

Addendum to the August 2024 Masonry Condition Survey St Mary Magdalene Church, Stockland Bristol



1.0 Brief

SSH Conservation were commissioned by the church architect, Marcus Chantrey, to carry out additional investigations into the composition of the walls at St Mary Magdalene Church, Stockland Bristol. This information is required to provide further insight for the development phase of the capital project and is in addition to the initial masonry condition survey undertaken by SSH Conservation in August 2024.

The brief required the opening-up of small inspection holes in the following locations:

- 1.1 <u>Stone removal externally</u>
 Removal of two stones to the outer face of the wall at the west end of the north aisle.
- 1.2 <u>Plaster removal internally</u>
- 1.2.1 Removal of a small patch of plaster in the same position on the inside of the north aisle wall at the west end to confirm if the wall is lined with brick as the original specification tells us it should be.
- 1.2.2 Removal of a small section of detaching displaced plaster at the east end of the north aisle to understand if it is just the plaster that is detaching or whether there is a skin of brickwork which has separated from the wall core.
- 1.2.3 Removal of a small section of plaster in the organ chamber where there is bad cracking and hole to investigate for the same reasons as 2.2.





Figure 1 Location for external stone removal at the west end of the north aisle (1.1)



Figure 2 Location for internal plaster removal at the west end of the north aisle wall (1.2.1)



Figure 3 Location for internal plaster removal at the east end of the north aisle (1.2.2)



Figure 4 Location for plaster removal on the east wall of the organ chamber beneath the wall monument (1.2.3)



2.0 Observations

2.1 External Stone Removal

The two stones identified by the architect were carefully removed by hand using a sharp chisel and avoiding damage to the adjacent masonry. When lifted from position, the void revealed a grey bedding and pointing mortar which had been faced in the joints with a more modern pinkish mortar, which was fine in consistency and appeared to have a lime binder. The original grey bedding and pointing mortar appears to contain some medium to large aggregates, a charcoal/ash-type inclusion, and some fragments of chalk and unslaked lime; the sample that was removed from the wall has been submitted for laboratory analysis in order to gain a better understanding of its composition.







Figure 6 The void left by the lower of the two stones





Figure 7 The void with both stones removed and original bedding and pointing mortar visible



Figure 8 Detail of the wall core within the void



Figure 9 The pinkish mortar found on the face of the joints is indicated in red



Figure 10 Detail of sample of original bedding and pointing mortar submitted for laboratory analysis





Figure 11 The external wall made-good after investigations



2.2 Internal Plaster Removal

2.2.1 North Aisle, North Wall at West End

A small window was carefully cut into the north aisle north wall at low level at the west end, as instructed. This window corresponds with the external stones specified for removal. There was found to be a fine, buff plaster top coat, and a second, coarser coat in grey. The plaster scratch coat that has been applied directly to the rubble stone wall beneath is also coarse and grey in colour. There was not found to be a brick internal skin to the wall in this location.



Figure 12 Upper two coats of plaster removed to reveal the grey plaster scratch-coat

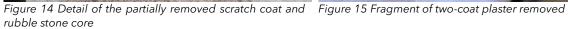


Figure 13 Further partial removal of the plaster scratch coat to reveal the stone core of the wall













2.2.2 North Aisle, East Wall

A small window was cut into an area of cracking at the upper level on the east wall of the north aisle. The plaster here consists of a fine, buff topcoat and a fragmented coarse, grey second coat applied to the brick inner skin of the wall beneath. The cracking to the plasterwork was found to be reflected in movement of the brickwork skin itself in this corner. The brickwork appears to have been bedded and pointed in a similar coarse grey mix.



Figure 16 The window with an area of topcoat plaster removed



Figure 17 The window with topcoat plaster removed, revealing the second coat beneath





Figure 18 Second coat of plaster removed to reveal the brick inner skin of the wall



Figure 19 Detail of cracking through the joints of the brickwork



2.2.3 Organ Chamber, East Wall

The existing crack and hole beneath the monument on the east wall of the organ chamber were carefully expanded to allow a better understanding of the wall and potential stability of the monument. The plaster was found to consist of a fine, buff top coat and a coarser grey second coat applied to the brick inner skin of the wall. The joint in the brickwork has opened-up, and the plaster has peeled away from the substrate in this area. Due to this movement, there is insufficient support at the base of the monument, and its stability is severely compromised.



Figure 20 Partial removal of the topcoat plaster Figure 21 Second coat of plaster removed to reveal the brickwork beneath the monument, revealing the fragmented second coat of plaster beneath



inner skin of the wall



Figure 22 Detail of the brickwork and open joint



Figure 23 The plaster appears to have detached from the brickwork