JAE/11827
4 December 2023

Turner & Townsend
4th Floor
11 York Street
Manchester
M2 2AW

By email: *simon.glass@turntown.co.uk*

FAO: Simon Glass

Dear Sirs,

RE: **Grosvenor Building, Cavendish Street, Manchester**

Thomasons received instruction from Simon Glass of Turner & Townsend on behalf of Manchester Metropolitan University to inspect and comment on cracking defects noted to the north elevation of the Grosvenor Building on Cavendish Street, Manchester.

Remedial proposals have previously been advised by Curtins Consulting Engineers but following a request from the Manchester City Council Conservation Officer further advice is being sought from a Conservation Accredited Engineer. Jane Entwistle, a Conservation Accredited Engineer, visited the building on 16 May 2023 for inspection purposes.

The building is grade II listed. Its Historic England listing reads as follows:

SJ8497 CAVENDISH STREET 698-1/20/590 (South side) 03/10/74 Chorlton-On-Medlock Grosvenor Building, Manchester Metropolitan University Faculty of Art and Design

GV II

(Formerly Listed as Manchester Polytechnic School of Art)

Manchester Municipal School of Art. 1880-1, by G.T.Redmayne, with 1898 addition to rear by J.G.Sankey. Sandstone ashlar, and red brick with buff terracotta dressings (respectively), slate roofs with glass skylights. The original building is a rectangular block, parallel to the street, 2 storeys over a basement, 1:3:1:3:1 bays, in Gothic style, with large gabled and pinnacled wings flanking a buttressed and arcaded main range. The centre has a chamfered doorway with moulded arched head and carved spandrels, and over this a small canted oriel with 4 small arched lights and steep weathered roof against a crocketed gable with corner pinnacles and apex finial; the flanking arcaded bays have rectangular windows set under 2-centred blank arches and corbel tables; a parapet runs across the whole range, as does a continuous skylight to the lower half of the roof. The gabled wings have giant depressed arches containing tripartite windows to both floors, the upper composed of tall 2-centred arched lights. Behind the ridge of the main ridge rises an octagonal

chimney with machicolated and embattled top. The right-hand return wall has 5 bays of giant arches with windows to both floors. The addition to the rear has 3 gabled bays with broad pilasters to almost full height with a dentilled band over, a string-course stepped over a terracotta panel in the centre of each bay, and at ground floor of each bay an arcade of 3 round-headed 2-light windows with raked sills, moulded surrounds and 2-centred arched lights with central shafts and carved spandrels, those of the 2nd and 3rd bays with much higher sills, and beneath the centre of the 2nd bay a terracotta tablet with Art Nouveau enrichment and raised lettering commemorating the gift by the Council and Guarantors of the Manchester Royal Jubilee Exhibition 1887 of the sum of »10,000 towards the erection of the Royal Jubilee Exhibition Wing of the Manchester Municipal School of Art. Interior not inspected.

Listing NGR: SJ8428097017

Observations

The points of concern that Thomasons were instructed to inspect related to the northern elevation and in particular the western gabled wing where cracking and separation between the arch of the wall behind had been noted.

East gable of north elevation

West gable of north elevation

During our inspection we noted that there was a gap between the back of the arch in the west gable which had previously been filled and had substantially lost its fill. The variation in width of the gap, together with loss of mortar fill, indicated that this gap was not an original feature and that it has continued to move.

At the western end of the gable there was a stone pinnacle. Cracking had occurred between the side of the pinnacle and the apex of the gable; this had been repointed by the time of our inspection but photographs provided for our consideration showed that this cracking had previously been slate packed and repointed. It was evident from the earlier photographs that this cracking was continuing to open.

At the eastern side of the east gable similar cracking was noted between the pinnacle and the apex of the gable. This was not as pronounced as that noted at the western side. On this gable it was also noted that there was some gapping between the coping stones of the gable.

