The putty is to be free of lumps greater than 0.5mm in diameter. If necessary, putty is to be strained through a sieve to remove lumps. Frost exposed putty will not be acceptable.

Hydraulic Lime Hydraulic lime is to be pre-bagged and within its sell by date and is only to be used if weather conditions dictate. No damaged bags or bags from previous jobs will be accepted. Mortar mixes will be designed to suit given applications and may be subject to testing but as a rule the following mortar will be used.

NHL 3.5 General core and building work.
HNL 5.0 For high level pointing and bedding works.

Sands Sand colour, size and texture are critical in the production of matching mortars. Sands will need to be well graded from 4 to 5 mm - <150 microns. The mix of particle sizes will need to be determined by assessment of samples. This may result in a number of different sands having to be combined to give a balanced mix.

All sand and other aggregate is to be local;
Aggregate shall be non-staining and clean. It shall be sharp, with a range of particle sizes and of the correct colour so that new mortar, when dried out, will match the existing mortar in colour and texture.

a) For general work the aggregate to be coarse sharp sand with a range of particle colours and sizes.
b) For fine joints the aggregate to be a mixture of crushed stonedust and fine sharp sand.
c) For wide joints the aggregate is to include a porous particulate of crushed brick, stone or chalk, sieved to remove fines.
d) The aggregate to be well washed, dried and stored in dry conditions.
e) Samples of aggregates are to be provided for approval. A final selection of the aggregates will be made following the preparation of samples.

Stone Dust Stone dust for colouring is to be Bath stone dust available from a number of suppliers including masonry companies.

Pozzalans 1) Metastar 501 metakaoline based pozzolanic additive.
2) Buff coloured crushed brick dust from the Bulmer Brick Company.

Water Water for the works is to be clean and pure and free from salts.

E2 MORTAR MIXES AND SAMPLES

General Mix The general mortar mix used in the reconstruction of stonework, and deep packing joints is to be comprised of a well graded sharp sand from 150 microns up to and including particles as large as 3-5mm. It is essential in lime mortars that a range of particle sizes is used to help with mortar strength.

Mixes should be by volumetric ratio and are generally to be;

3 Parts aggregate
1 Parts Lime

Stone Repair Mortar samples

Where stone is to be repaired a range of mortars will be required which have a similar colour and texture to the stone. Typically, a base repair mortar will need to be agreed and minor colour and texture variations of this will need to be developed to suit different areas and stones. A pallet of 3-6 variations will be required depending on the extent of mortar repairs. Variations in colour and texture are to be controlled by selection of aggregate and NOT the introduction of dyes or other pigments. The selection, grading and proportions of aggregates is therefore crucial.

Samples of these mortars will be required and will need to be agreed by trial. The general rule to be followed is that mortars are to be;

1	Part	NHL 3.5 NHL or Lime Putty (depending on location see note above)
2	Part	Sharp sand
1	Part	Porous limestone aggregate.

Successful base mortar mixes used on other buildings in the area include the following;

1	Part NHL 3.5 NHL or lime putty (depending on location see note above)
1 ½	Parts Holme sand
1	Part Bath Stone Dust
½	Part Ginger Sand (Ham)
	Slate Dust to colour

Pointing Samples

Provide a range of pointing samples using different sand mixes in sufficient quantity to try and match existing pointing. Point an area of walling adjacent to existing sound pointing so that comparisons can be made.

Keep a record of the different mixes used in each sample so that further refinement and repetition can be achieved.

Following preparation samples are to be covered with damp hessian and allowed to cure naturally in a shaded location. Samples which have been force dried (e.g. using hair driers, ovens, kilns or under strong sunlight) will produce an artificially light result and will not be accepted. The final colour match is usually ready for inspection on completion of the curing which is after about 2 weeks after initial application.

E3 WORKMANSHIP

Mixing of Hydraulic mortar

Hydraulic lime mortars may be mixed on site using a drum mixer. Mortars are to be mixed in batches that do not exceed the working allowance and in line with weather conditions to prevent wastage. Only as much water as necessary is to be added to achieve a pasty consistency of the mortar. Working with NHL 3.5 poses health issues especially with airborne dust so all necessary PPE should be worn during the handling of the lime and its mixing.

Mixing of course stuff

Non Hydraulic Lime mortars mixed on site are to be prepared on clean mixing boards or in a pan mixer which are to be cleaned at the end of each mixing session. When lime and aggregate are mixed together to form coarse stuff absolutely no water is to be added. The mix is to be well worked until it becomes plastic and there is no evidence of lime or aggregate lumps. Once mixed the course stuff is to be stored in airtight containers for at least four weeks prior to use.

Bedding

All rebuilt and new stonework is to be fully bedded with the mortar extending fully to the face of the work during construction. This is to allow an element of protection to the mortar joint during carbonation. Were joints are to be pointed, raking out will be required once work is complete. The bed depth is to be consistent with the existing fabric and where necessary point to point contact between stones and galletting will be accepted.

Fine Joints

For fine joints the aggregate to be a mixture of crushed stonedust and a fine sharp sand.

Prewetting

It is essential that stones are pre-wet sufficiently before they are incorporated into the works. Hydraulic lime requires the presence of water to set and unwetted stones will desiccate the mix leading to its failure. The contractor will need to allow for barrels or other containers for prewetting of stones.

Raking back new Mortar

The depth of raking back will be governed in general by the condition of the mortar so timing is important. Pointing joints in new work are to be raked out using hand tools to remove all loose & soft material and to a minimum depth of 25mm. Where necessary green mortar should be rammed back to ensure a solid joint prior to pointing. Joints below ground can be left full.

Cement removal

All cement pointing is to be checked for soundness using hand tools. Where clearly loose it is to be removed using the least damaging means possible. **Angle grinders must NOT be used under any circumstances.** Stubborn and well bonded areas of cement will need to be inspected by the Architect and a method of removal agreed by trial.

Depth of Joints

The depth of raking back will be governed in general by the condition of the mortar. Generally pointing joints are to be raked out using hand tools to remove all loose & soft material and to a minimum depth of 25mm.

Where mortar has clearly perished and friable to a depth it may be necessary to "deep-rake" and "deep-pack" point the masonry to a depth of 25-100mm. For quantifying purposes a depth of 75mm should be assumed.

Thin joints (less than 6mm) shall be raked out to minimum depth of three times their width, using saw blades if necessary. A range of raking out tools are to be available on site to accommodate the variations in joint width. No joint is to be raked out using a tool more than $^3/_4$ width of the joint.

Raking Old joints

Great care is to be exercised when raking out all joints to be repointed to ensure that the arises of the stones are not further damaged. Determining which joints are to be raked out will require judgement on site but the general rule is that all sound lime pointing is to be retained. Mortar is to be removed using hand tools such as hacksaw blades, chisels and pointing trowels. Raked out joints are to be nominally 25mm deep.

Stability

Where there is any danger of stonework becoming loosened during the raking out and repointing exercise, raking out is to be limited to small areas (say 1m^2) which are to be repointed immediately before progressing to an adjacent area. Timber wedges can also be used to help ensure continued stability id sections of masonry.

Deep packing

Where joints are excessively eroded beyond the standard repointing depth they may require deep packing with mortar. Where this is the case the joints are to be flushed out with water to remove all fines and prevent desiccation. Joints are then to be packed with bedding mortar and rammed in using ramming sticks. Joints are to be left to set before new pointing is introduced.

Pointing up

a) On completion of deep packing, point all excavated joints for their full depth to result in a finish proud of the substrate. On excessively wide and tapering joints agreement as to the finish may have to be approved by the architect.

b) Once the mortar is leather hard, joints are to be scraped and knocked back with a churn brush. Note that knocking back involves hitting the stonework with the brush to compact the mortar. Brushing of the joint with the brush can leave brush marks and opens the surface of the joints and will not be acceptable. Joints with brush lines will be **CONDEMNED**.

c) In areas where the aggregate needs to highlighted allow for gentle damp sponging of the surface of the mortar with clean water to bring out colour of aggregate. Do not

over wet.

d) The mortar must be tended and protected to ensure complete carbonation of the lime: The mortar should loose its moisture slowly and be protected as described below.

Weather Protection

Protect new mortars with a double layer of **damp** hessian against rapid drying, overheating or frost damage. If there is a drying wind provide additional protection to the mortars with a polythene sheet to help retain moisture. As the mortars may take several days and sometimes weeks to fully set it is vital that the area around the work remains damp. This is done through ensuring that the protective hessian in regularly wetted and by ensuring that prior to undertaking the repointing work that the substrate is sufficiently pre-wetted. Allow for wetting the hessian at least twice a day during mild days and three times a day on hot days. Direct wetting of finished mortar will lead to lime bloom and should be avoided.

Protection and Cleaning

a) Cover arrises, mouldings, carvings and other finished work with adequate protection firmly fixed.

b) Keep facework clean and free from staining during construction until completion.

c) Clean off, rub down and leave stonework clean to approval, as scaffolding is taken down.

Mortar Repairs

Mortar repairs are often the most sympathetic solution to repairing stonework. Regardless of size all mortar repairs will require a suitable mechanical key to the substrate. Substrates should be prepared by brushing or cutting back and undercutting using fine tools as necessary to provide sound mechanical key. Where such actions are likely to cause significantly increased fabric loss then stainless steel armatures are to be used to form anchors for the repairs. For scheduling purposes it is assumed that there will be three sizes of mortar repairs. These are Major medium and minor repairs.

Minor repairs

These type of repairs require a single application of mortar no greater than 10-15mm. These repairs require no armatures and are usually no greater then 5cm x 5cm

Medium repairs

These type of repairs require 2 applications of mortar to result in a build up of no more than 25-30mm. These applications may require some armatures.

Major repairs

These type of repairs usually require both armatures and 2 or more applications of mortar to build up the desired thickness of mortar. They tend to be in excess of 100 x 100mm

F CARPENTRY

GENERAL The nature of the carpentry is unknown at this stage but it is highly likely that some works will be required to the loft area and roofs. Given the tight nature of the spaces and the sensitivity of the fabric the general rule is that screws are to be used in place of nails or other impact fittings.

F1 MATERIALS

Salvaged Timber Where timber is sound and functional, the general assumption is that this is to be retained and reused. Timbers will need to be de-nailed where reused.

New Rafters These rafters will be used to replace any defective rafters measuring 110mm x 50mm.

Rafter Size	100 x 50mm PTSW
Grade	C24 timber

Timber should be supplied as dry as possible before being incorporated into the works.

