

WESTON HALL: re-roof & associated high level repairs

PAYMENT APPLICATION 06

11th September 2019

REF	ITEM	TENDER VALUE	% COMPLETE	VALUE DUE
1.0	Preliminaries			
1.1	Provide secure site accommodation and storage facilities as may be required during the contract period.			
	i/ Create a temporary compound in the location provisionally as shown on plans to allow temporary storage of materials etc. as required. The compound area should be fully enclosed with Heras fencing or robust hoardings;			
	ii/ Provide a secure container for storage of any valuable materials, flammable materials or similar as required (generally bring such materials to site only when needed for the Works);			
	iii/ Provide welfare accommodation in the form of a secure proprietary mess cabin incorporating WC accommodation.			
	iv/ Provide temporary water and electricity supplies as may be required and remove on completion of the works.			
1.2	Provide any temporary electrical and other services adjustments as necessary for the period of the Works.			
1.3	Provide all management costs to include a dedicated full-time site manager.			
1.4	Provide all plant, hoists, excavators, temporary props and shores, platforms, lighting, generators, specialist equipment etc as required to carry out the works. Provide all necessary personal protective equipment required to safely carry out the works.			
1.5	Provide a site telephone to allow issuing of instructions and summoning of emergency services. A mobile phone will be acceptable provided that a single phone with fixed number is always on site and kept charged with adequate reception. Provide a contact number for out-of-hours emergencies.			
1.6	Provide all necessary fire fighting and fire detection equipment, including that required to comply with hot work restrictions and procedures.			
1.7	Take necessary measures to protect building users, neighbours and the general public from risks associated with the works. Protect from falling debris, dust, fumes, water, noxious chemicals etc. Keep access routes clear. Avoid noisy activities when the building is in use during working hours. Provisionally working hours are limited to 7.30am - 6pm Monday - Friday, 8.30am - 4pm Saturday with no work on Sundays.			

1.8	Scaffolding works (other than erection of mobile towers) must be carried out by a contractor or subcontractor that is a Full member of the National Access and Scaffolding Confederation (NASC). A proposed design for external scaffolding is included within the tender documents and is to be used as the basis of pricing for external scaffolding and temporary roofs. The Contractor is at liberty to suggest alternate access and temporary roof arrangements in information supporting their tender, but for the purposes of comparison of tender it will be assumed that all of the scaffolding and temporary roofing shown in the scaffold design drawings has been included for. Any adaptations to the design proposed by the Contractor must be checked by an appropriately qualified temporary works specialist at the Contractor's cost and should be in accordance with BS EN12811-1:2003, TG20:08, BS5975 & BS EN 1991 and any other relevant regulations. The Contractor is to include for the design of any other scaffolding and temporary works requirements including internal scaffolds which should be in accordance with BS EN12811-1:2003, TG20:08, BS5975 & BS EN 1991 and any
	The location for any unavoidable fixings into brickwork/masonry to be pre-agreed with the Architect and to be into mortar joints only; to be made good when fixings/anchors are removed. Design and provide proposal drawings/method statements for proposed temporary access/scaffolds etc. a minimum of 2 weeks before any erection to allow assessment by the Architect and the Structural Engineer. Where is it proposed to gain support from existing structures for scaffolds the Engineer must be given opportunity to check the proposal and ensure that existing structures can safely accept loads. Scaffold must be design for both access and for lifting/transporting/storing materials at height in so far as necessary to allow works to be safely undertaken. Tender prices for scaffolds must include for the full cost of scaffolds, kentledge, bearers/spreaders, protection etc., deliveries, accessories, hoists etc. as required.
	Hire periods should be of appropriate length to allow for work to be completed to a satisfactory standard to each area, including allowance for inspections prior to the start of Works, inspections and approval of completed Works prior to dismantling, and reasonable allowance for any necessary provisional work to concealed elements, or required remedial works following any final inspections. Access and scaffolds: include for the following scaffolds and access as a minimum, and including for any phasing of scaffolds (if needed) to allow works to proceed in an appropriate and safe manner (price each item separately): a/ Include for the temporary roof and external scaffolding as shown on the Creator Scaffold drawings included in the tender package and including:

	i/ Scaffolding to all main elevations of the Hall full perimeter with full temporary roof and with boarded lifts to the full perimeter of the Hall just below roof eaves level and additional lifts to all gables at 2 metre intervals. Provide access ladders and hoisting points. Provide all required kentledge and anchors. Note that the scaffold must provide the primary access to working areas; note the need to lift and transport steels, lead and other heavy materials into working areas.
	ii/ The extra-over cost to provide an additional 4 scaffold lifts to the full Hall perimeter measured below the eaves-level lift at 2 metre intervals.
	iii/ Scaffolds to all chimneys;
	iv/ Include for a minimum of 12 no. pull-out tests for fixings into masonry for scaffold wall anchors.
	v/ Include for making good of bricks and pointing (including replacing any damaged bricks) as scaffold wall anchors are removed.
	Include design costs for any necessary adjustments or variations to the design in the preliminary proposals.
	b/ Protection to all lower level roofs; c/ Debris netting to the full exterior of the scaffold (fire retardant);
	e/ Item for installation of temporary lightning protection to scaffolding during the contract period and removal on completion – provisionally provide for 2 no. temporary earthing rods (to provide 10 ohms resistance – further rods may be required).
	f/ Provide for internal temporary propping, shores and supports as required to undertake the works including temporary support of floor and roof structures, and support during installation of steelwork. Note that existing floor structures throughout the building are weak and must not be used for support – instead provide beams to span from loadbearing walls to provide the base supports for propping.
	g/ Provide other mobile towers, platforms, guardings, props and shores, harnesses or other access measures as necessary to safely allow works the works elsewhere described to be carried out.
1.10	External scaffolds and pillars/support legs must be enclosed at ground level with min. 18mm thick exterior quality and painted plywood hoardings on timber framing to a height of min 3.5 metres to reduce risk of unauthorised climbing. Hoarding must be without gaps and should generally be installed to a consistent height/level except where additional height is needed in order to prevent climbing due to any existing features and must be installed vertical without unnecessary scaffold penetrations to restrict potential for unauthorised climbing. Include for skirtings, cappings and all finishing pieces required to provide a neat appearance to all major facades. Hoardings/boxings must not obstruct windows Paint all hoardings or boxings in exterior quality paint, colour to be confirmed. Remove and dispose of hoardings on completion of the project.

1.11	Affix temporary business signage, project signage, Historic England, project and other grant body signage on scaffolds or hoardings and, if required, consultant signage. Include the PC Sum of £2000 for the manufacture/supply of signage. Remove and give to client on completion of the project.
1.12	Provide the cost of providing proprietary scaffold beam alarms, min. 8 no. pairs to be in place for the full duration that any external scaffold is in place, including during erection as soon as this allows access to the upper floors of the building.
1.13	Provide for ensuring the security of the site during the works. Enclose external working areas with Heras fencing where not otherwise enclosed by hoardings. Ladders to the first two lifts of scaffold must be removed at the end of each day, and any other moveable platforms etc. that might aid unauthorised climbing of scaffolds. Bring materials to site only when required and store all valuable materials in secure containers. Take all reasonable measures to ensure the security of the building and works.
1.14	Prepare Fire Risk Assessments and maintain the fire safety of the site and building including: - Complying with the Joint Fire Code, following Hot Works procedures, providing adequate temporary fire-fighting equipment in working areas; - Considering the safety of other building users, maintaining all fire escape routes; giving advance notice to Employer and tenants of any periods when safety may be unavoidably compromised to allow for planned shutdowns.
1.15	Include the provisional sum of £1500 for the testing and disposal of any suspected Asbestos-containing materials. Asbestos containing materials must be removed to licensed disposal sites by licensed asbestos removal companies in accordance with HSE requirements.
1.16	Provide all necessary protection to the existing building fabric, finishes, contents, fittings and furnishings as necessary during the works including (list not exclusive):
	- Sheeting over fittings and physical protection where potentially vulnerable to damage under/near working areas;
	- Suspended polythene sheeting to enclose working areas and contain dust.
	- Enclosures over or within chimney flues to prevent fall of debris.
	- Carefully move portable furnishings for safety away from working areas where feasible;
	- Protection to vulnerable glazing in the vicinity of scaffolds and works;

