

Design and Access Statement
Relating to Works for the Preservation of
The Northern Boundary Wall of St Wilfrid's, 16, Church Lane ,
Barrow on Trent, Derby DE73 7HB

The Northern boundary wall of the listed property is an original brick wall approximately 2.1 metres in height. It has various problems, including a lack of foundations, invasion by ivy and loss of some of the original capping stones along its length. The lack of foundations has resulted in the wall leaning over the boundary.

Works have already been executed as a matter of urgency to prevent the wall falling. These involve the provision of supporting poles to provide an anchor for stainless steel tie-bars which retain the wall. The purpose of this application for Listed Building Consent is to regularise the works already carried out and to gain permission for the remaining works required to bring the wall into a stable condition.

The Council have been involved in determining the scope of the application and pre-application advice was sought. The contents of that advice are appended to this statement.

Structural advice was sought and it is clear that the failure of the wall to remain upright is consequent upon its lack of foundations. It is considered that the remedy for such a failure would be a complete reconstruction of the wall. The Local planning Authority have asked for a Structural Engineer's confirmation that the works of support for the wall have structural integrity and this is appended to this statement. As a result of this the historic patina of the listed structure would be lost. Therefore the works of support have been carried out in an endeavour to retain the wall in its existing character, being a practical and economic way of ensuring that the wall is not lost. The works carried out are shown in Photographs 1 and 2 appended to this statement.

Additional works will be carried out to the wall to ensure its continued existence and to retain the existing appearance of the structure. The works required are:

1. The replacement of missing capping stones. These will be tooled to match the existing style of the capping stones already existing and bedded with lime mortar. A close-up photograph of the type of stone and the tooling achieved is shown as Photograph 3.
2. The removal of the infestation of ivy. This will be carried out as a staged operation involving the severing of the ivy at its base and then leaving it to die back prior to the removal of the ivy from the wall. This will ensure that the facing of the bricks will not be damaged by removal of the ivy's capillaries which will then lose their gripping abilities prior to removal.
3. The bedding of ridge tiles on a small outbuilding attached to the wall using lime mortar. This is a simple act of repair which will ensure that the outbuilding will not deteriorate.

Extract from advice from Local Planning Authority

From a visual inspection it is clear that the upper part of the wall has rotated towards the neighbouring garden. As might be expected, it is worse in the centre of the wall.

The owners have recently removed arborescent ivy from most of the wall, except at the end leading to the orchard beyond the shared boundary. The exposed masonry has clearly degraded due to water ingress, saturation and frost heave. Sections of the upper 400-500 mm of the wall may need to be re-bedded and repointed in a matching lime mortar mix.

A number of the broken capping stones have been replaced with an unnamed cut stone. Partially due to the newness of stone, it contrasts markedly with the existing colour and texture of the masonry. In addition to this, 5 No. lengths of mild steel channel have been inserted in an attempt to prevent further rotation. These are fixed using threaded bar which is connected to the uprights of the adjacent corrugated lean to. The uprights are cut from telegraph poles. This is a slightly unorthodox approach and it is not clear whether this intervention was designed by a structural engineer.

Given that the nature of the repairs thus far cannot be considered as like-for-like, an application for listed building consent will need to be submitted to regularise these works and other repairs which are now considered timely to avoid the structure being designated as '*heritage at risk*'. The application should include a scaled plan of the wall at perhaps 1:20 or 1:50, showing the relationship to the corrugated structure and the location of the plates. It should also identify and specify the new capping stones and details of any other proposed replacements. As discussed, I am happy with the narrower depth as this is significantly less weight at the most critical point. Subject to confirmation of the stone type, the appearance could be improved by tooling the edges to make them look more distressed and roughhewn. Any subsequent replacement capping stones should be cleaved and tooled rather than sawn. A brief rationale and specification for works (including mortar mix, the type and size of the parts and fixings) should also be provided together with a clear photographic record. In addition to this, a supporting statement from a structural engineer/chartered surveyor confirming the efficacy of the bracing will be required.

