

Please note the contents of these documents contain detailed descriptions and diagrams of Grenfell Tower. This could be upsetting for some.

This version of the document has therefore been created with any photographs of fire damage or the interior of the Tower removed to minimise the amount of potentially upsetting or distressing information within it. A copy of the original documents with photographs can be provided on request.

Please take care when reading or circulating these documents.

The [Grenfell Health & Wellbeing Service](#) is a free and confidential local NHS service for children and adults affected by Grenfell. To talk to someone, you can get in touch by phone on 020 8637 6279 or by e-mail Grenfell.wellbeingservice@nhs.net.

This document and its contents have been prepared for the Ministry of Housing, Communities, and Local Government. For further information, please contact GrenfellTowerSite@communities.gov.uk

Alistair Watters
Director of Grenfell Site and Programme
Ministry of Housing, Communities
And Local Government
Ground Floor
Fry Building
2 Marsham Street
London
SW1P 4DF

Officer: [REDACTED]

Date: 24 August 2020

Dear Alistair,

Grenfell Tower, London, WG11 1TG

I write in my capacity as Dangerous Structure Advisor to MHCLG at Grenfell Tower.

Following the tragic events of 14 June 2017 at Grenfell Tower I was appointed Dangerous Structure Surveyor for the structure on the 17th June 2017. I replaced the Royal Borough of Kensington's surveyor, who had been on site since the 14th June 2017, due to conflict of interest concerns by the Metropolitan Police. I have been present throughout the project and have been retained as the Dangerous Structure advisor to MHCLG since it took ownership.

My first internal inspection of the tower was on the 18th June 2017. During that inspection all floors and all flats were visually inspected, mainly from the entrance doors of the flats due to the extent of debris, unknown condition of the structure, need to preserve evidence and to ensure victim recovery was unhindered.

During that inspection the following main items were noted: -

- Several floors from the 10th floor upwards had suffered extensive fire damage which had resulted in significant deformation of the floor slabs.
- A significant crack was visible in an external column on the 13th floor.
- The structure had overall, from the 10th floor upwards suffered catastrophic damage. The crack in the 13th floor column was of immediate concern as the issue of collapse of the tower had to be considered.

Under normal circumstances having reviewed a dangerous structure there are 1 of 3 decisions that have to be made by the Dangerous Structure Surveyor.

1. Take action to make the building safe.
2. Shut the site off and hand over to the owners to repair.
3. Demolish the structure.

It was evident that this situation was unique in that apart from the stability of the structure other considerations existed. Body recovery was still in progress. Forensic investigations had to be carried out and the gathering of evidence was also in progress.



My remit therefore became to make the building safe to facilitate the above. The remit was also extended to ensure the erection of scaffolding to screen the tower and allow future deconstruction of the tower.

Following consultation with the HSE, structural engineers appointed by the Royal Borough of Kensington and Chelsea and Dangerous Structure sub-contractor's engineers, the decision was made to prop the building to ensure stability was maintained and to facilitate the above operations. A programme of installing aluminium shore props commenced and continued over several months. Throughout, the building was monitored by an electronic surveying system with the ability to identify any movement of the structure. Visual inspections of the structure were also carried out throughout.

It is now 3 years since the installation of that initial propping. During this time ownership of the tower has transferred several times. As a site team we have therefore been somewhat hindered by the lack of an identifiable client to allow an open and honest discussion regarding the structure until MHCLG took ownership.

Recognising the 3-year anniversary of the propping installation I considered it prudent to convene the original Dangerous Structure engineers to inspect the structure with me on Friday 14th August 2020.

On inspection we found the original props to be in good condition and subject to regular inspection, currently 3 times week, and maintenance when necessary, the propping is acceptable whilst considerations are given to the design of any longer-term propping.

The structure, however, was found to be showing continued signs of deterioration. With evidence of concreting spalling from columns and ceilings, following an excessively hot period the week before. The structure had also triggered movement monitors during that period, due to thermal movement of the structure. It could be seen water ingress continues to seep into the upper floor structures through the damaged roof. Several attempts have been made to rectify this without total success.