	- Locate and Protect all existing building services in the vicinity of the works. Be aware that the routes of building services are not known and there may Be multiple supplies.
	- Protect low-level roofs against damage; any damage to low-level roofs including the terrace roof/paving to be made good at the Contractor's expense.
	Remove protection at the end of the works, taking care not to release dust from dust sheets, and clean dust and debris from below working areas.
1.17	Facilitate access for the protected species surveyor to check for bats and to carry out such works as required by the mitigation strategy in the Protected Species Survey report.
1.18	Provide temporary rainwater management for the duration of the project as required to protect building interiors, fabric and contents.
1.19	Include for taking measurements and producing marquettes, drawings, formers, etc. as may be required to allow the works to be undertaken.
1.22	On completion of the works clean down in accordance with Section C12.0 page 14.
1.23	Include for compliance with the CDM Regulations and to include (not exclusive): - Reviewing available information, planning the project, producing a Construction Phase Health and Safety Plan and assessing residual risks; - Site related compliance including checks of site procedures, scaffolds and access, and welfare provision; - Communications, reporting and record keeping; - Producing information for the Health and Safety File including marking up a set of drawings with any as-built variations; - Producing information for an Operation and Maintenance manual. The compliance should be in accordance with HSE guidance "Managing Health & Safety in Construction" and should be proportionate and relevant to the scale of project and nature of the Works and associated risks.
1.24	Include for providing the following samples (list not exclusive):
	- Sample bricks for use in repairs, new handmade bricks to match existing in terms of size, texture and colour (bricks to be special order from the York Handmade Brick Company or Bulmer Brick & Tile Company);
	- Samples of new plain tiles and/or Welsh slate for roofing works;
	- Sample of Hollington and/or Grinshill stone for use in repairs;
	- Samples of mortar mixes for repointing of brickwork including preparation of biscuits; sample area of repointing of size not less than 1m2;
	- Samples of paint removal from joinery elements.
	- Paint one sample window casement with provisional paint colour (Little Greene 'Slaked Lime' prior to ordering paint for decoration work.

	- Min. of 3 no. samples of gypsum floor laying each of size min. 2m2 laid onto a purpose made rig design to resemble floor construction including reed underlays.
	- Samples of new cast aluminium and Zinc rainwater goods for roofing works.
	Locations of all test areas to be pre-agreed with the Architect.
1.25	Include for testing 2 no. samples of existing plaster for potential Anthrax spore content.
1.26	Except where otherwise stated, allow for handling and removing all waste materials from site and transporting to appropriate disposal or recycling sites, including all skip/transport and associated costs.
1.27	Any other preliminaries items or costs
	Scaffolding inspections (weekly)
	Insurances
	<i>Sub total</i>
2.0	Preliminary Works
2.1	Temporary flues: include the provisional sum of £3000 for work and materials to provide temporary extensions and adaptations to chimney flues to keep 2 no. flues in operation (for open fires) for as long as feasible and safe.
2.2	Include the cost for a training session for preparation and use hot lime mortars with Nigel Copsey as clause E6.5.2.
2.3	Provide protection to the boiler, header tank and associated water supply and heating pipework in the Attic floor area. Protect against physical damage; provide access to emergency stopcocks to isolate water supplies. Provide reasonable protection against frost damage to pipework. Maintain airflow to boiler and temporary extension to boiler flue to keep it in operation during the works.
2.4	At an appropriate stage in the works, take-up and dispose of existing chipboard over the Attic floor areas. (Note that the chipboard is not fully supported and there is an area where the gypsum floor beneath is missing and the chipboard not adequately supported).
2.5	Arrange for a CCTV survey of all existing chimney floors including creating access/opening up as required, hiring of equipment, operator, recording and reporting on findings, provisionally for all main chimney flues (21 no.).
2.6	Allow the provisional sum of £1500 for checking and securing 3 no. existing tie rods and cross plates in high level masonry.
	Sub total
3.0	Tiling and Leadwork

3.1	Strip all high level roof pitches (A-S) as follows: - i/ Carefully lift all existing ridge tiles, remove any adhering mortar and set aside for possible re-use; - ii/ Carefully strip and sort and slates tiles and from all of the upper roof pitches and set aside all reusable tiles and slates for possible re-use; - iii/ Provisionally include to remove and dispose of all roofing battens; retain any existing firrings, counterbattens, tilting fillets etc. subject to Architect inspection; - iv/ Remove all existing roof leadwork including main and sloping valley gutters, back/parapet gutters, chutes, aprons, soakers and cover flashings. Provide the scrap value of weighed-in old lead here and deduct from the tender sum.
3.2	Following reforming of decking to parapet gutters, valley gutters, kerbs, upstands and flat roof decking described in joinery section 6.0, lay/install new gutter and flat roof leadwork (sandcast lead) as follows (all to comply with Lead Sheet Association design recommendations, lead thicknesses as LSA recommendations):
	Valley Gutter (i): Relay/form provisionally in Code 8 lead with batten roll detail to main bays and Code 7 lead to the sides of Chimney 2. Form new chute and outlet to the RWP hopper (Outlet 2).
	Valley Gutter (i): Relay/form provisionally in Code 8 lead with batten roll detail to main bays and Code 7 lead to the sides of Chimney 3. Form new chute and outlet to the RWP hopper (Outlet 4).
	Parapet Gutter to Outlet 5: Relay/form provisionally in Code 7 lead. Form new chute and outlet to the RWP hopper (Outlet 4). Provide cover flashings to edge of gutter lining in Code 6 lead.
	Catchpit/Gutter to Outlet 1: Relay/form provisionally in Code 7 lead. Form new chute and outlet to the RWP hopper (Outlet 1). Provide cover flashings to edge of gutter lining in Code 6 lead.
	Catchpit/Gutter to Outlet 3: Relay/form provisionally in Code 7 lead. Form new chute and outlet to the RWP hopper (Outlet 1). Provide cover flashings to edge of gutter lining in Code 6 lead.
	Lay all lead on building paper underlays and apply chalk slurry coatings to the rear face of the new leadwork.
3.3	To both cheeks of both roof access formers install new Code 7 lead weatherings to be dressed over soakers to adjacent tiling. Dress lead around the front of the posts/jambs to the fronts of the dormers finishing with a neat welt and secure lead with lead dots as required. Provide a lead flashing/weathering to the door threshold dressed over the edge of the valley gutter lining.
3.4	To all roof edges including abutments to gables, chimneys, roof access dormers etc. provide Code 4 lead soakers.

3.5	To chimneys generally provide stepped Code 6 lead cover flashings, dressed and wedged into mortar joints and pointed-up with hydraulic lime mortar. To roof gables generally include for Code 6 cover flashings dressed under roof copings except to the lower ends of the gables where an extended weathering or stepped flashing should be used. Include for any other required cover flashings in Code 6 lead to parapet gutters, valley gutters, catchpits etc.
3.6	Provisionally include for a Code 5 lead slate detail and clamp to the existing boiler flue penetration through the roof.
3.7	To all roof pitches A-S etc. and all access dormers as shown on plans allow for installing roof underlay (traditional Type 1F untearable roofing felt) as specifications.
3.8	To roof pitches all roof pitches and access dormers as shown on plans provisionally allow for installing new tanalised tiling battens of minimum size 38 x 25mm. Space battens to required gauge to suit tile size assuming a minimum headlap of 70mm and fix with stainless steel nails.
3.9	Subject to sorting of existing tiles, provisionally allow for supply of all new clay plain tiles, Dreadnought Hand-Formed 'Classic' Staffordshire Blue tiles with nail holes, to cover all roof pitches (A-S). Provisionally include for all new matching purpose-made valley tiles to all sloping valleys.
3.10	Provisionally include for all new clay ridge tiles to all pitched roof areas (A-S etc) and roof access dormers, Dreadnought Staffordshire Blue half-round pattern. Lay, bed and point-up in hydraulic lime mortar.
3.11	Allow for all new tile-and-a-half tiles to all verges and cut tiles in any roof pitch or dormer, all Dreadnought Hand-formed Staffordshire Blue 'Classic'.
3.12	Provisionally include for all new undercloak/short tiles for ridges and eaves, Dreadnought Hand-formed 'Classic' Staffordshire Blue.
3.14	Using provisional tile supply allowances above described, lay new tiles to all roof pitches. Install all undercloaks, undertiles, tile-and-a-halves and valley tiles. Twice nail every third course of plain tiles, all verge tiles courses to a width of at least 5 tiles, along and down from ridges by at least a width of 5 tiles, and nailing all tiles to dormers. All valley and tiles fully nailed and the adjacent 4 courses of tiles. All nails to be stainless steel. Bed/point-up exposed verges, ridges etc. in hydraulic lime mortar.
3.15	Include for ventilation under roofing/sarking felt as follows: i/ Along all roof eaves and above valley gutters (i) and (ii) include for supplying and installing Manthorpe Building Products G2500N fascia vents (or equivalent and approved) to provide the equivalent of a 25mm continuous air gap. ii/ Include to supply and install felt-lap ventilators, Manthorpe Building Products G630, a minimum of 2 per inter-rafter space (allow for a minimum of 200 vents installed), one to be placed close to the roof ridge and a further mid height on the roof slopes.