New Top Plates These timbers will be used to replace the perished top plate whose section as yet is unconfirmed.

Plate Size	75 x 150mm PTSW (to be confirmed)
Grade	C24 timber

Studwork The only area of anticipated studwork will be the light well to the rear rooflight to SL2.

Plates	100 x 50mm PTSW
Studs	100 x 50mm PTSW
Noggins	100 x 50mm PTSW
Grade	C16

Service Decks Timbers for the new service platform and crawl ways will require confirmation by the engineer.

New Joists	50 x 125mm PTSW
Truss plates	50 x 125mm PTSW
Plate fixings	100mm x 8mm A2 stainless steel coach screws and washers
Noggins	50 x 125mm PTSW
Grade	C24 timber
Decking	22mm moister resistant Caberfloor boards
Deck fixings	55mm x 5mm Chipboard wood screws Zinc plated steel.
Joist hangers	Multi truss hangers 47 x 97mm 1.5mm galvanized steel.

Ceiling Joists Timbers to replace missing ceiling joists are to be.

Ceiling joists	35 x 100mm PTSW
Grade	C24

Joist Stiffeners Timbers used to stiffen weakened joists are to be.

Joist stiffeners	22 or 25 x 75mm PTSW
Grade	S/F Exc VI

F2 WORKMANSHIP

Generally All carpenters work is to be accurately set out, taking care to work to existing deformation of the building without trying to straighten up or square up any existing irregularities. All work is to be finished off in a proper and workmanlike manner. New work is to be carefully wrot and blended to old and old timbers are not to be cut away, planed or otherwise worked unless specific instructions have been given by the specifiers to do so.

Cutting Back Structural members shall not be cut away except where marked by the specifiers. Care is to be taken to ensure that no more of the existing timber than is absolutely necessary is cut away.

Fixings	The area being worked on is delicate and the minimum of heavy banging is recommended. All timbers wherever possible and practical are to be fixed in place with screw fixings.
Cleaning	Ensure that all shaving and off-cuts etc. are collected up and removed from site. In particular leave no surplus materials in concealed spaces where they could attract vermin or contribute to a fire.
Defective work	Should any warping or unreasonable shrinkage occur, or any other defect appear in the carpenters work before the end of the defects liability period such defective work shall be taken down and renewed and any work disturbed in consequence shall be made good at the contractors expense.

G LEADWORK

GENERAL All works are to be designed and executed in line with the Lead Sheet Association recommendations. Where historic details or new detailing does not conform the standard recommendations, these areas are to be identified to the Architect.

Lead Sheet and flashings should conform to British Standard 1178:1982- Milled Lead Sheet for Building Purposes.

G1 MATERIALS

Existing Lead The existing lead on the roof to be stripped is likely to be old and heavy gauge. The contractor is warned that existing lead can have deposits of lead salts which are highly toxic and can be absorbed through the skin. Existing material must be handled with care using suitable PPE.

Lead Code All new lead is to be milled to BS1178:1982 and of standard thickness.

Cover Flashings	Code 5
Gutter linings	Code 5
Soakers	Code 3
Manufacturers	British Lead Mills
Address	Peartree Lane, Welwyn Garden City, Hertfordshire AL7 3UB

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

Screws Screws should be brass or stainless complying with BS1210 not less than 19mm long and 3.35mm in diameter. Screws for flashing fixings should be no less than 35mm long.

Plugs Where flashings are to be supported with screw fixings plastic plugs may be required to aid in fixing. These should be sized to suit the screw diameter and length.

Patination Oil

Manufacturers	British Lead Mills
Address	Peartree Lane, Welwyn Garden City, Hertfordshire AL7 3UB
Suppliers	Builders merchants

G2 WORKSMANSHIP

Hot Works The nature of the works should not require the use of hot works. If the contractor identifies that hot works are required, they are to notify the Architect immediately.

Strip Out The works require the stripping out of the existing installation. Whilst the verge abutments have been flashed, they are also flaunched and it is unclear if any lead flashings are in place.

Stripping out is to be carried out with the utmost care so as not to cause excessive damage to the structures below and should not take place until the necessary protections are in place.

Design The final design of leadworks will need to be agreed on site with the architect.

Pre installation Prior to installation of leadwork check the following.

a) Substrates are securely fixed and don't rock.
b) Fixings are countersunk and do not pose an abrasion risk.
c) Slating details have been agreed.
d) Any insulation is in place.

Flashings a) Cover flashings are to be no greater than 1500mm long.

b) Side laps are to be 100mm minimum.
c) Wedge fixings are to be every 450mm.
d) Flashings are to extend a minimum of 75mm over abutment flashings and soakers.

Finishing Oil

a) Apply with a clean soft cloth immediately after fixing and before the Lead gets wet.
b) Work horizontally or vertically in straight lines.
c) The leading edge and underside of the sheet should be coated to a depth of 75mm.
d) Apply in a well-ventilated area, away from naked flames.
e) Suitable gloves should be worn.

H ROOFING TILING AND SLATING

GENERAL The main building comprises Bridgewater double Roman tiles that are to be reused. There may be a requirement for replacements that are to be new. The slate roof to the beer cellar has been designed in collaboration with the Welsh Slate Quarries. Due to the limited pitch of the roof and the moderate exposure of the site as defined by the BRE Digest 127 – An index of exposure to driving rain particular attention must be paid to details of head laps and slate size.

H1 MATERIALS

Tiles	Material	Clay
	Supplier	Wienerberger (Sandtoft tiles)
	Tile Name	Bridgewater Double Roman tiles
	Size	420 x 340mm
	Email	nigel.dyer@wienerberger.com
Slate Type	Material	Welsh Blue
	Supplier	Welsh Slate Quarries Festiniog
	Slate Name	Qwt-y-Bugail
	Slate gauge	7mm County grade
	Size	500 x 300mm for pitches down to 20° 500 x 250mm for pitches down to 25°
	Address	Penrhyn Quarry, Bethesda, Bangor, Gwynydd, LL57 4YG
	Tel	01248 604206
	Email	Enquiries@welshslate.com
Tile Nails	Material	Copper Ring shank Clout head
	Size	10mm head 38mm long 3.35 diameter
Slating Nails	Material	Copper slate nails with
	Size	10mm head 40mm long 3.35mm diameter
Counter Battens	Supplier	John Brash / Marley Eternit
	Type	JB Red Preservative treated Softwood to BS 5534:2014
	Counter bats	25 x 50mm
Tile Batten	Supplier	John Brash / Marley Eternit
	Type	JB Red Preservative treated Softwood to BS 5534:2014
	Size	25 x 38mm
	Gauging	345mm max.
Slate Battens	Supplier	John Brash / Marley Eternit
	Type	JB Red Preservative treated Softwood to BS 5534:2014
	Battens	25 x 50mm
	Gauging	Pitch dependent (see below)
Counter Batten Fixings	Supplier	Screw-Tite Pozi
	Type	Part threaded countersunk screws
	Size	110mm or 120mm x 6mm
	Frequency	350mm vertical centres https://www.toolstation.com/screw-tite-pozi-countersunk-screw/p80434
Batten Fixings	Type	Annular ring shank nails
	Material	Stainless steel
	Size	3.35mm x 65mm
	Frequency	To every rafter.

Undercloak	Undercloaks and top courses are to be supplied precut to suit the final slate size. The cutting down slates on site is to be avoided.	
Slate and Half	Slate and halves are to be supplied to suit the final slate selection size.	
Eaves Carrier	UV resistant felt to eaves detail only.	
Netting	Manufacturer	Various
	Material	Polypropylene
	Mesh size	20x20
Inter Rafter	Manufacturer	Steico
	Product	Flex 036
	Thickness	120 mm for main roof 100 mm for main roof
	Data sheet	See appendix.
Membrane	Manufacturer	Steico
	Product	Multi UDB
	Thickness	1 mm
	Data sheet	See appendix.
Over Rafter	Manufacturer	Steico
	Product	Duo Dry
	Thickness	40 mm
	Data sheet	See appendix.

H2 WORKMANSHIP

Order of Work — There are two roofs being re-laid. We have assumed that the main roof will be laid first as it sits above the roof to be slated.

Stripping Tiles — Existing tiles should be stripped from the top down to prevent debris falling into the roof space. The stripped tiles condition will need to be assessed and sound tiles retained for reuse.

Protections — Allow and maintain adequate protections to ensure that exposed structures including wall heads, roof structure and ceilings are protected from weather and in the case of the ceilings impact from above.

Pitch Checking — Before commencement of any ordering it is essential that the roof pitches are measured, and the areas confirmed. What has been set out in the schedule of works are estimated areas and whilst suitable for pricing purposes should not be relied on for ordering.

Insulating — The roof is to be insulated with a system that requires considerable attention to detail and tight tolerances. All works will be carried out from above and the contractor is to ensure that all necessary risk assessments and health and safety precautions have been made. Unlike conventional modern roofs there is no batten zone membrane. The membrane is to be sandwiched between insulation layers. This ensures greater air tightness and allows the membrane to be protected but presents some challenges to general detailing. The upper layer of insulation is water repellent and can be left exposed to the elements for several months before being enclosed but is best kept dry.

The inter rafter layer will need to be cut snuggly between the rafters and should be a friction fit. The fact that a netting layer will be provided is as a secondary precaution. The insulation is to finish flush with the rafter tops.

The airtight membrane will need to be set out so that the bottom edge can be fixed to the face of the wallplate and the eaves are equally secured. This will need detailed inspection to ensure an air tight detail.

The over rafter insulation has been selected as it can be worked off due to its rigid nature and has interlocking edges that will need protecting whilst works proceed.

Counter Battens — Counter battens are to be fixed to the line of the rafters through the insulation with 40mm penetration into the rafter. Partly threaded screws have been specified to ensure the structure is pulled up tight.

Battening — The battens shall be positioned to suit the minimum gauge set out below, and securely spiked to each counter batten with specified fixings. Junctions in each run are to be splay jointed and positioned so that the end of each batten may be nailed to a rafter.

Tile Gauging — Bridgewater Double Roman 345mm

Slate Gauging — The batten gauge will depend on the pitch and the slate finally selected. Set out below are the recommended batten gauges in each case. The contractor is to double check with the slate supplier to confirm detailing as it has been noted that recommendations vary between supplier.

Cwt-Y- Bugail	Batten Gauge	Holing Gauge	Head lap
500 x 300mm for pitches down to 22.5°	191 mm	331mm	125mm
500 x 250mm for pitches down to 25°	196mm	326mm	115mm

Slate Course — The slate coursing will depend on the pitch. Given the number of verges the courses will need to be determined so that the correct number of slate and a half, can be ordered. What has been suggested in the schedule of works is based on surveyed measurements.

