Structural survey of boundary wall Peachcroft Broadgate Lane Kelham Newark Notts NG23 5RZ

Rear elevation (view from neighbour's garden)

There was a gateway into 'Peachcroft', to the left end of the wall. At this point it was possible to determine that the wall was 330mm thick.

The shed on the other side of the wall extended from just to the right of the gateway to all but the last 5m of the wall. The last 5m abutted the neighbours garden.

Along this elevation there were a number of curved feature brick piers. The piers were at 4.9m centres along the wall. They were 2.3m high, 1.0m wide and projected 250mm from the face of the wall at their furthest point. They had a curved brick capping.

The coping stones to the wall over the last four panels, to the right-hand side end of the wall, were in particularly poor condition.

There was a noted 60-70mm lean towards the neighbour's garden over the top 600mm of the wall. This lean extended over the last four panels to the right-hand side end of the wall.

To the top half of the wall over the last four panels the mortar was quite recessed.

## Discussion

The wall has undergone a degree of movement in the past. Towards the right-hand side of the wall (viewed from neighbour's garden) there has been an inward lean of 60-70mm. An acceptable lean for a wall of this thickness would be 55mm. Hence, this section of the wall is structurally compromised.

Remedial measures will be required.

The cause of the movement may have been wind loading over the years. The construction of the 'lean-to' may have contributed to the high-level leaning. The sloping rafters will have exerted a lateral force at the top of the wall. Indeed, as moss formed on the roof the lateral thrust would have slowly increased.

The shed does not extend over the last 5m of the right-hand side end of the wall - viewed from the neighbour's gardens.

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