3.16	Include for application of “Smartwater” as specification to external leadwork detailed in 3.2 – 3.7.
	Sub total
4.0	Slate Roofing Alternative Option (Exclude from tender sum)
4.1	As an alternative to clay plain tiles, price for the alternative of Welsh slate to all main roof slopes (A-S). Assume for the following:
	i/ Re-use of all existing blue clay ridge tiles with a requirement of 10% new ridge tiles required to make up losses/shortfalls;
	ii/ 25% of roof slopes covered with slates reclaimed/salvaged from the existing; 75% new Penrhyn Welsh slates 12 x 24” slates, centre nailed;
	iii/ Sloping valleys to be formed with Code 6 sandcast lead laid onto 20mm thick softwood gutter boarding with tilting fillets, all as Lead Sheet Association recommendations. Omit the supply of clay plain tiles and ridge tiles, and adjust allowance for slating battens, but include for additional roofing battens to adequately secure laps of roof underlays.
5.0	New Structural Steelwork and Associated Work
5.1	Complete the design of structural steelwork as required including connections and splice plates and submit to the Structural Engineer for comment in good time to allow comments to be made prior to fabrication. Include for taking all measurements, templating etc. as required to allow fabrication.
5.2	Plan works, carry out risk assessments, provide temporary propping , provide hoists or craneage and enable safe working. Where site-drilling or machining steelwork, take very strict and robust measures to control/contain sparks and heat to ensure no risk of fire. No insitu flame cutting or welding of steel permitted.
5.3	Provide and install 3 no. new steel lintels as Structural Engineer’s drawings: cut out old decayed oak lintels and rebuild bearing points installing new precast concrete padstones of approximate size 300 x 150 x 150mm (6 no.). Prime undercoat and paint lintels before installation and then apply a further topcoat once installed.
5.4	Provide and install 9 no. new primary steel beams as Structural Engineer’s drawings: install beams in sections using splice plates to connect sections. Cut pockets in walls to accept beams (carefully cut existing plaster to minimise plaster loss) and install precast concrete padstones of approximate size 300 x 150 x 150mm (18 no.). Prime undercoat and paint beams before installation and then apply a further topcoat once installed; additionally paint steel within wall depth with bitumen paint and then infill around beam end with brick (handmade bricks to match walling) and make good plaster in lime plaster. Where new beams pass under main oak floor beams provide a solid oak packs to the full size of the intersection and secure in place with stainless steel screws.

5.5	Above all primary beams install new steel support props/framing to support roof purlins in accordance with Structural Engineer's drawings – nominally 150x150mm timbers. Take templates for each prop location and custom-make each prop. Secure to purlins with stainless steel coach screws and bolt to the flange of the primary beams.
5.6	Once props are installed as referred to in 5.5, subject to Structural Engineer's inspection and confirmation, remove the existing struts between the lower purlins (6 no.) and dispose.
5.7	Between new steel primary beams as referred to in 5.4, and to end gable walls, install new secondary beams (8 no. beams primary-beam-to-gable wall; 12 no. beams from primary-to-primary beam). Cut pockets in gable walls to accept end beams (carefully cut existing plaster to minimise plaster loss) and install precast concrete padstones of approximate size 300 x 150 x 150mm (8 no.). Prime undercoat and paint beams before installation and then apply a further topcoat once installed; additionally paint steel within wall depth with bitumen paint and then infill around beam end with brick (handmade bricks to match walling) and make good plaster in lime plaster.
Tender amend ment item	Allowance for fitting 7 no gable plates as S.E drawing P610-D06 Rev A as Tender amendment information issued 17/12/18
	<i>Sub total</i>
6.0	Carpentry Works and Repairs including Associated Metalwork
6.1	Allow for the following provisional attic floor carpentry repairs: actual repairs to be confirmed by the Architect. All new softwood to be preservative pre-treated and any cuts to be brush-treated with preservative; new oak to be semi-seasoned for complete new timbers; fully seasoned oak for any piecing-in work: i/ Repair Type R1 – Repair to existing weak ceiling joists by placing to each size new Douglas Fir joists of section size 50 x 125mm and approximate length 3.5m, bolted together through the failed joists with M8 stainless steel bolts at 450mm centres. Secure new joists to existing centre beam with stainless steel brackets and screws. • Provisionally include for 14 no. repairs to ceiling joists of repair type R1.
	ii/ Repair Type R1 – Repair to existing weak floor joists by placing to each size new Douglas Fir joists of section size 50 x 150mm and approximate length 3.5m, bolted together through the failed joists with M8 stainless steel bolts at 450mm centres. Secure new joists to existing centre beam with stainless steel brackets and screws. • Provisionally include for 12 no. repairs to floor joists of repair type R1.

	iii/ Repair Type R2 – Repair to existing failed or missing ceiling joists by installing new oak joists of provisional section size 75 x 125mm and approximate length 3.5m, forming tenon joints into existing main beams. • Provisionally include for 15 no. repairs to ceiling joists of repair type R2
	iv/ Repair Type R2 – Repair to existing failed or missing floor joists by installing new oak joists of provisional section size 75 x 150mm and approximate length 3.5m, forming tenon joints into existing main beams. • Provisionally include for 15 no. repairs to floor joists of repair type R2
	v/ Repair Type R3 - Supply and install proprietary (eg. Catnic) medium-duty galvanised steel joist hangers of suitable type/bearing width to reinforced weak joints or where existing • Provisionally include for 70 no. repairs to floor joists of repair type R3
	vi/ Repair Type R4 – Flitch plate repair to main beam end; assume beam cross section size of 300 x 300mm – cut a central vertical slot in the beam end 1.5m long, 25mm wide. Manufacture and install a stainless steel flitch plate of length 1.5m and height 300mm, thickness 20mm with welded endplate to span onto wall. Pre-cut bolt holes into flitch plate and then using templates, drill through the beam full width and install 8 pairs of M10 stainless steel bolts, nuts and washers equally spaced along the beam length. Include to cut back decayed timber to beam end to each side of the flitch plate and cut and install new oak infill of size 300 x 135 x 600mm each (paired) bolted to the new flitch plate. Pour-in epoxy resin (type to be approved by the Architect and suitable for structural timber repairs) to fill any remaining gaps between the steel plate and timber. • Provisionally include for 5 no. repairs to floor beams of repair type R4.
	vii/ Repair Type R5 – multi-beam shoe connections – measure for and manufacture from 8mm stainless steel plate welded to form shoes to connect primary and secondary beams together. Drill and bolt through beams from with M10 stainless steel bolts, nuts and washers. For pricing purposes assume and average of at least 1.5 square metres of stainless steel plate and 16 no. M10 stainless steel bolts/nuts/washers to bolt through shoe and existing beam width. • Provisionally include for 11 no. repairs to floor beams of repair type R4.
	viii/ Provisionally allow for supplying and installing 50 no. short floor joists of length 1000mm and section size 75 x 150mm in Douglas Fir to span from the new steel secondary beams onto wall tops; screw or skew-nail to the sides of existing floor joists with stainless steel fixings and isolate from potentially damp masonry with DPC.
	ix/ Allow for continuous infill and packing individually cut props, noggins, wedges, packs and supports to support all ceiling and floor joist ends where positioned above new steel secondary beams. All timber cut from 50 x 100mm Douglas Fir. Pack around 70 no. pairs of ceiling and floor joists; packing should link from joist pair to joist pair to prevent lateral movement.