Slating

a) Prior to holing slates are to be sorted into 3 or 4 sub grades of thickness to provide and even appearance overall.
b) Slates should be orientated so that the thicker end of the slate forms the tail and the thinner end the head.
c) Slates are to be holed from the underside (bed) using a drill or boring method to the dimensions set out above and are to have 2 holes per slate.
d) The slates are to be laid to the specified head lap and with half bonding side laps with approximately 5mm between the sides of slates.
e) Slating is to be carried out from the eave upwards.

Nailing — Use specified nails. Do not nail through any plumber's metal work.

Eaves — Eaves to be laid with an undercloak course head nailed with bed uppermost, holing to be carried out from the back of the slate.

Head Slate — Top course at head of the slope is to be cut to maintain gauge and twice head nailed as specified.

Abutments — Lead soakers and cover flashings are to be formed at all abutments, as specified under leadwork.

Verge — The width of slates is to be maintained as a minimum at verge by use of larger slates in alternate courses.

J METALWORK CLEANING

GENERAL The blasting of metal will remove all historic paint which may be of value in determining historic paint colours and may result in erosion of sections. Before blasting is commenced check with the Architect that any paint sampling has been carried out and all section sizes have been recorded. Only proceed once confirmation has been received by the Architect.

J1 MATERIALS

Abrasive All blasting material must be clean and new. Use of salvaged material will not be permitted. The use of silica sand is not permitted under the Control of Substances Hazardous to Health regulations of 1989. Acceptable blasting materials for sandblasting equipment are as follows.

Material:	Chilled Iron Grit
Supplier:	Wolverhampton Abrasives Tel 0114 2540600

Material:	Glass Grit
Supplier:	Wolverhampton Abrasives Tel 0114 2540600
Fine	0-0.75mm
Medium	0.75-1.5mm

J2 WORKMANSHIP

Sample Areas & Pressures Test areas should be carried out to determine both the correct air pressure and cleaning medium. Whilst grits and pressures used to clean steel will clean wrought iron and cast iron effectively the pressures used for each may be slightly different. The operator is aiming to obtain the cleanest surface with the least erosion possible. All areas of rust are to be removed as part of this process.

It is recommended that a low air pressure and fine nozzles be used initially, at say 40psi (6 kPa) with a fine abrasive. The cleaning pressures can be increased up to 60-70psi if needed.

Blasting nozzles are to be selected according to the precision required to reduce unnecessary damage to surrounding fabric.

Cleanliness Cleanliness of the metalwork must be tested before the application of the zinc coat. ISO - Sa 2.5 is the optimum standard required by may vary depending on the zinc grade being applied and the softness of the wrought iron. The contractor is to check with the zinc supplier as to the level of cleanliness required for the adhesion of the zinc using the selected spray system.

Air Blasting air must be free of contaminants such as water and oil and the airlines must be fitted with after coolers, moisture traps, and filters to prevent contamination.

Checking The work must be checked at various intervals to confirm that all sides are suitably coated. Where necessary the work should be turned through 180˚ so that the underside is suitably coated, and areas of shadowing are avoided. Additional applications of material should be applied to all undersides of rails which are to be located at low level and will prove difficult to decorate in the future.

Post Abrasive Dusting All newly cleaned surface must be adequately dusted, or air cleaned to remove trace elements of metal, (paint and) abrasive material. This process must take place immediately and **no more than 1 hour** after cleaning. The preferred method of doing this is using vacuum cleaners and or brushes to removed particles ingrained in complex castings.

Handling Blasted materials must not be handled with unprotected hands. Where handling is unavoidable then clean cotton gloves must be used.

K THERMAL ZINC SPAYING & METALWORK DECORATION

GENERAL This specification has been put together with the aid of the Akzo Nobel technical department, Meadow Lane, St Ives, Cambridgeshire, PE27 4UY Tel 0333 222 7070 and Metallisation Limited. Technical queries relating to the application of paints are to be addressed to the Architect in the first instance but may be referred on to third parties.

BS 6150: 1991 Code of practice for the painting of buildings
BS 8000: Pt 12

K1 PREPARATION

Site Cleaning The decoration of the components should be carried out whilst the railings are dismantled to allow access to all surfaces of the metal where this is not possible then the railings will need to be prepared in situ. Where the metal has been left unprotected for a long time and has been allowed to rust up the decorator will be required to wire brush the metal to remove all loose material before passing over with a blowtorch to heat and dry the metal mitigating the risk of encapsulated moisture. This is particularly important at junctions and on the underside of rails where water tends to collect.

Degreasing Where it is not possible to prepare and spray metal offsite the metal will require degreasing immediately prior to painting using methylated spirit applied with lint free clothes.

Sectional Work It is vital that only small runs of work are prepared at any one time to limit the amount of exposed and prepared metalwork. Ideally, work should be prepared and then immediately primed and a continuous action. Any prepared work left un-primed overnight is to be re prepared to eliminate overnight contamination.

K2 MATERIALS

Thermal Spray	Zinc	99.99% Zinc E2E wire gauge to suit equipment.
	Supplier	Metallisation Ltd, Pear Tree Lane, Dudley, West Midlands. DY2 0XH Tel: 01384 252 464
	Thickness	100µ Generally 150µ to underside of bottom rails.
Primer	Paint	Dulux trade metal shield zinc phosphate primer OR Armstead zinc phosphate primer.
	Coats	Allow for 2 No. coats allowing a minimum drying time of 16 hours between coats.
	Thickness	Wet Film thickness of each coat should be no less than 95 micrometres.
Top Coat	Paint	Sikkens Rubbol Satura manufactured by Akzo Nobel
	Coats	Allow for 2 No. coats allowing a minimum drying time of 16 hours between coats 24-36 hours to achieve optimum performance.
	Thickness	Wet film thickness of each coat should be no less than 70 micrometres.
	Colour:	**RAL 9005 TO BE CONFIRMED**

K3 WORKMANSHIP

Blast Cleaning Refer to metalwork cleaning section above.

Thermal zinc Thermally spray all components with zinc to achieve all over surface finish to a minimum thickness of 100 micrometres as recommended by the manufacturers. In areas known to be vulnerable such as the underside of the top and bottom rails additional zinc should be applied to achieve a thickness of 150 micrometres. (Note this will need to be confirmed by trial)

Primer Coats

The primer to be applied forms part of a paint system and must not be substituted for any other primer. The primer can be applied by brush or by spray. The manufacturer recommends spray should be applied using an air assisted airless system using 15 thou (0.380mm) fluid tip and fluid pressure of 2000-2350 psi (140 - 160 bar).

Spray applications often result in a thinner coating of the metal and adjustments to the second coat application may be required to achieve the thickness coating recommended by the manufacturer.

De-nibbing

If paintwork requires de-nibbing or minor abrading between coats this is to be done using P240 or finer abrasive and the surface is to be wiped clean on completion of preparation.

Sample of Finish Quality

A sample area of finished decoration is to be prepared for inspection of the Architect. & Employer. The sample area is to conform to the following.

a) Uniformity of colour.
b) Uniformity of finish texture, gloss, satin matt etc.
c) Is to be free for any excessive bulking or thinning, dust or dirt, runs, sags, drips, and unpainted areas, and wrinkles and is to be of the highest quality.
The Architect reserves the right to condemn any poor-quality work. The agreed sample area will act as a guide to the general quality of the work through-out.

Topcoats

Application of topcoats are to be agreed by trial. Ideally topcoats should be brush applied, however the first application of the topcoat could be sprayed. Where paint is brush applied a working method is to be adopted where decorators work on both sides of a railing simultaneously to ensure continuous coating of the metalwork.

Each topcoat is allowed to dry fully before over coating, this will be dependent on weather conditions and manufacturers recommendations. Work the paint in the line of each element to result in an even coat application.

Touching Up

The installation of metalwork can often give rise to damage of the protective primer. It is critical that the damaged areas are made good immediately (within 1 hour) to ensure a durable paint finish.

Storing Paints

Store paints in accordance with manufacturers recommendations. Where necessary, decant large tins of paint into smaller paint pots for ease of use and to prevent potential for contamination of large amounts of paint.

Clearing Up

On completion, the works are to be left clean and free from decorators debris including masking materials, dust sheets, paint cans etc. Any paint damage to adjoining stonework should be left for inspection by the Architect prior to attempted removal.

L DECORATION

L1 Materials

Hand Tools — Hand tools for the scraping, brushing down and cutting back of paintwork are to be selected so that they do not damage the underlying timber and or glass. The glass in particular may be fragile, and its preservation is of utmost importance.

Blow Torches — The use of blow torches, heat guns and other heat producing methods of paint stripping are NOT permitted on any of the joinery on the building.

Sandpaper — Sandpaper is to be good quality paper with good particle adhesion and durability. Paper must be pigment free and free of any ferrous material which may discolour the material being sanded. Sandpaper is to be graded according to the job in hand and in line with paint manufacturer's recommendations.
Sanding pads will be acceptable for use throughout.

Sanding Method — All sanding is to be carried out by hand. Belt sanders and rotary sanders and or spinners will not be permitted as these tend to be inaccurate and damage the substrate.

Brushes — Brushes are to be selected to suit the paint and the element being decorated. Brush bristles should be configured to ensure a smooth and consistent application of the paint without the risk of streaking ridging and runs.

Primer	Product	Rubbol Primer Plus
	Colour	White
	Supplier:	Akzo Nobel Unit 04a Mercer Way, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QZ. Tel 0333 2227070 Contact John in technical
	Coats	2 Coats for unpainted timber 1 coat for prepainted and prepared timber
	Thickness	35 microns per coat
	Recoatable dry	18 hours
Top Coat	Product	Rubbol Satura Plus
	Colour	RAL 9001 Cream
	Supplier:	Akzo Nobel Unit 04a Mercer Way, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QZ. Tel 0333 2227070 Contact John in technical
	Coats	2 Coats
	Thickness	35 microns per coat
	Surface dry	4 hours
	Colour	**RAL TO BE CONFIRMED**
Cleaner	Product	White Spirit
	Product Name	Tetrion White Spirit
	Manufacturer	Tetrosyl Limited, Bevis Green Works, Walmersley, Bury, BL9 6RE
	Supplier	Multiple
Wood Fillers	Product Name	Tetrion "woodfil" smooth
	Colour	White
	Manufacturer	Tetrosyl Limited, Bevis Green Works, Walmersley, Bury, BL9 6RE
	Supplier	Multiple

L2 WORKMANSHIP & PREPARATION

British Standards — All workmanship is to be comply with BS 6150:2006 Code of practice for painting of buildings.