We are approaching what will now be the 4th winter that the damaged structure will have to go through. The effect of freeze/thaw, where water ingress in the structure freezes and forces more concrete to spall off is of concern. Exposed reinforcement in the concrete also continues to deteriorate. Forensic engineers have been appointed to try and predict the rate of deterioration of both the concrete and reinforcement. However, by visual inspection this deterioration is accelerating.

I am therefore writing to you to recommend deconstruction of Grenfell Tower at the earliest opportunity. Whilst we have made every effort to maintain the stability and overall condition of the structure, it is and remains a dangerous structure requiring continual 24 hour monitoring together with proactive and reactive works when necessary.

In making this recommendation I have discussed this matter with the engineers present at our meeting on the 14th August 2020 and I have considered their opinions and comments. In support of my recommendation I attach a letter from [REDACTED] of Michael Barclay Partnership, who has provided independent structural engineering expertise throughout.


We will continue to do so what is required to maintain the structure, however it must be recognised that the continued deterioration of the structure will compromise the structures stability further and may present issues in allowing a safe deconstruction of the tower if the structure becomes an unsafe working environment.

I recognise the emotions and the need for sensitivity in relation to the tragic events of the 14 June 2017 and this recommendation by no way seeks to undermine any continuing legal proceedings, criminal investigations or the on-going Public Inquiry. However, as the Dangerous Structure advisor my recommendation is that the structure should de-constructed at the earliest opportunity. This is based solely in consideration of the structure itself.

If you wish to discuss the above matter further, please do not hesitate to contact me.

Yours sincerely




Building Control Manager
Past President - London District Surveyors Association
Honorary Life Member - LABC

7834 [REDACTED]
21st August 2020

Harrow Building Control
Civic Centre
P O Box 37
Station Rd
Harrow
HA1 2XY

Attention: [REDACTED]

Dear [REDACTED]

GRENFELL TOWER, LONDON W11 1TG

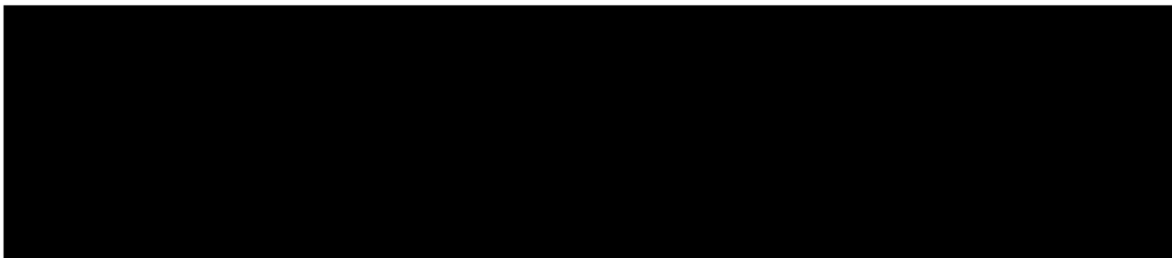
It is now slightly more than three years since the fire at Grenfell Tower. Accordingly, we agreed that it would be an appropriate time to undertake a joint visual inspection of the building and to review and update my previously reported recommendations.

Our site inspection was undertaken on Friday 14th August 2020 and my updated observations and recommendations are summarised below.

We have previously reported that the majority of floors above mid-height of the Tower have suffered significant structural damage. This fire-damage was categorised by our specialist materials sub-consultant RSK in accordance with recognised Concrete Society Report TR 68 and it was considered that most of these floors are beyond repair. As a consequence, we have recommended previously that all floors above mid-height of the building are demolished as soon as practical.

In our historic reporting, we also recognised that the lower levels of the Tower would require further investigation in order to make fully considered recommendations here too. But, as you will be aware, we noted that a percentage of the lower floors had clearly suffered significant fire damage too and accordingly we indicated that a recommendation for wholesale demolition of the entire Tower should not be unexpected.

