

St Lawrence -Warminster
Costs following condition report

Item	Description	Nr	Unit	Total values excl VAT
				£40,977.39
	<i>To facilitate a full clean of all elevations, inc tower and spire, an independent scaffold will need to be in place for access. It would be worth investigating whether access could be made, for the majority of the high level cleaning via, a lorry based platform lift if you are able to use the vacant plot next door .</i> <i>Fresh water supply (outside stand pipe with adequate pressure to preform at the height of the spire) and power socket with capability to service a 32amp transformer will be required.</i> <i>It would be wise to undertake a small trial clean of the stonework in two areas perhaps on the South and East elevations to agree level of clean which could effect time / costs with agreement with conservation officer.</i>			
	Trial cleaning in two areas - will require power and water supplies.	1.00	item	£509.34
	Full scaffold to access all elevations of Nave , Tower and Spire	1.00	item	£17,318.40
	Option for metal security sheeting to scaffold	1.00	item	£2,255.00
	Clean moss from roof and all elevations , including tower and spire with Thermatech variable temperature / pressure water system. (may need reviewing following trial clean)	1.00	item	£8,065.89
	Provisional sum for further poulticing (following trials) to clean black staining unlikely to removed by Thermatech system - 80 hours allowed + materials PC sum	1.00	PC	£4,146.33
	Works mentioned on report			
	Minor pointing / defrassing works	1.00	item	£1,164.97
	Patinate the recent very light grey cement pointing to blend in with surrounding mortar colour	1.00	item	£212.95
	Removing cement ribbon pointing to lower window and second offset areas of N/W S/W buttresses and repoint in lime mortar	1.00	item	£45.10
	Tower staircase tread replacement - remove surface of 7 nr treads 50mm down to width of tread (all as previous replacements between the clock & bell chamber) replace with Chicks Grove B bed .	7.00	nr	£2,910.26
	Clear out decayed mortar joints to exterior cobbles to sides of entrance path way.	10.00	m2	£1,949.14
	New gutters and down pipes on the Chapel porch. - Prov sum	1.00	item	£1,300.00
	Installation of an overflow lead pipe on the West end of the tower -Prov sum	1.00	item	£400.00
	Repairs to the lead bell tube that runs down the side of the tower and into curfew cottage - Prov sum	1.00	item	£700.00
	We have allowed for the free provision of the following :			
	Welfare facilities			
	Water supply			
	Mains electricity supply			

St Lawrence Chaple

Stone Cleaning and Masonry Repair Specification

Project

External Cleaning, Minor Masonry Repairs and Associated Conservation Works

Scope of Works

The Contractor shall provide all labour, plant, materials, supervision and temporary works necessary to complete the external cleaning and masonry repairs to the church, including the tower and spire, in accordance with best conservation practice.

1. Access

Albion Stonemasons (AS) shall provide safe access to all work areas.

- An independent scaffold shall be erected to facilitate access to all elevations, including the tower and spire. The perimeter of the scaffolding will be sheeted with corrugated iron for security with the access ladder placed over night within the church.
- Any alternative access proposal shall be agreed with the Contract Administrator and comply with current health and safety legislation.

2. Site Requirements

The Employer shall provide:

- A mains fresh water supply via an external standpipe with sufficient pressure to operate the Thermatech cleaning system at the full height of the tower and spire.
- A 230V electrical supply capable of supplying a 32-amp transformer.
- Welfare facilities.

The Contractor shall verify the adequacy of these services prior to commencing the works.

3. Trial Cleaning

Prior to commencement of the main cleaning works, trial cleaning shall be undertaken.

The Contractor shall:

- Carry out trial cleaning to two representative areas of stonework, preferably on the south and east elevations.

- Utilise the proposed Thermatech cleaning system during the trials.
- Agree the extent and standard of cleaning with the Contract Administrator and the Conservation Officer before proceeding.
- Note that the agreed level of cleaning may influence the final programme and cost of the works.

Power and water supplies shall be available during the trial cleaning.

4. External Stone Cleaning

Following approval of the trial areas, clean all external stonework including:

- All elevations.
- Roof areas affected by moss growth.
- Tower.
- Spire.

