

## Report on the condition of the churchyard retaining wall

The ground level in Saint Andrew's Churchyard is 700-800mm above that of the tarmac footway along the southern side of Main Street, and is retained by a brick wall 1m high. The wall is in two almost equal sections with the church gate in the middle, and is not straight. The wall has shown slight bulges for at least the last 40 years.

In March 2018 it was reported that frost damage had occurred near the eastern end of the wall, near a highway gully that often becomes blocked (PC minutes p.1695). This section of wall is often saturated with water splashed up by passing vehicles.

This Report is intended to document the construction and current condition of the wall.



Figure 1. Eastern end of churchyard retaining wall. The bulging area is in front of the standing figure.

The wall is 1.5 bricks thick (360mm), and is made of a variety of bricks of imperial size, ranging from 2.5 to 2.75 inches thick x 9 inches long. The end pillars and some other parts of the wall appear to have been re-built with different bricks. The pillar at the western end was partly rebuilt in 1990 to accommodate the Victorian letter box. The top two courses mostly comprise semi-engineering bricks: the height of the wall may have been increased in the past, or decayed or damaged upper courses of brickwork replaced.

The wall is capped by blue capstones 460mm wide, with drip grooves. The oldest brickwork has been laid using lime mortar, other parts appear to use cement mortar, and the whole wall was re-pointed with cement mortar in 1997. The soil behind the wall becomes

waterlogged in winter, and at such times ground water drains onto the church path and runs onto the road. There are no weep holes in the wall.

The pillar at the western end of the wall (housing the letter box) measures 460 x 500mm x 1550mm high. The other three pillars all measure 480 x 480mm - the gate pillars are 1440mm high; the pillar at the eastern end is 1220mm high. The pillars are all capped by chamfered stone capstones which are the same size as the pillar and so do not have drip grooves.



Figures 2-4. 2. Church gates. 3. Gate column patched with modern brick and showing stone cap and hinge bracket support. 4. Lower hinge bracket for western gate showing adjustment ring and decayed brickwork.

The double church gates are wrought iron, and the top hinges are supported by stone blocks. There is a wrought iron arch with a lamp holder over the gateway. The gates do not close, probably because the lower hinge bracket for the western gate has moved.

There are 4 trees, 1 shrub and 1 stump near to the wall. From east to west these are the stump of a large horse chestnut tree (5m) felled in 2015, an English yew (5.2m), a tall ?Austrian pine (1.9m), and a *Cercis siliquastrum* (2.2m). Behind the western section of the wall are a flowering cherry (2.2m) and a rowan (2.4m).

The western half of the wall is 13m long and appears to be in good condition, apart from two spalled bricks above the letter box and a few joints missing mortar. The different kinds of bricks can be clearly seen in the pillar with the letter box and the wall near the fire hydrant post.



Figure 5. Spalled bricks above the letter box



Figure 6. Location of bulge near eastern end of wall

The eastern section of the wall is 13.6m long, and exhibits a bulge with an apex 4m from the eastern end of the wall. At this point the upper part of the wall is leaning 80mm over the footway, the mortar joints are missing or loose, and there are vertical cracks running up the joints and in one place through a brick. Mortar is also missing from between the capstones above these vertical cracks, indicating that movement has taken place.

Figure 7. Vertical crack marked by arrows.



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Figure 8. Spalling mortar and irregular brickwork





Figure 9. Churchyard side of wall. Curvature of bulge is clearly visible between the arrows. Note absence of mortar in brickwork at ground level at bottom left.

The curvature and leaning of the wall are most apparent on the churchyard side of the wall. At ground level, there is very little mortar remaining in the joints along the whole length of the wall.

The churchyard has been used for burials for at least 500 years, so human remains are likely to be present in the ground close to the wall. The wall is a curtilage structure to Saint Andrews Church, which is a Grade II listed building. The wall itself is probably mostly of Victorian age, and makes an important contribution to the street scene in the historic core of the village. The last quinquennial inspection of the church was carried out in 2016. Works to repair the wall would require a faculty, and possibly listed building consent.

### Recommendations

1. The condition of the wall be monitored for evidence of movement or instability.
2. A shallow excavation be made between the arrows in Figure 9 to determine the extent of mortar decay, any cracks, and the condition of the brickwork below ground level.
3. Advice be sought from the H&BBC Conservation Officer and the Church Architect about procedure, further investigations, and the most appropriate approach to repair and maintenance.