6.2	Allow for the following provisional roof structure carpentry repairs: actual repairs to be confirmed by the Architect. All new softwood to be preservative pre-treated and any cuts to be brush-treated with preservative; new oak to be semi-seasoned for complete new timbers; fully seasoned oak for any piecing-in work: i/ Provisionally allow for the replacement of a cumulative total of 25 metres of decayed wallplate to roof eaves. Assume new oak of section size 200 x 150mm installed in sections of length not less than 1800mm with half-lapped joints formed to adjacent wallplate sections at least 250mm long and secured with min. 4 stainless steel coach screws. Include for cutting back and removing existing decayed wallplate and disposing; Include for any necessary temporary removal and reinstatement of rafters to facilitate wallplate renewal.
	ii/ Provisionally allow for the replacement of a cumulative total of 15 metres of decayed wallplate to the central spine wall. Assume new oak of section size 200 x 150mm installed in sections of length not less than 1800mm with half-lapped joints formed to adjacent wallplate sections at least 250mm long and secured with min. 4 stainless steel coach screws. Include for cutting back and removing existing decayed wallplate and disposing; Include for any necessary temporary removal and reinstatement of rafters to facilitate wallplate renewal.
	iii/ Allow reinforcing 30 no. rafter ends by laying alongside new rafter sections (section size provisionally 75 x150mm in Douglas Fir) from the lower purlin to the wallplate (each approximate length 2 metres) (forming joints as required) and screwing to sides of existing rafters with stainless steel coach screws at 450mm.
	iv/ Allow replacing 30 no. rafters with new rafters (section size provisionally 75 x150mm in Douglas Fir) full length 8 metres approx. (forming joints as required). Dispose of any associated existing decayed rafters.
	v/ Provisionally include to strengthen existing purlins by supplying and installing new stainless steel angles, 100 x 100mm x 8mm thick, average length 3.5m, fixed to existing purlins with stainless steel coach screws at 300mm centres: allow for supplying and installing 10 no. angles as above described.
	vi/ Fabricate 8 no. V-shaped stainless steel supports/shoes welded from 8mm stainless steel plate to support purlin ends into gable walls – shoes to extend along purlins by 600mm and secured into purlins with min. 8 no. stainless steel coach screws; welded vertical stainless steel endplates to shoes to be bolted into walls with min. 4 no. M10 anchor bolts.
	vii/ Fabricate 10 no. stytrups from 6 x 60mm cross section stainless steel bar to wrap around the underside of purlins and over the tops of the principal rafters to form a continuous loop to improve the fixing of the purlins to the principals.

	viii/ Allow for strengthening the lower end of 5 no principal or valley rafters including fabricating from 8mm thick stainless steel plates 200mm wide and extending 1.5 metres along valley/principal rafters to both sides of the rafter, bolted through with min. 5 no. pairs of stainless steel bolts, nuts and washers; plates to have welded ends/flats to bear onto wallplates and to be coach screwed to wallplates with min. 4 no. stainless steel coach screws. Additionally include for cutting back and splicing-in a section of 200 x 300 x 750mm oak to the lower end of the principal/valley rafter to replace decayed timber.
	ix/ Provisionally include to replace 1 length of purlin of length 3500mm and section size 250 x 250mm complete in new oak to match original, reforming joints to the principal rafters and lift/refitting to rafters as required to allow replacement.
6.3	Allow for the following provisional lead gutter decking carpentry repairs: actual repairs to be confirmed by the Architect. All new softwood to be preservative pre-treated and any cuts to be brush-treated with preservative: i/ To valley gutter (i) and associated flat roof areas allow for all new gutter supports, in min. 75 x 50mm bearers at max. 450mm c/c; provide min. 75 x 150mm new joists to flat roof areas to replace all existing. Install gutter boarding, 20mm thick with square sawn edges installed with penny gaps. Install batten rolls for leadwork. Design all to comply with Lead Sheet Association recommendations. Install tilting fillets under tiling. ii/ To valley gutter (ii) and associated flat roof areas allow for all new gutter supports, in min. 75 x 50mm bearers at max. 450mm c/c; provide min. 75 x 150mm new joists to flat roof areas to replace all existing. Install gutter boarding, 20mm thick with square sawn edges installed with penny gaps. Install batten rolls for leadwork. Design all to comply with Lead Sheet Association recommendations. Install tilting fillets under tiling.
	iii/ To parapet gutter adjacent chimney 4 allow for forming new parapet gutter cradling, gutter lining and catchpit. Install gutter boarding, 20mm thick with square sawn edges installed with penny gaps. Design all to comply with Lead Sheet Association recommendations. Install tilting fillets under tiling.
	iv/ To 2 no. further outlet positions for new catchpits. Install catchpit boarding, 20mm thick with square sawn edges installed with penny gaps. Design all to comply with Lead Sheet Association recommendations. Install tilting fillets under tiling.
6.4	Allow for the following additional provisional carpentry and associated works: i/ Supply and brush-apply 10 no. 5 litre tubs of Sovereign Chemicals Deepkill Paste in accordance with manufacturers instructions to treat areas where live beetle activity is suspected (application rate 250ml per square metre of surface).

	ii/ Supply and install 50 no. stainless steel angles of length 225mm each leg, 4mm thick steel, secure with a minimum of 4 no. stainless steel screw per leg with minimum 40mm penetration into timber.
	iii/ Allow for rod/resin repair to 2 no. main beams: cut a 30mm wide slot in the top of a main oak beam to a depth of 250mm and length of 3000mm – taper the slot width so that it is slightly wider at the bottom.. Seal any fissures or gaps within the slot to prevent leakage of resin. Insert 6 no ribbed stainless steel reinforcing bars of 20mm diameter to the full length using proprietary spacers. Pour-in epoxy resin (type to be approved by the Architect and suitable for structural timber repairs) and fully fill the slot around the reinforcing bars.
	iv/ Allow for flitch-plate repair to 2 no. main beams: cut a 25mm wide slot in the top of a main oak beam to a depth of 250mm and length of 3000mm. Manufacture and install a stainless steel plate of 20mm thickness, 225mm depth and full length of the slot, pre-drilled. Using templates, drill through the beam full width and install 15 pairs of M10 stainless steel bolts, nuts and washers equally spaced along the beam length. Pour-in epoxy resin (type to be approved by the Architect and suitable for structural timber repairs) to fill gaps between the steel plate and timber.
	v/ Allow for replacing 2 no. main primary floor beams in new oak, approximate size 300 x 300mm x 7m, reforming joints to secondary beams.
	vi/ Allow for replacing 1 no. beam in new oak, approximate size 200 x 200mm x 3m.
	vii/ Allow for replacing 4 no. oak lintels with new oak lintels of provisional size 250 x 250mm x 2.5 metres long to windows, cutting out old lintels and installing new, packing up and consolidating brickwork around and around the new lintels.
	<i>Sub total</i>
7.0	Joinery
7.1	Provisionally include for the following repairs to window joinery, subject to inspection from scaffolding/high level access (allow for all new timber for repairs/splicing to be in new durable hardwood for painting; where resin repairs are specified, cut away decayed timber and prepare as manufacturers recommendations and use approved proprietary resin-repair system):
	W4.1 Fully replace both casements and sub-frames to left and right-hand sides to match existing; reuse existing
	Refer to Peter Rogan & associates “Weston Hall - condition 6” covering statement submitted as part of this discharge of conditions submission and PII 5/ ASBC typical window assembly sketch for confirmed window joinery replacements
	latches/stays but provide new brass butt hinges. Prepare for decoration and seal gaps to stone surrounds.
	W4.3 Fully replace both casements and sub-frames to left and right-hand sides to match existing; reuse existing
	latches/stays but provide new brass butt hinges. Prepare for decoration and seal gaps to stone surrounds.
	W4.4 Fully replace both casements and sub-frames to left and right-hand sides to match existing; reuse existing
	latches/stays but provide new brass butt hinges. Prepare for decoration and seal gaps to stone surrounds.

	W4.5 Fully replace both casements and sub-frames to left and right-hand sides to match existing; reuse existing latches/stays but provide new brass butt hinges. Prepare for decoration and seal gaps to stone surrounds.
	W3.1 Right hand casement, ease sticking casement. Prepare for redecoration and seal gaps to stone surrounds.
	W3.2 Lower left-hand casement: replace cill and splice outer frame lower sections; replace bottom rail and splice repairs to stiles. Lower right-hand casement: replace cill and splice outer frame lower sections; replace bottom rail and splice repairs to stiles.
	Upper right-hand casement: replace cill and splice outer frame lower sections; replace bottom rail and splice repairs to stiles. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W3.3 Lower left-hand casement: replace cill and splice outer frame lower sections; replace bottom rail and splice repairs to stiles; ease casement Refer to Peter Rogan & associates "Weston Hall - condition 6" covering statement submitted as part of this discharge of conditions submission and P115/ASBC typical window assembly sketch for confirmed window joinery replacements
	W3.4 Lower left-hand casement: resin repairs to cill and outer frame lower sections; ease casement; Lower right-hand casement: resin repairs to cill; resin repairs to bottom rail; ease casement. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W3.5 Allow for splice repairs to rotten parts of the outer frame, mullion and transom (5 no. repairs). Lower left-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles; ease casement. Lower right-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles; ease casement. Top left-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles; ease casement. Top right-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles; ease casement. Splice repair to cill, length provisionally 300mm. Otherwise prepare for redecoration and seal gaps to stone surrounds.