Cleaning shall be undertaken using the Thermatech variable temperature and low-pressure water cleaning system.

Cleaning shall remove biological growth, dirt and atmospheric soiling while avoiding damage to the stone surface, mortar joints or adjacent materials.

Cleaning pressures and temperatures shall be adjusted to suit the substrate and shall not exceed those demonstrated during the approved trial.

5. Poultice Cleaning

A provisional sum has been included for additional poultice cleaning.

Where black crusts or staining remain following Thermatech cleaning, specialist poultice cleaning shall be undertaken where instructed by the Contract Administrator.

The provisional allowance includes approximately 80 hours of labour together with materials.

The extent of these works shall be confirmed following the cleaning trials.

6. Minor Masonry Repairs

Carry out minor masonry repairs identified within the condition report, including:

- Localised repointing.- mortar samples will be provided by AS for approval.
- Defrassing of defective mortar.
- Making good any disturbed areas.

All repairs shall match the existing historic fabric in material, profile, finish and appearance.

7. Patination of Cement Pointing

Patinate areas of recent light grey cement pointing to reduce visual impact.

The finished colour shall blend sympathetically with the surrounding historic lime mortar.

The treatment shall be durable, vapour permeable and suitable for use on historic masonry.

8. Removal of Cement Ribbon Pointing

Carefully remove cement ribbon pointing from:

- Lower window areas.
- Second offset levels of the north-west and south-west buttresses.

Removal shall be undertaken using hand tools to prevent damage to adjacent stonework.

Repoint all prepared joints using the approved lime mortar to match the existing historic mortar in composition, texture, joint profile and colour.

9. Tower Staircase Repairs

Repair seven stone staircase treads within the tower.

Works shall include:

- Cutting back each damaged tread by approximately 50 mm over the full tread width.
- Removing all defective material.
- Supplying and installing replacement stone in Chicksgrove B Bed limestone.
- Repairs shall match the previously completed tread replacements located between the clock chamber and bell chamber.
- New stone shall be securely bonded and finished flush with adjoining surfaces.

10. Entrance Path

Carefully rake out decayed mortar joints to the exterior cobble paving adjacent to the entrance path.

Prepare joints for subsequent repointing using an appropriate lime mortar.

Care shall be taken not to disturb or damage the existing cobbles.

11. Porch gutters

Fit new cast iron gutters and downpipes to the east and west slopes of the porch.

12. Overflow lead pipe — west side of tower

Install an overflow lead pipe on the west side of the tower, as follows:

- Core a 50 mm hole through the parapet wall to the top of the tower roof lead gully on the west side.

- Insert a purpose-made lead tube through the hole and weld it to the leadwork of the gully.
- Ensure the lead pipe projects 400 mm from the wall face.

Once access is in place and a lead worker has completed a full assessment, a fixed cost can be provided.

13. Lead bell tube

Repair the lead bell tube that runs down the side of the tower and into Curfew Cottage.

Once access is in place and the repair requirements have been fully assessed, a fixed cost can be provided.

Materials

- Thermatech variable temperature and low-pressure cleaning system.
- Hydraulic or non-hydraulic lime mortar as specified by the Contract Administrator.
- Chicks Grove B Bed limestone for tread repairs.
- Compatible patination materials approved for conservation work.
- NHL 3.5 hydraulic lime – Oolitic dust, sand aggregates

All materials shall be compatible with the existing historic masonry.

Workmanship

All works shall be undertaken by experienced conservation operatives familiar with the repair and cleaning of historic stone buildings.

Cleaning methods shall be the minimum necessary to achieve the agreed standard.

No abrasive cleaning, high-pressure washing or aggressive chemical cleaning shall be used unless specifically instructed.

Quality Control

The Contractor shall:

- Obtain approval of trial cleaning prior to commencement.
- Obtain mortar sample approval before commencing.
- Protect adjacent surfaces from damage.
- Maintain a clean and safe working environment.
- Remove all waste materials from site.
- Leave all completed works clean and free from staining or residue.

Provisional Items

The following items are provisional and shall only be undertaken following instruction:

- Additional poultice cleaning to remove residual black staining following trial cleaning.
- Any additional repairs identified during the course of the works.
- Overflow lead pipe
- Lead bell tube