Painted Wood	Remove all loose and flaking paintwork. Degrease with a suitable detergent solution, such as sugar soap. Rub down thoroughly with a medium grade sandpaper to provide a key and a defect free smooth surface, “feathering in” areas where paint has been removed. Make good any repairs, sand and apply primer to exposed surface as appropriate. Allow for an additional light application of detergent on completion of the sanding prior to application of primer.
New Wood	For soft woods, knots should be sealed with knotting compound to prevent staining and then primed with Rubbol Primer Plus Undercoat.
New Putty	Akzo Noble is cautious about the use of their product with new linseed oil putty as there may be a reaction if applied too soon. New putty must be as hard as possible before paint is applied to prevent wrinkling. Alternatively, Acrylic putty can be used if speed of application is required but this is less favorable material.
Dryness	Ensure that the wood is suitably dry before the application of paintwork. New wood should have a moisture content of less than 15%.
Application	Stir paint thoroughly before use. Do not apply to surfaces when the ambient temperature is below 5ºC.
Brushing	Use a high-quality natural bristle brush that is suitably sized for the project at hand. New brushes should be conditioned by washing in clean white spirit and thoroughly drying with a clean, lint free, cloth. Avoid immersing brush too far into the paint to prevent paint from entering the ferrule. Avoid drips and splashes by not overloading the brush. Apply paint in even strokes and only extend painting area such that a wet edge can be easily maintained. For the highest quality appearance, keep final brush strokes all in the same direction and never go over paint that has already begun to dry. For intricate items, or where high ambient temperatures/high air flow conditions cannot be avoided, the open time maybe extended with either a 5%(v/v) addition of white spirit or a 3%(v/v) addition of a propriety paint conditioner. This advice is also applicable to large flat areas; however, use of a paint roller is the recommended application method in such cases. Lightly rubbing down between coats will remove any dust motes and other surface contamination, producing a near professional finish.
Protection	Ensure that painted areas are well protected from debris and dust from elsewhere on the job. Timing of decoration is essential to ensure a good finish. Do not allow painted elements to touch each other before paint has fully dried and hardened.
Cleaning	Remove excess paint and clean all equipment using white spirit, or appropriate substitute, immediately after use. Never store brushes or roller sleeves in cleaning solvent as this will result in deterioration of their application performance.
Shelf Life	Only use paint that is well within its shelf life. Store unused paint in a cool, dry, frost-free area, away from direct sunlight and sources of ignition. Ensure tin lids are securely and correctly replaced after use. When unopened and stored under the conditions above, this product is stable for a minimum period of two years.

L3 **AFTERCARE**

Cleaning	For light surface soiling; use a dilute, lukewarm solution of domestic washing up liquid and a clean sponge or lint free cloth. Ensure sponge or cloth is well wetted (but not dripping), wipe the affected area and repeat as required.

General dusting can be effectively achieved using paper towel or soft cloth and the damp dusting method. To prevent marking, always use a soft brush attachment to vacuum clean adjacent surfaces.

Special Care — Avoid placing heavy objects onto surface for a least a week after painting. Bookshelves and other frequent use surfaces may benefit from a very light application of beeswax polish to help prevent marring over the long term.

Repair — Lightly rub down area to be repainted, apply a suitable primer to any exposed substrate. Repaint item “break to break” with one or two coats as required. Standalone items, such as window frames and doors, may require the whole item to be repainted to avoid slight colour differences between the existing finish and adjoining repair areas. Inferior aesthetic results will likely be achieved with just spot repairs.

SCHEDULE OF WORKS COST

PRICING NOTES:

A The schedule of works has been set out as a logical sequencing of works but is not intended to act as an order of works. The ordering of the works is solely the responsibility of the contractor.

B As with most historic buildings there are areas of unknowns & a degree of investigation involving early opening up will be required. Ideally this work would be programmed in as early as possible to allow any issues to be resolved early in the works & any repricing of elements to be carried out.

C In certain instances we have asked for extra over prices. These are to be priced and carried forward to the total.

D To ensure consistent quality sample panels for stonework, bedding mortars and pointing mixes will be required. These may require several weeks to carbonate before being approved.

E The contractor will be required to submit a detailed programme so that the duration and the ordering of the works can be determined.

F The contractor is to price every numbered item, at tender stage e.g., 3.1.2. Successful tenderer(s) will be asked to provide a further breakdown giving a price against each sub item eg. 3.1.2.a. with 3 days of being asked. If at tender stage the contractor wishes to provide a full breakdown then this will be acceptable as long as item totals are provided

1.0 PRELIMINARIES

1.1 The contractor is to ensure that the preliminaries and in particular the working restrictions, set out above, are fully accounted for when pricing of these works. We cannot stress enough that fire safety and weather tightness is of paramount importance, and what is stated above is the absolute minimum expected. Should the contractor feel that additional provision is needed then this should be included at this stage so that full costs are available from the outset.

1.2 The contractor is to include his management costs and all other costs likely to be incurred in this section and not identified as separate items elsewhere.

1.3 Domestic subcontractors
The main contractor will be acting as the single point of payment and invoicing and will essentially be funding the works between certificates. It is therefore fully expected that the main contractor will charge an element of profit on subcontract items. These need not be listed separately but can form part of the section costs below.

1.4 Named Subcontractors
The main contractor will be required to enter into a formal sub-contractors agreement with any named sub-contractor. Any costs incurred will need to form part of the preliminary costs.

1 SITE SETUP

1.1 Contractors compound area (HBA 345-003 P1 proposed compound plan)

1.1.1 Provide and maintain a contractor's compound for the duration of the works. This is to be located in the pub carpark to the NE of the works area (currently holds 15 cars). This location is currently being used by the village garage as a car store and a resident for disabled parking which will need to be accounted for.

Allow for providing and or undertaking the following;

a) Liaise with the employer's representative to arrange the removal of all cars and other vehicles in both the compound area and immediately in front of the pub.
b) Agree with the employer the exact placement of the disabled parking bay for local resident.
c) Self contained staff welfare unit.
d) Sanitary provision within the compound area.
e) All fuel and water to run any unit.
f) Contractors parking area.
g) Materials store.

1.1.2 Site security

Provide and maintain Herras secure fencing to the following areas.

a) Enclosure for disabled parking bay.
b) Fencing to the welefare unit and contractors parking area.
c) South elevation of pub on the line of the road.
d) North elevation of the pub to create a divide between the works area and garden.
e) All lock and chains needed to secure the works area.

1.1.3 Skips

Provide and maintain all necessary skips for the duration of the works. The precise location of the skips is to be agreed but may well be on the highway immediately south of the pub.

a) Allow for all skip licences within the highway.

1.1.4 Incoming services

The site is oversailed by a large number of services some of which are unrelated to the site. The contractor is to arrange for the following.

a) Shrouding of all overhead cables falling within the works area. https://www.ssen.co.uk/our-services/existing-electricity-supplies/shrouding/
b) Disconnection of 2 No. incoming telephone lines to the south elevation. https://www.openreach.com/building-developers-and-projects/altering-our-network

1.2 Special Protections

1.2.1 Safety Netting / Crash netting

Where deemed necessary and identified in any risk assessment provide fall arrest netting to roof voids.

1.2.2 Neighbouring properties

Where there is a risk of damage to plants and fabric of neighbouring properties provide all necessary protections. Ensure that the privacy

of the neighbouring properties is maintained at all times. Where deemed necessary provide Monarflex sheeting to west gable of scaffold.

1.2.3 Highway

The works will involve operations on structures adjacent to and / or over the highway. This will require special consideration as the area to the east of the building has a very narrow highway and footpath and is a bus route. Pedestrians will need protecting for the duration of the works.

1.2.4 Gas pipe

There is a gas pipeline entering the building in the porch area. This will potentially be exposed as part of the excavations detailed in item 3.3.2 below.

2.0 SCAFFOLDING

2.1 Generally (HBA 345-103 P1, & 110-113 P1)

2.1.1 It will remain the contractor's responsibility to design the scaffold to suit the works. Set out below are the principal designers understanding of the minimum requirements, and limitations that will need to be addressed.

2.1.2 Party wall agreements and highways issues

a) Provide all designs illustrating the impact on both No. 4 and 5 Woods Hill and South Stoke. (Highway)
b) Liaise with the employer's representative to ensure that all / any required party wall agreements are in place relating to scaffold.
c) Allow for any modifications to proposals agreed as part of any agreement and or demands by neighbours
d) Liaise with the highways authority to ensure all licences are in place to erect a scaffold in the highway.
Note the highway is already very tight and it is likely that the highways authority will want sight of any proposals.

2.2 Main Scaffold to SL1 & SL2, CH1, CH2 & CH3

2.2.1 Provide and maintain a freestanding scaffold to the main building suitable of being used by roofers and masons for carrying out repairs and dismantling works to all elevations and both roof slopes of the main building. Allow for the following:

a) Access to all sides of CH1, CH2 and CH3 for dismantling, modification, and rebuilding works.
b) Access to both the east and west gables to allow for partial dismantling and rebuilding of the gable ends.
c) Access to strip both roof slopes SL1 and SL2.
d) Access to allow pointing and stonework repair of all elevations.
e) Access to all windows.
f) Access to all gutter lines.
g) All debris netting, lighting fans and other protections specially to neighbouring properties.
h) All ladders, boarding access hatches to make a safe scaffold.

2.2.2 Hoist location

Allow for the provision of a hoist location on the south side of the building to allow the lifting of the following: (most practical location may be over the porch)

a) Stone blocks nominally 500 x 500 x 150mm.
b) Air conditioning unit 210kg 2.1m x 1.2m x 0.5m.
c) General builders' materials.

2.2.3 Attic space access

Provide and maintain any necessary Youngman's boards or alternative lightweight staging to allow work with the attic spaces in advance of permanent staging.

2.2.4 Adjustments to access Chimneys

Allow for all adjustments necessary throughout the works to access modified chimney stacks and other areas of masonry.

2.3 Temporary roof extra over.

2.3.1 Allow an extra over cost for a temporary roof to cover the entire works area complete with side netting and temporary guttering and downpipes.

2.4 Entrance porch SL3 & SL4

2.4.1 Provide and maintain all scaffolding and or hop ups as necessary to carry out the following works to the entrance porch.

a) Reroofing.
b) Dismantling copings and upper section of front elevation masonry.