	W3.6 Lower left-hand casement: splice repairs to both stiles and replace bottom rail. Lower right-hand casement: splice repairs to both stiles and replace bottom rail. Top left-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles; ease casement. Top right-hand casement: replace all glazing beads, replace bottom rail and splice lower ends of both stiles: Refer to Peter Rogan & associates “Weston Hall - condition 6” covering statement submitted as part of this discharge of conditions submission and PII5/ ASBC typical window assembly sketch for confirmed window joinery replacements
	W3.7 Lower left-hand casement: replace cill and resin repairs to both frames; fully replace opening casement. Lower right-hand casement: fully replace opening casement. Top left-hand casement: replace cill and resin repairs to lower end of frames; Top right-hand casement: ease casement; resin repairs to cill, renew bottom rail of casement. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.1 Lower left-hand casement: renew glazing bars, ease casement; Top right-hand casement: renew glazing bars; Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.2 Lower left-hand casement: renew glazing bars, ease casement; Top right-hand casement: renew glazing bars; Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.3 Allow for 4 no. minor resin repairs; Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.4 Ease casements; Replace 1 no. broken glass pane; Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.5 Ease casements; Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.6 Renew both timber mullions full length to match existing, including for temporary propping of stone lintel; Replace cill full length; Splice repairs to 2 no. lower frame ends into cill; Bottom left casement, replace bottom rail and splice repairs to both stiles; Bottom middle casement, resin repairs to bottom rail; Bottom right casement, splice repair to left hand stile. Top right hand casement; replace cill and splice repair to left-hand stile and resin repair to bottom rail. Otherwise prepare for redecoration and seal gaps to stone surrounds.

	W2.7 Replace lower cill full length; Outer frame: replace beading generally; Bottom left casement: replace/renew opening casement complete; Bottom middle casement, replace bottom rail and replace restrictor; Bottom right casement, replace bottom rail. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.8 Replace lower cill full length; Bottom left casement: resin repairs to lower stiles and replace bottom rail of casement, ease casement. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.9 Replace lower cill full length; Bottom left casement: renew cill; splice repairs to stiles. Bottom right casement: renew cill and bottom rail; splice repairs to stiles. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.10 Replace lower cill full length; Bottom left casement: renew cill; splice repairs to stiles. Bottom right casement: renew cill. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.11 Top opening light, ease casement. Otherwise prepare for redecoration and seal gaps to stone surrounds.
	W2.12 Bottom left casement: renew glazing bars; replace cill; splice repairs to lower part of both stiles. Otherwise prepare for redecoration and seal gaps to stone surrounds.
7.2	Allow for the following additional repairs to window and conservatory timberwork (note: works are Historic England grant ineligible): .
	i/ Allow for minor resin repairs including sealing around open joints in casements, around glazing bar ends etc., 100 no. minor resin repairs/infilling. .
	ii/ Allow for 30 no. splice repairs of size 50 x 450 x 75mm to conservatory framing, matching existing profiles; .
	iii/ Allow for 50 no. resin repairs to conservatory and other exterior joinery including cutting back to sound material and using proprietary resin-repair system, repairs of typical approx.. size 40 x 50 x 300mm.
7.3	Roof access dormers: provisionally include for the following works:
	i/ Replace hinges with new heavy-duty galvanised steel T-band hinges and new shoot bolts to each door.
	ii/ Provisionally include for splice repairs to a total of 6 no. bottom-boards to doors (cumulative total) of length 200mm approx. to replace decayed timber, board widths and profiles to match existing.
	iii/ Include the provisional sum of £750 for other repairs to the dormer structures.

	<i>Sub total</i>
8.0	Masonry Repairs
8.1	Provisionally include for the following allowance for high level repairs to coping stones:
	i/ Provisionally include for carefully lifting and rebedding a total of 40 metres of existing copings (to both raking and level parapets), securing with stainless steel dowels and rebedding with NHL2.0 hydraulic lime mortar. Cumulative total of isolated repairs.
	ii/ Provisionally include for renewing a total of 6 metres of coping stones in new Hollington stone to match original profiles including rebedding with hydraulic lime mortar and securing with stainless steel pins.
	iii/ Provisionally include for 20 no. indent repairs to coping stones in Hollington stone including cutting back, pinning with stainless steel pins, and matching existing profiles, typical indent stone size 400 x 100 x 100mm before shaping.
8.2	Provisionally include for the following allowance for high level repairs to gable and parapet brickwork:
	i/ Allow for consolidating rear faces of all sloping parapets with hydraulic lime mortar prior to installing flashings including carefully cutting out any pre-existing cement-containing mortars.
	ii/ To the staircase and all main gables (5 gables total) and to the flanking sides of the staircase down to the string course level allow for careful removal of existing cement-containing mortars (including careful drilling or cutting with reciprocating saws where required to aid purchase for chisels), and repointing with hydraulic lime mortar to a typical depth of 25mm. Include repointing around window stonework and pointing up open perpend to string courses.
	iii/ Allow for cutting back cementitious pointing and render to the rear faces of horizontal parapets and repointing with hydraulic lime mortar.
	iv/ Allow for cutting back cementitious pointing to the front faces of horizontal parapets and repointing with hydraulic lime mortar down to string course level.
	v/ Allow for cutting out and replacing 50 no. bricks with new handmade bricks to match existing and as specification as part of works (i-iv) described above.
8.3	Provisionally include for the following allowance for repairs to window stonework:
	i/ Allow for 10 no. stainless steel threaded dowels of typical length 300mm and 8mm dia. set in resin to secure fractured stones;
	ii/ Allow for 10 no. stainless steel threaded pins of typical length 150mm and 6mm dia. set in resin to pin fractured stones;
	iii/ Allow for repointing around all Second Floor windows including carefully raking out existing mortars with stone units and between stone and brickwork and repointing with hydraulic lime mortar.

	iv/ Allow for repointing around all First Floor windows including carefully raking out existing mortars with stone units and between stone and brickwork and repointing with hydraulic lime mortar.
	v/ Allow for 15 no. lime mortar repairs to existing window stonework using coloured lime mortars blended to match the stone colour on bronze armatures fixed back to sound stone with repairs to an approximate size of 35 x 100 x 400mm, repair applied in layers.
8.4	Provisionally include for the following allowances for additional external masonry repairs to main elevations:
	i/ Rake out and repoint 40 square metres of brickwork in hydraulic lime mortar including carefully removed existing cementitious mortars and repointing to a typical depth of 25mm;
	ii/ Cutting out and replacing 20 bricks with new handmade bricks as specification to match the existing.
	iii/ Installing 10 no. stainless steel Helibars set in resin to a typical length of 1000mm and pointing-up with hydraulic lime mortar.
	iv/ Allow for repointing around all First Floor windows including carefully raking out existing mortars with stone units and between stone and brickwork and repointing with hydraulic lime mortar.
	v/ Allow for 15 no. lime mortar repairs to existing window stonework using coloured lime mortars blended to match the stone colour on bronze armatures fixed back to sound stone with repairs to an approximate size of 35 x 100 x 400mm, repair applied in layers.
8.5	Provisionally include for the following works to all chimneys 1-6:
	i/ Allow for fully repointing all chimneys from roof/eaves level to the tops of flues including carefully cutting and removing all existing cementitious mortars and renders and repointing with hydraulic lime mortar to an average depth of 25mm.
	ii/ Cutting out and replacing 200 bricks with new handmade bricks as specification to match the existing, bedding in hydraulic lime mortar.
	iii/ Cut out and replace 10 no. quoin stones to lower stacks with new stones in Hollington of assumed size 225 x 400 x 750mm (sizes to be checked). New stones to have herringbone tooled finish to exposed faces. Install in hydraulic lime mortar. iv/ Allow for 5 no. indent repairs to offset stones in Hollington of assumed size 150 x 150 x 400mm (pre-worked sizes; to be checked). Install in hydraulic lime mortar and pin into position with stainless steel pins.

