Shop Front Investigations

Prisco's, Harral Building, 32 Eldon Street, Barnsley

for

Inc. architecture Ltd

Ref: Y24

March 2022

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1. Introduction

Prisco's shop front extends over five bays of a three-storey building. The upper parts of the façade, above first floor level are painted faience.

The long shop window, including an entrance door in glass with bronze framing, dates from early in the twentieth century. Above the shop front, there are roller awnings below a long plastic fascia board.

Behind the fascia there are marble slabs, and behind that the original faience fascia.

2. Structural Defects

The bronze glazing has buckled near the centre, although the framing and glass are intact. The investigation was an attempt to identify the cause of the buckling.

The fascia above, and in particular the marble slabs, are still intact and undamaged.

The faience fascia behind could not be inspected over its full length because of the difficulty in removing the marble slabs.

The front elevation above the first floor level has no cracking evident.

The bressumer beam above the shop front window is composed of two 9" x 4" beams with top and bottom plates, making a composite 12" x 9.75" beam (Reference B313 at the date of construction).

At the right-hand end there is a vertical steel channel carrying the beam end, and there are three intermediate supports, boxed in, but presumably also steel channel or columns. The shop front forms a slight angle on plan near the entrance so the beams are presumably not continuous at this point.

The longest span is around 5.5 metres. This is longer than was recommended by design guides at the time for beams of the type, which has resulted in excessive deflection and this we believe, is the cause of the buckling in the window.

3. Conclusions

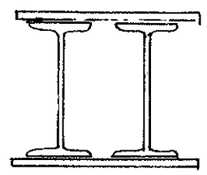
There are no indications that the deflection is active.

In order to provide additional restraint to the bronze window framing it would be possible to insert a horizontal steel channel at transom level spanning between the vertical columns.

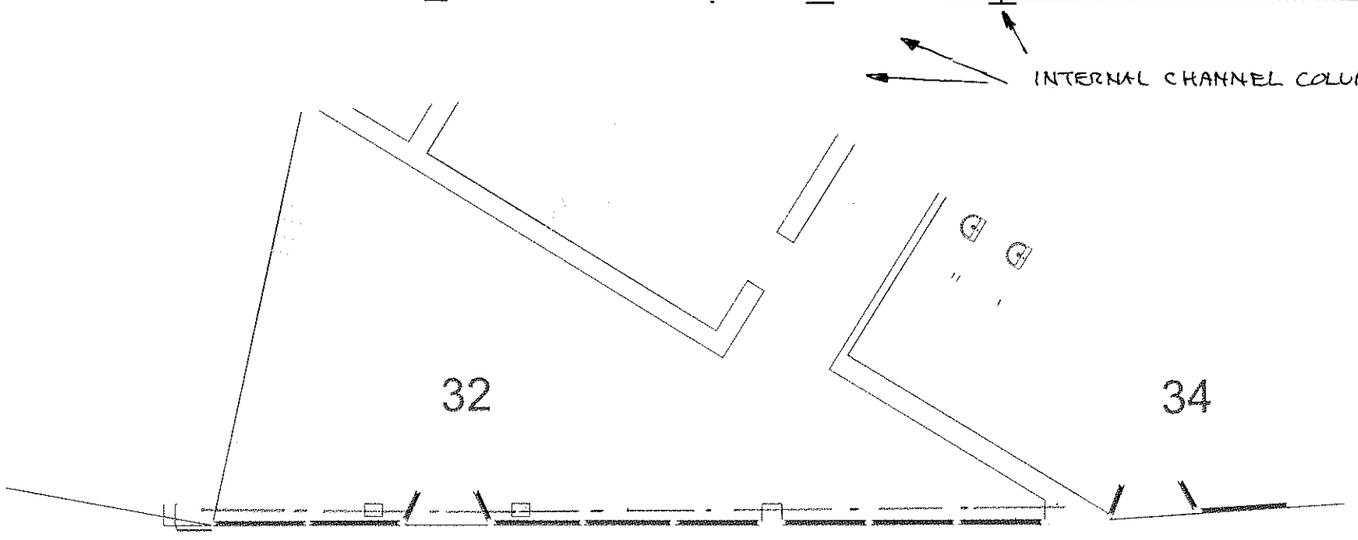
The steelwork appeared to be in good condition, but it would be prudent to paint any areas of steel that are accessible.

Charles Blackett-Ord CEng FICE CARE F.Cons.E

Right-hand end of bressumer beam



BRESSEMER BEAM
COMPOSITE B313 12" x 9¾" : 2No 9"x4"
TOP + BOTTOM PLATES 12"x ⅜"



PRISCOS - HARRAL BUILDING
SHOP FRONT BRESSEMER BEAM
MARCH 2022 Y24/01

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