2.5 East Elevation SL5

2.5.1 Provide and maintain a scaffolding in the highway to provide access to roof slope SL5. Allow for the following:

a) All fees associated with scaffold in highway. [see item 2.1.2.d)] https://www.wiltshire.gov.uk/media/4775/S169-Scaffold-Application/pdf/S169_Scaffold_Application.pdf?m=637364612265430000
b) Eaves line scaffold and returns on the north and south elevation to provide access to the verges to allow for re-slating and insulating of the roof.
c) Ladder access to the south.
d) Debris netting, lighting, fans and other protections required for scaffolds on highways.

2.6 Weekly Hire rates

Provide weekly hire rates for scaffolds. These figures are not to be taken forward to the section totals but may be required for variations.

a) Main scaffold.
b) Temporary roof.
c) East elevation.

3.0 DEMOLITIONS AND EXCAVATIONS

3.1 Existing ground level items (pre scaffold)

3.1.1 Rear canopy SL9

a) Strip polycarbonate roof to SL9.
b) Carefully break out and remove metal framed structure and cart away.

3.1.2 Front elevation Railings

a) Cut back tarmac at base of metal railings between west boundary and porch.
b) Unbolt 3 panels of railings and remove complete with backstays and central posts. Set aside re reuse.
c) Allow for cutting back top rail where it has been built into entrance porch.
d) Even out ground to eliminate any trip hazard.

3.1.3 Organic growth

Remove the following items to allow access to face of building.

a) Day lilies on front elevation against No. 4/5 boundary.
b) Shrub between WG1 and WG2. [Thorny]
c) Cut back tarmac to large stump between WG3 and DG3 to allow access.
d) Grub out tree root and allow inspection of resulting hole to determine any damage to footings.
e) Small shrub/tree to eaves line of SL5.
f) Vegetation to porch roof behind copings.

3.2 Existing high level items

3.2.1 Rainwater goods and Fascia boards

Remove and cart away the following:

a) Plastic gutter and downpipe from south elevation to SL1.
b) Plastic gutter and downpipes from north elevation to SL2.
c) Cast iron ogee gutter and section of downpipe to SL5.
d) All fascia boards anchored to masonry to SL1 and SL2.
e) Fascia boards to Porch roof.
f) Fascia board to SL5 fixed to rafter feet.
g) Verge capping board to the south elevation of SL5.

3.2.2 Services fittings and fixtures

Remove and unless stated otherwise, cart away the following:

a) Metal brackets fitted to CH1 for former TV aerial.
b) Aerial and metal brackets fitted to CH3 and any associated cables.
c) Metal Telecoms bracket to SW and NW corners.
d) All hooks and eyes associated with service fittings.
e) 3 No external flood lights to external elevation.
f) Cockerel sign over front entrance. (Retain on site)
g) Approximately 100 metal fixings to south elevation for training plants and any associated wires.
h) Hanging basket brackets.

3.3 *Gullies and drainage*

3.3.1 Existing Southeast Gully

a) Expose top of existing gully.

b) Carryout water test to determine rate of discharge and pipe runs and advise on condition.
c) Allow for breaking out 1m^2 of ground to determine route of current pipework. Make good.
d) Allow a provisional sum of £750 for repairs to existing pipework.

3.3.2 New Gully to SW corner downpipe
a) Agree route of new storm drain with the Architect.
b) Excavate flower bed in SW corner and where necessary cut back and tarmac or concrete to create hole for new gully.
c) Install Hepworth back inlet Gully SG2/2 with back inlet facing up hill.
d) Cut tarmac and any other substrate back and excavate new drainage run nominally 17m long 550mm deep from SW corner of building around porch to SE gully point and form connection with existing storm drain relates to the Southeast gully.
e) BE AWARE that the incoming gas main is likely to be immediately in front of the porch.
f) Lay Hepworth 100mm SP1 clay drainage pipes with SC1/1 collars on 150mm pea gravel complete with any bends needed to complete run and ensure pipes and backfill with excavated material well compacted around pipe giving a minimum cover of 150mm.
g) Make good tarmac.

3.4 Main service trench

3.4.1 On instruction carryout the following.
Note this item is dependent on third party input from service providers and is intended as a route for all future incoming services.
a) Identify trench route from DG3 to SE corner of the site.
b) Cut back tarmac and concrete hardstandings and internal floor of G4 to allow the formation of a combined service trench 750mm wide x 750mm deep. 7.5m long.
c) Install ducting for 3 phase power.
d) Install ducting for Telephone, and water.

4.0 ROOF WORKS

4.1 General Roof stripping.

4.1.1 Lead Flashings and detailing

Remove all leadwork from the following locations and credit the employer with any salvage value.

a) All flashings to CH1 and CH3
b) All cover and tile flashings including soakers to SL1 and SL2
c) Cover flashings to SL5 and any soakers and tile flashings.

4.1.2 Flaunching removal

Carefully remove cementitious flaunchings and skirting details to the following locations.

a) All 4 abutments of SL4 and SL5 with the main building and the back of the porch.
b) 3 abutments of the main roof with the east and west gable ends.
c) All sides of CH2.

4.1.3 Ridge lifting

Carefully lift all ridge tiles retaining as many as possible for reuse. Include the following:

a) 3 No. hogs back tiles to SL4 and SL5.
b) 27 No. Roll top V ridges from SL1 and SL2.
c) Carefully remove all loose cement and set aside for assessment by the Architect.

4.1.4 Tile lifting

Note that the roof is in poor condition and care will need to be exercised in carrying out the following operations:

a) Lift and set aside all tiles to entrance porch. (Estimated at 56 No)
b) Lift and set aside all tiles to the main roofs. (Estimated at 990 No)
c) Lift and set aside all tiles to SL5. (Estimated at 275)
d) Inspect and sort tiles into reusable tiles and report to architect the number of usable tiles. Retain reusable tiles on site.

4.1.5 Batten removal and de-nailing rafters

The current battens are in poor condition and require removal and carting away. Carry out the following:

a) Remove all battens from main roof de-nail rafters. (Estimated at 354m) Remove small section of roofing felt at the west end by CH1.
b) Remove all battens from porch and de-nail rafters. (Estimated at 19m)
c) Remove all battens from SL5 and de-nail rafters. (Estimated at 75m)

4.1.6 SL5 Rooflight

Remove rooflight in SL5 complete with all glazing linings and associated flashings and other details back to trimmed opening.

4.2 General Roof clearing works

4.2.1 Clearing of main roof voids

Carryout the following works to the main SL1 & SL2 roof void.

a) Remove all mortar torching between rafters at wall plate level to main roof slopes and cart away.
b) Remove all existing mineral quilt and ant debris over first floor ceiling and cart away.
c) Carefully dismantle water storage tank from west end of main loft space complete with any support structure and cart away. [see item below regarding rafter removal for access]
d) Ensure that water is isolated and strip out associated pipework. Terminate water supply below loft level.
e) Remove any historic access boards.
f) Clean loft space removing all debris, cobwebs so that a thorough inspection can be carried out. Allow inspection by Architect to confirm repairs.

4.2.2 Porch roof and SL5

These porches have ceilings applied to the underside of the rafters and are unlikely to be insulated.

a) Clean between all rafters.
b) Allow inspection by the Architect.

4.3 Works to Main Roof SL1 and SL2 and associated loft space.

Note that these items will require confirmation on completion of item 4.2. and will need to be agreed on site.

4.3.1 Temporary access into loft space via SL1.

Create temporary access in the roof slope of SL1 to allow the removal of the water tank and the introduction of new materials and fittings as follows.

a) Cut existing fixings to 5 No. rafters in the south slope between truss 1 and 2 and set aside to allow access to remove water tank to allow access to install new ventilation unit measuring 2.0 x 1.2 x 500mm.
b) Allow for refixing rafters in original position.

4.3.2 SL1 & SL2 Top plate repair

a) Identify any areas of top plate to be replaced with the Architect.
b) Provide any propping to roof trusses necessary using internal propping.
c) Allow for the cutting out and replacement of 10m of top plate.
d) Assume for pricing a PTSW plate 150mm x 75mm.
e) Form table scarfs at junctions with retained plates and between new sections.

4.3.3 Top plate replacement

Provide an extra over cost for the complete replacement of the top plate on both elevations totalling 29m.

4.3.4 SL1 & SL2 Rafter replacement

a) Identify any rafters to be replaced with the Architect.

b) Allow for the replacement of 10 No. rafters as yet unidentified in new ex 50 x 125mm PTSW. 4.2m long.

c) Include for reducing timbers from 125mm to 110mm at purlins to marry in with existing rafters, all splay cuts, birdsmouths and fixings to match originals.

4.3.5 Rooflight to SL2

Note that this item is not as yet fully resolved and will require written instruction and final detailing by the Architect.

a) Agree the location of the new bathroom rooflight with the architect on site on SL2.

b) Trim rafters to create an opening 638 x 921mm to suit selected rooflight.

c) Trim ceiling joists at first floor ceiling level to create a hole nominally 900 x 800mm.

d) Allow a provisional sum of £1000 for forming insulated studwork reveals between opening in rafters and ceiling complete with plastered finish.

e) Supply and fit Clement 3 No. 818 x 1169 rooflight.

f) Allow for Code 4 lead flashings to manufactures details.

g) **Allow a PS of £150** for winding gears.

4.3.6 Truss strut removal

On confirmation from the engineer carryout the following:

a) Remove north slope kingpost strut to truss immediately east of CH2.

b) Reform strut to produce short vertical support nominally 400mm high between the principal rafter and tie below purlin.

c) Provide similar support struts in 3 other locations where the original struts have been removed.

4.3.7 Ceiling timber repairs

a) Identify any ceiling timbers in need of repair with the architect Note that these are only 35mm x 100mm and span between trusses.

b) Allow for sandwich splinting 10 No ceiling joists with 25mm x 75mm timber boards fixed to either side of joists and screwed into place. Allow for boards to be ex 3.2m long and notched a at both ends to sit onto tiebeam battens.

4.3.8 Existing Access hatch

a) Remove existing access hatch and associated linings.

b) Form new section of structure in area of old hatch.

c) Lathe and plastering to be carried out as part of phase 2.