	iv/ Allow for 5 no. indent repairs to offset stones in hollington of assumed size 150 x 150 x 400mm (pre-worked sizes; to be checked). Install in hydraulic lime mortar and pin into position with stainless steel pins
	v/ Allow for 10 no. lime mortar repairs to existing stonework using coloured lime mortars blended to match the stone colour on bronze armatures fixed back to sound stone with repairs to an approximate size of 35 x 150 x 300mm, repair applied in layers.
	vi/ Allow for installing 18 no. Redbank square hole pattern 140 x 225mm red terracotta airbricks to concealed faces of chimney flues to ventilate redundant flues.
(duplication of vi-omitted)	vii/ Allow for installing 18 no. Redbank square hole pattern 140 x 225mm red terracotta airbricks to concealed faces of chimney flues to ventilate redundant flues.
	viii/ Allow for capping 18 no. redundant flues with York stone slabs of size 63 x 500 x 500mm bedded and flaunches with hydraulic lime mortar.
	ix/ Provisionally include for renewing all flaunchings to all chimneys 1-6 in new hydraulic lime mortar including refixing existing flues/chimney pots.
8.6	Provisionally include for the following allowances for internal masonry repairs:
8.6.1	Room 3.1 - South facing wall, allow for: —
	i/ Consolidating/relaying the top 3 courses of brickwork under the existing joist ends to the complete length of the wall, including underbuilding joist ends where brickwork is currently absent, all using hot lime mortar.
	ii/ Consolidate/replace decayed bricks at low level to each side of the northern fireplace from the partition to the arched opening to a height of 2-5 courses as shown on internal wall elevation drawing.
	iii/ Consolidate/fill existing openings to both fireplaces, laying new bricks in hot lime mortar.
	iv/ Supply and install 14 no. stainless steel Helibars of typical length 1200mm and 1 no. Helibar of length 3000mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar.
	v/ Supply 200 no. new handmade bricks as specification and lay in hot lime mortar in conjunction with above described repairs.
8.6.2	Room 3.3 - South facing wall, allow for: i/ Supply and install 5 no. stainless steel Helibars of typical length 1200mm and 1 no. Helibar of length 3000mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar.
8.6.3	Room 3.4 - North facing wall, allow for: i/ Supply and install 10 no. stainless steel Helibars of typical length 1500mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar.

8.6.4	Room 3.5 – North facing wall, allow for: i/ Supply and install 5 no. stainless steel Helibars of typical length 1500mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar.
	ii/ Supply and install 5 no. stainless steel Helibars of typical length 2500mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar.
	v/ Supply 50 no. new handmade bricks as specification and lay in hot lime mortar in conjunction with above described stitching repairs including cutting out and replacing bricks and filling/consolidation wider gaps in masonry full-height. Include for deep-filling the open cracks/joints shown on internal wall elevations in hot lime mortar.—
8.6.5	Room 3.5 – South facing wall, allow for: i/ Supply 30 no. new handmade bricks as specification and lay in hot lime mortar to fill existing voids in walls/fireplaces.
8.6.6	Allow for the following provisional consolidation/repair works to flat brick arches over windows 3.3, 3.4, 3.5, 3.6. Allow for the following consolidation/repair options:
	i/ Rebuild flat brick arch – allow for taking templates and measurements to allow re building, carefully take down the existing arch and prop the surrounding structure, install custom centring to allow re building, re build in new handmade bricks as specification and lay in hot lime mortar.
	ii/ Supply and Install a proprietary (e.g. Helifix sockfix) mechanical grouted sock anchor system as manufacturer’s instructions to pin the existing brick arch to the surrounding structure. Provisionally allow for 4 no anchors per arch and grout of a volume to suit. Re point in hot lime mortar as specification.
	iii/ Install metal plate reinforcement under arch in fabricated 20mm stainless steel plate – nominally 225mm wide by 2 meters long, allow for minimum 150mm bearing on jambs, allow for propping of surrounding structure, and raking out of joints to allow installation of plate, re point bricks in hot lime mortar as specification.
	iv/ Nominally allow for 10 no. new hand made bricks if required for items ii and iii above.
8.6.7	Allow for the following additional provisional internal masonry consolidation/repair works:
	i/ Allow for consolidating around joist ends to wall eaves beneath the attic floors – consolidate/relay 3 courses of bricks to a cumulative length of 40 metres around floor/ceilings joist ends, laying bricks in hot lime mortar.

	ii/ Supply and install 5 no. stainless steel Helibars of typical length 1500mm all set into raked-out mortar joints and fixed with resin. Point up joints in hot lime mortar;
	iii/ Supply 50 no. new handmade bricks as specification and lay in hot lime mortar in conjunction with above described repairs.
	iv/ Repoint 10 square metres (cumulative total of isolated repairs) of internal brickwork in hot lime mortar to a typical depth of 25mm.
	Sub total
9.0	Plaster Repairs/Renewal
9.1	Provisionally allow for the following plaster removal works (testing of plaster for possible Anthrax content elsewhere described; allow for appropriate PPE and handling/removal of water materials):
	i/ Plan, provide temporary support and carefully take down all remaining ceilings at Second Floor level (ie. the underside of the Attic floors) including plaster and lathes and dispose from site. Include the area within the small room under the flat roof to the north-west part of the Hall.
	ii/ Carefully de-nail all ceiling joists from all parts of the Second Floor area (except the stairwell) including both where ceiling plaster has been removed as described in (i) but also where previously removed by others. Note that existing remaining ceilings are unstable and will need careful removal; ceiling joists are rotten in areas and joints into main beams may be weak – risk of local or wider ceiling collapse and temporary supports/PPE will be needed. Note that no wall plaster is to be removed.
9.2	Provisionally allow for the following re-plastering works to the Second Floor ceiling (underside of Attic floor and the ceiling under the flat roof to the north-west small room):
	i/ To all new steel beams and floor structure supports install new timber casings/supports to allow for new plaster enclosures/boxings. Install softwood battens into the webs of steel beams to allow battens to be fixed about the steels to receive plaster lathes. Complete design of casings/supports to create a consistent design and appearance in the beam casings (agree sizes and setting-out with the Architect before progressing).
	ii/ To the edges of all beam casings described in (i) install circular timber beading (18mm diameter approx.) as the stop-edge for new plastering and secure into casing timberwork with stainless steel pins/nails.
	iii/ To all parts of the ceilings and beam casings install new riven oak or chestnut plaster lathing, ensuring correct spacing of lathes to ensure good key for plaster and securing all with stainless steel nails or screws (ensuring good fixing into ceiling joists).
	iv/ Apply 3 coat lime plaster to all ceiling areas and beam casings, allowing for haired render and float coats.

9.3	In addition to the above-described works, allow for the following provisional work allowances:
	i/- To supply and install riven oak or chestnut lathing to a ceiling of area 5 square metres, fixed with stainless steel nails;
	ii/- To apply an area of 5 square metres of 3 coat lime plaster with haired render and float coats to the ceiling lathing described in (i).
	<i>Sub total</i>
10.00	Gypsum Plaster Floor Repairs
10.1	Provisionally allow for the following plaster floor removal works (following inspection and agreement by the Architect – as much of the existing floor as possible is to be retained, but due to the very poor state of the floors and structures it is provisionally assumed that all will need to be removed and replaced): i/- Provisionally allow for taking up the entire gypsum plaster floor to Attic floor level (excluding staircase). ii/- Retain and crush/grind the old plaster floor (referred to in (i)) for reuse in repair mixes. iii/- Provisionally include for taking up and disposing of all reed and lathe backings, removing all old fixing nails and disposing of all.
10.2	Provisionally allow for the following plaster floor renewal works (following inspection and agreement by the Architect – as much of the existing floor as possible is to be retained, but due to the very poor state of the floors and structures it is provisionally assumed that all will need to be removed and replaced):
	i/- Provisionally allow for levelling the top surfaces of floor joists where deflected or deformed in order to provide a reasonably level surface for the new floor. Allow for new firrings manufactured from oak or chestnut cut from a 50 x 75mm section and worked/shaped on the underside to sit and be supported by the joist without gaps. Secure into floor joists with stainless steel screws with min. 40mm penetration to joists and at 300mm centres approx. Allow for 50% (total cumulative length) of all joist + beam tops to receive firrings as described.
	ii/- Across the full area of the Attic floor where plaster floors have been removed, install new reed matting (Ty-Mawr or similar and approved), lapping all rolls at joist positions to ensure that all edges are adequately supported. Secure with riven chestnut lathes using stainless steel screws and washers into each and every joist at 300mm centres. Ensure that reed matts are not 'stretched' but laid to create a dense backing for new plaster floors.

