Assessment of the condition of the existing wall dividing the auditorium and the north rooms of the Town Hall (GL26)

The removal of plaster finishes from both sides of the 500mm thick dividing wall between the two-storey office section of the original town hall and the main auditorium has prompted a reassessment of the wall. The wall is of poor quality – exhibiting the following defects:

- Vertical cracks are evident in the wall as a result of very poor overlap bonding in the granite rubble used.
- The outer face of the wall has a poor quality lime mortar.
- The hearting of the wall is practically sand with no apparent binding agent
- Concrete padstone construction has revealed the wall to be loose and so randomly coursed with highly variable sized rubble that needling for two new openings would be difficult to achieve safely.

We have investigated stitching the wall and have reviewed our bearing calculations that arise from forming new openings where these increase the local stresses in the wall. Our conclusion is that stitching will not overcome the problems with needling the new openings safely.

We also conclude that where a section of the wall could remain, the downgraded strength due to the defects in construction mean the bearing strength cannot be safely predicted as adequate for the new openings.

If the wall were to remain untouched, it is reasonable to conclude it would continue to perform as it has for 170 years. The interventions required by the scheme are beyond the ability of the wall to support.

We conclude the wall should be carefully removed down to auditorium floor level, thus maintaining support of the auditorium ground which is higher than the foyer entrance. The wall at this level should be capped with a reinforced concrete capping to receive a new steel frame.

Richard Fowles

Conservation Accredited Engineer

Fenton Holloway Ltd