

Benchill Court

Benchill Court Road, Wythenshawe, Manchester M22 4QL

Structural Survey & Ongoing Structural Safety

A survey was undertaken in September 2017 via qualified and competent structural engineers 'WML Consulting' to survey the building in respect of the possibility of being a 'Large panel system'. It was noted that the building is not LPS and is an in-situ concrete frame with masonry/lightweight cladding to all floors.

A recent non-invasive structural survey carried out by Michael Dyson Associates on 9th November 2023 saw access to all communal areas, rooftop and three flats. Michael Dyson Associates were engaged via a Housing Procurement body from the structural 'arm' of the process to ensure competency and insurances are already in place. The report didn't note anything of immediate concern and the summary advises that there are some cracking and defects and past or current water penetration.

The recommendations are to carry out further investigations to defect areas/ damp penetration and durability of testing reinforced concrete and investigations into the cracks, and some structural elements. These are being considered following collation of all block recommendations and on a risk priority basis. A schedule of work/ actions will be created and assigned to relevant teams to complete overseen by the BSM.

Issues particular to the building

The structural assessment and Fire Risk Assessments don't identify anything particular to this block that hasn't been identified in other similar blocks and further testing recommendations are being considered.

The building has a single staircase which could cause a 'Bottleneck' effect on evacuation and therefore the alarm system has been configured allow the fire service to evacuate on the floor the fire is on as well as one above and one below but also to carry out a simultaneous evacuation should the need arise.

To vent the stairs in case of smoke, the vent on the stairs leads into a metal ducting which in turn vents direct to the outside, passing through the refuse chute room on its way.

In order to get assurances that this method of venting is sufficient, a Fire consultant was engaged to carry out a survey. International Fire Consultants (IFC) carried out the survey in November 2017, the outcome of which advised: The performance of the Wythenshawe stair design in respect to the venting of smoke, as assessed using basic fluid dynamics and spreadsheet based, desktop calculations, indicates that it would perform better than a BS9991 stair design when the stair exit door is either closed or open only a small amount. As the ground floor stair doors (to the outside) are progressively opened, the BS9991 design improves, and beyond a certain opening size its performance exceeds the Wythenshawe stair design.

A key item is to note is that the door at ground floor would only be expected to be opened fully and continuously when the fire service commences fire service operations. Also the current layout of the buildings are better than a BS9991 code compliant on the basis that there is a lift lobby and stair lobby (i.e. a single lobby would be required under BS9991). On balance, the Wythenshawe stair design is therefore judged to be comparable in terms of smoke ventilation to an BS9991 compliant one.