	iii/ Plan, prepare, blind the reed with lime putty and then apply new plaster floor mix to an assumed typical thickness of 75mm to the full area of the prepared Attic floor. Provide a smooth woodfloated finish. Note allowance for trial mixes and testing rigs for plaster floor repair described elsewhere. The laying of new plaster floors as above described should include for the possible need for laying in more than one phase.
10.2(a)	Alternative option to supply, prepare and lay loose reed substrate, as an alternate to items 10.2 ii above (Exclude from tender sum):- i/ Supply Norfolk Reed (Phragmites Australis) of a suitable length to span securely between existing floor joists with an end lap, allow for checking for suitability and trimming on site prior to installation. Across the full area of the attic floor there plaster floors have been removed lay new reeds, ensuring their ends are laid and lapped with the next row of reeds securely at joist positions. Secure with riven chestnut lathes using stainless steel screws and washers into each and every joist at 300mm centres. Ensure that reeds are installed at a suitable density (120 reeds/m as a guide) to provide a suitable backing for new plaster floors.
10.3	In addition to the work above described, include for the following additional materials:
	i/ Supply only cost for an additional 10 rolls of 2 x 5 metre reed matting;
	ii/ Providing and installing 50 linear metres of riven chestnut lathe with stainless steel screws and washers at 300mm centres (cumulative total);
	iii/ Providing and installing 50 linear metres (cumulative total) of 50 x 75mm oak or chestnut noggins between floor joists, fixing with stainless steel nails or screws.
	<i>Sub total</i>
11.1	Take down and dispose of all existing plastic rainwater goods and associated brackets and fittings to high level roofs, removing gutters (i), (ii), (iii), (iv) and (v) and removing associated downpipes down to ground level or other discharge points. Remove all materials from site. Neatly fill any holes left in brickwork with lime mortar.
11.2	Provide all new gutters to high level roofs, all Alumasc Heritage Cast aluminium, 125mm beaded half-round pattern with all necessary accessories, end caps, outlets, bends, sealants, fixings etc. all to be installed in accordance with manufacturer's recommendations. Gutter (v) to extend around the southern corner of the west elevation, as well as the northern, to serve additional downpipe location (downpipe 4a)

11.3	Provisionally include for all new Alumasc rise-and-fall brackets to all gutters, replacing any existing brackets – remove any existing brackets and make good brickwork with lime mortar. Provide and install new brackets at manufacturer’s recommended spacing ensuring that all gutters have adequate support and are adequately and positively secured into brackets (taking especially account of the exposed nature and height of the building) including installing retaining screws or clips and that gutters have adequate falls to outlets. Prime, undercoat and topcoat all brackets to match gutters.
11.4	Provide Alumasc ‘Lightning Link’ assemblies as required to connect to lightning protection systems elsewhere described.
11.5	Allow for installing new downpipes to all high level roofs as follows, all to be Alumasc Heritage Cast aluminium, 100mm diameter eared pipes, fixed in accordance with manufacturers instructions with stainless steel fixings into walls (painting-in bolt-heads to match downpipes), sealing pipe connections as manufacturers recommendations and providing all necessary accessories and sundries including plastic bobbins where required to maintain downpipe alignments: <i>Downpipe 1</i> Generally a new straight-drop downpipe from gutter to ground level with high-level offset to suit gutter, offset to plinth and shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass. <i>Downpipe 2</i> Generally a new straight-drop downpipe from gutter to terrace level with high-level offset to suit gutter, offset to plinth and shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass.
	<i>Downpipe 3</i> Generally a new straight-drop downpipe from gutter to conservatory roof level with high-level hopper (Heritage Cast Aluminium ‘Ornamental’ type), shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass. Include for a lead apron to be installed under the base of the pipe, secured back to the wall and dressed under roof slating, to help direct outflow from downpipe across the slating. <i>Downpipe 4</i> Generally a new straight-drop downpipe from gutter to conservatory roof level with high-level hopper (Heritage Cast Aluminium ‘Ornamental’ type), shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass. <i>Downpipe 4a</i> In new location, additional downpipe, generally a new straight-drop downpipe from gutter to conservatory roof level with high-level offset to suit extended gutter, offset to plinth and shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass.

	<i>Downpipe 5</i> Downpipe from gutter to ground level with high-level offset to suit gutter, offset to plinth and shoe to base of pipe. Additional hopper (Heritage Cast Aluminium ‘Ornamental’ type) at ground floor level to accept waste pipe. At high level, from outlet 3, hopper (Heritage Cast Aluminium ‘Rectangular Small’ type) and short pipe with shoe to discharge into gutter. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass. <i>Downpipe 6</i> Downpipe from gutter to ground level with low-level offset and bend, offset to plinth and shoe to base of pipe. High level hopper to outlet 2 and additional hopper (Heritage Cast Aluminium ‘Ornamental’ type) at ground floor level to accept waste pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass. <i>Downpipe 7</i> Generally a new straight-drop downpipe from gutter to ground level with high-level hopper (Heritage Cast Aluminium ‘Ornamental’ type), offset to plinth and shoe to base of pipe. Include for neat adjustments to string courses, if required, by a stonemason to string courses to allow pipes to pass.
11.6	Provide any necessary isolating tape or materials as recommended by manufacturers to prevent electrolytic corrosion between dissimilar metals.
	<i>Sub total</i>
12.0	Zinc Rainwater Goods Alternative Option (Exclude from Tender Sum)
12.1	Provide all new gutters to high level roofs, all VM zinc half round rainwater system, sectional dimensions to match those in section 11 above, with all VM Zinc hopper heads and box hopper heads, outlets and connections, brackets, fixings, sealants and accessories required to complete the installation. Provisionally allow for ‘QUARTZ- ZINC’ finish. Allow for any amendments by stonemasons to string courses as required to suit downpipes.
	<i>Sub total</i>
13.0	Lightning Protection System
13.1	Lightning protection system: design and install a lightning protection system to comply with BS EN 62305 and to include (list not exhaustive)

	i/ Risk assessments and completion of the design to comply with BS EN 62305 and submit designs to Architect for acceptance before commencing installation; ii/ Provisionally all using aluminium coated tapes/ cables; iii/ Ridge tapes to main roofs, air terminals to chimneys, and other protection as required by the design; iv/ System to be carefully and neatly installed using vertical cables in preference to tapes (subject to design) and with verticals located in angles or adjacent existing vertical features (eg. downpipes) to minimise visual impact; v/ Discrete cross-bonding to rainwater goods, new internal steelwork etc. as required by the design/risk assessment; vi/ All required ground level earthing points, testing clamps etc. vii/ Testing of the system to demonstrate compliance with earthing requirements; viii/ Further test of the system 11 months after installation and prior to the end of the contract Rectification Period. If any improvements to earthing are found necessary, this cost to be borne by the Contractor. ix/ Provision of surge-suppression system to the building
	Sub total
14.0	Decorations
14.1	Allow for the following redecoration works to all Attic floor level windows, allowing for stripping back loose/flaking paint back to sound material, protecting glass and stone from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Slaked Lime':
	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;
	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows;
14.2	Allow for the following redecoration works to all Second floor level windows, allowing for stripping back loose/flaking paint back to sound material, protecting glass and stone from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Slaked Lime':
	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;

	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows;
14.3	Allow for the following redecoration works to all First floor level windows, allowing for stripping back loose/flaking paint back to sound material, protecting glass and stone from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Slaked Lime':
	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;
	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows;
14.4	Allow for the following redecoration works to all Ground floor level windows (excluding the 'conservatory' windows on the west and south sides of the Hall but including the doors to the terrace on the east side of the Hall), allowing for stripping back loose/flaking paint back to sound material, protecting glass and stone from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Slaked Lime':
	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;
	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows;
14.5	Allow for the following redecoration works to all Basement floor level windows (excluding the 'conservatory' windows on the west and south sides of the Hall), allowing for stripping back loose/flaking paint back to sound material, protecting glass and stone from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Slaked Lime':