4.3.9 New openings in ceiling.

Note that as yet precise details and locations of the following items are unconfirmed as they are dependent on final M&E design.

a) Create 2 new loft access hatches in the ceiling measuring nominally 600mm x 600mm each. Trim openings with 100 x 50mm timbers.

b) Provide 150 x 25mm side linings and stops. To detail.
c) **Allow a PS of £250** for forming insulated timber hatch covers to detail.
d) Allow for the creation 4 No 400mm x 400mm trimmed holes in the ceilings for ductwork.

4.3.10 Service platform and access
Create the following service platform for the plant between truss 1 and 2 between CH1 and CH2. (note this item will require confirmation from the Engineeer)
a) Supply 2 No Channel sections 150 x 75mmx 18kg from 6 m stock cut to length of tie beams
b) Allow for drilling each beam at 450mm centres along its length to receive M12 bolts
c) Weld on 90 x 12mm plate in line of principal rafter nominally 1m long set at pitch of approximately 30 degrees. (2 required)
d) Weld on strap 90mm x 12mm nominally 600mm long in midline of central post (2 required)
e) Bolt angles to sides of tie beams set down nominally 22mm from top face of tie.
f) Fix 10 joists of 50 x 150mm nominally 2.7m long.@ 450 ctrs at 90° to trusses to create floor independent of ceiling. Allow for all notching into web of angle. Allow for noggins.
g) Provide 22mm Caberfloor P5 moisture resistant boarding over new structure totalling 11.5m^2

4.3.11 1200mm wide Service crawls length of loft space
Create the following service crawls to 4 un-boarded truss bays.
a) As in item 4.3.10 above fix timber plates to either side of trusses in 6 instances. Assume 50 x 150mm x 1.2m each.
b) Allow for fitting 2 similar plates to the gable masonry.
c) Fix a total of 16no 50 x 125mm joists at 400 ctrs. to create a 1200mm wide access from gable to gable. Allow for noggins.
d) Provide 22mm Caberfloor P5 moisture resistant boarding over new structure totalling 14m^2.

4.3.12 Eaves Detail to SL1 and SL2
Note that the roof build up will require a new overhanging eaves detail and tilt fillet detailed to work with the insulation. This is not a traditional detail and will require looking at in detail on site.
a) **Allow a provisional sum of £1500** for materials.
b) **Allow a provisional sum of £1500** for labour.

4.3.13 Installation of M&E unit.
(Note that this is not an M&E item but a supply item) Contact Guy Hammer of Airflow 01494 525252
a) Confirm from the design team the precise fitting to be introduced into the loft space.
b) **Allow a provisional sum of £15,000.00** for the supply of specified items.
c) Allow MCP on item b) above.

d) Allow for lifting unit weighing approximately 200 kg onto scaffold and through opening detailed in 4.3.1.b onto new service platform and orientate unit as directed by service engineers.

e) Allow for setting on anti-vibration fixings.

4.3.14 First Floor Ceiling insulation.

Note the ceilings are made of 100 x 35mm timbers at 340 ctrs. The ceiling is approximately 85m^2 gross area.

Insulate ceiling throughout as follows:

a) 100mm of Steico flex 036 cut down to nominally 300mm to suit joists spacings of 340mm. Fit between joists.

b) Insulate over the top of the joists with 50mm of Steico flex 036 as a continuous layer.

4.3.15 Insulating plaster to gable masonry within loft space.

a) Brush down all gable masonry with the loft space. Approximately 15m^2.

b) Dub out any voids in the masonry with lime mortar to create a plasterable background.

c) Allow a provisional sum of £1000 for works as yet unidentified.

d) Plaster walls with Diathonite Thermactive .037 in three applications to create a minimum thickness of 50mm. Allow a minimum of a day between each application. https://www.ecologicalbuildingsystems.com/product-support/diathonite-thermactive

4.4 Re roofing of SL1 and SL2

4.4.1 Insulation build-up to SL1 and SL2.

Note that the rafters are 110mm x 50mm @ 360mm centres which does not relate to standard insulation batts. To mitigate this some minor adjustments to the existing structure may be required.

a) Check depth of rafters is 110mm.

b) Supply and fix 10 x 50mm PTSW timber strips to underside of rafters to increase effective rafter depth to 120mm. (plywood strips would be acceptable) Assume a total of 280 m run.

c) Supply and fix insulation support netting to underside of rafters fixing in place with stainless steel staples. (Allow for 110m2 of netting)

d) Supply and install from above 120mm Steico flex 036 batts cut down to 310mm to suit rafters at 360ctrs. Ensure that insulation finishes flush with top of rafters. (estimated at 100m^2 of material) Account for all wastage.

e) Lay Steico multi UDB with self-adhesive overlaps over the entire roof leaving excess at eaves and verges. (110m^2)

f) Allow a Provisional sum of £500 for materials and labour for dealing with perimeter edge details to ensure air tightness.

g) Lay Steico Duo Dry 40mm board over rafters.

h) Fix 50 x 25mm PTSW BS5534 graded counter battens through insulation into rafters using 6 x 110mm part threaded non-ferrous screws at nominally 350mm vertical centres.

i) Agree eaves detail setting out of tiles with the Architect. Batten out the roof with 38 x 25mm PTSW BS5534 battens gauged at nominally 345mm.

4.4.2 Secret gutter details to SL1 and SL2

Create secret gutters to SL1 and SL2 abutments with the east and west gables as follows.

a) Allow inspection of masonry wallhead by the Architect to determine final detailing.
b) **Allow a PS of £250** for regularising the wallhead with lime mortar to provide a smooth fixing ground.
c) Supply and fix 17m run of WBP bearer board 125mm wide to base of gutter down both sides of the roof on mortar bed detailed above.
d) Form 17m of 25mm gutter upstand using counter batten fixed to bearer board. Set batten 75mm in from upstand masonry.
e) Form 75mm wide secret gutter from 300mm wide code 5 lead laid in 1500mm long strips with 150mm head laps. Assume head fixings to LSA details. Allow for check welts and taking lead up gable walls nominally 135mm.
f) Provide code 5 cover flashing to abutments totalling 17m excluding laps.

4.4.3 Special details Steico relating to new rooflight in SL2.

a) Allow a provisional sum of £150 for specialist materials supplied by Steico for detailing of rooflights. At the time of writing we are still trying to get technical support from Steico.
b) Allow a provisional sum of £250 for labour associated with Steico detailing of rooflights.

4.4.4 Tiling to SL1 and SL2

a) Relay previously removed tiles using any tiles from SL5 to make up any shortfall.
b) Allow a provisional sum of £1,500.00 for the supply of 100 New Sandtoft Bridgewater Double Roman tiles.
c) Fix tiles using 55 x 3.35 aluminium ring shank clout head nails.
d) Relay ridge tiles on NHL5 hydraulic lime mortar.

4.4.5 Chimney flashings

a) Provide Code 5 flashings to CH1 on 1 full and 2 half sides.
b) Provide Code 5 flashings to CH2 on all sides.
c) Provide Code 5 flashings to CH3 on 1 full and 2 half sides.

4.5 Re Roofing of Porch SL3 and SL4

4.5.1 Roof Repairs to porch SL3 and SL4

a) Identify any ceiling timbers in need of repair with the Architect.
b) Allow a provisional sum of £250 for repairs to the porch structure as yet unidentified.

4.5.2 Electrical conduits

a) Agree with the architect any electrical conduits through the roof to allow lighting cabling to front porch lighting.
b) **Allow a provisional sum of £150** for drilling holes through masonry to new lighting points and through main building wall to allow connection to internal power supply.

4.5.3 Fascia boards
a) Form and fix two short sections of hardwood fascia board to SL3 and SL4 nominally 25 x 150mm.
b) Allow for forming splayed top and beaded detail to bottom. (details to be confirmed)
c) Allow for painting hardwood with primer and two coats of approved paint.

4.5.4 Re Tiling
a) Felt roof with U5 UV resistant felt.
b) Rebatten roof with 38 x 25mm PTSW BS5534 battens gauged at nominally 345mm.
c) Relay previously remove tiles using any tiles from SL5 to make up any shortfall.
d) Fix tiles using 55 x 3.35 aluminium ring shank clout head nails.
e) Relay ridge tiles on NHL5 hydraulic lime mortar.

4.5.5 Flaunchings / Abutments
a) Fix stainless steel metal lathe to abutment locations to detail.
b) Create flaunched abutments to all junctions of the roof with masonry walls using NHL5 hydraulic lime mortar.

4.6 Re roofing of SL5

4.6.1 Roof repairs and alterations to SL5
a) Identify any ceiling timbers in need of repair with the Architect.
b) **Allow a provisional sum of £500** for repairs to the roof structure as yet unidentified.

4.6.2 New Rooflight to SL5
Note that this item is not as yet fully resolved and will require written instruction and final detailing by the Architect.
a) Agree the precise setting out of the new rooflight with the Architect.
b) Modify existing rooflight opening to create an aperture 762 x 921mm to suit Clement 4 conservation rooflight.
c) **Allow a provisional sum of £500** for forming insulated studwork reveals.
d) Supply and fit Clement 4 972 x 1169 rooflight.
e) Allow for Code 4 lead flashings to manufactures details.
f) **Allow a PS of £150** for winding gears.

4.6.3 Insulation build-up to SL5
a) Check depth of rafters is 100mm.
b) Supply and install from above 100mm Steico flex 036 batts cut down to suit rafters centring. Ensure that insulation finishes

flush with top of rafters. (estimated at 25m^2 of material) Account for all wastage.

e) Lay Steico multi UDB with self-adhesive overlaps over the entire roof leaving excess at eaves and verges.

f) **Allow a Provisional sum of £200** for materials and labour for dealing with perimeter edge details to ensure air tightness.

g) Lay Steico Duo Dry 40mm board over rafters.

h) Fix 50 x 25mm PTSW BS5534 graded counter battens through insulation into rafters using 6mm x 110mm part threaded non-ferrous screws at nominally 350mm vertical centres.

i) Agree eaves detail setting out of slates with the Architect.

j) Batten out the roof with 50 x 25mm PTSW BS5534 battens gauged at nominally 196mm.

k) **Allow a provisional sum of £750** for works relating to overhanging eaves detail and tilt fillet as yet undetermined.

4.6.4 Slating

Note that the area to be slated is irregular in plan and will require a number of courses to be diminished. Refer to drawing 203 P1 for further details.

a) Form new slated roof using Cwt y Bugail slates as specified.

b) Allow for slate and a half at both eaves lines and project slates beyond the wall line by a minimum of 50mm.

c) Provide soakers at all abutments including rooflight.

d) Form Apron flashing in Code 5 lead with 75mm upstand and dressed onto slates 150mm. Lay in 1500 mm lengths with 100mm side laps.

e) Allow for head slates and undercloak courses.