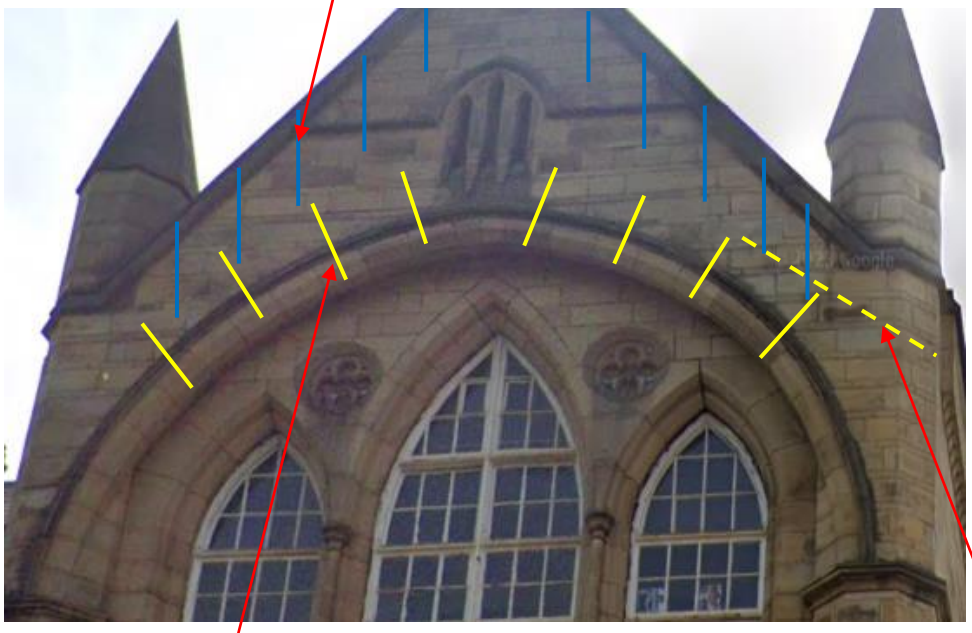
Cause of Movement and Remedial Measures

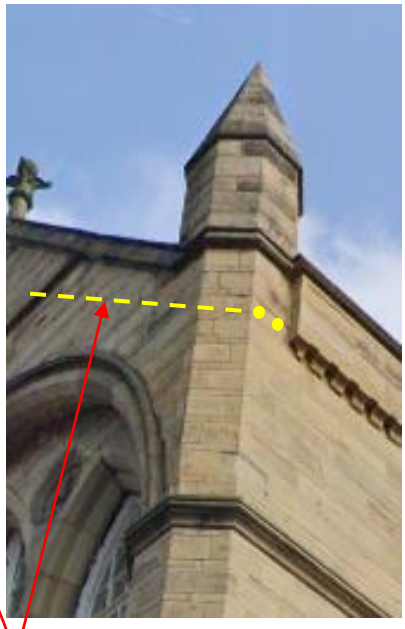
The cause of the outward movement of the arch of the west gable is most probably due to insufficient tying between the outer stone leaf and the inner leaf of the wall. It is anticipated that this movement will continue, albeit slowly, unless measures are taken to arrest this movement. We concur with Curtins that Helifix anchors will be suitable products to use in this situation. If the gap was not present we would recommend the use of CemTies but we are concerned that there could be a significant loss of grout in this gap; we therefore consider that the appropriate product for this location will be the Helifix SockFix installed at an angle and extending 450mm up into the wall behind the arch.

The outward movement of the pinnacle is likely to be the result of a combination of spreading of the arch and downward sliding of the coping stones on the steep gable. We understand that when explored it was found that the fixing holes in the top of the coping stones contained no indication of there ever having been any fixings down into the apex of the gable. It will therefore be prudent to stitch down the coping stones using 10mm Helifix CemTie anchors in order to prevent further sliding; this should be undertaken to both gables.

As the outward movement of the pinnacle appears to be of an ongoing nature it is considered that it should stitched back to the apex of the gable. We consider that the appropriate anchors for this will be 16mm Helifix SockFix anchors in 40mm holes. Two anchors should be installed from the western (Higher Ormond Street) elevation; the anchors should be angled upwards across the crack and extend at an angle slightly lower than the line of the coping.

10mm Helifix CemTie anchors, 900mm long, 1no. per coping stone (Note: this repair applies to both gables)



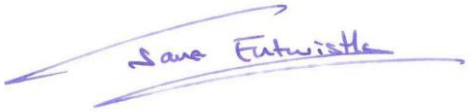


8no. 8mm Helifix SockFix anchors in 20mm holes. Anchors to be installed in alternate arch stones and angled upwards to cross gap and anchor 450mm into wall behind arch

2 no. 16mm Helifix SockFix anchors in 40mm holes angled below the coping. Anchors to be inserted from west elevation of pinnacle

We trust that the above addresses your current requirements, however if you require any further clarification, please do not hesitate to contact the undersigned.

Yours faithfully,



Jane Entwistle BSc(Hons) CEng FIStructE MICE
Conservation Accredited Engineer
Technical Director for Thomasons

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