	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;
	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows;
14.6	Allow for the following redecoration works to all Conservatory windows and doors allowing for stripping back loose/flaking paint back to sound material, protecting glass from overpainting, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colours provisionally 'Slaked Lime' to windows, 'Baked Cherry' to the main doors and 'Basalt' to fascias: (note: works are Historic England grant ineligible)
	i/ Prepare and repaint the external faces of all windows including within reveals/rebates and the sides/tops of all opening casements;
	ii/ Prepare and seal around all timber frames externally using Dow Corning or other approved appropriate proprietary sealant including infilling gaps with a rot-proof proprietary filler material as a backing for the sealant and then neatly sealing with silicone sealant of colour to match the frame colour.
	iii/ Prepare and repaint the internal faces of all windows and doors.
14.7	Allow for the following redecoration works to both roof access dormers:
	i/ Prepare and repaint the access doors, stripping back loose/flaking paint back to sound material, priming bare timber, undercoating and applying 2 full coats of Little Greene Exterior Eggshell paint, colour provisionally 'Attic'. ii/ Treat other exposed timber parts of the structure with Sadolin Classic woodstain, colour 'Natural'.
14.8	Allow for the following redecoration works to all high level masonry tie plates, allowing for stripping back loose/flaking paint to sound material, protecting adjacent masonry from overpainting, 1 coat metal primer, 2 coats of micaceous iron oxide undercoat, 1 coat finish paint (Dulux Trade Metalshield, colour provisionally Anthracite Grey, for confirmation by Architect)
	Sub total
15.0	Contingency Sum
15.1	Include the contingency sum of £9,977 for structural repairs to cover risks associated with potential for additional concealed decay in roof or floor structures etc.
15.2	Additional expenditure of £450 on railway sleepers to provide a sole plate function to the scaffold

15.3	Possible additional expenditure from of the contingency (item 15.1) on consolidation of flat brick arches 3.3,3.4,3.5,3.6 (a range is indicated, as ASBC's costs against item 8.6 i to iii)
	<i>Sub total</i>
	<i>VARIATIONS</i>
1.24	Omit sample stones
1.25	Omit 2no sample tests of existing plaster for Anthrax spore
2.20	Omit clause E65.2 training session with Nigel Copsey.
2.50	Omit CCTV survey for chimneys.
2.50	Add back revised costs for chimney CCTV.
6.1 vi	Omit Repair Type R4 – Flitch plate repair to main beam end • Provisionally include for 5 no. repairs to floor beams of repair type R4.
6.1 vii	Omit Repair Type R5 – multi-beam shoe connections • Provisionally include for 11 no. repairs to floor beams of repair type R4.
6.2 ii	Omit provisionally allow for the replacement of a cumulative total of 15 metres of decayed wallplate to the central spine wall.
6.2 ii	Add back revised cumulative total of 22 meters of decayed wallplate to the central spine wall.
6.2 viii	Omit tender allowance to strengthen lower end of 5no principal or valley rafters.
6.2 viii	Add back revised costs for alterations & strengthening to all internal valleys due to adjacent roofs being constructed off lay beards that formed valley boards.
6.2 ix	Omit allowance to replace 1no length of purlin
6.4 iii	Omit rod/resin repair to 2 no. main beams.
6.4 iii	Add back revised costs to undertake 1no rod / resin repair to main beam (T3)
6.4 iv	Omit flitch-plate repair to 2 no. main beams.
6.4 v	Omit replacement of 2 no. main primary floor beams in new oak.
6.4 vii	Omit replacement of 4 no. oak lintels with new oak.
6.3 i & ii	Omit all allowances for works to internal gutters (rafters, gutter bearers, gutter boards etc.)
6.3 i & ii	Add back revised costs for works to internal gutters (rafters, gutter bearers, gutter boards etc.) Wall-plates included elsewhere.
8.1 i	Omit lifting and rebedding a total of 40 metres of existing copings.
8.1 ii	Omit renewing a total of 6 metres of coping stones.
8.1 iii	Omit 20 no. indent repairs to coping stones.
8.2 ii	Omit to the staircase, 5 gables and to the flanking sides of the staircase down to the string course level allow for careful removal of existing mortars and repointing with hydraulic lime mortar.
8.2 ii	Add back revised / reduced scope for repointing with hydraulic lime mortar. This is only to areas where mortar is missing / hevily weathered. (Existing mortars not removed)
8.5 i	Omit repointing all chimneys from roof/eaves level to the tops of flues including removing all existing cementitious mortars and renders and repointing with hydraulic lime mortar.
15.30	Omit allowance for consolidation of flat brick arches.

15.30	Add 14no Naylor concrete lintels to failed flat archs above window heads to Structural Engineers design. Includes temporary props / support, removal of existing, installation, protection, padstones & associated masonry works. (Drawing 100 details L1 &L2)
8.5 iii	Omit replace 10 no. quoin stones to lower stacks.
V.0	Additional repair works to floor beam ends to Structural Engineers designs (18no). Includes templating, fabrication & installation of steel plate hangers, s/s fixings, protection, temporary props / supports & scaffolding alterations. (Drawing 200 detail D)
V.1	Add take down and rebuild chimneys F4.2, F4.3, F4.4, F5.1, F5.2, F5.3, F5.4, F6.1 & F6.2. Includes internal preparation, waste removal, additional bricks, lintels & associated material.
V.2	Add investigations & repairs to all retained chimneys stacks including brick removal & replacement (facings & Blue), exposing flues, repointing, flaunching, rendering and other minor repairs.
V.3	Add take down and rebuild stairwell masonry walls currently unsupported. Includes temporary props / supports, internal preparation, waste removal, additional bricks, padstones & associated material (steels etc listed in V.5).
V.4	Add relocation of gutter outlet No.5 to improve rainwater management. Includes alterations to gutter structure.
V.5	Additional steel beams providing support to stairwell masonry (described in V.3) to the Structural Engineers design. Includes supply, fabrication, s/s fixings, installation, protection, temporary props / supports & scaffolding alterations.
V.6	Add steels to strengthen fireplace opening to structural Engineers design. Includes temporary props / support, removal of existing, installation, protection, padstones & associated masonry works.
V.7	Additional repair works to truss ends identified in Structural Engineers designs (7no). Includes supply of additional oak beams, steel plates, s/s fixings, fabrication, installation, protection, temporary props / supports & scaffolding alterations. (Drawing 200 detail A, B, C & E)
V.8	Additional works to chimney enclosures (item 1.16 previous allowance of £200.00). Increase due to taking down & rebuilding works listed in item V.1
V.9	Add replacement bottom cord / stringer to truss T7 using 300mm x 200mm 7.4M oak beam. Includes preparing & refixing struts, principle rafters & wall-plate housings.
V.10	Add take down & rebuild top section of T7 gable masonry due to stability and poor lintel bearing over window.
V.11	Add replacement bottom cord / stringer to truss T1 using 300mm x 200mm 7.4M oak beam. Includes preparing & refixing struts, principle rafters & wall-plate housings.
V.12	Add back tender item 9.1i for removal of plastered ceilings. This should not have been omitted in V.E.
V.13	Add back tender item 9.1ii for denailing. This should not have been omitted in V.E.

V.14	Add fabrication & installation of tie brackets / plates to stabilise all gables due to existing purlins and ridge beams not bearing on to internal masonry.
V.15	Add supply (or possible manufacture) & installation of 2no roof hatches to gutters with restricted access. (outlet areas 1 & 5)
V.16	Add take down parapet masonry over conservatory, reclaim bricks & rebuild as existing. Re-use concrete coping.
V.17	Add rafter extensions to extend over eaves masonry & provide support to roof tiles (existing formation is for slate) 105no lengths (160 linear meters) of Douglas Fir to scribe and bolt.
V.18	Add additional downpipes & associated fittings due to outlet relocation.
V.19	Add underground drainage including excavations, 2No new r/w gullies, pipework & associated fittings, connections to existing system, alterations to existing i/c chamber, backfill & make good grounds.
V.20	Add roof collars to prevent roof spread in various locations.
V.21	Add additional treatments to all perimeter timbers that will be inaccessible once coverings are installed.
6.2 v	Omit tender allowance RSA strengthening works to purlins.
6.2 vi	Omit tender allowance for 8No V-shaped purlin supports.
6.2 vii	Omit tender allowance for 10No styrops for purlin supports.
6.2 ix	Omit tender allowance to replace 1No length of purlin
6.2 v	Add back costs strengthen joints between purlins & principle rafters using bolted s/s bar, timber wedges & associated fixings.
8.2 i	Omit tender allowance to consolidate rear parapet masonry.
8.2 i	Add back revised costs to consolidate parapet masonry.
15.10	Omit project contingency.
1.11	Omit temporary business signage
NET TOTAL-VARIATIONS	

TOTAL AMOUNT OF PAY-APP 06

plus VAT

Less previous application value