4.6.5 Verge boards

a) Provide new hardwood verge boards to both the north and south ends of the roof.

b) Scribe and cut board to fit below slates.

c) Decorate with primer and 2 coats of approved paint.

5.0 RAINWATER GOODS & DRAINAGE & SERVICE ROUTES

5.1 Gutters

All gutters and downpipes are to be Alumasc Heritage Cast Aluminium to RAL 7015.

5.1.1 Supply and fit the following gutters to SL1

a) 1 No. 125mm half round gutter 3ft long HR3/155.
b) 4 No. 125mm half round gutters 6ft long HR3/132.
c) 2 No. Stop ends with 75mm outlets HR3 143.

5.1.2 Supply and fit the following gutters to SL3

a) 1 No. 125mm half round gutter 3ft long HR3/155.
b) 4 No. 125mm half round gutters 6ft long HR3/132.
c) 2 No. Stop ends with 75mm outlets HR3 143.

5.1.3 Supply and fit the following gutters to SL5

a) 4 No. 125mm half round gutters 6ft long HR3/132.
b) 2 No. Stop ends with 75mm outlets HR3 143.

5.1.4 Gutter Bracket and fixings

These will need to be reviewed on site.

a) Allow 52 HR3/RB/TF over rafter brackets for SL1 and SL2 bent to 32°.
b) Allow 15 HR3/RB/TF over rafter brackets for SL5 bent to 32°.
c) 30 No. Fixings NBW 630307 fixing bolts.
d) Silicone sealant SS991559.
e) Touch up paint TUP/RAL7015M/125.

5.2 Downpipes

5.2.1 Supply and fit the following downpipes and components

a) 6 No. 75mm 2m pipes with ears RW2/2m.
b 1 No. 75mm 1m pipes with ears RW2/1m.
c) 4 No. 75mm offsets RW2/90.
d) 4 No. Shoes with ears RW2/80.
e) Backing tape 10m roll for pipe junctions BF991408.

6.0 MASONRY WORKS

6.1 General works and preparation

6.1.1 Masonry preparation and assessment.

Brush down all masonry with churn brushes to remove all loose exfoliated material and salts. For tendering purposes assume the following gross areas.

a) South elevation less porch = 65m^2
b) South elevation porch internally and externally = 24m^2
c) East elevation above roof = 25m^2
d) East elevation onto road = 15m^2
e) North elevation = 40m^2
f) West elevation =33m^2
g) Chimneys estimates as 2m each = 6m^2

Total area = approx. 208m^2

6.1.2 Pointing and repair mix Trials.

a) Provide an initial palette of 6 mortar mixes to match existing lime ash pointing.
b) Provide an initial palette of 6 mortar mixes to match existing stones.
c) Allow inspection of trial mixes.
d) Allow for 5 further sample mixes to develop agreed mixes.
e) Produce sample panel of pointing to agree pointing finishing.

6.1.3 Stone sample end tooling

a) Provide samples of Bath Stone from various quarries to match existing stone.
b) Carryout tooling trials to match existing tool marks on stonework.

6.1.4 Remove all loose cement mortar to all joints.

As part of item 6.1.1 identify all areas of loose cement pointing and carefully remove using hand picking. Note that the stones are irregular sizes so determining quantities is awkward.

a) Assume that 10% (20m^2) of the total elevational area will have loose cement pointing.
b) Allow for inspection of the architect to inspect any retained cement mortar.
c) **Allow a provisional sum of £1250** for the removal of more resilient areas of cement pointing especially to areas where the walls are noticeably damp.

6.1.5 Raking out and deep packing.

a) Check all pointed joints other than cement pointed joints for soundness. Agree with the architect what constitutes joints to be prepared for repointing.
b) Rake out all loose lime mortar to a depth of 25mm for joints to be repointed. Assume for pricing 20% of all existing joints. (40m^2)
c) Allow for deep raking of 10% (20m^2) of entire joints to a depth of 75mm.

d) Deep pack all deep raked joints.

6.1.6 Repointing of existing stonework

Note that this item excludes any areas to be dismantled and rebuilt. These will be dealt with under separate cover.

a) Using approved pointing mix(es) repoint a total of 30% (60m2) of all stonework.
b) Allow for protections during period of carbonation.
c) Allow for all sponging, scraping and knocking back to achieve agreed finished texture.
d) **Allow a PS of £1000.00** for additional pointing relating to item 6.1.4.c)

6.1.7 Bulge in South Elevation

Allow a Provisional sum of £2500 for works associated with investigation and remedial works to consolidate bulge in south elevation possible attributed to core drop.

6.2 Entrance porch

This area includes the area of masonry on the main elevation covered by the porch.

6.2.1 Coping Stones

a) Number all coping stones and lift and set aside on including large capping stone.
b) Remove all mortar and allow for inspection of stones.
c) Identify with the architect which stones require replacement.
d) Form new section of coping from ex 23" x 4" (585 x 100mm) in two lengths totalling 1.5m complete with ovolo face moulding and drip detail to rear. (Note this may be Doulting stone)
e) On completion of other works allow for resetting stones and repointing purpends with agreed hydraulic lime mortar mix.

6.2.2 Dismantling and rebuilding gable upstand.

This area of the building is showing signs of historic movement resulting in the arch spread. This has overstressed some stones which have failed or become loose.

a) Provide any necessary propping and or formwork to voussoir stones and hood mouldings to prevent movement.
b) On instruction from the architect record stones and dismantle loose gable end masonry 450mm thick down to the top of the arch hood moulding. (assume 1.5m2)
c) Dismantle upper two raking quoin stones to either side of porch where they have been shunted out of line by historic organic growth.
d) Allow and extra over for dismantling a further 1m2 of facework where stone appear loose. (note this will require confirmation on site.
e) **Allow a provisional sum of £750** for stonework repairs to the hood moulding and voussoir stones as yet unidentified.

f) Reset upper quoin stones with drop dowels to mitigate future spread.
g) Rebuild gable end masonry back to original profile ensuring the core is well consolidated.

6.2.3 DG2 Lintel repair
a) Inspect fractured stone lintel with the Architect.
b) Cross pin fracture.
c) Make good pin holes with approved mortar

6.2.4 Mortar repairs
Water ingress has resulted in several stones spalling and becoming friable. These are best repaired using mortars as defined under section E of the specification.
a) Identify areas of mortar repairs with the Architect.
b) Form 5 large mortar repairs.
c) Form 10 medium mortar repairs.
d) Form 20 small mortar repairs.

6.2.5 Shelter coating
This item will require careful consideration and must only be undertaken on instruction from the Architect.
a) Shelter coat coping stones. (4.5m^2)
b) Shelter coat voussoir stone, reveal stones, hood moulding and quoin stones. (10m^2)
c) Shelter coat the walls within the porch. (10m^2)

6.2.6 Lead capping detail.
a) Form code 5 lead capping detail to copings.
b) Allow for a total width of sheet at 750mm.
c) Allow for a total run 5.5m excluding any laps

6.3 Window masonry

6.3.1 Internal decorations removal.
a) Undertake trial removal of decorations stone mullions to all front elevation windows internally using peelaway.
b) Allow review of trials by the architect.
c) Strip all mullions, cills and heads of gloss paint internally using approved method except WF3 mullions

6.3.2 Lintel pinning WG3
a) Remove windows to WG3 and set aside.
b) Allow any necessary propping to prevent further movement.
c) Agree with architect precise method of consolidating the cracked lintels in 2 locations.
d) Allow for cross pinning from below and making good holes.
e) Mortar repair open cracks.

6.3.3 WF3 Mullions
a) Provide access for detailed inspection of 2 mullions.
b) Carefully remove spalled stone.

c) Remove windows to WF3 and set side.
d) Allow any necessary propping to prevent further movement.
e) On instruction carefully remove mullions.
f) Supply and fix 2 new mullions nominally 825mm high x 100mm wide by 140mm deep complete with bead arisses externally and corner chamfers internally.
g) Provide sheltercoat treatment to new stonework.

6.3.4 WG4 Works

Note this item is still to be designed and is intended to take a ventilation grill sized by the service engineers. On instruction carryout the following.

a) Remove Crittal window to WG4.
b) Allow inspection of lintel and or wallplate above.
c) Break out cement reveals and tile cill.
d) Allow for locally modifying stonework to receive new stone window surround.
e) Supply and fit new stone window surround to detail. Comprising:
New cill stone 1200mm x 200mm x 100mm
New reveal stones 800mm x 200mm x 100mm
New lintel 1200mm x 200mm x 200mm

6.4 Gable end modification

6.4.1 Gable Ends

The modification of the gable end will in part be dictated by the roof buildup. As the current height of the copings off the tiling cannot be determined at the point of writing what is set out below is will require confirmation and written instruction.

a) Allow inspection of both gable ends to determine height of existing copings off rafter's condition of copings and kneeler stones.
b) Label and lift all copings and set aside.
c) Carefully remove kneeler stones.
d) Carefully ease out and lift all side all gable head stones (approx. 20 per gable) These ate normally 150mm wide.
e) Allow for forming 4 new kneeler stones with integral coping stops. Assume for pricing blocks 300mm wide x 800mm long x 450mm high.
f) Rebuild gables 150mm higher using new kneeler stones but reusing gable head stone.
g) Allow for building 2.5m^2 of squared rubble face stone across east and west elevations dressed with stone axes where gables have been raised. Assume that these are 150mm high x 150mm deep but of varying lengths. Point rebuilt area on completion.
h) Reset copings on hydraulic lime mortar.
i) **Allow a provisional sum of £1000.00** for works as yet unidentified.

6.5 CHIMNEY WORKS.

6.5.1 Cleaning Existing flues

Prior to undertaking any works the chimneys are to be swept. Include the following:

a) At first floor level remove infill panel to 1950s insert in F3 to allow flue access.
b) At first floor remove board to reduced fireplace in F4 to allow flue access.
c) At Ground level remove any obstruction to flue to G1.
d) Advise on any flue linings and their condition.
e) Advise on the condition of the current woodburner.