As we noted on site last week, and as we have reported previously, the critically damaged structure of Grenfell Tower is open to the elements and the exposed reinforcement is corroding visibly and the cracked concrete continues to spall. Consequently, and again as we have reported previously, the condition of the structure is deteriorating visibly, albeit the rate of deterioration is difficult to quantify.



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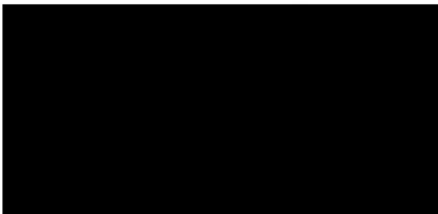
At present the building is 'propped' with aluminum shores in such a manner as was necessary to stabilize the building and to facilitate the emergency recovery operation and police investigations. Consequently, the current propping arrangement was only ever seen as a short-term measure which would need to be replaced with a more robust propping scheme at some point in order to provide continued safeguarding of the building and ultimately to enable a future demolition as we have already recommended. It is extremely important to note that any amount of temporary propping cannot prevent the ongoing deterioration of the concrete structure nor can it prevent the inevitable and necessary future demolition.

Very recently the UK has seen a sustained period of very hot weather which triggered alerts on the tower's monitoring system, as the structure reacted to the cyclical changes in the extreme daily temperatures. Ordinarily, as Structural Engineers, we might not be too concerned about these extreme weather events, but for a damaged building such as Grenfell Tower then these events are very concerning since it is impossible to quantify the impact that they have on the already damaged structure. Furthermore, we are about to enter the fourth Winter since the fire and consequently the cracks within the damaged structure will be exposed to another period of freeze-thaw action so causing a further and as-yet unquantifiable increase in damage and deterioration.

In an attempt to quantify the rate of deterioration, we are undertaking investigations and additional monitoring works with a view to giving us confidence with the current state of the building. However, it is not possible to predict with any certainty whether the rate of deterioration may increase with time and therefore we would not recommend using such monitoring works as a basis to naively protract the life of the structure.

Given all the above points then it is clear to us now that the longer the building remains in place, the more the structure will deteriorate, and the more dangerous will become the inevitable task of demolition. The need to demolish the building is a fact, not a choice and accordingly we must now advise that that the building is demolished at the earliest possible convenience.

Yours sincerely



For Michael Barclay Partnership LLP

OFFICIAL – SENSITIVE

HSE Field Operations Division

<http://www.hse.gov.uk/>

By email

20th August 2020

Dear Alistair,

Future role and engagement with Grenfell Tower

Following on from our meeting on the 4th August I undertook to write to you now that MHCLG have assumed the ownership and responsibilities for the building.

During the meeting you confirmed that decisions relating to the future of the Tower now rest with MHCLG and the commission which has been set up to consider a future memorial on the health and safety regulator is to ensure that you fulfil your responsibilities arising from enforcement of relevant health and safety legislation. Our main objectives now, as with any major construction project, is for you to demonstrate that any future proposals for the Tower addresses the safety of workers and the public, (including residents and local businesses). HSE fully supports any decision on the future of the Tower and site which meets these objectives.

Following our previous involvement by HSE specialists there were two main areas that we felt should be addressed as a priority. They relate to work that might be required to ensure the continued stability of the Tower and plans for future work particularly as they relate to public safety.

Firstly, HSE note that whilst the current state of the Tower is being continuously monitored, it is deteriorating. As the client, MHCLG will need to review any future proposals for work on the Tower, in order to determine what action needs to be taken within a relevant timeframe that will provide safety and assurance for the workers on site and for the residents of the surrounding area.

Secondly should any planned work that would involve material changes to the current propping and stability of the building be undertaken, HSE seeks early reassurance that the approach being planned constitute an appropriate and safe system of work, and that the corresponding emergency preparedness plans for the building and surrounding area are suitable. We would

expect this to be addressed via the normal route of CDM requirements for notification of building works that fall under the requirements of the legislation.

Yours sincerely

