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Project No. 3788
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28th August 2015

Stanley Sidings Ltd
Unit 7
James Cameron House
12 Castlehaven Road
London
NW1 8QW

For the Attention of Mark Alper

Re: Stables Market Restoration – Cantilever Walkway

Dear Mark

We visited the above site in May 2013 and July 2015 with Stephen Levrant of Heritage Architecture to visually appraise the elevated cantilevered horse walkway on the Chalk Farm Road Stable range.

Existing Structure

It was noted that the existing structure is of a typical jack-arch formation. The structures consist of the following elements:

- **Primary Beams**

  These are the primary I-sections that currently cantilever out from the face of the building. It is anticipated that the beam spans continuously to the other side of the building and may have an internal steel support. The bottom flange and half the web of these beams are currently exposed and are at roughly 9ft centres.

- **Secondary Beams**

  The beams span perpendicular and onto the primary beams. Only the bottom flange of these beams are visible however it is believed they will be I-sections, and are at roughly 3ft centres.

- Masonry Arch (Jack-Arch)

  These arches in turn span perpendicular to the secondary beams and are supported on the bottom flange. The construction of the arch is believed to be of a single or possibly two layers of brick with a clinker fill above to complete the arch.

- Topping

  On the walkway, it was evident that from above, a number of new layers of screed and other finishes have been added over the years.

Condition

It is our opinion, that while no immediate danger of collapse was observed, except in some isolated locations of loose masonry, it is clear that the existing fabric has suffered from decay and distress.

From what was visible on the primary beams, they seemed in fair condition, however it is the secondary beams that appear to have suffered the most, with visible oxidation and delamination of the bottom flange in some areas. As described above, these provide support to Jack-Arches.

Recommendation

We recommend that the structure above is repaired/restored to ensure its current integrity and longevity.

The approach we recommend is an initial investigation period to accurately assess and verify some of the above assumptions, which will then be followed by a detailed remedial proposal which in keeping with English Heritage's philosophy will be both honest and reversible.

Investigation and Remediation

Indicative existing sizes of the beams have been provided, but we are current awaiting testing of the steel to determine its strength.

We will then do a back analysis to calculate the load capacity of the existing beams in their current condition. Depending on the strength of the existing beams, we would propose one of four possible remediation measures:

a) No remediation required, protective paint coating only;
b) Strengthening required via a steel bar welded to the soffit of the bottom flange, and to the top of the top flange if necessary;
c) New steel member added under the existing to carry the load;

d) New steel member to replace the existing.

Repairs to the masonry are likely to take the form of some repointing, and localised brick replacement where the brickwork is damaged beyond repair.

New Balustrade

The existing balustrade is to be carefully removed retaining as much of the walkway steelwork as possible. The new balustrade is to be of steel construction. Where Depending on the condition of the walkway steelwork, there are three possible options to support the new balustrade:

a) Use the existing bolt holes;
b) Drill new bolt holes;
c) Weld the new steelwork onto the existing.

New Bridge Link

The existing bridge link is to be carefully removed retaining as much of the walkway steelwork as possible. The new bridge is to be of steel construction, of a similar nature to that already present.

Long Stable Stairs and Bridge Link

The long stable stairs and bridge link have only been viewed from photos, and therefore the below recommendations are subject to further inspections on site.

The long stable stairs are of a steel construction, and are to be renovated. The existing structural steelwork and floor plates are to be cleaned and inspected for signs of degradation, and if required repaired by welding steel plates to the existing structure. Replacement of the more damaged members may be required. This should then have a protective paint coating applied.

The existing chequer plate appears to have suffered from decay and distress. This should be locally repaired, or if the extent of damage is large this plate should be replaced.

If you require any further information on the above please do not hesitate to contact me.

Yours Sincerely

Thomas Leighton
Engineer