Further ivy clearance and stabilisation works will also be necessary at each end of the wall and should be covered in this submission. The main area is at the far end leading towards the orchard. To avoid unnecessary damage, it is advised that the ivy is cut just above ground level and allowed to die off for several months before attempting to remove it.

At the opposite end of the wall is an area of relatively recent ivy growth within the owner's garden, adjacent to a small brick and tile garden building. It would be timely to cut this back before it spreads and thickens. Also, as you pointed out on site, it is advised that the cast-iron gates which are currently leaning against the wall be removed. Some of the ridge tiles on the garden building are not bedded into position and therefore pose a health and safety risk. The remedy to this should be included within the submission.



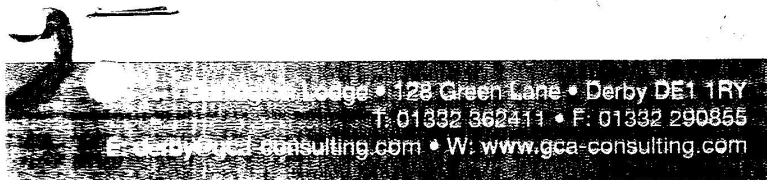
Photo 1 Supporting pole and tie-bar



Photo 2 Tie bars through the store building



Photo 3—Capping stone showing tooling detail



Job Ref: 7897/JT

21st January 2019

Mr Ian Boddy
16 Church Lane
Barrow on Trent
Derby
DE73 7HB

Dear Mr Boddy,

I write in regard to the letter sent from Mrs Gaynor Richards to Mrs Susan Boddy on 21st January, as a Chartered Structural Engineer with experience in the conservation and repair of listed and historic structures.

I note the following concerns which should be communicated to Mrs Gaynor.

The lean of the wall appears to be significant, and requiring of structural intervention to maintain its stability.

Notwithstanding Mrs Gaynor's other requests (which do not appear to be structural in nature, and on which I therefore have no comment), I note that Mrs Gaynor has requested the removal of the tie rods from the wall.

Considering that structural intervention is required, and the wall leans away from Mrs Susan Boddy's property, there are two options:

1. Construct buttresses on the neighbouring property, to support the wall leaning towards them.
2. Construct some supporting system on your premises, and provide anchor rods to tie the wall back to the supporting system.

Presuming that the neighbour would be reluctant to accept the construction of buttresses on their property, this leaves option 2 as the only viable option. We therefore suggest that Mrs Richards considers permitting the rods to remain at the present time.

18/2

GCA Consulting Ltd
128 Green Lane
Derby DE1 1RY
T: 01332 362411
F: 01332 290855
E: gca@gca-consulting.com
W: www.gca-consulting.com

Chairman
G.P. Gifford, C.Eng., M.I.C.E., M.I.Struct.E.
Managing Director
J. Thompson, M.Eng. (Hons), C.Eng., M.I.Struct.E., M.I.C.E.
Director
N.J. Gifford, Company Secretary
Technical Directors:
D. Haggan, B.Eng. (Hons)
H. Ghahwara, B.Sc., C.Eng., M.I.Struct.E.
J. Wignall, M.B.A. (Open), B.Sc. (Hons), C.Eng., M.I.Struct.E., F.F.B.



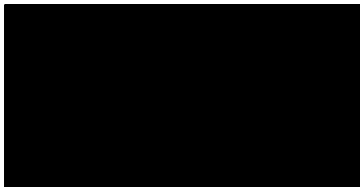
Civil & Structural Engineering
Structural Surveys
Highway & Infrastructure
Expert Witness & Legal Services
Conservation Engineering

18/2

Considering the listed nature of the wall, we note that retaining the tie rods and fixings at the present time will not cause further damage to the structure (being stainless steel which is effectively inert), and remains reversible (should matters change in the future).

If the rods are removed now, they may well require reinstating (including in different locations) potentially further damaging the wall. If a future structural scheme can be devised which does not require tying through the wall, then the rods can be removed, but until this is confirmed I consider that they should remain in place.

Yours sincerely



ng, MICE, MStructE

Managing Director (Civil and Structural Engineering)

242

GCA