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37740A/L/001A/DALC/dalc
19th November 2021

4 Handel Street Limited
C/o Pastor Real Estate
48 Curzon Street
London
W13 7UL

Dear Sirs,

**RE: COMMUNAL STAIRCASE TO 4 HANDEL STREET, LONDON,
WC1N 1PB.**

Thank you for your further instruction to visit 4 Handel Street to re-survey the Communal Staircase following the removal of some of the finishes covering the area.

Our survey was carried out on 16th November 2021. Some of the plaster finishes had been removed at the time of the survey allowing a better view of the supporting structure.

Site Observations.

At the time of the survey the entire plasterboard finishes had been removed on the right side of the staircase above the top flight. On the soffit of the flight only couple of 300mm squares had been removed at the top and bottom of the flights, but not on the wall adjacent where the supporting elements will have been secured.

We were able to confirm that the arrangement of the straight flights was as previously thought with stringers located beneath the flights providing support. These are in turn supported by the landing trimmers and by cantilever brackets at the junction between the straight flight and the winder treads.

The finishes that had been removed allowed us to establish that the cantilever spigot is located between two studs. Viewed from above there was a noggin located between the two studs either side. Regrettably the 300mm square area on the soffit of the flight did not afford a view of the connection from below. The plasterboard finishes on the wall would need to be removed to determine how the connection has been made.

The stud wall separating the stairs from the flats comprised 4x2.5inch studs spaced at 14 inch centres spanning from floor to floor. At each floor level there was an 8 x 2.5 joist which the studs are fixed to.

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Regrettably no opening up works had been undertaken on the party wall side, and no inspections could be made in this respect.

During our survey, we were also able to access the Ground Floor and Lower Ground Floor Flats. This was to establish whether a newel post could be added to the inside of the winder treads extending up to the top flight for additional support.

In the Ground Floor Flat the post would have been located within the stud partitioning in the under-stair cupboard. The stud sizes would have had to be a maximum of 75mm square, but this could potentially be achieved without significant disruption.

In the Lower Ground Floor Flat the post would site above a door opening between the two main areas of the Hallway. If we were to surcharge the lintel over this opening, then potentially we would have to remove the finishes to upgrade the lintel over. It is of particular note however, that the basement flat is finished to a very high decorative standard. The architraves around the doors for example; have an expensive shadow gap detail, and the lighting control for the whole flat is integrated. It would be preferable not to disturb these finishes.

Discussion

As noted previously the stairs have deformed since their original construction, and are now sloping away from the walls. Aside from the deformed profile of the stairs they appear to be performing adequately and there are no signs of recent movement. As noted previously we are unable to provide assurances the stairs are structurally adequate as much of the structure is hidden and constructed to the details applicable at the time. It has therefore been decided to look at strengthening measures.

Unless quite major works are undertaken it would not be possible to simply add a newel post in the centre of the winders for additional support. While the works to ground floor would be reasonably simple, the works to the Lower Ground Floor Flat would be quite extensive and disturb expensive finishes.

We have therefore looked at the possibility of adding additional structure in the depth of the stud wall separating the stairs from the flats.

We looked at providing steel sections within the stud wall which would be small enough to fit in the envelope between the sheets of plasterboard. It is possible to still obtain 76x38 Taper Flange Channels. These could be fixed between the 8x2.5inch joists at each floor level and have a spigot attached to support the stair flights, again fabricated from 76x38mm channels. A sketch detail is attached to this report. Some temporary support to the flights would be required while these works are implemented, as this would compromise the existing support at the end of the stair flights

With respect to the stair flights adjacent to the party wall, some further opening up works would be required to understand whether work is required here. The distortion of the stairs in this location is significantly less, so these may be performing satisfactorily. We cannot say with any certainty whether this is the case until some opening up works have been carried out and the structure inspected.

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Conclusions.

Subject to further opening up works we can provide spigots of sufficient strength to support the stair flights adjacent to the stud wall.

Further inspections will be required to understand how the stairs adjacent to the Party Walls are Supported. We can only advise in this respect once we have inspected the existing.

We trust we have interpreted your requirements correctly, however should further information be required, please do not hesitate to contact the undersigned.

Yours faithfully

A handwritten signature in black ink, appearing to read 'D Chrystal', written in a cursive style.

David Chrystal

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Strengthening of flights adjacent to stud partition wall.

SPRIGS SUPPORT FOR

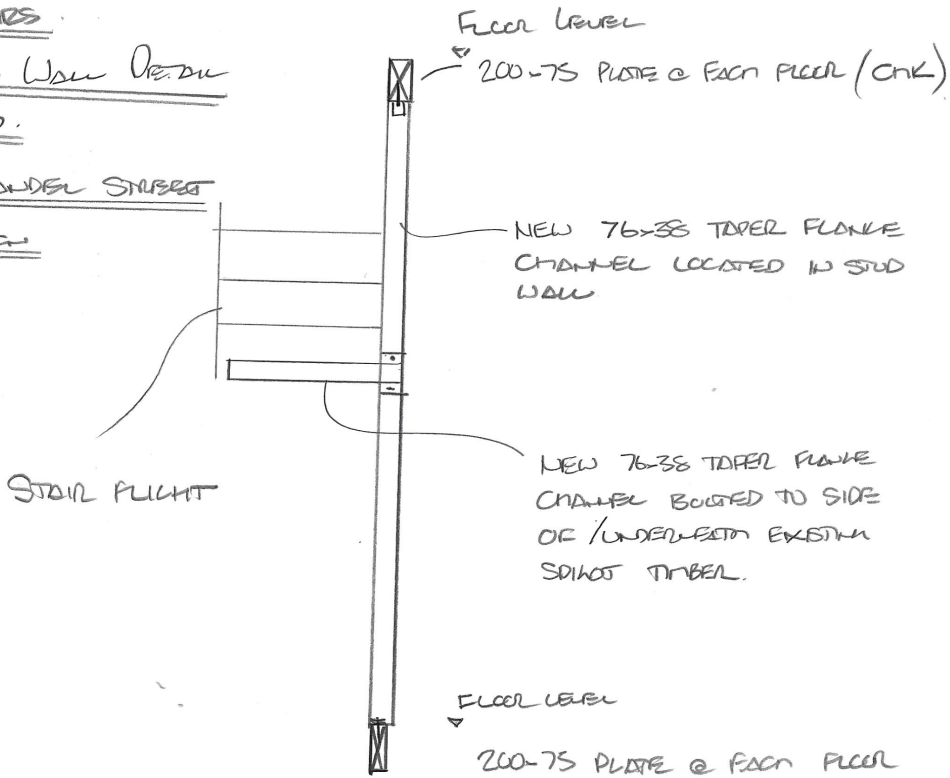
STAIRS

STUD WALL DESIGN

OVER

4 HANDRAIL STRIPS

LOADS



76x38 CHANNEL
SPRIGS