6.5.2 Modification of CH1

Refer to Drawing

This chimney is relatively new. It is to be repurposed as a supply vent for the air conditioning. The final detailing of this item will need to be determined once the chimney has been inspected but allow the following.

a) Allow access for a detailed inspection of the flue from the scaffold.
b) Carefully dismantle chimney nominally 450 x 450 on plan for a height of 1.5m. ie the height of the modern stack.
c) Confirm the measurement of the existing flue cross sectional area from the ground floor. (assumed to be 250 x 250mm)
d) In loft space dismantle approximately $1m^2$ (2m high x 500mm wide) of projecting chimney breast supporting the stack. Take down as far as the ceiling line where there is a masonry ledge.
e) Allow for forming a new wider chimney breast nominally 900mm x 2m high, to support widened stack. Form in blockwork and tie back to external wall. Allow for creating an opening suited to incoming air duct 570mm diameter.
f) Build modified stack 450 x 875mm on plan to create a flue of 250mm x 675mm internally. Centre stack on ridgeline.
g) Reuse all existing stone for main stack wherever possible.
h) **Allow a PS of £750** for the supply of sawn and rubbed six sided stone to main stack to account for increased width of stack.
i) Modify drip course stone to allow it to be extended to suit new stack dimensions.
j) **Allow a PS of £500** for the supply of an additional drip course.
k) Form new cap stone ex 450 x 875 x 100mm with weathering detail to top surface.
l) Cut out single stone on west gable on line of flue.
m) **Allow a PS of £250** for forming a vent into stack to detail.

6.5.3 Modification of CH2

This chimney is the main stack in the building and possibly the earliest and reduces considerably from 1500 x 1500mm at ceiling level to 600 x 600 at roofline level. There is an active flue and a redundant flue. The proposal is to use this stack as an exhaust flue for the air conditioning plant but it will require some modification to do this.

a) Allow access for a detailed inspection of the flue from the scaffold.
b) Confirm the measurement of the existing flues cross sectional area and which flue connects to the ground floor.
c) Carefully dismantle 5 courses chimney nominally 600 x 600mm on plan down to below roofline.
d) Allow for increasing stack plan size by extending the stack south by 250mm building off existing stepped masonry.
e) Introduce 150mm additional course to adjust total height of stack to account for roof buildup. Assume for pricing 150 x 150mm x 3m run.
f) **Allow a PS of £500** for new stone to account for increased plan.
g) Rebuild stack using retained material and new stone identified in item above to account for increased plan size.
h) Form new cap stone ex 600 x 850mm x 100mm thick with weathering detail to upper face. Cut hole for flue pipe.
i) **Allow a PS of £150** to supply and fit new ceramic chimney pot from WT Knowles.

6.5.4 Modification and repair of CH3mm

This chimney will require raising to clear the modified roofline and is in poor condition.

a) Allow access for a detailed inspection of the flue from the scaffold.
b) Remove termination cowl and set aside for reuse.
c) Carefully cut back cement flaunching and release chimney pot.
d) Dismantle upper 5 courses of stack including cap stone, drip course, 2 courses of main shaft and upper course of lower shaft.
e) Introduce new course of stonework nominally 150mm high 150mm deep 2.5m long.
f) Allow for the drilling of ventilation holes through the new stone course on the east elevation to ventilate the none active flue.
g) **Allow a PS of £250** for the supply of stone replacements to the existing shaft where badly decayed and fractured.
h) Rebuild the upper 5 courses of the stack including any dividers between the two flues.
i) Provide any extender kit to the existing flue liner (note item 6.5.1.d above) to account for the lift in the stack.
j) Reinstate the chimney pot and termination cowl.
k) Form hydraulic lime flaunching to pot.

6.5.5 Flue lining

a) On instruction remove all existing flue liners to CH2 and CH3.
b) Supply and fit new 5 inch 316 flexible stainless steel flue liners to both chimneys suitable for 5KW appliances.
c) **Allow a PS of £500** for terminators, adaptors, register plates and other fittings required at stove.

7.0 WINDOW WORKS

7.1 South Elevation

7.1.1 WG1 and WG2 Existing metal windows

Refer to drawings 121, & 122 for existing and 221 & 222 for proposals.

a) Carefully remove internal timber beads from mullions to allow access to fixings.
b) Cut fixings and remove windows to workshop.
c) Remove all glass and putty.
d) Shot blast windows and allow inspection to determine defects.
e) Form new section of glazing bars from 20mm x 5mm strip steel to infill area of chopped out metalwork to WG2 and weld in place.
f) Form new laches to windows where missing. (2 No.)
g) Thermally zinc spray and decorate with approved paint.
h) Reglaze with Tatra P1 Restoration glass and approved putty (Vallance multi purpose putty).
i) Reinstall and trim with new hardwood beads.

7.1.2 WG3 WF1 WF2 and WF3 **REPAIR OPTION** for existing timber windows

Refer to drawings 123, 130, 131 and 132 for existing drawings.

a) Remove all openable windows and set aside. (4 No.)
b) Remove any (3 No.) broken panes of glass and associated putty
c) Carefully remove all paint from glass using nonabrasive methods and remove loose putty throughout.
d) Sand down all painted surfaces taking care to maintain arises on timber profiles.
e) Allow inspection of prepared windows by the Architect.
f) Allow for replacing 6 No. small panes of glass with Tatra P1 and reputtying areas of lost putty.
g) **Allow a PS of £1000** for repairs as yet undetermined.
h) Redecorate windows with 1 coat of undercoat and 2 coats of topcoat with approved paint and colour.

7.1.3 WG3 WF1 WF2 and WF3 **REPLACEMENT OPTION**

Refer to drawings 223, 230, 231 and 232.

a) Remove all timber batten holding lights in place and remove all timber casements both fixed and opening.
b) Allow inspection of masonry to determine any staddle bar holes.
c) Supply and install 8 fixed leaded lights as detailed in the above drawings but adjusted to suit site findings.
d) For pricing purposes assume Tatra P1 Conservation Glass or similar approved handmade glass and ½" lead cames.
e) Supply and install 4 opening lights by Clement windows or similar specialist manufacturer. (All details to be agreed with the Architect)

7.2 East Elevation.

Allow a provisional sum of £750 for the supply and installation of a ventilation grille as yet undesigned.

7.3 North Elevation

7.3.1 WF4 and WF5 **REPAIR OPTION**

Refer to Drawings 133 and 134 for windows as existing.

a) Remove all openable windows and set aside (4 No.)
b) Carefully remove all paint from glass using nonabrasive methods and remove loose putty throughout.
c) Sand down all painted surfaces taking care to maintain arises on timber profiles.
d) Allow inspection of prepared windows by the Architect.
e) Allow reputtying areas of lost putty.
f) **Allow a PS of £500 for** repairs as yet undetermined.
g) Redecorate windows with 1 coat of undercoat and 2 coats of topcoat with approved paint and colour.

7.3.2 WF4 **REPLACEMENT OPTION**

Refer to drawings HBA 345-233

a) Remove all openable casements and frames taking care not to damage the stonework.
b) Form 3 new lining frames nominally 470mm x 960mm from ex 100 x 50mm hardwood with rebate to rear for Compriband strip and with rebated stops to detail. Install in openings with Compriband tape at junction of stone and new frame.
c) Form 3 new casement windows nominally 415 x 905mm x Ex 50mm thick with single horizontal glazing bar.
d) Supply and install 6 double glazed units 4/8/4 with argon gas fill and low E glass. Assume for pricing units are 345 x 410mm.
e) **Allow a provisional sum of £350** for ironmongery.
f) Decorate with specified paint and install in frames.

7.3.3 WF5 **REPLACEMENT OPTION**

Refer to drawings HBA 345-234

a) Remove openable casements and frames taking care not to damage the stonework.
b) Form new lining frame nominally 800mm x 750mm from ex 100 x 50mm hardwood with rebate to rear for Compriband strip and with rebated stops and projecting cill to detail. Install in opening with Compriband tape at junction of stone and new frame.
c) Form 2 No. opening casements nominally 370mm x 680mm ex 50mm thick with meeting stiles and with single horizontal glazing bar.
d) Supply and install 4 TOUGHENED double glazed units 4/8/4 with argon gas fill and low E glass. Assume for pricing units are 300 x 290mm each.
e) **Allow a provisional sum of £350** for ironmongery.
f) Decorate with specified paint and install in frames.

8.0 DECORATION

8.1 External doors

8.1.1 Rubbing down and repair and redecoration.

a) Rub down the frames and door leaves to DG1, DG2 and DG3.
b) Remove paint from all glazing elements.
c) Allow inspection of rubbed down doors and frames to assess degree of repair needed.
d) **Allow a PS of £300** for repairs to DG1 and DG2.
e) **Allow a PS of £250** for repairs to DG3.
f) Redecorate with 1 No coat of undercoat and two topcoats to agreed colour.

8.1.2 Glazing and ironmongery replacement

a) Replace 9 no obscured glass panels to DG1 and DG2.
b) Replace barrel locks to both doors.
c) Remove closer to DG1.

8.2 Porch Ceiling

a) Carefully strip porch ceiling using peelaway and neutralise. (Note. Likely to be lead based)
b) Allow inspection of stripped boarding.
c) Redecorate with 1 No coat of undercoat and two topcoats to agreed colour.

9.0 ELECTRICAL INSTALLATION

9.1 Porch lighting

Allow a PS of £250 for light fittings to entrance porch.

HARRISON BROOKES ARCHITECTS

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PRICING SUMMARY FORM OF TENDER

'Fixed Price'
FOR PHASE 1 REPAIR WORKS TO BE CARRIED OUT HOP POLE INN, LIMPLEY STOKE, BATH.

Sir, We are willing to contract for and hereby undertake to execute the whole of the Works required to be done in accordance with the Conditions of Contract and the Specification and Schedule of Work dated FEBRUARY 2023 and to your entire satisfaction for the following "Fixed Price" sum of:

1.0	PRELIMINARIES	£……..
2.0	SCAFFOLDING	£……..
3.0	DEMOLITIONS AND EXCAVATIONS	£……..
4.0	ROOF WORKS	£……..
5.0	RAINWATER GOODS	£……..
6.0	MASONRY REPAIRS	£……..
7.0	WINDOW REPAIRS	£……..
8.0	DECORATIONS	£……..
9.0	ELECTRICAL INSTALLATION	£……..
	TOTAL	**£……**

Total in words……

Contract Period……

Earliest start Date

Dayworks Rates	Foreman	£……../hour
	Craftsman	£……../hour
	Labour	£……../hour

We confirm that this is a 'bonafide' tender and that our tender price will not be divulged to any person or body until after the final date for submission of tenders.

Signature of Tenderer……
Name of tendering company……
Address……
……Date……

THE EMPLOYER DOES NOT BIND THEMSELVES TO ACCEPT THE LOWEST OR ANY TENDER.

