HEALEY consulting

structural engineering consultants

REPORT ON STRUCTURE

17204 – DANTZIC BUILDING – DANTZIC STREET, MANCHESTER

April 2018

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17204/MB/KLH
13th April 2018

For the attention of Patrick Allmark.

Dear Patrick,

Re: Dantzic Building – Dantzic Street, Manchester

We confirm our visit to site on Monday 9th April 2018 to inspect and comment upon the level 9 external leaf lintels. Our observations are presented below:

The inspection was carried out from the perimeter scaffolding, erected along the Federation Street and Hanover Street elevations. At this time, the Dantzic Street elevation was inaccessible.

The lintels carry the outer leaf only and are of steel angle iron construction. It is understood that the angle iron lintels are independent in that they are not fixed back to the internal structure, i.e. they have a simple end bearing at each end onto the masonry piers.

All the lintels have suffered from rusting and in some cases a significant loss in section and strength. In all instances, the rusting has resulted in opening up of the horizontal bed joint whereby the expansive nature of the rusting has lifted the masonry above. Refer to photographs 1-7. The loss of section size has also caused some of the lintels to deflect beyond reasonable tolerances. See photographs 1, 3 & 4.

Given the level and significance of deterioration of the lintels, we are of the opinion that local repairs are not a practical option. We would recommend the wholesale removal of the rusting angle irons and replacement with a new galvanised angle iron.

Replacement would be a simple operation requiring strongboy props, removal of the angle and brickwork local to the bearing and replacement. This would ensure that the "ornate" brickwork panels above would remain unaffected.

During the same visit and inspection, we were requested to look at and report on the horizontal cracking above the failed level 9 lintels. See photographs 8 & 9.

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The horizontal cracks appear in the "ornate" masonry panels immediately above the level 9 lintels. The horizontal cracks are evident in the panel only and do not extend into the masonry piers. These occur in the panels along the Federation Street elevation only. For this reason we would conclude that this defect is not associated with the lintel failure beneath.

Given the plant deck immediately behind the subject masonry panels, photograph 10, we consider that the cracking is likely to be associated with this structure. As we cannot categorically confirm the exact cause of the defect, we recommend further investigation by way of minor and localised opening up works.

We trust the above is sufficient for your present needs, but should you require anything further, please do not hesitate to contact this office direct.

Yours faithfully

pp

MARK BRADBURY
B.Eng (Hons), C.Eng, M.I.Struct.E, CBuildE, MCABE



Photograph 1 Shows excessive deflection.



Photograph 2



Photograph 3



Photograph 4



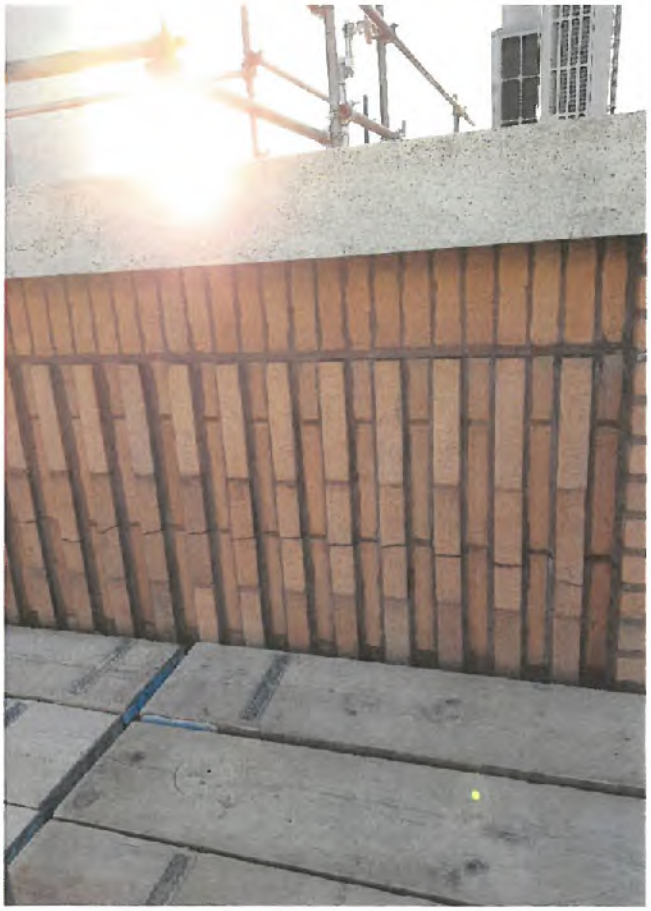
Photograph 5



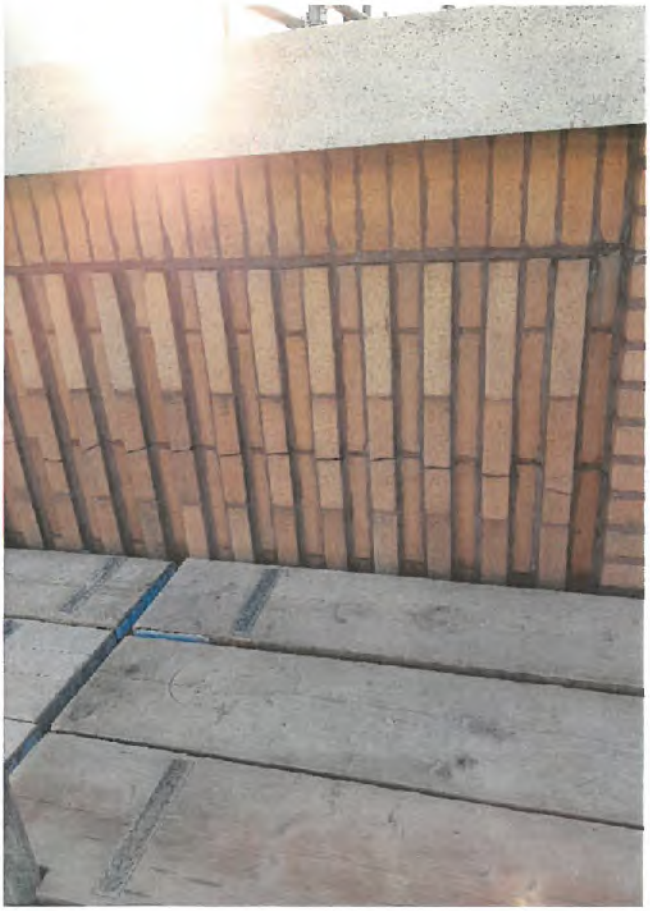
Photograph 6



Photograph 7



Photograph 8



Photograph 9



Photograph 10